REEDY CREEK IMPROVEMENT DISTRICT

P.O. BOX 10170 LAKE BUENA VISTA, FLORIDA 32830-0170

PLANNING AND ENGINEERING

November 6, 2006

APP# 061106-23

ORIGINAL SUBMITTAL

NOV 06 2006

ORLANDO SERVICE CENTER

Mr. Ed Yaun, P.E.
South Florida Water Management District
1707 Orlando Cetral Parkway, Suite 200
Orlando, FL 32809

SUBJECT: Disney Contemporary Suites
Orange County S11,12/T24S/R27E
Modification of Permit #48-00714-S

Dear Ed,

Enclosed please find a check #0004920494 for the amount of $1000 and five copies of the following :

1. The signed and sealed construction plans, and
2. The signed and sealed report and calculations.

The Reedy Creek Improvement District staff reviewed the information and found it in substantial compliance with our SFWMD conceptual permit. Please review the material and issue an MSSW permit at your earliest convenience. Should you have any questions or need any information, please call me.

Sincerely,

M. Elsabagh

Mahmoud Elsabagh
Water Resources Engineer

Enclosures

RECEIVED
NOV 06 2006
ORLANDO SERVICE CENTER

cc: Kate Kolbo, RCID
Eric Arp, DRMP

(407) 828-2250 FAX (407) 828-2560
WWW.RCID.ORG

SOUTH FLORIDA WATER MANAGEMENT DISTRICT
ORLANDO SERVICE CENTER 1707 Orlando Central Parkway, Suite 200, Orlando, FL 32809
(407) 858-6100 • FL WATS 1-800-250-4250 • Suncom 358-6100 • Fax (407) 858-6121 • www.sfwmd.gov/site/index.php?id=297

No. 75280-1

RECEIPT

DISNEY WORLDWIDE SERVICES INC
PO BOX 10170
LAKE BUENA VISTA, FL 32830

Project	Application
DISNEY'S CONTEMPORARY SUITES	**061106-23**

Revenue Account	Application Type	Fee
463000	SWM GENERAL PERMIT - MOD	$ 1,000.00

Transaction Details

Date	Transaction	Reference	Amount
06-NOV-06	PAYMENT MADE BY DISNEY WORLDWIDE SERVICES INC	Check# 0004920494	$ 1,000.00

Processed by : JKILO
Date : 15 NOV 2006
Branch Office : ORL

VERIFY THE AUTHENTICITY OF THIS SECURE DOCUMENT. THIS DOCUMENT IS PRINTED IN GREEN.

Disney Worldwide Services, Inc.
LAKE BUENA VISTA, FL 32830

0004920494

62-20
311

DATE 10/12/2006

PAY ONLY 1000 00 CTS CTS

PAY
ONE THOUSAND DOLLARS AND 00 CENTS **********

TO THE ORDER OF: SOUTH FLORIDA WATER MANAGEMENT DISTRICT
1707 ORLANDO CENTRAL PKWY
ORLANDO FL 32809-5759

VOID AFTER 180 DAYS

Citibank Delaware · One Penn's Way New Castle DE 19720

⑈0004920494⑈ ⑆031100209⑆ 3865591 8⑈

MOORE SECURITY MARK™ ★ MOORE SECURITY MARK™ ★ MOORE SECURITY MARK™ ★ MOORE SECURITY MARK™

APP# 061106-23

ORIGINAL SUBMITTAL

NOV 06 2006

ORLANDO SERVICE CENTER

RCID Application
Disney's Contemporary Suites

ORIGINAL SUBMITTAL
NOV 0 6 2003
ORLANDO SERVICE CENTER

FOR AGENCY USE ONLY			
ACOE Application #		DEP/WMD Application #	APP# 031106-23
Date Application Received		Date Application Received	
Proposed Project Lat.		Fee Received $	
Proposed Project Long.		Fee Receipt #	

SECTION A

Are any of the activities described in this application proposed to occur in, on, or over wetlands or other surface waters?
☐ Yes ☒ No

Is this application being filed by or on behalf of a government entity or drainage district?
☒ Yes ☐ No

A. Type of MSSW Requested (check at least one)

☐ Noticed General - include information requested in Section B.
☐ Standard General (Single Family Dwelling) - include information requested in Sections C and D.
☒ Standard General MSSW Modification - include information requested in Sections C and E.
☐ Individual (Single Family Dwelling) - include information requested in Sections C and D.
☐ Individual (all other projects) - include information requested in Sections C and E, MSSW Modification
☐ Conceptual - include information requested in Sections C and E.
☐ Mitigation Bank Permit (construction) - include information requested in Section C and F.
(If the proposed mitigation bank involves the construction of a surface water management system requiring another permit defined above, check the appropriate box and submit the information requested by the applicable section).
☐ Mitigation Bank (conceptual) - include information requested in Section C and F.

B. Type of activity for which you are applying (check at least one)
☐ Construction or operation of a new system including dredging or filling in, on or over wetlands and
☐ other surface waters.
☐ Alteration or operation of an existing system which was not previously permitted by a WMD or DEP.
☒ Modification of a system previously permitted by a WMD or DEP. Provide previous permit
☐ numbers. SFWMD Permit #48-00714-S
☐ Alteration of a system ☐ Extension of permit duration ☐ Abandonment of a system
☒ Construction of additional phases of a system ☐ Removal of a system

C. Are you requesting authorization to use State Owed Lands. ☐ Yes ☒ No
(If yes, include the information requested in Section G.)

D. For activities in, on or over wetlands or other surface waters, check type of federal dredge and fill permit requested:
☐ Individual ☐ Programmatic General ☐ Modification to Individual
☐ General ☐ Nationwide ☒ Not Applicable

E. Are you claiming to qualify for an exemption? ☐ Yes ☒ No
If yes, provide rule number if known.____________

RCID Application
Disney's Contemporary Suites

APPL 06110C6-23
ORIGINAL SUBMITTAL
NOV 06 2006
ORLANDO SERVICE CENTER

OWNER(S) OF LAND	ENTITY TO RECEIVE PERMIT (IF OTHER THAN OWNER)
NAME **Lee Schmudde**	NAME **Kathryn Boes Kolbo, P.E.**
ADDRESS **Post Office Box 10170**	ADDRESS **Post Office Box 10170**
CITY, STATE, ZIP **Lake Buena Vista, Fl 32830**	CITY, STATE, ZIP **Lake Buena Vista, FL 32830-0170**
COMPANY **Walt Disney World Co. Inc.** Title : **Vice President**	COMPANY **Reedy Creek Improvement District** TITLE **Manager Planning & Engineering**
TELEPHONE **(407) 828-2250** FAX **(407) 828-2560**	TELEPHONE **(407) 828-2250** FAX **(407) 828-2560**
AGENT AUTHORIZED TO SECURE PERMIT (IF AN AGENT IS USED)	**CONSULTANT (IF DIFFERENT FROM AGENT)**
NAME **N/A**	NAME **Doug Dyer, P.E.**
COMPANY AND TITLE	COMPANY AND TITLE **DRMP, Inc. – Project Manager**
ADDRESS	ADDRESS **1505 E. Colonial Drive**
CITY, STATE, ZIP	CITY, STATE, ZIP **Orlando, FL 32803**
TELEPHONE ( ) FAX ( )	TELEPHONE **(407) 896-0594** FAX **(407) 894-3087**

Name of project, including phase if applicable **Disney's Contemporary Suites**
Is this application for part of a multi-phase project? ☒ Yes ☐ No
Total applicant-owned area contiguous to the project **27086** acres
Total project area for which a permit is sought **14.25** acres
Impervious area for which a permit is sought **8.80 acres**
What is the total area (metric equivalent for federally funded projects) of work in, on, or over wetlands or other surface waters?
0. acres _____ square feet **0** hectares **0** square meters
Number of new boat slips proposed N/A
Project location (use additional sheets, if needed)

County(ies) **Orange County**

Section(s) **11 , 12** Township **24S** Range **27 E**

Section(s) _____ Township _____ Range _____

Land Grant name, if applicable N/A
Tax Parcel Identification Number N/A

Street address, road, or other location **Near Disney's Magic Kingdom Park**
City, Zip Code if applicable **Bay Lake, Florida 32830**

Describe in general terms the proposed project, system, or activity.

The proposed project consists of the construction of a commercial development with associated parking, utilities and stormwater management facilities.

If there have been any pre-application meetings, including at the project site, with regulatory staff, please list the date(s), location(s), and names of key staff and project representatives.

N/A.

Please identify by number any MSSW/Wetland resource/ERP/ACOE Permits pending, issued or denied for projects at the location, and any related enforcement actions.

Agency	Date	No.\Type of Application	Action Taken
SFWMD	9/10/1992	48-00714-S (MSSW)	Issued

Note: The following information is required only for projects proposed to occur in, on or over wetlands that need a federal dredge and fill permit and/or authorization to use state owned submerged lands and is not necessary when applying solely for an Environment Resource Permit. Please provide the names, addresses and zip codes of property owners whose property directly adjoins the project (excluding applicant). Please attach a plan view showing the owner's names and adjoining property lines. Attach additional sheets if necessary.

1. N/A

2.

3.

4.

By signing this application form, I am applying, or I am applying on behalf of the applicant, for the permit and any propriety authorizations identified above, according to the supporting data and other incidental information filed with this application. I am familiar with the information contained in this application and represent that such information is true, complete and accurate. I understand this is an application and not a permit; and that work prior to approval is a violation. I understand that this application and any permit issued or proprietary authorization issued pursuant thereto, does not relieve me of any obligation for obtaining any other required federal, state, water management district or local permit prior to commencement of construction. I agree, or I agree on behalf of my corporation, to operate and maintain the permitted system unless the permitting agency authorizes transfer of the permit to a responsible operation entity. I understand that knowingly making any false statement or representation in this application is a violation of Section 373.430, F.S. and 18 U.S.C. Section 1001.

Lee Schmudde
Typed/Printed Name of Applicant (If no Agent is used) or Agent (If one is so authorized below)

Signature of Applicant/Agent — Date: 10-12-06

Vice President, Walt Disney World Co. Inc.
(Corporate Title if applicable)

AN AGENT MAY SIGN ABOVE ONLY IF THE APPLICANT COMPLETES THE FOLLOWING:

I hereby designate and authorize the agent listed above to act on my behalf, or on behalf of my corporation, as the agent in the processing of this application for the permit and/or proprietary authorization indicated above; and to furnish, on request, supplemental information in support of the application. In addition, I authorize the above-listed agent to bind me, or my corporation, to perform any requirement which may be necessary to procure the permit or authorization indicated above. I understand that knowingly making any false statement or representation in this application is a violation of Section 373.430, F.S. and 18 U.S.C. Section 1001.

Typed/Printed Name of Applicant | Signature of Applicant | Date

(Corporate Title if applicable)

Please Note: The applicant's original signature (not a copy) is required above.

PERSON AUTHORIZING ACCESS TO THE PROPERTY MUST COMPLETE THE FOLLOWING:

I either own the property described in this application or I have legal authority to allow access to the property, and I consent, after receiving prior notification, to any site visit on the property by agents or personnel from the Department of Environmental Protection, the Water Management District and the U.S. Army Corps of Engineers necessary for the review and inspection of the proposed project specified in this application. I authorize these agents or personnel to enter the property as many times as may be necessary to make such review and inspection. Further, I agree to provide entry to the project site for such agents or personnel to monitor permitted work if a permit is granted.

Lee Schmudde — Signature of Applicant — Date: 10-12-06
Typed/Printed Name of Applicant | Signature of Applicant | Date

Vice President, Walt Disney World Co. Inc.
(Corporate Title if applicable)

APP# 061106-23

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SECTION C
Environmental Resource Permit Notice of Receipt of Application

This information is required in addition to that required in other sections of the application. Please submit five copies of this notice of receipt of application and all attachments with the other required information. **PLEASE SUBMIT ALL INFORMATION ON PAPER NO LARGER THAN 2' x 3'.**

Project Name: **Disney's Contemporary Suites**
County: **Orange**
Owner: **Walt Disney World Co. Inc.**
Applicant: **Reedy Creek Improvement District**
Applicant's Address: **P.O. Box 10170, Lake Buena Vista, Florida 32830**

ORIGINAL SUBMITTAL

NOV 0 6 2006

ORLANDO SERVICE CENTER

1. Indicate the project boundaries on a USGS quadrangle map. Attach a location map showing the boundary of the proposed activity. The map should also contain a north arrow and a graphic scale; show Section(s), Township(s), and Range(s); and must be of sufficient detail to allow a person unfamiliar with the site to find it. **See Attached**

2. Provide the names of all wetlands or other surface waters that would be dredged, filled, impounded, diverted, drained, or would receive discharge (either directly or indirectly), or would otherwise be impacted by the proposed activity, and specify if they are in an Outstanding Florida Water or Aquatic Preserve: **N/A**

3. Attach a depiction (plan and section views), which clearly shows the works or other facilities proposed to be constructed. Use multiple sheets, if necessary. Use a scale sufficient to show the location and type of works. **See Attached**

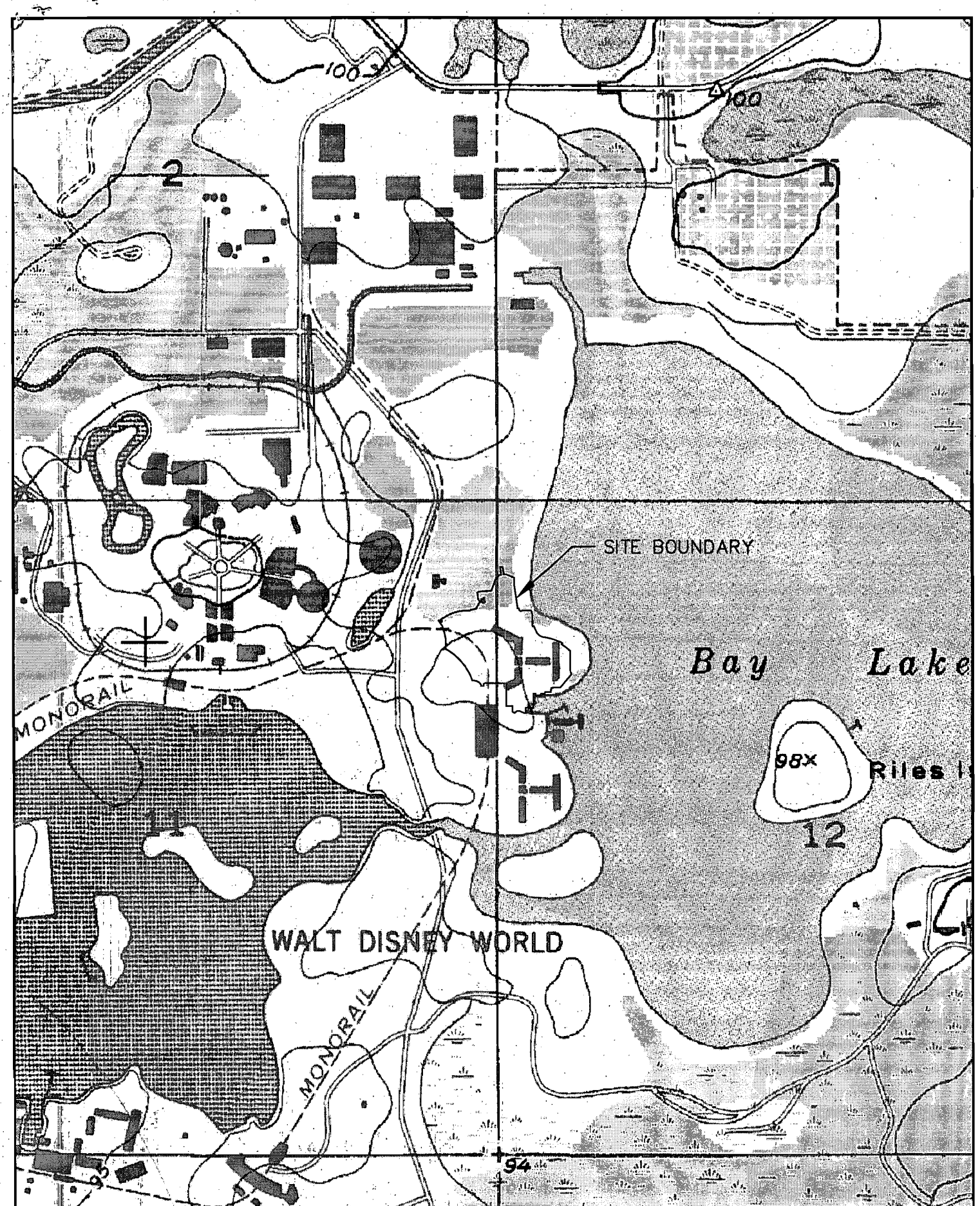
4. Briefly describe the proposed project (such as "construct a deck with boatshelter", "replace two existing culverts", "construct surface water management system to serve 150 acre residential development"): **Construct surface water management system to serve commercial development**

5. Specify the acreage of wetlands or other surface waters, if any, that are proposed to be disturbed, filled, excavated, or otherwise impacted by the proposed activity: **None**

6. Provide a brief statement describing any proposed mitigation for impacts to wetlands and other surface waters (attach additional sheets if necessary): **None**

FOR AGENCY USE ONLY

Application Name:
Application Number:
Office where the application can be inspected:



WARNING
0 ¼ ½
IF THIS BAR DOES NOT MEASURE ½" THIS COPY OF THIS DOCUMENT IS NOT TO SCALE

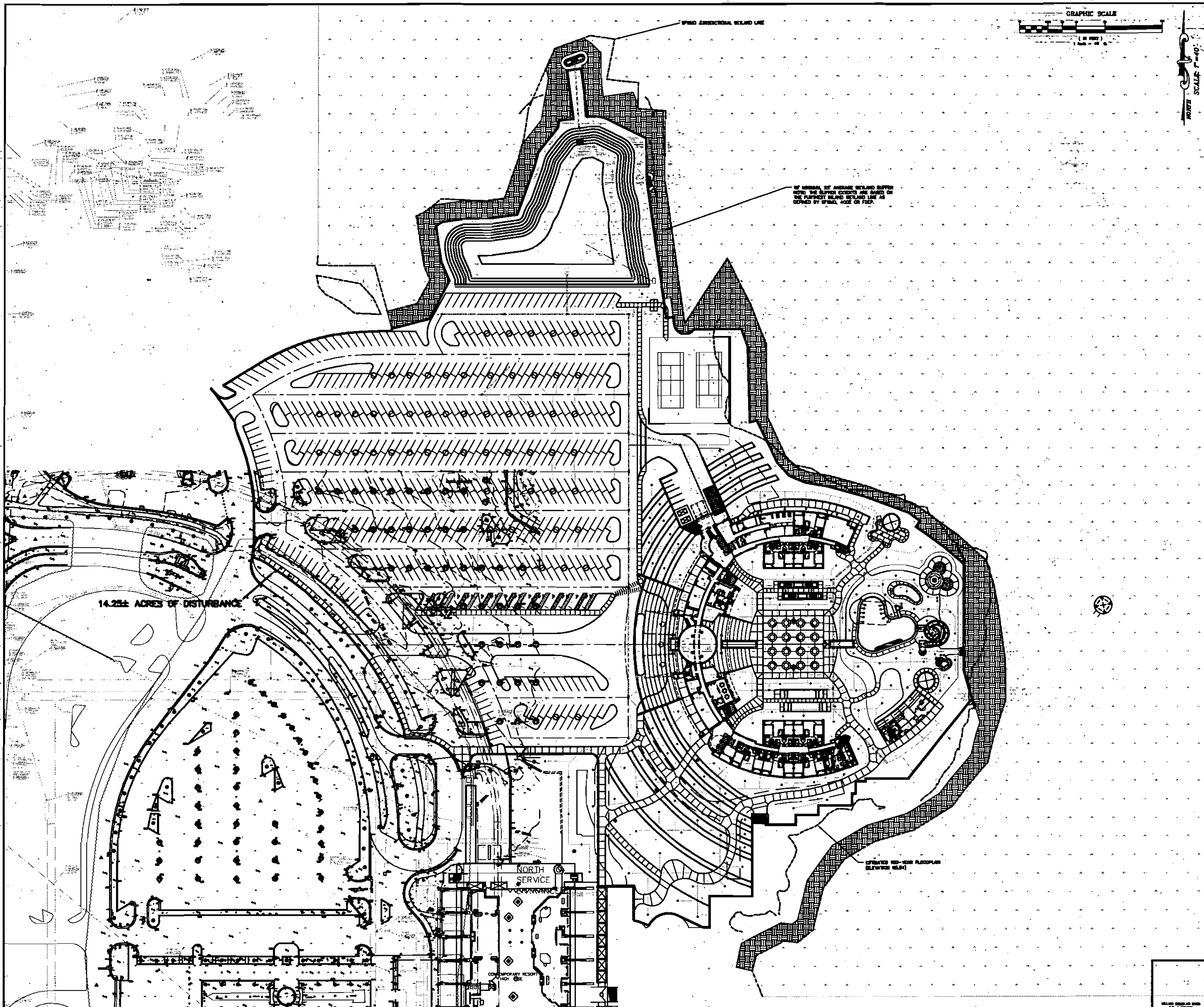
	NAME	DATE
CADD		
DESIGNED BY	WDD	8/06
DRAWN BY	esc	8/06
CHECKED BY	WDD	8/06
APPROVED BY	WDD	8/06
FILE: location.dwg		

DRMP
ENGINEERS · SURVEYORS · PLANNERS · SCIENTISTS
Certificate of Authorization No. 2648
1505 East Colonial Drive - Orlando, Florida 32803

LOCATION MAP

DISNEY'S
CONTEMPORARY SUITES
LAKE BUENA VISTA, FLORIDA

PROJECT NO. 00-0366.300
DATE AUGUST 2006
SCALE 1"=1000'
EXHIBIT 1



Disney's Contemporary Suites

Walt Disney World, Florida

Owner / Developer
Walt Disney World Co.
P.O. Box 10000
Lake Buena Vista, FL

Walt Disney Imagineering
Lake Buena Vista, FL

Design Architect
Gwathmey Siegel & Associates
475 Tenth Avenue
New York, NY 10018

Architect of Record
Glover Smith Bode, Inc.
Oklahoma City, OK

Civil Consultant
Dyer Riddle Mills & Precourt, Inc.
1505 East Colonial Drive
Orlando, FL

Landscape Architect
Columbus, OH

Structural Engineering Consultant
Haynes Whaley Associates, Inc.
Houston, TX 77042

MEP / Fire Protection Consultant
Nashville, TN 37204

Interior Design Consultant
Los Angeles, CA

Lighting Design Consultant
Grenald Waldron Associates

Telecomm / Special Systems
Walt Disney World
Systems Engineering
Lake Buena Vista, FL

Acoustical Consultant
Cerami & Associates, Inc.
404 Fifth Avenue
New York, NY 10018
(212) 370-1776

Roofing & Waterproofing Consultant
Fellice & Associates, Inc.

Food Service Consultant
Ricca Newmark Design
Centennial, CO 80112

Vertical Transportation Consultant
Lerch Bates & Associates, Inc.
Littleton, CO 80122

Aquatics Engineering Consultant
North American Aquatic Design
Jacksonville, FL

Graphics Consultant
Hunt Design
Pasadena, CA

Hardware Consultants
Door Hardware Consultants, Inc.

glover smith bode
Architects & Planners

NO.	DATE	ISSUE

GSB PROJECT NO. 050928

DRAWING TITLE
OVERALL SITE PLAN

DATE 8 / 10 / 06

DRAWING NO.
C2

APP# 061106-23M

ORIGINAL SUBMITTAL

NOV 0 6 2006

ORLANDO SERVICE CENTER

PSI Information To Build On

Engineering • Consulting • Testing

Report
Design Level Geotechnical Services
Proposed DVC Resort
Contemporary Hotel
Walt Disney World, Florida
PSI Project No. 757-65159

Information To Build On
Engineering • Consulting • Testing

August 10, 2006

Walt Disney Imagineering
P.O. Box 10321
Lake Buena Vista, Florida 32830-0321

Attention: Mr. Brian McFarland
Project Manager

RE: Report
Design Level Geotechnical Services
Proposed DVC Resort
Contemporary Hotel
Walt Disney World, Florida
PSI Project No. 757-65159

Dear Mr. McFarland:

In general accordance with our proposal dated May 23, 2006, Professional Service Industries, Inc. (PSI) has provided geotechnical engineering services in connection with the referenced project. This report provides an overview of our work effort on the assignment and includes recommendations for site preparation and foundation design.

PROJECT CONSIDERATIONS

The project is a proposed Disney Vacation Club (DVC) Resort that will be built at the Contemporary Hotel in Walt Disney World, Florida. More specifically, the site of the new construction is the existing north wing of the Contemporary Hotel. The existing hotel wing includes a series of three story buildings plus landscape areas, walkways and support facilities. This construction will be demolished to accommodate the new project. A site vicinity map is included on **Figure 1**.

The new building will be a sixteen story tower that will be generally crescent shaped. The building will be located to the northwest of the existing tower as shown on **Sheet 1**. Foundation loads are anticipated to be in the range 1,000 to 2,000 kips. The foundations will be subjected to lateral loads and overturning moments from wind forces. We understand that the ground floor of the building will be constructed close to existing grade (i.e. no basements are planned for the project).

Support construction will include a swimming pool and deck area plus new pavements with a reconfiguration of existing pavements. An overall view of the area under consideration is included on **Sheet 1**.

SITE CONDITIONS

As noted earlier, the site of the new construction is the north wing area of the existing Contemporary Hotel at Walt Disney World, Florida. The site contains buildings that are up to three stories high. The area also contains well kept lawns, walkways, recreation areas plus landscaping. The project is located on the west side of Bay Lake and across from the Magic Kingdom. A site vicinity map is included on **Figure 1**, which is from the USGS quadrangle map.

Based on topographic information provided to us, we understand that ground surface elevations are in the range +96 to +101 feet NGVD. The site is generally lower around the edges of Bay Lake and higher in the area of the existing buildings. In the northern portion of the new development area was a former wetland that contained surface organic soils. This area has subsequently been reclaimed. The overall site has been filled a few feet above natural predevelopment grade.

It is our understanding that the existing three story wings of the hotel are supported on shallow spread foundations. The existing tower is understood to be supported on driven closed end pipe piles that bear into the regionally continuous limestone formation.

Last year, PSI carried out preliminary geotechnical work at the site. This work included drilling/sampling four Standard Penetration Test (SPT) borings and six auger borings. The results of these borings plus preliminary design recommendations were presented in our report titled

"Preliminary Geotechnical Services
Contemporary DVC Resort
Walt Disney World, Florida
PSI Project No. 757-55292
Dated October 26, 2005"

The soil boring profiles from the earlier study are also presented herein.

SUBSURFACE CONDITIONS

General

For the design level geotechnical study, we have completed further SPT and auger borings at the site. The design level study has included drilling/sampling 8 SPT borings and 9 auger borings. The approximate locations at which the supplemental borings were drilled are indicated on **Sheet 1**. A summary of the survey information for the borings is included on **Table 1**. (**Sheet 1** and **Table 1** includes information on the borings drilled for the preliminary study).

Six supplemental SPT borings were completed in the footprint of the proposed new high-rise building. These borings were extended to depths in the range 70 to 85 feet below existing grade. Two 20 foot deep SPT borings were drilled in the area of the proposed new pool and deck area in the east of the site.

The SPT borings were completed using rotary mud procedures, with sampling being in general accordance with ASTM D-1586. As a requirement of the dig permit from the utility company, the top 6 feet was augered to check for utilities. SPT samples were then recovered at 7 and 9 feet below grade, with the sampling frequency thereafter being at 5 foot intervals. On completion of drilling operations, the SPT borings were grout sealed.

Nine auger borings were drilled in possible new parking, recreation and stormwater management areas. These borings were advanced to depths of 10 feet below grade. The auger borings were completed by hand drilling techniques. At frequent vertical intervals during drilling, samples were recovered for visual stratification and select testing. The hand auger borings were backfilled with soil cuttings on completion of drilling and the area generally cleaned up.

Samples recovered from the borings were returned to our Orlando laboratory for visual stratification and select testing. Subsoils were visually stratified following guidelines contained in the Unified Soil Classification System (USCS). Records of the materials encountered in the various borings are presented as soil profiles on **Sheets 2** through **5**. These sheets include a legend describing the subsoils in USCS format.

Select samples were tested to determine natural moisture content and percent fines passing the U.S. Standard Number 200 sieve. These tests were carried out following appropriate ASTM procedures. The results of the tests are included with the soil profiles on **Sheets 2** through **5** adjacent to the depth increment of the test specimen.

In addition to the project specific borings noted herein, we referenced borings drilled at the site by Dames & Moore in the 1960's prior to the construction of the existing hotel. This included five SPT borings and two unsampled boreholes that were extended to confirm the depth to limestone. A summary of the results of the earlier Dames & Moore boring data is included on **Table 2**.

Stratigraphy

The various borings disclosed reasonably consistent subsoil conditions at the site. For the purpose of discussions, these conditions have been generalized as follows.

As observed in the SPT borings, subsoils to depths in the range 53 to 75 feet below existing grade generally comprise a varying sequence of fine sands. The sands grade from being relatively clean/slightly silty (i.e. SP and SP/SM materials) in the upper 10 to 30 feet, becoming more silty/clayey (SM and SC materials) with depth. Interbedded within the sands at depths typically on the order of 30 feet or lower are discontinuous layers of clay (CH material). Where present, the clay layers are on the order of 5 feet thick.

The SPT blow counts indicate the upper sands to generally be in a medium dense to dense condition with localized zones that grade loose. There are sand zones in the upper profile that grade weakly to partially cemented. These weakly/partially cemented sand zones are known locally as hardpan. The lower silty/clayey fine sands were observed to be in a loose to medium condition with discontinuous zones that graded very loose.

The clay layers where observed had SPT blow counts in the range 4 to 14 blows per foot, which indicates the materials to be in a medium stiff to stiff condition. In borings TB-4 and TB-9, highly organic stained sands were observed, while in borings TB-10 and AB-3, peat was encountered below about 3 to 4 feet of sand. The peat layers were 2 to 3 feet thick.

In eight of the ten SPT borings drilled in the proposed building footprint, the regionally continuous limestone formation was encountered. The other two borings were terminated in silty fine sands of the Hawthorn Group (the aquiclude that is present atop the limestone). The limestone consists of porous light brown sandy limestone with limesilts and occasional phosphates. The limestone was encountered at depths in the range 53 to 73 feet below existing grade, which is estimated to correspond to elevations in the range +48 to +23 feet NGVD. The earlier borings and probes by Dames & Moore indicated the top of rock at between +35 and +45 feet, which is in line with the results of our borings.

Within the depth interval drilled (10 to 17 feet of penetration into the limestone), the rock was found to be in a competent condition with SPT blow counts generally on the order of 50 blows for a few inches of sample spoon penetration. In a few borings, losses of circulation of drilling fluid were experienced in the limestone or at the interface between the soil and limestone. This is indicative of the porous nature of the limestone. Although no major cavities or voids were observed in the borings drilled at this site, it is possible that such conditions exist at depths below that which we drilled and/or between the borings completed to date.

The auger borings, which were advanced to depths in the range 6 to 15 feet below grade, primarily disclosed relatively clean to slightly silty fine sands with occasional lenses/zones of silty and clayey fine sand. As noted earlier, boring AB-3, which was drilled in the northeast of the project, encountered approximately 2 feet of peat below 3 feet of sand.

The conditions observed in our new borings are generally in line with our understanding of geologic conditions in this area of Walt Disney World.

Groundwater

Groundwater level measurements were made in the borings at the time of drilling. As a result of using drilling mud, the water depths recorded in the SPT borings may not be fully reflective of stabilized conditions. In the auger borings, the water table was measured at depths in the range 3.3 to 8.5 feet below grade. Groundwater levels will fluctuate seasonally in response to rainfall or lack thereof. Additionally, the water levels will to some degree be influenced by irrigation practices in the landscape areas.

Based on the results of the borings and our understanding of site conditions, we estimate the normal wet season high groundwater table will be at elevations on the order of +94 to +98 feet NGVD. We understand that the water level in Bay Lake is controlled at around elevation +94 feet NGVD.

In an earlier memo, we provided the estimated normal wet season high water table depths/elevations to the project Civil Engineer. This information is attached hereto in **Table 3**.

SITE SUITABILITY

The borings have disclosed subsoil and groundwater conditions that are considered generally suitable for development from a geotechnical engineering perspective. To avoid potential water problems, we suggest that the new building be supported at an elevation similar to that of the existing facilities. The existing hotel tower is supported on driven closed end steel pipe piles. Such a system could be used for the new building, however, the noise/vibration associated with driven piling is likely to make such a system undesirable for the new construction.

Given our understanding of the foundation loads for the new construction, we consider it appropriate that the new high-rise tower be supported on piling. The pile type best suited to the existing built up environment is pressure grouted augercast piles that are tipped into the regionally continuous limestone formation, resulting in estimated pile lengths in the range 60 to 80 feet below grade. Some piles may be locally longer to adequately embed them in limestone.

Normal site preparation activities should be contemplated to render the area suitable for building construction and for the support of the peripheral development. This would include clearing/stripping and subgrade compaction. The existing facilities including unwanted buried foundations and utilities should be removed and disposed of in a proper manner.

Preliminary recommendations/discussions related to site preparation and foundation design matters follow.

SITE PREPARATION CONSIDERATIONS

General

As a prerequisite to development, the site should be cleared of all unwanted above ground and below ground construction within the depth envelope of the proposed building foundations. This should include removal of the existing buildings and foundations, plus the removal/rerouting of conflicting buried utilities. The clearing/demolition work should (wherever possible) extend a horizontal distance of 10 feet beyond the outside edges of the proposed new building foundations and new construction areas. Buried construction such as utilities and foundations should also be removed in their entirety. Excavation work should be completed in a manner so as not to impact existing construction that is to remain.

Debris generated from clearing/demolition should be disposed of in a proper manner and in accordance with local, state and federal criteria. This work should be performed cognizant of the current regulations related to materials such as asbestos and possibly buried tanks.

As part of the initial site preparation activities, areas that are underlain by original organic soils (e.g. TB-4, TB-10 and AB-3) should have such materials removed and replaced with compacted clean sand fill.

Initial site clearing and preparation work should be carried out under the observation of the geotechnical engineer. Care should be exercised during initial clearing and site preparation work so as not to disturb existing construction that is to remain.

Temporary Works

To facilitate the construction of the project, including elevator pits and pile caps, some temporary works will be necessary to protect existing buildings, utilities and roadways. This temporary support is normally provided through the use of steel sheet piles. Given the depth of the excavations to be made for this project, it is our recommendation that any sheet pile or excavation bracing system be designed by a registered engineer.

The contractor should be aware of hardpan type soils (i.e. weakly to partially cemented sands) in the upper 10 feet or so which may make sheet pile installation difficult.

The design of temporary excavation support systems should be in accordance with current OSHA requirements taking into consideration appropriate surcharge loads and hydrostatic pressures. Additionally, all earthwork operations on the project should be completed in compliance with OSHA requirements.

Dewatering

Temporary dewatering may be required to facilitate construction of some of the deeper foundations, pits and/or utilities. The dewatering system should be designed and operated to control water levels at least 2 feet below the proposed lower foundation levels until the same are built and adequate permanent load exists to avoid potential uplift forces from unbalanced hydrostatic pressures.

The discharge from the dewatering system should be handled in accordance with current regulatory criteria. Additionally, the system should be designed and operated so as not to cause adverse drawdown impacts below adjacent existing facilities thereby resulting in settlement of roadways or buildings.

Subgrade Preparation

Following the initial site preparation work and excavation to grade, the exposed subgrade should be evaluated as directed by representatives of PSI to confirm that all unsuitable materials have been removed. Building areas should be proof-rolled to ensure a stable/unyielding subgrade exists. The proof rolling should consist of compaction with a large diameter, heavy drum roller. The roller should have a drum weight of at least ten tons. Given the location of the site with nearby buildings compaction should be completed by static rolling within 100 feet of existing facilities in order to meet the minimum density requirements stated herein. This distance may be relaxed based on field observations and conditions.

Careful observations should be made during proof rolling to help identify any areas of soft yielding soils that may require overexcavation and replacement filling.

Following satisfactory completion of the initial compaction of the stripped subgrade, the proposed structure area may be brought up to finished grades as required. Any off site fill should consist of fine sand with less than 10 percent by dry weight passing the No. 200 sieve and be free of rubble, organics, clay, debris and other unsuitable material. Fill should be tested and approved prior to placement. Each lift should have a loose thickness not exceeding 12 inches. Density tests should be performed to confirm the required compaction is being achieved.

Prior to beginning compaction, soil moisture conditioning may be required. Soil moisture contents should be controlled in order to facilitate proper compaction. A moisture content within two percentage points of the optimum indicated by the modified Proctor test (ASTM D-1557) is recommended prior to compaction of the natural ground and fill.

FOUNDATION SUPPORT OPTIONS

As discussed earlier, the existing Hotel tower is supported on driven closed end steel pipe piles that are concrete filled. These piles were driven to bearing in the regionally continuous limestone formation. Such a foundation system could be used for the support of the new building, however, the noise/vibration nuisance associated with driven piles will most likely be unacceptable to the adjacent nearby facilities (Hotel and Theme Park) that will remain in operation during the construction of the new building.

An alternate pile type that is commonly used in built up areas for high-rise building support is pressure grouted augercast piles. Sixteen inch diameter augercast piles installed into the regionally continuous limestone formation at depths on the order of 53 to 75+ feet below grade could be used at this site. At this time, we suggest that augercast piling be considered the optimum means of support from a technical, planning and scheduling standpoint.

In our preliminary report for the project, we indicated that in lieu of pile support, it may be feasible to use a mat foundation and/or strips for building support. This system will be very dependent on the framing system, foundation loads and acceptable settlement performance. Generally, the more uniform the load on the bottom of a mat foundation, the better the settlement performance. It is our opinion that augercast piles will afford the most technically reliable/cost effective means of supporting the new high-rise building and consequently recommendations for this system follow.

PILE FOUNDATION CONSIDERATIONS

Pile Foundation System

The pile system considered best suited for foundation support for this project is an augercast pile. The pile can be installed using either conventional techniques, or by displacement procedures. For properly reinforced augercast piles (nominal 16 inch diameter), design capacities as below should be attainable.

Compression	-	125 tons
Tension	-	40 tons
Lateral	-	6 tons

The capacities are based on the piles being installed at least 5 feet into the underlying limestone strata. The estimated pile lengths are in the range 60 to 80 feet below existing grade, with some piles being slightly longer to be adequately embedded in the limestone. For a displacement augercast pile, the length required in order to achieve the noted capacities is likely to be less. However, even these piles should be tipped into the limestone.

The lateral capacity assumes a fixed head condition in the pile cap, with some nominal movement (one quarter inch or so) being tolerable. Additional lateral resistance can be provided from the passive resistance developed on the edges of the pile cap. Piles should be installed at a minimum center to center spacing of 4 feet. At least 6 feet should be maintained between installing/constructing new piles adjacent to piles that are less than 24 hours old.

Augercast piles should be installed to predetermined design tip elevations established by means of a pile load test program. Additionally, the piles should be drilled in one continuous operation to the desired penetration depth. Grouting of augercast piles must similarly be carried out in a continuous operation without intermittent delays. Care should be exercised to provide an adequate supply of fresh grout to the auger tip at all times during casting. Monitoring of auger depth, grout volume/flow, and grout pressures is considered essential to ensure proper construction of augercast piles. All piles which encounter obstructions or delays during installation should be immediately redrilled.

Reinforcement cages may be installed from the ground surface by lowering through fresh grout. Cages should be adequately designed with helical or hoop steel and centralizers to properly locate it within the pile shaft. Experience with this pile type suggests that difficulties may be experienced while attempting to install full cage reinforcement around 30 feet deep. Single reinforcement bars or bundles can be installed to full depth however to provide uplift resistance.

To confirm pile capacities, we suggest that a load test program be carried out. In addition to carrying out a static load test, we suggest that several indicator piles be installed throughout the building footprint. The purpose of the indicator piles would be to confirm that the piles can be constructed to the projected tip depth across the full building footprint. Given the size of the

building, we suggest that at least 8 indicator piles be installed throughout the building area during the test program.

At one of the indicator pile locations, a static load test would be completed. The actual test pile should be a throwaway, preferably loaded to failure. Four production piles could be used as reaction for the test frame with these piles being monitored for tension movement. The compression test pile should be provided with strain gauges so that load transfer characteristics can be assessed. The load test should be conducted using the quick test procedure in accordance with ASTM D-1143.

It should be noted if the pile load test program is carried out upfront, it may be possible to refine the compression and tension capacities somewhat. This would allow for the structural engineer to possibly optimize the number of piles in the high-rise tower.

Based on our understanding of building loads as noted herein, we estimate that the total settlement of pile supported foundations will be on the order of one inch. Differential settlement movements are anticipated to be one half inch or less. Given the predominantly granular nature of the subsoils through and into which the piles will be installed, we estimate that the majority of the settlement movement will take place during the construction period.

Augercast piles should be installed by a contractor with demonstrated experience in this type of work. PSI will provide a representative on site to observe and record pile installation for the project.

OTHER CONSIDERATIONS

Floor Slabs

A slab-on-grade may be used for the ground floor of the building. Any cuts that are made in the building pad for utility installation should be backfilled with clean granular materials that are compacted to at least 95 percent of their ASTM D-1557 maximum dry density. Material to be placed within 12 inches of the bottom of the slab should have no single particle greater than three inches.

The floor slabs should be reinforced with a steel mesh or a suitable equivalent. To avoid potential problems with cracking because of differential loadings, the floor slabs should be liberally jointed and separated from columns and walls. An impervious membrane should be installed between the soil subgrade and bottom of floor slabs to be overlain with moisture sensitive coverings to avoid slab moisture problems.

Retaining Walls

In general, the existing subsurface soils should be acceptable for construction and support of retaining walls. Retaining walls should be designed to resist earth pressures from the adjacent soils and hydrostatic pressures. Walls that free to rotate at the top should be designed using active earth pressures, while walls that are restrained should be designed using at-rest earth pressures.

The following provides recommended equivalent fluid pressures for each condition.

Active Pressures:	**At-Rest Pressures:**
Above the Water Table 35 pcf	Above the Water Table 50 pcf
Below the Water Table 80 pcf	Below the Water Table 90 pcf

The recommended pressures assume that adequate drainage is provided behind the walls to minimize the potential for the build-up of excess hydrostatic pressures. This can be achieved by installing drains, drainage tiles, geotextiles or using weep holes in conjunction with the use of free-draining sand backfill. Walls constructed below grade should be waterproofed as necessary.

Pavement Areas

New pavement areas are to be constructed for the project. These will include parking areas as well as service drives/access roads. For the most part, these facilities can be designed with a flexible structural asphalt surface. We suggest at this time that you assume that the new pavement areas be designed/constructed to match existing.

In areas that are to receive bus traffic, we strongly suggest that consideration be given to using a concrete pavement section, similar to other resort projects on property.

Stormwater Management

We understand that stormwater from the new project is to be handled in a pond to be built to the north of the site, most likely in the area of the existing tennis courts. Based on prevailing soil and groundwater conditions in the area, including the proximity of the pond to wetlands, we recommend that the pond be a wet bottom retention area. The pond should be designed/constructed in accordance with Water Management District criteria.

The normal control water level in the pond should be established at an elevation close to that of the average wet season high groundwater table in any area. The average wet season high water table is about one foot lower than the estimated normal wet season high depth/elevation presented on **Table 3**. However, the pond control level needs to consider the hydroperiod of adjacent wetlands and be set so as not to impact the same.

As design proceeds on the project, we would be pleased to assist you and your civil engineer in evaluating pond issues further as necessary.

REPORT LIMITATIONS

Our professional services have been performed, our findings obtained, and our recommendations prepared in accordance with generally accepted geotechnical engineering principles and practices. This company is not responsible for the conclusions, opinions or recommendations made by others based on these data.

The scope of the investigation was intended to evaluate soil conditions within the influence of the proposed structure foundations and does not include an evaluation of potential deep soil problems such as sinkholes. The analysis and recommendations submitted in this report are based upon the data obtained from the soil borings performed at the locations indicated. If any subsoil variations become evident during the course of this project, a re-evaluation of the recommendations contained in this report will be necessary after we have had an opportunity to observe the characteristics of the conditions encountered. The applicability of the report should also be reviewed in the event significant changes occur in the design, nature or location of the proposed facility.

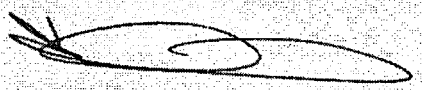
The scope of our services does not include any environmental assessment or investigation for the presence or absence of hazardous or toxic materials in the soil, groundwater, or surface water within or beyond the site studied. Any statements in this report regarding odors, staining of soils, or other unusual conditions observed are strictly for the information of our client.

CLOSURE

We appreciate the opportunity to be of continued service on this project and we trust that the foregoing is of assistance to you at this time. In the event that you have any questions or if you require additional information, please call.

Sincerely,

PROFESSIONAL SERVICE INDUSTRIES, INC.
Certificate of Authorization No. 3684



Ian Kinnear, P.E.
Chief Geotechnical Engineer
FL Registration No. 32614

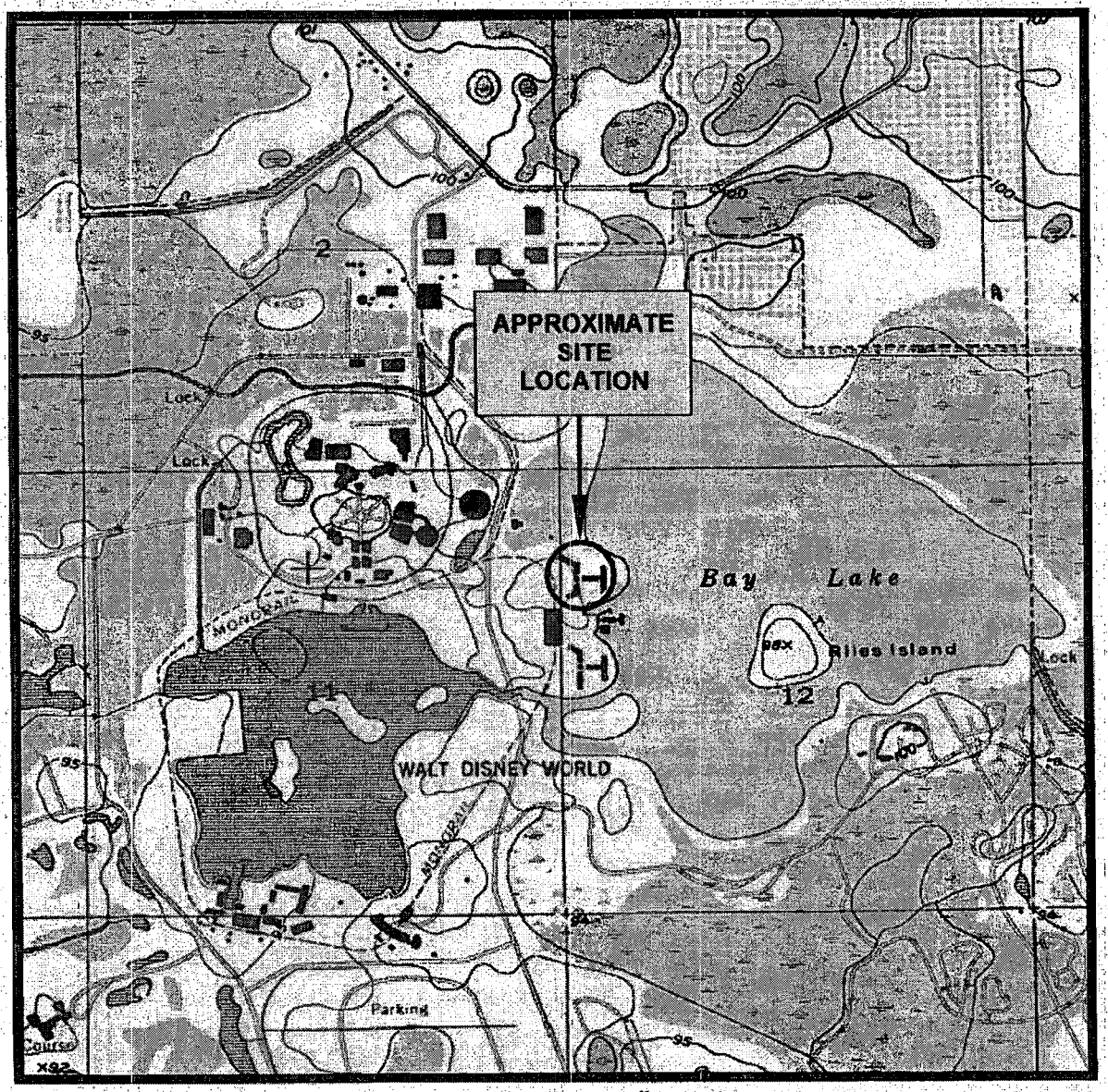
IK:cd:IK\75765159(DVC Resort, Contemporary DVC)810.doc

cc: Mr. David Smith – Walt Disney Imagineering

Attachments

- Figure 1
- Tables 1 through 3
- Sheets 1 through 5

psi



REFERENCE: U.S.G.S. "WINDERMERE, FLORIDA" QUADRANGLE MAP

SECTION: 12

TOWNSHIP: 24 SOUTH

RANGE: 27 EAST

ISSUED: 1977

PHOTOREVISED: 1980

SCALE: 1" = 2000'

VICINITY MAP

DVC CONTEMPORARY RESORT

WALT DISNEY WORLD, FLORIDA

psi *Information To Build On*

Engineering • Consulting • Testing

DRAWN:	DJW	SCALE:	NOTED	PROJ. NO:	757-65159
CHKD:	IK	DATE:	8-8-06	FIGURE:	1

TABLE 1
Summary of Boring Locations
Design Level Geotechnical Services
Contemporary DVC Resort
Walt Disney World, Florida

Boring Number	Northing	Easting	Ground Elevation	Date Drilled
TB-1	62622	15562	100.6	09/22/05
TB-2	62565	15739	100.2	09/22/05
TB-3	62941	15547	100.3	10/03/05
TB-4	62924	15713	95.7	09/23/05
TB-5	62710	15470	100.8	06/16/06
TB-6	62775	15550	100.7	06/15/06
TB-7	62850	15580	100.7	06/16/06
TB-8	62590	15630	100.4	06/19/06
TB-9	62640	15710	101.1	06/19/06
TB-10	62900	15660	96.2	06/19/06
TB-11	62630	15775	100.8	06/19/06
TB-12	62665	15870	100.8	06/15/06
AB-1	63485	15368	98.2	09/26/05
AB-2	63284	15186	100.1	09/26/05
AB-3	63167	15517	96.8	09/26/05
AB-4	63027	15409	100.7	09/26/05
AB-5	62900	15830	99.8	09/26/05
AB-6	62815	15599	100.3	09/26/05
AB-7	63450	15439	98.1	06/15/06
AB-8	63343	15278	99.9	06/15/06
AB-9	63265	15447	97.4	06/16/06
AB-10	63238	15278	100.2	06/15/06
AB-11	63166	15399	101.4	06/15/06
AB-12	63052	15315	100.6	06/15/06
AB-13	63005	15621	96.9	06/15/06
AB-14	62924	15821	98.6	06/15/06
AB-15	62670	15894	98.7	06/16/06

Survey information from WDW Co. Survey Department
All measurements and elevations in feet

psi

TABLE 2
Summary of Dames and Moore Borings
Design Level Geotechnical Services
Contemporary DVC Resort
Walt Disney World, Florida

D&M Number	Northing	Easting	Ground Elevation	Top of Limestone
203	62750	15600	94.8	+37
397	62900	15400	95.0	+44
398	62720	15770	93.3	+34
404	62550	15400	95.5	+39
471	62870	15820	93.8	+35
LP99	62730	15470		+45
LP104	62730	15485		+45

Borings by Dames & Moore in late 1960's
All measurements and elevations in feet
LP's were unsampled probe holes to limestone

TABLE 3
Summary of Water Depths/Elevations
Auger Borings
Contemporary DVC Resort
Walt Dsiney World, Florida

Boring Number	Northing	Easting	Ground Surface	Date Drilled	Observed Water Table		ESHWT	
					Depth	Elevation	Depth	Elevation
AB-1	63485	15368	98.2	09/26/05	6.8	91.4	2	96.2
AB-2	63284	15186	100.1	09/26/05	7.4	92.7	3	97.1
AB-3	63167	15517	96.8	09/26/05	4.5	92.3	1.5	95.3
AB-4	63027	15409	100.7	09/26/05	8	92.7	4	96.7
AB-5	62900	15830	99.8	09/26/05	5.6	94.2	3	96.8
AB-6	62815	15599	100.3	09/26/05	8.5	91.8	3	97.3
AB-7	63450	15439	98.1	06/15/06	4.5	93.6	2	96.1
AB-8	63343	15278	99.9	06/15/06	4.5	95.4	2.5	97.4
AB-9	63265	15447	97.4	06/16/06	4.5	92.9	1.5	95.9
AB-10	63238	15278	100.2	06/15/06	5.7	94.5	2.5	97.7
AB-11	63166	15399	101.4	06/15/06	4.2	97.2	3.5	97.9
AB-12	63052	15315	100.6	06/15/06	5.4	95.2	3	97.6
AB-13	63005	15621	96.9	06/15/06	3.3	93.6	1.5	95.4
AB-14	62924	15821	98.6	06/15/06	5.5	93.1	2	96.6
AB-15	62670	15894	98.7	06/16/06	6.1	92.6	2.5	96.2

Survey information from WDW Co. Survey Department
All measurements and elevations in feet

Job #00-0366.300

Standard General Environmental Resource
Permit Application Package

APP# 061106-23

ORIGINAL SUBMITTAL

NOV 06 2006

ORLANDO SERVICE CENTER

Disney's Contemporary Suites

Lake Buena Vista, Florida

Submitted to:

Reedy Creek Improvement District
&
South Florida Water Management District

November 2, 2006

Prepared by:

DRMP
ENGINEERS • SURVEYORS • PLANNERS • SCIENTISTS
Florida License No. 2648

Eric Arp
Florida P.E. No.53971

Disney's Contemporary Suites

Standard General Environmental Resource
Permit Application Package

Table of Contents

RCID Application
Disney's Contemporary Suites

FOR AGENCY USE ONLY

ACOE Application #		DEP/WMD Application #	
Date Application Received		Date Application Received	
Proposed Project Lat.		Fee Received $	
Proposed Project Long.		Fee Receipt #	

SECTION A

Are any of the activities described in this application proposed to occur in, on, or over wetlands or other surface waters?
☐ Yes ☒ No

Is this application being filed by or on behalf of a government entity or drainage district?
☒ Yes ☐ No

A. Type of MSSW Requested (check at least one)

☐ Noticed General - include information requested in Section B.
☐ Standard General (Single Family Dwelling) - include information requested in Sections C and D.
☒ Standard General MSSW Modification - include information requested in Sections C and E.
☐ Individual (Single Family Dwelling) - include information requested in Sections C and D.
☐ Individual (all other projects) - include information requested in Sections C and E, MSSW Modification
☐ Conceptual - include information requested in Sections C and E.
☐ Mitigation Bank Permit (construction) - include information requested in Section C and F.
(If the proposed mitigation bank involves the construction of a surface water management system requiring another permit defined above, check the appropriate box and submit the information requested by the applicable section).
☐ Mitigation Bank (conceptual) - include information requested in Section C and F.

B. Type of activity for which you are applying (check at least one)
☐ Construction or operation of a new system including dredging or filling in, on or over wetlands and other surface waters.
☐ Alteration or operation of an existing system which was not previously permitted by a WMD or DEP.
☒ Modification of a system previously permitted by a WMD or DEP. Provide previous permit numbers. SFWMD Permit #48-00714-S
☐ Alteration of a system ☐ Extension of permit duration ☐ Abandonment of a system
☒ Construction of additional phases of a system ☐ Removal of a system

C. Are you requesting authorization to use State Owed Lands. ☐ Yes ☒ No
(If yes, include the information requested in Section G.)

D. For activities in, on or over wetlands or other surface waters, check type of federal dredge and fill permit requested:
☐ Individual ☐ Programmatic General ☐ Modification to Individual
☐ General ☐ Nationwide ☒ Not Applicable

E. Are you claiming to qualify for an exemption? ☐ Yes ☒ No
If yes, provide rule number if known._____

RECEIVED
NOV 06 2006
ORLANDO SERVICE CENTER

RCID Application
Disney's Contemporary Suites

OWNER(S) OF LAND	ENTITY TO RECEIVE PERMIT (IF OTHER THAN OWNER)
NAME **Lee Schmudde**	NAME **Kathryn Boes Kolbo, P.E.**
ADDRESS **Post Office Box 10170**	ADDRESS **Post Office Box 10170**
CITY, STATE, ZIP **Lake Buena Vista, Fl 32830**	CITY, STATE, ZIP **Lake Buena Vista, FL 32830-0170**
COMPANY **Walt Disney World Co. Inc.** Title : **Vice President**	COMPANY **Reedy Creek Improvement District** TITLE **Manager Planning & Engineering**
TELEPHONE **(407) 828-2250** FAX **(407) 828-2560**	TELEPHONE **(407) 828-2250** FAX **(407) 828-2560**
AGENT AUTHORIZED TO SECURE PERMIT (IF AN AGENT IS USED)	**CONSULTANT (IF DIFFERENT FROM AGENT)**
NAME **N/A**	NAME **Doug Dyer, P.E.**
COMPANY AND TITLE	COMPANY AND TITLE **DRMP, Inc. – Project Manager**
ADDRESS	ADDRESS **1505 E. Colonial Drive**
CITY, STATE, ZIP	CITY, STATE, ZIP **Orlando, FL 32803**
TELEPHONE ( ) FAX ( )	TELEPHONE **(407) 896-0594** FAX **(407) 894-3087**

Name of project, including phase if applicable **Disney's Contemporary Suites**
Is this application for part of a multi-phase project? ☒ Yes ☐ No
Total applicant-owned area contiguous to the project **27086** acres
Total project area for which a permit is sought **14.25** acres
Impervious area for which a permit is sought **8.80 acres**
What is the total area (metric equivalent for federally funded projects) of work in, on, or over wetlands or other surface waters?
0. acres _____ square feet 0 hectares 0 square meters
Number of new boat slips proposed N/A
Project location (use additional sheets, if needed)

County(ies) **Orange County**

Section(s) **11 , 12** Township **24S** Range **27 E**

Section(s) _____ Township _____ Range _____

Land Grant name, if applicable N/A
Tax Parcel Identification Number N/A

Street address, road, or other location **Near Disney's Magic Kingdom Park**
City, Zip Code if applicable **Bay Lake, Florida 32830**

Describe in general terms the proposed project, system, or activity.

The proposed project consists of the construction of a commercial development with associated parking, utilities and stormwater management facilities.

If there have been any pre-application meetings, including at the project site, with regulatory staff, please list the date(s), location(s), and names of key staff and project representatives.

N/A.

Please identify by number any MSSW/Wetland resource/ERP/ACOE Permits pending, issued or denied for projects at the location, and any related enforcement actions.

Agency	Date	No.\Type of Application	Action Taken
SFWMD	9/10/1992	48-00714-S (MSSW)	Issued

Note: The following information is required only for projects proposed to occur in, on or over wetlands that need a federal dredge and fill permit and/or authorization to use state owned submerged lands and is not necessary when applying solely for an Environment Resource Permit. Please provide the names, addresses and zip codes of property owners whose property directly adjoins the project (excluding applicant). Please attach a plan view showing the owner's names and adjoining property lines. Attach additional sheets if necessary.

1. N/A

2.

3.

4.

By signing this application form, I am applying, or I am applying on behalf of the applicant, for the permit and any propriety authorizations identified above, according to the supporting data and other incidental information filed with this application. I am familiar with the information contained in this application and represent that such information is true, complete and accurate. I understand this is an application and not a permit; and that work prior to approval is a violation. I understand that this application and any permit issued or proprietary authorization issued pursuant thereto, does not relieve me of any obligation for obtaining any other required federal, state, water management district or local permit prior to commencement of construction. I agree, or I agree on behalf of my corporation, to operate and maintain the permitted system unless the permitting agency authorizes transfer of the permit to a responsible operation entity. I understand that knowingly making any false statement or representation in this application is a violation of Section 373.430, F.S. and 18 U.S.C. Section 1001.

Lee Schmudde
Typed/Printed Name of Applicant (If no Agent is used) or Agent (If one is so authorized below)

Signature of Applicant/Agent — Date: 10-12-06

Vice President, Walt Disney World Co. Inc.
(Corporate Title if applicable)

AN AGENT MAY SIGN ABOVE ONLY IF THE APPLICANT COMPLETES THE FOLLOWING:

I hereby designate and authorize the agent listed above to act on my behalf, or on behalf of my corporation, as the agent in the processing of this application for the permit and/or proprietary authorization indicated above; and to furnish, on request, supplemental information in support of the application. In addition, I authorize the above-listed agent to bind me, or my corporation, to perform any requirement which may be necessary to procure the permit or authorization indicated above. I understand that knowingly making any false statement or representation in this application is a violation of Section 373.430, F.S. and 18 U.S.C. Section 1001.

Typed/Printed Name of Applicant | Signature of Applicant | Date

(Corporate Title if applicable)

Please Note: The applicant's original signature (not a copy) is required above.

PERSON AUTHORIZING ACCESS TO THE PROPERTY MUST COMPLETE THE FOLLOWING:

I either own the property described in this application or I have legal authority to allow access to the property, and I consent, after receiving prior notification, to any site visit on the property by agents or personnel from the Department of Environmental Protection, the Water Management District and the U.S. Army Corps of Engineers necessary for the review and inspection of the proposed project specified in this application. I authorize these agents or personnel to enter the property as many times as may be necessary to make such review and inspection. Further, I agree to provide entry to the project site for such agents or personnel to monitor permitted work if a permit is granted.

Lee Schmudde — Signature of Applicant — Date: 10-12-06
Typed/Printed Name of Applicant

Vice President, Walt Disney World Co. Inc.
(Corporate Title if applicable)

SECTION E

APP# 061106-23

INFORMATION FOR STANDARD GENERAL OR INDIVIDUAL AND CONCEPTUAL ENVIRONMENTAL RESOURCE PERMITS FOR PROJECTS NOT RELATED TO A SINGLE FAMILY DWELLING UNIT

The information requested below is for projects requiring either a standard general or individual environmental resource permit (ERP) not related to an individual, single family dwelling unit, duplex or quadruplex. Certain categories of information requested may not be applicable to all applications. In addition the level of detail required will vary depending on the nature and location of the site and the activity proposed. Conceptual approvals generally do not require the same level of detail as a construction permit. However, providing more detail will reduce the need for additional information being requested at a later date. **PLEASE SUBMIT ALL INFORMATION ON PAPER NO LARGER THAN 24" X 36".**

I. Site Information

A. Provide a map(s) of the project area and vicinity delineating USDA/SCS soil types.

Response: A soils map is provided in Appendix A as Exhibit 3.

B. Provide recent aerials, legible for photo interpretation with a scale of 1" = 400 ft, or more detailed, with project boundaries delineated on the aerial.

Response: A recent aerial photograph is provided in Appendix A as Exhibit 2.

C. Identify the seasonal high water or mean high tide elevation and normal pool or mean low tide elevation for each on-site wetland or surface water, including receiving waters into which runoff will be discharged. Include date, datum, and method used to determine these elevations.

Response: There are no wetlands or surface waters within the limits of this project. The proposed pond, however, is surrounded by wetlands on all sides except for the south. Seasonal high water elevations as estimated by PBS&J are provided with this submittal. The PBS&J estimates are provided in Appendix B.

D. Identify the wet season high water table at appropriate locations on the project site. Include date, datum, and method used to determine these elevations.

Response: Encountered water table information is provided in the geotechnical report prepared by Professional Service Industries, Inc. This report is provided under separate cover. The seasonal high groundwater elevation in the area of the pond according to the geotechnical report is approximately 96.7 feet with the average wet season water table one foot below the seasonal high water table.

II. Environmental Considerations

A. Provide results of any wildlife surveys that have been conducted on the site and any comments pertaining to the project from the Florida Game and Fresh Water Fish Commission or the U.S. Fish and Wildlife Service (USF&W).

Response: The activities described within this application have been permitted under South Florida Water Management District (SFWMD) Conceptual Permit # 48-00714-S, U.S. Army Corps of Engineers Permit # 199101901 (IP-GS) and the Florida Department of Environmental Protection Permit #48, 49, and 532039239.

ORIGINAL SUBMITTAL

NOV 06 2006

ORLANDO SERVICE CENTER

Clearing and grubbing activities for site development may impact gopher tortoise habitat. As per special condition #19 of permit 48-00714-S:

"This permit conceptually authorized impacting the habitat of such species within development areas, provided that the FGFWFC has confirmed, or hereafter does confirm either by permit, letter or agreement, whichever is required, that impacting the habitat of such species:

A) Does not jeopardize the continued existence of that species; or

B) Has been adequately mitigated pursuant to the rules or criteria of the FGFWFC, utilizing on-site, off-site or other forms of mitigation allowed by the FGFWFC."

A "Permit for the Taking of Gopher Tortoises and Their Burrows", #OSC-4, has been issued by the Florida Game and Fresh Water Fish Commission (FGFWFC) to Disney Development Company, dated November 12, 1992.

B. Provide a description of how water quantity, quality, hydroperiod, and habitat will be maintained in on-site wetlands and other surface waters that will be preserved or remain undisturbed.

Response: The proposed wet detention pond designed for this project is bounded on three sides by existing wetlands. A majority of the existing site is captured in the existing storm sewer system and drained away from these wetlands. Very little runoff from the existing site currently hydrates the wetlands. The wet detention pond to be constructed with this project will discharge to the existing wetlands, adding much needed hydration to the wetland system.

C. Provide a narrative of any proposed mitigation plans, including purpose, maintenance, monitoring, and construction sequence and techniques, and estimated costs.

Response: Mitigation is not proposed for this project.

D. Describe how boundaries of wetlands or other surface waters were determined. If there has been a jurisdictional declaratory statement, a formal wetland determination, a formal determination, a validated informal determination, or a revalidated jurisdictional determination, provide the identifying number.

Response: Wetland boundaries were determined during the Disney conceptual permit.

E. Summarize impacts to wetlands and other surface waters:

1. For all projects with wetlands or other surface waters on site, complete Table 1, 2 and 3, as applicable;

Response: No wetland impacts are proposed with this project.

2. For docking facilities or other structures constructed over wetlands or other surface waters, complete Table 4;

Response: Docking facilities are not proposed with this project.

3. For shoreline stabilization projects, complete Table 5.

Response: Shoreline stabilization is not proposed with this project.

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III. Plans

NOV 0 6 2006

Provide clear, detailed plans for the proposed system which include specifications, plan, cross-section and profile views of the proposed project. The plans must be signed and sealed by an appropriate registered professional as required by law. These plans should show or include the following, as applicable:

A. Project and total land area boundaries, including distances and orientation from roads or other land marks.

Response: Project boundaries are provided on the construction plans.

B Existing land use, land cover, and on-site natural communities, including wetlands, other surface waters, aquatic communities, and uplands (acreage and percentages). Use the USF&W Service's Classification of Wetlands and Deepwater Habitats of the United States for wetlands or other surface waters on the project site. Assign each wetland or other surface water a unique identification number, which is consistent in all exhibits.

Response: An existing land use map is provided in Appendix A as Exhibit 4.

C. Existing topography extending at least 100 feet off site and includes adjacent wetlands and other surface waters. All topography shall include the location and a description of known benchmarks, referenced to NGVD. For systems waterward of mean high water (MHW) or seasonal high water, show water depths at mean low water (MLW) in tidal areas or normal pool in non-tidal areas. For docking facilities show the location, depths and access to the nearest navigational channel.

Response: Existing topography is provided on the construction plans.

D. Floodplain boundary and approximate flooding elevations if the project is in the known floodplain of a stream or other water course. Identify the 100-year flood elevation and floodplain boundary of any lake, stream or other watercourse located on or adjacent to the site.

Response: The 100-year flood elevation of the Reedy Creek Improvement District Master Drainage Plan elements in this area is elevation 95.54 ft. based upon information provided by the Reedy Creek Improvement District.

E. Boundaries of wetlands and other surface waters within the project area. Distinguish those wetlands and other surface waters that have been delineated by any binding wetland determination.

Response: Surface water boundaries are provided on the construction plans.

F. Proposed land use, land cover and natural communities, including wetlands, other surface waters, undisturbed uplands, aquatic communities, impervious surfaces, and water management areas (acreage and percentages). Use the same classification system and identification number used in C.2. above.

Response: Proposed land use is provided on the construction plans. A breakdown is provided below.

LAND USE	AREA	PERCENTAGE
Wetland	0 ac	0%
Water Management Area	0.93 ac	6.5%
Impervious	8.25 ac	57.9%
Building	0.89 ac	6.2%
Pervious	4.18 ac	29.4%
TOTAL	14.25 ac	100.0%

G. Proposed impacts to wetlands and other surface waters.

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Response: **No wetland impacts are proposed with this project.**

H. Locations of buffer zones abutting wetlands.

Response: **Buffer zones are provided on the construction plans.**

I. Pre and post-development drainage patterns and basin boundaries. Show the direction of flow, including any off-site runoff being routed through or around the system and connections between wetlands and other surface waters.

Response: **A drainage summary has been included in the drainage calculations provided in Appendix B. This summary details the existing and proposed drainage patterns of this site.**

J. Location of all water management areas with details of size, side slopes and design water depths.

Response: **The location and details of all water management areas are provided on the construction plans.**

K. Location and details of all water control structures, control elevations, any seasonal water level regulation schedules and the location and description of benchmarks (minimum of one benchmark per structure).

Response: **The location and details of all water control structures are provided on the construction plans.**

L. Location, dimensions and elevations of all proposed structures, including docks, seawalls, utility lines, roads and buildings.

Response: **The location, dimensions and elevations of all proposed structures are provided on the construction plans.**

M. Location, size and design capacity of the internal water management facilities.

Response: **Location and size of the internal water management facilities are provided on the construction plans. These were designed using the Rational Method for the 10-year storm.**

N. Existing and proposed rights-of-way and easements for the system, including all on-site and off-site areas to be reserved for water management purposes.

Response: **Existing and proposed rights-of-way and easements are provided on the construction plans.**

O. Receiving waters or surface water management systems into which runoff from the developed site will be discharged.

Response: **The Reedy Creek Improvement District Master Drainage Plan will receive treated water from the developed site.**

P. Location and details of the erosion, sediment and turbidity control measures to be implemented during each phase of construction and all permanent control measures to be implemented in post-development conditions.

Response: **The location and details of erosion, sediment and turbidity control measures are provided on the construction plans.**

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Q. Location, grading, design water levels, and planting details of all mitigation areas.

Response: Mitigation is not proposed with this project.

R. Site grading details, including perimeter grades.

Response: Site grading details are provided on the construction plans.

S. Temporary and permanent disposal sites for any excavated material.

Response: All suitable materials will be used on-site.

T. Details of the dewatering plan including: delineation of areas to be dewatered, location(s) of dewatering facilities and discharge.

Response: Standard dewatering techniques will be used as necessary.

U. For marina facilities, location of any sewage pomp out facilities, fueling facilities, boat repair/maintenance facilities, and fish cleaning stations.

Response: Marina facilities are not proposed with this project.

V. Location and description of any existing off-site features, such as structures, buildings, wetlands, other surface waters, stormwater ponds, which might be affected by or affect the proposed construction or development.

Response: Existing off-site features are provided on the construction plans.

W. Master development plan, for phased projects.

Response: A master development plan was provided with the conceptual permit.

IV. Construction Schedule and Techniques

Provide a construction schedule and a description of construction techniques, sequencing and equipment. This information should specifically include the following:

A. Method for installing any pilings, seawall slabs or RIP RAP.

Response: Neither pilings, seawall slabs, nor rip-rap are proposed with this project.

B Schedule of implementation of a temporary or permanent erosion and turbidity control measures.

Response: The schedule of implementation of erosion and turbidity control measures is provided on the construction plans.

C. Method and type of material to be excavated for work in wetlands or other surface waters.

Response: No wetland impacts are proposed.

D. Source and type of fill material to be used for work in wetlands and other surface waters.

Response: No wetland impacts are proposed.

E. Dewatering plan including: duration of dewatering; the methods for containing the discharge, methods of isolating dewatering areas, and time dewatering structures will be in place. A Water Use permit may be required for dewatering.

Response: Standard dewatering techniques will be used as necessary.

F. Methods for transporting equipment and materials to and from the work site. If barges are required for access, provide the low water depths and draft of the fully loaded barge.

Response: Equipment and materials will be transported to and from the site on the existing road system.

G. Demolition plan for any existing structures to be removed.

Response: Demolition plans are included in the construction plans.

H. Provide the name and address of the person who will construct the proposed project.

Response: The Hardin Construction Company, LLC will be the contractor for this project. Their office is located at 8669 Commodity Circle, Suite 130, Orlando, Florida 32819.

I. Identify the schedule and party responsible for completing construction monitoring, record drawings, and as-built certifications for the project.

Response: The owner will be responsible for completing construction monitoring, record drawings and as-built certifications.

V. Drainage Information

A. Provide pre-development and post-development drainage calculations, signed and sealed by an appropriate registered professional, as follows:

1. Runoff characteristics, including area, runoff curve number or runoff coefficient, and time of concentration for each drainage basin;
2. Seasonal high water table elevations including aerial extent and magnitude of any proposed water table drawdown;
3. Normal, wet season, and design storm elevations of receiving waters;
4. Design storms used including rainfall depth, duration, frequency, and distribution;
5. Runoff hydrograph(s) for each drainage basin, for all required design storm event(s);
6. Stage-storage computations for any area such as a reservoir, close basin, detention, area, or channel, used in storage routing;
7. Stage-discharge computations for any storage areas at a selected control point, such as control structure or natural restriction;
8. Flood routings through on-site conveyance and storage areas;
9. Water surface profiles in the primary drainage system for each required design storm event(s);
10. Runoff peak rates and volumes discharged from the system for each required design storm event(s);
11. Tail water history and justification (time and elevation);
12. Pump specifications and operating curves for range of possible operating conditions (if used in system).

Response: All required drainage calculations are provided in Appendix B.

B. Provide the results of any percolation tests, where appropriate, and soil borings that are representative of the actual site conditions.

Response: Soil borings are provided in the submitted geotechnical report.

C. Provide the acreage and percentage of the total project, of the following:

1. impervious surfaces, excluding wetlands;

Response: Impervious surfaces account for 9.14 acres (64.1%) of the developed site.

2. pervious surfaces (green areas not including wetlands);

Response: Pervious surfaces account for 4.39 acres (30.8%) of the developed site.

3. lakes, canals, retention areas, other open water areas;

Response: Open water surfaces account for 0.72 acres (5.1%) of the developed site.

4. wetlands.

Response: Wetlands account for 0 acres (0%) of the developed site.

D. Provide an engineering analysis of floodplain storage and conveyance (if applicable), including:

1. Hydraulic calculations for all proposed traversing works;

Response: This project does not propose any traversing works.

2. Backwater water surface profiles showing upstream impact of traversing works;

Response: This project does not propose any traversing works.

3. Location and volume of encroachment within regulated floodplain(s);

Response: Floodplain encroachment location and volume are provided in Appendix B.

4. Plan for compensating floodplain storage, if necessary, and calculations required for determining minimum building and road flood elevations.

Response: Compensating floodplain calculations are provided in Appendix B.

E. Provide an analysis of the water quality treatment system including:

1. A description of the proposed stormwater treatment methodology that addresses the type of treatment, pollution abatement volumes, and recovery analysis;

Response: A wet detention system meeting South Florida Water Management District criteria has been designed for the proposed site.

2. Construction plans and calculations that address stage-storage and design elevations, which demonstrate compliance with the appropriate water quality treatment criteria.

Response: Construction plans and drainage calculations demonstrating compliance with the appropriate water quality treatment criteria have been submitted with this application.

F. Provide a description of the engineering methodology, assumptions and references for the parameters listed above, and a copy of all such computations, engineering plans, and specifications used to analyze the system. If a computer program is used for the analysis, provide the name of the program, a description of the program, input and output data, two diskette copies, if available, and justification for model selection.

Response: Standard engineering methodologies, assumptions and references were used in the design of this project.

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VI. Operation and Maintenance and Legal Documentation

A. Describe the overall maintenance and operation schedule for the proposed system.

Response: Maintenance will be provided for the proposed system as needed.

B. Identify the entity that will be responsible for operating and maintaining the system in perpetuity, if different than the permittee. Provide a draft document enumerating the enforceable affirmative obligations of the entity to properly operate and maintain the system for its expected life and document the entity's financial responsibility for long term maintenance. If the proposed operation and maintenance entity is not a property owner's association, provide proof of the existence of an entity, or the future acceptance of the system by an entity which will operate and maintain the system. If a property owner's association is the proposed operation and maintenance entity, provide copies of the articles of incorporation for the association and copies of the declaration, restrictive covenants, deed restrictions, or other operational documents that assign responsibility for the operation and maintenance of the system. Provide information ensuring the continued adequate access to the system for maintenance purposes. Before transfer of the system to the operating entity will be approved, the permittee must document that the transferee will be bound by all terms and conditions of the permit.

Response: The owner will be the responsible operation and maintenance entity.

C. Provide copies of all proposed conservation easements, storm water management system easements, property owner's association documents, and plats for the property containing the proposed system.

Response: All easements within the project area are provided on the construction plans.

D. Indicate how water and waste water service will be supplied. Letters of commitment from off-site suppliers must be included.

Response: Water and waste water service will be provided by Reedy Creek Energy Services.

E. Provide a copy of the boundary survey and/or legal description and acreage of the total land area of contiguous property owned/controlled by the applicant, including the project site.

Response: Information on the total land area of contiguous property ownership was provided with the conceptual permit.

F. Provide a copy of the deed or other evidence of ownership, or in the case of an applicant, evidence of an easement or other documents evidencing authorization to perform the proposed work.

Response: Evidence of ownership was provided with the conceptual permit.

VII. Water Use

A. Will the surface water system be used for water supply, including landscape irrigation, recreation, etc.?

Response: The proposed stormwater treatment pond will not be used for water supply.

B. If a Water Use Permit has been issued for the project, state the permit number.

Response: A water use permit has not been issued for this project.

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C. If a Water Use Permit has not been issued for the project, indicate if a permit will be required and when the application will be submitted.

Response: A water use permit will be applied for as soon as possible.

D. Indicate how any existing wells located within the project site will be utilized or abandoned.

Response: There are no existing wells within the project area.

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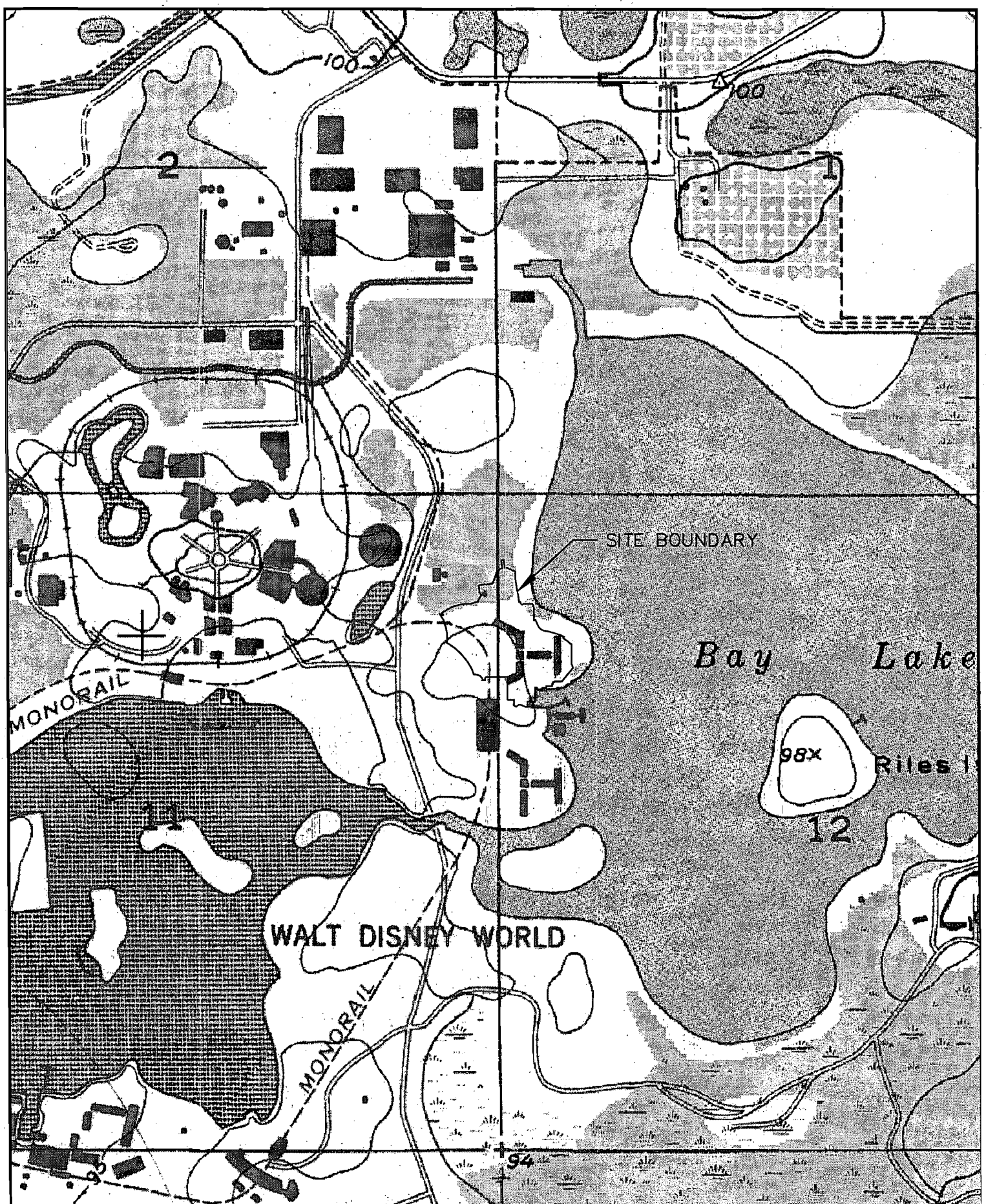
APPENDIX A

EXHIBITS



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APPROVED BY	WDD	8/06
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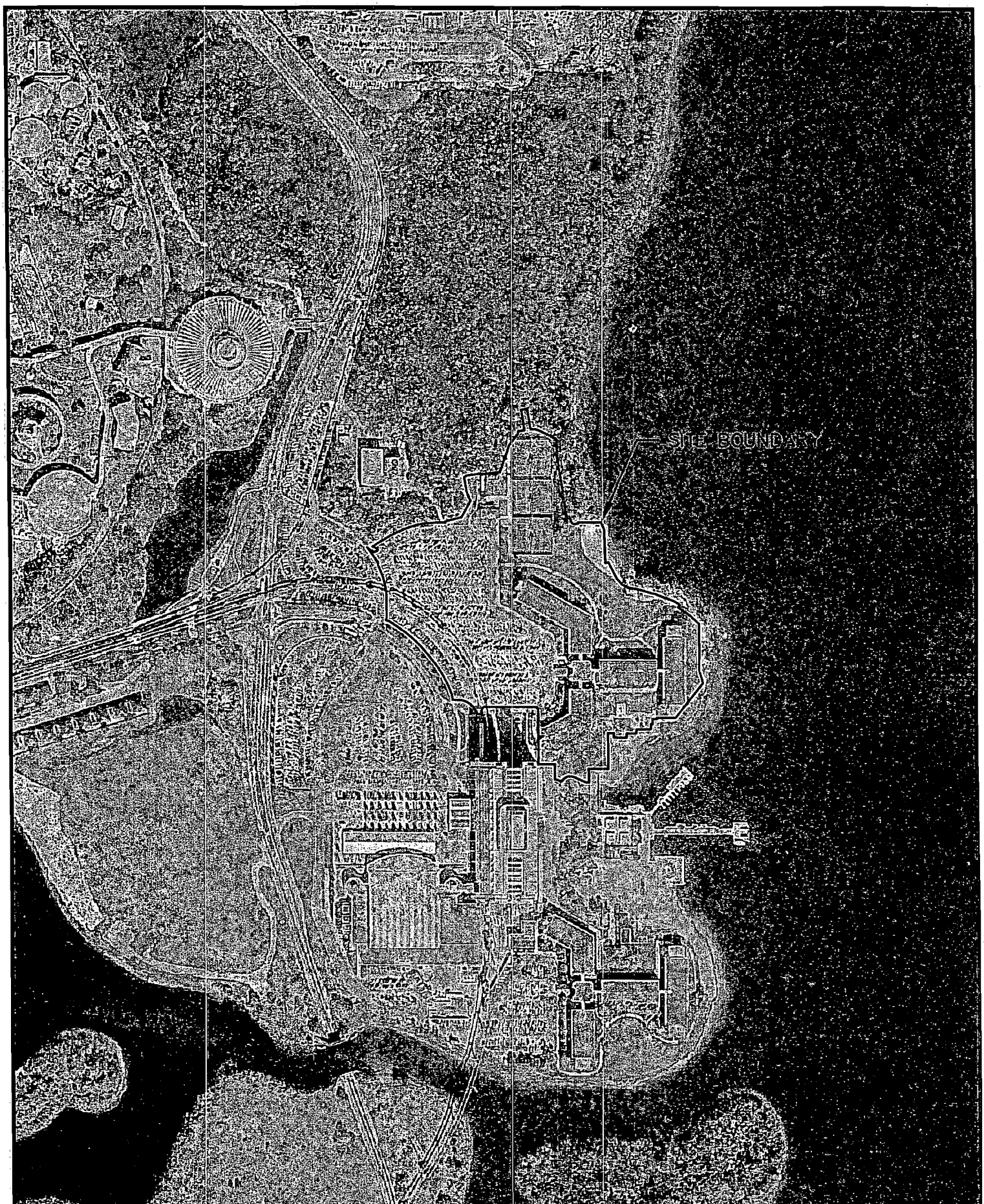
1505 East Colonial Drive - Orlando, Florida 32803

LOCATION MAP

DISNEY'S CONTEMPORARY SUITES

LAKE BUENA VISTA, FLORIDA

PROJECT NO. 00-0366.300
DATE AUGUST 2006
SCALE 1"=1000'
EXHIBIT 1



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APPROVED BY	WDD	8/06
FILE: aerial.dwg		

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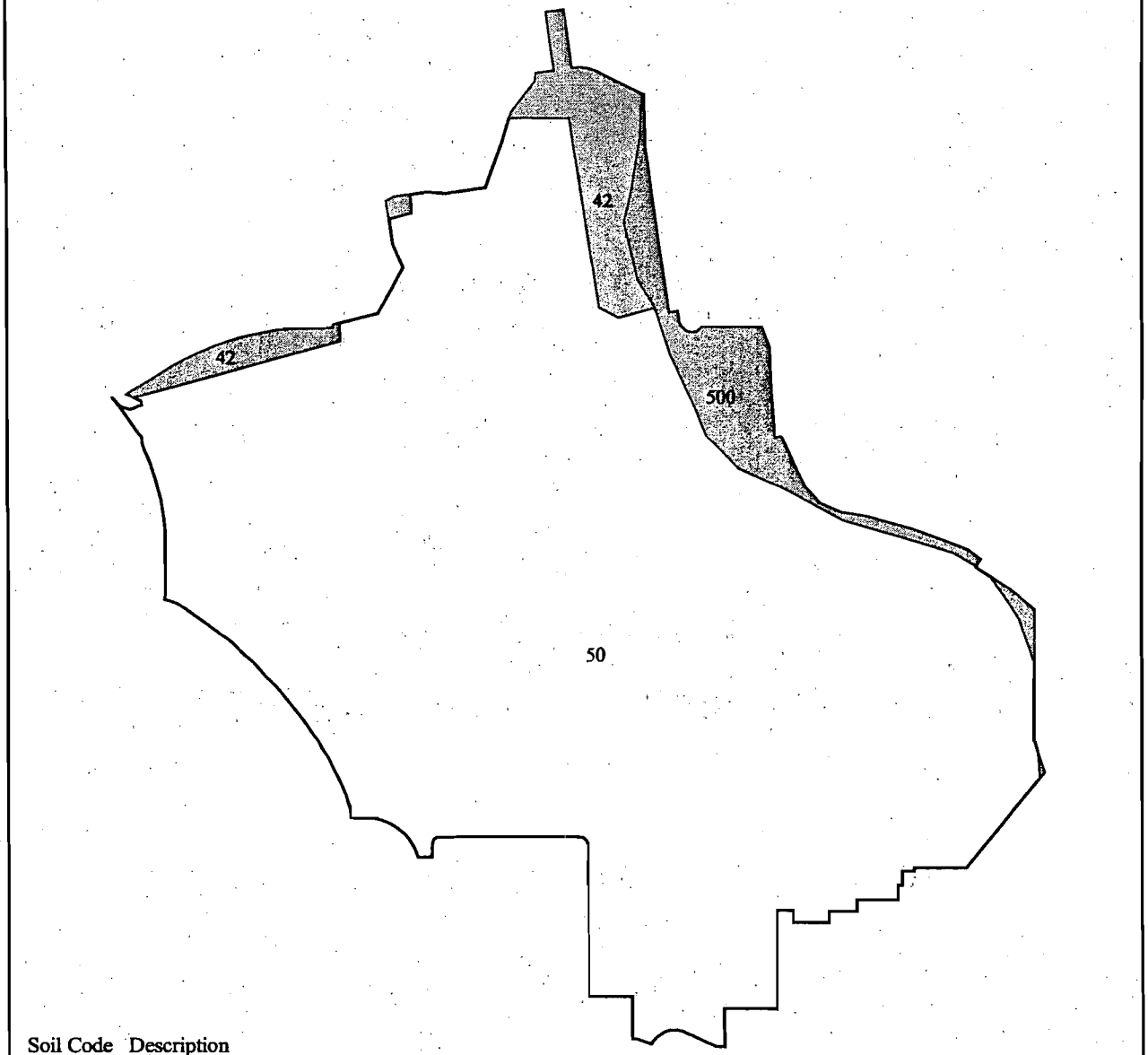
AERIAL PHOTOGRAPH

DISNEY'S CONTEMPORARY SUITES

LAKE BUENA VISTA, FLORIDA

PROJECT NO. 00-0366.300
DATE AUGUST 2006
SCALE 1"=400'

EXHIBIT 2

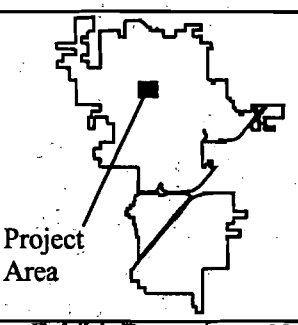


Soil Code	Description
42	Sanibel Muck
50	Urban Land
500	Water (Swim Beach Area)

SFWMD
HYDRIC SOILS

ACREAGE

42	0.65
50	13.01
500	0.59
Total	14.25 acres



Source: Orange County Soil Survey

PBSJ

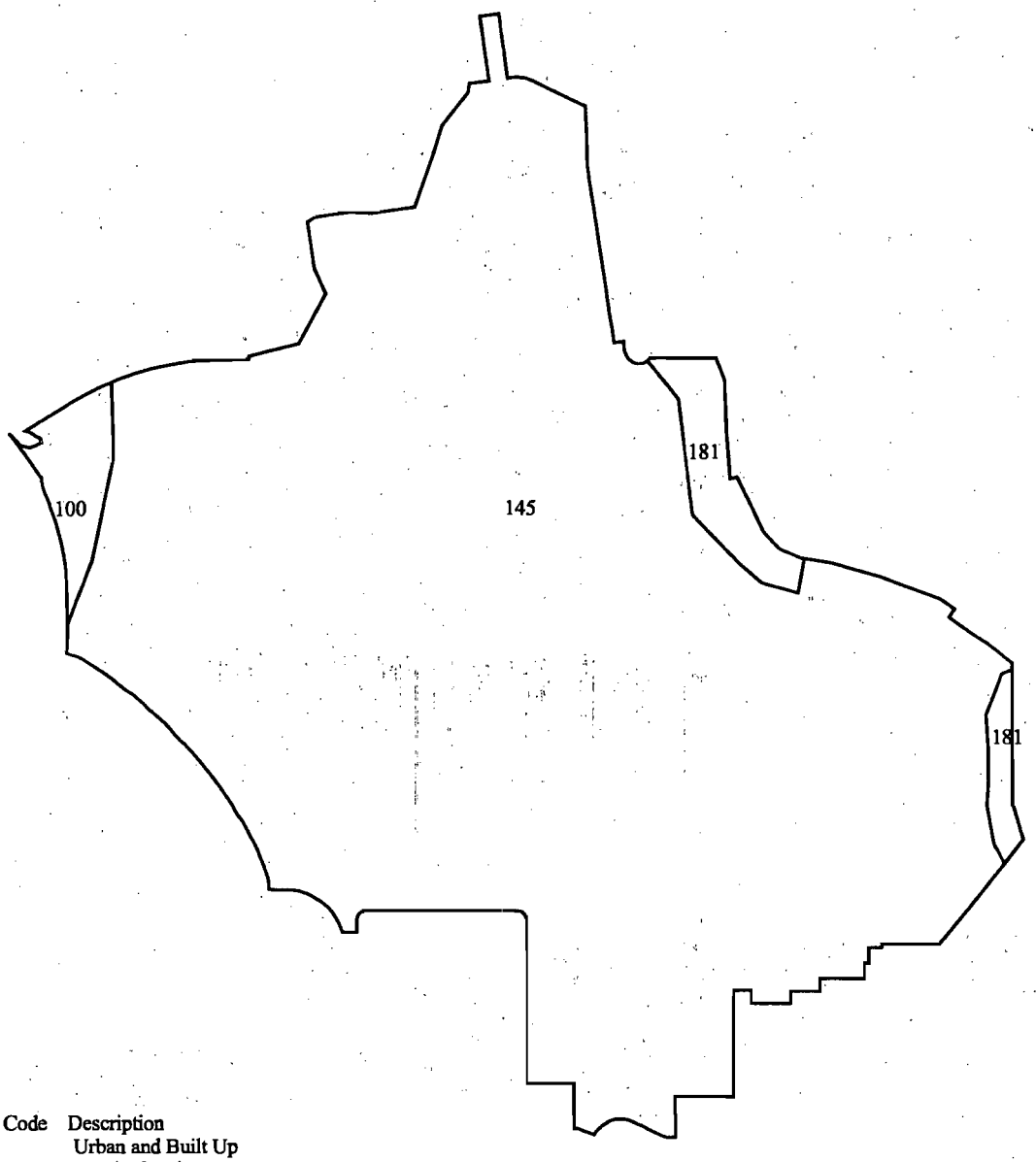
SFWMD Soils Map
Disney's Contemporary Suites
Walt Disney World, Florida

Exhibit Date
8/31/06

Scale: 1" = 200'

N

EXHIBIT 3

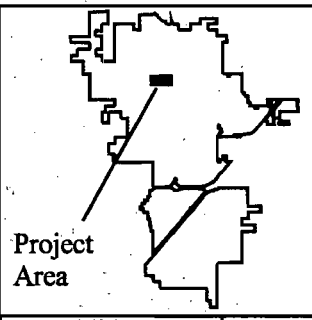


Land Use Code	Description
100	Urban and Built Up
145	Tourist Services
181	Swimming Beach

SFWMD JURISDICTIONAL WETLANDS

SFWMD JURISDICTIONAL WATERBODIES

ACREAGE	
100	0.28
145	13.54
181	0.43
Total	14.25 acres



PBSJ

SFWMD Vegetation Map
Disney's Contemporary Suites
Walt Disney World, Florida

Exhibit Date 8/31/06

Scale: 1" = 200'

N

EXHIBIT 4

APPENDIX B

DRAINAGE CALCULATIONS

DVC @ The Contemporary
Construction Trailer Compound

Drainage Summary

Disney's Contemporary Suites entails the construction of a commercial development with associated infrastructure where the existing Contemporary Hotel North Garden Wing is now located. This area is within Basin L407A-2 of the RCID Master Drainage Plan. Attenuation of stormwater will take place in the RCID master system. Existing condition hydrographs have been modeled for this project regardless.

This project consists of demolition of the existing Contemporary Hotel North Garden Wing with construction of a new commercial building with amenities along with an expansion to the existing parking facility. The existing building and parking area has approximately 8.75 acres of impervious area which is drained through an existing storm sewer system into the RCID master system. Drainage from this area is not treated in the present condition.

A wet detention pond has been designed to treat the runoff from the proposed building and parking lot expansion. In addition, the area of the existing parking facility has been included in the proposed pond's pollution abatement volume calculations even though drainage from this area cannot physically be routed through the pond.

The normal water level of the pond was established based upon two factors, the average wet season ground water table elevations as established by PSI and the seasonal high water elevations of the surrounding wetlands as established by PBS&J. Based on information provided by PSI, the average wet season groundwater table elevation in the area of the pond is approximately 95.7 ft. Based upon information provided by PBS&J, the seasonal high water elevations in the wetlands is approximately 96.1 ft. The normal water elevation in the proposed pond has been set at 96.2 ft. to provide positive outfall to the wetland.

PBS&J
An employee-owned company

March 2, 2006

Mr. Eric Arp
DRMP, Inc.
1505 East Colonial Drive
Orlando, Florida 32803

Re: WDW Contemporary Resort
Seasonal High and Normal Pool Water Elevations

Dear Mr. Arp:

In support of construction activities at the WDW Contemporary Resort on February 15th, two PBS&J scientists visited the three jurisdictional wetlands at the north end of the property to set seasonal high and normal pool elevations. Seasonal high was established for each wetland through the placement of galvanized nail markers. These markers were subsequently picked up by WDW Survey. Attached is a map showing the location of the surveyed points and below are the elevations established for each wetland.

Wetland 3.3A – Due to hydrologic alterations of the wetland, there were no valid indicators to depict normal pool elevations, therefore all normal pool elevations were surveyed in based on the ground elevation.

Point #1	SHWL – 96.34
	NP – 94.58
Point #2	SHWL – 95.91
	NP – 94.19
Point #3	SHWL -96.44
	NP – 94.77
Point #4	SHWL – 96.36
	NP – 94.80
Point #5	SHWL – 95.83
	NP – 94.91
Point #6	SHWL – 95.96
	NP – 94.72

Wetland 3.3E – Due to hydrologic alterations of the wetland, there were no valid indicators to depict normal pool elevations, therefore both normal pool elevations were surveyed in based on the ground elevation.

Point #1	SHWL – 96.04
	NP – 95.34
Point #2	SHWL – 95.94
	NP – 95.44

Wetland 3.3D – Due to severe hydrologic alterations of the wetland, no SHWL or NP were set. The wetland is bounded on three sides of predominantly bamboo. The sliver of wetland which remains is mostly composed of non-wetland vegetation species.

Should you have any questions regarding the above information, please feel free to contact me at (407)806-4107.

Sincerely,

Lisa L. Durant

Lisa L. Durant, GISP
Senior Scientist

Attachment

C: Brian McFarland, WDI
Jim Yawn, WDI
File

PBS&J

TABLE 1
Summary of Water Depths/Elevations
Auger Borings
Contemporary DVC Resort
Walt Dsiney World, Florida

Boring Number	Northing	Easting	Ground Surface	Date Drilled	Observed Water Table		ESHWT	
					Depth	Elevation	Depth	Elevation
AB-1	63485	15368	98.2	09/26/05	6.8	91.4	2	96.2
AB-2	63284	15186	100.1	09/26/05	7.4	92.7	3	97.1
AB-3	63167	15517	96.8	09/26/05	4.5	92.3	1.5	95.3
AB-4	63027	15409	100.7	09/26/05	8	92.7	4	96.7
AB-5	62900	15830	99.8	09/26/05	5.6	94.2	3	96.8
AB-6	62815	15599	100.3	09/26/05	8.5	91.8	3	97.3
AB-7	63450	15439	98.1	06/15/06	4.5	93.6	2	96.1
AB-8	63343	15278	99.9	06/15/06	4.5	95.4	2.5	97.4
AB-9	63265	15447	97.4	06/16/06	4.5	92.9	1.5	95.9
AB-10	63238	15278	100.2	06/15/06	5.7	94.5	2.5	97.7
AB-11	63166	15399	101.4	06/15/06	4.2	97.2	3.5	97.9
AB-12	63052	15315	100.6	06/15/06	5.4	95.2	3	97.6
AB-13	63005	15621	96.9	06/15/06	3.3	93.6	1.5	95.4
AB-14	62924	15821	98.6	06/15/06	5.5	93.1	2	96.6
AB-15	62670	15894	98.7	06/16/06	6.1	92.6	2.5	96.2

POND BORINGS

96.2
97.1
96.1
97.4
95.9
97.7

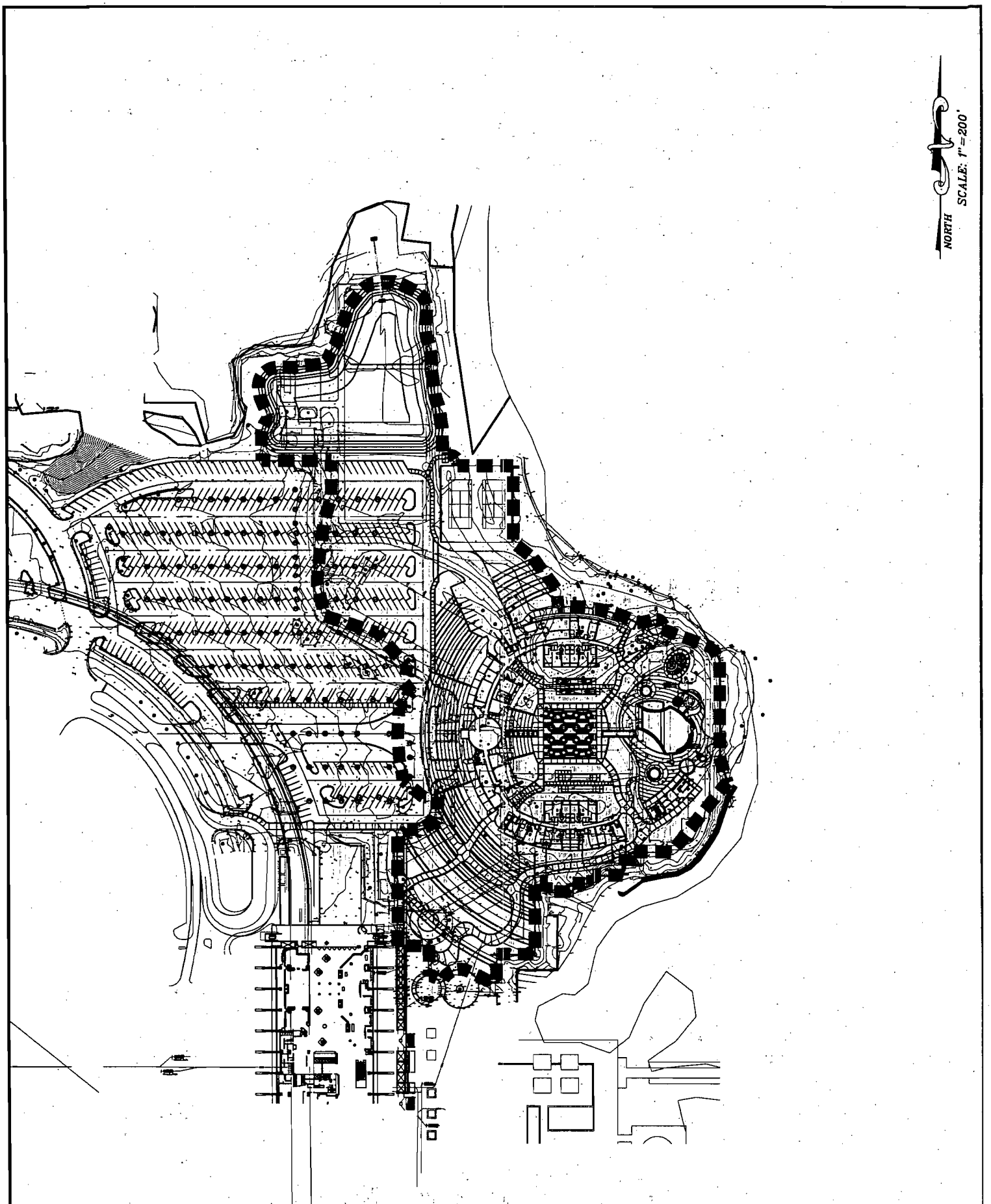
96.73 SHWT

95.73 AWSWT

WETLAND HYDROPERIOD

96.34
95.91
96.44
96.36
95.83
95.96

96.14



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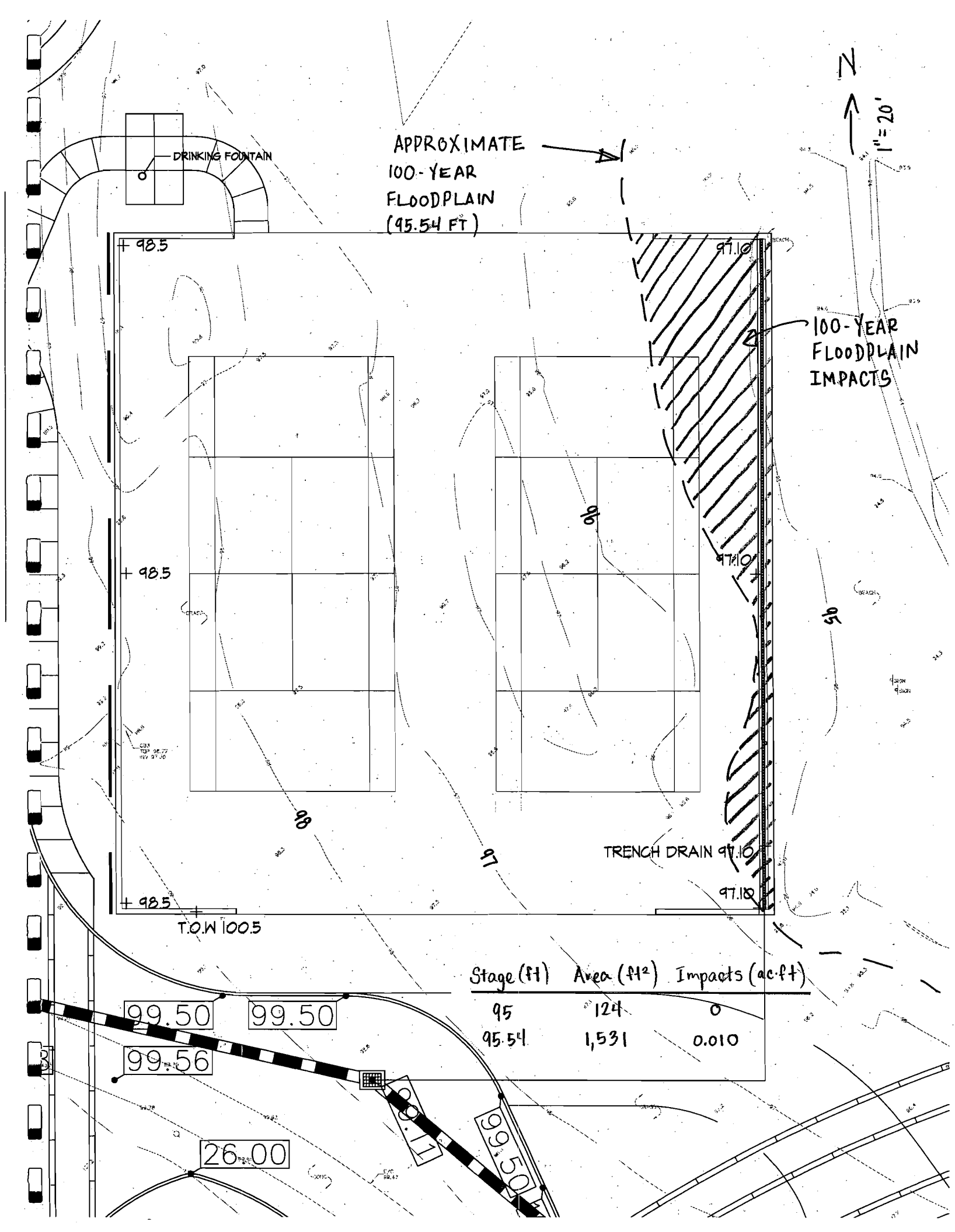
1505 East Colonial Drive - Orlando, Florida 32803

DRAINAGE BASIN MAP

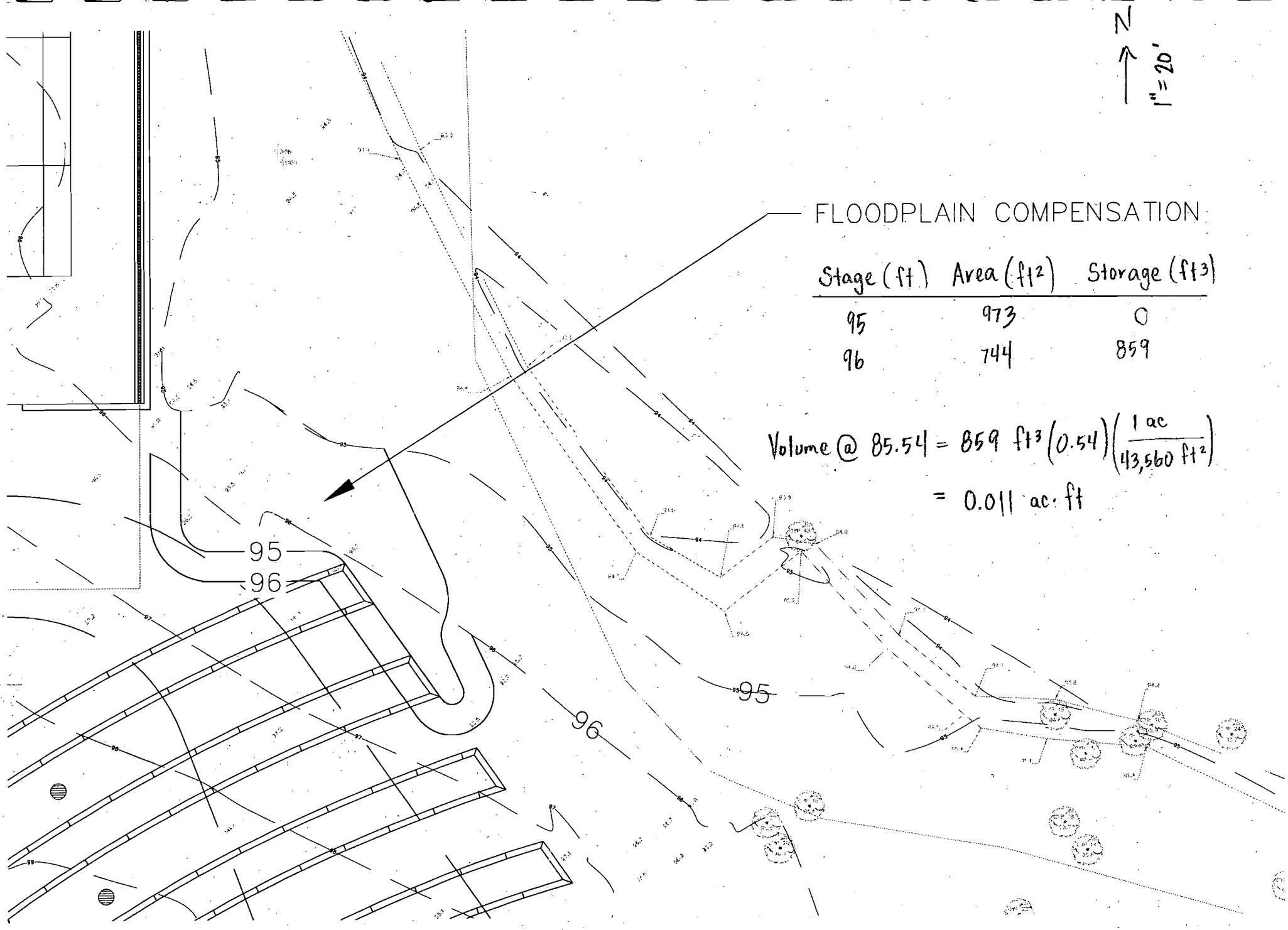
DISNEY'S CONTEMPORARY SUITES

LAKE BUENA VISTA, FLORIDA

PROJECT NO.	00-0366.300
DATE	AUGUST 2006
SCALE	1"=200'
SHEET	1 OF 1



Stage (ft)	Area (ft²)	Impacts (ac·ft)
95	124	0
95.54	1,531	0.010



Stage (ft)	Area (ft^2)	Storage (ft^3)
95	973	0
96	744	859

$$\text{Volume @ } 85.54 = 859\ ft^3 (0.54) \left(\frac{1\ ac}{43{,}560\ ft^2}\right)$$

$$= 0.011\ ac \cdot ft$$

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Made By: esa	Date: 9/28/06	DRMP Job No.: 00-0366.300	
Checked By:	Date:	Task No.:	Sheet No.:
Calculations For: Disney's Contemporary Suites			

asin Area = 8.67 ac

Land Use	Area
uilding	0.89 ac
Pavement	4.03 ac
Pond @ NWL	0.72 ac
ervious	3.03 ac

$$N = \frac{(0.89\ ac + 4.03\ ac)(98) + (0.72\ ac)(100) + (3.03\ ac)(77)}{8.67\ ac} = 90.83$$

= 15 min

emainder of site for inclusin in Treatment Volume calculations
Area = 5.58 ac
Impervious Area = 4.22 ac

Required Treatment Volume

$$(1\ in)(8.67\ ac + 5.58\ ac)\left(\frac{1\ ft}{12\ in}\right) = 1.19\ ac\cdot ft$$

$$(2.5\ in)(4.03\ ac + 4.22\ ac)\left(\frac{1\ ft}{12\ in}\right) = 1.72\ ac\cdot ft \leftarrow \text{CONTROL}$$

tage (ft)	Area (ac)	Storage (ac·ft)
96.2	0.72	0
97	0.77	0.60
98	0.82	1.39
99	0.88	2.24
100	0.93	3.15

$$\text{Treatment Volume Elevation} = \frac{1.72\ ac\cdot ft - 1.39\ ac\cdot ft}{2.24\ ac\cdot ft - 1.39\ ac\cdot ft}(99\ ft - 98\ ft) + 98\ ft = 98.39\ ft$$

ORIFICE DRAWDOWN

DISNEY'S CONTEMPORARY SUITES

NORMAL POOL	STAGE =	96.20	ORIFICE DIAMETER		3.00 in.
	AREA =	0.72	NUMBER		1
TREATMENT ELEVATION	STAGE =	98.39			
	AREA =	0.84	½ INCH DRAWDOWN =		23.13 hr.
½ INCH VOLUME =		0.59	TOTAL VOLUME DRAWDOWN =		217.61 hr.

STAGE	AREA	INC VOL	VOL	HEAD	Q(OUT)	Q(AVG)	TIME	SUM TIME
98.39	0.84		0.00	2.19	0.34			0.00
		0.07				0.34	2.64	
98.30	0.84		0.07	2.10	0.33			2.64
		0.07				0.33	2.69	
98.21	0.83		0.15	2.01	0.32			5.33
		0.07				0.32	2.73	
98.13	0.83		0.22	1.93	0.32			8.06
		0.07				0.31	2.78	
98.04	0.82		0.29	1.84	0.31			10.85
		0.07				0.31	2.84	
97.95	0.82		0.36	1.75	0.30			13.69
		0.07				0.30	2.90	
97.86	0.81		0.43	1.66	0.29			16.58
		0.07				0.29	2.96	
97.78	0.81		0.50	1.58	0.28			19.55
		0.07				0.28	3.04	
97.69	0.80		0.57	1.49	0.28			22.59
		0.07				0.27	3.12	
97.60	0.80		0.64	1.40	0.27			25.70
		0.07				0.26	3.21	
97.51	0.79		0.71	1.31	0.26			28.91
		0.07				0.25	3.31	
97.43	0.79		0.78	1.23	0.25			32.22
		0.07				0.24	3.42	
97.34	0.78		0.85	1.14	0.24			35.64
		0.07				0.23	3.55	
97.25	0.78		0.92	1.05	0.23			39.18
		0.07				0.22	3.70	
97.16	0.77		0.99	0.96	0.22			42.88
		0.07				0.21	3.87	
97.08	0.77		1.06	0.88	0.20			46.76
		0.07				0.20	4.08	
96.99	0.76		1.12	0.79	0.19			50.84
		0.07				0.19	4.33	
96.90	0.76		1.19	0.70	0.18			55.17
		0.07				0.17	4.65	
96.81	0.75		1.26	0.61	0.17			59.82
		0.07				0.16	5.06	
96.73	0.75		1.32	0.53	0.15			64.88
		0.07				0.14	5.61	
96.64	0.74		1.39	0.44	0.13			70.49
		0.06				0.12	6.43	
96.55	0.74		1.45	0.35	0.11			76.92
		0.06				0.10	7.81	
96.46	0.73		1.52	0.26	0.09			84.73
		0.06				0.07	11.07	
96.38	0.73		1.58	0.18	0.05			95.80
		0.06				0.03	22.72	
96.29	0.72		1.64	0.09	0.02			118.52
		0.06				0.01	99.09	
96.20	0.72		1.71	0.00	0.00			217.61

==== Basins ====

Name: POST | Node: POND | Status: Onsite
Group: BASE | Type: Santa Barbara

Rainfall File	Sfwmd72	Storm Duration(hrs)	72.00
Rainfall Amount(in)	10.200	Time of Conc(min)	15.00
Area(ac)	8.670	Time Shift(hrs)	0.00
Curve Number	90.83	Time Increment(min)	1.00
DCIA(%)	0.00	Max Allowable Q(cfs)	999999.000

==== Nodes ====

Name: BUBBLEUP1 | Base Flow(cfs): 0.000 | Init Stage(ft): 95.500
Group: BASE | Warn Stage(ft): 100.000
Type: Stage/Area

Stage(ft)	Area(ac)
92.000	0.0005
97.000	0.0005

Name: BUBBLEUP2 | Base Flow(cfs): 0.000 | Init Stage(ft): 95.500
Group: BASE | Warn Stage(ft): 100.000
Type: Stage/Area

Stage(ft)	Area(ac)
92.000	0.0000
95.000	0.0000

Name: CONTROLSTRUCT | Base Flow(cfs): 0.000 | Init Stage(ft): 95.500
Group: BASE | Warn Stage(ft): 100.000
Type: Stage/Area

Stage(ft)	Area(ac)
92.000	0.0005
98.390	0.0005

Name: POND | Base Flow(cfs): 0.000 | Init Stage(ft): 96.200
Group: BASE | Warn Stage(ft): 100.000
Type: Stage/Area

Stage(ft)	Area(ac)
96.200	0.7200
97.000	0.7700
98.000	0.8200
99.000	0.8800
100.000	0.9300

Name: SPREADERSWALE1 | Base Flow(cfs): 0.000 | Init Stage(ft): 97.000
Group: BASE | Warn Stage(ft): 100.000
Type: Stage/Area

Stage(ft)	Area(ac)
97.000	0.0027
97.500	0.0064

Name: SPREADERSWALE2 Base Flow(cfs): 0.000 Init Stage(ft): 95.500
Group: BASE Warn Stage(ft): 100.000
Type: Stage/Area

Stage(ft)	Area(ac)
95.000	0.0005
95.500	0.0016

Name: TW Base Flow(cfs): 0.000 Init Stage(ft): 95.540
Group: BASE Warn Stage(ft): 95.540
Type: Time/Stage

Time(hrs)	Stage(ft)
0.00	95.540
72.00	95.540

Pipes

Name: CSPIPE1 From Node: CONTROLSTRUCT Length(ft): 114.00
Group: BASE To Node: BUBBLEUP1 Count: 1
Friction Equation: Average Conveyance
Solution Algorithm: Automatic
Flow: Both
Entrance Loss Coef: 0.50
Exit Loss Coef: 1.00
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):	36.00	36.00
Rise(in):	36.00	36.00
Invert(ft):	92.000	92.000
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: CSPIPE2 From Node: CONTROLSTRUCT Length(ft): 122.00
Group: BASE To Node: BUBBLEUP2 Count: 1
Friction Equation: Average Conveyance
Solution Algorithm: Automatic
Flow: Both
Entrance Loss Coef: 0.50
Exit Loss Coef: 1.00
Bend Loss Coef: 0.60
Outlet Ctrl Spec: Use dc or tw
Inlet Ctrl Spec: Use dn
Stabilizer Option: None

	UPSTREAM	DOWNSTREAM
Geometry:	Circular	Circular
Span(in):	6.00	6.00
Rise(in):	6.00	6.00
Invert(ft):	92.000	92.000
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

Weirs

Name: BU1 From Node: BUBBLEUP1
Group: BASE To Node: SPREADERSWALE1
Flow: Both Count: 1
Type: Horizontal Geometry: Rectangular

Span(in): 36.00
Rise(in): 79.00
Invert(ft): 97.000
Control Elevation(ft): 97.000
TABLE
Bottom Clip(in): 0.000
Top Clip(in): 0.000
Weir Discharge Coef: 3.200
Orifice Discharge Coef: 0.600

Name: BU2 From Node: BUBBLEUP2
Group: BASE To Node: SPREADERSWALE2
Flow: Both Count: 1
Type: Horizontal Geometry: Circular

Span(in): 12.00
Rise(in): 12.00
Invert(ft): 95.000
Control Elevation(ft): 95.000
TABLE
Bottom Clip(in): 0.000
Top Clip(in): 0.000
Weir Discharge Coef: 3.200
Orifice Discharge Coef: 0.600

Name: CSORIFICE From Node: POND
Group: BASE To Node: CONTROLSTRUCT
Flow: Both Count: 1
Type: Vertical: Mavis Geometry: Circular

Span(in): 3.00
Rise(in): 3.00
Invert(ft): 96.200
Control Elevation(ft): 96.200
TABLE
Bottom Clip(in): 0.000
Top Clip(in): 0.000
Weir Discharge Coef: 3.200
Orifice Discharge Coef: 0.600

Name: CSWEIR From Node: POND
Group: BASE To Node: CONTROLSTRUCT
Flow: Both Count: 1
Type: Horizontal Geometry: Rectangular

Span(in): 36.00
Rise(in): 79.00
Invert(ft): 98.390
Control Elevation(ft): 98.390
TABLE
Bottom Clip(in): 0.000
Top Clip(in): 0.000
Weir Discharge Coef: 3.200
Orifice Discharge Coef: 0.600

Name: SS1 From Node: SPREADERSWALE1
Group: BASE To Node: TW
Flow: Both Count: 1
Type: Vertical: Mavis Geometry: Rectangular

Span(in): 240.00
Rise(in): 999.00
Invert(ft): 97.500
Control Elevation(ft): 97.500
TABLE
Bottom Clip(in): 0.000
Top Clip(in): 0.000
Weir Discharge Coef: 3.200
Orifice Discharge Coef: 0.600

```
-------------------------------------------------------------------------------------------------
        Name: SS2                  From Node: SPREADERSWALE2
       Group: BASE                   To Node: TW
        Flow: Both                     Count: 1
        Type: Vertical: Mavis      Geometry: Rectangular

                  Span(in): 120.00
                  Rise(in): 999.00
                Invert(ft): 95.500
      Control Elevation(ft): 95.500
                                        TABLE
            Bottom Clip(in): 0.000
               Top Clip(in): 0.000
         Weir Discharge Coef: 3.200
     Orifice Discharge Coef: 0.600


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

         Name: 100YR72H
     Filename: \\Orl_cluster01\projects00\00-0366.300_DVC_at_The_Contemporary_Resort\LDV\design\adicr\revision1\revision2\

      Override Defaults: Yes
    Storm Duration(hrs): 72.00
          Rainfall File: Sfwmd72
    Rainfall Amount(in): 14.37

Time(hrs)       Print Inc(min)
--------------- ---------------
72.000          15.00

-------------------------------------------------------------------------------------------------
         Name: 10YR72HR
     Filename: \\Orl_cluster01\projects00\00-0366.300_DVC_at_The_Contemporary_Resort\LDV\design\adicr\revision1\revision2\

      Override Defaults: No

Time(hrs)       Print Inc(min)
--------------- ---------------
72.000          15.00

-------------------------------------------------------------------------------------------------
         Name: 25YR72HR
     Filename: \\Orl_cluster01\projects00\00-0366.300_DVC_at_The_Contemporary_Resort\LDV\design\adicr\revision1\revision2\

      Override Defaults: Yes
    Storm Duration(hrs): 72.00
          Rainfall File: Sfwmd72
    Rainfall Amount(in): 11.70

Time(hrs)       Print Inc(min)
--------------- ---------------
72.000          15.00

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

         Name: 100YR72HR          Hydrology Sim: 100YR72H
     Filename: \\Orl_cluster01\projects00\00-0366.300_DVC_at_The_Contemporary_Resort\LDV\design\adicr\revision1\revision2\

      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): 0.1000               Max Calc Time(sec): 60.0000
        Boundary Stages:                        Boundary Flows:


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

Group           Run
```

BASE	Yes

Name: 10Y72H Hydrology Sim: 10YR72HR
Filename: \\Orl_cluster01\projects00\00-0366.300_DVC_at_The_Contemporary_Resort\LDV\design\adicr\revision1\revision2\

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): 0.1000 Max Calc Time(sec): 60.0000
Boundary Stages: Boundary Flows:

Time(hrs)	Print Inc(min)
72.000	15.000

Group	Run
BASE	Yes

Name: 25YR72H Hydrology Sim: 25YR72HR
Filename: \\Orl_cluster01\projects00\00-0366.300_DVC_at_The_Contemporary_Resort\LDV\design\adicr\revision1\revision2\

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): 0.1000 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 ====

```
            Basin Name: POST
           Group Name: BASE
            Node Name: POND
           Basin Type: Santa Barbara

    Spec Time Inc (min): 1.00
    Comp Time Inc (min): 1.00
          Rainfall File: Sfwmd72
   Rainfall Amount (in): 14.370
   Storm Duration (hrs): 72.00
                 Status: Onsite
     Time of Conc (min): 15.00
       Time Shift (hrs): 0.00
              Area (ac): 8.670
          Curve Number: 90.830
              DCIA (%): 0.000

         Time Max (hrs): 59.98
        Flow Max (cfs): 54.350
     Runoff Volume (in): 13.226
    Runoff Volume (ft3): 416239.301
```

```
            Basin Name: POST
           Group Name: BASE
            Node Name: POND
           Basin Type: Santa Barbara

    Spec Time Inc (min): 1.00
    Comp Time Inc (min): 1.00
          Rainfall File: Sfwmd72
   Rainfall Amount (in): 10.200
   Storm Duration (hrs): 72.00
                 Status: Onsite
     Time of Conc (min): 15.00
       Time Shift (hrs): 0.00
              Area (ac): 8.670
          Curve Number: 90.830
              DCIA (%): 0.000

         Time Max (hrs): 59.98
        Flow Max (cfs): 38.241
     Runoff Volume (in): 9.081
    Runoff Volume (ft3): 285801.293
```

```
            Basin Name: POST
           Group Name: BASE
            Node Name: POND
           Basin Type: Santa Barbara

    Spec Time Inc (min): 1.00
    Comp Time Inc (min): 1.00
          Rainfall File: Sfwmd72
   Rainfall Amount (in): 11.700
   Storm Duration (hrs): 72.00
                 Status: Onsite
     Time of Conc (min): 15.00
       Time Shift (hrs): 0.00
              Area (ac): 8.670
          Curve Number: 90.830
              DCIA (%): 0.000

         Time Max (hrs): 59.98
        Flow Max (cfs): 44.047
     Runoff Volume (in): 10.570
    Runoff Volume (ft3): 332659.960
```

00-0366.300
Disney's Contemporary Suites
Nodal Maxima
September 27, 2006

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
BUBBLEUP1	BASE	100YR72HR	60.15	98.345	100.000	0.0050	122	60.15	36.796	60.15	37.361
BUBBLEUP2	BASE	100YR72HR	60.16	95.669	100.000	0.0023	115	60.15	0.960	60.16	0.960
CONTROLSTRUCT	BASE	100YR72HR	60.15	99.269	100.000	0.0049	123	60.15	37.877	60.15	37.756
POND	BASE	100YR72HR	60.15	99.451	100.000	0.0017	39316	60.00	53.045	60.15	37.877
SPREADERSWALE1	BASE	100YR72HR	60.15	98.191	100.000	0.0018	502	60.15	37.361	60.15	36.796
SPREADERSWALE2	BASE	100YR72HR	60.16	95.604	100.000	0.0050	113	60.16	0.960	60.16	0.960
TW	BASE	100YR72HR	0.00	95.540	95.540	0.0000	0	60.15	37.756	0.00	0.000
BUBBLEUP1	BASE	10Y72H	60.11	98.186	100.000	0.0050	122	60.11	28.726	60.09	29.603
BUBBLEUP2	BASE	10Y72H	60.12	95.655	100.000	0.0023	115	60.11	0.890	60.12	0.890
CONTROLSTRUCT	BASE	10Y72H	60.11	98.748	100.000	0.0049	123	60.11	29.623	60.11	29.616
POND	BASE	10Y72H	60.11	99.086	100.000	0.0007	38521	60.00	37.329	60.11	29.623
SPREADERSWALE1	BASE	10Y72H	60.11	98.086	100.000	0.0017	468	60.09	29.603	60.11	28.725
SPREADERSWALE2	BASE	10Y72H	60.12	95.600	100.000	0.0050	113	60.12	0.890	60.12	0.890
TW	BASE	10Y72H	0.00	95.540	95.540	0.0000	0	60.11	29.615	0.00	0.000
BUBBLEUP1	BASE	25YR72H	60.13	98.245	100.000	0.0050	122	60.12	31.957	60.13	32.473
BUBBLEUP2	BASE	25YR72H	60.13	95.660	100.000	0.0023	115	60.12	0.917	60.13	0.917
CONTROLSTRUCT	BASE	25YR72H	60.13	98.942	100.000	0.0049	123	60.13	32.887	60.12	32.873
POND	BASE	25YR72H	60.12	99.206	100.000	0.0008	38782	60.00	42.992	60.13	32.887
SPREADERSWALE1	BASE	25YR72H	60.13	98.129	100.000	0.0018	482	60.13	32.473	60.13	31.956
SPREADERSWALE2	BASE	25YR72H	60.13	95.602	100.000	0.0050	113	60.13	0.917	60.13	0.917
TW	BASE	25YR72H	0.00	95.540	95.540	0.0000	0	60.13	32.873	0.00	0.000

APPENDIX C

CRITICAL DATA SUMMARY

DVC @ The Contemporary
Construction Trailer Compound

Critical Data Summary

1.0 Overview

Location Map: See attached.

Modification (Permit No. 48-00714-S)

Application Type: ERP

Location
County: Orange

General Location: Sections 11 & 12, Township 24S, Range 27E

Owner: Walt Disney World Co., Inc.

Permittee: Reedy Creek Improvement District

Operation Entity: Walt Disney World Co., Inc.

Project Area: 14.25 acres

Project Land Use: Commercial

Drainage Basin: Reedy Creek

Total Acres of Wetlands Onsite: 0

Total Acres of Wetlands Impacts: 0

Total Acres of Preserved Wetlands: 0

2.0 Project Site Description

Disney's Contemporary Suites entails the construction of a commercial development with associated infrastructure where the existing Contemporary Hotel North Garden Wing is now located. This area is within Basin L407A-2 of the RCID Master Drainage Plan. Attenuation of stormwater will take place in the RCID master system. Existing condition hydrographs have been modeled for this project regardless.

This project consists of demolition of the existing Contemporary Hotel North Garden Wing with construction of a new commercial building with amenities along with an expansion to the existing parking facility. The existing building and parking area has approximately 8.75 acres of impervious area which is drained through an existing storm sewer system into the RCID master system. Drainage from this area is not treated in the present condition.

A wet detention pond has been designed to treat the runoff from the proposed building and parking lot expansion. In addition, the area of the existing parking facility has been included in the proposed pond's pollution abatement volume calculations even though drainage from this area cannot physically be routed through the pond.

The normal water level of the pond was established based upon two factors, the average wet season ground water table elevations as established by PSI and the seasonal high water elevations of the surrounding wetlands as established by PBS&J. Based on information provided by PSI, the average wet season groundwater table elevation in the area of the pond is approximately 95.7 ft. Based upon information provided by PBS&J, the seasonal high water elevations in the wetlands is approximately 96.1 ft. The normal water elevation in the proposed pond has been set at 96.2 ft. to provide positive outfall to the wetland.

3.0 Land Use

Building	Pavement	Water Management	Pervious	Total
0.89 ac	8.25 ac	0.93 ac	4.18 ac	14.25 ac

4.0 Surface Water Management Design Parameters

Water Quality/Discharge Table

WQ Volume Required	WQ Volume Provided	Overflow Elevation	Allowable Discharge	Proposed Discharge	Receiving Body
1.72 af	1.72 af	98.39 ft	NA	29.62 cfs	Off-Site Wetland

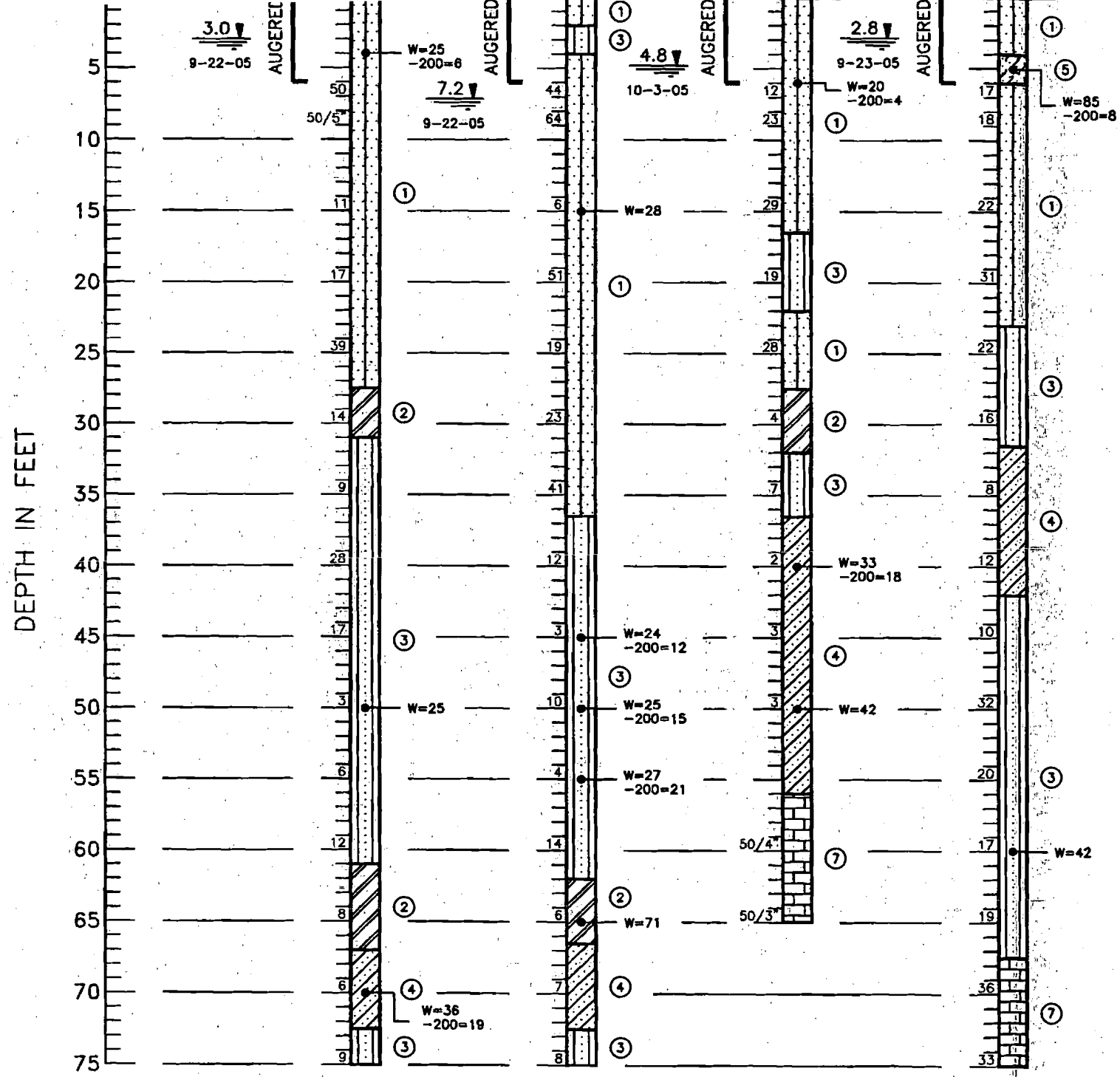
Design Storm Stages

Control El.	10yr/72hr Stage	Prop. Min Rd.	100yr/72hr Stage	Prop Min FF
96.2	99.09	99.70	99.45	99.50

Control Structures

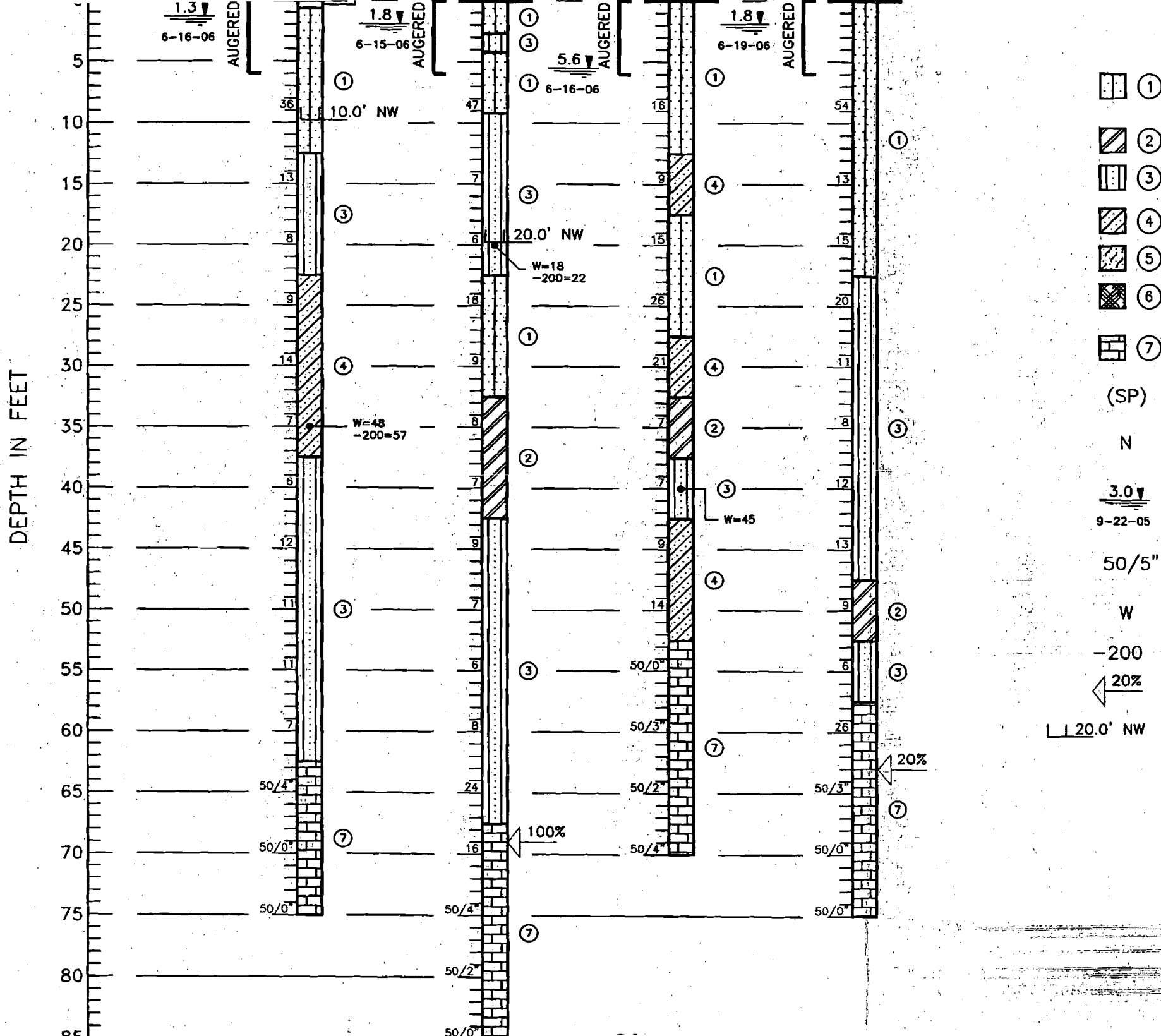
POST-1 Type H DBI (36"x79") top elevation 98.39
3" orifice elevation 96.20
36" RCP & 6" ADS

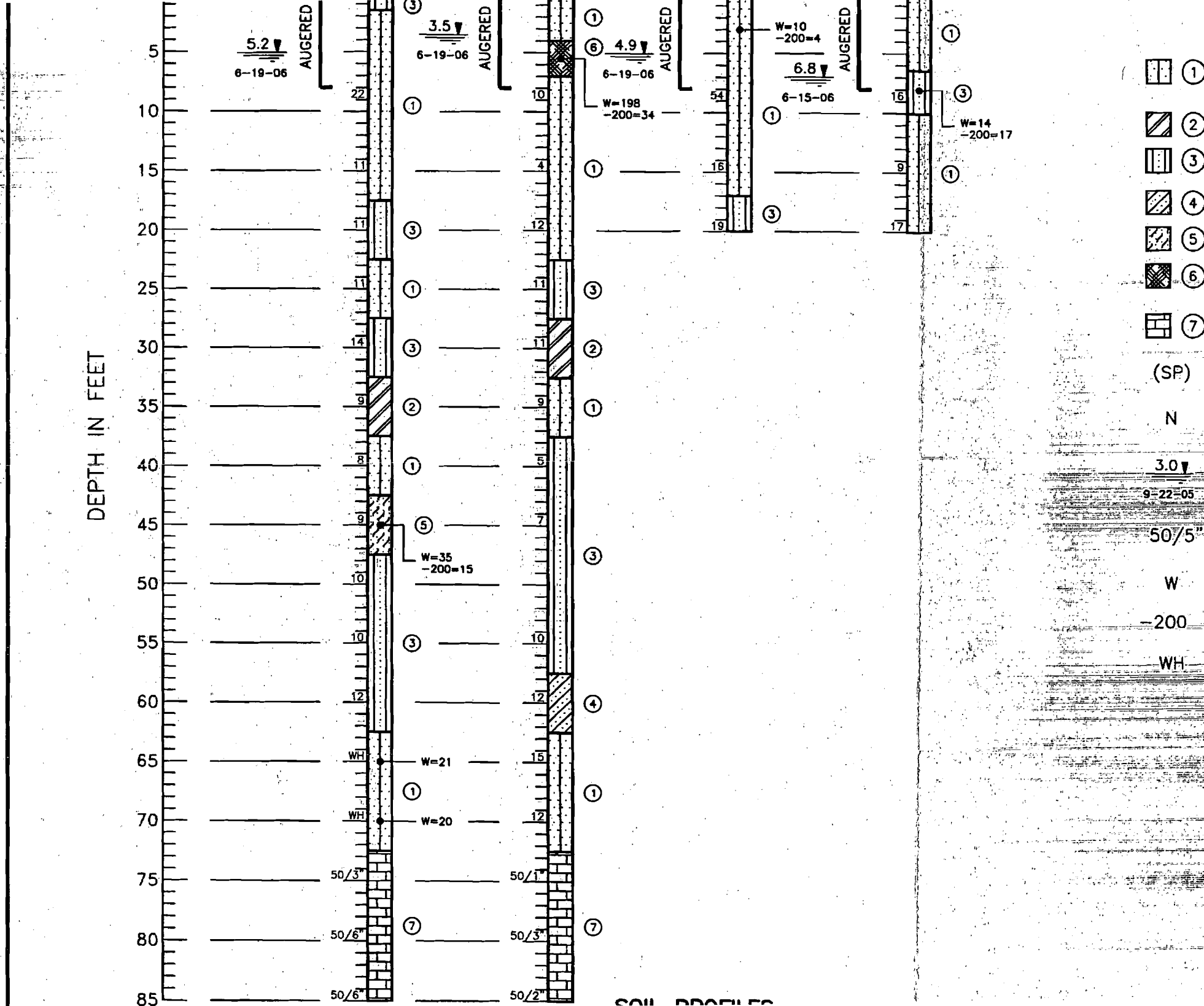
LOCATION PLAN

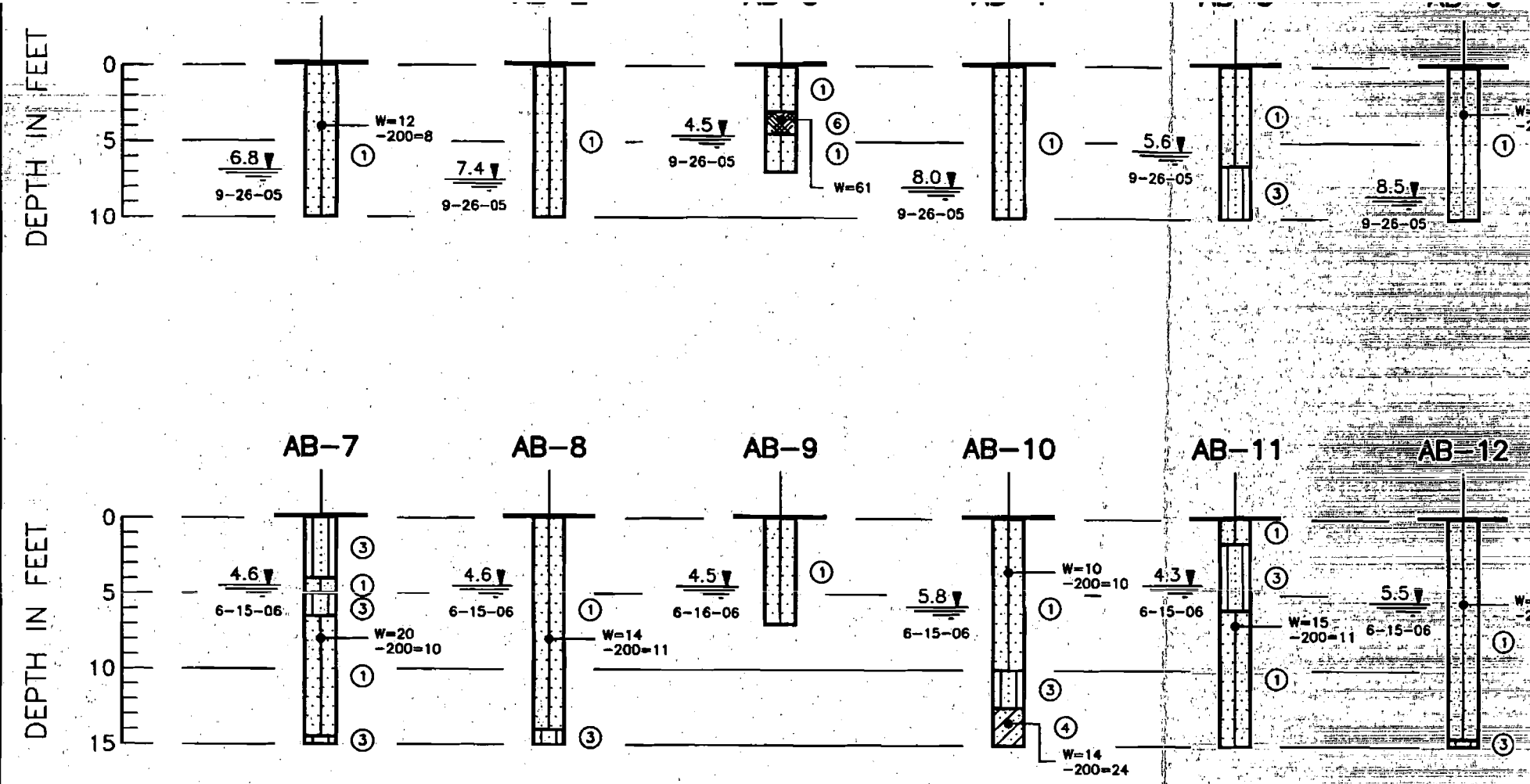


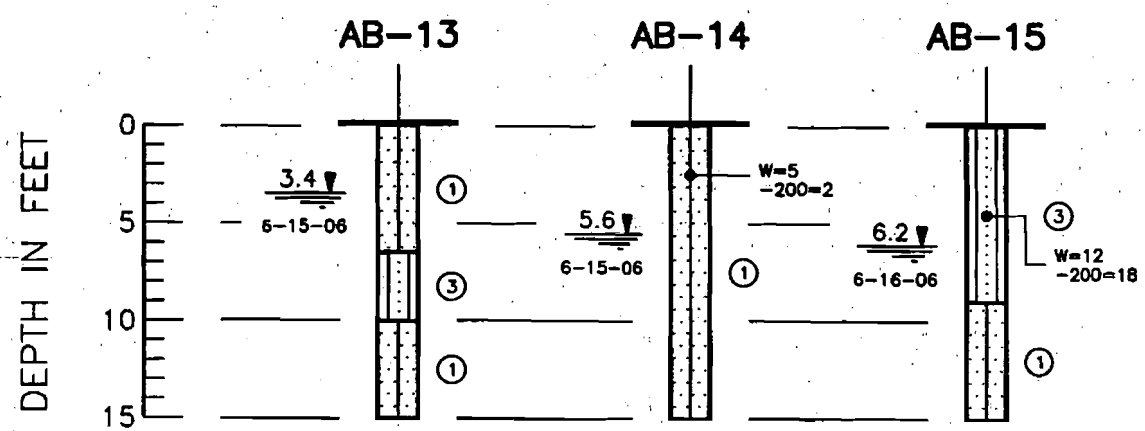
SOIL PROFILES

SCALE: 1"=10'


DEPTH IN FEET
5
10
15
20
25
30
35
40
45
50
55
60
65
70
75
80
85
AUGERED
1.3
6-16-06
1.8
6-15-06
5.6
6-16-06
1.8
6-19-06
10.0' NW
20.0' NW
W=18
-200=22
W=48
-200=57
W=45
100%
20%
20%
20.0' NW
(SP)
N
3.0
9-22-05
50/5"
W
-200


DEPTH IN FEET
5
10
15
20
25
30
35
40
45
50
55
60
65
70
75
80
85
5.2
6-19-06
AUGERED
3.5
6-19-06
AUGERED
4.9
6-19-06
AUGERED
W=198
-200=34
6.8
6-15-06
AUGERED
W=10
-200=4
W=14
-200=17
W=35
-200=15
W=21
W=20
WH
50/3"
50/6"
50/6"
50/1"
50/3"
50/2"
(SP)
N
3.0
9-22-05
50/5"
W
-200
WH





SOIL PROFILES