

OFFERING MEMORANDUM

CALL FOR OFFERS: GLEN LAKES RESIDENTIAL DEVELOPMENT

US HWY 19, WEEKI WACHEE, FL 34613

BILL ESHENBAUGH, CCIM, ALC
President, Lic. Real Estate
Broker
D. 813.287.8787 x1
M. 727.410.9595
Bill@TheDirtDog.com

JACK KOEHLER, CCIM
Broker Associate
D. 813.287.8787 x9
M. 813.541.4156
Jack@TheDirtDog.com

Eshenbaugh
LAND COMPANY
Celebrating 25 Years

PROPERTY DESCRIPTION

This is an opportunity to develop 263 acres entitled for up to 842 residential units, in Weeki Wachee, Florida. Great access to Tampa/St. Petersburg and Tampa International Airport.

ENTITLEMENT/DEVELOPMENT STATUS

- This community received Board of County Commissioners approval for the updated Combined Planned Development Project (CPDP) (HC 15-25) zoning in November of 2015 and approval of the updated Comprehensive Land Use Plan Amendment (CPA) (16-2ESR) in October of 2016. The CPA was confirmed by the State of Florida DEO in November of 2016.
- The original construction drawings were approved in July of 2008 but have expired and will require reauthorization.
- SWFWMD permits have been obtained with an expiration date of July 15, 2020.
- Florida DEP Water and Sewer permits were obtained but expired in December of 2012 and will require reauthorization.
- A 404 permit from the Army Corps of Engineers was not required under current design layout.
- The northern and southern driveway obligations have been satisfied.
- All offsite road improvements were completed as part of the US 19 FDOT project in 2015-2016.
- Concurrency will be required to be reviewed and secured during the site development plan review process pursuant to CPDP conditions.
- CDD in operation with no debt.

DEVELOPMENT STANDARDS & SETBACKS

Minimum Lot Size: 40'x105'

Minimum Internal Setbacks: Front - 20', Side - 5', Rear - 15'

Minimum Residential Perimeter Setbacks - US Hwy 19 - 75', All Other Perimeter Setbacks - 20'

PARCEL ID'S

01144915, 01144924, 01631023, 01631032

ZONING

Current zoning allows for 842 residential units.

PRICE

\$4,000,000

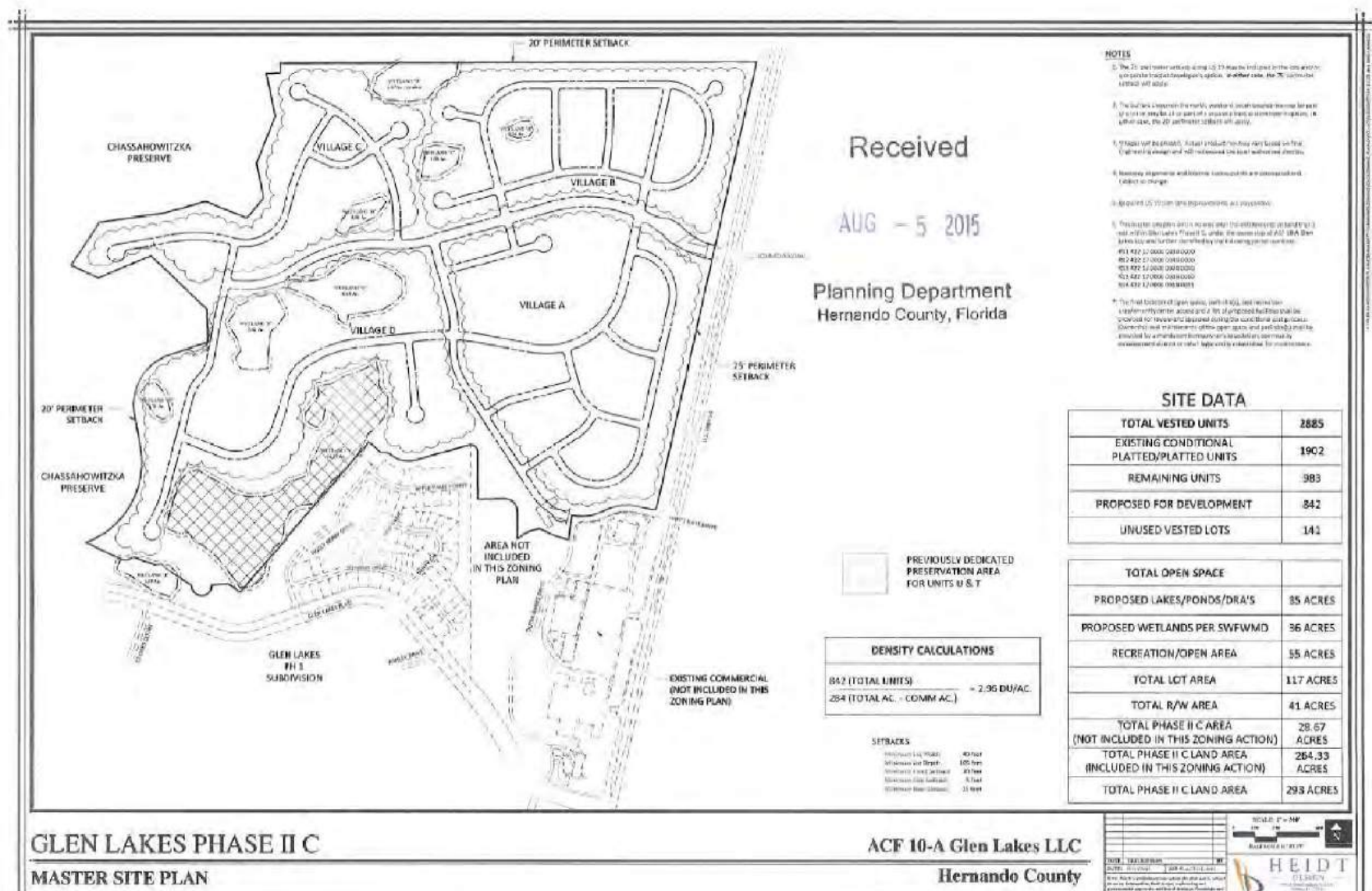
- Offers due to broker by June 28th, 2018.
- Offers must be submitted via contract provided by seller.

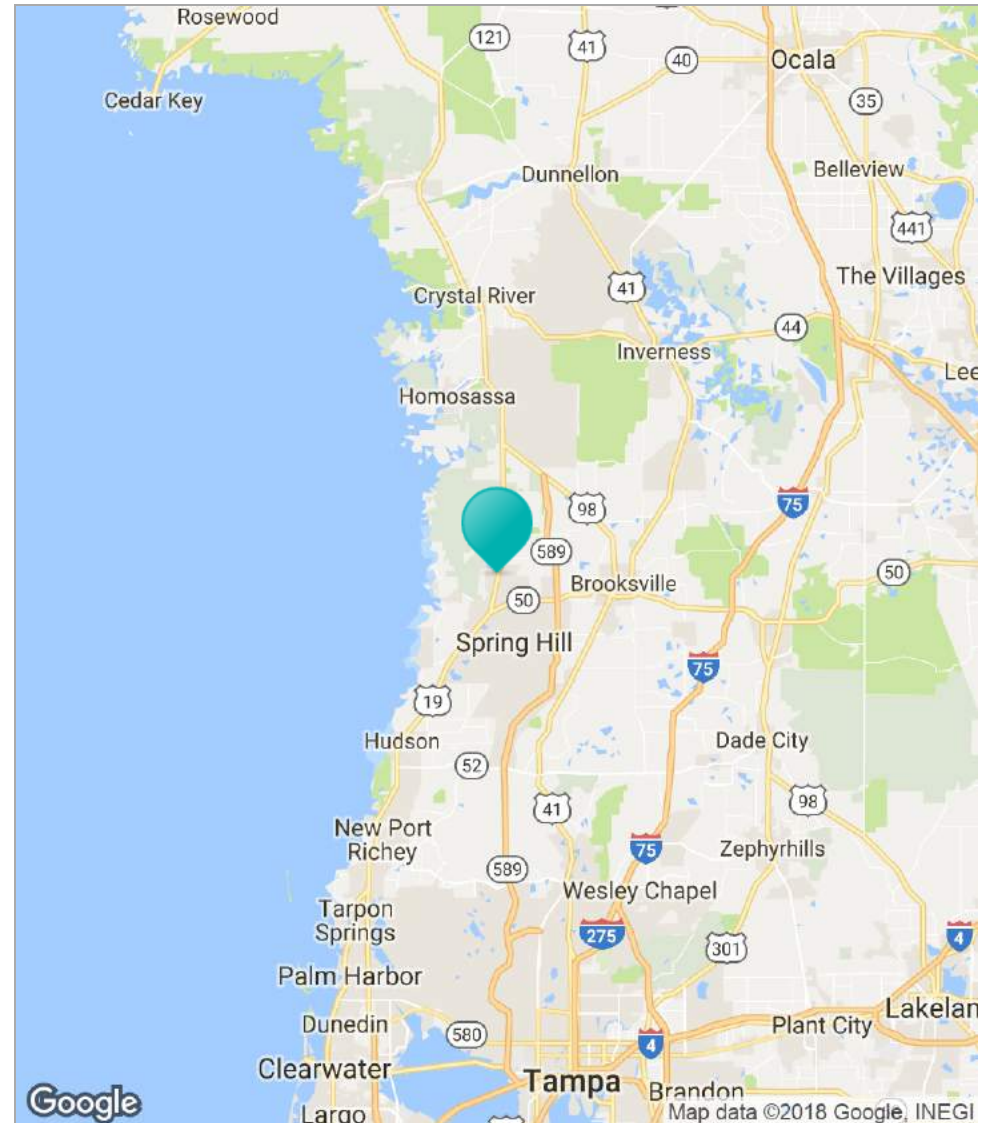
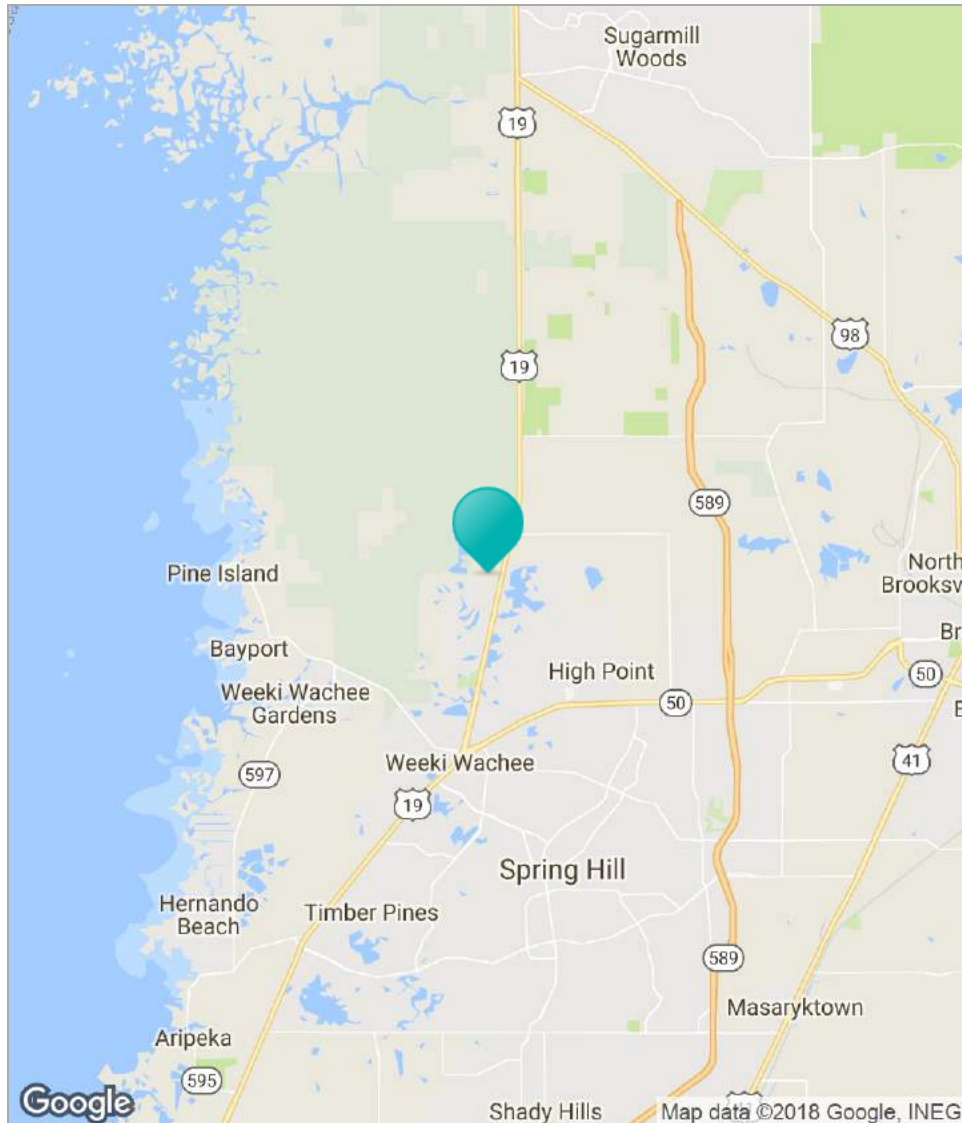
BROKER CONTACT INFO

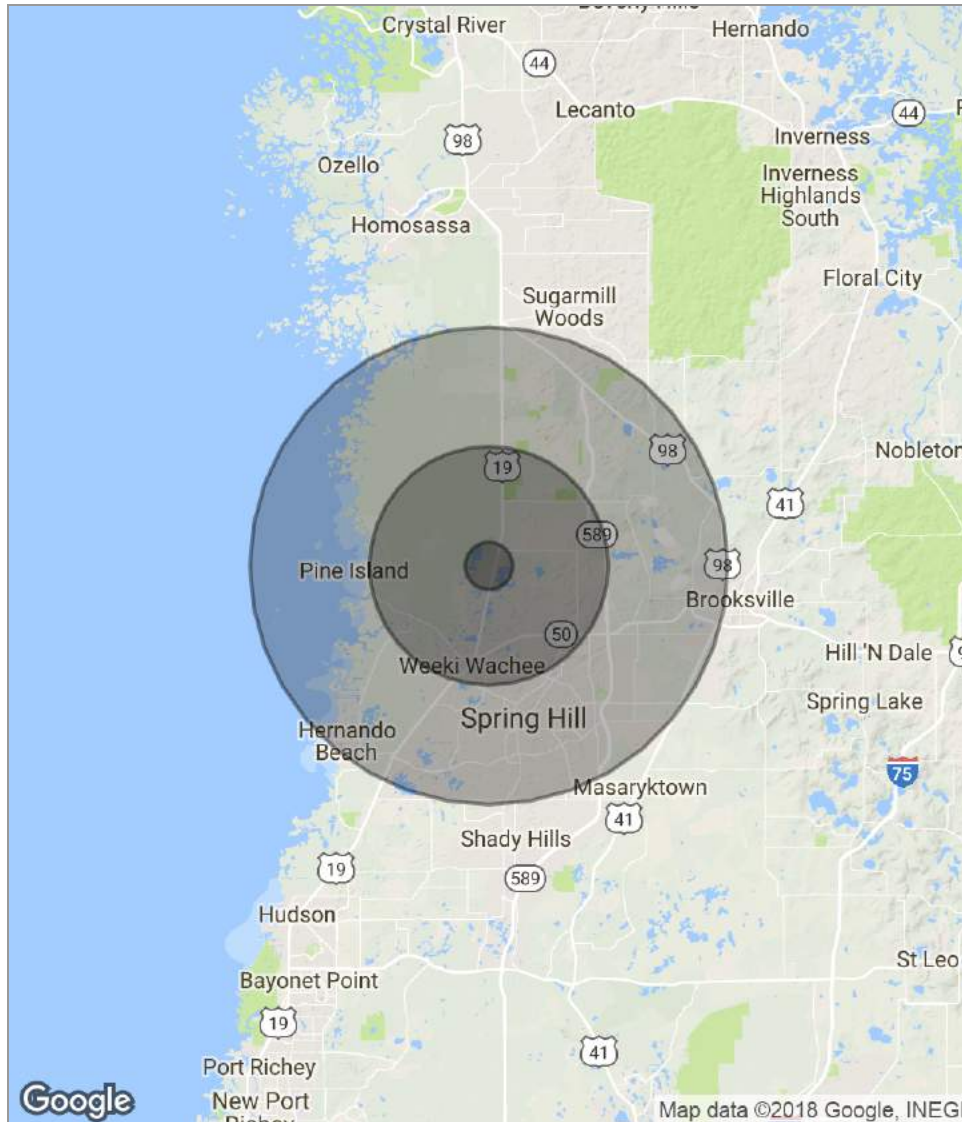
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POPULATION	1 MILE	5 MILES	10 MILES
Total population	794	35,188	150,182
Median age	47.9	48.6	47.7
Median age (Male)	48.0	47.3	47.0
Median age (Female)	47.7	50.3	48.6
HOUSEHOLDS & INCOME	1 MILE	5 MILES	10 MILES
Total households	308	14,218	62,347
# of persons per HH	2.6	2.5	2.4
Average HH income	\$52,825	\$49,657	\$53,188
Average house value	\$226,397	\$165,449	\$175,626

* Demographic data derived from 2010 US Census

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Board of County Commissioners

Hernando County



PLANNING DEPARTMENT
Government Center / Administration Building
20 North Main Street, Room 262
Brooksville, Florida 34601-2828

Planning - (352) 754-4057
Fax - (352) 754-4420
E-Mail: planning@co.hernando.fl.us

November 16, 2015

Brian F. Farrar
BCF Management Group, LLC
22190 Fairmount Ct
Estero, FL 33928

RE: ACF 10-A Glen Lakes LLC; File Number: H1525

Dear Applicant and/or Representative:

Enclosed please find a copy of the memorandum regarding the results from the November 10, 2015, meeting of the Board of County Commissioners. A copy of the associated resolution adopted by the Board is also enclosed.

According to the Hernando County Code of Ordinances, the petitioner is responsible for removal of the signs within 10 days after the final hearing date. Failure to timely remove any such sign(s) is prohibited.

If you have any questions, please feel free to call our office.

Sincerely,

Omar DePablo
Planner II

cjb

Attachment

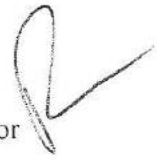
November 10, 2015

MEMORANDUM

P.D.-86

TO: See Distribution List

VIA: Ronald F. Pianta, AICP, Assistant County Administrator



FROM: Omar De Pablo, Planner II
Department of Planning

SUBJECT: Results from the November 10, 2015, Board of County Commissioners Meeting

On November 10, 2015, the Hernando County Board of County Commissioners held a duly advertised public hearing to consider advertised request(s) for changes in zoning. The following attachment(s) reflects the action(s) of the Board of County Commissioners at that scheduled public hearing.

DISTRIBUTION: Applicant
Applicant's File
PD File
Planning Department Website

BOARD OF COUNTY COMMISSIONERS' MEETING RESULTS, NOVEMBER 10, 2015, PAGE 2

APPLICANT: ACF 10-A Glen Lakes, LLC

FILE NUMBER: H-15-25

REQUEST: Re-establish a Master Plan on property zoned CPDP/Combined Planned Development Project

GENERAL

LOCATION: Northern terminus of Outer Banks Drive and west of US Highway 19

LEGAL

DESCRIPTION: A portion of Sections 11, 12, 13, 14 Township 22 South, Range 17 East, Hernando County, FL

PARCEL KEY

NUMBER: 01144915, 01144924, 01631014, 01631023, 01631032

STAFF RECOMMENDATIONS:

It is recommended that the Planning and Zoning Commission recommend the Board of County Commissioners adopt a resolution approving the re-establishment of a Master Plan on property zoned CPDP/Combined Planned Development Project with performance conditions.

P&Z ACTION:

On October 12, 2015, the Planning and Zoning Commission voted 5-0 to recommend the Board of County Commissioners adopt a resolution approving the re-establishment of a Master Plan on property zoned CPDP/Combined Planned Development Project with the following performance conditions:

1. The petitioner must obtain all permits from Hernando County and other applicable agencies and meet all applicable land development regulations, for either construction or use of the property, and complete all applicable development review processes.
2. All previous conditions (H-05-54) shall remain in full force and effect.
3. The property must apply for and receive a Finding of School Capacity from the School District prior to the approval of the conditional plat or the functional equivalent. The County will only issue a certificate of concurrency for schools upon the School District's written determination that adequate school capacity will be in place or under actual construction within three (3) years after the issuance of subdivision approval or site plan approval (or functional equivalent) for each level of school without mitigation, or with the execution of a legally binding proportionate share mitigation agreement between the applicant, the school board and the county.
4. The applicant may be required to update the Traffic Access Analysis as determined by the County Engineer and shall submit a traffic impact analysis in conjunction with each request for a Certificate of Concurrency.

5. The petitioner shall provide a wildlife survey, prepared by a qualified professional prior to any development occurring on the property. Furthermore, copies of any required permits shall be provided prior to the issuance of development permits by Hernando County.
6. Approved wetland jurisdictional lines shall be shown on all conditional plats and constructions plans.
7. All designated conservation and wetland areas shall include a conservation easement at the time of platting.
8. The applicant shall provide neighborhood parks in accordance with the requirements of Section 26-75 of Article III, Chapter 26 of the Hernando County Code of Ordinances.
9. No development of residential units shall occur within the Recreational land use category without the approval of a Comprehensive Plan Amendment.
10. The petitioner shall provide a master plan in compliance with all of the performance conditions within 30 calendar days of BCC approval. Failure to submit the revised plan will result in no further development permits being issued.

NOTE: Subsequent to the October 12, 2015, Planning and Zoning hearing, the petitioner met with staff to discuss conditions #3 and #4 of the previous approval. The applicant indicated their desire to utilize one overall minimum lot size of 40' x 105' in order to allow project flexibility in respond to market demands. Staff reviewed the petitioner's request and had no objections to modifying the previous conditions as follows:

~~3. Minimum lot sizes for single family lots are approved as follows: 65'x125'~~

4. Minimum lot sizes for the villa lots proposed are approved as follows: 40'x105'

BCC ACTION:

On November 10, 2015, the Board of County Commissioners voted 5-0 to adopt Resolution 2015-165 approving the re-establishment of a Master Plan on property zoned CPDP/Combined Planned Development Project with the following modified performance conditions:

1. The petitioner must obtain all permits from Hernando County and other applicable agencies and meet all applicable land development regulations, for either construction or use of the property, and complete all applicable development review processes.
2. All previous conditions (H-05-54) shall remain in full force and effect with the exception of conditions number 3 and 4.
- ~~3. Minimum lot sizes for single family lots are approved as follows: 65'x125'~~

4. Minimum lot sizes ~~for the villa lots proposed~~ are approved as follows: 40'x105'
3. The property must apply for and receive a Finding of School Capacity from the School District prior to the approval of the conditional plat or the functional equivalent. The County will only issue a certificate of concurrency for schools upon the School District's written determination that adequate school capacity will be in place or under actual construction within three (3) years after the issuance of subdivision approval or site plan approval (or functional equivalent) for each level of school without mitigation, or with the execution of a legally binding proportionate share mitigation agreement between the applicant, the school board and the county.
4. The applicant may be required to update the Traffic Access Analysis as determined by the County Engineer and shall submit a traffic impact analysis in conjunction with each request for a Certificate of Concurrency.
5. The petitioner shall provide a wildlife survey, prepared by a qualified professional prior to any development occurring on the property. Furthermore, copies of any required permits shall be provided prior to the issuance of development permits by Hernando County.
6. Approved wetland jurisdictional lines shall be shown on all conditional plats and constructions plans.
7. All designated conservation and wetland areas shall include a conservation easement at the time of platting.
8. The applicant shall provide neighborhood parks in accordance with the requirements of Section 26-75 of Article III, Chapter 26 of the Hernando County Code of Ordinances.
9. No development of residential units shall occur within the Recreational land use category without the approval of a Comprehensive Plan Amendment.
10. The petitioner shall provide a master plan in compliance with all of the performance conditions within 30 calendar days of BCC approval. Failure to submit the revised plan will result in no further development permits being issued.

NOTE: PLEASE NOTE THAT DEVELOPMENT ACTIONS TAKEN IN RELIANCE ON THIS ZONING APPROVAL MUST BE CONSISTENT WITH THE APPROVED MASTER PLAN, DEVELOPER'S NARRATIVE, DEVELOPER'S REPRESENTATIONS ON THE RECORD, AND THE APPROVAL CONDITIONS BY THE BCC.

RESOLUTION NUMBER 2015- 165

WHEREAS, Hernando County has adopted zoning regulations pursuant to Chapter 163 and Section 125.01(1), *Fla. Stat.*, which authorize the County to regulate the use of land in the unincorporated areas of Hernando County, Florida, and take action on the request herein; and,

WHEREAS, the Hernando County Board of County Commissioners (BOCC) conducted a duly advertised public hearing on November 10, 2015, to consider the requested changes in zoning on the specified parcel(s) in Hernando County, Florida, as more fully described below.

NOW THEREFORE, BE IT RESOLVED BY THE BOARD OF COUNTY COMMISSIONERS OF HERNANDO COUNTY, FLORIDA AS FOLLOWS:

APPLICANT: ACF 10-A Glen Lakes, LLC

FILE NUMBER: H-15-25

REQUEST: Re-establish a Master Plan on Property Zoned CPDP/Combined Planned Development Project

GENERAL

LOCATION: Northern terminus of Outer Banks Drive and west of US Highway 19

LEGAL

DESCRIPTION: A portion of Sections 11, 12, 13, 14 Township 22 South, Range 17 East, Hernando County, FL

REQUEST: Re-establish a Master Plan on Property Zoned CPDP/Combined Planned Development Project; and subject to performance condition(s) as enumerated in the BOCC Meeting Results Memorandum (which is incorporated herein by reference and made a part hereof). The representations contained in the Applicant's rezoning application are incorporated herein by reference and made a part hereof and are relied upon by the County to be true and correct. For purposes herein, it is presumed that all requisite notice and advertising requirements have been satisfied.

**FINDINGS
OF FACT:**

ALL of the facts and conditions set forth in the County's staff memoranda and presented to the BOCC in connection with the public hearing in this matter are incorporated herein by reference and made a material part of this Resolution as integral to the BOCC's action. The BOCC finds that the testimony and record supporting approval of the request to be credible and to constitute competent substantial evidence. In further support thereof, the BOCC makes the following specific findings of fact:

1. The proposed request is consistent with the County's adopted Comprehensive Plan and is compatible with the surrounding land uses subject to compliance with all performance conditions set forth in the BOCC Meeting Results Memorandum.

CONCLUSIONS OF LAW:

The BOCC is authorized to act on this matter pursuant to Chapters 125 and 163, *Fla. Stat.* Accordingly, after public hearing and testimony, being fully advised in the record, and based upon competent substantial evidence, the BOCC makes the following specific conclusions of law:

1. The proposed request is consistent with the County's adopted Comprehensive Plan and is compatible with the surrounding land uses subject to compliance with all performance conditions set forth in the BOCC Meeting Results Memorandum.

ACTION:

After notice and public hearing, based upon the record in this matter and **ALL** of the findings of fact and conclusions of law above, the BOCC hereby APPROVES the re-establishment of a Master Plan on Property Zoned CPDP/Combined Planned Development Project, subject to all conditions set forth in the BOCC Meeting Results Memorandum which is incorporated herein by reference and made a part hereof. Any requests, uses, variances or exceptions that were requested in connection with this application but not specifically approved herein are hereby deemed DENIED.


ADOPTED IN REGULAR SESSION THE 10th DAY OF November, 2015

**BOARD OF COUNTY COMMISSIONERS
HERNANDO COUNTY, FLORIDA**

Attest:


DONALD C. BARBEE, JR.,
CLERK

By:


NICHOLAS W. NICHOLSON,
CHAIRMAN

(SEAL)



Approved as to Form and
Legal Sufficiency

By: 

**BOARD OF COUNTY COMMISSIONERS
HERNANDO COUNTY, FLORIDA**

No 027997

RECEIVED FROM BCE Management Group LLC

PAYER NO: _____ FUND: _____ DEPT: 01751

Parcel Rezoning Fees for \$ _____

ACF 10-A Glen Lakes LLC \$ _____

Planning 528.66 \$ _____

\$ _____

\$ _____

\$ _____

TOTAL \$ 528.66

DATE: 8/7 2015

() CASH

() CHECK # 1734

C Bogert

SIGNATURE

**BOARD OF COUNTY COMMISSIONERS
HERNANDO COUNTY, FLORIDA**

No 027996

RECEIVED FROM ACF 10-A Glen Lakes LLC

PAYER NO: _____ FUND: _____ DEPT: 01751

Parcel Rezoning Fees for \$ _____

ACF 10-A Glen Lakes LLC \$ _____

Planning 3464.64 \$ _____

Engineering 778.66 \$ _____

\$ _____

TOTAL \$ 4243.30

DATE: 8/7 2015

() CASH

() CHECK # 1096

C Bogert

SIGNATURE



Received

AUG - 5 2015

Planning Department
Hernando County, Florida

NOTES

- The 75' perimeter setback along US 19 may be included in the lot and/or a separate tract at developer's option. In either case, the 75' perimeter setback will apply.
- The buffer shown on the north, west and south boundaries may be split if a lot or may be all or part of a separate tract at developer's option. In either case, the 20' perimeter setback will apply.
- (Villages not be phased). Actual product mix may vary based on final Engineering Design and will not exceed the lotter authorized densities.
- Necessary alignments and internal access paths are intended and subject to change.
- Required US 19 lane improvements are complete.
- This master site plan left in no way alter the allotments on land that is not within Glen Lakes Phase II C, under the ownership of ACF 10-A Glen Lakes LLC and further identified by the following parcel numbers:
#11 422 17 0000 0000 0000
#12 422 17 0000 0000 0000
#13 422 17 0000 0000 0000
#14 422 17 0000 0000 0000
- The final location of open space, park site(s), and recreation area, amenity center, access and a list of proposed facilities shall be provided for review and approval during the conditional plat process. Ownership and maintenance of the open space and park site(s) shall be provided by a mandatory Homeowners' Association, Community Development District or other legal entity established for maintenance.

SITE DATA

TOTAL VESTED UNITS	2885
EXISTING CONDITIONAL PLATTED/PLATTED UNITS	1902
REMAINING UNITS	983
PROPOSED FOR DEVELOPMENT	842
UNUSED VESTED LOTS	141

TOTAL OPEN SPACE	
PROPOSED LAKES/PONDS/DRA'S	35 ACRES
PROPOSED WETLANDS PER SWFWMD	36 ACRES
RECREATION/OPEN AREA	55 ACRES
TOTAL LOT AREA	117 ACRES
TOTAL R/W AREA	41 ACRES
TOTAL PHASE II C AREA (NOT INCLUDED IN THIS ZONING ACTION)	28.67 ACRES
TOTAL PHASE II C LAND AREA (INCLUDED IN THIS ZONING ACTION)	264.33 ACRES
TOTAL PHASE II C LAND AREA	293 ACRES

PREVIOUSLY DEDICATED PRESERVATION AREA FOR UNITS U & T

DENSITY CALCULATIONS	
842 (TOTAL UNITS)	
284 (TOTAL AC. - COMM AC.)	= 2.96 DU/AC.

SETBACKS

- Minimum Lot Width: 40 feet
- Minimum Lot Depth: 105 feet
- Minimum Street Setback: 20 feet
- Minimum Side Setback: 8 feet
- Minimum Rear Setback: 15 feet

**GLEN LAKES PHASE II C
MASTER SITE PLAN**

**ACF 10-A Glen Lakes LLC
Hernando County**

SCALE: 1" = 300'

DATE: 11/10/15

PROJECT: 2015-01, ACF 10-A

HEIDT DESIGN

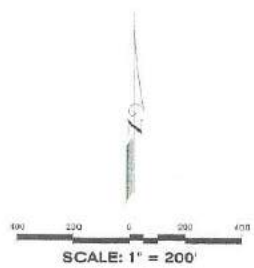
H1525

CHASBAKOWITZKA NATIONAL
WILDLIFE REFUGE
O.R. 1017, Pg. 234

PHASE 1A
SWALE WITH PHASE 1A

CHASBAKOWITZKA NATIONAL
WILDLIFE REFUGE
O.R. 1017, Pg. 234

CHASBAKOWITZKA NATIONAL
WILDLIFE REFUGE
O.R. 1017, Pg. 234



GENERAL LEGEND

- RETAINING LINE
- RETAINING GORE AREA BOUNDARY
- STORM SEWER SYSTEM

WATER & SEWER LEGEND

- EXISTING WATER MAIN
- PROPOSED WATER MAIN
- EXISTING SANITARY SEWER
- PROPOSED SANITARY SEWER
- SANITARY FORCE MAIN (FM)

Four Seasons at Crystal Springs
Phasing Plan
Revised 7-31-07

	47 Lots	60 Lots	67 Lots	Total Lots
Phase 1	47	60	67	174
Phase 1A	3	0	2	5
Phase 1B	0	0	0	0
Phase 1C	0	0	0	0
Total Phase 1	47	60	67	174
Phase 2	0	67	0	67
Phase 2A	0	67	0	67
Phase 2B	0	0	0	0
Phase 2C	0	0	0	0
Total Phase 2	0	67	0	67
Phase 3	0	70	0	70
Phase 3A	0	70	0	70
Phase 3B	0	0	0	0
Phase 3C	0	0	0	0
Total Phase 3	0	70	0	70
Project Total	47	137	67	251

Note: Proposed phasing is based on logical sequence of development of roads, sanitary sewer main and drainage improvements, and is subject to approval of governmental agencies.



PHASING PLAN EXHIBIT

FOUR SEASONS AT CRYSTAL SPRINGS

Prepared by: K. Hovnanian Windward Homes, L.L.C.

Drawn by: [Name]

DATE: 07-31-07

PROJECT: SHEET 1 OF 1 SHEETS

DATE	DESCRIPTION	BY
07-31-07	DESIGN	BR
	REVISIONS	

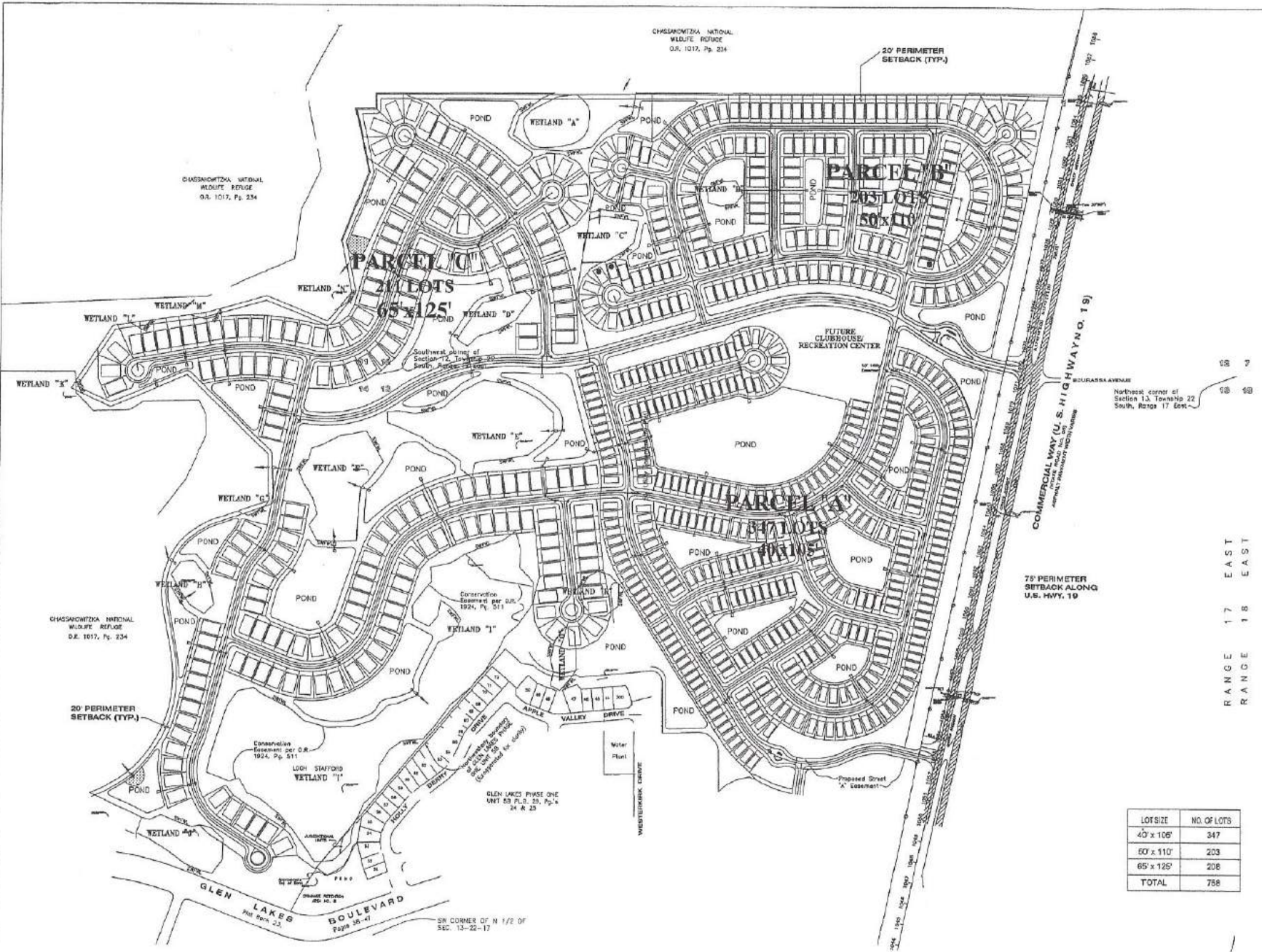
HEIDT & ASSOCIATES, Inc.
 10000 W. 11th Ave.
 Suite 100
 Denver, CO 80231
 Phone: 303-750-8800
 Fax: 303-750-8800

Brian M. Malmberg P.E. 89408
 LICENSED PROFESSIONAL ENGINEER

CHESAWITZKA NATIONAL WILDLIFE REFUGE
O.R. 1017, Pg. 234

CHESAWITZKA NATIONAL WILDLIFE REFUGE
O.R. 1017, Pg. 234

CHESAWITZKA NATIONAL WILDLIFE REFUGE
O.R. 1017, Pg. 234



08 7
08 10
Northeast corner of
Section 13, Township 22
South, Range 17 East.

RANGE 17 EAST
RANGE 18 EAST

LOTSIZE	NO. OF LOTS
40' x 108'	347
50' x 110'	203
65' x 125'	208
TOTAL	758

GLEN LAKES BOULEVARD
Plat 35-41
Page 35-41

SW CORNER OF N 1/2 OF
SEC. 13-22-17

STAFF REPORT

HEARINGS: Planning & Zoning Commission: October 12, 2014
Board of County Commissioners: November 10, 2014

APPLICANT: ACF 10-A Glen Lakes, LLC

FILE NUMBER: H-15-25

REQUEST: Re-establish a Master Plan on Property Zoned CPDP/Combined Planned Development Project

GENERAL

LOCATION: Northern terminus of Outerbanks Drive and west of US Highway 19

LEGAL

DESCRIPTION: A portion of Sections 11, 12, 13, 14 Township 22 South, Range 17 East, Hernando County, FL

PARCEL KEY

NUMBER: 01144915, 01144924, 01631014, 01631023, 01631032

APPLICANT'S REQUEST:

On January 10, 2006, the Board of County Commissioners approved a Master Plan Revision on property zoned CPDP/(Combined Planned Development Project) to include changing from (MF)/Multifamily and (REC)/Recreational to (SU)/Special Use, (HC)/Highway Commercial, and (SF)/Single Family in order to eliminate the golf course, increase the residential density, reduce setbacks, and change the external access points for 293 acres. The changes increased the number of units from 576 to 842.

Since its approval, the subject site has obtained conditional plat and construction plan approvals. After allowable extensions, the construction plans cannot be extended further and are expired. The petitioner's current request is to re-establish a Master Plan on the 293 acre property zoned CPDP/Combined Planned Development Project. The petitioner intends to preserve the current residential entitlements on the property and has indicated no changes to the previous approval. Previous perimeter setbacks and minimum lot sizes will remain unchanged while allowing the developer internal flexibility to establish village sizes and single family and villa product types consistent with prevailing market conditions.

SITE CHARACTERISTICS:

Site Size: 293 acres

Surrounding Zoning;

Land Uses: North: Chassahowitzka Wildlife Mgmt. Area
South: PDP(RR), (REC), (MF), Single Family
East: C-2, PDP(SF), (GHC); Commercial, Undeveloped
West: Chassahowitzka Wildlife Mgmt. Area, Single Family

Current Zoning: CPDP/Combined Planned Development Project

**Future Land Use
Map Designation:** Residential

ENVIRONMENTAL REVIEW:

Soil Type: Candler fine sand

**Hydrologic
Features:** The subject property contains a Class 2 and numerous Class 3 wetlands. There are no Special Protection Areas (SPAs), according to County data resources.

Comments: Any removal, encroachment or alteration of these wetlands shall require permitting and mitigation by the appropriate state and federal agencies. All future plans shall indicate the jurisdictional line.

**Protection
Features:** The property has no Wellhead Protection Areas (WHPA) according to County data resources.

Habitat: Candler fine sand provides a habitat suitable for gopher tortoises. Given the presence of the candler fine soils, gopher tortoise habitat and several commensal species have a moderate potential for occurring on the project site including eastern indigo snake (*Drymarchon corais*), Florida mouse (*Podomys floridanus*), Florida pine snake (*Pituophis melanoleucus mugitus*), and gopher frog (*Rana areolata*). Since there is the potential for this listed Species of Special Concern to be present, the site should be inspected prior to construction, and a Florida Fish and Wildlife Conservation Commission permit may be required prior to site alterations.

Comment: A comprehensive wildlife/gopher tortoise survey shall be conducted in order to identify any listed species present on the property. A Florida Fish and Wildlife Conservation Commission (FWC) permit may be required prior to site alterations. The petitioner is required to comply with all applicable FWC regulations.

Archeological: The subject property contains a historical/archeological site according to the State Master Site File. Investigations were conducted in 2005 which included ground penetrating radar to identify the potential cemetery location. Although a recognized historical site, no evidence of remains was determined.

Flood Zone: A and C

Comment: Portions of the subject site are located within the 100-year floodplain. For areas within the floodplain, all roadways and finished floor elevations shall be constructed above the 100-year flood elevation.

UTILITIES REVIEW:

The Utilities Department has indicated that water or sewer service is currently not supplied to this parcel. Water service is available via an existing 16-inch water line along the west side of US 19 and an existing 12-inch water line on the north side of Happy Days Drive. Sewer service is available via an existing 20-inch sewer force main located along the east side of US 19.

Capacity of the existing infrastructure is dependent on the engineer's estimated flows for this project. Existing water and sewer upgrades may be required to supply the proposal. The applicant will have to demonstrate compliance with the connection standards of the applicable ordinances at the time they apply for development permits. Any cost to upgrade the system will be the responsibility of the developer.

SCHOOL BOARD REVIEW:

To date, no comments have been received from the School District.

The developer is required to meet with School District staff to make capacity determination and resolve issues that relate to school concurrency and any impact the development may have based on students generated from this development.

ENGINEERING & TRANSPORTATION REVIEW:

The site is located at the northern terminus of Outerbanks Drive and west of US Highway 19. The project proposes access points to Outerbanks Drive and a full access to US Highway 19. The basic road alignment and density of the project will remain unchanged, eliminating the need for a revised Traffic Analysis. However, when development orders are requested, a traffic impact analysis will be required as part of an application for Certificate of Concurrency. The County engineer has reviewed the request and indicated the following:

1. The petitioner shall pay their proportionate fair share of the future traffic signal at Glen Lakes Boulevard and US Highway 19.
2. Prior to development of the site, the developer needs to provide assurance of the public's ability to utilize the frontage road.
3. For areas within the floodplain, all roadways and finished floor elevations shall be constructed above the 100-year flood elevation.
4. The applicant submitted a Traffic Access Analysis at the time of previous construction drawing submittal. If further approvals are needed in the subdivision process, the applicant may be required to update the TAA as determined by the County Engineer.

LAND USE REVIEW:

The master plan submitted is conceptual in nature. The final design and development of the site will have to comply with the County's LDRs relating to single family development. The standards address the provision of minimum open space, internal setbacks, separation between buildings, building design, pedestrian connections, sidewalks, buffering, roadways, neighborhood parks, etc.

The petitioner seeks no changes to the previously approved lot sizes and setbacks. Previously approved setbacks and lot sizes are as follows:

Minimum Single Family Lot Sizes: 65'x125'
Minimum Villa Lot Sizes: 40'x105'

Minimum Internal Setbacks:
Front: 20'
Side: 5'
Rear: 15'

Minimum Residential Perimeter Setbacks
US Hwy 19: 75'
All Others: 20'

COMPREHENSIVE PLAN REVIEW:

The property is located predominately within the Residential land use classification with portions located within the Recreation and Conservation designation. The existing Conservation designation area is not proposed for development. The area designated Recreation is proposed with the development of residential units which is not consistent with the land uses allowed by the mapping criteria for recreation under the comprehensive plan.

This area cannot be developed as proposed under the current comprehensive plan designation of Recreation and must be changed or the plan modified at the time of development. The majority of proposed residential uses are consistent with the land use designations of Residential provided for on the County adopted Future Land Use Map.

Binding Letter History:

A portion of the subject property is part of Royal Highlands West, a vested project under Chapter 380 (DRI regulations), Florida Statutes. The overall Royal Highlands West (Glen Lakes) development is vested for 2,885 residential units. There are 1,902 existing platted units, leaving 983 units for development. The proposed development will utilize 842 units, leaving 141 units in the Royal Highlands West vesting. In 2005 the Department of Community Affairs, now known as the Department of Economic Opportunity, indicated no objections to the 842 units requested by the applicant.

Policy 1.01A(9): The Land Development Regulations shall establish a Planned Development Project (PDP) district which can be used for single use or mixed use projects, with flexibility in standards allowed if projects provide environmental protection, landscaping, increased open space, public facilities, innovative planning design or other appropriate public benefits.

Comment: The development is proposed as a planned development project, and any approval should include appropriate performance conditions.

FINDING OF FACTS:

The re-establishment of a Master Plan on property zoned CPDP/Combined Planned Development Project is appropriate as stipulated below:

1. The proposed request for development within the Residential land use classification is consistent with the County’s adopted Comprehensive Plan and is compatible with the surrounding land uses subject to compliance with all performance conditions.
2. Any development of residential units within the Recreational land use classification will require an amendment to the comprehensive plan.

NOTICE OF APPLICANT RESPONSIBILITY:

The rezoning process is a land use determination and does not constitute a permit for either construction on, or use of, the property, or a Certificate of Concurrency. Prior to use of, or construction on, the property, the petitioner must receive approval from the appropriate County department(s) for the proposed use.

The granting of this land use determination does not protect the owner from civil liability for recorded deed restrictions which may exceed any county land use ordinances. Homeowners associations or architectural review committees require submission of plans for review and approval. The applicant for this land use request should contact the local association or the Public Records for all restrictions applicable to this property.

STAFF RECOMMENDATION:

It is recommended that the Planning and Zoning Commission recommend the Board of County Commissioners adopt a resolution approving the re-establishment of a Master Plan on property zoned CPDP/Combined Planned Development Project with the following performance conditions:

1. The petitioner must obtain all permits from Hernando County and other applicable agencies and meet all applicable land development regulations, for either construction or use of the property, and complete all applicable development review processes.
2. All previous conditions (H-05-54) shall remain in full force and effect.
3. The property must apply for and receive a Finding of School Capacity from the School District prior to the approval of the conditional plat or the functional equivalent. The County will only issue a certificate of concurrency for schools upon the School District's written determination that adequate school capacity will be in place or under actual construction within three (3) years after the issuance of subdivision approval or site plan approval (or functional equivalent) for each level of school without mitigation, or with the execution of a legally binding proportionate share mitigation agreement between the applicant, the school board and the county.
4. The applicant may be required to update the Traffic Access Analysis as determined by the County Engineer and shall submit a traffic impact analysis in conjunction with each request for a Certificate of Concurrency.
5. The petitioner shall provide a wildlife survey, prepared by a qualified professional prior to any development occurring on the property. Furthermore, copies of any required permits shall be provided prior to the issuance of development permits by Hernando County.
6. Approved wetland jurisdictional lines shall be shown on all conditional plats and constructions plans.
7. All designated conservation and wetland areas shall include a conservation easement at the time of platting.

8. The applicant shall provide neighborhood parks in accordance with the requirements of Section 26-75 of Article III, Chapter 26 of the Hernando County Code of Ordinances.
9. No development of residential units shall occur within the Recreational land use category without the approval of a Comprehensive Plan Amendment.
10. The petitioner shall provide a master plan in compliance with all of the performance conditions within 30 calendar days of BCC approval. Failure to submit the revised plan will result in no further development permits being issued.

2008062457

LORINDA 2610/303

OFFICIAL RECORDS
BK: 2610 PG: 303



LT1-2-2008062457-1



LT2-2610-303-7

RECORDING FEES
DEED DOC STAMP
11/19/2008 *[Signature]* Deputy Clk

\$ 61.00
\$ 0.70

This instrument prepared by
and return to:

Steven S. Benson

ACF 10-A Glen Lakes L.L.C.
201 East Washington, Suite 1760
Phoenix, Arizona 85004

R

THIS DEED IS BEING EXECUTED AND RECORDED TO TRANSFER OWNERSHIP FROM ONE OF OUR ENTITIES TO ANOTHER ONE OF OUR ENTITIES. NO CONSIDERATION TO APPLY.

GENERAL WARRANTY DEED

THIS GENERAL WARRANTY DEED, made and given this 27th day of October, 2008, by ACACIA CREDIT FUND 10-A L.L.C., a Delaware limited liability company, whose address is 201 East Washington, Suite 1760, Phoenix, Arizona 85004 (hereinafter referred to as the "Grantor") to ACF 10-A Glen Lakes L.L.C., a Delaware limited liability company, whose address is 201 East Washington, Suite 1760, Phoenix, Arizona 85004 (hereinafter referred to as the "Grantee").

WITNESSETH:

That the Grantor, for and in consideration of the sum of Ten Dollars (\$10.00) and other good and valuable consideration to said Grantor, in hand paid by the Grantee, the receipt of which is hereby acknowledged, hereby grants, bargains, sells, aliens, remises, releases, conveys and confirms unto the Grantee, all that certain piece, parcel or tract of land lying and being in the County of Hernando, State of Florida, more particularly described as follows:

See Exhibit "A" attached hereto

11/19/2008 8:14AM # Pages 7
Filed & Recorded in Official Records of
HERNANDO COUNTY CLERK OF COURT
KAREN NICOLAI

This conveyance is subject to the following:

See Exhibit "B" attached hereto and incorporated herein by this reference.

TOGETHER with all the tenements, hereditaments and appurtenances thereto belonging or in anywise appertaining.

TO HAVE AND TO HOLD the same in fee simple forever.

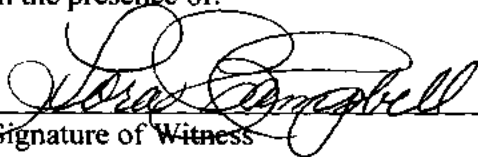
AND the Grantor hereby covenants with said Grantee, but with no others, that the Grantor is lawfully seized of said land in fee simple; that the Grantor has good right and lawful authority to sell and convey said land; that the Grantor hereby fully warrants the title to said land and will defend the same against the lawful claims of all persons whomsoever; provided however, that Grantor expressly intends that all warranties and covenants herein run in favor of Grantee only and not for the benefit of any successors or assigns of Grantee.

Grantor wholly owns Grantee and the Property is unencumbered on the date of transfer; therefore minimum documentary stamp taxes are being paid hereon pursuant to Kuro, Inc. v. Department of Revenue, 713 So. 2d 1021 (Fla 2d DCA 1998) and Crescent Miami Center, LLC v. Department of Revenue, 903 So.2d 913 (Fla. 2005).

IN WITNESS WHEREOF, the Grantor has caused these presents to be executed the day and year first above written.

Signed, sealed and delivered
in the presence of:

“Grantor”




Signature of Witness

ACACIA CREDIT FUND 10-A L.L.C., a
Delaware limited liability company

LORA R. CAMPBELL

Print Name

By: Fund 10-A Management Company
L.L.C., a Delaware limited liability
company, its managing member



Signature of Witness

By: Acacia Capital Corporation, a
California corporation, its
managing member

Carolyn F. House

Print Name

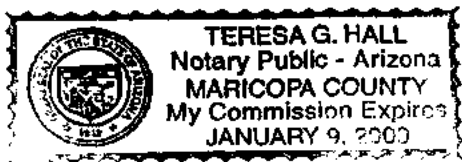
By: 

Steven S. Benson
Executive Vice President

STATE OF ARIZONA)
)SS.
COUNTY OF MARICOPA)

The foregoing instrument was acknowledged before me this 27th day of October, 2008 by Steven S. Benson, the Executive Vice President of Acacia Capital Corporation, a California corporation, in its capacity as managing member of Fund 10-A Management Company L.L.C., a Delaware limited liability company, the Managing Member of ACACIA CREDIT FUND 10-A L.L.C., a Delaware limited liability company, for and on behalf thereof.

Teresa G. Hall
(Notary Signature)



(NOTARY SEAL)
Teresa G. Hall
(Notary Name Printed)
NOTARY PUBLIC
Commission

No. 128906

EXHIBIT "A"

LEGAL DESCRIPTION OF PROPERTY

A parcel of land lying in Sections 11, 12, 13 and 14, Township 22 South, Range 17 East, Hernando County, Florida and being more particularly described as follows:

Commence at the Northeast corner of the Northeast 1/4 of the Northwest 1/4 of Section 13, Township 22 South, Range 17 East, Hernando County, Florida and run thence S.89°42'07"E., (Basis of bearing – Grid bearings, NAD83) 368.94 feet along the North boundary of Northeast 1/4 of said Section 13 to the Westerly right-of-way line of U.S. Highway No. 19 and the POINT OF BEGINNING; thence S.12°40'49"W., 1811.29 feet along said Westerly right-of-way line to a point of curvature; thence Southwesterly, 39.26 feet along the arc of a curve to the right having a radius of 25.00 feet and a central angle of 90°00'00" (chord bearing S.57°40'49"W., 35.36 feet) to a point of tangency; thence N.77°19'11"W., 111.00 feet to a point of curvature; thence Westerly, 229.06 feet along the arc of a curve to the left having a radius of 325.00 feet and a central angle of 40°22'58" (chord bearing S.82°29'19"W., 224.35 feet) to a point of reverse curvature; thence Westerly, 240.06 feet along the arc of a curve to the right having a radius of 350.00 feet and a central angle of 39°17'55" (chord bearing S.81°56'48"W., 235.38 feet); thence S.07°30'00"W., 171.29 feet to a point on a curve; thence continue Westerly, 184.39 feet along the arc of said curve to the right having a radius of 521.00 feet and a central angle of 20°16'39" (chord bearing N.69°36'39"W., 183.43 feet); thence N.71°32'42"W., 34.51 feet; thence S.78°21'56"W., 59.72 feet; thence S.63°33'12"W., 53.35 feet; thence S.53°02'29"W., 54.78 feet; thence N.00°00'45"W., 187.33 feet to a point on a curve; thence Northwesterly, 142.39 feet along the arc of a curve to the left having a radius of 94.00 feet and a central angle of 86°47'36" (chord bearing N.45°43'22"W., 129.16 feet); thence S.88°34'03"W., 184.93 feet; thence N.00°10'37"W., 326.30 feet to a point of curvature; thence Northwesterly, 92.04 feet along the arc of a curve to the left having a radius of 50.00 feet and a central angle of 105°28'12" (chord bearing N.52°54'43"W., 79.58 feet) to a point of tangency; thence S.74°21'11"W., 364.44 feet to a point on a curve; thence Westerly, 221.56 feet along the arc of a curve to the right having a radius of 203.00 feet and a central angle of 62°32'00" (chord bearing N.78°23'44"W., 210.72 feet); thence N.81°24'08"W., 58.40 feet; thence N.48°56'35"W., 105.26 feet; thence S.41°03'37"W., 1381.42 feet; thence N.53°59'50"W., 101.46 feet; thence S.84°50'39"W., 114.99 feet to a point on a curve; thence Westerly, 218.54 feet along the arc of a curve to the right having a radius of 70.00 feet and a central angle of 178°52'53" (chord bearing S.86°10'45"W., 139.99 feet) to a point of reverse curvature; thence Northwesterly, 13.72 feet along the arc of a curve to the left having a radius of 15.00 feet and a central angle of 52°24'58" (chord bearing N.30°35'18"W., 13.25 feet) to a point of tangency; thence N.56°47'47"W., 172.04 feet to a point of curvature; thence Northwesterly, 82.21 feet along the arc of a curve to the right having a radius of 335.00 feet and a central angle of 14°03'36" (chord bearing N.49°45'59"W., 82.00 feet); thence S.79°30'33"W., 38.77 feet; thence N.72°50'22"W., 82.03 feet; thence N.67°49'43"W., 77.84 feet; thence S.67°34'31"W., 59.45 feet; thence N.76°41'12"W., 39.68 feet; thence N.64°36'33"W., 268.24 feet to a point on a curve; thence along the Easterly boundary of the Chassahowitzka National Wildlife Refuge as recorded in O.R. Book 1017, Page 234, Public Records of Hernando County, Florida, the following nineteen (19) courses: 1) Northeasterly, 830.73 feet along the arc of a curve to the left having a radius of 590.00 feet and a central angle of 80°40'25" (chord bearing N.29°49'39"E., 763.79 feet) to a point of tangency; 2)

N.10°30'33"W., 227.48 feet to a point of curvature; 3) Northeasterly, 520.12 feet along the arc of a curve to the right having a radius of 365.00 feet and a central angle of 81°38'42" (chord bearing N.30°18'48"E., 477.21 feet) to a point of tangency; 4) N.71°08'09"E., 288.01 feet; 5) N.01°55'42"W., 224.02 feet; 6) N.46°23'12"W., 539.94 feet; 7) S.67°01'16"W., 398.45 feet; 8) N.65°13'02"W., 209.67 feet; 9) N.33°36'50"E., 81.91 feet; 10) N.33°36'49"E., 279.53 feet; 11) N.81°58'13"E., 451.89 feet; 12) N.74°20'16"E., 301.97 feet; 13) S.67°57'16"E., 310.68 feet; 14) N.39°31'24"E., 181.59 feet; 15) N.11°29'27"W., 246.23 feet; 16) N.21°54'14"E., 352.29 feet; 17) N.12°19'29"W., 304.04 feet; 18) N.89°49'37"E., 96.16 feet to the West boundary of the Southwest of the Southwest 1/4 of Section 12, Township 22 South, Range 17 East; 19) N.00°04'57"W., 70.07 feet along the West boundary thereof to the Northwest corner of the Southwest 1/4 of the Southwest 1/4 of said Section 12; thence N.89°49'29"E., 1328.64 feet along the North boundary of the Southwest 1/4 of the Southwest 1/4 of said Section 12 to the Northeast corner thereof; thence N.89°49'29"E., 1330.50 feet along the North boundary of the Southeast 1/4 of the Southwest 1/4 of said Section 12 to the Northeast corner thereof; thence N.89°49'29"E., 672.75 feet along the North boundary of the Southwest 1/4 of the Southeast 1/4 of said Section 12 to the Westerly right-of-way line of U.S Highway No. 19; thence S.12°40'49"W., 1354.30 feet along said Westerly right-of-way line to the POINT OF BEGINNING.

Containing 263.632 acres, more or less.

TOGETHER WITH easements created pursuant to that certain Declaration of Easements, Covenants and Restrictions recorded in Official Records Book 2219, page 1505 of the public records of Hernando County, Florida.

EXHIBIT "B"

LIST OF TITLE EXCEPTIONS

1. All assessments and taxes for the year 2008, and subsequent years, which are not yet due and payable.
2. Drainage Easement granted to the State of Florida recorded March 13, 1972 in Official Records Book 286, Page 846, Public Records of Hernando County, Florida.
3. Franchise and Easement Agreement executed by and between Withlatchoochee River Electric Cooperative and Royal Palm Beach Colony, Inc., recorded November 16, 1972 in Official Records Book 303, Page 54, Public Records of Hernando County, Florida.
4. Ordinance No. 84-15 recorded September 20, 1984 in Official Records Book 561, Page 11, which has been confirmed and adopted by resolution No. 84-75, recorded September 26, 1984 in Official Records Book 560, Page 794, Public Records of Hernando County, Florida.
5. Agreement executed by and between Glen Lakes and Hernando County, Florida, a political subdivision in the State of Florida, recorded September 13, 1989 in Official Records Book 750, Page 213, as amended by Amendment to Agreement dated September 12, 1989 executed by and between Glen Lakes and Hernando County, Florida, a political subdivision of the State of Florida, recorded October 27, 1995 in Official Records Book 1038, Page 632, Public Records of Hernando County, Florida.
6. Ordinance No. 89-25 recorded January 31, 1991 in Official Records Book 766, Page 1036; Ordinance No. 90-2 recorded February 12, 1990 in Official Records Book 768, Page 78; Ordinance No. 90-34 recorded January 7, 1991 in Official Records Book 805, Page 1643, all in the Public Records of Hernando County, Florida.
7. Agreement executed by and between The Glen Lakes Partnership, a Florida general partnership, and Hernando County, Florida, a political subdivision in the State of Florida recorded November 16, 1993 in Official Records Book 940, Page 1335, Public Records of Hernando County, Florida.
8. Easement and Right of Entry Agreement executed by and between Time Warner Entertainment Advance Newhouse Partnership, a New York general partnership, through its Tampa Bay division, dba Time Warner Communications, and Glen Lakes Partnership, Ltd., recorded December 9, 1999 in Official Records Book 1309, Page 396; Memorandum of Agreement executed by and between Time Warner Entertainment Advance-Newhouse Partnership, a New York general partnership, through its Tampa Bay division, dba Time Warner Communications,

and Glen Lakes Partnership, Ltd., recorded December 9, 1999 in Official Records Book 1309, Page 400, all in the Public Records of Hernando County, Florida. (Note: no legal description attached to said documents.)

9. Conditions and Easements as set forth on the plat of THE FIREN DUNDEE AT ROYAL HIGHLANDS UNITS 5A, 6A, 9B, according to the plat thereof, as recorded in Plat Book 15, pages 23 through 55, inclusive, Public Records of Hernando County, Florida.
10. Deed of Conservation Easement by and between Glen Lakes Partnership, LLC, Grantor, and the Southwest Florida Water Management District, a public corporation, Grantee, recorded November 4, 2004 in Official Records Book 1924, page 511, Public Records of Hernando County, Florida.
11. Declaration of Easements, Covenants and Restrictions recorded in Official Records Book 2219, Page 1505 of the Public Records of Hernando County, Florida, and re-recorded April 26, 2006 in Book 2245, Page 753.



An Equal
Opportunity
Employer

Southwest Florida Water Management District

2379 Broad Street, Brooksville, Florida 34604-6899

(352) 796-7211 or 1-800-423-1476 (FL only)

TDD only: 1-800-231-6103 (FL only)

On the Internet at WaterMatters.org

Bartow Service Office

170 Century Boulevard
Bartow, Florida 33830-7700
(863) 534-1448 or
1-800-492-7862 (FL only)

Sarasota Service Office

6750 Fruitville Road
Sarasota, Florida 34240-9711
(941) 377-3722 or
1-800-320-3503 (FL only)

Tampa Service Office

7601 Highway 301 North
Tampa, Florida 33637-6759
(813) 985-7481 or
1-800-836-0797 (FL only)

November 9, 2017

Attn: F. Wesley Clelland, III
Acacia Credit Fund 10-A, LLC
c/o Acacia Capital Corporation
2398 E Camelback Rd., Ste. 300
Phoenix, FL 85016

Subject: **Confirmation of Permit Extension Via Section 252.363, Florida Statutes**

Project Name: EO – Four Season at Crystal Springs
App Id/Permit No.: 753849/43009630.041
County: Hernando
Notification Received: October 4, 3017
Expiration Date: July 15, 2020

Dear Mr. Clelland:

We are in receipt of your notice to rely on the use of the provisions of Section 252.363, Florida Statutes ("F.S."), and the following Executive Orders to extend the duration of Permit No. 43009630.035;

- Nos. 16-230/16-274/17-16 and 17-67 (Hurricane Matthew)
- Nos. 17-120 and 17-174 (Wildfires)
- Nos. 17-204 and 17-220 (Tropical Storm Emily)
- No. 17-235 and 17-287 (Hurricane Irma)

Executive Order Nos. 16-230, 16-274, 17-16 and 17-67 (Hurricane Matthew) expired on May 23, 2017. Pursuant to Section 252.363(1)(b), F.S., written notice of the intent to exercise the tolling and extension granted under Section 252.363(1)(a), F.S., must be given within 90 days after the termination of the emergency declaration. Your request for an extension based on Executive Order No. 16-230, 16-274, 17-16 and 17-67 (Hurricane Matthew) was not received within 90 days of the expiration of the state of emergency, and therefore cannot be granted.

Pursuant to the remaining Executive Orders, 17-120 and 17-174 (Wildfires) and 17-204 and 17-220 (Tropical Storm Emily) there was a 126-day continuous state of emergency that began on April 11, 2017 and expired on August 15, 2017. Executive Orders 17-235 and 17-287 (Hurricane Irma) established a 119-day state of emergency that began on September 4, 2017 and expires on January 1, 2018. Your permit will be extended for 245 days and 24 months provided for in Section 252.363, Florida Statutes. Please note that executive orders extending existing declarations extend the tolling period, but do not provide additional 6-month extension periods under Section 252.363, F.S. This extension authorizes:

1. The expiration date of the permit changed from November 12, 2017 to July 15, 2020.
2. All dates contained in the terms and conditions of the permit pertaining to deadlines, such as for commencing or completing construction, completing any mitigation, and submitting reports for the activity authorized by the permit are modified in recognition of, and relative to, the new expiration date.

Notice of Rights

Administrative Hearing

1. You or any person whose substantial interests are or may be affected by the District's intended or proposed action may request an administrative hearing on that action by filing a written petition in accordance with Sections 120.569 and 120.57, Florida Statutes (F.S.), Uniform Rules of Procedure Chapter 28-106, Florida Administrative Code (F.A.C.) and District Rule 40D-1.1010, F.A.C. Unless otherwise provided by law, a petition for administrative hearing must be filed with (received by) the District within 21 days of receipt of written notice of agency action. "Written notice" means either actual written notice, or newspaper publication of notice, that the District has taken or intends to take agency action. "Receipt of written notice" is deemed to be the fifth day after the date on which actual notice is deposited in the United States mail, if notice is mailed to you, or the date that actual notice is issued, if sent to you by electronic mail or delivered to you, or the date that notice is published in a newspaper, for those persons to whom the District does not provide actual notice.
2. Pursuant to Subsection 373.427(2)(c), F.S., for notices of intended or proposed agency action on a consolidated application for an environmental resource permit and use of sovereignty submerged lands concurrently reviewed by the District, a petition for administrative hearing must be filed with (received by) the District within 14 days of receipt of written notice.
3. Pursuant to Rule 62-532.430, F.A.C., for notices of intent to deny a well construction permit, a petition for administrative hearing must be filed with (received by) the District within 30 days of receipt of written notice of intent to deny.
4. Any person who receives written notice of an agency decision and who fails to file a written request for a hearing within 21 days of receipt or other period as required by law waives the right to request a hearing on such matters.
5. Mediation pursuant to Section 120.573, F.S., to settle an administrative dispute regarding District intended action is not available prior to the filing of a petition for hearing.
6. A request or petition for administrative hearing must comply with the requirements set forth in Chapter 28-106, F.A.C. A petition for a hearing must: (1) explain how the substantial interests of each person requesting the hearing will be affected by the District's intended action or proposed action, (2) state all material facts disputed by the person requesting the hearing or state that there are no material facts in dispute, and (3) otherwise comply with Rules 28-106.201 and 28-106.301, F.A.C. Chapter 28-106, F.A.C., can be viewed at www.flrules.org or at the District's website at www.WaterMatters.org/permits/rules.
7. A petition for administrative hearing is deemed filed upon receipt of the complete petition by the District Agency Clerk at the District's Tampa Service Office during normal business hours, which are 8:00 a.m. to 5:00 p.m., Monday through Friday, excluding District holidays. Filings with the District Agency Clerk may be made by mail, hand-delivery or facsimile transfer (fax). The District does not accept petitions for administrative hearing by electronic mail. Mailed filings must be addressed to, and hand-delivered filings must be delivered to, the Agency Clerk, Southwest Florida Water Management District, 7601 US Hwy 301, Tampa, FL 33637-6759. Faxed filings must be transmitted to the District Agency Clerk at (813) 367-9776. Any petition not received during normal business hours shall be filed as of 8:00 a.m. on the next business day. The District's acceptance of faxed petitions for filing is subject to certain conditions set forth in the District's Statement of Agency Organization and Operation, available for viewing at www.WaterMatters.org/about.

Rick Scott
GOVERNOR



Cissy Proctor
EXECUTIVE DIRECTOR

November 18, 2016

The Honorable James Adkins
Chairman, Hernando County
Board of County Commissioners
20 North Main Street, Room 262
Brooksville, Florida 34601

Dear Chairman Adkins:

The Department has completed its review of the proposed plan amendment for Hernando County (Amendment No. 16-2ESR), which was received on October 20, 2016. We have reviewed the proposed amendment pursuant to the expedited review process in Sections 163.3184(2) and (3), Florida Statutes (F.S.), and identified no comment related to important state resources and facilities within the Department of Economic Opportunity's authorized scope of review that will be adversely impacted by the amendment if adopted.

The County is reminded that pursuant to Section 163.3184(3)(b), F.S., other reviewing agencies have the authority to provide comments directly to the County. If other reviewing agencies provide comments, we recommend the County consider appropriate changes to the amendment based on those comments. If unresolved, such comments could form the basis for a challenge to the amendment after adoption.

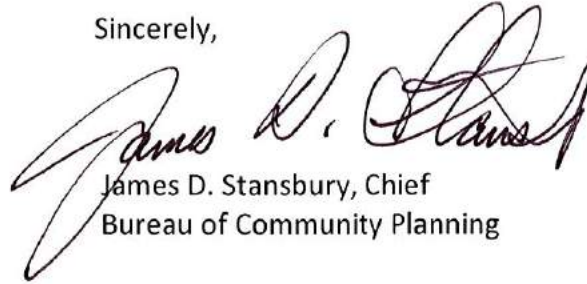
The County should act by choosing to adopt, adopt with changes, or not adopt the proposed amendment. Also, please note that Section 163.3184(3)(c)1, F.S., provides that if the second public hearing is not held within 180 days of your receipt of agency comments, the amendment shall be deemed withdrawn unless extended by agreement with notice to the Department of Economic Opportunity and any affected party that provided comment on the amendment. For your assistance, we have enclosed the procedures for adoption and transmittal of the comprehensive plan amendment.

Florida Department of Economic Opportunity | Caldwell Building | 107 E. Madison Street | Tallahassee, FL 32399
850.245.7105 | www.floridajobs.org
www.twitter.com/FLDEO | www.facebook.com/FLDEO

An equal opportunity employer/program. Auxiliary aids and service are available upon request to individuals with disabilities. All voice telephone numbers on this document may be reached by persons using TTY/TTD equipment via the Florida Relay Service at 711.

If you have any questions concerning this review, please contact Robin Branda, at (850) 717-8495, or by email at Robin.Branda@deo.myflorida.com

Sincerely,



James D. Stansbury, Chief
Bureau of Community Planning

JDS/rb

Enclosure: Procedures for Adoption

cc: Mr. Sean Sullivan, Executive Director, Tampa Bay Regional Planning Council
Mr. Ronald F. Pianta, AICP, Assistant Hernando County Administrator

**SUBMITTAL OF ADOPTED COMPREHENSIVE PLAN AMENDMENTS
FOR EXPEDITED STATE REVIEW**

Section 163.3184(3), Florida Statutes

NUMBER OF COPIES TO BE SUBMITTED: Please submit three complete copies of all comprehensive plan materials, of which one complete paper copy and two complete electronic copies on CD ROM in Portable Document Format (PDF) to the Department of Economic Opportunity and one copy to each entity below that provided timely comments to the local government: the appropriate Regional Planning Council; Water Management District; Department of Transportation; Department of Environmental Protection; Department of State; the appropriate county (municipal amendments only); the Florida Fish and Wildlife Conservation Commission and the Department of Agriculture and Consumer Services (county plan amendments only); and the Department of Education (amendments relating to public schools); and for certain local governments, the appropriate military installation and any other local government or governmental agency that has filed a written request.

SUBMITTAL LETTER: Please include the following information in the cover letter transmitting the adopted amendment:

_____ Department of Economic Opportunity identification number for adopted amendment package;

_____ Summary description of the adoption package, including any amendments proposed but not adopted;

_____ Identify if concurrency has been rescinded and indicate for which public facilities. (Transportation, schools, recreation and open space).

_____ Ordinance number and adoption date;

_____ Certification that the adopted amendment(s) has been submitted to all parties that provided timely comments to the local government;

_____ Name, title, address, telephone, FAX number and e-mail address of local government contact;

_____ Letter signed by the chief elected official or the person designated by the local government.

ADOPTION AMENDMENT PACKAGE: Please include the following information in the amendment package:

_____ In the case of text amendments, changes should be shown in strike-through/underline format.

_____ In the case of future land use map amendments, an adopted future land use map, **in color format**, clearly depicting the parcel, its future land use designation, and its adopted designation.

_____ A copy of any data and analyses the local government deems appropriate.

Note: If the local government is relying on previously submitted data and analysis, no additional data and analysis is required;

_____ Copy of the executed ordinance adopting the comprehensive plan amendment(s);

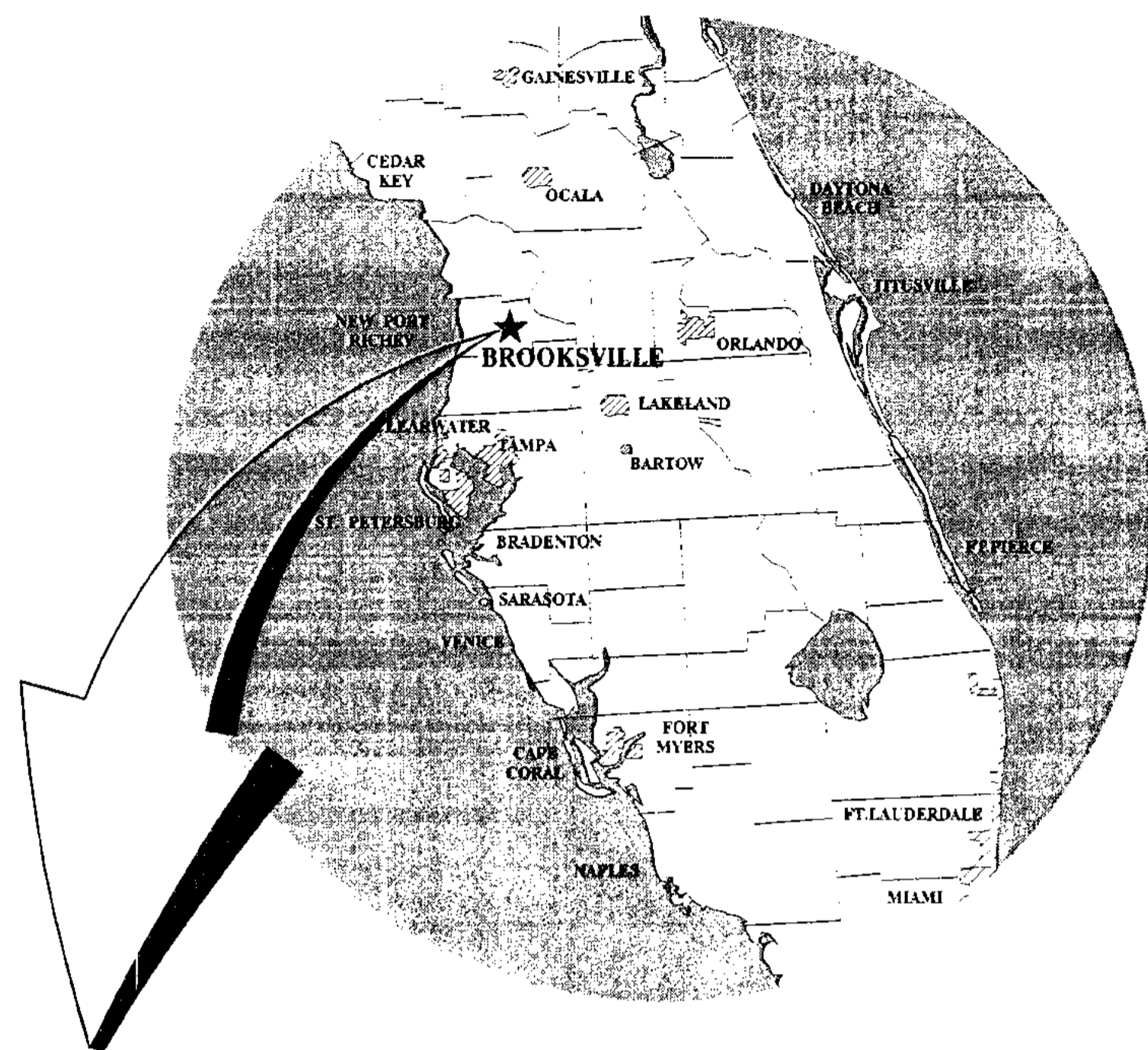
Suggested effective date language for the adoption ordinance for expedited review:

The effective date of this plan amendment, if the amendment is not timely challenged, shall be 31 days after the Department of Economic Opportunity notifies the local government that the plan amendment package is complete. If timely challenged, this amendment shall become effective on the date the Department of Economic Opportunity or the Administration Commission enters a final order determining this adopted amendment to be in compliance. No development orders, development permits, or land uses dependent on this amendment may be issued or commence before it has become effective. If a final order of noncompliance is issued by the Administration Commission, this amendment may nevertheless be made effective by adoption of a resolution affirming its effective status, a copy of which resolution shall be sent to the Department of Economic Opportunity.

_____ List of additional changes made in the adopted amendment that the Department of Economic Opportunity did not previously review;

_____ List of findings of the local governing body, if any, that were not included in the ordinance and which provided the basis of the adoption or determination not to adopt the proposed amendment;

_____ Statement indicating the relationship of the additional changes not previously reviewed by the Department of Economic Opportunity in response to the comment letter from the Department of Economic Opportunity.

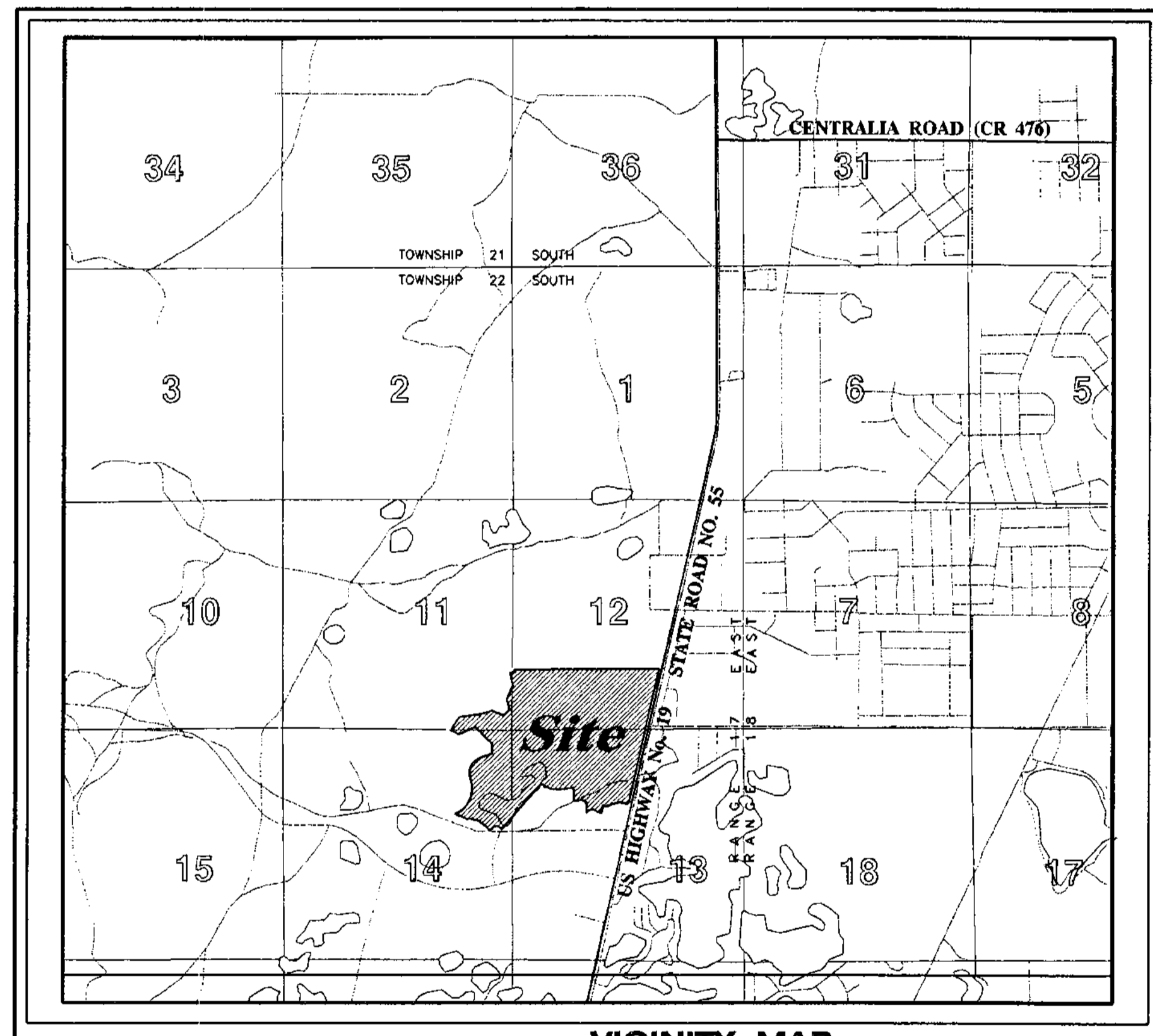


FOUR SEASONS

at Crystal Springs

CONSTRUCTION PLANS

K. HOVNANIAN'S®
FOUR SEASONS
at Crystal Springs
 An Active Adult Community



VICINITY MAP
 HERNANDO COUNTY, FLORIDA
 SECTION 11, 12, 13 & 14, TOWNSHIP 22 SOUTH, RANGE 17 EAST

SHEET NO.	DESCRIPTION
1	COVER SHEET
2	GENERAL NOTES
3	AERIAL SITE PLAN
4	TYPICAL ROADWAY SECTIONS
4A	CONSTRUCTION PHASE KEY MAP
5	MASTER DRAINAGE PLAN
6-20	GRADING & DRAINAGE PLAN
21-23	STORM STRUCTURE DATA
24-26	DRAINAGE SECTIONS
27-61	ROADWAY PLAN & PROFILE
62	WETLAND MITIGATION PLAN
63-66	SIDEWALK/SIGNING & PAVEMENT MARKING PLAN
67-68	CONTROL STRUCTURE DETAILS
69-70A	DRAINAGE DETAILS
71	WATER & SEWER GENERAL NOTES
72	WATER & SEWER KEY MAP
73-84	WATER & SEWER PLAN
85-95	SANITARY SEWER PROFILES
96,96A,97	PUMP STATION DETAILS
98-99	WATER DETAILS
100	SANITARY SEWER DETAILS
1 of 1	PRE-DEVELOPMENT DRAINAGE AREA MAP
1 of 1	POST-DEVELOPMENT DRAINAGE AREA MAP
1 & 2 of 2	CONSTRUCTION SURFACE WATER MANAGEMENT PLAN

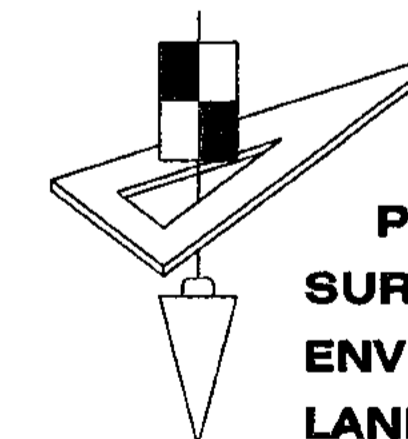
FILE OF RECORD

Prepared For:
 Developer: K. Hovnanian Windward Homes, L.L.C.
 5439 Beaumont Center Blvd., Suite 1050
 Tampa, Florida 33634
 813-885-7744
 Owner: Acacia Credit Fund 10-A, L.L.C.
 a Delaware Limited Liability Company
 201 E. Washington Street, Suite 1760
 Phoenix, Az. 85004

PERMITTEE SHALL VERIFY IN WRITING
 THE BROWN COUNTY HEALTH DEPARTMENT,
 SOUTHWEST REGIONAL WATER MANAGEMENT
 DISTRICT, AND LOCAL DISTRICTS BEFORE BEGINNING

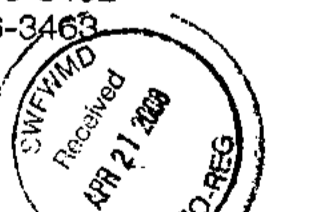
Prepared By:
HEIDT & ASSOCIATES, Inc.

Engineering Business Certificate of Authorization No.: 148



CIVIL ENGINEERING
PLANNING
SURVEYING
ENVIRONMENTAL PERMITTING
LANDSCAPE ARCHITECTURE

Tampa
Fort Myers
Sarasota • Manatee
Brooksville Office
 105 North Main Street
 Brooksville, Florida 34601
 Phone: 352-796-3462
 FAX: 352-796-3463



48009630.035

FOUR SEASONS AT CRYSTAL SPRINGS

DATE: 4/2/08
 BRIAN M. MALMBERG FLORIDA PROFESSIONAL ENGINEER 59405

DATE: 04-30-2007 JOB NO: WWH-GL-006

Elevations based on National Geodetic Vertical Datum 1929 (NGVD 29)
 NGVD 1929 (minus) - 0.83' = NAVD 88.

STREET & DRAINAGE WATER & SANITARY SEWER
 DESIGNED BY: LUCAS DESIGNED BY: DMYTRYK
 DRAWN BY: MEETZE DRAWN BY: SANDOVAL

FILE: CV SHEET 1 OF 100

DATE	SHEET NO.	BY
04-20-08	7, 23, 67, 88	RBA
03-24-08	4A, 5-20, 22-26, 50, 60, 62, 72, 80	RBA
	84-86, 92-94	RRR
03-10-08	78, 84E, 85	GOS
02-14-08	72, 91 (Revised 84A), 84B	GM
01-23-08	92, 63, 65, 72, 76, 80-82	RRR
11-30-07	8, 12, 35, 36, 40, 88, 89, 91	GM
11-26-07	5, 9, 10, 20, 26, 27, 47, 48, 52-58, 72, 75, 79	GM
09-25-07	2, 4A-22, 24, 28, 29, 31, 33, 34, 36, 37, 42, 47, 49, 51, 52-58, 72-84, 84A-84E, 85-95, 96A, 97, 99, DA-PRE	GM
09-06-07	85-95, 96A, 97, 99, DA-PRE	GM
08-02-07	Add Piling to all Appropriate Sheets 3, 5, 6, 7, 8, 10, 12, 13, 14, 15, 17, 21, 24, 25, 62 1/1-PRE, 1/1-POST, CSWMP(2)	RRR
06-25-07	2, 4-8, 10, 12, 13, 14, 19, 20-26, 52, 67, 69, 70A, DA-POST, DA-POST, CSWMP	GM

PERMIT / FILE NOS.	
ADDRESS / CONTROL NO.	
WATER COMMITMENT	
SEWER COMMITMENT	
SWFWMD	
WATER DEP	
SEWER DEP	
FOLO	

STORM WATER POLLUTION PREVENTION PLAN

Contained on these plans and within the following notes is a Storm Water Pollution Prevention Plan (SWPPP) which has been developed by Heidt & Associates, Inc. in accordance with the Florida Department of Environmental Protection's (FDEP) National Pollutant Discharge Elimination System (NPDES) Generic Permit for Stormwater Discharge from Large and Small Construction Activities.

The following entities are identified as team members of "SWPPP": Heidt & Associates, the Developer as identified in the title box of these plans, and the site contractor and his sub-contractors. Each team member has specific responsibilities and obligations. In general, all team members, with regard to their involvement and sub-responsibilities on the project, are to implement all necessary storm water management controls to assure compliance with the NPDES Generic Permit for Storm Water Discharges from Large and Small Construction Activities, the Southwest Florida Water Management District's Permit, the applicable local governing agency (i.e. Hillsborough County, City of Tampa, etc) and the guidelines listed in the SWPPP. The duties and responsibilities of the team members as they pertain to the SWPPP are as follows:

Heidt & Associates, Inc.
A. Develop SWPPP including, but not limited to, retention/detention ponds, control structures, erosion control methods and locations and stabilization criteria. This design is included within these construction plans and the following notes and instructions.

B. Submit and obtain the necessary design related storm water permits from the Florida Department of Environmental Protection, the Southwest Florida Water Management District and other applicable governmental bodies.

C. Upon notification by the developer of his intent to commence construction, submit a Notice of Intent to the FDEP on behalf of the developer and copy the contractor including SWPPP certification and copy of the permit.

D. Submit to SWFWMD and the operator of the municipal separate storm water system, if applicable, a letter of construction commencement.

E. Complete and submit a Notice of Termination and certification for developer. The NOT's shall be submitted no more than 30 days after (a) completion of the project and final stabilization of the site or (b) when responsibility for the site has ended. Final stabilization as defined by EPA is when all soil disturbing activities at the site have been completed and a uniform (e.g. evenly distributed, without large bare areas) perennial vegetative cover with a density of 70% of the native background vegetative cover for the area has been established on all unpaved areas and areas not covered by permanent structures. An alternate, equivalent permanent stabilization measures (such as riprap, gabions, or geotextiles) may be employed. The client shall notify Heidt & Associates when one of these criteria has been met.

Contractor
A. Sign and return to Heidt & Associates Certification Form certifying your understanding of and willingness to comply with the Storm Water Pollution Prevention Plan and all applicable regulatory requirements of construction. Also, each subcontractor affected by the SWPPP must certify to the contractor that they understand and shall comply with the NPDES permit and SWPPP. A record of these certifications shall be maintained by the contractor on site.

B. During construction, assure compliance with the designed Storm Water Pollution Prevention Plans prepared by Heidt & Associates and the NPDES Generic Permit for Storm Water Discharges from Large and Small Construction Activities.

C. Maintain a copy of the construction plans, which include the Storm Water Pollution Prevention Plan, the NOI, and all inspection reports and certifications on site.

D. Undertake all reasonable Best Management Practices (BMP's) to assure that filtered or otherwise polluted storm water is not allowed to discharge from the site during all phases of construction. Stabilization BMP's that may be used include: temporary or permanent seeding, mulching, geotextiles, sodding, vegetative buffer strips, protection of trees and preservation of mature vegetation. Structural erosion and sediment control BMP's that may be used include: straw bale dikes, silt fences, earth dikes, brush barriers, drainage swales, check dams, subsurface drain, pipe slope drain, level spreaders, storm drain inlet protection, outlet protection, sediment traps, and temporary sediment basins. Detention ponds may also be used as temporary sediment basins. Additional BMP's that may need to be implemented include: providing protected storage areas for chemicals, paints, solvents, fertilizers, and other potentially toxic materials. Providing waste receptacles at convenient locations and providing regular collection of wastes, including building material wastes. Minimizing off-site tracking of sediments. Making adequate preparations, including training and equipment to contain spills of oil and hazardous materials. Complying with applicable state or local waste disposal, sanitary sewer or septic system regulations and the use of appropriate pollution prevention measures for allowable non-storm water components of discharge.

E. Notify Heidt & Associates and the developer in writing of any non-storm water pollution sources which are being stored, or otherwise used during the construction of the project, i.e., fertilizers, fuels, pesticides, other chemicals. This notification should be accompanied with the contractor's design and methods to prevent pollution run-off from these sources.

F. Develop a maintenance and inspection plan which includes, but is not limited to the following:

- A. The specific areas to be inspected and maintained that includes all the disturbed areas and material storage areas of the site.
B. The erosion and sediment controls identified in the SWPPP to be maintained and inspected and those additional controls that the contractor deems necessary.
C. Maintenance procedures.
D. The procedure to follow if additional work is required or whom to call.
E. Inspections and maintenance forms.
F. The personnel assigned to each task.

The following shall be inspected a minimum of once a week or within 24 hours after 0.50 inches of rainfall:

- Stabilization measures (once a month if fully stabilized).
Structural controls.
Discharge points.
Construction entrances and exits.
Areas used for storage of exposed materials.

An inspection form shall be completed for each inspection. Any permit violations should be noted and corrective measures shall be taken no later than 7 days after the inspection occurs. If revisions to the SWPPP are needed, a report form for changes in the SWPPP shall be completed and a copy sent to Heidt & Associates, Inc. The original shall be kept on-site as documentation of the change. If the inspection passes, a certification that the facility is in compliance with the SWPPP and the NPDES permit must be signed by a duly authorized representative of the principal executive official of the operator of the SWPPP with one of the following qualifications:

- 1. Has successfully completed the Florida Stormwater, Erosion and Sediment Control Inspector Training Program.
2. Successfully completed a similar training program.
3. Has enough practical on the job training to be qualified to perform the inspections.

Retain inspection reports and certifications for at least three years.
G. Site stabilization measures shall be initiated as soon as practical but in no case more than 7 days, in portions of the site where construction activities have temporarily or permanently ceased.

GENERAL EROSION AND TURBIDITY CONTROL NOTES

- 1. The Site Subcontractor shall be responsible for installation and maintenance of all erosion and sediment controls and the quality and quantity of silt/soil or wetland discharges.
2. Prior to construction, the Site Subcontractor is responsible for having the contractor's proposed erosion control plan approved by the applicable reviewing agencies. Refer to the project's permit approvals and permit conditions for agencies requiring such review and approval. Questions concerning appropriate erosion control methods should be discussed with the project engineer and owner.
3. The appropriate turbidity and erosion control methodologies selected by the Site Subcontractor for this project shall be based on the results of assessment of the plans and project site specific factors and after consultations as needed with the project engineer and appropriate agencies. The Site Subcontractor will be responsible for obtaining any and all necessary permits for such activity, several factors to consider in selecting the appropriate methodology include:
A. Clay content in excavated materials and/or permeabilities rates
B. Depth of cut in ponds, trenches, or utility lines
C. Ambient groundwater levels
D. Actual rainfall amounts and time of year relative to normal rainy season
E. Proximity to wetlands, water bodies or offsite properties
F. Florida's designation of receiving water bodies (i.e., Outstanding Class Waters, shellfish harvesting areas, etc.)
G. Density, type, and proximity of upland vegetation to be retained during construction (for use as possible filtration areas)
H. Fill height relative to natural grade and length and steepness of the proposed slope
I. Existing topography and directions of surface flow
J. Type of equipment used
K. Project type
L. Duration of construction activities
M. Separation distance of onsite ponds
N. Ambient quality of groundwater
O. Temporary stockpile locations and heights
4. All types of construction, the Site Subcontractor, as the party responsible for implementing an erosion and sediment control plan, shall assess the above described conditions and factors with respect to relative cost effectiveness and select the appropriate methodology for protection. A fairly extensive list of techniques are presented below but it must be stressed that any or all of the following may be necessary to maintain water quality and quantity standards. The appropriate sequencing should be thought out in advance of initiation to provide adequate protection of water quality.
5. Discharges in excess of 29 NTU's over the background levels are in violation of state water quality standards. Discharges of water quantities which affect offsite properties or may damage wetlands are also prohibited by regulating agencies.
6. The erosion and turbidity control measures shown hereon are the minimum required for agency approval. Additional control and measures may be required due to site specific conditions due to site specific weather conditions. Any additional measures deemed necessary by the Site Subcontractor & Associates, Inc. for submittal to FDEP a Notice of Termination form and certification.
7. Hay bales or silt screens shall be installed prior to land clearing to protect water quality and to provide erosion control during clearing activities and maintained for the duration of the project until all soil is stabilized.
8. Floating turbidity barriers shall be in place in flowing systems or in open water lake edges prior to initiation of earthwork and maintained for the duration of the project until all soil is stabilized.
9. No clay material shall be left exposed on any stormwater storage facility, if clay or sandy-clays are encountered during stormwater storage excavation, the Site Subcontractor shall notify the Engineer immediately before proceeding with earth excavation. If the Engineer of Record has determined that such soils are non-confining and must be excavated to meet permit and regulatory requirements, excavation may proceed after obtaining written authorization from the appropriate governing agency. If solid soils are left exposed at the permitted and designed depth, the Site Subcontractor shall excavate the pond's bottom and side slopes by a minimum of twelve (12") inches and backfill with clean sands to help prevent suspension of fine particles in the water column.
10. No installation of temporary erosion control features to be coordinated with the construction of the permanent erosion control features to the extent necessary to assure effective and continuous control of erosion and turbidity throughout the project operation.
11. The type of erosion control barriers used shall be governed by the nature of the construction operation and soil type that will be exposed. Silty and clayey material may require solid sediment barriers to prevent turbid water discharge, while sandy material may need only silt screens or hay bales to prevent erosion. Floating turbidity curtains should generally be used in open water situations. Diversions ditches may be required to prevent turbid stormwater runoff from being discharged to wetlands or other water bodies. It may be necessary to employ a combination of barriers, ditches, and other erosion/turbidity control measures if conditions warrant.
12. Where pumps are to be used to remove turbid waters from construction areas, the water shall be treated prior to discharge to the wetlands. Treatment methods include, for example, turbid water being pumped into grassed swales or appropriate upland vegetative areas, or into aeration, pretreatment areas and wetland buffers, sediment basins, or confined by an appropriate enclosure such as turbidity barriers or low berms, and kept confined until turbidity levels are acceptable for discharge.
13. The Permittee shall schedule his operations such that the area of unprotected erodible earth exposed at any one time is not larger than the minimum area necessary for efficient earth operation, and the duration of exposed, unprotected construction to the elements shall be as short as practicable. Clearing and grubbing shall be so scheduled and performed such that grading operations can occur immediately thereafter. Grading operations shall be so scheduled and performed that permanent erosion control features can follow immediately thereafter if conditions on the project permit.
14. Water derived from various dewatering methods should be passed through a sufficiently wide area of existing upland vegetation to filter and excess turbidity. If this is not sufficient, the water shall be retained in previously constructed permanent stormwater ponds or else retained in temporary sedimentation basins until the clarity is suitable to allow for its discharge. Plugging the outfalls from completed stormwater ponds may be necessary to prevent turbid water from being discharged into wetlands. However, such situations should be monitored closely to preclude berm failure if water levels rise too high.
15. Water can be transported around the site by the use of internal swales or by pumps.
16. Sheet flow of newly filled or scraped areas may be controlled or contained by the use of brush barriers, diversion swales, interceptor ditches or low berms. Flow should be directed toward areas where sediments can sufficiently settle out.
17. Exposed soils shall be stabilized as soon as possible, especially slopes leading to wetlands. Stabilization methods include solid soil, seeding and mulching or hydromulching to provide a temporary or permanent grass cover, mulch blankets, filter fabrics, etc., can be employed to provide vegetative cover.
18. Energy dissipaters (such as rip rap, a gravel bed, hay bales, etc.) shall be installed at the discharge point of pipes or swales if scouring is observed.
19. Attempt to install roadway curb and gutters as soon as possible to reduce surface erosion and sediment transport.
20. Implement storm drain inlet protection (hay bales or gravel) to limit sedimentation within the stormwater system. Perform inspections and periodic cleaning of sediments which wash out into the streets until all soil is stabilized.
21. Water discharge velocities from impounded areas and temporary sedimentation basins shall be restricted to avoid scouring in receiving areas.
22. If water clarity does not reduce to state standards rapidly enough in holding ponds, it may be possible to use chemical agents such as alum to flocculate or coagulate the sediment particles.
23. Hay bales, silt screens, or gravel beds can be added around the pipe or swale discharge points to help clarify discharges. Spreader swales may help disperse cloudy water prior to contact with wetlands.
24. All fuel storage areas or other hazardous storage areas shall conform to accepted state or federal criteria for such containment areas.
25. Vehicle or equipment washdown areas will be sufficiently removed from wetlands or offsite areas.
26. Fugitive dust controls (primarily by using water spray trucks) shall be employed as needed to control windborn emissions.
27. If the above controls remain ineffective in precluding release of turbid water, especially during pond or utility line dewatering, then the contractor may be compelled to use a vertical dewatering system such as well points or sock drains to withdraw groundwater which may already be present enough to allow for direct discharge to wetlands.
28. Ongoing inspections and periodic maintenance by the Site Subcontractor shall be required throughout construction to ensure the above methods are working suitably. This may be needed daily, or more often as warranted. Site Subcontractors are encouraged to obtain and thoroughly review the Florida Department of Environmental Protection's Stormwater and Water Management, which was developed by the State of Florida Department of Environmental Protection in 1988. This provides fairly in-depth discussions of recommended techniques providing specific design and technical standards. A copy of this document is available for review at Heidt & Associates, Inc.
29. The Florida Department of Environmental Protection requires daily inspections of all on-site wetlands within the construction area to ensure that water levels within those wetlands are not excessively impounded prior to the time when the permitted control structure or outfall is built. Water levels significantly above normal should be corrected at a frequency that prevents a change in the vegetative character or health of any wetlands.

Pond/Lake Excavation Note
No excavation shall extend below the permitted design depths/elevations shown on the drawings, unless additional testing and/or no lower semi-confining unit clayey soil material and/or no limestone materials shall be excavated, regardless if these materials are encountered within the permitted design depths/elevations. If any lower semi-confining unit clayey soil materials or limestone materials are encountered above the permitted design depths/elevations, then excavation operations shall cease in the general area and the Engineer of Record shall be notified immediately.

OWNER'S INSTRUCTIONS FOR MAINTENANCE AND INSPECTION OF STORMWATER FILTER FACILITIES

Drainage systems should be inspected on a routine basis to ensure that they are functioning properly. Inspections can be on an annual or semi-annual basis, but should always be conducted following major storms. Systems that incorporate infiltration are most critical since poor maintenance practices can soon render them inefficient. Visual inspections of sand filters, control structures, and outfall pipes are highly recommended. It should be stressed that good records should be kept on all maintenance operations to help plan future work and identify facilities requiring attention.

Sand filter surfaces are sometimes scorified or break up silt deposits and restore porosity. This should be accomplished after all sediment has been removed from the surface. After removing large debris (cups, paper, wood, etc.) it is recommended that raking the top 3" will properly scarify the surface or it may be required to replace the sand. Another technique involves removing the sand for washing.

The filter system is designed to have a wet-dry cycle to inhibit algae or bacterial growth. Cleanout frequency of filter beds will depend on whether they are vegetated or non-vegetated and will be a function of their storage capacity, infiltration characteristics, volume of inflow, and sediment load. Filter beds should be inspected closely at least once a year.

Perforated underdrain pipes are located 2' below the sand and cleanouts are located at the end of the system. In the event of sediment build-up in the underdrain pipe, cleaning can be accomplished through the cleanout with several of the techniques outlined below.

METHODS AND EQUIPMENT FOR CLEANOUT OF SYSTEMS
Various types of equipment are available commercially for maintenance of drainage systems. The most frequently used equipment and techniques are listed below.

1. VACUUM PUMP
This device is normally used to remove sediment from sumps and pipes. The equipment for this system is generally mounted on a vehicle. It requires a 200 - 300 gallon (0.757 - 1.36m) holding tank and a vacuum pump that has a 10" (254mm) diameter flexible hose with a serrated metal end for breaking up clog sediment. A two-man crew can clean a catch basin in 5 to 10 minutes. This system can remove stones, bricks, leaves, litter and sediment deposits. Normal working depth is 0' - 20' (0 to 6m).

2. WATER JET SPRAY
This equipment is generally mounted on a self-contained vehicle with a high pressure pump and a 200 - 300 gallon (0.760 to 1.140m) water supply. A 3" (76mm) flexible hose line with a metal nozzle that directs jets of water at a reverse angle, which propels the nozzle forward while blasting debris backwards toward the catch basin. As the hose line is reeled in, the jetting action forces all material into the catch basin. Normal hose length is approximately 200' (61m). Because of the energy supplied by the water jet, it should not be used to clean erodible trench walls.

3. COMPRESSED AIR JET
The compressed air jet can be used to clean and remove debris from said drainage systems. This equipment could require a holding tank for the water and debris removed, a source of water supply, an air compressor, two 1/4" (6.4mm) air lines, a diffusion chamber, and a 4" (102mm) diameter pipe to carry the silt/water and other debris from the underdrain pipe. The filter is partially filled with water, if required, and the compressed air injected through a nozzle near the end of the underdrain pipe. As the silt/water enters the diffusion chamber (to which the other air line is connected) it becomes filled with entrained air and is forced up the 4" (102mm) disposal pipe and out the top of the cleanout by the denser water entering the bottom of the diffusion chamber intake, in this manner the entire length of underdrain pipe can be cleaned.

4. SURGING AND PUMPING
This procedure is another means of removing silt and rejuvenating a sand filter bed. The process involves partially filling the filter with water and then pumping a surging fitting plunger in and out within the underdrain pipe. This action loosens silt and sediment lodged in the filter fabric and immediately adjacent sand, and pulls it into the underdrain. Surging is immediately followed by pumping silt-laden water from the underdrain into a holding tank. If the filter bed is situated in a clayey soil or if clay materials have been washed into the filter, the surging and air jetting methods will be more effective if sodium polyphosphate is added to the water in the underdrain prior to cleaning or redeveloping. A 2 - 5 ppm concentration of this chemical will deflocculate clay particles in the underdrain pipe and immediately surrounding sand, and the clay can be pumped or jetted out very easily. Depth is limited by the pumping capacity available.

5. FIRE HOSE FLUSHING
This equipment consists of various fittings that can be placed on the end of a fire hose such as rotating nozzles, rotating cutters, etc. When this equipment is dropped through a pipe, it can be effective in removing light material from walls.

6. SEWER JET FLUSHES
Sewer jet flushers are usually truck-mounted and consists of a large water tank of at least 1000 gallons (3.785m3), a triple action water pump capable of producing 1000 psi (6900 kN/m2) or more pressure, a gasoline motor to run the pump, hose reel large enough for 500' (153.) of 1 1/2" (38mm) inside diameter high pressure hose, and a hydraulic pump to operate the hose reel. In order to clean pipes properly a minimum nozzle pressure of 600 psi (4140 kN/m2) is required. All material is flushed ahead of the nozzle by spray action. This extremely mobile machine can be used for cleaning areas with light grass problems, sand and gravel infiltration, and for general cleaning.

STREET & DRAINAGE CONSTRUCTION NOTES:

- 1. Prior to construction, the Contractor shall obtain from the Engineer or Owner a copy of all pertinent permits related to this project. It is the Contractor's responsibility to assure that all construction activities are in compliance with the conditions of all permits and approvals. Contractor is also responsible for having his dewatering plan approved by SWFWMD. At a minimum this shall include sodding of all open embankments in accordance with Hernando County Subdivision Regulations and DOT Specifications, latest editions.
2. All construction, materials and workmanship are to be in accordance with City/County standards as well as in accordance with standard and specific conditions in the SWFWMD permit, if applicable. A minimum this shall include sodding of all open embankments of a slope 5:1 or greater to the NW line, as well as seeding and mulching of the balance of the pond tracts (including pond berms, excluding the area below NW).
3. Solid soil, all areas in existing rights-of-way disturbed by construction. In the proposed rights-of-way a 2' wide area behind the back of curb to be solid sodded, the remainder of the proposed rights-of-way to be seeded and mulched.
4. Contractor is to coordinate all work within, but not limited to Hernando County rights-of-way with utility companies in order to prevent damage to utility lines and making of adjustments to same, if required.
5. Prior to curb inlet construction, the Engineer shall lay out the back of the curb in the vicinity of the respective inlet for alignment and grade, and the Contractor shall construct curb (these dimensions apply to the concrete valley gutter curb of the curb and the face of the curb) through the back of the curb and the face of the curb. The top of the curb shall be constructed to an elevation of 3/8" above the top of curb (these dimensions apply to the concrete valley gutter curb section only). Any inlets constructed incorrectly by deviating from this sequence of inlet construction shall be the sole responsibility of the Contractor and no additional payment shall be made or allowed for removing and/or correcting the inlet.
6. Fill obtained through excavation of streets and detention ponds shall be placed on lots and adjacent land in accordance with the Master Drainage and Grading Plan as directed by the Engineer.
7. Site clearing shall be performed per the approved construction plans and in accordance with applicable Hernando County Ordinances. Installation and maintenance of the required barricading and erosion control shall be the responsibility of the site development contractor unless otherwise designated.
8. Prior to beginning construction, Contractor shall expose all existing utility inverts to which a tie-in is proposed and have Engineer verify the elevation and adequacy of these inverts.
9. All subsurface construction shall comply with the "Trench Safety Act." The Contractor shall insure that the method of trench protection and construction is in compliance with the Occupational Safety and Health Administration (OSHA) regulations.
10. Siltation accumulations greater than the lesser of 12 inches or one-half the depth of the siltation barrier shall be immediately removed and placed in upland areas.
11. During land alteration and construction activities, it shall be unlawful to remove vegetation by grubbing or to place soil deposits, debris, solvents, construction material, machinery or other equipment of any kind within the dipline of a tree to remain on the site unless otherwise approved by the County.
12. All erosion control installation and installation coordination shall be the responsibility of the Contractor. Heidt & Associates, if contracted by the Owner, will stake the alignment of the proposed erosion control and shall limit its responsibility to the County and the Engineer.
13. All erosion control approval and maintenance of the erosion control shall be the sole responsibility of the Site Contractor.
14. All disturbed areas within the FDOT right-of-way will be sodded.
15. All disturbed areas including lots, shall be seeded and mulched.
16. All storm pipe joints shall be wrapped in FILTER FABRIC.

DESCRIPTION: A parcel of land lying in Sections 11, 12, 13 and 14, Township 22 South, Range 17 East, Hernando County, Florida and being more particularly described as follows:

Commence at the Northeast corner of the Northeast 1/4 of the Northwest 1/4 of Section 13, Township 22 South, Range 17 East, Hernando County, Florida and run thence S89°42'07"E (Basis of bearing - Grid bearings, NAD83) 368.84 feet along the North boundary of Northeast 1/4 of said Section 13 to the Westerly right-of-way line of U.S. Highway No. 19 and the POINT OF BEGINNING; thence S12°40'49"W, 1811.29 feet along said Westerly right-of-way line to a point of curvature; thence SoutHWesterly, 39.27 feet along the arc of a curve to the right having a radius of 25.00 feet and a central angle of 90°00'00" (chord bearing S.57°40'49"W, 35.36 feet) to a point of tangency; thence S.77°19'11"W, 111.00 feet to a point of curvature; thence Westerly, 229.05 feet along the arc of a curve to the left having a radius of 325.00 feet and a central angle of 40°22'58" (chord bearing S.82°29'19"W, 224.35 feet) to a point of reverse curvature; thence Westerly, 340.06 feet along the arc of a curve to the right having a radius of 350.00 feet and a central angle of 39°17'55" (chord bearing S.81°58'48"W, 235.38 feet); thence S.07°30'00"W, 171.29 feet to a point on a curve; thence NorthWesterly, 184.39 feet along the arc of said curve to the right having a radius of 521.00 feet and a central angle of 20°16'39" (chord bearing N.69°56'39"W, 183.43 feet); thence N.71°52'42"W, 111.00 feet to a point of tangency; thence S.72°21'56"W, 59.72 feet; thence S.63°33'12"W, 53.35 feet; thence S.53°02'29"W, 54.78 feet; thence N.00°00'45"W, 187.33 feet to a point on a curve; thence NorthWesterly, 142.39 feet along the arc of a curve to the left having a radius of 394.00 feet and a central angle of 86°42'56" (chord bearing N.45°51'29"W, 129.16 feet); thence S.88°34'03"W, 184.93 feet; thence N.00°10'37"W, 326.30 feet to a point of curvature; thence NorthWesterly, 92.04 feet along the arc of a curve to the left having a radius of 500.00 feet and a central angle of 105°28'19" (chord bearing N.52°54'43"W, 79.58 feet) to a point of tangency; thence S.74°21'11"W, 364.44 feet to a point on a curve; thence Westerly, 221.56 feet along the arc of a curve to the right having a radius of 204.00 feet and a central angle of 62°32'00" (chord bearing N.78°23'44"W, 210.72 feet); thence N.81°24'08"W, 58.40 feet; thence N.48°56'35"W, 105.26 feet; thence S.41°03'37"W, 1381.42 feet; thence N.53°59'50"W, 101.46 feet; thence Westerly, 218.54 feet along the arc of a curve to the right having a radius of 70.00 feet and a central angle of 178°52'53" (chord bearing S.88°10'45"W, 139.99 feet) to a point of reverse curvature; thence NorthWesterly, 13.72 feet along the arc of a curve to the left having a radius of 35.00 feet and a central angle of 52°24'58" (chord bearing N.30°35'18"W, 13.25 feet) to a point of tangency; thence N.56°47'47"W, 172.04 feet to a point of curvature; thence NorthWesterly, 82.21 feet along the arc of a curve to the right having a radius of 335.00 feet and a central angle of 14°03'36" (chord bearing N.49°45'59"W, 82.00 feet); thence S.79°30'33"W, 38.77 feet; thence N.72°50'22"W, 62.03 feet; thence N.67°49'43"W, 77.34 feet; thence S.67°34'31"W, 39.04 feet; thence N.57°16'16"W, 181.59 feet; thence N.64°38'33"W, 268.24 feet to a point on a curve; thence along the Easterly boundary of the Chassanowitzka National Wildlife Refuge as recorded in D.R. Book 1017, Page 234, Public Records of Hernando County, Florida, bearing north-south courses: 1) Northwesterly, 830.73 feet along the arc of a curve to the left having a radius of 500.00 feet and a central angle of 80°40'23" (chord bearing N.29°49'39"E, 763.79 feet) to a point of tangency; 2) Northwesterly, 527.48 feet to a point of curvature; 3) Northwesterly, 529.12 feet along the arc of a curve to the right having a radius of 365.00 feet and a central angle of 81°38'42" (chord bearing N.30°18'48"E, 477.21 feet) to a point of tangency; 4) N.71°08'09"E, 288.01 feet; 5) N.01°55'42"W, 224.02 feet; 6) N.46°21'24"W, 539.94 feet; 7) S.67°01'16"W, 398.45 feet; 8) N.65°13'02"W, 209.67 feet; 9) N.33°35'50"E, 851.89 feet; 10) N.33°36'49"E, 279.63 feet; 11) N.81°58'13"E, 451.89 feet; 12) N.74°20'16"E, 301.97 feet; 13) S.67°16'16"E, 310.68 feet; 14) N.37°21'24"E, 181.59 feet; 15) N.11°29'27"W, 246.23 feet; 16) N.21°54'14"W, 152.29 feet; 17) N.12°19'29"W, 304.04 feet; 18) N.89°49'37"E, 96.16 feet to the West boundary of the Southwest 1/4 of the Southwest 1/4 of Section 12, Township 22 South, Range 17 East; 19) S.60°04'57"W, 70.07 feet along the West boundary thereof to the Northwest corner of the Southwest 1/4 of said Section 12; thence N.89°49'29"E, 1328.64 feet along the North boundary of the Southwest 1/4 of the Southwest 1/4 of said Section 12 to the Northeast corner thereof; thence N.89°49'29"E, 1328.64 feet along the North boundary of the Southwest 1/4 of the Southwest 1/4 of said Section 12 to the Northeast corner thereof; thence N.89°49'29"E, 672.75 feet along the North boundary of the Southwest 1/4 of the Southwest 1/4 of said Section 12 to the Westerly right-of-way line of U.S. Highway No. 19; thence S.12°40'49"W, 1354.30 feet along said Westerly right-of-way line to the POINT OF BEGINNING.

Containing 283.632 acres, more or less.
Proposed Street "A" Easement
DESCRIPTION: A parcel of land lying in Section 13, Township 22 South, Range 17 East, Hernando County, Florida and being more particularly described as follows:

Commence at the Northeast corner of the Northeast 1/4 of the Northwest 1/4 of Section 13, Township 22 South, Range 17 East, Hernando County, Florida and run thence S89°42'07"E (Basis of bearing - Grid bearings, NAD83) 368.84 feet along the North boundary of Northeast 1/4 of said Section 13 to the Westerly right-of-way line of U.S. Highway No. 19; thence S.12°40'49"W, 1811.29 feet along said Westerly right-of-way line to the POINT OF BEGINNING; thence continue along said Westerly right-of-way line S.12°40'49"W, 100.00 feet to a point of curve; thence NorthWesterly, 39.27 feet along the arc of a curve to the left having a radius of 25.00 feet and a central angle of 90°00'00" (chord bearing N.32°19'11"W, 35.36 feet) to a point of tangency; thence N.77°19'11"W, 111.00 feet to a point of curvature; thence Westerly, 193.82 feet along the arc of a curve to the left having a radius of 394.00 feet and a central angle of 40°22'58" (chord bearing S.82°29'19"W, 189.84 feet) to a point of reverse curvature; thence Westerly, 270.78 feet along the arc of a curve to the right having a radius of 400.00 feet and a central angle of 39°17'55" (chord bearing S.81°58'48"W, 235.38 feet) to a point on a curve; thence Easterly, 240.06 feet along the arc of said curve to the left having a radius of 350.00 feet and a central angle of 39°17'55" (chord bearing N.45°51'29"W, 129.16 feet) to a point of reverse curvature; thence Easterly, 229.05 feet along the arc of a curve to the right having a radius of 325.00 feet and a central angle of 40°22'58" (chord bearing N.82°29'19"W, 224.35 feet) to a point of tangency; thence Northwesterly, 39.27 feet along the arc of a curve to the left having a radius of 25.00 feet and a central angle of 90°00'00" (chord bearing N.57°40'49"E, 35.36 feet) to the POINT OF BEGINNING.

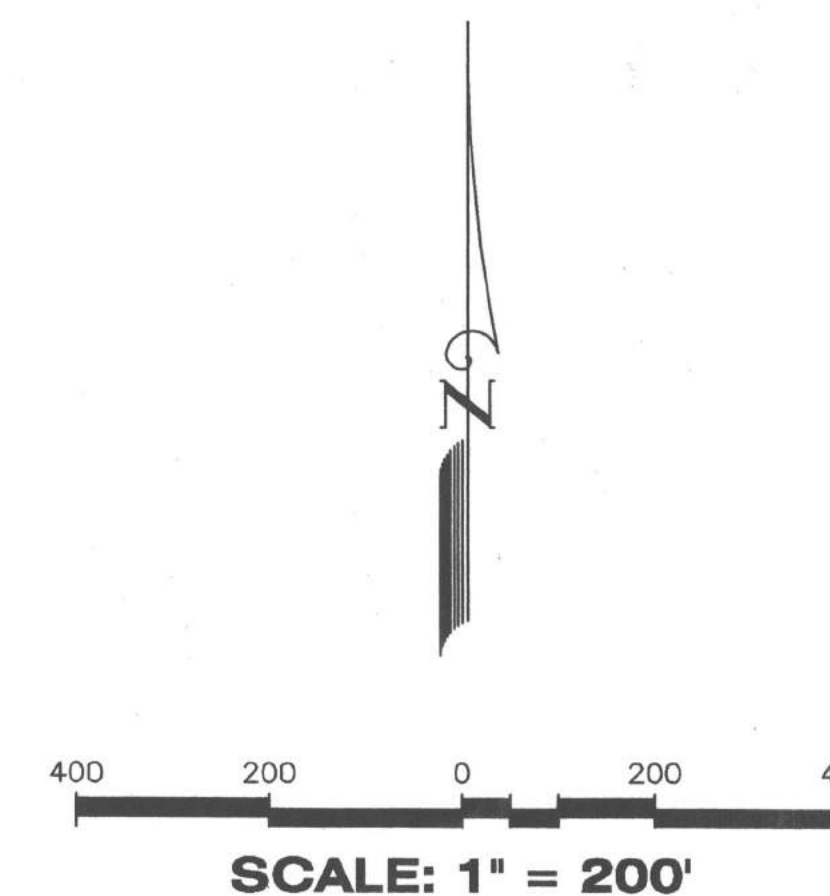
Containing 0.698 acres, more or less.

HEIDT & ASSOCIATES, INC.
Tampa
Fort Myers
Sarasota/McClellan
Brooksville Office
106 North Main Street
Brooksville, Florida 34601
Phone: 352-793-3462
FAX: 352-796-3483
GENERAL NOTES
JOB NO. WHW-GL-006
DESIGN- LUCAS
DRAWN MEETZEE
PREPARED FOR: K. Hovanian Windward Homes, L.L.C.
DATE 04-30-07
Elevations based on National Geodetic Vertical Datum 1929 (NGVD 29)
NGVD 1929 (minus) - 0.83' = NAVD 88
FILE SHEET 2 OF 100 SHEETS
REVISIONS
DATE DESCRIPTION BY
09-25-07 ST & DRAIN NOTE #15 & #16 GM
06-25-07 ST & DRAIN NOTE #17 GM
Brian M. Mjhrberg P.E. 59406
FLORIDA PROFESSIONAL ENGINEER

CHASSAHOWITZKA NATIONAL
WILDLIFE REFUGE
O.R. 1017, Pg. 234

CHASSAHOWITZKA
NATIONAL
WILDLIFE REFUGE
O.R. 1017, Pg. 234

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NATIONAL
WILDLIFE REFUGE
O.R. 1017, Pg. 234



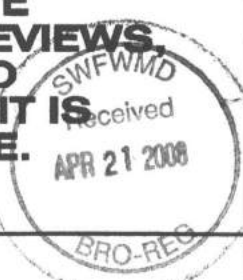
BOURASSA
AVENUE

U.S. HIGHWAY N.O. 15
(STATE ROAD NO. 15)

HOLLY BERRY DRIVE
APPLE VALLEY DRIVE

100' x 300' POTENTIAL CEMETERY LOCATION. A PROFESSIONAL ARCHEOLOGIST PAID FOR BY THE DEVELOPER SHALL BE PRESENT ONSITE DURING THE INITIAL SCRAPING OF THE DEPICTED AREA. THE SCRAPING SHALL BE CONDUCTED IN A SYSTEMATIC HORIZONTAL PATTERN TO A DEPTH OF AT LEAST 18" BELOW ORIGINAL GROUND SURFACE IN AN EFFORT TO LOCATE BURIAL ARTIFACTS AND IDENTIFY POTENTIAL SOIL STAINING, INDICATIVE OF SOIL REMOVAL AND FILLING ACTIVITIES. CONSTRUCTION CREWS WORKING IN THE AREA SHALL BE INSTRUCTED ON WHAT TO LOOK FOR AND PROPER PROTOCOL IF REMAINS ARE FOUND.

NOTE:
THIS EXHIBIT WAS PREPARED FOR ILLUSTRATIVE PURPOSES ONLY. THE LATEST AVAILABLE DIGITAL AERIAL FILES HAVE BEEN USED. HOWEVER, THIS MAY NOT ACCURATELY DEPICT CURRENT SITE CONDITIONS. ADDITIONAL ENGINEERING, ENVIRONMENTAL REVIEWS, FIELD SURVEYING AND DATA COLLECTION ARE NECESSARY TO CORRECTLY PORTRAY ACTUAL SITE CONDITIONS. THIS EXHIBIT IS SUBJECT TO CHANGE WITHOUT NOTICE BASED ON THE ABOVE. AERIAL PHOTO DATED 2006.



08-02-07		REV. LAYOUT, PONDS, MIT. AREAS	RRR	Engineering Business Certificate of Authorization No.: 148 HEIDT & ASSOCIATES, Inc.		AERIAL SITE PLAN	
DATE		DESCRIPTION	BY	Tampa Fort Myers Sarasota • Manatee Brooksville Office 105 North Main Street Brooksville, Florida 34601 Phone: 352-796-3462 FAX: 352-796-3463		FOUR SEASONS AT CRYSTAL SPRINGS	
REVISONS				DATE: <i>9/2/07</i> Brian M. Malmberg P.E. 59405 FLORIDA PROFESSIONAL ENGINEER		JOB NO. WWH-GL-006	
						DESIGN LUCAS	
						DRAWN MEETZE	
						PREPARED FOR: K. Hovnanian Windward Homes, L.L.C.	
						DATE 04-30-07	
						Elevations based on National Geodetic Vertical Datum 1929 (NGVD 29) NGVD 1929 (minus) - 0.83' = NAVD 88	
						FILE ASP	
						SHEET 3 OF 100 SHEETS	

P:\GLEN LAKES\MASTER PLAN\ENGINEERING\ASP.DWG, 8/2/2007 9:21:22 AM, RICKE

LIMEROCK BASE PAVEMENT

1. Pavement wearing surface shall be asphaltic concrete of type and thickness as shown in detail and shall meet current Department of Transportation Specifications.
2. Pavement base shall be limerock, as designated in plans, and shall be compacted to a minimum thickness as shown, and to a minimum density of not less than 98% of the maximum density obtainable under AASHTO T180-57 Specifications. Tests for this density shall be made at contractor's expense. One test per 10,000 Sq. Ft. shall be performed.
3. Limerock base shall be inspected and approved by the engineer prior to any paving operation.
4. Subbase for limerock base construction shall be in accordance with D.O.T. Standard Specifications, latest editions.
5. Areas behind curb or valley gutter shall be backfilled prior to beginning subgrade preparation.
6. Subgrade shall be proof-rolled to grade, as directed by the Engineer and approved by the Engineer prior to placing any borrow material for construction base.
7. All Portland Cement Concrete shall have a minimum compressive strength of 3000 p.s.i.
8. All Type "F" Curb and all Miami Curb shall be placed on a foundation of Type "B" stabilized subgrade with a minimum LBR value of 40 (or a minimum FBV of 75) which has been compacted to a minimum density of ninety-eight (98) percent of the maximum density as determined by AASHTO T 180 for a minimum depth as shown.

PAVEMENT DESIGN

LBR = 20 (Soil Test):
 Use 10TE/DU/Day Use 18 KIP Equiv. Factor = 0.55
 Assume 3% Truck Traffic and 20 Year Life

Assume One-Way Traffic is one-half (1/2) of Two-Way Traffic (10TE/DU/Day) = 10/2 = 5
 Total Units = 500 DU (Max. per parcel)

Calculations:
 LBR = 20 ; SSV = 5.0 (from D.O.T. Manual, Fig. 2)
 One-Way Traffic = (500 x 5 x 365 x 20) - 3 = 6,083,333
 Equiv. 18 KIP Loads = (0.03) (0.55) (6,083,333) = 100,375
 From D.O.T. Manual Design Chart (P_t = 2.5) using SSV = 5.0 ; SN_o = 2.05

Proposed Roadway Design:

Layer Coefficients	Thickness
0.44 - Type S-1 Asphalt Surface	<u>1 3/4"</u>
0.18 - LIMEROCK	<u>8"</u>
0.08 - STABILIZED	<u>9"</u>

SN = (0.44) (1.75) + (0.18) (8) + (0.08) (9)

SN = 2.57

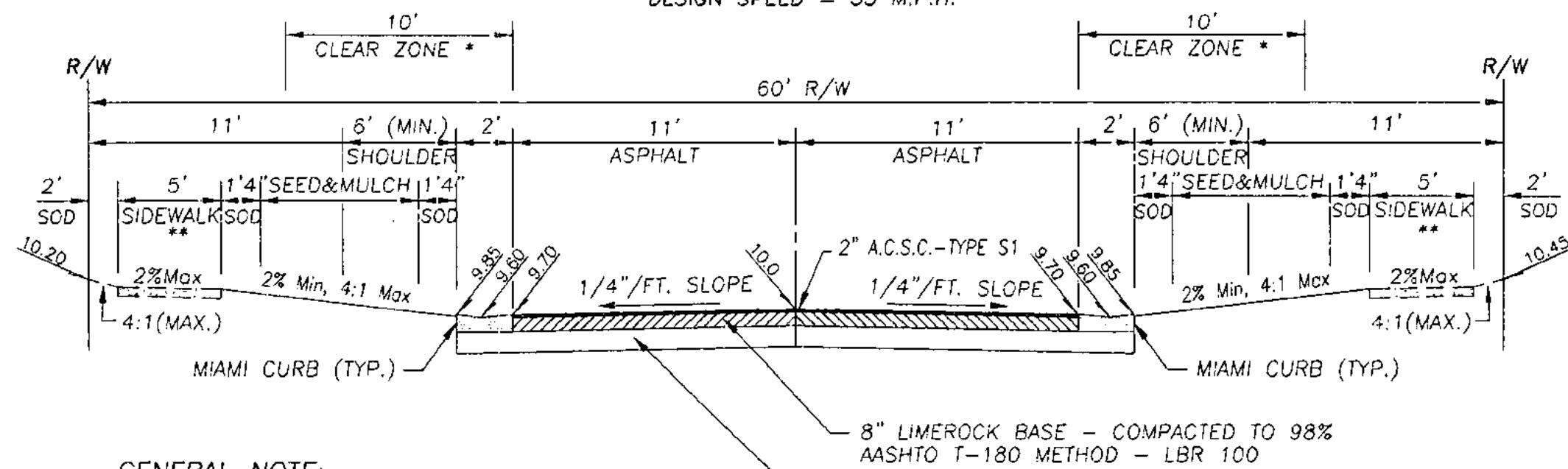
SN > SN_o

2.57 > 2.05

Use: 8" Limerock Base with 1 3/4" Type S-1 Asphalt Surface and
9" Stabilized Subgrade

MAJOR LOCAL / COMMERCIAL / 2 LANE ROAD - CLOSED DRAINAGE

DESIGN SPEED = 35 M.P.H.



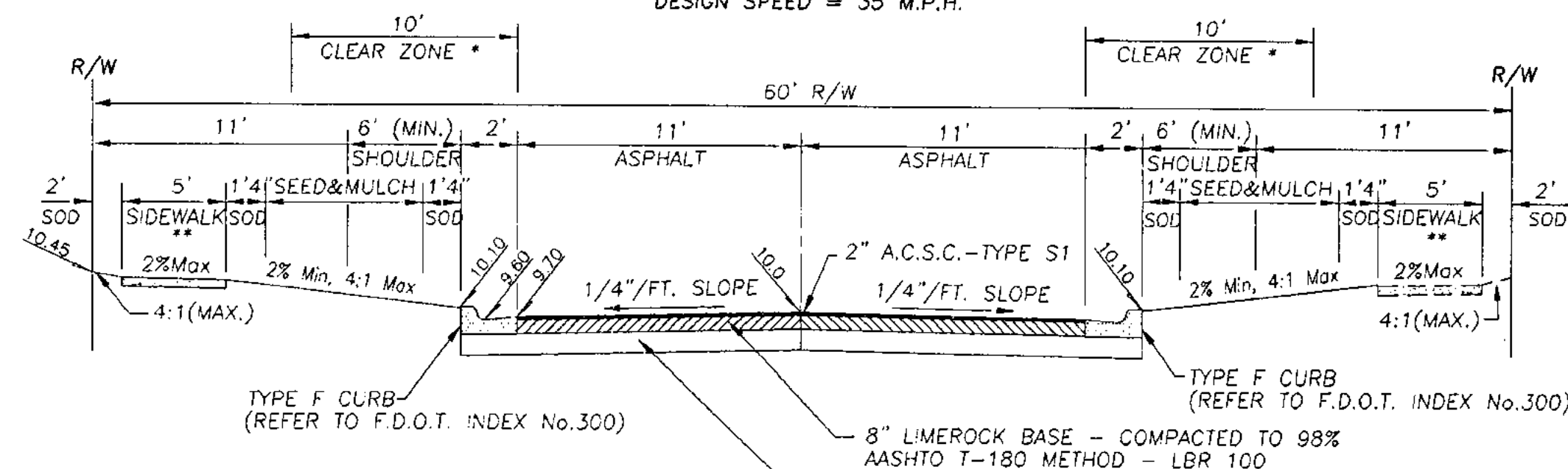
GENERAL NOTE:
 DESIGN SPEED, RIGHT-OF-WAY, AND
 ROADSIDE DIMENSIONS ARE MINIMUMS.
 SITE CONDITION MAY REQUIRE INCREASES.
 * 4' BEHIND WITH TYPE F CURB
 ** SIDEWALKS IF APPLICABLE

TYPICAL SECTION

BIRDS NEST LOOP (Sta.12+68-Sta.14+20)
 HAPPY DAYS DRIVE (10+00-31+00)
 DUSTY MILLER LANE (Sta.10+00-Sta.52+69)
 DEWDROP LANE (Sta. 52+69-Sta.54+84)
 NOT TO SCALE

MAJOR LOCAL / COMMERCIAL / 2 LANE ROAD - CLOSED DRAINAGE

DESIGN SPEED = 35 M.P.H.



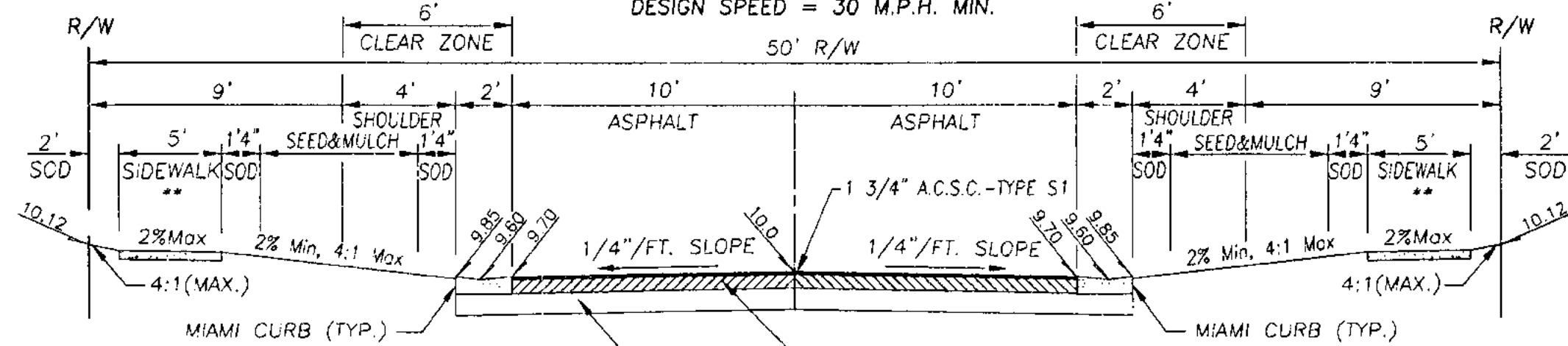
GENERAL NOTE:
 DESIGN SPEED, RIGHT-OF-WAY, AND
 ROADSIDE DIMENSIONS ARE MINIMUMS.
 SITE CONDITION MAY REQUIRE INCREASES.
 * 4' BEHIND WITH TYPE F CURB
 ** SIDEWALKS IF APPLICABLE

TYPICAL SECTION

WISTERIA WAY (Sta.30+82-Sta.45+95)
 NOT TO SCALE

LOCAL ROAD - CLOSED DRAINAGE

DESIGN SPEED = 30 M.P.H. MIN.*



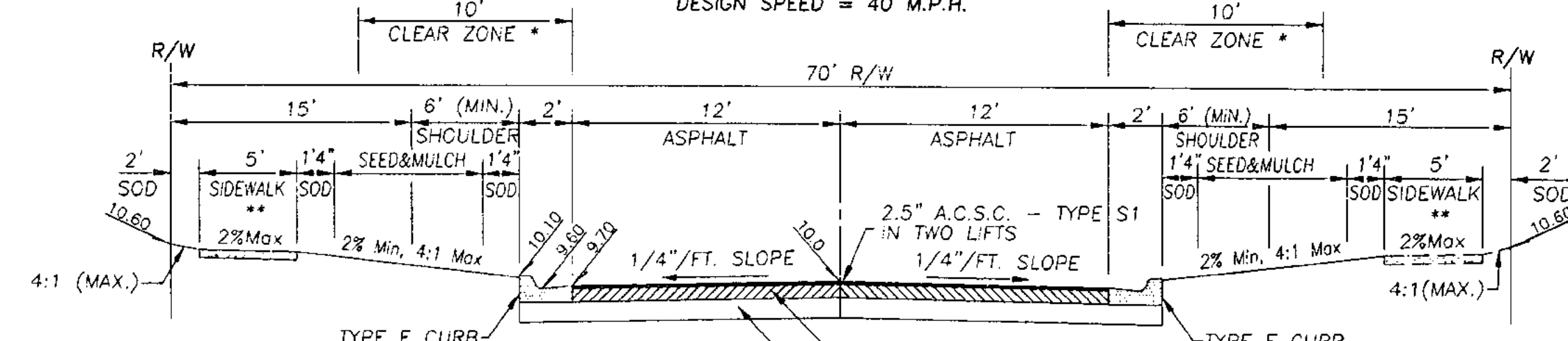
GENERAL NOTE:
 DESIGN SPEED, RIGHT-OF-WAY, AND
 ROADSIDE DIMENSIONS ARE MINIMUMS.
 SITE CONDITION MAY REQUIRE INCREASES.
 * VARIANCE IN HORIZONTAL DESIGN SPEED ALLOWED
 WITH JUSTIFICATION AND APPROPRIATE SIGNING
 ** SIDEWALKS IF APPLICABLE

TYPICAL SECTION

NOT TO SCALE

COLLECTOR / 2 LANE ROAD - CLOSED DRAINAGE

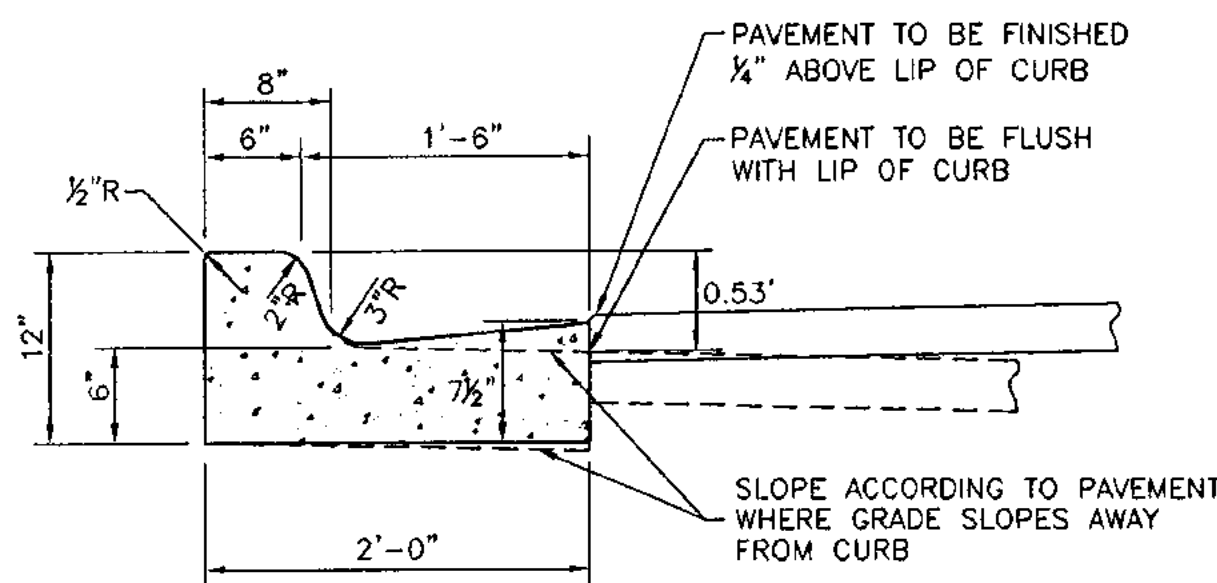
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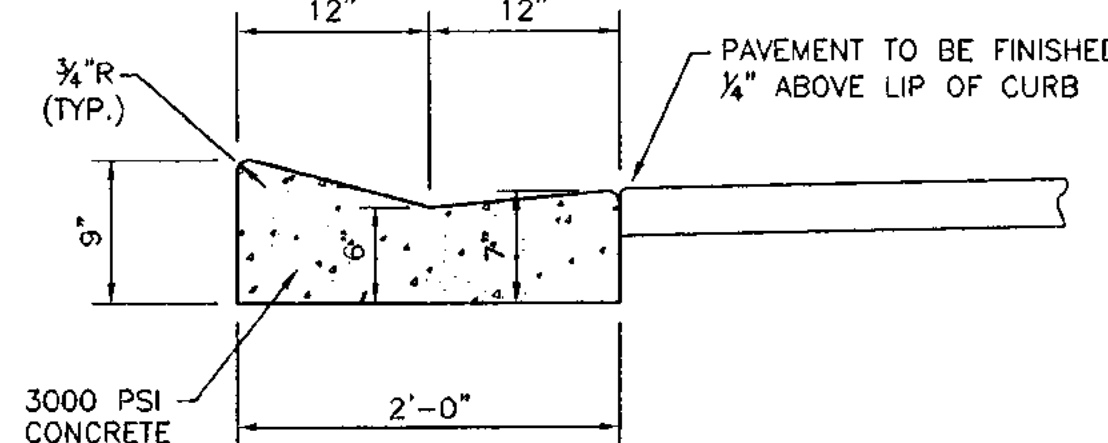
GENERAL NOTE:
 DESIGN SPEED, RIGHT-OF-WAY, AND
 ROADSIDE DIMENSIONS ARE MINIMUMS.
 SITE CONDITION MAY REQUIRE INCREASES.
 * 4' BEHIND WITH TYPE F CURB
 ** SIDEWALKS IF APPLICABLE

TYPICAL SECTION

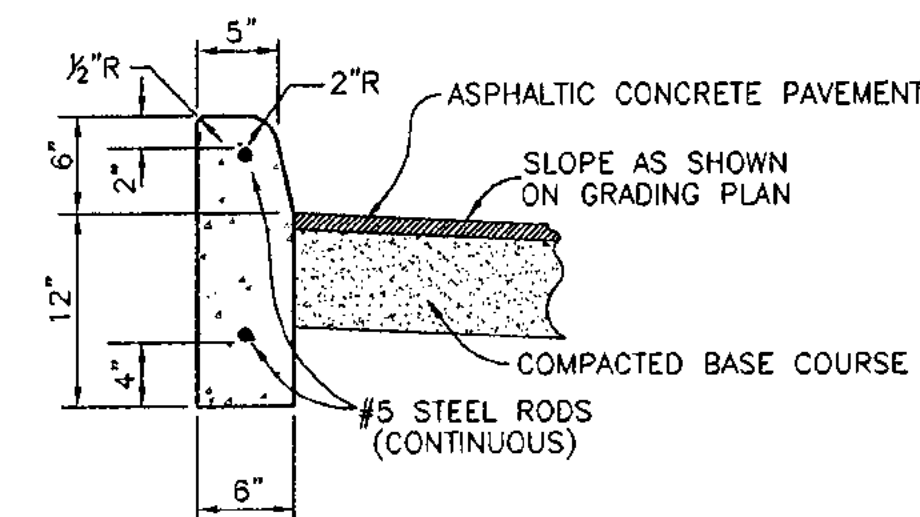
WISTERIA WAY (Sta.10+00-Sta.30+82)
 NOT TO SCALE



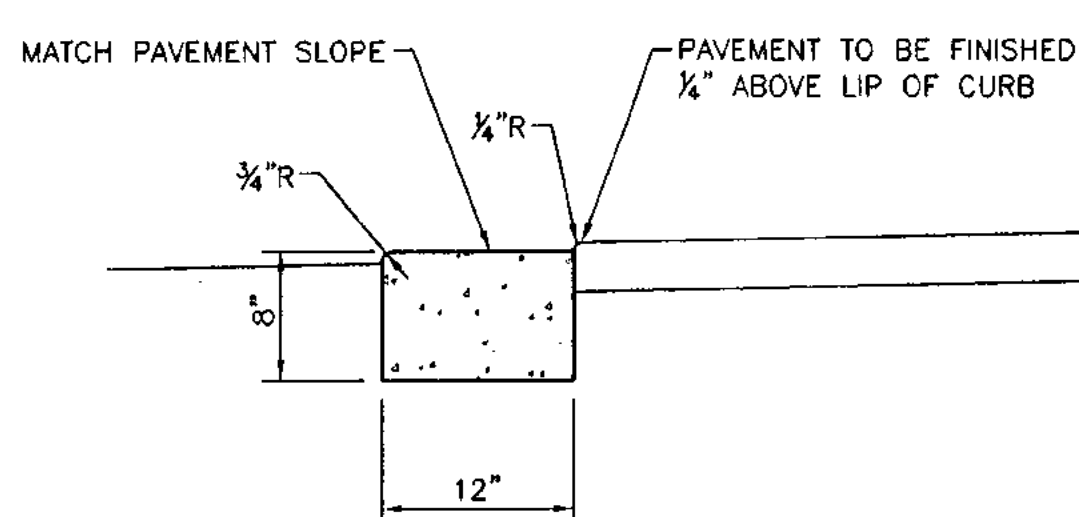
TYPE "F" CURB AND GUTTER



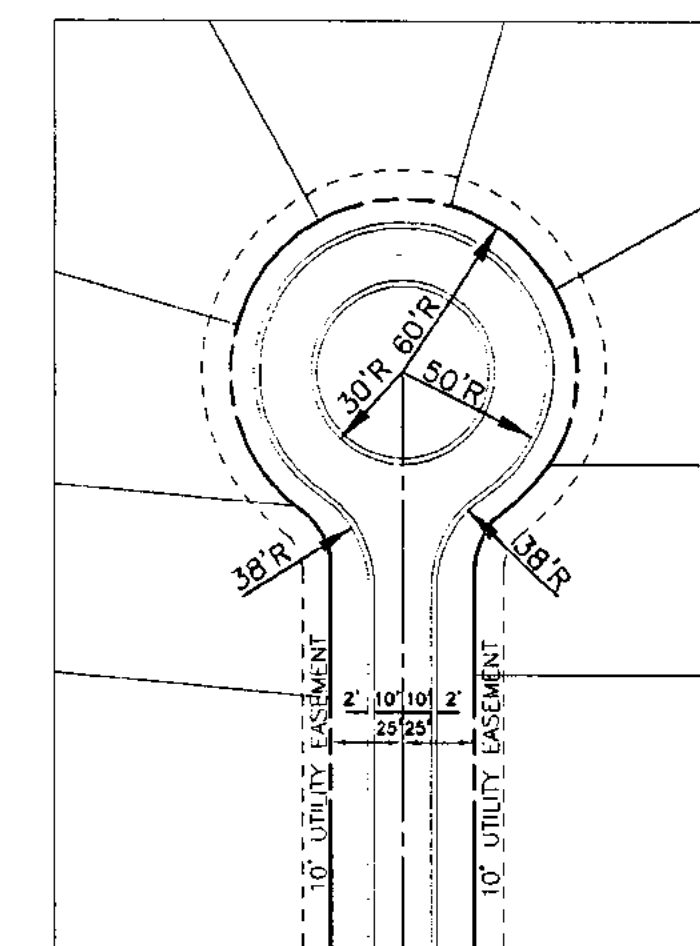
STANDARD MIAMI CURB



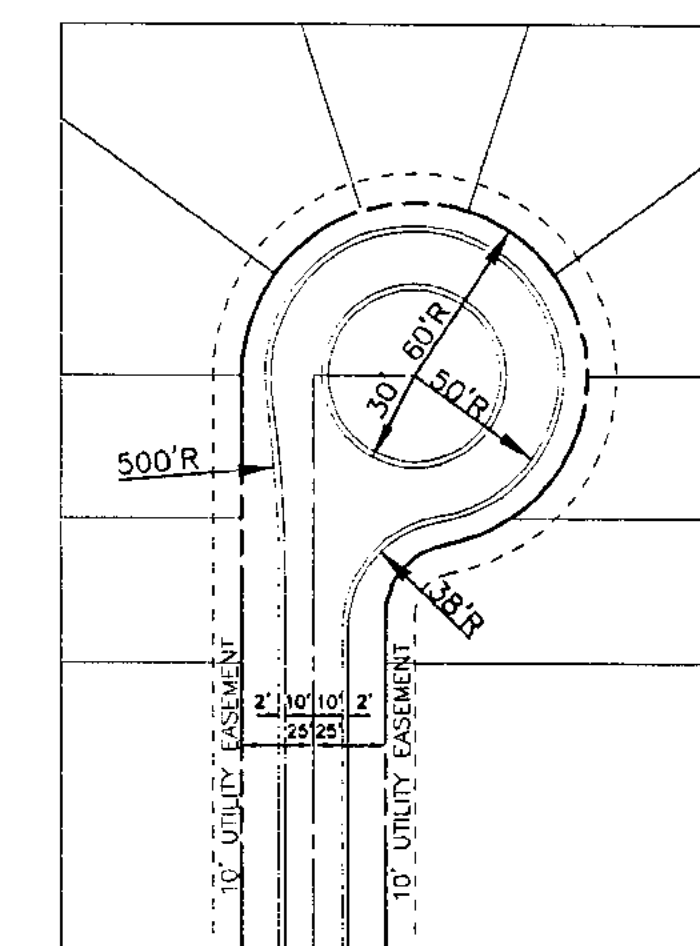
CONC. UPRIGHT CURB



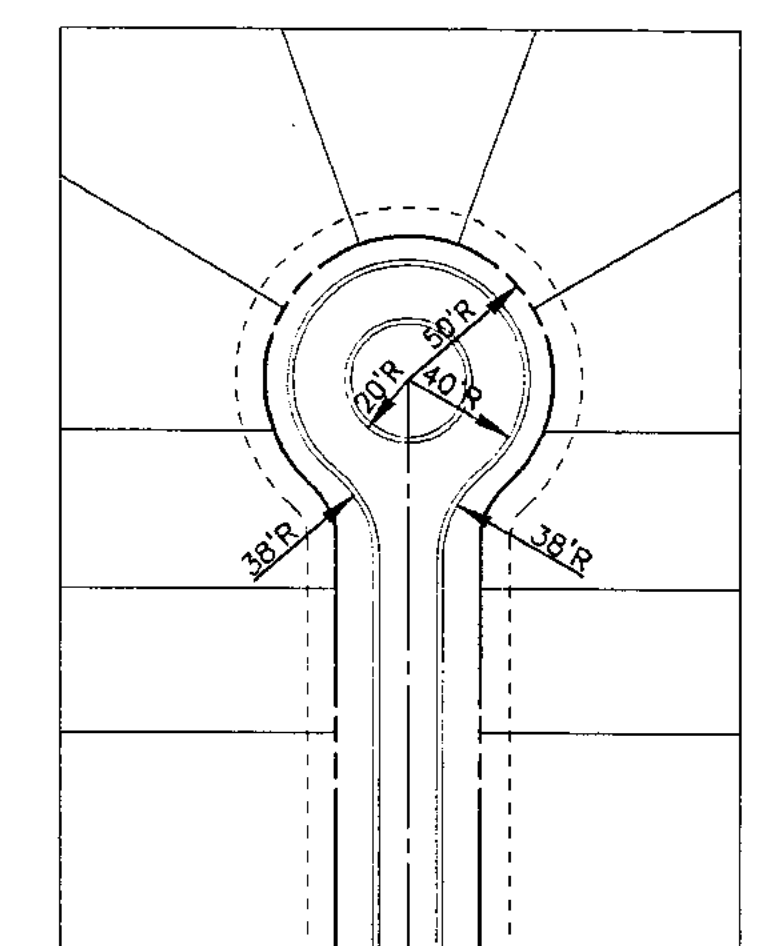
CONCRETE FLUSH CURB



TYPICAL CUL-DE-SAC DETAIL
 NOT TO SCALE



TYPICAL OFFSET CUL-DE-SAC DETAIL
 NOT TO SCALE

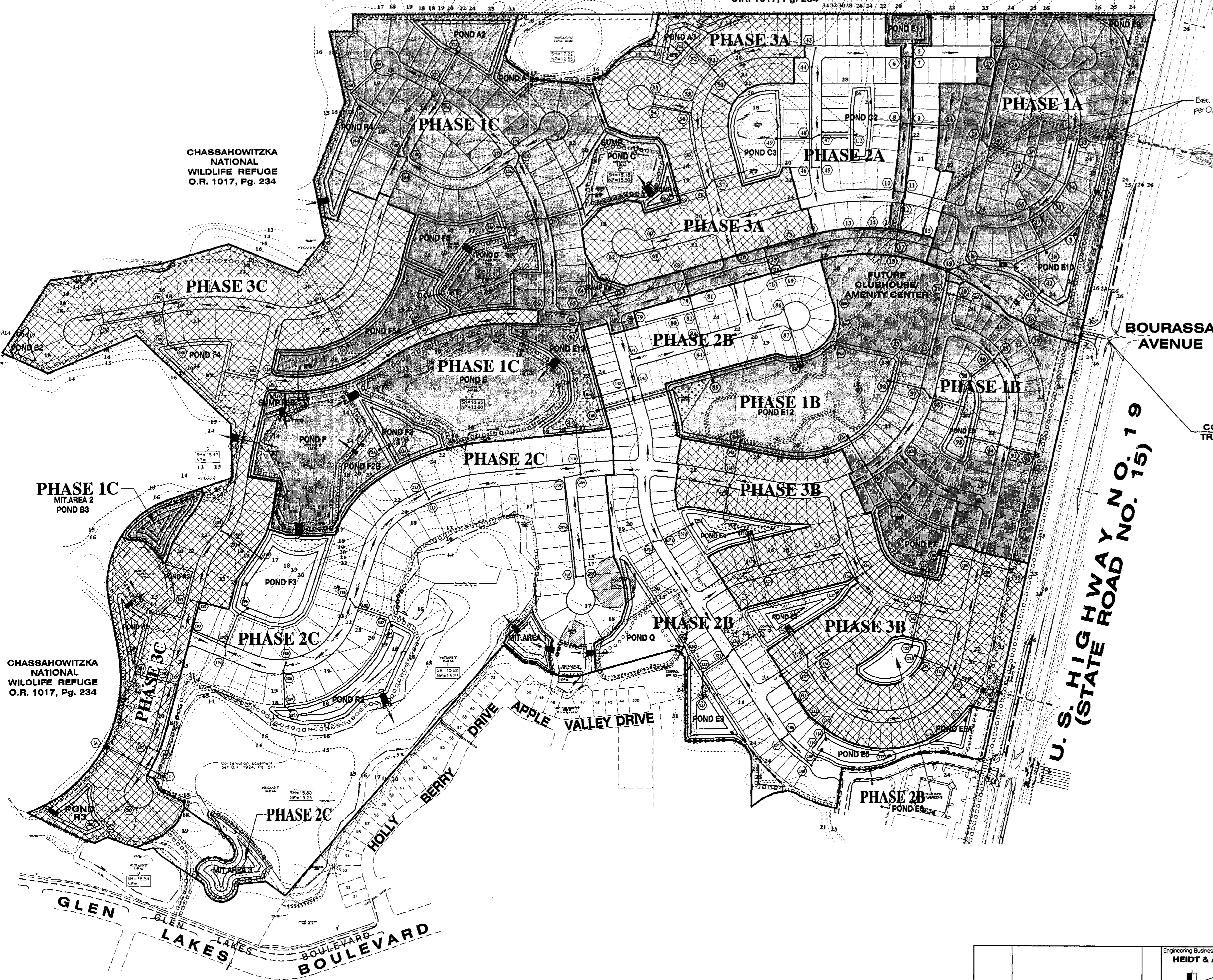


NON-TYPICAL CUL-DE-SAC DETAIL
 NOT TO SCALE



HEIDT & ASSOCIATES, Inc.		TYPICAL ROADWAY SECTIONS	
06-25-07	Pvmt. Design & Sections	GM	DATE
DATE	DESCRIPTION	BY	DATE
REVISIONS		DESCRIPTION	
Tampa Fort Myers Sarasota-Manatee Brooksville Office 105 North Main Street Brooksville, Florida 34601 Phone: 352-796-3462 FAX: 352-796-3463		JOB NO. WWH-GL-006 DESIGN LUCAS DRAWN MEETZE PREPARED FOR: K. Hovnanian Windward Homes, L.L.C. DATE 04-30-07 Elevation based on National Geodetic Vertical Datum 1929 (NGVD 29) NGVD 1929 (minus) - 0.83' = NAVD 88 FILE RS	
Brian M. Malmberg P.E. 59406 FLORIDA PROFESSIONAL ENGINEER		FOUR SEASONS AT CRYSTAL SPRINGS SHEET 4 OF 100 SHEETS	

CHASSAHOWITZKA
NATIONAL
WILDLIFE REFUGE
O.R. 1017, Pg. 234



400 200 0 200 400
SCALE: 1" = 200'

BOURASSA AVENUE

CONSTRUCTION TRAFFIC ACCESS POINT

U.S. HIGHWAY N 19
(STATE ROAD NO. 15) 19

LEGEND

- | EXISTING | PROPOSED | |
|----------|----------|--|
| ---□--- | —■— | STORM DRAINAGE STRUCTURE |
| | ⑩ | STRUCTURE NO. |
| +20.00 | 20.00 | ELEVATION |
| -20- | 20- | CONTOUR |
| | → | DIRECTION OF SURFACE FLOW |
| □□□□□□□□ | | STAKED EROSION CONTROL/LIMITS OF CLEARING AND GRUBBING |
| —SWFWL— | | SWFWMD WETLAND LINE |
| —25' OS— | | WETLAND CONS. AREA SETBACK |

CHASSAHOWITZKA
NATIONAL
WILDLIFE REFUGE
O.R. 1017, Pg. 234

PHASE 1C
MIT AREA 2
POND B3

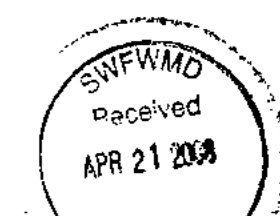
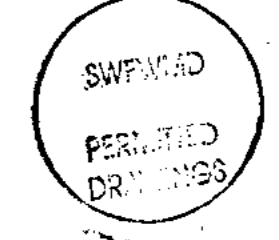
PHASE 2C

PHASE 2B

PHASE 3B

GLEN LAKES BOULEVARD

HOLLY BERRY DRIVE
APPLE VALLEY DRIVE



Engineering Business Certificate of Authorization No. 148 HEIDT & ASSOCIATES, Inc. Tampa Fort Myers Sarasota • Manatee Brooksville Office 105 North Main Street Brooksville, Florida 34601 Phone: 352-768-3482 FAX: 352-799-3483		CONSTRUCTION PHASE KEY MAP FOUR SEASONS AT CRYSTAL SPRINGS PREPARED FOR: K. Hovnanian Windward Homes, L.L.C. ELEVATIONS based on National Geodetic Vertical Datum 1929 (NGVD 29) NGVD 1929 (minus) - 0.83' = NAVD 88	
11-26-07 Construction Access Point 09-25-07 Phase Lines 08-02-07 LOT LAYOUT, PONDS, MIT. AREAS 06-23-07 REV. STR. NUMBERS	CH CM RRR CM	DATE DESCRIPTION REVISIONS	JOB NO. WWH-GL-006 DESIGN LUCAS DRAWN MEETZE DATE 04-30-07 FILE PhaseKey

SHEET 4A OF 100 SHEETS

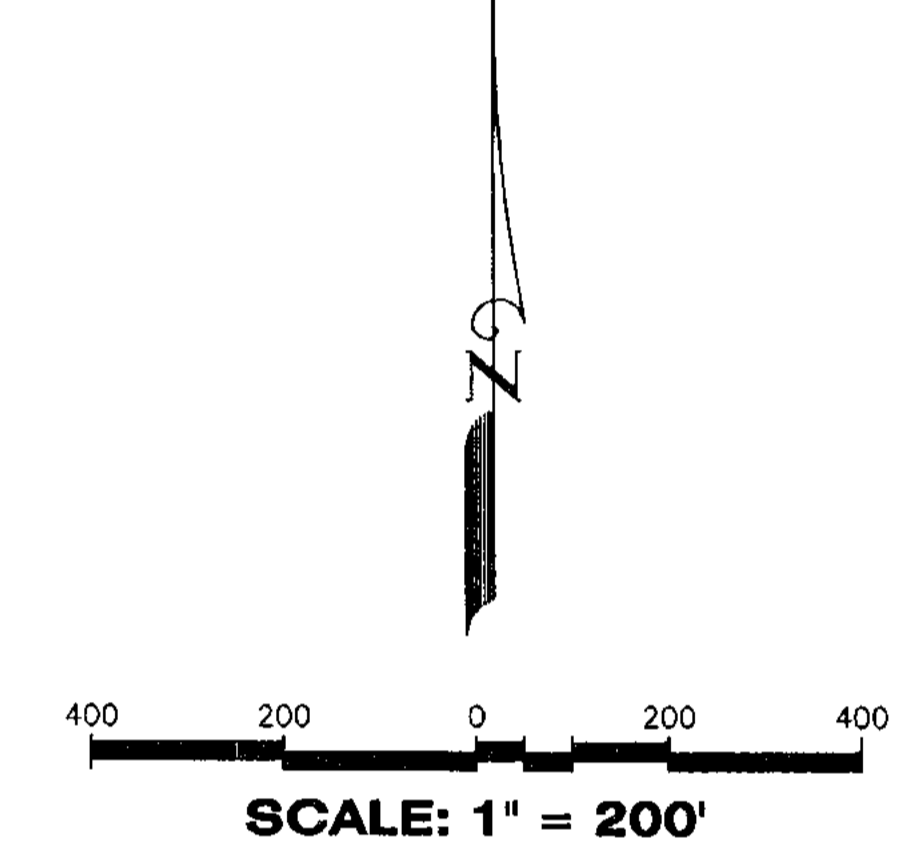
CHASSAHOWITZKA NATIONAL
WILDLIFE REFUGE
O.R. 1017, Pg. 234

CHASSAHOWITZKA
NATIONAL
WILDLIFE REFUGE
O.R. 1017, Pg. 234

CHASSAHOWITZKA
NATIONAL
WILDLIFE REFUGE
O.R. 1017, Pg. 234



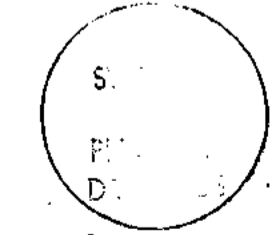
Ext. 50 Orange Esmt.
per O.R. 286, Pg. 243

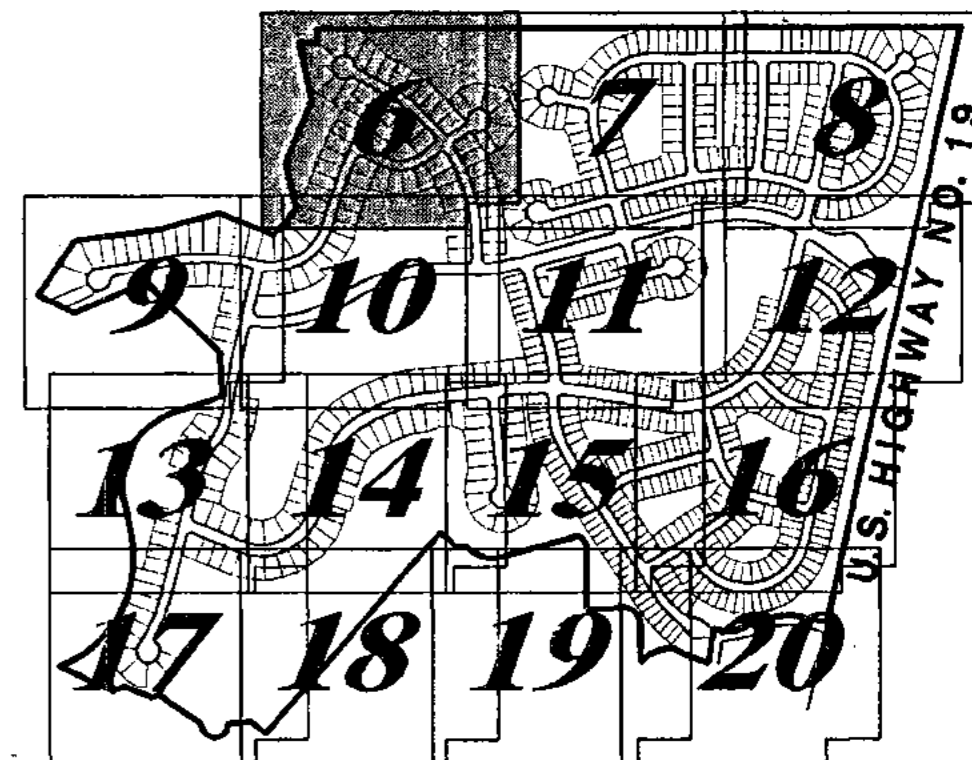
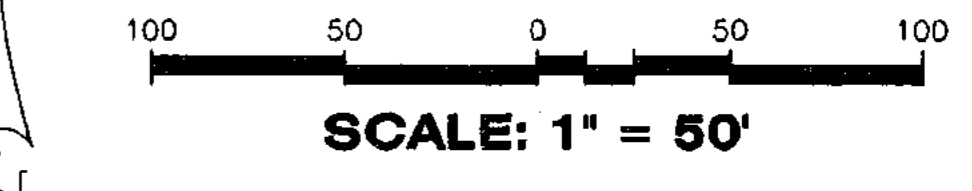
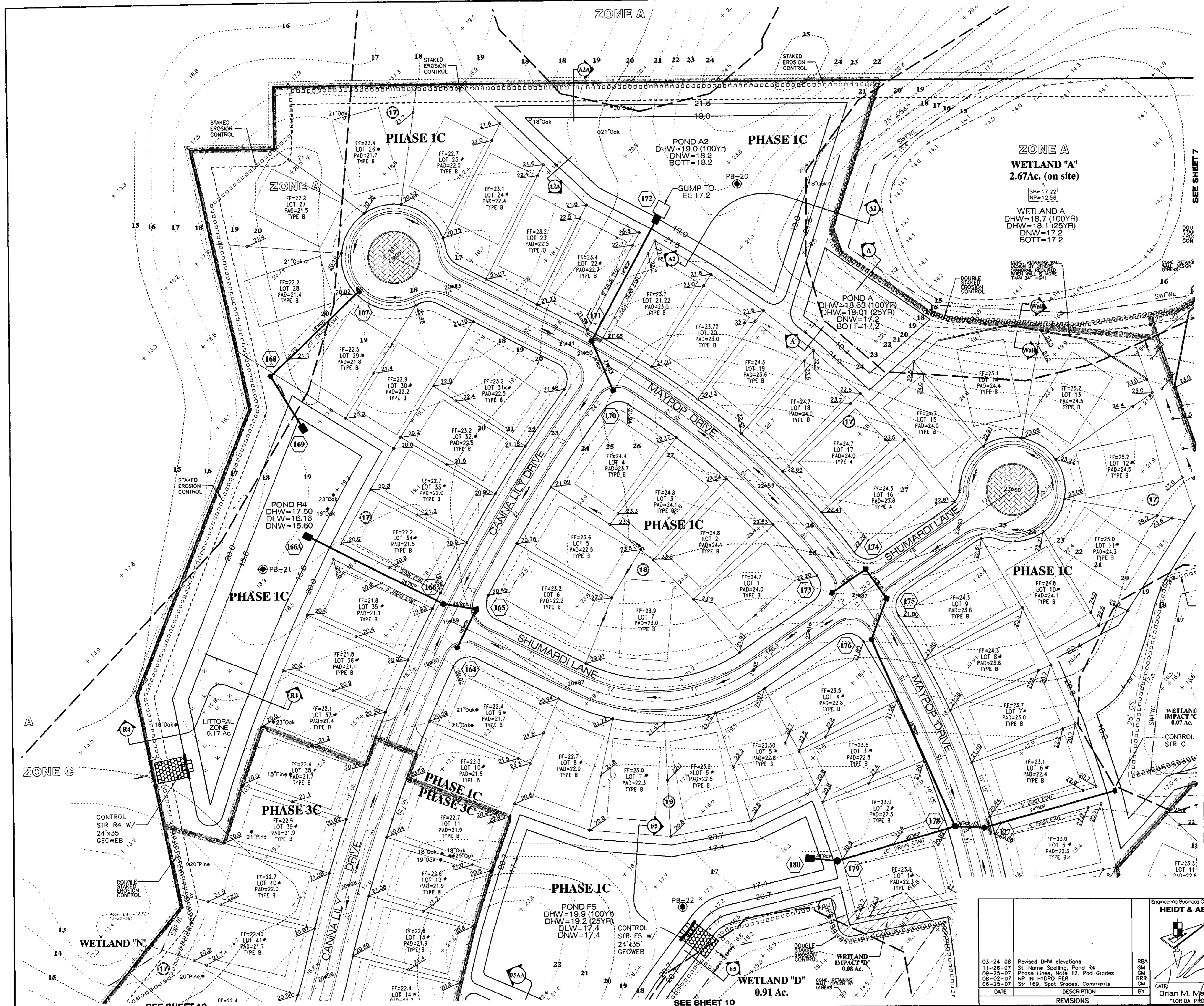


LEGEND

EXISTING	PROPOSED	
		STORM DRAINAGE STRUCTURE
		STRUCTURE NO.
		ELEVATION
		CONTOUR
		DIRECTION OF SURFACE FLOW
		UNDERDRAIN WITH CLEANOUT
		SOIL BORING LOCATION
		INDICATES CONSTRUCTION PHASE LINE
		STAKED EROSION CONTROL/LIMITS OF CLEARING AND GRUBBING
		SWFWMD WETLAND LINE
		WETLAND CONS. AREA SETBACK

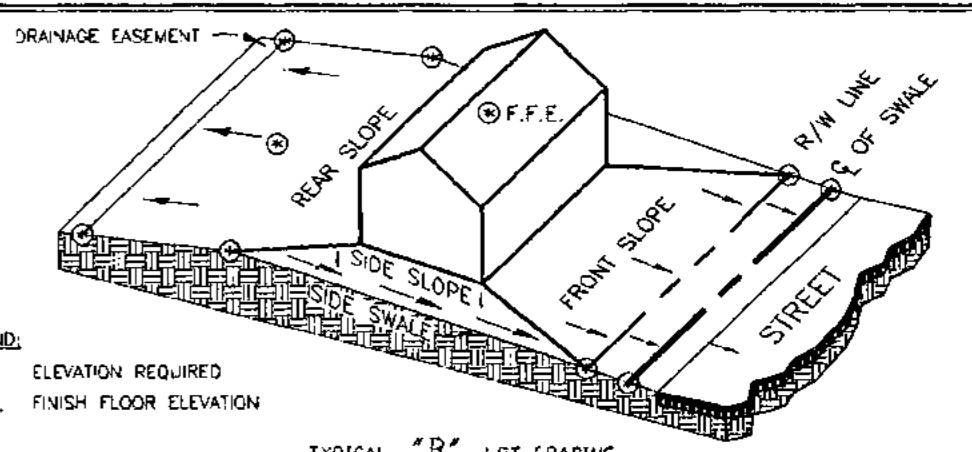
Engineering Business Certificate of Authorization No. 148 HEIDT & ASSOCIATES, Inc. Tampa Fort Myers Sarasota • Manatee Brooksville Office 106 North Main Street Brooksville, Florida 34601 Phone: 352-790-3462 FAX: 352-790-3463		MASTER DRAINAGE PLAN FOUR SEASONS AT CRYSTAL SPRINGS PREPARED FOR: K. Hovnanian Woodward Homes, L.L.C. Elevation based on National Geodetic Vertical Datum 1929 (NGVD 29) NGVD 1929 (minus) - 0.83' = NAVD 83	
03-24-08 Revised SHWL in WL 1 09-25-07 Phase Lines 08-02-07 LOT LAYOUT, PONDS, MIT. AREAS 08-25-07 REV. STR. NUMBERS	RBA GM RRR GM	JOB NO. WWH-GL-006 DESIGN LUCAS DRAWN MEETZE	DATE 04-30-07 FILE MD
DATE DESCRIPTION BY REVISIONS		Brian M. Malmberg P.E. 59405 FLORIDA PROFESSIONAL ENGINEER	





Sheet Index

- NEIGHBORHOOD GRADING PLAN NOTES:
1. Pad grades shown are minimum grades. Elevations of adjoining lots, existing trees, and other field conditions may warrant leaving lots which are higher in their natural state. The Contractor should consult with the Developer/Builder and the Engineer prior to grading activities when these conditions exist.
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NOTES:

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LEGEND

EXISTING	PROPOSED	DESCRIPTION
---	---	STORM DRAINAGE STRUCTURE
---	---	STRUCTURE NO.
---	---	ELEVATION
---	---	CONTOUR
---	---	DIRECTION OF SLOPE
---	---	FF=22.9 LOT 24 PAD=22.2 TYPE B
---	---	CONSTRUCTION PHASE LINE
---	---	STAKED EROSION CONTROL
---	---	WETLAND LINE
---	---	TREES TO BE REMOVED
---	---	TREES TO BE PROTECTED
---	---	TREE BARRICADE

DATE	DESCRIPTION	BY
03-24-08	Revised DHW elevations	RBA
11-28-07	ST Name Spelling, Pond R4	GM
09-25-07	Phase Lines, Note 12, Pad Grades	GM
08-02-07	NP IN HYDRO PER.	RJR
08-23-07	STR 169, Spot Grades, Comments	GM

GRADING AND DRAINAGE PLAN

FOUR SEASONS AT CRYSTAL SPRINGS

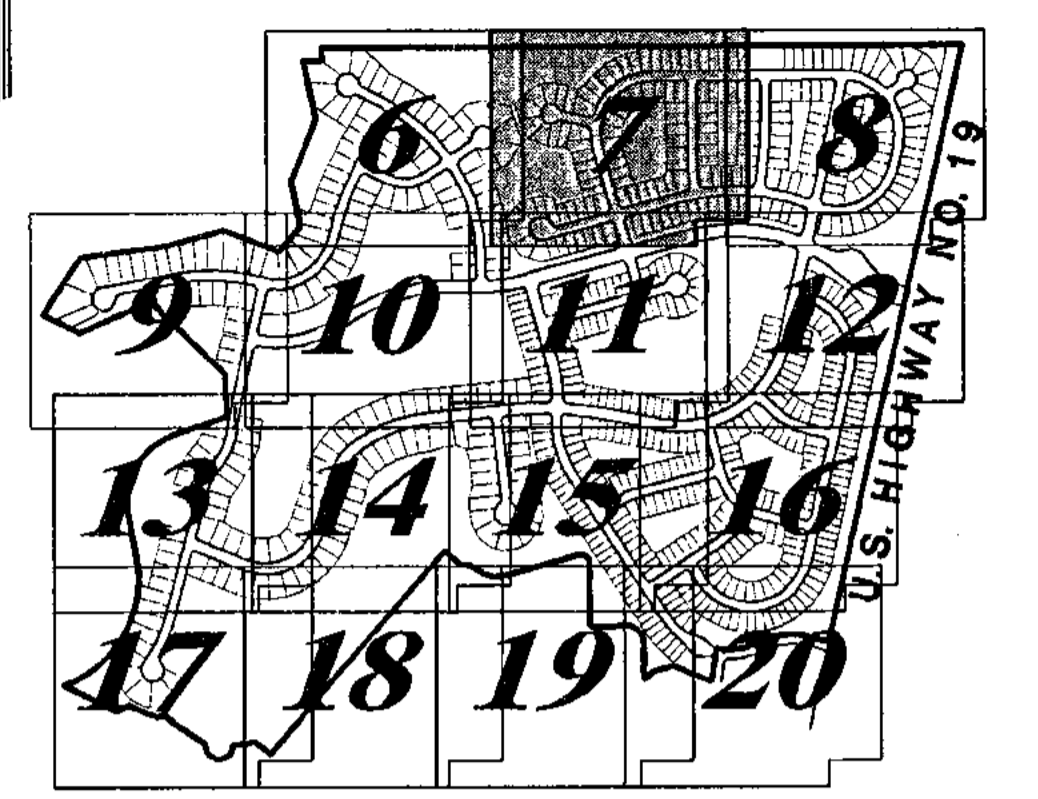
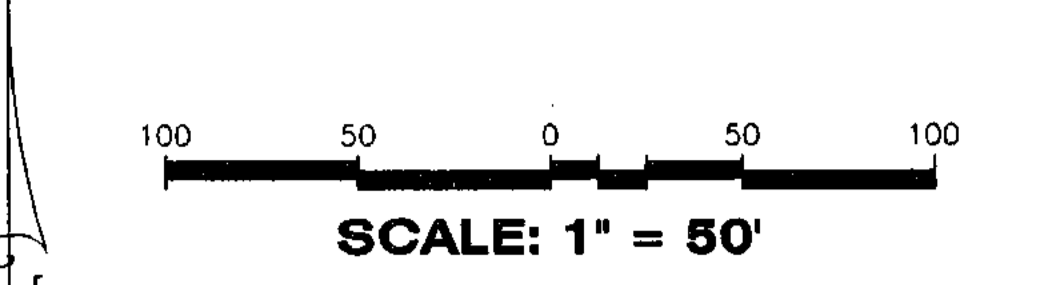
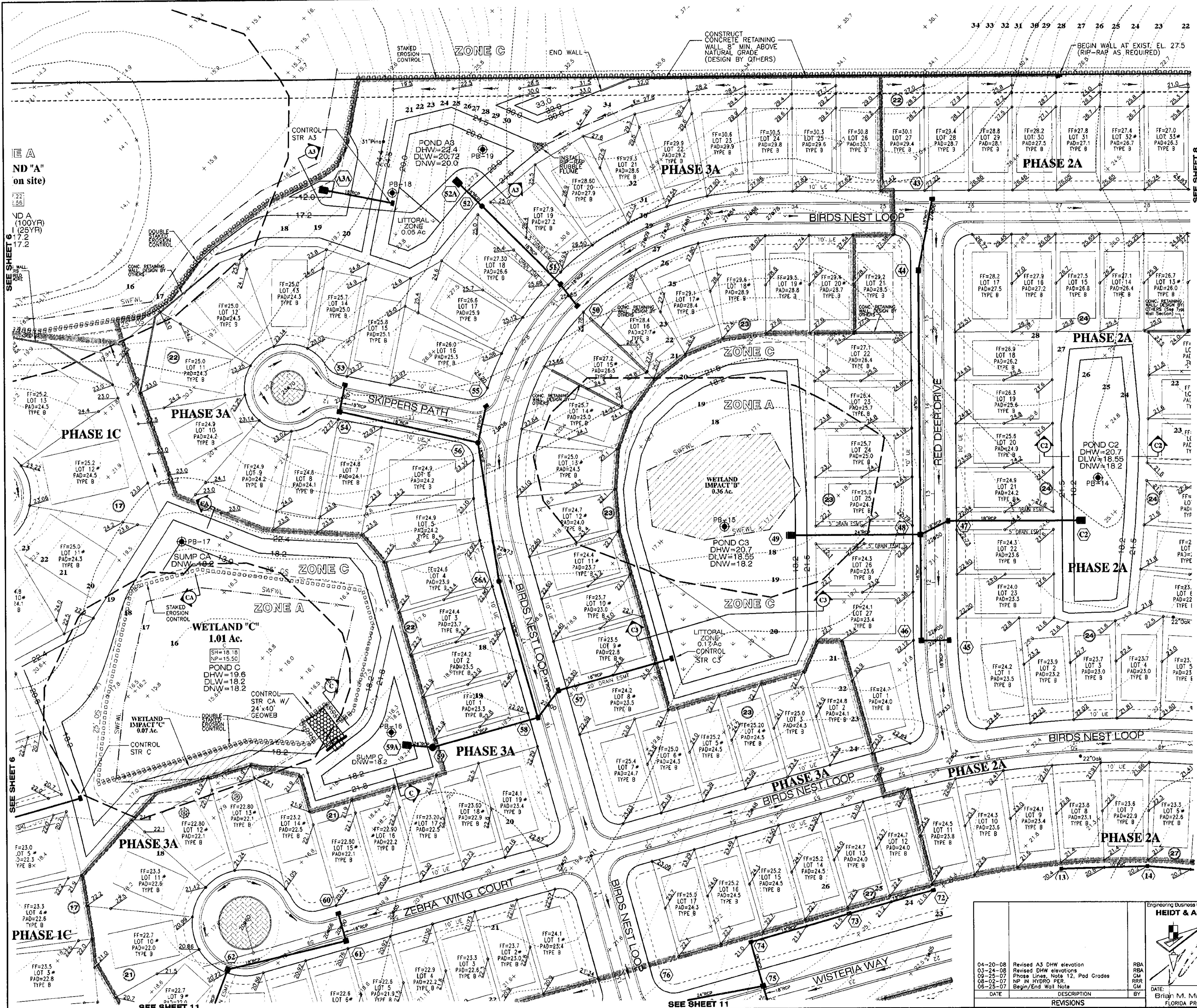
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 Design: LUCAS
 Drawn: MEITZE
 Date: 04-30-07
 File: MD01

Prepared For: **K. Hovnanian Windward Homes, L.L.C.**
 Elevations based on National Geodetic Vertical Datum 1929 (NGVD 29)
 NGVD 1929 (minus) - 0.83' = NAVD 88

SHEET 6 OF 100 SHEETS

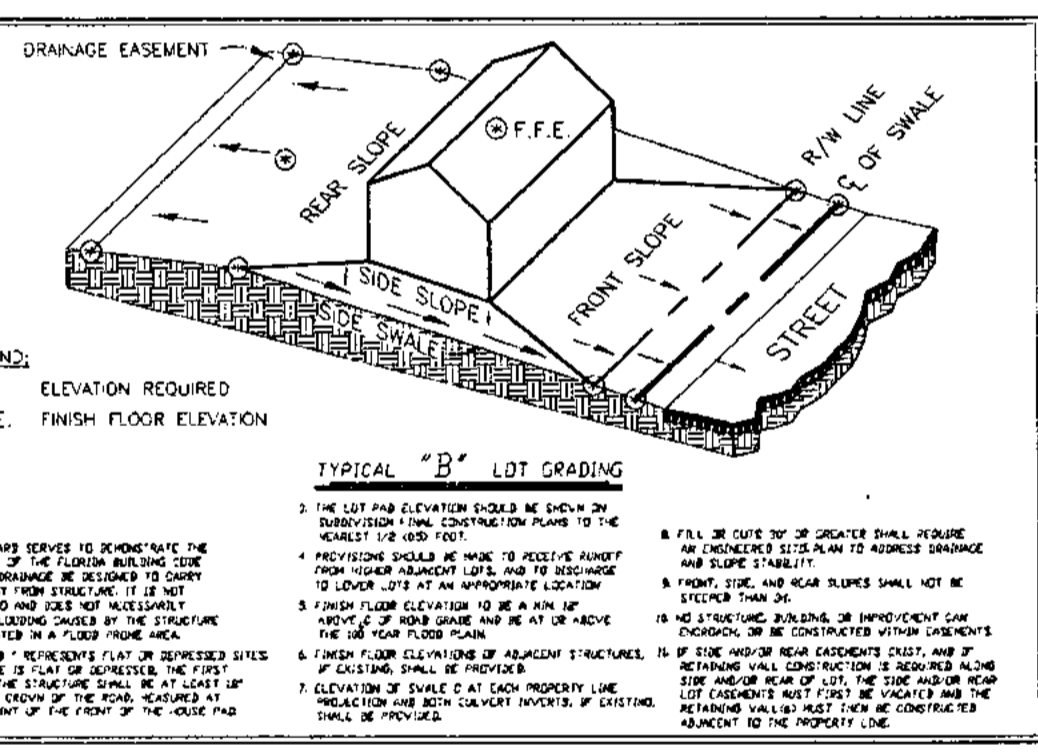
Engineering Business Certificate of Authorization No. 148
HEIDT & ASSOCIATES, Inc.
 Tampa
 Fort Myers
 Sarasota - Manatee
 Brooksville Office
 105 North Main Street
 Brooksville, Florida 34601
 Phone: 352-759-3462
 FAX: 352-796-3483

DATE: 3/24/08
 BY: Brian M. Meinberg P.E. 59405
 FLORIDA PROFESSIONAL ENGINEER



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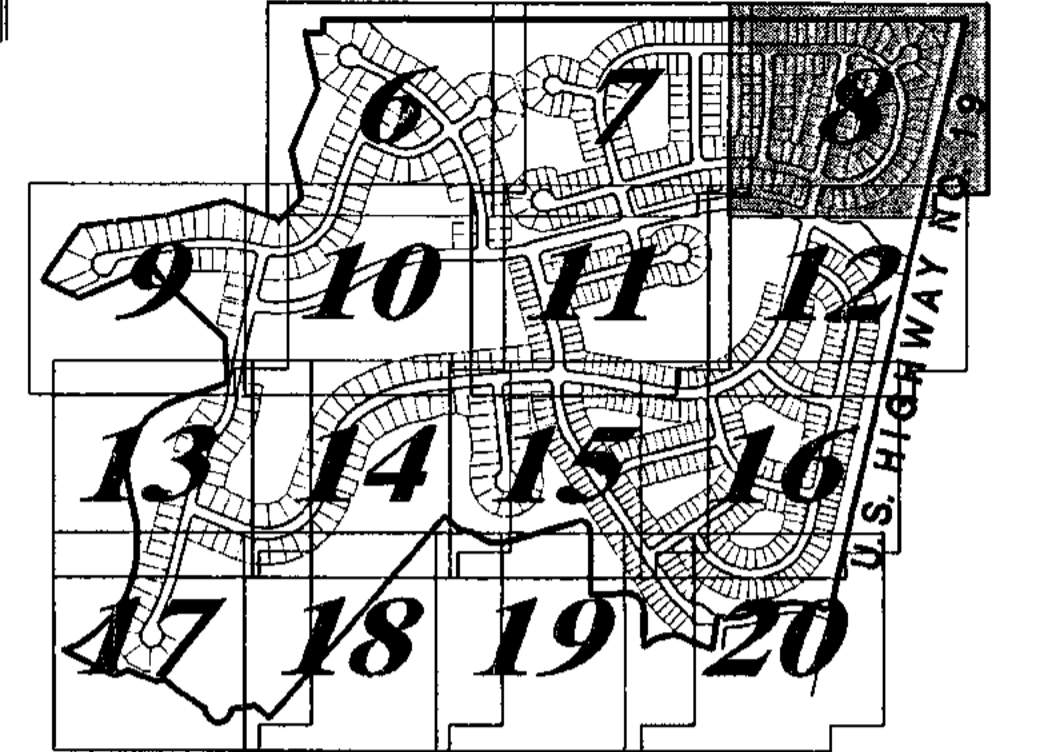
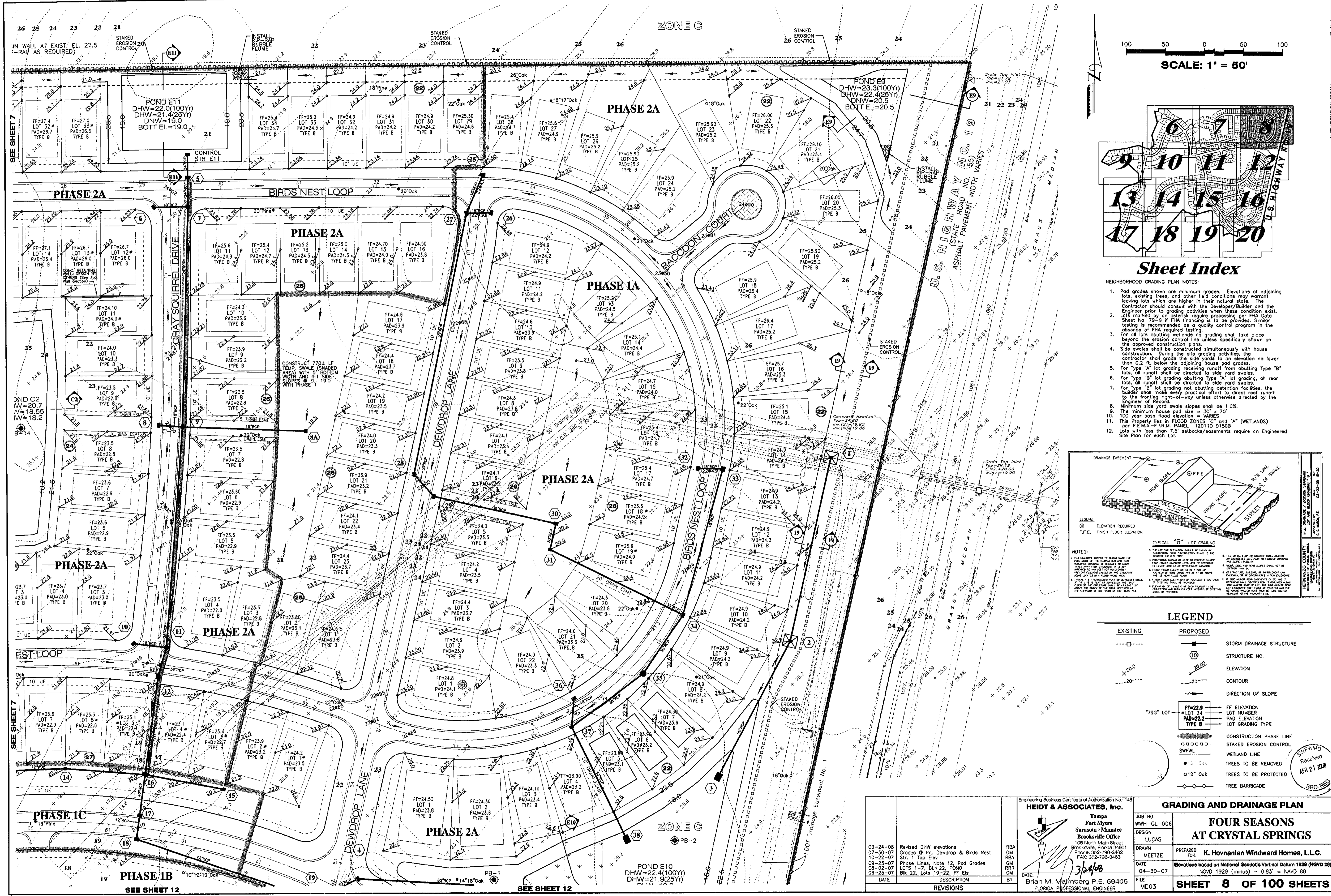
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LEGEND

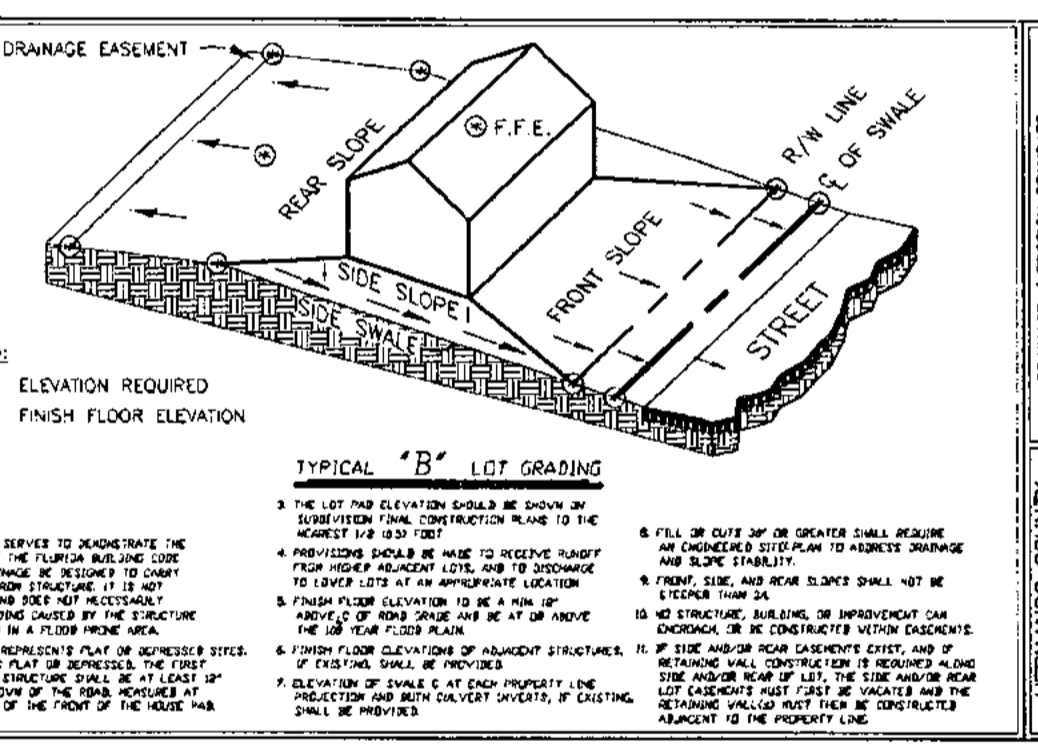
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		CONTOUR
		DIRECTION OF SLOPE
		FF ELEVATION
		LOT NUMBER
		PAD ELEVATION
		LOT GRADING TYPE
		CONSTRUCTION PHASE LINE
		STAKED EROSION CONTROL
		WETLAND LINE
		TREES TO BE REMOVED
		TREES TO BE PROTECTED
		TREE BARRICADE

<p>Engineering Business Certificate of Authorization No. 148 HEIDT & ASSOCIATES, Inc. Tampa Fort Myers Sarasota • Manatee Brooksville Office 108 North Main Street Brooksville, Florida 34609 Phone: 352-798-3462 FAX: 352-798-3463</p>		<p>GRADING AND DRAINAGE PLAN</p> <p>FOUR SEASONS AT CRYSTAL SPRINGS</p> <p>PREPARED FOR: K. Hovnanian Windward Homes, L.L.C.</p> <p>Elevations based on National Geodetic Vertical Datum 1929 (NGVD 29) NGVD 1929 (minus) = 0.83' = NAVD 88</p>	
<p>JOB NO. WWH-GL-006 DESIGN LUCAS DRAWN MEETZE DATE 04-30-07 FILE MD02</p>	<p>DATE DESCRIPTION REVISIONS</p> <p>04-20-08 Revised A3 DHW elevation 03-24-08 Revised DHW elevations 08-02-07 Phase Lines, Note 12, Pad Grades NP IN HYDRO PER. 06-25-07 Begin/End Wall Note</p>	<p>DATE: 4/11/08 BY: Brian M. Malmberg P.E. 59405 FLORIDA PROFESSIONAL ENGINEER</p>	<p>SHEET 7 OF 100 SHEETS</p>



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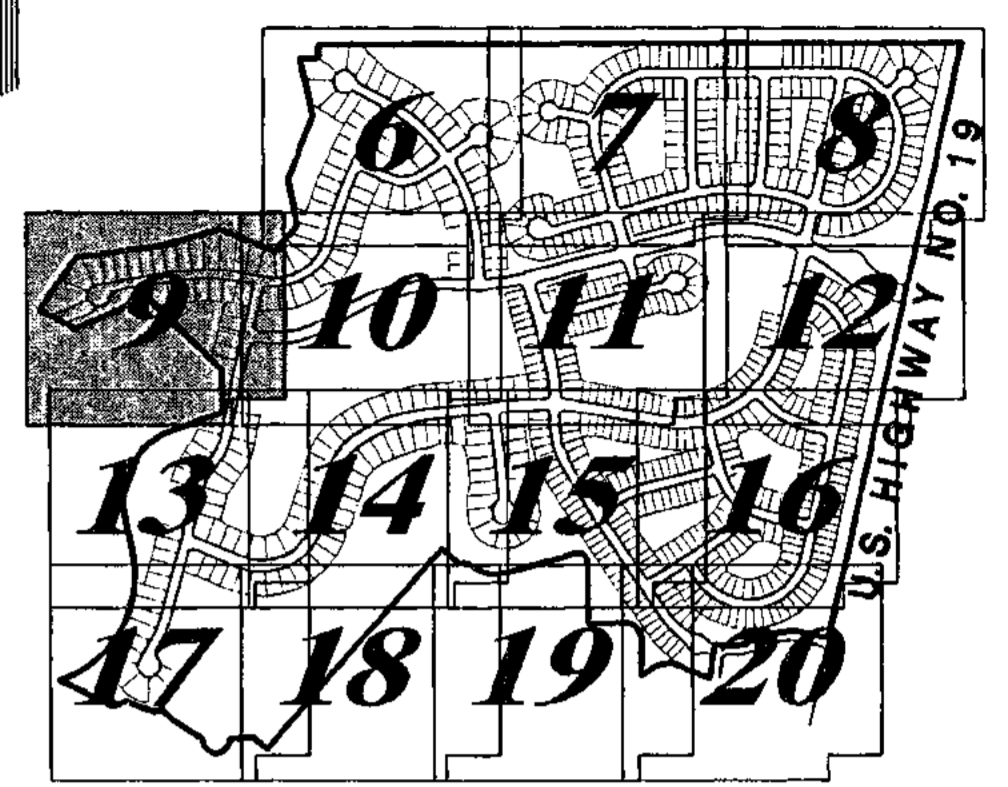
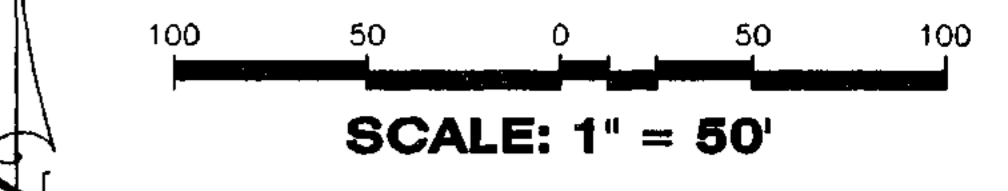
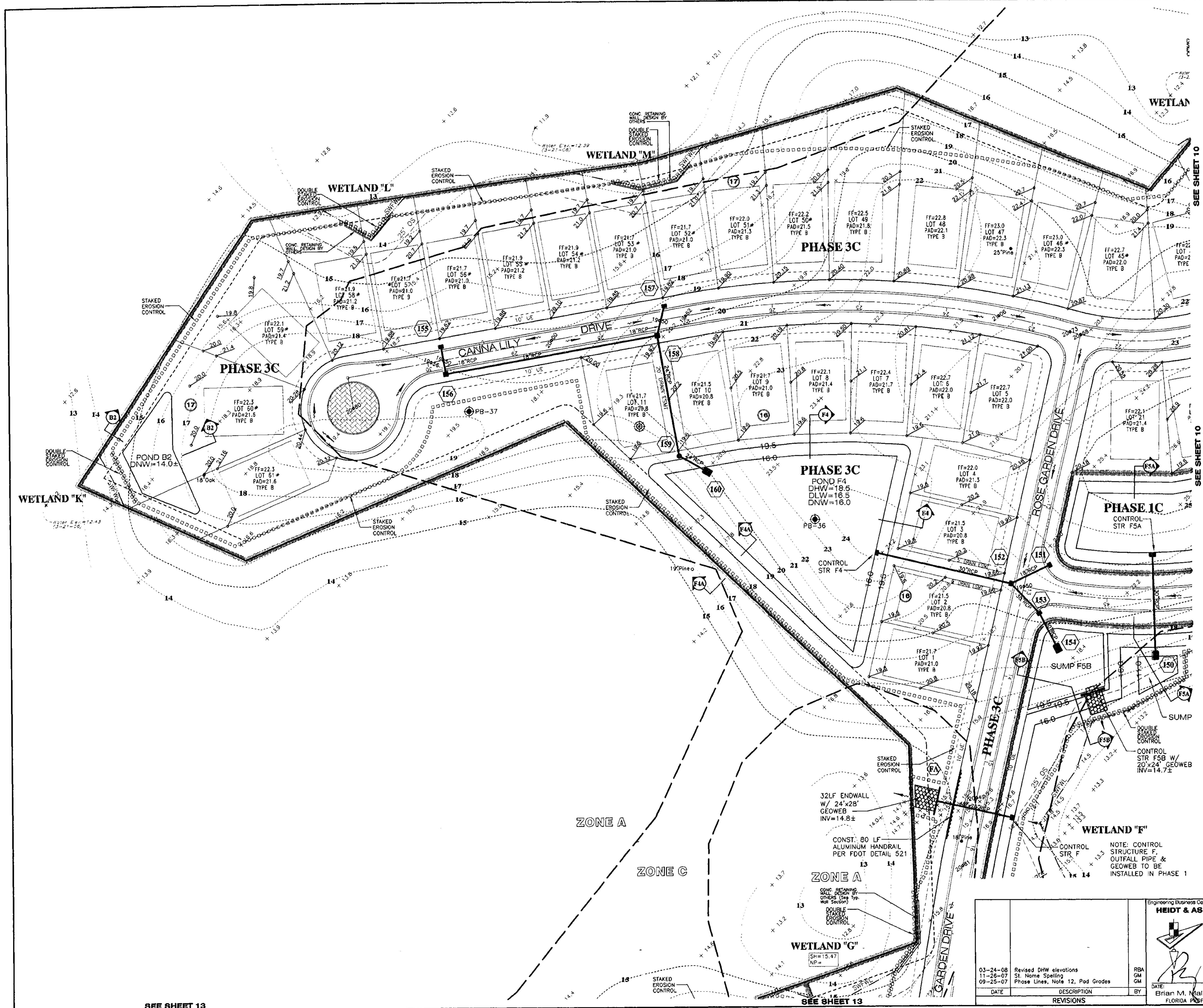
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LEGEND

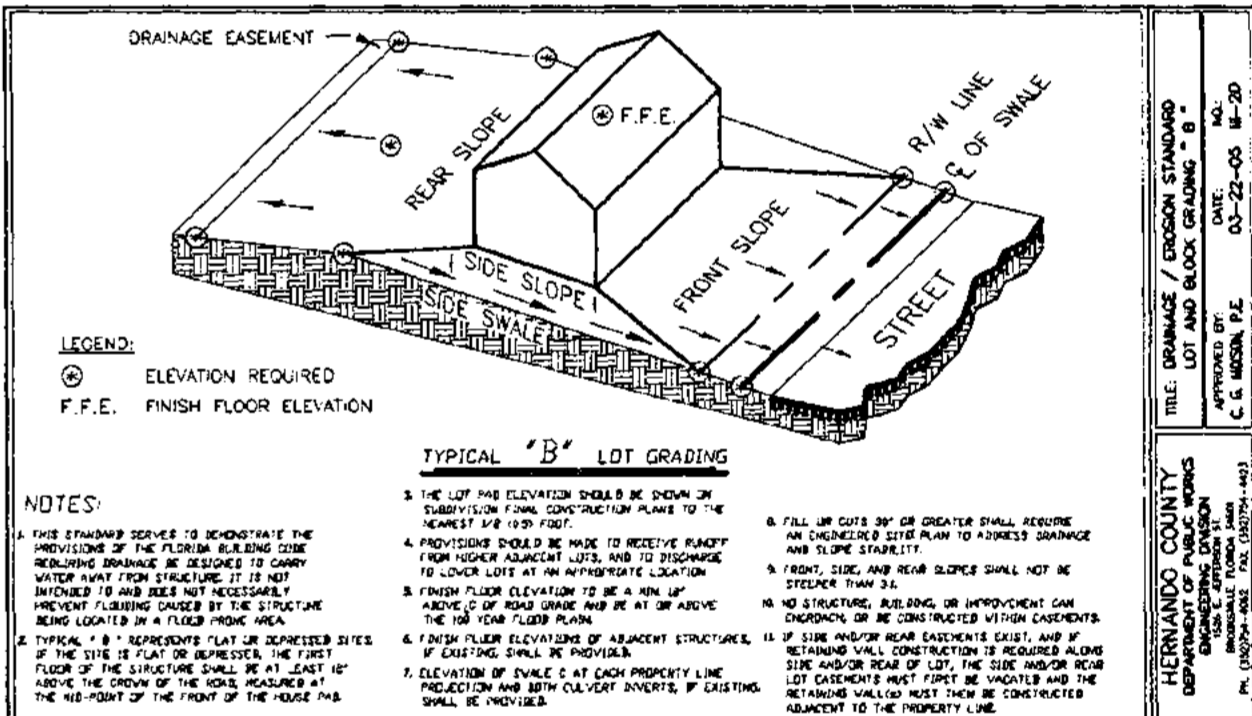
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-20.0	20	CONTOUR
	↘	DIRECTION OF SLOPE
	FF=22.8 LOT 24 PAD=22.2 TYPE B	FF ELEVATION LOT NUMBER PAD ELEVATION LOT GRADING TYPE
---○---	---○---	CONSTRUCTION PHASE LINE
○	○	STAKED EROSION CONTROL
○	○	WETLAND LINE
○	○	TREES TO BE REMOVED
○	○	TREES TO BE PROTECTED
○	○	TREE BARRICADE

<p>Engineering Business Certificate of Authorization No. 148 HEIDT & ASSOCIATES, Inc. Tampa Fort Myers Sarasota • Manatee Brooksville Office 105 North Main Street Brooksville, Florida 34601 Phone: 352-798-3465 Fax: 352-798-3483</p>		<p>GRADING AND DRAINAGE PLAN FOUR SEASONS AT CRYSTAL SPRINGS</p>	
<p>03-24-08 Revised DHW elevations 07-30-07 Grades & Int. Dewdrop & Birds Nest 10-22-07 Str. 1 Top Elev 09-25-07 Phase Lines, Note 12, Pad Grades 08-02-07 LOTS 1-7, BLK 22, POND 08-25-07 BLK 22, LOTS 19-22, FF Els</p>		<p>DESIGN: LUCAS DRAWN: MEITZE PREPARED FOR: K. Hovnanian Windward Homes, L.L.C. DATE: 04-30-07 Elevation based on National Geodetic Vertical Datum 1929 (NGVD 29) NGVD 1929 (minus) - 0.83' = NAVD 88</p>	
<p>DATE: 3/24/08 Brian M. Malinberg P.E. 59405 FLORIDA PROFESSIONAL ENGINEER</p>		<p>SHEET 8 OF 100 SHEETS</p>	



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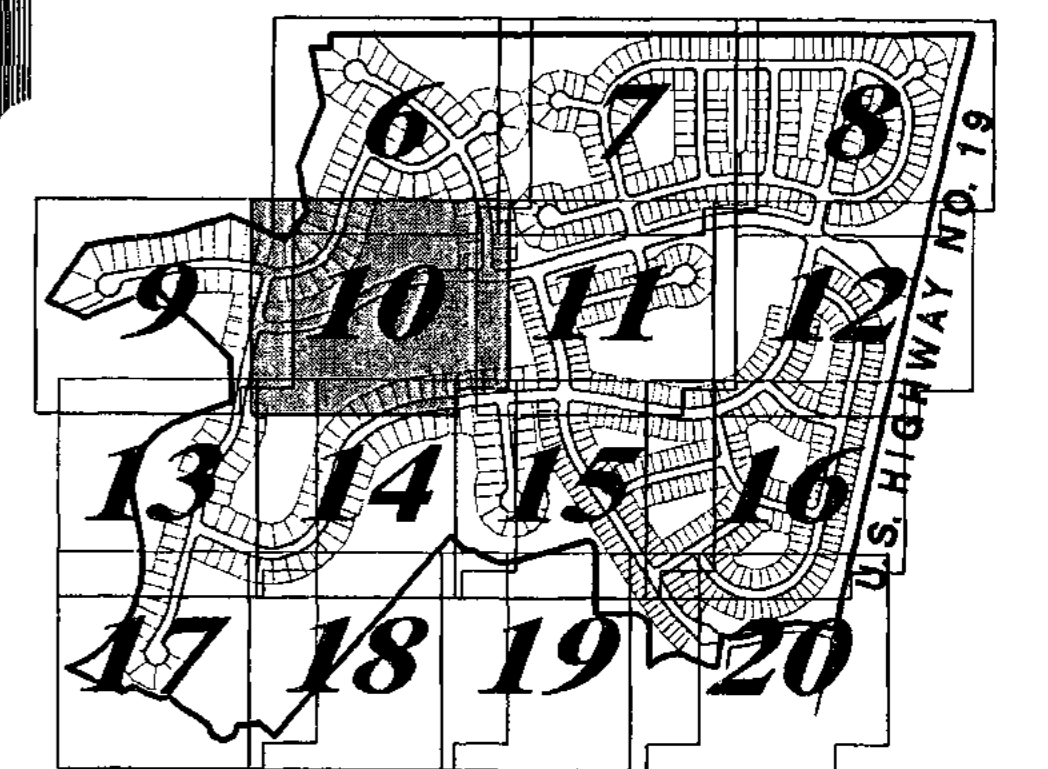
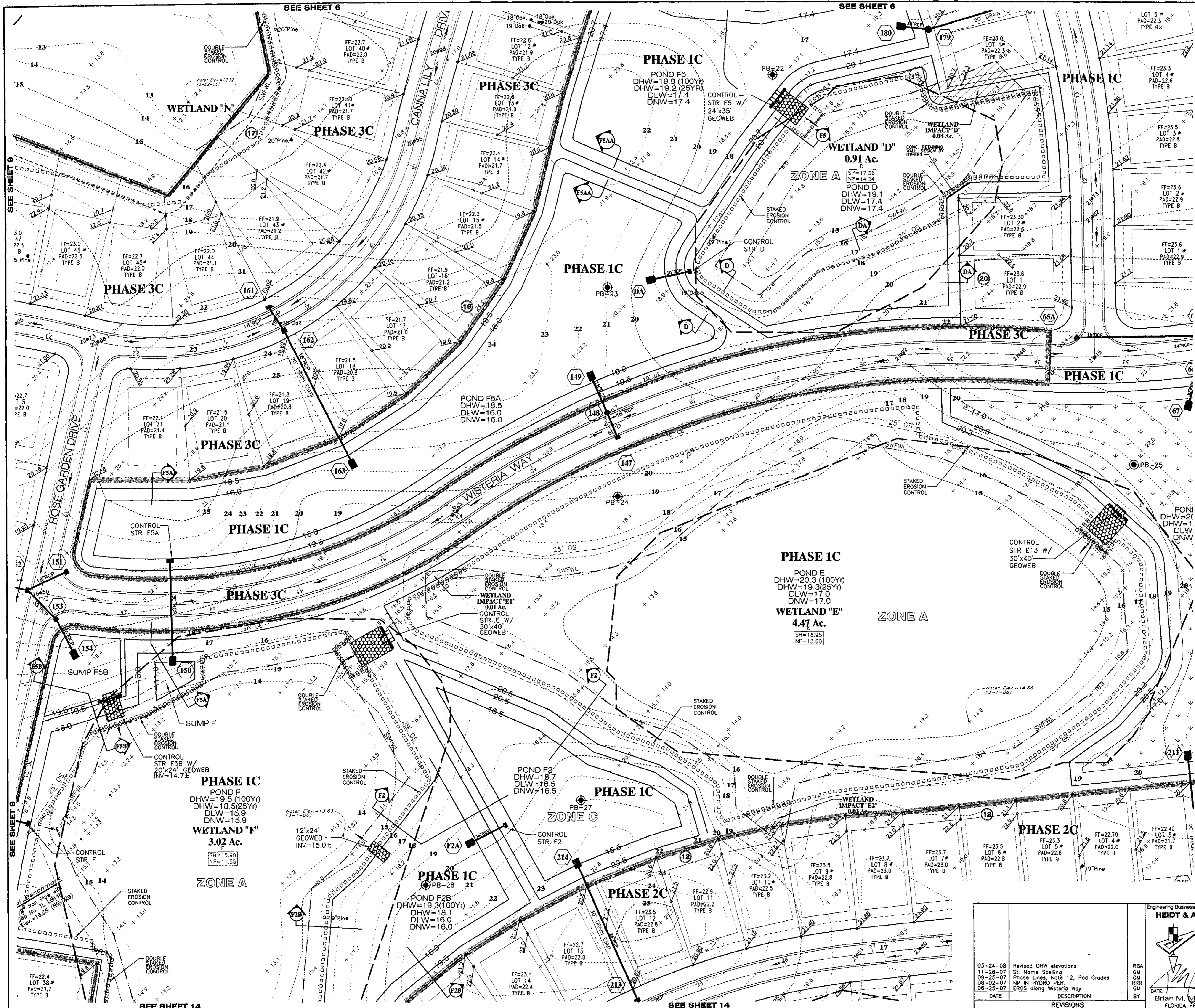
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| --- | --- | ELEVATION |
| --- | --- | CONTOUR |
| --- | --- | DIRECTION OF SLOPE |
| --- | --- | FF ELEVATION |
| --- | --- | LOT NUMBER |
| --- | --- | PAD ELEVATION |
| --- | --- | LOT GRADING TYPE |
| --- | --- | CONSTRUCTION PHASE LINE |
| --- | --- | STAKED EROSION CONTROL |
| --- | --- | WETLAND LINE |
| --- | --- | TREES TO BE REMOVED |
| --- | --- | TREES TO BE PROTECTED |
| --- | --- | TREE BARRICADE |

HEIDT & ASSOCIATES, Inc. Tampa Fort Myers Sarasota-Manatee Brooksville Office 106 North Main Street Brooksville, Florida 34601 Phone: 352-798-3462 Fax: 352-798-3483		GRADING AND DRAINAGE PLAN JOB NO. WWH-GL-006 DESIGN LUCAS DRAWN MEETZE DATE 04-30-07 FILE MD04	
03-24-08 Revised DHW elevations 11-26-07 St. Name Spelling 09-25-07 Phase Lines, Note 12, Pad Grades		FOUR SECTIONS AT CRYSTAL SPRINGS PREPARED FOR: K. Hovnanian Windward Homes, L.L.C. Elevations based on National Geodetic Vertical Datum 1929 (NGVD 29) NGVD 1929 (minus) - 0.83' = NAVD 88	
DATE DESCRIPTION BY REVISIONS		Brian M. Malmberg P.E. 59406 FLORIDA PROFESSIONAL ENGINEER	

SEE SHEET 13

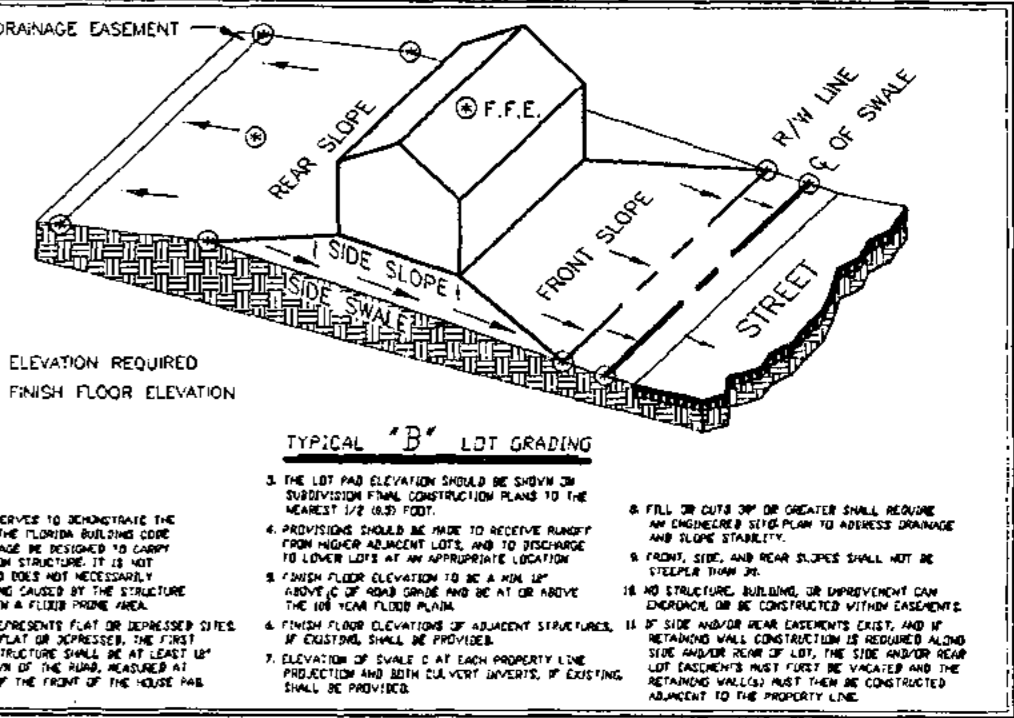
SEE SHEET 13

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 BRO-REG



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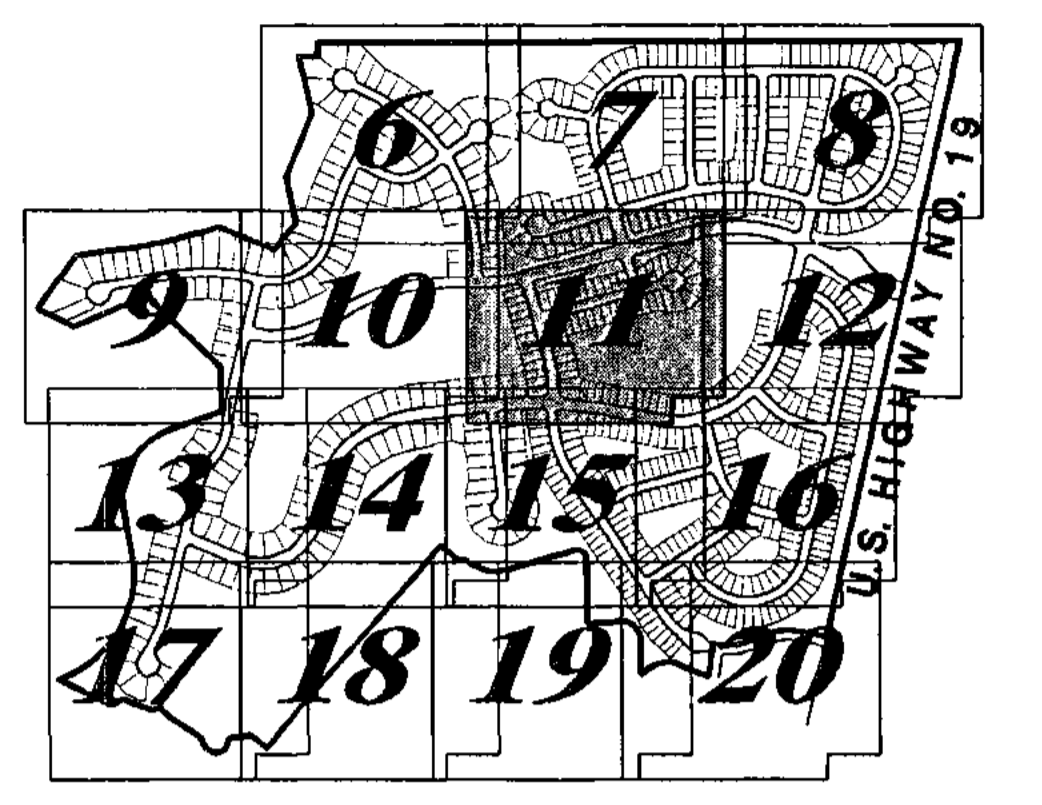
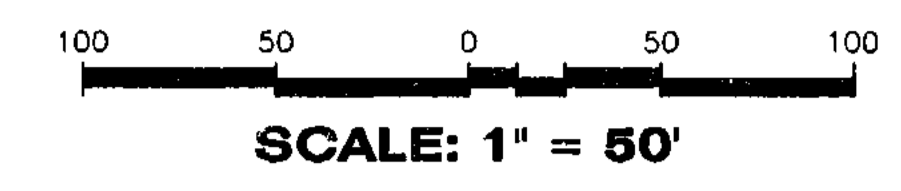
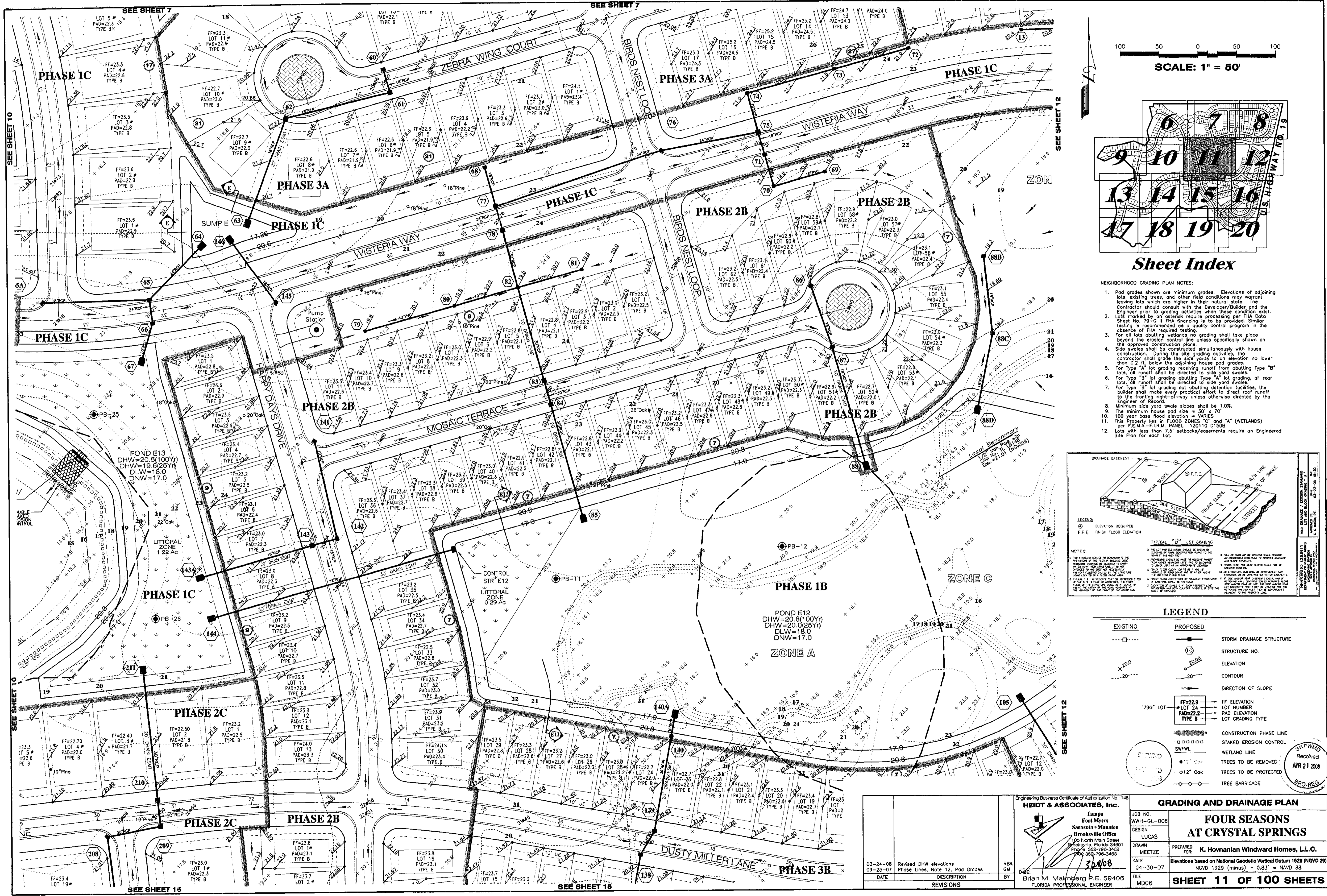
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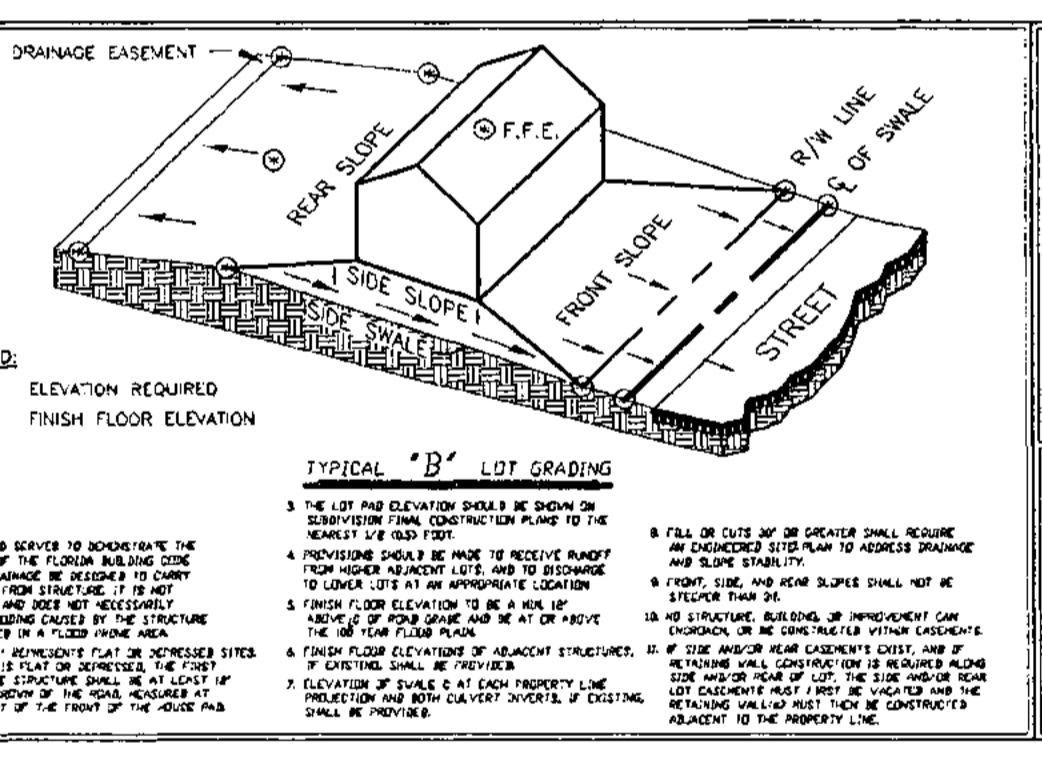
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		FF ELEVATION
		LOT NUMBER
		PAD ELEVATION
		LOT GRADING TYPE
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03-24-08 Revised DHW elevations 11-28-07 St. Name Spelling 09-25-07 Phase Lines Note 12, Pad Grades 08-02-07 NP HYDRO PER 08-25-07 EROS along Wisteria Way		FOUR SEASONS AT CRYSTAL SPRINGS PREPARED FOR: K. Hovnanian Windward Homes, L.L.C. Elevations based on National Geodetic Vertical Datum 1929 (NGVD 29) NGVD 1929 (minus) - 0.83' = NAVD 88 SHEET 10 OF 100 SHEETS	
RBA GM HRR GM		DATE: 3/24/08 Brian M. Walimberg P.E. 594105 FLORIDA PROFESSIONAL ENGINEER	



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LEGEND

EXISTING	PROPOSED	DESCRIPTION
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---	---	DIRECTION OF SLOPE
---	---	FF ELEVATION
---	---	LOT NUMBER
---	---	PAD ELEVATION
---	---	LOT GRADING TYPE
---	---	CONSTRUCTION PHASE LINE
---	---	STAKED EROSION CONTROL
---	---	WETLAND LINE
---	---	TREES TO BE REMOVED
---	---	TREES TO BE PROTECTED
---	---	TREE BARRICADE

GRADING AND DRAINAGE PLAN

FOUR SEASONS AT CRYSTAL SPRINGS

Prepared for: **K. Hovnanian Windward Homes, L.L.C.**

Elevations based on National Geodetic Vertical Datum 1929 (NGVD 29) 04-30-07

HEIDT & ASSOCIATES, Inc.
Tampa
Fort Myers
Sarasota-Manatee
Brooksville Office
30 North Main Street
Brooksville, Florida 34601
Phone: 352-790-3462
Fax: 352-790-3463

DATE: 03-24-08
09-25-07
DESCRIPTION: Revised DHW elevations Phase Lines, Note 12, Pad Grades

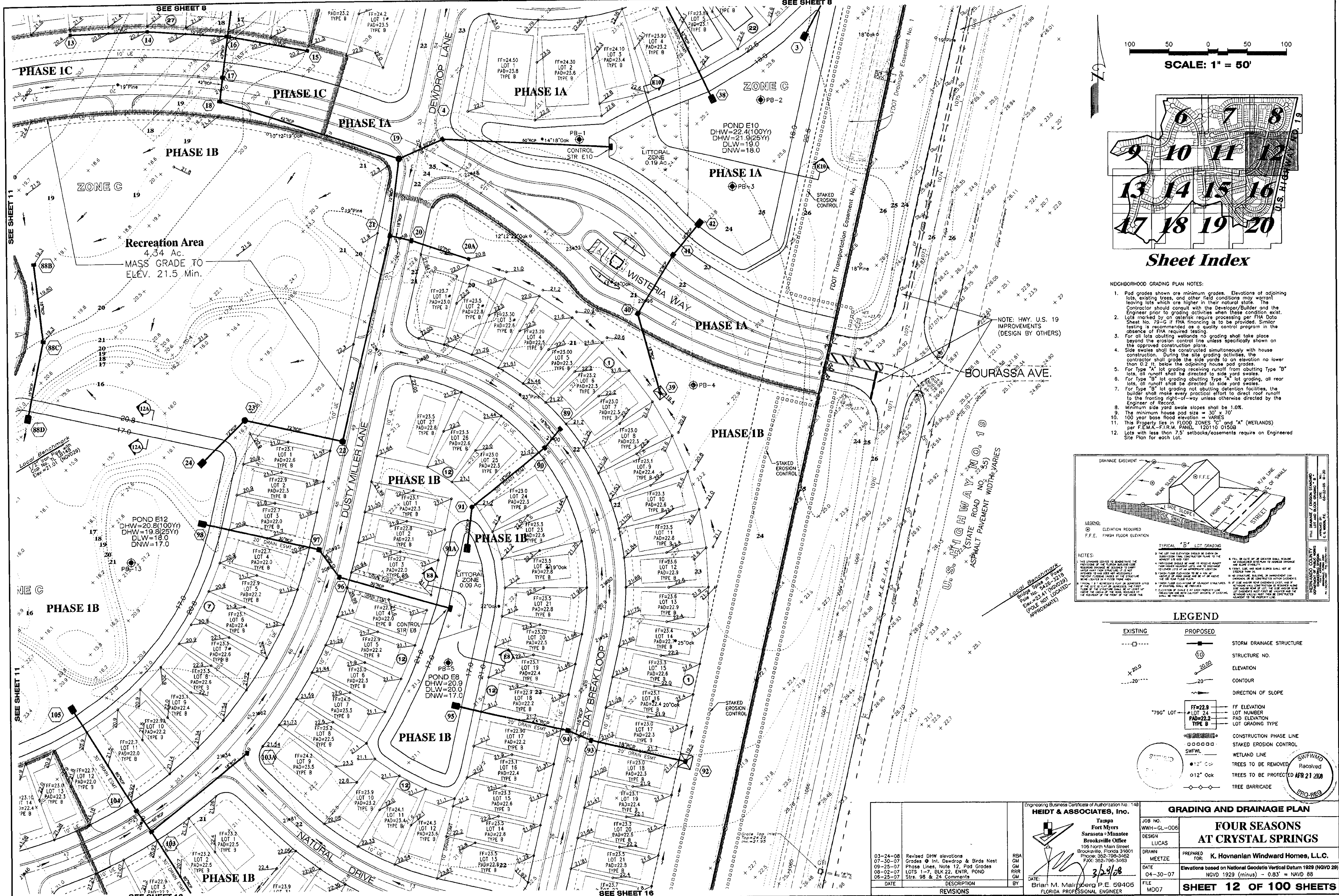
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FLORIDA PROFESSIONAL ENGINEER

DATE: 04-30-07
FILE: MD06

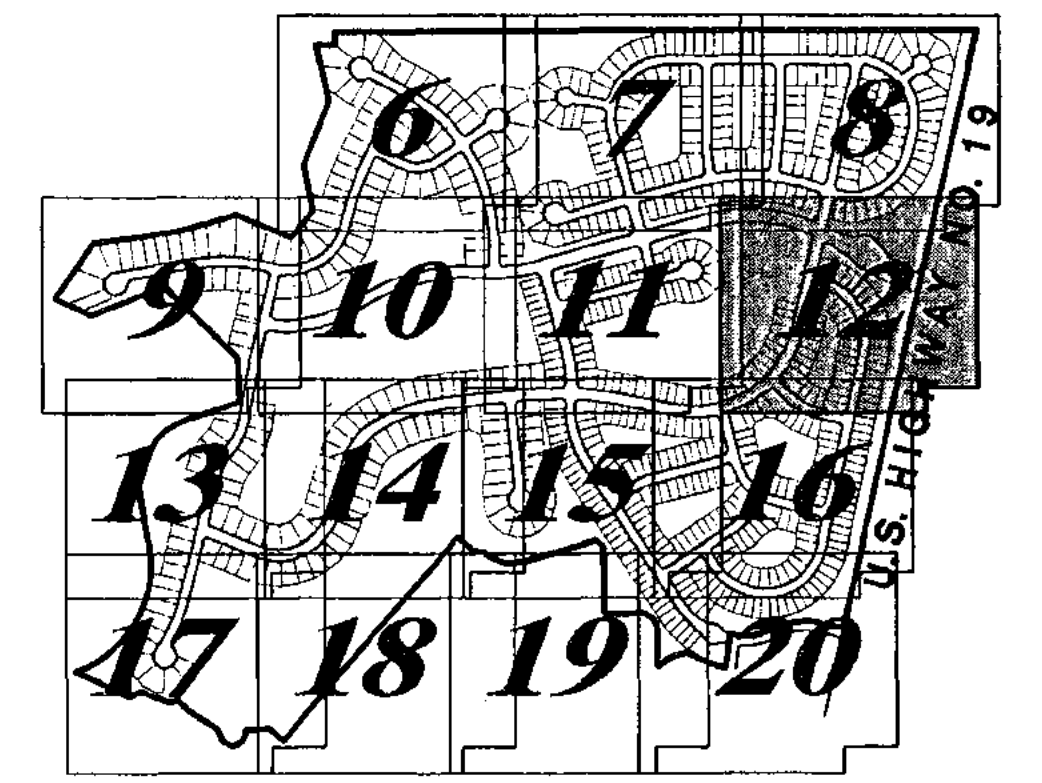
REVISIONS:

APR 21 2008

SHEET 11 OF 100 SHEETS

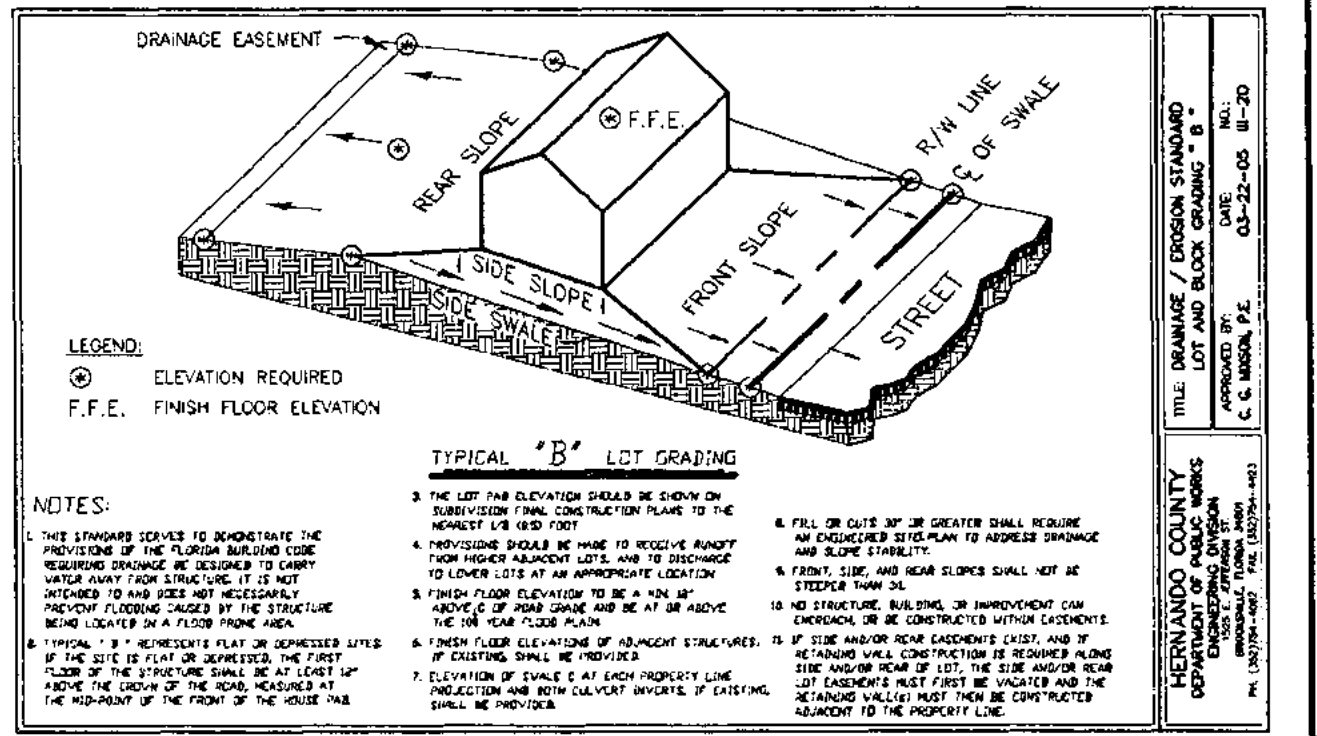


SCALE: 1" = 50'



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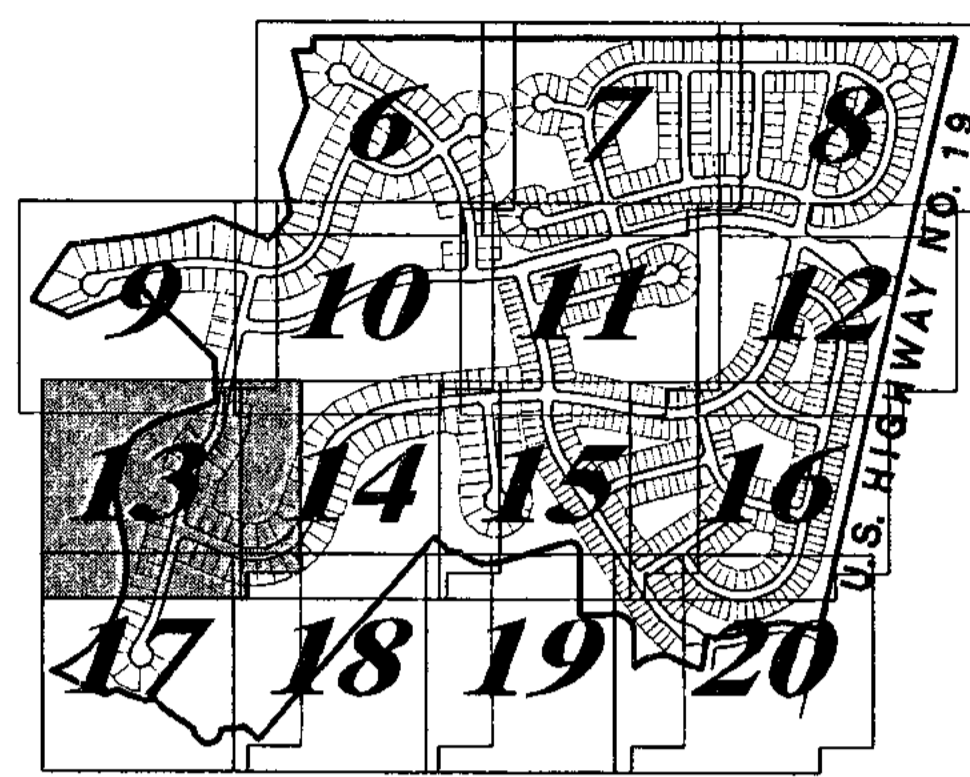
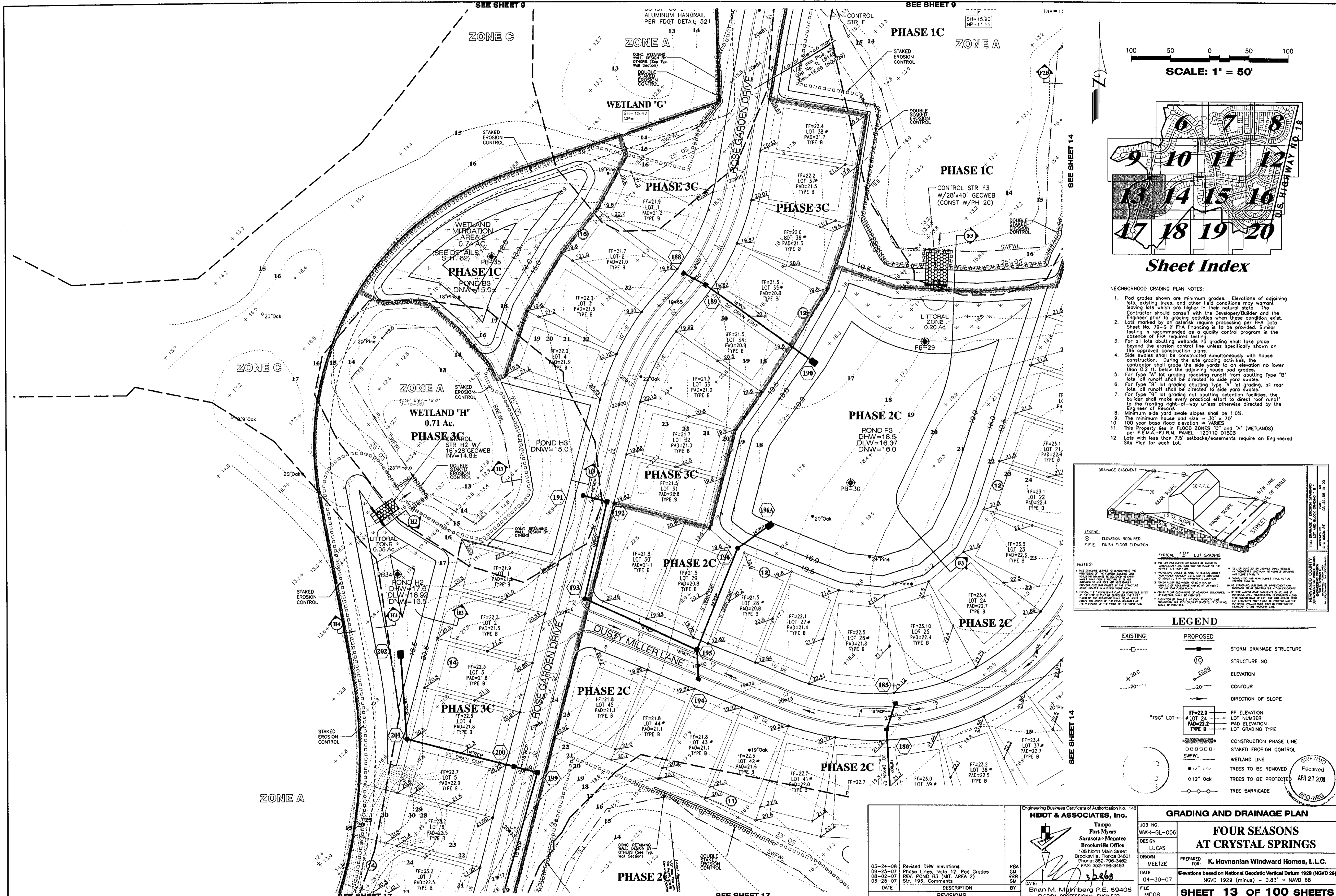
- NEIGHBORHOOD GRADING PLAN NOTES:
1. Pad grades shown are minimum grades. Elevations of adjoining lots, existing trees, and other field conditions may warrant leaving lots which are higher in their natural state. The Contractor should consult with the Developer/Builder and the Engineer prior to grading activities when these conditions exist.
 2. Lots marked by an asterisk require processing per FIA Data Sheet No. 79-0 if FIA financing is to be provided. Similar testing is recommended as a quality control program in the absence of FIA required testing.
 3. For all lots abutting wetlands no grading shall take place beyond the erosion control line unless specifically shown on the approved construction plans.
 4. Side swales shall be constructed simultaneously with house construction. During the site grading activities, the contractor shall grade the side yards to an elevation no lower than 0.2 ft. below the adjoining house pad grades.
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 9. The minimum house pad size = 30' x 70'.
 10. 100 year base flood elevation = VARIES.
 11. This Property lies in FLOOD ZONES "C" and "A" (WETLANDS) per F.E.M.A.-F.I.R.M. PANEL 120110 10509.
 12. Lots with less than 7.5' setbacks/easements require an Engineered Site Plan for each lot.



LEGEND

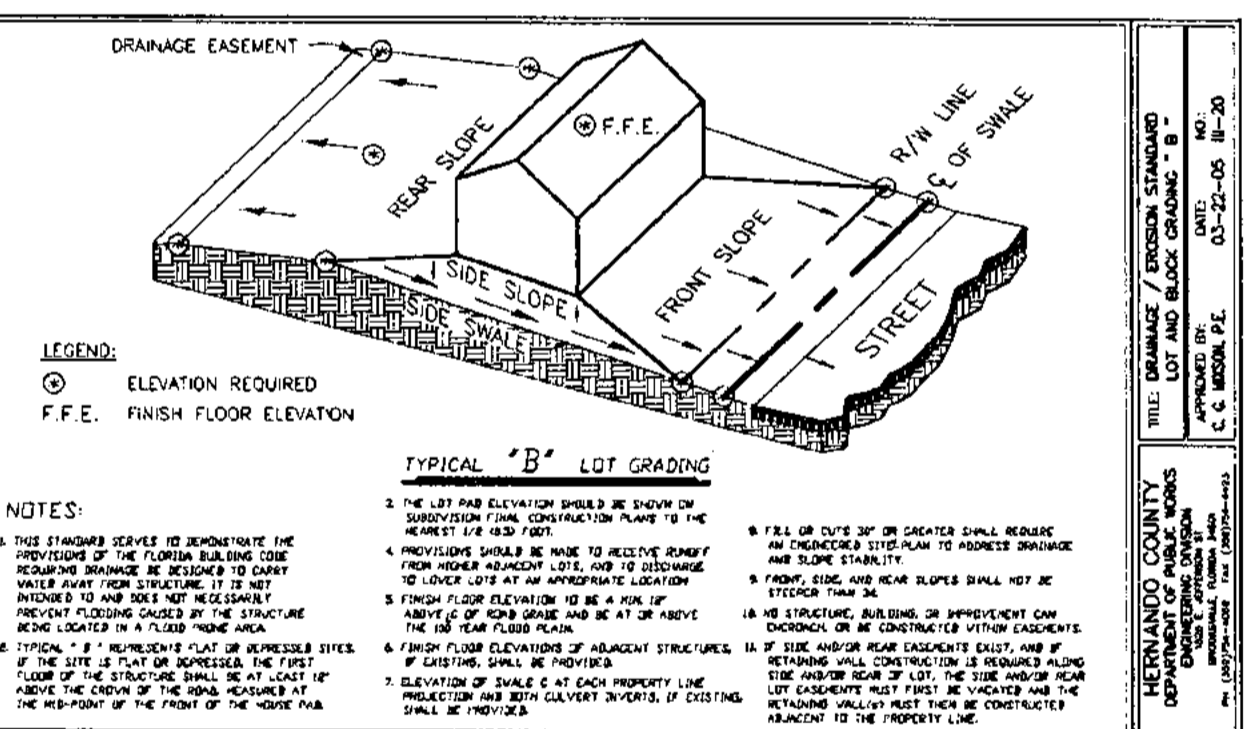
EXISTING	PROPOSED	STORM DRAINAGE STRUCTURE
---○---	---○---	STRUCTURE NO.
+20.0	○20.0	ELEVATION
---○---	---○---	CONTOUR
---○---	---○---	DIRECTION OF SLOPE
796' LOT	FF=22.9	FF ELEVATION
	LOT 24	LOT NUMBER
	PAD=22.2	PAD ELEVATION
	TYPE B	LOT GRADING TYPE
---	---	CONSTRUCTION PHASE LINE
○	○	STAKED EROSION CONTROL
---	---	WETLAND LINE
○12" Oak	○12" Oak	TREES TO BE REMOVED
○12" Oak	○12" Oak	TREES TO BE PROTECTED
---	---	TREE BARRICADE

Engineering Business Certificate of Authorization No. 148 HEIDT & ASSOCIATES, Inc. Tampa Fort Myers Sarasota - Manatee Brooksville Office 105 North Main Street Brooksville, Florida 34601 Phone: 352-799-3462 FAX: 352-796-3463		GRADING AND DRAINAGE PLAN FOUR SEASONS AT CRYSTAL SPRINGS JOB NO. WWH-GL-006 DESIGN LUCAS DRAWN MEETZE DATE 04-30-07 FILE MD07
03-24-08 Revised DHW elevations 07-30-07 Grades @ Int. Dewdrop & Birds Nest 09-25-07 Phase Lines, Note 12, Pad Grades 08-02-07 LOTS 1-7, BLK 22, ENTR, POND 06-23-07 Srs. 98 & 24 Comments	PREPARED FOR: K. Hovnanian Windward Homes, L.L.C. ELEVATIONS based on National Geodetic Vertical Datum 1929 (NGVD 29) NGVD 1929 (minus) - 0.83' = NAVD 88	DATE: 3/23/08 Brian M. Malinberg P.E. 69405 FLORIDA PROFESSIONAL ENGINEER



Sheet Index

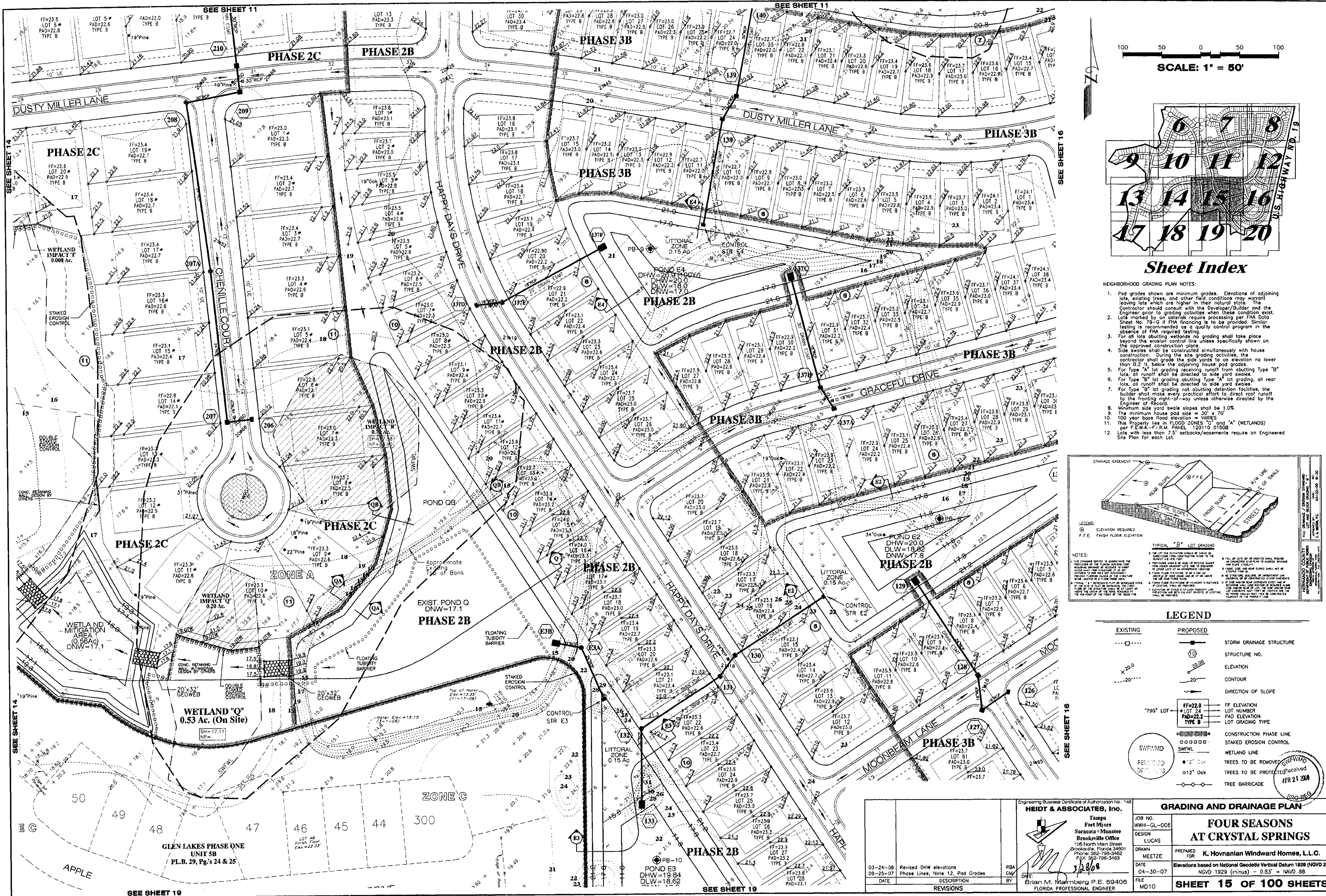
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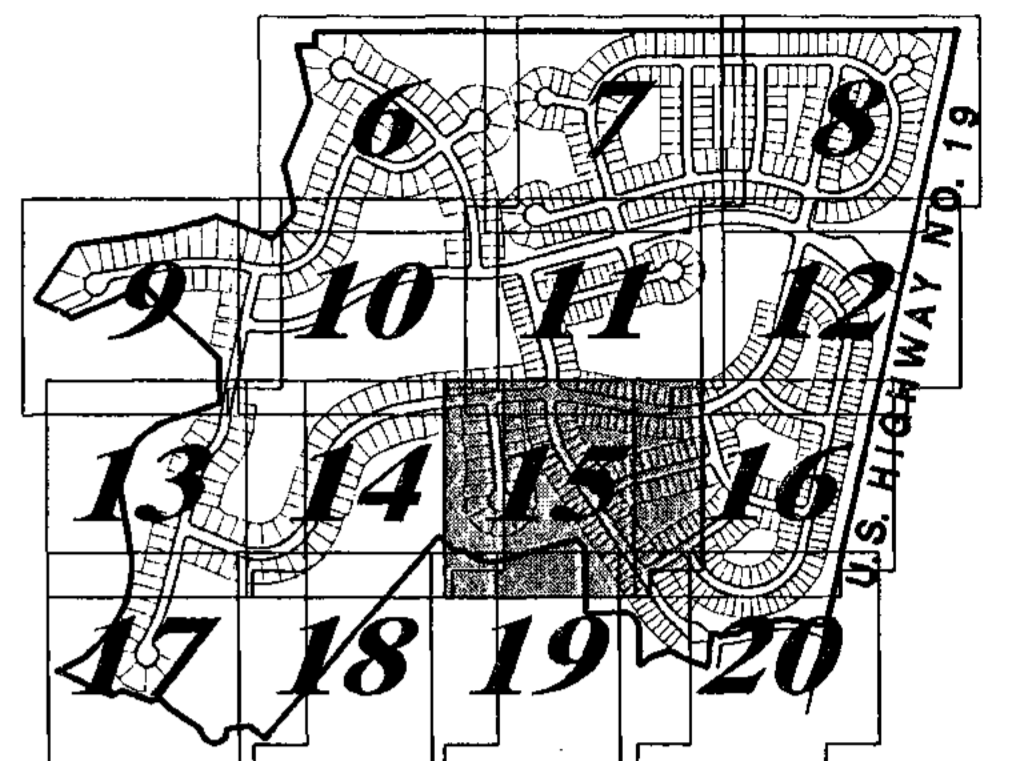
LEGEND

EXISTING	PROPOSED	STORM DRAINAGE STRUCTURE
(Symbol)	(Symbol)	STRUCTURE NO.
(Symbol)	(Symbol)	ELEVATION
(Symbol)	(Symbol)	CONTOUR
(Symbol)	(Symbol)	DIRECTION OF SLOPE
(Symbol)	(Symbol)	FF=22.9 LOT 24 PAD ELEVATION TYPE B
(Symbol)	(Symbol)	CONSTRUCTION PHASE LINE
(Symbol)	(Symbol)	STAKED EROSION CONTROL
(Symbol)	(Symbol)	WETLAND LINE
(Symbol)	(Symbol)	TREES TO BE REMOVED
(Symbol)	(Symbol)	TREES TO BE PROTECTED
(Symbol)	(Symbol)	TREE BARRICADE

HEIDT & ASSOCIATES, Inc. Tampa Fort Myers Sarasota - Manatee Brooksville Office 106 North Main Street Brooksville, Florida 34601 Phone: 352-798-3462 Fax: 352-798-3463		GRADING AND DRAINAGE PLAN FOUR SEASONS AT CRYSTAL SPRINGS DRAWN BY: LUCAS PREPARED FOR: K. Vonnanian General Woodwork Homes, L.L.C. DATE: 04-30-07 FILE: MD08	
Engineering Business Certificate of Authorization No. 158 Brian M. Malmberg P.E. 59405 FLORIDA PROFESSIONAL ENGINEER		JOB NO. WWH-GL-006 DESIGN: LUCAS DRAWN: MEETZE DATE: 04-30-07 FILE: MD08	
Revisions: 03-24-08 Revised DHW elevations 09-25-07 Phase Lines, Note 12, Pad Grades 08-02-07 REV. POND B3 (INT. AREA 2) 06-25-07 Str. 195, Comments		Elevation based on National Geodetic Vertical Datum 1929 (NGVD 29) NGVD 1929 (minus) - 0.83' = NAVD 88 SHEET 13 OF 100 SHEETS	

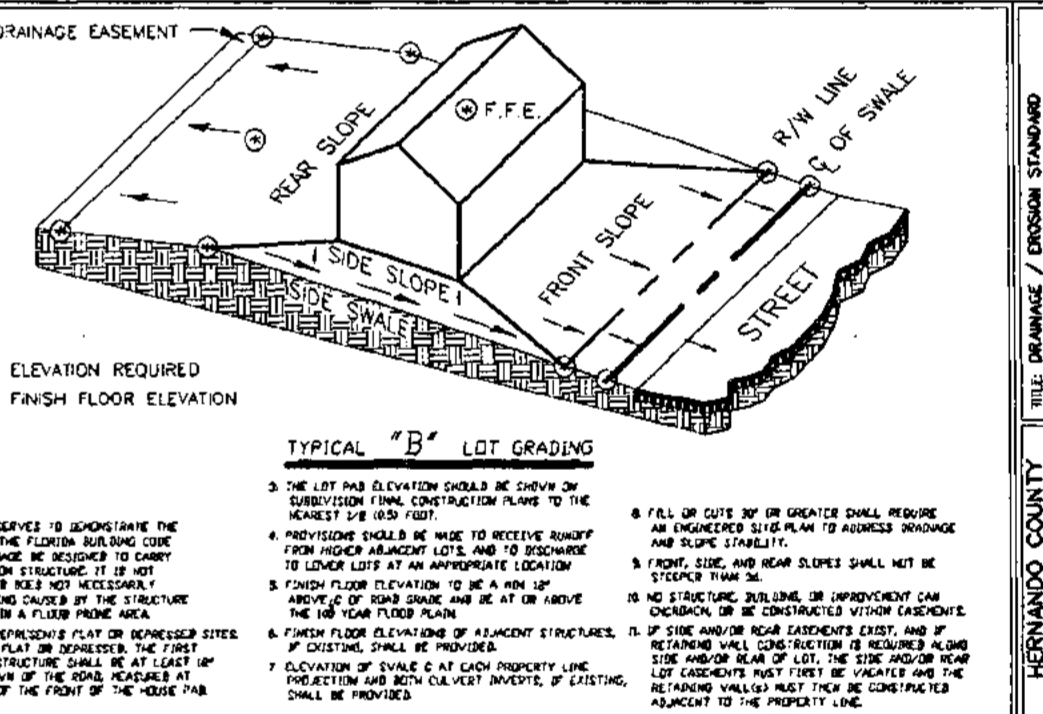


SCALE: 1" = 50'



Sheet Index

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 10. 100 year base flood elevation = VARIES.
 11. This Property lies in FLOOD ZONES "Q" and "A" (WETLANDS) per F.E.M.A. - F.I.R.M. PANEL 12010 0150B.
 12. Lots with less than 7.5' setbacks/assessments on Engineered Site Plan for each Lot.



- LEGEND
- | EXISTING | PROPOSED | DESCRIPTION |
|----------|----------|--------------------------|
| ---○--- | — | STORM DRAINAGE STRUCTURE |
| | 10 | STRUCTURE NO. |
| | 20.0 | ELEVATION |
| | 20 | CONTOUR |
| | ↘ | DIRECTION OF SLOPE |
| | FF=22.9 | FF ELEVATION |
| | PA=22.4 | LOT NUMBER |
| | TYPE B | LOT GRADING TYPE |
| --- | --- | CONSTRUCTION PHASE LINE |
| ○ | ○ | STAKED EROSION CONTROL |
| ○ | ○ | WETLAND LINE |
| ○ | ○ | TREES TO BE REMOVED |
| ○ | ○ | TREES TO BE PROTECTED |
| ○ | ○ | TREE BARRICADE |

HEIDT & ASSOCIATES, Inc. Tampa Fort Myers Sarasota-Manatee Brooksville Office 108 North Main Street Brooksville, Florida 34601 Phone: 352-798-3462 FAX: 352-798-3463		GRADING AND DRAINAGE PLAN FOUR SEASONS AT CRYSTAL SPRINGS PREPARED FOR: K. Hovnanian Windward Homes, L.L.C. ELEVATIONS based on National Geodetic Vertical Datum 1929 (NGVD 29) NGVD 1929 (minus) - 0.83' = NAVD 83	
JOB NO. WHH-GL-006 DESIGN LUCAS DRAWN MEETZE DATE 04-30-07 FILE MD10	03-24-08 Revised DHW elevations 09-25-07 Phase Lines, Note 12, Pad Grades DATE DESCRIPTION REVISIONS RBA GM DATE BY Brian M. Maimberg P.E. 59405 FLORIDA PROFESSIONAL ENGINEER	Engineering Business Certificate of Authorization No. 148 FEB 21 2008 APR 21 2008	

SEE SHEET 14

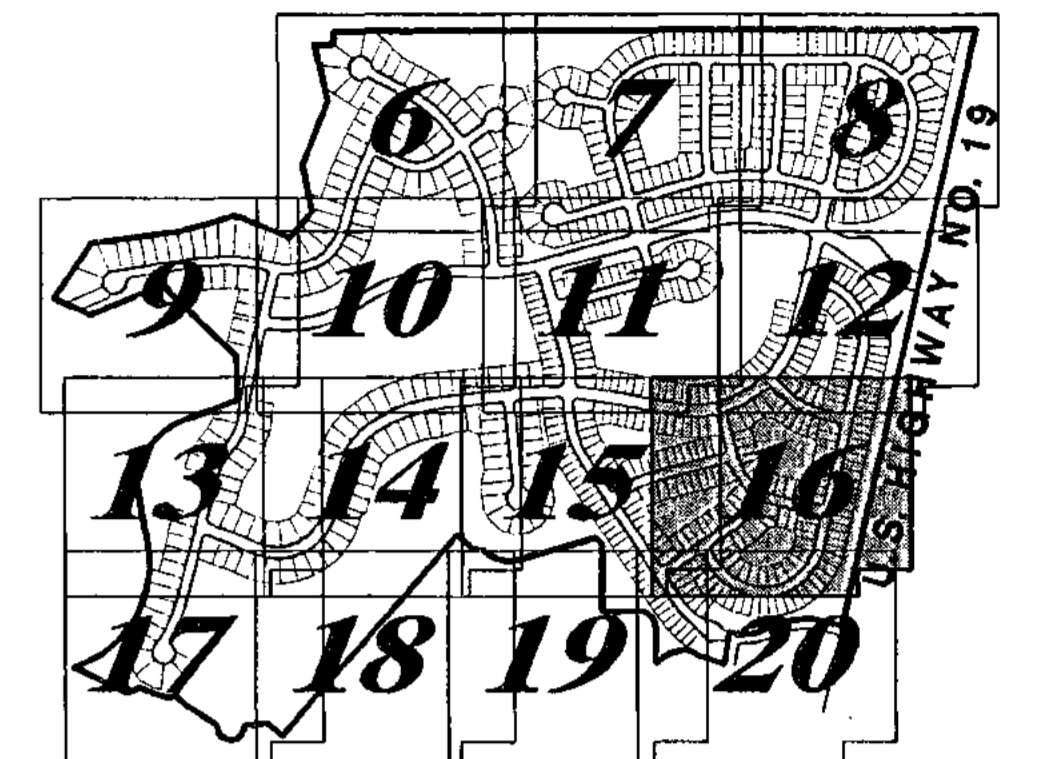
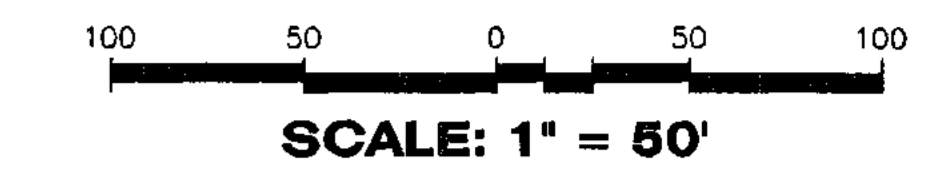
SEE SHEET 11

SEE SHEET 19

SEE SHEET 16

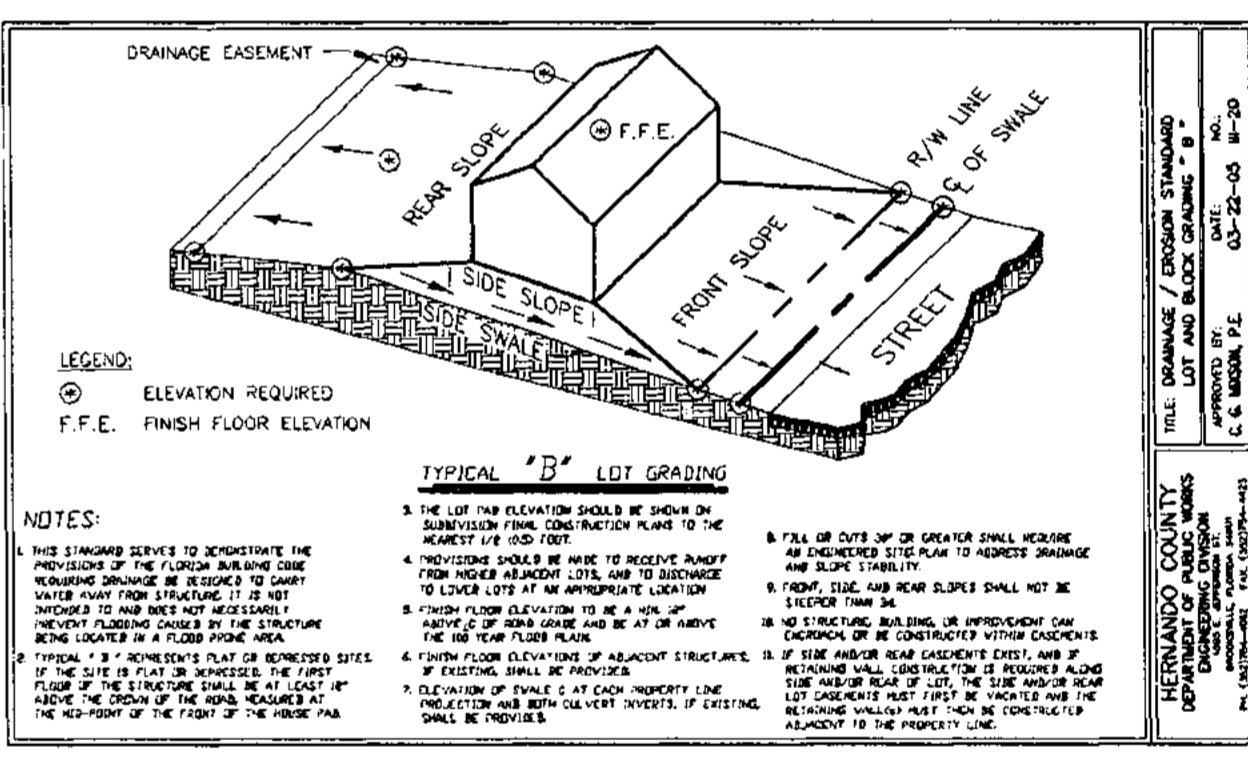
SEE SHEET 14

SEE SHEET 16



Sheet Index

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 12. Lots with less than 7.5" setbacks/enclosures require an Engineered Site Plan for each lot.



LEGEND

EXISTING	PROPOSED	STORM DRAINAGE STRUCTURE
---○---	---●---	STRUCTURE NO.
---○---	---○---	ELEVATION
---○---	---○---	CONTOUR
---○---	---○---	DIRECTION OF SLOPE
---○---	---○---	FF ELEVATION
---○---	---○---	LOT NUMBER
---○---	---○---	PAD ELEVATION
---○---	---○---	LOT GRADING TYPE
---○---	---○---	CONSTRUCTION PHASE LINE
---○---	---○---	STAKED EROSION CONTROL
---○---	---○---	SWFLW
---○---	---○---	WETLAND LINE
---○---	---○---	TREES TO BE REMOVED
---○---	---○---	TREES TO BE PROTECTED
---○---	---○---	TREE BARRICADE

Engineering Business Certificate of Authorization No. 148
HEIDT & ASSOCIATES, Inc.
 Tampa
 Fort Myers
 Sarasota • Manatee
 Brooksville Office
 106 North Main Street
 Brooksville, Florida 34601
 Phone: 352-790-3492
 FAX: 352-799-3453

GRADING AND DRAINAGE PLAN

FOUR SEASONS AT CRYSTAL SPRINGS

Job No. WH-GL-006
 Design: LUCAS
 Drawn: MEETZE
 Date: 04-30-07
 File: MD11

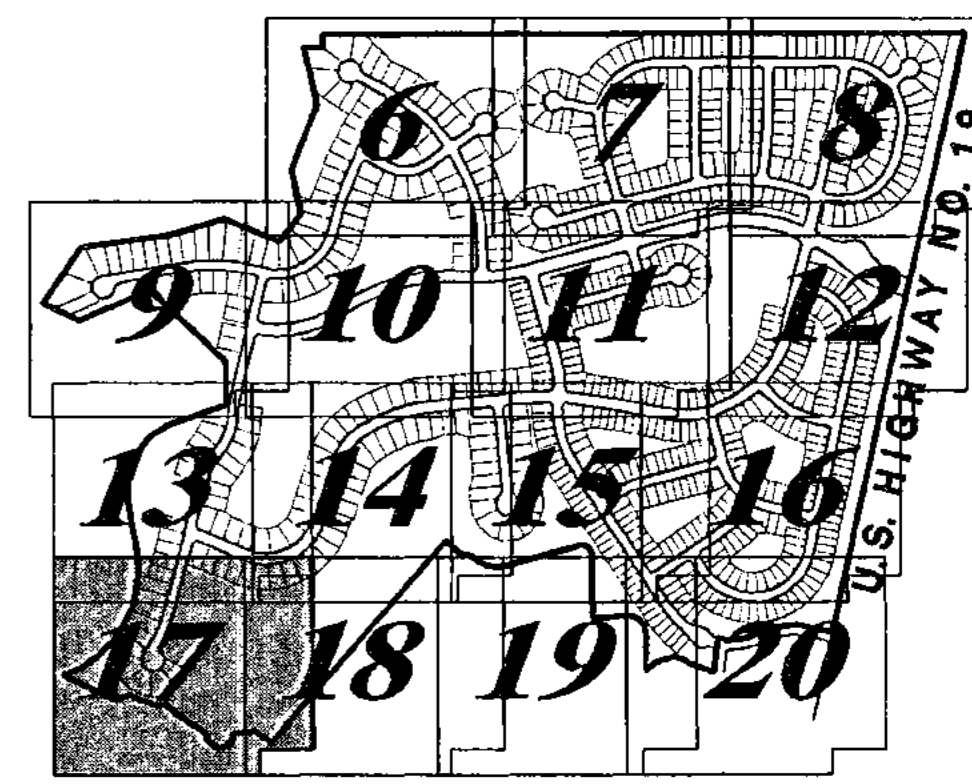
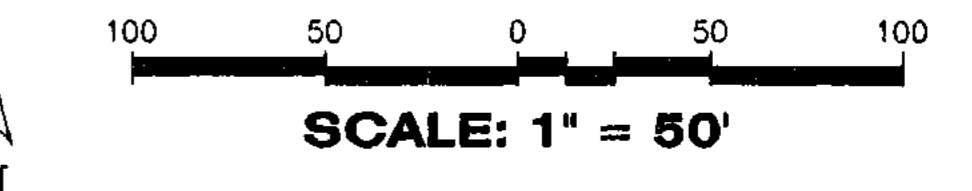
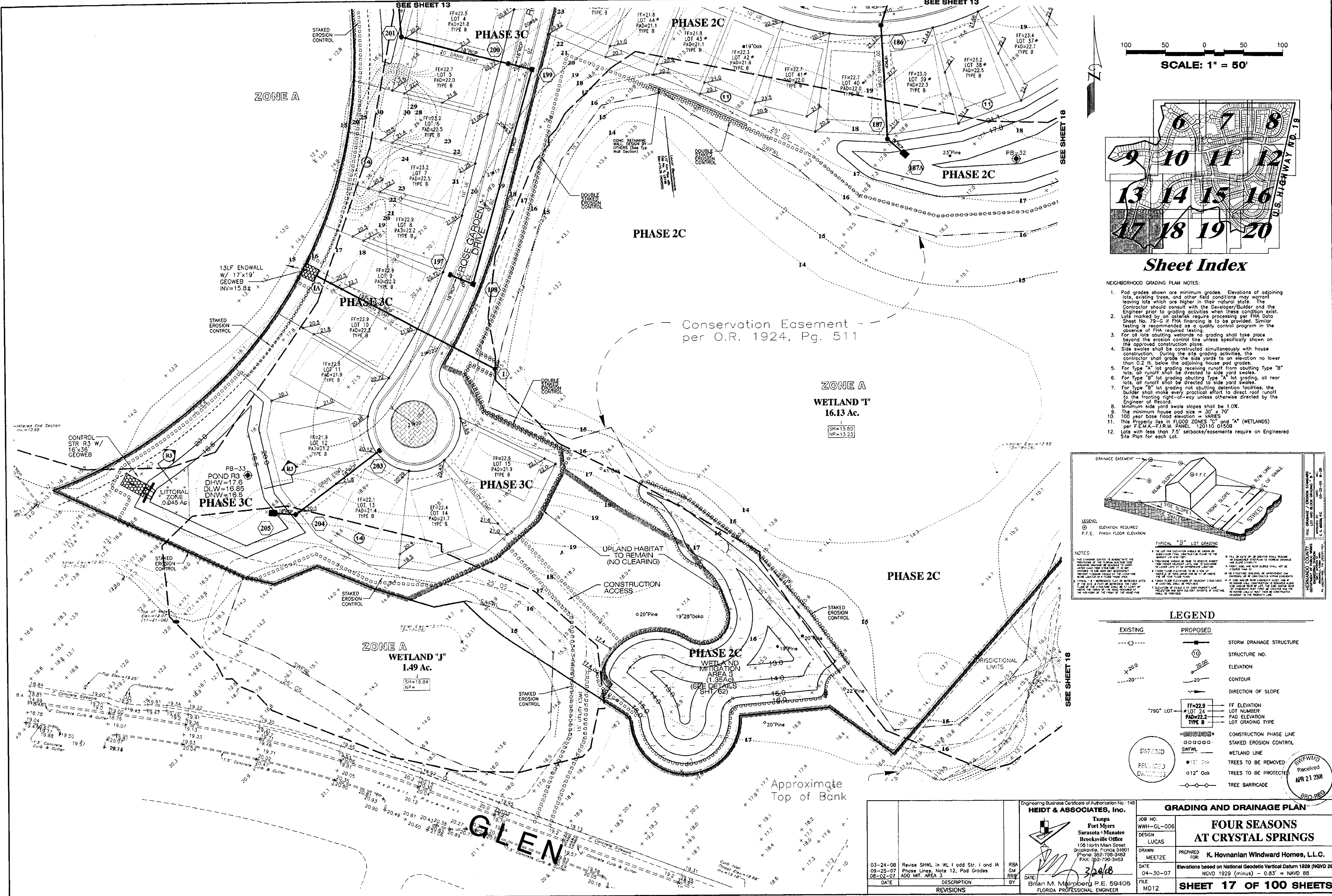
Prepared for: **K. Hovnanian Windward Homes, L.L.C.**
 Elevations based on National Geodetic Vertical Datum 1929 (NGVD 29)
 NGVD 1929 (minus) - 0.83' = NAVD 88

Revisions:
 03-24-08 Revised DHW elevations
 09-25-07 Phase Lines, Note 12, Pad Grades
 08-02-07 ADD EX. FDOT ESMI's, EX. DRG. POND

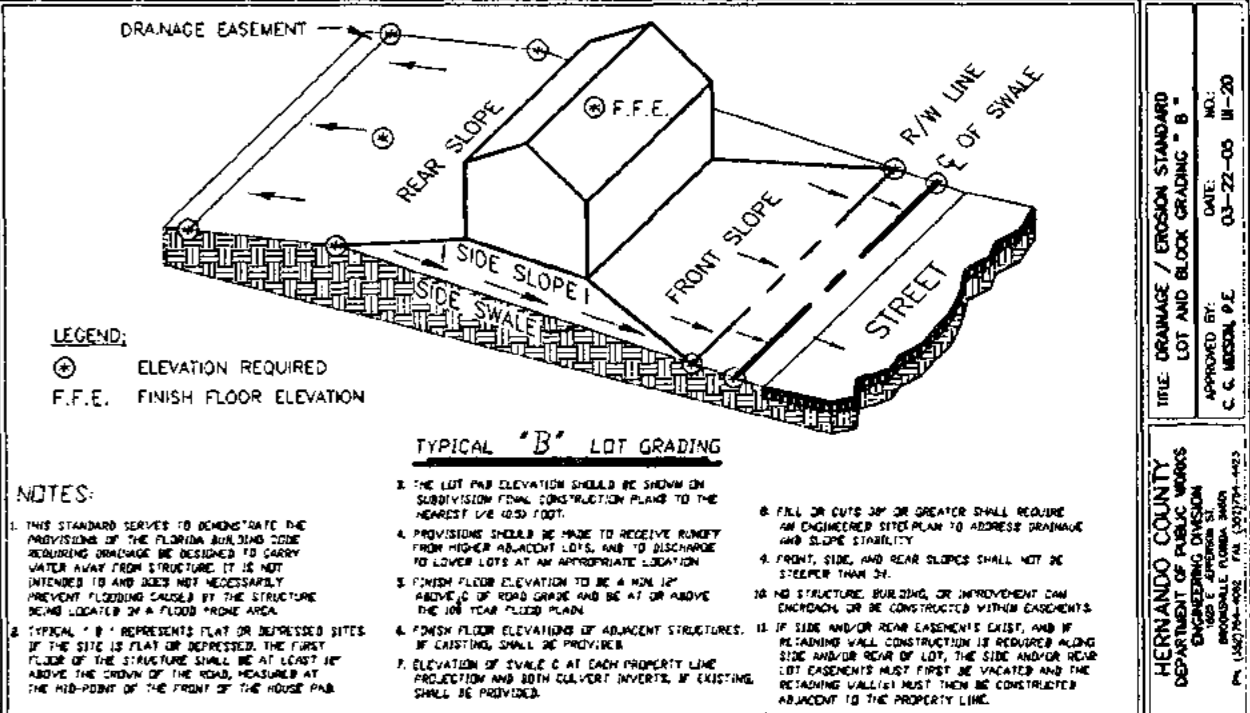
DATE DESCRIPTION BY
 03-24-08 RBA
 09-25-07 GM
 08-02-07 RRR

Stamp: Received APR 21 2008 ERO-REG

Stamp: Brian M. Mainberg P.E. 59405 FLORIDA PROFESSIONAL ENGINEER



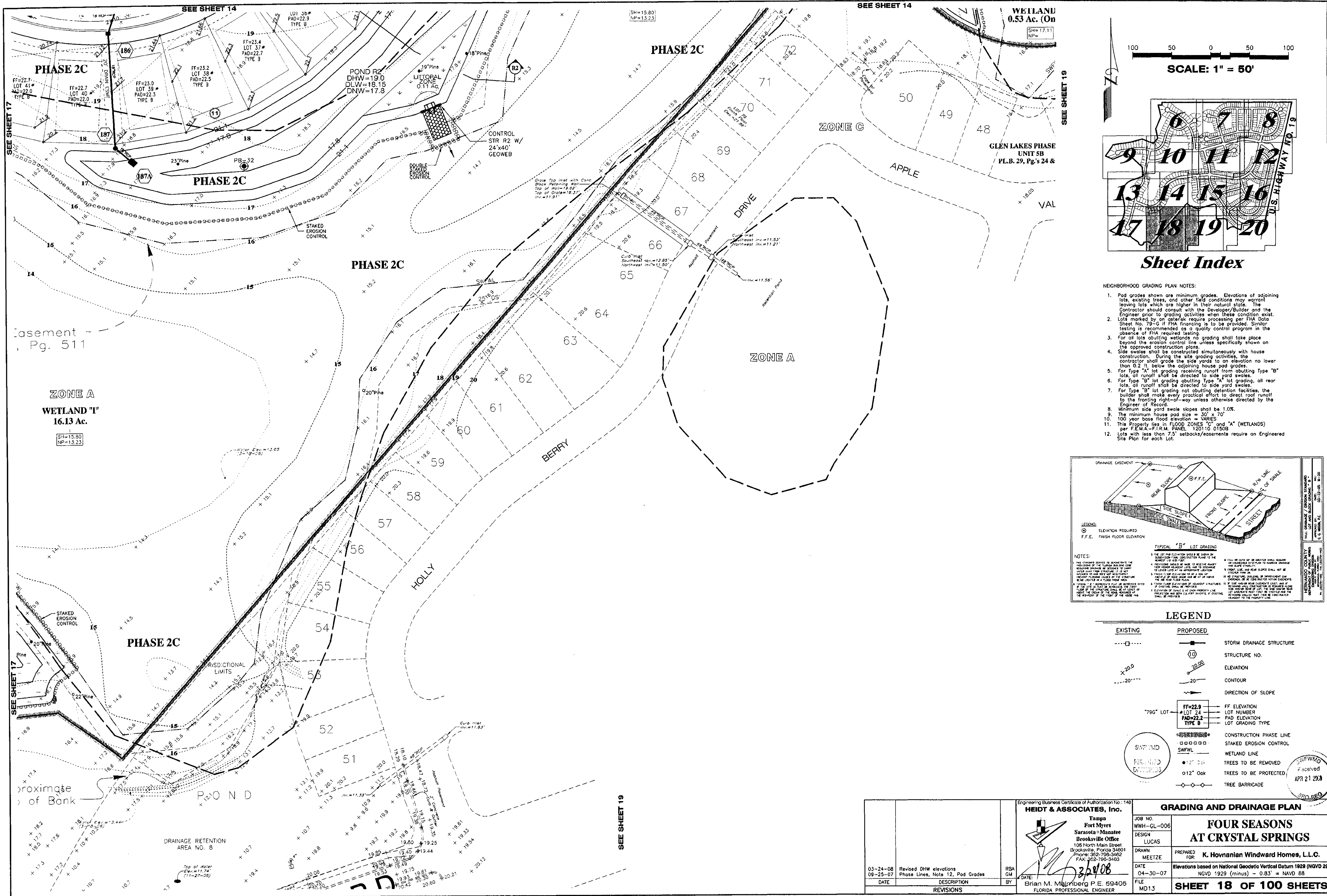
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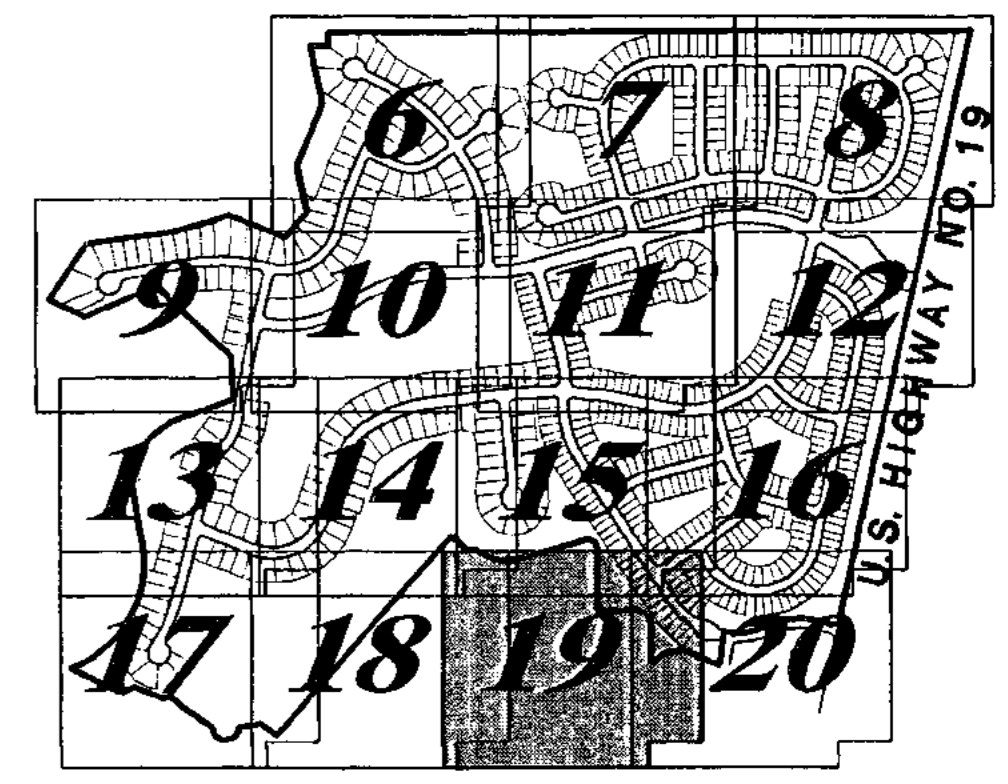
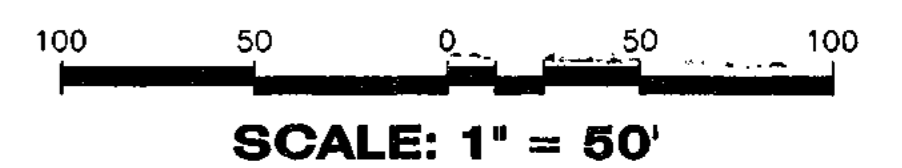
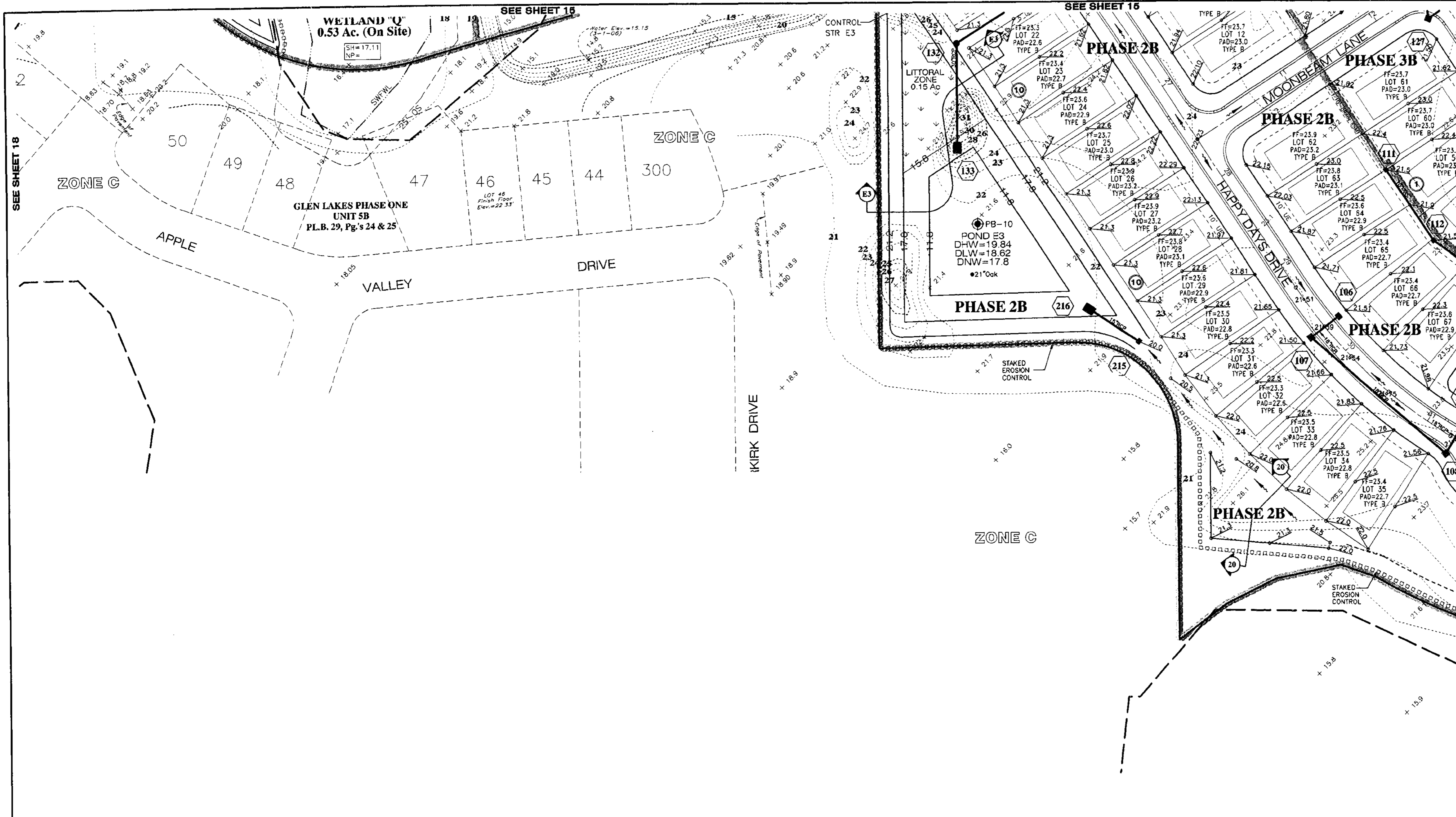


LEGEND

EXISTING	PROPOSED	DESCRIPTION
---	---	STORM DRAINAGE STRUCTURE
---	---	STRUCTURE NO.
---	---	ELEVATION
---	---	CONTOUR
---	---	DIRECTION OF SLOPE
---	---	FF ELEVATION
---	---	LOT NUMBER
---	---	PAD ELEVATION
---	---	LOT GRADING TYPE
---	---	CONSTRUCTION PHASE LINE
---	---	STAKED EROSION CONTROL
---	---	WETLAND LINE
---	---	TREES TO BE REMOVED
---	---	TREES TO BE PROTECTED
---	---	TREE BARRICADE

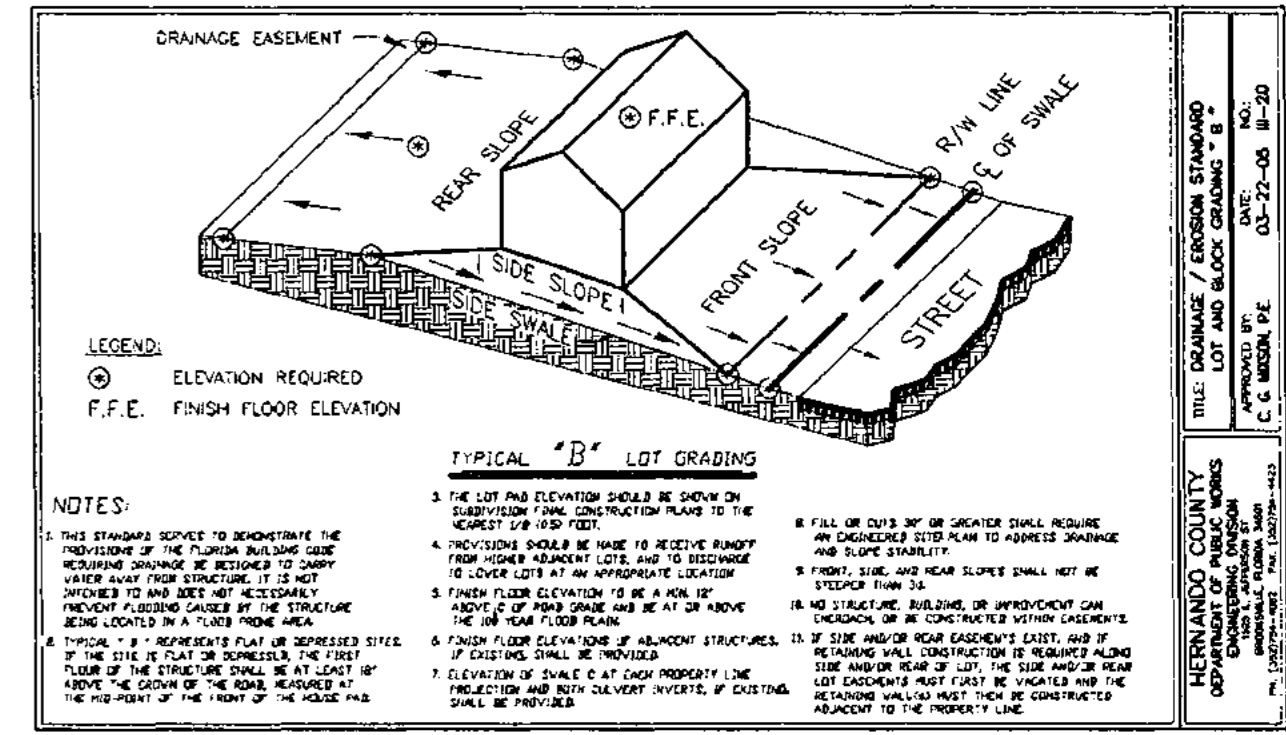
HEIDT & ASSOCIATES, Inc. Tampa Fort Myers Sarasota-Manatee Brooksville Office 108 North Main Street Brooksville, Florida 34601 Phone: 352-798-3452 FAX: 352-798-3463		GRADING AND DRAINAGE PLAN FOUR SEASONS AT CRYSTAL SPRINGS JOB NO. WHH-GL-006 DESIGN: LUCAS DRAWN: MEETZE DATE: 04-30-07 FILE: MD12	
03-24-08 Revise SHWL in WL 1 odd Str. I and IA 09-25-07 Phase Lines, Note 12, Pad Grades 08-02-07 ADD MT. AREA 3		PREPARED FOR: K. Hovnanian Windward Homes, L.L.C. ELEVATIONS based on National Geodetic Vertical Datum 1929 (NGVD 29) NGVD 1929 (minus) - 0.83' = NAVD 88 SHEET 17 OF 100 SHEETS	
DATE DESCRIPTION REVISIONS RBA CM RRG Brian M. Malmberg P.E. 59406 FLORIDA PROFESSIONAL ENGINEER		RECEIVED APR 21 2008 BRO. REC.	





Sheet Index

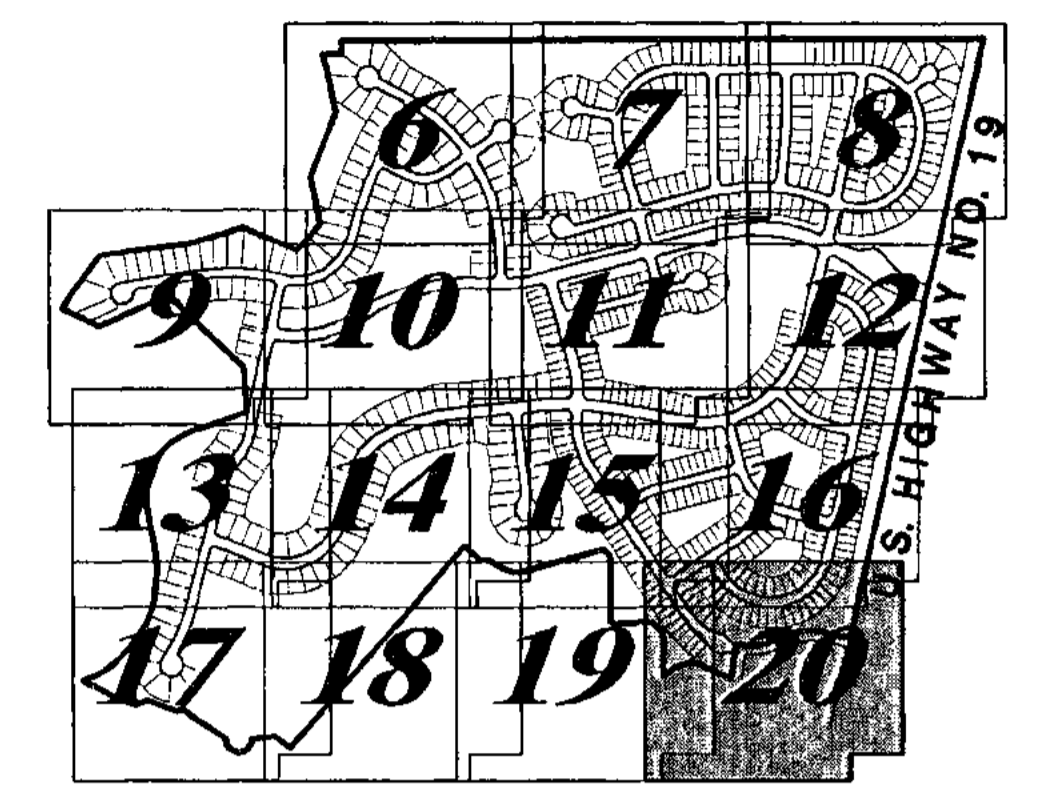
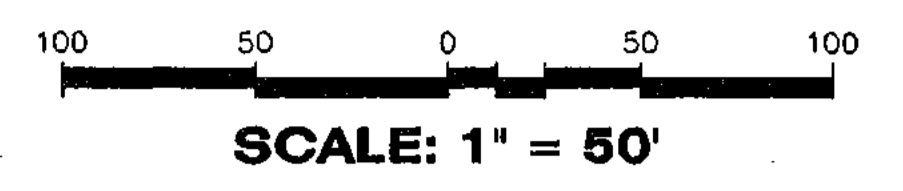
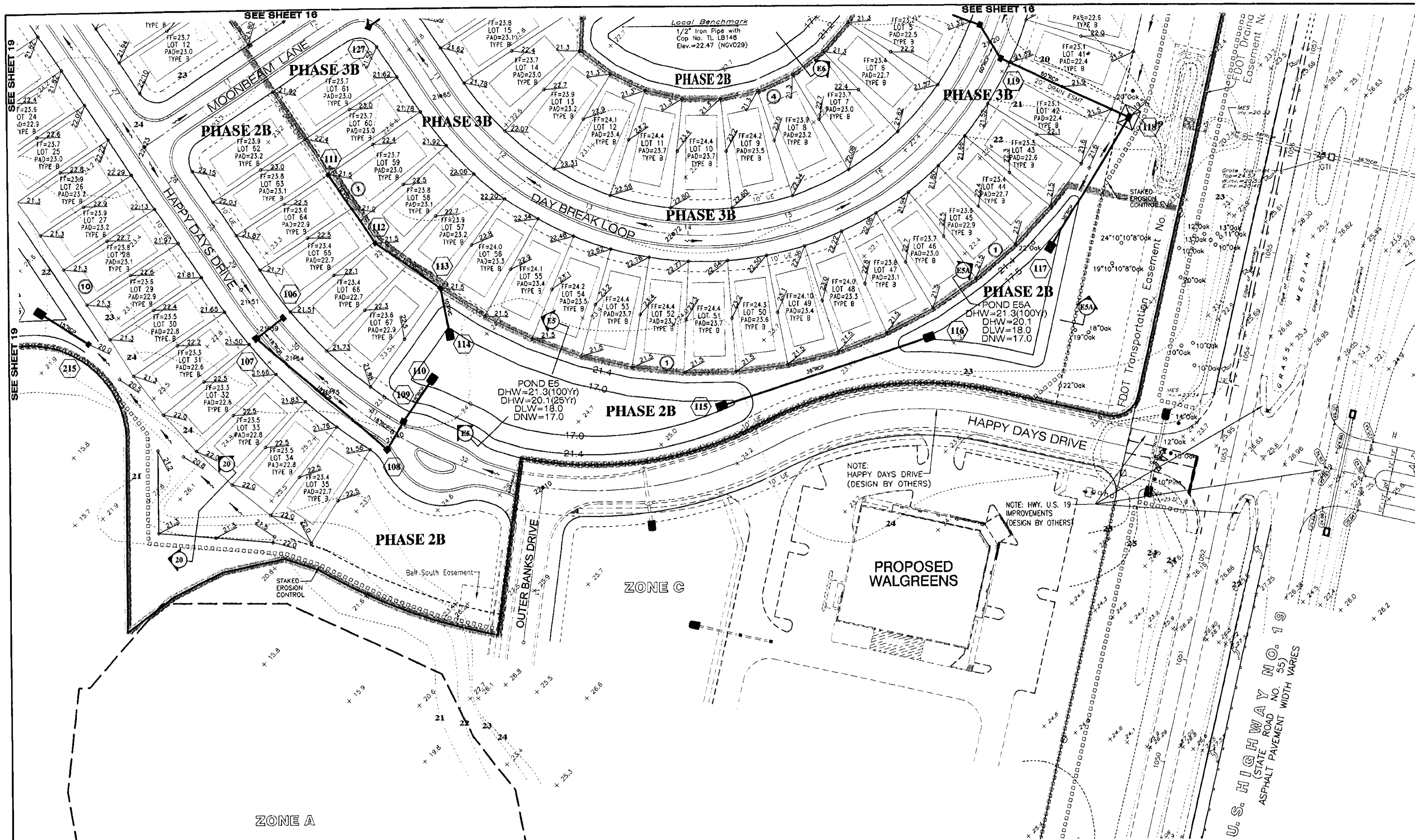
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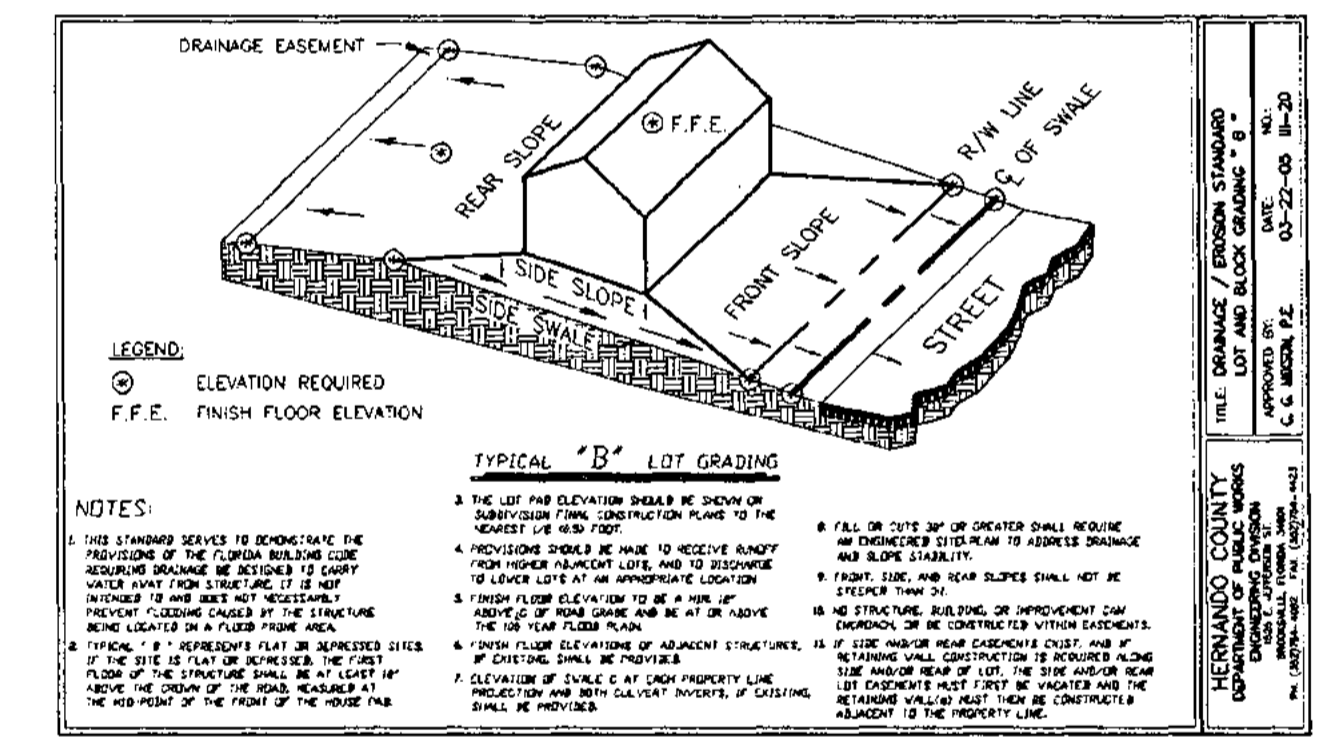
LEGEND

EXISTING	PROPOSED	STORM DRAINAGE STRUCTURE
---○---	—■—	STRUCTURE NO.
	⑩	ELEVATION
	⑩/20.0	CONTOUR
	⑩/20	DIRECTION OF SLOPE
	FF=22.9	FF ELEVATION
	LOT 24	LOT NUMBER
	PAD=22.2	PAD ELEVATION
	TYPE B	LOT GRADING TYPE
	---○---	CONSTRUCTION PHASE LINE
	□□□□□	STAKED EROSION CONTROL
	SWFWL	WETLAND LINE
	● 12" Oak	TREES TO BE REMOVED
	○ 12" Oak	TREES TO BE PROTECTED
	—○—	TREE BARRICADE

Engineering Business Certificate of Authorization No. 148 HEIDT & ASSOCIATES, Inc. Tampa Fort Myers Sarasota - Manatee Brooksville Office 105 North Main Street Brooksville, Florida 34601 Phone: 852-798-3462 FAX: 852-798-3463		GRADING AND DRAINAGE PLAN JOB NO. WHH-GL-006 DESIGN LUCAS DRAWN MEETZKE DATE 04-30-07 FILE MD14	
03-24-08 Revised DHW elevations 09-25-07 Phase Lines, Note 12, Pad Grades 06-25-07 Strs. 215 & 216, Spot Grades		FOUR SEASONS AT CRYSTAL SPRINGS PREPARED FOR: K. Hovnanian Windward Homes, L.L.C. Elevation based on National Geodetic Vertical Datum 1929 (NGVD 29) NGVD 1929 (minus) - 0.83' = NAVD 88	
RBA GM DATE: 3/24/08 BY: Brian M. Najberg P.E. 59405 FLORIDA PROFESSIONAL ENGINEER		SHEET 19 OF 100 SHEETS APR 21 2008 SWFWMD 590 REG	



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 12. Lots with less than 7.5' setbacks/easements require an Engineered Site Plan for each lot.



LEGEND

EXISTING	PROPOSED	STORM DRAINAGE STRUCTURE
---	---	STRUCTURE NO.
X 20.0	20.00	ELEVATION
---	---	CONTOUR
---	---	DIRECTION OF SLOPE
796' LOT	FF=22.0	FF ELEVATION
	LOT 24	LOT NUMBER
	PAD=22.2	PAD ELEVATION
	TYPE B	LOT GRADING TYPE
---	---	CONSTRUCTION PHASE LINE
---	---	STAKED EROSION CONTROL
---	---	WETLAND LINE
---	---	TREES TO BE REMOVED
---	---	TREES TO BE PROTECTED
---	---	TREE BARRICADE

Engineering Business Certificate of Authorization No. 148
HEIDI & ASSOCIATES, Inc.
 Tampa
 Fort Myers
 Sarasota - Manatee
 Brooksville Office
 106 North Main Street
 Brooksville, Florida 34601
 Phone: 352-798-3462
 FAX: 352-798-3463

3/28/08

DATE: Brian M. Malmberg, P.E. 59405
 FLORIDA PROFESSIONAL ENGINEER

03-24-08 Revised DHW elevations
 11-28-07 Add Proposed Walgreens
 08-25-07 Spot Grades at Str. 118

RBA
 CM
 DM

DATE: 04-30-07
 FILE: MD15

Engineering Business Certificate of Authorization No. 148
GRADING AND DRAINAGE PLAN
 JOB NO. WWH-GL-006
 DESIGN LUCAS
 DRAWN: MEETZE
 PREPARED FOR: **FOUR SEASONS AT CRYSTAL SPRINGS**
 K. Hovnanian Windward Homes, L.L.C.
 DATE: 04-30-07
 Elevation based on National Geodetic Vertical Datum 1929 (NGVD 29)
 NGVD 1929 (minus) - 0.83' = NAVD 88
SHEET 20 OF 100 SHEETS

APR 21 2008

STRUCTURE			LINE						STRUCTURE LOCATION & REMARKS	
NO.	TYPE & SIZE	TOP ELEV.	TYPE	DIAM. INCHES	LENGTH FEET	SLOPE %	INVERT UPPER END	ELEV. LOWER END	FALL IN FEET	
1	H DITCH BOTTOM INLET	19.50	RCP	60	242	0.21	13.00	12.50	0.50	PHASE 1 SEE DETAIL
2	H DITCH BOTTOM INLET	22.50	RCP	60	210	0.14	11.30	11.00	0.30	PHASE 1 SEE DETAIL
3	MITERED END SECTION									PHASE 1
E10	CONTROL STRUCTURE	21.50	RCP	60	215	0.14	11.20	10.90	0.30	PHASE 1 SEE DETAIL
4	1 CURB INLET	21.94	RCP	60	64	0.16	10.90	10.80	0.10	PHASE 1 2'-6"x4'-0" TOP/W 8'-0" DIAMETER J MH BOTTOM
19										
E11	CONTROL STRUCTURE	22.50	RCP	24	30	0.33	19.50	19.40	0.10	PHASE 1 SEE DETAIL
5	1 CURB INLET 2'-6" x 4'-0" BOX	23.82	RCP	24	41	2.20	18.90	18.00	0.90	PHASE 2A
7										
6	1 CURB INLET 2'-6" x 4'-0" BOX	23.70	RCP	18	41	0.24	19.40	19.30	0.10	PHASE 2A
7	P MANHOLE 4'-0" DIAMETER	23.88	RCP	24	281	0.71	16.60	14.50	2.00	PHASE 2A
9										
8	1 CURB INLET 2'-6" x 4'-0" BOX	21.38	RCP	18	31	3.28	17.40	16.40	1.00	PHASE 2A
9										
8A	C GRATE TOP INLET	20.00	RCP	18	158	0.25	16.90	16.50	0.40	PHASE 2A
9	1 CURB INLET	21.38	RCP	36	283	0.14	13.10	12.70	0.40	PHASE 2A 2'-6"x4'-0" TOP/W 5'-0" DIAMETER J MH BOTTOM
11										
10	1 CURB INLET 2'-6" x 4'-0" BOX	20.99	RCP	18	41	2.44	17.00	16.00	1.00	PHASE 2A
11	1 CURB INLET	20.99	RCP	36	39	0.26	12.70	12.60	0.10	PHASE 2A 2'-6"x4'-0" TOP/W 5'-0" DIAMETER J MH BOTTOM
12	1 CURB INLET	20.98	RCP	42	124	0.16	12.60	12.40	0.20	PHASE 2A 2'-6"x4'-0" TOP/W 5'-0" DIAMETER J MH BOTTOM
16										
13	YARD DRAIN	20.90	PVC	10	98	0.51	17.00	16.50	0.50	PHASE 2A
14	YARD DRAIN	20.80	PVC	10	103	0.49	16.50	16.00	0.50	PHASE 2A
16										
15	YARD DRAIN	20.70	PVC	10	103	0.49	16.50	16.00	0.50	PHASE 2A
16	H GRATE TOP INLET	20.50	RCP	42	53	0.19	12.40	12.30	0.10	PHASE 1
17	1 CURB INLET	21.80	RCP	42	35	0.29	12.30	12.00	0.10	PHASE 1 2'-6"x4'-0" TOP/W 5'-0" DIAMETER J MH BOTTOM
18	1 CURB INLET	21.10	RCP	42	240	0.13	12.00	11.70	0.30	PHASE 1 2'-6"x4'-0" TOP/W 5'-0" DIAMETER J MH BOTTOM
19	J MANHOLE 8'-0" DIAMETER	22.10	RCP	72	102	0.10	10.80	10.70	0.10	PHASE 1
21										
20A	YARD DRAIN	20.80	PVC	10	75	0.53	15.40	15.00	0.40	PHASE 1
20	1 CURB INLET 2'-6" x 4'-0" BOX	21.46	RCP	18	33	0.30	14.70	14.60	0.10	PHASE 1
21	1 CURB INLET	21.46	RCP	72	270	0.11	10.70	10.40	0.30	PHASE 1 2'-6"x4'-0" TOP/W 8'-0" DIAMETER J MH BOTTOM
22	J MANHOLE 10'-0" DIAMETER	21.60	RCP	72	128	0.16	10.00	9.80	0.20	PHASE 1
23	J MANHOLE 8'-0" DIAMETER	20.90	RCP	72	72	0.14	8.60	8.50	0.10	PHASE 1
24	MITERED END SECTION									PHASE 1

STRUCTURE			LINE						STRUCTURE LOCATION & REMARKS	
NO.	TYPE & SIZE	TOP ELEV.	TYPE	DIAM. INCHES	LENGTH FEET	SLOPE %	INVERT UPPER END	ELEV. LOWER END	FALL IN FEET	
25	2 CURB INLET 2'-6" x 4'-0" BOX	22.31	RCP	18	52	0.38	15.60	15.40	0.20	PHASE 1
27										
26	1 CURB INLET 2'-6" x 4'-0" BOX	22.18	RCP	18	32	0.63	16.90	16.70	0.20	PHASE 1
27	1 CURB INLET	22.18	RCP	30	342	0.12	15.40	15.00	0.40	PHASE 1 2'-6"x4'-0" TOP W/ 5'-0" DIAMETER J MH BOTTOM
28	1 CURB INLET	21.88	RCP	30	37	0.27	15.00	14.90	0.10	PHASE 1 2'-6"x4'-0" TOP W/ 5'-0" DIAMETER J MH BOTTOM
29	1 CURB INLET	21.88	RCP	30	161	0.12	14.30	14.10	0.20	PHASE 1 2'-6"x4'-0" TOP W/ 5'-0" DIAMETER J MH BOTTOM
30	D GRATE TOP INLET	20.00	RCP	30	35	0.29	14.10	14.00	0.10	PHASE 1
31	D GRATE TOP INLET	20.00	RCP	30	191	0.11	14.00	13.80	0.20	PHASE 1
34										
32	1 CURB INLET 2'-6" x 4'-0" BOX	22.31	RCP	18	32	0.31	18.30	18.20	0.10	PHASE 1
33	1 CURB INLET 4'-0" x 4'-0" BOX	22.31	RCP	18	193	0.31	17.40	16.80	0.60	PHASE 1
34	1 CURB INLET	22.60	RCP	30	62	0.11	13.80	13.70	0.10	PHASE 1 2'-6"x4'-0" TOP W/ 5'-0" DIAMETER J MH BOTTOM
35	J MANHOLE	22.40	RCP	36	115	0.09	13.70	13.60	0.10	PHASE 1
37										
36	1 CURB INLET 2'-6" x 4'-0" BOX	21.88	RCP	18	37	1.35	17.00	16.50	0.50	PHASE 1
37	1 CURB INLET	21.88	RCP	42	155	0.13	13.60	13.40	0.20	PHASE 1 2'-6"x4'-0" TOP W/ 5'-0" DIAMETER J MH BOTTOM
38	MITERED END SECTION									PHASE 1
39	D GRATE TOP INLET	19.40	RCP	18	106	0.28	16.00	15.70	0.30	PHASE 1
40	1 CURB INLET 4'-0" x 4'-0" BOX	24.06	RCP	18	88	0.23	15.70	15.50	0.20	PHASE 1
41	1 CURB INLET 4'-0" x 4'-0" BOX	24.06	RCP	18	45	0.22	15.10	15.00	0.10	PHASE 1
42	MITERED END SECTION									PHASE 1
43	1 CURB INLET 2'-6" x 4'-0" BOX	27.10	RCP	18	77	1.04	20.30	19.50	0.80	PHASE 2A
44	1 CURB INLET 4'-0" x 4'-0" BOX	26.20	RCP	18	300	1.27	19.50	15.70	3.80	PHASE 2A
48										
45	1 CURB INLET 2'-6" x 4'-0" BOX	21.88	RCP	18	31	0.32	18.00	17.90	0.10	PHASE 2A
46	1 CURB INLET 4'-0" x 4'-0" BOX	21.88	RCP	18	118	0.25	17.90	17.60	0.30	PHASE 2A
48										
C2	MITERED END SECTION		RCP	18	146	0.21	14.70	14.40	0.30	PHASE 2A
47	1 CURB INLET 2'-6" x 4'-0" BOX	22.38	RCP	18	34	0.29	14.40	14.30	0.10	PHASE 2A
48	1 CURB INLET 4'-0" x 4'-0" BOX	22.38	RCP	24	148	0.14	14.10	13.90	0.20	PHASE 2A
49	MITERED END SECTION									PHASE 2A
50	1 CURB INLET 2'-6" x 4'-0" BOX	25.54	RCP	18	31	0.32	21.50	21.40	0.10	PHASE 3A
51	1 CURB INLET 2'-6" x 4'-0" BOX	25.52	RCP	18	125	0.24	21.40	21.10	0.30	PHASE 3A
52	P MANHOLE 4'-0" DIAMETER	25.60	RCP	18	34	0.29	15.10	15.00	0.10	PHASE 3A
52A	MITERED END SECTION									PHASE 3A
53	1 CURB INLET 2'-6" x 4'-0" BOX	22.53	RCP	18	31	0.32	18.50	18.40	0.10	PHASE 3A
54	1 CURB INLET 4'-0" x 4'-0" BOX	22.53	RCP	18	156	0.19	18.40	18.10	0.30	PHASE 3A
56										

STRUCTURE			LINE						STRUCTURE LOCATION & REMARKS	
NO.	TYPE & SIZE	TOP ELEV.	TYPE	DIAM. INCHES	LENGTH FEET	SLOPE %	INVERT UPPER END	ELEV. LOWER END	FALL IN FEET	
55	1 CURB INLET 2'-6" x 4'-0" BOX	23.18	RCP	18	40	0.50	19.00	18.80	0.20	PHASE 3A
56	P MANHOLE	23.20	RCP	18	158	0.51	18.10	17.30	0.80	PHASE 3A
56A	P MANHOLE	22.70	RCP	18	147	0.68	17.30	16.30	1.00	PHASE 3A
58										
C3	CONTROL STRUCTURE		RCP	18	136	0.22	15.40	15.10	0.30	PHASE 2A
57	1 CURB INLET	21.88	RCP	18	39	0.26	15.10	15.00	0.10	CONST. TEMP. CONC. TOP WITH PHASE 2A COMPLETE THROUGH W/PH. 3A 2'-6" x 4'-0" TOP W/ 5'-0" DIAMETER J MH BOTTOM
58	1 CURB INLET	21.88	RCP	24	125	0.14	14.50	14.30	0.20	CONST. TEMP. CONC. TOP WITH PHASE 2A COMPLETE THROUGH W/PH. 3A 2'-6" x 4'-0" TOP W/ 5'-0" DIAMETER J MH BOTTOM
59	J MANHOLE 5'-0" DIAMETER	21.80	RCP	24	24	0.42	13.60	13.50	0.10	PHASE 2A
59A	MITERED END SECTION									PHASE 2A
60	1 CURB INLET 2'-6" x 4'-0" BOX	20.48	RCP	18	31	0.32	16.50	16.40	0.10	PHASE 3A
61	1 CURB INLET 4'-0" x 4'-0" BOX	20.48	RCP	18	136	0.22	16.40	16.10	0.30	PHASE 3A
62	1 CURB INLET 4'-0" x 4'-0" BOX	20.48	RCP	18	140	0.43	14.60	14.00	0.60	PHASE 3A
63	MITERED END SECTION									PHASE 3A
64	MITERED END SECTION		RCP	24	91	0.22	13.50	13.30	0.20	PHASE 1
65										
65A	1 CURB INLET 2'-6" x 4'-0" BOX	20.98	RCP	18	138	0.36	14.30	13.80	0.50	PHASE 1
65	1 CURB INLET	20.82	RCP	24	35	0.29	13.30	13.20	0.10	PHASE 1 2'-6" x 4'-0" TOP W/ 5'-0" DIAMETER J MH BOTTOM
66	1 CURB INLET	20.82	RCP	30	46	0.22	12.60	12.50	0.10	PHASE 1 2'-6" x 4'-0" TOP W/ 5'-0" DIAMETER J MH BOTTOM
67	MITERED END SECTION									PHASE 1
68	C GRATE TOP INLET	20.40	RCP	18	52	0.39	17.90	17.70	0.20	PHASE 3A
77										
69	YARD DRAIN	19.80	RCP	10	70	0.57	17.40	17.00	0.40	PHASE 2B
70	C GRATE TOP INLET	19.80	RCP	18	42	0.24	16.90	16.80	0.10	PHASE 2B
71	1 CURB INLET 2'-6" x 4'-0" BOX	20.70	RCP	18	35	0.29	15.60	15.50	0.10	PHASE 1
75										
72	C GRATE TOP INLET	21.00	RCP	15	100	0.60	17.80	17.20	0.60	PHASE 3A
73	C GRATE TOP INLET	21.00	RCP	15	115	0.35	17.20	16.80	0.40	PHASE 3A
74	C GRATE TOP INLET	21.00	RCP	18	52	0.39	16.30	16.10	0.20	PHASE 3A
75	1 CURB INLET 4'-0" x 4'-0" BOX	20.70	RCP	24	127	0.16	15.80	15.60	0.20	PHASE 1
76	1 CURB INLET 2'-6" x 4'-0" BOX	21.39	RCP	24	232	0.13	15.60	15.30	0.30	PHASE 1 2'-6" x 4'-0" TOP W/ 5'-0" DIAMETER J MH BOTTOM
77	1 CURB INLET 4'-0" x 4'-0" BOX	20.68	RCP	24	35	0.29	15.30	15.20	0.10	PHASE 1
78	1 CURB INLET 4'-0" x 4'-0" BOX	20.68	RCP	30	76	0.18	15.00	14.90	0.10	PHASE 1
82										
79	YARD DRAIN	20.00	PVC	10	120	0.42	16.50	16.00	0.50	PHASE 2B
80	YARD DRAIN	19.80	PVC	10	87	0.46	16.00	15.60	0.40	PHASE 2B
82										

NOTE: ALL INLET AND MANHOLE STRUCTURE BOTTOMS ARE SPECIFIED TYPE 'P' UNLESS OTHERWISE NOTED. REFER TO FDOT DESIGN STANDARDS INDEX #200 & #201.

ALL MITERED END SECTIONS (MES) ARE SPECIFIED FDOT INDEX #272 UNLESS OTHERWISE NOTED.

Engineering Business Certificate of Authorization No. 148 HEIDT & ASSOCIATES, Inc. Tampa Fort Myers Sarasota • Manatee Brooksville Office 105 North Main Street Brooksville, Florida 34601 Phone: 352-798-3460 FAX: 352-798-3463		STORM STRUCTURE DATA FOUR SEASONS AT CRYSTAL SPRINGS PREPARED FOR: K. Novnanlan Windward Homes, L.L.C. Elevations based on National Geodetic Vertical Datum 1929 (NGVD 29) NGVD 1929 (minus) - 0.83' = NAVD 88	
JOB NO. WWH-CL-006 DESIGN: LUCAS DRAWN: MEETZE DATE: 04-30-07 FILE: ST	RBA GM RRR GM DATE: 11/21/07 BY: Brian M. Malmberg P.E. 59405 FLORIDA PROFESSIONAL ENGINEER	10-22-07 Str. 1 Top 09-25-07 Str. 147 08-02-07 Str. 35.36 06-25-07 Str. 1.2, 7.16, 30.31, 72.73, 74	SHEET 21 OF 100 SHEETS RECEIVED APR 21 2008

PALLEN LAKES MASTER PLAN ENGINEER/INSTR. DWS, 10/22/2007 10:24:51 AM, BDBA

STRUCTURE			LINE							STRUCTURE LOCATION & REMARKS
NO.	TYPE & SIZE	TOP ELEV.	TYPE	DIAM. INCHES	LENGTH FEET	SLOPE %	INVERT UPPER END	ELEV. LOWER END	FALL IN FEET	
81	YARD DRAIN	19.80	PVC	10	86	0.47	16.50	16.10	0.40	PHASE 2B
82	E GRATE TOP INLET	19.80	RCP	30	122	0.16	14.90	14.70	0.20	PHASE 1
83	1 CURB INLET 4'-0" x 4'-0" BOX	20.68	RCP	30	31	0.32	14.70	14.60	0.10	CONST. TEMP. CONC. TOP WITH PHASE 1 COMPLETE THROAT W/PH. 2B
84	1 CURB INLET 4'-0" x 4'-0" BOX	20.68	RCP	30	148	0.14	12.90	12.70	0.20	CONST. TEMP. CONC. TOP WITH PHASE 1 COMPLETE THROAT W/PH. 2B
85	MITERED END SECTION									PHASE 1
86	1 CURB INLET 4'-0" x 4'-0" BOX	20.69	RCP	18	82	0.24	16.70	16.50	0.20	PHASE 2B
87	1 CURB INLET 4'-0" x 4'-0" BOX	20.69	RCP	18	154	0.39	13.90	13.00	0.90	PHASE 2B
88	MITERED END SECTION									PHASE 2B
88B	D GRATE TOP INLET	19.30	RCP	18	100	0.40	15.80	15.40	0.40	PHASE 1
88C	D GRATE TOP INLET	19.30	RCP	18	96	0.31	12.80	12.50	0.30	PHASE 1
88D	MITERED END SECTION									PHASE 1
89	1 CURB INLET 2'-6" x 4'-0" BOX	20.88	RCP	18	31	0.32	17.00	16.90	0.10	PHASE 1
90	1 CURB INLET 2'-6" x 4'-0" BOX	20.88	RCP	18	120	0.25	16.90	16.60	0.30	PHASE 1
91	P MANHOLE 4'-0" DIAMETER	21.00	RCP	18	48	0.21	13.60	13.50	0.10	PHASE 1
91A	MITERED END SECTION									PHASE 1
92	E DITCH BOTTOM INLET	19.50	RCP	18	124	0.81	15.10	14.10	1.00	PHASE 1 SEE DETAIL
93	1 CURB INLET 2'-6" x 4'-0" BOX	20.88	RCP	18	32	0.31	14.10	14.00	0.10	PHASE 1
94	1 CURB INLET 4'-0" x 4'-0" BOX	20.88	RCP	24	142	0.21	13.30	13.00	0.30	PHASE 1
95	MITERED END SECTION									PHASE 1
96	CONTROL STRUCTURE	20.00	RCP	30	142	0.70	13.90	12.90	1.00	PHASE 1 SEE DETAIL
96	1 CURB INLET 2'-6" x 4'-0" BOX	20.68	RCP	30	43	0.23	12.90	12.80	0.10	PHASE 1
97	1 CURB INLET 4'-0" x 4'-0" BOX	20.68	RCP	30	148	0.20	12.80	12.50	0.30	PHASE 1
98	MITERED END SECTION									PHASE 1
99	E DITCH BOTTOM INLET	19.50	RCP	18	124	0.31	16.00	15.70	0.30	PHASE 3B SEE DETAIL
100	1 CURB INLET 2'-6" x 4'-0" BOX	20.88	RCP	18	32	0.31	15.70	15.60	0.10	PHASE 3B
101	1 CURB INLET 2'-6" x 4'-0" BOX	20.88	RCP	24	142	0.21	13.30	13.00	0.30	PHASE 3B
102	MITERED END SECTION									PHASE 3B
103	CONTROL STRUCTURE	20.00	RCP	60	155	0.13	12.20	12.00	0.20	PHASE 1
103A	1 CURB INLET 2'-6" x 4'-0" BOX	21.22	RCP	18	158	0.32	14.00	13.50	0.50	PHASE 1
103	1 CURB INLET	20.68	RCP	60	34	0.29	12.00	11.90	0.10	PHASE 1 2'-6"x4'-0" TOP/W 8'-0" DIAMETER J MH BOTTOM
104	1 CURB INLET	20.68	RCP	60	148	0.14	9.70	9.50	0.20	PHASE 1 2'-6"x4'-0" TOP/W 8'-0" DIAMETER J MH BOTTOM
105	MITERED END SECTION									PHASE 1
106	1 CURB INLET 2'-6" x 4'-0" BOX	21.27	RCP	18	31	0.32	17.30	17.20	0.10	PHASE 2B
107	1 CURB INLET 4'-0" x 4'-0" BOX	21.27	RCP	18	167	0.24	17.20	16.80	0.40	PHASE 2B
108	1 CURB INLET 4'-0" x 4'-0" BOX	21.28	RCP	18	30	0.67	16.80	16.60	0.20	PHASE 2B
109	1 CURB INLET 4'-0" x 4'-0" BOX	21.28	RCP	18	44	0.23	13.60	13.50	0.10	PHASE 2B
110	MITERED END SECTION									PHASE 2B

STRUCTURE			LINE							STRUCTURE LOCATION & REMARKS
NO.	TYPE & SIZE	TOP ELEV.	TYPE	DIAM. INCHES	LENGTH FEET	SLOPE %	INVERT UPPER END	ELEV. LOWER END	FALL IN FEET	
111	YARD DRAIN	21.50	PVC	10	80	0.50	18.40	18.00	0.40	PHASE 2B
112	YARD DRAIN	21.50	PVC	10	76	0.53	18.00	17.60	0.40	PHASE 2B
113	C GRATE TOP INLET	21.50	PVC	10	40	0.50	14.20	14.00	0.20	PHASE 2B
114	MITERED END SECTION									PHASE 2B
115	MITERED END SECTION		RCP	36	200	0.15	12.80	12.50	0.30	PHASE 2B
116	MITERED END SECTION									PHASE 2B
117	MITERED END SECTION		RCP	36	140	0.21	12.80	12.50	0.30	PHASE 2B
118	H DITCH BOTTOM INLET	19.50	RCP	60	135	0.15	12.50	12.30	0.20	PHASE 2B SEE DETAIL
119	1 CURB INLET	21.08	RCP	60	38	0.26	12.30	12.20	0.10	CONST. TEMP. CONC. TOP WITH PHASE 2B COMPLETE THROAT W/PH. 3B 2'-6"x4'-0" TOP/W 8'-0" DIAMETER J MH BOTTOM
120	1 CURB INLET	21.08	RCP	60	120	0.14	12.20	12.00	0.20	CONST. TEMP. CONC. TOP WITH PHASE 2B COMPLETE THROAT W/PH. 3B 2'-6"x4'-0" TOP/W 8'-0" DIAMETER J MH BOTTOM
121	J MANHOLE 8'-0" DIAMETER	21.20	RCP	60	24	0.42	9.60	9.50	0.10	PHASE 2B
121A	MITERED END SECTION									PHASE 2B
122	MITERED END SECTION		RCP	66	140	0.14	10.00	9.80	0.20	
123	1 CURB INLET	21.08	RCP	66	31	0.32	9.80	9.70	0.10	CONST. TEMP. CONC. TOP WITH PHASE 2B COMPLETE THROAT W/PH. 3B 2'-6"x4'-0" TOP/W 8'-0" DIAMETER J MH BOTTOM
124	1 CURB INLET	21.08	RCP	66	144	0.14	9.70	9.50	0.20	CONST. TEMP. CONC. TOP WITH PHASE 2B COMPLETE THROAT W/PH. 3B 2'-6"x4'-0" TOP/W 8'-0" DIAMETER J MH BOTTOM
125	MITERED END SECTION									
126	1 CURB INLET 2'-6" x 4'-0" BOX	21.06	RCP	18	41	0.24	17.00	16.90	0.10	PHASE 3B
127	1 CURB INLET 4'-0" x 4'-0" BOX	21.06	RCP	18	41	0.24	16.90	16.80	0.10	PHASE 3B
128	1 CURB INLET 4'-0" x 4'-0" BOX	21.06	RCP	24	140	0.14	13.70	13.50	0.20	PHASE 3B
129	MITERED END SECTION									PHASE 3B
130	CONTROL STRUCTURE	20.40	RCP	24	137	0.15	15.00	13.80	0.20	PHASE 2B SEE DETAIL
130	1 CURB INLET 2'-6" x 4'-0" BOX	21.06	RCP	24	33	0.30	13.80	13.70	0.10	PHASE 2B
131	1 CURB INLET 2'-6" x 4'-0" BOX	21.06	RCP	30	122	0.12	13.70	13.50	0.20	PHASE 2B
132	P MANHOLE	21.20	RCP	30	92	0.22	12.70	12.50	0.20	PHASE 2B
133	MITERED END SECTION									PHASE 2B
134	1 CURB INLET 2'-6" x 4'-0" BOX	21.06	RCP	18	31	0.32	17.00	16.90	0.10	PHASE 3B
136										
135	1 CURB INLET 2'-6" x 4'-0" BOX	21.06	RCP	18	150	0.20	17.00	16.70	0.30	PHASE 3B
136	1 CURB INLET 4'-0" x 4'-0" BOX	21.06	RCP	18	96	0.31	13.80	13.50	0.30	PHASE 3B
137	MITERED END SECTION									PHASE 3B
137A	1 CURB INLET 2'-6" x 4'-0" BOX	20.88	RCP	18	33	0.30	17.00	16.90	0.10	PHASE 3B
137B	1 CURB INLET 2'-6" x 4'-0" BOX	20.88	RCP	18	142	0.49	14.20	13.50	0.70	PHASE 3B
137C	MITERED END SECTION									PHASE 3B
137D	1 CURB INLET 2'-6" x 4'-0" BOX	20.88	RCP	18	33	0.30	17.00	16.90	0.10	PHASE 2B
137E	1 CURB INLET 2'-6" x 4'-0" BOX	20.88	RCP	18	142	0.49	14.20	13.50	0.70	PHASE 2B
137F	MITERED END SECTION									PHASE 2B

STRUCTURE			LINE							STRUCTURE LOCATION & REMARKS
NO.	TYPE & SIZE	TOP ELEV.	TYPE	DIAM. INCHES	LENGTH FEET	SLOPE %	INVERT UPPER END	ELEV. LOWER END	FALL IN FEET	
E4	CONTROL STRUCTURE	20.00	RCP	24	138	0.72	14.40	13.40	1.00	PHASE 2B SEE DETAIL
138	1 CURB INLET 2'-6" x 4'-0" BOX	20.68	RCP	24	35	0.29	13.40	13.30	0.10	CONST. TEMP. CONC. TOP WITH PHASE 2B COMPLETE THROAT W/PH. 3B
139	1 CURB INLET 2'-6" x 4'-0" BOX	20.68	RCP	30	124	0.16	13.30	13.10	0.20	CONST. TEMP. CONC. TOP WITH PHASE 2B COMPLETE THROAT W/PH. 3B
140	P MANHOLE	20.90	RCP	30	24	0.42	12.10	12.00	0.10	PHASE 2B
140A	MITERED END SECTION									PHASE 2B
141	1 CURB INLET 2'-6" x 4'-0" BOX	21.15	RCP	18	128	0.31	13.30	12.90	0.40	PHASE 2B
142	1 CURB INLET 4'-0" x 4'-0" BOX	20.72	RCP	18	35	0.29	12.90	12.80	0.10	PHASE 2B
143	1 CURB INLET 4'-0" x 4'-0" BOX	20.72	RCP	18	146	0.48	12.80	12.10	0.70	PHASE 2B
143A	MITERED END SECTION									PHASE 2B
E12	CONTROL STRUCTURE	19.80	RCP	72	323	0.10	8.80	8.50	0.30	PHASE 1 SEE DETAIL
144	MITERED END SECTION									PHASE 1
145	1 CURB INLET 2'-6" x 4'-0" BOX	20.07	RCP	18	95	0.32	14.30	14.00	0.30	PHASE 1
146	MITERED END SECTION									PHASE 1
147	1 CURB INLET 2'-6" x 4'-0" BOX	20.80	RCP	18	35	0.29	16.80	16.70	0.10	PHASE 3C
148	1 CURB INLET 4'-0" x 4'-0" BOX	20.80	RCP	18	40	0.25	12.60	12.50	0.10	PHASE 3C
149	MITERED END SECTION									PHASE 3C
F5A	CONTROL STRUCTURE	19.00	RCP	30	110	0.18	11.20	11.00	0.20	PHASE 1 SEE DETAILS
150	MITERED END SECTION									PHASE 1
F4	CONTROL STRUCTURE	19.00	RCP	30	157	0.32	12.60	12.10	0.50	PHASE 3C SEE DETAILS
152										
151	1 CURB INLET 2'-6" x 4'-0" BOX	19.38	RCP	18	48	1.04	15.00	14.50	0.50	PHASE 3C
152	1 CURB INLET	19.38	RCP	30	48	0.22	12.10	12.00	0.10	PHASE 3C 2'-6"x4'-0" TOP/W 5'-0" DIAMETER J MH BOTTOM
153	1 CURB INLET	19.38	RCP	30	40	0.50	11.20	11.00	0.20	PHASE 3C 2'-6"x4'-0" TOP/W 5'-0" DIAMETER J MH BOTTOM
154	MITERED END SECTION									PHASE 3C
155	1 CURB INLET 2'-6" x 4'-0" BOX	19.38	RCP	18	31	0.32	15.50	15.40	0.10	PHASE 3C
156	1 CURB INLET 4'-0" x 4'-0" BOX	19.38	RCP	18	247	0.20	15.40	14.90	0.50	PHASE 3C
158										
157	1 CURB INLET 2'-6" x 4'-0" BOX	19.38	RCP	18	32	0.31	15.50	15.40	0.10	PHASE 3C
158	1 CURB INLET 4'-0" x 4'-0" BOX	19.38	RCP	24	140	0.21	14.50	14.30	0.20	PHASE 3C
159	P MANHOLE	19.60	RCP	24	32	0.31	12.60	12.50	0.10	PHASE 3C
160	MITERED END SECTION									PHASE 3C
161	2 CURB INLET 2'-6" x 4'-0" BOX	19.38	RCP	18	31	0.32	15.50	15.40	0.10	PHASE 3C
162	1 CURB INLET 4'-0" x 4'-0" BOX	19.38	RCP	18	166	0.48	12.80	12.00	0.80	PHASE 3C
163	MITERED END SECTION									PHASE 3C

NOTE: ALL INLET AND MANHOLE STRUCTURE BOTTOMS ARE SPECIFIED TYPE 'P' UNLESS OTHERWISE NOTED. REFER TO FDOT DESIGN STANDARDS INDEX #200 & #201.

ALL MITERED END SECTIONS (MES) ARE SPECIFIED FDOT INDEX #272 UNLESS OTHERWISE NOTED.

Engineering Business Certificate of Authorization No. 148 HEIDT & ASSOCIATES, Inc. Tampa Fort Myers Sarasota - Manatee Brooksville Office 105 North Main Street Brooksville, Florida 34601 Phone: 352-798-3462 FAX: 352-798-3463		JOB NO. WWH-GL-006 DESIGN LUCAS DRAWN MEETZE PREPARED FOR K. Hovnanian Windward Homes, L.L.C. DATE 04-30-07 FILE ST	FOUR SEASONS AT CRYSTAL SPRINGS Elevation based on National Geodetic Vertical Datum 1929 (NGVD 29) NGVD 1929 (minus) - 0.83' = NAVD 88 SHEET 22 OF 100 SHEETS
03-24-08 09-25-07 08-25-07 DATE	Srs. 115, 117, 122, 123, 124 Srs. 147 Srs. 88,99,100,144 DESCRIPTION REVISIONS	RBA CM GM DATE 3/2/08 Brian M. Malmberg P.E. 59405 FLORIDA PROFESSIONAL ENGINEER	APPROVED APR 21 2008 PRO-REC

NO.	STRUCTURE TYPE & SIZE	TOP ELEV.	TYPE	LINE					FALL IN FEET	STRUCTURE LOCATION & REMARKS
				DIAM. INCHES	LENGTH FEET	SLOPE %	INVERT	ELEV.		
							UPPER END	LOWER END		
164	1 CURB INLET 2'-6" x 4'-0" BOX	20.01	RCP	18	50	0.40	16.00	15.80	0.20	PHASE 1
165	2 CURB INLET 4'-0" x 4'-0" BOX	19.78	RCP	24	31	0.32	15.20	15.10	0.10	PHASE 1
166	1 CURB INLET 4'-0" x 4'-0" BOX	19.78	RCP	24	168	0.24	12.40	12.00	0.40	PHASE 1
166A	MITERED END SECTION									PHASE 1
167	2 CURB INLET 2'-6" x 4'-0" BOX	19.78	RCP	18	140	0.36	15.50	15.00	0.50	PHASE 1
168	P MANHOLE	20.00	RCP	18	65	0.31	12.20	12.00	0.20	PHASE 1
169	MITERED END SECTION									PHASE 1
170	1 CURB INLET 2'-6" x 4'-0" BOX	21.40	RCP	18	62	0.32	18.00	17.80	0.20	PHASE 1
171	1 CURB INLET 4'-0" x 4'-0" BOX	21.38	RCP	18	164	0.18	17.50	17.20	0.30	PHASE 1
172	MITERED END SECTION									PHASE 1
173	1 CURB INLET 2'-6" x 4'-0" BOX	21.75	RCP	18	47	0.43	17.70	17.50	0.20	PHASE 1
174	1 CURB INLET 4'-0" x 4'-0" BOX	21.75	RCP	18	41	0.24	17.50	17.40	0.10	PHASE 1
175	1 CURB INLET 4'-0" x 4'-0" BOX	21.67	RCP	18	50	0.40	17.40	17.20	0.20	PHASE 1
176	P MANHOLE	21.60	RCP	18	233	0.30	17.20	16.50	0.70	PHASE 1
178										
C	CONTROL STRUCTURE	20.50	RCP	24	155	0.97	14.80	13.30	1.50	PHASE 1 SEE DETAIL
177	1 CURB INLET 2'-6" x 4'-0" BOX	20.58	RCP	30	33	0.30	13.30	13.20	0.10	PHASE 1 2'-6" x 4'-0" TOP W/ 5'-0" DIAMETER J MH BOTTOM
178	1 CURB INLET 2'-6" x 4'-0" BOX	20.58	RCP	30	140	0.13	13.20	13.00	0.20	PHASE 1 2'-6" x 4'-0" TOP W/ 5'-0" DIAMETER J MH BOTTOM
179	J MANHOLE 5'-0" DIAMETER	20.70	RCP	30	26	0.38	12.50	12.40	0.10	PHASE 1
180	MITERED END SECTION									PHASE 1
181	1 CURB INLET 2'-6" x 4'-0" BOX	20.98	RCP	18	40	0.25	17.00	16.90	0.10	PHASE 2C
182	1 CURB INLET 4'-0" x 4'-0" BOX	20.98	RCP	18	143	0.21	14.20	13.90	0.30	PHASE 2C
183	P MANHOLE	21.10	RCP	18	32	0.31	13.10	13.00	0.10	PHASE 2C
184	MITERED END SECTION									PHASE 2C
185	1 CURB INLET 2'-6" x 4'-0" BOX	20.98	RCP	18	36	0.28	17.00	16.90	0.10	PHASE 2C
186	1 CURB INLET 2'-6" x 4'-0" BOX	20.98	RCP	18	147	0.20	14.20	13.90	0.30	PHASE 2C
187	P MANHOLE	21.20	RCP	18	24	0.42	13.10	13.00	0.10	PHASE 2C
187A	MITERED END SECTION									PHASE 2C
188	1 CURB INLET 2'-6" x 4'-0" BOX	19.38	RCP	18	32	0.31	15.50	15.40	0.10	PHASE 3C
189	1 CURB INLET 4'-0" x 4'-0" BOX	19.38	RCP	18	164	0.37	13.60	13.00	0.60	PHASE 3C
190	MITERED END SECTION									PHASE 3C
191	1 CURB INLET 2'-6" x 4'-0" BOX	19.38	RCP	18	31	0.32	14.50	14.40	0.10	PHASE 3C
192	1 CURB INLET 4'-0" x 4'-0" BOX	19.38	RCP	18	127	0.24	14.40	14.10	0.30	PHASE 3C
193	P MANHOLE	20.20	RCP	18	160	0.25	14.10	13.70	0.40	PHASE 2C
195										
194	1 CURB INLET 2'-6" x 4'-0" BOX	19.38	RCP	18	36	0.28	14.50	14.40	0.10	PHASE 2C
195	1 CURB INLET 4'-0" x 4'-0" BOX	19.38	RCP	24	178	0.11	12.70	12.50	0.20	PHASE 2C
196	MITERED END SECTION									PHASE 2C

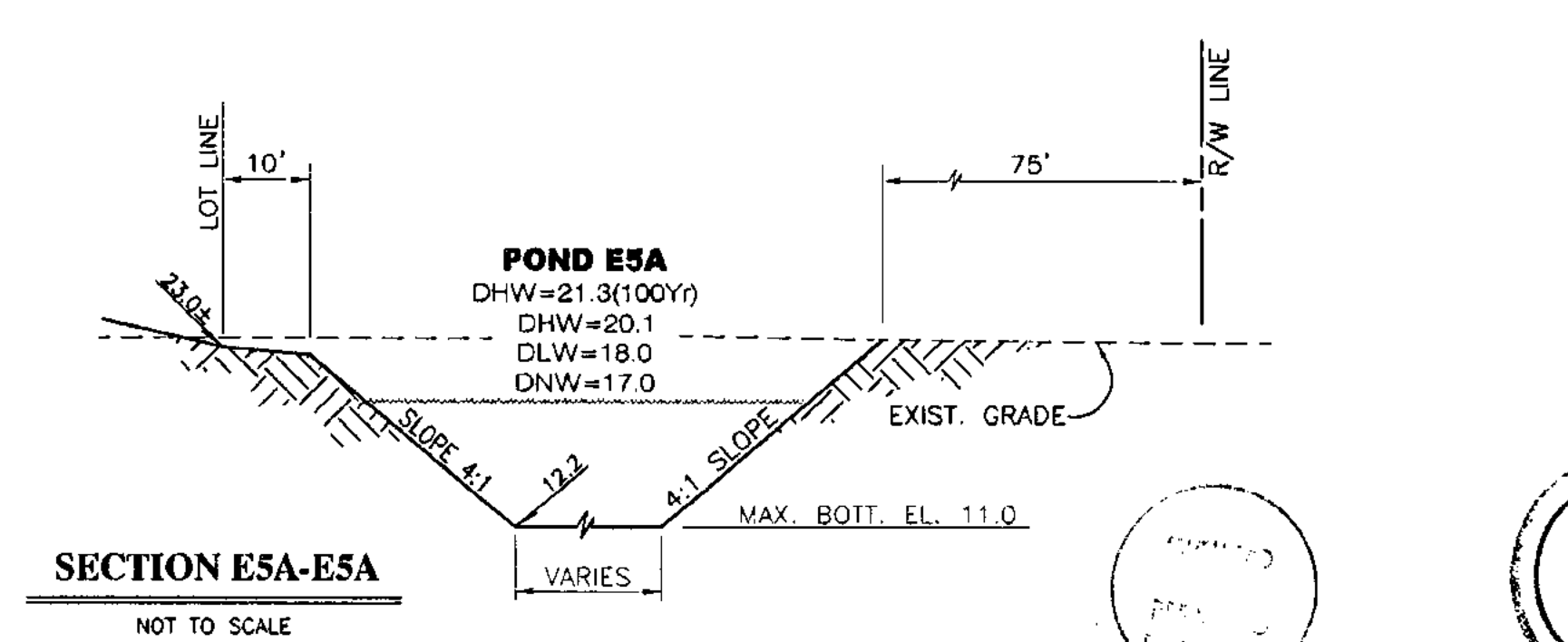
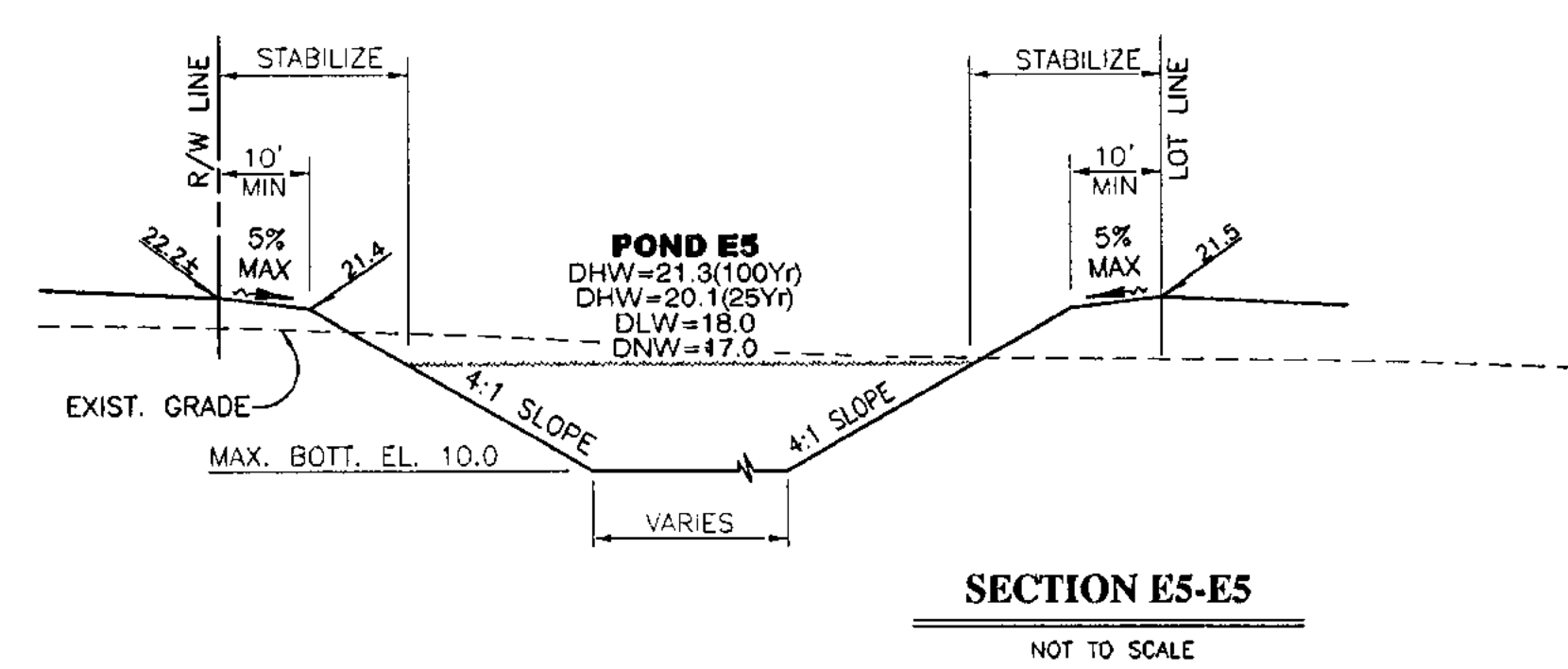
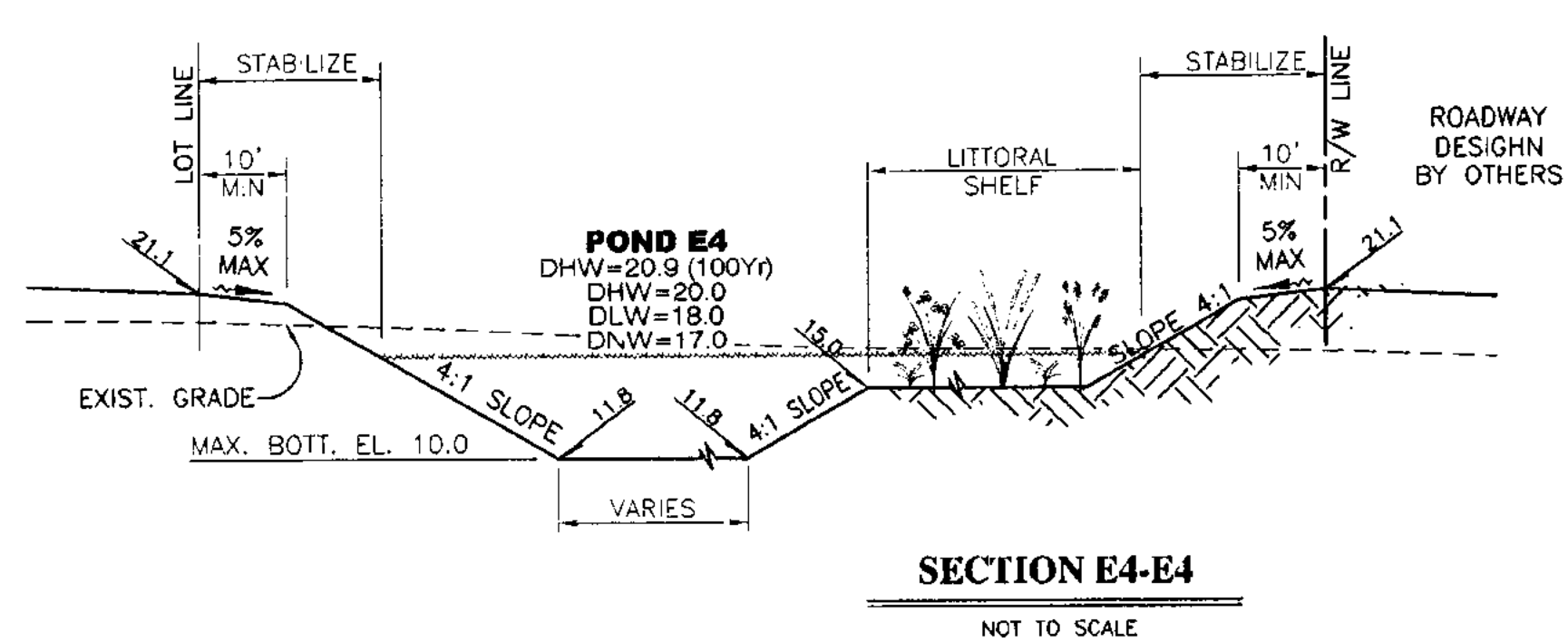
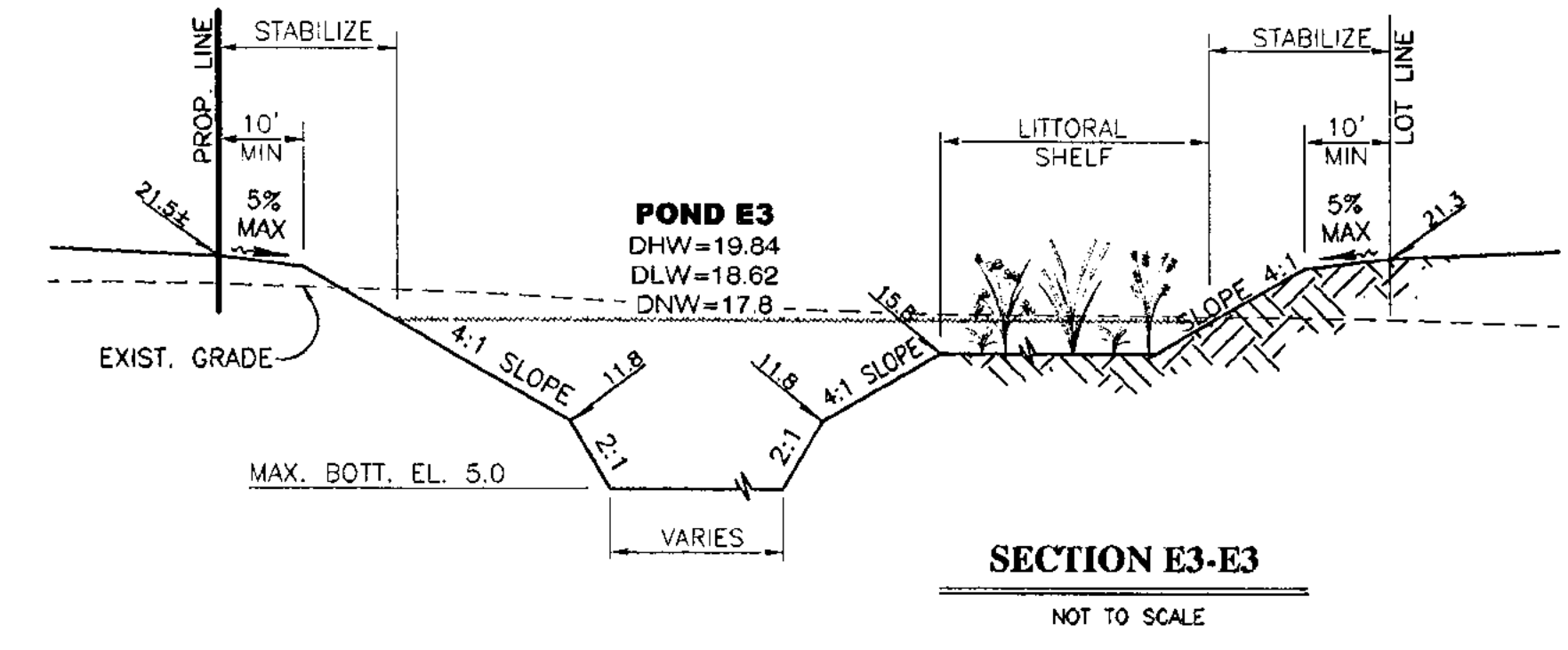
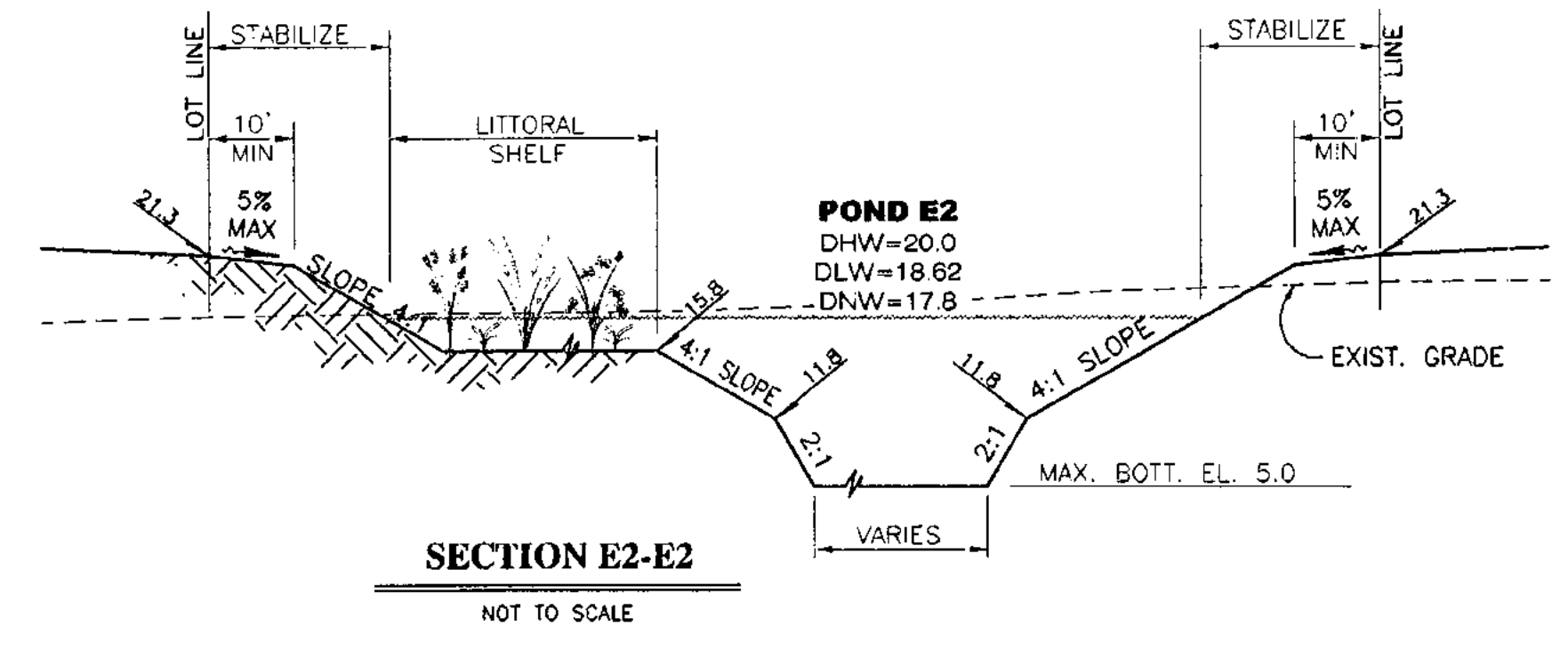
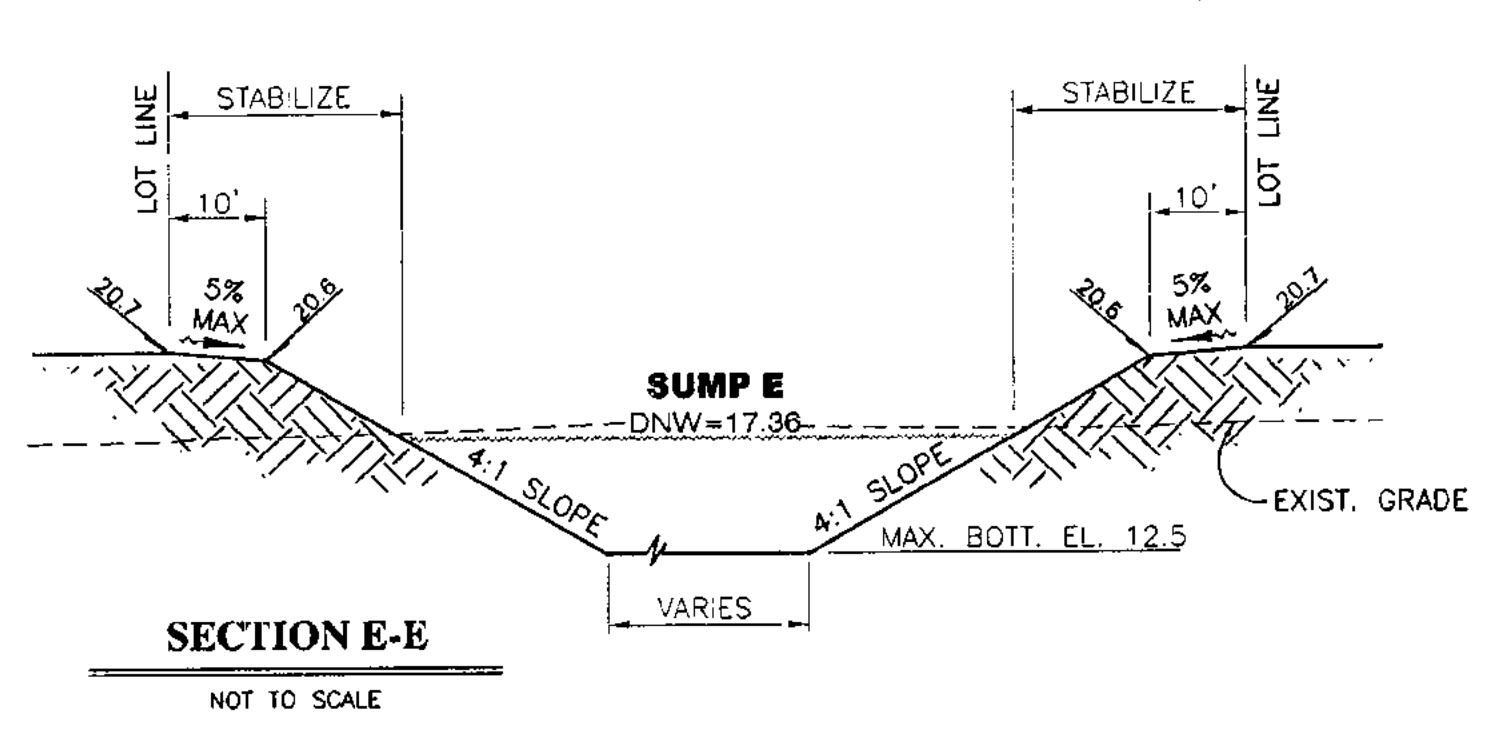
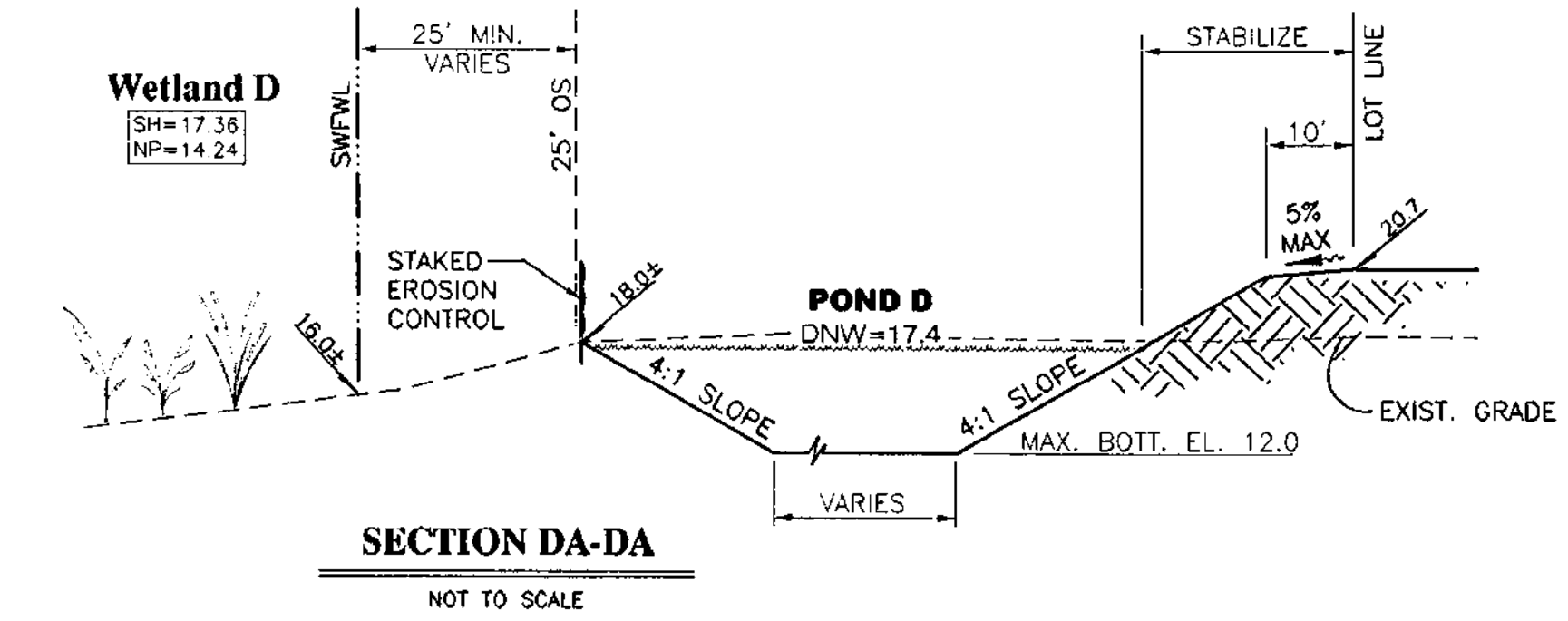
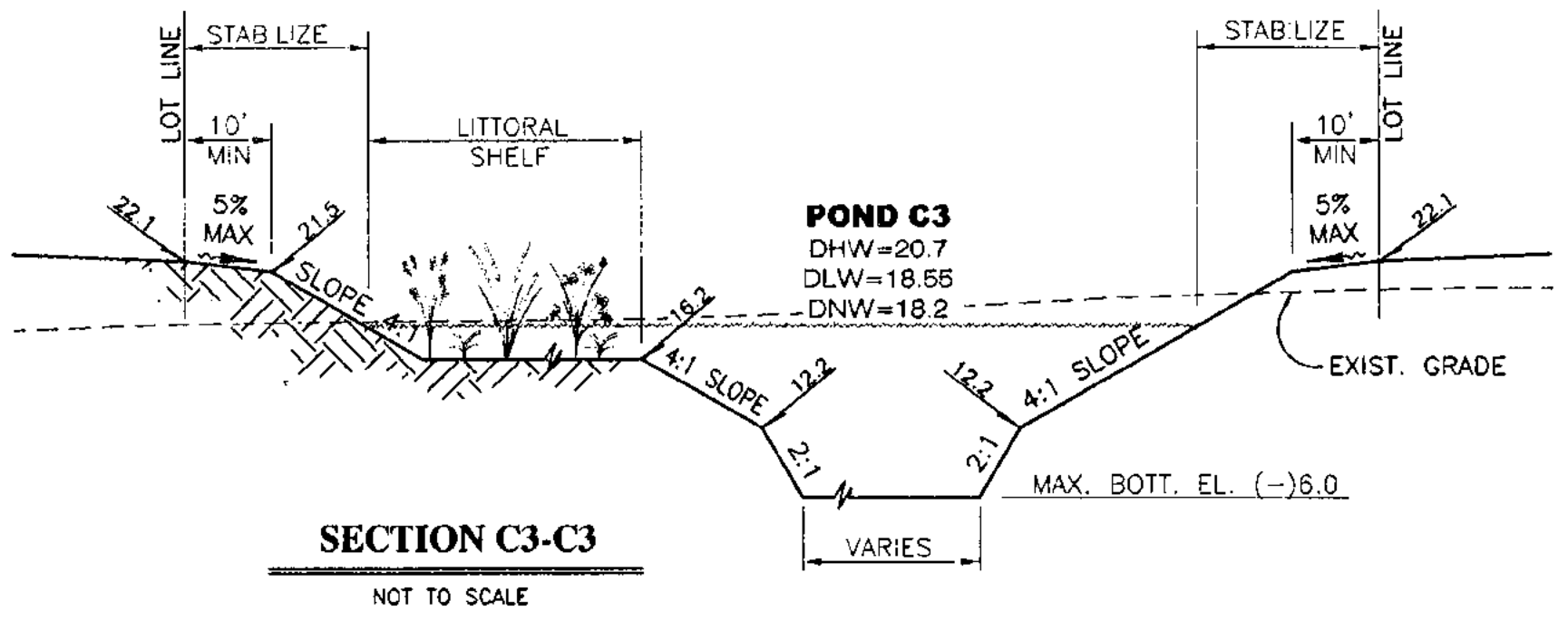
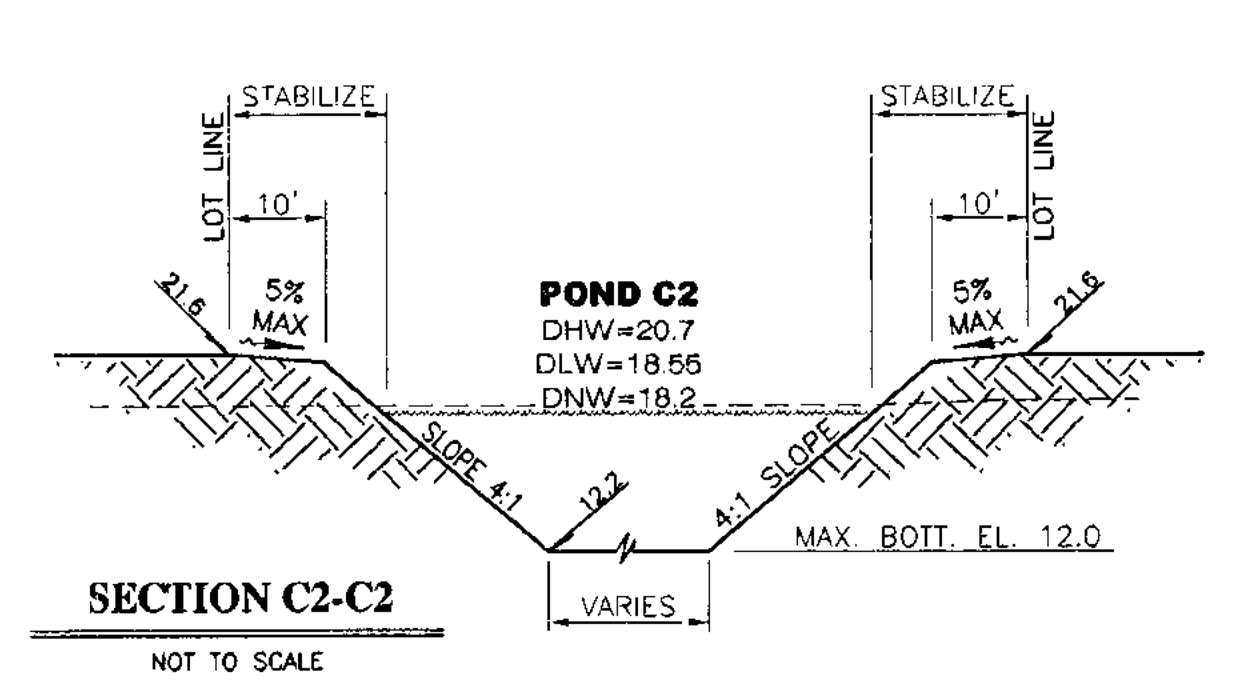
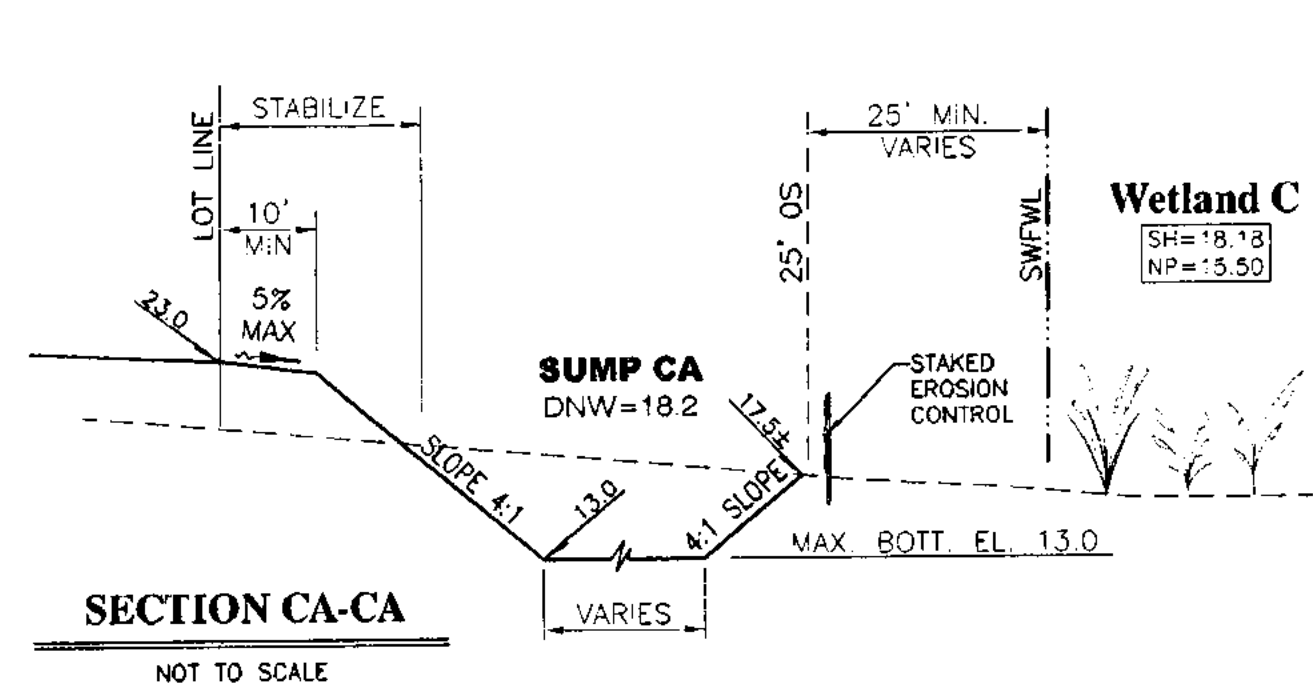
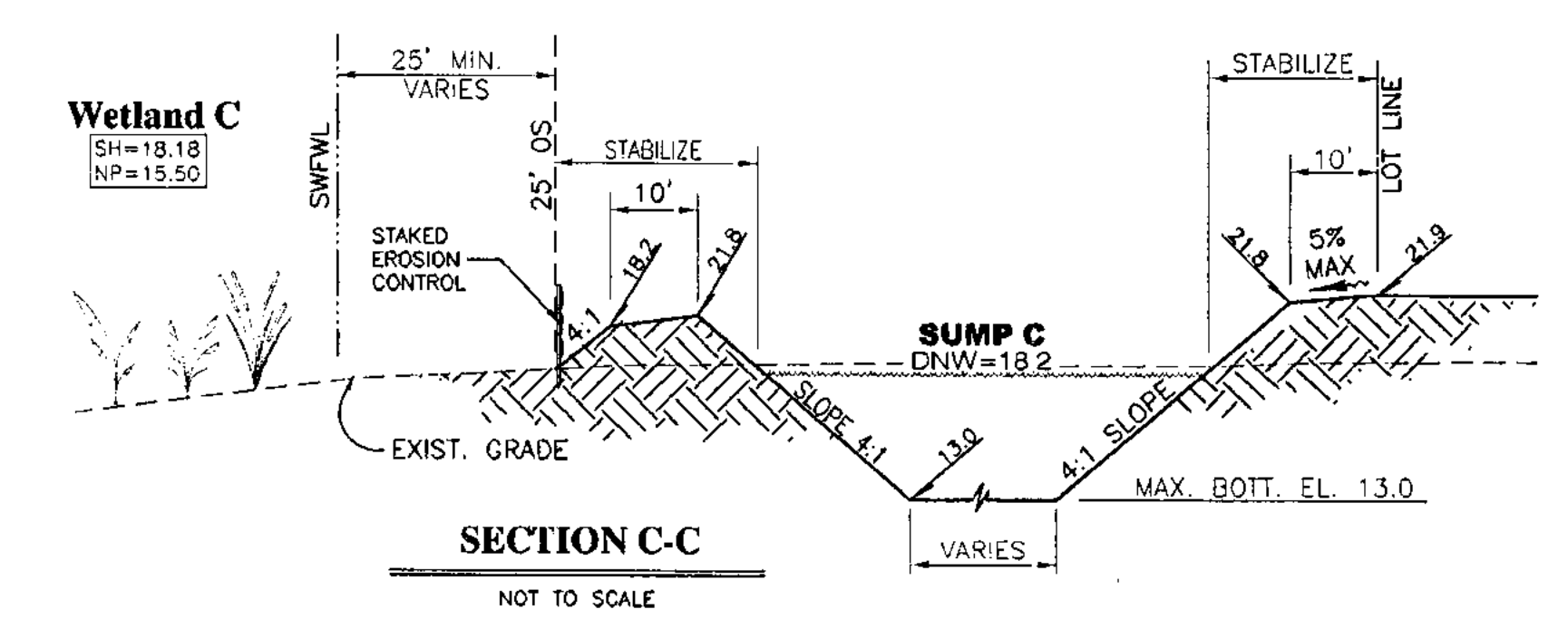
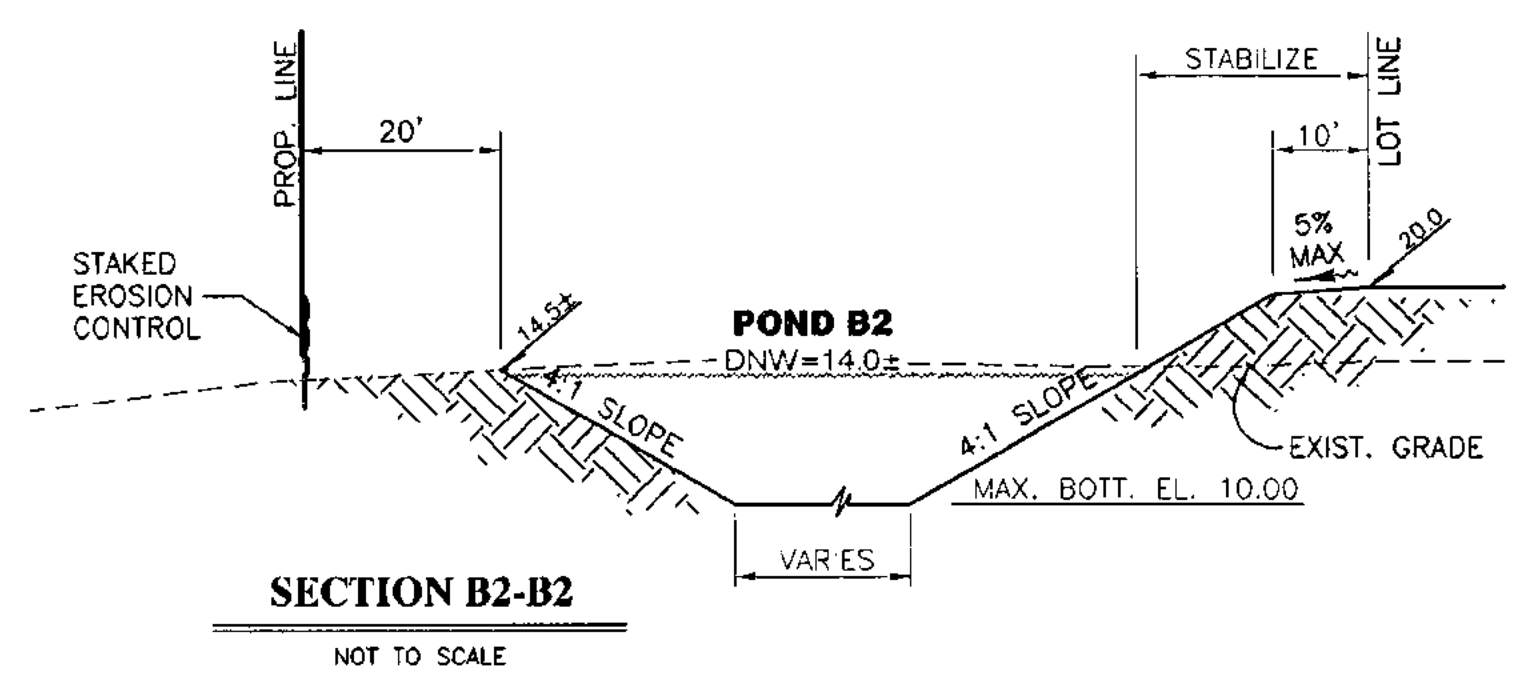
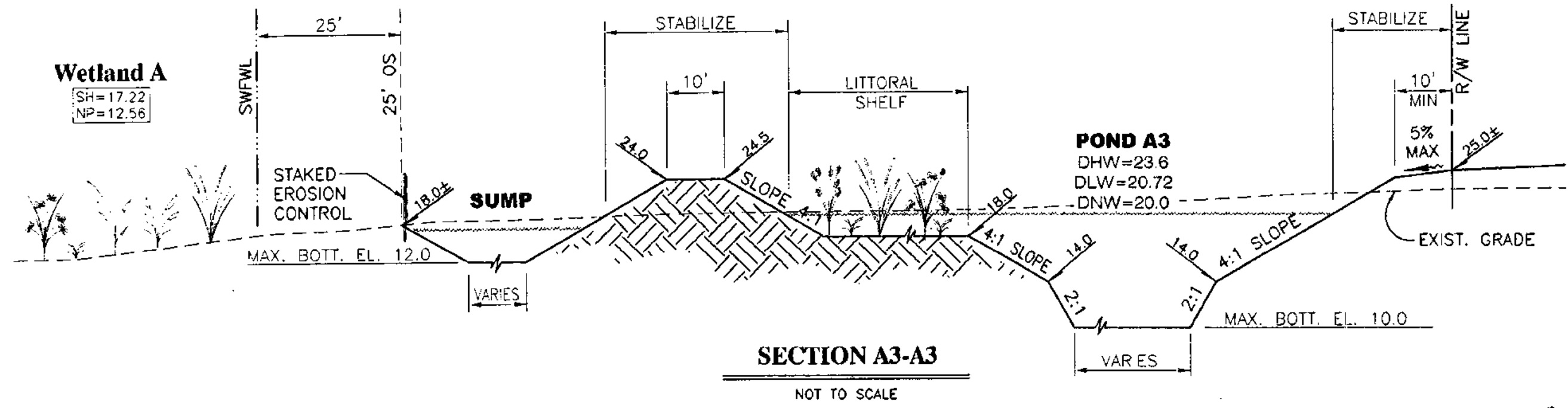
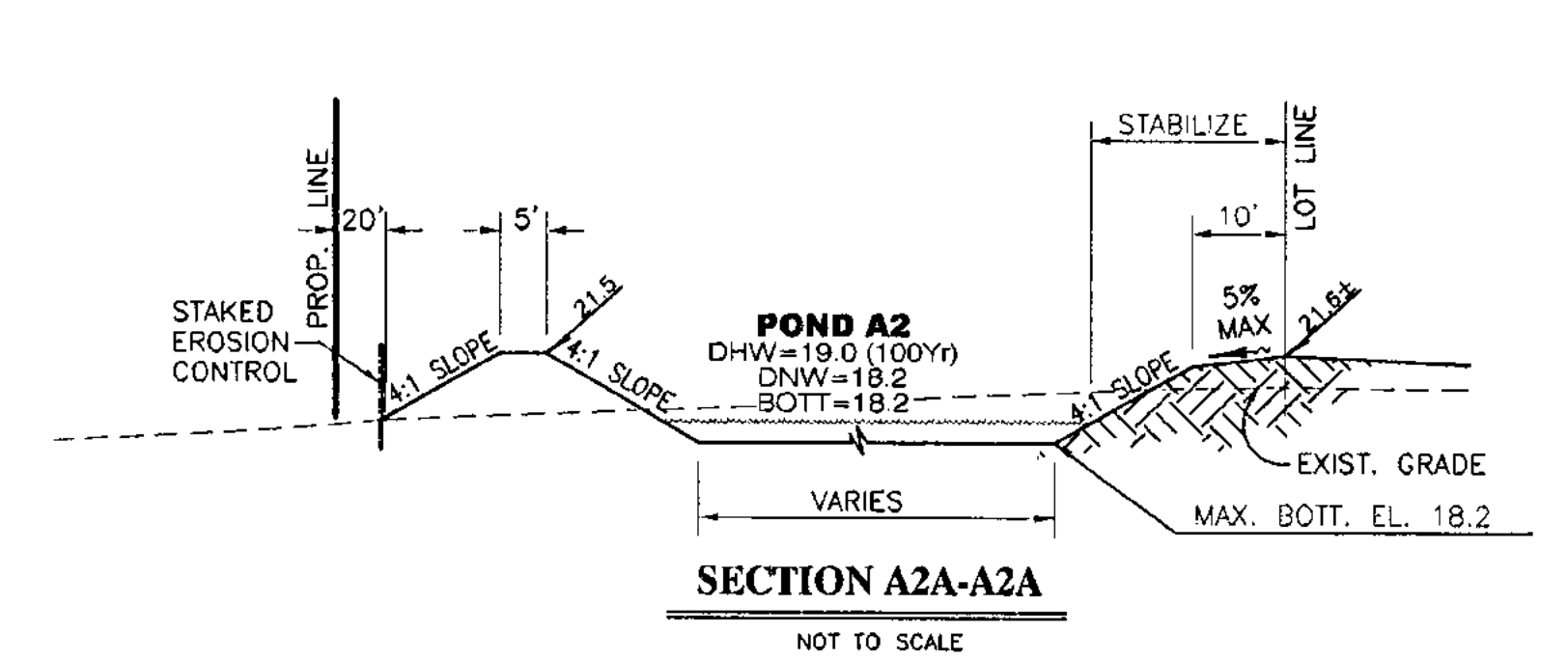
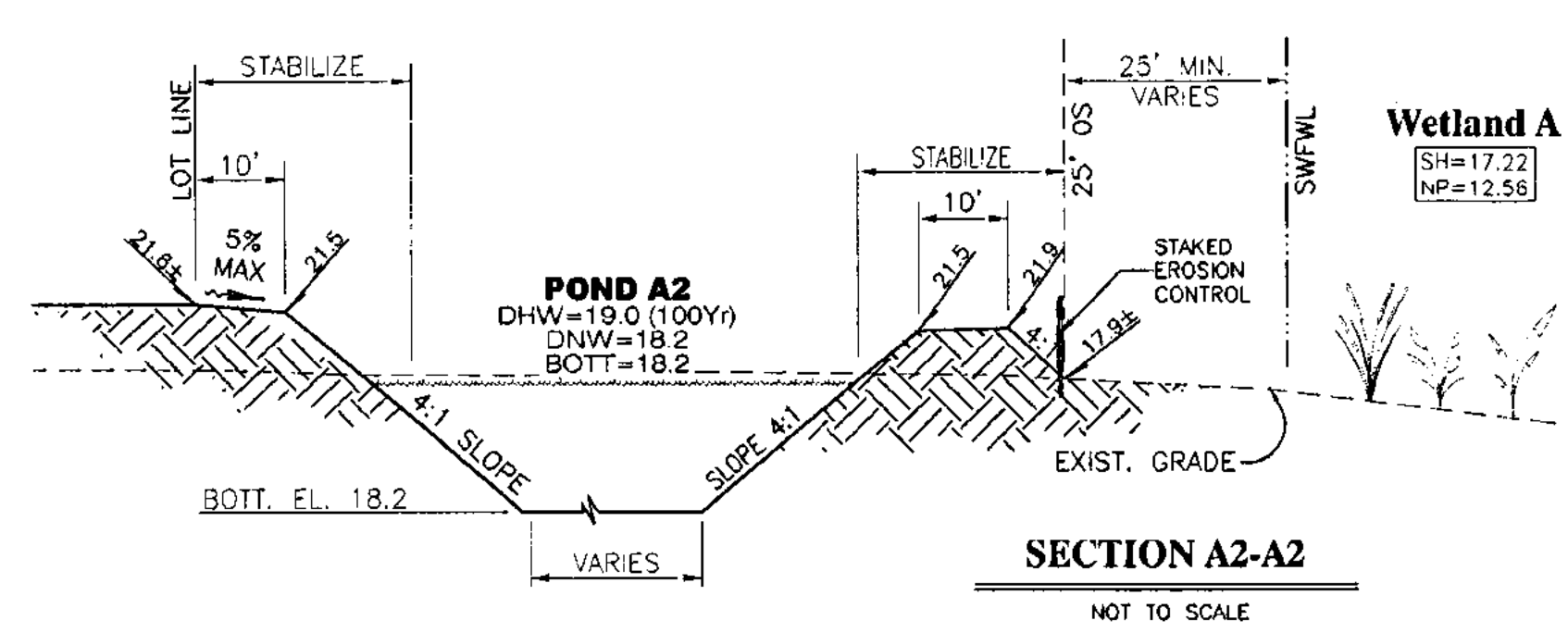
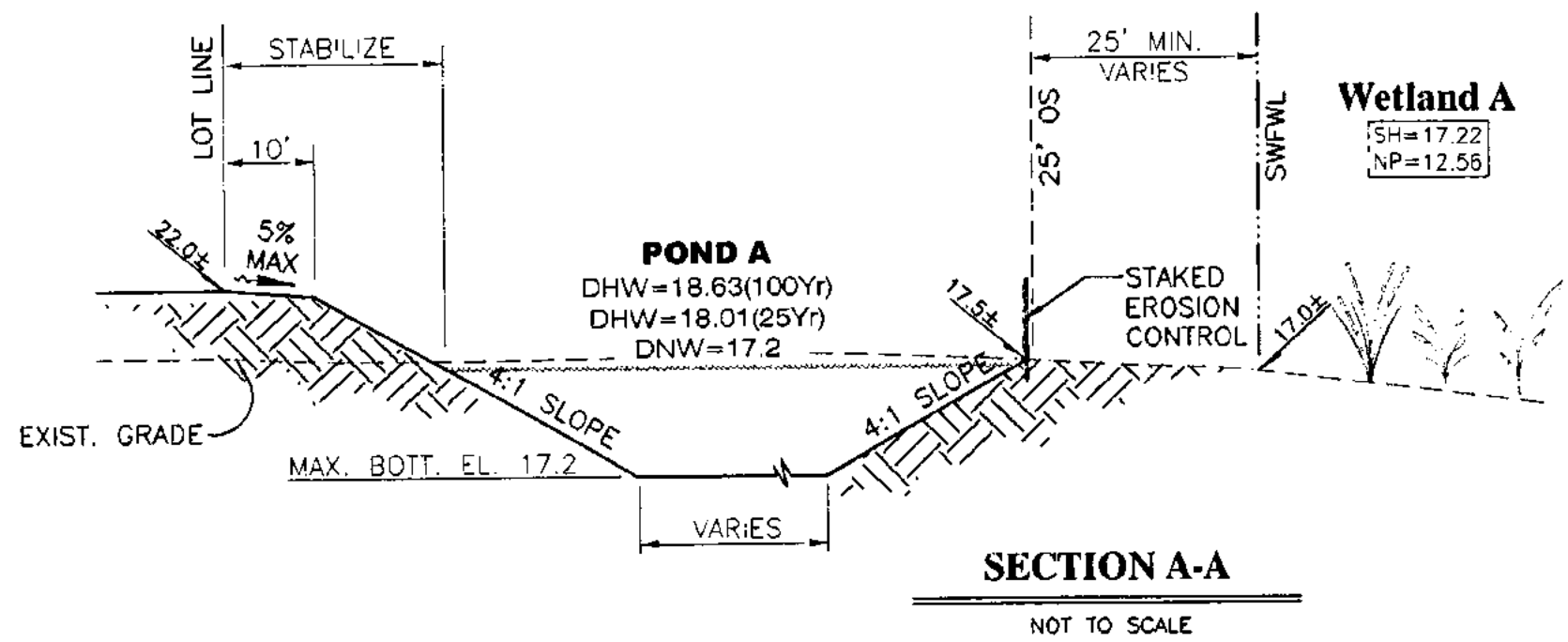
NO.	STRUCTURE TYPE & SIZE	TOP ELEV.	TYPE	LINE					FALL IN FEET	STRUCTURE LOCATION & REMARKS
				DIAM. INCHES	LENGTH FEET	SLOPE %	INVERT	ELEV.		
							UPPER END	LOWER END		
197	1 CURB INLET 2'-6" x 4'-0" BOX	20.48	RCP	18	31	0.32	16.10	16.00	0.10	PHASE 3C
198	1 CURB INLET 4'-0" x 4'-0" BOX	20.48	RCP	18	283	0.21	16.00	15.40	0.60	PHASE 3C
199	1 CURB INLET 4'-0" x 4'-0" BOX	20.48	RCP	18	31	0.32	14.80	14.70	0.10	PHASE 3C
200	1 CURB INLET 2'-6" x 4'-0" BOX	20.48	RCP	18	141	0.21	13.70	13.40	0.30	PHASE 3C
201	P MANHOLE	20.60	RCP	18	104	0.29	12.80	12.50	0.30	PHASE 3C
202	MITERED END SECTION									PHASE 3C
203	1 CURB INLET 2'-6" x 4'-0" BOX	19.88	RCP	18	134	0.37	16.00	15.50	0.50	PHASE 3C
204	P MANHOLE	20.00	RCP	18	24	0.42	12.10	12.00	0.10	PHASE 3C
205	MITERED END SECTION									PHASE 3C
206	1 CURB INLET 2'-6" x 4'-0" BOX	20.48	RCP	18	31	0.32	16.60	16.50	0.10	PHASE 2C
207	1 CURB INLET 4'-0" x 4'-0" BOX	20.48	RCP	24	195	0.15	16.10	15.80	0.30	PHASE 2C
207A	P MANHOLE	21.30	RCP	24	214	0.14	13.60	13.30	0.30	PHASE 2C
208	1 CURB INLET	20.57	RCP	30	72	0.14	13.30	13.20	0.10	PHASE 2C 2'-6" x 4'-0" TOP W/ 5'-0" DIAMETER J MH BOTTOM
209	1 CURB INLET 4'-0" x 4'-0" BOX	20.48	RCP	30	33	0.30	13.20	13.10	0.10	PHASE 2C
210	1 CURB INLET 4'-0" x 4'-0" BOX	20.48	RCP	30	164	0.18	12.60	12.50	0.30	PHASE 2C
211	MITERED END SECTION									PHASE 2C
212	2 CURB INLET 2'-6" x 4'-0" BOX	20.38	RCP	18	33	0.30	16.50	16.40	0.10	PHASE 2C
213	2 CURB INLET 2'-6" x 4'-0" BOX	20.38	RCP	24	164	0.31	13.50	13.00	0.50	PHASE 2C
214	MITERED END SECTION									PHASE 2C
215	C GRATE TOP INLET	20.00	RCP	15	50	0.40	13.90	13.70	0.20	PHASE 1 SLOT SE SIDE AT ELEV. 19.42
216	MITERED END SECTION									PHASE 1
D	CONTROL STRUCTURE	19.70	RCP	30	40	0.25	11.10	11.00	0.10	PHASE 1 SEE DETAIL
DA	MITERED END SECTION									PHASE 1
E3	CONTROL STRUCTURE	20.20	RCP	24	73	0.14	14.00	13.90	0.10	PHASE 2B SEE DETAIL
E3A	P MANHOLE	21.00	RCP	30	28	0.36	11.80	11.70	0.10	PHASE 2B SEE DETAIL
E3B	MITERED END SECTION									PHASE 2B
F	CONTROL STRUCTURE	18.50	RCP	48 x 76	88	0.12	14.10	14.00	0.10	PHASE 1
FA	END WALL									PHASE 1 L=32/W GEO WEB SEE DETAIL
F2	CONTROL STRUCTURE	19.50	RCP	18	40	0.25	11.60	11.50	0.10	PHASE 1 SEE DETAIL
F2A	MITERED END SECTION									PHASE 1
A3	CONTROL STRUCTURE	23.50	RCP	18	75	0.27	13.20	13.00	0.20	PHASE 3A SEE DETAIL
A3A	MITERED END SECTION									PHASE 3A
I	CONTROL STRUCTURE	16.90	RCP	19 x 30	258	0.12	13.80	13.50	0.50	PHASE 2B L=13/W GEO WEB SEE DETAIL
IA	END WALL									

NOTE: ALL INLET AND MANHOLE STRUCTURE BOTTOMS ARE SPECIFIED TYPE 'P' UNLESS OTHERWISE NOTED. REFER TO FDOT DESIGN STANDARDS INDEX #200 & #201.

ALL MITERED END SECTIONS (MES) ARE SPECIFIED FDOT INDEX #272 UNLESS OTHERWISE NOTED.

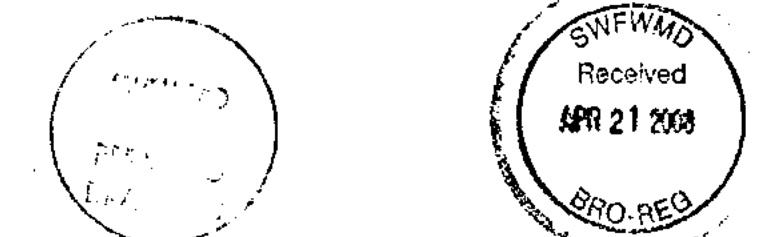
03-24-08 06-25-07		Add Structure 1 and 1A Strs. 187,195,215,216,A3	RBA GM
DATE	DESCRIPTION	BY	
REVISIONS			

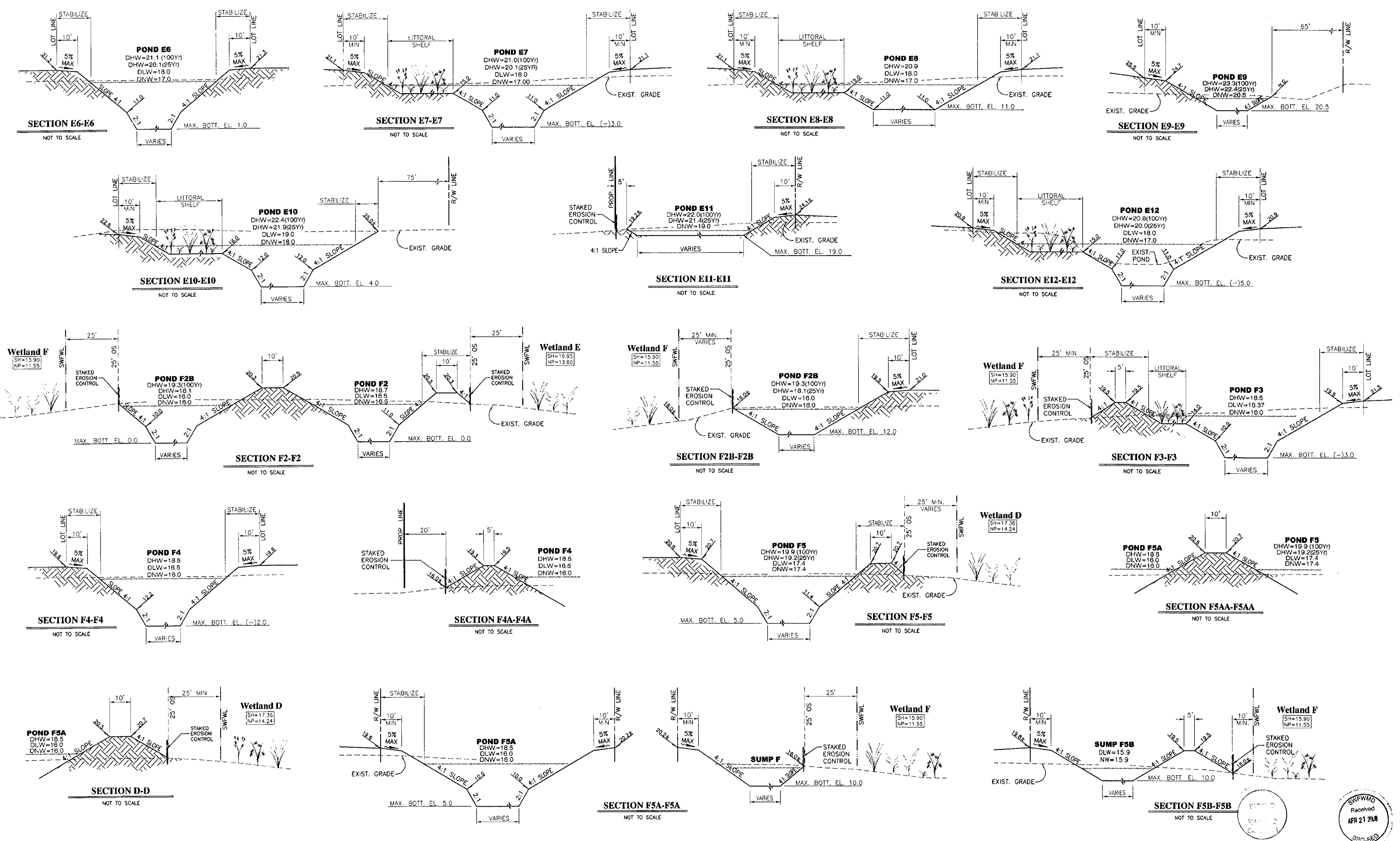
Engineering Business Certificate of Authorization No. 148 HEIDT & ASSOCIATES, Inc. Tampa Fort Myers Sarasota • Manatee Brooksville Office 105 North Main Street Brooksville, Florida 34601 Phone: 352-798-3450 FAX: 352-798-3463		STORM STRUCTURE DATA FOUR SEASONS AT CRYSTAL SPRINGS DRAWN: LUCAS PREPARED FOR: K. Hovnanian Windward Homes, L.L.C. DATE: 04-30-07 Elevation based on National Geodetic Vertical Datum 1929 (NGVD 29) NGVD 1929 (minus) - 0.83' = NAVD 88
JOB NO. WWH-GL-006 DESIGN LUCAS DRAWN MEETZE DATE 04-30-07 FILE ST	RECEIVED APR 21 2008 BRO-REG	
Brian M. Malmberg P.E. 59405 FLORIDA PROFESSIONAL ENGINEER		SHEET 23 OF 100 SHEETS



NOTES:
 1. ALL SLOPES ABOVE THE NW ELEVATION STEEPER THAN 5:1 SHALL BE SODDED.
 2. POND BOTTOM ELEVATIONS VARIES. SEE MASTER DRAINAGE PLAN AND GEOTECHNICAL REPORT FOR ADDITIONAL INFORMATION.

Engineering Business Certificate of Authorization No. 148 HEIDT & ASSOCIATES, Inc. Tampa Fort Myers Sarasota • Manatee Brooksville Office 105 North Main Street Brooksville, Florida 34601 Phone: 352-798-3462 Fax: 352-798-3463		DRAINAGE SECTIONS FOUR SEASONS AT CRYSTAL SPRINGS PREPARED FOR: K. Hovnanian Windward Homes, L.L.C. Elevations based on National Geodetic Vertical Datum 1929 (NGVD 29) NGVD 1929 (minus) - 0.83' = NAVD 88	
03-24-08 08-02-07 08-25-07 DATE	Revised DHW elevations REMOVE Sec. B3, NP 2 Secs. A2A-A2A, C-C, E3-C3 DESCRIPTION	RBA RR GH BY Brian M. Mair (P.E. 59405) FLORIDA PROFESSIONAL ENGINEER	JOB NO. WHH-GL-006 DESIGN LUCAS DRAWN MEETZE DATE 04-30-07 FILE SEC





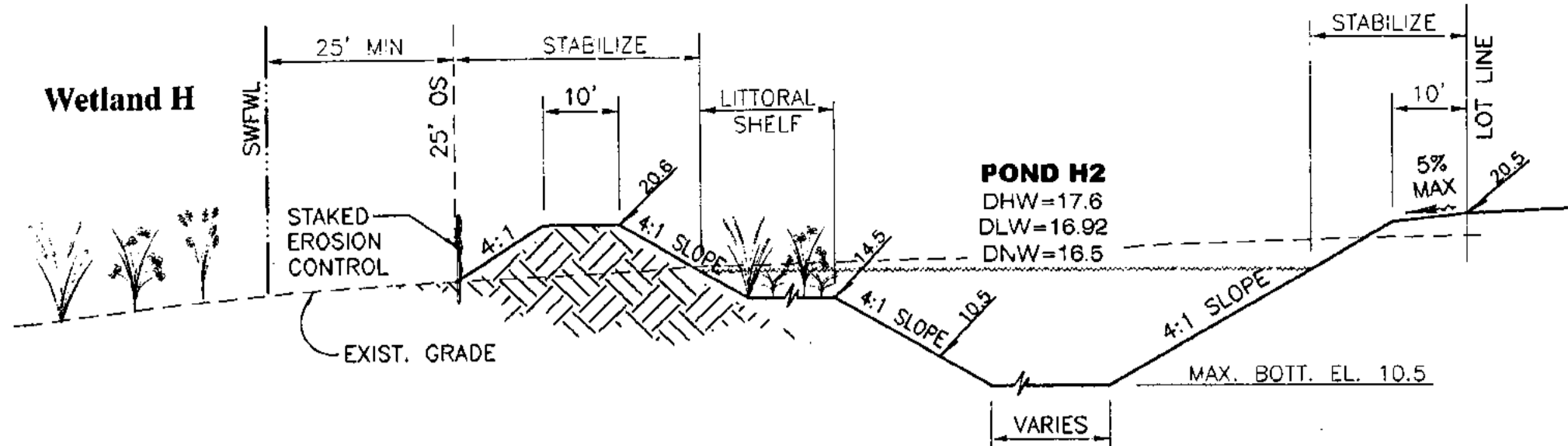
NOTES:
 1. ALL SLOPES ABOVE THE NW ELEVATION STEEPER THAN 5:1 SHALL BE SODDED.
 2. POND BOTTOM ELEVATIONS VARIES. SEE MASTER DRAINAGE PLAN AND GEOTECHNICAL REPORT FOR ADDITIONAL INFORMATION.

DATE	DESCRIPTION	BY
03-24-08	Revised DHW elevations	RBA
08-02-07	NP ELEV.	RRR
06-25-07	Secs. E9-E9,F3-F3,F4-F4,F5-F5	GM

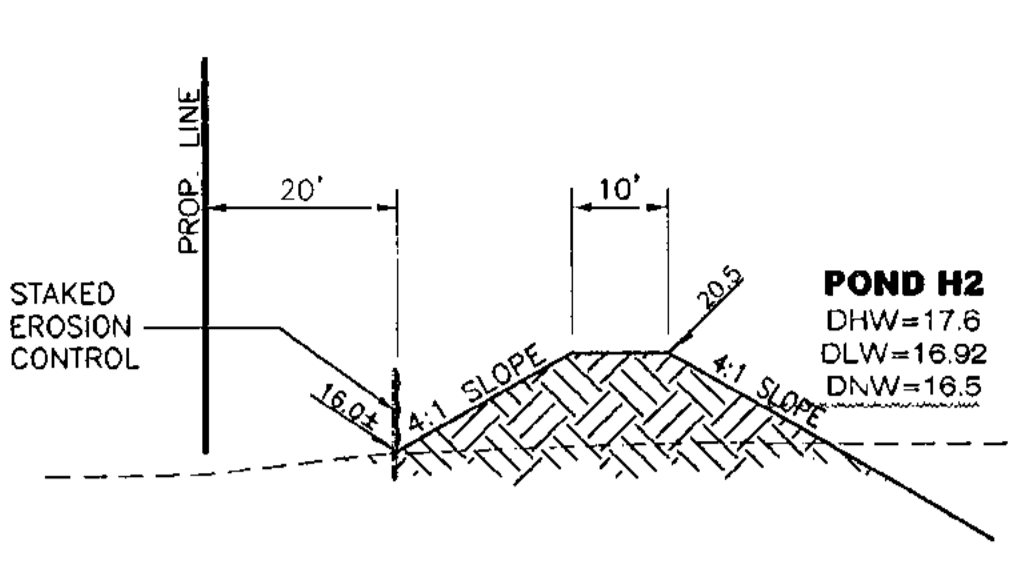
Engineering Business Certificate of Authorization No. 1148
HEIDT & ASSOCIATES, Inc.
 Tampa
 Fort Myers
 Sarasota • Manatee
 Brooksville Office
 105 North Main Street
 Brooksville, Florida 34601
 Phone: 352-798-3462
 FAX: 352-798-3463
 DATE: 3/24/08
 Brian M. Malmberg P.E. 59405
 FLORIDA PROFESSIONAL ENGINEER

DRAINAGE SECTIONS	
JOB NO. WWH-GL-006	DESIGN LUCAS
DRAWN MEETZE	PREPARED FOR: K. Hovnanian Windward Homes, L.L.C.
DATE 04-30-07	Elevations based on National Geodetic Vertical Datum 1929 (NGVD 29) NGVD 1929 (minus) - 0.83' = NAVD 88
FILE SEC	SHEET 25 OF 100 SHEETS

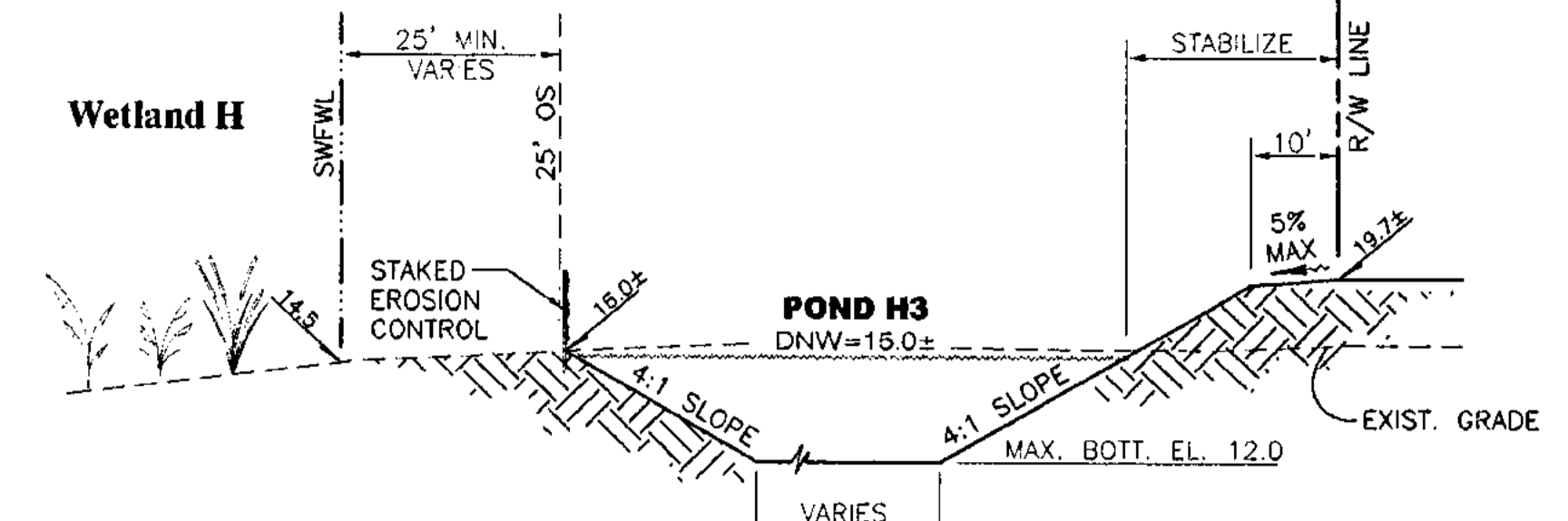




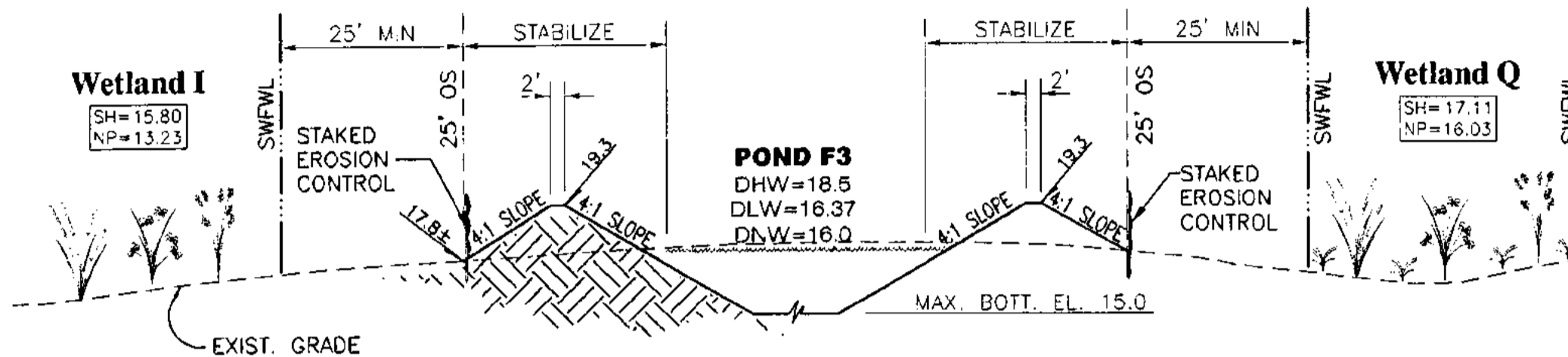
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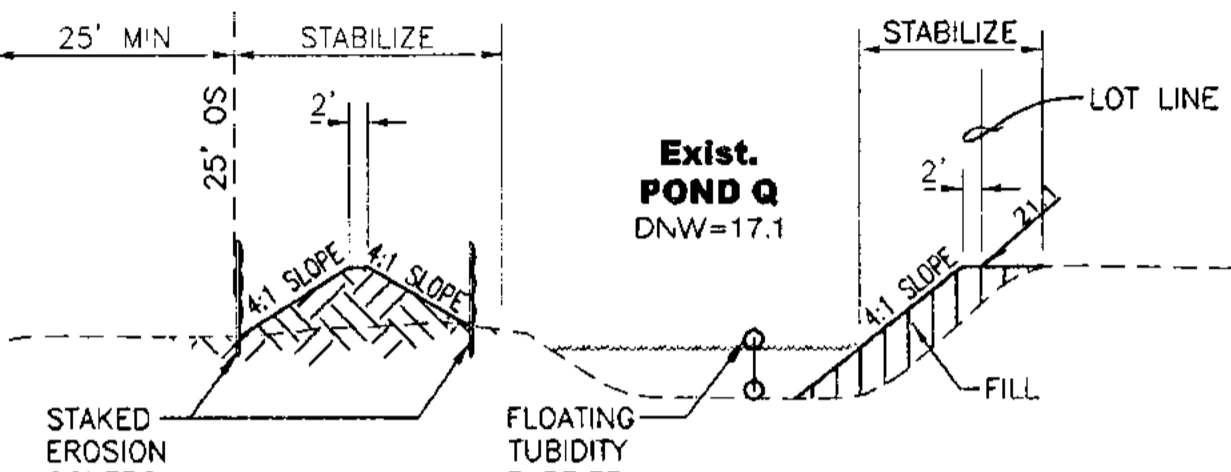
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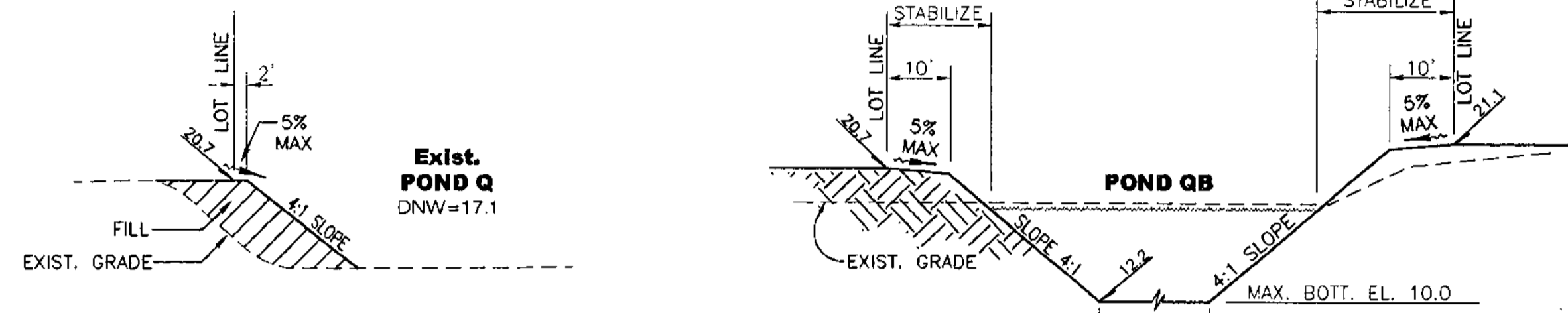
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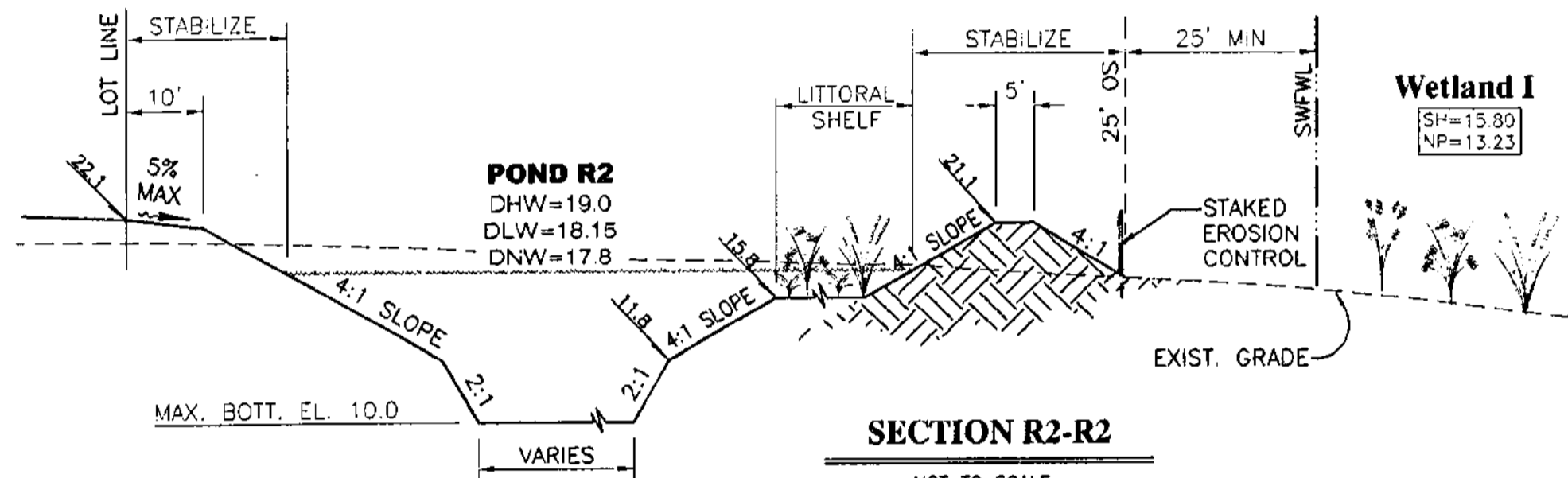
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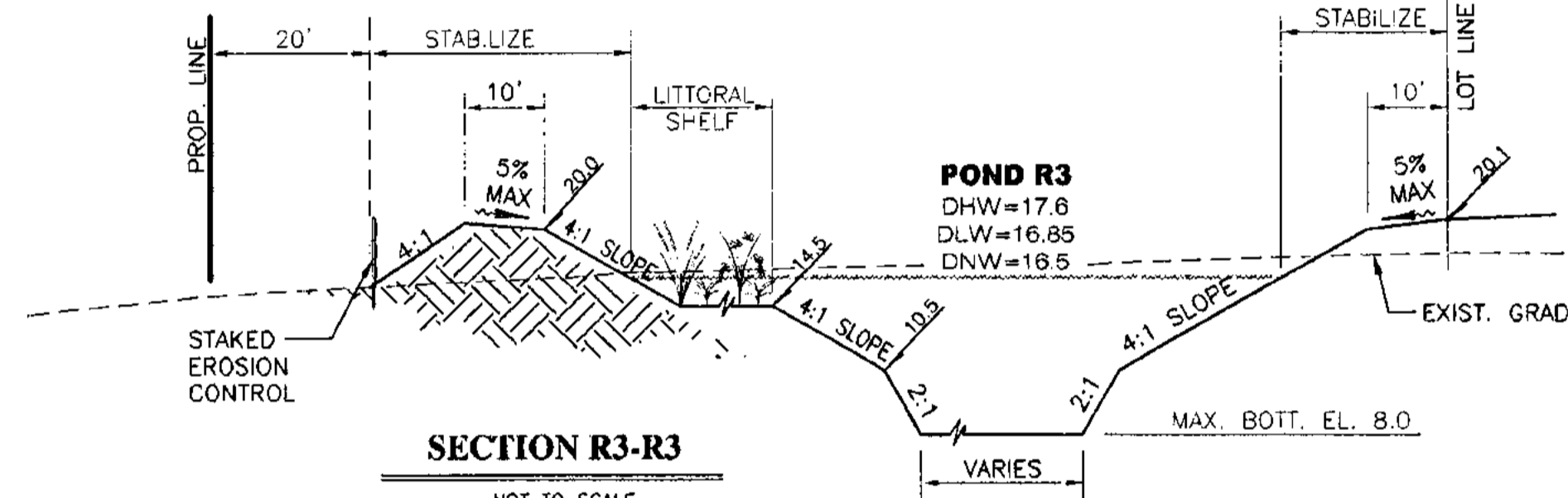
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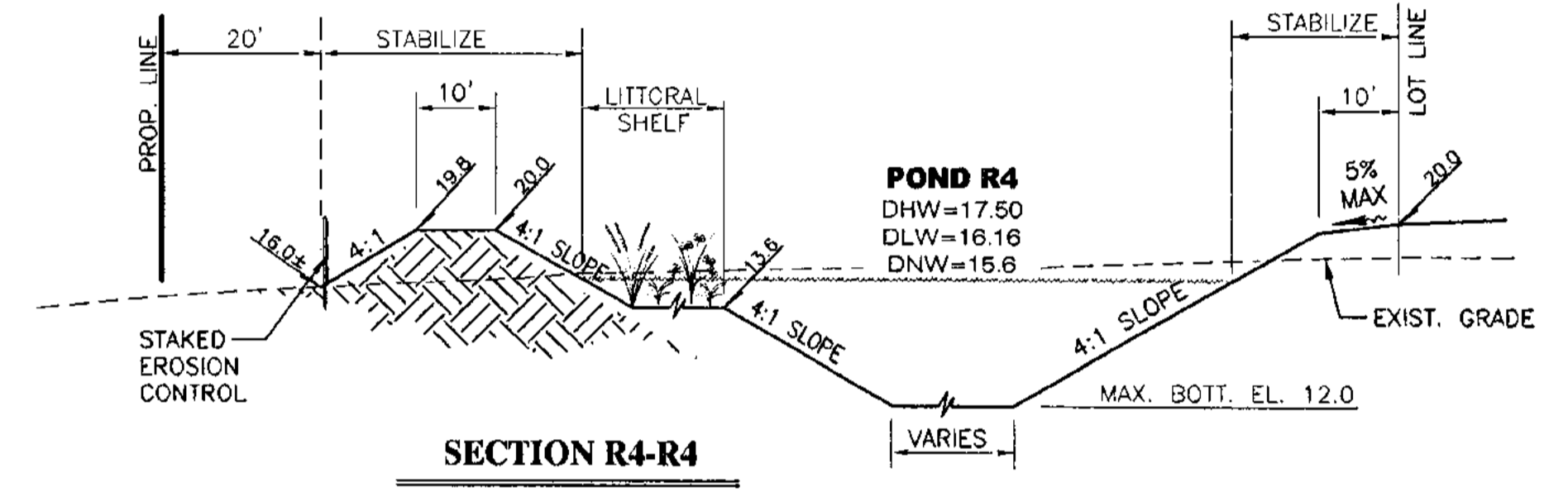
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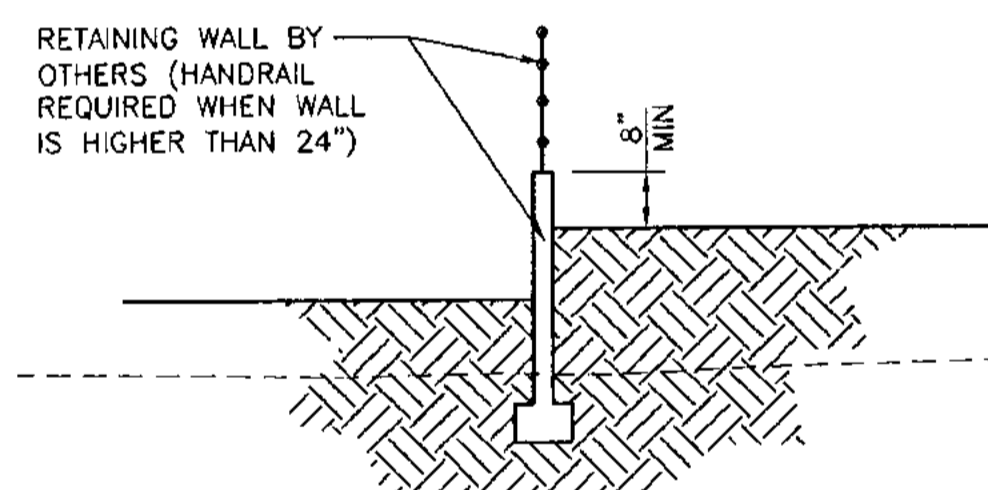
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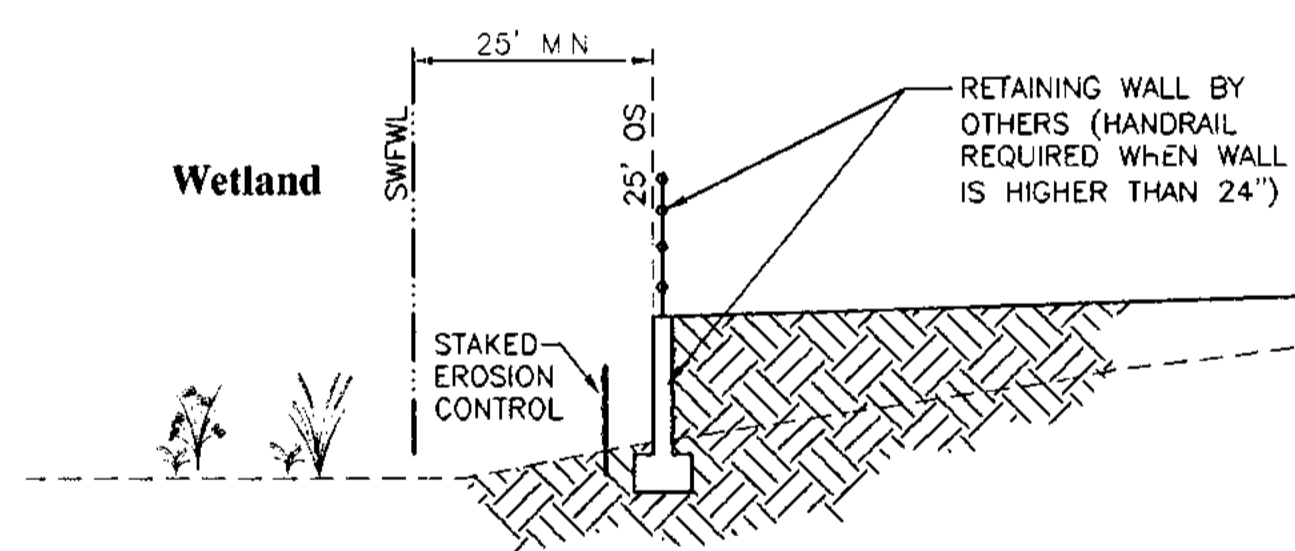
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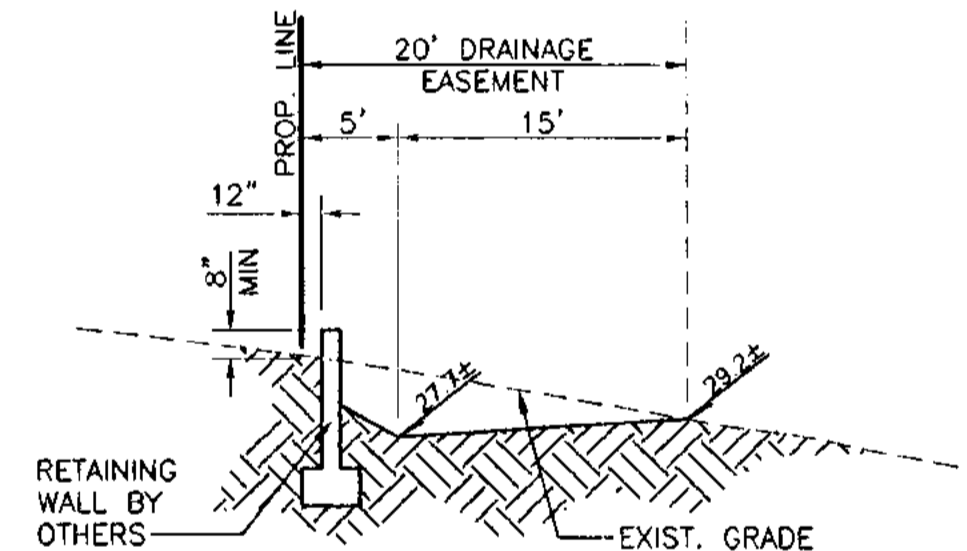
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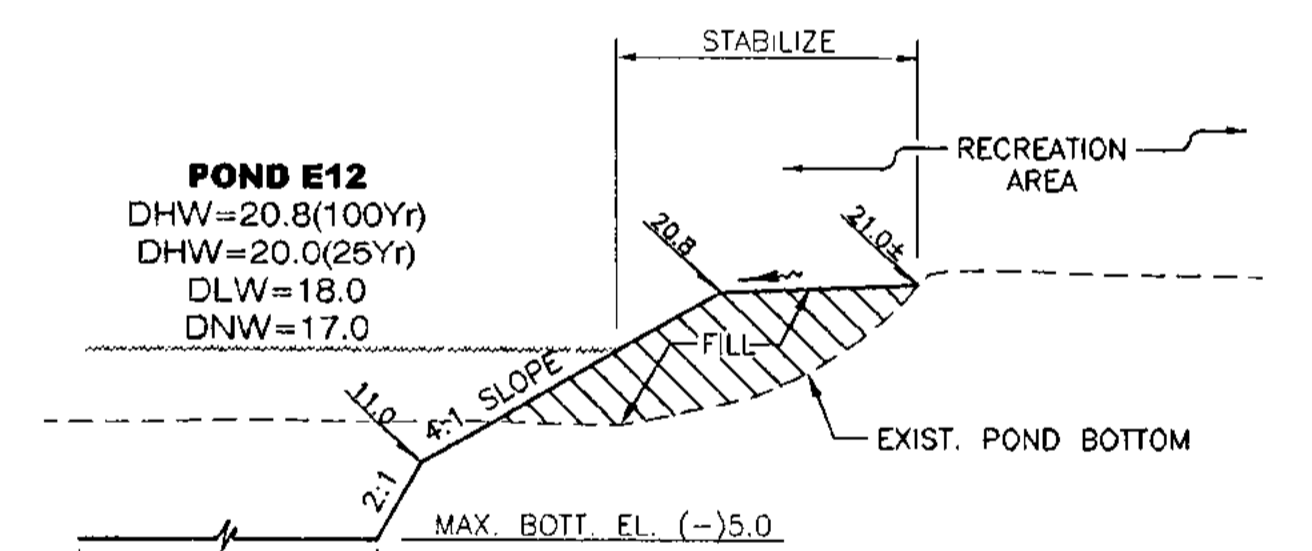
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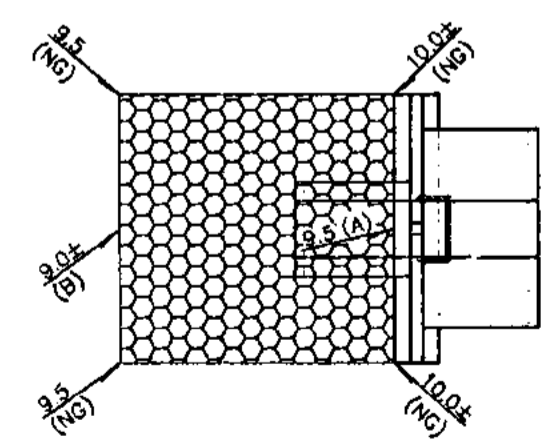
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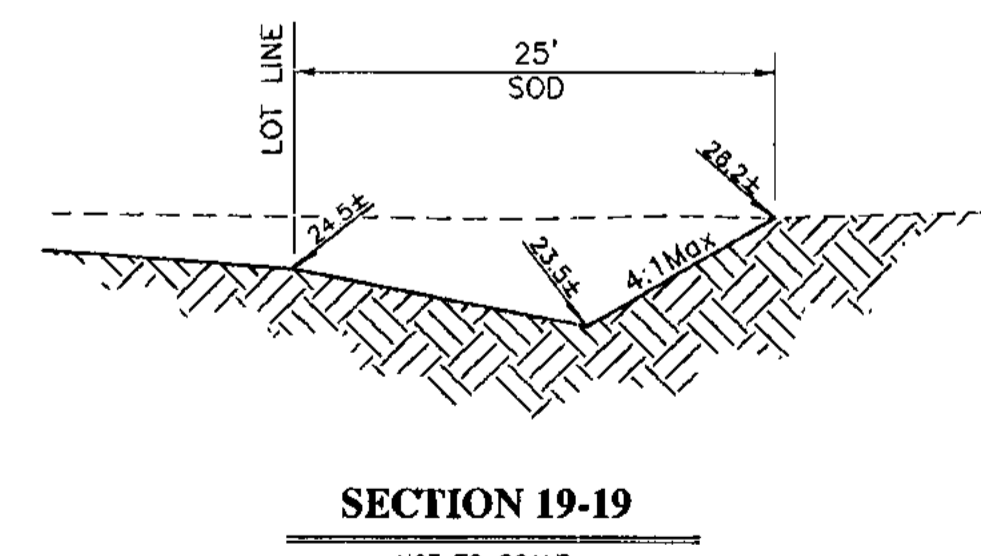
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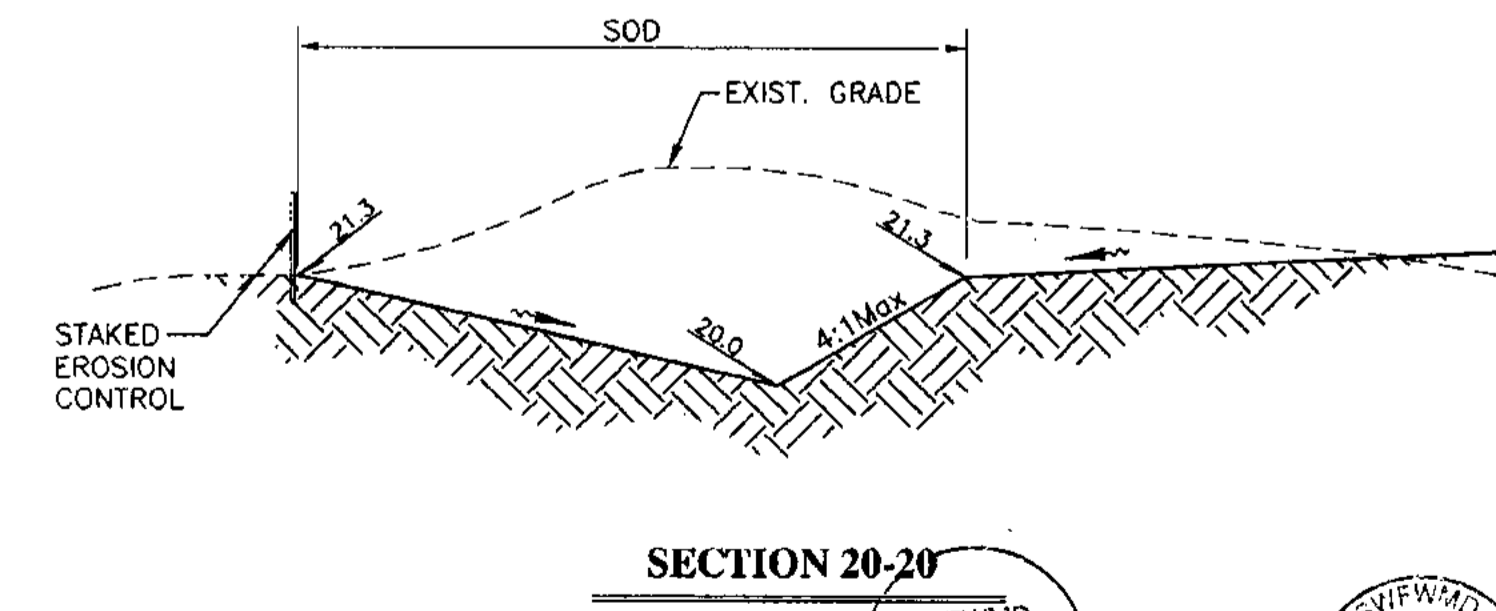
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GEOWEB TYPICAL DETAIL
NOT TO SCALE



SECTION 19-19
NOT TO SCALE



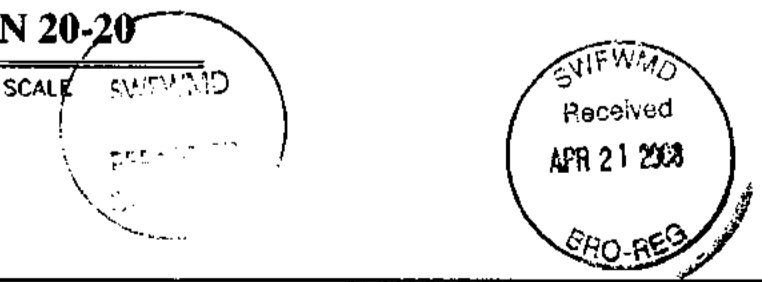
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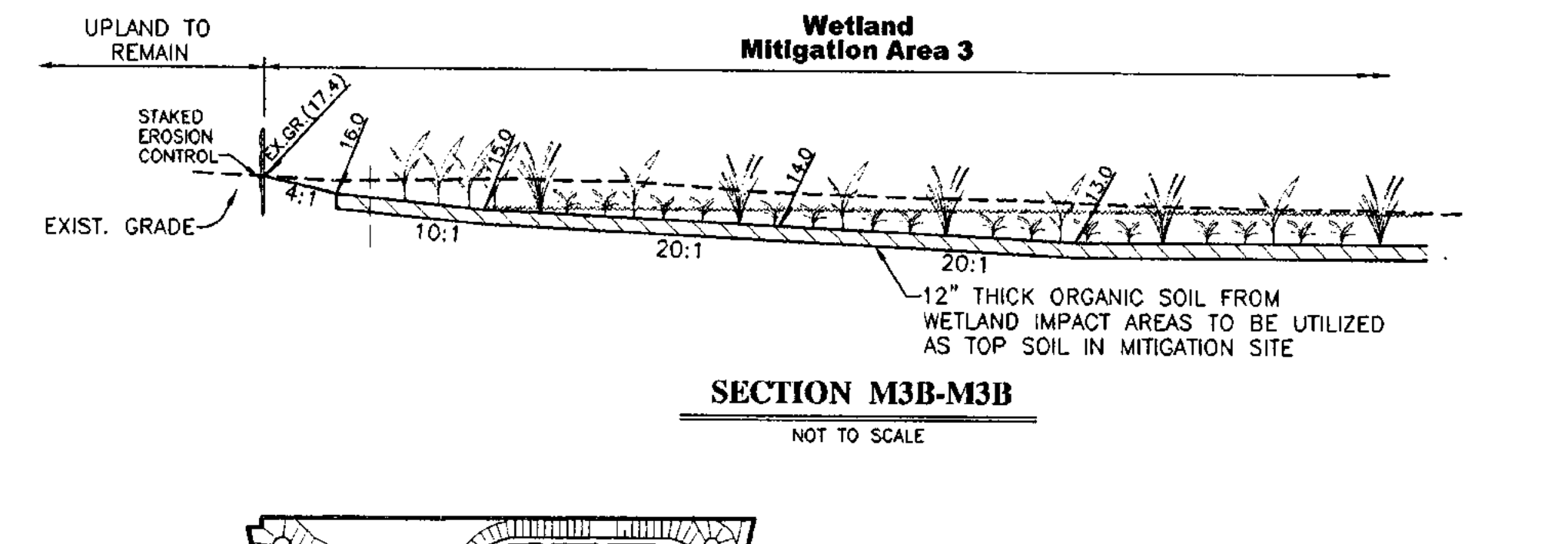
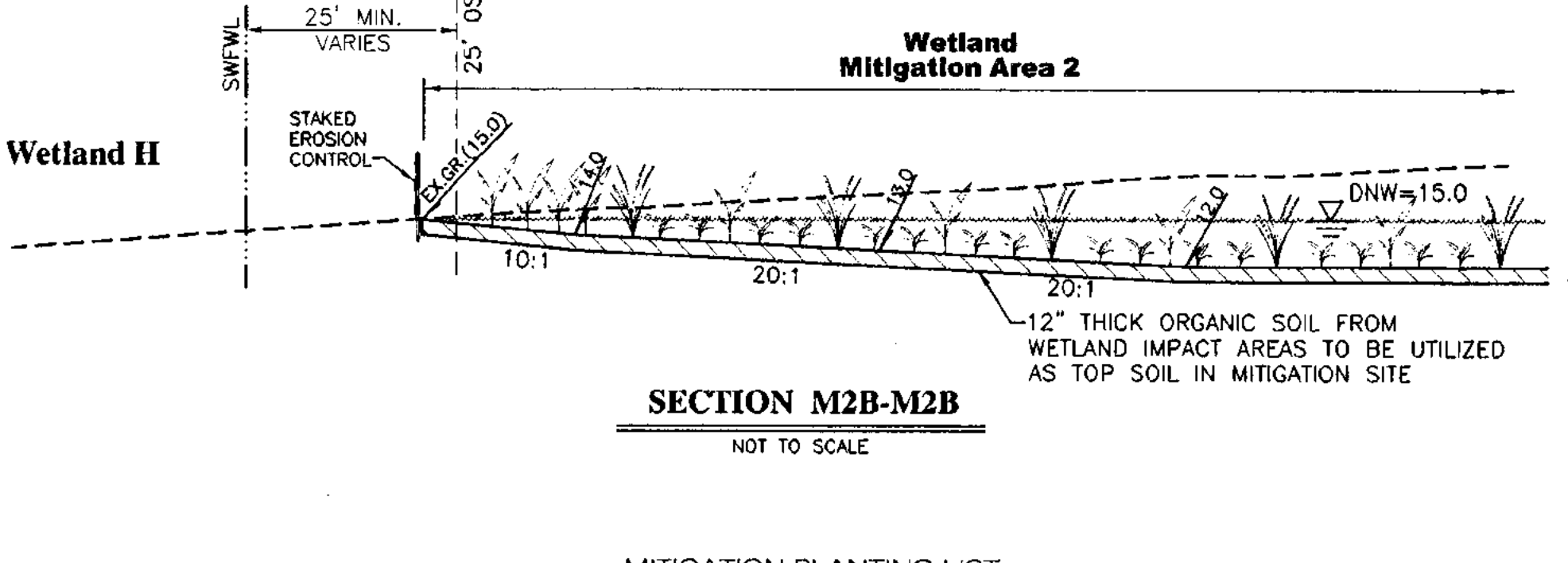
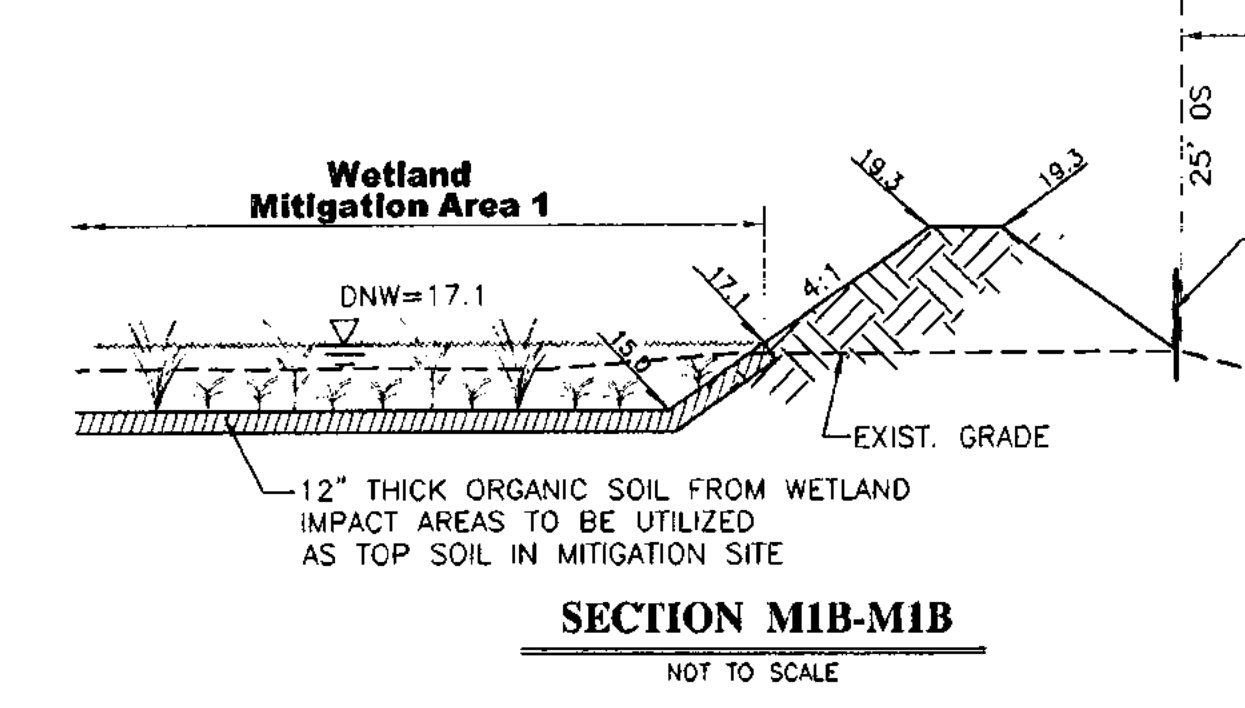
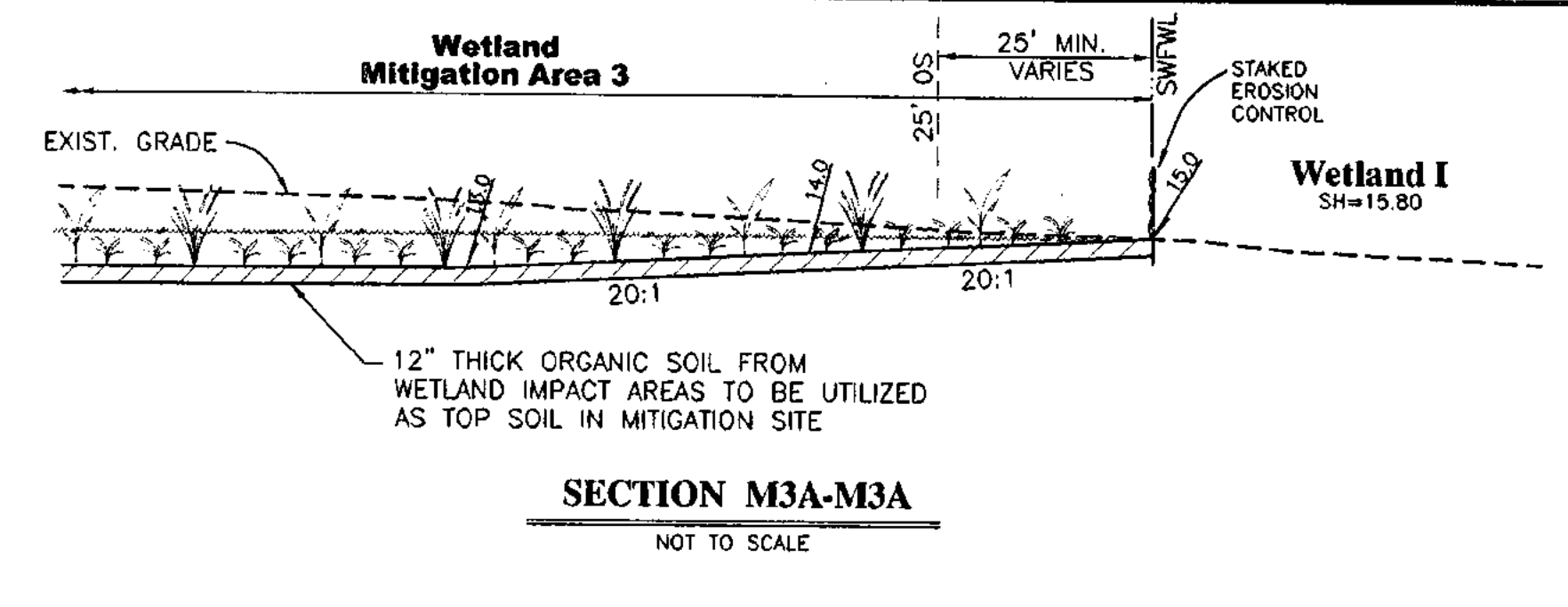
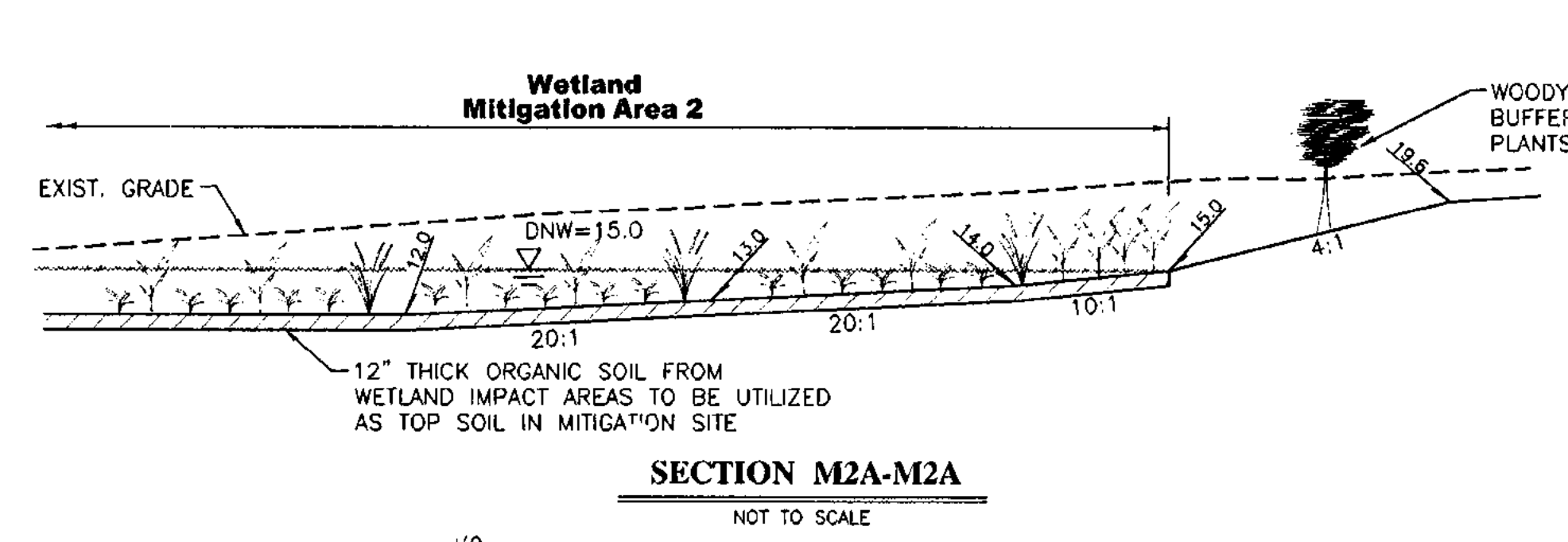
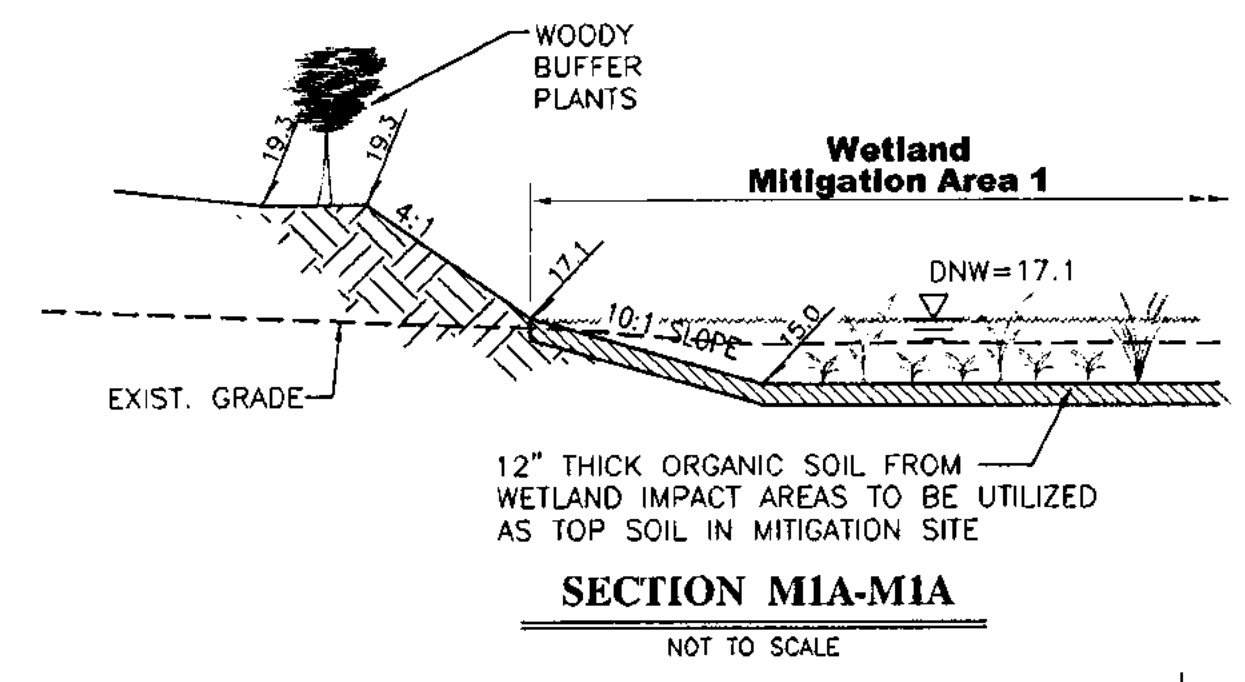
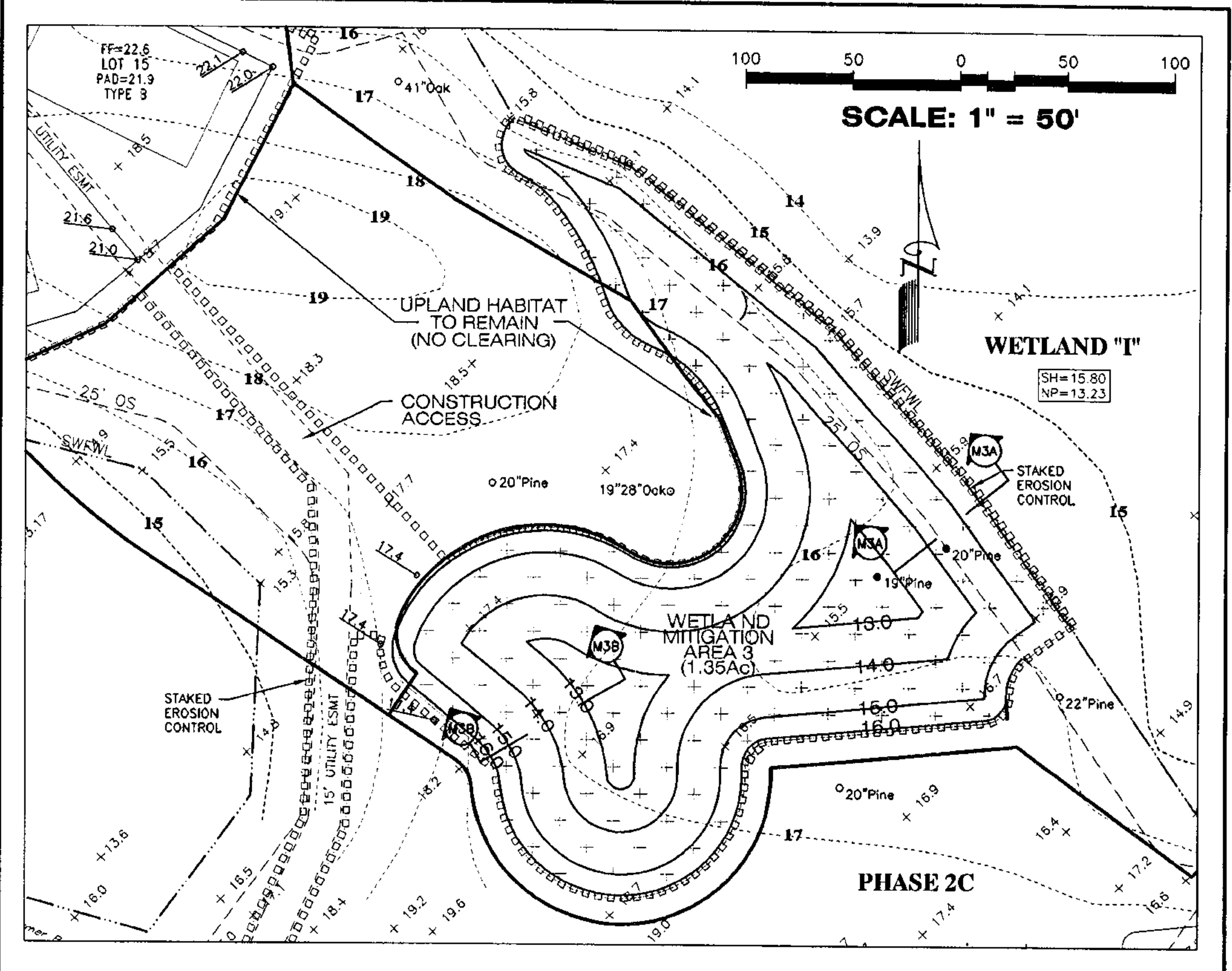
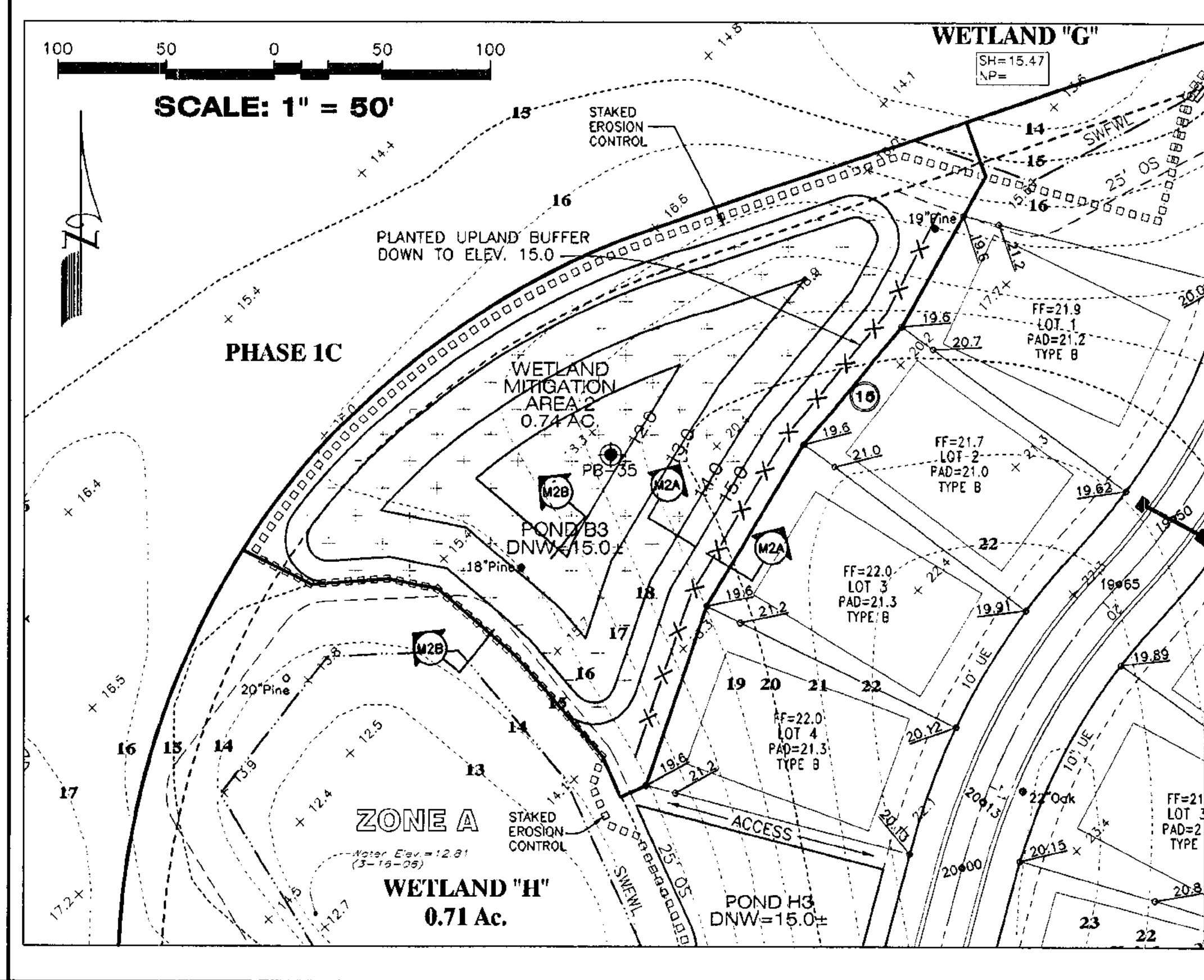
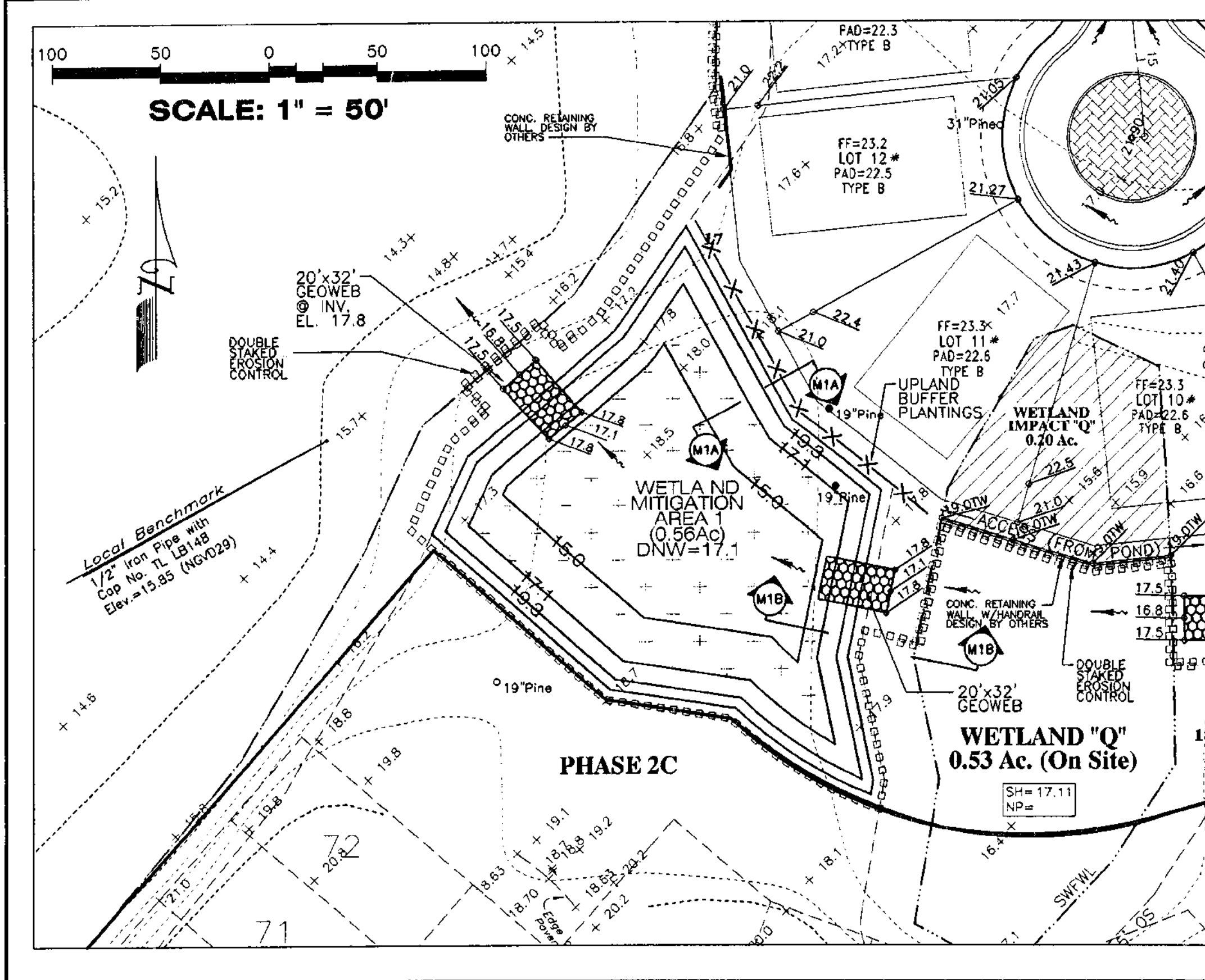
- (A) ELEV. IS CONTROL ELEV. OR 6" BELOW N.G. (WHICHEVER IS LOWER)
- (B) ELEV. IS SAME AS (A) OR 6" BELOW (WHICHEVER IS LOWER)

NOTES:
1. ALL SLOPES ABOVE THE NW ELEVATION STEEPER THAN 5:1 SHALL BE SODDED.
2. POND BOTTOM ELEVATIONS VARIES. SEE MASTER DRAINAGE PLAN AND GEOTECHNICAL REPORT FOR ADDITIONAL INFORMATION.

REVISIONS		DESCRIPTION		DATE	
03-24-08	Revised DHW elevations	RBA			
11-26-07	Sec. R4-R4	GM			
06-25-07	GeoWeb Detail.				

DRAINAGE SECTIONS		JOB NO.	
HEIDT & ASSOCIATES, Inc. Tampa Fort Myers Sarasota • Manatee Brooksville Office 105 North Main Street Brooksville, Florida 34601 Phone: 352-798-3462 FAX: 352-798-3463		WH-GL-006	DESIGN
		LUCAS	LUCAS
PREPARED FOR: K. Hovnanian Windward Homes, L.L.C. Elevations based on National Geodetic Vertical Datum 1929 (NGVD 29) NGVD 1929 (minus) - 0.83' = NAVD 88		MEETZE	DATE
		MEETZE	04-30-07
FILE NO. 3/24/08 Brian M. Naimberg P.E. 59405 FLORIDA PROFESSIONAL ENGINEER		DATE	FILE
		04-30-07	SEC





MISCELLANEOUS MITIGATION NOTES:

Plants will be installed in random patterns at the contractor's discretion unless otherwise directed by the plans or by the mitigation designer.

The Mitigation area will be considered as a conservation area for Hernando County on the Final Plat.

Plants will be installed at elevations most conducive for their development. Planting ranges are depicted on the attached list.

The Mitigation area will be completed and planted within 120 days following initial wetland impact.

Grades and slopes shown on the mitigation areas may be field altered to insure that water levels will be achieved which result in optimal plant survival and habitat value. However, grade changes must be approved by appropriate agencies.

Minimum plant sizes:
 Herbs: 4" potted material or bare root equivalent.
 Shrubs: one gallon pots
 Trees: one gallon pots in this predominately herbaceous area

Potted, nursery grown material will be used, unless otherwise approved in advance. Plants will be as shown on the attached list.

This predominately herbaceous mitigation area will receive plants on 3 foot centers. Three percent of this total will be shrubs and trees to increase vegetative diversity. The woody plants will be installed in clumps.

Trees provided for habitat diversity; Mitigation sites intended to be emergent marshes.

Approximately 75% of trees to be planted on sides of mitigation sites that border lots (to provide buffer).

ATTACHMENT "A" - STANDARD WETLAND MITIGATION MONITORING & MAINTENANCE NOTES

All the following items will be included in the mitigation monitoring and maintenance program.

A. Monitoring and maintenance will be performed for a minimum of 3 years for this predominately herbaceous area. Maintenance will occur eight(8) times during the year one and quarterly for years two and three and semi annually thereafter as needed. Monitoring will be done and reported semi-annually.

1. Monitoring reports will be submitted to SWFWMD and to COE within 30 days following each monitoring event. At a minimum, monitoring reports will address:
 a. Percent survival of planted species
 b. Number of plants replanted if necessary to meet 85% and when they were planted.
 c. Water quality
 1) Visual observations
 2) Lab data if necessary, i.e., salinity, conductivity, PH, etc.
 d. Total % coverage of vegetation
 e. Plant diversification and natural recruitment (list species present)
 f. Depth of water at monitoring event
 g. Soil stabilization measures used
 h. Permanently marked photo stations
 i. Wildlife usage
 j. Overall ecological evaluation
 k. Problems encountered and corrective actions taken or needed
 l. Data planted and number of planted materials used

B. Maintenance shall mean the removal of nuisance or exotic species. Nuisance species coverage must not exceed 18 (cattails, willows, Ludwigia peruviana, water hyacinths, Sesbania spp, dogfennel, Brazilian pepper, etc.).

C. Survival must be guaranteed for each planted species. The area will be replanted annually if species survivorship falls below 85%. 50% plant cover will be achieved at the end of year one, 75% by the end of year two and 85% plant cover of non- nuisance wetland species will be achieved by the end of the third year. Replanting may be needed to achieve these values. No more than 10% of the total areal coverage shall be upland or nuisance species.

D. Monitoring and maintenance will continue until SWFWMD permitted success criteria are achieved. Reconstruction of the site design may be necessary to achieve functioning wetlands.

MITIGATION PLANTING LIST

HERBS	PLANTING RANGE*	PREDOMINANTLY HERBACEOUS			RELATIVE %
		M-1 0.56 Ac.	M-2 0.74 Ac.	M-3 1.35 Ac.	
Softtush (Juncus effusus)	M, L	600	775	1350	20
Maidencane (Panicum hemiltonum)	M, L	600	775	1350	20
Cordgrass (Spartina bakeri)	U, M	950	1275	2500	40
Paspalum (Paspalum vaginatum)	U, M	600	775	1350	20
SUBTOTAL		2750	3600	6550	100
TREES					
Red Maple (Acer rubrum)	U, M	20	30	60	50
Laurel Oak (Quercus laurifolia)	U	20	30	60	50
SUBTOTAL		40	60	120	100
OVERALL TOTAL		2540	3360	6670	

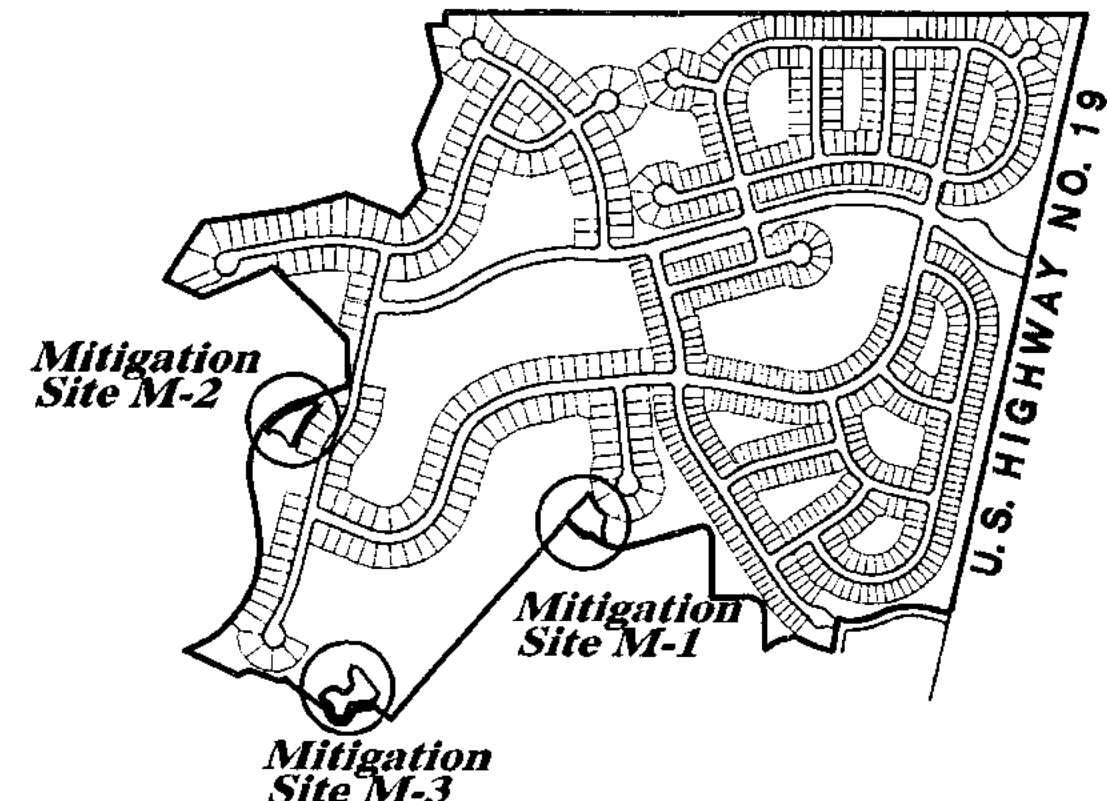
WOODY BUFFER PLANTINGS *

BUFFER AREA ID	M-1 (200')	M-2 (300')
QUANTITY OF PLANTS		
SLASH PINE (33%)	40	60
WAX MYRTLE (34%)	50	75
DAHOOON HOLLY (33%)	40	60
TOTAL	130	195

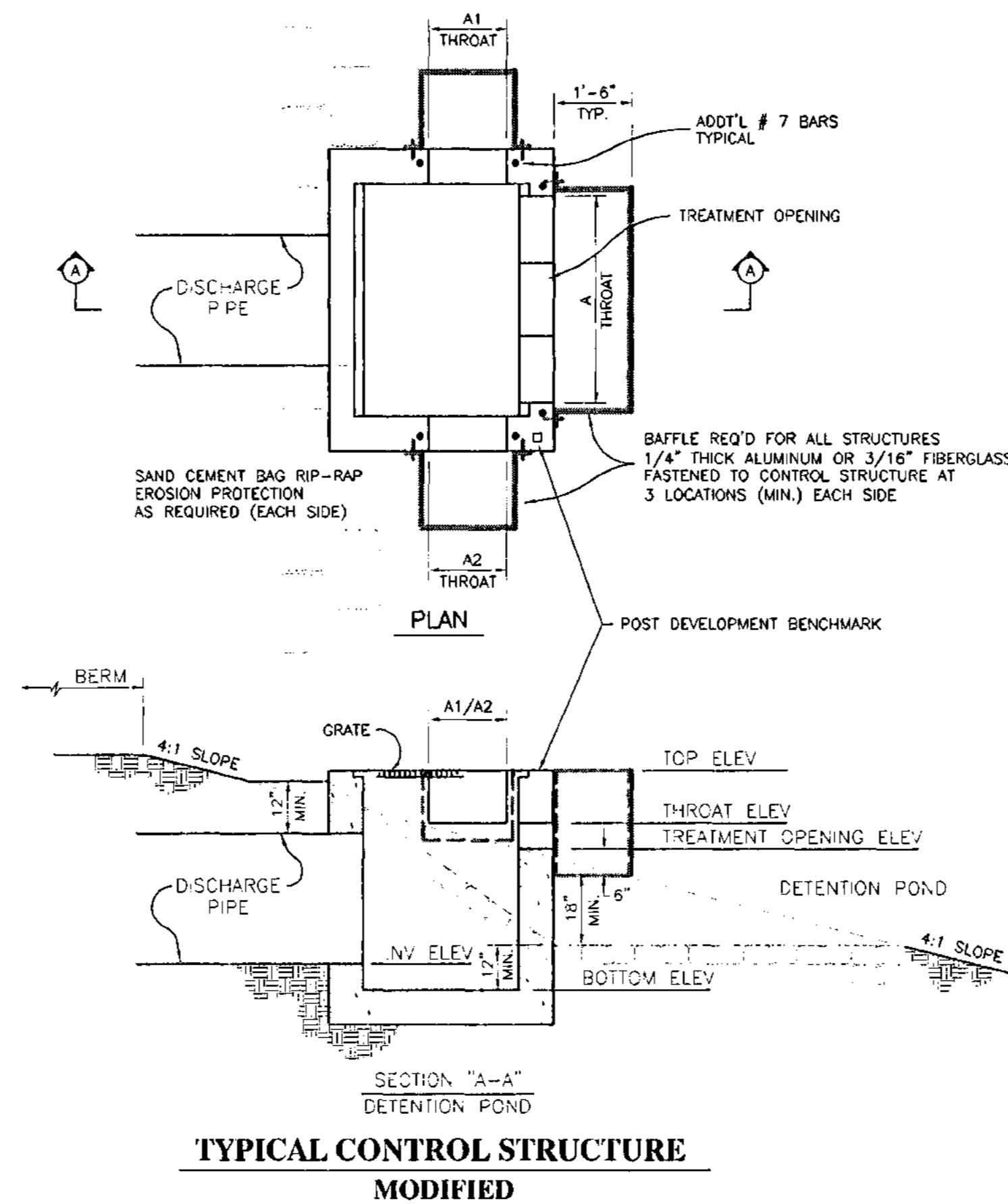
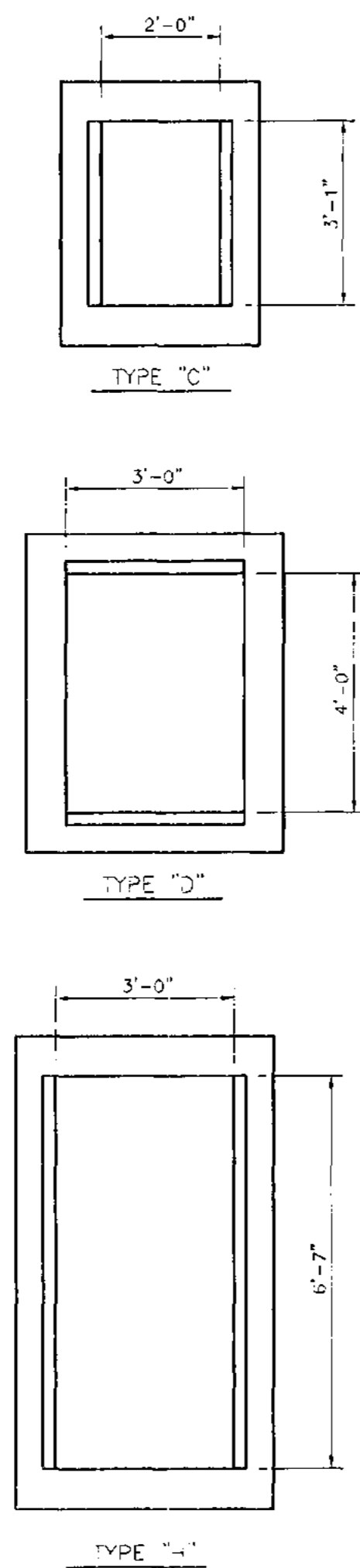
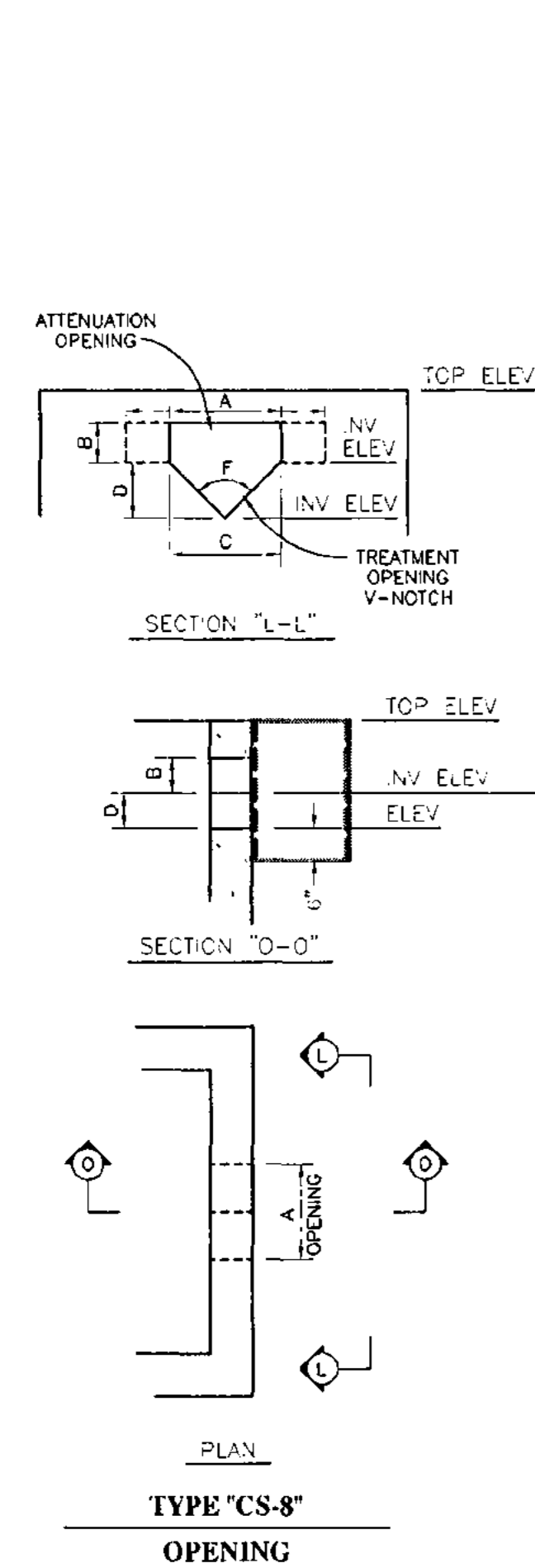
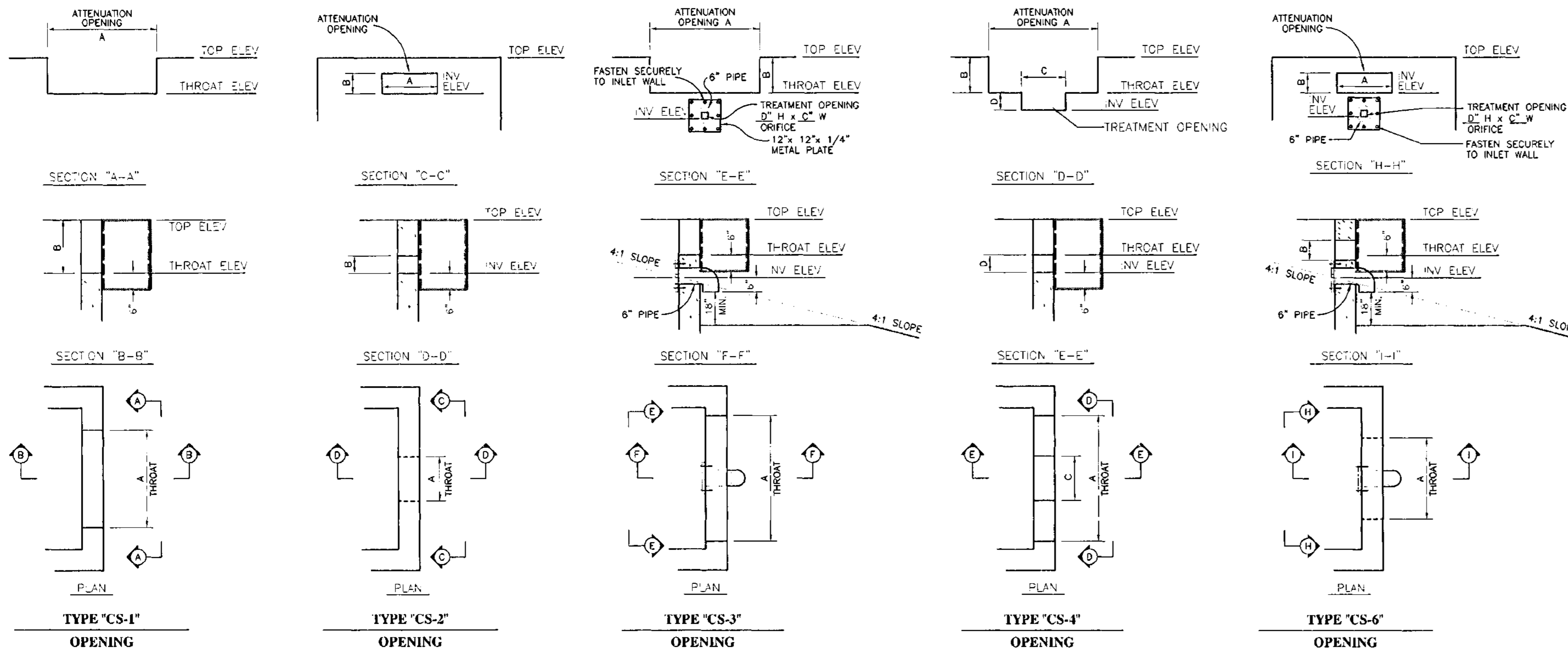
* - 3 GALLON SIZED POTTED PLANTS ON 5' CENTERS

RELATIVE PLANTING RANGE	ELEVATIONS		
	M-1	M-2	M-3
U = UPPER RANGE	16.0 - 17.1	14.0 - 15.1	15.0 - 16.0
M = MIDDLE RANGE	15.0 - 16.0	13.0 - 14.0	14.0 - 15.0
L = LOWER RANGE	15.0	12.0 - 13.0	13.0 - 14.0

NOTE: EXPOSED SOIL ABOVE SHW ELEV. TO BE SODDED



03-24-08 Rev. SHWL within WL 1 11-26-07 Rev. Planting List, Mit Area M3, Notes 09-25-07 Rev. Planting List 08-02-07 Secs. M1-M1 & M2-M2 08-25-07		RBA GM RRM GM BY	Engineering Business Certificate of Authorization No. 148 HEIDT & ASSOCIATES, Inc. Tampa Fort Myers Sarasota - Manatee Brooksville Office 106 North Main Street Brooksville, Florida 34601 Phone: 352-798-3482 FAX: 352-798-3493	WETLAND MITIGATION PLAN JOB NO. WWH-GL-006 DESIGN PANICO DRAWN MEETZE PREPARED FOR: K. Hovnanian Windward Homes, L.L.C. DATE 04-30-07 Elevation based on National Geodetic Vertical Datum 1929 (NGVD 29) NGVD 1929 (minus) - 0.83' = NAVD 88 SHEET 62 OF 100 SHEETS
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STR. NO.	FOOT BOX TYPE	TOP EL. (FT.)	BOTT. EL. (FT.)	DISCHARGE PIPE			ATTENUATION AND TREATMENT CONTROLS						REMARKS		
				TYPE	SIZE (IN.)	INV. EL. (FT.)	ATTENUATION OPENING		EL. (FT.)	TREATMENT OPENING				EL. (FT.)	
							A	B		C	D	F			
A3	C	23.50	12.7	RCP	18	13.20	CS-6	6"	6"	20.72	7/8"	7/8"	-	20.0	PHASE 3A
C	C	20.50	14.3	RCP	24	14.80	CS-2	2'-0"	12"	18.2	-	-	-	-	PHASE 1C
C3	D	20.50	14.90	RCP	18	15.40	CS-8	12"	9"	18.55	7 3/4"	4 1/4"	-	18.2	PHASE 2A
D	D	19.70	11.6	RCP	30	11.10	CS-1	2'-0"	12"	17.4	-	-	-	-	PHASE 1C
E2	D	20.2	15.7	RCP	24	15.00	CS-1	3'-0"	2'-7 1/4"	17.8	-	-	-	-	PHASE 2B
E3	D	20.20	13.5	RCP	24	14.00	CS-4	3'-0"	1'-6 3/4"	18.63	4 1/4"	9 7/8"	-	17.8	PHASE 2B
E4	D	20.00	15.7	RCP	24	14.40	CS-3	3'-0"	2'-0"	18.0	1 3/8"	1 3/8"	-	17.0	PHASE 2B
E7	H	20.00	11.70	RCP	60	12.20	CS-1	5'-10"	4'-0"	16.0	-	-	-	-	PHASE 1B
E8	H	20.00	14.5	RCP	30	13.90	CS-1	5'-0"	4'-0"	16.0	-	-	-	-	PHASE 1B
E10	H	21.50	13.0	RCP	60	11.20	CS-3	3'-0"	1'-6"	19.0	1 5/8"	1 5/8"	-	18.0	PHASE 1A
E11	D	22.50	19.0	RCP	24	19.50	CS-1	3'-4"	1'-6"	21.0	-	-	-	-	PHASE 1A
E12	H	19.80	8.30	RCP	72	8.80	CS-1	5'-10"	3'-9 5/8"	16.0	-	-	-	-	PHASE 1A
							CS-1	2'-6"	3'-9 5/8"	16.0					
F	D	18.50	13.6	RCP	48x76	14.10	CS-2	3'-0"	2'-0"	15.9	-	-	-	-	PHASE 1A
							CS-2	3'-0"	2'-0"	15.9					
F2	C	19.50	11.10	RCP	18	11.60	CS-1	12"	6"	16.5	-	-	-	-	PHASE 1A
F4	D	19.00	12.10	RCP	30	12.60	CS-6	3'-0"	2'-0"	16.5	1 1/4"	1 1/4"	-	16.0	PHASE 3C
F5A	H	19.00	10.70	RCP	30	11.20	CS-1	3'-0"	2'-6"	16.0	-	-	-	-	PHASE 1C
							CS-1	6'-4"	2'-6"	16.0					
							CS-1	6'-4"	2'-6"	16.0					
I	C	16.90	14.00	RCP	19x30	13.50	CS-1	12"	6"	16.4	-	-	-	-	PHASE 2B

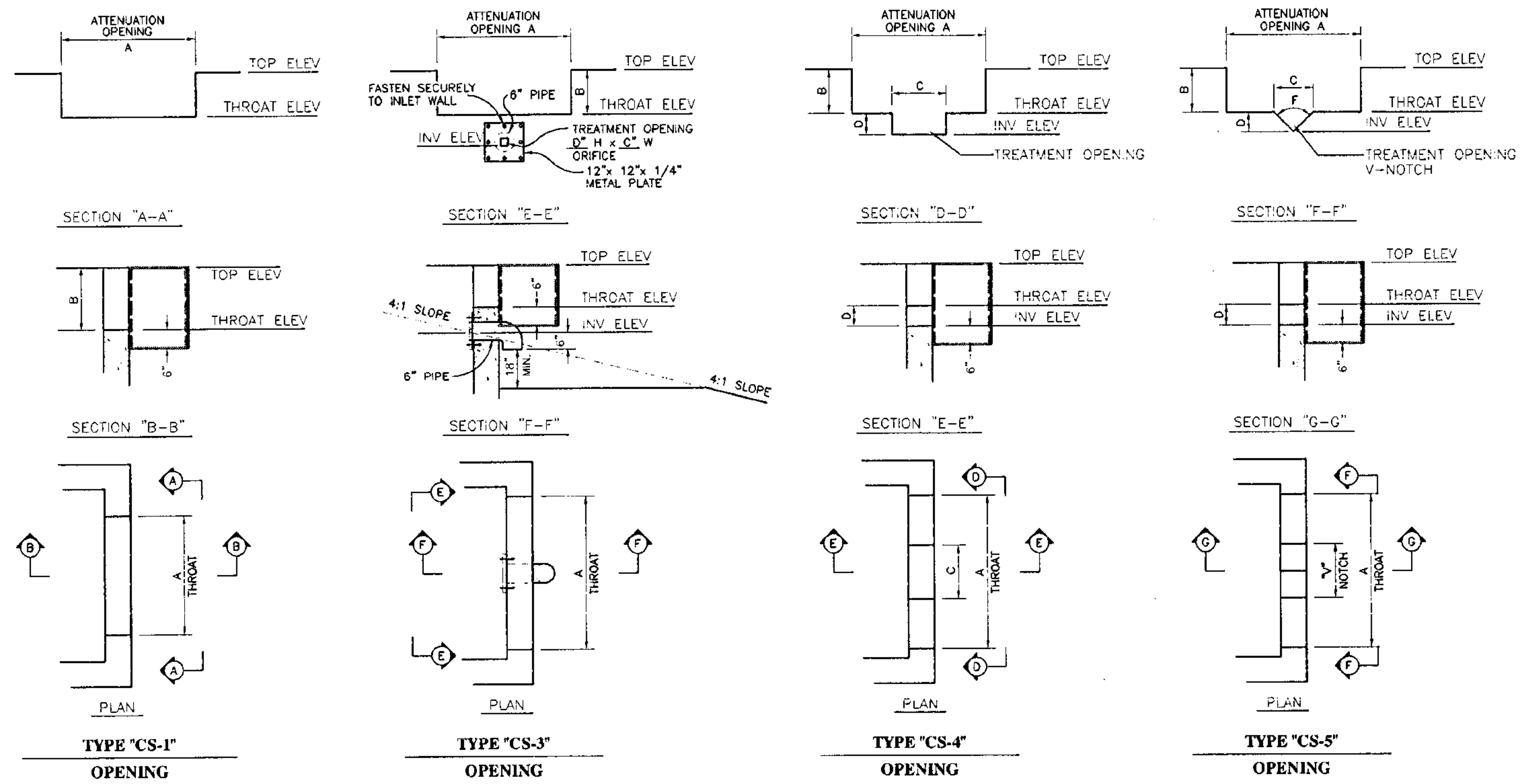
NOTE: DRAWING NOT TO SCALE

NOTE: CONTRACTOR SHALL SUBMIT SHOP DRAWINGS TO ENGINEER FOR APPROVAL PRIOR TO CONSTRUCTING CONTROL STRUCTURES

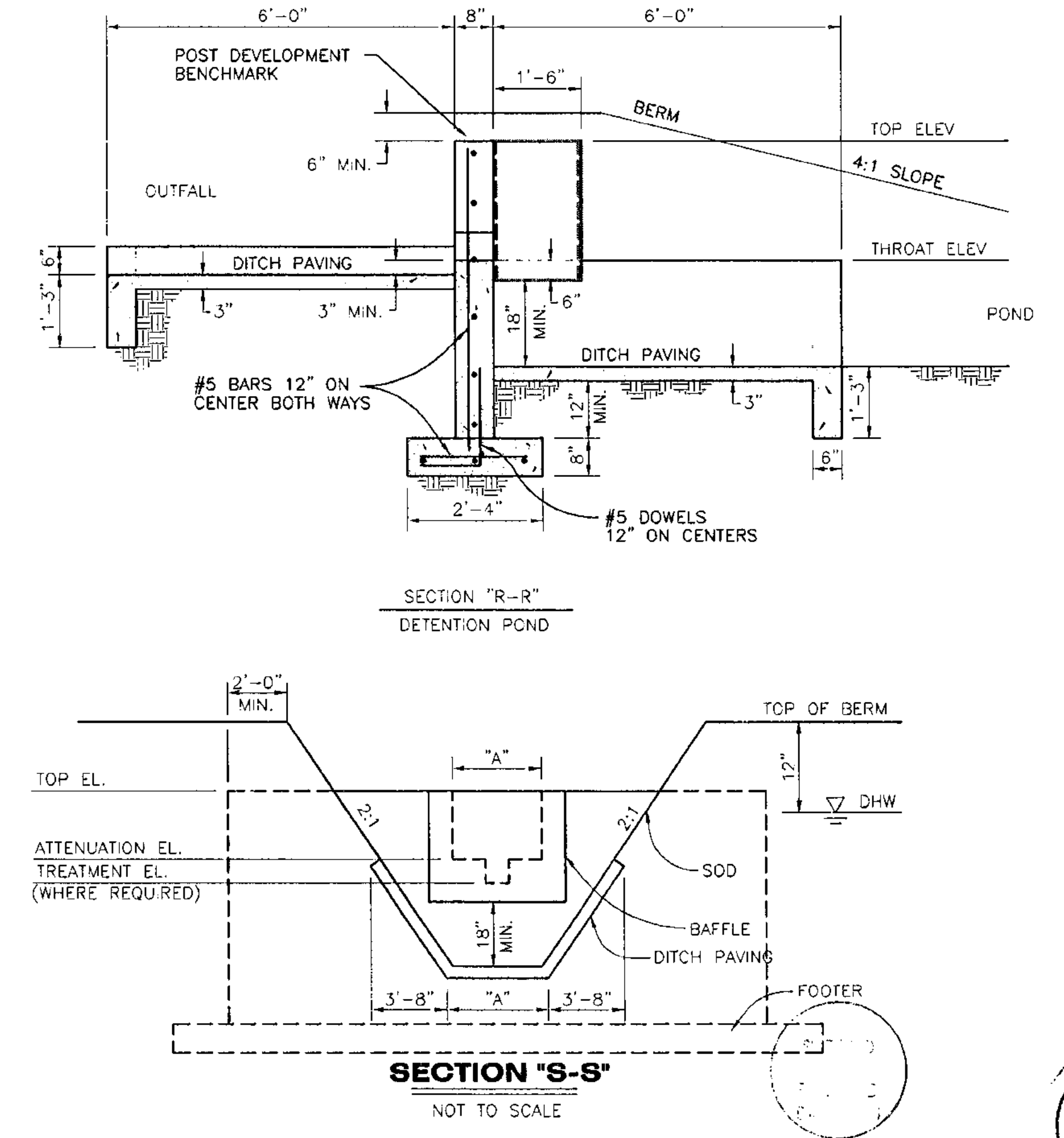
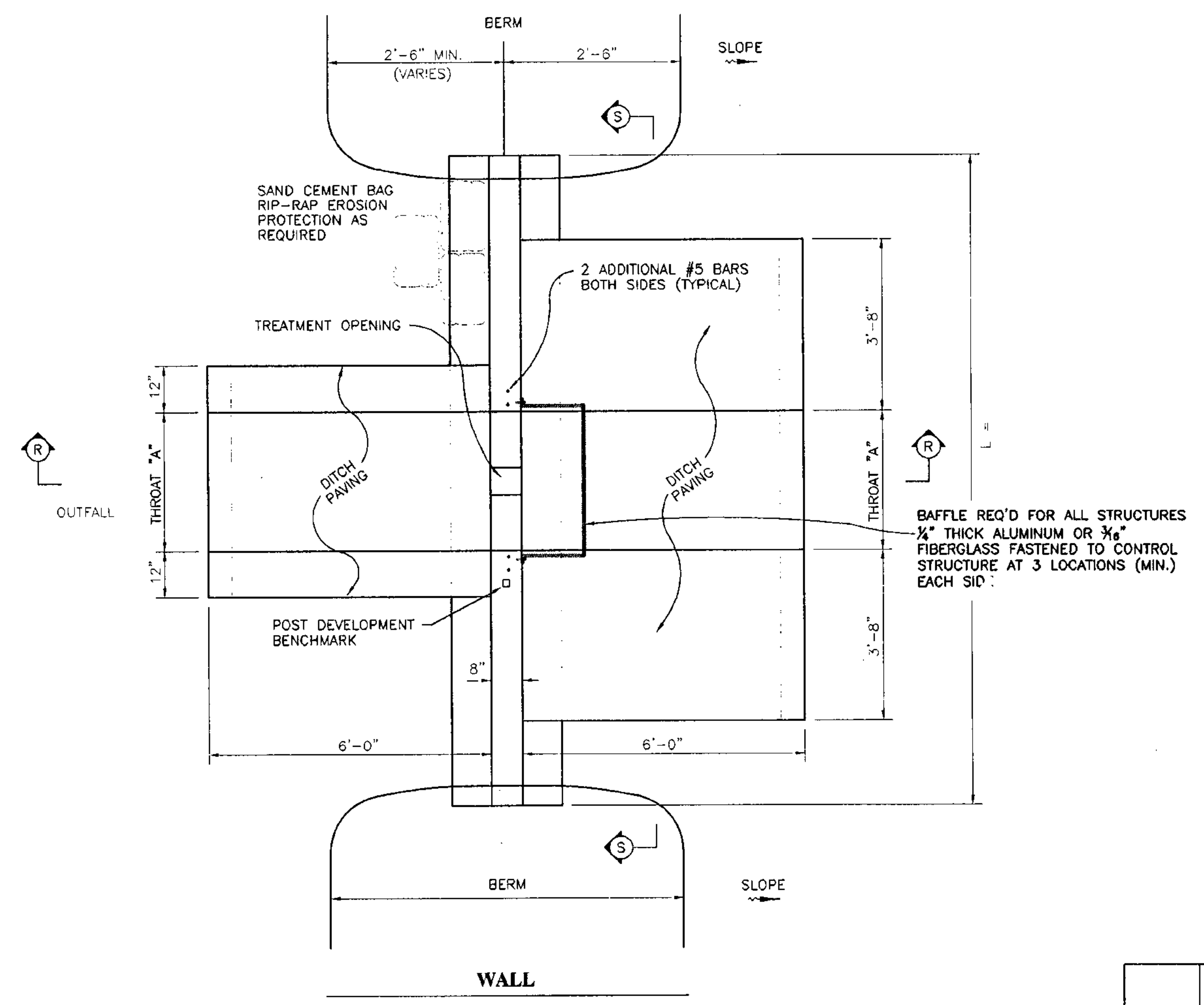
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SWFWMD
Received
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Engineering Business Certificate of Authorization No. 03-08 HEIDT & ASSOCIATES, Inc. Tampa Fort Myers Sarasota/Manatee Brooksville Office 105 North Main Street Brooksville, Florida 34601 Phone: 882-798-3462 FAX: 882-798-3493		CONTROL STRUCTURE DETAILS JOB NO. WWH-GL-006 DESIGN LUCAS DRAWN MEETZE PREPARED FOR: K. Hovnanian Windward Homes, L.L.C. DATE 04-30-07 FILE CS	
05-20-08 Rev. Str E7, E8, E12 03-24-08 Rev. Str A3, E2, F, F5A, Add Str I 10-22-07 Rev. Str E10 09-25-07 Rev. Strs., Add Phases 06-25-07 Rev. Pipe Sizes		RBA RBA GM GM DATE: Brian M. Maltbie, P.E. 59405 FLORIDA PROFESSIONAL ENGINEER	



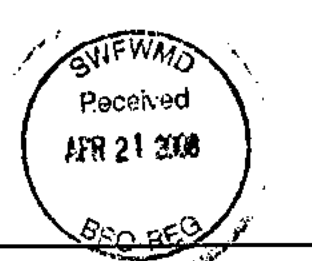
STR. NO.	FOOT BOX TYPE	TOP EL. (FT.)	BOTT. EL. (FT.)	DISCHARGE PIPE		ATTENUATION AND TREATMENT CONTROLS						REMARKS			
				TYPE	SIZE (IN.)	INV. EL. (FT.)	STR. TYPE	ATTENUATION OPENING		TREATMENT OPENING			EL. (FT.)		
							A	B	EL. (FT.)	C	D	F'	EL. (FT.)		
E	WALL	19.5				CS-1	8'-0"	2'-6"	17.0	-	-	-	-	PHASE 1A	L = 33'
E13	WALL	19.5				CS-3	25'-0"	1'-6"	18.0	6"	6"	-	17.0	PHASE 1A	L = 52'
F3	WALL	18.5				CS-4	3'-0"	2'-3 1/2"	16.37	7 7/8"	4 1/2"	-	16.0	PHASE 2C	L = 29'
F5	WALL	19.9				CS-1	5'-0"	2'-6"	17.4	-	-	-	-	PHASE 4C	L = 31'
H2	WALL	18.0				CS-5	3'-0"	1'-1"	16.92	10"	5"	90°	16.5	PHASE 3C	L = 25'
R2	WALL	19.4				CS-4	3'-0"	1'-3"	18.15	7 1/4"	4 1/4"	-	17.8	PHASE 2C	L = 26'
R3	WALL	18.0				CS-4	3'-0"	1'-1 3/4"	16.85	4 1/2"	4 1/4"	-	16.5	PHASE 3C	L = 25'
R4	WALL	18.0				CS-5	3'-0"	1'-10 1/8"	16.16	13 1/2"	6 3/4"	90°	15.6	PHASE 1C	L = 29'
F5B	WALL	19.0				CS-1	3'-0"	3'-0"	16.0	-	-	-	-	PHASE 1C	L = 24'
CA	WALL	20.3				CS-1	3'-0"	3'-0"	18.2	-	-	-	-	PHASE 1C	L = 24'

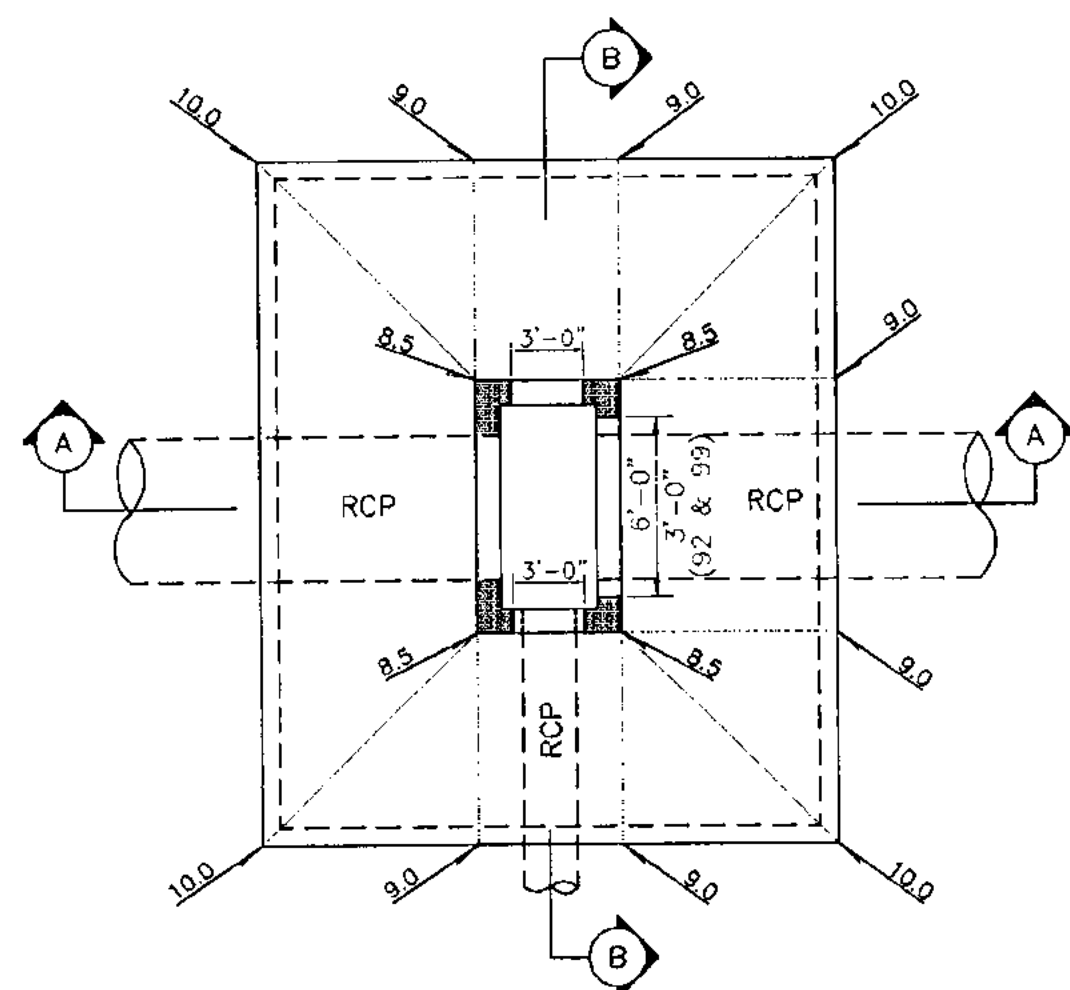


NOTE:
DRAWING NOT TO SCALE

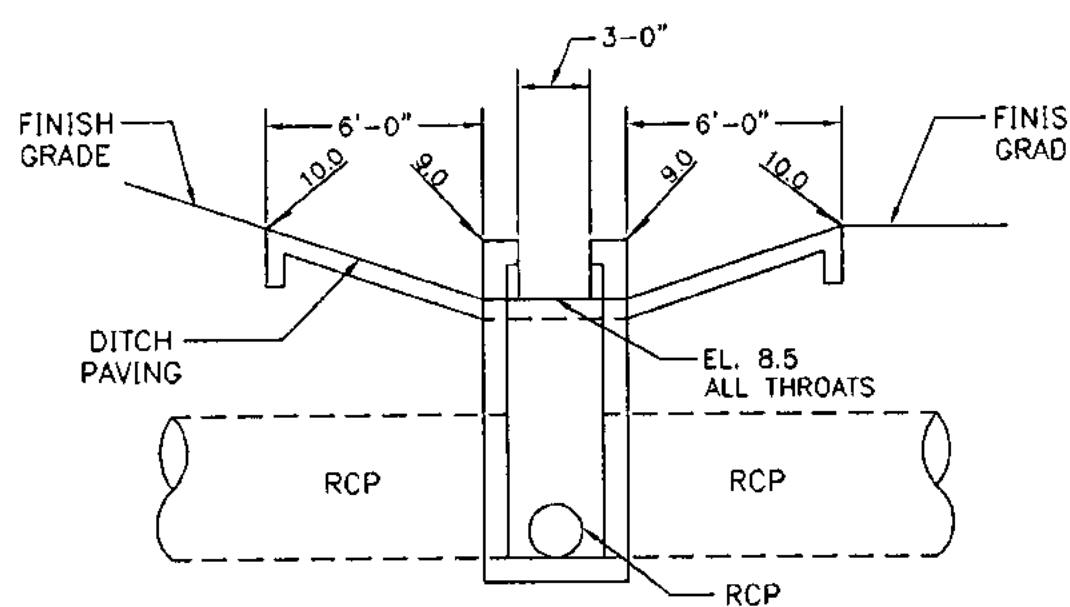
NOTE:
CONTRACTOR SHALL SUBMIT SHOP DRAWINGS TO ENGINEER FOR APPROVAL PRIOR TO CONSTRUCTING CONTROL STRUCTURES

HEIDT & ASSOCIATES, Inc. Tampa Fort Myers Sarasota - Manatee Brooksville Office 105 North Main Street Brooksville, Florida 34601 Phone: 352-796-3462 FAX: 352-796-3463		CONTROL STRUCTURE DETAILS JOB NO. WWH-GL-006 DESIGN LUCAS DRAWN MEETZE PREPARED FOR: K. Hovnanian Windward Homes, L.L.C. DATE 04-30-07 Elevation based on National Geodetic Vertical Datum 1929 (NGVD 29) NGVD 1929 (minus) - 0.83' = NAVD 88 FILE CS	
03-24-08 Revise Str. WL E 11-26-07 Revise Str. C to CA 09-25-07 Add Phases	RBA RBA GM	Brian M. Malberg P.E. 59405 FLORIDA PROFESSIONAL ENGINEER	SHEET 68 OF 100 SHEETS

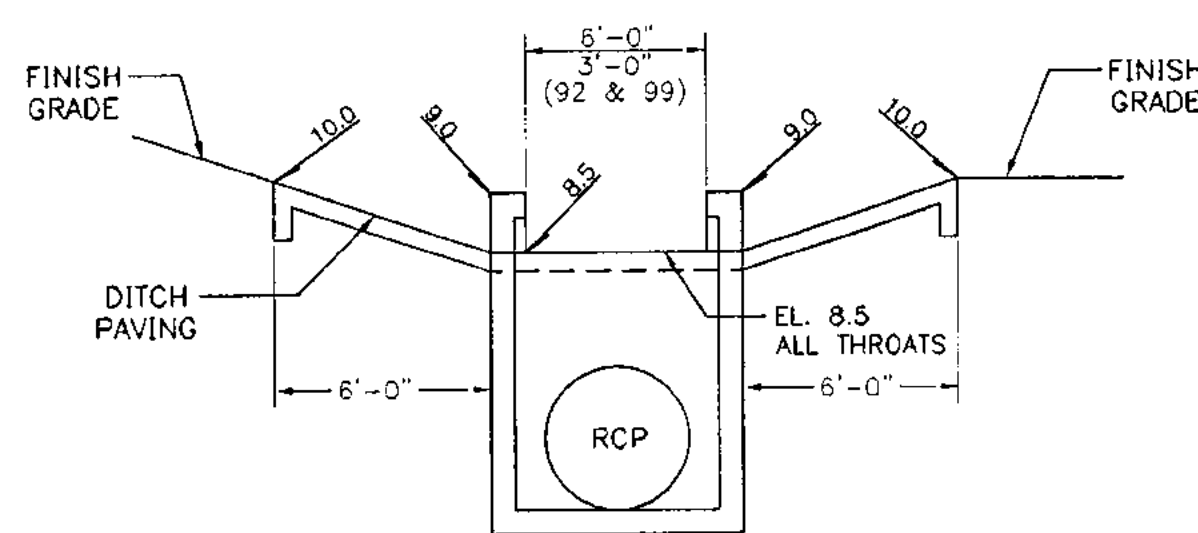




**TYPICAL PLAN VIEW
STRUCTURES 1, 2, 39, 92, 99 & 118**
Not to Scale

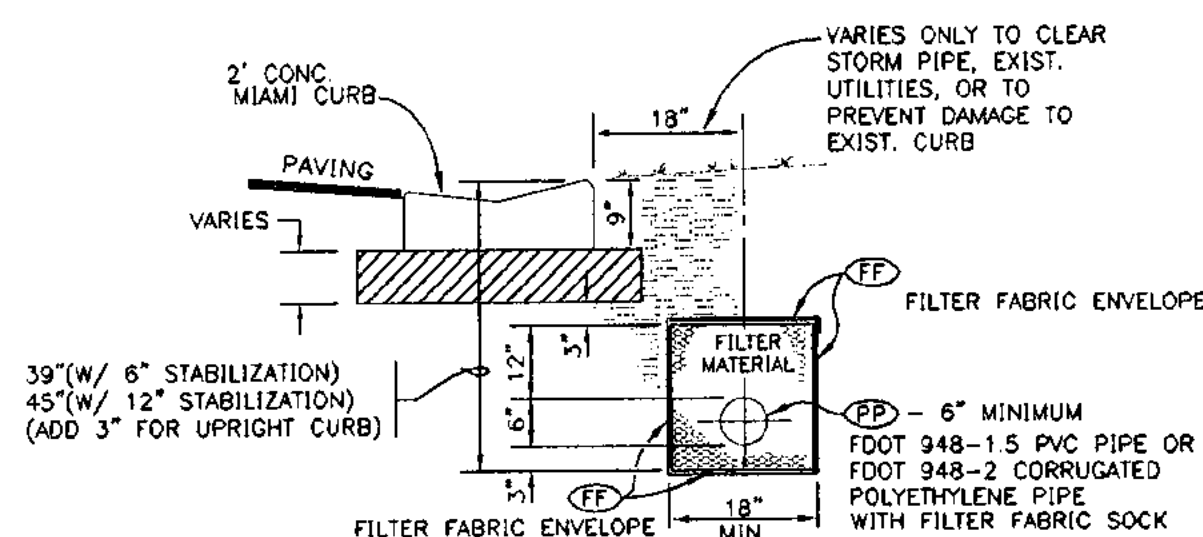


SECTION A-A
Not to Scale



SECTION B-B
Not to Scale

**NOTE: PIPE SIZES & LOCATION
AS PER THE PLANS. SEE STRUCTURE
DATA FOR ELEV. OF STRUCTURE TOPS.**

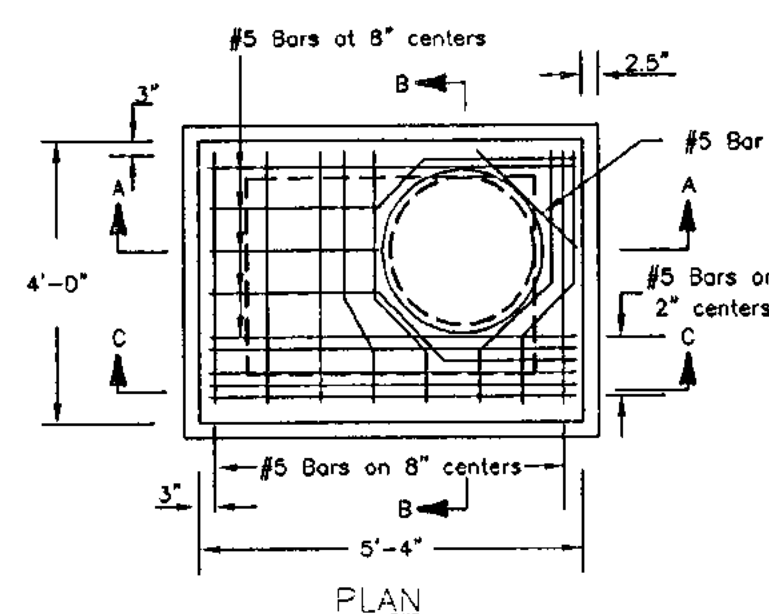


**TRENCH SECTION
(W/ CURBED ROADWAY)**

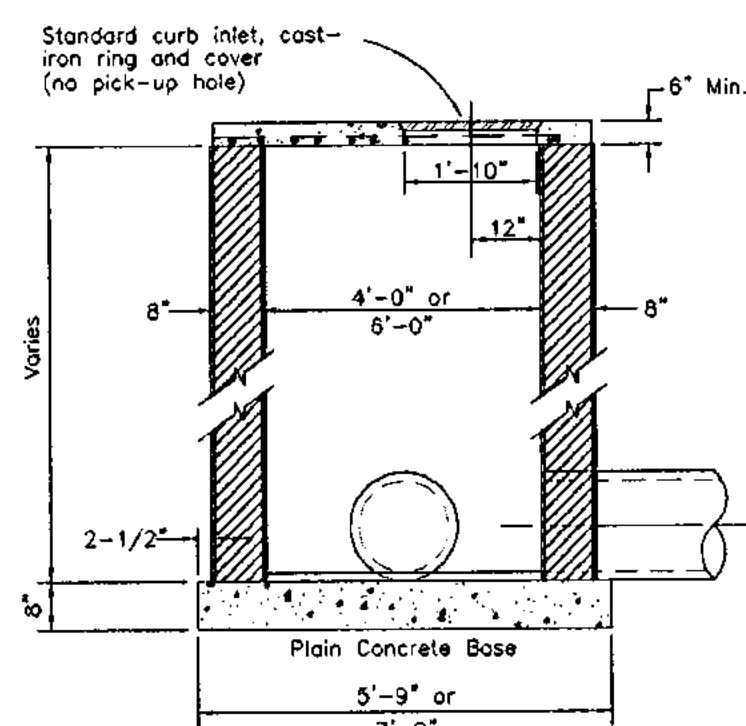
FINE AGGREGATE - NOTES

1. Minimum grade on underdrain pipe shall be 0.2%.
2. Fine aggregate shall be quartz sand meeting the requirements of Sections 902-4 of the Standard Specifications.
3. Non-perforated shall be used for all roadway crossings. Perforated pipe shall not be placed under street pavement.
4. Filter fabric shall be Type D-3; in accordance with FDOT Index 199.
5. All piping shall meet FDOT 948-1.5 Standards for PVC Pipe and FDOT 948-2 for Corrugated Polyethylene Pipe.
6. A filter fabric sock meeting 948-3 is required for all underdrain perforated piping.
7. FDOT and local governing agencies may have minimum standards which may exceed those referenced above. Contractor shall install underdrain in accordance with FDOT and local governing districts' minimum standards and regulations.
8. Filter material shall be completely wrapped in filter fabric. All filter fabric shall overlap a minimum of 1' (12 inches).
9. Embankment material shall consist of Select Soil (S) per FDOT Index 505 shall extend to a minimum of 36 inches (3 feet) behind back of curb except as noted above.
10. No irrigation pipelines, plant materials, tree materials or plantings, conduits, etc. should be designed or installed within 3 feet (±) of the back of curb.

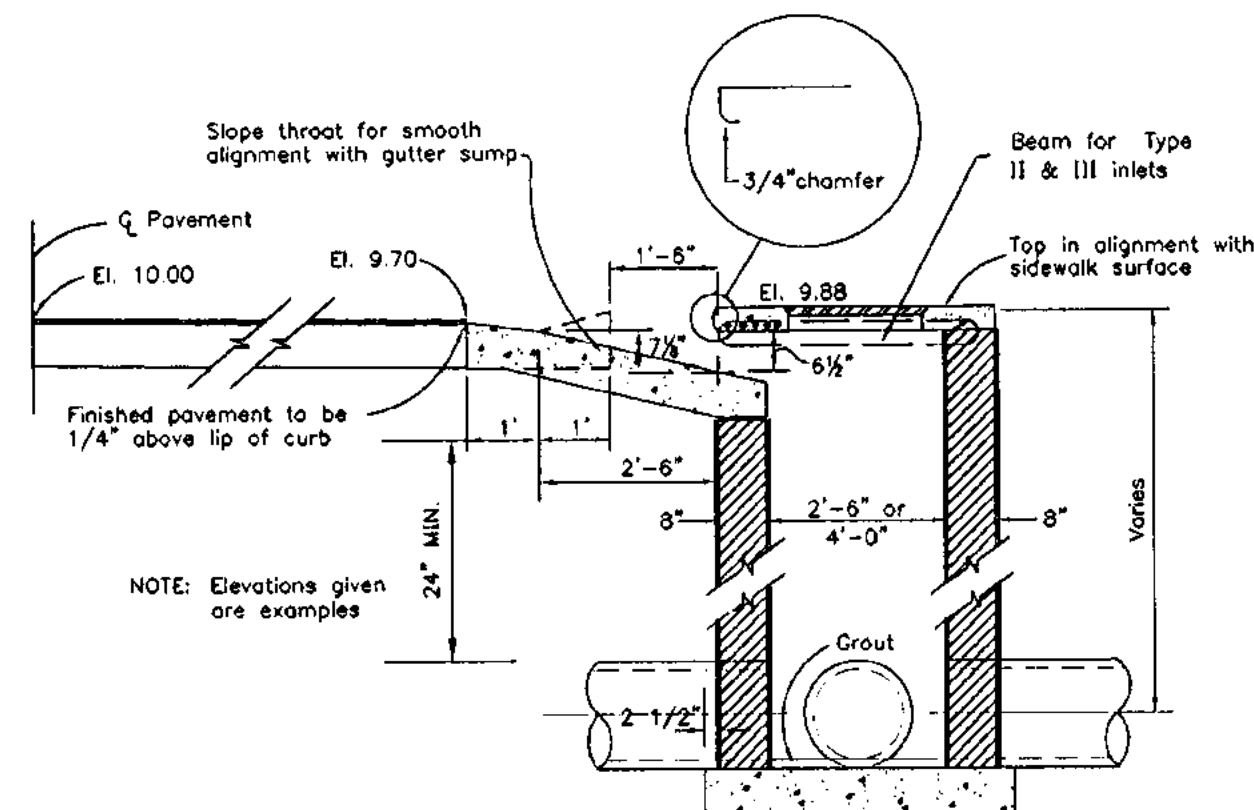
**UNDERDRAIN DETAIL
(FOR FINE AGGREGATE)**



PLAN

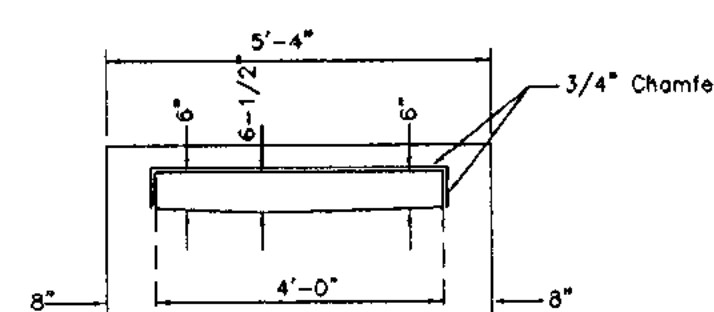


SECTION A-A



SECTION B-B

NOTE: Elevations given are examples

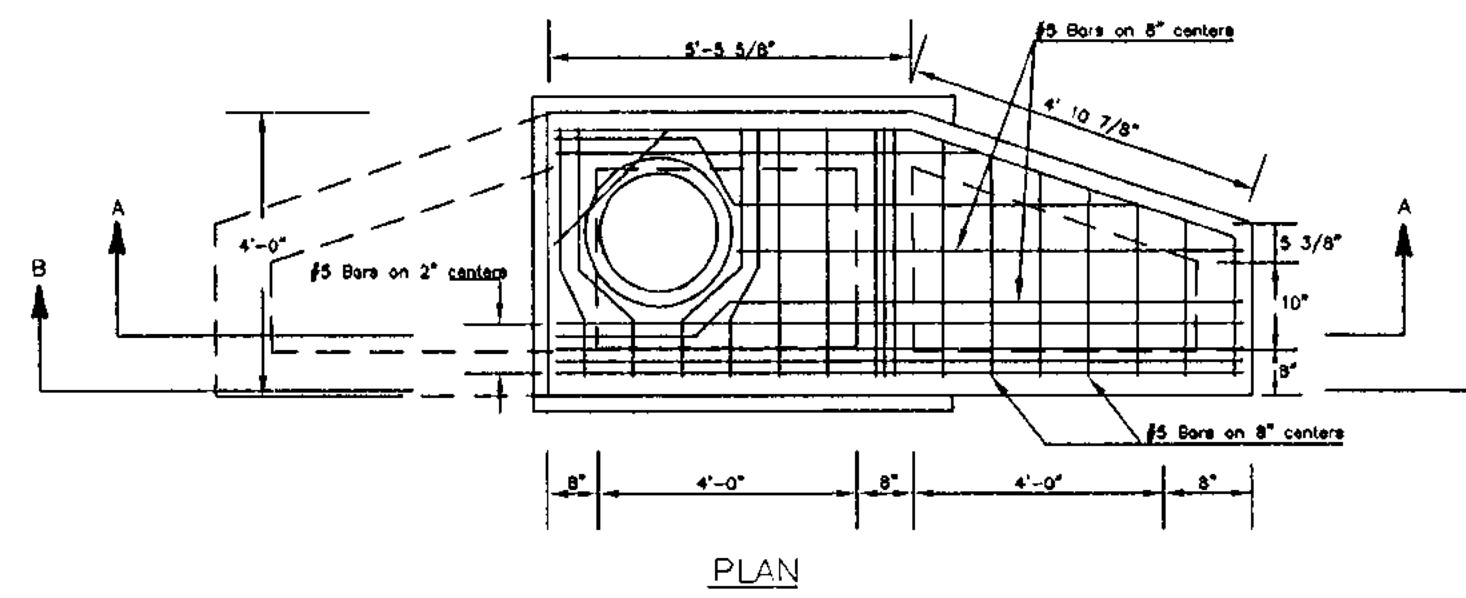


SECTION C-C

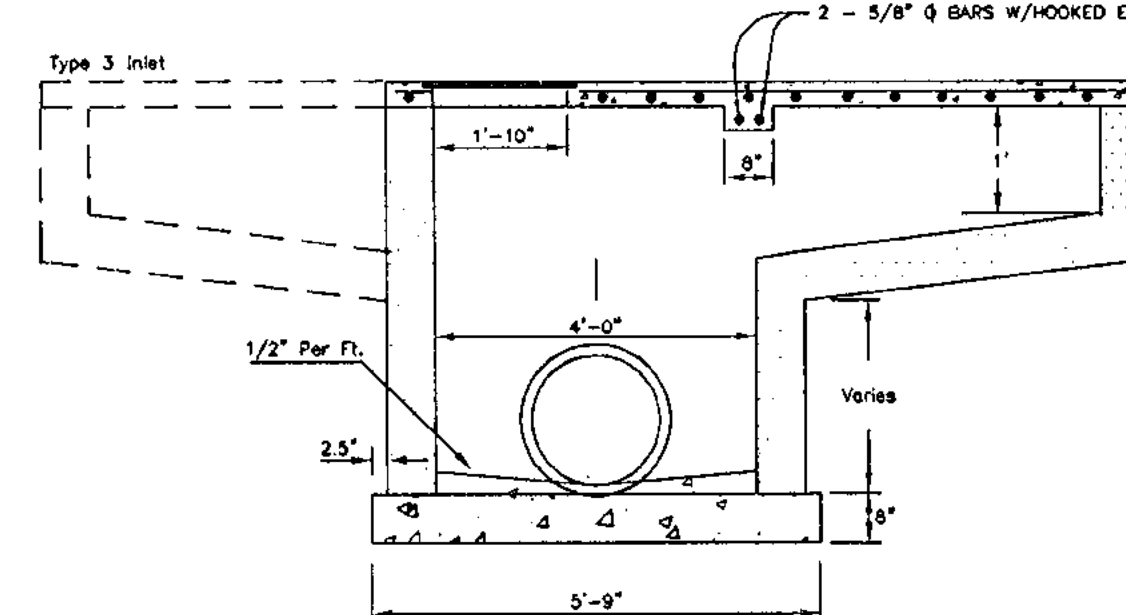
**STANDARD STORM WATER
CURB INLET TYPE 1**

NOTES:

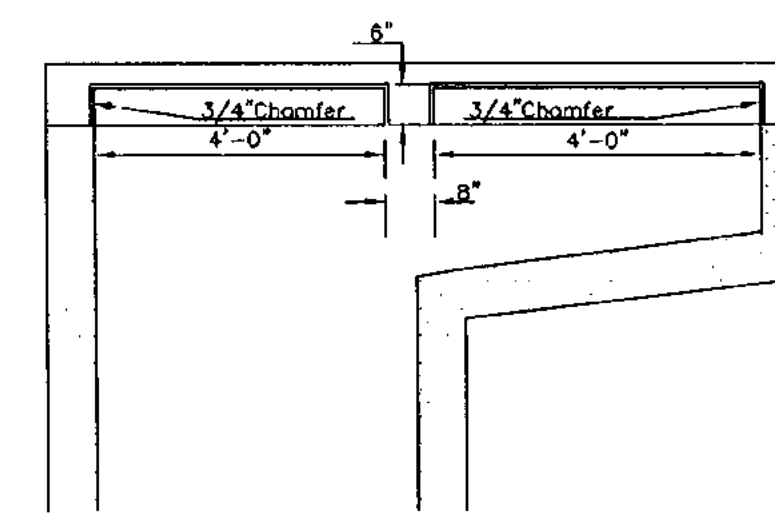
1. Construct channel at invert of pipe to provide flow of water through the inlet.
2. All stormwater curb inlets must meet or exceed FDOT standards.
3. If pre-cast, walls may be 6" thick and reinforced per FDOT Index 213.
4. All inside and outside brick walls to be plastered with 1/2" of 1:2 cement mortar.



PLAN

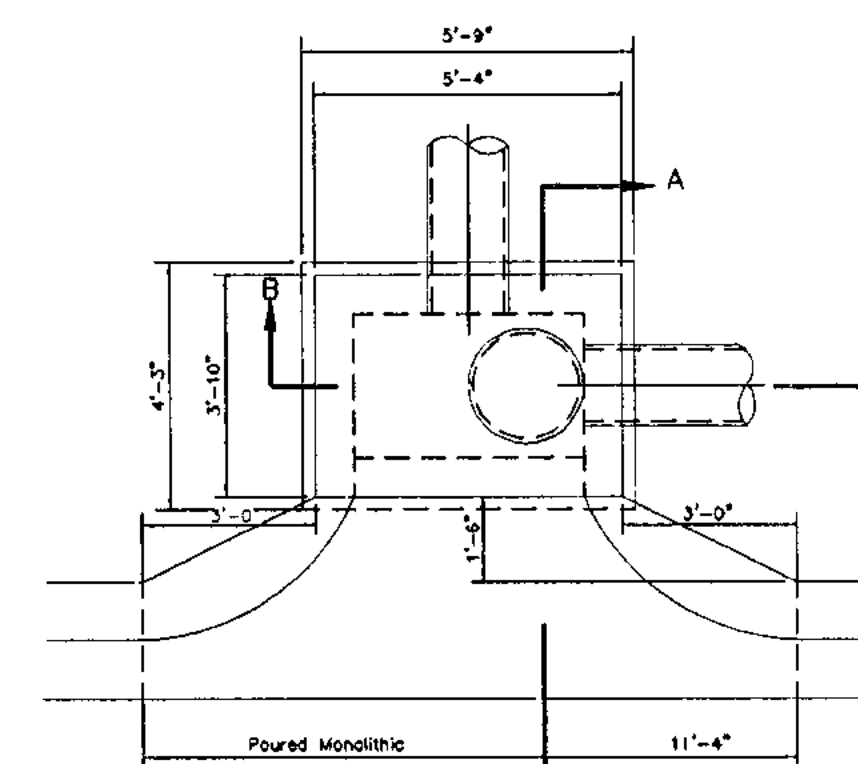


SECTION A-A

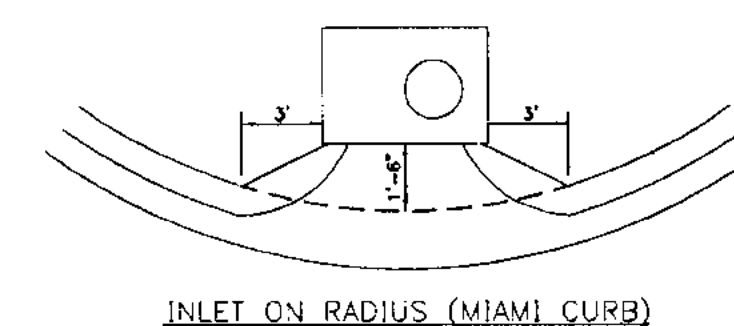


SECTION B-B

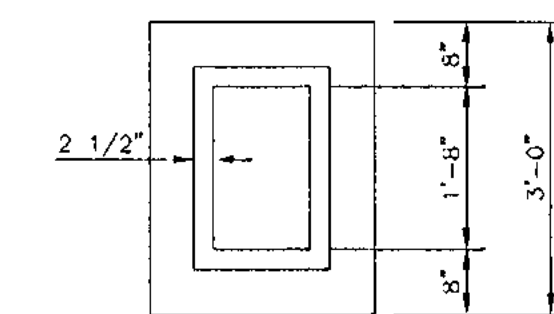
**STANDARD STORM WATER
CURB INLET TYPE 2 & 3**



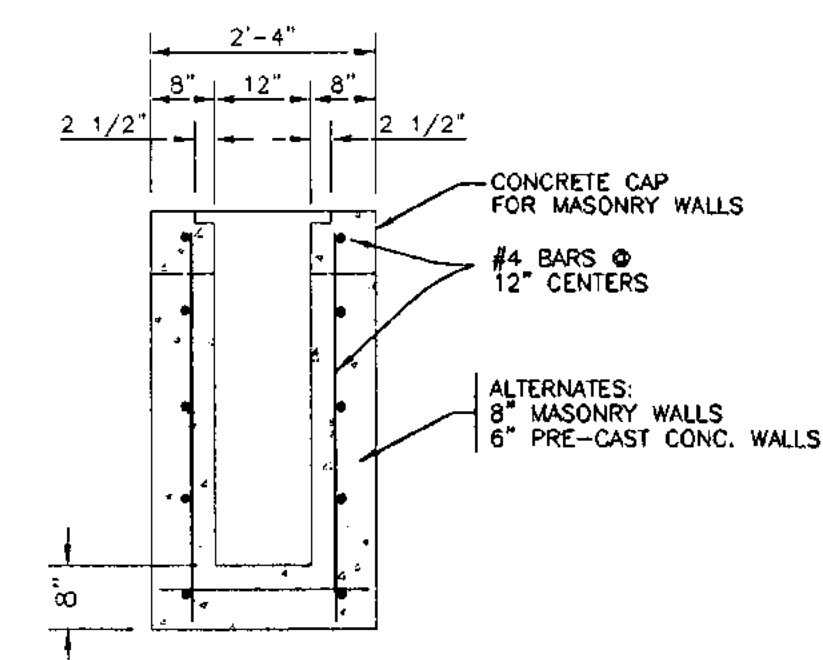
PLAN



INLET ON RADIUS (MIAMI CURB)



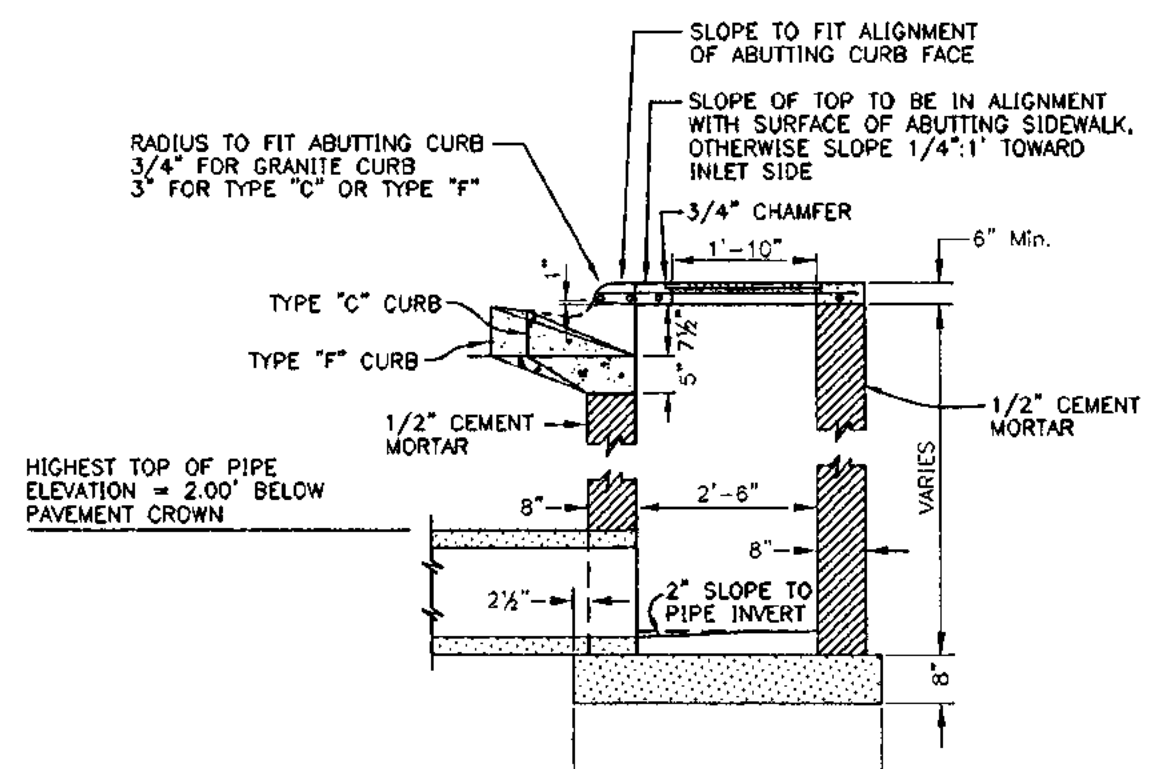
PLAN VIEW



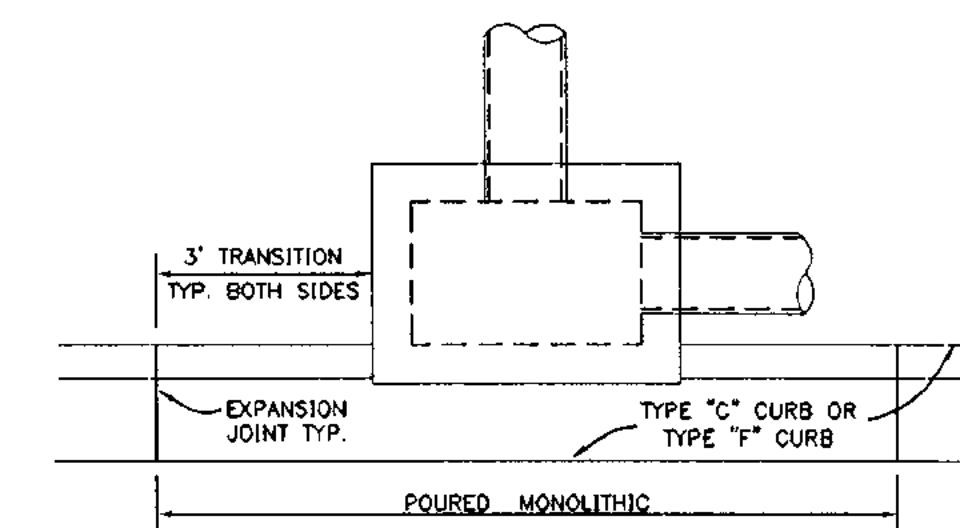
SECTION

YARD DRAIN DETAIL

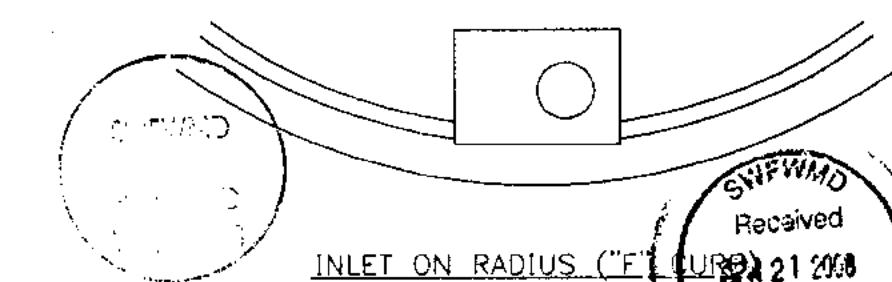
GRATE TYPE U.S.F. NO. 6145
OR APPROVED EQUAL



SECTION "B-B"
TYPE "C" & "F" CURB ONLY



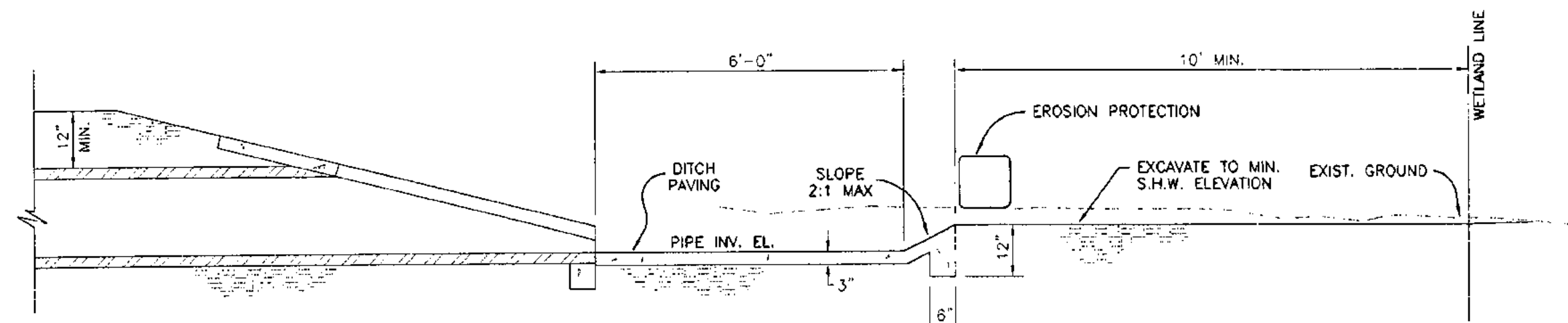
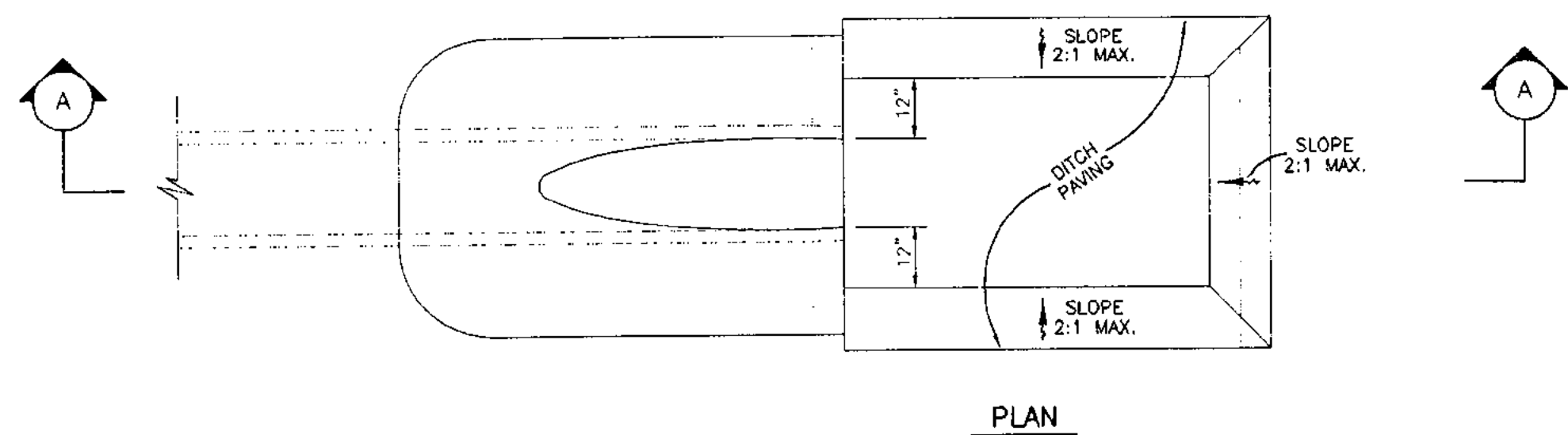
PLAN



INLET ON RADIUS (MIAMI CURB)

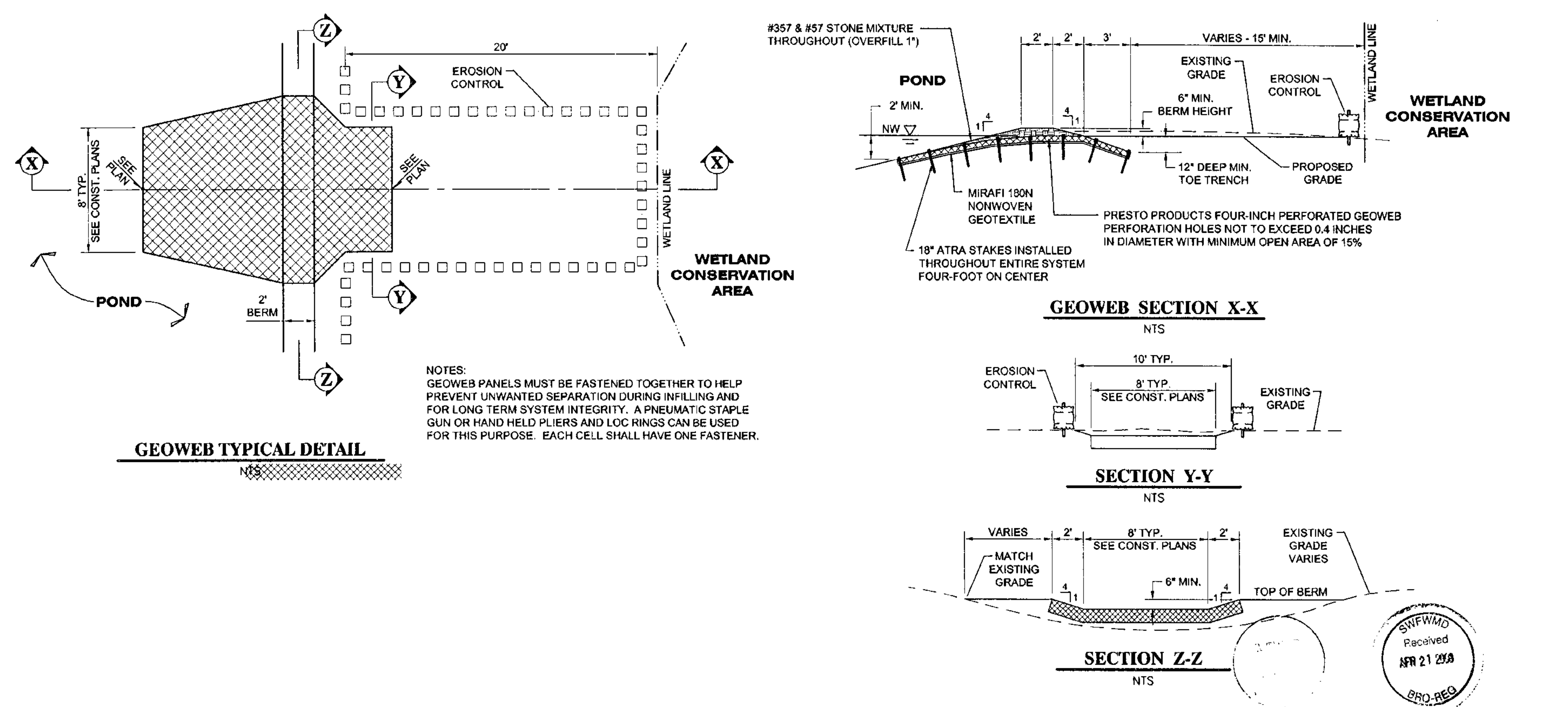
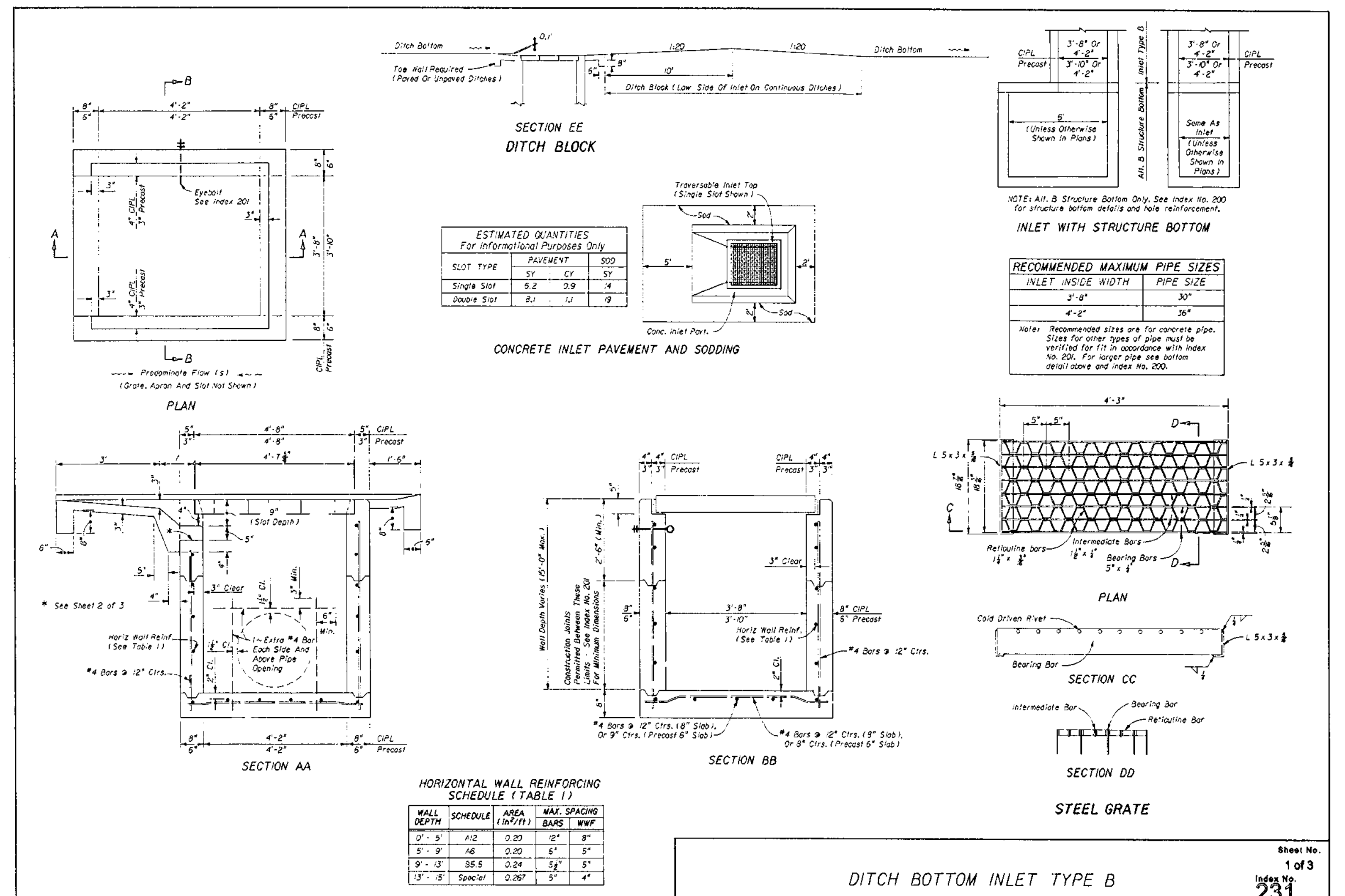
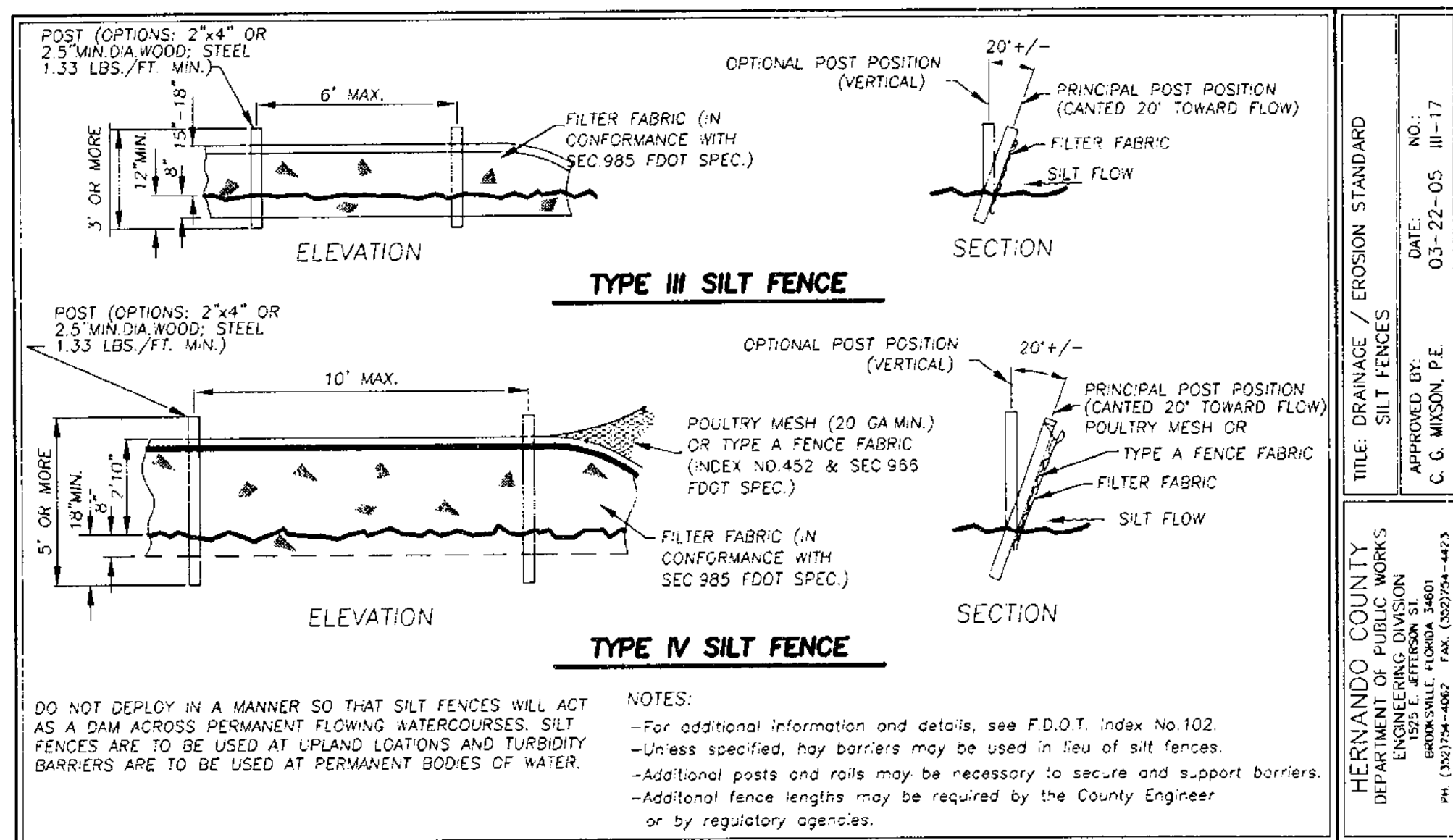
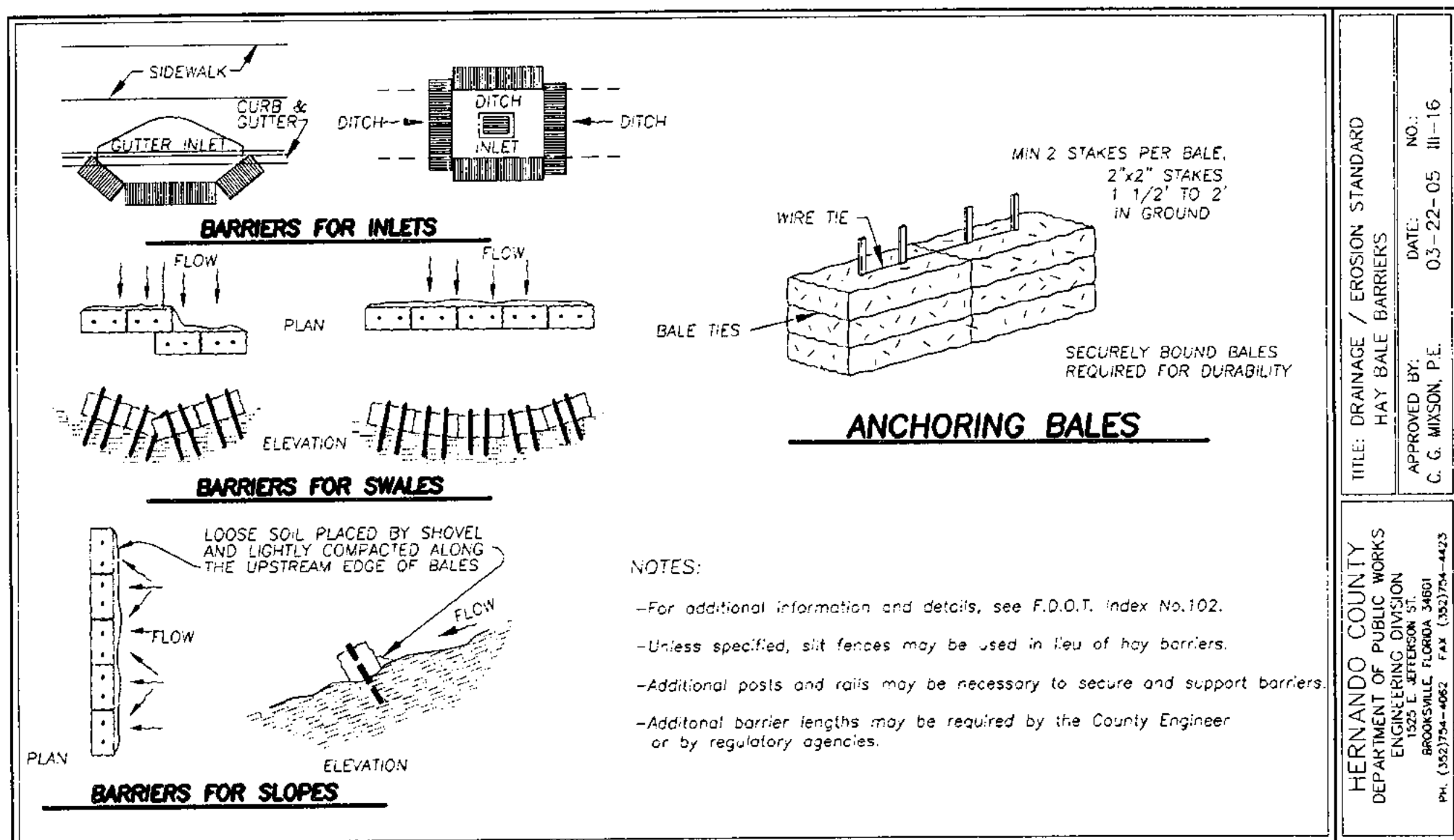
10-22-07 06-25-07 DATE Revised Detail 1,2,39,92,99,118 Str Top. Strs. 1,2,92,99,118 DESCRIPTION REVISIONS		CH GM BY Brian M. Malmberg P.E. 59406 FLORIDA PROFESSIONAL ENGINEER	Engineering Business Certificate of Authorization No. 148 HEIDT & ASSOCIATES, Inc. Tampa Fort Myers Sarasota Manatee Brooksville Office 105 North Main Street Brooksville, Florida 34601 Phone: 352-790-3402 FAX: 352-795-2453	DRAINAGE DETAILS FOUR SEASONS AT CRYSTAL SPRINGS JOB NO. WWH-GL-006 DESIGN LUCAS DRAWN MEETZE PREPARED FOR: K. Hovnanian Windward Homes, L.L.C. DATE 04-30-07 Elevation based on National Geodetic Vertical Datum 1929 (NGVD 29) NGVD 1929 (minus) - 0.83' = NAVD 88 SHEET 69 OF 100 SHEETS
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P:\GLEN LAKES\MASTER PLAN\ENGINEERING\DD.DWG. 10/22/2007 10:24:31 AM, BOBA



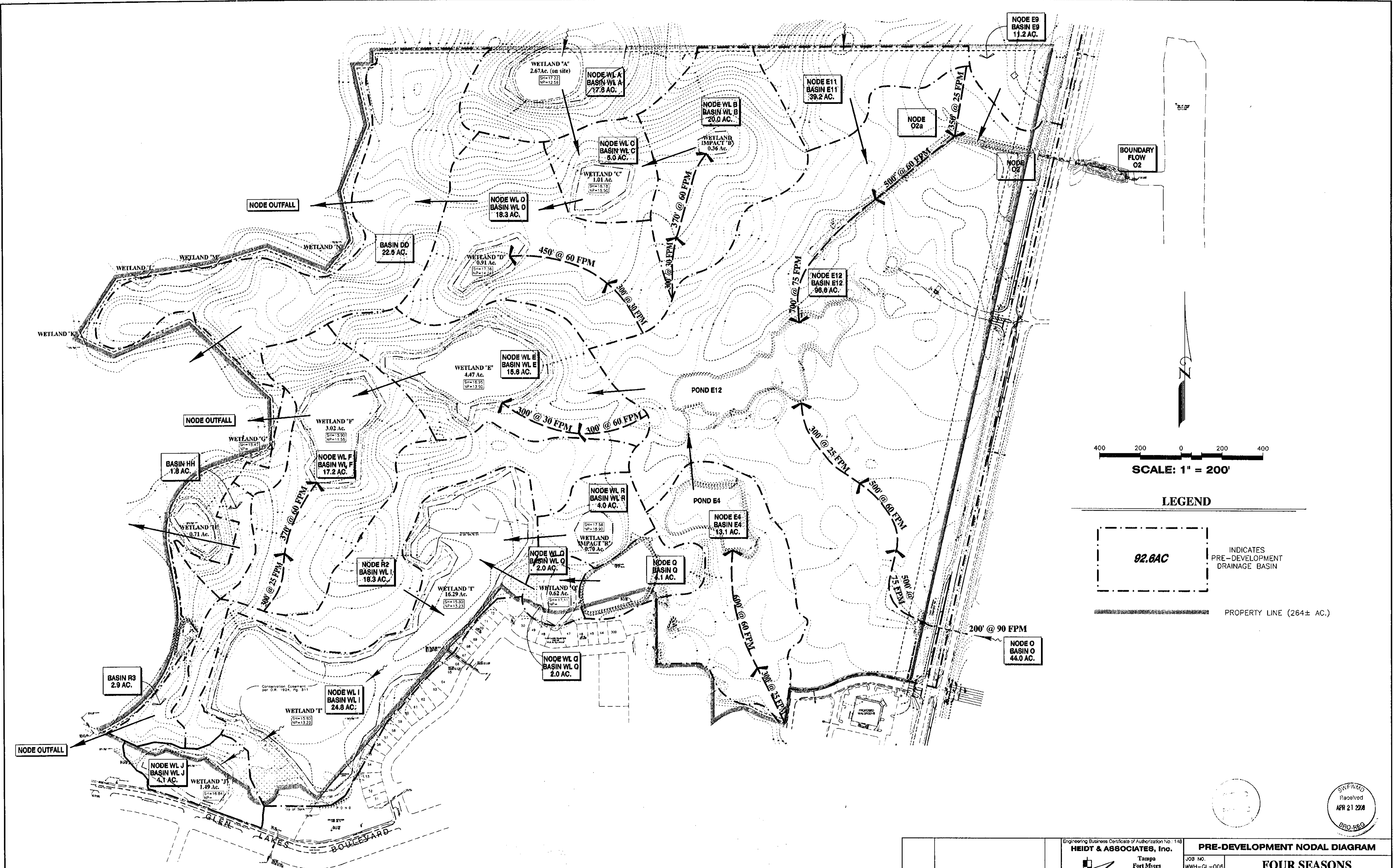
SECTION "A-A"
TYPICAL OUTFALL SUMP DETAIL

NOTE:
DRAWING NOT TO SCALE



HEIDT & ASSOCIATES, Inc. Tampa Fort Myers Sarasota • Manatee Brooksville Office 103 North Main Street Brooksville, Florida 34601 Phone: 352-798-3462 Fax: 352-798-3463		DRAINAGE DETAILS FOUR SEASONS AT CRYSTAL SPRINGS DRAWN: LUCAS PREPARED FOR: K. Hovnanian Windward Homes, L.L.C. DATE: 04-30-07 Elevation based on National Geodetic Vertical Datum 1929 (NGVD 29) NGVD 1929 (minus) - 0.83' = NAVD 88	
06-25-07 DATE: This Sheet Added DESCRIPTION: REVISIONS BY: CM	Brian M. Malmberg P.E. 59406 FLORIDA PROFESSIONAL ENGINEER	JOB NO.: WWH-GL-006 DESIGN: LUCAS DRAWN: MEETZ PREPARED FOR: K. Hovnanian Windward Homes, L.L.C. DATE: 04-30-07 Elevation based on National Geodetic Vertical Datum 1929 (NGVD 29) NGVD 1929 (minus) - 0.83' = NAVD 88	SHEET 70A OF 100 SHEETS

ENGINEER LANCE MASTER PLAN ENGINEERING D.D.W.S. 10/17/2007 2:15:47 PM, GREEN



400 200 0 200 400
SCALE: 1" = 200'

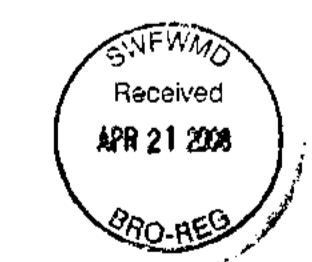
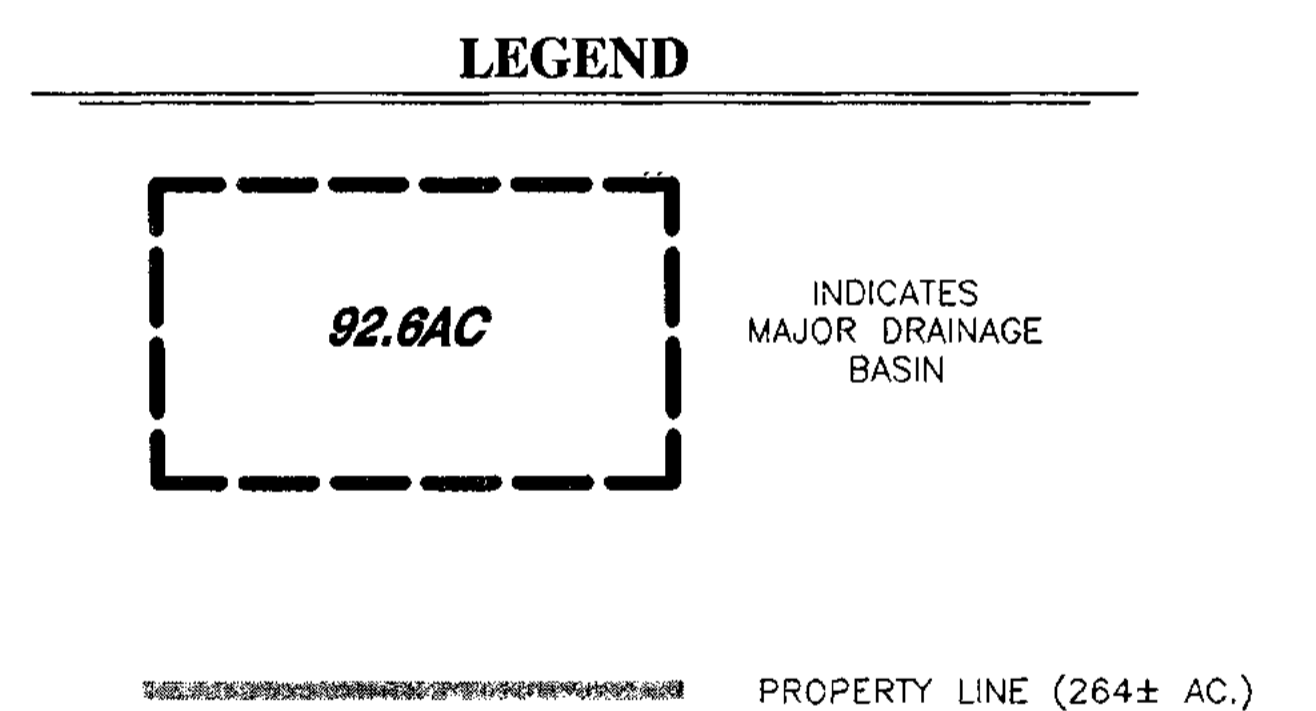
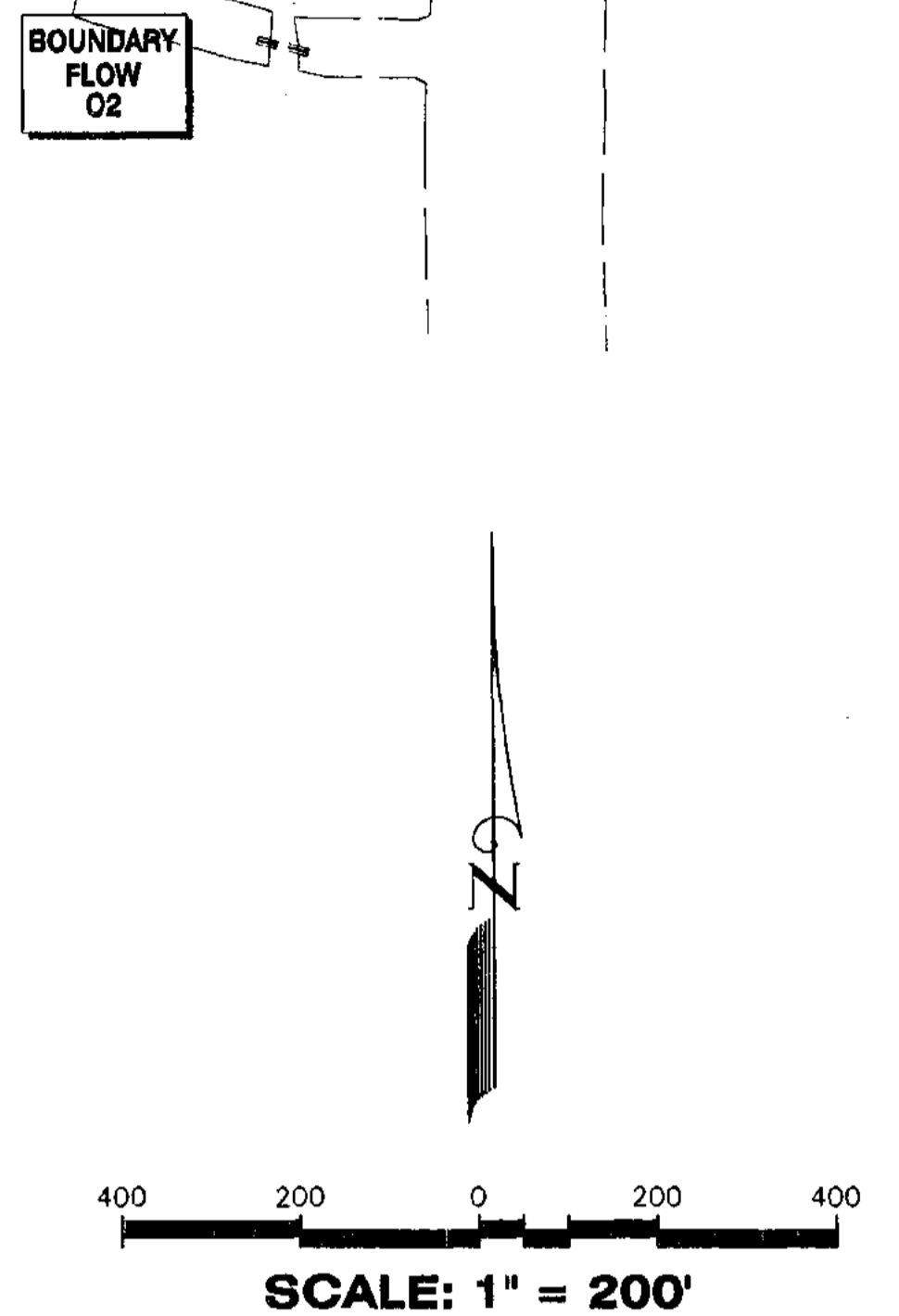
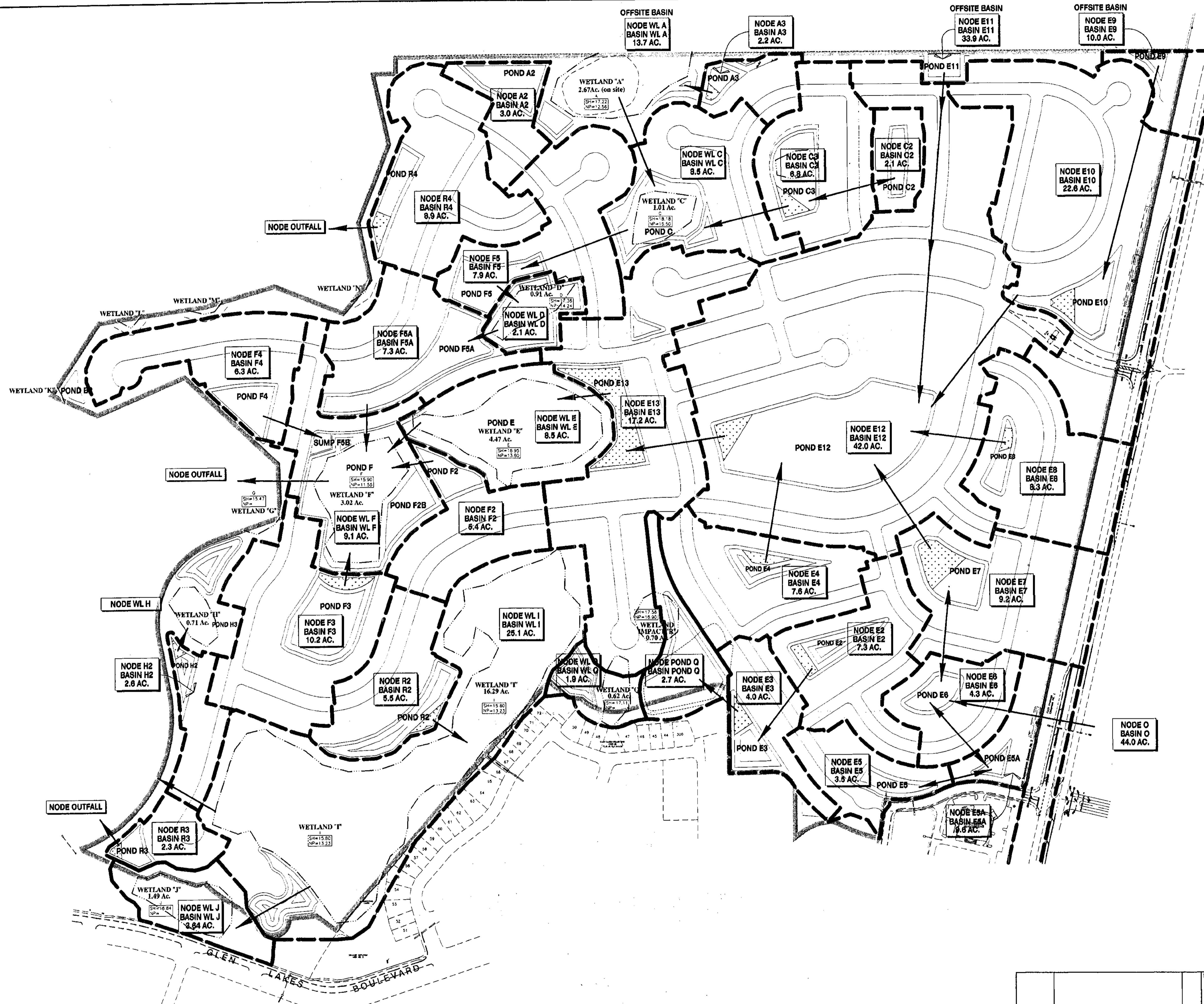
LEGEND

92.6AC INDICATES PRE-DEVELOPMENT DRAINAGE BASIN

PROPERTY LINE (264± AC.)

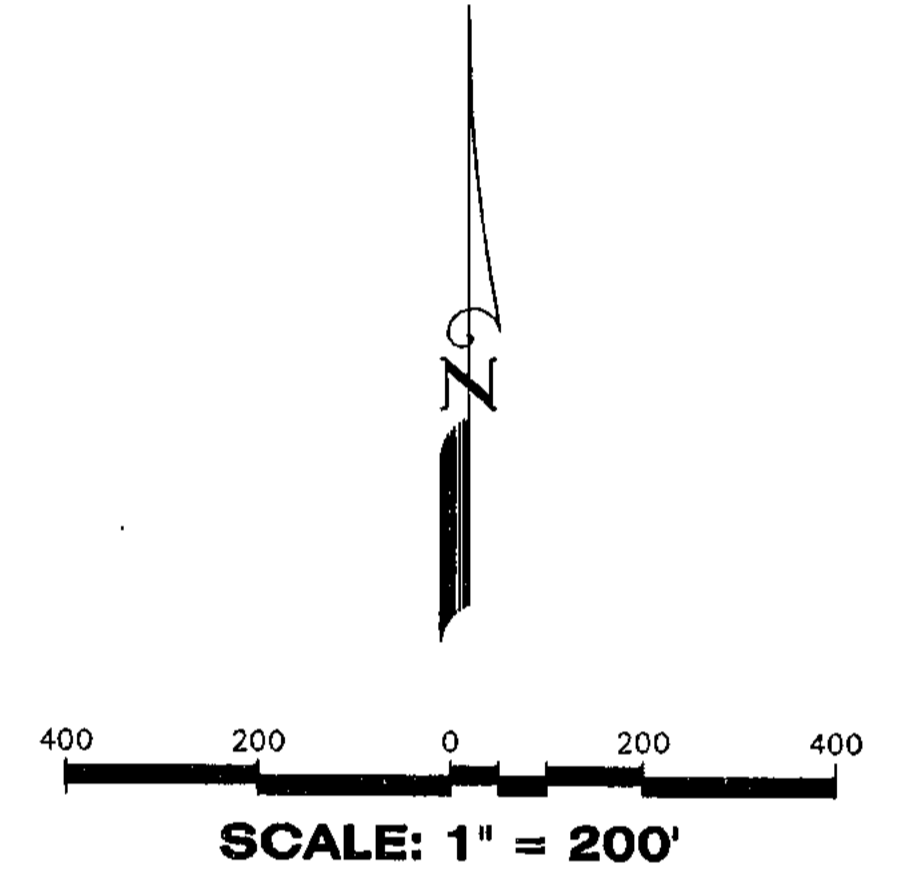
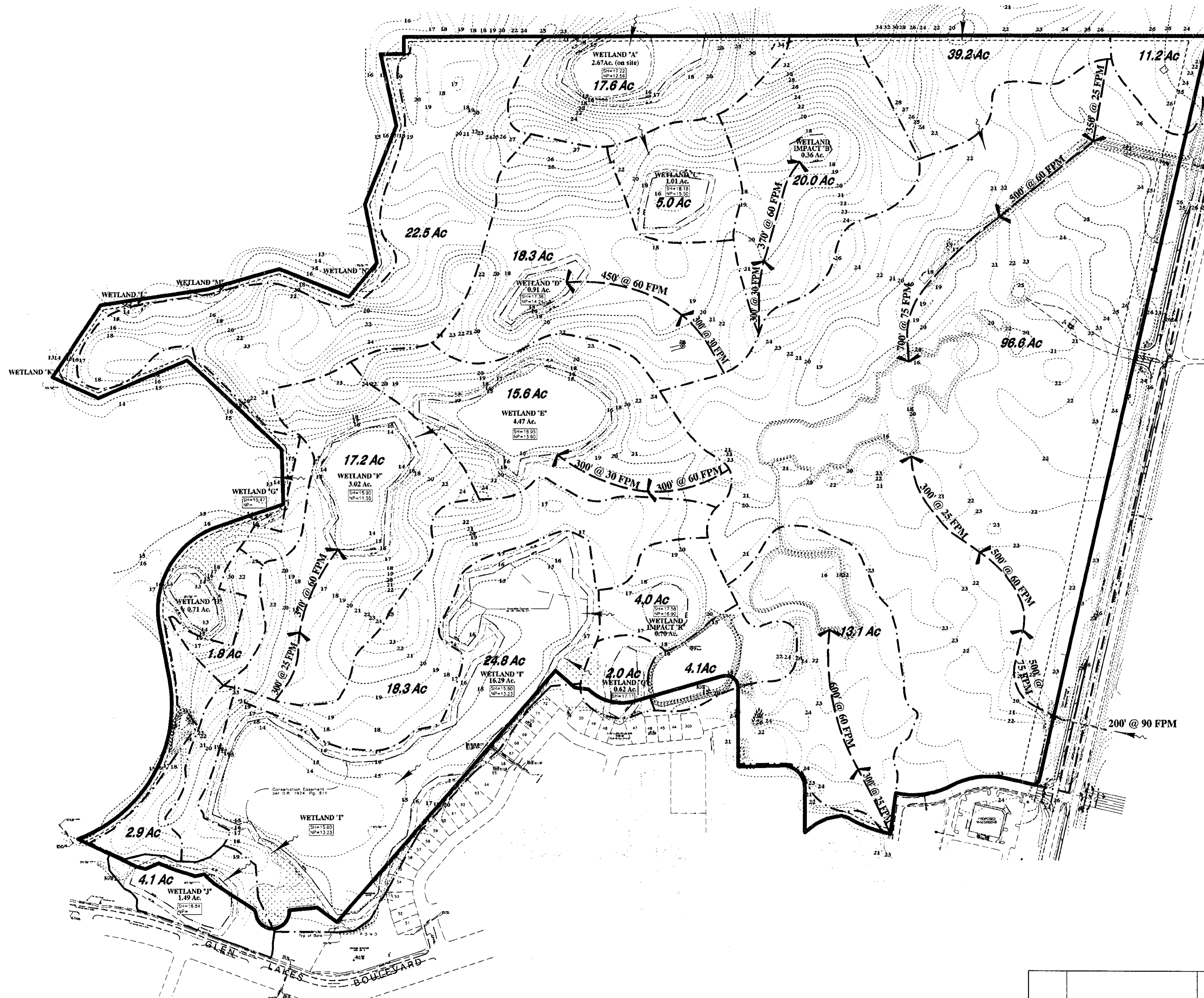
03-24-08 Add Nodes WL I, WL J 06-25-07 Rev. Per Comments		RBA GM DATE: 3/28/08 BY: Brian M. Malinberg P.E. 59405 FLORIDA PROFESSIONAL ENGINEER	Engineering Business Certificate of Authorization No. 1148 HEIDT & ASSOCIATES, Inc. Tampa Fort Myers Sarasota • Manatee Brooksville Office 105 North Main Street Brooksville, Florida 34601 Phone: 352-798-3462 FAX: 352-798-3463	PRE-DEVELOPMENT NODAL DIAGRAM FOUR SEASONS AT CRYSTAL SPRINGS DRAWN: LUCAS MEETZKE PREPARED FOR: K. Hovnanian Windward Homes, L.L.C. DATE: 04-30-07 Elevations based on National Geodetic Vertical Datum 1929 (NGVD 29) NGVD 1929 (minus) - 0.83' = NAVD 88 FILE: DA-PRENO... SHEET 1 OF 1 SHEETS
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03-24-08 08-25-07 DATE DESCRIPTION REVISIONS Add Nodes WL I, WL J, Pond Q, WL Q Rev. Str. Numbers RBA GM BY		Engineering Business Certificate of Authorization No. 1-48 HEIDT & ASSOCIATES, Inc. Tampa Fort Myers Sarasota • Manatee Brooksville Office 105 North Main Street Brooksville, Florida 34601 Phone: 352-795-3462 FAX: 352-795-3463	POST-DEVELOPMENT NODAL DIAGRAM FOUR SEASONS AT CRYSTAL SPRINGS DRAWN: LUCAS DESIGN: LUCAS PREPARED FOR: K. Hovnanian Windward Homes, L.L.C. DATE: 04-30-07 Elevation based on National Geodetic Vertical Datum 1829 (NGVD 29) NGVD 1929 (minus) - 0.83' = NAVD 88 SHEET 1 OF 1 SHEETS
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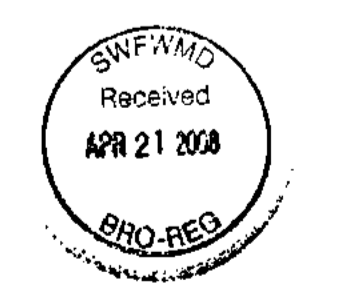
GLEN LAKES BOULEVARD

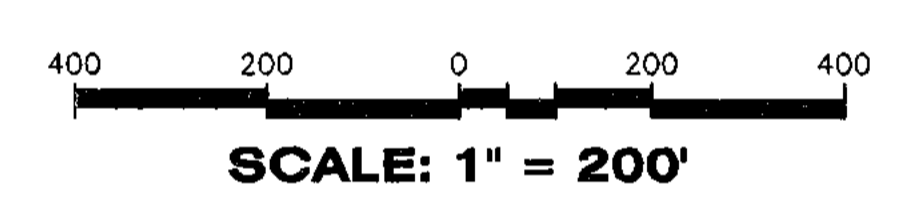
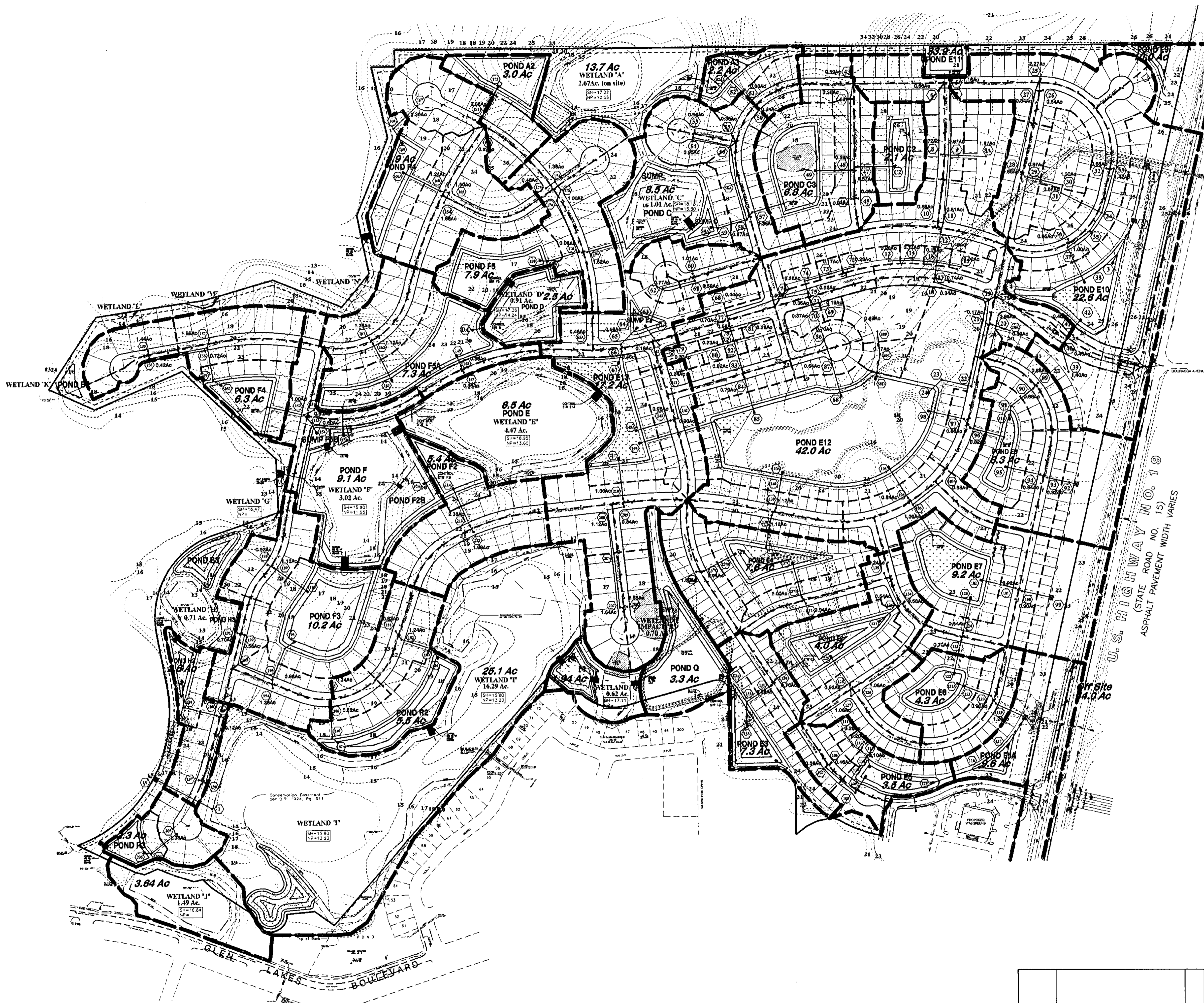


LEGEND

92.6AC	INDICATES PRE-DEVELOPMENT DRAINAGE BASIN
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Engineering Business Certificate of Authorization No. 148 HEIDT & ASSOCIATES, Inc.		PRE-DEVELOPMENT DRAINAGE AREA MAP	
Tampa Fort Myers Sarasota-Manatee Brooksville Office 108 North Main Street Brooksville, Florida 34601 Phone: 352-798-3482 FAX: 352-798-3483		JOB NO. WWH-GL-006	FOUR SEASONS AT CRYSTAL SPRINGS
DESIGN LUCAS		DESIGN LUCAS	PREPARED FOR: K. Hovnanian Windward Homes, L.L.C.
DRAWN MEETZE		DATE 04-30-07	Elevations based on National Geodetic Vertical Datum 1929 (NGVD 29) NGVD 1929 (minus) - 0.83' = NAVD 88
DATE 03-24-08 08-02-07 08-25-07		DESCRIPTION WL I AND WL J ACREAGES REV. TO TEXT Rev. Per Comments	SHEET 1 OF 1 SHEETS
BY Brian M. Maltberg P.E. 59405 FLORIDA PROFESSIONAL ENGINEER		REVISIONS	





LEGEND

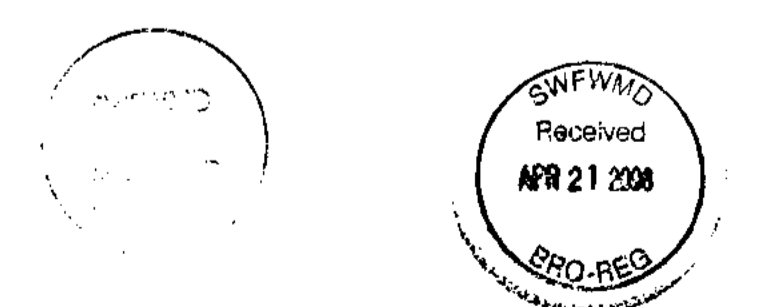
- 92.6AC
INDICATES MAJOR DRAINAGE BASIN
- 0.20Ac
INDICATES MINOR DRAINAGE BASIN

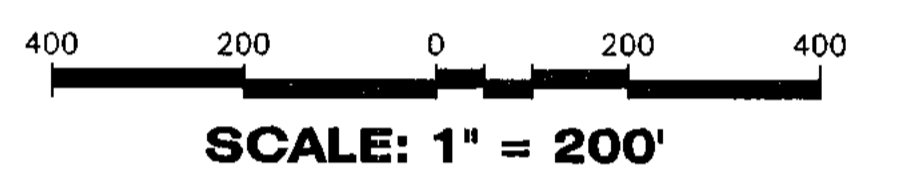
DATE	DESCRIPTION	BY
03-24-08	WL, J, I, Q AND POND Q ACRES	RBA
08-02-07	LOT LAYOUT (1-7, BL 22)	RRR
06-25-07	Rev. Str. Numbers	GM

Engineering Business Certificate of Authorization No. 148
HEIDT & ASSOCIATES, Inc.
 Tampa
 Fort Myers
 Sarasota • Manatee
 Brooksville Office
 105 North Main Street
 Brooksville, Florida 34601
 Phone: 882-798-3462
 FAX: 882-798-3483

DATE: 3/22/08
 Brian M. Malmberg P.E. 59405
 FLORIDA PROFESSIONAL ENGINEER

POST-DEVELOPMENT DRAINAGE AREA MAP	
JOB NO. WWH-GL-006	FOUR SEASONS AT CRYSTAL SPRINGS
DESIGN LUCAS	
DRAWN MEETZE	PREPARED FOR: K. Hovnanian Windward Homes, L.L.C.
DATE 04-30-07	Elevations based on National Geodetic Vertical Datum 1929 (NGVD 29) NGVD 1929 (minus) - 0.83' = NAVD 88
FILE DA-POST	SHEET 1 OF 1 SHEETS



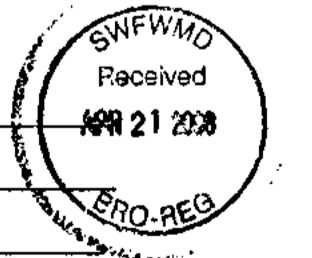
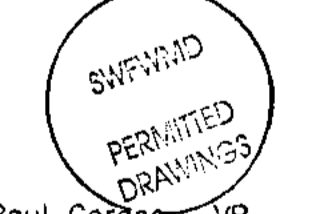


LEGEND

- | EXISTING | PROPOSED | |
|-----------|-----------|----------------------------|
| - - - - - | — | STORM DRAINAGE STRUCTURE |
| | ⑩ | STRUCTURE NO. |
| | 20.00 | ELEVATION |
| - - - - - | 20 | CONTOUR |
| | → | DIRECTION OF SURFACE FLOW |
| | — | UNDERDRAIN WITH CLEANOUT |
| | ● AB# | SOIL BORING LOCATION |
| | □ | STAKED EROSION CONTROL |
| | — SWFWL | EPC WETLAND LINE |
| | — 25' OS | WETLAND CONS. AREA SETBACK |
| | ● 2" Oak | TREES TO BE REMOVED |
| | ● 12" Oak | TREES TO BE PROTECTED |
| | — | TREE BARRICADE |

SEE SHEET 2 OF 2 FOR
CONSTRUCTION SURFACE
WATER MANAGEMENT
PLAN NOTES.

Mr. Paul Corde, VP
APPLICANT NAME K. Hovnanian Windward Homes, L.L.C.
APPLICANT SIGNATURE *Paul R. Corde*
DATE 4/9/08



08-02-07 LOT LAYOUT 06-25-07 Rev. Str. Numbers DATE DESCRIPTION REVISIONS BY		Engineering Business Certificate of Authorization No. 148 HEIDT & ASSOCIATES, Inc. Tampa Fort Myers Sarasota - Manatee Brooksville Office 105 North Main Street Brooksville, Florida 34601 Phone: 352-798-3402 FAX: 352-798-3493	CONST. SURFACE WATER MANAGEMENT PLAN JOB NO. WWH-GL-006 DESIGN LUCAS DRAWN MEETZE PREPARED FOR: K. Hovnanian Windward Homes, L.L.C. DATE 04-30-07 Elevation based on National Geodetic Vertical Datum 1929 (NGVD 29) NGVD 1929 (minus) - 0.83' = NAVD 88 FILE CSWMP		FOUR SEASONS AT CRYSTAL SPRINGS SHEET 1 OF 2 SHEETS
Brian M. Malmberg P.E. 59405 FLORIDA PROFESSIONAL ENGINEER			4/2/08		

GENERAL EROSION AND TURBIDITY CONTROL NOTES

- The Site Subcontractor shall be responsible for installation and maintenance of all erosion and turbidity controls and the quality and quantity of effluent to wetland discharges.
- Prior to construction, the Site Subcontractor is responsible for having the dewatering plan and turbidity control plan approved by the applicable reviewing agencies. Refer to the project's permit approvals and permit conditions for agencies requiring such review and approval. Questions concerning appropriate techniques should be addressed to those agencies and/or discussed with the project engineer and owner.
- The appropriate turbidity and erosion control methodologies selected by the Site Subcontractor for the project should be based on a thorough assessment of the plans and project site specific factors and after consultations as needed with the project engineer and appropriate agencies. The Site Subcontractor will be responsible for obtaining any and all necessary permits for such activity; several factors to consider are listed below:
 - Clay content in excavated materials and/or permeabilities rates
 - Depth of cut in ponds, trenches, or utility lines
 - Ambient ground water levels
 - Actual rainfall amounts and time of year relative to normal rainy season
 - Proximity to wetlands, water bodies or offsite properties
 - Class designation of receiving water bodies (i.e., Outstanding Florida Waters, shellfish harvesting areas, etc.)
 - Density, type, and proximity of upland vegetation to be retained during construction (for use as possible filtration areas)
 - Fill height relative to natural grade and length and steepness
 - Existing topography and directions of surface flow
 - Type of equipment used
 - Project type
 - Duration of construction activities
 - Separation distance of onsite ponds
 - Ambient quality of surface and groundwater
 - Temporary storage locations and heights
- At the onset of construction, the Site Subcontractor, as the party responsible for implementation of the erosion and sediment control plan, shall assess the above described conditions and factors with respect to relative cost effectiveness and select the appropriate methods of protection. A fairly extensive list of techniques is provided below but it must be stressed that any or all of the following may be necessary to maintain water quality and quantity standards. The construction sequencing should be brought out in advance of initiation to provide adequate protection of water quality.
 - Discharges must exceed 29 NTU's over the background levels are in violation of state water quality standards. Discharges of water quantities which affect offsite properties or may damage wetlands are also prohibited by regulating agencies.
 - The erosion and turbidity control measures shown herein are the minimum required for agency approval. Additional control and measures may be required due to the Site Subcontractor's construction sequence & unforeseen weather conditions. Any additional measures deemed necessary by the Site Subcontractor shall be included in the lump sum bid with no extra for materials and labor allowed.
 - Hay bales or screens shall be installed prior to land clearing to protect water quality and to identify areas to be protected from clearing activities and maintained for the duration of the project until all soil is stabilized.
 - Floating turbidity barriers shall be in place in flowing systems or in open water lake areas prior to initiation of earthwork and maintained for the duration of the project until all soil is stabilized.
 - No clay material shall be left exposed in any stormwater storage facility. If clay or sandy clays are encountered during stormwater storage excavation, the Site Subcontractor shall notify the Engineer immediately before proceeding with further excavation. If the Engineer of Record has determined that such soils are non-confining and must be excavated to meet permit and design conditions, excavation may proceed after obtaining written approval from the appropriate governing agency. If soil is left exposed at the permitted and designed depth, the Site Subcontractor shall over-excavate the pond's bottom and side slopes by a minimum of twelve (12") inches and backfill with clean sands to help prevent suspension of fine particles in the water column.
 - The installation of temporary erosion control barriers shall be coordinated with the construction of the permanent erosion control features to the extent necessary to assure effective and continuous control of erosion and water pollution throughout the life of the construction phase.
 - The type of erosion control barriers used shall be governed by the nature of the construction operation and soil type that will be exposed. Silty and clayey material may require solid sediment barriers to prevent turbid water discharge, while sandy material may need only silt screens or hay bales to prevent erosion. Floating turbidity curtains should generally be used in open water situations. Diversion ditches or swales may be required to prevent turbid stormwater runoff from being discharged to wetlands or other water bodies. It may be necessary to employ a combination of barriers, ditches, and other erosion/turbidity control measures if conditions warrant.
 - Where pumps are to be used to remove turbid waters from construction areas the water shall be treated prior to discharge to the wetlands. Treatment methods include, for example, turbid water being pumped into grassed swales or appropriate upland vegetated areas other than upland preservation areas (and wetland buffers), sediment basins, or confined by an appropriate enclosure such as turbidity barriers or low berms, and kept confined until turbidity levels meet State Water Quality Standards.
 - The Permittee shall schedule his operations such that the area of unprotected erodible earth exposed at any one time is not larger than the minimum area necessary for efficient construction operation, and the duration of exposed, uncompleted construction to the elements shall be as short as practicable. Clearing and grubbing shall be so scheduled and performed such that grading operations can follow immediately thereafter. Grading operations shall be so scheduled and performed that permanent erosion control features can follow immediately thereafter if conditions on the project permit.
 - Water derived from various dewatering methods should be passed through sufficiently wide areas of existing upland vegetation to filter out excess turbidity. If this is not sufficient, the water shall be retained in previously constructed permanent stormwater ponds or else retained in temporary sedimentation basins until the clarity is suitable to allow for its discharge. Plugging the outlets from completed stormwater ponds may be needed to avoid discharge. However, such situations should be monitored closely to preclude term failure if water levels rise too high.
 - Water can be transported around the site by the use of internal swales or by pumps and pipes.
 - Sheet flow of newly filled or scraped areas may be controlled or contained by the use of brush barriers, diversion swales, interceptor ditches or low berms. Flow should be directed toward areas where sediments can sufficiently settle out.
 - Exposed soils shall be stabilized as soon as possible, especially slopes leading to wetlands. Stabilization methods include soil sod, seeding and mulching or hydro-mulching to provide a temporary or permanent grass cover, mulch blankets, filter fabrics, etc., can be employed to provide vegetative cover.
 - Energy dissipators (such as rip rap, a gravel bed, hay bales, etc.) shall be installed at the discharge point of pipes or tanks if scouring is observed.
 - Attempt to install roadway curb and gutters as soon as possible to reduce the surface area for erosion to occur.
 - Implement storm drain inlet protection (hay bales or gravel) to limit sedimentation within the stormwater system. Perform inspections and periodic cleaning of sediments which wash out into the streets until all soil is stabilized.
 - Water discharge velocities from impounded areas and temporary sedimentation basins shall be restricted to avoid scouring in receiving areas.
 - If water clarity does not reduce to state standards rapidly enough in holding ponds, it may be possible to use chemical agents such as alum to flocculate or coagulate the sediment particles.
 - Hay bales, silt screens, or gravel beds can be added around the pipe or swale discharge points to help clarify discharges. Spreader swales may help trap cloudy water prior to contact with wetlands.
 - All fuel storage areas or other hazardous storage areas shall conform to accepted state or federal criteria for such containment areas.
 - Vehicle or equipment washdown areas will be sufficiently removed from wetlands or offsite areas.
 - Fugitive dust controls (primarily by using water spray trucks) shall be employed as needed to control windborn emissions.
 - If the above controls remain ineffective in precluding release of turbid water, especially during pond or utility line dewatering, then the contractor may be compelled to use a vertical dewatering system such as well points or sock drains to withdraw groundwater which may already be clear enough to allow for direct discharge to wetlands.
 - Ongoing inspections and periodic maintenance by the Site Subcontractor shall occur throughout construction as necessary to insure the above methods are working suitably. This may be needed daily, if conditions so warrant. Site Subcontractors are encouraged to obtain and thoroughly review the Florida Development Manual: A Guide to Sound Land and Water Management, which was developed by the State of Florida Department of Environmental Protection in 1988. This provides fairly in-depth discussions of recommended techniques and also provides specific design and technical standards. A copy of this document is available for review at Heit & Associates, Inc.
 - The contractor will perform daily inspections of all on-site wetlands within the construction area to ensure that water levels within these wetlands are not excessively impounded prior to the time when the permitted control structure or outlet is built. Water levels significantly above normal should be corrected at a frequency that prevents a change in the vegetative character or health of any wetlands.

Pond/Lake Excavation Note
No excavation shall extend below the permitted design depths/elevations shown on the drawings, unless additional testing supports otherwise, and no lower semi-confining unit clayey soil material and/or no limestone materials shall be excavated, regardless if these materials are encountered within the permitted excavation depths/elevations. If any lower semi-confining unit clayey soil materials or limestone materials are encountered above the permitted depths/elevations, then excavation operations shall cease in the general area and the Engineer of Record shall be notified immediately.

Mr. Paul Corace, VP
 APPLICANT NAME: K. Hovnanian Windward Homes, L.L.C.
 APPLICANT SIGNATURE: *[Signature]*
 DATE: *[Date]*

STORM WATER POLLUTION PREVENTION PLAN

Contained on these plans and within the following notes is a Storm Water Pollution Prevention Plan (SWPPP) which has been developed by Heit & Associates, Inc. in accordance with the Florida Department of Environmental Protection's (FDEP) National Pollutant Discharge Elimination System (NPDES) Generic Permit for Stormwater Discharge from Large and Small Construction Activities.

The following entities are identified as team members of "SWPPP": Heit & Associates, Inc., Developer as identified in the title box of these plans, and the site contractor and his sub-contractors. Each team member has specific responsibilities and obligations. In general, all team members, with regard to their involvement and responsibilities on the project, are to implement all necessary storm water management controls to assure compliance with the NPDES Generic Permit for Storm Water Discharges from Construction Activities, the Southwest Florida Water Management District Permit, the applicable local governing agency (i.e. Hillsborough County, City of Tampa, etc) and the guidelines listed in the SWPPP. The duties and responsibilities of the team members as they pertain to the SWPPP are as follows:

- Develop SWPPP including, but not limited to, retention/detention ponds, control structures, erosion control methods and locations and stabilization criteria. This design is included within these construction plans and the following notes and instructions.
- Submit and obtain the necessary design related storm water permits from the Florida Department of Environmental Protection, the Southwest Florida Water Management District and other applicable governmental bodies.
- Upon notification by the developer of his intent to commence construction, submit a Notice of Intent to the FDEP on behalf of the developer and copy the contractor including SWPPP certification and copy of the permit.
- Submit to SWFWMD and the operator of the municipal separate storm water system, if applicable, a letter of construction commencement.
- Complete and submit a Notice of Termination and certification for developer. The NOT's shall be submitted no more than 30 days after:
 - completion of the project and final stabilization of the site or
 - when responsibility for the site has ended. Final stabilization as defined by EPA is when all soil disturbing activities at the site have been completed and a uniform (e.g. evenly distributed, without large bare areas) perennial vegetative cover with a density of 70% of the native background vegetative cover for the area has been established on all unpaved areas and areas not covered by permanent structures. As an alternative, equivalent permanent stabilization measures (such as riprap, gabions, or geotextiles) may be employed. The client shall notify Heit & Associates when one of these criteria has been met.

Contractor

- Sign and return to Heit & Associates Contractors Certification Form certifying your understanding of and willingness to comply with the Storm Water Pollution Prevention Plan no later than 48 hours prior to commencement of construction. Also, each subcontractor affected by the SWPPP must certify to the contractor that they understand and shall comply with the NPDES permit and SWPPP. A record of these certifications shall be maintained by the contractor on site.
- During construction, ensure compliance with the designed Storm Water Pollution Prevention Plans prepared by Heit & Associates and the NPDES Activities.
- Maintain a copy of the construction plans, which include the Storm Water Pollution Prevention Plan, the NOI, and all inspection reports and certifications on site.
- Undertake all reasonable Best Management Practices (BMP's) to assure that sited or otherwise polluted storm water is not allowed to discharge from the site during all phases of construction. Stabilization BMP's that may be used include: straw bale dikes, silt fences, earth dikes, brush barriers, sodding, vegetative buffer strips, protection of trees and preservation of mature vegetation. Structural erosion and sediment control BMP's that may be used include: stone baffle dikes, silt fences, earth dikes, brush barriers, drainage swales, check dams, subsurface drain, pipe slope drain, level spreaders, storm drain inlet protection, outlet protection, sediment traps, and temporary sediment basins. Detention ponds may also be used as temporary sediment basins. Additional BMP's that may need to be implemented include: providing protected storage areas for chemicals, paints, solvents, fertilizers, and other potentially toxic materials. Providing waste receptacles at convenient locations and providing regular collection of wastes, including building material wastes. Minimizing off-site tracking of sediments. Making adequate preparations, including training and equipment to contain spills of oil and hazardous materials. Complying with applicable state or local waste disposal, sanitary sewer or septic system regulations and the use of appropriate pollution prevention measures for allowable non-storm water components of discharge.
- Notify Heit & Associates and the developer in writing of any non-storm water pollution sources which are being stored, or otherwise used during the construction of the project, i.e., fertilizers, fuels, pesticides, other chemicals. This notification should be accompanied with the contractor's design and methods to prevent pollution run-off from these sources.
- Develop a maintenance and inspection plan which includes, but is not limited to the following:
 - The specific areas to be inspected and maintained that includes all the disturbed areas and material storage areas of the site.
 - The erosion and sediment controls identified in the SWPPP to be maintained and inspected and those additional controls that the contractor deems necessary.
 - Maintenance procedures.
 - The procedure to follow if additional work is required or whom to call.
 - Inspections and maintenance forms.
 - The personnel assigned to each task.

The following shall be inspected a minimum of once a week or within 24 hours after 0.50 inches of rainfall:

Stabilization measures (once a month if fully stabilized).

Structural controls.

Discharge points.

Construction entrances and exits.

Areas used for storage of exposed materials.

An inspection form shall be completed for each inspection. Any permit violations shall be noted and corrective measures shall be taken no later than 7 days after the inspection occurred. If revisions to the SWPPP are needed, a report form for changes in the SWPPP shall be completed and a copy sent to Heit & Associates, Inc. The original shall be kept on-site as documentation of the change. If the inspection passes, a certification that the facility is in compliance with the SWPPP and the NPDES permit must be signed by a duly authorized representative of the principal executive official of the operator of the SWPPP with one of the following qualifications:

- Has successfully completed the Florida Stormwater, Erosion and Sediment Control Inspector Training Program.
 - Successfully completed a similar training program.
 - Has enough practical on the job training to be qualified to perform the inspections.
- Retain inspection reports and certifications for at least three years.

Site stabilization measures shall be initiated as soon as practical but in no case more than 7 days, in portions of the site where construction activities have temporarily or permanently ceased.

- Releases in Excess of Reportable Quantities.
 - The discharge of hazardous substances or oil in the stormwater discharge(s) from a facility or activity shall be prevented or minimized in accordance with the applicable stormwater pollution prevention plan for the facility or activity. This permit does not relieve the operator of the reporting requirements of 40 CFR part 117 and 40 CFR part 302. Where a release containing a hazardous substance in an amount equal to or in excess of a reporting quantity established under either 40 CFR 117 or 40 CFR 302, occurs during a 24 hour period:
 - The operator is required to notify the State Warning Point (800-210-0519 or 850-413-9911) as soon as he or she has knowledge of the discharge;
 - The operator shall submit within 14 calendar days of knowledge of the release a written description of the release (including the type and estimate of the amount of material released), the date that such release occurred, the circumstances leading to the release, and remedial steps to be taken, to the Florida Department of Environmental Protection, NPDES Stormwater Section, Mail Station 2500, 2500 Blair Stone Road, Tallahassee, Florida 32399-2400; and
 - The stormwater pollution prevention plan required under Part V of this permit must be modified within 14 calendar days of knowledge of the release to: provide a description of the release, the circumstances leading to the release, and the date of the release. In addition, the plan must be reviewed to identify measures to prevent the recurrence of such releases and to respond to such releases, and the plan must be modified where appropriate.
 - This permit does not authorize the discharge of hazardous substances or oil resulting from an on-site spill.

Developer

- Notify Heit of your intent to commence construction. Sign the Notice of Intent form as operator of the storm water discharge facility and permittee and return to Heit & Associates, Inc.
- Sign a Certification of Storm Water Pollution Prevention Plan and return to Heit & Associates, Inc.
- Notify Heit when it is time to submit a Notice of Termination as defined under Part E of the Heit & Associates section of the SWPPP. Sign and return to Heit & Associates, Inc. for submittal to FDEP a Notice of Termination form and certification.

PRE-DEVELOPED SITE INFORMATION:

- Total site acreage: 264±
- Land use: Vacant
- Vegetation: SCATTERED OAK & PINE TREES
- Receiving waters or municipal separate storm water system: Gulf of Mexico
- 2 Year/24 Hour rainfall depth: 5 IN/HR
- Soil types: Bossinger, Candler
- Endangered species: N/A

PROJECT INFORMATION:

- Project type: Residential.
- Anticipated construction sequence is as follows:
 - Complete erosion control installation
 - Clearing and grubbing
 - Earthwork activities
 - Storm water system construction
 - Utility construction
 - Base and pavement construction
 - Final stabilization

The BMP's listed in Part D of the Contractor section of the SWPPP shall be considered during all phases of construction.
- Anticipated start date: 9/07
- Anticipated completion date: 4/07
- Total acres disturbed: 264±
- Pre-developed "C" factor: 0.20
- Post-developed "C" factor: 0.50
- The storm water management system, upon completion of construction and appropriate certification and as-built submittals will be operated and maintained by Four Seasons at Crystal Springs CDD.
- The potential source of pollution from this project is on-site development and construction activity.
- Does the project discharge into a water body listed on the 1998 EPA approved 303 (d) list for water segments which are impaired due to total suspended solids? Yes No If so, sampling is required as follows:

SWPPP
 43009630.035
 Received
 APR 21 2008
 PRO-REG

Engineering Business Certificate of Authorization No. 148 HEIT & ASSOCIATES, Inc.		CONST. SURFACE WATER MANAGEMENT PLAN	
Tampa Post Offices Sarasota-Manatee Brooksville Office 105 North Main Street Brooksville, Florida 34001 Phone: 352-798-3493 FAX: 352-798-3483		JOB NO. WWH-GL-006	FOUR SEASONS AT CRYSTAL SPRINGS
<i>[Signature]</i> DATE: Brian M. Malberg P.E. 59405 FLORIDA PROFESSIONAL ENGINEER		DESIGN LUCAS	PREPARED FOR: K. Hovnanian Windward Homes, L.L.C.
DATE		DATE 04-30-07	Elevation based on National Geodetic Vertical Datum (NGVD 29) NAD 1929 (minus) - 0.83' = NAVD 88
DESCRIPTION		FILE CSWMP	SHEET 2 OF 2 SHEETS
REVISIONS			

EXHIBIT "A"

Legal Description

DESCRIPTION: A parcel of land lying in Sections 11, 12, 13 and 14, Township 22 South, Range 17 East, Hernando County, Florida and being more particularly described as follows:

Commence at the Northeast corner of the Northeast 1/4 of the Northwest 1/4 of Section 13, Township 22 South, Range 17 East, Hernando County, Florida and run thence S.89°42'07"E., (Basis of bearing - Grid bearings, NAD83) 368.94 feet along the North boundary of Northeast 1/4 of said Section 13 to the Westerly right-of-way line of U.S. Highway No. 19 and the POINT OF BEGINNING; thence S.12°40'49"W., 1811.29 feet along said Westerly right-of-way line to a point of curvature; thence Southwesterly, 39.27 feet along the arc of a curve to the right having a radius of 25.00 feet and a central angle of 90°00'00" (chord bearing S.57°40'49"W., 35.36 feet) to a point of tangency; thence N.77°19'11"W., 111.00 feet to a point of curvature; thence Westerly, 229.06 feet along the arc of a curve to the left having a radius of 325.00 feet and a central angle of 40°22'58" (chord bearing S.82°29'19"W., 224.35 feet) to a point of reverse curvature; thence Westerly, 240.06 feet along the arc of a curve to the right having a radius of 350.00 feet and a central angle of 39°17'55" (chord bearing S.81°56'48"W., 235.38 feet); thence S.07°30'00"W., 171.29 feet to a point on a curve; thence continue Westerly, 184.39 feet along the arc of said curve to the right having a radius of 521.00 feet and a central angle of 20°16'39" (chord bearing N.69°36'39"W., 183.43 feet); thence N.71°32'42"W., 34.51 feet; thence S.78°21'56"W., 59.72 feet; thence S.63°33'12"W., 53.35 feet; thence S.53°02'29"W., 54.78 feet; thence N.00°00'45"W., 187.33 feet to a point on a curve; thence Northwesterly, 142.39 feet along the arc of a curve to the left having a radius of 94.00 feet and a central angle of 86°47'36" (chord bearing N.45°43'22"W., 129.16 feet); thence S.88°34'03"W., 184.93 feet; thence N.00°10'37"W., 326.30 feet to a point of curvature; thence Northwesterly, 92.04 feet along the arc of a curve to the left having a radius of 50.00 feet and a central angle of 105°28'12" (chord bearing N.52°54'43"W., 79.58 feet) to a point of tangency; thence S.74°21'11"W., 364.44 feet to a point on a curve; thence Westerly, 221.56 feet along the arc of a curve to the right having a radius of 203.00 feet and a central angle of 62°32'00" (chord bearing N.78°23'44"W., 210.72 feet); thence N.81°24'08"W., 58.40 feet; thence N.48°56'35"W., 105.26 feet; thence S.41°03'37"W., 1381.42 feet; thence N.53°59'50"W., 101.46 feet; thence S.84°50'39"W., 114.99 feet to a point on a curve; thence Westerly, 218.54 feet along the arc of a curve to the right having a radius of 70.00 feet and a central angle of 178°52'53" (chord bearing S.86°10'45"W., 139.99 feet) to a point of reverse curvature; thence Northwesterly, 13.72 feet along the arc of a curve to the left having a radius of 15.00 feet and a central angle of 52°24'58" (chord bearing N.30°35'18"W., 13.25 feet) to a point of tangency; thence N.56°47'47"W., 172.04 feet to a point of curvature; thence Northwesterly, 82.21 feet along the arc of a curve to the right having a radius of 335.00 feet and a central angle of 14°03'36" (chord bearing N.49°45'59"W., 82.00 feet); thence S.79°30'33"W., 38.77 feet; thence N.72°50'22"W., 82.03 feet; thence N.67°49'43"W., 77.84 feet; thence S.67°34'31"W., 59.45 feet; thence N.76°41'12"W., 39.68 feet; thence N.64°36'33"W., 268.24 feet to a point on a curve; thence along the Easterly boundary of the Chassahowitzka National Wildlife Refuge as recorded in O.R. Book 1017, Page 234, Public Records of Hernando County, Florida, the following nineteen (19) courses: 1) Northeasterly, 830.73 feet along the arc of a curve to the left having a radius of 590.00 feet and a central angle of 80°40'25" (chord bearing N.29°49'39"E., 763.79 feet) to a point of tangency; 2) N.10°30'33"W., 227.48 feet to a point of curvature; 3) Northeasterly, 520.12 feet along

the arc of a curve to the right having a radius of 365.00 feet and a central angle of $81^{\circ}38'42''$ (chord bearing $N.30^{\circ}18'48''E.$, 477.21 feet) to a point of tangency; 4) $N.71^{\circ}08'09''E.$, 288.01 feet; 5) $N.01^{\circ}55'42''W.$, 224.02 feet; 6) $N.46^{\circ}23'12''W.$, 539.94 feet; 7) $S.67^{\circ}01'16''W.$, 398.45 feet; 8) $N.65^{\circ}13'02''W.$, 209.67 feet; 9) $N.33^{\circ}36'50''E.$, 81.91 feet; 10) $N.33^{\circ}36'49''E.$, 279.53 feet; 11) $N.81^{\circ}58'13''E.$, 451.89 feet; 12) $N.74^{\circ}20'16''E.$, 301.97 feet; 13) $S.67^{\circ}57'16''E.$, 310.68 feet; 14) $N.39^{\circ}31'24''E.$, 181.59 feet; 15) $N.11^{\circ}29'27''W.$, 246.23 feet; 16) $N.21^{\circ}54'14''E.$, 352.29 feet; 17) $N.12^{\circ}19'29''W.$, 304.04 feet; 18) $N.89^{\circ}49'37''E.$, 96.16 feet to the West boundary of the Southwest 1/4 of the Southwest 1/4 of Section 12, Township 22 South, Range 17 East; 19) $N.00^{\circ}04'57''W.$, 70.07 feet along the West boundary thereof to the Northwest corner of the Southwest 1/4 of the Southwest 1/4 of said Section 12; thence $N.89^{\circ}49'29''E.$, 1328.64 feet along the North boundary of the Southwest 1/4 of the Southwest 1/4 of said Section 12 to the Northeast corner thereof; thence $N.89^{\circ}49'29''E.$, 1330.50 feet along the North boundary of the Southeast 1/4 of the Southwest 1/4 of said Section 12 to the Northeast corner thereof; thence $N.89^{\circ}49'29''E.$, 672.75 feet along the North boundary of the Southwest 1/4 of the Southeast 1/4 of said Section 12 to the Westerly right-of-way line of U.S. Highway No. 19; thence $S.12^{\circ}40'49''W.$, 1354.30 feet along said Westerly right-of-way line to the POINT OF BEGINNING.

TOGETHER WITH EASEMENTS CREATED PURSUANT TO THAT CERTAIN DECLARATION OF EASEMENTS, COVENANTS AND RESTRICTIONS RECORDED IN OFFICIAL RECORDS BOOK 2219, PAGE 1505 OF THE PUBLIC RECORDS OF HERNANDO COUNTY, FLORIDA.

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Eshenbaugh Land Company is a licensed real estate brokerage firm in Florida and William A. Eshenbaugh is the broker of record.