

US Army Corps
Of Engineers
Wilmington District

PUBLIC NOTICE

Issue Date: April 19, 2006
Comment Deadline: May 19, 2006
Corps Action ID #: 200630172

The Wilmington District, Corps of Engineers (Corps) has received an application from Ginn-Laurel Creek GP, LLC seeking Department of the Army authorization to impact 0.18 acre of jurisdictional wetlands and 6331 linear feet of stream for the construction of two 18-hole golf courses, including five impoundment lakes, associated with the low-density Laurelmor resort community in Watauga and Wilkes Counties, North Carolina.

Specific plans and location information are described below and shown on the attached plans. This Public Notice and all attached plans are also available on the Wilmington District Web Site at www.saw.usace.army.mil/wetlands

Applicant: Ginn-Laurel Creek GP, LLC
Attn: Mr. Doug Miller
389 Little Laurel Road Extension
Boone, North Carolina 28607

AGENT: E'nV Environmental Consulting Services, Inc.
Attn: Mr. John C. Vilas
3764 Rominger Road
Banner Elk, North Carolina 28604

Authority

The Corps will evaluate this application and decide whether to issue, conditionally issue, or deny the proposed work pursuant to applicable procedures of Section 404 of the Clean Water Act.

Location

The proposed project, Laurelmor, is located on an escarpment of the Blue Ridge physiographic region in the Elk and Blue Ridge Townships, Watauga and Wilkes Counties, North Carolina (36.155347°N, -81.530937°W). The site is bounded on the west by Sampson Road (SR 1526), on the east by Elk Creek Road (SR 1508), and is about two miles below the Blue Ridge Parkway. The property is approximately 6050 acres. The site contains wetlands as determined by the USACE 1987 Wetland Delineation Manual that are adjacent to several jurisdictional streams on site. The northern portion of the tract drains into South Fork Laurel Creek. Laurel Creek confluences with Elk Creek near the eastern boundary of the property. Several tributaries drain

the eastern section of the tract directly into Elk Creek. Dugger Creek drains a large portion of the tract's interior. The southwest region of the site drains into Little Dugger. Little Dugger Creek flows into Dugger Creek at the southern boundary of the property. Dugger Creek flows into Elk Creek approximately 1-mile below the property. A small area of the property to the west of Little Dugger Mountain forms the headwaters of Tony's Branch. Horton Branch drains approximately 350-acres of the project area. Both Horton and Tony's Branch flow into Joe's Creek. These streams are tributaries the Yadkin River. The Yadkin River is a tributary to the Pee Dee River, which is navigable in fact below the Blewett Falls Dam.

Existing Site Conditions

The proposed Laurelmor project area is representative of valley and ridge topography common throughout the Blue Ridge Mountains. Rugged ridges and steep side slopes (30-50%) typically characterize the uplands throughout the site. Vertical and near vertical rock outcroppings are frequent across the property. Scree fields, formed by an accumulation of unconsolidated rock debris, are present along mid to upper coves in the northwestern portion of the property. Valley bottoms along streams are generally narrow and steep to moderately sloping. Benches above stream channels and along side slopes are relatively infrequent. Elevations across the site generally decrease from Mast Knob (approximately 3500 feet) southeast to the confluence of Dugger Creek and Little Dugger Creek (approximately 1400 feet).

There has been relatively little human activity across most of this site. The project area consists primarily of undeveloped forested land. Logging occurred throughout the site in the late 1930s and early 1940s and was followed by a substantial fire. Approximately 50 acres was cultivated throughout the first half of the 20th century, but has since reverted to mature forest. A second timber harvest occurred on portions of the site in the late 1980's resulting in the construction of numerous logging roads and skidder trails. There are numerous first order streams that still suffer from the excessive erosion and sedimentation induced during this logging event. The only structures located within the 6050-acre tract are an old fire tower atop Dugger Mountain and a simple camping shelter located along Dugger Creek. Road improvements from Triplett Road along the ridges have been the primary recent work.

Ten named blue line streams and fifteen intermittent streams were identified from the USGS topographic quadrangles. That number grew to 350 intermittent and perennial streams amounting to approximately 64 miles of channel after the completion of a field investigation of the property. In general the property drains to the southeast. Numerous headwater basins with intricate dendritic drainage patterns are found throughout the site. The northern portion of the tract drains to South Fork Laurel Creek. The eastern section drains to Elk Creek, which is the primary collector for the site as South Fork Laurel Creek and the Dugger Creek system drain to it. The majority of the center of the property drains to Little Dugger Creek, a tributary to Dugger Creek. All of the streams in this system (including these tributaries: Swift Ford, Flat Branch, Pine Knob, Long Cove, and Puncheon Cove) have been classified as by the NCDWQ as Trout Waters and Outstanding Resource Waters. A small section of the western side of the property

forms the headwaters of Tony's Branch. Horton Branch drains approximately 350-acres of the project area. Both Tony's and Horton Branches are classified as Trout Waters. All streams are well shaded with a mix of hardwood and conifer trees and shrubs and often a dense under story of rhododendron.

A wetland delineation report was prepared and submitted to the USACE on November 16, 2005. There were a total of 8.27 acres of jurisdictional wetlands delineated. They were generally restricted to narrow strips and small benches along stream corridors. There were three distinct types of wetlands identified. These were riparian forests, high elevation seeps, and a high elevation wet meadow. The riparian forest wetlands are scattered throughout the site and are located within valleys containing pockets of riparian and abandoned side channel wetlands. The hydrology is typically provided by fluctuating stream levels, ground water discharge, and direct surface runoff. Dryer habitats are often embedded within these areas and the transition between them is usually marked by an abrupt topographic break. High elevation seeps are ground water fed wetlands located at the head of streams and along stream channels. They were formed as a result of the underlying geology. Vegetation typically found in these areas included *Acer rubrum*, *Smilax rotundifolia*, *Leucothoe sp.*, *Betula lenta*, *Juncus effuses*, and *Carex sp.*

The wet meadow occupies approximately 0.36 acres and is located near the head of a significant tributary to Dugger Creek at an elevation of approximately 2030 feet. This wetland is formed by multiple seeps with substantial discharge into a broad valley area of moderately low-grade along a relatively high-elevation shelf. A braided and sinuous perennial stream dissects the site, creating an intricate drainage network across the surface. It differs from the riparian wetlands by having fewer shrubs and trees. This is a result of continually inundated and/or saturated conditions. Typical vegetation within this area included *Carex sp.*, *Juncus effuses*, *Lobelia cardinalis*, *Vitis sp.*, *Rhododendron calendulaceum*, *Fraxinus pennsylvanica*, and *Osmunda cinnamomea*.

Applicant's Stated Purpose

The applicant has proposed to construct a low-density, residential resort development with championship golf course(s) in southeastern Watauga County, North Carolina. Permanent impacts to aquatic resources associated with this development would be incurred with the construction of a golf course(s) and temporary impacts would be associated with the installation of utility lines.

Project Description

The proposed Laurelmor development has been designed as a low-density residential destination resort community containing approximately 1200 individual lots. The community would be served by over 50 miles of roads and a privately owned and operated water and sewer system. There are also approximately 950 multi-family townhome and condominium units proposed that would be located in several cluster development areas. The proposed amenities include two 18-hole championship golf courses, a large indoor water park, an equestrian center, vineyards, restaurants, and recreational trails.

Permanent impacts to Waters of the US are proposed to occur at eleven locations within the project area. All proposed impacts are associated with the construction of two 18-hole golf courses. There are five proposed impoundments and six proposed areas where portions of streams would be piped through a French-drain system. The proposed impacts can be described as either inundation or fill/pipe. Total permanent impacts would include 0.18 acre of jurisdictional wetland and 6331 linear feet of stream. The stream impacts can be divided into 4413 linear feet of perennial stream (2842 linear feet inundated and 1571 linear feet filled/piped) and 1918 linear feet of intermittent stream (646 linear feet inundated and 1484 linear feet filled/piped).

All of the proposed permanent impacts are associated with the two championship golf courses. The applicant evaluated "tens" of layouts for 36-hole combined courses and other combinations of independent 9-hole and 18-hole courses that would result in 36 holes available for play. The courses would be laid out along ridge tops, which, according to the applicant, would reduce impacts to Waters of the US, but would have greater irrigation requirements and no water features. To complete the desired plan, 1490 linear feet of stream (218 feet of perennial and 1272 feet of intermittent) and 0.034 acres of jurisdictional wetland would be piped and filled for the construction of 5 golf course holes and the driving range, and 4841 linear feet of stream (4195 feet of perennial and 646 feet of intermittent) and 0.144 acres of jurisdictional wetland would be piped or inundated for the construction of 5 lakes.

There would be 25 locations where utility lines, primarily sewer lines, will cross jurisdictional Waters of the US. All of these crossings would involve temporary impacts to streams totally no more than 625 linear feet (no more than 25 linear feet per crossing). The restoration of the temporary impacts would involve the replacement of natural substrate material and the restoration of the pre-existing channel gradient.

The applicant has provided information related to avoidance and minimization employed as part of the development of the proposed project. The development concept was to confine the majority of the development infrastructure to ridge tops and upper slope areas leaving the stream corridors and lower slopes largely undeveloped. Golf cart paths will include bridges to eliminate the need for fill in Waters of the US. The road network for Laurelmor would consist of approximately 50 miles of county standard subdivision roads (widths from 18 to 20 feet) with no curb and gutters. Included as part of the roadway system, there would be 24 bridged crossings with no impacts to Waters of the US. The development plan has been designed such that no streams or buffers would be included within any residential lots. All streams, wetlands, and buffers would remain in the control of the Applicant and would be held in common area or conservation easements (held by Blue Ridge Rural Land Trust) to be permanently protected.

The applicant states that the lakes proposed in the vicinity of the golf course are needed as a primary source of irrigation water as well as a reliable source of water for fighting fires both on the site and regionally. Alternate options for obtaining the necessary water have been evaluated. Treated effluent from the on-site waste water treatment facility would be used to the maximum extent possible, but availability would be limited until at least the year 2017 when it is anticipated that the site would reach 60% build out. A result of using treated effluent to the maximum extent possible as part of the irrigation system, which the applicant intends to do, there

would be no direct discharges of treated effluent to any streams on or off the site. Potential available flows from treated effluent would be significant, but would not meet the proposed demand, especially during the initial grow-in phase and severe droughts. The applicant has also investigated using groundwater pumped from on-site wells. Over a six-month period, 20 wells have been drilled in the areas with highest potential for ground water and to date approximately 550 gallons per minute has been yielded. This would all be needed for the potable water supply and would not be sufficient to satisfy the irrigation demand even if it could all be used for that purpose. Finally, the applicant investigated pumping water from local streams for irrigation and fire suppression. The required rate of pumping to meet peak demand would be approximately 3 cubic feet per second and this would occur during periods of severe drought. Severe drought would result in low stream flow. Based on all of this information, the applicant believes that a series of lakes would be the best way to obtain a reliable source of water to meet both irrigation and fire suppression demands.

Compensatory Mitigation proposed for this project includes a combination of on-site restoration and enhancement, on-site preservation, off-site restoration and enhancement, and payment to the North Carolina Ecosystem Enhancement Program. The applicant has proposed to use a 3:1 ratio for fill or pipe related impacts to perennial streams, 1.5:1 for flooding impacts to perennial streams, 2:1 for fill or pipe impacts to intermittent streams, and 1:1 for flooding impacts to intermittent streams. Wetland impacts would be mitigated at a ratio of 2:1.

The applicant's consultant has identified several stream reaches on the site that have been altered or degraded due to past logging, agricultural, and residential activities. In addition, there are three existing on-line ponds that could be removed and a natural channel reestablished. The total of on-site restoration is approximately 2500 linear feet. In the vicinity of the on-site restoration is approximately 1000 linear feet of enhancement work that should be done. Also proposed is a large quantity of on-site preservation. A conservation easement area consisting of approximately 2000 to 2500 acres is proposed that will encompass over 60 miles of stream corridor and associated buffer area. The applicant is currently working with the Wilkes County office of the USDA NRCS to locate additional off-site mitigation areas within the Upper Yadkin basin.

A request has been submitted to the NC EEP to request payment into the In-Lieu Fee program and Mr. David Robinson of the EEP responded that payment would be accepted. The applicant proposes to use the EEP option to cover any unmitigated impacts after all other options are fully utilized. When the applicant initially purchased the 5600-acre property, there was an existing permitted project (Heavenly Mountain Resort (HMR) Golf Course) associated with a 1200-acre portion of the site. A permit was issued to Kaplan Holdings LLC for the HMR project on November 24, 2003 (Action ID No. 200330353). The HMR Golf Course has not been constructed and the current applicant does not wish to construct it in the future. Ginn-Laurel Creek GP, LLC is requesting that the single payment of \$83,000 made to cover 415 linear feet of stream impact associated with the HMR project be applied toward the overall mitigation requirements that might be necessary for the current project proposal.

Wetland mitigation would be accomplished with on-site, in-kind restoration and creation at a 2:1 ratio. The location of this work would correspond to the proposed stream restoration work in the old pond beds. In addition, there is an old home site on the property adjacent to Triplett Road

that contains outbuildings surrounded by wetlands. The applicant proposes to remove the outbuildings and restore the wetlands at these locations.

Other Required Authorizations

This notice and all applicable application materials are being forwarded to the appropriate State agencies for review. The Corps will generally not make a final permit decision until the North Carolina Division of Water Quality (NCDWQ) issues, denies, or waives State certification required by Section 401 of the Clean Water Act (PL 92-500). The receipt of the application and this public notice in the NCDWQ Central Office in Raleigh serves as application to the NCDWQ for certification. A waiver will be deemed to occur if the NCDWQ fails to act on this request for certification within sixty days of the date of the receipt of this notice in the NCDWQ Central Office. Additional information regarding the Clean Water Act certification may be reviewed at the NCDWQ Central Office, 401 Oversight and Express Permits Unit, 2321 Crabtree Boulevard, Raleigh, North Carolina 27604-2260. All persons desiring to make comments regarding the application for certification under Section 401 of the Clean Water Act should do so in writing delivered to the North Carolina Division of Water Quality (NCDWQ), 1650 Mail Service Center, Raleigh, North Carolina 27699-1650 Attention: Ms Cyndi Karoly by May 19, 2006.

Cultural Resources

The Corps has consulted the latest published version of the National Register of Historic Places and is not aware that any registered properties, or properties listed as being eligible for inclusion therein are located within the project area or will be affected by the proposed work. Presently, unknown archeological, scientific, prehistoric, or historical data may be located within the project area and/or could be affected by the proposed work.

Endangered Species

The Corps has reviewed the project area, examined all information provided by the applicant and consulted the latest North Carolina Natural Heritage Database. Based on available information, the Corps is not aware of the presence of species listed as threatened or endangered or their critical habitat formally designated pursuant to the Endangered Species Act of 1973 (ESA) within the impact area. A final determination on the effects of the proposed project will be made upon additional review of the project and completion of any necessary biological assessment and/or consultation with the U.S. Fish and Wildlife Service and/or National Marine Fisheries Service.

Evaluation

The decision whether to issue a permit will be based on an evaluation of the probable impacts, including cumulative impacts, of the proposed activity on the public interest. That decision will reflect the national concern for both protection and utilization of important resources. The benefit which reasonably may be expected to accrue from the proposal must be balanced against its reasonably foreseeable detriments. All factors which may be relevant to the proposal will be considered including the cumulative effects thereof; among those are conservation, economics,

aesthetics, general environmental concerns, wetlands, historic properties, fish and wildlife values, flood hazards, flood plain values (in accordance with Executive Order 11988), land use, navigation, shoreline erosion and accretion, recreation, water supply and conservation, water quality, energy needs, safety, food and fiber production, mineral needs, considerations of property ownership, and, in general, the needs and welfare of the people. For activities involving the discharge of dredged or fill materials in waters of the United States, the evaluation of the impact of the activity on the public interest will include application of the Environmental Protection Agency's 404(b)(1) guidelines.

Commenting Information

The Corps is soliciting comments from the public; Federal, State and local agencies and officials; Indian Tribes and other interested parties in order to consider and evaluate the impacts of this proposed activity. Any comments received will be considered by the Corps to determine whether to issue, modify, condition or deny a permit for this proposal. To make this decision, comments are used to assess impacts on endangered species, historic properties, water quality, general environmental effects and the other public interest factors listed above. Comments are used in the preparation of an Environmental Assessment (EA) and/or an Environmental Impact Statement (EIS) pursuant to the National Environmental Policy Act (NEPA). Comments are also used to determine the need for a public hearing and to determine the overall public interest of the proposed activity.

Any person may request, in writing, within the comment period specified in this notice, that a public hearing be held to consider the application. Requests for public hearings shall state, with particularity, the reasons for holding a public hearing. Requests for a public hearing shall be granted, unless the District Engineer determines that the issues raised are insubstantial or there is otherwise no valid interest to be served by a hearing.

Written comments pertinent to the proposed work, as outlined above, will be received by the Corps of Engineers, Wilmington District, until 5pm, May 19, 2006. Comments should be submitted to Ms. Angie Pennock, 151 Patton Avenue, Room 208, Asheville, North Carolina 28801.

Table 2
Laurelmor Project: Proposed Permanent Impacts

Feature	Impact	Total (lf)		(sf)	(lf)		(lf)		(sf)	(sf)
		Perennial Impacts	Intermittent Impacts		Perennial Fill/Pipe	Perennial Inundated	Intermittent Fill/Pipe	Intermittent Inundated		
Lake Creation	1	435			148	287				
Lake Creation	2	413	275	2293	155	258		275		2293
Lake Creation	3	2882	371	4000	900	1982		371		4000
Lake Creation	4	450			150	300				
Driving Range	5	218	217	1484	218			217		1484
Lake Creation	6	15				15				
Golf Course Design	7		90				90			
Golf Course Design	8		240				240			
Golf Course Design	9		200				200			
Golf Course Design	10		235				235			
Golf Course Design	11		290				290			
	Totals	4413	1918	7777	1571	2842	1272	646	1484	6293
Total Stream Impacts:		6331								
Total Wetland Impacts:		7777								

Figure 9a

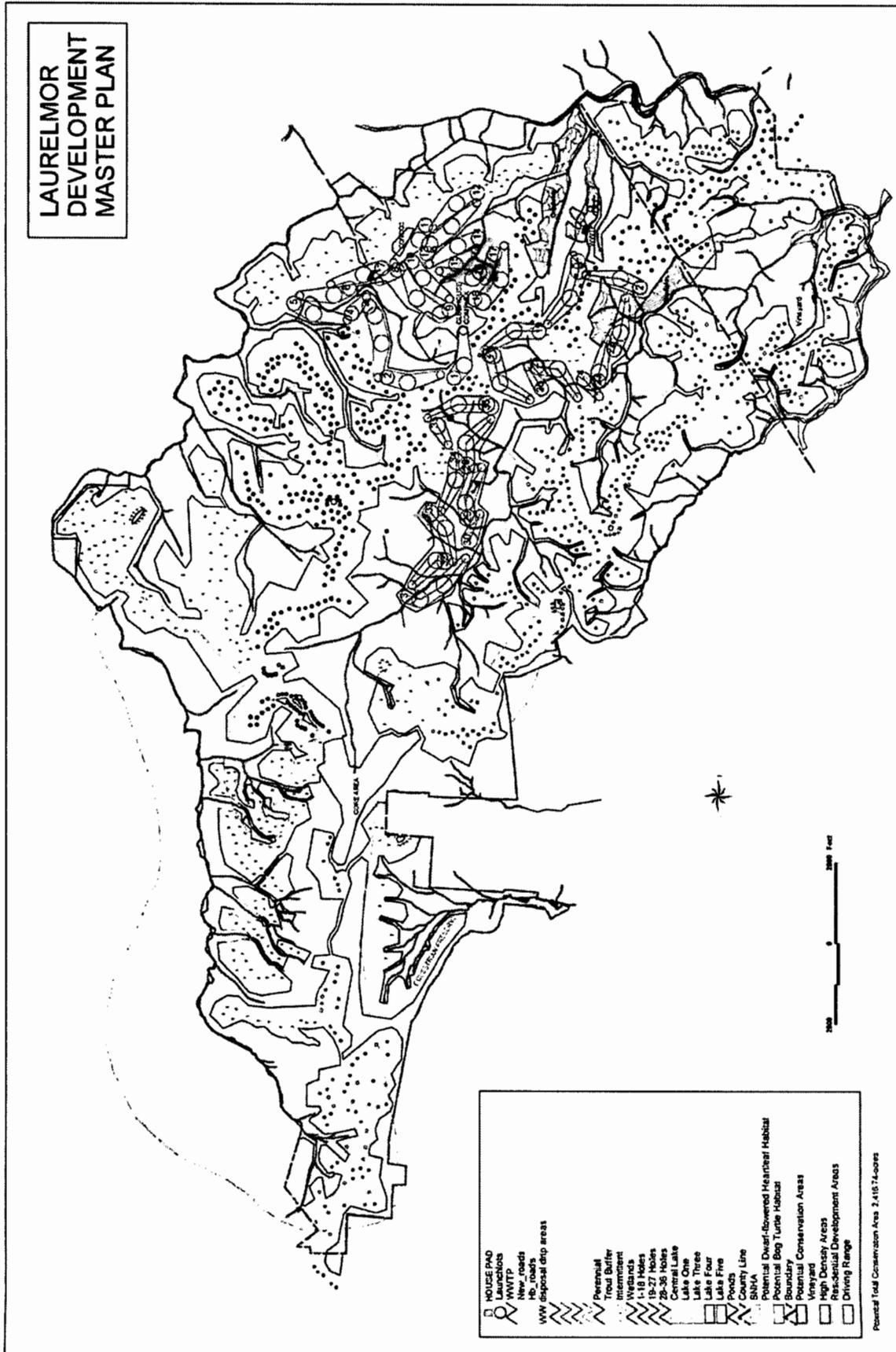
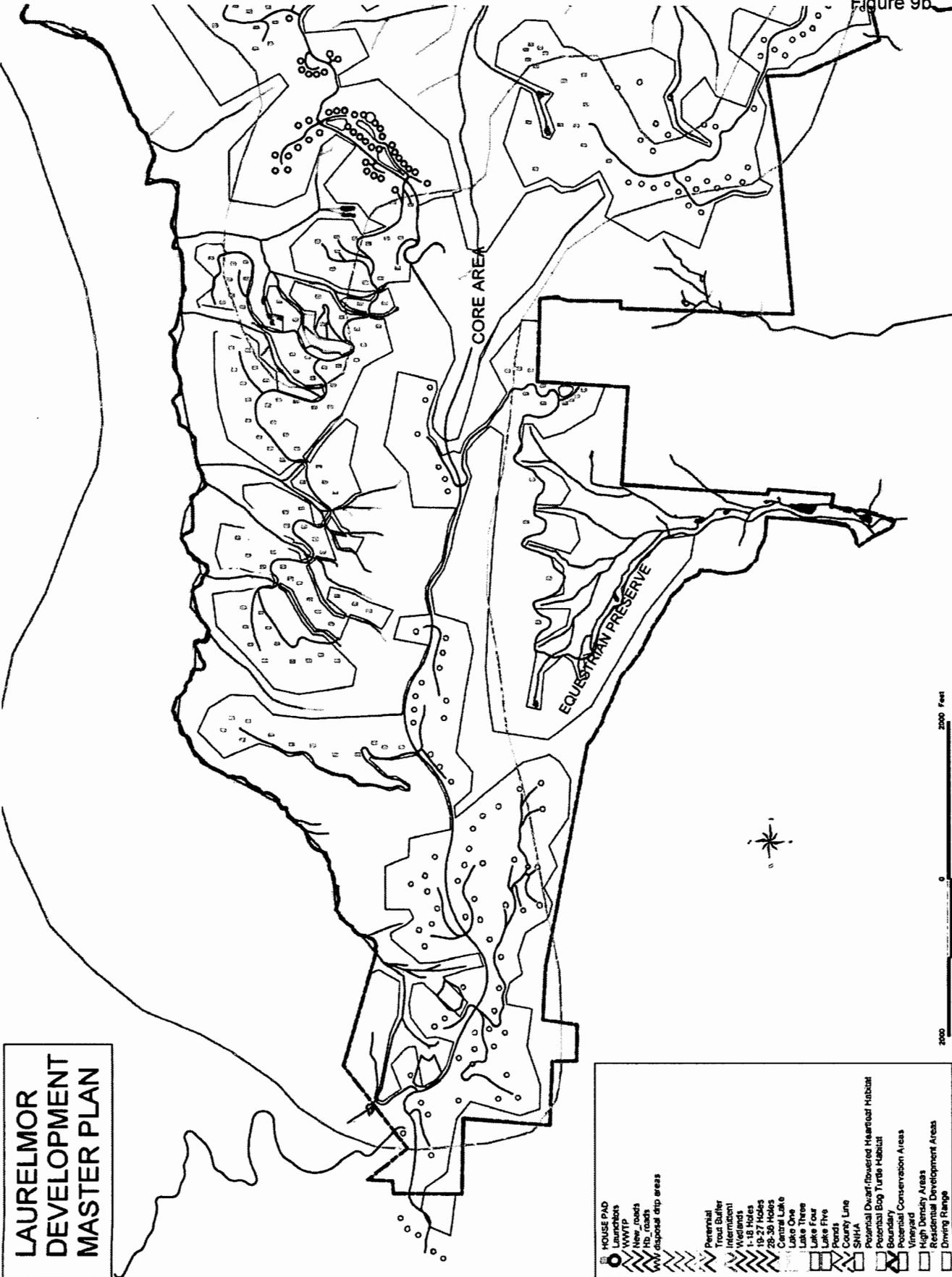


Figure 9b



**LAURELMOR
DEVELOPMENT
MASTER PLAN**

Laurelmor 404/401

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- HOUSE PAD
- Streets
- WATER
- New roads
- HO roads
- HO roads
- disposal dtp areas
- Perennial
- Interim
- Wetlands
- 1-18 Holes
- 19-27 Holes
- 28-38 Holes
- Central Lake
- Lake One
- Lake Three
- Lake Four
- Lake Five
- Ponds
- County Line
- Shrubby Duck/flowered Heron/Hood Habitat
- Perennial Bog Turtle Habitat
- Boundary
- Potential Conservation Areas
- Vineyard
- High Density Areas
- Residential Development Areas
- Driving Range

2/1/2006

Figure 9c

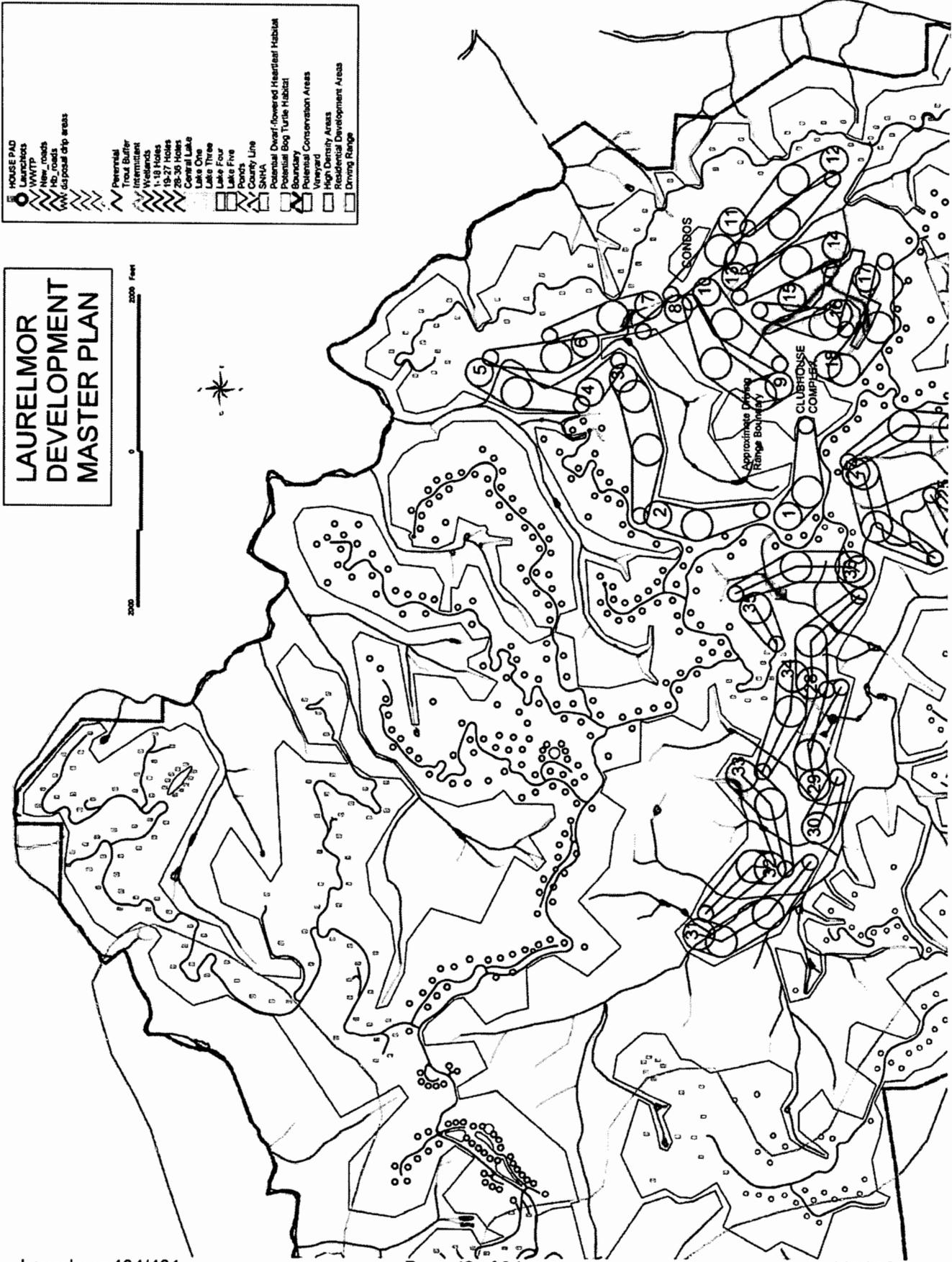


Figure 9d

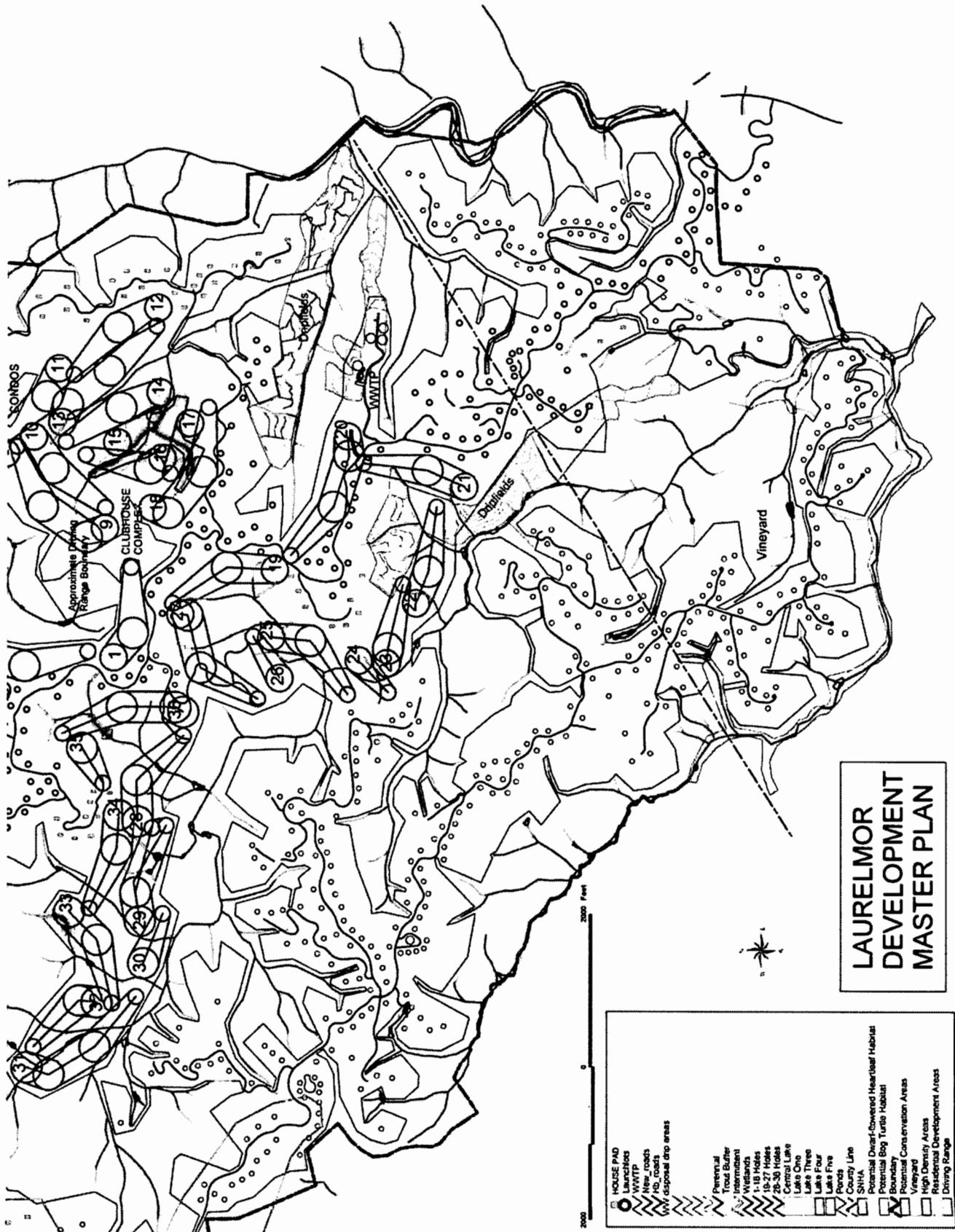


Figure 10a

LAURELMOR
GOLF COURSE
PERMANENT IMPACTS
LOCATION MAP

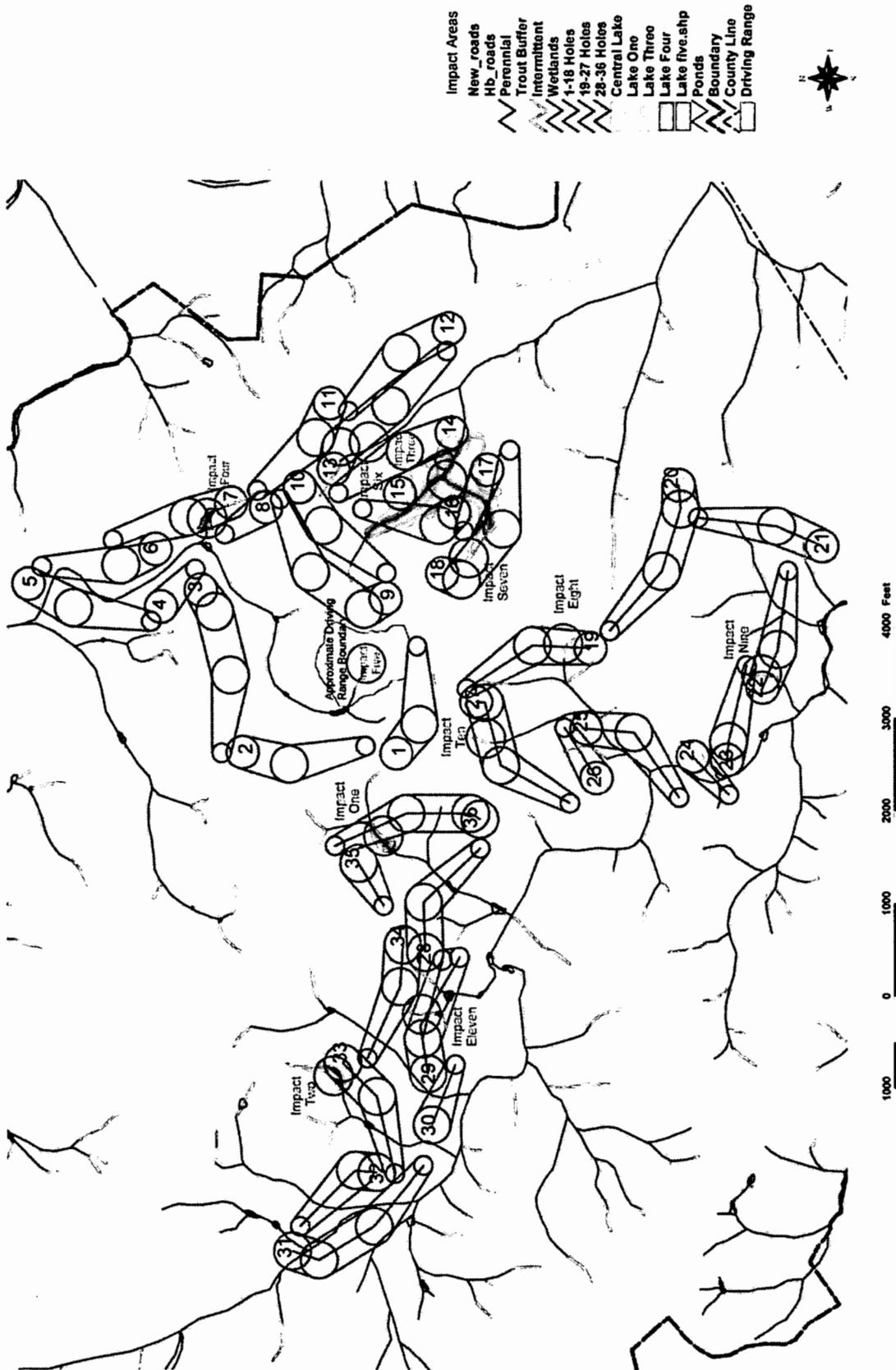


Figure 10b

LAURELMOR
Lake Creation
Impact One
Dugger Creek Tributary

Stream Inundation
DU-1BP = 228'
DU-1AP = 59'

Dam Fill
DU-1BP = 148'

28-36 Holes
Perennial
Trout Buffer
Intermittent
Wetlands

10' Contour Interval
Lake Four

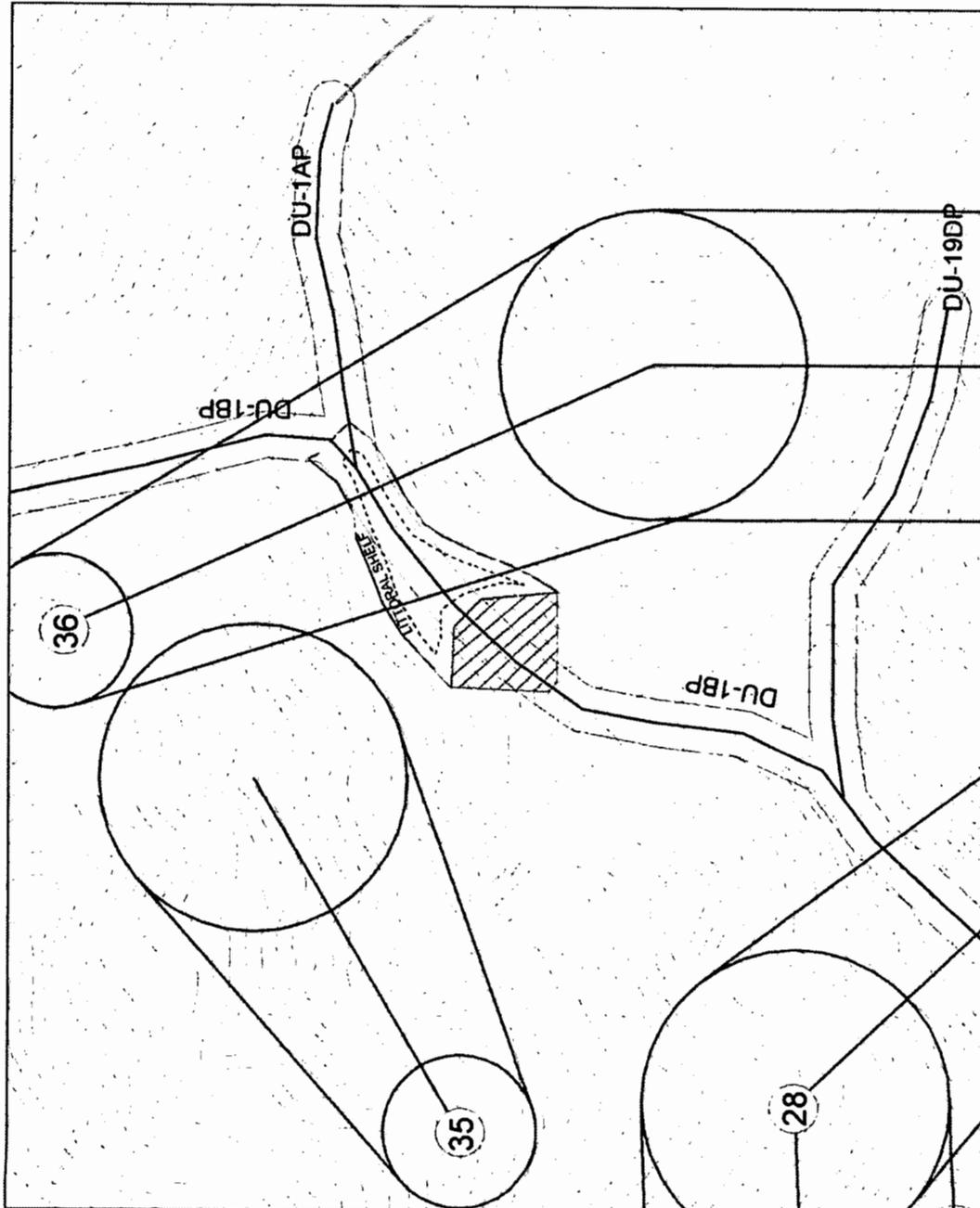


Figure 10c

LAURELMOR
Lake Creation
Impact Two
Dugger Creek Tributary

Stream Inundation
DU-24CP = 258'
DU-24CJ = 275'

Wetland Inundation
DU-24CW = 2293 sf

Dam Fill
DU-24CP = 155'

- 28-36 Holes
- Perennial
- Trout Buffer
- Intermittent
- Wetlands
- 10' Contour Interval
- Lake Three

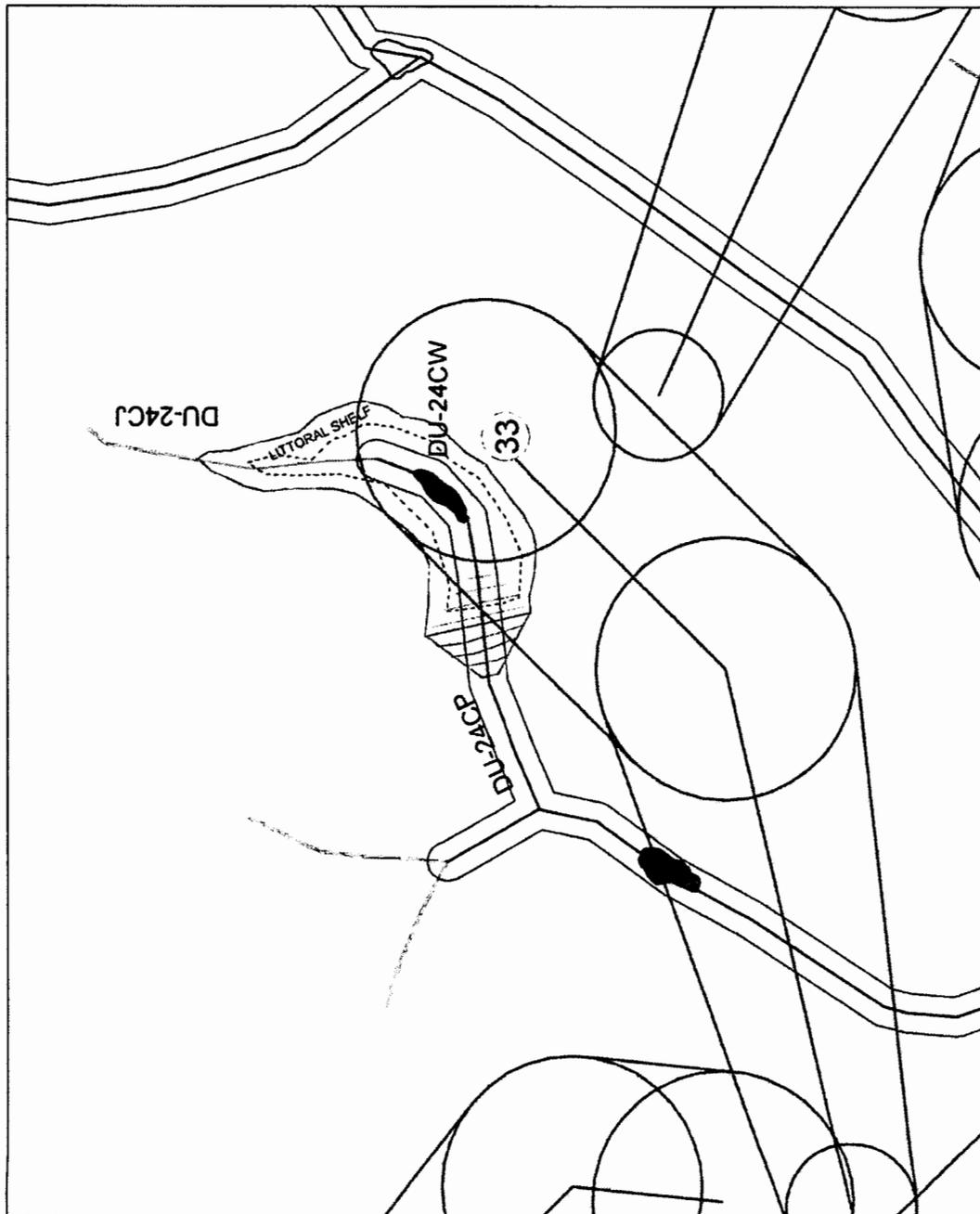


Figure 10d

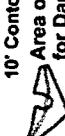
LAURELMOR
LAKE CREATION
IMPACT THREE
SWIFT FORD TRIBUTARY

Stream Inundation
SF-37EP= 1,131'
SF-37FP= 851'
SF-37FJ= 371'

Wetland Inundation
SF-37EW= 1,734sf
SF-37FW= 2,265sf

Dam Fill
SF-37FP= 900'

-  Lake One
-  Greens
-  Retaining Walls
-  Tees
-  Traps
-  Grading
-  Perennial
-  Trout Buffer
-  Intermittent
-  Wetlands

 10' Contour Interval
 Area of Fill
 for Dam

 # Golfcourse Hole
 Number

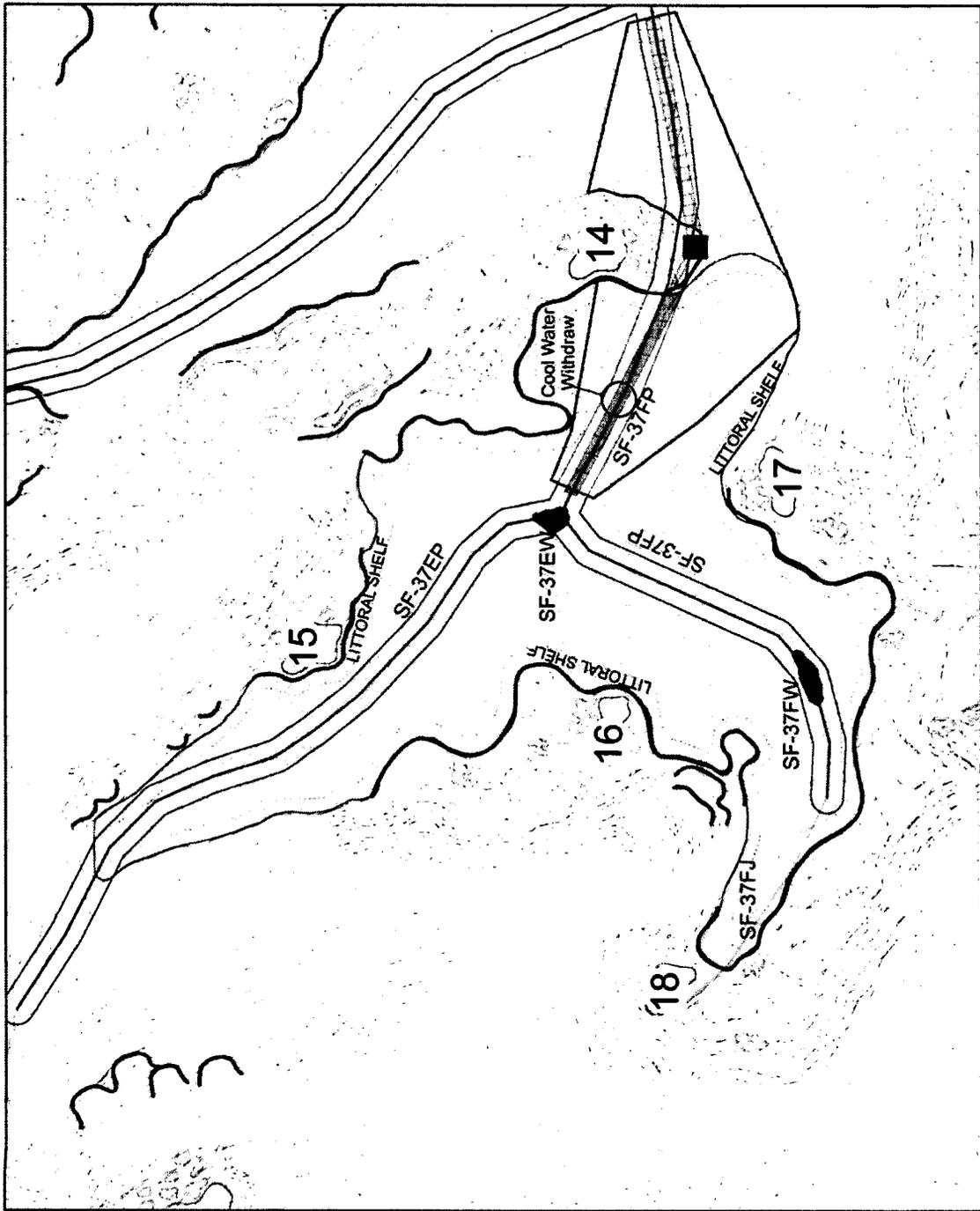


Figure 10e

LAURELMOR
LAKE CREATION
IMPACT FOUR
FLAT BRANCH TRIBUTARY

STREAM INUNDATION
FB-18DP= 300'

DAM FILL
FB-18DP= 150'

- Greens
- Retaining Walls
- Tees
- Traps
- Grading
- Perennial
- Trout Buffer
- Intermittent
- Wetlands
- 10' Contour Interval
- Lake Two

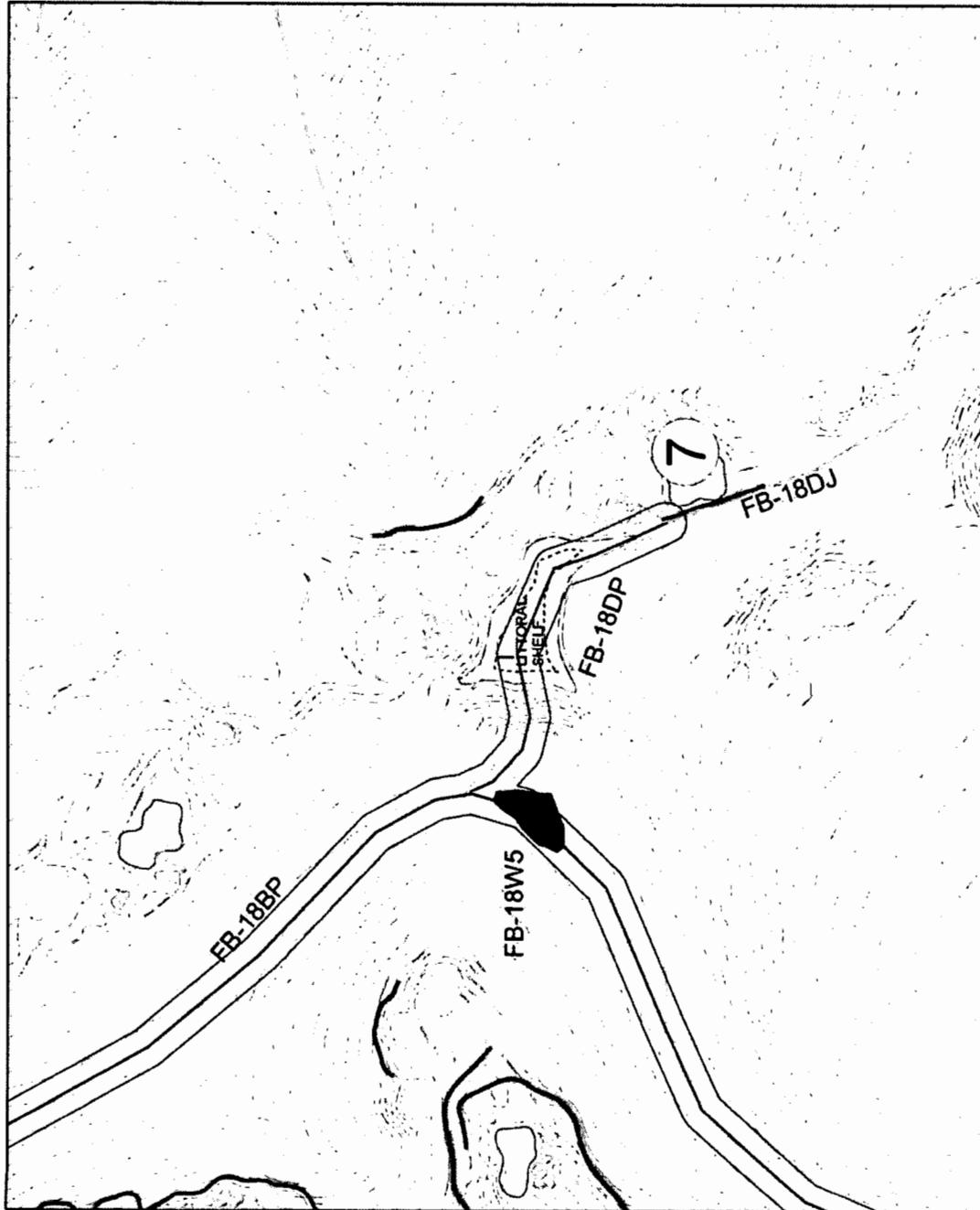


Figure 10f

LAURELMOR
Driving Range
Impact Five
Flat Branch Tributary

Stream Fill
FB-18BP = 218'
FB-18BJ = 217'

Wetland Fill
FB-18W1 = 1484sf

- Lotlines
- Ginn Centerlines
- Greens
- Wall
- Tees
- Traps
- Grading
- Perennial
- Trout Buffer
- Intermittent
- Wetlands
- 1-18 Holes
- 10' Contour Interval
- Driving Range

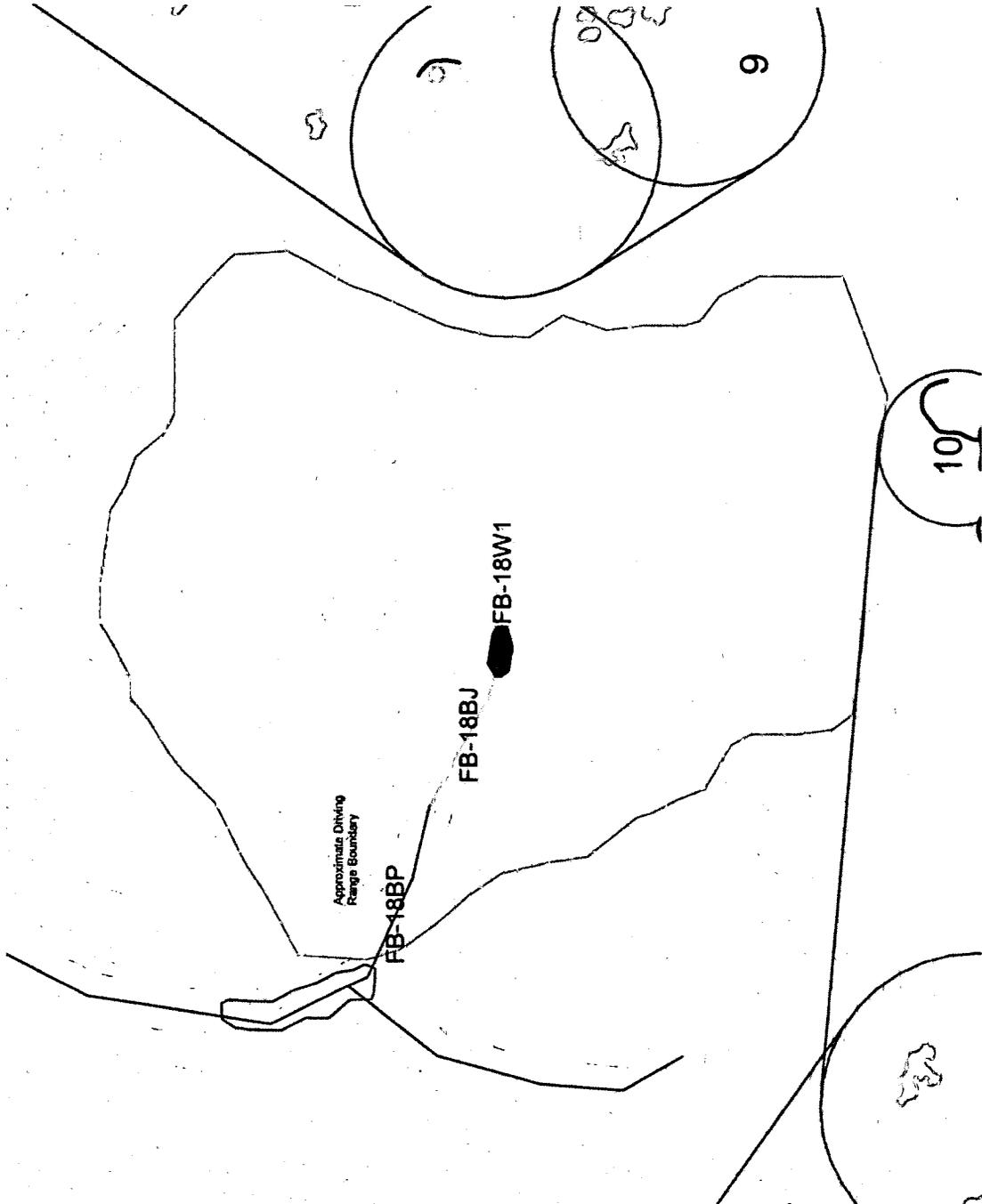
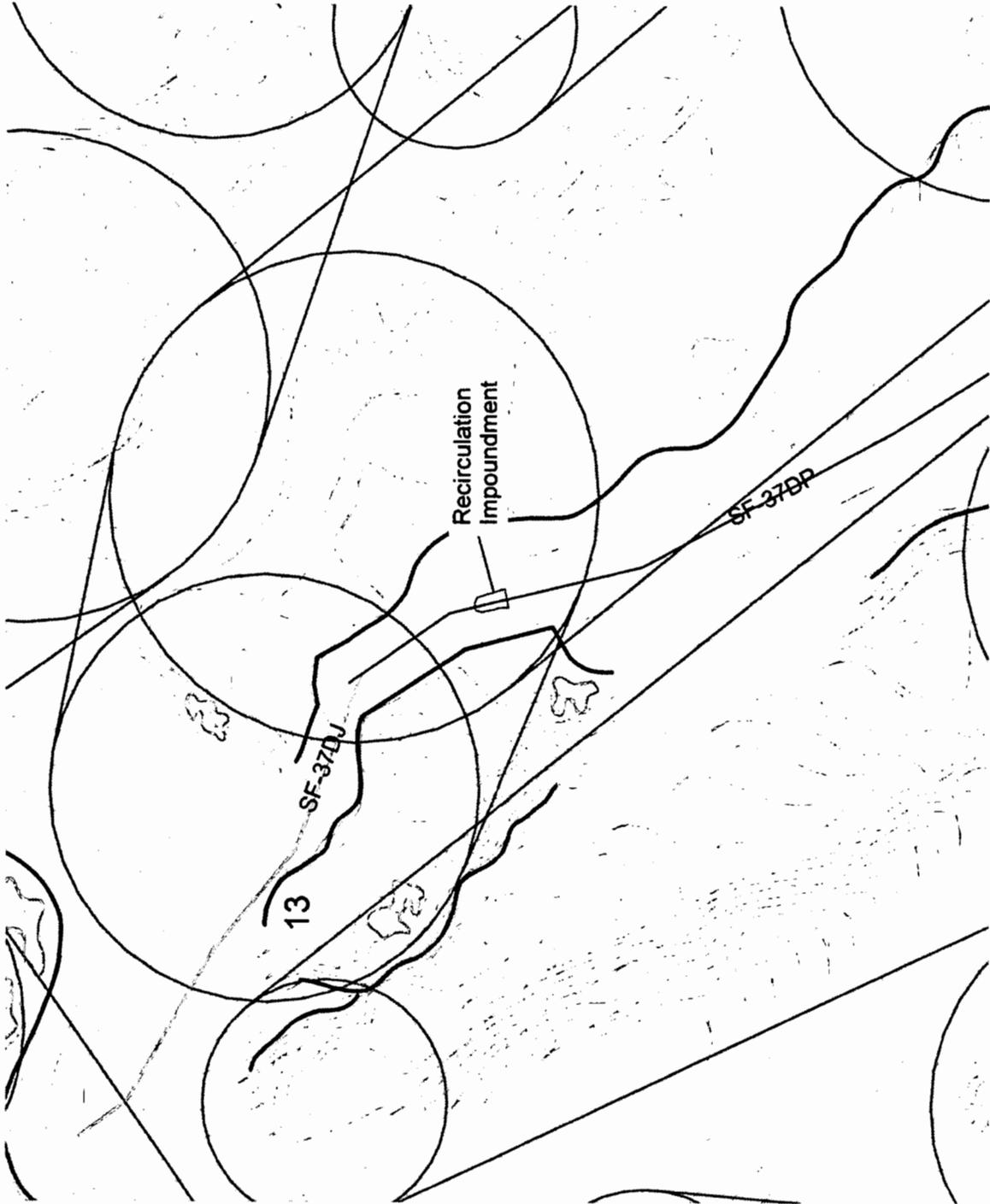


Figure 10g

LAURELMOR
Lake Creation
Impact Six
Swift Ford Tributary
Stream Inundation
SF-37DP = 15'

- Greens
- Wall
- Tees
- Traps
- Grading
- Perennial
- Trout Buffer
- Intermittent
- Wetlands
- Lake Five
- 1-18 Holes

10" Contour Interval



300 Feet

0

300

Figure 10h

LAURELMOR
Golf Course Impact
Impact Seven
Swift Ford Tributary

Stream Fill
SF-37FJ = 90'

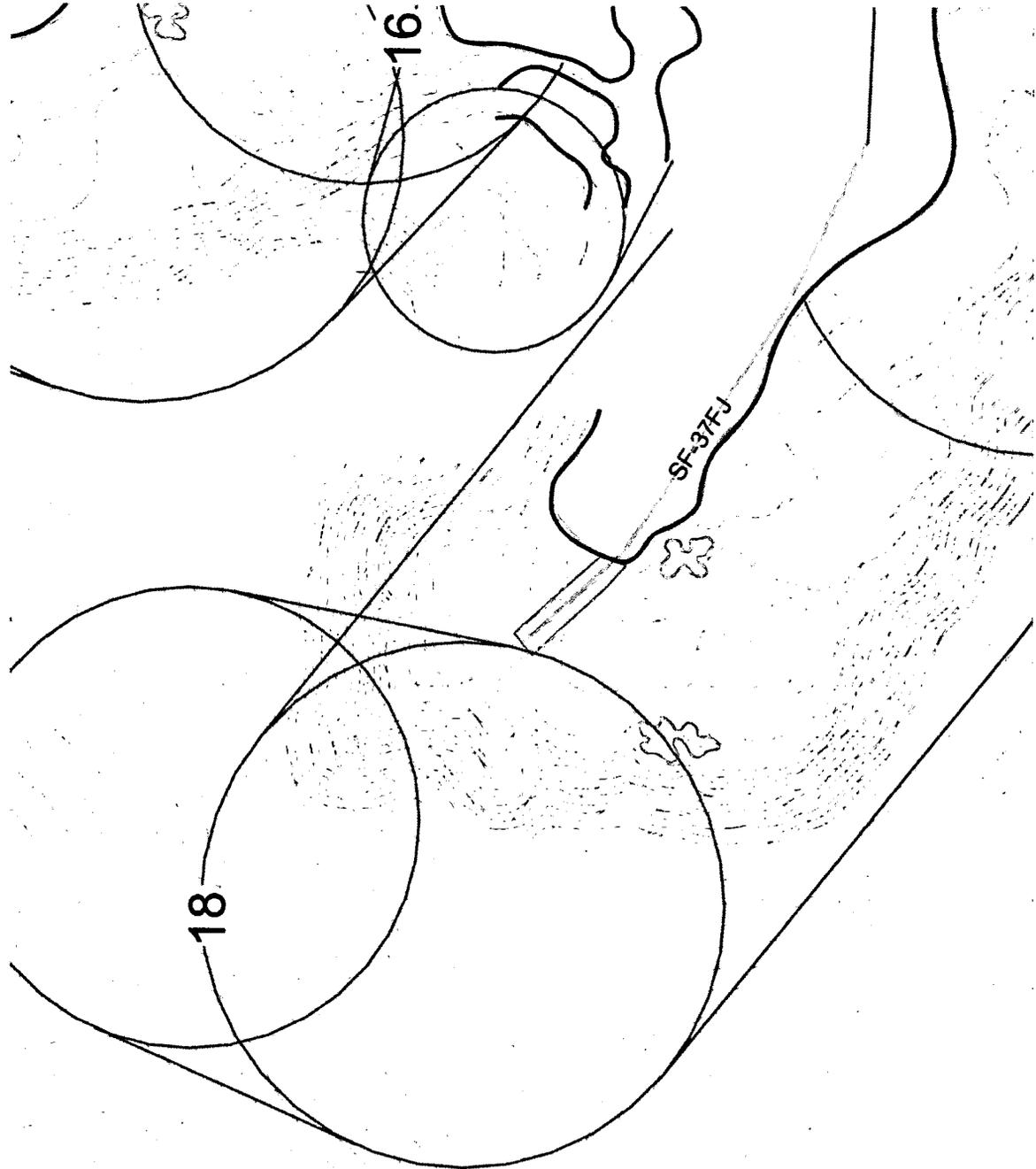


Figure 10i

LAURELMOR
Golf Course Impact
Impact Eight
Dugger Creek Tributary
Stream Fill
DU-29BJ = 240'

- Grass-shrub Perennial
- Trout Buffer
- Intermittent Wetlands
- 19-27 Holes
- 10' Contour Interval
- Impact Area

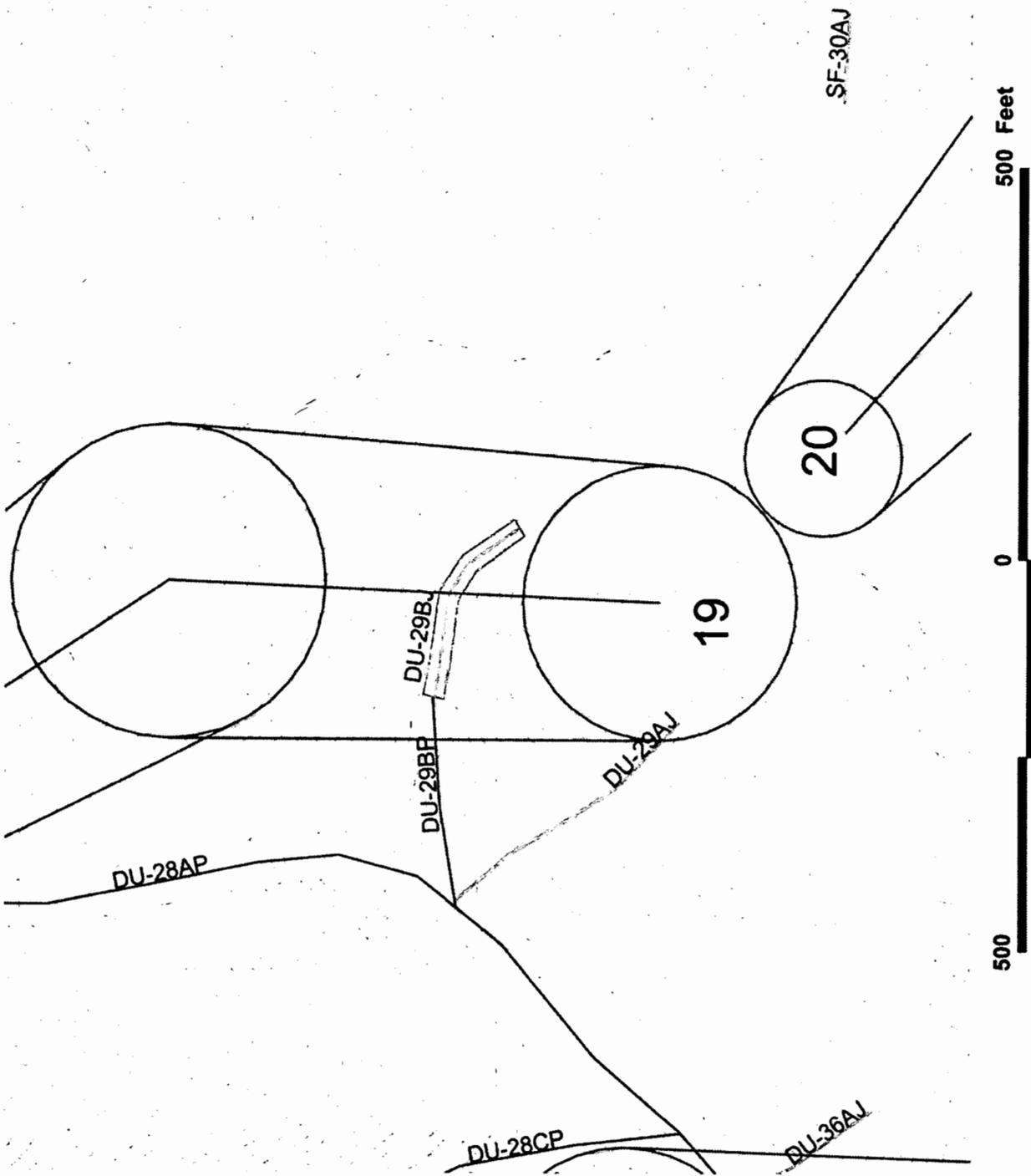


Figure 10j

LAURELMOR
Golf Course Impact
Impact Nine
Dugger Creek Tributary
Stream Fill
DU-35AJ = 200'

Perennial
Trout Buffer
Intermittent
Wetlands
19-27 Holes

10' Contour Interval
Impact Area

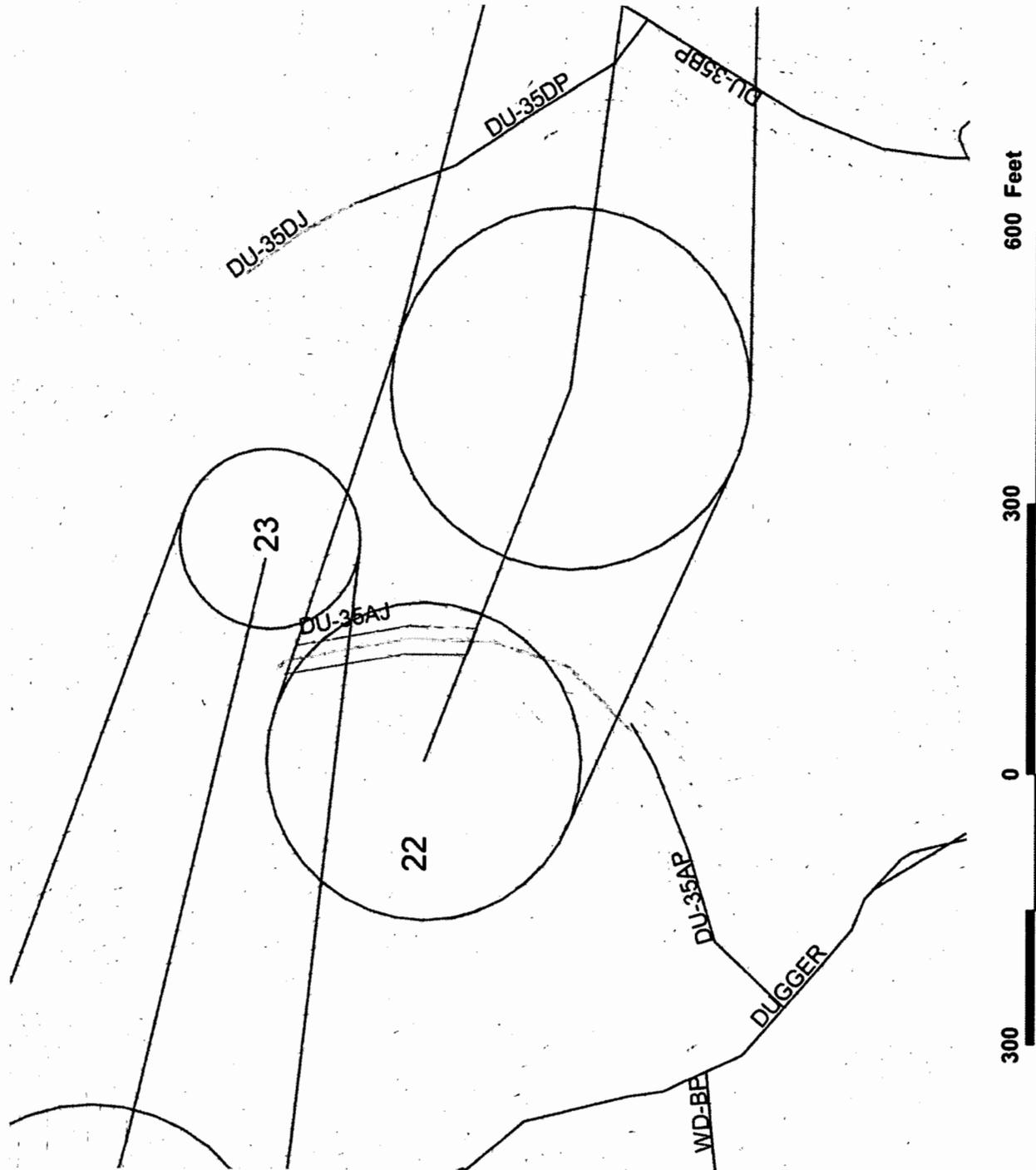


Figure 10k

LAURELMOR
Golf Course Impact
Impact Ten
Dugger Creek Tributary
Stream Fill
DU-28CJ = 235'

Perennial
Trout Buffer
Intermittent
Wetlands
19-27 Holes
10" Contour Interval
28-36 Holes
Impact Area

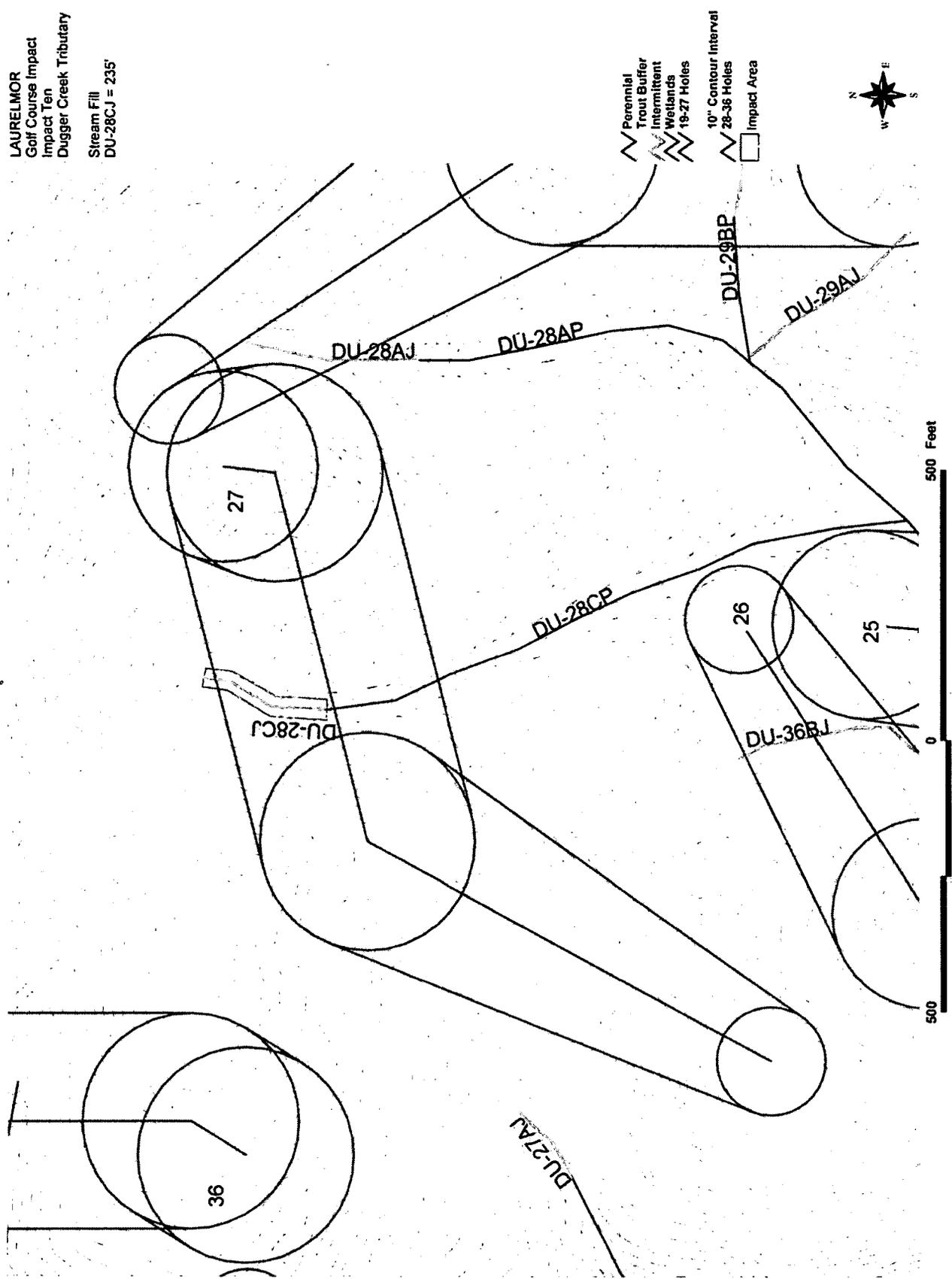


Figure 10I

LAURELMOR
Golf Course Impact
Impact Eleven
Digger Creek Tributary
Stream Fill
DU-21BJ1 = 290'

Perennial
Trout Buffer
Intermittent
Wetlands
19-27 Holes
10" Contour Interval
28-36 Holes
Impact Area

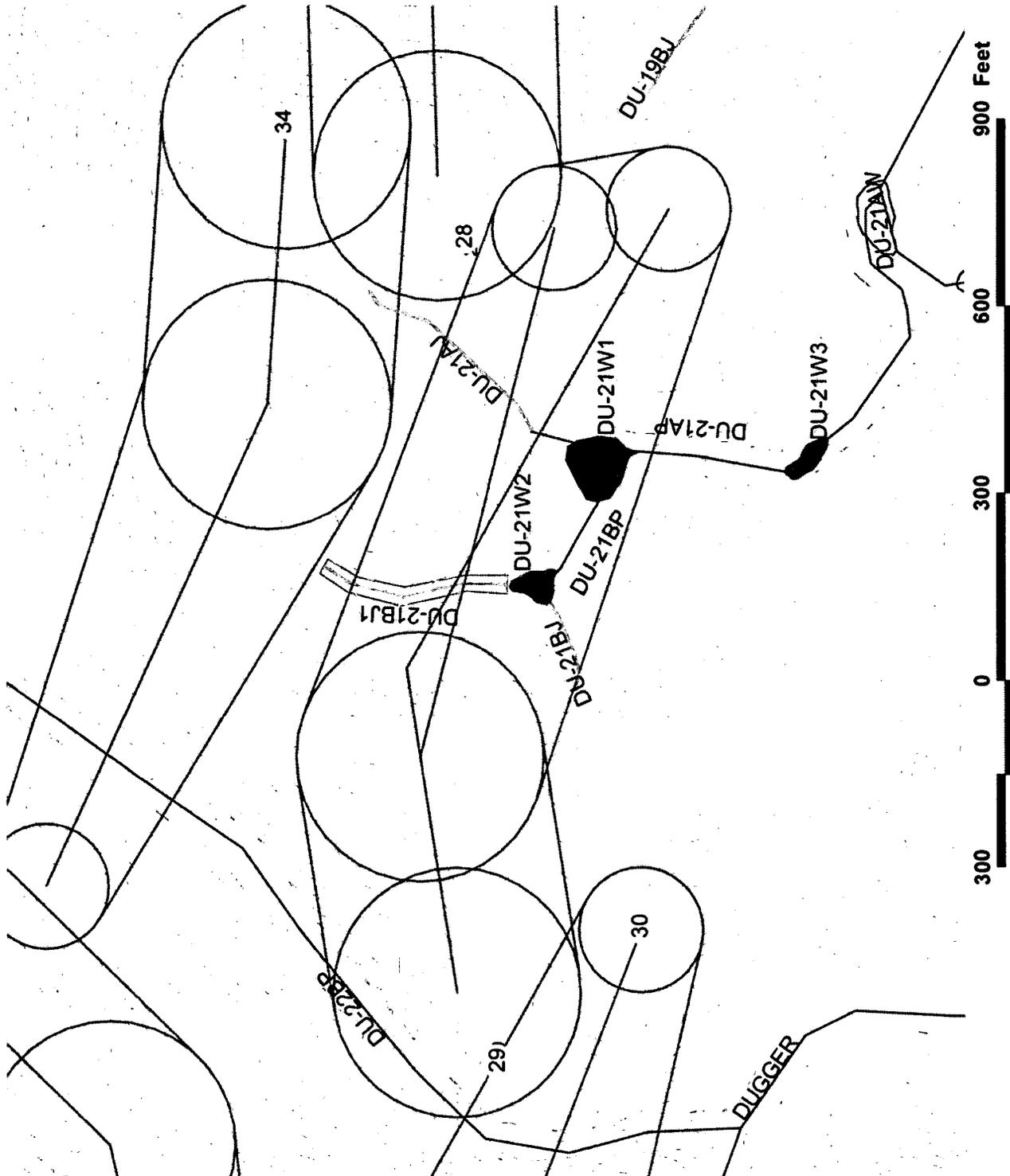


Figure 13a

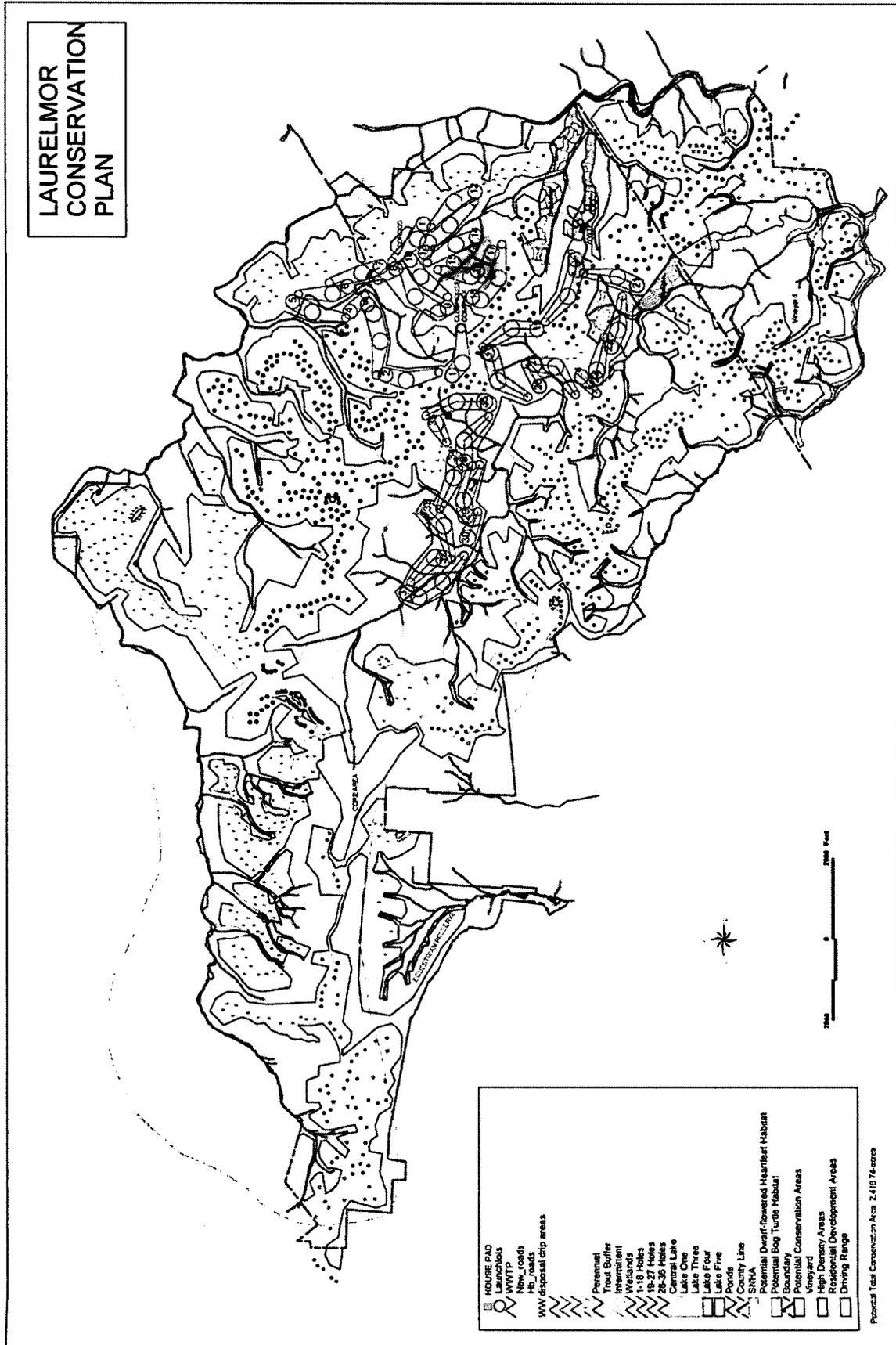


Figure 13b

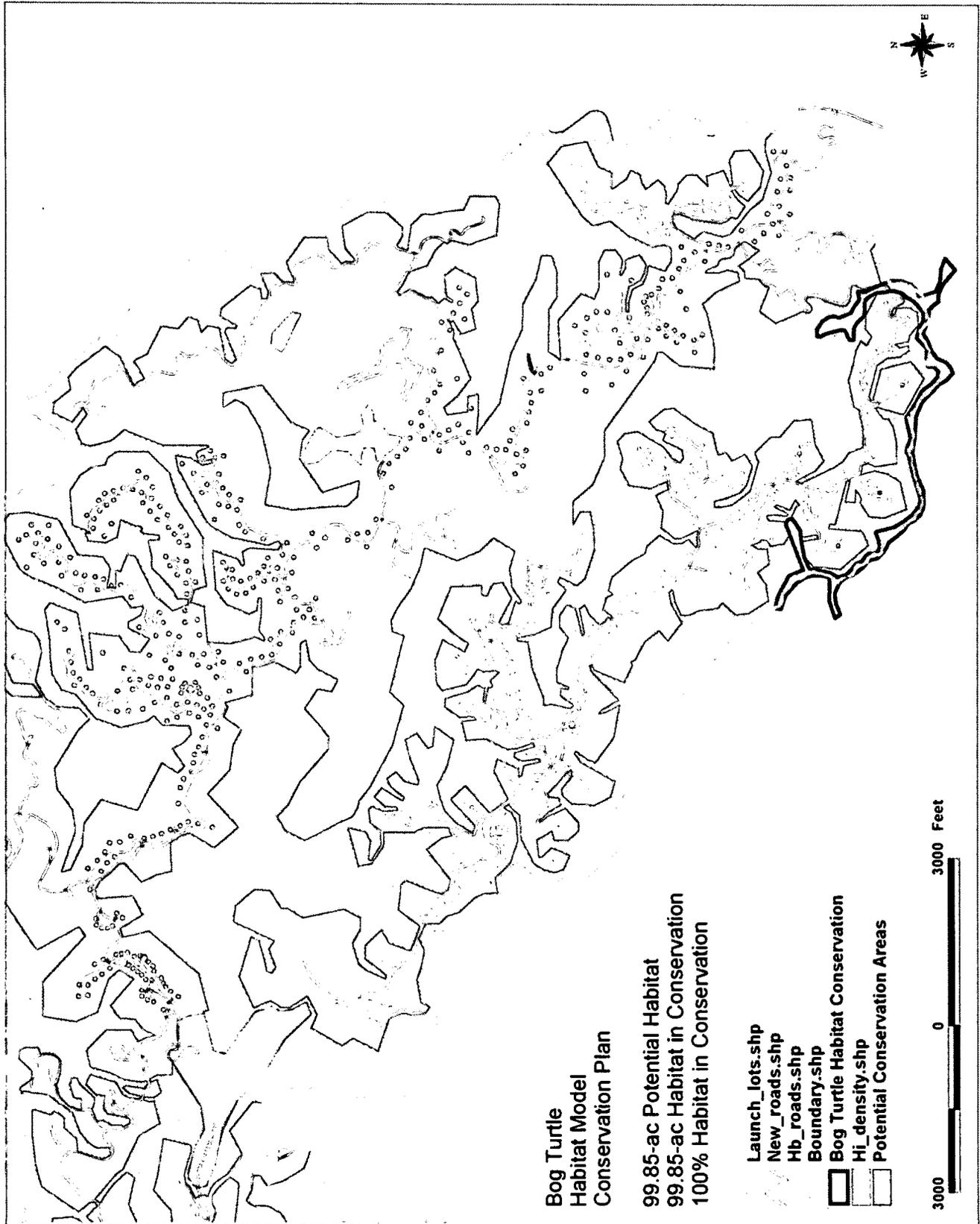
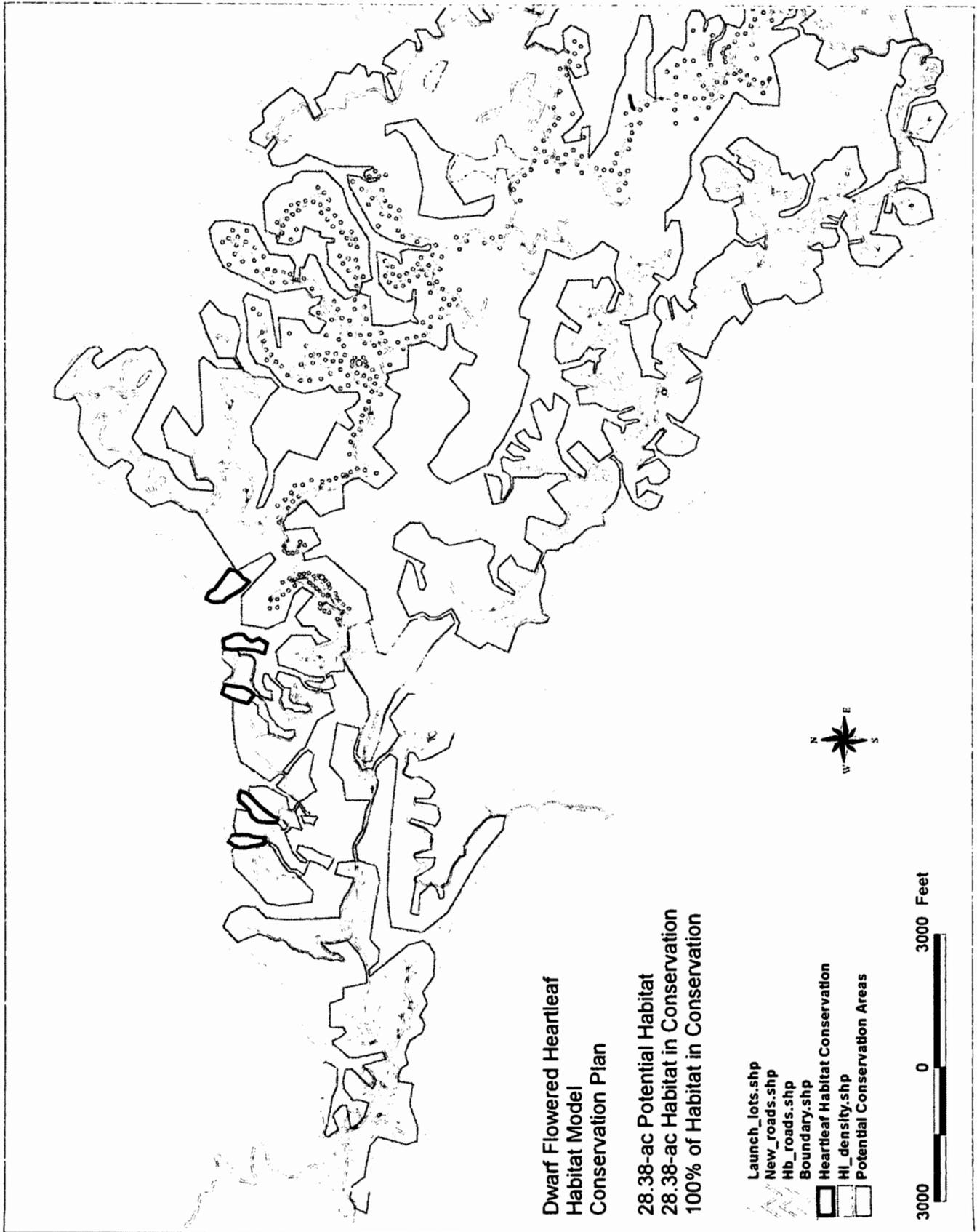


Figure 13c



Laurelmor
French Drain Impact Detail
Intermittent Streams on
Golf Holes 18, 19, 22, 27, 29 & DR

Existing Grade & Stream

New Grade

Existing Grade & Stream

Fill Material

57 Washed Stone
separation between pipe
and trench to be
determined by engineers

Filter Fabric



HDPE Perforated Pipe to be sized by
Engineer

Trench size determined by pipe size

Note: No surface
drainage from golf
course will enter french
drain system. All
surface drainage to be
directed to bio-retention
areas for treatment.

Typical detail for areas where
golf course is adjacent to lake

LAURELMOR Lake Fringe Detail

- 1) Littoral Shelf
- 2) Golf Course Drainage
away from Lake

Retaining wall to
create drainage away
from lake to collection
system

Golf Course Area



Collection System for
Golf Course Drainage
Transport to Bio-filtration
System

Water Surface

Planted with Emergent
Wetland Vegetation

Littoral Shelf
Depth (1-3ft)
Width (10-20')

NOT TO SCALE

Figure 17

LAURELMOR

Typical Dam Section

