



EMS SCIENTISTS, ENGINEERS, PLANNERS, INC.

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October 11, 2004

Mr. Bob Devore
Commonwealth Palm Coast Corp.
P.O. 354489
Palm Coast, 32135

RE: Site 6 Preliminary Environmental Site Assessment (PESA)
and Wetland Delineation
Palm Coast, Flagler County, Florida

Mr. DeVore:

This letter summarizes the findings of the Environmental Site Assessment completed on 9/14/04 for the above-mentioned parcel. The parcel is located north of Palm Harbor Parkway and south of Club House Dr. in Palm Coast, Flagler County, Florida. The parcel is specifically located in Section 1, Township 11 South, and Range 31 East. The subject site is approximately +26 acres; of which +25.08 acres appear to be upland. The remainder of the parcel consisted of habitat classifiable as ditch or Other Surface Waters (OSW). The approximate property boundary of the project is shown on the attached aerial photograph (Figure 1). The acreages of the property, upland habitat and ditches are estimated and have the potential to change during agency verification and/or during the survey process.

METHODS

Wetlands

The site was inspected along the property boundaries and random belt transects were walked throughout the site by a 2-person team of environmental scientists to determine the approximate boundaries of jurisdictional wetlands. Due to time constraints, areas designated as having hydric soils and/or areas designated in the 600s (wetlands) category according to the Florida Geographic Data Library data were ground-truthed. The absence/presence of wetlands was based on vegetation, soil, and hydrologic criteria as outlined in the *pre-Henderson Wetland Delineation Methodology*, the "great grandfathering" provision for contiguous wetlands (Chapter 373.414 of the Florida Statutes), for the State (field determined) and the *1987 Wetland Delineation Manual* for the Army Corp of Engineers.

Endangered and Threatened Species

Prior to the initiation of fieldwork, a background literature search was conducted to determine the legally protected plant and animal species that have the potential to occur in Flagler County, Florida. Species lists were compiled by using a computer database maintained by EMS, which contains species occurrence by county and habitat type. By

consulting the most current observational and distributional records maintained by the Florida Natural Areas Inventory (FNAI), and by reviewing current scientific literature EMS developed the database. Additional distribution and habitat information was obtained from the Florida Committee on Rare and Endangered Plants and Animals (FCREPA) publications, The Florida Fish and Wildlife Conservation Commission (FFWCC – formerly known as the Florida Game and Fresh Water Fish Commission), the Federal Endangered and Threatened list from the Jacksonville field office of the United States Fish and Wildlife Service (USFWS), Florida Audubon Society, and through consulting other published reference material.

Limited, random belt transects were walked throughout the property by a 2-person team of environmental scientists. Observations were made along each transect for any listed plant and animal species that have the potential to occur within the habitats found on the site. Habitat classification was determined by using the Florida Department of Transportation's Florida Land Use, Cover and Forms Classification System (FLUCFCS). The occurrence of listed animal species was documented through direct visual or aural observation, or through observations of distinctive signs, such as tracks, scat, burrows, nests or food remains. This study did not include any trapping or night observations. All habitats, species locations or evidence of occurrence, were recorded in field notes and are discussed below.

Site Characteristics

Prior to the initial site investigation or wetland delineation aerial photography was reviewed to determine the current condition, habitat composition and approximate location and extent of the wetlands within the project area. It is estimated that 5% of the site is classifiable as other surface water ditch (513), with the remainder (95%) of the site classified as residential (136).

Habitats

Other Surface Waters

The site inspection did not identify any wetlands. However, two ditches and a canal (510) were identified. These habitats identified were classified as other surface water ditches (513) which covered approximately ±0.92 acres. A large ditch (D1) is located to the north east of the clubhouse and is directly connected to a canal which is directly connected to the Intra-coastal Waterway (ICW). The vegetative composition of the ditch consisted of sedges (*Rhynchospora spp.*) and planted St. Augustine grass. A second ditch (D2) was located southwest of the clubhouse and also connects directly to the canal. The vegetative composition of (D2) was blue hyssop (*Bacopa caroliniana*), hackberry (*Celtis occidentalis*) and sedges. The vegetative composition along the shore line of the canal consisted of false willow (*Baccharis angustifolia*), cabbage palm (*Sabal palmetto*), hackberry, torpedo grass (*Panicum repens*), grapevine (*Vitis*), and wax myrtle (*Myrica cerifera*).

Uplands

The upland habitat consisted of approximately ±25.08 acres of the project site. The upland area is a developed golf course surrounded by single family homes. The

vegetative composition of the upland consisted of longleaf pine (*Pinus palustris*), planted cabbage palm (*Sabal palmetto*) and turf grass. The soils were sandy, with low organic content in most areas; hydric soils indicators were minimal and did not meet the criteria as defined by the SJRWMD or ACOE. Organic streaking or matrix striping was not observed in the soil profiles throughout the upland.

Listed Wildlife Species

One species, the white ibis, listed by the Florida Fish and Wildlife Conservation Commission (FFWCC) as a species of special concern was observed on the site during the site investigation. No species listed by the U.S Fish and Wildlife Service (USFWS) were observed. Listed Plant and Wildlife Species that were not observed, but have a potential to occur on the site are listed in Tables 1 and 2.

Conclusion

The assessment of the project area identified two ditches (513). This land classification covers approximately ± 0.92 acres of the project site (± 26 acres).

No species listed by the U.S Fish and Wildlife Service (USFWS) were observed. However, one species listed by the Florida Fish and Wildlife Conservation Commission (FFWCC) was observed on the site during the site evaluation (white ibis).

If you have any questions, or require any additional information, please do not hesitate to call me at (904) 794-0244.

Sincerely,



Ginger Sinn
Principle

cc: EMS #04147



Date: 1/19/05
 Scale: 1" = 300'

FLUCFCS Map
Site 6 Commonwealth Palm Coast Corporation
Palm Coast, Florida

Figure 1

- Legend**
- FLUCFCS
 - 182 = Golf Course
 - 513 = Ditches
 - 641 = Freshwater Marshes

SCIENTISTS
 ENGINEERS
 PLANNERS
 407/260-0883





Geotechnical, Environmental Consulting & Materials Engineering

REVISED - November 24, 2004
October 21, 2004
Project No. O04-G-051.2

Mr. Robert DeVore
Commonwealth Palm Coast Corporation
1 Corporate Drive, Suite 2B
Palm Coast, Florida 32137

Preliminary Geotechnical Investigation and Evaluation
Palm Harbor Golf Course, Site 6
Palm Coast, Florida

Dear Mr. DeVore:

In accordance with our proposal of September 15, 2004, **Nodarse & Associates, Inc.** is pleased to submit this geotechnical report for the proposed Palm Harbor Golf Course, Site 6. The purpose of this geotechnical study was to explore and evaluate the subgrade soil conditions within the proposed buildings and paved parking areas. The summary of our findings and conclusions are:

- Together with normal and conventional earth preparation at near existing grade, the foundation soil within proposed buildings areas is suitable to support shallow wall and column footings designed for a soil pressure of 3500 psf.
- Together with normal and conventional preparation, the natural subgrade within the proposed paved area is suitable to support a conventional pavement section to include a stabilized sub-base; a limerock base and an asphaltic wearing surface.

The balance of this report provides appropriate summaries of the work, presents the results of the explorations and offers evaluation of soil conditions and recommendations for the corresponding proposed construction.

Site and Project Description

The site of this project presently consists of a golf course (Palm Harbor Golf Club) with a clubhouse structure. The site is located in Palm Coast, Florida. Based on the preliminary concept plan for site 6 entitled "O4.09.01_S6 - Site 6 Concept 2" which was e-mailed to us, construction may include single family golf cottages and a clubhouse, both are 1 story in height, 3 story townhouses and parking areas. We

also understand that the existing clubhouse may be demolished. A copy of the provided concept plan is shown on **Figure 3**.

Scope of Services

The following scope of services was performed for this study:

- Review and consider the general topographic features of the site and its immediate vicinity as published by the United States Geological Survey (USGS) "Beverly Beach, Florida" quadrangle map as presented on **Figure 1**.
- Consideration of near surface soil conditions as mapped by the Soil Conservation Services (SCS) for Flagler County as presented on **Figure 2**.
- Review and consider a site plan of the proposed construction as presented on **Figure 3**.
- Review of recent and historical aerial photographs of the site.
- Visiting the site to make pertinent observations, anticipate conditions, access limitations and to coordinate the work with field personnel and drilling crew.
- Perform 8 Standard Penetration Tests (SPT) to depths of 20 feet and 30 feet within the proposed buildings footprints, and 6 auger borings to depths ranging from 3 to 6 feet within the proposed parking area.
- Visually classifying the recovered samples from the borings. These were visually examined in our office by a Geotechnical Engineer. Such visual examination is complimented with pertinent "Soil Classification Tests" especially on soil samples exhibiting appreciable cohesion or plastic properties. Such tests included water content and full grain size analysis.
- In addition to the above, the work included the preparation of this report which included:
 - Continual involvement of a Senior Geotechnical Engineer from the planning of the field work to reviewing of findings, to preparing this report.
 - Reducing the results of the field and laboratory tests and other exhibits as presented on **Figures 4 and 5**.
 - Evaluating the subsurface soil conditions in view of proposed construction to form the basis for the recommendations made later in this report.

Topographic Features and Surface Soil

Review of the USGS topographic "Beverly Beach, Florida" quadrangle map for the project area indicates that the site is located west of Intercostal Waterway and south of the Clubhouse Waterway. Another waterway, circular in shape branching from the Clubhouse Waterway located just north of the site, existing features are shown on the quadrangle map. The site ground surface is typically a golf course terrain. The quadrangle map indicates that the site seems to be between elevations +5 feet NGVD and +10 feet NGVD.

Based on the USDA/SCS Soil Survey for Flagler County, the following surficial soil type is reported:

- ***Riviera Fine Sand - (2):***
This very deep, nearly level, poorly drained soil is in broad to narrow, low areas on the flatwoods. Soils of this mapping unit consists of fine sand to a depth of about 41 inches, over sandy clay loam to a depth of 80 inches. The seasonal high water table is at a depth of 6 to 18 inches for as much as 6 months during most years. It recedes to a depth of more than 40 inches during long day periods.

- ***Favoretta Clay - (6):***
This very deep, nearly level, poorly drained soil is in narrow to broad flatwood areas near major streams and drainageways. It is subject to rare flooding. Typically, the surface layer is very dark gray clay about 12 inches thick. The subsoil is dark gray and gray clay to a depth of 66 inches and light brownish gray clay to a depth of 80 inches or more. The seasonal high water table is within a depth of 12 inches for 4 to 6 months during most years. During extended dry seasons, it recedes to below a depth of 40 inches.

- ***Eaugallie Fine Sand (9):***
This very deep, nearly level, poorly drained soil is in broad flatwood areas. Typically, the surface layer is black fine sand about 6 inches thick. The subsurface layer is light gray fine sand to a depth of 22 inches. The subsoil is black and dark reddish brown fine sand that is well coated with organic material to a depth of 33 inches, brown and gray fine sand to a depth of 56 inches, and light gray fine sandy loam to a depth of 70 inches. The substratum is light gray loamy fine sand to a depth of 80 inches. The seasonal high water table is at a depth of 6 to 18 inches for 2 to 4 months. It is within a depth of 40 inches more than 6 months and it recedes to a depth of more than 40 inches during extended day periods.

- ***Udorthents (39) smoothed:***
This mapping unit consists of somewhat poorly drained soils that have be reworked, cut and filled and smoothed or shaped by man. Most of these soils are in low areas adjacent to canals from which the soil material have been excavated. The top 30 to 50 inches of this mapping unit consist of fill layer. The fill layer consists of gray, dark grayish brown sand or loamy sand mixed with discontinuous gray fragments of sandy loam, sandy clay loam, or sandy clay. Also mixed with the surface layer are 5 to 10 percent by volume, shells or shell fragments that ranges from ¼ to ½

inches in size. The upper 5 inches of the undisturbed soil below the fill layer is dark gray sand. It is underlain by gray fine sand to a depth of 80 inches or more. A seasonal high water table is at a depth of 36 to 48 inches depending upon the thickness of the fill. It recedes to a depth of more than 60 inches during dry season.

Aerial Photograph Review

Aerial photographs for the years 1974 and 2003 were obtained from the Flagler County Property Appraisers office at the Courthouse of Flagler County to check for visual evidence of land use activities that may indicate a potential adverse geotechnical impact upon the subject property. The 1974 photograph shows a basketball court with a driveway, parking area and small structures located at the southeast corner of the intersection of Cooper Lane and Casper Drive. The rest of the sites features seems to be the same as year 2003. In the aerial photograph of year 2003, the basketball court with the parking area and the small structures no longer existed, having been demolished during this period.

Subsurface Conditions

The subsurface conditions encountered during our field exploration are presented on the attached **Figures 4 and 5**. Generally, subsurface conditions consist of:

- Loose to medium dense fine sand and slightly silty fine sand (SP-SM-Stratum 1) with inclusions of clayey sand (SC-Stratum 2) was encountered from the existing ground surface to a depth of about 3 feet.
- Medium dense with inclusions of loose dark brown cemented slightly silty to silty fine sand coated with organic matter (hardpan) (SP-SM-Stratum 3) was encountered below Stratum 1 and extended to a depth of about 6 feet.
- Medium dense with inclusions of dense slightly silty fine sand with shell (SP-SM-Stratum 5) was encountered below Stratum 3 and extended to the boring termination depth.
- Dark gray medium sandy clay (CL-Stratum 4) was encountered in boring designated as TB-5 between depths of 5 and 6.5 feet.

While the above represents the dominant soil conditions, some deviations were encountered.

For example, in the test boring designated as TB-3, Stratum 4 was encountered at a depth of 9 feet and extended to a depth of about 24 feet. The boring profiles on **Figures 4 and 5** should be reviewed for detailed soil conditions encountered.

Groundwater levels measured in the open boreholes during our field exploration indicate that groundwater ranged from 0.5 to 6.4 feet below existing ground surface. The water table beneath the site is expected to

be relatively flat. Therefore, the difference between the on-site water table levels is believed to be due to a comparable difference in the ground surface elevation at the respective boring location. Groundwater levels will fluctuate with the amount of local rainfall and tide stage and, therefore, may be different at other times. Typical estimated seasonal high groundwater levels in its present condition are expected to be close to observed water levels. It should be noted however, that the field exploration and measurement of the water table were done during and following a period of appreciable rainfall and accordingly measured water levels shown of **Figures 4 and 5** are believed to represent seasonal high.

Recommendations and Evaluations

For the proposed construction as described earlier, soil conditions within the proposed buildings footprints can be characterized to be suitable to favor the use of conventional shallow wall and column footings. Site preparation would consist of normal clearing, grubbing and compaction of the near surface soil and fill. The existing upper 3 to 6 inches contain appreciable grass and fine roots and stripping and loss of this material to a depth of about 6 inches should be anticipated if this material was encountered within the proposed buildings, roadways and parking areas.

Soils of the northern portion of the site especially around the circular waterway consists of undarents, smoothed (39) mapping unit as mentioned in SCS. This area has been filled with sandy soils, shell and clays, which over lie the former natural ground surface and presumably placed without engineering control. Further more, a clayey layer was encountered in boring designated as TB-5 between depths of 5 feet and 6.5 feet below ground surface. TB-5 is located in an area mapped as Favoretta Clay (4) as mentioned in SCS. Clays are compressible and can consolidate (settle) under the proposed structure loads. These 2 conditions present a concern from a Geotechnical Engineer (foundation) view point and a more than normal risk for support of shallow foundations at these locations.

Consequently, partial soil removal and replacement will be required within portions of the building and foundation areas. Soil removal and placement should include the complete removal of the fill and any

underlying clayey soils (Stratum 4) below the structure or pavement footprints plus a 5 foot margin beyond its maximum outside limits. The excavated soils may be used as site fill in "non-structural" areas, or should be disposed off-site. Fill required to restore the excavation should meet the composition and placement requirements described below. The excavation and replacement process should be accomplished with the groundwater level maintained at least 12 inches below the deepest portion of the excavation.

The site should also be cleared of abandoned underground utilities and remnants of existing structures including underground tanks and any connected pipes that may exist.

General Site Preparation: The following recommendations are offered with regard to site preparations:

- The initial step in site preparation should be the complete removal of topsoil, trees, major root systems and other deleterious materials from beneath and to 5 feet beyond proposed structure areas.

Based on the on-site reconnaissance, stripping thicknesses are expected to be about 3-6 inches in this site.

- After the initial stripping process, the structure areas should be inspected by a geotechnical engineer or his/her representative.
- Upon approval by the geotechnical engineer or representative, the proposed pavement and structure areas should be proofrolled using tires of a heavy loader. Extreme caution should be exercised when operating vibratory equipment near existing structures.
- Proofrolling of the structure areas should consist of at least five (5) overlapping passes in each of two perpendicular directions. Proofrolling should be observed by a geotechnical engineer. The purposes of the proofrolling will be to detect areas where unsuitable soils are present as well as to densify the near-surface loose soils for support of shallow foundations.
- Materials which yield excessively during the proofrolling should be undercut and replaced with well-compacted structural fill. The geotechnical engineer, based on observations at the site, can recommend the nature and extent of any remedial work. Based on our exploration, no major remedial work is anticipated at this site.
- Proofrolling of the structure and pavement areas should continue for the required number of passes and until the soil at a depth of 12 inches below the compaction surface has attained a minimum of 95% of the soil's modified Proctor maximum dry density.
- In-place density tests should be performed by an experienced geotechnical engineering technician working under the direction of a registered geotechnical engineer to verify the required degree of compaction.

Fill Placement: After the site has been proofrolled and accepted by the geotechnical engineer, fill required to bring the site to final grade may be placed and properly compacted. The following recommendations are offered with regard to fill placement:

- Fill should be inorganic, non-plastic, granular soil (clean sands).
- The fill should be placed in level lifts not to exceed 12 inches loose thickness.
- The fill should be compacted to a minimum of 95% of the soil's modified Proctor maximum dry density.

- In-place density tests should be performed on each lift by an experienced engineering technician working under the direction of a registered geotechnical engineer to verify that the recommended degree of compaction has been achieved.
- This fill should extend a minimum of 5 feet beyond building lines to prevent possible erosion or undermining of footing bearing soils.
- Fill slopes should not exceed 2 horizontal to 1 vertical.
- Fill placed in utility line trenches and adjacent to footings beneath slabs on grade should also be properly placed and compacted to the specifications stated above. However, in restricted working areas, compaction should be accomplished with lightweight, hand-guided compaction equipment and lift thicknesses should be limited to a maximum of 6 inches loose thickness.

Foundation Design: Based on the subsurface conditions encountered on the site, we offer the following:

- Shallow conventionally designed foundations consisting of spread, strip, or wall footings are feasible.
- Assuming site preparation is performed in accordance with the above recommendations, a maximum allowable bearing pressure of 3500 pounds per square foot is recommended if a minimum of 18 inches of soil cover is provided above the top of footings.
- Minimum footing dimensions of 24 inches for wall footings and 36 inches for spread footings should be used even though the maximum allowable bearing pressures may not be fully developed in all cases. Should a turned down/thickened slab be used for the lightly loaded structures (1 to 2 stories), the outer edge can be designed for a soil pressure of 3000 psf or less provided that the outside edges are embedded no less than 16 inches. Interior thickened slab carrying light wall or column can also be sized at the bottom for a soil pressure of 3000 psf or less.
- Footing subgrade soils should be approved by the geotechnical engineer prior to placement of concrete and steel.
- As a minimum acceptance criterion, the footing subgrade soils should be compacted to a minimum density of 95% of the soils modified Proctor maximum dry density for a depth of 12 inches.
- It should be noted that an alternative to area wide removal of the reference clay layers with traces of organics would be to do a liberal number of test pits along and within foundation areas and observed by the geotechnical engineer of record. This may result in acceptance of the materials in place or selective removal and replacement.

Paved Parking and Driveways:

Together with conventional preparation of the subgrade soil, conventional pavement sections consisting of a limerock or soil-cement base could be used. However, a limerock base over a lightly stabilized subgrade and an asphaltic wearing surface is recommended over a soil-cement base to provide more pleasing appearance to pedestrians.

The recommended preparation of the subgrade (natural foundation material underlying the sub-base) and the sub-base (the stabilized portion of the pavement section underlying the base) is as follows:

- Clear, grub, strip and remove the topsoil to an average thickness of 3 inches.
- Proofroll the stripped subgrade and compact with appropriate static equipment (non-vibratory) to obtain a uniform in-place density of 95 percent of the modified proctor density of the material to a depth of 12 inches below the grubbed surface. The moisture content should be kept within +/- 3% of the optimum moisture content used for obtaining the maximum dry density.
- Fill that may be needed to elevate the subgrade to the bottom of the sub-base can then be placed. It should be fairly clean sand with about 10 to 15 percent or less passing the No. 200 sieve and should also be compacted to 95 percent modified proctor.
- The sub-base material could consist of on-site clean sand or imported fill but should be stabilized or have a 40 percent Limerock Bearing Ratio (LBR) or not less than 50 psi and not more than 75 psi Florida Bearing Value (FBV) to a thickness of 6 inches and compacted to 98 percent of its modified proctor.
- For light vehicles with light to moderate axial loads, the base could be 6 inches limerock compacted to 98 percent of its modified proctor, topped with not less than 1.5 inches of Type S asphaltic wearing course.

Report Limitations and Future Studies

The findings of this report should be considered preliminary to guide pre-purchase considerations, site planning and preliminary civil engineering designs. Depending on site designs and other considerations, future studies could involve the following:

- Design level geotechnical studies for foundation design and site preparation for buildings after building loads become available.
- Shallow borings or test pits along paved roadways within building areas.
- Borings for other proposed improvements such as sanitary lift station or retaining walls.

- Refinement of pre-development seasonal high water table.
- Design level geotechnical studies within stormwater management areas including characterization of excavated material, suitability for structural fill, slug load recovery analysis and long term simulation.
- Post development wet season water table.

Closure

N&A appreciates the opportunity of being of service to you on the geotechnical portion of this project and hope you will find this report to be responsive to meet your needs. However, if you should have any questions concerning the contents of this report, or if we can be of further assistance, please let us know.

Sincerely,

NODARSE & ASSOCIATES, INC.



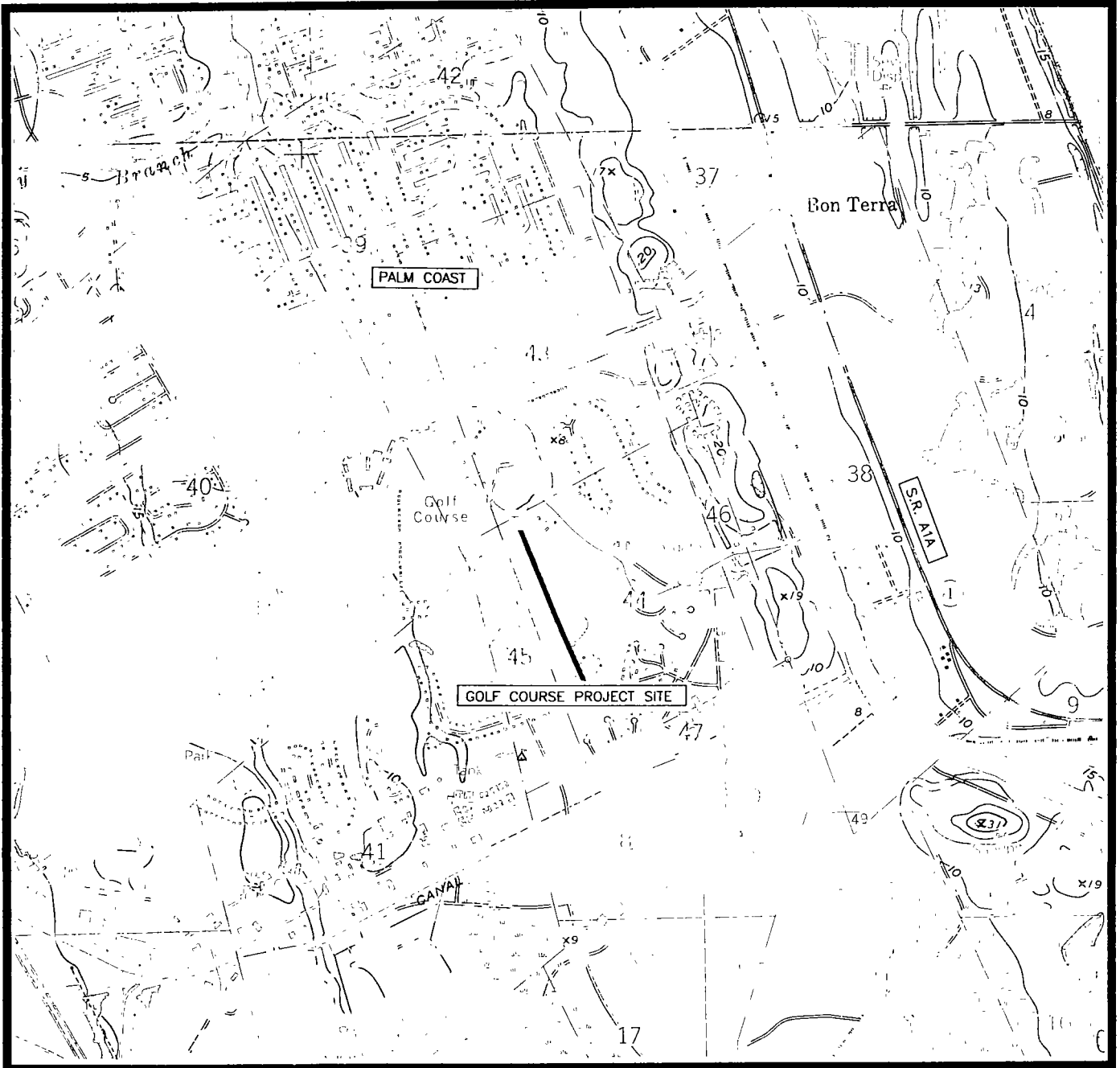
11-29-04

Medhat "Matt" Hassan, P.E.
Senior Geotechnical Engineer
Branch Manager - Ormond Beach
Florida Registration No. 60420

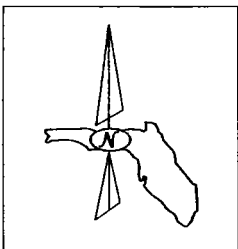


S.E. "Jim" Jammal, P.E.
Principal Engineer
FL Registration No. 16121

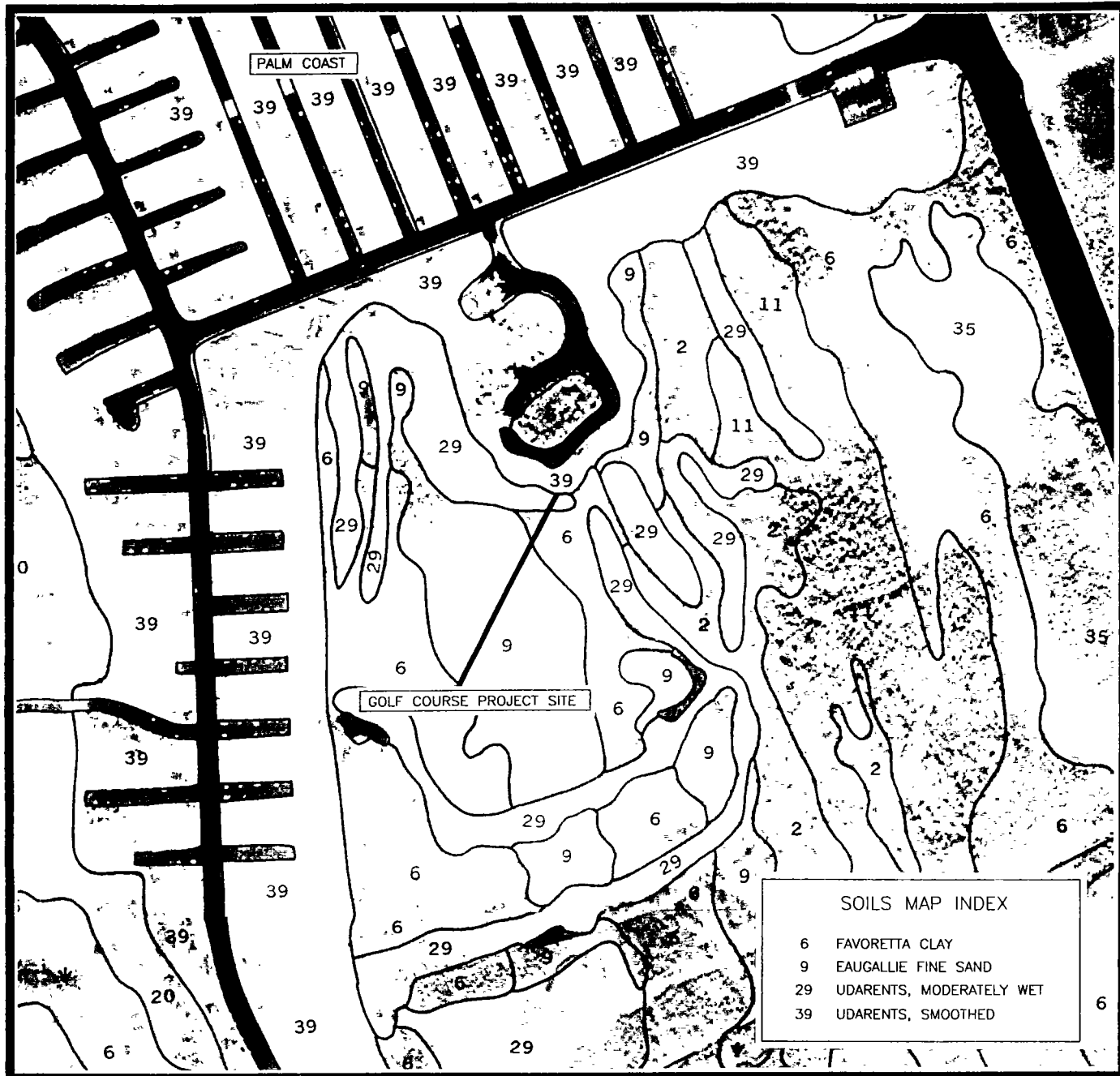
cc: Leila Jammal Nodarse, P.E.



REFERENCE: U.S.G.S. "BEVERLY BEACH, FLORIDA" QUADRANGLE MAP ISSUED: 1956 REVISED: 1992
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 TOWNSHIP: 11 SOUTH
 RANGE: 31 EAST
 SCALE: 1" = 2000'

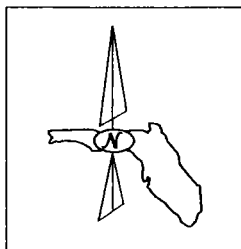


| | | |
|---|---------|--|
| U.S.G.S. VICINITY MAP THE PALM HARBOR GOLF COURSE (SITE 6) FLAGLER COUNTY, FLORIDA | | |
| DRAWN: | SW | NODARSE & ASSOCIATES, INC. |
| CHKD: | MeH | |
| SCALE: | NOTED | |
| DATE: | 10-4-04 | |
| PROJ. NO: 004-G-051.2 | | FIGURE: 1 |

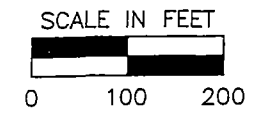
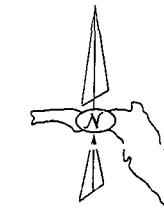
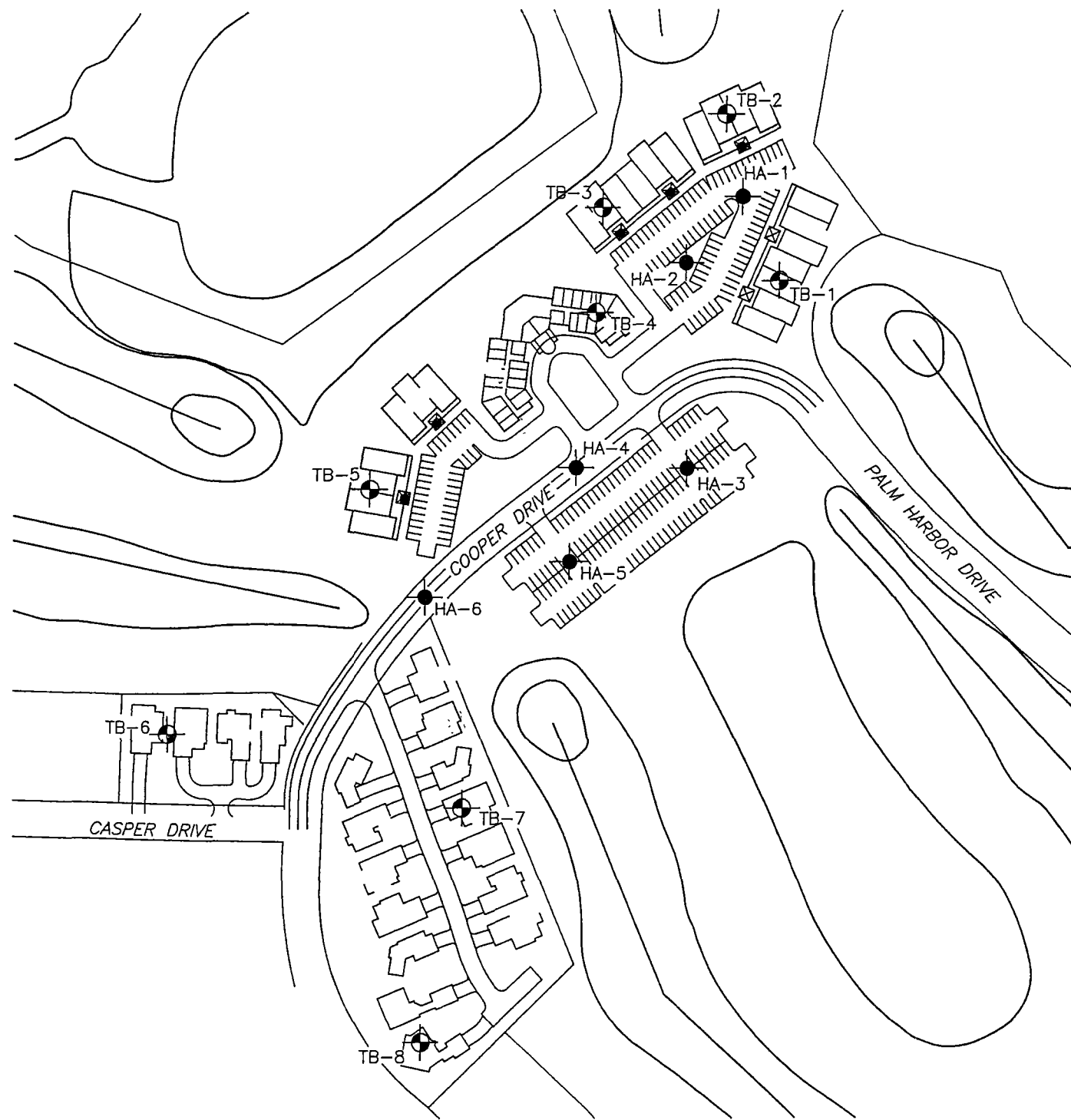




REFERENCE: U.S.D.A. - S.C.S. SOIL SURVEY FOR FLAGLER COUNTY, FLORIDA
 SECTION: 44
 TOWNSHIP: 11 SOUTH
 RANGE: 31 EAST
 SCALE: 1" = 1000'

ISSUED: 1997



| | | |
|--|--|-----------|
| U.S.D.A. SOILS MAP THE PALM HARBOR GOLF COURSE (SITE 6) FLAGLER COUNTY, FLORIDA | | |
| DRAWN: SW | NODARSE & ASSOCIATES, INC. | |
| CHKD: MeH | | |
| SCALE: NOTED | | |
| DATE: 10-4-04 | | |
| PROJ. NO | 004-G-051.2 | FIGURE: 2 |



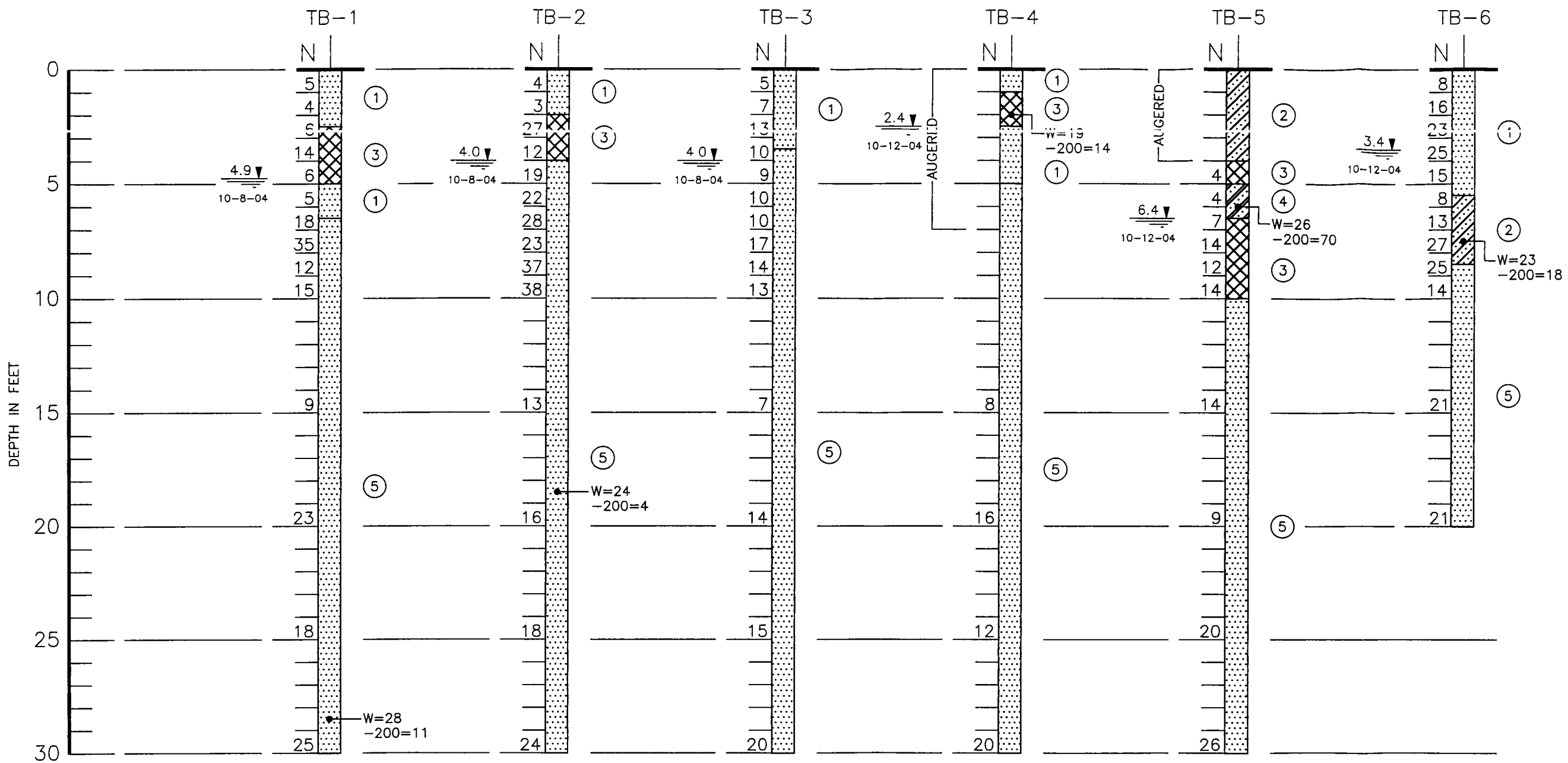
-  APPROXIMATE LOCATION OF STANDARD PENETRATION TEST BORING
-  APPROXIMATE LOCATION OF HAND AUGER BORING

GEOTECHNICAL ENGINEERING EVALUATION
THE PALM HARBOR GOLF COURSE
SITE 6
VOLUSIA COUNTY, FLORIDA

DRAWN: SLW
CHKD: MH
SCALE: NOTED
DATE: 11-23-04



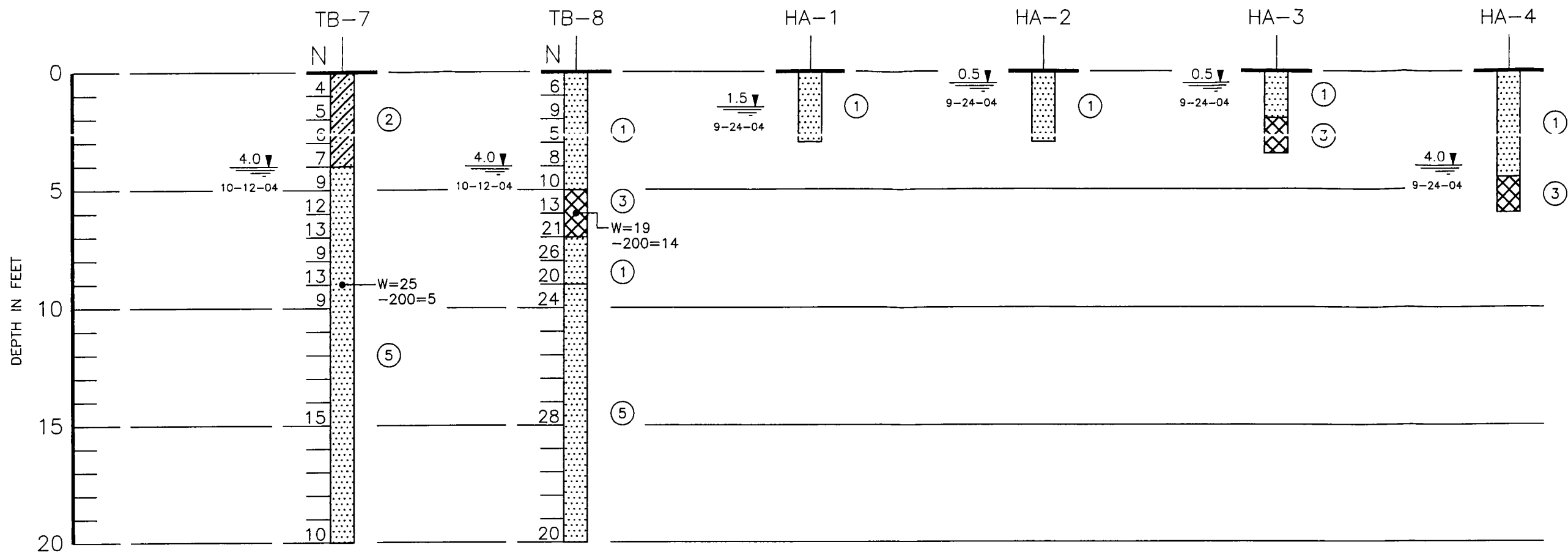
PROJ. NO: 004-G-051.2
FIGURE: 3



| LEGEND | |
|----------------|--|
| ① | BROWN AND GRAY FINE SAND, TRACE TO SLIGHTLY SILTY (SP)(SP-SM) |
| ② | BROWN AND GRAY CLAYEY FINE SAND (SC) |
| ③ | DARK BROWN SLIGHTLY SILTY TO SILTY FINE SAND, WEAKLY CEMENTED (HARDPAN)(SP-SM)(SM) |
| ④ | DARK GRAY SANDY CLAY (CL) |
| ⑤ | BROWN AND GRAY FINE SAND WITH SHELL, TRACE TO SLIGHTLY SILTY (SP)(SP-SM) |
| (SP) | UNIFIED SOIL CLASSIFICATION GROUP SYMBOL AS DETERMINED BY VISUAL EXAMINATION |
| 4.9 10-8-04 | DEPTH TO GROUNDWATER LEVEL IN FEET WITH DATE OF READING |
| N | STANDARD PENETRATION RESISTANCE IN BLOWS PER FOOT |
| W | NATURAL MOISTURE CONTENT (%) |
| -200 | FINES PASSING No. 200 SIEVE (%) |

GEOTECHNICAL ENGINEERING EVALUATION
 PALM HARBOR GULF COURSE
 SITE 6
 PALM COAST, FLORIDA

| | |
|-----------------------|-----------|
| DRAWN: SLW | |
| CHKD: MH | |
| SCALE: NOTED | |
| DATE: 10-21-04 | |
| PROJ. NO: 004-G-051.2 | FIGURE: 4 |



| LEGEND | |
|----------------|--|
| ① | BROWN AND GRAY FINE SAND, TRACE TO SLIGHTLY SILTY (SP)(SP-SM) |
| ② | BROWN AND GRAY CLAYEY FINE SAND (SC) |
| ③ | DARK BROWN SLIGHTLY SILTY TO SILTY FINE SAND, WEAKLY CEMENTED (HARDPAN)(SP-SM)(SM) |
| ④ | DARK GRAY SANDY CLAY (CL) |
| ⑤ | BROWN AND GRAY FINE SAND WITH SHELL, TRACE TO SLIGHTLY SILTY (SP)(SP-SM) |
| (SP) | UNIFIED SOIL CLASSIFICATION GROUP SYMBOL AS DETERMINED BY VISUAL EXAMINATION |
| 4.9 10-8-04 | DEPTH TO GROUNDWATER LEVEL IN FEET WITH DATE OF READING |
| N | STANDARD PENETRATION RESISTANCE IN BLOWS PER FOOT |
| W | NATURAL MOISTURE CONTENT (%) |
| -200 | FINES PASSING No. 200 SIEVE (%) |

GEOTECHNICAL ENGINEERING EVALUATION
 PALM HARBOR GULF COURSE
 SITE 6
 PALM COAST, FLORIDA

| | |
|-----------------------|-----------|
| DRAWN: SLW | |
| CHKD: MH | |
| SCALE: NOTED | |
| DATE: 10-21-04 | |
| PROJ. NO: 004-G-051.2 | FIGURE: 5 |

Nov23, 2004-1:41pm

CONCURRENCY MANAGEMENT FACT SHEET

To be filled out by the applicant:

Application Date: August 15, 2005

Prepared By: CPH Engineers, Inc./Javier E. Omana

Mailing Address: 1117 E. Robinson Street, Orlando, FL 32801

Phone #: (407) 425-0452 Fax #: (407) 648-1036

Property Owner: Commonwealth Palm Coast Corporation

Mailing Address: Los Angeles, CA 90049

Phone #: _____ Fax #: _____

Property Information:

Project Name: Palm Harbor Golf Course

***Parcel # is required! Application is considered INCOMPLETE without it. Contact the Flagler County Property Appraiser's Office at (386) 437-7450 for confirmation. DO NOT rely upon parcel # that may be noted on the warranty deed.**
Tax Parcel Identification #: 07 - 11 - 31 - 7008 - 000A0 - 000

Legal Description of subject property: Please refer to attached

Total Acreage: 19.29 Acres

Land Use Description:

Square footage of proposed use or # of residential units:

Single Family Lots 3
(proposed use)

Golf Villas 158
(proposed use)

(proposed use)

Water Company: City of Palm Coast

Sewer Company: City of Palm Coast

**PALM HARBOR GOLF COURSE
CITY OF PALM COAST, FLORIDA**

SECTION 2.0

PRE-CONDITIONS ANALYSIS

Palm Harbor Golf Course

PRE DEVELOPMENT BASIN 3 DATA

Curve Number Calculations

| Hydrologic Group | Cover Description (Cover type, treatment, and hydrologic condition; percent impervious) | CN | Area (acres) | Product of CN X Area |
|------------------|--|----------------|--------------|----------------------|
| | Impervious Area | 98 | | 0.00 |
| B | Pervious Area | 61 | | 0.00 |
| C | Pervious Area | 74 | 4.94 | 365.56 |
| D | Pervious Area | 80 | | 0.00 |
| | | Totals = | 4.94 | 366 |
| | | Composite CN = | | 74.0 |

Composite CN = Total Product / Total Area

Reference: **Urban Hydrology for Small Watersheds**
 Technical Release 55, Soil Conservation Service, June 1986

BASIN 3 POND

| Elevation (ft-NGVD) | Area (ft ²) | Area (ac) | Volume (ft ³) | Cumulative Volume (ft ³) | Cumulative Volume (ac-ft) | Notes | Perc Rate* (cfs) |
|---------------------|-------------------------|-----------|---------------------------|--------------------------------------|---------------------------|-------|------------------|
| 6 | 31 | 0.001 | 0 | 0 | 0 | | 0 |
| 7 | 5891 | 0.135 | 2961 | 2961 | 0.07 | | 0 |

DITCH 2

| Elevation (ft-NGVD) | Area (ft ²) | Area (ac) | Volume (ft ³) | Cumulative Volume (ft ³) | Cumulative Volume (ac-ft) | Notes | Perc Rate* (cfs) |
|---------------------|-------------------------|-----------|---------------------------|--------------------------------------|---------------------------|-------|------------------|
| 2 | 83 | 0.002 | 0 | 0 | 0 | | 0 |
| 3 | 348 | 0.008 | 216 | 216 | 0.005 | | 0 |
| 4 | 1355 | 0.031 | 852 | 1067 | 0.02 | | 0 |
| 5 | 1844 | 0.042 | 1600 | 2667 | 0.06 | | 0 |
| 6 | 2402 | 0.055 | 2123 | 4790 | 0.11 | | |

Palm Harbor Golf Course

PRE DEVELOPMENT BASIN 4, 5, 6 DATA

Curve Number Calculations

BASIN 4

| Hydrologic Group | Cover Description (Cover type, treatment, and hydrologic condition; percent impervious) | CN | Area (acres) | Product of CN X Area |
|------------------|--|----------------|--------------|----------------------|
| | Impervious Area | 98 | 6.20 | 607.60 |
| B | Pervious Area | 61 | 13.21 | 805.81 |
| C | Pervious Area | 74 | 0.26 | 19.24 |
| D | Pervious Area | 80 | 5.12 | 409.60 |
| | | Totals = | 24.79 | 1842 |
| | | Composite CN = | | 74.3 |

BASIN 5

| Hydrologic Group | Cover Description (Cover type, treatment, and hydrologic condition; percent impervious) | CN | Area (acres) | Product of CN X Area |
|------------------|--|----------------|--------------|----------------------|
| | Impervious Area | 98 | 0.00 | 0.00 |
| C | Pervious Area | 74 | 3.37 | 249.38 |
| | | Totals = | 3.37 | 249 |
| | | Composite CN = | | 74.0 |

BASIN 6

| Hydrologic Group | Cover Description (Cover type, treatment, and hydrologic condition; percent impervious) | CN | Area (acres) | Product of CN X Area |
|------------------|--|----------------|--------------|----------------------|
| | Impervious Area | 98 | 0.24 | 23.52 |
| B | Pervious Area | 61 | 0.00 | 0.00 |
| C | Pervious Area | 74 | 2.01 | 148.74 |
| D | Pervious Area | 80 | 0.85 | 68.00 |
| | | Totals = | 3.10 | 240 |
| | | Composite CN = | | 77.5 |

Reference: **Urban Hydrology for Small Watersheds**
 Technical Release 55, Soil Conservation Service, June 1986

BASIN 5 POND

| Elevation (ft-NGVD) | Area (ft ²) | Area (ac) | Volume (ft ³) | Cumulative Volume (ft ³) | Cumulative Volume (ac-ft) | Notes | Perc Rate* (cfs) |
|---------------------|-------------------------|-----------|---------------------------|--------------------------------------|---------------------------|-------|------------------|
| 5.5 | 37 | 0.001 | 0 | 0 | | | |
| 6 | 245 | 0.006 | 71 | 71 | 0.002 | | 0.01421 |
| 6.5 | 678 | 0.016 | 231 | 301 | 0.007 | | 0.039324 |
| 7 | 11153 | 0.256 | 2958 | 3259 | 0.075 | | 0.646874 |

DITCH 3

| Elevation (ft-NGVD) | Area (ft ²) | Area (ac) | Volume (ft ³) | Cumulative Volume (ft ³) | Cumulative Volume (ac-ft) | Notes | Perc Rate* (cfs) |
|---------------------|-------------------------|-----------|---------------------------|--------------------------------------|---------------------------|-------|------------------|
| 2 | 1401 | 0.032 | 0 | 0 | | | |
| 3 | 18306 | 0.420 | 9854 | 9854 | 0.226 | | |
| 4 | 28150 | 0.646 | 23228 | 33082 | 0.759 | | |
| 5 | 38028 | 0.873 | 33089 | 66171 | 1.519 | | |
| 6 | 47515 | 1.091 | 42772 | 108942 | 2.501 | | |

Palm Harbor Golf Course

PRE DEVELOPMENT BASIN 7 DATA

Curve Number Calculations

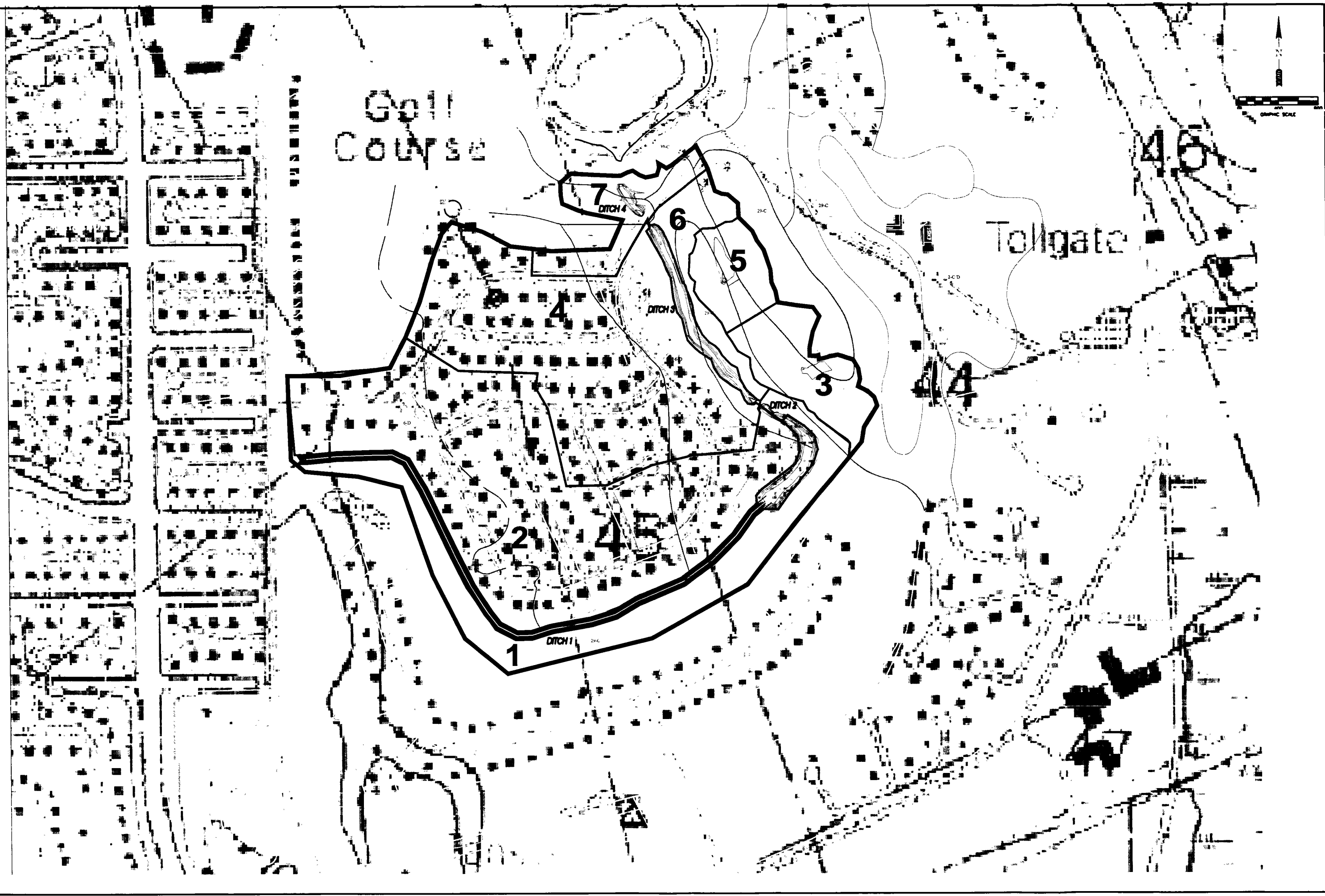
BASIN 7

| Hydrologic Group | Cover Description (Cover type, treatment, and hydrologic condition; percent impervious) | CN | Area (acres) | Product of CN X Area |
|------------------|--|----------------|--------------|----------------------|
| | Impervious Area | 98 | 1.01 | 98.98 |
| B | Pervious Area | 61 | 0.56 | 34.16 |
| C | Pervious Area | 74 | 1.92 | 142.08 |
| D | Pervious Area | 80 | 0.65 | 52.00 |
| | | Totals = | 4.14 | 327 |
| | | Composite CN = | | 79.0 |

Reference: **Urban Hydrology for Small Watersheds**
 Technical Release 55, Soil Conservation Service, June 1986

DITCH 4

| Elevation (ft-NGVD) | Area (ft ²) | Area (ac) | Volume (ft ³) | Cumulative Volume (ft ³) | Cumulative Volume (ac-ft) | Notes | Perc Rate* (cfs) |
|---------------------|-------------------------|-----------|---------------------------|--------------------------------------|---------------------------|-------|------------------|
| 1 | 117 | 0.003 | 0 | 0 | | | |
| 2 | 2636 | 0.061 | 1377 | 1377 | 0.032 | | |
| 3 | 4502 | 0.103 | 3569 | 4946 | 0.114 | | |
| 4 | 5795 | 0.133 | 5149 | 10094 | 0.232 | | |
| 5 | 7337 | 0.168 | 6566 | 16660 | 0.382 | | |
| 6 | 9118 | 0.209 | 8228 | 24888 | 0.571 | | |



| | | | | | | | | | | | |
|---------------------------|--|--|--|----------------------------------|------------------------------|----------------|------------------|--------------------------------|--|---|--|
| FIGURE 7 | PRE DEV. DITCH DRAINAGE BASINS PALM HARBOR GOLF COURSE CITY OF PALM COAST, FLORIDA | | Activity Designed by Drawn by Checked by Approved by | Name JHT BNR DRW DRW | Date 8/05 8/05 8/05 | No No No | Date No No | Revision Approved © 2005 | Scale 1" = 400' Date 11/6/05 Job No. C9002 File FEP | Engineers Planners Landscape Architects Surveyors Construction Management 101 W. 117th St., Suite 200 Palm Beach Gardens, FL 33418 Phone: 561-255-0100 Fax: 561-255-0101 | |
|---------------------------|--|--|--|----------------------------------|------------------------------|----------------|------------------|--------------------------------|--|---|--|

PALM HARBOR GOLF COURSE
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 PRE DEVELOPMENT DITCH MEAN ANNUAL
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=====
 Basins
 =====

| | | |
|----------------------------|----------------------------------|----------------|
| Name: 1 | Node: DITCH 1 | Status: Onsite |
| Group: BASE | Type: SCS Unit Hydrograph | |
| Unit Hydrograph: Uh256 | Peaking Factor: 256.0 | |
| Rainfall File: Flmod | Storm Duration(hrs): 24.00 | |
| Rainfall Amount(in): 4.500 | Time of Conc(min): 25.00 | |
| Area(ac): 10.220 | Time Shift(hrs): 0.00 | |
| Curve Number: 74.00 | Max Allowable Q(cfs): 999999.000 | |
| DCIA(%): 0.00 | | |

| | | |
|----------------------------|----------------------------------|----------------|
| Name: 2 | Node: DITCH 1 | Status: Onsite |
| Group: BASE | Type: SCS Unit Hydrograph | |
| Unit Hydrograph: Uh256 | Peaking Factor: 256.0 | |
| Rainfall File: Flmod | Storm Duration(hrs): 24.00 | |
| Rainfall Amount(in): 4.500 | Time of Conc(min): 20.00 | |
| Area(ac): 32.670 | Time Shift(hrs): 0.00 | |
| Curve Number: 76.00 | Max Allowable Q(cfs): 999999.000 | |
| DCIA(%): 0.00 | | |

| | | |
|----------------------------|----------------------------------|----------------|
| Name: 3 | Node: POND 3 | Status: Onsite |
| Group: BASE | Type: SCS Unit Hydrograph | |
| Unit Hydrograph: Uh256 | Peaking Factor: 256.0 | |
| Rainfall File: Flmod | Storm Duration(hrs): 24.00 | |
| Rainfall Amount(in): 4.500 | Time of Conc(min): 25.00 | |
| Area(ac): 4.940 | Time Shift(hrs): 0.00 | |
| Curve Number: 74.00 | Max Allowable Q(cfs): 999999.000 | |
| DCIA(%): 0.00 | | |

| | | |
|----------------------------|----------------------------------|----------------|
| Name: 4 | Node: DITCH 3 | Status: Onsite |
| Group: BASE | Type: SCS Unit Hydrograph | |
| Unit Hydrograph: Uh256 | Peaking Factor: 256.0 | |
| Rainfall File: Flmod | Storm Duration(hrs): 24.00 | |
| Rainfall Amount(in): 4.500 | Time of Conc(min): 20.00 | |
| Area(ac): 24.790 | Time Shift(hrs): 0.00 | |
| Curve Number: 74.00 | Max Allowable Q(cfs): 999999.000 | |
| DCIA(%): 0.00 | | |

| | | |
|----------------------------|----------------------------------|----------------|
| Name: 5 | Node: POND 5 | Status: Onsite |
| Group: BASE | Type: SCS Unit Hydrograph | |
| Unit Hydrograph: Uh256 | Peaking Factor: 256.0 | |
| Rainfall File: Flmod | Storm Duration(hrs): 24.00 | |
| Rainfall Amount(in): 4.500 | Time of Conc(min): 25.00 | |
| Area(ac): 3.370 | Time Shift(hrs): 0.00 | |
| Curve Number: 74.00 | Max Allowable Q(cfs): 999999.000 | |
| DCIA(%): 0.00 | | |

| | | |
|-------------|---------------------------|----------------|
| Name: 6 | Node: DITCH 3 | Status: Onsite |
| Group: BASE | Type: SCS Unit Hydrograph | |

PALM HARBOR GOLF COURSE
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| | |
|----------------------------|----------------------------------|
| Unit Hydrograph: Uh256 | Peaking Factor: 256.0 |
| Rainfall File: Flmod | Storm Duration(hrs): 24.00 |
| Rainfall Amount(in): 4.500 | Time of Conc(min): 20.00 |
| Area(ac): 3.100 | Time Shift(hrs): 0.00 |
| Curve Number: 77.50 | Max Allowable Q(cfs): 999999.000 |
| DCIA(%): 0.00 | |

| | | |
|----------------------------|----------------------------------|----------------|
| Name: 7 | Node: DITCH 4 | Status: Onsite |
| Group: BASE | Type: SCS Unit Hydrograph | |
| Unit Hydrograph: Uh256 | Peaking Factor: 256.0 | |
| Rainfall File: Flmod | Storm Duration(hrs): 24.00 | |
| Rainfall Amount(in): 4.500 | Time of Conc(min): 25.00 | |
| Area(ac): 4.040 | Time Shift(hrs): 0.00 | |
| Curve Number: 79.50 | Max Allowable Q(cfs): 999999.000 | |
| DCIA(%): 0.00 | | |

=====
 Nodes
 =====

| | | |
|------------------|-----------------------|-----------------------|
| Name: DITCH 1 | Base Flow(cfs): 0.000 | Init Stage(ft): 3.000 |
| Group: BASE | | Warn Stage(ft): 8.000 |
| Type: Stage/Area | | |

| Stage(ft) | Area(ac) |
|-----------|----------|
| 3.000 | 0.9200 |
| 4.000 | 1.6760 |
| 5.000 | 2.3650 |
| 6.000 | 3.1090 |

| | | |
|------------------|-----------------------|-----------------------|
| Name: DITCH 2 | Base Flow(cfs): 0.000 | Init Stage(ft): 2.000 |
| Group: BASE | | Warn Stage(ft): 7.000 |
| Type: Stage/Area | | |

| Stage(ft) | Area(ac) |
|-----------|----------|
| 2.000 | 0.0020 |
| 3.000 | 0.0080 |
| 4.000 | 0.0310 |
| 5.000 | 0.0420 |
| 6.000 | 0.0550 |

| | | |
|------------------|-----------------------|-----------------------|
| Name: DITCH 3 | Base Flow(cfs): 0.000 | Init Stage(ft): 2.000 |
| Group: BASE | | Warn Stage(ft): 7.000 |
| Type: Stage/Area | | |

| Stage(ft) | Area(ac) |
|-----------|----------|
| 2.000 | 0.0320 |
| 3.000 | 0.0420 |
| 4.000 | 0.6460 |
| 5.000 | 0.8730 |
| 6.000 | 1.0910 |

| | | |
|---------------|-----------------------|-----------------------|
| Name: DITCH 4 | Base Flow(cfs): 0.000 | Init Stage(ft): 1.000 |
|---------------|-----------------------|-----------------------|

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 INPUT

Downstream FHWA Inlet Edge Description:
 Circular Concrete: Square edge w/ headwall

```

-----
      Name: D2 TO D3 B          From Node: DITCH 2          Length(ft): 41.00
      Group: BASE              To Node: DITCH 3          Count: 1
                               Friction Equation: Average Conveyance
                               Solution Algorithm: Automatic
                               Flow: Both
      UPSTREAM                DOWNSTREAM
      Geometry: Circular      Circular
      Span(in): 24.00         24.00
      Rise(in): 24.00         24.00
      Invert(ft): 2.070       2.660
      Manning's N: 0.012000   0.012000
      Top Clip(in): 0.000     0.000
      Bot Clip(in): 0.000     0.000
      Entrance Loss Coef: 0.20
      Exit Loss Coef: 0.00
      Bend Loss Coef: 0.00
      Outlet Ctrl Spec: Use dc or tw
      Inlet Ctrl Spec: Use dn
      Stabilizer Option: None
  
```

Upstream FHWA Inlet Edge Description:
 Circular Concrete: Square edge w/ headwall

Downstream FHWA Inlet Edge Description:
 Circular Concrete: Square edge w/ headwall

```

-----
      Name: D2 TO D3 C          From Node: DITCH 2          Length(ft): 41.00
      Group: BASE              To Node: DITCH 3          Count: 1
                               Friction Equation: Average Conveyance
                               Solution Algorithm: Automatic
                               Flow: Both
      UPSTREAM                DOWNSTREAM
      Geometry: Circular      Circular
      Span(in): 12.00         12.00
      Rise(in): 12.00         12.00
      Invert(ft): 1.390       1.280
      Manning's N: 0.012000   0.012000
      Top Clip(in): 0.000     0.000
      Bot Clip(in): 0.000     0.000
      Entrance Loss Coef: 0.20
      Exit Loss Coef: 0.00
      Bend Loss Coef: 0.00
      Outlet Ctrl Spec: Use dc or tw
      Inlet Ctrl Spec: Use dn
      Stabilizer Option: None
  
```

Upstream FHWA Inlet Edge Description:
 Circular Concrete: Square edge w/ headwall

Downstream FHWA Inlet Edge Description:
 Circular Concrete: Square edge w/ headwall

```

-----
      Name: D3 TO D4 A          From Node: DITCH 3          Length(ft): 70.00
      Group: BASE              To Node: DITCH 4          Count: 1
                               Friction Equation: Average Conveyance
                               Solution Algorithm: Automatic
                               Flow: Both
      UPSTREAM                DOWNSTREAM
      Geometry: Horz Ellipse  Horz Ellipse
      Span(in): 48.00         48.00
      Rise(in): 30.00         30.00
      Invert(ft): 1.320       1.300
      Manning's N: 0.015000   0.015000
      Top Clip(in): 0.000     0.000
      Bot Clip(in): 0.000     0.000
      Entrance Loss Coef: 0.20
      Exit Loss Coef: 0.00
      Bend Loss Coef: 0.00
      Outlet Ctrl Spec: Use dc or tw
      Inlet Ctrl Spec: Use dn
      Stabilizer Option: None
  
```

Upstream FHWA Inlet Edge Description:
 Horizontal Ellipse Concrete: Square edge with headwall

Downstream FHWA Inlet Edge Description:
 Horizontal Ellipse Concrete: Square edge with headwall

PALM HARBOR GOLF COURSE
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 PRE DEVELOPMENT DITCH MEAN ANNUAL
 INPUT

```

-----
Name: D3 TO D4 B          From Node: DITCH 3          Length(ft): 70.00
Group: BASE              To Node: DITCH 4          Count: 1
                          UPSTREAM          DOWNSTREAM
Geometry: Horz Ellipse   Horz Ellipse
Span(in): 48.00          48.00
Rise(in): 30.00          30.00
Invert(ft): 1.670        1.500
Manning's N: 0.015000    0.015000
Top Clip(in): 0.000      0.000
Bot Clip(in): 0.000      0.000
Friction Equation: Average Conveyance
Solution Algorithm: Automatic
Flow: Both
Entrance Loss Coef: 0.20
Exit Loss Coef: 0.00
Bend Loss Coef: 0.00
Outlet Ctrl Spec: Use dc or tw
Inlet Ctrl Spec: Use dn
Stabilizer Option: None
  
```

Upstream FHWA Inlet Edge Description:
 Horizontal Ellipse Concrete: Square edge with headwall

Downstream FHWA Inlet Edge Description:
 Horizontal Ellipse Concrete: Square edge with headwall

```

-----
Name: D4 TO OFF A        From Node: DITCH 4          Length(ft): 100.00
Group: BASE              To Node: OFFSITE          Count: 1
                          UPSTREAM          DOWNSTREAM
Geometry: Circular       Circular
Span(in): 30.00          30.00
Rise(in): 30.00          30.00
Invert(ft): 0.850        3.850
Manning's N: 0.012000    0.012000
Top Clip(in): 0.000      0.000
Bot Clip(in): 0.000      0.000
Friction Equation: Average Conveyance
Solution Algorithm: Automatic
Flow: Both
Entrance Loss Coef: 0.20
Exit Loss Coef: 0.00
Bend Loss Coef: 0.00
Outlet Ctrl Spec: Use dc or tw
Inlet Ctrl Spec: Use dn
Stabilizer Option: None
  
```

Upstream FHWA Inlet Edge Description:
 Circular Concrete: Square edge w/ headwall

Downstream FHWA Inlet Edge Description:
 Circular Concrete: Square edge w/ headwall

```

-----
Name: D4 TO OFF B        From Node: DITCH 4          Length(ft): 100.00
Group: BASE              To Node: OFFSITE          Count: 1
                          UPSTREAM          DOWNSTREAM
Geometry: Circular       Circular
Span(in): 30.00          30.00
Rise(in): 30.00          30.00
Invert(ft): 1.280        3.860
Manning's N: 0.012000    0.012000
Top Clip(in): 0.000      0.000
Bot Clip(in): 0.000      0.000
Friction Equation: Average Conveyance
Solution Algorithm: Automatic
Flow: Both
Entrance Loss Coef: 0.20
Exit Loss Coef: 0.00
Bend Loss Coef: 0.00
Outlet Ctrl Spec: Use dc or tw
Inlet Ctrl Spec: Use dn
Stabilizer Option: None
  
```

Upstream FHWA Inlet Edge Description:
 Circular Concrete: Square edge w/ headwall

Downstream FHWA Inlet Edge Description:
 Circular Concrete: Square edge w/ headwall

PALM HARBOR GOLF COURSE
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 INPUT

=====
 Drop Structures
 =====

| | | |
|-----------------------|-------------------|---------------------------------------|
| Name: I-3 | From Node: POND 3 | Length(ft): 278.00 |
| Group: BASE | To Node: DITCH 2 | Count: 1 |
| UPSTREAM | DOWNSTREAM | Friction Equation: Average Conveyance |
| Geometry: Circular | Circular | Solution Algorithm: Automatic |
| Span(in): 15.00 | 15.00 | Flow: Both |
| Rise(in): 15.00 | 15.00 | Entrance Loss Coef: 0.200 |
| Invert(ft): 4.010 | 3.140 | Exit Loss Coef: 0.000 |
| Manning's N: 0.015000 | 0.015000 | Outlet Ctrl Spec: Use dc or tw |
| Top Clip(in): 0.000 | 0.000 | Inlet Ctrl Spec: Use dn |
| Bot Clip(in): 0.000 | 0.000 | Solution Incs: 10 |

Upstream FHWA Inlet Edge Description:
 Circular Concrete: Square edge w/ headwall

Downstream FHWA Inlet Edge Description:
 Circular Concrete: Square edge w/ headwall

*** Weir 1 of 1 for Drop Structure I-3 ***

| | |
|-----------------------|--------------------------|
| | TABLE |
| Count: 1 | Bottom Clip(in): 0.000 |
| Type: Horizontal | Top Clip(in): 0.000 |
| Flow: Both | Weir Disc Coef: 3.200 |
| Geometry: Rectangular | Orifice Disc Coef: 0.600 |
| Span(in): 36.00 | Invert(ft): 6.360 |
| Rise(in): 24.00 | Control Elev(ft): 6.360 |

| | | |
|-----------------------|-------------------|---------------------------------------|
| Name: I-5 | From Node: POND 5 | Length(ft): 195.00 |
| Group: BASE | To Node: DITCH 3 | Count: 1 |
| UPSTREAM | DOWNSTREAM | Friction Equation: Average Conveyance |
| Geometry: Circular | Circular | Solution Algorithm: Automatic |
| Span(in): 15.00 | 15.00 | Flow: Both |
| Rise(in): 15.00 | 15.00 | Entrance Loss Coef: 0.200 |
| Invert(ft): 3.860 | 2.970 | Exit Loss Coef: 0.000 |
| Manning's N: 0.015000 | 0.015000 | Outlet Ctrl Spec: Use dc or tw |
| Top Clip(in): 0.000 | 0.000 | Inlet Ctrl Spec: Use dn |
| Bot Clip(in): 0.000 | 0.000 | Solution Incs: 10 |

Upstream FHWA Inlet Edge Description:
 Circular Concrete: Square edge w/ headwall

Downstream FHWA Inlet Edge Description:
 Circular Concrete: Square edge w/ headwall

*** Weir 1 of 1 for Drop Structure I-5 ***

| | |
|-----------------------|--------------------------|
| | TABLE |
| Count: 1 | Bottom Clip(in): 0.000 |
| Type: Horizontal | Top Clip(in): 0.000 |
| Flow: Both | Weir Disc Coef: 3.200 |
| Geometry: Rectangular | Orifice Disc Coef: 0.600 |
| Span(in): 36.00 | Invert(ft): 6.330 |
| Rise(in): 24.00 | Control Elev(ft): 6.330 |

=====
 Weirs
 =====

| | |
|----------------|--------------------|
| Name: D1 TO D2 | From Node: DITCH 1 |
|----------------|--------------------|

PALM HARBOR GOLF COURSE
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```

Group: BASE                      To Node: DITCH 2
Flow: Both                       Count: 1
Type: Vertical: Mavis           Geometry: Trapezoidal

    Bottom Width(ft): 15.00
    Left Side Slope(h/v): 4.00
    Right Side Slope(h/v): 8.00
    Invert(ft): 4.000
    Control Elevation(ft): 4.000
    Struct Opening Dim(ft): 9999.00

                                TABLE

    Bottom Clip(ft): 0.000
    Top Clip(ft): 0.000
    Weir Discharge Coef: 3.200
    Orifice Discharge Coef: 0.600
  
```

=====
 Hydrology Simulations
 =====

```

Name: C9002 PRE MA
Filename: J:\C9002 CENTEX HOMES SITE 6\ICPR\C9002_PRE_MA.R32
  
```

Override Defaults: No

```

Time(hrs)      Print Inc(min)
-----
36.000         15.00
  
```

=====
 Routing Simulations
 =====

```

Name: C9002 PRE MA           Hydrology Sim: C9002 PRE MA
Filename: J:\C9002 CENTEX HOMES SITE 6\ICPR\C9002_PRE_MA.I32
  
```

```

Execute: Yes           Restart: No           Patch: No
Alternative: No

    Max Delta Z(ft): 1.00           Delta Z Factor: 0.00500
    Time Step Optimizer: 10.000
    Start Time(hrs): 0.000           End Time(hrs): 36.00
    Min Calc Time(sec): 0.5000       Max Calc Time(sec): 60.0000
    Boundary Stages:                 Boundary Flows:
  
```

```

Time(hrs)      Print Inc(min)
-----
36.000         15.000

Group          Run
-----
BASE           Yes
  
```

=====
 Boundary Conditions
 =====

PALM HARBOR GOLF COURSE
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 PRE DEVELOPMENT DITCH MEAN ANNUAL
 BASIN MAXIMUM

| Simulation | Basin | Group | Time Max hrs | Flow Max cfs | Volume in | Volume ft3 |
|--------------|-------|-------|-----------------|-----------------|--------------|---------------|
| C9002_PRE_MA | 1 | BASE | 12.22 | 8.992 | 1.972 | 73146.409 |
| C9002_PRE_MA | 2 | BASE | 12.18 | 35.195 | 2.129 | 252491.978 |
| C9002_PRE_MA | 3 | BASE | 12.22 | 4.347 | 1.972 | 35356.483 |
| C9002_PRE_MA | 4 | BASE | 12.18 | 24.487 | 1.972 | 177426.564 |
| C9002_PRE_MA | 5 | BASE | 12.22 | 2.965 | 1.972 | 24119.706 |
| C9002_PRE_MA | 6 | BASE | 12.13 | 3.553 | 2.251 | 25328.003 |
| C9002_PRE_MA | 7 | BASE | 12.22 | 4.470 | 2.418 | 35460.427 |

PALM HARBOR GOLF COURSE
 CPH PROJECT #C9002
 NOVEMBER, 2005
 PRE DEVELOPMENT DITCH MEAN ANNUAL
 LINK MAXIMUM

| Name | Group | Simulation | Max Time Flow hrs | Max Flow cfs | Delta Q cfs | Max US Stage Time hrs | Max US Stage ft | Max DS Stage Time hrs | Max DS Stage ft |
|-------------|-------|--------------|-------------------------|--------------------|----------------|-----------------------------|--------------------|-----------------------------|--------------------|
| D1 TO D2 | BASE | C9002_PRE_MA | 14.87 | 13.218 | -2.766 | 13.84 | 5.526 | 13.81 | 5.512 |
| D2 TO D3 A | BASE | C9002_PRE_MA | 14.34 | 1.496 | 0.367 | 13.81 | 5.512 | 13.57 | 5.376 |
| D2 TO D3 B | BASE | C9002_PRE_MA | 14.34 | 7.979 | 3.382 | 13.81 | 5.512 | 13.57 | 5.376 |
| D2 TO D3 C | BASE | C9002_PRE_MA | 14.34 | 1.684 | 0.413 | 13.81 | 5.512 | 13.57 | 5.376 |
| D3 TO D4 A | BASE | C9002_PRE_MA | 13.63 | 8.966 | 3.309 | 13.57 | 5.376 | 13.56 | 5.341 |
| D3 TO D4 B | BASE | C9002_PRE_MA | 13.63 | 8.966 | -4.935 | 13.57 | 5.376 | 13.56 | 5.341 |
| D4 TO OFF A | BASE | C9002_PRE_MA | 13.56 | 9.757 | 0.024 | 13.56 | 5.341 | 13.56 | 4.893 |
| D4 TO OFF B | BASE | C9002_PRE_MA | 13.56 | 9.642 | 0.024 | 13.56 | 5.341 | 13.56 | 4.897 |
| I-3 | BASE | C9002_PRE_MA | 12.29 | 4.225 | 0.012 | 12.31 | 6.620 | 13.81 | 5.512 |
| I-5 | BASE | C9002_PRE_MA | 12.27 | 2.931 | 0.010 | 12.27 | 6.533 | 13.57 | 5.376 |

PALM HARBOR GOLF COURSE
 CPH PROJECT #C9002
 NOVEMBER, 2005
 PRE DEVELOPMENT DITCH MEAN ANNUAL
 NODE MAXIMUM

| Name | Group | Simulation | Max Time Stage hrs | Max Stage ft | Warning Stage ft | Max Delta ft | Max Surf Area ft2 | Max Time Inflow hrs | Max Inflow cfs | Max Time Outflow hrs | Max Outflow cfs |
|---------|-------|--------------|--------------------------|--------------------|------------------------|--------------------|-------------------------|---------------------------|----------------------|----------------------------|-----------------------|
| DITCH 1 | BASE | C9002_PRE_MA | 13.84 | 5.526 | 8.000 | 0.0031 | 120073 | 12.25 | 43.244 | 14.87 | 13.218 |
| DITCH 2 | BASE | C9002_PRE_MA | 13.81 | 5.512 | 7.000 | -0.0050 | 2123 | 14.33 | 13.873 | 14.34 | 11.159 |
| DITCH 3 | BASE | C9002_PRE_MA | 13.57 | 5.376 | 7.000 | -0.0051 | 41620 | 12.00 | 25.277 | 13.63 | 17.931 |
| DITCH 4 | BASE | C9002_PRE_MA | 13.56 | 5.341 | 7.000 | 0.0054 | 8012 | 13.44 | 19.445 | 13.56 | 19.399 |
| OFFSITE | BASE | C9002_PRE_MA | 0.00 | 2.000 | 0.000 | 0.0000 | 26 | 13.56 | 19.399 | 0.00 | 0.000 |
| POND 3 | BASE | C9002_PRE_MA | 12.31 | 6.620 | 8.000 | 0.0022 | 3661 | 12.25 | 4.340 | 12.29 | 4.225 |
| POND 5 | BASE | C9002_PRE_MA | 12.27 | 6.533 | 8.000 | 0.0033 | 1391 | 12.25 | 2.961 | 12.27 | 2.931 |

**PALM HARBOR GOLF COURSE
CITY OF PALM COAST, FLORIDA**

SECTION 2.1

POST-CONDITIONS ANALYSIS

Palm Harbor Golf Course

BASIN 1 DATA

Curve Number Calculations

| Hydrologic Group | Cover Description (Cover type, treatment, and hydrologic condition; percent impervious) | CN | Area (acres) | Product of CN X Area |
|------------------|--|----------------|--------------|----------------------|
| | Impervious Area | 98 | 1.89 | 185.22 |
| B | Pervious Area | 61 | 0.18 | 10.98 |
| C | Pervious Area | 74 | 0.97 | 71.78 |
| D | Pervious Area | 80 | 0.65 | 52.00 |
| | | Totals = | 3.69 | 319.98 |
| | | Composite CN = | 87 | |

Soil Name

6-Favoretta-D
 9-Eau Gallie-B/D
 29-Udarents-C
 39-Udarents-C

Composite CN = Total Product / Total Area

Reference: **Urban Hydrology for Small Watersheds**
 Technical Release 55, Soil Conservation Service, June 1986

Dry Detention Pond Data

Pond 1

| Elevation (ft-NGVD) | Area (ft ²) | Area (ac) | Volume (ft ³) | Cumulative Volume (ft ³) | Cumulative Volume (ac-ft) | Notes | Perc Rate* (cfs) |
|---------------------|-------------------------|-----------|---------------------------|--------------------------------------|---------------------------|-------------|------------------|
| 4 | 8866 | 0.204 | 0 | 0 | 0.000 | | 0 |
| 5 | 11648 | 0.267 | 10257 | 10257 | 0.235 | | 0.25 |
| 5.55 | 13252 | 0.304 | 6848 | 17105 | 0.393 | P.A.V. | |
| 6 | 14596 | 0.335 | 6266 | 23370 | 0.537 | | 0.51 |
| 7 | 17700 | 0.406 | 16148 | 39518 | 0.907 | | 0.76 |
| 8 | 20963 | 0.481 | 19332 | 58850 | 1.351 | Top of Berm | |

St. Johns River Water Management District Requirements

Water Quality Calculations

Greater of
 2.5" runoff over the Impervious 0.39 ac-ft
 or
 1.0" runoff over the basin area 0.31 ac-ft

Weir elevation 6.30 ft

Pond must recover 1/2 the water quality volume within 24-30 hours. 1/2 WQ elevation 5.65 ft

Palm Harbor Golf Course

BASIN 2 DATA

Curve Number Calculations

| Hydrologic Group | Cover Description (Cover type, treatment, and hydrologic condition; percent impervious) | CN | Area (acres) | Product of CN X Area |
|------------------|--|----------------|--------------|----------------------|
| | Impervious Area | 98 | 2.68 | 262.64 |
| B | Pervious Area | 61 | 0.48 | 29.28 |
| C | Pervious Area | 74 | 1.73 | 128.02 |
| D | Pervious Area | 80 | 0.62 | 49.60 |
| | | Totals = | 5.51 | 470 |
| | | Composite CN = | | 85.2 |

Composite CN = Total Product / Total Area

Reference: **Urban Hydrology for Small Watersheds**
 Technical Release 55, Soil Conservation Service, June 1986

Wet Detention Pond /w Liner Data

| Elevation (ft-NGVD) | Area (ft ²) | Area (ac) | Volume (ft ³) | Cumulative Volume (ft ³) | Cumulative Volume (ac-ft) | Notes | Perc Rate* (cfs) |
|---------------------|-------------------------|-----------|---------------------------|--------------------------------------|---------------------------|--------------|------------------|
| -3 | 6320 | 0.145 | 0 | 0 | 0 | | 0 |
| 3 | 10253 | 0.235 | 49719 | 49719 | 1.14 | | 0 |
| 4 | 12011 | 0.276 | 11132 | 60851 | 1.40 | | 0 |
| 5 | 13885 | 0.319 | 0 | 0 | 0.00 | Top of Liner | 0 |
| 6 | 15812 | 0.363 | 14849 | 14849 | 0.34 | | 0.26 |
| 6.6 | 17000 | 0.390 | 9844 | 24692 | 0.57 | | |
| 7 | 17825 | 0.409 | 6965 | 31657 | 0.73 | | 0.52 |
| 8 | 19956 | 0.458 | 18891 | 50548 | 1.16 | Top of Berm | 0.78 |

Water Quality Calculations

Greater of
 2.5" over the Impervious 0.56 ac-ft
 or
 1.0" Runoff over the basin area 0.46 ac-ft

Palm Harbor Golf Course

BASIN 3 DATA

Curve Number Calculations

| Hydrologic Group | Cover Description (Cover type, treatment, and hydrologic condition; percent impervious) | CN | Area (acres) | Product of CN X Area |
|------------------|--|----------------|--------------|----------------------|
| | Impervious Area | 98 | 3.70 | 362.60 |
| B | Pervious Area | 61 | 0.28 | 17.08 |
| C | Pervious Area | 74 | 6.32 | 467.68 |
| D | Pervious Area | 80 | 0.15 | 12.00 |
| | | Totals = | 10.45 | 859 |
| | | Composite CN = | | 82.2 |

Composite CN = Total Product / Total Area

Reference: **Urban Hydrology for Small Watersheds**
 Technical Release 55, Soil Conservation Service, June 1986

Dry Retention Pond Data

Pond 3

| Elevation (ft-NGVD) | Area (ft ²) | Area (ac) | Volume (ft ³) | Cumulative Volume (ft ³) | Cumulative Volume (ac-ft) | Notes | Perc Rate* (cfs) |
|---------------------|-------------------------|-----------|---------------------------|--------------------------------------|---------------------------|-------------|------------------|
| 5 | 5484 | 0.126 | 0 | 0 | | | |
| 6 | 16481 | 0.378 | 10983 | 10983 | 0.252 | | 0.955898 |
| 7 | 29846 | 0.685 | 23164 | 34146 | 0.784 | | 1.731068 |
| 7.12 | 32526 | 0.747 | 3742 | 37888 | 0.870 | | 1.886508 |
| 8 | 57797 | 1.327 | 39742 | 77630 | 1.782 | Top of Berm | 3.352226 |
| | | | | | | | |
| | | | | | | | |

Water Quality Calculations

1.25" over the Impervious plus 0.5" over the basin area
 or
 1" Runoff over the basin area

0.82 ac-ft

0.87 ac-ft

Palm Harbor Golf Course

DITCH SECTION 1

Curve Number Calculations

BASIN OFFSITE 1

| Hydrologic Group | Cover Description (Cover type, treatment, and hydrologic condition; percent impervious) | CN | Area (acres) | Product of CN X Area |
|------------------|--|----------------|--------------|----------------------|
| | Impervious Area | 98 | | 0.00 |
| B | Pervious Area | 61 | | 0.00 |
| C | Pervious Area | 74 | 10.22 | 756.28 |
| D | Pervious Area | 80 | | 0.00 |
| | | Totals = | 10.22 | 756.28 |
| | | Composite CN = | | 74 |

BASIN OFFSITE 2

| Hydrologic Group | Cover Description (Cover type, treatment, and hydrologic condition; percent impervious) | CN | Area (acres) | Product of CN X Area |
|------------------|--|----------------|--------------|----------------------|
| | Impervious Area | 98 | 8.17 | 800.66 |
| B | Pervious Area | 61 | 14.36 | 875.96 |
| C | Pervious Area | 74 | | 0.00 |
| D | Pervious Area | 80 | 10.14 | 811.20 |
| | | Totals = | 32.67 | 2487.82 |
| | | Composite CN = | | 76 |

Soil Name

6-Favoretta-D
9-Eau Gallie-B/D
29-Udarents-C
39-Udarents-C

Composite CN = Total Product / Total Area

Reference: **Urban Hydrology for Small Watersheds**
Technical Release 55, Soil Conservation Service, June 1986

DITCH 1

| Elevation (ft-NGVD) | Area (ft ²) | Area (ac) | Volume (ft ³) | Cumulative Volume (ft ³) | Cumulative Volume (ac-ft) | Notes | Perc Rate* (cfs) |
|---------------------|-------------------------|-----------|---------------------------|--------------------------------------|---------------------------|-------|------------------|
| 3 | 40062 | 0.920 | 0 | 0 | 0.000 | | |
| 4 | 72996 | 1.676 | 56529 | 56529 | 1.298 | | |
| 5 | 103037 | 2.365 | 88017 | 144546 | 3.318 | | |
| 6 | 135440 | 3.109 | 119239 | 263784 | 6.056 | | |

Palm Harbor Golf Course

DITCH SECTION 2

DITCH 2

| Elevation (ft-NGVD) | Area (ft²) | Area (ac) | Volume (ft³) | Cumulative Volume (ft³) | Cumulative Volume (ac-ft) | Notes |
|--------------------------------|----------------------------------|----------------------|------------------------------------|---|--|--------------|
| 2 | 83 | 0.002 | 0 | 0 | 0 | |
| 3 | 348 | 0.008 | 216 | 216 | 0.005 | |
| 4 | 1355 | 0.031 | 852 | 1067 | 0.02 | |
| 5 | 1844 | 0.042 | 1600 | 2667 | 0.06 | |
| 6 | 2402 | 0.055 | 2123 | 4790 | 0.11 | |

Palm Harbor Golf Course

DITCH SECTION 3

Curve Number Calculations

BASIN 4

| Hydrologic Group | Cover Description (Cover type, treatment, and hydrologic condition; percent impervious) | CN | Area (acres) | Product of CN X Area |
|------------------|--|----------------|--------------|----------------------|
| | Impervious Area | 98 | 5.96 | 584.08 |
| B | Pervious Area | 61 | 13.21 | 805.81 |
| C | Pervious Area | 74 | 0.00 | 0.00 |
| D | Pervious Area | 80 | 4.68 | 374.40 |
| | | Totals = | 23.85 | 1764 |
| | | Composite CN = | | 74.0 |

BASIN 5

| Hydrologic Group | Cover Description (Cover type, treatment, and hydrologic condition; percent impervious) | CN | Area (acres) | Product of CN X Area |
|------------------|--|----------------|--------------|----------------------|
| | Impervious Area | 98 | 0.00 | 0.00 |
| C | Pervious Area | 74 | 2.25 | 166.50 |
| | | Totals = | 2.25 | 167 |
| | | Composite CN = | | 74.0 |

BASIN 6

| Hydrologic Group | Cover Description (Cover type, treatment, and hydrologic condition; percent impervious) | CN | Area (acres) | Product of CN X Area |
|------------------|--|----------------|--------------|----------------------|
| | Impervious Area | 98 | 0.00 | 0.00 |
| B | Pervious Area | 61 | 0.00 | 0.00 |
| C | Pervious Area | 74 | 1.40 | 103.60 |
| D | Pervious Area | 80 | 0.19 | 15.20 |
| | | Totals = | 1.59 | 119 |
| | | Composite CN = | | 74.7 |

Reference: Urban Hydrology for Small Watersheds
 Technical Release 55, Soil Conservation Service, June 1986

BASIN 5 POND

| Elevation (ft-NGVD) | Area (ft ²) | Area (ac) | Volume (ft ³) | Cumulative Volume (ft ³) | Cumulative Volume (ac-ft) | Notes |
|---------------------|-------------------------|-----------|---------------------------|--------------------------------------|---------------------------|-------|
| 5.5 | 37 | 0.001 | 0 | 0 | | |
| 6 | 245 | 0.006 | 71 | 71 | 0.002 | |
| 6.5 | 678 | 0.016 | 231 | 301 | 0.007 | |
| 7 | 11153 | 0.256 | 2958 | 3259 | 0.075 | |

DITCH 3

| Elevation (ft-NGVD) | Area (ft ²) | Area (ac) | Volume (ft ³) | Cumulative Volume (ft ³) | Cumulative Volume (ac-ft) | Notes |
|---------------------|-------------------------|-----------|---------------------------|--------------------------------------|---------------------------|-------|
| 1.5 | 47 | 0.001 | 0 | 0 | 0.000 | |
| 2 | 142 | 0.003 | 47 | 47 | 0.001 | |
| 2.5 | 5850 | 0.134 | 1498 | 1545 | 0.035 | |
| 3 | 12930 | 0.297 | 4695 | 6240 | 0.143 | |
| 4 | 19775 | 0.454 | 16353 | 22593 | 0.519 | |
| 5 | 26665 | 0.612 | 23220 | 45813 | 1.052 | |
| 6 | 34861 | 0.800 | 30763 | 76576 | 1.758 | |
| 6.5 | 39927 | 0.917 | 18697 | 95273 | 2.187 | |

Palm Harbor Golf Course

DITCH SECTION 4

Curve Number Calculations

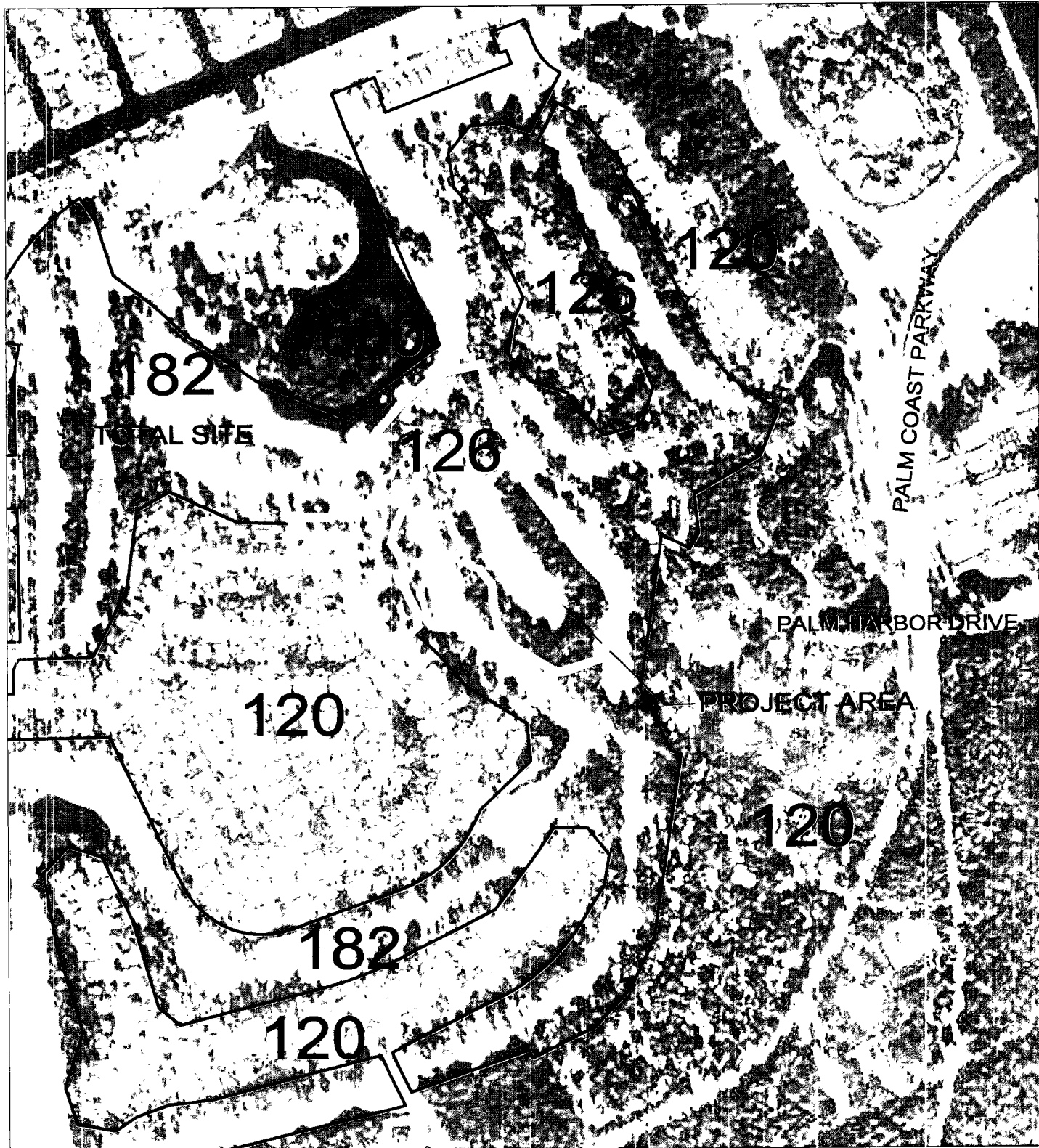
BASIN 7

| Hydrologic Group | Cover Description (Cover type, treatment, and hydrologic condition; percent impervious) | CN | Area (acres) | Product of CN X Area |
|------------------|--|----------------|--------------|----------------------|
| | Impervious Area | 98 | 0.00 | 0.00 |
| B | Pervious Area | 61 | 1.11 | 67.71 |
| C | Pervious Area | 74 | 2.33 | 172.42 |
| D | Pervious Area | 80 | 1.01 | 80.80 |
| | | Totals = | 4.45 | 321 |
| | | Composite CN = | | 72.1 |

Reference: **Urban Hydrology for Small Watersheds**
 Technical Release 55, Soil Conservation Service, June 1986

DITCH 4

| Elevation (ft-NGVD) | Area (ft ²) | Area (ac) | Volume (ft ³) | Cumulative Volume (ft ³) | Cumulative Volume (ac-ft) | Notes |
|---------------------|-------------------------|-----------|---------------------------|--------------------------------------|---------------------------|-------|
| 2.3 | 4570 | 0.105 | 0 | 0 | | |
| 3 | 7807 | 0.179 | 4332 | 4332 | 0.099 | |
| 4 | 12448 | 0.286 | 10128 | 14459 | 0.332 | |
| 5 | 17020 | 0.391 | 14734 | 29193 | 0.670 | |
| 6 | 21562 | 0.495 | 19291 | 48484 | 1.113 | |
| 6.5 | 24013 | 0.551 | 11394 | 59878 | 1.375 | |



- 120 RESIDENTIAL MEDIUM DENSITY
- 126 MEDIUM DENSITY WITH GOLF COURSE
- 136 MULTI-HIGH DENSITY UNITS WITH GOLF COURSE
- 182 GOLF COURSE
- 510 WATERWAY
- 600 WETLAND

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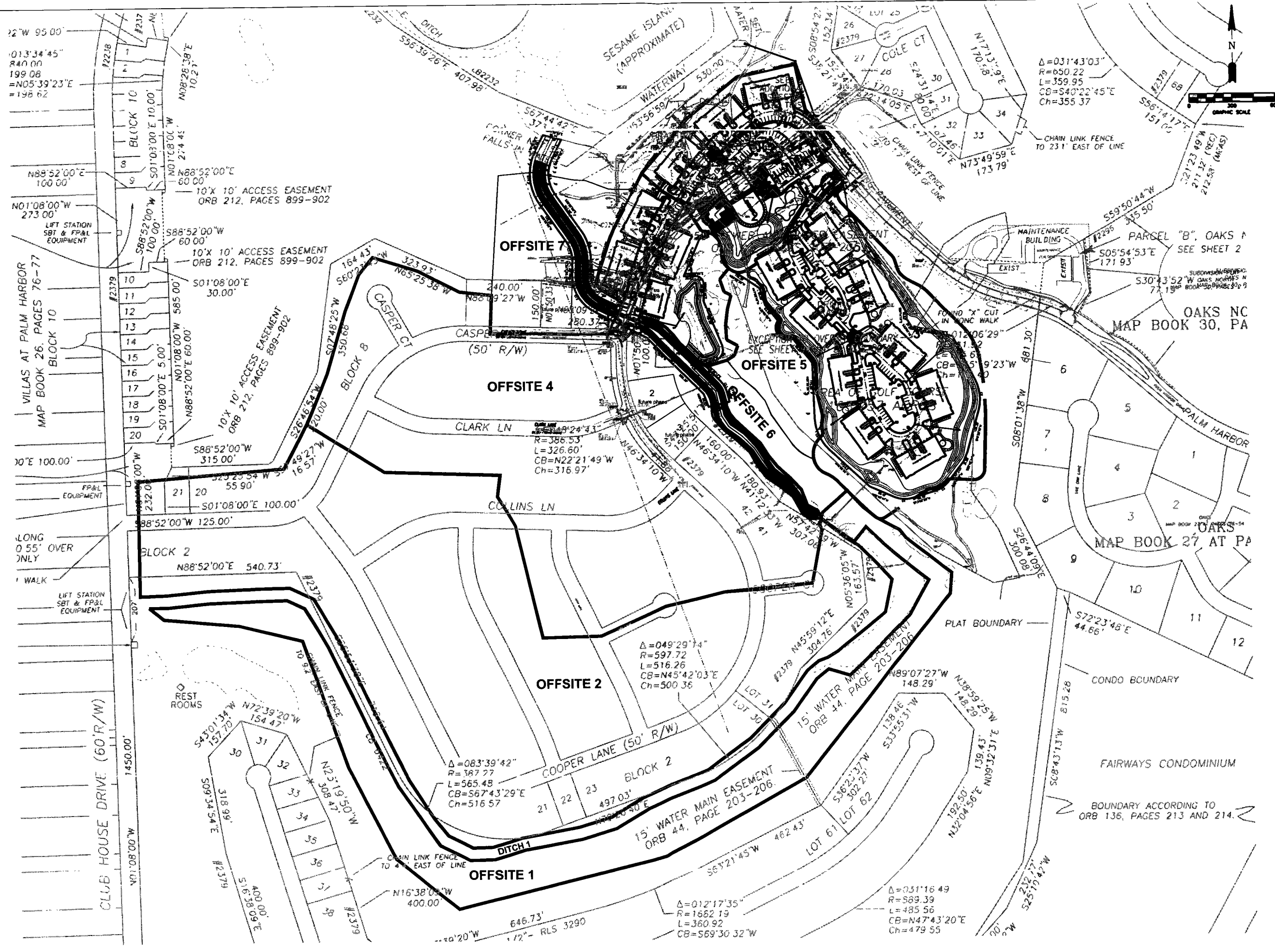
Scale NTS
 Date AUGUST 2005
 Job No C9002
 Certificate of Authorization
 No 3215

POST-DEVELOPMENT FLUCCS MAP

PALM HARBOR GOLF COURSE
 PALM COAST, FLORIDA

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 FIGURE
8

Date: xx-xx-xx



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| Scale | 1"=300' |
| Date | 11/14/05 |
| Job No | CS002 |
| File | FEP |
| Approved | © 2005 |
| Revision | |
| Date | |
| Name | |
| Designed by | JHI |
| Drawn by | BNR |
| Checked by | DRW |
| Approved by | DRW |
| Complete of submittal No. 213 | |

DRAINAGE BASIN MAP
 PALM HARBOR GOLF COURSE
 CITY OF PALM COAST, FLORIDA

DAVID H. WEAVER, P.E.
38867

PALM HARBOR GOLF COURSE
 MEAN ANNUAL STORM
 NOVEMBER, 2005
 INPUT DATA

=====

==== Basins =====

=====

| | | |
|----------------------------|----------------------------------|----------------|
| Name: 1 | Node: POND 1 | Status: Onsite |
| Group: BASE | Type: SCS Unit Hydrograph | |
| Unit Hydrograph: Uh256 | Peaking Factor: 256.0 | |
| Rainfall File: Flmod | Storm Duration(hrs): 24.00 | |
| Rainfall Amount(in): 4.500 | Time of Conc(min): 15.00 | |
| Area(ac): 3.690 | Time Shift(hrs): 0.00 | |
| Curve Number: 87.00 | Max Allowable Q(cfs): 999999.000 | |
| DCIA(%): 0.00 | | |

| | | |
|----------------------------|----------------------------------|----------------|
| Name: 2 | Node: POND 2 | Status: Onsite |
| Group: BASE | Type: SCS Unit Hydrograph | |
| Unit Hydrograph: Uh256 | Peaking Factor: 256.0 | |
| Rainfall File: Flmod | Storm Duration(hrs): 24.00 | |
| Rainfall Amount(in): 4.500 | Time of Conc(min): 10.00 | |
| Area(ac): 5.510 | Time Shift(hrs): 0.00 | |
| Curve Number: 85.00 | Max Allowable Q(cfs): 999999.000 | |
| DCIA(%): 0.00 | | |

| | | |
|----------------------------|----------------------------------|----------------|
| Name: 3 | Node: POND 3 | Status: Onsite |
| Group: BASE | Type: SCS Unit Hydrograph | |
| Unit Hydrograph: Uh256 | Peaking Factor: 256.0 | |
| Rainfall File: Flmod | Storm Duration(hrs): 24.00 | |
| Rainfall Amount(in): 4.500 | Time of Conc(min): 15.00 | |
| Area(ac): 10.450 | Time Shift(hrs): 0.00 | |
| Curve Number: 82.00 | Max Allowable Q(cfs): 999999.000 | |
| DCIA(%): 0.00 | | |

| | | |
|----------------------------|----------------------------------|----------------|
| Name: OFFSITE 1 | Node: DITCH 1 | Status: Onsite |
| Group: BASE | Type: SCS Unit Hydrograph | |
| Unit Hydrograph: Uh256 | Peaking Factor: 256.0 | |
| Rainfall File: Flmod | Storm Duration(hrs): 24.00 | |
| Rainfall Amount(in): 4.500 | Time of Conc(min): 25.00 | |
| Area(ac): 10.220 | Time Shift(hrs): 0.00 | |
| Curve Number: 74.00 | Max Allowable Q(cfs): 999999.000 | |
| DCIA(%): 0.00 | | |

| | | |
|----------------------------|----------------------------------|----------------|
| Name: OFFSITE 2 | Node: DITCH 1 | Status: Onsite |
| Group: BASE | Type: SCS Unit Hydrograph | |
| Unit Hydrograph: Uh256 | Peaking Factor: 256.0 | |
| Rainfall File: Flmod | Storm Duration(hrs): 24.00 | |
| Rainfall Amount(in): 4.500 | Time of Conc(min): 20.00 | |
| Area(ac): 32.670 | Time Shift(hrs): 0.00 | |
| Curve Number: 76.00 | Max Allowable Q(cfs): 999999.000 | |
| DCIA(%): 0.00 | | |

| | | |
|-----------------|---------------------------|----------------|
| Name: OFFSITE 4 | Node: DITCH 3 | Status: Onsite |
| Group: BASE | Type: SCS Unit Hydrograph | |

PALM HARBOR GOLF COURSE
 MEAN ANNUAL STORM
 NOVEMBER, 2005
 INPUT DATA

| | |
|----------------------------|----------------------------------|
| Unit Hydrograph: Uh256 | Peaking Factor: 256.0 |
| Rainfall File: Flmod | Storm Duration(hrs): 24.00 |
| Rainfall Amount(in): 4.500 | Time of Conc(min): 20.00 |
| Area(ac): 23.850 | Time Shift(hrs): 0.00 |
| Curve Number: 74.00 | Max Allowable Q(cfs): 999999.000 |
| DCIA(%): 0.00 | |

| | | |
|-----------------|---------------------------|----------------|
| Name: OFFSITE 5 | Node: BASIN 5 POND | Status: Onsite |
| Group: BASE | Type: SCS Unit Hydrograph | |

| | |
|----------------------------|----------------------------------|
| Unit Hydrograph: Uh256 | Peaking Factor: 256.0 |
| Rainfall File: Flmod | Storm Duration(hrs): 24.00 |
| Rainfall Amount(in): 4.500 | Time of Conc(min): 25.00 |
| Area(ac): 2.250 | Time Shift(hrs): 0.00 |
| Curve Number: 74.00 | Max Allowable Q(cfs): 999999.000 |
| DCIA(%): 0.00 | |

| | | |
|-----------------|---------------------------|----------------|
| Name: OFFSITE 6 | Node: DITCH 3 | Status: Onsite |
| Group: BASE | Type: SCS Unit Hydrograph | |

| | |
|----------------------------|----------------------------------|
| Unit Hydrograph: Uh256 | Peaking Factor: 256.0 |
| Rainfall File: Flmod | Storm Duration(hrs): 24.00 |
| Rainfall Amount(in): 4.500 | Time of Conc(min): 20.00 |
| Area(ac): 1.590 | Time Shift(hrs): 0.00 |
| Curve Number: 75.00 | Max Allowable Q(cfs): 999999.000 |
| DCIA(%): 0.00 | |

| | | |
|-----------------|---------------------------|----------------|
| Name: OFFSITE 7 | Node: DITCH 4 | Status: Onsite |
| Group: BASE | Type: SCS Unit Hydrograph | |

| | |
|----------------------------|----------------------------------|
| Unit Hydrograph: Uh256 | Peaking Factor: 256.0 |
| Rainfall File: Flmod | Storm Duration(hrs): 24.00 |
| Rainfall Amount(in): 4.500 | Time of Conc(min): 25.00 |
| Area(ac): 4.450 | Time Shift(hrs): 0.00 |
| Curve Number: 72.00 | Max Allowable Q(cfs): 999999.000 |
| DCIA(%): 0.00 | |

=====
 Nodes
 =====

| | | |
|--------------------|-----------------------|-----------------------|
| Name: BASIN 5 POND | Base Flow(cfs): 0.000 | Init Stage(ft): 5.500 |
| Group: BASE | | Warn Stage(ft): 8.000 |
| Type: Stage/Area | | |

| Stage(ft) | Area(ac) |
|-----------|----------|
| 5.500 | 0.0010 |
| 6.000 | 0.0060 |
| 6.500 | 0.0160 |
| 7.000 | 0.2560 |

| | | |
|---------------------------|-----------------------|-----------------------|
| Name: D-17 | Base Flow(cfs): 0.000 | Init Stage(ft): 2.790 |
| Group: BASE | Plunge Factor: 1.00 | Warn Stage(ft): 9.120 |
| Type: Manhole, Flat Floor | | |

| | | |
|-----------|----------|--|
| Stage(ft) | Area(ac) | |
|-----------|----------|--|

PALM HARBOR GOLF COURSE
 MEAN ANNUAL STORM
 NOVEMBER, 2005
 INPUT DATA

| | | | |
|---------------------------|-----------------------|-----------------------|--|
| | 2.790 | 0.0003 | |
| | 9.120 | 0.0003 | |
| <hr/> | | | |
| Name: D-20 | Base Flow(cfs): 0.000 | Init Stage(ft): 2.300 | |
| Group: BASE | Plunge Factor: 1.00 | Warn Stage(ft): 8.000 | |
| Type: Manhole, Flat Floor | | | |
| | Stage(ft) | Area(ac) | |
| | 2.300 | 0.0003 | |
| | 8.000 | 0.0003 | |
| <hr/> | | | |
| Name: D-22 | Base Flow(cfs): 0.000 | Init Stage(ft): 1.900 | |
| Group: BASE | Plunge Factor: 1.00 | Warn Stage(ft): 8.000 | |
| Type: Manhole, Flat Floor | | | |
| | Stage(ft) | Area(ac) | |
| | 1.900 | 0.0003 | |
| | 8.000 | 0.0003 | |
| <hr/> | | | |
| Name: D-24 | Base Flow(cfs): 0.000 | Init Stage(ft): 1.740 | |
| Group: BASE | Plunge Factor: 1.00 | Warn Stage(ft): 6.500 | |
| Type: Manhole, Flat Floor | | | |
| | Stage(ft) | Area(ac) | |
| | 1.740 | 0.0003 | |
| | 6.500 | 0.0003 | |
| <hr/> | | | |
| Name: D-26 | Base Flow(cfs): 0.000 | Init Stage(ft): 1.460 | |
| Group: BASE | Plunge Factor: 1.00 | Warn Stage(ft): 8.000 | |
| Type: Manhole, Flat Floor | | | |
| | Stage(ft) | Area(ac) | |
| | 1.460 | 0.0003 | |
| | 8.000 | 0.0003 | |
| <hr/> | | | |
| Name: DITCH 1 | Base Flow(cfs): 0.000 | Init Stage(ft): 3.000 | |
| Group: BASE | | Warn Stage(ft): 7.000 | |
| Type: Stage/Area | | | |
| | Stage(ft) | Area(ac) | |
| | 3.000 | 0.9200 | |
| | 4.000 | 1.6760 | |
| | 5.000 | 2.3650 | |
| | 6.000 | 3.1090 | |
| <hr/> | | | |
| Name: DITCH 2 | Base Flow(cfs): 0.000 | Init Stage(ft): 2.000 | |
| Group: BASE | | Warn Stage(ft): 7.000 | |
| Type: Stage/Area | | | |

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Type: Stage/Area

| Stage(ft) | Area(ac) |
|-----------|----------|
| 5.000 | 0.3190 |
| 6.000 | 0.3630 |
| 6.600 | 0.3900 |
| 7.000 | 0.4090 |
| 8.000 | 0.4580 |

Name: POND 3 Base Flow(cfs): 0.000 Init Stage(ft): 5.000
Group: BASE Warn Stage(ft): 8.000
Type: Stage/Area

| Stage(ft) | Area(ac) |
|-----------|----------|
| 5.000 | 0.1260 |
| 6.000 | 0.3780 |
| 7.000 | 0.6850 |
| 7.120 | 0.7470 |
| 8.000 | 1.3270 |

=====
=== Pipes ===
=====

| | | |
|-----------------------|--------------------|---------------------------------------|
| Name: BOXCULVERT | From Node: DITCH 3 | Length(ft): 78.00 |
| Group: BASE | To Node: DITCH 4 | Count: 1 |
| | | Friction Equation: Average Conveyance |
| UPSTREAM | DOWNSTREAM | Solution Algorithm: Automatic |
| Geometry: Rectangular | Rectangular | Flow: Both |
| Span(in): 60.00 | 60.00 | Entrance Loss Coef: 0.20 |
| Rise(in): 48.00 | 48.00 | Exit Loss Coef: 0.00 |
| Invert(ft): 2.500 | 2.300 | Bend Loss Coef: 0.00 |
| Manning's N: 0.012000 | 0.012000 | Outlet Ctrl Spec: Use dc or tw |
| Top Clip(in): 0.000 | 0.000 | Inlet Ctrl Spec: Use dn |
| Bot Clip(in): 0.000 | 0.000 | Stabilizer Option: None |

Upstream FHWA Inlet Edge Description:
Rectangular Box: 30° to 75° wingwall flares

Downstream FHWA Inlet Edge Description:
Rectangular Box: 30° to 75° wingwall flares

| | | |
|-----------------------|-----------------|---------------------------------------|
| Name: D-18 | From Node: D-17 | Length(ft): 250.00 |
| Group: BASE | To Node: D-20 | Count: 1 |
| | | Friction Equation: Average Conveyance |
| UPSTREAM | DOWNSTREAM | Solution Algorithm: Automatic |
| Geometry: Circular | Circular | Flow: Both |
| Span(in): 18.00 | 18.00 | Entrance Loss Coef: 0.20 |
| Rise(in): 18.00 | 18.00 | Exit Loss Coef: 0.00 |
| Invert(ft): 2.790 | 2.460 | Bend Loss Coef: 0.00 |
| Manning's N: 0.012000 | 0.012000 | Outlet Ctrl Spec: Use dc or tw |
| Top Clip(in): 0.000 | 0.000 | Inlet Ctrl Spec: Use dn |
| Bot Clip(in): 0.000 | 0.000 | Stabilizer Option: None |

Upstream FHWA Inlet Edge Description:
Circular Concrete: Square edge w/ headwall

Downstream FHWA Inlet Edge Description:
Circular Concrete: Square edge w/ headwall

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```

-----
Name: D-21                From Node: D-20                Length(ft): 51.00
Group: BASE                To Node: D-22                Count: 1
                                Friction Equation: Average Conveyance
                                Solution Algorithm: Automatic
                                Flow: Both
                                Entrance Loss Coef: 0.20
                                Exit Loss Coef: 0.00
                                Bend Loss Coef: 0.00
                                Outlet Ctrl Spec: Use dc or tw
                                Inlet Ctrl Spec: Use dn
                                Stabilizer Option: None

                                UPSTREAM    DOWNSTREAM
Geometry: Circular        Circular
Span(in): 24.00          24.00
Rise(in): 24.00          24.00
Invert(ft): 2.300        2.150
Manning's N: 0.012000    0.012000
Top Clip(in): 0.000      0.000
Bot Clip(in): 0.000      0.000
  
```

Upstream FHWA Inlet Edge Description:
 Circular Concrete: Square edge w/ headwall

Downstream FHWA Inlet Edge Description:
 Circular Concrete: Square edge w/ headwall

```

-----
Name: D-23                From Node: D-22                Length(ft): 206.00
Group: BASE                To Node: D-24                Count: 1
                                Friction Equation: Average Conveyance
                                Solution Algorithm: Automatic
                                Flow: Both
                                Entrance Loss Coef: 0.20
                                Exit Loss Coef: 0.00
                                Bend Loss Coef: 0.00
                                Outlet Ctrl Spec: Use dc or tw
                                Inlet Ctrl Spec: Use dn
                                Stabilizer Option: None

                                UPSTREAM    DOWNSTREAM
Geometry: Circular        Circular
Span(in): 24.00          24.00
Rise(in): 24.00          24.00
Invert(ft): 2.400        1.740
Manning's N: 0.012000    0.012000
Top Clip(in): 0.000      0.000
Bot Clip(in): 0.000      0.000
  
```

Upstream FHWA Inlet Edge Description:
 Circular Concrete: Square edge w/ headwall

Downstream FHWA Inlet Edge Description:
 Circular Concrete: Square edge w/ headwall

```

-----
Name: D-25                From Node: D-24                Length(ft): 185.00
Group: BASE                To Node: D-26                Count: 1
                                Friction Equation: Average Conveyance
                                Solution Algorithm: Automatic
                                Flow: Both
                                Entrance Loss Coef: 0.20
                                Exit Loss Coef: 0.00
                                Bend Loss Coef: 0.00
                                Outlet Ctrl Spec: Use dc or tw
                                Inlet Ctrl Spec: Use dn
                                Stabilizer Option: None

                                UPSTREAM    DOWNSTREAM
Geometry: Circular        Circular
Span(in): 30.00          30.00
Rise(in): 30.00          30.00
Invert(ft): 1.790        1.460
Manning's N: 0.012000    0.012000
Top Clip(in): 0.000      0.000
Bot Clip(in): 0.000      0.000
  
```

Upstream FHWA Inlet Edge Description:
 Circular Concrete: Square edge w/ headwall

Downstream FHWA Inlet Edge Description:
 Circular Concrete: Square edge w/ headwall

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INPUT DATA

| | | |
|-----------------------|------------------|---------------------------------------|
| Name: D-27 | From Node: D-26 | Length(ft): 166.00 |
| Group: BASE | To Node: OFFSITE | Count: 1 |
| | | Friction Equation: Average Conveyance |
| UPSTREAM | DOWNSTREAM | Solution Algorithm: Automatic |
| Geometry: Circular | Circular | Flow: Both |
| Span(in): 36.00 | 36.00 | Entrance Loss Coef: 0.20 |
| Rise(in): 36.00 | 36.00 | Exit Loss Coef: 0.00 |
| Invert(ft): 1.460 | 1.260 | Bend Loss Coef: 0.00 |
| Manning's N: 0.012000 | 0.012000 | Outlet Ctrl Spec: Use dc or tw |
| Top Clip(in): 0.000 | 0.000 | Inlet Ctrl Spec: Use dn |
| Bot Clip(in): 0.000 | 0.000 | Stabilizer Option: None |

Upstream FHWA Inlet Edge Description:
Circular Concrete: Square edge w/ headwall

Downstream FHWA Inlet Edge Description:
Circular Concrete: Square edge w/ headwall

| | | |
|-----------------------|--------------------|---------------------------------------|
| Name: D2 TO D3 A | From Node: DITCH 2 | Length(ft): 41.00 |
| Group: BASE | To Node: DITCH 3 | Count: 1 |
| | | Friction Equation: Average Conveyance |
| UPSTREAM | DOWNSTREAM | Solution Algorithm: Automatic |
| Geometry: Circular | Circular | Flow: Both |
| Span(in): 12.00 | 12.00 | Entrance Loss Coef: 0.20 |
| Rise(in): 12.00 | 12.00 | Exit Loss Coef: 0.00 |
| Invert(ft): 1.470 | 1.470 | Bend Loss Coef: 0.00 |
| Manning's N: 0.015000 | 0.015000 | Outlet Ctrl Spec: Use dc or tw |
| Top Clip(in): 0.000 | 0.000 | Inlet Ctrl Spec: Use dn |
| Bot Clip(in): 0.000 | 0.000 | Stabilizer Option: None |

Upstream FHWA Inlet Edge Description:
Circular Concrete: Square edge w/ headwall

Downstream FHWA Inlet Edge Description:
Circular Concrete: Square edge w/ headwall

| | | |
|-----------------------|--------------------|---------------------------------------|
| Name: D2 TO D3 B | From Node: DITCH 2 | Length(ft): 41.00 |
| Group: BASE | To Node: DITCH 3 | Count: 1 |
| | | Friction Equation: Average Conveyance |
| UPSTREAM | DOWNSTREAM | Solution Algorithm: Automatic |
| Geometry: Circular | Circular | Flow: Both |
| Span(in): 24.00 | 24.00 | Entrance Loss Coef: 0.20 |
| Rise(in): 24.00 | 24.00 | Exit Loss Coef: 0.00 |
| Invert(ft): 2.070 | 2.660 | Bend Loss Coef: 0.00 |
| Manning's N: 0.012000 | 0.012000 | Outlet Ctrl Spec: Use dc or tw |
| Top Clip(in): 0.000 | 0.000 | Inlet Ctrl Spec: Use dn |
| Bot Clip(in): 0.000 | 0.000 | Stabilizer Option: None |

Upstream FHWA Inlet Edge Description:
Circular Concrete: Square edge w/ headwall

Downstream FHWA Inlet Edge Description:
Circular Concrete: Square edge w/ headwall

| | | |
|------------------|--------------------|---------------------------------------|
| Name: D2 TO D3 C | From Node: DITCH 2 | Length(ft): 41.00 |
| Group: BASE | To Node: DITCH 3 | Count: 1 |
| | | Friction Equation: Average Conveyance |
| UPSTREAM | DOWNSTREAM | Solution Algorithm: Automatic |

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| | | |
|-----------------------|----------|--------------------------------|
| Geometry: Circular | Circular | Flow: Both |
| Span(in): 12.00 | 12.00 | Entrance Loss Coef: 0.20 |
| Rise(in): 12.00 | 12.00 | Exit Loss Coef: 0.00 |
| Invert(ft): 1.390 | 1.280 | Bend Loss Coef: 0.00 |
| Manning's N: 0.012000 | 0.012000 | Outlet Ctrl Spec: Use dc or tw |
| Top Clip(in): 0.000 | 0.000 | Inlet Ctrl Spec: Use dn |
| Bot Clip(in): 0.000 | 0.000 | Stabilizer Option: None |

Upstream FHWA Inlet Edge Description:
Circular Concrete: Square edge w/ headwall

Downstream FHWA Inlet Edge Description:
Circular Concrete: Square edge w/ headwall

=====
=== Channels =====
=====

| | | |
|------------------------|--------------------|---------------------------------------|
| Name: DITCH DISCH | From Node: DITCH 4 | Length(ft): 90.00 |
| Group: BASE | To Node: OFFSITE | Count: 1 |
| UPSTREAM | DOWNSTREAM | Friction Equation: Average Conveyance |
| Geometry: Trapezoidal | Trapezoidal | Solution Algorithm: Automatic |
| Invert(ft): 4.000 | 3.500 | Flow: Both |
| TClpIniz(ft): 9999.000 | 9999.000 | Contraction Coef: 0.000 |
| Manning's N: 0.250000 | 0.250000 | Expansion Coef: 0.000 |
| Top Clip(ft): 0.000 | 0.000 | Entrance Loss Coef: 0.000 |
| Bot Clip(ft): 0.000 | 0.000 | Exit Loss Coef: 0.000 |
| Main XSec: | | Outlet Ctrl Spec: Use dc or tw |
| AuxElev1(ft): | | Inlet Ctrl Spec: Use dn |
| Aux XSec1: | | Stabilizer Option: None |
| AuxElev2(ft): | | |
| Aux XSec2: | | |
| Top Width(ft): | | |
| Depth(ft): | | |
| Bot Width(ft): 8.000 | 8.000 | |
| LtSdSlp(h/v): 4.00 | 4.00 | |
| RtSdSlp(h/v): 4.00 | 4.00 | |

=====
=== Drop Structures =====
=====

| | | |
|-----------------------|-------------------|---------------------------------------|
| Name: CONTROL 1 | From Node: POND 1 | Length(ft): 43.00 |
| Group: BASE | To Node: DITCH 3 | Count: 1 |
| UPSTREAM | DOWNSTREAM | Friction Equation: Average Conveyance |
| Geometry: Circular | Circular | Solution Algorithm: Automatic |
| Span(in): 15.00 | 15.00 | Flow: Both |
| Rise(in): 15.00 | 15.00 | Entrance Loss Coef: 0.200 |
| Invert(ft): 3.000 | 2.500 | Exit Loss Coef: 0.000 |
| Manning's N: 0.012000 | 0.012000 | Outlet Ctrl Spec: Use dc or tw |
| Top Clip(in): 0.000 | 0.000 | Inlet Ctrl Spec: Use dn |
| Bot Clip(in): 0.000 | 0.000 | Solution Incs: 10 |

Upstream FHWA Inlet Edge Description:
Circular Concrete: Square edge w/ headwall

Downstream FHWA Inlet Edge Description:
Circular Concrete: Square edge w/ headwall

*** Weir 1 of 1 for Drop Structure CONTROL 1 ***

| | |
|------------------|------------------------|
| Count: 1 | Bottom Clip(in): 0.000 |
| Type: Horizontal | Top Clip(in): 0.000 |

TABLE

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INPUT DATA

| | |
|-----------------------|--------------------------|
| Flow: Both | Weir Disc Coef: 3.200 |
| Geometry: Rectangular | Orifice Disc Coef: 0.600 |
| Span(in): 36.00 | Invert(ft): 5.550 |
| Rise(in): 24.00 | Control Elev(ft): 5.550 |

| | | |
|-----------------|-------------------|--------------------|
| Name: CONTROL 2 | From Node: POND 2 | Length(ft): 171.00 |
| Group: BASE | To Node: D-17 | Count: 1 |

| | | |
|-----------------------|------------|---------------------------------------|
| UPSTREAM | DOWNSTREAM | Friction Equation: Average Conveyance |
| Geometry: Circular | Circular | Solution Algorithm: Automatic |
| Span(in): 15.00 | 15.00 | Flow: Both |
| Rise(in): 15.00 | 15.00 | Entrance Loss Coef: 0.200 |
| Invert(ft): 3.000 | 2.790 | Exit Loss Coef: 0.000 |
| Manning's N: 0.012000 | 0.012000 | Outlet Ctrl Spec: Use dc or tw |
| Top Clip(in): 0.000 | 0.000 | Inlet Ctrl Spec: Use dn |
| Bot Clip(in): 0.000 | 0.000 | Solution Incs: 10 |

Upstream FHWA Inlet Edge Description:
Circular Concrete: Square edge w/ headwall

Downstream FHWA Inlet Edge Description:
Circular Concrete: Square edge w/ headwall

*** Weir 1 of 2 for Drop Structure CONTROL 2 ***

| | |
|-----------------------|--------------------------|
| Count: 1 | Bottom Clip(in): 0.000 |
| Type: Horizontal | Top Clip(in): 0.000 |
| Flow: Both | Weir Disc Coef: 3.200 |
| Geometry: Rectangular | Orifice Disc Coef: 0.600 |
| Span(in): 36.00 | Invert(ft): 6.600 |
| Rise(in): 24.00 | Control Elev(ft): 6.600 |

TABLE

*** Weir 2 of 2 for Drop Structure CONTROL 2 ***

| | |
|-----------------------|--------------------------|
| Count: 1 | Bottom Clip(in): 0.000 |
| Type: Vertical: Mavis | Top Clip(in): 0.000 |
| Flow: Both | Weir Disc Coef: 3.200 |
| Geometry: Circular | Orifice Disc Coef: 0.600 |
| Span(in): 4.00 | Invert(ft): 5.000 |
| Rise(in): 4.00 | Control Elev(ft): 5.000 |

TABLE

| | | |
|-----------------|-------------------|--------------------|
| Name: CONTROL 3 | From Node: POND 3 | Length(ft): 137.00 |
| Group: BASE | To Node: D-20 | Count: 1 |

| | | |
|-----------------------|------------|---------------------------------------|
| UPSTREAM | DOWNSTREAM | Friction Equation: Average Conveyance |
| Geometry: Circular | Circular | Solution Algorithm: Automatic |
| Span(in): 15.00 | 15.00 | Flow: Both |
| Rise(in): 15.00 | 15.00 | Entrance Loss Coef: 0.200 |
| Invert(ft): 2.610 | 2.460 | Exit Loss Coef: 0.000 |
| Manning's N: 0.012000 | 0.012000 | Outlet Ctrl Spec: Use dc or tw |
| Top Clip(in): 0.000 | 0.000 | Inlet Ctrl Spec: Use dn |
| Bot Clip(in): 0.000 | 0.000 | Solution Incs: 10 |

Upstream FHWA Inlet Edge Description:
Circular Concrete: Square edge w/ headwall

Downstream FHWA Inlet Edge Description:
Circular Concrete: Square edge w/ headwall

*** Weir 1 of 1 for Drop Structure CONTROL 3 ***

| | |
|----------|------------------------|
| Count: 1 | Bottom Clip(in): 0.000 |
|----------|------------------------|

TABLE

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INPUT DATA

| | |
|-----------------------|--------------------------|
| Type: Horizontal | Top Clip(in): 0.000 |
| Flow: Both | Weir Disc Coef: 3.200 |
| Geometry: Rectangular | Orifice Disc Coef: 0.600 |
| Span(in): 36.00 | Invert(ft): 7.120 |
| Rise(in): 24.00 | Control Elev(ft): 7.120 |

| | | |
|-------------|-------------------------|--------------------|
| Name: I-5 | From Node: BASIN 5 POND | Length(ft): 250.00 |
| Group: BASE | To Node: DITCH 3 | Count: 1 |

| | | |
|-----------------------|------------|---------------------------------------|
| UPSTREAM | DOWNSTREAM | Friction Equation: Average Conveyance |
| Geometry: Circular | Circular | Solution Algorithm: Automatic |
| Span(in): 15.00 | 15.00 | Flow: Both |
| Rise(in): 15.00 | 15.00 | Entrance Loss Coef: 0.200 |
| Invert(ft): 3.860 | 2.640 | Exit Loss Coef: 0.000 |
| Manning's N: 0.015000 | 0.015000 | Outlet Ctrl Spec: Use dc or tw |
| Top Clip(in): 0.000 | 0.000 | Inlet Ctrl Spec: Use dn |
| Bot Clip(in): 0.000 | 0.000 | Solution Incs: 10 |

Upstream FHWA Inlet Edge Description:
Circular Concrete: Square edge w/ headwall

Downstream FHWA Inlet Edge Description:
Circular Concrete: Square edge w/ headwall

*** Weir 1 of 1 for Drop Structure I-5 ***

| | |
|-----------------------|--------------------------|
| Count: 1 | Bottom Clip(in): 0.000 |
| Type: Horizontal | Top Clip(in): 0.000 |
| Flow: Both | Weir Disc Coef: 3.200 |
| Geometry: Rectangular | Orifice Disc Coef: 0.600 |
| Span(in): 36.00 | Invert(ft): 6.330 |
| Rise(in): 24.00 | Control Elev(ft): 6.330 |

TABLE

==== Weirs =====

| | |
|-----------------------|-----------------------|
| Name: D1 TO D2 | From Node: DITCH 1 |
| Group: BASE | To Node: DITCH 2 |
| Flow: Both | Count: 1 |
| Type: Vertical: Mavis | Geometry: Trapezoidal |

Bottom Width(ft): 15.00
Left Side Slope(h/v): 4.00
Right Side Slope(h/v): 8.00
Invert(ft): 4.000
Control Elevation(ft): 4.000
Struct Opening Dim(ft): 9999.00

TABLE

Bottom Clip(ft): 0.000
Top Clip(ft): 0.000
Weir Discharge Coef: 3.200
Orifice Discharge Coef: 0.600

==== Hydrology Simulations =====

Name: C9002-PT-MA-11
Filename: J:\C9002 Centex Homes Site 6\ICPR\C9002_POST-MA\C9001-POST-MA-11.R32

Override Defaults: No

Time (hrs) Print Inc(min)

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INPUT DATA

72.000 15.00

=====
==== Routing Simulations =====
=====

Name: C9001-PT-MA-11 Hydrology Sim: C9002-PT-MA-11
Filename: J:\C9002 CENTEX HOMES SITE 6\ICPR\C9002_POST-MA\C9001-POST-MA-11.I32

Execute: Yes Restart: No Patch: No
Alternative: No

Max Delta Z(ft): 1.00 Delta Z Factor: 0.00500
Time Step Optimizer: 10.000
Start Time(hrs): 0.000 End Time(hrs): 72.00
Min Calc Time(sec): 0.5000 Max Calc Time(sec): 60.0000
Boundary Stages: Boundary Flows:

Time(hrs) Print Inc(min)

72.000 15.000

Group Run

BASE Yes

=====
==== Boundary Conditions =====
=====

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 LINK MAXIMUM

| Name | Group | Simulation | Max Time Flow hrs | Max Flow cfs | Delta Q cfs | Max US Stage hrs | Max US Stage ft | Max DS Stage hrs | Max DS Stage ft |
|-------------|-------|----------------|-------------------------|--------------------|----------------|---------------------|--------------------|---------------------|--------------------|
| BOXCULVERT | BASE | C9001-PT-MA-11 | 14.53 | 9.630 | 1.291 | 14.64 | 5.599 | 14.64 | 5.598 |
| CONTROL 1 | BASE | C9001-PT-MA-11 | 12.69 | 3.227 | 0.013 | 12.69 | 5.767 | 14.64 | 5.599 |
| CONTROL 2 | BASE | C9001-PT-MA-11 | 12.65 | 3.949 | 0.014 | 12.65 | 6.825 | 12.77 | 4.353 |
| CONTROL 3 | BASE | C9001-PT-MA-11 | 12.94 | 5.580 | 0.017 | 12.94 | 7.432 | 12.84 | 4.024 |
| D-18 | BASE | C9001-PT-MA-11 | 12.67 | 3.851 | 0.145 | 12.77 | 4.353 | 12.84 | 4.024 |
| D-21 | BASE | C9001-PT-MA-11 | 12.81 | 8.934 | 0.707 | 12.84 | 4.024 | 12.82 | 3.795 |
| D-23 | BASE | C9001-PT-MA-11 | 12.82 | 8.932 | 1.562 | 12.82 | 3.795 | 12.82 | 3.448 |
| D-25 | BASE | C9001-PT-MA-11 | 12.82 | 8.932 | 2.753 | 12.82 | 3.448 | 12.82 | 3.280 |
| D-27 | BASE | C9001-PT-MA-11 | 12.82 | 8.932 | -13.928 | 12.82 | 3.280 | 0.00 | 3.200 |
| D1 TO D2 | BASE | C9001-PT-MA-11 | 15.42 | 5.661 | -1.828 | 14.79 | 5.646 | 14.77 | 5.639 |
| D2 TO D3 A | BASE | C9001-PT-MA-11 | 15.46 | 0.761 | 0.624 | 14.77 | 5.639 | 14.64 | 5.599 |
| D2 TO D3 B | BASE | C9001-PT-MA-11 | 15.46 | 4.061 | 7.632 | 14.77 | 5.639 | 14.64 | 5.599 |
| D2 TO D3 C | BASE | C9001-PT-MA-11 | 0.00 | 1.285 | 1.285 | 14.77 | 5.639 | 14.64 | 5.599 |
| DITCH DISCH | BASE | C9001-PT-MA-11 | 14.64 | 10.210 | 0.024 | 14.64 | 5.598 | 14.64 | 3.848 |
| I-5 | BASE | C9001-PT-MA-11 | 12.26 | 1.965 | -0.004 | 12.26 | 6.486 | 14.64 | 5.599 |

PALM HARBOR GOLF COURSE
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 NODE MAXIMUM

| Name | Group | Simulation | Max Time Stage hrs | Max Stage ft | Warning Stage ft | Max Delta Stage ft | Max Surf Area ft2 | Max Time Inflow hrs | Max Inflow cfs | Max Time Outflow hrs | Max Outflow cfs |
|---------|-------|----------------|--------------------------|--------------------|------------------------|-----------------------------|-------------------------|---------------------------|----------------------|----------------------------|-----------------------|
| BASIN 5 | | | | | | | | | | | |
| POND | BASE | C9001-PT-MA-11 | 12.26 | 6.486 | 8.000 | 0.0003 | 684 | 12.25 | 1.977 | 12.26 | 1.965 |
| D-17 | BASE | C9001-PT-MA-11 | 12.77 | 4.353 | 9.120 | -0.0045 | 122 | 12.65 | 3.949 | 12.67 | 3.851 |
| D-20 | BASE | C9001-PT-MA-11 | 12.84 | 4.024 | 8.000 | -0.0048 | 159 | 12.89 | 8.978 | 12.81 | 8.934 |
| D-22 | BASE | C9001-PT-MA-11 | 12.82 | 3.795 | 8.000 | 0.0050 | 329 | 12.81 | 8.934 | 12.82 | 8.932 |
| D-24 | BASE | C9001-PT-MA-11 | 12.82 | 3.448 | 6.500 | 0.0074 | 485 | 12.82 | 8.932 | 12.82 | 8.932 |
| D-26 | BASE | C9001-PT-MA-11 | 12.82 | 3.280 | 8.000 | 0.0189 | 564 | 12.82 | 8.932 | 12.82 | 8.932 |
| DITCH 1 | BASE | C9001-PT-MA-11 | 14.79 | 5.646 | 7.000 | 0.0030 | 123965 | 12.25 | 43.256 | 15.42 | 5.661 |
| DITCH 2 | BASE | C9001-PT-MA-11 | 14.77 | 5.639 | 7.000 | -0.0061 | 2195 | 15.42 | 5.661 | 15.46 | 5.679 |
| DITCH 3 | BASE | C9001-PT-MA-11 | 14.64 | 5.599 | 7.000 | 0.0058 | 31766 | 12.17 | 25.555 | 14.53 | 9.630 |
| DITCH 4 | BASE | C9001-PT-MA-11 | 14.64 | 5.598 | 7.000 | 0.0025 | 20757 | 12.18 | 11.047 | 14.64 | 10.210 |
| OFFSITE | BASE | C9001-PT-MA-11 | 0.00 | 3.200 | 5.000 | 0.0000 | 257 | 13.76 | 15.357 | 0.00 | 0.000 |
| POND 1 | BASE | C9001-PT-MA-11 | 12.69 | 5.767 | 8.000 | 0.0010 | 13892 | 12.00 | 6.150 | 12.69 | 3.227 |
| POND 2 | BASE | C9001-PT-MA-11 | 12.65 | 6.825 | 8.000 | 0.0013 | 17453 | 12.00 | 10.839 | 12.65 | 3.949 |
| POND 3 | BASE | C9001-PT-MA-11 | 12.94 | 7.432 | 8.000 | 0.0012 | 41500 | 12.00 | 14.638 | 12.94 | 5.580 |

PALM HARBOR GOLF COURSE
 MEAN ANNUAL STORM
 NOVEMBER, 2005
 POND 2 DRAWDOWN

| Simulation | Note | Group | Time hrs | Stage ft | Warning Stage ft | Surface Area ft2 | Total Inflow cfs | Total Outflow cfs | Total Vol In af | Total Vol Out af |
|----------------|--------|-------|-------------|-------------|------------------------|------------------------|------------------------|-------------------------|-----------------------|------------------------|
| C9001-PT-MA-11 | POND 2 | BASE | 0.00 | 5.000 | 8.000 | 13896 | 0.000 | 0.000 | 0.0 | 0.0 |
| C9001-PT-MA-11 | POND 2 | BASE | 0.25 | 5.000 | 8.000 | 13896 | 0.000 | 0.000 | 0.0 | 0.0 |
| C9001-PT-MA-11 | POND 2 | BASE | 0.50 | 5.000 | 8.000 | 13896 | 0.000 | 0.000 | 0.0 | 0.0 |
| C9001-PT-MA-11 | POND 2 | BASE | 0.75 | 5.000 | 8.000 | 13896 | 0.000 | 0.000 | 0.0 | 0.0 |
| C9001-PT-MA-11 | POND 2 | BASE | 1.00 | 5.000 | 8.000 | 13896 | 0.000 | 0.000 | 0.0 | 0.0 |
| C9001-PT-MA-11 | POND 2 | BASE | 1.25 | 5.000 | 8.000 | 13896 | 0.000 | 0.000 | 0.0 | 0.0 |
| C9001-PT-MA-11 | POND 2 | BASE | 1.50 | 5.000 | 8.000 | 13896 | 0.000 | 0.000 | 0.0 | 0.0 |
| C9001-PT-MA-11 | POND 2 | BASE | 1.75 | 5.000 | 8.000 | 13896 | 0.000 | 0.000 | 0.0 | 0.0 |
| C9001-PT-MA-11 | POND 2 | BASE | 2.00 | 5.000 | 8.000 | 13896 | 0.000 | 0.000 | 0.0 | 0.0 |
| C9001-PT-MA-11 | POND 2 | BASE | 2.25 | 5.000 | 8.000 | 13896 | 0.000 | 0.000 | 0.0 | 0.0 |
| C9001-PT-MA-11 | POND 2 | BASE | 2.50 | 5.000 | 8.000 | 13896 | 0.000 | 0.000 | 0.0 | 0.0 |
| C9001-PT-MA-11 | POND 2 | BASE | 2.75 | 5.000 | 8.000 | 13896 | 0.000 | 0.000 | 0.0 | 0.0 |
| C9001-PT-MA-11 | POND 2 | BASE | 3.00 | 5.000 | 8.000 | 13896 | 0.000 | 0.000 | 0.0 | 0.0 |
| C9001-PT-MA-11 | POND 2 | BASE | 3.25 | 5.000 | 8.000 | 13896 | 0.000 | 0.000 | 0.0 | 0.0 |
| C9001-PT-MA-11 | POND 2 | BASE | 3.50 | 5.000 | 8.000 | 13896 | 0.000 | 0.000 | 0.0 | 0.0 |
| C9001-PT-MA-11 | POND 2 | BASE | 3.75 | 5.000 | 8.000 | 13896 | 0.000 | 0.000 | 0.0 | 0.0 |
| C9001-PT-MA-11 | POND 2 | BASE | 4.00 | 5.000 | 8.000 | 13896 | 0.000 | 0.000 | 0.0 | 0.0 |
| C9001-PT-MA-11 | POND 2 | BASE | 4.25 | 5.000 | 8.000 | 13896 | 0.000 | 0.000 | 0.0 | 0.0 |
| C9001-PT-MA-11 | POND 2 | BASE | 4.50 | 5.000 | 8.000 | 13896 | 0.000 | 0.000 | 0.0 | 0.0 |
| C9001-PT-MA-11 | POND 2 | BASE | 4.75 | 5.000 | 8.000 | 13896 | 0.000 | 0.000 | 0.0 | 0.0 |
| C9001-PT-MA-11 | POND 2 | BASE | 5.00 | 5.000 | 8.000 | 13896 | 0.000 | 0.000 | 0.0 | 0.0 |
| C9001-PT-MA-11 | POND 2 | BASE | 5.25 | 5.000 | 8.000 | 13896 | 0.000 | 0.000 | 0.0 | 0.0 |
| C9001-PT-MA-11 | POND 2 | BASE | 5.50 | 5.000 | 8.000 | 13896 | 0.000 | 0.000 | 0.0 | 0.0 |
| C9001-PT-MA-11 | POND 2 | BASE | 5.75 | 5.000 | 8.000 | 13896 | 0.005 | 0.000 | 0.0 | 0.0 |
| C9001-PT-MA-11 | POND 2 | BASE | 6.00 | 5.001 | 8.000 | 13897 | 0.014 | 0.000 | 0.0 | 0.0 |
| C9001-PT-MA-11 | POND 2 | BASE | 6.25 | 5.002 | 8.000 | 13900 | 0.026 | 0.000 | 0.0 | 0.0 |
| C9001-PT-MA-11 | POND 2 | BASE | 6.50 | 5.004 | 8.000 | 13904 | 0.039 | 0.000 | 0.0 | 0.0 |
| C9001-PT-MA-11 | POND 2 | BASE | 6.75 | 5.007 | 8.000 | 13909 | 0.051 | 0.000 | 0.0 | 0.0 |
| C9001-PT-MA-11 | POND 2 | BASE | 7.00 | 5.011 | 8.000 | 13916 | 0.063 | 0.000 | 0.0 | 0.0 |
| C9001-PT-MA-11 | POND 2 | BASE | 7.25 | 5.015 | 8.000 | 13925 | 0.082 | 0.000 | 0.0 | 0.0 |
| C9001-PT-MA-11 | POND 2 | BASE | 7.50 | 5.021 | 8.000 | 13936 | 0.098 | 0.001 | 0.0 | 0.0 |
| C9001-PT-MA-11 | POND 2 | BASE | 7.75 | 5.028 | 8.000 | 13949 | 0.113 | 0.001 | 0.0 | 0.0 |
| C9001-PT-MA-11 | POND 2 | BASE | 8.00 | 5.036 | 8.000 | 13964 | 0.126 | 0.002 | 0.0 | 0.0 |
| C9001-PT-MA-11 | POND 2 | BASE | 8.25 | 5.044 | 8.000 | 13981 | 0.154 | 0.004 | 0.0 | 0.0 |
| C9001-PT-MA-11 | POND 2 | BASE | 8.50 | 5.055 | 8.000 | 14001 | 0.176 | 0.006 | 0.0 | 0.0 |
| C9001-PT-MA-11 | POND 2 | BASE | 8.75 | 5.067 | 8.000 | 14024 | 0.211 | 0.009 | 0.0 | 0.0 |
| C9001-PT-MA-11 | POND 2 | BASE | 9.00 | 5.080 | 8.000 | 14050 | 0.238 | 0.013 | 0.0 | 0.0 |
| C9001-PT-MA-11 | POND 2 | BASE | 9.25 | 5.096 | 8.000 | 14079 | 0.269 | 0.018 | 0.0 | 0.0 |
| C9001-PT-MA-11 | POND 2 | BASE | 9.50 | 5.112 | 8.000 | 14111 | 0.294 | 0.024 | 0.0 | 0.0 |
| C9001-PT-MA-11 | POND 2 | BASE | 9.75 | 5.131 | 8.000 | 14147 | 0.349 | 0.033 | 0.0 | 0.0 |
| C9001-PT-MA-11 | POND 2 | BASE | 10.00 | 5.152 | 8.000 | 14187 | 0.388 | 0.043 | 0.1 | 0.0 |
| C9001-PT-MA-11 | POND 2 | BASE | 10.25 | 5.177 | 8.000 | 14234 | 0.483 | 0.057 | 0.1 | 0.0 |
| C9001-PT-MA-11 | POND 2 | BASE | 10.50 | 5.205 | 8.000 | 14288 | 0.543 | 0.074 | 0.1 | 0.0 |
| C9001-PT-MA-11 | POND 2 | BASE | 10.75 | 5.238 | 8.000 | 14352 | 0.689 | 0.096 | 0.1 | 0.0 |
| C9001-PT-MA-11 | POND 2 | BASE | 11.00 | 5.277 | 8.000 | 14427 | 0.779 | 0.123 | 0.1 | 0.0 |
| C9001-PT-MA-11 | POND 2 | BASE | 11.25 | 5.320 | 8.000 | 14509 | 0.875 | 0.148 | 0.1 | 0.0 |

PALM HARBOR GOLF COURSE
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 NOVEMBER, 2005
 POND 2 DRAWDOWN

| Simulation | Note | Group | Time hrs | Stage ft | Warning Stage ft | Surface Area ft2 | Total Inflow cfs | Total Outflow cfs | Total Vol In af | Total Vol Out af |
|----------------|--------|-------|-------------|-------------|------------------------|------------------------|------------------------|-------------------------|-----------------------|------------------------|
| C9001-PT-NA-11 | POND 2 | BASE | 11.50 | 5.384 | 8.000 | 14631 | 1.518 | 0.191 | 0.1 | 0.0 |
| C9001-PT-NA-11 | POND 2 | BASE | 11.75 | 5.570 | 8.000 | 14988 | 5.064 | 0.267 | 0.2 | 0.0 |
| C9001-PT-NA-11 | POND 2 | BASE | 12.00 | 6.015 | 8.000 | 15843 | 10.839 | 0.387 | 0.4 | 0.0 |
| C9001-PT-NA-11 | POND 2 | BASE | 12.25 | 6.525 | 8.000 | 16842 | 8.552 | 0.490 | 0.6 | 0.0 |
| C9001-PT-NA-11 | POND 2 | BASE | 12.50 | 6.799 | 8.000 | 17400 | 5.294 | 3.377 | 0.7 | 0.1 |
| C9001-PT-NA-11 | POND 2 | BASE | 12.75 | 6.816 | 8.000 | 17435 | 2.977 | 3.743 | 0.8 | 0.1 |
| C9001-PT-NA-11 | POND 2 | BASE | 13.00 | 6.771 | 8.000 | 17342 | 1.858 | 2.793 | 0.9 | 0.2 |
| C9001-PT-NA-11 | POND 2 | BASE | 13.25 | 6.731 | 8.000 | 17260 | 1.395 | 2.048 | 0.9 | 0.3 |
| C9001-PT-NA-11 | POND 2 | BASE | 13.50 | 6.706 | 8.000 | 17208 | 1.260 | 1.624 | 0.9 | 0.3 |
| C9001-PT-NA-11 | POND 2 | BASE | 13.75 | 6.689 | 8.000 | 17173 | 1.071 | 1.368 | 0.9 | 0.3 |
| C9001-PT-NA-11 | POND 2 | BASE | 14.00 | 6.676 | 8.000 | 17147 | 0.998 | 1.192 | 1.0 | 0.4 |
| C9001-PT-NA-11 | POND 2 | BASE | 14.25 | 6.667 | 8.000 | 17127 | 0.893 | 1.068 | 1.0 | 0.4 |
| C9001-PT-NA-11 | POND 2 | BASE | 14.50 | 6.659 | 8.000 | 17111 | 0.853 | 0.974 | 1.0 | 0.4 |
| C9001-PT-NA-11 | POND 2 | BASE | 14.75 | 6.652 | 8.000 | 17097 | 0.762 | 0.897 | 1.0 | 0.4 |
| C9001-PT-NA-11 | POND 2 | BASE | 15.00 | 6.646 | 8.000 | 17084 | 0.725 | 0.829 | 1.0 | 0.4 |
| C9001-PT-NA-11 | POND 2 | BASE | 15.25 | 6.641 | 8.000 | 17073 | 0.685 | 0.777 | 1.0 | 0.5 |
| C9001-PT-NA-11 | POND 2 | BASE | 15.50 | 6.637 | 8.000 | 17065 | 0.670 | 0.737 | 1.1 | 0.5 |
| C9001-PT-NA-11 | POND 2 | BASE | 15.75 | 6.633 | 8.000 | 17057 | 0.614 | 0.700 | 1.1 | 0.5 |
| C9001-PT-NA-11 | POND 2 | BASE | 16.00 | 6.629 | 8.000 | 17048 | 0.590 | 0.664 | 1.1 | 0.5 |
| C9001-PT-NA-11 | POND 2 | BASE | 16.25 | 6.625 | 8.000 | 17040 | 0.554 | 0.632 | 1.1 | 0.5 |
| C9001-PT-NA-11 | POND 2 | BASE | 16.50 | 6.621 | 8.000 | 17032 | 0.541 | 0.604 | 1.1 | 0.5 |
| C9001-PT-NA-11 | POND 2 | BASE | 16.75 | 6.618 | 8.000 | 17025 | 0.510 | 0.580 | 1.1 | 0.5 |
| C9001-PT-NA-11 | POND 2 | BASE | 17.00 | 6.614 | 8.000 | 17018 | 0.497 | 0.559 | 1.1 | 0.6 |
| C9001-PT-NA-11 | POND 2 | BASE | 17.25 | 6.611 | 8.000 | 17012 | 0.493 | 0.542 | 1.1 | 0.6 |
| C9001-PT-NA-11 | POND 2 | BASE | 17.50 | 6.609 | 8.000 | 17007 | 0.492 | 0.531 | 1.1 | 0.6 |
| C9001-PT-NA-11 | POND 2 | BASE | 17.75 | 6.606 | 8.000 | 17000 | 0.439 | 0.518 | 1.2 | 0.6 |
| C9001-PT-NA-11 | POND 2 | BASE | 18.00 | 6.601 | 8.000 | 16991 | 0.416 | 0.505 | 1.2 | 0.6 |
| C9001-PT-NA-11 | POND 2 | BASE | 18.25 | 6.597 | 8.000 | 16983 | 0.433 | 0.502 | 1.2 | 0.6 |
| C9001-PT-NA-11 | POND 2 | BASE | 18.50 | 6.594 | 8.000 | 16976 | 0.443 | 0.502 | 1.2 | 0.6 |
| C9001-PT-NA-11 | POND 2 | BASE | 18.75 | 6.589 | 8.000 | 16968 | 0.394 | 0.501 | 1.2 | 0.6 |
| C9001-PT-NA-11 | POND 2 | BASE | 19.00 | 6.583 | 8.000 | 16955 | 0.372 | 0.500 | 1.2 | 0.6 |
| C9001-PT-NA-11 | POND 2 | BASE | 19.25 | 6.577 | 8.000 | 16943 | 0.390 | 0.499 | 1.2 | 0.7 |
| C9001-PT-NA-11 | POND 2 | BASE | 19.50 | 6.571 | 8.000 | 16932 | 0.399 | 0.498 | 1.2 | 0.7 |
| C9001-PT-NA-11 | POND 2 | BASE | 19.75 | 6.566 | 8.000 | 16921 | 0.378 | 0.497 | 1.2 | 0.7 |
| C9001-PT-NA-11 | POND 2 | BASE | 20.00 | 6.559 | 8.000 | 16908 | 0.367 | 0.496 | 1.2 | 0.7 |
| C9001-PT-NA-11 | POND 2 | BASE | 20.25 | 6.551 | 8.000 | 16893 | 0.335 | 0.494 | 1.2 | 0.7 |
| C9001-PT-NA-11 | POND 2 | BASE | 20.50 | 6.543 | 8.000 | 16876 | 0.322 | 0.493 | 1.2 | 0.7 |
| C9001-PT-NA-11 | POND 2 | BASE | 20.75 | 6.533 | 8.000 | 16858 | 0.318 | 0.491 | 1.3 | 0.7 |
| C9001-PT-NA-11 | POND 2 | BASE | 21.00 | 6.524 | 8.000 | 16840 | 0.317 | 0.489 | 1.3 | 0.7 |
| C9001-PT-NA-11 | POND 2 | BASE | 21.25 | 6.515 | 8.000 | 16822 | 0.317 | 0.488 | 1.3 | 0.7 |
| C9001-PT-NA-11 | POND 2 | BASE | 21.50 | 6.506 | 8.000 | 16804 | 0.317 | 0.486 | 1.3 | 0.7 |
| C9001-PT-NA-11 | POND 2 | BASE | 21.75 | 6.497 | 8.000 | 16786 | 0.317 | 0.484 | 1.3 | 0.8 |
| C9001-PT-NA-11 | POND 2 | BASE | 22.00 | 6.488 | 8.000 | 16769 | 0.317 | 0.483 | 1.3 | 0.8 |
| C9001-PT-NA-11 | POND 2 | BASE | 22.25 | 6.479 | 8.000 | 16752 | 0.318 | 0.481 | 1.3 | 0.8 |
| C9001-PT-NA-11 | POND 2 | BASE | 22.50 | 6.470 | 8.000 | 16734 | 0.318 | 0.479 | 1.3 | 0.8 |
| C9001-PT-NA-11 | POND 2 | BASE | 22.75 | 6.461 | 8.000 | 16716 | 0.291 | 0.478 | 1.3 | 0.8 |

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| Simulation | Node | Group | Time hrs | Stage ft | Warning Stage ft | Surface Area ft2 | Total Inflow cfs | Total Outflow cfs | Total Vol In af | Total Vol Out af |
|----------------|--------|-------|-------------|-------------|------------------------|------------------------|------------------------|-------------------------|-----------------------|------------------------|
| C9001-PT-MA-11 | POND 2 | BASE | 23.00 | 6.451 | 8.000 | 16696 | 0.279 | 0.476 | 1.3 | 0.8 |
| C9001-PT-MA-11 | POND 2 | BASE | 23.25 | 6.440 | 8.000 | 16675 | 0.274 | 0.474 | 1.3 | 0.8 |
| C9001-PT-MA-11 | POND 2 | BASE | 23.50 | 6.429 | 8.000 | 16654 | 0.272 | 0.472 | 1.3 | 0.8 |
| C9001-PT-MA-11 | POND 2 | BASE | 23.75 | 6.418 | 8.000 | 16631 | 0.246 | 0.470 | 1.3 | 0.8 |
| C9001-PT-MA-11 | POND 2 | BASE | 24.00 | 6.405 | 8.000 | 16607 | 0.234 | 0.467 | 1.3 | 0.8 |
| C9001-PT-MA-11 | POND 2 | BASE | 24.25 | 6.389 | 8.000 | 16575 | 0.092 | 0.464 | 1.3 | 0.9 |
| C9001-PT-MA-11 | POND 2 | BASE | 24.50 | 6.367 | 8.000 | 16532 | 0.031 | 0.460 | 1.3 | 0.9 |
| C9001-PT-MA-11 | POND 2 | BASE | 24.75 | 6.343 | 8.000 | 16485 | 0.006 | 0.456 | 1.3 | 0.9 |
| C9001-PT-MA-11 | POND 2 | BASE | 25.00 | 6.319 | 8.000 | 16437 | 0.000 | 0.451 | 1.3 | 0.9 |
| C9001-PT-MA-11 | POND 2 | BASE | 25.25 | 6.294 | 8.000 | 16389 | 0.000 | 0.446 | 1.3 | 0.9 |
| C9001-PT-MA-11 | POND 2 | BASE | 25.50 | 6.270 | 8.000 | 16341 | 0.000 | 0.441 | 1.3 | 0.9 |
| C9001-PT-MA-11 | POND 2 | BASE | 25.75 | 6.246 | 8.000 | 16294 | 0.000 | 0.436 | 1.3 | 0.9 |
| C9001-PT-MA-11 | POND 2 | BASE | 26.00 | 6.222 | 8.000 | 16246 | 0.000 | 0.431 | 1.3 | 0.9 |
| C9001-PT-MA-11 | POND 2 | BASE | 26.25 | 6.198 | 8.000 | 16200 | 0.000 | 0.426 | 1.3 | 0.9 |
| C9001-PT-MA-11 | POND 2 | BASE | 26.50 | 6.174 | 8.000 | 16154 | 0.000 | 0.421 | 1.3 | 0.9 |
| C9001-PT-MA-11 | POND 2 | BASE | 26.75 | 6.151 | 8.000 | 16108 | 0.000 | 0.417 | 1.3 | 0.9 |
| C9001-PT-MA-11 | POND 2 | BASE | 27.00 | 6.128 | 8.000 | 16062 | 0.000 | 0.412 | 1.3 | 1.0 |
| C9001-PT-MA-11 | POND 2 | BASE | 27.25 | 6.105 | 8.000 | 16017 | 0.000 | 0.407 | 1.3 | 1.0 |
| C9001-PT-MA-11 | POND 2 | BASE | 27.50 | 6.082 | 8.000 | 15973 | 0.000 | 0.402 | 1.3 | 1.0 |
| C9001-PT-MA-11 | POND 2 | BASE | 27.75 | 6.059 | 8.000 | 15929 | 0.000 | 0.397 | 1.3 | 1.0 |
| C9001-PT-MA-11 | POND 2 | BASE | 28.00 | 6.037 | 8.000 | 15885 | 0.000 | 0.392 | 1.3 | 1.0 |
| C9001-PT-MA-11 | POND 2 | BASE | 28.25 | 6.015 | 8.000 | 15842 | 0.000 | 0.387 | 1.3 | 1.0 |
| C9001-PT-MA-11 | POND 2 | BASE | 28.50 | 5.993 | 8.000 | 15799 | 0.000 | 0.382 | 1.3 | 1.0 |
| C9001-PT-MA-11 | POND 2 | BASE | 28.75 | 5.971 | 8.000 | 15758 | 0.000 | 0.377 | 1.3 | 1.0 |
| C9001-PT-MA-11 | POND 2 | BASE | 29.00 | 5.950 | 8.000 | 15717 | 0.000 | 0.372 | 1.3 | 1.0 |
| C9001-PT-MA-11 | POND 2 | BASE | 29.25 | 5.929 | 8.000 | 15676 | 0.000 | 0.367 | 1.3 | 1.0 |
| C9001-PT-MA-11 | POND 2 | BASE | 29.50 | 5.908 | 8.000 | 15636 | 0.000 | 0.362 | 1.3 | 1.0 |
| C9001-PT-MA-11 | POND 2 | BASE | 29.75 | 5.887 | 8.000 | 15596 | 0.000 | 0.356 | 1.3 | 1.0 |
| C9001-PT-MA-11 | POND 2 | BASE | 30.00 | 5.867 | 8.000 | 15557 | 0.000 | 0.351 | 1.3 | 1.0 |
| C9001-PT-MA-11 | POND 2 | BASE | 30.25 | 5.847 | 8.000 | 15518 | 0.000 | 0.346 | 1.3 | 1.1 |
| C9001-PT-MA-11 | POND 2 | BASE | 30.50 | 5.827 | 8.000 | 15480 | 0.000 | 0.341 | 1.3 | 1.1 |
| C9001-PT-MA-11 | POND 2 | BASE | 30.75 | 5.807 | 8.000 | 15442 | 0.000 | 0.336 | 1.3 | 1.1 |
| C9001-PT-MA-11 | POND 2 | BASE | 31.00 | 5.787 | 8.000 | 15405 | 0.000 | 0.331 | 1.3 | 1.1 |
| C9001-PT-MA-11 | POND 2 | BASE | 31.25 | 5.768 | 8.000 | 15368 | 0.000 | 0.326 | 1.3 | 1.1 |
| C9001-PT-MA-11 | POND 2 | BASE | 31.50 | 5.749 | 8.000 | 15332 | 0.000 | 0.321 | 1.3 | 1.1 |
| C9001-PT-MA-11 | POND 2 | BASE | 31.75 | 5.731 | 8.000 | 15296 | 0.000 | 0.315 | 1.3 | 1.1 |
| C9001-PT-MA-11 | POND 2 | BASE | 32.00 | 5.712 | 8.000 | 15261 | 0.000 | 0.310 | 1.3 | 1.1 |
| C9001-PT-MA-11 | POND 2 | BASE | 32.25 | 5.694 | 8.000 | 15226 | 0.000 | 0.305 | 1.3 | 1.1 |
| C9001-PT-MA-11 | POND 2 | BASE | 32.50 | 5.676 | 8.000 | 15192 | 0.000 | 0.300 | 1.3 | 1.1 |
| C9001-PT-MA-11 | POND 2 | BASE | 32.75 | 5.659 | 8.000 | 15158 | 0.000 | 0.295 | 1.3 | 1.1 |
| C9001-PT-MA-11 | POND 2 | BASE | 33.00 | 5.641 | 8.000 | 15125 | 0.000 | 0.289 | 1.3 | 1.1 |
| C9001-PT-MA-11 | POND 2 | BASE | 33.25 | 5.624 | 8.000 | 15092 | 0.000 | 0.284 | 1.3 | 1.1 |
| C9001-PT-MA-11 | POND 2 | BASE | 33.50 | 5.607 | 8.000 | 15060 | 0.000 | 0.279 | 1.3 | 1.1 |
| C9001-PT-MA-11 | POND 2 | BASE | 33.75 | 5.591 | 8.000 | 15028 | 0.000 | 0.273 | 1.3 | 1.1 |
| C9001-PT-MA-11 | POND 2 | BASE | 34.00 | 5.575 | 8.000 | 14997 | 0.000 | 0.268 | 1.3 | 1.1 |
| C9001-PT-MA-11 | POND 2 | BASE | 34.25 | 5.559 | 8.000 | 14966 | 0.000 | 0.263 | 1.3 | 1.2 |

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POND 2 DRAWDOWN

| Simulation | Note | Group | Time hrs | Stage ft | Warning Stage ft | Surface Area ft2 | Total Inflow cfs | Total Outflow cfs | Total Vol In af | Total Vol Out af |
|----------------|--------|-------|-------------|-------------|------------------------|------------------------|------------------------|-------------------------|-----------------------|------------------------|
| C9001-PT-MA-11 | POND 2 | BASE | 34.50 | 5.543 | 8.000 | 14936 | 0.000 | 0.258 | 1.3 | 1.3 |
| C9001-PT-MA-11 | POND 2 | BASE | 34.75 | 5.528 | 8.000 | 14907 | 0.000 | 0.252 | 1.3 | 1.2 |
| C9001-PT-MA-11 | POND 2 | BASE | 35.00 | 5.513 | 8.000 | 14878 | 0.000 | 0.247 | 1.3 | 1.2 |
| C9001-PT-MA-11 | POND 2 | BASE | 35.25 | 5.498 | 8.000 | 14850 | 0.000 | 0.242 | 1.3 | 1.2 |
| C9001-PT-MA-11 | POND 2 | BASE | 35.50 | 5.483 | 8.000 | 14822 | 0.000 | 0.236 | 1.3 | 1.2 |
| C9001-PT-MA-11 | POND 2 | BASE | 35.75 | 5.469 | 8.000 | 14795 | 0.000 | 0.231 | 1.3 | 1.2 |
| C9001-PT-MA-11 | POND 2 | BASE | 36.00 | 5.455 | 8.000 | 14768 | 0.000 | 0.226 | 1.3 | 1.2 |
| C9001-PT-MA-11 | POND 2 | BASE | 36.25 | 5.442 | 8.000 | 14742 | 0.000 | 0.220 | 1.3 | 1.2 |
| C9001-PT-MA-11 | POND 2 | BASE | 36.50 | 5.428 | 8.000 | 14716 | 0.000 | 0.215 | 1.3 | 1.2 |
| C9001-PT-MA-11 | POND 2 | BASE | 36.75 | 5.415 | 8.000 | 14692 | 0.000 | 0.209 | 1.3 | 1.2 |
| C9001-PT-MA-11 | POND 2 | BASE | 37.00 | 5.403 | 8.000 | 14667 | 0.000 | 0.204 | 1.3 | 1.2 |
| C9001-PT-MA-11 | POND 2 | BASE | 37.25 | 5.390 | 8.000 | 14644 | 0.000 | 0.196 | 1.3 | 1.2 |
| C9001-PT-MA-11 | POND 2 | BASE | 37.50 | 5.379 | 8.000 | 14621 | 0.000 | 0.187 | 1.3 | 1.2 |
| C9001-PT-MA-11 | POND 2 | BASE | 37.75 | 5.367 | 8.000 | 14600 | 0.000 | 0.178 | 1.3 | 1.2 |
| C9001-PT-MA-11 | POND 2 | BASE | 38.00 | 5.357 | 8.000 | 14579 | 0.000 | 0.170 | 1.3 | 1.2 |
| C9001-PT-MA-11 | POND 2 | BASE | 38.25 | 5.346 | 8.000 | 14559 | 0.000 | 0.162 | 1.3 | 1.2 |
| C9001-PT-MA-11 | POND 2 | BASE | 38.50 | 5.337 | 8.000 | 14541 | 0.000 | 0.155 | 1.3 | 1.2 |
| C9001-PT-MA-11 | POND 2 | BASE | 38.75 | 5.327 | 8.000 | 14523 | 0.000 | 0.151 | 1.3 | 1.2 |
| C9001-PT-MA-11 | POND 2 | BASE | 39.00 | 5.318 | 8.000 | 14505 | 0.000 | 0.147 | 1.3 | 1.2 |
| C9001-PT-MA-11 | POND 2 | BASE | 39.25 | 5.309 | 8.000 | 14488 | 0.000 | 0.142 | 1.3 | 1.2 |
| C9001-PT-MA-11 | POND 2 | BASE | 39.50 | 5.300 | 8.000 | 14471 | 0.000 | 0.137 | 1.3 | 1.2 |
| C9001-PT-MA-11 | POND 2 | BASE | 39.75 | 5.292 | 8.000 | 14455 | 0.000 | 0.132 | 1.3 | 1.2 |
| C9001-PT-MA-11 | POND 2 | BASE | 40.00 | 5.284 | 8.000 | 14440 | 0.000 | 0.127 | 1.3 | 1.2 |
| C9001-PT-MA-11 | POND 2 | BASE | 40.25 | 5.276 | 8.000 | 14425 | 0.000 | 0.122 | 1.3 | 1.2 |
| C9001-PT-MA-11 | POND 2 | BASE | 40.50 | 5.269 | 8.000 | 14410 | 0.000 | 0.117 | 1.3 | 1.3 |
| C9001-PT-MA-11 | POND 2 | BASE | 40.75 | 5.261 | 8.000 | 14397 | 0.000 | 0.112 | 1.3 | 1.3 |
| C9001-PT-MA-11 | POND 2 | BASE | 41.00 | 5.255 | 8.000 | 14383 | 0.000 | 0.107 | 1.3 | 1.3 |
| C9001-PT-MA-11 | POND 2 | BASE | 41.25 | 5.248 | 8.000 | 14371 | 0.000 | 0.103 | 1.3 | 1.3 |
| C9001-PT-MA-11 | POND 2 | BASE | 41.50 | 5.242 | 8.000 | 14359 | 0.000 | 0.099 | 1.3 | 1.3 |
| C9001-PT-MA-11 | POND 2 | BASE | 41.75 | 5.236 | 8.000 | 14347 | 0.000 | 0.095 | 1.3 | 1.3 |
| C9001-PT-MA-11 | POND 2 | BASE | 42.00 | 5.230 | 8.000 | 14336 | 0.000 | 0.091 | 1.3 | 1.3 |
| C9001-PT-MA-11 | POND 2 | BASE | 42.25 | 5.224 | 8.000 | 14325 | 0.000 | 0.087 | 1.3 | 1.3 |
| C9001-PT-MA-11 | POND 2 | BASE | 42.50 | 5.219 | 8.000 | 14315 | 0.000 | 0.083 | 1.3 | 1.3 |
| C9001-PT-MA-11 | POND 2 | BASE | 42.75 | 5.214 | 8.000 | 14305 | 0.000 | 0.080 | 1.3 | 1.3 |
| C9001-PT-MA-11 | POND 2 | BASE | 43.00 | 5.209 | 8.000 | 14296 | 0.000 | 0.077 | 1.3 | 1.3 |
| C9001-PT-MA-11 | POND 2 | BASE | 43.25 | 5.204 | 8.000 | 14287 | 0.000 | 0.074 | 1.3 | 1.3 |
| C9001-PT-MA-11 | POND 2 | BASE | 43.50 | 5.199 | 8.000 | 14278 | 0.000 | 0.071 | 1.3 | 1.3 |
| C9001-PT-MA-11 | POND 2 | BASE | 43.75 | 5.195 | 8.000 | 14269 | 0.000 | 0.068 | 1.3 | 1.3 |
| C9001-PT-MA-11 | POND 2 | BASE | 44.00 | 5.191 | 8.000 | 14261 | 0.000 | 0.066 | 1.3 | 1.3 |
| C9001-PT-MA-11 | POND 2 | BASE | 44.25 | 5.187 | 8.000 | 14254 | 0.000 | 0.063 | 1.3 | 1.3 |
| C9001-PT-MA-11 | POND 2 | BASE | 44.50 | 5.183 | 8.000 | 14246 | 0.000 | 0.061 | 1.3 | 1.3 |
| C9001-PT-MA-11 | POND 2 | BASE | 44.75 | 5.179 | 8.000 | 14239 | 0.000 | 0.058 | 1.3 | 1.3 |
| C9001-PT-MA-11 | POND 2 | BASE | 45.00 | 5.175 | 8.000 | 14232 | 0.000 | 0.056 | 1.3 | 1.3 |
| C9001-PT-MA-11 | POND 2 | BASE | 45.25 | 5.172 | 8.000 | 14225 | 0.000 | 0.054 | 1.3 | 1.3 |
| C9001-PT-MA-11 | POND 2 | BASE | 45.50 | 5.169 | 8.000 | 14219 | 0.000 | 0.052 | 1.3 | 1.3 |
| C9001-PT-MA-11 | POND 2 | BASE | 45.75 | 5.165 | 8.000 | 14213 | 0.000 | 0.050 | 1.3 | 1.3 |

PALM HARBOR GOLF COURSE
 MEAN ANNUAL STORM
 NOVEMBER, 2005
 POND 2 DRAWDOWN

| Simulation | Node | Group | Time hrs | Stage ft | Warning Stage ft | Surface Area ft2 | Total Inflow cfs | Total Outflow cfs | Total Vol In af | Total Vol Out af |
|----------------|--------|-------|-------------|-------------|------------------------|------------------------|------------------------|-------------------------|-----------------------|------------------------|
| C9001-PT-MA-11 | POND 2 | BASE | 46.00 | 5.162 | 8.000 | 14207 | 0.000 | 0.049 | 1.3 | 1.3 |
| C9001-PT-MA-11 | POND 2 | BASE | 46.25 | 5.159 | 8.000 | 14201 | 0.000 | 0.047 | 1.3 | 1.3 |
| C9001-PT-MA-11 | POND 2 | BASE | 46.50 | 5.156 | 8.000 | 14195 | 0.000 | 0.045 | 1.3 | 1.3 |
| C9001-PT-MA-11 | POND 2 | BASE | 46.75 | 5.153 | 8.000 | 14190 | 0.000 | 0.044 | 1.3 | 1.3 |
| C9001-PT-MA-11 | POND 2 | BASE | 47.00 | 5.151 | 8.000 | 14184 | 0.000 | 0.042 | 1.3 | 1.3 |
| C9001-PT-MA-11 | POND 2 | BASE | 47.25 | 5.148 | 8.000 | 14179 | 0.000 | 0.041 | 1.3 | 1.3 |
| C9001-PT-MA-11 | POND 2 | BASE | 47.50 | 5.145 | 8.000 | 14174 | 0.000 | 0.040 | 1.3 | 1.3 |
| C9001-PT-MA-11 | POND 2 | BASE | 47.75 | 5.143 | 8.000 | 14170 | 0.000 | 0.038 | 1.3 | 1.3 |
| C9001-PT-MA-11 | POND 2 | BASE | 48.00 | 5.141 | 8.000 | 14165 | 0.000 | 0.037 | 1.3 | 1.3 |
| C9001-PT-MA-11 | POND 2 | BASE | 48.25 | 5.138 | 8.000 | 14161 | 0.000 | 0.036 | 1.3 | 1.3 |
| C9001-PT-MA-11 | POND 2 | BASE | 48.50 | 5.136 | 8.000 | 14156 | 0.000 | 0.035 | 1.3 | 1.3 |
| C9001-PT-MA-11 | POND 2 | BASE | 48.75 | 5.134 | 8.000 | 14152 | 0.000 | 0.034 | 1.3 | 1.3 |
| C9001-PT-MA-11 | POND 2 | BASE | 49.00 | 5.132 | 8.000 | 14148 | 0.000 | 0.033 | 1.3 | 1.3 |
| C9001-PT-MA-11 | POND 2 | BASE | 49.25 | 5.130 | 8.000 | 14144 | 0.000 | 0.032 | 1.3 | 1.3 |
| C9001-PT-MA-11 | POND 2 | BASE | 49.50 | 5.128 | 8.000 | 14140 | 0.000 | 0.031 | 1.3 | 1.3 |
| C9001-PT-MA-11 | POND 2 | BASE | 49.75 | 5.126 | 8.000 | 14137 | 0.000 | 0.030 | 1.3 | 1.3 |
| C9001-PT-MA-11 | POND 2 | BASE | 50.00 | 5.124 | 8.000 | 14133 | 0.000 | 0.029 | 1.3 | 1.3 |
| C9001-PT-MA-11 | POND 2 | BASE | 50.25 | 5.122 | 8.000 | 14129 | 0.000 | 0.028 | 1.3 | 1.3 |
| C9001-PT-MA-11 | POND 2 | BASE | 50.50 | 5.120 | 8.000 | 14126 | 0.000 | 0.028 | 1.3 | 1.3 |
| C9001-PT-MA-11 | POND 2 | BASE | 50.75 | 5.118 | 8.000 | 14123 | 0.000 | 0.027 | 1.3 | 1.3 |
| C9001-PT-MA-11 | POND 2 | BASE | 51.00 | 5.117 | 8.000 | 14119 | 0.000 | 0.026 | 1.3 | 1.3 |
| C9001-PT-MA-11 | POND 2 | BASE | 51.25 | 5.115 | 8.000 | 14116 | 0.000 | 0.025 | 1.3 | 1.3 |
| C9001-PT-MA-11 | POND 2 | BASE | 51.50 | 5.114 | 8.000 | 14113 | 0.000 | 0.025 | 1.3 | 1.3 |
| C9001-PT-MA-11 | POND 2 | BASE | 51.75 | 5.112 | 8.000 | 14110 | 0.000 | 0.024 | 1.3 | 1.3 |
| C9001-PT-MA-11 | POND 2 | BASE | 52.00 | 5.110 | 8.000 | 14107 | 0.000 | 0.023 | 1.3 | 1.3 |
| C9001-PT-MA-11 | POND 2 | BASE | 52.25 | 5.109 | 8.000 | 14104 | 0.000 | 0.023 | 1.3 | 1.3 |
| C9001-PT-MA-11 | POND 2 | BASE | 52.50 | 5.108 | 8.000 | 14102 | 0.000 | 0.022 | 1.3 | 1.3 |
| C9001-PT-MA-11 | POND 2 | BASE | 52.75 | 5.106 | 8.000 | 14099 | 0.000 | 0.022 | 1.3 | 1.3 |
| C9001-PT-MA-11 | POND 2 | BASE | 53.00 | 5.105 | 8.000 | 14096 | 0.000 | 0.021 | 1.3 | 1.3 |
| C9001-PT-MA-11 | POND 2 | BASE | 53.25 | 5.103 | 8.000 | 14094 | 0.000 | 0.021 | 1.3 | 1.3 |
| C9001-PT-MA-11 | POND 2 | BASE | 53.50 | 5.102 | 8.000 | 14091 | 0.000 | 0.020 | 1.3 | 1.3 |
| C9001-PT-MA-11 | POND 2 | BASE | 53.75 | 5.101 | 8.000 | 14089 | 0.000 | 0.020 | 1.3 | 1.3 |
| C9001-PT-MA-11 | POND 2 | BASE | 54.00 | 5.100 | 8.000 | 14087 | 0.000 | 0.019 | 1.3 | 1.3 |
| C9001-PT-MA-11 | POND 2 | BASE | 54.25 | 5.098 | 8.000 | 14084 | 0.000 | 0.019 | 1.3 | 1.3 |
| C9001-PT-MA-11 | POND 2 | BASE | 54.50 | 5.097 | 8.000 | 14082 | 0.000 | 0.018 | 1.3 | 1.3 |
| C9001-PT-MA-11 | POND 2 | BASE | 54.75 | 5.096 | 8.000 | 14080 | 0.000 | 0.018 | 1.3 | 1.3 |
| C9001-PT-MA-11 | POND 2 | BASE | 55.00 | 5.095 | 8.000 | 14078 | 0.000 | 0.017 | 1.3 | 1.3 |
| C9001-PT-MA-11 | POND 2 | BASE | 55.25 | 5.094 | 8.000 | 14075 | 0.000 | 0.017 | 1.3 | 1.3 |
| C9001-PT-MA-11 | POND 2 | BASE | 55.50 | 5.093 | 8.000 | 14073 | 0.000 | 0.017 | 1.3 | 1.3 |
| C9001-PT-MA-11 | POND 2 | BASE | 55.75 | 5.092 | 8.000 | 14071 | 0.000 | 0.016 | 1.3 | 1.3 |
| C9001-PT-MA-11 | POND 2 | BASE | 56.00 | 5.091 | 8.000 | 14069 | 0.000 | 0.016 | 1.3 | 1.3 |
| C9001-PT-MA-11 | POND 2 | BASE | 56.25 | 5.090 | 8.000 | 14067 | 0.000 | 0.016 | 1.3 | 1.3 |
| C9001-PT-MA-11 | POND 2 | BASE | 56.50 | 5.089 | 8.000 | 14066 | 0.000 | 0.015 | 1.3 | 1.3 |
| C9001-PT-MA-11 | POND 2 | BASE | 56.75 | 5.088 | 8.000 | 14064 | 0.000 | 0.015 | 1.3 | 1.3 |
| C9001-PT-MA-11 | POND 2 | BASE | 57.00 | 5.087 | 8.000 | 14062 | 0.000 | 0.015 | 1.3 | 1.3 |
| C9001-PT-MA-11 | POND 2 | BASE | 57.25 | 5.086 | 8.000 | 14060 | 0.000 | 0.014 | 1.3 | 1.3 |

PALM HARBOR GOLF COURSE
 MEAN ANNUAL STORM
 NOVEMBER, 2005
 POND 2 DRAWDOWN

| Simulation | Note | Group | Time hrs | Stage ft | Warning Stage ft | Surface Area ft2 | Total Inflow cfs | Total Outflow cfs | Total Vol In af | Total Vol Out af |
|----------------|--------|-------|-------------|-------------|------------------------|------------------------|------------------------|-------------------------|-----------------------|------------------------|
| C9001-PT-MA-11 | POND 2 | BASE | 57.50 | 5.085 | 8.000 | 14058 | 0.000 | 0.014 | 1.3 | 1.3 |
| C9001-PT-MA-11 | POND 2 | BASE | 57.75 | 5.084 | 8.000 | 14057 | 0.000 | 0.014 | 1.3 | 1.3 |
| C9001-PT-MA-11 | POND 2 | BASE | 58.00 | 5.083 | 8.000 | 14055 | 0.000 | 0.013 | 1.3 | 1.3 |
| C9001-PT-MA-11 | POND 2 | BASE | 58.25 | 5.082 | 8.000 | 14053 | 0.000 | 0.013 | 1.3 | 1.3 |
| C9001-PT-MA-11 | POND 2 | BASE | 58.50 | 5.082 | 8.000 | 14052 | 0.000 | 0.013 | 1.3 | 1.3 |
| C9001-PT-MA-11 | POND 2 | BASE | 58.75 | 5.081 | 8.000 | 14050 | 0.000 | 0.013 | 1.3 | 1.3 |
| C9001-PT-MA-11 | POND 2 | BASE | 59.00 | 5.080 | 8.000 | 14049 | 0.000 | 0.012 | 1.3 | 1.3 |
| C9001-PT-MA-11 | POND 2 | BASE | 59.25 | 5.079 | 8.000 | 14047 | 0.000 | 0.012 | 1.3 | 1.3 |
| C9001-PT-MA-11 | POND 2 | BASE | 59.50 | 5.078 | 8.000 | 14046 | 0.000 | 0.012 | 1.3 | 1.3 |
| C9001-PT-MA-11 | POND 2 | BASE | 59.75 | 5.078 | 8.000 | 14044 | 0.000 | 0.012 | 1.3 | 1.3 |
| C9001-PT-MA-11 | POND 2 | BASE | 60.00 | 5.077 | 8.000 | 14043 | 0.000 | 0.011 | 1.3 | 1.3 |
| C9001-PT-MA-11 | POND 2 | BASE | 60.25 | 5.076 | 8.000 | 14042 | 0.000 | 0.011 | 1.3 | 1.3 |
| C9001-PT-MA-11 | POND 2 | BASE | 60.50 | 5.075 | 8.000 | 14040 | 0.000 | 0.011 | 1.3 | 1.3 |
| C9001-PT-MA-11 | POND 2 | BASE | 60.75 | 5.075 | 8.000 | 14039 | 0.000 | 0.011 | 1.3 | 1.3 |
| C9001-PT-MA-11 | POND 2 | BASE | 61.00 | 5.074 | 8.000 | 14037 | 0.000 | 0.011 | 1.3 | 1.3 |
| C9001-PT-MA-11 | POND 2 | BASE | 61.25 | 5.073 | 8.000 | 14036 | 0.000 | 0.010 | 1.3 | 1.3 |
| C9001-PT-MA-11 | POND 2 | BASE | 61.50 | 5.073 | 8.000 | 14035 | 0.000 | 0.010 | 1.3 | 1.3 |
| C9001-PT-MA-11 | POND 2 | BASE | 61.75 | 5.072 | 8.000 | 14034 | 0.000 | 0.010 | 1.3 | 1.3 |
| C9001-PT-MA-11 | POND 2 | BASE | 62.00 | 5.071 | 8.000 | 14032 | 0.000 | 0.010 | 1.3 | 1.3 |
| C9001-PT-MA-11 | POND 2 | BASE | 62.25 | 5.071 | 8.000 | 14031 | 0.000 | 0.010 | 1.3 | 1.3 |
| C9001-PT-MA-11 | POND 2 | BASE | 62.50 | 5.070 | 8.000 | 14030 | 0.000 | 0.010 | 1.3 | 1.3 |
| C9001-PT-MA-11 | POND 2 | BASE | 62.75 | 5.070 | 8.000 | 14029 | 0.000 | 0.009 | 1.3 | 1.3 |
| C9001-PT-MA-11 | POND 2 | BASE | 63.00 | 5.069 | 8.000 | 14028 | 0.000 | 0.009 | 1.3 | 1.3 |
| C9001-PT-MA-11 | POND 2 | BASE | 63.25 | 5.068 | 8.000 | 14027 | 0.000 | 0.009 | 1.3 | 1.3 |
| C9001-PT-MA-11 | POND 2 | BASE | 63.50 | 5.068 | 8.000 | 14026 | 0.000 | 0.009 | 1.3 | 1.3 |
| C9001-PT-MA-11 | POND 2 | BASE | 63.75 | 5.067 | 8.000 | 14024 | 0.000 | 0.009 | 1.3 | 1.3 |
| C9001-PT-MA-11 | POND 2 | BASE | 64.00 | 5.067 | 8.000 | 14023 | 0.000 | 0.009 | 1.3 | 1.3 |
| C9001-PT-MA-11 | POND 2 | BASE | 64.25 | 5.066 | 8.000 | 14022 | 0.000 | 0.008 | 1.3 | 1.3 |
| C9001-PT-MA-11 | POND 2 | BASE | 64.50 | 5.066 | 8.000 | 14021 | 0.000 | 0.008 | 1.3 | 1.3 |
| C9001-PT-MA-11 | POND 2 | BASE | 64.75 | 5.065 | 8.000 | 14020 | 0.000 | 0.008 | 1.3 | 1.3 |
| C9001-PT-MA-11 | POND 2 | BASE | 65.00 | 5.065 | 8.000 | 14019 | 0.000 | 0.008 | 1.3 | 1.3 |
| C9001-PT-MA-11 | POND 2 | BASE | 65.25 | 5.064 | 8.000 | 14018 | 0.000 | 0.008 | 1.3 | 1.3 |
| C9001-PT-MA-11 | POND 2 | BASE | 65.50 | 5.064 | 8.000 | 14017 | 0.000 | 0.008 | 1.3 | 1.3 |
| C9001-PT-MA-11 | POND 2 | BASE | 65.75 | 5.063 | 8.000 | 14016 | 0.000 | 0.008 | 1.3 | 1.3 |
| C9001-PT-MA-11 | POND 2 | BASE | 66.00 | 5.063 | 8.000 | 14015 | 0.000 | 0.007 | 1.3 | 1.3 |
| C9001-PT-MA-11 | POND 2 | BASE | 66.25 | 5.062 | 8.000 | 14014 | 0.000 | 0.007 | 1.3 | 1.3 |
| C9001-PT-MA-11 | POND 2 | BASE | 66.50 | 5.062 | 8.000 | 14013 | 0.000 | 0.007 | 1.3 | 1.3 |
| C9001-PT-MA-11 | POND 2 | BASE | 66.75 | 5.061 | 8.000 | 14012 | 0.000 | 0.007 | 1.3 | 1.3 |
| C9001-PT-MA-11 | POND 2 | BASE | 67.00 | 5.061 | 8.000 | 14011 | 0.000 | 0.007 | 1.3 | 1.3 |
| C9001-PT-MA-11 | POND 2 | BASE | 67.25 | 5.060 | 8.000 | 14010 | 0.000 | 0.007 | 1.3 | 1.3 |
| C9001-PT-MA-11 | POND 2 | BASE | 67.50 | 5.060 | 8.000 | 14009 | 0.000 | 0.007 | 1.3 | 1.3 |
| C9001-PT-MA-11 | POND 2 | BASE | 67.75 | 5.059 | 8.000 | 14009 | 0.000 | 0.007 | 1.3 | 1.3 |
| C9001-PT-MA-11 | POND 2 | BASE | 68.00 | 5.059 | 8.000 | 14008 | 0.000 | 0.007 | 1.3 | 1.3 |
| C9001-PT-MA-11 | POND 2 | BASE | 68.25 | 5.058 | 8.000 | 14008 | 0.000 | 0.007 | 1.3 | 1.3 |
| C9001-PT-MA-11 | POND 2 | BASE | 68.50 | 5.058 | 8.000 | 14007 | 0.000 | 0.006 | 1.3 | 1.3 |
| C9001-PT-MA-11 | POND 2 | BASE | 68.75 | 5.058 | 8.000 | 14006 | 0.000 | 0.006 | 1.3 | 1.3 |

PALM HARBOR GOLF COURSE
 MEAN ANNUAL STORM
 NOVEMBER, 2005
 POND 2 DRAWDOWN

| Simulation | Node | Group | Time hrs | Stage ft | Warning Stage ft | Surface Area ft2 | Total Inflow cfs | Total Outflow cfs | Total Vol In af | Total Vol Out af |
|----------------|--------|-------|-------------|-------------|------------------------|------------------------|------------------------|-------------------------|-----------------------|------------------------|
| C9001-PT-MA-11 | POND 2 | BASE | 69.00 | 5.057 | 8.000 | 14005 | 0.000 | 0.006 | 1.3 | 1.3 |
| C9001-PT-MA-11 | POND 2 | BASE | 69.25 | 5.057 | 8.000 | 14005 | 0.000 | 0.006 | 1.3 | 1.3 |
| C9001-PT-MA-11 | POND 2 | BASE | 69.50 | 5.056 | 8.000 | 14004 | 0.000 | 0.006 | 1.3 | 1.3 |
| C9001-PT-MA-11 | POND 2 | BASE | 69.75 | 5.056 | 8.000 | 14003 | 0.000 | 0.006 | 1.3 | 1.3 |
| C9001-PT-MA-11 | POND 2 | BASE | 70.00 | 5.056 | 8.000 | 14002 | 0.000 | 0.006 | 1.3 | 1.3 |
| C9001-PT-MA-11 | POND 2 | BASE | 70.25 | 5.055 | 8.000 | 14002 | 0.000 | 0.006 | 1.3 | 1.3 |
| C9001-PT-MA-11 | POND 2 | BASE | 70.50 | 5.055 | 8.000 | 14001 | 0.000 | 0.006 | 1.3 | 1.3 |
| C9001-PT-MA-11 | POND 2 | BASE | 70.75 | 5.055 | 8.000 | 14000 | 0.000 | 0.006 | 1.3 | 1.3 |
| C9001-PT-MA-11 | POND 2 | BASE | 71.00 | 5.054 | 8.000 | 13999 | 0.000 | 0.006 | 1.3 | 1.3 |
| C9001-PT-MA-11 | POND 2 | BASE | 71.25 | 5.054 | 8.000 | 13999 | 0.000 | 0.006 | 1.3 | 1.3 |
| C9001-PT-MA-11 | POND 2 | BASE | 71.50 | 5.053 | 8.000 | 13998 | 0.000 | 0.005 | 1.3 | 1.3 |
| C9001-PT-MA-11 | POND 2 | BASE | 71.75 | 5.053 | 8.000 | 13997 | 0.000 | 0.005 | 1.3 | 1.3 |
| C9001-PT-MA-11 | POND 2 | BASE | 72.00 | 5.053 | 8.000 | 13997 | 0.000 | 0.005 | 1.3 | 1.3 |

PONDS Version 3.2.0207
Retention Pond Recovery - Refined Method
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Devo Seereeram, Ph.D., P.E.

Project Data

Project Name: PALM HARBOR GOLF COURSE
Simulation Description: POND 3 P.O.V. DRAWDOWN
Project Number: C9002
Engineer :
Supervising Engineer:
Date: 11/16/05

Aquifer Data

Base Of Aquifer Elevation, [B] (ft datum): -40.00
Water Table Elevation, [WT] (ft datum): 2.50
Horizontal Saturated Hydraulic Conductivity, [Kh] (ft/day): 5.00
Fillable Porosity, [n] (%): 25.00
Unsaturated Vertical Infiltration Rate, [Iv] (ft/day): 5.0
Maximum Area For Unsaturated Infiltration, [Av] (ft²): 32526.0

Geometry Data

Equivalent Pond Length, [L] (ft): 2000.0
Equivalent Pond Width, [W] (ft): 25.0
Ground water mound is expected to intersect the pond bottom

Stage vs Area Data

| Stage (ft datum) | Area (ft ²) |
|---------------------|----------------------------|
| 5.00 | 5484.0 |
| 6.00 | 16481.0 |
| 7.00 | 29846.0 |
| 7.12 | 32526.0 |

Ditch Data

Ditch (or interceptor trench) parallel to length axis is inactive
Ditch (or interceptor trench) parallel to width axis is inactive

Discharge Structures

Discharge Structure #1 is inactive
Discharge Structure #2 is inactive

PONDS Version 3.2.0207
Retention Pond Recovery - Refined Method
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Scenario Input Data

Scenario 1 :: pollution abatement volume

Hydrograph Type: Slug Load
Modflow Routing: Routed with infiltration

Treatment Volume (ft³) 37888

Initial ground water level (ft datum) default, 2.50

| <u>Time After Storm Event (days)</u> | <u>Time After Storm Event (days)</u> |
|--|--|
| 0.100 | 2.000 |
| 0.250 | 2.500 |
| 0.500 | 3.000 |
| 1.000 | 3.500 |
| 1.500 | 4.000 |

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Modflow Log

MODFLOW CONTROL PARAMETERS

Perimeter boundary condition: constant head
Maximum iterations of outer loop: 150
Maximum iterations of inner loop: 60
Horizontal conductivity within pond: 1000000 (if ground water mound is expected to intersect pond bottom)
Instantaneous storage coefficient: Volumetric balance
Default head closure tolerance: .01
Default residual closure tolerance: .5
Target water budget error: 1
On failure to converge: Rerun limiting inner loop to one iteration
 > Maximum number of iterations of outer loop: 500
Running Average Porosity is active
 > Starting on pass: 2
 > When outer iteration reaches: 50
 > Number of data points: 4
Running Average Pond Stage (for discharge structures with tailwater) is active
 > Starting on pass: 2
 > When outer iteration reaches: 50
 > Number of data points: 4
Grid size: 1000 ft (from pond centerline)
Mound Output: none

Begin Scenario 1 11/21/2005 13:9:37
End Scenario 1 11/21/2005 13:9:37

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Detailed Results :: Scenario 1 :: *pollution abatement volume*

| Elapsed Time (hours) | Inflow Rate (ft ³ /s) | Outside Recharge (ft/day) | Stage Elevation (ft datum) | Infiltration Rate (ft ³ /s) | Overflow Discharge (ft ³ /s) | Cumulative Inflow Volume (ft ³) | Cumulative Infiltration Volume (ft ³) | Cumulative Discharge Volume (ft ³) | Flow Type |
|----------------------|----------------------------------|---------------------------|----------------------------|--|---|---|---|--|-----------|
| 0.000 | 6314.6670 | 0.0000 | 2.500 | 0.00000 | 0.00000 | 0.0 | 0.0 | 0.0 | N.A |
| 0.002 | 6314.6670 | 0.0000 | 7.120 | 0.31828 | 0.00000 | 37888.0 | 1.9 | 0.0 | U/P |
| 2.400 | 0.0000 | 0.0000 | 6.617 | 1.71707 | 0.00000 | 37888.0 | 14182.5 | 0.0 | U/P |
| 6.000 | 0.0000 | 0.0000 | 4.203 | 1.14320 | 0.00000 | 37888.0 | 37888.0 | 0.0 | U/S |
| 12.000 | 0.0000 | 0.0000 | 3.675 | 0.00000 | 0.00000 | 37888.0 | 37888.0 | 0.0 | S |
| 24.000 | 0.0000 | 0.0000 | 3.336 | 0.00000 | 0.00000 | 37888.0 | 37888.0 | 0.0 | S |
| 36.000 | 0.0000 | 0.0000 | 3.171 | 0.00000 | 0.00000 | 37888.0 | 37888.0 | 0.0 | S |
| 48.000 | 0.0000 | 0.0000 | 3.072 | 0.00000 | 0.00000 | 37888.0 | 37888.0 | 0.0 | S |
| 60.000 | 0.0000 | 0.0000 | 3.005 | 0.00000 | 0.00000 | 37888.0 | 37888.0 | 0.0 | S |
| 72.000 | 0.0000 | 0.0000 | 2.956 | 0.00000 | 0.00000 | 37888.0 | 37888.0 | 0.0 | S |
| 84.000 | 0.0000 | 0.0000 | 2.919 | 0.00000 | 0.00000 | 37888.0 | 37888.0 | 0.0 | S |
| 96.000 | 0.0000 | 0.0000 | 2.889 | ---- | ---- | 37888.0 | 37888.0 | 0.0 | N.A. |

PONDS Version 3.2.0207
Retention Pond Recovery - Refined Method
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Summary of Results :: Scenario 1 :: *pollution abatement volume*

| | Time (hours) | Stage (ft datum) | Rate (ft ³ /s) | Volume (ft ³) |
|---|-----------------|---------------------|------------------------------|------------------------------|
| Stage | | | | |
| Minimum | 0.000 | 2.50 | | |
| Maximum | 0.002 | 7.12 | | |
| Inflow | | | | |
| Rate - Maximum - Positive | 0.002 | | 6314.6670 | |
| Rate - Maximum - Negative | None | | None | |
| Cumulative Volume - Maximum Positive | 0.002 | | | 37888.0 |
| Cumulative Volume - Maximum Negative | None | | | None |
| Cumulative Volume - End of Simulation | 96.000 | | | 37888.0 |
| Infiltration | | | | |
| Rate - Maximum - Positive | 2.400 | | 1.7171 | |
| Rate - Maximum - Negative | None | | None | |
| Cumulative Volume - Maximum Positive | 6.000 | | | 37888.0 |
| Cumulative Volume - Maximum Negative | None | | | None |
| Cumulative Volume - End of Simulation | 96.000 | | | 37888.0 |
| Combined Discharge | | | | |
| Rate - Maximum - Positive | None | | None | |
| Rate - Maximum - Negative | None | | None | |
| Cumulative Volume - Maximum Positive | None | | | None |
| Cumulative Volume - Maximum Negative | None | | | None |
| Cumulative Volume - End of Simulation | 96.000 | | | 0.0 |
| Discharge Structure 1 - inactive | | | | |
| Rate - Maximum - Positive | disabled | | disabled | |
| Rate - Maximum - Negative | disabled | | disabled | |
| Cumulative Volume - Maximum Positive | disabled | | | disabled |
| Cumulative Volume - Maximum Negative | disabled | | | disabled |
| Cumulative Volume - End of Simulation | disabled | | | disabled |
| Discharge Structure 2 - inactive | | | | |
| Rate - Maximum - Positive | disabled | | disabled | |
| Rate - Maximum - Negative | disabled | | disabled | |
| Cumulative Volume - Maximum Positive | disabled | | | disabled |
| Cumulative Volume - Maximum Negative | disabled | | | disabled |
| Cumulative Volume - End of Simulation | disabled | | | disabled |
| Discharge Structure 3 - inactive | | | | |
| Rate - Maximum - Positive | disabled | | disabled | |
| Rate - Maximum - Negative | disabled | | disabled | |
| Cumulative Volume - Maximum Positive | disabled | | | disabled |
| Cumulative Volume - Maximum Negative | disabled | | | disabled |
| Cumulative Volume - End of Simulation | disabled | | | disabled |
| Pollution Abatement: | | | | |
| 36 Hour Stage and Infiltration Volume | 36.000 | 3.17 | | 37888.0 |
| 72 Hour Stage and Infiltration Volume | 72.000 | 2.96 | | 37888.0 |

PALM HARBOR GOLF COURSE

PALM COAST, FLORIDA

AUGUST, 2005



*Engineers
Planners
Landscape Architects
Surveyors
Construction Management
Design/Build*

Certificate of Authorization No. 00003215

**1117 EAST ROBINSON ST.
ORLANDO, FLORIDA 32801**

Stormwater Management Report

**PALM HARBOR GOLF COURSE
CITY OF PALM COAST, Florida
Flagler County**

Owner:

**Centex Destination Properties,
Southeast Division**

Prepared For:

CITY OF PALM COAST, FLORIDA

CPH Project #C9002

AUGUST, 2005

CPH Engineers, Inc. has prepared this report under the direct supervision of the undersigned with technical assistance rendered by other professional team members. This report contains the results of our analysis of the project Stormwater System and an engineering interpretation of the results. The results, with the aid of the guidelines of the St. Johns River Water Management District and the Land Development Code of Flagler County, were used in the design of the stormwater management and conveyance systems.



David R. Weaver, P.E.

Project Manager

38867

8/15/05

**PALM HARBOR GOLF COURSE
CITY OF PALM COAST, FLORIDA**

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**PALM HARBOR GOLF COURSE
CITY OF PALM COAST, FLORIDA**

December 2004

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**PALM HARBOR GOLF COURSE
CITY OF PALM COAST, FLORIDA**

SECTION 1.0

STORMWATER REPORT

**PALM HARBOR GOLF COURSE, SITE 6
CITY OF PALM COAST, FLAGLER COUNTY, FLORIDA**

June 2005

Stormwater Management Report

Page 1

1.1 GENERAL

The proposed redevelopment of 19.29 acres of Palm Harbor Golf Course located north of the Palm Coast Parkway, west of Crompton Pl. and the Intracoastal Waterway within the City of Palm Coast, Flagler County, in Section 7, Township 11 South, and Range 31 East (refer to **Figure 1**, Location Map, **Figure 2**, Property Appraiser's Map, and **Figure 3**, USGS Location Map). The site currently consists of an existing golf course with all applicable infrastructures. There are no existing, permitted stormwater facilities on the site. The basis of this project is to demolish the existing site and construct a new site to include stormwater management facilities to meet present codes.

1.2 DESIGN CRITERIA

Per the City of Palm Coast and the St. Johns River Water Management District (SJRWMD), the following criteria has been utilized for the aforementioned project.

Design Storm Event

The design storm event for this project is the mean annual storm event (2.33-year frequency/24-hour duration storm event (4.5 inches) for the stormwater management system.

No pre-post discharge requirements are required.

Water Quality

Water quality requirements for this site are dictated by the SJRWMD and The City of Palm Coast. The standard water quality requirement for retention drainage systems is the greater of 1.25" of stormwater runoff over the impervious area plus 0.5" over the drainage basin or 1" of stormwater runoff over the entire basin will be collected and recovered. The requirement for detention systems is the greater of 2.5" runoff over the impervious area or 1" of runoff over the basin area.

Post-Development Site Design

The Post-development site is to be a condominium community with a clubhouse for the golf course. The stormwater runoff is to be collected through inlets and pipes to retention/detention ponds. (refer to calculations in **Section 2.0**).

1.3 ENGINEERING ANALYSIS

**PALM COAST RESORT
FLAGLER COUNTY, FLORIDA**

June 2005

Stormwater Management Report

Page 2

A detailed hydrologic/hydraulic engineering analysis was performed for the proposed drainage conveyance systems within the project area. This analysis utilized a computer program entitled Advanced Interconnected Channel and Pond Routing (adICPR, Version 3.03) developed by Streamline Technologies, Inc. to simulate/model stormwater runoff and the hydraulic responses of the conveyance system during the design storm events.

The Peak Rate Factor (k) is used to represent the effect of watershed storage on hydrograph shape. High Peak Rate values represent little to no storage characterized by steep slopes and low Peak Rate values represent watersheds with significant ponding effects due to very little to no slope and areas with significant storage (refer to **Table 1**)

Although the Peak Rate Factor is site specific depending on the previously mentioned factor along with soil characteristics and landscape, a Peak Rate Factor of 256 shall be incorporated throughout this analysis. The following table illustrates in greater detail, the various Peak Rate Factors that are available.

**TABLE 1
RECOMMENDED K' FOR VARIED SITE CONDITIONS**

| SITE CONDITIONS | K' |
|---|-----------|
| Represents watersheds with very mild slopes, recommended by SCS for watersheds with average slope of 0.5% or less. Significant surface storage throughout the watershed. | 256-284 |
| Intermediate peak rate factor representing watersheds with moderate surface storage in some locations due to depressional areas, mild slopes and/or lack of existing drainage features. | 323-384 |
| Standard peak rate factor developed for watersheds with little or no storage. Represents watersheds with moderate to steep slopes and/or significant drainage works | 484 |

1.4 MODELING PARAMETERS

Curve Numbers

The existing soils within the study area are classified as hydrologic soil groups "B", "C", or "D", as presented in the Soil Survey of Flagler County. The "B" soils are assigned a curve number of 61, "C" soils a CN of 74, "D" soils a CN of 80, and all impervious areas were assigned a curve number of 98. (refer to **Figure 5**).

These values were then used to compute a weighted runoff curve number, depending on the breakdown of land use and soils for each drainage basin contributing runoff to the existing drainage system. Refer to **Section 2.1** of this report for calculations associated with the detailed basin parameters.

Time of Concentration

Time of concentration for each basin evaluated was determined using the SCS procedures described in Chapter 3 of *Urban Hydrology for Small Watersheds, Technical Release 55, Second Edition* (June 1986), Soil Conservation Service, U.S. Department of Agriculture. Time of concentration is separated into travel time components. Travel time is defined as the time for runoff to travel from the hydraulically most distant point of a watershed to a point where there is a change in flow regime (i.e., overland flow to shallow concentrated flow).

Time of concentration is the summation of all the travel times for consecutive components of a drainage system. Time of concentration is generally separated into three distinct components; (1) overland flow; (2) shallow concentrated flow; and (3) open channel, gutter or culvert flow. Each component consists of a travel time (T_i) that is summed up for consecutive components to compute time of concentration (T_c). *Note that due to the relatively short time of concentrations in the post-developed condition, a default of 10 minutes was used.*

Tailwater

To simulate the tailwater conditions for this project, the approximate seasonal high tide elevation of the intracoastal waterway of 3.2 was utilized as the peak tailwater stage. It should be noted that recent survey, which occurred after the 2004 hurricanes indicated a elevation of -0.7 ft. This will ensure that the proposed system has been designed for the most conservative scenario.

**PALM COAST RESORT
FLAGLER COUNTY, FLORIDA**

1.5 EXISTING CONDITIONS

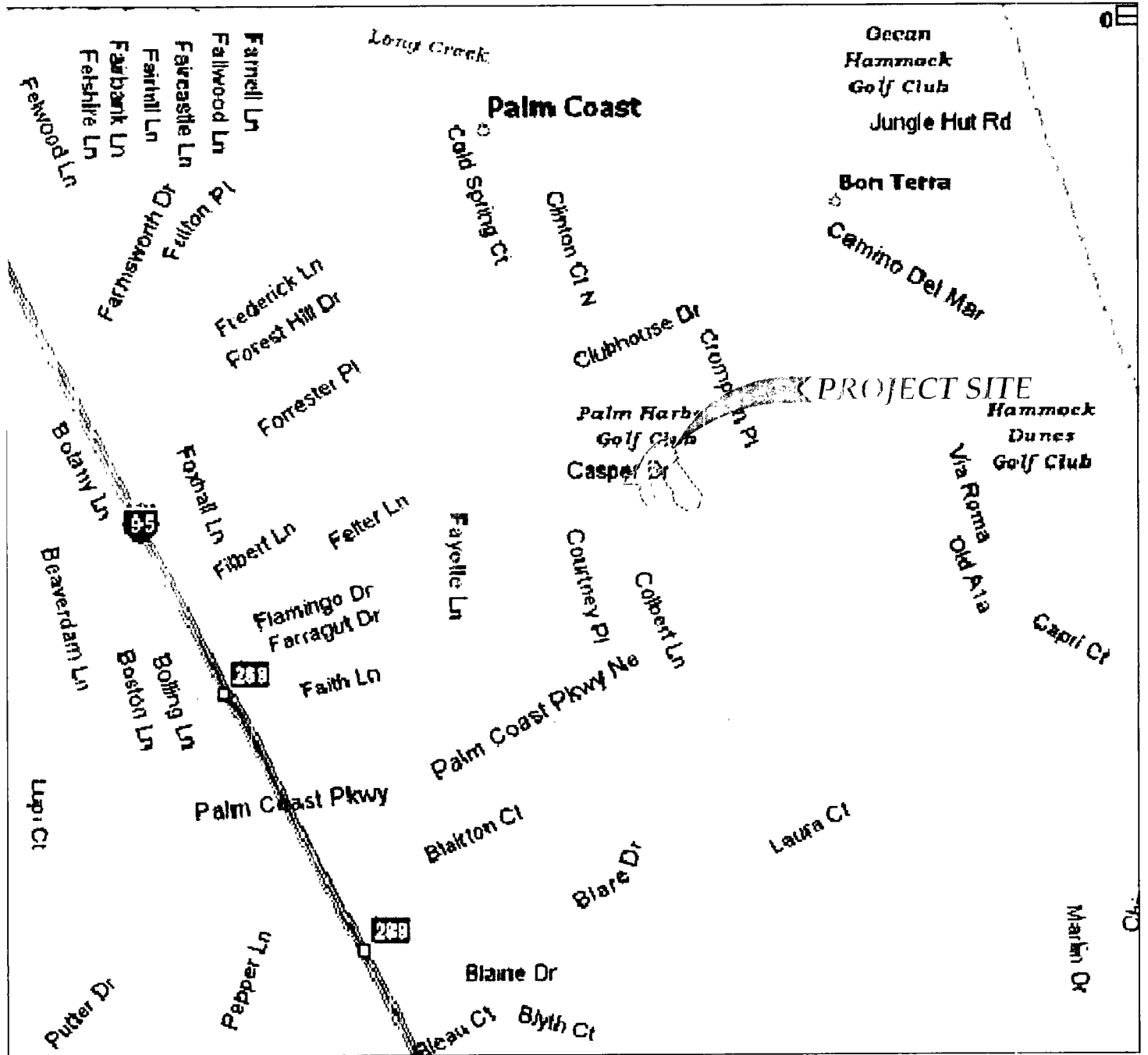
In the existing condition, the site conveys stormwater runoff through surface systems that contain no specific treatment or attenuation. The site drains overland and through pipe collection systems to on-site drainage ditches which discharge to the intracoastal waterway.

1.6 PROPOSED CONDITIONS

The developed site conveys surface runoff through the secondary drainage system to the stormwater ponds which discharge to the existing on-site drainage ditch and ultimately to the Intracoastal Waterway. The stormwater retention/detention ponds, as previously stated has been designed to retain and recover from the water quality volume. The following table identifies the peak stages achieved through the design and mean annual storm events.

**TABLE 2
SUMMARY OF PEAK FLOOD STAGES - PROPOSED CONDITIONS (1)**

| Basin/Pond | Critical Elevation/ Top of Berm (feet, NGVD) | Maximum Stage | |
|-------------------|---|---|-------------------------------------|
| | | Water Quality Elevation (feet, NVGD) | Mean Annual (feet, NGVD) |
| 1 | 8.0 | 6.30 | 6.51 |
| 2 | 8.0 | 6.60 | 6.86 |
| 3 | 8.0 | 7.35 | 7.64 |
| | | | |
| | | | |
| | | | |

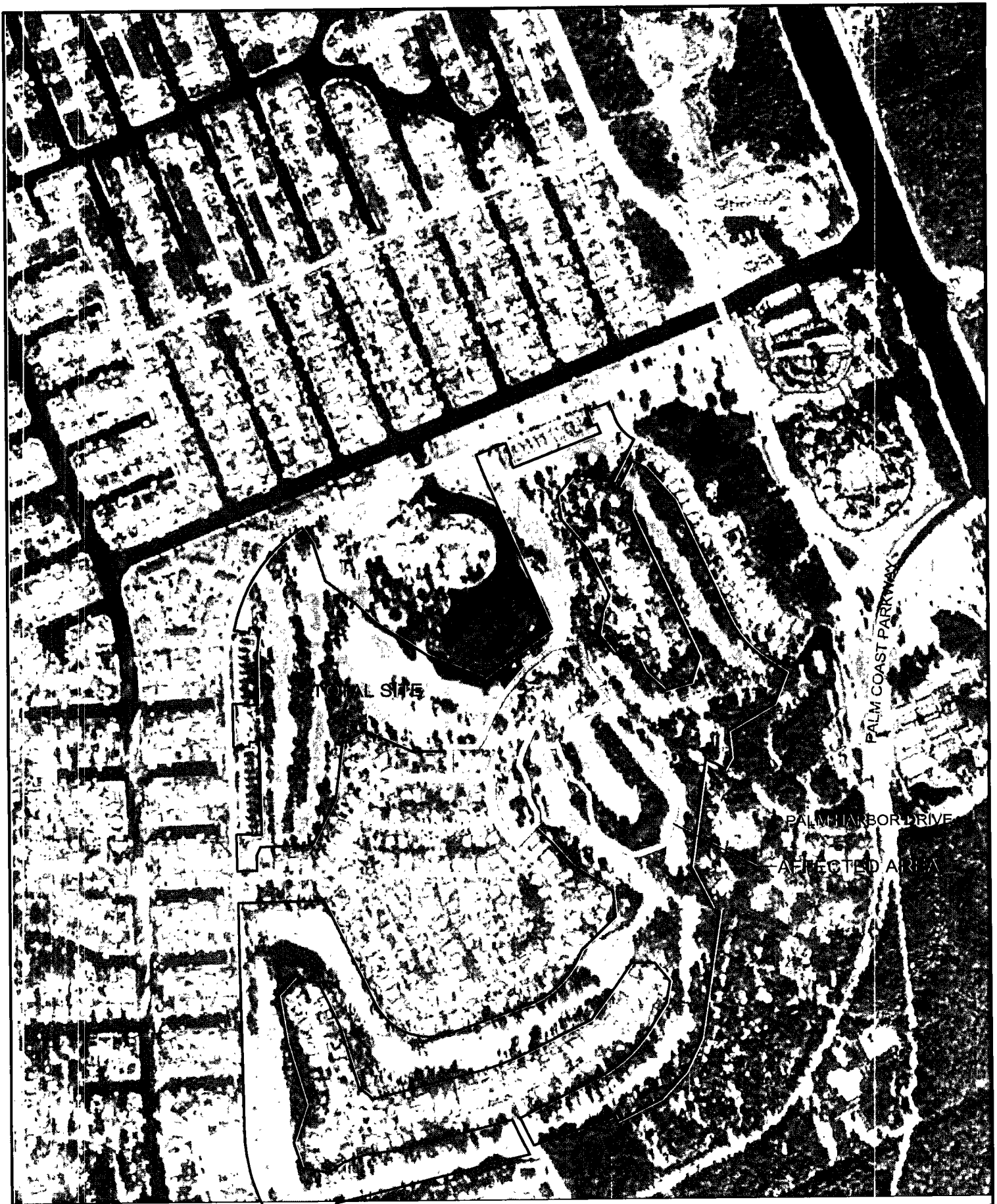


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LOCATION MAP
 PALM HARBOR GOLF COURSE
 PALM COAST, FLORIDA

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 FIGURE
 1

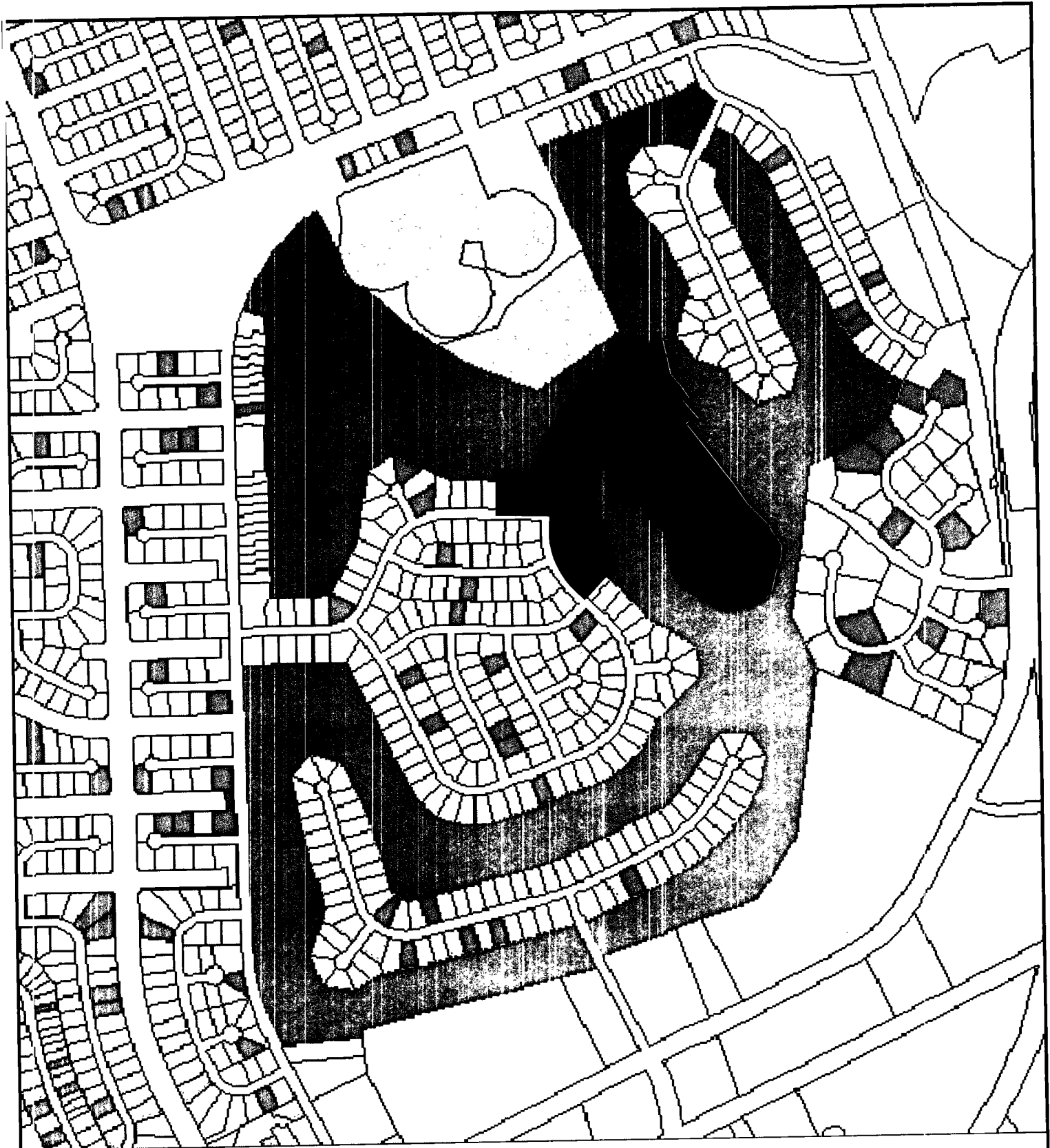


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AERIAL PHOTO
 PALM HARBOR GOLF COURSE
 PALM COAST, FLORIDA

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 FIGURE
 2



THE FLAGLER COUNTY PROPERTY APPRAISER'S OFFICE MAP
 PARCEL 07-11-31-7008-000A0-0000



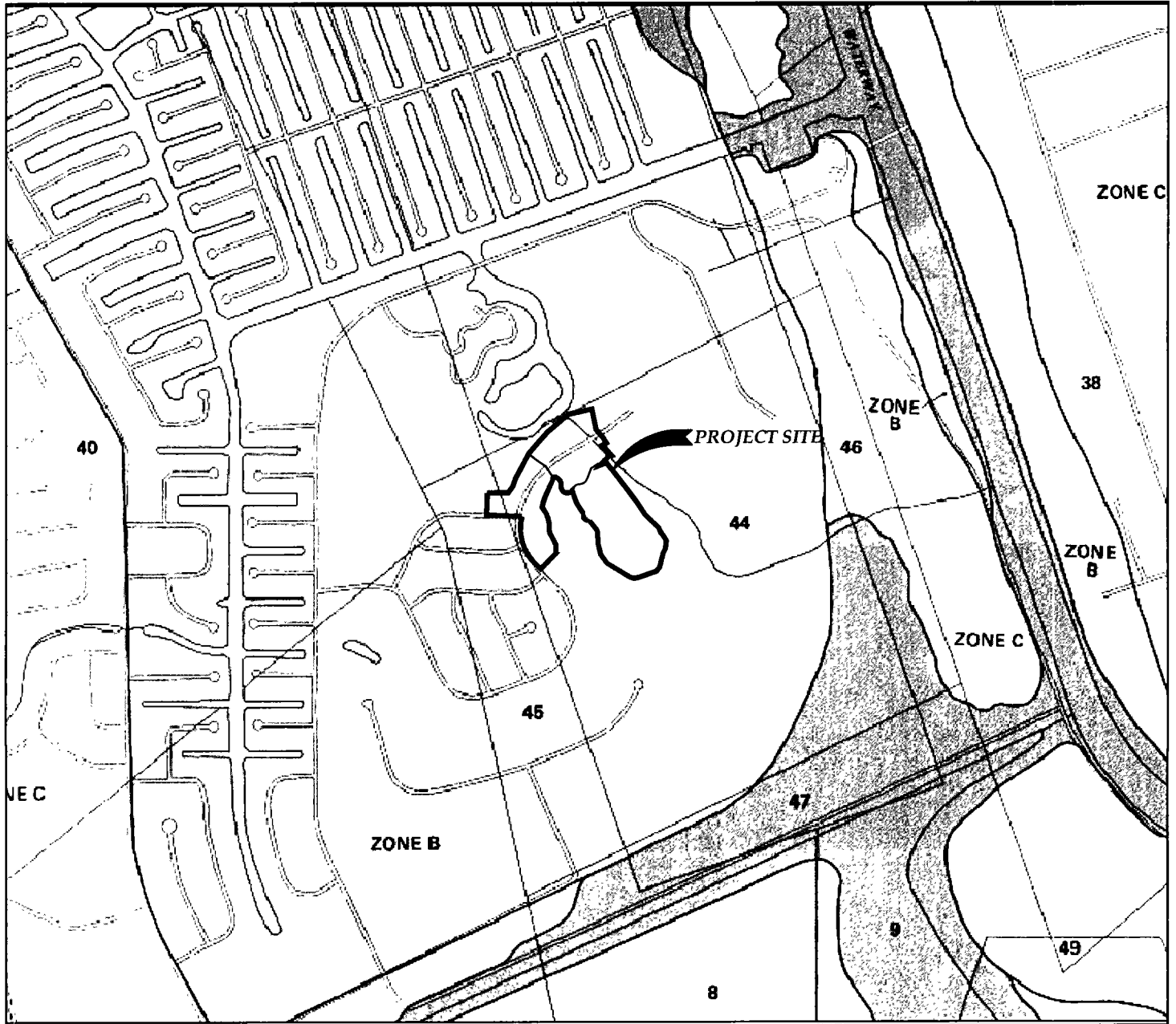
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PROPERTY APPRAISER MAP
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FIGURE
 6

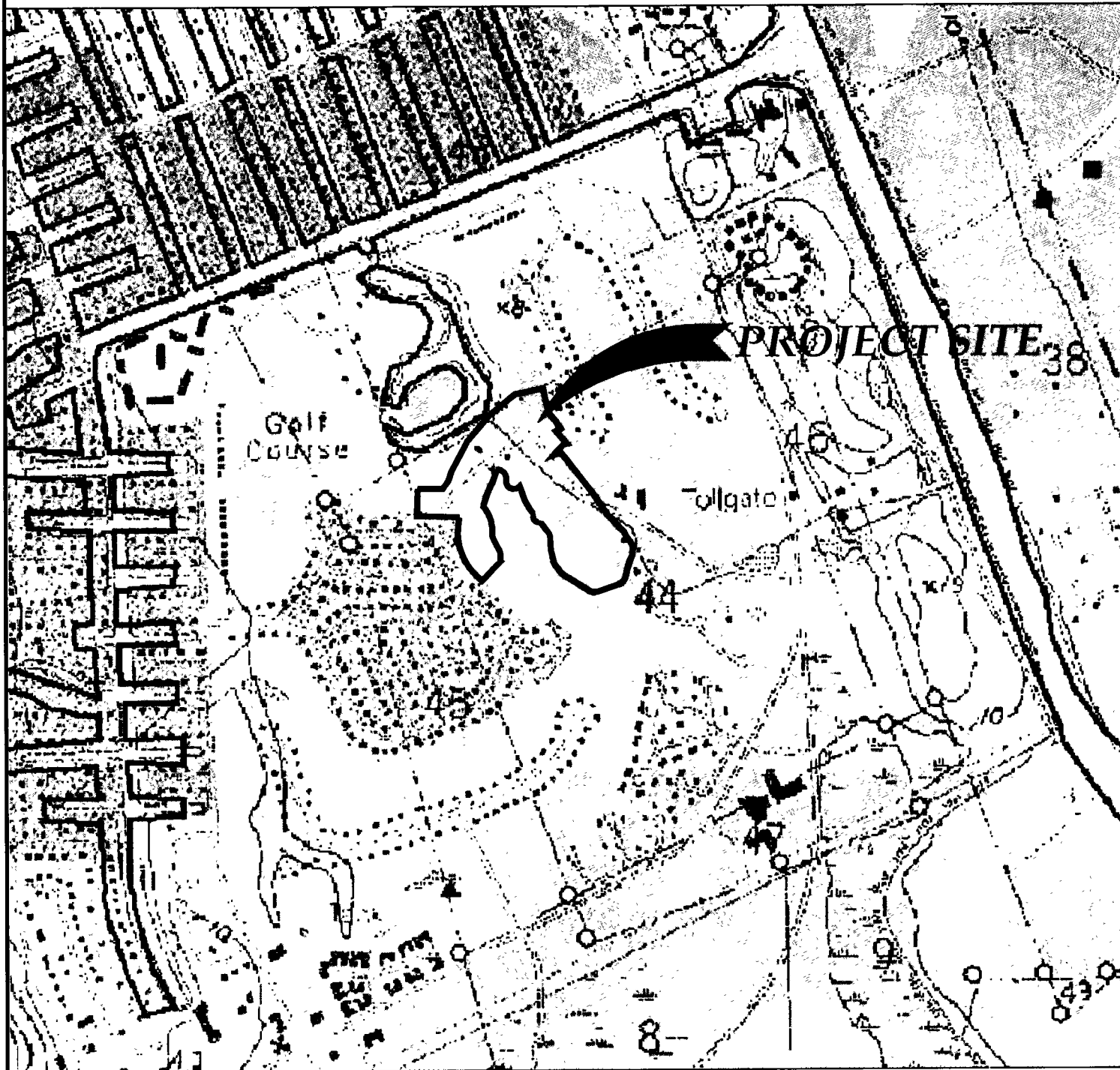


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FEMA MAP
 PALM HARBOR GOLF COURSE
 PALM COAST, FLORIDA

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 FIGURE
3



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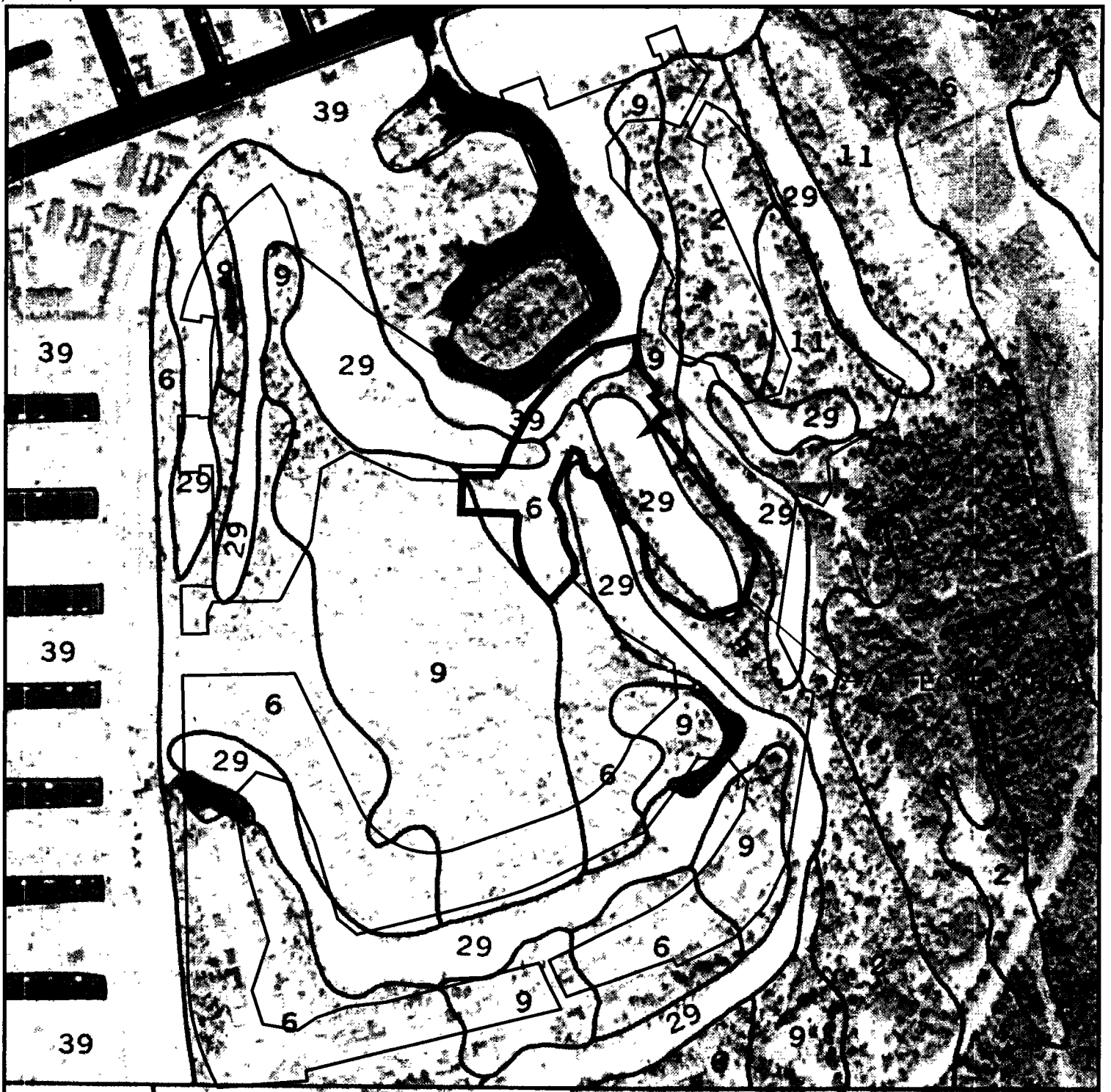
USGS

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PALM COAST, FLORIDA

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FIGURE

4



LEGEND

| SYMBOL | NAME | HYDROLOGIC |
|--------|-----------|------------|
| 2 | RIVIERA | C/D |
| 6 | FAVORETTA | D |
| 9 | EAUGALLIE | B/D |
| 29 | UDARENTS | C |
| 39 | UDARENTS | C |

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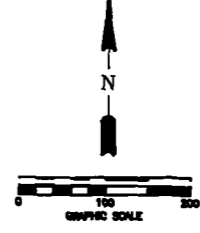
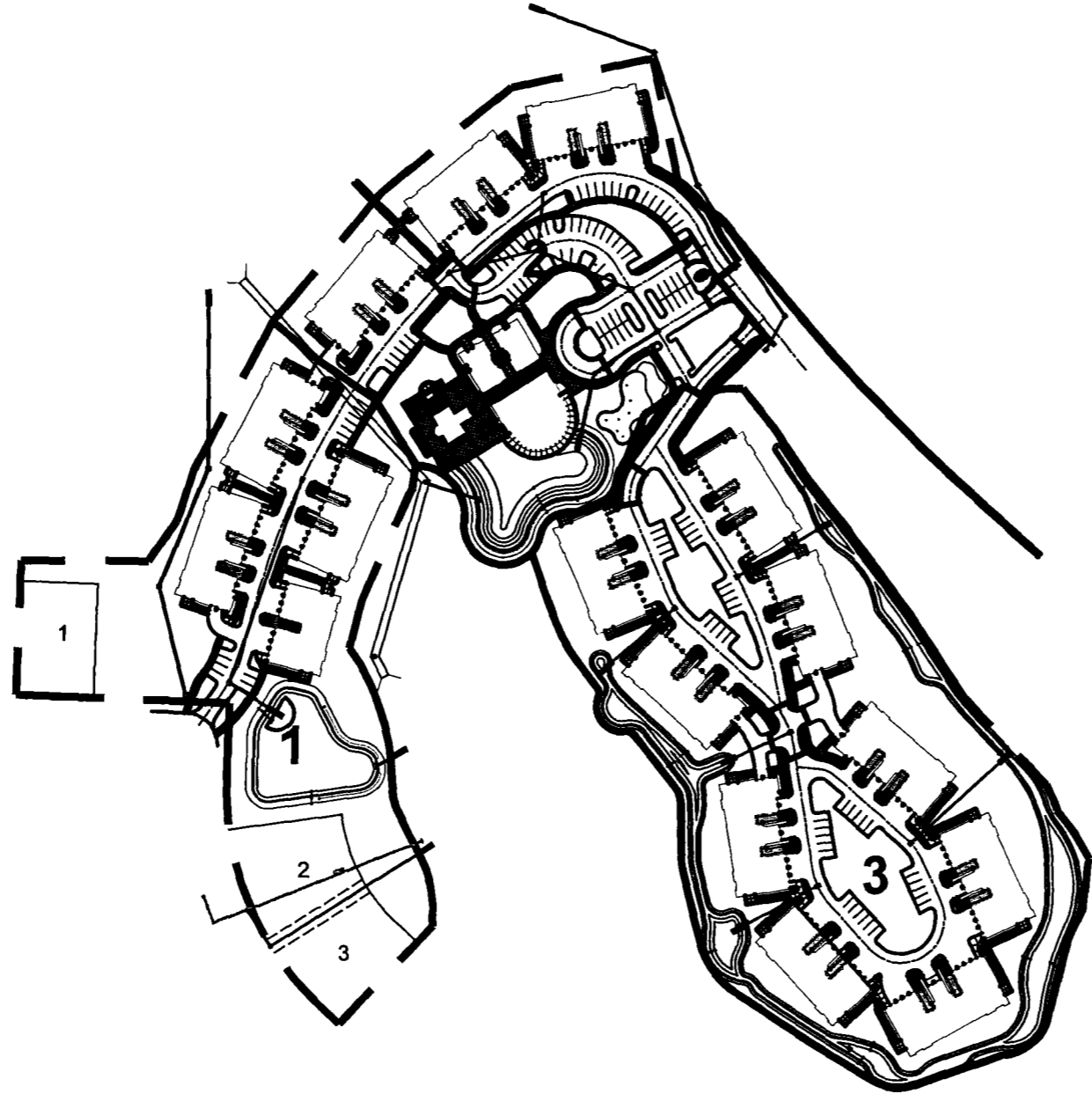
SCS SOILS MAP
 PALM HARBOR GOLF COURSE
 PALM COAST, FLORIDA

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 FIGURE
5

**PALM HARBOR GOLF COURSE
CITY OF PALM COAST, FLORIDA**

SECTION 2.0

POST-CONDITIONS ANALYSIS



CITY APPROVAL STAMP

| | | | | | | | | | | | | | | | | | |
|-----------------------|--------------------------------|---|--------------------|--|--|---------------------------------------|----------|---------------|------|----------------|------|-----------|----------|---------------|----------|----------------|--|
| Sheet No. 5 | DAVID R. WEAVER, P.E. 28807 | | DRAINAGE BASIN MAP | | PALM HARBOR GOLF COURSE CITY OF PALM COAST, FLORIDA | | Activity | | Name | | Date | | Revision | | Approved | | |
| | DESIGNED BY: JHI | | DRAWN BY: BNR | | 8/05 | | 8/05 | | 8/05 | | 8/05 | | 8/05 | | 8/05 | | |
| CHECKED BY: DRW | | APPROVED BY: DRW | | 8/05 | | 8/05 | | 8/05 | | 8/05 | | 8/05 | | 8/05 | | 8/05 | |
| DATE: 8/12/05 | | JOB NO.: C8002 | | FILE: FEP | | SCALE: 1" = 100' | | DATE: 8/12/05 | | JOB NO.: C8002 | | FILE: FEP | | DATE: 8/12/05 | | JOB NO.: C8002 | |
| EPL | | ENGINEERS PLANNERS LANDSCAPE ARCHITECTS SURVEYORS CONSTRUCTION MANAGEMENT | | 3117 E. PALM BLVD., SUITE 113, PALM BEACH, FLORIDA 33480 | | PHONE: 561-845-1000 FAX: 561-845-1001 | | © 2005 | | APPROVED | | REVISION | | DATE | | NO. | |

Palm Coast Resort

BASIN 2 DATA

Curve Number Calculations

| Hydrologic Group | Cover Description (Cover type, treatment, and hydrologic condition; percent impervious) | CN | Area (acres) | Product of CN X Area |
|------------------|--|----------------|--------------|----------------------|
| | Impervious Area | 98 | 2.68 | 262.64 |
| B | Pervious Area | 61 | 0.48 | 29.28 |
| C | Pervious Area | 74 | 1.63 | 120.62 |
| D | Pervious Area | 80 | 0.62 | 49.60 |
| | | Totals = | 5.41 | 462 |
| | | Composite CN = | | 85.4 |

Composite CN = Total Product / Total Area

Reference: Urban Hydrology for Small Watersheds
 Technical Release 55, Soil Conservation Service, June 1986

Wet Detention Pond /w Liner Data

| Elevation (ft-NGVD) | Area (ft ²) | Area (ac) | Volume (ft ³) | Cumulative Volume (ft ³) | Cumulative Volume (ac-ft) | Notes | Perc Rate* (cfs) |
|---------------------|-------------------------|-----------|---------------------------|--------------------------------------|---------------------------|--------------|------------------|
| -3 | 6320 | 0.145 | 0 | 0 | 0 | | 0 |
| 3 | 10253 | 0.235 | 49719 | 49719 | 1.14 | | 0 |
| 4 | 12011 | 0.276 | 11132 | 60851 | 1.40 | | 0 |
| 5 | 13885 | 0.319 | 0 | 0 | 0.00 | Top of Liner | 0 |
| 6 | 15812 | 0.363 | 14849 | 14849 | 0.34 | | 0.26 |
| 6.6 | 17000 | 0.390 | 9844 | 24692 | 0.57 | | |
| 7 | 17825 | 0.409 | 6965 | 31657 | 0.73 | | 0.52 |
| 8 | 19956 | 0.458 | 18891 | 50548 | 1.16 | Top of Berm | 0.78 |

Water Quality Calculations

Greater of
 2.5" over the Impervious 0.56 ac-ft
 or
 1.0" Runoff over the basin area 0.45 ac-ft

Palm Coast Resort

BASIN 1 DATA

Curve Number Calculations

| Hydrologic Group | Cover Description (Cover type, treatment, and hydrologic condition; percent impervious) | CN | Area (acres) | Product of CN X Area |
|------------------|--|----------------|--------------|----------------------|
| | | | | |
| | Impervious Area | 98 | 1.89 | 185.22 |
| B | Pervious Area | 61 | 0.18 | 10.98 |
| C | Pervious Area | 74 | 0.37 | 27.38 |
| D | Pervious Area | 80 | 2.93 | 234.40 |
| | | Totals = | 5.37 | 457.98 |
| | | Composite CN = | | 85 |

Soil Name

6-Favoretta-D
 9-Eau Gallie-B/D
 29-Udarents-C
 39-Udarents-C

Composite CN = Total Product / Total Area

Reference: **Urban Hydrology for Small Watersheds**
 Technical Release 55, Soil Conservation Service, June 1986

Dry Detention Pond Data

Pond 1

| Elevation (ft-NGVD) | Area (ft ²) | Area (ac) | Volume (ft ³) | Cumulative Volume (ft ³) | Cumulative Volume (ac-ft) | Notes | Perc Rate* (cfs) |
|---------------------|-------------------------|-----------|---------------------------|--------------------------------------|---------------------------|-------------|------------------|
| 5 | 13799 | 0.317 | 0 | 0 | 0.000 | | 0 |
| 6 | 16287 | 0.374 | 15043 | 15043 | 0.345 | | 0.25 |
| 6.3 | 17064 | 0.392 | 5003 | 20046 | 0.460 | | |
| 7 | 18933 | 0.435 | 12599 | 32645 | 0.749 | | 0.51 |
| 8 | 21736 | 0.499 | 20335 | 20335 | 0.467 | Top of Berm | 0.76 |

St. Johns River Water Management District Requirements

Water Quality Calculations

Greater of
 2.5" runoff over the Impervious 0.39 ac-ft
 or
 1.0" runoff over the basin area 0.45 ac-ft

Weir elevation 6.30 ft

Pond must recover 1/2 the water quality volume within 24-30 hours. 1/2 WQ elevation 5.65 ft

PALM HARBOR GOLF COURSE
POND DRAWDOWN
INPUT DATA

==== Basins =====

```

Name: 1                      Node: POND 1                Status: Onsite
Group: BASE                   Type: SCS Unit Hydrograph

Unit Hydrograph: Uh256        Peaking Factor: 256.0
Rainfall File: Flmod          Storm Duration(hrs): 24.00
Rainfall Amount(in): 0.100    Time of Conc(min): 10.00
Area(ac): 5.370               Time Shift(hrs): 0.00
Curve Number: 80.00           Max Allowable Q(cfs): 999999.000
DCIA(%): 0.00
  
```

```

Name: 2                      Node: POND 2                Status: Onsite
Group: BASE                   Type: SCS Unit Hydrograph

Unit Hydrograph: Uh256        Peaking Factor: 256.0
Rainfall File: Flmod          Storm Duration(hrs): 24.00
Rainfall Amount(in): 0.100    Time of Conc(min): 10.00
Area(ac): 5.410               Time Shift(hrs): 0.00
Curve Number: 85.00           Max Allowable Q(cfs): 999999.000
DCIA(%): 0.00
  
```

```

Name: 3                      Node: POND 3                Status: Onsite
Group: BASE                   Type: SCS Unit Hydrograph

Unit Hydrograph: Uh256        Peaking Factor: 256.0
Rainfall File: Flmod          Storm Duration(hrs): 24.00
Rainfall Amount(in): 0.100    Time of Conc(min): 10.00
Area(ac): 8.510               Time Shift(hrs): 0.00
Curve Number: 84.00           Max Allowable Q(cfs): 999999.000
DCIA(%): 0.00
  
```

==== Nodes =====

```

Name: GW                      Base Flow(cfs): 0.000      Init Stage(ft): 2.000
Group: BASE                   Warn Stage(ft): 3.000
Type: Time/Stage
  
```

| Time (hrs) | Stage (ft) |
|------------|------------|
| 0.00 | 2.000 |
| 96.00 | 2.000 |

```

Name: OFFSITE                 Base Flow(cfs): 0.000      Init Stage(ft): 4.000
Group: BASE                   Warn Stage(ft): 5.000
Type: Time/Stage
  
```

PALM HARBOR GOLF COURSE
POND DRAWDOWN
INPUT DATA

| Time (hrs) | Stage (ft) |
|------------|------------|
| 0.00 | 4.000 |
| 36.00 | 4.000 |

| | | |
|------------------|-----------------------|-----------------------|
| Name: POND 1 | Base Flow(cfs): 0.000 | Init Stage(ft): 6.300 |
| Group: BASE | | Warn Stage(ft): 8.000 |
| Type: Stage/Area | | |

| Stage (ft) | Area (ac) |
|------------|-----------|
| 5.000 | 0.3170 |
| 6.000 | 0.3740 |
| 6.300 | 0.3920 |
| 7.000 | 0.4350 |
| 8.000 | 0.4990 |

| | | |
|------------------|-----------------------|-----------------------|
| Name: POND 2 | Base Flow(cfs): 0.000 | Init Stage(ft): 6.600 |
| Group: BASE | | Warn Stage(ft): 8.000 |
| Type: Stage/Area | | |

| Stage (ft) | Area (ac) |
|------------|-----------|
| 5.000 | 0.3180 |
| 6.000 | 0.3630 |
| 6.600 | 0.3900 |
| 7.000 | 0.4090 |
| 8.000 | 0.4580 |

| | | |
|------------------|-----------------------|-----------------------|
| Name: POND 3 | Base Flow(cfs): 0.000 | Init Stage(ft): 7.350 |
| Group: BASE | | Warn Stage(ft): 8.000 |
| Type: Stage/Area | | |

| Stage (ft) | Area (ac) |
|------------|-----------|
| 6.000 | 0.2750 |
| 7.000 | 0.7060 |
| 7.350 | 0.8600 |
| 8.000 | 1.1450 |

| | | |
|------------------|-----------------------|-----------------------|
| Name: UD-1 | Base Flow(cfs): 0.000 | Init Stage(ft): 3.500 |
| Group: BASE | | Warn Stage(ft): 4.000 |
| Type: Time/Stage | | |

| Time (hrs) | Stage (ft) |
|------------|------------|
| 0.00 | 3.500 |
| 96.00 | 3.500 |

PALM HARBOR GOLF COURSE
POND DRAWDOWN
INPUT DATA

Name: UD-2 Base Flow(cfs): 0.000 Init Stage(ft): 3.500
Group: BASE Warn Stage(ft): 4.000
Type: Time/Stage

| Time(hrs) | Stage(ft) |
|-----------|-----------|
| 0.00 | 3.500 |
| 96.00 | 3.500 |

=====
=====
Operating Tables
=====
=====

Name: DRAW 1 Group: BASE
Type: Rating Curve
Function: US Stage vs. Discharge

| US Stage(ft) | Discharge(cfs) |
|--------------|----------------|
| 5.000 | 0.00 |
| 6.000 | 0.25 |
| 7.000 | 0.51 |
| 8.000 | 0.76 |

Name: DRAW 2 Group: BASE
Type: Rating Curve
Function: US Stage vs. Discharge

| US Stage(ft) | Discharge(cfs) |
|--------------|----------------|
| 5.000 | 0.00 |
| 6.000 | 0.26 |
| 7.000 | 0.52 |
| 8.000 | 0.78 |

Name: DRAW 3 Group: BASE
Type: Rating Curve
Function: US Stage vs. Discharge

| US Stage(ft) | Discharge(cfs) |
|--------------|----------------|
| 6.000 | 0.69 |
| 7.000 | 1.78 |
| 8.000 | 2.90 |

=====
=====
Drop Structures
=====
=====

Name: CONTROL 1 From Node: POND 1 Length(ft): 37.00
Group: BASE To Node: OFFSITE Count: 1

PALM HARBOR GOLF COURSE
POND DRAWDOWN
INPUT DATA

| | | | |
|---------------|----------|------------|---------------------------------------|
| | UPSTREAM | DOWNSTREAM | Friction Equation: Average Conveyance |
| Geometry: | Circular | Circular | Solution Algorithm: Automatic |
| Span(in): | 15.00 | 15.00 | Flow: Both |
| Rise(in): | 15.00 | 15.00 | Entrance Loss Coef: 0.200 |
| Invert(ft): | 2.450 | 2.300 | Exit Loss Coef: 0.000 |
| Manning's N: | 0.012000 | 0.012000 | Outlet Ctrl Spec: Use dc or tw |
| Top Clip(in): | 0.000 | 0.000 | Inlet Ctrl Spec: Use dn |
| Bot Clip(in): | 0.000 | 0.000 | Solution Incs: 10 |

Upstream FHWA Inlet Edge Description:
Circular Concrete: Square edge w/ headwall

Downstream FHWA Inlet Edge Description:
Circular Concrete: Square edge w/ headwall

*** Weir 1 of 1 for Drop Structure CONTROL 1 ***

TABLE

| | |
|-----------------------|--------------------------|
| Count: 1 | Bottom Clip(in): 0.000 |
| Type: Horizontal | Top Clip(in): 0.000 |
| Flow: Both | Weir Disc Coef: 3.200 |
| Geometry: Rectangular | Orifice Disc Coef: 0.600 |
| Span(in): 36.00 | Invert(ft): 6.300 |
| Rise(in): 24.00 | Control Elev(ft): 6.300 |

| | | |
|-----------------|-------------------|-------------------|
| Name: CONTROL 2 | From Node: POND 2 | Length(ft): 66.00 |
| Group: BASE | To Node: OFFSITE | Count: 1 |

| | | | |
|---------------|----------|------------|---------------------------------------|
| | UPSTREAM | DOWNSTREAM | Friction Equation: Average Conveyance |
| Geometry: | Circular | Circular | Solution Algorithm: Automatic |
| Span(in): | 15.00 | 15.00 | Flow: Both |
| Rise(in): | 15.00 | 15.00 | Entrance Loss Coef: 0.200 |
| Invert(ft): | 3.500 | 3.240 | Exit Loss Coef: 0.000 |
| Manning's N: | 0.012000 | 0.012000 | Outlet Ctrl Spec: Use dc or tw |
| Top Clip(in): | 0.000 | 0.000 | Inlet Ctrl Spec: Use dn |
| Bot Clip(in): | 0.000 | 0.000 | Solution Incs: 10 |

Upstream FHWA Inlet Edge Description:
Circular Concrete: Square edge w/ headwall

Downstream FHWA Inlet Edge Description:
Circular Concrete: Square edge w/ headwall

*** Weir 1 of 1 for Drop Structure CONTROL 2 ***

TABLE

| | |
|-----------------------|--------------------------|
| Count: 1 | Bottom Clip(in): 0.000 |
| Type: Horizontal | Top Clip(in): 0.000 |
| Flow: Both | Weir Disc Coef: 3.200 |
| Geometry: Rectangular | Orifice Disc Coef: 0.600 |
| Span(in): 36.00 | Invert(ft): 6.600 |
| Rise(in): 24.00 | Control Elev(ft): 6.600 |

| | | |
|-----------------|-------------------|--------------------|
| Name: CONTROL 3 | From Node: POND 3 | Length(ft): 241.00 |
| Group: BASE | To Node: OFFSITE | Count: 1 |

PALM HARBOR GOLF COURSE
POND DRAWDOWN
INPUT DATA

| | | | |
|---------------|----------|------------|---------------------------------------|
| | UPSTREAM | DOWNSTREAM | |
| Geometry: | Circular | Circular | Friction Equation: Average Conveyance |
| Span(in): | 15.00 | 15.00 | Solution Algorithm: Automatic |
| Rise(in): | 15.00 | 15.00 | Flow: Both |
| Invert(ft): | 4.010 | 3.140 | Entrance Loss Coef: 0.200 |
| Manning's N: | 0.014000 | 0.014000 | Exit Loss Coef: 0.000 |
| Top Clip(in): | 0.000 | 0.000 | Outlet Ctrl Spec: Use dc or tw |
| Bot Clip(in): | 0.000 | 0.000 | Inlet Ctrl Spec: Use dn |
| | | | Solution Incs: 10 |

Upstream FHWA Inlet Edge Description:
Circular Concrete: Square edge w/ headwall

Downstream FHWA Inlet Edge Description:
Circular Concrete: Square edge w/ headwall

*** Weir 1 of 1 for Drop Structure CONTROL 3 ***

| | |
|-----------------------|--------------------------|
| | TABLE |
| Count: 1 | Bottom Clip(in): 0.000 |
| Type: Horizontal | Top Clip(in): 0.000 |
| Flow: Both | Weir Disc Coef: 3.200 |
| Geometry: Rectangular | Orifice Disc Coef: 0.600 |
| Span(in): 36.00 | Invert(ft): 7.350 |
| Rise(in): 24.00 | Control Elev(ft): 7.350 |

==== Rating Curves =====

| | | |
|-------------|-------------------|--------------|
| Name: RC-1 | From Node: POND 1 | Count: 1 |
| Group: BASE | To Node: UD-1 | Flow: Both |
| TABLE | ELEV ON(ft) | ELEV OFF(ft) |
| #1: DRAW 1 | 5.010 | 5.010 |
| #2: | 0.000 | 0.000 |
| #3: | 0.000 | 0.000 |
| #4: | 0.000 | 0.000 |

| | | |
|-------------|-------------------|--------------|
| Name: RC-2 | From Node: POND 2 | Count: 1 |
| Group: BASE | To Node: UD-2 | Flow: Both |
| TABLE | ELEV ON(ft) | ELEV OFF(ft) |
| #1: DRAW 2 | 5.010 | 5.010 |
| #2: | 0.000 | 0.000 |
| #3: | 0.000 | 0.000 |
| #4: | 0.000 | 0.000 |

| | | |
|-------------|-------------------|--------------|
| Name: RC-3 | From Node: POND 3 | Count: 1 |
| Group: BASE | To Node: GW | Flow: Both |
| TABLE | ELEV ON(ft) | ELEV OFF(ft) |
| #1: DRAW 3 | 6.010 | 6.010 |
| #2: | 0.000 | 0.000 |

PALM HARBOR GOLF COURSE
POND DRAWDOWN
INPUT DATA

| | | |
|-----|-------|-------|
| #3: | 0.000 | 0.000 |
| #4: | 0.000 | 0.000 |

==== Hydrology Simulations =====

Name: C9001-DRAW
Filename: J:\C9002 Centex Homes Site 6\ICPR\C9002_POST-MA\C9001-DRAW.R32

Override Defaults: No

| Time(hrs) | Print Inc(min) |
|-----------|----------------|
| 96.000 | 30.00 |

==== Routing Simulations =====

Name: C9001-DRAW Hydrology Sim: C9001-DRAW
Filename: J:\C9002 Centex Homes Site 6\ICPR\C9002_POST-MA\C9001-DRAW.I32

Execute: Yes Restart: No Patch: No
Alternative: No

| | |
|-----------------------------|-----------------------------|
| Max Delta Z(ft): 1.00 | Delta Z Factor: 0.00500 |
| Time Step Optimizer: 10.000 | |
| Start Time(hrs): 0.000 | End Time(hrs): 96.00 |
| Min Calc Time(sec): 0.5000 | Max Calc Time(sec): 60.0000 |
| Boundary Stages: | Boundary Flows: |

| Time(hrs) | Print Inc(min) |
|-----------|----------------|
| 96.000 | 30.000 |

| Group | Run |
|-------|-----|
| BASE | Yes |

==== Boundary Conditions =====

PALM HARBOR GOLF COURSE
POND DRAWDOWN
TIME SERIES FOR PONDS

| Simulation | Node | Group | Time hrs | Stage ft | Warning Stage ft | Surface Area ft ² | Total Inflow cfs | Total Outflow cfs | Total Vol In af | Total Vol Out af |
|------------|--------|-------|-------------|-------------|------------------------|------------------------------------|------------------------|-------------------------|-----------------------|------------------------|
| C9001-DRAW | POND 1 | BASE | 0.00 | 6.300 | 8.000 | 17076 | 0.000 | 0.328 | 0.0 | 0.0 |
| C9001-DRAW | POND 1 | BASE | 0.51 | 6.265 | 8.000 | 16984 | 0.000 | 0.319 | 0.0 | 0.0 |
| C9001-DRAW | POND 1 | BASE | 1.01 | 6.232 | 8.000 | 16897 | 0.000 | 0.310 | 0.0 | 0.0 |
| C9001-DRAW | POND 1 | BASE | 1.51 | 6.199 | 8.000 | 16812 | 0.000 | 0.302 | 0.0 | 0.0 |
| C9001-DRAW | POND 1 | BASE | 2.01 | 6.167 | 8.000 | 16729 | 0.000 | 0.293 | 0.0 | 0.1 |
| C9001-DRAW | POND 1 | BASE | 2.51 | 6.136 | 8.000 | 16647 | 0.000 | 0.285 | 0.0 | 0.1 |
| C9001-DRAW | POND 1 | BASE | 3.00 | 6.106 | 8.000 | 16568 | 0.000 | 0.277 | 0.0 | 0.1 |
| C9001-DRAW | POND 1 | BASE | 3.50 | 6.076 | 8.000 | 16490 | 0.000 | 0.270 | 0.0 | 0.1 |
| C9001-DRAW | POND 1 | BASE | 4.00 | 6.047 | 8.000 | 16414 | 0.000 | 0.262 | 0.0 | 0.1 |
| C9001-DRAW | POND 1 | BASE | 4.50 | 6.019 | 8.000 | 16340 | 0.000 | 0.255 | 0.0 | 0.1 |
| C9001-DRAW | POND 1 | BASE | 5.00 | 5.991 | 8.000 | 16269 | 0.000 | 0.248 | 0.0 | 0.1 |
| C9001-DRAW | POND 1 | BASE | 5.51 | 5.963 | 8.000 | 16200 | 0.000 | 0.241 | 0.0 | 0.1 |
| C9001-DRAW | POND 1 | BASE | 6.01 | 5.937 | 8.000 | 16134 | 0.000 | 0.234 | 0.0 | 0.1 |
| C9001-DRAW | POND 1 | BASE | 6.51 | 5.911 | 8.000 | 16070 | 0.000 | 0.228 | 0.0 | 0.1 |
| C9001-DRAW | POND 1 | BASE | 7.01 | 5.886 | 8.000 | 16008 | 0.000 | 0.221 | 0.0 | 0.2 |
| C9001-DRAW | POND 1 | BASE | 7.51 | 5.861 | 8.000 | 15947 | 0.000 | 0.215 | 0.0 | 0.2 |
| C9001-DRAW | POND 1 | BASE | 8.01 | 5.837 | 8.000 | 15888 | 0.000 | 0.209 | 0.0 | 0.2 |
| C9001-DRAW | POND 1 | BASE | 8.51 | 5.814 | 8.000 | 15829 | 0.000 | 0.203 | 0.0 | 0.2 |
| C9001-DRAW | POND 1 | BASE | 9.01 | 5.791 | 8.000 | 15773 | 0.000 | 0.198 | 0.0 | 0.2 |
| C9001-DRAW | POND 1 | BASE | 9.51 | 5.769 | 8.000 | 15717 | 0.000 | 0.192 | 0.0 | 0.2 |
| C9001-DRAW | POND 1 | BASE | 10.01 | 5.747 | 8.000 | 15663 | 0.000 | 0.187 | 0.0 | 0.2 |
| C9001-DRAW | POND 1 | BASE | 10.51 | 5.726 | 8.000 | 15611 | 0.000 | 0.181 | 0.0 | 0.2 |
| C9001-DRAW | POND 1 | BASE | 11.01 | 5.705 | 8.000 | 15559 | 0.000 | 0.176 | 0.0 | 0.2 |
| C9001-DRAW | POND 1 | BASE | 11.51 | 5.685 | 8.000 | 15509 | 0.000 | 0.171 | 0.0 | 0.2 |
| C9001-DRAW | POND 1 | BASE | 12.01 | 5.665 | 8.000 | 15461 | 0.000 | 0.166 | 0.0 | 0.2 |
| C9001-DRAW | POND 1 | BASE | 12.51 | 5.646 | 8.000 | 15413 | 0.000 | 0.162 | 0.0 | 0.2 |
| C9001-DRAW | POND 1 | BASE | 13.01 | 5.628 | 8.000 | 15367 | 0.000 | 0.157 | 0.0 | 0.3 |
| C9001-DRAW | POND 1 | BASE | 13.51 | 5.610 | 8.000 | 15322 | 0.000 | 0.152 | 0.0 | 0.3 |
| C9001-DRAW | POND 1 | BASE | 14.01 | 5.592 | 8.000 | 15278 | 0.000 | 0.148 | 0.0 | 0.3 |
| C9001-DRAW | POND 1 | BASE | 14.51 | 5.575 | 8.000 | 15235 | 0.000 | 0.144 | 0.0 | 0.3 |
| C9001-DRAW | POND 1 | BASE | 15.01 | 5.558 | 8.000 | 15194 | 0.000 | 0.139 | 0.0 | 0.3 |
| C9001-DRAW | POND 1 | BASE | 15.51 | 5.542 | 8.000 | 15153 | 0.000 | 0.135 | 0.0 | 0.3 |
| C9001-DRAW | POND 1 | BASE | 16.01 | 5.526 | 8.000 | 15114 | 0.000 | 0.131 | 0.0 | 0.3 |
| C9001-DRAW | POND 1 | BASE | 16.51 | 5.510 | 8.000 | 15075 | 0.000 | 0.128 | 0.0 | 0.3 |
| C9001-DRAW | POND 1 | BASE | 17.01 | 5.495 | 8.000 | 15038 | 0.000 | 0.124 | 0.0 | 0.3 |
| C9001-DRAW | POND 1 | BASE | 17.51 | 5.481 | 8.000 | 15002 | 0.000 | 0.120 | 0.0 | 0.3 |
| C9001-DRAW | POND 1 | BASE | 18.01 | 5.466 | 8.000 | 14967 | 0.000 | 0.117 | 0.0 | 0.3 |
| C9001-DRAW | POND 1 | BASE | 18.51 | 5.453 | 8.000 | 14932 | 0.000 | 0.113 | 0.0 | 0.3 |
| C9001-DRAW | POND 1 | BASE | 19.01 | 5.439 | 8.000 | 14899 | 0.000 | 0.110 | 0.0 | 0.3 |
| C9001-DRAW | POND 1 | BASE | 19.51 | 5.426 | 8.000 | 14866 | 0.000 | 0.107 | 0.0 | 0.3 |

PALM HARBOR GOLF COURSE
POND DRAWDOWN
TIME SERIES FOR PONDS

| Simulation | Node | Group | Time hrs | Stage ft | Warning Stage ft | Surface Area ft2 | Total Inflow cfs | Total Outflow cfs | Total Vol In af | Total Vol Out af |
|------------|--------|-------|-------------|-------------|------------------------|------------------------|------------------------|-------------------------|-----------------------|------------------------|
| C9001-DRAW | POND 1 | BASE | 20.01 | 5.413 | 8.000 | 14835 | 0.000 | 0.103 | 0.0 | 0.3 |
| C9001-DRAW | POND 1 | BASE | 20.51 | 5.401 | 8.000 | 14804 | 0.000 | 0.100 | 0.0 | 0.3 |
| C9001-DRAW | POND 1 | BASE | 21.01 | 5.389 | 8.000 | 14774 | 0.000 | 0.097 | 0.0 | 0.3 |
| C9001-DRAW | POND 1 | BASE | 21.51 | 5.377 | 8.000 | 14745 | 0.000 | 0.094 | 0.0 | 0.3 |
| C9001-DRAW | POND 1 | BASE | 22.01 | 5.366 | 8.000 | 14717 | 0.000 | 0.091 | 0.0 | 0.3 |
| C9001-DRAW | POND 1 | BASE | 22.51 | 5.355 | 8.000 | 14690 | 0.000 | 0.089 | 0.0 | 0.3 |
| C9001-DRAW | POND 1 | BASE | 23.01 | 5.344 | 8.000 | 14663 | 0.000 | 0.086 | 0.0 | 0.3 |
| C9001-DRAW | POND 1 | BASE | 23.51 | 5.334 | 8.000 | 14637 | 0.000 | 0.083 | 0.0 | 0.4 |
| C9001-DRAW | POND 1 | BASE | 24.01 | 5.324 | 8.000 | 14612 | 0.000 | 0.081 | 0.0 | 0.4 |
| C9001-DRAW | POND 1 | BASE | 24.51 | 5.314 | 8.000 | 14588 | 0.000 | 0.078 | 0.0 | 0.4 |
| C9001-DRAW | POND 1 | BASE | 25.01 | 5.304 | 8.000 | 14564 | 0.000 | 0.076 | 0.0 | 0.4 |
| C9001-DRAW | POND 1 | BASE | 25.51 | 5.295 | 8.000 | 14541 | 0.000 | 0.074 | 0.0 | 0.4 |
| C9001-DRAW | POND 1 | BASE | 26.01 | 5.286 | 8.000 | 14519 | 0.000 | 0.071 | 0.0 | 0.4 |
| C9001-DRAW | POND 1 | BASE | 26.51 | 5.277 | 8.000 | 14497 | 0.000 | 0.069 | 0.0 | 0.4 |
| C9001-DRAW | POND 1 | BASE | 27.01 | 5.269 | 8.000 | 14476 | 0.000 | 0.067 | 0.0 | 0.4 |
| C9001-DRAW | POND 1 | BASE | 27.51 | 5.261 | 8.000 | 14455 | 0.000 | 0.065 | 0.0 | 0.4 |
| C9001-DRAW | POND 1 | BASE | 28.01 | 5.253 | 8.000 | 14436 | 0.000 | 0.063 | 0.0 | 0.4 |
| C9001-DRAW | POND 1 | BASE | 28.51 | 5.245 | 8.000 | 14416 | 0.000 | 0.061 | 0.0 | 0.4 |
| C9001-DRAW | POND 1 | BASE | 29.01 | 5.237 | 8.000 | 14398 | 0.000 | 0.059 | 0.0 | 0.4 |
| C9001-DRAW | POND 1 | BASE | 29.51 | 5.230 | 8.000 | 14379 | 0.000 | 0.057 | 0.0 | 0.4 |
| C9001-DRAW | POND 1 | BASE | 30.01 | 5.223 | 8.000 | 14362 | 0.000 | 0.056 | 0.0 | 0.4 |
| C9001-DRAW | POND 1 | BASE | 30.51 | 5.216 | 8.000 | 14345 | 0.000 | 0.054 | 0.0 | 0.4 |
| C9001-DRAW | POND 1 | BASE | 31.01 | 5.209 | 8.000 | 14328 | 0.000 | 0.052 | 0.0 | 0.4 |
| C9001-DRAW | POND 1 | BASE | 31.51 | 5.203 | 8.000 | 14312 | 0.000 | 0.051 | 0.0 | 0.4 |
| C9001-DRAW | POND 1 | BASE | 32.01 | 5.197 | 8.000 | 14297 | 0.000 | 0.049 | 0.0 | 0.4 |
| C9001-DRAW | POND 1 | BASE | 32.51 | 5.190 | 8.000 | 14281 | 0.000 | 0.048 | 0.0 | 0.4 |
| C9001-DRAW | POND 1 | BASE | 33.01 | 5.185 | 8.000 | 14267 | 0.000 | 0.046 | 0.0 | 0.4 |
| C9001-DRAW | POND 1 | BASE | 33.51 | 5.179 | 8.000 | 14252 | 0.000 | 0.045 | 0.0 | 0.4 |
| C9001-DRAW | POND 1 | BASE | 34.01 | 5.173 | 8.000 | 14239 | 0.000 | 0.043 | 0.0 | 0.4 |
| C9001-DRAW | POND 1 | BASE | 34.51 | 5.168 | 8.000 | 14225 | 0.000 | 0.042 | 0.0 | 0.4 |
| C9001-DRAW | POND 1 | BASE | 35.01 | 5.163 | 8.000 | 14212 | 0.000 | 0.041 | 0.0 | 0.4 |
| C9001-DRAW | POND 1 | BASE | 35.51 | 5.158 | 8.000 | 14200 | 0.000 | 0.039 | 0.0 | 0.4 |
| C9001-DRAW | POND 1 | BASE | 36.01 | 5.153 | 8.000 | 14187 | 0.000 | 0.038 | 0.0 | 0.4 |
| C9001-DRAW | POND 1 | BASE | 36.51 | 5.148 | 8.000 | 14176 | 0.000 | 0.037 | 0.0 | 0.4 |
| C9001-DRAW | POND 1 | BASE | 37.01 | 5.143 | 8.000 | 14164 | 0.000 | 0.036 | 0.0 | 0.4 |
| C9001-DRAW | POND 1 | BASE | 37.51 | 5.139 | 8.000 | 14153 | 0.000 | 0.035 | 0.0 | 0.4 |
| C9001-DRAW | POND 1 | BASE | 38.01 | 5.134 | 8.000 | 14142 | 0.000 | 0.034 | 0.0 | 0.4 |
| C9001-DRAW | POND 1 | BASE | 38.51 | 5.130 | 8.000 | 14132 | 0.000 | 0.033 | 0.0 | 0.4 |
| C9001-DRAW | POND 1 | BASE | 39.01 | 5.126 | 8.000 | 14122 | 0.000 | 0.032 | 0.0 | 0.4 |
| C9001-DRAW | POND 1 | BASE | 39.51 | 5.122 | 8.000 | 14112 | 0.000 | 0.031 | 0.0 | 0.4 |

PALM HARBOR GOLF COURSE
POND DRAWDOWN
TIME SERIES FOR PONDS

| Simulation | Node | Group | Time hrs | Stage ft | Warning Stage ft | Surface Area ft2 | Total Inflow cfs | Total Outflow cfs | Total Vol In af | Total Vol Out af |
|------------|--------|-------|-------------|-------------|------------------------|------------------------|------------------------|-------------------------|-----------------------|------------------------|
| C9001-DRAW | POND 1 | BASE | 40.01 | 5.118 | 8.000 | 14102 | 0.000 | 0.030 | 0.0 | 0.4 |
| C9001-DRAW | POND 1 | BASE | 40.51 | 5.115 | 8.000 | 14093 | 0.000 | 0.029 | 0.0 | 0.4 |
| C9001-DRAW | POND 1 | BASE | 41.01 | 5.111 | 8.000 | 14084 | 0.000 | 0.028 | 0.0 | 0.4 |
| C9001-DRAW | POND 1 | BASE | 41.51 | 5.108 | 8.000 | 14075 | 0.000 | 0.027 | 0.0 | 0.4 |
| C9001-DRAW | POND 1 | BASE | 42.01 | 5.104 | 8.000 | 14067 | 0.000 | 0.026 | 0.0 | 0.4 |
| C9001-DRAW | POND 1 | BASE | 42.51 | 5.101 | 8.000 | 14059 | 0.000 | 0.025 | 0.0 | 0.4 |
| C9001-DRAW | POND 1 | BASE | 43.01 | 5.098 | 8.000 | 14051 | 0.000 | 0.024 | 0.0 | 0.4 |
| C9001-DRAW | POND 1 | BASE | 43.51 | 5.095 | 8.000 | 14043 | 0.000 | 0.024 | 0.0 | 0.4 |
| C9001-DRAW | POND 1 | BASE | 44.01 | 5.092 | 8.000 | 14036 | 0.000 | 0.023 | 0.0 | 0.4 |
| C9001-DRAW | POND 1 | BASE | 44.51 | 5.089 | 8.000 | 14029 | 0.000 | 0.022 | 0.0 | 0.4 |
| C9001-DRAW | POND 1 | BASE | 45.01 | 5.086 | 8.000 | 14022 | 0.000 | 0.021 | 0.0 | 0.4 |
| C9001-DRAW | POND 1 | BASE | 45.51 | 5.083 | 8.000 | 14015 | 0.000 | 0.021 | 0.0 | 0.4 |
| C9001-DRAW | POND 1 | BASE | 46.01 | 5.081 | 8.000 | 14009 | 0.000 | 0.020 | 0.0 | 0.4 |
| C9001-DRAW | POND 1 | BASE | 46.51 | 5.078 | 8.000 | 14002 | 0.000 | 0.020 | 0.0 | 0.4 |
| C9001-DRAW | POND 1 | BASE | 47.01 | 5.076 | 8.000 | 13996 | 0.000 | 0.019 | 0.0 | 0.4 |
| C9001-DRAW | POND 1 | BASE | 47.51 | 5.073 | 8.000 | 13990 | 0.000 | 0.018 | 0.0 | 0.4 |
| C9001-DRAW | POND 1 | BASE | 48.01 | 5.071 | 8.000 | 13984 | 0.000 | 0.018 | 0.0 | 0.4 |
| C9001-DRAW | POND 1 | BASE | 48.51 | 5.069 | 8.000 | 13979 | 0.000 | 0.017 | 0.0 | 0.4 |
| C9001-DRAW | POND 1 | BASE | 49.01 | 5.066 | 8.000 | 13973 | 0.000 | 0.017 | 0.0 | 0.4 |
| C9001-DRAW | POND 1 | BASE | 49.51 | 5.064 | 8.000 | 13968 | 0.000 | 0.016 | 0.0 | 0.4 |
| C9001-DRAW | POND 1 | BASE | 50.01 | 5.062 | 8.000 | 13963 | 0.000 | 0.016 | 0.0 | 0.4 |
| C9001-DRAW | POND 1 | BASE | 50.51 | 5.060 | 8.000 | 13958 | 0.000 | 0.015 | 0.0 | 0.4 |
| C9001-DRAW | POND 1 | BASE | 51.01 | 5.058 | 8.000 | 13953 | 0.000 | 0.015 | 0.0 | 0.4 |
| C9001-DRAW | POND 1 | BASE | 51.51 | 5.057 | 8.000 | 13949 | 0.000 | 0.014 | 0.0 | 0.4 |
| C9001-DRAW | POND 1 | BASE | 52.01 | 5.055 | 8.000 | 13944 | 0.000 | 0.014 | 0.0 | 0.4 |
| C9001-DRAW | POND 1 | BASE | 52.51 | 5.053 | 8.000 | 13940 | 0.000 | 0.013 | 0.0 | 0.4 |
| C9001-DRAW | POND 1 | BASE | 53.01 | 5.051 | 8.000 | 13936 | 0.000 | 0.013 | 0.0 | 0.4 |
| C9001-DRAW | POND 1 | BASE | 53.51 | 5.050 | 8.000 | 13932 | 0.000 | 0.012 | 0.0 | 0.4 |
| C9001-DRAW | POND 1 | BASE | 54.01 | 5.048 | 8.000 | 13928 | 0.000 | 0.012 | 0.0 | 0.4 |
| C9001-DRAW | POND 1 | BASE | 54.51 | 5.047 | 8.000 | 13924 | 0.000 | 0.012 | 0.0 | 0.4 |
| C9001-DRAW | POND 1 | BASE | 55.01 | 5.045 | 8.000 | 13920 | 0.000 | 0.011 | 0.0 | 0.4 |
| C9001-DRAW | POND 1 | BASE | 55.51 | 5.044 | 8.000 | 13917 | 0.000 | 0.011 | 0.0 | 0.4 |
| C9001-DRAW | POND 1 | BASE | 56.01 | 5.042 | 8.000 | 13913 | 0.000 | 0.011 | 0.0 | 0.4 |
| C9001-DRAW | POND 1 | BASE | 56.51 | 5.041 | 8.000 | 13910 | 0.000 | 0.010 | 0.0 | 0.4 |
| C9001-DRAW | POND 1 | BASE | 57.01 | 5.040 | 8.000 | 13907 | 0.000 | 0.010 | 0.0 | 0.4 |
| C9001-DRAW | POND 1 | BASE | 57.51 | 5.038 | 8.000 | 13904 | 0.000 | 0.010 | 0.0 | 0.4 |
| C9001-DRAW | POND 1 | BASE | 58.01 | 5.037 | 8.000 | 13901 | 0.000 | 0.009 | 0.0 | 0.4 |
| C9001-DRAW | POND 1 | BASE | 58.51 | 5.036 | 8.000 | 13898 | 0.000 | 0.009 | 0.0 | 0.4 |
| C9001-DRAW | POND 1 | BASE | 59.01 | 5.035 | 8.000 | 13895 | 0.000 | 0.009 | 0.0 | 0.4 |
| C9001-DRAW | POND 1 | BASE | 59.51 | 5.034 | 8.000 | 13892 | 0.000 | 0.008 | 0.0 | 0.4 |

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| Simulation | Node | Group | Time hrs | Stage ft | Warning Stage ft | Surface Area ft2 | Total Inflow cfs | Total Outflow cfs | Total Vol In af | Total Vol Out af |
|------------|--------|-------|-------------|-------------|------------------------|------------------------|------------------------|-------------------------|-----------------------|------------------------|
| C9001-DRAW | POND 1 | BASE | 60.01 | 5.033 | 8.000 | 13890 | 0.000 | 0.008 | 0.0 | 0.4 |
| C9001-DRAW | POND 1 | BASE | 60.51 | 5.032 | 8.000 | 13887 | 0.000 | 0.008 | 0.0 | 0.5 |
| C9001-DRAW | POND 1 | BASE | 61.01 | 5.031 | 8.000 | 13884 | 0.000 | 0.008 | 0.0 | 0.5 |
| C9001-DRAW | POND 1 | BASE | 61.51 | 5.030 | 8.000 | 13882 | 0.000 | 0.007 | 0.0 | 0.5 |
| C9001-DRAW | POND 1 | BASE | 62.01 | 5.029 | 8.000 | 13880 | 0.000 | 0.007 | 0.0 | 0.5 |
| C9001-DRAW | POND 1 | BASE | 62.51 | 5.028 | 8.000 | 13877 | 0.000 | 0.007 | 0.0 | 0.5 |
| C9001-DRAW | POND 1 | BASE | 63.01 | 5.027 | 8.000 | 13875 | 0.000 | 0.007 | 0.0 | 0.5 |
| C9001-DRAW | POND 1 | BASE | 63.51 | 5.026 | 8.000 | 13873 | 0.000 | 0.006 | 0.0 | 0.5 |
| C9001-DRAW | POND 1 | BASE | 64.01 | 5.025 | 8.000 | 13871 | 0.000 | 0.006 | 0.0 | 0.5 |
| C9001-DRAW | POND 1 | BASE | 64.51 | 5.024 | 8.000 | 13869 | 0.000 | 0.006 | 0.0 | 0.5 |
| C9001-DRAW | POND 1 | BASE | 65.01 | 5.024 | 8.000 | 13867 | 0.000 | 0.006 | 0.0 | 0.5 |
| C9001-DRAW | POND 1 | BASE | 65.51 | 5.023 | 8.000 | 13865 | 0.000 | 0.006 | 0.0 | 0.5 |
| C9001-DRAW | POND 1 | BASE | 66.01 | 5.022 | 8.000 | 13863 | 0.000 | 0.006 | 0.0 | 0.5 |
| C9001-DRAW | POND 1 | BASE | 66.51 | 5.021 | 8.000 | 13862 | 0.000 | 0.005 | 0.0 | 0.5 |
| C9001-DRAW | POND 1 | BASE | 67.01 | 5.021 | 8.000 | 13860 | 0.000 | 0.005 | 0.0 | 0.5 |
| C9001-DRAW | POND 1 | BASE | 67.51 | 5.020 | 8.000 | 13858 | 0.000 | 0.005 | 0.0 | 0.5 |
| C9001-DRAW | POND 1 | BASE | 68.01 | 5.019 | 8.000 | 13857 | 0.000 | 0.005 | 0.0 | 0.5 |
| C9001-DRAW | POND 1 | BASE | 68.51 | 5.019 | 8.000 | 13855 | 0.000 | 0.005 | 0.0 | 0.5 |
| C9001-DRAW | POND 1 | BASE | 69.01 | 5.018 | 8.000 | 13854 | 0.000 | 0.005 | 0.0 | 0.5 |
| C9001-DRAW | POND 1 | BASE | 69.51 | 5.018 | 8.000 | 13852 | 0.000 | 0.004 | 0.0 | 0.5 |
| C9001-DRAW | POND 1 | BASE | 70.01 | 5.017 | 8.000 | 13851 | 0.000 | 0.004 | 0.0 | 0.5 |
| C9001-DRAW | POND 1 | BASE | 70.51 | 5.016 | 8.000 | 13849 | 0.000 | 0.004 | 0.0 | 0.5 |
| C9001-DRAW | POND 1 | BASE | 71.01 | 5.016 | 8.000 | 13848 | 0.000 | 0.004 | 0.0 | 0.5 |
| C9001-DRAW | POND 1 | BASE | 71.51 | 5.015 | 8.000 | 13847 | 0.000 | 0.004 | 0.0 | 0.5 |
| C9001-DRAW | POND 1 | BASE | 72.01 | 5.015 | 8.000 | 13846 | 0.000 | 0.004 | 0.0 | 0.5 |
| C9001-DRAW | POND 1 | BASE | 72.51 | 5.014 | 8.000 | 13844 | 0.000 | 0.004 | 0.0 | 0.5 |
| C9001-DRAW | POND 1 | BASE | 73.01 | 5.014 | 8.000 | 13843 | 0.000 | 0.004 | 0.0 | 0.5 |
| C9001-DRAW | POND 1 | BASE | 73.51 | 5.014 | 8.000 | 13842 | 0.000 | 0.003 | 0.0 | 0.5 |
| C9001-DRAW | POND 1 | BASE | 74.01 | 5.013 | 8.000 | 13841 | 0.000 | 0.003 | 0.0 | 0.5 |
| C9001-DRAW | POND 1 | BASE | 74.51 | 5.013 | 8.000 | 13840 | 0.000 | 0.003 | 0.0 | 0.5 |
| C9001-DRAW | POND 1 | BASE | 75.01 | 5.012 | 8.000 | 13839 | 0.000 | 0.003 | 0.0 | 0.5 |
| C9001-DRAW | POND 1 | BASE | 75.51 | 5.012 | 8.000 | 13838 | 0.000 | 0.003 | 0.0 | 0.5 |
| C9001-DRAW | POND 1 | BASE | 76.01 | 5.012 | 8.000 | 13837 | 0.000 | 0.003 | 0.0 | 0.5 |
| C9001-DRAW | POND 1 | BASE | 76.51 | 5.011 | 8.000 | 13836 | 0.000 | 0.003 | 0.0 | 0.5 |
| C9001-DRAW | POND 1 | BASE | 77.01 | 5.011 | 8.000 | 13835 | 0.000 | 0.003 | 0.0 | 0.5 |
| C9001-DRAW | POND 1 | BASE | 77.51 | 5.010 | 8.000 | 13835 | 0.000 | 0.003 | 0.0 | 0.5 |
| C9001-DRAW | POND 1 | BASE | 78.01 | 5.010 | 8.000 | 13834 | 0.000 | 0.003 | 0.0 | 0.5 |
| C9001-DRAW | POND 1 | BASE | 78.51 | 5.010 | 8.000 | 13833 | 0.000 | 0.000 | 0.0 | 0.5 |
| C9001-DRAW | POND 1 | BASE | 79.01 | 5.010 | 8.000 | 13833 | 0.000 | 0.000 | 0.0 | 0.5 |
| C9001-DRAW | POND 1 | BASE | 79.51 | 5.010 | 8.000 | 13833 | 0.000 | 0.000 | 0.0 | 0.5 |

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| Simulation | Node | Group | Time hrs | Stage ft | Warning Stage ft | Surface Area ft2 | Total Inflow cfs | Total Outflow cfs | Total Vol In af | Total Vol Out af |
|------------|--------|-------|-------------|-------------|------------------------|------------------------|------------------------|-------------------------|-----------------------|------------------------|
| C9001-DRAW | POND 1 | BASE | 80.01 | 5.010 | 8.000 | 13833 | 0.000 | 0.000 | 0.0 | 0.5 |
| C9001-DRAW | POND 1 | BASE | 80.51 | 5.010 | 8.000 | 13833 | 0.000 | 0.000 | 0.0 | 0.5 |
| C9001-DRAW | POND 1 | BASE | 81.01 | 5.010 | 8.000 | 13833 | 0.000 | 0.000 | 0.0 | 0.5 |
| C9001-DRAW | POND 1 | BASE | 81.51 | 5.010 | 8.000 | 13833 | 0.000 | 0.000 | 0.0 | 0.5 |
| C9001-DRAW | POND 1 | BASE | 82.01 | 5.010 | 8.000 | 13833 | 0.000 | 0.000 | 0.0 | 0.5 |
| C9001-DRAW | POND 1 | BASE | 82.51 | 5.010 | 8.000 | 13833 | 0.000 | 0.000 | 0.0 | 0.5 |
| C9001-DRAW | POND 1 | BASE | 83.01 | 5.010 | 8.000 | 13833 | 0.000 | 0.000 | 0.0 | 0.5 |
| C9001-DRAW | POND 1 | BASE | 83.51 | 5.010 | 8.000 | 13833 | 0.000 | 0.000 | 0.0 | 0.5 |
| C9001-DRAW | POND 1 | BASE | 84.01 | 5.010 | 8.000 | 13833 | 0.000 | 0.000 | 0.0 | 0.5 |
| C9001-DRAW | POND 1 | BASE | 84.51 | 5.010 | 8.000 | 13833 | 0.000 | 0.000 | 0.0 | 0.5 |
| C9001-DRAW | POND 1 | BASE | 85.01 | 5.010 | 8.000 | 13833 | 0.000 | 0.000 | 0.0 | 0.5 |
| C9001-DRAW | POND 1 | BASE | 85.51 | 5.010 | 8.000 | 13833 | 0.000 | 0.000 | 0.0 | 0.5 |
| C9001-DRAW | POND 1 | BASE | 86.01 | 5.010 | 8.000 | 13833 | 0.000 | 0.000 | 0.0 | 0.5 |
| C9001-DRAW | POND 1 | BASE | 86.51 | 5.010 | 8.000 | 13833 | 0.000 | 0.000 | 0.0 | 0.5 |
| C9001-DRAW | POND 1 | BASE | 87.01 | 5.010 | 8.000 | 13833 | 0.000 | 0.000 | 0.0 | 0.5 |
| C9001-DRAW | POND 1 | BASE | 87.51 | 5.010 | 8.000 | 13833 | 0.000 | 0.000 | 0.0 | 0.5 |
| C9001-DRAW | POND 1 | BASE | 88.01 | 5.010 | 8.000 | 13833 | 0.000 | 0.000 | 0.0 | 0.5 |
| C9001-DRAW | POND 1 | BASE | 88.51 | 5.010 | 8.000 | 13833 | 0.000 | 0.000 | 0.0 | 0.5 |
| C9001-DRAW | POND 1 | BASE | 89.01 | 5.010 | 8.000 | 13833 | 0.000 | 0.000 | 0.0 | 0.5 |
| C9001-DRAW | POND 1 | BASE | 89.51 | 5.010 | 8.000 | 13833 | 0.000 | 0.000 | 0.0 | 0.5 |
| C9001-DRAW | POND 1 | BASE | 90.01 | 5.010 | 8.000 | 13833 | 0.000 | 0.000 | 0.0 | 0.5 |
| C9001-DRAW | POND 1 | BASE | 90.51 | 5.010 | 8.000 | 13833 | 0.000 | 0.000 | 0.0 | 0.5 |
| C9001-DRAW | POND 1 | BASE | 91.01 | 5.010 | 8.000 | 13833 | 0.000 | 0.000 | 0.0 | 0.5 |
| C9001-DRAW | POND 1 | BASE | 91.51 | 5.010 | 8.000 | 13833 | 0.000 | 0.000 | 0.0 | 0.5 |
| C9001-DRAW | POND 1 | BASE | 92.01 | 5.010 | 8.000 | 13833 | 0.000 | 0.000 | 0.0 | 0.5 |
| C9001-DRAW | POND 1 | BASE | 92.51 | 5.010 | 8.000 | 13833 | 0.000 | 0.000 | 0.0 | 0.5 |
| C9001-DRAW | POND 1 | BASE | 93.01 | 5.010 | 8.000 | 13833 | 0.000 | 0.000 | 0.0 | 0.5 |
| C9001-DRAW | POND 1 | BASE | 93.51 | 5.010 | 8.000 | 13833 | 0.000 | 0.000 | 0.0 | 0.5 |
| C9001-DRAW | POND 1 | BASE | 94.01 | 5.010 | 8.000 | 13833 | 0.000 | 0.000 | 0.0 | 0.5 |
| C9001-DRAW | POND 1 | BASE | 94.51 | 5.010 | 8.000 | 13833 | 0.000 | 0.000 | 0.0 | 0.5 |
| C9001-DRAW | POND 1 | BASE | 95.01 | 5.010 | 8.000 | 13833 | 0.000 | 0.000 | 0.0 | 0.5 |
| C9001-DRAW | POND 1 | BASE | 95.51 | 5.010 | 8.000 | 13833 | 0.000 | 0.000 | 0.0 | 0.5 |
| C9001-DRAW | POND 1 | BASE | 96.01 | 5.010 | 8.000 | 13833 | 0.000 | 0.000 | 0.0 | 0.5 |
| C9001-DRAW | POND 1 | BASE | 96.01 | 5.010 | 8.000 | 13833 | 0.000 | 0.000 | 0.0 | 0.5 |
| C9001-DRAW | POND 2 | BASE | 0.00 | 6.600 | 8.000 | 16988 | 0.000 | 0.416 | 0.0 | 0.0 |
| C9001-DRAW | POND 2 | BASE | 0.51 | 6.556 | 8.000 | 16901 | 0.000 | 0.404 | 0.0 | 0.0 |
| C9001-DRAW | POND 2 | BASE | 1.01 | 6.513 | 8.000 | 16818 | 0.000 | 0.393 | 0.0 | 0.0 |
| C9001-DRAW | POND 2 | BASE | 1.51 | 6.472 | 8.000 | 16737 | 0.000 | 0.383 | 0.0 | 0.0 |
| C9001-DRAW | POND 2 | BASE | 2.01 | 6.431 | 8.000 | 16657 | 0.000 | 0.372 | 0.0 | 0.1 |

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| Simulation | Node | Group | Time hrs | Stage ft | Warning Stage ft | Surface Area ft2 | Total Inflow cfs | Total Outflow cfs | Total Vol In af | Total Vol Out af |
|------------|--------|-------|-------------|-------------|------------------------|------------------------|------------------------|-------------------------|-----------------------|------------------------|
| C9001-DRAW | POND 2 | BASE | 2.51 | 6.391 | 8.000 | 16579 | 0.000 | 0.362 | 0.0 | 0.1 |
| C9001-DRAW | POND 2 | BASE | 3.00 | 6.353 | 8.000 | 16503 | 0.000 | 0.352 | 0.0 | 0.1 |
| C9001-DRAW | POND 2 | BASE | 3.50 | 6.315 | 8.000 | 16429 | 0.000 | 0.342 | 0.0 | 0.1 |
| C9001-DRAW | POND 2 | BASE | 4.00 | 6.278 | 8.000 | 16357 | 0.000 | 0.332 | 0.0 | 0.1 |
| C9001-DRAW | POND 2 | BASE | 4.50 | 6.242 | 8.000 | 16286 | 0.000 | 0.323 | 0.0 | 0.1 |
| C9001-DRAW | POND 2 | BASE | 5.00 | 6.207 | 8.000 | 16217 | 0.000 | 0.314 | 0.0 | 0.1 |
| C9001-DRAW | POND 2 | BASE | 5.51 | 6.171 | 8.000 | 16148 | 0.000 | 0.305 | 0.0 | 0.2 |
| C9001-DRAW | POND 2 | BASE | 6.01 | 6.138 | 8.000 | 16083 | 0.000 | 0.296 | 0.0 | 0.2 |
| C9001-DRAW | POND 2 | BASE | 6.51 | 6.105 | 8.000 | 16019 | 0.000 | 0.287 | 0.0 | 0.2 |
| C9001-DRAW | POND 2 | BASE | 7.01 | 6.074 | 8.000 | 15957 | 0.000 | 0.279 | 0.0 | 0.2 |
| C9001-DRAW | POND 2 | BASE | 7.51 | 6.042 | 8.000 | 15896 | 0.000 | 0.271 | 0.0 | 0.2 |
| C9001-DRAW | POND 2 | BASE | 8.01 | 6.012 | 8.000 | 15836 | 0.000 | 0.263 | 0.0 | 0.2 |
| C9001-DRAW | POND 2 | BASE | 8.51 | 5.983 | 8.000 | 15778 | 0.000 | 0.255 | 0.0 | 0.2 |
| C9001-DRAW | POND 2 | BASE | 9.01 | 5.954 | 8.000 | 15722 | 0.000 | 0.248 | 0.0 | 0.2 |
| C9001-DRAW | POND 2 | BASE | 9.51 | 5.926 | 8.000 | 15667 | 0.000 | 0.241 | 0.0 | 0.3 |
| C9001-DRAW | POND 2 | BASE | 10.01 | 5.899 | 8.000 | 15613 | 0.000 | 0.234 | 0.0 | 0.3 |
| C9001-DRAW | POND 2 | BASE | 10.51 | 5.872 | 8.000 | 15561 | 0.000 | 0.227 | 0.0 | 0.3 |
| C9001-DRAW | POND 2 | BASE | 11.01 | 5.846 | 8.000 | 15511 | 0.000 | 0.220 | 0.0 | 0.3 |
| C9001-DRAW | POND 2 | BASE | 11.51 | 5.821 | 8.000 | 15461 | 0.000 | 0.213 | 0.0 | 0.3 |
| C9001-DRAW | POND 2 | BASE | 12.01 | 5.796 | 8.000 | 15413 | 0.000 | 0.207 | 0.0 | 0.3 |
| C9001-DRAW | POND 2 | BASE | 12.51 | 5.773 | 8.000 | 15366 | 0.000 | 0.201 | 0.0 | 0.3 |
| C9001-DRAW | POND 2 | BASE | 13.01 | 5.749 | 8.000 | 15321 | 0.000 | 0.195 | 0.0 | 0.3 |
| C9001-DRAW | POND 2 | BASE | 13.51 | 5.727 | 8.000 | 15277 | 0.000 | 0.189 | 0.0 | 0.3 |
| C9001-DRAW | POND 2 | BASE | 14.01 | 5.705 | 8.000 | 15234 | 0.000 | 0.183 | 0.0 | 0.3 |
| C9001-DRAW | POND 2 | BASE | 14.51 | 5.683 | 8.000 | 15192 | 0.000 | 0.178 | 0.0 | 0.3 |
| C9001-DRAW | POND 2 | BASE | 15.01 | 5.663 | 8.000 | 15151 | 0.000 | 0.172 | 0.0 | 0.3 |
| C9001-DRAW | POND 2 | BASE | 15.51 | 5.642 | 8.000 | 15111 | 0.000 | 0.167 | 0.0 | 0.4 |
| C9001-DRAW | POND 2 | BASE | 16.01 | 5.623 | 8.000 | 15073 | 0.000 | 0.162 | 0.0 | 0.4 |
| C9001-DRAW | POND 2 | BASE | 16.51 | 5.604 | 8.000 | 15036 | 0.000 | 0.157 | 0.0 | 0.4 |
| C9001-DRAW | POND 2 | BASE | 17.01 | 5.585 | 8.000 | 14999 | 0.000 | 0.152 | 0.0 | 0.4 |
| C9001-DRAW | POND 2 | BASE | 17.51 | 5.567 | 8.000 | 14964 | 0.000 | 0.147 | 0.0 | 0.4 |
| C9001-DRAW | POND 2 | BASE | 18.01 | 5.550 | 8.000 | 14930 | 0.000 | 0.143 | 0.0 | 0.4 |
| C9001-DRAW | POND 2 | BASE | 18.51 | 5.533 | 8.000 | 14896 | 0.000 | 0.139 | 0.0 | 0.4 |
| C9001-DRAW | POND 2 | BASE | 19.01 | 5.516 | 8.000 | 14864 | 0.000 | 0.134 | 0.0 | 0.4 |
| C9001-DRAW | POND 2 | BASE | 19.51 | 5.500 | 8.000 | 14833 | 0.000 | 0.130 | 0.0 | 0.4 |
| C9001-DRAW | POND 2 | BASE | 20.01 | 5.485 | 8.000 | 14802 | 0.000 | 0.126 | 0.0 | 0.4 |
| C9001-DRAW | POND 2 | BASE | 20.51 | 5.470 | 8.000 | 14773 | 0.000 | 0.122 | 0.0 | 0.4 |
| C9001-DRAW | POND 2 | BASE | 21.01 | 5.455 | 8.000 | 14744 | 0.000 | 0.118 | 0.0 | 0.4 |
| C9001-DRAW | POND 2 | BASE | 21.51 | 5.441 | 8.000 | 14716 | 0.000 | 0.115 | 0.0 | 0.4 |
| C9001-DRAW | POND 2 | BASE | 22.01 | 5.427 | 8.000 | 14689 | 0.000 | 0.111 | 0.0 | 0.4 |

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| Simulation | Node | Group | Time hrs | Stage ft | Warning Stage ft | Surface Area ft2 | Total Inflow cfs | Total Outflow cfs | Total Vol In af | Total Vol Out af |
|------------|--------|-------|-------------|-------------|------------------------|------------------------|------------------------|-------------------------|-----------------------|------------------------|
| C9001-DRAW | POND 2 | BASE | 22.51 | 5.413 | 8.000 | 14663 | 0.000 | 0.108 | 0.0 | 0.4 |
| C9001-DRAW | POND 2 | BASE | 23.01 | 5.400 | 8.000 | 14637 | 0.000 | 0.104 | 0.0 | 0.4 |
| C9001-DRAW | POND 2 | BASE | 23.51 | 5.388 | 8.000 | 14612 | 0.000 | 0.101 | 0.0 | 0.4 |
| C9001-DRAW | POND 2 | BASE | 24.01 | 5.376 | 8.000 | 14588 | 0.000 | 0.098 | 0.0 | 0.4 |
| C9001-DRAW | POND 2 | BASE | 24.51 | 5.364 | 8.000 | 14565 | 0.000 | 0.095 | 0.0 | 0.4 |
| C9001-DRAW | POND 2 | BASE | 25.01 | 5.352 | 8.000 | 14543 | 0.000 | 0.092 | 0.0 | 0.5 |
| C9001-DRAW | POND 2 | BASE | 25.51 | 5.341 | 8.000 | 14521 | 0.000 | 0.089 | 0.0 | 0.5 |
| C9001-DRAW | POND 2 | BASE | 26.01 | 5.330 | 8.000 | 14499 | 0.000 | 0.086 | 0.0 | 0.5 |
| C9001-DRAW | POND 2 | BASE | 26.51 | 5.320 | 8.000 | 14479 | 0.000 | 0.083 | 0.0 | 0.5 |
| C9001-DRAW | POND 2 | BASE | 27.01 | 5.310 | 8.000 | 14459 | 0.000 | 0.080 | 0.0 | 0.5 |
| C9001-DRAW | POND 2 | BASE | 27.51 | 5.300 | 8.000 | 14440 | 0.000 | 0.078 | 0.0 | 0.5 |
| C9001-DRAW | POND 2 | BASE | 28.01 | 5.290 | 8.000 | 14421 | 0.000 | 0.075 | 0.0 | 0.5 |
| C9001-DRAW | POND 2 | BASE | 28.51 | 5.281 | 8.000 | 14403 | 0.000 | 0.073 | 0.0 | 0.5 |
| C9001-DRAW | POND 2 | BASE | 29.01 | 5.272 | 8.000 | 14385 | 0.000 | 0.071 | 0.0 | 0.5 |
| C9001-DRAW | POND 2 | BASE | 29.51 | 5.263 | 8.000 | 14368 | 0.000 | 0.068 | 0.0 | 0.5 |
| C9001-DRAW | POND 2 | BASE | 30.01 | 5.255 | 8.000 | 14351 | 0.000 | 0.066 | 0.0 | 0.5 |
| C9001-DRAW | POND 2 | BASE | 30.51 | 5.247 | 8.000 | 14335 | 0.000 | 0.064 | 0.0 | 0.5 |
| C9001-DRAW | POND 2 | BASE | 31.01 | 5.239 | 8.000 | 14320 | 0.000 | 0.062 | 0.0 | 0.5 |
| C9001-DRAW | POND 2 | BASE | 31.51 | 5.231 | 8.000 | 14305 | 0.000 | 0.060 | 0.0 | 0.5 |
| C9001-DRAW | POND 2 | BASE | 32.01 | 5.223 | 8.000 | 14290 | 0.000 | 0.058 | 0.0 | 0.5 |
| C9001-DRAW | POND 2 | BASE | 32.51 | 5.216 | 8.000 | 14276 | 0.000 | 0.056 | 0.0 | 0.5 |
| C9001-DRAW | POND 2 | BASE | 33.01 | 5.209 | 8.000 | 14262 | 0.000 | 0.054 | 0.0 | 0.5 |
| C9001-DRAW | POND 2 | BASE | 33.51 | 5.203 | 8.000 | 14249 | 0.000 | 0.053 | 0.0 | 0.5 |
| C9001-DRAW | POND 2 | BASE | 34.01 | 5.196 | 8.000 | 14236 | 0.000 | 0.051 | 0.0 | 0.5 |
| C9001-DRAW | POND 2 | BASE | 34.51 | 5.190 | 8.000 | 14224 | 0.000 | 0.049 | 0.0 | 0.5 |
| C9001-DRAW | POND 2 | BASE | 35.01 | 5.184 | 8.000 | 14212 | 0.000 | 0.048 | 0.0 | 0.5 |
| C9001-DRAW | POND 2 | BASE | 35.51 | 5.178 | 8.000 | 14200 | 0.000 | 0.046 | 0.0 | 0.5 |
| C9001-DRAW | POND 2 | BASE | 36.01 | 5.172 | 8.000 | 14189 | 0.000 | 0.045 | 0.0 | 0.5 |
| C9001-DRAW | POND 2 | BASE | 36.51 | 5.166 | 8.000 | 14178 | 0.000 | 0.043 | 0.0 | 0.5 |
| C9001-DRAW | POND 2 | BASE | 37.01 | 5.161 | 8.000 | 14167 | 0.000 | 0.042 | 0.0 | 0.5 |
| C9001-DRAW | POND 2 | BASE | 37.51 | 5.156 | 8.000 | 14157 | 0.000 | 0.040 | 0.0 | 0.5 |
| C9001-DRAW | POND 2 | BASE | 38.01 | 5.151 | 8.000 | 14147 | 0.000 | 0.039 | 0.0 | 0.5 |
| C9001-DRAW | POND 2 | BASE | 38.51 | 5.146 | 8.000 | 14138 | 0.000 | 0.038 | 0.0 | 0.5 |
| C9001-DRAW | POND 2 | BASE | 39.01 | 5.141 | 8.000 | 14128 | 0.000 | 0.037 | 0.0 | 0.5 |
| C9001-DRAW | POND 2 | BASE | 39.51 | 5.136 | 8.000 | 14119 | 0.000 | 0.035 | 0.0 | 0.5 |
| C9001-DRAW | POND 2 | BASE | 40.01 | 5.132 | 8.000 | 14111 | 0.000 | 0.034 | 0.0 | 0.5 |
| C9001-DRAW | POND 2 | BASE | 40.51 | 5.128 | 8.000 | 14102 | 0.000 | 0.033 | 0.0 | 0.5 |
| C9001-DRAW | POND 2 | BASE | 41.01 | 5.123 | 8.000 | 14094 | 0.000 | 0.032 | 0.0 | 0.5 |
| C9001-DRAW | POND 2 | BASE | 41.51 | 5.119 | 8.000 | 14086 | 0.000 | 0.031 | 0.0 | 0.5 |
| C9001-DRAW | POND 2 | BASE | 42.01 | 5.115 | 8.000 | 14078 | 0.000 | 0.030 | 0.0 | 0.5 |

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| Simulation | Node | Group | Time hrs | Stage ft | Warning Stage ft | Surface Area ft ² | Total Inflow cfs | Total Outflow cfs | Total Vol In af | Total Vol Out af |
|------------|--------|-------|-------------|-------------|------------------------|------------------------------------|------------------------|-------------------------|-----------------------|------------------------|
| C9001-DRAW | POND 2 | BASE | 42.51 | 5.112 | 8.000 | 14071 | 0.000 | 0.029 | 0.0 | 0.5 |
| C9001-DRAW | POND 2 | BASE | 43.01 | 5.108 | 8.000 | 14064 | 0.000 | 0.028 | 0.0 | 0.5 |
| C9001-DRAW | POND 2 | BASE | 43.51 | 5.104 | 8.000 | 14057 | 0.000 | 0.027 | 0.0 | 0.5 |
| C9001-DRAW | POND 2 | BASE | 44.01 | 5.101 | 8.000 | 14050 | 0.000 | 0.026 | 0.0 | 0.5 |
| C9001-DRAW | POND 2 | BASE | 44.51 | 5.098 | 8.000 | 14044 | 0.000 | 0.025 | 0.0 | 0.5 |
| C9001-DRAW | POND 2 | BASE | 45.01 | 5.095 | 8.000 | 14037 | 0.000 | 0.025 | 0.0 | 0.5 |
| C9001-DRAW | POND 2 | BASE | 45.51 | 5.091 | 8.000 | 14031 | 0.000 | 0.024 | 0.0 | 0.5 |
| C9001-DRAW | POND 2 | BASE | 46.01 | 5.088 | 8.000 | 14025 | 0.000 | 0.023 | 0.0 | 0.5 |
| C9001-DRAW | POND 2 | BASE | 46.51 | 5.086 | 8.000 | 14020 | 0.000 | 0.022 | 0.0 | 0.5 |
| C9001-DRAW | POND 2 | BASE | 47.01 | 5.083 | 8.000 | 14014 | 0.000 | 0.022 | 0.0 | 0.5 |
| C9001-DRAW | POND 2 | BASE | 47.51 | 5.080 | 8.000 | 14009 | 0.000 | 0.021 | 0.0 | 0.5 |
| C9001-DRAW | POND 2 | BASE | 48.01 | 5.077 | 8.000 | 14004 | 0.000 | 0.020 | 0.0 | 0.5 |
| C9001-DRAW | POND 2 | BASE | 48.51 | 5.075 | 8.000 | 13999 | 0.000 | 0.019 | 0.0 | 0.5 |
| C9001-DRAW | POND 2 | BASE | 49.01 | 5.072 | 8.000 | 13994 | 0.000 | 0.019 | 0.0 | 0.5 |
| C9001-DRAW | POND 2 | BASE | 49.51 | 5.070 | 8.000 | 13989 | 0.000 | 0.018 | 0.0 | 0.5 |
| C9001-DRAW | POND 2 | BASE | 50.01 | 5.068 | 8.000 | 13985 | 0.000 | 0.018 | 0.0 | 0.5 |
| C9001-DRAW | POND 2 | BASE | 50.51 | 5.065 | 8.000 | 13980 | 0.000 | 0.017 | 0.0 | 0.5 |
| C9001-DRAW | POND 2 | BASE | 51.01 | 5.063 | 8.000 | 13976 | 0.000 | 0.016 | 0.0 | 0.5 |
| C9001-DRAW | POND 2 | BASE | 51.51 | 5.061 | 8.000 | 13972 | 0.000 | 0.016 | 0.0 | 0.5 |
| C9001-DRAW | POND 2 | BASE | 52.01 | 5.059 | 8.000 | 13968 | 0.000 | 0.015 | 0.0 | 0.5 |
| C9001-DRAW | POND 2 | BASE | 52.51 | 5.057 | 8.000 | 13964 | 0.000 | 0.015 | 0.0 | 0.5 |
| C9001-DRAW | POND 2 | BASE | 53.01 | 5.055 | 8.000 | 13961 | 0.000 | 0.014 | 0.0 | 0.5 |
| C9001-DRAW | POND 2 | BASE | 53.51 | 5.054 | 8.000 | 13957 | 0.000 | 0.014 | 0.0 | 0.5 |
| C9001-DRAW | POND 2 | BASE | 54.01 | 5.052 | 8.000 | 13954 | 0.000 | 0.013 | 0.0 | 0.5 |
| C9001-DRAW | POND 2 | BASE | 54.51 | 5.050 | 8.000 | 13950 | 0.000 | 0.013 | 0.0 | 0.6 |
| C9001-DRAW | POND 2 | BASE | 55.01 | 5.048 | 8.000 | 13947 | 0.000 | 0.013 | 0.0 | 0.6 |
| C9001-DRAW | POND 2 | BASE | 55.51 | 5.047 | 8.000 | 13944 | 0.000 | 0.012 | 0.0 | 0.6 |
| C9001-DRAW | POND 2 | BASE | 56.01 | 5.045 | 8.000 | 13941 | 0.000 | 0.012 | 0.0 | 0.6 |
| C9001-DRAW | POND 2 | BASE | 56.51 | 5.044 | 8.000 | 13938 | 0.000 | 0.011 | 0.0 | 0.6 |
| C9001-DRAW | POND 2 | BASE | 57.01 | 5.042 | 8.000 | 13935 | 0.000 | 0.011 | 0.0 | 0.6 |
| C9001-DRAW | POND 2 | BASE | 57.51 | 5.041 | 8.000 | 13932 | 0.000 | 0.011 | 0.0 | 0.6 |
| C9001-DRAW | POND 2 | BASE | 58.01 | 5.040 | 8.000 | 13930 | 0.000 | 0.010 | 0.0 | 0.6 |
| C9001-DRAW | POND 2 | BASE | 58.51 | 5.038 | 8.000 | 13927 | 0.000 | 0.010 | 0.0 | 0.6 |
| C9001-DRAW | POND 2 | BASE | 59.01 | 5.037 | 8.000 | 13925 | 0.000 | 0.010 | 0.0 | 0.6 |
| C9001-DRAW | POND 2 | BASE | 59.51 | 5.036 | 8.000 | 13922 | 0.000 | 0.009 | 0.0 | 0.6 |
| C9001-DRAW | POND 2 | BASE | 60.01 | 5.035 | 8.000 | 13920 | 0.000 | 0.009 | 0.0 | 0.6 |
| C9001-DRAW | POND 2 | BASE | 60.51 | 5.033 | 8.000 | 13918 | 0.000 | 0.009 | 0.0 | 0.6 |
| C9001-DRAW | POND 2 | BASE | 61.01 | 5.032 | 8.000 | 13915 | 0.000 | 0.008 | 0.0 | 0.6 |
| C9001-DRAW | POND 2 | BASE | 61.51 | 5.031 | 8.000 | 13913 | 0.000 | 0.008 | 0.0 | 0.6 |
| C9001-DRAW | POND 2 | BASE | 62.01 | 5.030 | 8.000 | 13911 | 0.000 | 0.008 | 0.0 | 0.6 |

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| Simulation | Node | Group | Time hrs | Stage ft | Warning Stage ft | Surface Area ft2 | Total Inflow cfs | Total Outflow cfs | Total Vol In af | Total Vol Out af |
|------------|--------|-------|-------------|-------------|------------------------|------------------------|------------------------|-------------------------|-----------------------|------------------------|
| C9001-DRAW | POND 2 | BASE | 62.51 | 5.029 | 8.000 | 13909 | 0.000 | 0.008 | 0.0 | 0.6 |
| C9001-DRAW | POND 2 | BASE | 63.01 | 5.028 | 8.000 | 13907 | 0.000 | 0.007 | 0.0 | 0.6 |
| C9001-DRAW | POND 2 | BASE | 63.51 | 5.027 | 8.000 | 13906 | 0.000 | 0.007 | 0.0 | 0.6 |
| C9001-DRAW | POND 2 | BASE | 64.01 | 5.026 | 8.000 | 13904 | 0.000 | 0.007 | 0.0 | 0.6 |
| C9001-DRAW | POND 2 | BASE | 64.51 | 5.026 | 8.000 | 13902 | 0.000 | 0.007 | 0.0 | 0.6 |
| C9001-DRAW | POND 2 | BASE | 65.01 | 5.025 | 8.000 | 13901 | 0.000 | 0.006 | 0.0 | 0.6 |
| C9001-DRAW | POND 2 | BASE | 65.51 | 5.024 | 8.000 | 13899 | 0.000 | 0.006 | 0.0 | 0.6 |
| C9001-DRAW | POND 2 | BASE | 66.01 | 5.023 | 8.000 | 13897 | 0.000 | 0.006 | 0.0 | 0.6 |
| C9001-DRAW | POND 2 | BASE | 66.51 | 5.022 | 8.000 | 13896 | 0.000 | 0.006 | 0.0 | 0.6 |
| C9001-DRAW | POND 2 | BASE | 67.01 | 5.022 | 8.000 | 13894 | 0.000 | 0.006 | 0.0 | 0.6 |
| C9001-DRAW | POND 2 | BASE | 67.51 | 5.021 | 8.000 | 13893 | 0.000 | 0.005 | 0.0 | 0.6 |
| C9001-DRAW | POND 2 | BASE | 68.01 | 5.020 | 8.000 | 13892 | 0.000 | 0.005 | 0.0 | 0.6 |
| C9001-DRAW | POND 2 | BASE | 68.51 | 5.020 | 8.000 | 13890 | 0.000 | 0.005 | 0.0 | 0.6 |
| C9001-DRAW | POND 2 | BASE | 69.01 | 5.019 | 8.000 | 13889 | 0.000 | 0.005 | 0.0 | 0.6 |
| C9001-DRAW | POND 2 | BASE | 69.51 | 5.018 | 8.000 | 13888 | 0.000 | 0.005 | 0.0 | 0.6 |
| C9001-DRAW | POND 2 | BASE | 70.01 | 5.018 | 8.000 | 13887 | 0.000 | 0.005 | 0.0 | 0.6 |
| C9001-DRAW | POND 2 | BASE | 70.51 | 5.017 | 8.000 | 13886 | 0.000 | 0.004 | 0.0 | 0.6 |
| C9001-DRAW | POND 2 | BASE | 71.01 | 5.016 | 8.000 | 13884 | 0.000 | 0.004 | 0.0 | 0.6 |
| C9001-DRAW | POND 2 | BASE | 71.51 | 5.016 | 8.000 | 13883 | 0.000 | 0.004 | 0.0 | 0.6 |
| C9001-DRAW | POND 2 | BASE | 72.01 | 5.015 | 8.000 | 13882 | 0.000 | 0.004 | 0.0 | 0.6 |
| C9001-DRAW | POND 2 | BASE | 72.51 | 5.015 | 8.000 | 13881 | 0.000 | 0.004 | 0.0 | 0.6 |
| C9001-DRAW | POND 2 | BASE | 73.01 | 5.014 | 8.000 | 13880 | 0.000 | 0.004 | 0.0 | 0.6 |
| C9001-DRAW | POND 2 | BASE | 73.51 | 5.014 | 8.000 | 13879 | 0.000 | 0.004 | 0.0 | 0.6 |
| C9001-DRAW | POND 2 | BASE | 74.01 | 5.013 | 8.000 | 13878 | 0.000 | 0.004 | 0.0 | 0.6 |
| C9001-DRAW | POND 2 | BASE | 74.51 | 5.013 | 8.000 | 13878 | 0.000 | 0.003 | 0.0 | 0.6 |
| C9001-DRAW | POND 2 | BASE | 75.01 | 5.013 | 8.000 | 13877 | 0.000 | 0.003 | 0.0 | 0.6 |
| C9001-DRAW | POND 2 | BASE | 75.51 | 5.012 | 8.000 | 13876 | 0.000 | 0.003 | 0.0 | 0.6 |
| C9001-DRAW | POND 2 | BASE | 76.01 | 5.012 | 8.000 | 13875 | 0.000 | 0.003 | 0.0 | 0.6 |
| C9001-DRAW | POND 2 | BASE | 76.51 | 5.011 | 8.000 | 13874 | 0.000 | 0.003 | 0.0 | 0.6 |
| C9001-DRAW | POND 2 | BASE | 77.01 | 5.011 | 8.000 | 13874 | 0.000 | 0.003 | 0.0 | 0.6 |
| C9001-DRAW | POND 2 | BASE | 77.51 | 5.011 | 8.000 | 13873 | 0.000 | 0.003 | 0.0 | 0.6 |
| C9001-DRAW | POND 2 | BASE | 78.01 | 5.010 | 8.000 | 13872 | 0.000 | 0.003 | 0.0 | 0.6 |
| C9001-DRAW | POND 2 | BASE | 78.51 | 5.010 | 8.000 | 13872 | 0.000 | 0.000 | 0.0 | 0.6 |
| C9001-DRAW | POND 2 | BASE | 79.01 | 5.010 | 8.000 | 13872 | 0.000 | 0.000 | 0.0 | 0.6 |
| C9001-DRAW | POND 2 | BASE | 79.51 | 5.010 | 8.000 | 13872 | 0.000 | 0.000 | 0.0 | 0.6 |
| C9001-DRAW | POND 2 | BASE | 80.01 | 5.010 | 8.000 | 13872 | 0.000 | 0.000 | 0.0 | 0.6 |
| C9001-DRAW | POND 2 | BASE | 80.51 | 5.010 | 8.000 | 13872 | 0.000 | 0.000 | 0.0 | 0.6 |
| C9001-DRAW | POND 2 | BASE | 81.01 | 5.010 | 8.000 | 13872 | 0.000 | 0.000 | 0.0 | 0.6 |
| C9001-DRAW | POND 2 | BASE | 81.51 | 5.010 | 8.000 | 13872 | 0.000 | 0.000 | 0.0 | 0.6 |
| C9001-DRAW | POND 2 | BASE | 82.01 | 5.010 | 8.000 | 13872 | 0.000 | 0.000 | 0.0 | 0.6 |

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| Simulation | Node | Group | Time hrs | Stage ft | Warning Stage ft | Surface Area ft ² | Total Inflow cfs | Total Outflow cfs | Total Vol In af | Total Vol Out af |
|------------|--------|-------|-------------|-------------|------------------------|------------------------------------|------------------------|-------------------------|-----------------------|------------------------|
| C9001-DRAW | POND 2 | BASE | 82.51 | 5.010 | 8.000 | 13872 | 0.000 | 0.000 | 0.0 | 0.6 |
| C9001-DRAW | POND 2 | BASE | 83.01 | 5.010 | 8.000 | 13872 | 0.000 | 0.000 | 0.0 | 0.6 |
| C9001-DRAW | POND 2 | BASE | 83.51 | 5.010 | 8.000 | 13872 | 0.000 | 0.000 | 0.0 | 0.6 |
| C9001-DRAW | POND 2 | BASE | 84.01 | 5.010 | 8.000 | 13872 | 0.000 | 0.000 | 0.0 | 0.6 |
| C9001-DRAW | POND 2 | BASE | 84.51 | 5.010 | 8.000 | 13872 | 0.000 | 0.000 | 0.0 | 0.6 |
| C9001-DRAW | POND 2 | BASE | 85.01 | 5.010 | 8.000 | 13872 | 0.000 | 0.000 | 0.0 | 0.6 |
| C9001-DRAW | POND 2 | BASE | 85.51 | 5.010 | 8.000 | 13872 | 0.000 | 0.000 | 0.0 | 0.6 |
| C9001-DRAW | POND 2 | BASE | 86.01 | 5.010 | 8.000 | 13872 | 0.000 | 0.000 | 0.0 | 0.6 |
| C9001-DRAW | POND 2 | BASE | 86.51 | 5.010 | 8.000 | 13872 | 0.000 | 0.000 | 0.0 | 0.6 |
| C9001-DRAW | POND 2 | BASE | 87.01 | 5.010 | 8.000 | 13872 | 0.000 | 0.000 | 0.0 | 0.6 |
| C9001-DRAW | POND 2 | BASE | 87.51 | 5.010 | 8.000 | 13872 | 0.000 | 0.000 | 0.0 | 0.6 |
| C9001-DRAW | POND 2 | BASE | 88.01 | 5.010 | 8.000 | 13872 | 0.000 | 0.000 | 0.0 | 0.6 |
| C9001-DRAW | POND 2 | BASE | 88.51 | 5.010 | 8.000 | 13872 | 0.000 | 0.000 | 0.0 | 0.6 |
| C9001-DRAW | POND 2 | BASE | 89.01 | 5.010 | 8.000 | 13872 | 0.000 | 0.000 | 0.0 | 0.6 |
| C9001-DRAW | POND 2 | BASE | 89.51 | 5.010 | 8.000 | 13872 | 0.000 | 0.000 | 0.0 | 0.6 |
| C9001-DRAW | POND 2 | BASE | 90.01 | 5.010 | 8.000 | 13872 | 0.000 | 0.000 | 0.0 | 0.6 |
| C9001-DRAW | POND 2 | BASE | 90.51 | 5.010 | 8.000 | 13872 | 0.000 | 0.000 | 0.0 | 0.6 |
| C9001-DRAW | POND 2 | BASE | 91.01 | 5.010 | 8.000 | 13872 | 0.000 | 0.000 | 0.0 | 0.6 |
| C9001-DRAW | POND 2 | BASE | 91.51 | 5.010 | 8.000 | 13872 | 0.000 | 0.000 | 0.0 | 0.6 |
| C9001-DRAW | POND 2 | BASE | 92.01 | 5.010 | 8.000 | 13872 | 0.000 | 0.000 | 0.0 | 0.6 |
| C9001-DRAW | POND 2 | BASE | 92.51 | 5.010 | 8.000 | 13872 | 0.000 | 0.000 | 0.0 | 0.6 |
| C9001-DRAW | POND 2 | BASE | 93.01 | 5.010 | 8.000 | 13872 | 0.000 | 0.000 | 0.0 | 0.6 |
| C9001-DRAW | POND 2 | BASE | 93.51 | 5.010 | 8.000 | 13872 | 0.000 | 0.000 | 0.0 | 0.6 |
| C9001-DRAW | POND 2 | BASE | 94.01 | 5.010 | 8.000 | 13872 | 0.000 | 0.000 | 0.0 | 0.6 |
| C9001-DRAW | POND 2 | BASE | 94.51 | 5.010 | 8.000 | 13872 | 0.000 | 0.000 | 0.0 | 0.6 |
| C9001-DRAW | POND 2 | BASE | 95.01 | 5.010 | 8.000 | 13872 | 0.000 | 0.000 | 0.0 | 0.6 |
| C9001-DRAW | POND 2 | BASE | 95.51 | 5.010 | 8.000 | 13872 | 0.000 | 0.000 | 0.0 | 0.6 |
| C9001-DRAW | POND 2 | BASE | 96.01 | 5.010 | 8.000 | 13872 | 0.000 | 0.000 | 0.0 | 0.6 |
| C9001-DRAW | POND 2 | BASE | 96.01 | 5.010 | 8.000 | 13872 | 0.000 | 0.000 | 0.0 | 0.6 |
| C9001-DRAW | POND 3 | BASE | 0.00 | 7.350 | 8.000 | 37462 | 0.000 | 2.172 | 0.0 | 0.0 |
| C9001-DRAW | POND 3 | BASE | 0.51 | 7.244 | 8.000 | 35422 | 0.000 | 2.053 | 0.0 | 0.1 |
| C9001-DRAW | POND 3 | BASE | 1.01 | 7.140 | 8.000 | 33427 | 0.000 | 1.936 | 0.0 | 0.2 |
| C9001-DRAW | POND 3 | BASE | 1.51 | 7.036 | 8.000 | 31434 | 0.000 | 1.820 | 0.0 | 0.2 |
| C9001-DRAW | POND 3 | BASE | 2.01 | 6.932 | 8.000 | 29468 | 0.000 | 1.705 | 0.0 | 0.3 |
| C9001-DRAW | POND 3 | BASE | 2.51 | 6.828 | 8.000 | 27517 | 0.000 | 1.592 | 0.0 | 0.4 |
| C9001-DRAW | POND 3 | BASE | 3.00 | 6.724 | 8.000 | 25566 | 0.000 | 1.479 | 0.0 | 0.5 |
| C9001-DRAW | POND 3 | BASE | 3.50 | 6.620 | 8.000 | 23616 | 0.000 | 1.366 | 0.0 | 0.5 |
| C9001-DRAW | POND 3 | BASE | 4.00 | 6.516 | 8.000 | 21666 | 0.000 | 1.252 | 0.0 | 0.6 |
| C9001-DRAW | POND 3 | BASE | 4.50 | 6.412 | 8.000 | 19718 | 0.000 | 1.139 | 0.0 | 0.6 |

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| Simulation | Note | Group | Time hrs | Stage ft | Warning Stage ft | Surface Area ft2 | Total Inflow cfs | Total Outflow cfs | Total Vol In af | Total Vol Out af |
|------------|--------|-------|-------------|-------------|------------------------|------------------------|------------------------|-------------------------|-----------------------|------------------------|
| C9001-DRAW | POND 3 | BASE | 5.00 | 6.308 | 8.000 | 17770 | 0.000 | 1.026 | 0.0 | 0.7 |
| C9001-DRAW | POND 3 | BASE | 5.51 | 6.202 | 8.000 | 15772 | 0.000 | 0.910 | 0.0 | 0.7 |
| C9001-DRAW | POND 3 | BASE | 6.01 | 6.098 | 8.000 | 13827 | 0.000 | 0.797 | 0.0 | 0.7 |
| C9001-DRAW | POND 3 | BASE | 6.51 | 6.010 | 8.000 | 12164 | 0.000 | 0.000 | 0.0 | 0.8 |
| C9001-DRAW | POND 3 | BASE | 7.01 | 6.010 | 8.000 | 12164 | 0.000 | 0.000 | 0.0 | 0.8 |
| C9001-DRAW | POND 3 | BASE | 7.51 | 6.010 | 8.000 | 12164 | 0.000 | 0.000 | 0.0 | 0.8 |
| C9001-DRAW | POND 3 | BASE | 8.01 | 6.010 | 8.000 | 12164 | 0.000 | 0.000 | 0.0 | 0.8 |
| C9001-DRAW | POND 3 | BASE | 8.51 | 6.010 | 8.000 | 12164 | 0.000 | 0.000 | 0.0 | 0.8 |
| C9001-DRAW | POND 3 | BASE | 9.01 | 6.010 | 8.000 | 12164 | 0.000 | 0.000 | 0.0 | 0.8 |
| C9001-DRAW | POND 3 | BASE | 9.51 | 6.010 | 8.000 | 12164 | 0.000 | 0.000 | 0.0 | 0.8 |
| C9001-DRAW | POND 3 | BASE | 10.01 | 6.010 | 8.000 | 12164 | 0.000 | 0.000 | 0.0 | 0.8 |
| C9001-DRAW | POND 3 | BASE | 10.51 | 6.010 | 8.000 | 12164 | 0.000 | 0.000 | 0.0 | 0.8 |
| C9001-DRAW | POND 3 | BASE | 11.01 | 6.010 | 8.000 | 12164 | 0.000 | 0.000 | 0.0 | 0.8 |
| C9001-DRAW | POND 3 | BASE | 11.51 | 6.010 | 8.000 | 12164 | 0.000 | 0.000 | 0.0 | 0.8 |
| C9001-DRAW | POND 3 | BASE | 12.01 | 6.010 | 8.000 | 12164 | 0.000 | 0.000 | 0.0 | 0.8 |
| C9001-DRAW | POND 3 | BASE | 12.51 | 6.010 | 8.000 | 12164 | 0.000 | 0.000 | 0.0 | 0.8 |
| C9001-DRAW | POND 3 | BASE | 13.01 | 6.010 | 8.000 | 12164 | 0.000 | 0.000 | 0.0 | 0.8 |
| C9001-DRAW | POND 3 | BASE | 13.51 | 6.010 | 8.000 | 12164 | 0.000 | 0.000 | 0.0 | 0.8 |
| C9001-DRAW | POND 3 | BASE | 14.01 | 6.010 | 8.000 | 12164 | 0.000 | 0.000 | 0.0 | 0.8 |
| C9001-DRAW | POND 3 | BASE | 14.51 | 6.010 | 8.000 | 12164 | 0.000 | 0.000 | 0.0 | 0.8 |
| C9001-DRAW | POND 3 | BASE | 15.01 | 6.010 | 8.000 | 12164 | 0.000 | 0.000 | 0.0 | 0.8 |
| C9001-DRAW | POND 3 | BASE | 15.51 | 6.010 | 8.000 | 12164 | 0.000 | 0.000 | 0.0 | 0.8 |
| C9001-DRAW | POND 3 | BASE | 16.01 | 6.010 | 8.000 | 12164 | 0.000 | 0.000 | 0.0 | 0.8 |
| C9001-DRAW | POND 3 | BASE | 16.51 | 6.010 | 8.000 | 12164 | 0.000 | 0.000 | 0.0 | 0.8 |
| C9001-DRAW | POND 3 | BASE | 17.01 | 6.010 | 8.000 | 12164 | 0.000 | 0.000 | 0.0 | 0.8 |
| C9001-DRAW | POND 3 | BASE | 17.51 | 6.010 | 8.000 | 12164 | 0.000 | 0.000 | 0.0 | 0.8 |
| C9001-DRAW | POND 3 | BASE | 18.01 | 6.010 | 8.000 | 12164 | 0.000 | 0.000 | 0.0 | 0.8 |
| C9001-DRAW | POND 3 | BASE | 18.51 | 6.010 | 8.000 | 12164 | 0.000 | 0.000 | 0.0 | 0.8 |
| C9001-DRAW | POND 3 | BASE | 19.01 | 6.010 | 8.000 | 12164 | 0.000 | 0.000 | 0.0 | 0.8 |
| C9001-DRAW | POND 3 | BASE | 19.51 | 6.010 | 8.000 | 12164 | 0.000 | 0.000 | 0.0 | 0.8 |
| C9001-DRAW | POND 3 | BASE | 20.01 | 6.010 | 8.000 | 12164 | 0.000 | 0.000 | 0.0 | 0.8 |
| C9001-DRAW | POND 3 | BASE | 20.51 | 6.010 | 8.000 | 12164 | 0.000 | 0.000 | 0.0 | 0.8 |
| C9001-DRAW | POND 3 | BASE | 21.01 | 6.010 | 8.000 | 12164 | 0.000 | 0.000 | 0.0 | 0.8 |
| C9001-DRAW | POND 3 | BASE | 21.51 | 6.010 | 8.000 | 12164 | 0.000 | 0.000 | 0.0 | 0.8 |
| C9001-DRAW | POND 3 | BASE | 22.01 | 6.010 | 8.000 | 12164 | 0.000 | 0.000 | 0.0 | 0.8 |
| C9001-DRAW | POND 3 | BASE | 22.51 | 6.010 | 8.000 | 12164 | 0.000 | 0.000 | 0.0 | 0.8 |
| C9001-DRAW | POND 3 | BASE | 23.01 | 6.010 | 8.000 | 12164 | 0.000 | 0.000 | 0.0 | 0.8 |
| C9001-DRAW | POND 3 | BASE | 23.51 | 6.010 | 8.000 | 12164 | 0.000 | 0.000 | 0.0 | 0.8 |
| C9001-DRAW | POND 3 | BASE | 24.01 | 6.010 | 8.000 | 12164 | 0.000 | 0.000 | 0.0 | 0.8 |
| C9001-DRAW | POND 3 | BASE | 24.51 | 6.010 | 8.000 | 12164 | 0.000 | 0.000 | 0.0 | 0.8 |

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| Simulation | Node | Group | Time hrs | Stage ft | Warning Stage ft | Surface Area ft2 | Total Inflow cfs | Total Outflow cfs | Total Vol In af | Total Vol Out af |
|------------|--------|-------|-------------|-------------|------------------------|------------------------|------------------------|-------------------------|-----------------------|------------------------|
| C9001-DRAW | POND 3 | BASE | 25.01 | 6.010 | 8.000 | 12164 | 0.000 | 0.000 | 0.0 | 0.8 |
| C9001-DRAW | POND 3 | BASE | 25.51 | 6.010 | 8.000 | 12164 | 0.000 | 0.000 | 0.0 | 0.8 |
| C9001-DRAW | POND 3 | BASE | 26.01 | 6.010 | 8.000 | 12164 | 0.000 | 0.000 | 0.0 | 0.8 |
| C9001-DRAW | POND 3 | BASE | 26.51 | 6.010 | 8.000 | 12164 | 0.000 | 0.000 | 0.0 | 0.8 |
| C9001-DRAW | POND 3 | BASE | 27.01 | 6.010 | 8.000 | 12164 | 0.000 | 0.000 | 0.0 | 0.8 |
| C9001-DRAW | POND 3 | BASE | 27.51 | 6.010 | 8.000 | 12164 | 0.000 | 0.000 | 0.0 | 0.8 |
| C9001-DRAW | POND 3 | BASE | 28.01 | 6.010 | 8.000 | 12164 | 0.000 | 0.000 | 0.0 | 0.8 |
| C9001-DRAW | POND 3 | BASE | 28.51 | 6.010 | 8.000 | 12164 | 0.000 | 0.000 | 0.0 | 0.8 |
| C9001-DRAW | POND 3 | BASE | 29.01 | 6.010 | 8.000 | 12164 | 0.000 | 0.000 | 0.0 | 0.8 |
| C9001-DRAW | POND 3 | BASE | 29.51 | 6.010 | 8.000 | 12164 | 0.000 | 0.000 | 0.0 | 0.8 |
| C9001-DRAW | POND 3 | BASE | 30.01 | 6.010 | 8.000 | 12164 | 0.000 | 0.000 | 0.0 | 0.8 |
| C9001-DRAW | POND 3 | BASE | 30.51 | 6.010 | 8.000 | 12164 | 0.000 | 0.000 | 0.0 | 0.8 |
| C9001-DRAW | POND 3 | BASE | 31.01 | 6.010 | 8.000 | 12164 | 0.000 | 0.000 | 0.0 | 0.8 |
| C9001-DRAW | POND 3 | BASE | 31.51 | 6.010 | 8.000 | 12164 | 0.000 | 0.000 | 0.0 | 0.8 |
| C9001-DRAW | POND 3 | BASE | 32.01 | 6.010 | 8.000 | 12164 | 0.000 | 0.000 | 0.0 | 0.8 |
| C9001-DRAW | POND 3 | BASE | 32.51 | 6.010 | 8.000 | 12164 | 0.000 | 0.000 | 0.0 | 0.8 |
| C9001-DRAW | POND 3 | BASE | 33.01 | 6.010 | 8.000 | 12164 | 0.000 | 0.000 | 0.0 | 0.8 |
| C9001-DRAW | POND 3 | BASE | 33.51 | 6.010 | 8.000 | 12164 | 0.000 | 0.000 | 0.0 | 0.8 |
| C9001-DRAW | POND 3 | BASE | 34.01 | 6.010 | 8.000 | 12164 | 0.000 | 0.000 | 0.0 | 0.8 |
| C9001-DRAW | POND 3 | BASE | 34.51 | 6.010 | 8.000 | 12164 | 0.000 | 0.000 | 0.0 | 0.8 |
| C9001-DRAW | POND 3 | BASE | 35.01 | 6.010 | 8.000 | 12164 | 0.000 | 0.000 | 0.0 | 0.8 |
| C9001-DRAW | POND 3 | BASE | 35.51 | 6.010 | 8.000 | 12164 | 0.000 | 0.000 | 0.0 | 0.8 |
| C9001-DRAW | POND 3 | BASE | 36.01 | 6.010 | 8.000 | 12164 | 0.000 | 0.000 | 0.0 | 0.8 |
| C9001-DRAW | POND 3 | BASE | 36.51 | 6.010 | 8.000 | 12164 | 0.000 | 0.000 | 0.0 | 0.8 |
| C9001-DRAW | POND 3 | BASE | 37.01 | 6.010 | 8.000 | 12164 | 0.000 | 0.000 | 0.0 | 0.8 |
| C9001-DRAW | POND 3 | BASE | 37.51 | 6.010 | 8.000 | 12164 | 0.000 | 0.000 | 0.0 | 0.8 |
| C9001-DRAW | POND 3 | BASE | 38.01 | 6.010 | 8.000 | 12164 | 0.000 | 0.000 | 0.0 | 0.8 |
| C9001-DRAW | POND 3 | BASE | 38.51 | 6.010 | 8.000 | 12164 | 0.000 | 0.000 | 0.0 | 0.8 |
| C9001-DRAW | POND 3 | BASE | 39.01 | 6.010 | 8.000 | 12164 | 0.000 | 0.000 | 0.0 | 0.8 |
| C9001-DRAW | POND 3 | BASE | 39.51 | 6.010 | 8.000 | 12164 | 0.000 | 0.000 | 0.0 | 0.8 |
| C9001-DRAW | POND 3 | BASE | 40.01 | 6.010 | 8.000 | 12164 | 0.000 | 0.000 | 0.0 | 0.8 |
| C9001-DRAW | POND 3 | BASE | 40.51 | 6.010 | 8.000 | 12164 | 0.000 | 0.000 | 0.0 | 0.8 |
| C9001-DRAW | POND 3 | BASE | 41.01 | 6.010 | 8.000 | 12164 | 0.000 | 0.000 | 0.0 | 0.8 |
| C9001-DRAW | POND 3 | BASE | 41.51 | 6.010 | 8.000 | 12164 | 0.000 | 0.000 | 0.0 | 0.8 |
| C9001-DRAW | POND 3 | BASE | 42.01 | 6.010 | 8.000 | 12164 | 0.000 | 0.000 | 0.0 | 0.8 |
| C9001-DRAW | POND 3 | BASE | 42.51 | 6.010 | 8.000 | 12164 | 0.000 | 0.000 | 0.0 | 0.8 |
| C9001-DRAW | POND 3 | BASE | 43.01 | 6.010 | 8.000 | 12164 | 0.000 | 0.000 | 0.0 | 0.8 |
| C9001-DRAW | POND 3 | BASE | 43.51 | 6.010 | 8.000 | 12164 | 0.000 | 0.000 | 0.0 | 0.8 |
| C9001-DRAW | POND 3 | BASE | 44.01 | 6.010 | 8.000 | 12164 | 0.000 | 0.000 | 0.0 | 0.8 |
| C9001-DRAW | POND 3 | BASE | 44.51 | 6.010 | 8.000 | 12164 | 0.000 | 0.000 | 0.0 | 0.8 |

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| Simulation | Node | Group | Time hrs | Stage ft | Warning Stage ft | Surface Area ft2 | Total Inflow cfs | Total Outflow cfs | Total Vol In af | Total Vol Out af |
|------------|--------|-------|-------------|-------------|------------------------|------------------------|------------------------|-------------------------|-----------------------|------------------------|
| C9001-DRAW | POND 3 | BASE | 45.01 | 6.010 | 8.000 | 12164 | 0.000 | 0.000 | 0.0 | 0.8 |
| C9001-DRAW | POND 3 | BASE | 45.51 | 6.010 | 8.000 | 12164 | 0.000 | 0.000 | 0.0 | 0.8 |
| C9001-DRAW | POND 3 | BASE | 46.01 | 6.010 | 8.000 | 12164 | 0.000 | 0.000 | 0.0 | 0.8 |
| C9001-DRAW | POND 3 | BASE | 46.51 | 6.010 | 8.000 | 12164 | 0.000 | 0.000 | 0.0 | 0.8 |
| C9001-DRAW | POND 3 | BASE | 47.01 | 6.010 | 8.000 | 12164 | 0.000 | 0.000 | 0.0 | 0.8 |
| C9001-DRAW | POND 3 | BASE | 47.51 | 6.010 | 8.000 | 12164 | 0.000 | 0.000 | 0.0 | 0.8 |
| C9001-DRAW | POND 3 | BASE | 48.01 | 6.010 | 8.000 | 12164 | 0.000 | 0.000 | 0.0 | 0.8 |
| C9001-DRAW | POND 3 | BASE | 48.51 | 6.010 | 8.000 | 12164 | 0.000 | 0.000 | 0.0 | 0.8 |
| C9001-DRAW | POND 3 | BASE | 49.01 | 6.010 | 8.000 | 12164 | 0.000 | 0.000 | 0.0 | 0.8 |
| C9001-DRAW | POND 3 | BASE | 49.51 | 6.010 | 8.000 | 12164 | 0.000 | 0.000 | 0.0 | 0.8 |
| C9001-DRAW | POND 3 | BASE | 50.01 | 6.010 | 8.000 | 12164 | 0.000 | 0.000 | 0.0 | 0.8 |
| C9001-DRAW | POND 3 | BASE | 50.51 | 6.010 | 8.000 | 12164 | 0.000 | 0.000 | 0.0 | 0.8 |
| C9001-DRAW | POND 3 | BASE | 51.01 | 6.010 | 8.000 | 12164 | 0.000 | 0.000 | 0.0 | 0.8 |
| C9001-DRAW | POND 3 | BASE | 51.51 | 6.010 | 8.000 | 12164 | 0.000 | 0.000 | 0.0 | 0.8 |
| C9001-DRAW | POND 3 | BASE | 52.01 | 6.010 | 8.000 | 12164 | 0.000 | 0.000 | 0.0 | 0.8 |
| C9001-DRAW | POND 3 | BASE | 52.51 | 6.010 | 8.000 | 12164 | 0.000 | 0.000 | 0.0 | 0.8 |
| C9001-DRAW | POND 3 | BASE | 53.01 | 6.010 | 8.000 | 12164 | 0.000 | 0.000 | 0.0 | 0.8 |
| C9001-DRAW | POND 3 | BASE | 53.51 | 6.010 | 8.000 | 12164 | 0.000 | 0.000 | 0.0 | 0.8 |
| C9001-DRAW | POND 3 | BASE | 54.01 | 6.010 | 8.000 | 12164 | 0.000 | 0.000 | 0.0 | 0.8 |
| C9001-DRAW | POND 3 | BASE | 54.51 | 6.010 | 8.000 | 12164 | 0.000 | 0.000 | 0.0 | 0.8 |
| C9001-DRAW | POND 3 | BASE | 55.01 | 6.010 | 8.000 | 12164 | 0.000 | 0.000 | 0.0 | 0.8 |
| C9001-DRAW | POND 3 | BASE | 55.51 | 6.010 | 8.000 | 12164 | 0.000 | 0.000 | 0.0 | 0.8 |
| C9001-DRAW | POND 3 | BASE | 56.01 | 6.010 | 8.000 | 12164 | 0.000 | 0.000 | 0.0 | 0.8 |
| C9001-DRAW | POND 3 | BASE | 56.51 | 6.010 | 8.000 | 12164 | 0.000 | 0.000 | 0.0 | 0.8 |
| C9001-DRAW | POND 3 | BASE | 57.01 | 6.010 | 8.000 | 12164 | 0.000 | 0.000 | 0.0 | 0.8 |
| C9001-DRAW | POND 3 | BASE | 57.51 | 6.010 | 8.000 | 12164 | 0.000 | 0.000 | 0.0 | 0.8 |
| C9001-DRAW | POND 3 | BASE | 58.01 | 6.010 | 8.000 | 12164 | 0.000 | 0.000 | 0.0 | 0.8 |
| C9001-DRAW | POND 3 | BASE | 58.51 | 6.010 | 8.000 | 12164 | 0.000 | 0.000 | 0.0 | 0.8 |
| C9001-DRAW | POND 3 | BASE | 59.01 | 6.010 | 8.000 | 12164 | 0.000 | 0.000 | 0.0 | 0.8 |
| C9001-DRAW | POND 3 | BASE | 59.51 | 6.010 | 8.000 | 12164 | 0.000 | 0.000 | 0.0 | 0.8 |
| C9001-DRAW | POND 3 | BASE | 60.01 | 6.010 | 8.000 | 12164 | 0.000 | 0.000 | 0.0 | 0.8 |
| C9001-DRAW | POND 3 | BASE | 60.51 | 6.010 | 8.000 | 12164 | 0.000 | 0.000 | 0.0 | 0.8 |
| C9001-DRAW | POND 3 | BASE | 61.01 | 6.010 | 8.000 | 12164 | 0.000 | 0.000 | 0.0 | 0.8 |
| C9001-DRAW | POND 3 | BASE | 61.51 | 6.010 | 8.000 | 12164 | 0.000 | 0.000 | 0.0 | 0.8 |
| C9001-DRAW | POND 3 | BASE | 62.01 | 6.010 | 8.000 | 12164 | 0.000 | 0.000 | 0.0 | 0.8 |
| C9001-DRAW | POND 3 | BASE | 62.51 | 6.010 | 8.000 | 12164 | 0.000 | 0.000 | 0.0 | 0.8 |
| C9001-DRAW | POND 3 | BASE | 63.01 | 6.010 | 8.000 | 12164 | 0.000 | 0.000 | 0.0 | 0.8 |
| C9001-DRAW | POND 3 | BASE | 63.51 | 6.010 | 8.000 | 12164 | 0.000 | 0.000 | 0.0 | 0.8 |
| C9001-DRAW | POND 3 | BASE | 64.01 | 6.010 | 8.000 | 12164 | 0.000 | 0.000 | 0.0 | 0.8 |
| C9001-DRAW | POND 3 | BASE | 64.51 | 6.010 | 8.000 | 12164 | 0.000 | 0.000 | 0.0 | 0.8 |

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| Simulation | Node | Group | Time hrs | Stage ft | Warning Stage ft | Surface Area ft2 | Total Inflow cfs | Total Outflow cfs | Total Vol In af | Total Vol Out af |
|------------|--------|-------|-------------|-------------|------------------------|------------------------|------------------------|-------------------------|-----------------------|------------------------|
| C9001-DRAW | POND 3 | BASE | 65.01 | 6.010 | 8.000 | 12164 | 0.000 | 0.000 | 0.0 | 0.8 |
| C9001-DRAW | POND 3 | BASE | 65.51 | 6.010 | 8.000 | 12164 | 0.000 | 0.000 | 0.0 | 0.8 |
| C9001-DRAW | POND 3 | BASE | 66.01 | 6.010 | 8.000 | 12164 | 0.000 | 0.000 | 0.0 | 0.8 |
| C9001-DRAW | POND 3 | BASE | 66.51 | 6.010 | 8.000 | 12164 | 0.000 | 0.000 | 0.0 | 0.8 |
| C9001-DRAW | POND 3 | BASE | 67.01 | 6.010 | 8.000 | 12164 | 0.000 | 0.000 | 0.0 | 0.8 |
| C9001-DRAW | POND 3 | BASE | 67.51 | 6.010 | 8.000 | 12164 | 0.000 | 0.000 | 0.0 | 0.8 |
| C9001-DRAW | POND 3 | BASE | 68.01 | 6.010 | 8.000 | 12164 | 0.000 | 0.000 | 0.0 | 0.8 |
| C9001-DRAW | POND 3 | BASE | 68.51 | 6.010 | 8.000 | 12164 | 0.000 | 0.000 | 0.0 | 0.8 |
| C9001-DRAW | POND 3 | BASE | 69.01 | 6.010 | 8.000 | 12164 | 0.000 | 0.000 | 0.0 | 0.8 |
| C9001-DRAW | POND 3 | BASE | 69.51 | 6.010 | 8.000 | 12164 | 0.000 | 0.000 | 0.0 | 0.8 |
| C9001-DRAW | POND 3 | BASE | 70.01 | 6.010 | 8.000 | 12164 | 0.000 | 0.000 | 0.0 | 0.8 |
| C9001-DRAW | POND 3 | BASE | 70.51 | 6.010 | 8.000 | 12164 | 0.000 | 0.000 | 0.0 | 0.8 |
| C9001-DRAW | POND 3 | BASE | 71.01 | 6.010 | 8.000 | 12164 | 0.000 | 0.000 | 0.0 | 0.8 |
| C9001-DRAW | POND 3 | BASE | 71.51 | 6.010 | 8.000 | 12164 | 0.000 | 0.000 | 0.0 | 0.8 |
| C9001-DRAW | POND 3 | BASE | 72.01 | 6.010 | 8.000 | 12164 | 0.000 | 0.000 | 0.0 | 0.8 |
| C9001-DRAW | POND 3 | BASE | 72.51 | 6.010 | 8.000 | 12164 | 0.000 | 0.000 | 0.0 | 0.8 |
| C9001-DRAW | POND 3 | BASE | 73.01 | 6.010 | 8.000 | 12164 | 0.000 | 0.000 | 0.0 | 0.8 |
| C9001-DRAW | POND 3 | BASE | 73.51 | 6.010 | 8.000 | 12164 | 0.000 | 0.000 | 0.0 | 0.8 |
| C9001-DRAW | POND 3 | BASE | 74.01 | 6.010 | 8.000 | 12164 | 0.000 | 0.000 | 0.0 | 0.8 |
| C9001-DRAW | POND 3 | BASE | 74.51 | 6.010 | 8.000 | 12164 | 0.000 | 0.000 | 0.0 | 0.8 |
| C9001-DRAW | POND 3 | BASE | 75.01 | 6.010 | 8.000 | 12164 | 0.000 | 0.000 | 0.0 | 0.8 |
| C9001-DRAW | POND 3 | BASE | 75.51 | 6.010 | 8.000 | 12164 | 0.000 | 0.000 | 0.0 | 0.8 |
| C9001-DRAW | POND 3 | BASE | 76.01 | 6.010 | 8.000 | 12164 | 0.000 | 0.000 | 0.0 | 0.8 |
| C9001-DRAW | POND 3 | BASE | 76.51 | 6.010 | 8.000 | 12164 | 0.000 | 0.000 | 0.0 | 0.8 |
| C9001-DRAW | POND 3 | BASE | 77.01 | 6.010 | 8.000 | 12164 | 0.000 | 0.000 | 0.0 | 0.8 |
| C9001-DRAW | POND 3 | BASE | 77.51 | 6.010 | 8.000 | 12164 | 0.000 | 0.000 | 0.0 | 0.8 |
| C9001-DRAW | POND 3 | BASE | 78.01 | 6.010 | 8.000 | 12164 | 0.000 | 0.000 | 0.0 | 0.8 |
| C9001-DRAW | POND 3 | BASE | 78.51 | 6.010 | 8.000 | 12164 | 0.000 | 0.000 | 0.0 | 0.8 |
| C9001-DRAW | POND 3 | BASE | 79.01 | 6.010 | 8.000 | 12164 | 0.000 | 0.000 | 0.0 | 0.8 |
| C9001-DRAW | POND 3 | BASE | 79.51 | 6.010 | 8.000 | 12164 | 0.000 | 0.000 | 0.0 | 0.8 |
| C9001-DRAW | POND 3 | BASE | 80.01 | 6.010 | 8.000 | 12164 | 0.000 | 0.000 | 0.0 | 0.8 |
| C9001-DRAW | POND 3 | BASE | 80.51 | 6.010 | 8.000 | 12164 | 0.000 | 0.000 | 0.0 | 0.8 |
| C9001-DRAW | POND 3 | BASE | 81.01 | 6.010 | 8.000 | 12164 | 0.000 | 0.000 | 0.0 | 0.8 |
| C9001-DRAW | POND 3 | BASE | 81.51 | 6.010 | 8.000 | 12164 | 0.000 | 0.000 | 0.0 | 0.8 |
| C9001-DRAW | POND 3 | BASE | 82.01 | 6.010 | 8.000 | 12164 | 0.000 | 0.000 | 0.0 | 0.8 |
| C9001-DRAW | POND 3 | BASE | 82.51 | 6.010 | 8.000 | 12164 | 0.000 | 0.000 | 0.0 | 0.8 |
| C9001-DRAW | POND 3 | BASE | 83.01 | 6.010 | 8.000 | 12164 | 0.000 | 0.000 | 0.0 | 0.8 |
| C9001-DRAW | POND 3 | BASE | 83.51 | 6.010 | 8.000 | 12164 | 0.000 | 0.000 | 0.0 | 0.8 |
| C9001-DRAW | POND 3 | BASE | 84.01 | 6.010 | 8.000 | 12164 | 0.000 | 0.000 | 0.0 | 0.8 |
| C9001-DRAW | POND 3 | BASE | 84.51 | 6.010 | 8.000 | 12164 | 0.000 | 0.000 | 0.0 | 0.8 |

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| Simulation | Node | Group | Time hrs | Stage ft | Warning Stage ft | Surface Area ft2 | Total Inflow cfs | Total Outflow cfs | Total Vol In af | Total Vol Out af |
|------------|--------|-------|-------------|-------------|------------------------|------------------------|------------------------|-------------------------|-----------------------|------------------------|
| C9001-DRAW | POND 3 | BASE | 85.01 | 6.010 | 8.000 | 12164 | 0.000 | 0.000 | 0.0 | 0.8 |
| C9001-DRAW | POND 3 | BASE | 85.51 | 6.010 | 8.000 | 12164 | 0.000 | 0.000 | 0.0 | 0.8 |
| C9001-DRAW | POND 3 | BASE | 86.01 | 6.010 | 8.000 | 12164 | 0.000 | 0.000 | 0.0 | 0.8 |
| C9001-DRAW | POND 3 | BASE | 86.51 | 6.010 | 8.000 | 12164 | 0.000 | 0.000 | 0.0 | 0.8 |
| C9001-DRAW | POND 3 | BASE | 87.01 | 6.010 | 8.000 | 12164 | 0.000 | 0.000 | 0.0 | 0.8 |
| C9001-DRAW | POND 3 | BASE | 87.51 | 6.010 | 8.000 | 12164 | 0.000 | 0.000 | 0.0 | 0.8 |
| C9001-DRAW | POND 3 | BASE | 88.01 | 6.010 | 8.000 | 12164 | 0.000 | 0.000 | 0.0 | 0.8 |
| C9001-DRAW | POND 3 | BASE | 88.51 | 6.010 | 8.000 | 12164 | 0.000 | 0.000 | 0.0 | 0.8 |
| C9001-DRAW | POND 3 | BASE | 89.01 | 6.010 | 8.000 | 12164 | 0.000 | 0.000 | 0.0 | 0.8 |
| C9001-DRAW | POND 3 | BASE | 89.51 | 6.010 | 8.000 | 12164 | 0.000 | 0.000 | 0.0 | 0.8 |
| C9001-DRAW | POND 3 | BASE | 90.01 | 6.010 | 8.000 | 12164 | 0.000 | 0.000 | 0.0 | 0.8 |
| C9001-DRAW | POND 3 | BASE | 90.51 | 6.010 | 8.000 | 12164 | 0.000 | 0.000 | 0.0 | 0.8 |
| C9001-DRAW | POND 3 | BASE | 91.01 | 6.010 | 8.000 | 12164 | 0.000 | 0.000 | 0.0 | 0.8 |
| C9001-DRAW | POND 3 | BASE | 91.51 | 6.010 | 8.000 | 12164 | 0.000 | 0.000 | 0.0 | 0.8 |
| C9001-DRAW | POND 3 | BASE | 92.01 | 6.010 | 8.000 | 12164 | 0.000 | 0.000 | 0.0 | 0.8 |
| C9001-DRAW | POND 3 | BASE | 92.51 | 6.010 | 8.000 | 12164 | 0.000 | 0.000 | 0.0 | 0.8 |
| C9001-DRAW | POND 3 | BASE | 93.01 | 6.010 | 8.000 | 12164 | 0.000 | 0.000 | 0.0 | 0.8 |
| C9001-DRAW | POND 3 | BASE | 93.51 | 6.010 | 8.000 | 12164 | 0.000 | 0.000 | 0.0 | 0.8 |
| C9001-DRAW | POND 3 | BASE | 94.01 | 6.010 | 8.000 | 12164 | 0.000 | 0.000 | 0.0 | 0.8 |
| C9001-DRAW | POND 3 | BASE | 94.51 | 6.010 | 8.000 | 12164 | 0.000 | 0.000 | 0.0 | 0.8 |
| C9001-DRAW | POND 3 | BASE | 95.01 | 6.010 | 8.000 | 12164 | 0.000 | 0.000 | 0.0 | 0.8 |
| C9001-DRAW | POND 3 | BASE | 95.51 | 6.010 | 8.000 | 12164 | 0.000 | 0.000 | 0.0 | 0.8 |
| C9001-DRAW | POND 3 | BASE | 96.01 | 6.010 | 8.000 | 12164 | 0.000 | 0.000 | 0.0 | 0.8 |
| C9001-DRAW | POND 3 | BASE | 96.01 | 6.010 | 8.000 | 12164 | 0.000 | 0.000 | 0.0 | 0.8 |

PALM HARBOR GOLF COURSE
 MEAN ANNUAL STORM
 INPUT DATA

| Stage(ft) | Area(ac) |
|-----------|----------|
| 5.000 | 0.3170 |
| 6.000 | 0.3740 |
| 6.300 | 0.3920 |
| 7.000 | 0.4350 |
| 8.000 | 0.4990 |

```
Name: POND 2          Base Flow(cfs): 0.000          Init Stage(ft): 5.000
Group: BASE          Warn Stage(ft): 8.000
Type: Stage/Area
```

| Stage(ft) | Area(ac) |
|-----------|----------|
| 5.000 | 0.3180 |
| 6.000 | 0.3630 |
| 6.600 | 0.3900 |
| 7.000 | 0.4090 |
| 8.000 | 0.4580 |

```
Name: POND 3          Base Flow(cfs): 0.000          Init Stage(ft): 6.000
Group: BASE          Warn Stage(ft): 8.000
Type: Stage/Area
```

| Stage(ft) | Area(ac) |
|-----------|----------|
| 6.000 | 0.2750 |
| 7.000 | 0.7060 |
| 7.350 | 0.8600 |
| 8.000 | 1.1450 |

==== Drop Structures =====

```
Name: CONTROL 1      From Node: POND 1      Length(ft): 37.00
Group: BASE          To Node: OFFSITE      Count: 1

                UPSTREAM        DOWNSTREAM              Friction Equation: Average Conveyance
Geometry: Circular    Circular                Solution Algorithm: Automatic
Span(in): 15.00       15.00                  Flow: Both
Rise(in): 15.00       15.00                  Entrance Loss Coef: 0.200
Invert(ft): 2.450     2.300                  Exit Loss Coef: 0.000
Manning's N: 0.012000 0.012000              Outlet Ctrl Spec: Use dc or tw
Top Clip(in): 0.000   0.000                  Inlet Ctrl Spec: Use dn
Bot Clip(in): 0.000   0.000                  Solution Incs: 10
```

Upstream FHWA Inlet Edge Description:
 Circular Concrete: Square edge w/ headwall

Downstream FHWA Inlet Edge Description:
 Circular Concrete: Square edge w/ headwall

PALM HARBOR GOLF COURSE
 MEAN ANNUAL STORM
 INPUT DATA

*** Weir 1 of 1 for Drop Structure CONTROL 1 ***

TABLE

| | |
|-----------------------|--------------------------|
| Count: 1 | Bottom Clip(in): 0.000 |
| Type: Horizontal | Top Clip(in): 0.000 |
| Flow: Both | Weir Disc Coef: 3.200 |
| Geometry: Rectangular | Orifice Disc Coef: 0.600 |
| Span(in): 36.00 | Invert(ft): 6.300 |
| Rise(in): 24.00 | Control Elev(ft): 6.300 |

| | | |
|-----------------------|-------------------|---------------------------------------|
| Name: CONTROL 2 | From Node: POND 2 | Length(ft): 66.00 |
| Group: BASE | To Node: OFFSITE | Count: 1 |
| UPSTREAM | DOWNSTREAM | Friction Equation: Average Conveyance |
| Geometry: Circular | Circular | Solution Algorithm: Automatic |
| Span(in): 15.00 | 15.00 | Flow: Both |
| Rise(in): 15.00 | 15.00 | Entrance Loss Coef: 0.200 |
| Invert(ft): 3.500 | 3.240 | Exit Loss Coef: 0.000 |
| Manning's N: 0.012000 | 0.012000 | Outlet Ctrl Spec: Use dc or tw |
| Top Clip(in): 0.000 | 0.000 | Inlet Ctrl Spec: Use dn |
| Bot Clip(in): 0.000 | 0.000 | Solution Incs: 10 |

Upstream FHWA Inlet Edge Description:
 Circular Concrete: Square edge w/ headwall

Downstream FHWA Inlet Edge Description:
 Circular Concrete: Square edge w/ headwall

*** Weir 1 of 1 for Drop Structure CONTROL 2 ***

TABLE

| | |
|-----------------------|--------------------------|
| Count: 1 | Bottom Clip(in): 0.000 |
| Type: Horizontal | Top Clip(in): 0.000 |
| Flow: Both | Weir Disc Coef: 3.200 |
| Geometry: Rectangular | Orifice Disc Coef: 0.600 |
| Span(in): 36.00 | Invert(ft): 6.600 |
| Rise(in): 24.00 | Control Elev(ft): 6.600 |

| | | |
|-----------------------|-------------------|---------------------------------------|
| Name: CONTROL 3 | From Node: POND 3 | Length(ft): 241.00 |
| Group: BASE | To Node: OFFSITE | Count: 1 |
| UPSTREAM | DOWNSTREAM | Friction Equation: Average Conveyance |
| Geometry: Circular | Circular | Solution Algorithm: Automatic |
| Span(in): 15.00 | 15.00 | Flow: Both |
| Rise(in): 15.00 | 15.00 | Entrance Loss Coef: 0.200 |
| Invert(ft): 4.010 | 3.140 | Exit Loss Coef: 0.000 |
| Manning's N: 0.014000 | 0.014000 | Outlet Ctrl Spec: Use dc or tw |
| Top Clip(in): 0.000 | 0.000 | Inlet Ctrl Spec: Use dn |
| Bot Clip(in): 0.000 | 0.000 | Solution Incs: 10 |

Upstream FHWA Inlet Edge Description:
 Circular Concrete: Square edge w/ headwall

Downstream FHWA Inlet Edge Description:
 Circular Concrete: Square edge w/ headwall

PALM HARBOR GOLF COURSE
MEAN ANNUAL STORM
INPUT DATA

*** Weir 1 of 1 for Drop Structure CONTROL 3 ***

TABLE

| | |
|-----------------------|--------------------------|
| Count: 1 | Bottom Clip(in): 0.000 |
| Type: Horizontal | Top Clip(in): 0.000 |
| Flow: Both | Weir Disc Coef: 3.200 |
| Geometry: Rectangular | Orifice Disc Coef: 0.600 |
| Span(in): 36.00 | Invert(ft): 7.350 |
| Rise(in): 24.00 | Control Elev(ft): 7.350 |

==== Hydrology Simulations =====

Name: C9001-POST
Filename: J:\C9002 CENTEX HOMES SITE 6\ICPR\C9002_POST-MA\C9001-POST.R32

Override Defaults: No

| Time(hrs) | Print Inc(min) |
|-----------|----------------|
| 36.000 | 15.00 |

==== Routing Simulations =====

Name: C9001-POST Hydrology Sim: C9001-POST
Filename: J:\C9002 CENTEX HOMES SITE 6\ICPR\C9002_POST-MA\C9001-POST.I32

Execute: Yes Restart: No Patch: No
Alternative: No

| | |
|-----------------------------|-----------------------------|
| Max Delta Z(ft): 1.00 | Delta Z Factor: 0.00500 |
| Time Step Optimizer: 10.000 | |
| Start Time(hrs): 0.000 | End Time(hrs): 36.00 |
| Min Calc Time(sec): 0.5000 | Max Calc Time(sec): 60.0000 |
| Boundary Stages: | Boundary Flows: |

| Time(hrs) | Print Inc(min) |
|-----------|----------------|
| 36.000 | 15.000 |

| Group | Run |
|-------|-----|
| BASE | Yes |

==== Boundary Conditions =====

PALM HARBOR GOLF COURSE
 MEAN ANNUAL STORM
 NODE MAXIMUMS

| Name | Group | Simulation | Max Time Stage hrs | Max Stage ft | Warning Stage ft | Max Delta Stage ft | Max Surf Area ft2 | Max Time Inflow hrs | Max Inflow cfs | Max Time Outflow hrs | Max Outflow cfs |
|---------|-------|------------|--------------------|--------------|------------------|--------------------|-------------------|---------------------|----------------|----------------------|-----------------|
| OFFSITE | BASE | C9001-POST | 0.00 | 4.000 | 5.000 | 0.0000 | 0 | 12.67 | 12.178 | 0.00 | 0.000 |
| POND 1 | BASE | C9001-POST | 12.68 | 6.513 | 8.000 | 0.0042 | 17644 | 12.00 | 8.883 | 12.68 | 3.137 |
| POND 2 | BASE | C9001-POST | 12.61 | 6.857 | 8.000 | 0.0050 | 17519 | 12.00 | 10.640 | 12.61 | 4.157 |
| POND 3 | BASE | C9001-POST | 12.71 | 7.639 | 8.000 | 0.0049 | 42990 | 12.00 | 16.206 | 12.71 | 4.983 |

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==== Basins =====

| | | |
|----------------------------|----------------------------------|----------------|
| Name: 1 | Node: DITCH 1 | Status: Onsite |
| Group: BASE | Type: SCS Unit Hydrograph | |
| Unit Hydrograph: Uh256 | Peaking Factor: 256.0 | |
| Rainfall File: Flmod | Storm Duration(hrs): 24.00 | |
| Rainfall Amount(in): 4.500 | Time of Conc(min): 25.00 | |
| Area(ac): 10.220 | Time Shift(hrs): 0.00 | |
| Curve Number: 74.00 | Max Allowable Q(cfs): 999999.000 | |
| DCIA(%): 0.00 | | |

| | | |
|----------------------------|----------------------------------|----------------|
| Name: 2 | Node: DITCH 1 | Status: Onsite |
| Group: BASE | Type: SCS Unit Hydrograph | |
| Unit Hydrograph: Uh256 | Peaking Factor: 256.0 | |
| Rainfall File: Flmod | Storm Duration(hrs): 24.00 | |
| Rainfall Amount(in): 4.500 | Time of Conc(min): 20.00 | |
| Area(ac): 32.670 | Time Shift(hrs): 0.00 | |
| Curve Number: 76.00 | Max Allowable Q(cfs): 999999.000 | |
| DCIA(%): 0.00 | | |

| | | |
|----------------------------|----------------------------------|----------------|
| Name: 3 | Node: POND 3 | Status: Onsite |
| Group: BASE | Type: SCS Unit Hydrograph | |
| Unit Hydrograph: Uh256 | Peaking Factor: 256.0 | |
| Rainfall File: Flmod | Storm Duration(hrs): 24.00 | |
| Rainfall Amount(in): 4.500 | Time of Conc(min): 25.00 | |
| Area(ac): 4.940 | Time Shift(hrs): 0.00 | |
| Curve Number: 74.00 | Max Allowable Q(cfs): 999999.000 | |
| DCIA(%): 0.00 | | |

| | | |
|----------------------------|----------------------------------|----------------|
| Name: 4 | Node: DITCH 3 | Status: Onsite |
| Group: BASE | Type: SCS Unit Hydrograph | |
| Unit Hydrograph: Uh256 | Peaking Factor: 256.0 | |
| Rainfall File: Flmod | Storm Duration(hrs): 24.00 | |
| Rainfall Amount(in): 4.500 | Time of Conc(min): 20.00 | |
| Area(ac): 24.790 | Time Shift(hrs): 0.00 | |
| Curve Number: 74.00 | Max Allowable Q(cfs): 999999.000 | |
| DCIA(%): 0.00 | | |

| | | |
|----------------------------|----------------------------------|----------------|
| Name: 5 | Node: POND 5 | Status: Onsite |
| Group: BASE | Type: SCS Unit Hydrograph | |
| Unit Hydrograph: Uh256 | Peaking Factor: 256.0 | |
| Rainfall File: Flmod | Storm Duration(hrs): 24.00 | |
| Rainfall Amount(in): 4.500 | Time of Conc(min): 25.00 | |
| Area(ac): 3.370 | Time Shift(hrs): 0.00 | |
| Curve Number: 74.00 | Max Allowable Q(cfs): 999999.000 | |
| DCIA(%): 0.00 | | |

| | | |
|-------------|---------------------------|----------------|
| Name: 6 | Node: DITCH 3 | Status: Onsite |
| Group: BASE | Type: SCS Unit Hydrograph | |

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| | |
|----------------------------|----------------------------------|
| Unit Hydrograph: Uh256 | Peaking Factor: 256.0 |
| Rainfall File: Flmod | Storm Duration(hrs): 24.00 |
| Rainfall Amount(in): 4.500 | Time of Conc(min): 20.00 |
| Area(ac): 3.100 | Time Shift(hrs): 0.00 |
| Curve Number: 77.50 | Max Allowable Q(cfs): 999999.000 |
| DCIA(%): 0.00 | |

| | | |
|----------------------------|----------------------------------|----------------|
| Name: 7 | Node: DITCH 4 | Status: Onsite |
| Group: BASE | Type: SCS Unit Hydrograph | |
| | | |
| Unit Hydrograph: Uh256 | Peaking Factor: 256.0 | |
| Rainfall File: Flmod | Storm Duration(hrs): 24.00 | |
| Rainfall Amount(in): 4.500 | Time of Conc(min): 25.00 | |
| Area(ac): 4.040 | Time Shift(hrs): 0.00 | |
| Curve Number: 79.50 | Max Allowable Q(cfs): 999999.000 | |
| DCIA(%): 0.00 | | |

=====
 Nodes
 =====

| | | |
|------------------|-----------------------|-----------------------|
| Name: DITCH 1 | Base Flow(cfs): 0.000 | Init Stage(ft): 3.000 |
| Group: BASE | | Warn Stage(ft): 8.000 |
| Type: Stage/Area | | |

| Stage(ft) | Area(ac) |
|-----------|----------|
| 3.000 | 0.9200 |
| 4.000 | 1.6760 |
| 5.000 | 2.3650 |
| 6.000 | 3.1090 |

| | | |
|------------------|-----------------------|-----------------------|
| Name: DITCH 2 | Base Flow(cfs): 0.000 | Init Stage(ft): 1.390 |
| Group: BASE | | Warn Stage(ft): 7.000 |
| Type: Stage/Area | | |

| Stage(ft) | Area(ac) |
|-----------|----------|
| 1.390 | 0.0002 |
| 2.000 | 0.0020 |
| 3.000 | 0.0080 |
| 4.000 | 0.0310 |
| 5.000 | 0.0420 |
| 6.000 | 0.0550 |

| | | |
|------------------|-----------------------|-----------------------|
| Name: DITCH 3 | Base Flow(cfs): 0.000 | Init Stage(ft): 1.280 |
| Group: BASE | | Warn Stage(ft): 7.000 |
| Type: Stage/Area | | |

| Stage(ft) | Area(ac) |
|-----------|----------|
| 1.280 | 0.0020 |
| 2.000 | 0.0320 |
| 3.000 | 0.0420 |
| 4.000 | 0.6460 |
| 5.000 | 0.8730 |
| 6.000 | 1.0910 |

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```
Name: DITCH 4          Base Flow(cfs): 0.000      Init Stage(ft): 1.000
Group: BASE           Warn Stage(ft): 7.000
Type: Stage/Area
```

| Stage(ft) | Area(ac) |
|-----------|----------|
| 1.000 | 0.0030 |
| 2.000 | 0.0610 |
| 3.000 | 0.1030 |
| 4.000 | 0.1330 |
| 5.000 | 0.1680 |
| 6.000 | 0.2090 |

```
Name: OFFSITE         Base Flow(cfs): 0.000      Init Stage(ft): 2.000
Group: BASE           Warn Stage(ft): 0.000
Type: Time/Stage
```

| Time(hrs) | Stage(ft) |
|-----------|-----------|
| 0.00 | 2.000 |
| 36.00 | 2.000 |

```
Name: POND 3          Base Flow(cfs): 0.000      Init Stage(ft): 6.000
Group: BASE           Warn Stage(ft): 8.000
Type: Stage/Area
```

| Stage(ft) | Area(ac) |
|-----------|----------|
| 6.000 | 0.0010 |
| 7.000 | 0.1350 |

```
Name: POND 5          Base Flow(cfs): 0.000      Init Stage(ft): 5.500
Group: BASE           Warn Stage(ft): 8.000
Type: Stage/Area
```

| Stage(ft) | Area(ac) |
|-----------|----------|
| 5.500 | 0.0010 |
| 6.000 | 0.0060 |
| 6.500 | 0.0160 |
| 7.000 | 0.2560 |

=====
Pipes
=====

```
Name: D2 TO D3 A      From Node: DITCH 2      Length(ft): 41.00
Group: BASE           To Node: DITCH 3      Count: 1
                       Friction Equation: Average Conveyance
                       Solution Algorithm: Automatic
                       Flow: Both
Geometry: Circular    DOWNSTREAM
Span(in): 12.00      12.00      Entrance Loss Coef: 0.20
Rise(in): 12.00     12.00      Exit Loss Coef: 0.00
Invert(ft): 1.470    1.470      Bend Loss Coef: 0.00
Manning's N: 0.015000 0.015000    Outlet Ctrl Spec: Use dc or tw
Top Clip(in): 0.000  0.000      Inlet Ctrl Spec: Use dn
Bot Clip(in): 0.000  0.000      Stabilizer Option: None
```

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Upstream FHWA Inlet Edge Description:
 Circular Concrete: Square edge w/ headwall

Downstream FHWA Inlet Edge Description:
 Circular Concrete: Square edge w/ headwall

| | | |
|-----------------------|--------------------|---------------------------------------|
| Name: D2 TO D3 B | From Node: DITCH 2 | Length(ft): 41.00 |
| Group: BASE | To Node: DITCH 3 | Count: 1 |
| UPSTREAM | DOWNSTREAM | Friction Equation: Average Conveyance |
| Geometry: Circular | Circular | Solution Algorithm: Automatic |
| Span(in): 24.00 | 24.00 | Flow: Positive |
| Rise(in): 24.00 | 24.00 | Entrance Loss Coef: 0.20 |
| Invert(ft): 2.070 | 2.660 | Exit Loss Coef: 0.00 |
| Manning's N: 0.012000 | 0.012000 | Bend Loss Coef: 0.00 |
| Top Clip(in): 0.000 | 0.000 | Outlet Ctrl Spec: Use dc or tw |
| Bot Clip(in): 0.000 | 0.000 | Inlet Ctrl Spec: Use dn |
| | | Stabilizer Option: None |

Upstream FHWA Inlet Edge Description:
 Circular Concrete: Square edge w/ headwall

Downstream FHWA Inlet Edge Description:
 Circular Concrete: Square edge w/ headwall

| | | |
|-----------------------|--------------------|---------------------------------------|
| Name: D2 TO D3 C | From Node: DITCH 2 | Length(ft): 41.00 |
| Group: BASE | To Node: DITCH 3 | Count: 1 |
| UPSTREAM | DOWNSTREAM | Friction Equation: Average Conveyance |
| Geometry: Circular | Circular | Solution Algorithm: Automatic |
| Span(in): 12.00 | 12.00 | Flow: Both |
| Rise(in): 12.00 | 12.00 | Entrance Loss Coef: 0.20 |
| Invert(ft): 1.390 | 1.280 | Exit Loss Coef: 0.00 |
| Manning's N: 0.012000 | 0.012000 | Bend Loss Coef: 0.00 |
| Top Clip(in): 0.000 | 0.000 | Outlet Ctrl Spec: Use dc or tw |
| Bot Clip(in): 0.000 | 0.000 | Inlet Ctrl Spec: Use dn |
| | | Stabilizer Option: None |

Upstream FHWA Inlet Edge Description:
 Circular Concrete: Square edge w/ headwall

Downstream FHWA Inlet Edge Description:
 Circular Concrete: Square edge w/ headwall

| | | |
|------------------------|--------------------|---------------------------------------|
| Name: D3 TO D4 A | From Node: DITCH 3 | Length(ft): 70.00 |
| Group: BASE | To Node: DITCH 4 | Count: 1 |
| UPSTREAM | DOWNSTREAM | Friction Equation: Average Conveyance |
| Geometry: Horz Ellipse | Horz Ellipse | Solution Algorithm: Automatic |
| Span(in): 48.00 | 48.00 | Flow: Positive |
| Rise(in): 30.00 | 30.00 | Entrance Loss Coef: 0.20 |
| Invert(ft): 1.320 | 1.300 | Exit Loss Coef: 0.00 |
| Manning's N: 0.015000 | 0.015000 | Bend Loss Coef: 0.00 |
| Top Clip(in): 0.000 | 0.000 | Outlet Ctrl Spec: Use dc or tw |
| Bot Clip(in): 0.000 | 0.000 | Inlet Ctrl Spec: Use dn |
| | | Stabilizer Option: None |

Upstream FHWA Inlet Edge Description:
 Horizontal Ellipse Concrete: Square edge with headwall

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Downstream FHWA Inlet Edge Description:
 Horizontal Ellipse Concrete: Square edge with headwall

| | | |
|------------------------|--------------------|---------------------------------------|
| Name: D3 TO D4 B | From Node: DITCH 3 | Length(ft): 70.00 |
| Group: BASE | To Node: DITCH 4 | Count: 1 |
| | | Friction Equation: Average Conveyance |
| UPSTREAM | DOWNSTREAM | Solution Algorithm: Automatic |
| Geometry: Horz Ellipse | Horz Ellipse | Flow: Positive |
| Span(in): 48.00 | 48.00 | Entrance Loss Coef: 0.20 |
| Rise(in): 30.00 | 30.00 | Exit Loss Coef: 0.00 |
| Invert(ft): 1.670 | 1.500 | Bend Loss Coef: 0.00 |
| Manning's N: 0.015000 | 0.015000 | Outlet Ctrl Spec: Use dc or tw |
| Top Clip(in): 0.000 | 0.000 | Inlet Ctrl Spec: Use dn |
| Bot Clip(in): 0.000 | 0.000 | Stabilizer Option: None |

Upstream FHWA Inlet Edge Description:
 Horizontal Ellipse Concrete: Square edge with headwall

Downstream FHWA Inlet Edge Description:
 Horizontal Ellipse Concrete: Square edge with headwall

| | | |
|-----------------------|--------------------|---------------------------------------|
| Name: D4 TO OFF A | From Node: DITCH 4 | Length(ft): 100.00 |
| Group: BASE | To Node: OFFSITE | Count: 1 |
| | | Friction Equation: Average Conveyance |
| UPSTREAM | DOWNSTREAM | Solution Algorithm: Automatic |
| Geometry: Circular | Circular | Flow: Both |
| Span(in): 30.00 | 30.00 | Entrance Loss Coef: 0.20 |
| Rise(in): 30.00 | 30.00 | Exit Loss Coef: 0.00 |
| Invert(ft): 0.850 | 3.850 | Bend Loss Coef: 0.00 |
| Manning's N: 0.012000 | 0.012000 | Outlet Ctrl Spec: Use dc or tw |
| Top Clip(in): 0.000 | 0.000 | Inlet Ctrl Spec: Use dn |
| Bot Clip(in): 0.000 | 0.000 | Stabilizer Option: None |

Upstream FHWA Inlet Edge Description:
 Circular Concrete: Square edge w/ headwall

Downstream FHWA Inlet Edge Description:
 Circular Concrete: Square edge w/ headwall

| | | |
|-----------------------|--------------------|---------------------------------------|
| Name: D4 TO OFF B | From Node: DITCH 4 | Length(ft): 100.00 |
| Group: BASE | To Node: OFFSITE | Count: 1 |
| | | Friction Equation: Average Conveyance |
| UPSTREAM | DOWNSTREAM | Solution Algorithm: Automatic |
| Geometry: Circular | Circular | Flow: Both |
| Span(in): 30.00 | 30.00 | Entrance Loss Coef: 0.20 |
| Rise(in): 30.00 | 30.00 | Exit Loss Coef: 0.00 |
| Invert(ft): 1.280 | 3.860 | Bend Loss Coef: 0.00 |
| Manning's N: 0.012000 | 0.012000 | Outlet Ctrl Spec: Use dc or tw |
| Top Clip(in): 0.000 | 0.000 | Inlet Ctrl Spec: Use dn |
| Bot Clip(in): 0.000 | 0.000 | Stabilizer Option: None |

Upstream FHWA Inlet Edge Description:
 Circular Concrete: Square edge w/ headwall

Downstream FHWA Inlet Edge Description:
 Circular Concrete: Square edge w/ headwall

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=====
 Drop Structures
 =====

| | | |
|-----------------------|-------------------|---------------------------------------|
| Name: I-3 | From Node: POND 3 | Length(ft): 278.00 |
| Group: BASE | To Node: DITCH 2 | Count: 1 |
| UPSTREAM | DOWNSTREAM | Friction Equation: Average Conveyance |
| Geometry: Circular | Circular | Solution Algorithm: Automatic |
| Span(in): 15.00 | 15.00 | Flow: Both |
| Rise(in): 15.00 | 15.00 | Entrance Loss Coef: 0.200 |
| Invert(ft): 4.010 | 3.140 | Exit Loss Coef: 0.000 |
| Manning's N: 0.015000 | 0.015000 | Outlet Ctrl Spec: Use dc or tw |
| Top Clip(in): 0.000 | 0.000 | Inlet Ctrl Spec: Use dn |
| Bot Clip(in): 0.000 | 0.000 | Solution Incs: 10 |

Upstream FHWA Inlet Edge Description:
 Circular Concrete: Square edge w/ headwall

Downstream FHWA Inlet Edge Description:
 Circular Concrete: Square edge w/ headwall

*** Weir 1 of 1 for Drop Structure I-3 ***

| | | |
|-----------------------|--------------------------|-------|
| Count: 1 | Bottom Clip(in): 0.000 | TABLE |
| Type: Horizontal | Top Clip(in): 0.000 | |
| Flow: Both | Weir Disc Coef: 3.200 | |
| Geometry: Rectangular | Orifice Disc Coef: 0.600 | |
| Span(in): 36.00 | Invert(ft): 6.360 | |
| Rise(in): 24.00 | Control Elev(ft): 6.360 | |

| | | |
|-----------------------|-------------------|---------------------------------------|
| Name: I-5 | From Node: POND 5 | Length(ft): 195.00 |
| Group: BASE | To Node: DITCH 3 | Count: 1 |
| UPSTREAM | DOWNSTREAM | Friction Equation: Average Conveyance |
| Geometry: Circular | Circular | Solution Algorithm: Automatic |
| Span(in): 15.00 | 15.00 | Flow: Both |
| Rise(in): 15.00 | 15.00 | Entrance Loss Coef: 0.200 |
| Invert(ft): 3.860 | 2.970 | Exit Loss Coef: 0.000 |
| Manning's N: 0.015000 | 0.015000 | Outlet Ctrl Spec: Use dc or tw |
| Top Clip(in): 0.000 | 0.000 | Inlet Ctrl Spec: Use dn |
| Bot Clip(in): 0.000 | 0.000 | Solution Incs: 10 |

Upstream FHWA Inlet Edge Description:
 Circular Concrete: Square edge w/ headwall

Downstream FHWA Inlet Edge Description:
 Circular Concrete: Square edge w/ headwall

*** Weir 1 of 1 for Drop Structure I-5 ***

| | | |
|-----------------------|--------------------------|-------|
| Count: 1 | Bottom Clip(in): 0.000 | TABLE |
| Type: Horizontal | Top Clip(in): 0.000 | |
| Flow: Both | Weir Disc Coef: 3.200 | |
| Geometry: Rectangular | Orifice Disc Coef: 0.600 | |
| Span(in): 36.00 | Invert(ft): 6.330 | |
| Rise(in): 24.00 | Control Elev(ft): 6.330 | |

=====
 Weirs
 =====

PALM HARBOR GOLF COURSE
 CPH PROJECT #C9002
 JANUARY, 2006
 PRE DEVELOPMENT DITCH MEAN ANNUAL
 INPUT

Name: D1 TO D2 From Node: DITCH 1
 Group: BASE To Node: DITCH 2
 Flow: Both Count: 1
 Type: Vertical: Mavis Geometry: Trapezoidal

Bottom Width(ft): 15.00
 Left Side Slope(h/v): 4.00
 Right Side Slope(h/v): 8.00
 Invert(ft): 4.000
 Control Elevation(ft): 4.000
 Struct Opening Dim(ft): 9999.00

TABLE

Bottom Clip(ft): 0.000
 Top Clip(ft): 0.000
 Weir Discharge Coef: 3.200
 Orifice Discharge Coef: 0.600

=====
 === Hydrology Simulations ===
 =====

Name: C9002_PRE_MAA
 Filename: J:\C9002 CENTEX HOMES SITE 6\ICPR\C9002_PRE_MA-A.R32

Override Defaults: No

| Time(hrs) | Print Inc(min) |
|-----------|----------------|
| 10.000 | 15.00 |
| 13.000 | 15.00 |
| 36.000 | 15.00 |

=====
 === Routing Simulations ===
 =====

Name: C9002_PRE_MAA Hydrology Sim: C9002_PRE_MAA
 Filename: J:\C9002 CENTEX HOMES SITE 6\ICPR\C9002_PRE_MA.I32

Execute: Yes Restart: No Patch: No
 Alternative: No

| | |
|-----------------------------|-----------------------------|
| Max Delta Z(ft): 0.20 | Delta Z Factor: 0.00100 |
| Time Step Optimizer: 10.000 | |
| Start Time(hrs): 0.000 | End Time(hrs): 36.00 |
| Min Calc Time(sec): 0.1000 | Max Calc Time(sec): 60.0000 |
| Boundary Stages: | Boundary Flows: |

| Time(hrs) | Print Inc(min) |
|-----------|----------------|
| 10.000 | 15.000 |
| 13.000 | 15.000 |
| 36.000 | 15.000 |

| Group | Run |
|-------|-----|
| BASE | Yes |

=====
 === Boundary Conditions ===
 =====

PALM HARBOR GOLF COURSE
 CPH PROJECT #C9002
 JANUARY, 2006
 PRE DEVELOPMENT DITCH MEAN ANNUAL
 BASIN MAXIMUM

| Simulation | Basin | Group | Time Max hrs | Flow Max cfs | Volume in | Volume ft3 |
|---------------|-------|-------|-----------------|-----------------|--------------|---------------|
| C9002_PRE_MAA | 1 | BASE | 12.22 | 8.992 | 1.972 | 73146.409 |
| C9002_PRE_MAA | 2 | BASE | 12.18 | 35.195 | 2.129252491 | 2491.978 |
| C9002_PRE_MAA | 3 | BASE | 12.22 | 4.347 | 1.972 | 35356.483 |
| C9002_PRE_MAA | 4 | BASE | 12.18 | 24.487 | 1.972177426 | 564 |
| C9002_PRE_MAA | 5 | BASE | 12.22 | 2.965 | 1.972 | 24119.706 |
| C9002_PRE_MAA | 6 | BASE | 12.13 | 3.553 | 2.251 | 25328.003 |
| C9002_PRE_MAA | 7 | BASE | 12.22 | 4.470 | 2.418 | 35460.427 |

PALM HARBOR GOLF COURSE
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 PRE DEVELOPMENT DITCH MEAN ANNUAL
 NODE MAXIMUM

| Name | Group | Simulation | Max Time Stage hrs | Max Stage ft | Warning Stage ft | Max Delta Stage ft | Max Surf Area ft2 | Max Time Inflow hrs | Max Inflow cfs | Max Time Outflow hrs | Max Outflow cfs |
|---------|-------|---------------|--------------------------|--------------------|------------------------|-----------------------------|-------------------------|---------------------------|----------------------|----------------------------|-----------------------|
| DITCH 1 | BASE | C9002_PRE_MAA | 13.85 | 5.506 | 8.000 | -0.0002 | 119428 | 12.25 | 43.260 | 14.52 | 10.116 |
| DITCH 2 | BASE | C9002_PRE_MAA | 13.84 | 5.492 | 7.000 | 0.0002 | 2112 | 14.34 | 10.909 | 14.36 | 10.973 |
| DITCH 3 | BASE | C9002_PRE_MAA | 13.59 | 5.361 | 7.000 | 0.0002 | 41471 | 12.25 | 25.989 | 13.65 | 17.624 |
| DITCH 4 | BASE | C9002_PRE_MAA | 13.58 | 5.327 | 7.000 | 0.0002 | 7986 | 13.46 | 19.111 | 13.58 | 19.067 |
| OFFSITE | BASE | C9002_PRE_MAA | 0.00 | 2.000 | 0.000 | 0.0000 | 26 | 13.58 | 19.067 | 0.00 | 0.000 |
| POND 3 | BASE | C9002_PRE_MAA | 12.30 | 6.620 | 8.000 | -0.0001 | 3660 | 12.25 | 4.341 | 12.30 | 4.231 |
| POND 5 | BASE | C9002_PRE_MAA | 12.27 | 6.533 | 8.000 | 0.0002 | 1391 | 12.25 | 2.962 | 12.27 | 2.931 |

PALM HARBOR GOLF COURSE
 CPH PROJECT #C9002
 JANUARY, 2006
 PRE DEVELOPMENT DITCH MEAN ANNUAL
 LINK MAXIMUM

| Name | Group | Simulation | Max Time Flow hrs | Max Flow cfs | Delta Q cfs | Max US Stage hrs | Max US Stage ft | Max DS Stage hrs | Max DS Stage ft |
|-------------|-------|---------------|-------------------------|--------------------|----------------|------------------------|-----------------------|------------------------|-----------------------|
| D1 TO D2 | BASE | C9002_PRE_MAA | 14.52 | 10.116 | 0.034 | 13.85 | 5.506 | 13.84 | 5.492 |
| D2 TO D3 A | BASE | C9002_PRE_MAA | 14.36 | 1.471 | 0.034 | 13.84 | 5.492 | 13.59 | 5.361 |
| D2 TO D3 B | BASE | C9002_PRE_MAA | 14.36 | 7.846 | 0.109 | 13.84 | 5.492 | 13.59 | 5.361 |
| D2 TO D3 C | BASE | C9002_PRE_MAA | 14.36 | 1.656 | -0.045 | 13.84 | 5.492 | 13.59 | 5.361 |
| D3 TO D4 A | BASE | C9002_PRE_MAA | 13.65 | 8.812 | -0.576 | 13.59 | 5.361 | 13.58 | 5.327 |
| D3 TO D4 B | BASE | C9002_PRE_MAA | 13.65 | 8.812 | -0.896 | 13.59 | 5.361 | 13.58 | 5.327 |
| D4 TO OFF A | BASE | C9002_PRE_MAA | 13.58 | 9.591 | -0.002 | 13.58 | 5.327 | 13.58 | 4.884 |
| D4 TO OFF B | BASE | C9002_PRE_MAA | 13.58 | 9.476 | -0.002 | 13.58 | 5.327 | 13.58 | 4.887 |
| I-3 | BASE | C9002_PRE_MAA | 12.30 | 4.231 | -0.002 | 12.30 | 6.620 | 13.84 | 5.492 |
| I-5 | BASE | C9002_PRE_MAA | 12.27 | 2.931 | -0.001 | 12.27 | 6.533 | 13.59 | 5.361 |

PALM HARBOR GOLF COURSE
 POST-DEVELOPMENT MEAN ANNUAL STORM
 JANUARY, 2006
 INPUT

=====
 Basins
 =====

| | | |
|----------------------------|----------------------------------|----------------|
| Name: 1 | Node: POND 1 | Status: Onsite |
| Group: BASE | Type: SCS Unit Hydrograph | |
| Unit Hydrograph: Uh256 | Peaking Factor: 256.0 | |
| Rainfall File: Flmod | Storm Duration(hrs): 24.00 | |
| Rainfall Amount(in): 4.500 | Time of Conc(min): 15.00 | |
| Area(ac): 3.690 | Time Shift(hrs): 0.00 | |
| Curve Number: 87.00 | Max Allowable Q(cfs): 999999.000 | |
| DCIA(%): 0.00 | | |

| | | |
|----------------------------|----------------------------------|----------------|
| Name: 2 | Node: POND 2 | Status: Onsite |
| Group: BASE | Type: SCS Unit Hydrograph | |
| Unit Hydrograph: Uh256 | Peaking Factor: 256.0 | |
| Rainfall File: Flmod | Storm Duration(hrs): 24.00 | |
| Rainfall Amount(in): 4.500 | Time of Conc(min): 10.00 | |
| Area(ac): 5.510 | Time Shift(hrs): 0.00 | |
| Curve Number: 85.00 | Max Allowable Q(cfs): 999999.000 | |
| DCIA(%): 0.00 | | |

| | | |
|----------------------------|----------------------------------|----------------|
| Name: 3 | Node: POND 3 | Status: Onsite |
| Group: BASE | Type: SCS Unit Hydrograph | |
| Unit Hydrograph: Uh256 | Peaking Factor: 256.0 | |
| Rainfall File: Flmod | Storm Duration(hrs): 24.00 | |
| Rainfall Amount(in): 4.500 | Time of Conc(min): 15.00 | |
| Area(ac): 10.450 | Time Shift(hrs): 0.00 | |
| Curve Number: 82.00 | Max Allowable Q(cfs): 999999.000 | |
| DCIA(%): 0.00 | | |

| | | |
|----------------------------|----------------------------------|----------------|
| Name: OFFSITE 1 | Node: DITCH 1 | Status: Onsite |
| Group: BASE | Type: SCS Unit Hydrograph | |
| Unit Hydrograph: Uh256 | Peaking Factor: 256.0 | |
| Rainfall File: Flmod | Storm Duration(hrs): 24.00 | |
| Rainfall Amount(in): 4.500 | Time of Conc(min): 25.00 | |
| Area(ac): 10.220 | Time Shift(hrs): 0.00 | |
| Curve Number: 74.00 | Max Allowable Q(cfs): 999999.000 | |
| DCIA(%): 0.00 | | |

| | | |
|----------------------------|----------------------------------|----------------|
| Name: OFFSITE 2 | Node: DITCH 1 | Status: Onsite |
| Group: BASE | Type: SCS Unit Hydrograph | |
| Unit Hydrograph: Uh256 | Peaking Factor: 256.0 | |
| Rainfall File: Flmod | Storm Duration(hrs): 24.00 | |
| Rainfall Amount(in): 4.500 | Time of Conc(min): 20.00 | |
| Area(ac): 32.670 | Time Shift(hrs): 0.00 | |
| Curve Number: 76.00 | Max Allowable Q(cfs): 999999.000 | |
| DCIA(%): 0.00 | | |

| | | |
|-----------------|---------------------------|----------------|
| Name: OFFSITE 4 | Node: DITCH 3 | Status: Onsite |
| Group: BASE | Type: SCS Unit Hydrograph | |

PALM HARBOR GOLF COURSE
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 JANUARY, 2006
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| | |
|----------------------------|----------------------------------|
| Unit Hydrograph: Uh256 | Peaking Factor: 256.0 |
| Rainfall File: Flmod | Storm Duration(hrs): 24.00 |
| Rainfall Amount(in): 4.500 | Time of Conc(min): 20.00 |
| Area(ac): 23.850 | Time Shift(hrs): 0.00 |
| Curve Number: 74.00 | Max Allowable Q(cfs): 999999.000 |
| DCIA(%): 0.00 | |

| | | |
|----------------------------|----------------------------------|----------------|
| Name: OFFSITE 5 | Node: BASIN 5 POND | Status: Onsite |
| Group: BASE | Type: SCS Unit Hydrograph | |
| Unit Hydrograph: Uh256 | Peaking Factor: 256.0 | |
| Rainfall File: Flmod | Storm Duration(hrs): 24.00 | |
| Rainfall Amount(in): 4.500 | Time of Conc(min): 25.00 | |
| Area(ac): 2.250 | Time Shift(hrs): 0.00 | |
| Curve Number: 74.00 | Max Allowable Q(cfs): 999999.000 | |
| DCIA(%): 0.00 | | |

| | | |
|----------------------------|----------------------------------|----------------|
| Name: OFFSITE 6 | Node: DITCH 3 | Status: Onsite |
| Group: BASE | Type: SCS Unit Hydrograph | |
| Unit Hydrograph: Uh256 | Peaking Factor: 256.0 | |
| Rainfall File: Flmod | Storm Duration(hrs): 24.00 | |
| Rainfall Amount(in): 4.500 | Time of Conc(min): 20.00 | |
| Area(ac): 1.590 | Time Shift(hrs): 0.00 | |
| Curve Number: 75.00 | Max Allowable Q(cfs): 999999.000 | |
| DCIA(%): 0.00 | | |

| | | |
|----------------------------|----------------------------------|----------------|
| Name: OFFSITE 7 | Node: DITCH 4 | Status: Onsite |
| Group: BASE | Type: SCS Unit Hydrograph | |
| Unit Hydrograph: Uh256 | Peaking Factor: 256.0 | |
| Rainfall File: Flmod | Storm Duration(hrs): 24.00 | |
| Rainfall Amount(in): 4.500 | Time of Conc(min): 25.00 | |
| Area(ac): 4.450 | Time Shift(hrs): 0.00 | |
| Curve Number: 72.00 | Max Allowable Q(cfs): 999999.000 | |
| DCIA(%): 0.00 | | |

=====
 Nodes
 =====

| | | |
|--------------------|-----------------------|-----------------------|
| Name: BASIN 5 POND | Base Flow(cfs): 0.000 | Init Stage(ft): 5.500 |
| Group: BASE | | Warn Stage(ft): 8.000 |
| Type: Stage/Area | | |

| Stage(ft) | Area(ac) |
|-----------|----------|
| 5.500 | 0.0010 |
| 6.000 | 0.0060 |
| 6.500 | 0.0160 |
| 7.000 | 0.2560 |

| | | |
|---------------------------|-----------------------|-----------------------|
| Name: D-17 | Base Flow(cfs): 0.000 | Init Stage(ft): 2.790 |
| Group: BASE | Plunge Factor: 1.00 | Warn Stage(ft): 9.120 |
| Type: Manhole, Flat Floor | | |

| Stage(ft) | Area(ac) |
|-----------|----------|
|-----------|----------|

PALM HARBOR GOLF COURSE
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| | |
|-------|--------|
| 2.790 | 0.0003 |
| 9.120 | 0.0003 |

| | | |
|---------------------------|-----------------------|-----------------------|
| Name: D-20 | Base Flow(cfs): 0.000 | Init Stage(ft): 2.300 |
| Group: BASE | Plunge Factor: 1.00 | Warn Stage(ft): 8.000 |
| Type: Manhole, Flat Floor | | |

| Stage(ft) | Area(ac) |
|-----------|----------|
| 2.300 | 0.0003 |
| 8.000 | 0.0003 |

| | | |
|---------------------------|-----------------------|-----------------------|
| Name: D-22 | Base Flow(cfs): 0.000 | Init Stage(ft): 1.900 |
| Group: BASE | Plunge Factor: 1.00 | Warn Stage(ft): 8.000 |
| Type: Manhole, Flat Floor | | |

| Stage(ft) | Area(ac) |
|-----------|----------|
| 1.900 | 0.0003 |
| 8.000 | 0.0003 |

| | | |
|---------------------------|-----------------------|-----------------------|
| Name: D-24 | Base Flow(cfs): 0.000 | Init Stage(ft): 1.740 |
| Group: BASE | Plunge Factor: 1.00 | Warn Stage(ft): 6.500 |
| Type: Manhole, Flat Floor | | |

| Stage(ft) | Area(ac) |
|-----------|----------|
| 1.740 | 0.0003 |
| 6.500 | 0.0003 |

| | | |
|---------------------------|-----------------------|-----------------------|
| Name: D-26 | Base Flow(cfs): 0.000 | Init Stage(ft): 1.460 |
| Group: BASE | Plunge Factor: 1.00 | Warn Stage(ft): 8.000 |
| Type: Manhole, Flat Floor | | |

| Stage(ft) | Area(ac) |
|-----------|----------|
| 1.460 | 0.0003 |
| 8.000 | 0.0003 |

| | | |
|------------------|-----------------------|-----------------------|
| Name: DITCH 1 | Base Flow(cfs): 0.000 | Init Stage(ft): 3.000 |
| Group: BASE | | Warn Stage(ft): 7.000 |
| Type: Stage/Area | | |

| Stage(ft) | Area(ac) |
|-----------|----------|
| 3.000 | 0.9200 |
| 4.000 | 1.6760 |
| 5.000 | 2.3650 |
| 6.000 | 3.1090 |

| | | |
|------------------|-----------------------|-----------------------|
| Name: DITCH 2 | Base Flow(cfs): 0.000 | Init Stage(ft): 1.300 |
| Group: BASE | | Warn Stage(ft): 7.000 |
| Type: Stage/Area | | |

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| Stage (ft) | Area (ac) |
|------------|-----------|
| 1.300 | 0.0005 |
| 2.000 | 0.0020 |
| 3.000 | 0.0080 |
| 4.000 | 0.0310 |
| 5.000 | 0.0420 |
| 6.000 | 0.0550 |

Name: DITCH 3 Base Flow(cfs): 0.000 Init Stage(ft): 1.280
 Group: BASE Warn Stage(ft): 7.000
 Type: Stage/Area

| Stage (ft) | Area (ac) |
|------------|-----------|
| 1.280 | 0.0005 |
| 1.500 | 0.0010 |
| 2.000 | 0.0030 |
| 2.500 | 0.1340 |
| 3.000 | 0.2970 |
| 4.000 | 0.4540 |
| 5.000 | 0.6120 |
| 6.000 | 0.8000 |
| 6.500 | 0.9170 |

Name: DITCH 4 Base Flow(cfs): 0.000 Init Stage(ft): 2.300
 Group: BASE Warn Stage(ft): 7.000
 Type: Stage/Area

| Stage (ft) | Area (ac) |
|------------|-----------|
| 2.300 | 0.1050 |
| 3.000 | 0.1790 |
| 4.000 | 0.2860 |
| 5.000 | 0.3910 |
| 6.000 | 0.4950 |
| 6.500 | 0.5510 |

Name: OFFSITE Base Flow(cfs): 0.000 Init Stage(ft): 3.200
 Group: BASE Warn Stage(ft): 5.000
 Type: Time/Stage

| Time (hrs) | Stage (ft) |
|------------|------------|
| 0.00 | 2.000 |
| 36.00 | 2.000 |

Name: POND 1 Base Flow(cfs): 0.000 Init Stage(ft): 4.000
 Group: BASE Warn Stage(ft): 8.000
 Type: Stage/Area

| Stage (ft) | Area (ac) |
|------------|-----------|
| 4.000 | 0.2040 |
| 5.000 | 0.2670 |
| 5.550 | 0.3040 |
| 6.000 | 0.3350 |
| 7.000 | 0.4060 |
| 8.000 | 0.4810 |

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Name: POND 2 Base Flow(cfs): 0.000 Init Stage(ft): 5.000
 Group: BASE Warn Stage(ft): 8.000
 Type: Stage/Area

| Stage(ft) | Area(ac) |
|-----------|----------|
| 5.000 | 0.3190 |
| 6.000 | 0.3630 |
| 6.600 | 0.3900 |
| 7.000 | 0.4090 |
| 8.000 | 0.4580 |

Name: POND 3 Base Flow(cfs): 0.000 Init Stage(ft): 5.000
 Group: BASE Warn Stage(ft): 8.000
 Type: Stage/Area

| Stage(ft) | Area(ac) |
|-----------|----------|
| 5.000 | 0.1260 |
| 6.000 | 0.3780 |
| 7.000 | 0.6850 |
| 7.120 | 0.7470 |
| 8.000 | 1.3270 |

==== Pipes =====

| | | |
|-----------------------|--------------------|---------------------------------------|
| Name: BOXCULVERT | From Node: DITCH 3 | Length(ft): 78.00 |
| Group: BASE | To Node: DITCH 4 | Count: 1 |
| | | Friction Equation: Average Conveyance |
| | | Solution Algorithm: Automatic |
| | | Flow: Positive |
| UPSTREAM | DOWNSTREAM | Entrance Loss Coef: 0.20 |
| Geometry: Rectangular | Rectangular | Exit Loss Coef: 0.00 |
| Span(in): 60.00 | 60.00 | Bend Loss Coef: 0.00 |
| Rise(in): 48.00 | 48.00 | Outlet Ctrl Spec: Use dc or tw |
| Invert(ft): 2.500 | 2.300 | Inlet Ctrl Spec: Use dn |
| Manning's N: 0.012000 | 0.012000 | Stabilizer Option: None |
| Top Clip(in): 0.000 | 0.000 | |
| Bot Clip(in): 0.000 | 0.000 | |

Upstream FHWA Inlet Edge Description:
 Rectangular Box: 30° to 75° wingwall flares

Downstream FHWA Inlet Edge Description:
 Rectangular Box: 30° to 75° wingwall flares

| | | |
|-----------------------|-----------------|---------------------------------------|
| Name: D-18 | From Node: D-17 | Length(ft): 250.00 |
| Group: BASE | To Node: D-20 | Count: 1 |
| | | Friction Equation: Average Conveyance |
| | | Solution Algorithm: Automatic |
| | | Flow: Both |
| UPSTREAM | DOWNSTREAM | Entrance Loss Coef: 0.20 |
| Geometry: Circular | Circular | Exit Loss Coef: 0.00 |
| Span(in): 18.00 | 18.00 | Bend Loss Coef: 0.00 |
| Rise(in): 18.00 | 18.00 | Outlet Ctrl Spec: Use dc or tw |
| Invert(ft): 2.790 | 2.460 | Inlet Ctrl Spec: Use dn |
| Manning's N: 0.012000 | 0.012000 | Stabilizer Option: None |
| Top Clip(in): 0.000 | 0.000 | |
| Bot Clip(in): 0.000 | 0.000 | |

Upstream FHWA Inlet Edge Description:
 Circular Concrete: Square edge w/ headwall

PALM HARBOR GOLF COURSE
 POST-DEVELOPMENT MEAN ANNUAL STORM
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Downstream FHWA Inlet Edge Description:
 Circular Concrete: Square edge w/ headwall

| | | |
|-----------------------|-----------------|---------------------------------------|
| Name: D-21 | From Node: D-20 | Length(ft): 51.00 |
| Group: BASE | To Node: D-22 | Count: 1 |
| | | Friction Equation: Average Conveyance |
| UPSTREAM | DOWNSTREAM | Solution Algorithm: Automatic |
| Geometry: Circular | Circular | Flow: Both |
| Span(in): 24.00 | 24.00 | Entrance Loss Coef: 0.20 |
| Rise(in): 24.00 | 24.00 | Exit Loss Coef: 0.00 |
| Invert(ft): 2.300 | 2.150 | Bend Loss Coef: 0.00 |
| Manning's N: 0.012000 | 0.012000 | Outlet Ctrl Spec: Use dc or tw |
| Top Clip(in): 0.000 | 0.000 | Inlet Ctrl Spec: Use dn |
| Bot Clip(in): 0.000 | 0.000 | Stabilizer Option: None |

Upstream FHWA Inlet Edge Description:
 Circular Concrete: Square edge w/ headwall

Downstream FHWA Inlet Edge Description:
 Circular Concrete: Square edge w/ headwall

| | | |
|-----------------------|-----------------|---------------------------------------|
| Name: D-23 | From Node: D-22 | Length(ft): 206.00 |
| Group: BASE | To Node: D-24 | Count: 1 |
| | | Friction Equation: Average Conveyance |
| UPSTREAM | DOWNSTREAM | Solution Algorithm: Automatic |
| Geometry: Circular | Circular | Flow: Both |
| Span(in): 24.00 | 24.00 | Entrance Loss Coef: 0.20 |
| Rise(in): 24.00 | 24.00 | Exit Loss Coef: 0.00 |
| Invert(ft): 2.400 | 1.740 | Bend Loss Coef: 0.00 |
| Manning's N: 0.012000 | 0.012000 | Outlet Ctrl Spec: Use dc or tw |
| Top Clip(in): 0.000 | 0.000 | Inlet Ctrl Spec: Use dn |
| Bot Clip(in): 0.000 | 0.000 | Stabilizer Option: None |

Upstream FHWA Inlet Edge Description:
 Circular Concrete: Square edge w/ headwall

Downstream FHWA Inlet Edge Description:
 Circular Concrete: Square edge w/ headwall

| | | |
|-----------------------|-----------------|---------------------------------------|
| Name: D-25 | From Node: D-24 | Length(ft): 185.00 |
| Group: BASE | To Node: D-26 | Count: 1 |
| | | Friction Equation: Average Conveyance |
| UPSTREAM | DOWNSTREAM | Solution Algorithm: Automatic |
| Geometry: Circular | Circular | Flow: Both |
| Span(in): 30.00 | 30.00 | Entrance Loss Coef: 0.20 |
| Rise(in): 30.00 | 30.00 | Exit Loss Coef: 0.00 |
| Invert(ft): 1.790 | 1.460 | Bend Loss Coef: 0.00 |
| Manning's N: 0.012000 | 0.012000 | Outlet Ctrl Spec: Use dc or tw |
| Top Clip(in): 0.000 | 0.000 | Inlet Ctrl Spec: Use dn |
| Bot Clip(in): 0.000 | 0.000 | Stabilizer Option: None |

Upstream FHWA Inlet Edge Description:
 Circular Concrete: Square edge w/ headwall

Downstream FHWA Inlet Edge Description:
 Circular Concrete: Square edge w/ headwall

PALM HARBOR GOLF COURSE
 POST-DEVELOPMENT MEAN ANNUAL STORM
 JANUARY, 2006
 INPUT

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-----
Name: D-27                      From Node: D-26                      Length(ft): 166.00
Group: BASE                      To Node: OFFSITE                      Count: 1
                                   Friction Equation: Average Conveyance
                                   Solution Algorithm: Automatic
                                   Flow: Both
UPSTREAM                          DOWNSTREAM
Geometry: Circular                Circular
Span(in): 36.00                   36.00
Rise(in): 36.00                   36.00
Invert(ft): 1.460                 1.260
Manning's N: 0.012000             0.012000
Top Clip(in): 0.000               0.000
Bot Clip(in): 0.000               0.000
                                   Entrance Loss Coef: 0.20
                                   Exit Loss Coef: 0.00
                                   Bend Loss Coef: 0.00
                                   Outlet Ctrl Spec: Use dc or tw
                                   Inlet Ctrl Spec: Use dn
                                   Stabilizer Option: None
  
```

Upstream FHWA Inlet Edge Description:
 Circular Concrete: Square edge w/ headwall

Downstream FHWA Inlet Edge Description:
 Circular Concrete: Square edge w/ headwall

```

-----
Name: D2 TO D3 A                From Node: DITCH 2                    Length(ft): 41.00
Group: BASE                      To Node: DITCH 3                      Count: 1
                                   Friction Equation: Average Conveyance
                                   Solution Algorithm: Automatic
                                   Flow: Both
UPSTREAM                          DOWNSTREAM
Geometry: Circular                Circular
Span(in): 12.00                   12.00
Rise(in): 12.00                   12.00
Invert(ft): 1.470                 1.470
Manning's N: 0.015000             0.015000
Top Clip(in): 0.000               0.000
Bot Clip(in): 0.000               0.000
                                   Entrance Loss Coef: 0.20
                                   Exit Loss Coef: 0.00
                                   Bend Loss Coef: 0.00
                                   Outlet Ctrl Spec: Use dc or tw
                                   Inlet Ctrl Spec: Use dn
                                   Stabilizer Option: None
  
```

Upstream FHWA Inlet Edge Description:
 Circular Concrete: Square edge w/ headwall

Downstream FHWA Inlet Edge Description:
 Circular Concrete: Square edge w/ headwall

```

-----
Name: D2 TO D3 B                From Node: DITCH 2                    Length(ft): 41.00
Group: BASE                      To Node: DITCH 3                      Count: 1
                                   Friction Equation: Average Conveyance
                                   Solution Algorithm: Automatic
                                   Flow: Positive
UPSTREAM                          DOWNSTREAM
Geometry: Circular                Circular
Span(in): 24.00                   24.00
Rise(in): 24.00                   24.00
Invert(ft): 2.070                 2.660
Manning's N: 0.012000             0.012000
Top Clip(in): 0.000               0.000
Bot Clip(in): 0.000               0.000
                                   Entrance Loss Coef: 0.20
                                   Exit Loss Coef: 0.00
                                   Bend Loss Coef: 0.00
                                   Outlet Ctrl Spec: Use dc or tw
                                   Inlet Ctrl Spec: Use dn
                                   Stabilizer Option: None
  
```

Upstream FHWA Inlet Edge Description:
 Circular Concrete: Square edge w/ headwall

Downstream FHWA Inlet Edge Description:
 Circular Concrete: Square edge w/ headwall

```

-----
Name: D2 TO D3 C                From Node: DITCH 2                    Length(ft): 41.00
Group: BASE                      To Node: DITCH 3                      Count: 1
  
```

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| | | | |
|---------------|----------|------------|---------------------------------------|
| | UPSTREAM | DOWNSTREAM | Friction Equation: Average Conveyance |
| Geometry: | Circular | Circular | Solution Algorithm: Automatic |
| Span(in): | 12.00 | 12.00 | Flow: Both |
| Rise(in): | 12.00 | 12.00 | Entrance Loss Coef: 0.20 |
| Invert(ft): | 1.390 | 1.280 | Exit Loss Coef: 0.00 |
| Manning's N: | 0.012000 | 0.012000 | Bend Loss Coef: 0.00 |
| Top Clip(in): | 0.000 | 0.000 | Outlet Ctrl Spec: Use dc or tw |
| Bot Clip(in): | 0.000 | 0.000 | Inlet Ctrl Spec: Use dn |
| | | | Stabilizer Option: None |

Upstream FHWA Inlet Edge Description:
 Circular Concrete: Square edge w/ headwall

Downstream FHWA Inlet Edge Description:
 Circular Concrete: Square edge w/ headwall

==== Channels =====

| | | |
|-------------------|--------------------|-------------------|
| Name: DITCH DISCH | From Node: DITCH 4 | Length(ft): 90.00 |
| Group: BASE | To Node: OFFSITE | Count: 1 |

| | | | |
|----------------|-------------|-------------|---------------------------------------|
| | UPSTREAM | DOWNSTREAM | Friction Equation: Average Conveyance |
| Geometry: | Trapezoidal | Trapezoidal | Solution Algorithm: Automatic |
| Invert(ft): | 4.000 | 3.500 | Flow: Both |
| TClpInitZ(ft): | 9999.000 | 9999.000 | Contraction Coef: 0.000 |
| Manning's N: | 0.250000 | 0.250000 | Expansion Coef: 0.000 |
| Top Clip(ft): | 0.000 | 0.000 | Entrance Loss Coef: 0.000 |
| Bot Clip(ft): | 0.000 | 0.000 | Exit Loss Coef: 0.000 |
| Main XSec: | | | Outlet Ctrl Spec: Use dc or tw |
| AuxElev1(ft): | | | Inlet Ctrl Spec: Use dn |
| Aux XSec1: | | | Stabilizer Option: None |
| AuxElev2(ft): | | | |
| Aux XSec2: | | | |
| Top Width(ft): | | | |
| Depth(ft): | | | |
| Bot Width(ft): | 8.000 | 8.000 | |
| LtSdSlp(h/v): | 4.00 | 4.00 | |
| RtSdSlp(h/v): | 4.00 | 4.00 | |

==== Drop Structures =====

| | | |
|-----------------|-------------------|-------------------|
| Name: CONTROL 1 | From Node: POND 1 | Length(ft): 43.00 |
| Group: BASE | To Node: DITCH 3 | Count: 1 |

| | | | |
|---------------|----------|------------|---------------------------------------|
| | UPSTREAM | DOWNSTREAM | Friction Equation: Average Conveyance |
| Geometry: | Circular | Circular | Solution Algorithm: Automatic |
| Span(in): | 15.00 | 15.00 | Flow: Both |
| Rise(in): | 15.00 | 15.00 | Entrance Loss Coef: 0.200 |
| Invert(ft): | 3.000 | 2.500 | Exit Loss Coef: 0.000 |
| Manning's N: | 0.012000 | 0.012000 | Outlet Ctrl Spec: Use dc or tw |
| Top Clip(in): | 0.000 | 0.000 | Inlet Ctrl Spec: Use dn |
| Bot Clip(in): | 0.000 | 0.000 | Solution Incs: 10 |

Upstream FHWA Inlet Edge Description:
 Circular Concrete: Square edge w/ headwall

Downstream FHWA Inlet Edge Description:
 Circular Concrete: Square edge w/ headwall

*** Weir 1 of 1 for Drop Structure CONTROL 1 ***

TABLE

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| | |
|-----------------------|--------------------------|
| Count: 1 | Bottom Clip(in): 0.000 |
| Type: Horizontal | Top Clip(in): 0.000 |
| Flow: Both | Weir Disc Coef: 3.200 |
| Geometry: Rectangular | Orifice Disc Coef: 0.600 |
| Span(in): 36.00 | Invert(ft): 5.550 |
| Rise(in): 24.00 | Control Elev(ft): 5.550 |

| | | |
|-----------------|-------------------|--------------------|
| Name: CONTROL 2 | From Node: POND 2 | Length(ft): 171.00 |
| Group: BASE | To Node: D-17 | Count: 1 |

| | | |
|-----------------------|------------|---------------------------------------|
| UPSTREAM | DOWNSTREAM | Friction Equation: Average Conveyance |
| Geometry: Circular | Circular | Solution Algorithm: Automatic |
| Span(in): 15.00 | 15.00 | Flow: Both |
| Rise(in): 15.00 | 15.00 | Entrance Loss Coef: 0.200 |
| Invert(ft): 3.000 | 2.790 | Exit Loss Coef: 0.000 |
| Manning's N: 0.012000 | 0.012000 | Outlet Ctrl Spec: Use dc or tw |
| Top Clip(in): 0.000 | 0.000 | Inlet Ctrl Spec: Use dn |
| Bot Clip(in): 0.000 | 0.000 | Solution Incs: 10 |

Upstream FHWA Inlet Edge Description:
 Circular Concrete: Square edge w/ headwall

Downstream FHWA Inlet Edge Description:
 Circular Concrete: Square edge w/ headwall

*** Weir 1 of 2 for Drop Structure CONTROL 2 ***

TABLE

| | |
|-----------------------|--------------------------|
| Count: 1 | Bottom Clip(in): 0.000 |
| Type: Horizontal | Top Clip(in): 0.000 |
| Flow: Both | Weir Disc Coef: 3.200 |
| Geometry: Rectangular | Orifice Disc Coef: 0.600 |
| Span(in): 36.00 | Invert(ft): 6.600 |
| Rise(in): 24.00 | Control Elev(ft): 6.600 |

*** Weir 2 of 2 for Drop Structure CONTROL 2 ***

TABLE

| | |
|-----------------------|--------------------------|
| Count: 1 | Bottom Clip(in): 0.000 |
| Type: Vertical: Mavis | Top Clip(in): 0.000 |
| Flow: Both | Weir Disc Coef: 3.200 |
| Geometry: Circular | Orifice Disc Coef: 0.600 |
| Span(in): 4.00 | Invert(ft): 5.000 |
| Rise(in): 4.00 | Control Elev(ft): 5.000 |

| | | |
|-----------------|-------------------|--------------------|
| Name: CONTROL 3 | From Node: POND 3 | Length(ft): 137.00 |
| Group: BASE | To Node: D-20 | Count: 1 |

| | | |
|-----------------------|------------|---------------------------------------|
| UPSTREAM | DOWNSTREAM | Friction Equation: Average Conveyance |
| Geometry: Circular | Circular | Solution Algorithm: Automatic |
| Span(in): 15.00 | 15.00 | Flow: Both |
| Rise(in): 15.00 | 15.00 | Entrance Loss Coef: 0.200 |
| Invert(ft): 2.610 | 2.460 | Exit Loss Coef: 0.000 |
| Manning's N: 0.012000 | 0.012000 | Outlet Ctrl Spec: Use dc or tw |
| Top Clip(in): 0.000 | 0.000 | Inlet Ctrl Spec: Use dn |
| Bot Clip(in): 0.000 | 0.000 | Solution Incs: 10 |

Upstream FHWA Inlet Edge Description:
 Circular Concrete: Square edge w/ headwall

Downstream FHWA Inlet Edge Description:
 Circular Concrete: Square edge w/ headwall

*** Weir 1 of 1 for Drop Structure CONTROL 3 ***

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 INPUT

| | |
|-----------------------|--------------------------|
| Count: 1 | Bottom Clip(in): 0.000 |
| Type: Horizontal | Top Clip(in): 0.000 |
| Flow: Both | Weir Disc Coef: 3.200 |
| Geometry: Rectangular | Orifice Disc Coef: 0.600 |
| Span(in): 36.00 | Invert(ft): 7.120 |
| Rise(in): 24.00 | Control Elev(ft): 7.120 |

TABLE

| | | |
|-------------|-------------------------|--------------------|
| Name: I-5 | From Node: BASIN 5 POND | Length(ft): 250.00 |
| Group: BASE | To Node: DITCH 3 | Count: 1 |

| UPSTREAM | DOWNSTREAM | Friction Equation: Average Conveyance |
|-----------------------|------------|---------------------------------------|
| Geometry: Circular | Circular | Solution Algorithm: Automatic |
| Span(in): 15.00 | 15.00 | Flow: Both |
| Rise(in): 15.00 | 15.00 | Entrance Loss Coef: 0.200 |
| Invert(ft): 3.860 | 2.640 | Exit Loss Coef: 0.000 |
| Manning's N: 0.015000 | 0.015000 | Outlet Ctrl Spec: Use dc or tw |
| Top Clip(in): 0.000 | 0.000 | Inlet Ctrl Spec: Use dn |
| Bot Clip(in): 0.000 | 0.000 | Solution Incs: 10 |

Upstream FHWA Inlet Edge Description:
 Circular Concrete: Square edge w/ headwall

Downstream FHWA Inlet Edge Description:
 Circular Concrete: Square edge w/ headwall

*** Weir 1 of 1 for Drop Structure I-5 ***

| | |
|-----------------------|--------------------------|
| Count: 1 | Bottom Clip(in): 0.000 |
| Type: Horizontal | Top Clip(in): 0.000 |
| Flow: Both | Weir Disc Coef: 3.200 |
| Geometry: Rectangular | Orifice Disc Coef: 0.600 |
| Span(in): 36.00 | Invert(ft): 6.330 |
| Rise(in): 24.00 | Control Elev(ft): 6.330 |

TABLE

==== Weirs =====

| | |
|-----------------------|-----------------------|
| Name: D1 TO D2 | From Node: DITCH 1 |
| Group: BASE | To Node: DITCH 2 |
| Flow: Both | Count: 1 |
| Type: Vertical: Mavis | Geometry: Trapezoidal |

Bottom Width(ft): 15.00
 Left Side Slope(h/v): 4.00
 Right Side Slope(h/v): 8.00
 Invert(ft): 4.000
 Control Elevation(ft): 4.000
 Struct Opening Dim(ft): 9999.00

TABLE

| | |
|----------------------------|-------------------------------|
| Bottom Clip(ft): 0.000 | Top Clip(ft): 0.000 |
| Weir Discharge Coef: 3.200 | Orifice Discharge Coef: 0.600 |

==== Hydrology Simulations =====

Name: C9002-PT-MA-11A
 Filename: J:\C9002 Centex Homes Site 6\ICPR\C9002_POST-MA\C9001-POST-MA-11A.R32

Override Defaults: No

PALM HARBOR GOLF COURSE
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| Time(hrs) | Print Inc(min) |
|-----------|----------------|
| 72.000 | 15.00 |

=====
==== Routing Simulations =====
=====

Name: C9001-PT-MA-11A Hydrology Sim: C9002-PT-MA-11A
Filename: J:\C9002 CENTEX HOMES SITE 6\ICPR\C9002_POST-MA\C9001-POST-MA-11A.I32

Execute: Yes Restart: No Patch: No
Alternative: No

Max Delta Z(ft): 0.10 Delta Z Factor: 0.00100
Time Step Optimizer: 10.000
Start Time(hrs): 0.000 End Time(hrs): 72.00
Min Calc Time(sec): 0.0500 Max Calc Time(sec): 100.0000
Boundary Stages: Boundary Flows:

| Time(hrs) | Print Inc(min) |
|-----------|----------------|
| 72.000 | 15.000 |

| Group | Run |
|-------|-----|
| BASE | Yes |

=====
==== Boundary Conditions =====
=====

PALM HARBOR GOLF COURSE
 POST-DEVELOPMENT MEAN ANNUAL STORM
 JANUARY, 2006
 NODE MAXIMUM

| Name | Group | Simulation | Max Time Stage hrs | Max Stage ft | Warning Max Stage ft | Max Delta Stage ft | Max Surf Area ft2 | Max Time Inflow hrs | Max Inflow cfs | Max Time Outflow hrs | Max Outflow cfs |
|----------------|-----------|------------|--------------------------|--------------------|----------------------------|--------------------------|-------------------------|---------------------------|-------------------|----------------------------|-----------------------|
| BASIN 5 | | | | | | | | | | | |
| POND D-17 | BASEC9001 | PT-MA-11A | 12.26 | 6.486 | 8.000 | 0.0001 | 684 | 12.25 | 1.977 | 12.26 | 1.965 |
| POND D-20 | BASEC9001 | PT-MA-11A | 12.76 | 4.178 | 9.120 | 0.0001 | 206 | 12.65 | 3.947 | 12.69 | 3.897 |
| POND D-22 | BASEC9001 | PT-MA-11A | 12.84 | 3.910 | 8.000 | 0.0001 | 231 | 12.80 | 8.942 | 12.81 | 8.929 |
| POND D-24 | BASEC9001 | PT-MA-11A | 12.82 | 3.658 | 8.000 | -0.0002 | 353 | 12.81 | 8.929 | 12.82 | 8.927 |
| DITCH 1 | BASEC9001 | PT-MA-11A | 12.84 | 3.140 | 6.500 | 0.0003 | 535 | 12.82 | 8.927 | 12.84 | 8.923 |
| DITCH 2 | BASEC9001 | PT-MA-11A | 12.85 | 2.769 | 8.000 | 0.0002 | 587 | 12.84 | 8.923 | 12.85 | 8.921 |
| DITCH 3 | BASEC9001 | PT-MA-11A | 14.83 | 5.634 | 7.000 | -0.0001 | 123575 | 12.25 | 43.260 | 15.49 | 5.573 |
| DITCH 4 | BASEC9001 | PT-MA-11A | 14.82 | 5.627 | 7.000 | 0.0001 | 2188 | 15.49 | 5.573 | 15.59 | 5.590 |
| OFFSITE POND 1 | BASEC9001 | PT-MA-11A | 14.68 | 5.589 | 7.000 | 0.0001 | 31678 | 12.25 | 24.879 | 14.57 | 9.486 |
| POND 2 | BASEC9001 | PT-MA-11A | 14.68 | 5.587 | 7.000 | 0.0001 | 20705 | 12.25 | 11.458 | 14.68 | 10.052 |
| POND 3 | BASEC9001 | PT-MA-11A | 0.00 | 2.000 | 5.000 | -1.2000 | 219 | 13.06 | 15.941 | 0.00 | 0.000 |
| | BASEC9001 | PT-MA-11A | 12.69 | 5.767 | 8.000 | 0.0001 | 13892 | 12.00 | 6.150 | 12.69 | 3.225 |
| | BASEC9001 | PT-MA-11A | 12.65 | 6.825 | 8.000 | -0.0001 | 17453 | 12.00 | 10.840 | 12.65 | 3.947 |
| | BASEC9001 | PT-MA-11A | 12.94 | 7.432 | 8.000 | 0.0001 | 41497 | 12.00 | 14.638 | 12.94 | 5.577 |

PALM HARBOR GOLF COURSE
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 LINK MAXIMUM

| Name | Group | Simulation | Max Time Flow hrs | Max Flow cfs | Delta Q cfs | Max US Stage hrs | Max US Stage ft | Max DS Stage hrs | Max DS Stage ft |
|-------------|---------------------|------------|-------------------------|--------------------|-------------------|------------------------|-----------------------|------------------------|-----------------------|
| BOXCULVERT | | | | | | | | | |
| CONTROL 1 | BASEC9001-PT-MA-11A | | 14.57 | 9.486 | 1.355 | 14.68 | 5.589 | 14.68 | 5.587 |
| CONTROL 2 | BASEC9001-PT-MA-11A | | 12.69 | 3.225 | 0.000 | 12.69 | 5.767 | 14.68 | 5.589 |
| CONTROL 3 | BASEC9001-PT-MA-11A | | 12.65 | 3.947 | 0.000 | 12.65 | 6.825 | 12.76 | 4.178 |
| D-18 | BASEC9001-PT-MA-11A | | 12.94 | 5.577 | -0.001 | 12.94 | 7.432 | 12.84 | 3.910 |
| D-21 | BASEC9001-PT-MA-11A | | 12.69 | 3.897 | 0.041 | 12.76 | 4.178 | 12.84 | 3.910 |
| D-23 | BASEC9001-PT-MA-11A | | 12.81 | 8.929 | 0.414 | 12.84 | 3.910 | 12.82 | 3.658 |
| D-25 | BASEC9001-PT-MA-11A | | 12.82 | 8.927 | 2.306 | 12.82 | 3.658 | 12.84 | 3.140 |
| D-27 | BASEC9001-PT-MA-11A | | 12.84 | 8.923 | -0.488 | 12.84 | 3.140 | 12.85 | 2.769 |
| D1 TO D2 | BASEC9001-PT-MA-11A | | 12.85 | 8.921 | -1.288 | 12.85 | 2.769 | 12.85 | 2.203 |
| D2 TO D3 A | BASEC9001-PT-MA-11A | | 15.49 | 5.573 | -0.024 | 14.83 | 5.634 | 14.82 | 5.627 |
| D2 TO D3 B | BASEC9001-PT-MA-11A | | 15.59 | 0.749 | 0.040 | 14.82 | 5.627 | 14.68 | 5.589 |
| D2 TO D3 C | BASEC9001-PT-MA-11A | | 15.59 | 3.997 | 0.277 | 14.82 | 5.627 | 14.68 | 5.589 |
| DITCH DISCH | BASEC9001-PT-MA-11A | | 14.68 | 10.052 | -0.002 | 14.68 | 5.587 | 14.68 | 3.845 |
| I-5 | BASEC9001-PT-MA-11A | | 12.26 | 1.965 | 0.000 | 12.26 | 6.486 | 14.68 | 5.589 |