

BC 450-05 Dundee Rec. & Parks Trail-
Site Plan & Canoe Launch

MSA-S-1829-4812

Robert L. Ehrlich, Jr.
Governor

Michael S. Steele
Lt. Governor



Martin G. Madden
Chairman

Ren Serey
Executive Director

**STATE OF MARYLAND
CRITICAL AREA COMMISSION
CHESAPEAKE AND ATLANTIC COASTAL BAYS**

1804 West Street, Suite 100, Annapolis, Maryland 21401
(410) 260-3460 Fax: (410) 974-5338
www.dnr.state.md.us/criticalarea/

July 6, 2006

Ms. Deanna Bailey
Baltimore County
Department of Recreation and Parks
301 Washington Ave.
Towson, MD 21204

Re: Marshy Point Park – Pedestrian/Bicycle Trail

Dear Ms. Bailey:

At its meeting on July 5, 2006 the Critical Area Commission for the Chesapeake and Atlantic Coastal Bays unanimously approved the Marshy Point Park Pedestrian/Bicycle Trail with the following conditions:

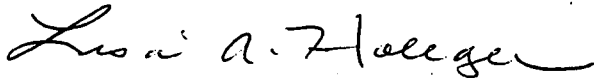
- 1) Mitigation shall be provided at a 2:1 ratio for the canoe launch portion of the trail inside the 100-foot Buffer, at a 3:1 ratio for the observation and bridge portions of the trail that will cross the 100-foot Buffer and be in FID habitat, and 1:1 mitigation for the portion of the trail in FID habitat, but outside the 100-foot Buffer.
- 2) The County shall follow the time of year restrictions for Forest Interior Dwelling Bird habitat so that no clearing activities may occur between April 15 and August 31.
- 3) All required permits are secured prior to construction.
- 4) The project must be resubmitted to the Commission staff for review if the plans change.
- 5) All other trails inside the Critical Area, excluding the pedestrian/bicycle trail that may be planned for this site shall be pervious and not exceed six feet in width.

I have enclosed a Plantings Agreement Form that should be returned to this office within the next 30 days. I calculated the total required mitigation at 20,295 square feet. This mitigation shall consist of a mix of native trees, shrubs and herbaceous vegetation. Commission staff understand that the actual landscape plans may not be finalized prior to 30 days; however, please forward those plans for Commission staff review when they become available

Ms. Deanna Bailey
July 6, 2006
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Thank you for preparing the presentation and presenting to the Project Subcommittee in the morning, and being available for the afternoon presentation. If you have any questions, please telephone me at (410) 260-3478.

Sincerely,



Lisa A. Hoerger
Natural Resources Planner

Enclosure

cc: Ms. Patricia Farr, DEPRM

Robert L. Ehrlich, Jr.
Governor



Martin G. Madden
Chairman

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December 2, 2005

Mr. James Price, Director
Program Open Space
Department of Natural Resources
580 Taylor Avenue, E-4
Annapolis, Maryland 21401

Re: Marshy Point Nature Center Building Addition - POS # 4786-3-396
Dundee and Saltpeter Creeks Park Improvements - POS # 4787-3-397

Dear Mr. Price:

Thank you for forwarding the above-referenced Clearinghouse Review projects to our office for review. The Baltimore County Department of Environmental Protection and Resource Management (DEPRM) has provided us with a site plan for the park improvements; however, we have not seen a detailed site plan for the Nature Center building addition. Provided both projects can be determined to be consistent with the Baltimore County Critical Area Program, neither will require review and approval by the full Critical Area Commission.

A consistency determination will be performed by DEPRM and submitted to Commission staff for review and concurrence. If our office disagrees with a consistency determination, then the project will require Commission review and approval. My initial review of the site plans submitted for the park improvements suggest that this project may be eligible for a consistency review. Since I have not seen the site plan for the building addition to the Nature Center, I cannot offer any comments at this time.

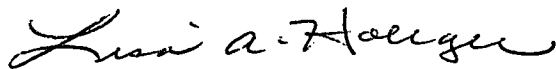
Nevertheless, both projects will be required to meet the following requirements in order to be consistent with the County's Critical Area regulations:

Mr. Price
December 2, 2005
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- Demonstrate all impacts to any Habitat Protection Areas are avoided, or in the case of access, minimized
- Provide stormwater management measures
- Provide sediment and erosion control measures
- Provide mitigation for any required clearing
- Provide mitigation for the three access paths that cross the 100-foot Buffer
- Demonstrate the additional impervious area will not exceed the 15% threshold

Thank you for the opportunity to comment. If you have any questions, please contact me at (410) 260-3478.

Sincerely,



Lisa A. Hoerger
Natural Resources Planner

cc: Mr. Glenn Shaffer, Baltimore County DEPRM

Critical Area Commission

STAFF REPORT

July 5, 2006

APPLICANT: Baltimore County Recreation and Parks

JURISDICTION: Baltimore County

PROPOSAL: Marshy Point Park - Pedestrian/Bicycle Trail

COMMISSION ACTION: Vote - Conditional Approval

STAFF RECOMMENDATION: Approve with Conditions

STAFF: Lisa Hoerger

**APPLICABLE LAW/
REGULATIONS:** Code of Maryland Regulations 27.02.06 -Conditional Approval of State or Local Agency Programs in the Critical Area

DISCUSSION:

The Baltimore County Department of Recreation and Parks is requesting a conditional approval for a pedestrian/bicycle trail to cross Forest Interior Dwelling Bird (FID) habitat. This path was part of a previous approval, however, the location and width have changed. Since the width of the trail exceeds the Commission's Public Walkways Guidance document's recommendation of six feet in width for Resource Conservation Areas (RCA), the request will require a conditional approval.

Marshy Point Park is located on the eastern side of Baltimore County. The County purchased the land that borders Dundee and Saltpeter Creeks in 1983 to provide a location for a nature center. The park, originally named Dundee and Saltpeter Park, totals over 403 acres of waterfront property. The Critical Area designation is Resource Conservation Area (RCA). Much of the contiguous, forested areas are Forest Interior Dwelling Bird habitat. The site also boasts numerous acres of nontidal and tidal wetlands.

The Office of the County Executive and the Office of Planning developed a plan for a regional bicycle and pedestrian path in eastern Baltimore County. The plan is called "The Eastern Baltimore County Bicycle Pedestrian and Bicycle Access Plan." The purpose of this plan is to enable bicyclists to cycle from the White Marsh area of the county to Marshy Point Park, and in the future, beyond to the Gunpowder Falls State Park, which adjoins portions of Marshy Point Park.

Phase I of the park was previously reviewed and approved. This phase include the nature center, parking, access drive, boardwalk overlook, a wooden pedestrian bridge, additional parking and a

compacted stone and shell path system. Due to budget constraints, only the nature center, parking and access drive were completed in 2000. The other improvements are now considered Phase II.

Phase II includes those items previously approved but not yet constructed and a modified path system. The modification to the path system is the subject of the conditional approval request. It includes replacing a compacted stone and shell path with an eight foot wide bituminous asphalt path in areas outside the 100-foot Buffer. The portion of the path that will cross the 100-foot Buffer to reach the 10-foot wide bridge over Minnow Branch will be constructed of a wooden boardwalk that will generally be on-grade.

Construction of the canoe facility and associated boardwalk access will require removal of approximately 12,030 square feet of existing forest (approximately 11,150 square feet outside the 100-foot Buffer and 880 square within the 100-foot Buffer). This area is immediately adjacent to the existing parking lot, in the most intensely developed section of the park, outside the portion of woodland designated a FID habitat. The location of the canoe facility was field selected in conjunction with the Department of Environmental Protection and Resource Management (DEPRM) personnel to minimize disturbance to the forest ecosystem and adjacent waterways. Mitigation will be provided at a 2:1 ratio for the acreage of forest removed per the Critical Area Commission requirements for shoreline access, as indicated in the Forest Mitigation Guidance paper.

Construction of the bicycle and pedestrian trail to the bridge and boardwalk overlook will involve approximately 7200 sf of additional disturbance (4700 sf outside the 100-foot Buffer and 2500 sf inside the 100-foot Buffer) to the woodland but should not require clearing of canopy trees. The path will be field located to avoid major trees and small construction equipment will be utilized to enable it to maneuver in tight spaces. It is anticipated that equipment for construction of the boardwalk overlook and pedestrian bridge will be able to access these locations along the proposed path alignment without disturbing the forest canopy or will utilize adjacent waterways for access. Any unavoidable removal of major trees will be mitigated on-site with planting of new vegetation in accordance with the Critical Area regulations.

The total square footage of trail from the nature center to the bridge and boardwalk overlook, within the Habitat Protection Area, is approximately 7200 square feet and about 2500 square feet of this is within the 100-foot Buffer. Mitigation will be provided at a 1:1 ratio for the portion of the trail outside the 100-foot Buffer and at 3:1 for the portions of the trail that must cross the 100-foot Buffer and FID habitat. This will involve planting of new vegetation along the edge of existing woods elsewhere in the park to increase the extent of interior woodland.

Permits for stormwater management and sediment and erosion control practices were approved with the Phase I construction; however, since that time the stormwater management regulations were revised, and updated stormwater management plans have been approved. At the time of writing this staff report, the sediment and erosion control plans are still pending final approval.

No nontidal wetlands will be disturbed for this project. A small section of the path will intrude into the 25-foot nontidal wetland buffer. This impact will be mitigated through the Maryland

Department of the Environment's permit process. No rare, threatened or endangered species will be impacted by the project. The Dundee Creek supports anadromous fish spawning activities. No construction will occur in this waterway during the fish-spawning season.

Conditional Approval Process

In order to qualify for consideration by the Commission for conditional approval, it shall be shown by the proposing or sponsoring agency that the project or program has the following characteristics:

The following are the responses of the applicant:

B.(1) That there exist special features of the site or there are other special circumstances such that the literal enforcement of these regulations would prevent a project or program from being implemented;

During the years since the original park concepts were developed and the first phase of the nature center was constructed, Baltimore County Government, and the County Executive and Office of Planning in particular, have developed a plan for a regional bicycle and pedestrian path in eastern Baltimore County called "the Eastern Baltimore County Bicycle Pedestrian and Bicycle Access Plan." This path, when completed, will enable bicyclists to cycle from the White Marsh area of the county, along the soon-to-be-completed Route 43 to a route along Leland Ave that will connect with Eastern Regional Park. From there the path is intended to extend through various parks and public open spaces, eventually reaching Gunpowder State Park. Marshy Point Park is the last county-owned property along this route and hopefully will allow direct access to the Hammerman area of Gunpowder State Park.

The previously reviewed path alignment through Marshy Point Park is envisioned as a part of this shared use trail. While a ten-foot path is preferable for a shared use pedestrian and bicycle route, an eight-foot path is acceptable and represents only a small increase over the permitted six-foot width. Anything narrower, however, would create severe safety hazards for cyclists and pedestrians sharing the path. A small section of path near the ends of the pedestrian bridge will require additional width to taper from the 8' width along the main path to safely meet the 10' bridge width.

The other options for the connection of the existing paths in Eastern Regional Park through Marshy Point Park are less feasible and have greater impacts than the current proposal. The other option would involve use of the public roadways. State-owned Eastern Avenue, in this area, is a relatively narrow, open-section roadway without shoulders. The majority of the road frontage is developed with apartment complexes, small single-family detached homes, and small businesses, making widening of the roadway to add a bike lane difficult, potentially contentious, and costly, not to mention less aesthetically desirable than an off-road route.

The alternate routes within the park also are less desirable, primarily due to their additional impacts. The majority of Marshy Point Park is within the Critical Area, with the Dundee Creek dividing the park into two large sections. The section containing the nature center is almost

entirely wooded with scattered pockets of non-tidal wetlands. A pedestrian bridge to connect the two areas of the park, a boardwalk overlook and a canoe launching facility were proposed and preliminarily approved as part of the Phase 1 Nature Center project. A compacted crushed stone path to connect these improvements was also discussed and preliminarily approved under Phase I. The location and alignment of the trail were selected to provide the most direct route between the waterfront facilities and the nature center, while minimizing tree removal and intrusion into the 100' buffer. Since the proposed pedestrian bridge in the park, crossing the Dundee Creek, was already designed under Phase I for a 10-foot width, very little modification was necessary for the path and bridge to accommodate bicyclists. The only change needed was to increase the railing height on the bridge and slightly widen the path. To minimize the impacts of the impervious pavement and path widening, the sections of paths within the 100-foot Buffer will be on-grade boardwalk and the final path locations will be field located to avoid major trees.

Most of the portion of the park surrounding the Nature Center is a Forest Interior Dwelling Bird habitat. The canoe launch and storage facility, the Minnow Branch Overlook, the pedestrian bridge, and a path connecting these facilities were approved in this area as a part of the Phase I nature center project. Tree clearing and construction activities will not be permitted in the wooded areas of the park during the bird-breeding season. The path alignment, both inside and outside the Buffer, will be field adjusted to avoid impacts to major trees, therefore, no canopy disturbance is anticipated. A few trees overhanging the path will need to be pruned to remove limbs below eight feet in height, to prevent hazards to cyclists and pedestrians, but again, that should not disrupt the tree canopy. Logs and other existing natural materials can also be used along the edge of the proposed path to help enclose the pavement and restrict off-path movement.

B.(2) That the project or program otherwise provides substantial public benefits to the Chesapeake Bay Critical Area Program;

The park improvements will provide substantial benefits to the Chesapeake Bay Critical Area Program. The improvements will minimize environmental degradation, improve public access to the bay's tributaries, and will provide additional environmental education opportunities.

The CBCA program encourages provision of access to the bay to encourage responsible interaction between the people and their natural environments and engender a stewardship ethic in visitors. This proposal opens up previously poorly accessible and under-utilized areas of the park to the general public for educational opportunities related to the bay. The boardwalk pavilion will provide a teaching platform for outdoor classes to learn about the biodiversity and productivity of the coastal plain-estuarine interface, and for all park visitors to safely observe the wetland habitat and associated waterfowl, particularly osprey, eagles and other native birds. The Baltimore County public school system uses the park as an adjunct teaching facility, but because there currently are only limited, rudimentary waterfront facilities in the park, coursework is mainly limited to studies of forest and meadow ecosystems of the Chesapeake Bay region using minimally accessible paths. The addition of the Minnow Branch Overlook pavilion will vastly improve the teaching opportunities for aquatic habitats by providing direct access to the waterfront. This will be further enhanced by the addition of the canoe launching facility, which will replace the rudimentary facilities at Iron Point with a safe, convenient location for older

children to embark on studies of wetland ecology and enable the nature center staff and school staff to expand the canoe-based educational programs

The successful use of these park improvements (the Minnow Branch Pavilion, the pedestrian bridge, and the canoe launching facility) depends on good access through the park. Currently, the park uses a system of informal, dirt paths with a few poorly functioning stone paths for the school system forest ecology studies. The proposed paved path will provide a stable surface linking the proposed facilities to the Nature Center and parking area. A paved path will provide a handicap accessible route, useable by all park patrons. It also will channelize park users onto selected, approved routes and reduce, if not eliminate the development of random, dirt paths that result from the lack of defined pathways. This should reduce the potential for damage to sensitive herbaceous vegetation, reduce soil compaction, and protect special plant species and animal habitats from disturbance. MDE has also expressed an interest in extending the bicycle path, which currently ends just past the proposed pedestrian bridge, to the proximity of the recent non-tidal wetland mitigation site to use this as an additional teaching tool.

B.(3) That the project or program is otherwise in conformance with this subtitle;

Other than the requested relief, the park improvements are in compliance with the CBCA program as described above.

The conditional approval request shall, at a minimum, contain the following:

C.(1) A showing that the literal enforcement of the provisions of this subtitle would prevent the conduct of an authorized State of local agency program or project;

A literal enforcement of this act would prevent Baltimore County Department of Recreation and Parks from constructing a functional bike path under generally accepted Federal guidelines. Rationale for the location and design of this amenity, and alternates that were considered, are described in the detail in paragraph B. (1) above.

C.(2) A proposed process by which the program or project could be so conducted as to conform, insofar as possible, with the approved local Critical Area program or if the development is to occur on State-owned lands, with the criteria set forth in COMAR 27.02.05;

The proposed improvements will be designed insofar as possible to comply with Baltimore County's CBCA Local Protection Program. The path system will be located outside the 100 foot Buffer except where necessary to access and cross the water. The alignment will be field adjusted to provide the most direct route through the buffer while minimizing disturbance to existing major trees. Path construction should not impact the tree canopy and construction will not be permitted during critical bird breeding season so forest interior birds should not be negatively impacted by the improvements.

C.(3) Measures proposed to mitigate adverse effects of the project or program or an approved local Critical Area program or, if on State-owned lands, on the criteria set forth in COMAR 27.02.05.

Mitigation will be provided for tree removal and grading within the 100' Buffer and protected woodland at the required ratios. Reforestation, using the CBCA criteria for a mix of canopy, understory and herbaceous vegetation, will be provided in an area immediately adjacent to existing woodland and non-tidal wetlands to enhance the woodland's function as a Forest Interior Dwelling Bird habitat.

The Commission shall approve, deny, or request modifications to the request for conditional approval based on the following factors:

E.(1) The extent to which the project or program is in compliance with the requirements of the relevant chapters of this subtitle;

E.(2) The adequacy of any mitigation measures proposed to address the requirements of this subtitle that cannot be met by the project or program; and

E.(3) The extent to which the project or program, including any mitigation measures, provides substantial public benefits to the overall Chesapeake Bay Critical Area Program.

Staff Recommendations:

Approve the request for an eight-foot wide pedestrian/bicycle path in FID habitat with the following conditions:

- 1) Mitigation shall be provided at a 2:1 ratio for the canoe launch portion of the trail inside the 100-foot Buffer, at a 3:1 ratio for the observation and bridge portions of the trail that will cross the 100-foot Buffer and be in FID habitat, and 1:1 mitigation for the portion of the trail in FID habitat, but outside the 100-foot Buffer.
- 2) The County shall follow the time of year restrictions for Forest Interior Dwelling Bird habitat; therefore, the clearing activities may not occur between April 15 and August 31.
- 3) All required permits are secured prior to construction.
- 4) If the plans change, the project must be resubmitted to the Commission staff for review.
- 5) All other trails inside the Critical Area, excluding the pedestrian/bicycle trail, that may be planned for this site shall be pervious and not exceed six feet in width.

STORMWATER MANAGEMENT NOTES

STORMWATER MANAGEMENT FOR WATER QUALITY IS PROVIDED BY MEANS OF FILTRATION STRIPS PROPOSED DOWNSTREAM OF EACH IMPERVIOUS SURFACE GRADING FOR THE PARKING AREA, ACCESS ROAD AND HALFWAYS PROPOSED SHEET FLOOR RUNOFF.

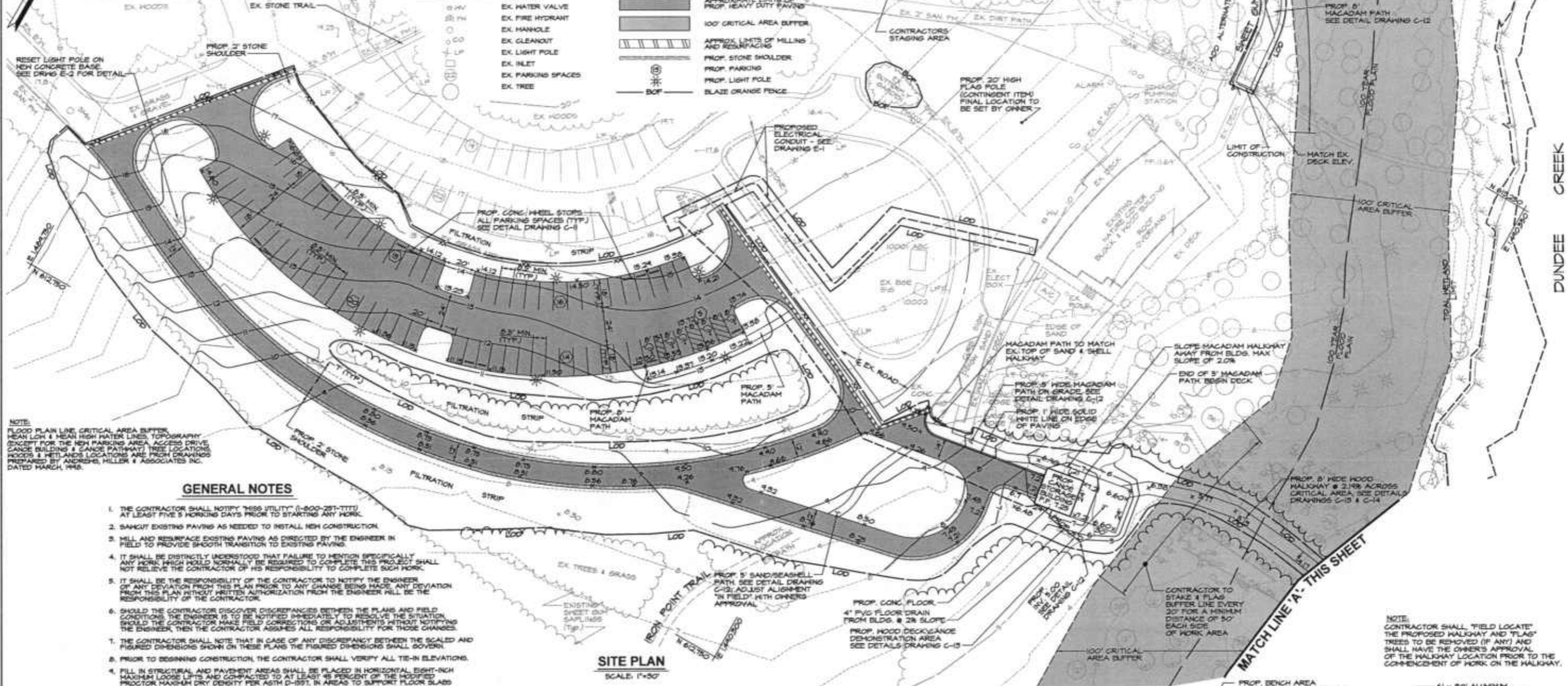
THE NATURAL VEGETATED WETLAND AREA BETWEEN THE PROPOSED IMPERVIOUS AREAS AND THE TIDAL WATERS IS APPROXIMATELY 100'-400' WIDE AND EXHIBITS A PROVISIONARY BUFFER VARYING FROM 28' TO 48'. HENCE, IT IS SUITABLE FOR UTILIZATION AS AN ADDITIONAL "FILTER STRIP" TO ENHANCE THE WATER QUALITY BEFORE THE FLOW REACHES TIDAL WATERS.

LEGEND

- 0 — EX. INDEX CONTOUR
- 10 — EX. INTERMEDIATE CONTOUR
- 20 — EX. CURB AND GUTTER
- 30 — EX. STORM DRAIN
- 40 — EX. SANITARY SEWER
- 50 — EX. WATER
- 60 — EX. WATER VALVE
- 70 — EX. FIRE HYDRANT
- 80 — EX. MANHOLE
- 90 — EX. CLEANOUT
- 100 — EX. LIGHT POLE
- 110 — EX. INLET
- 120 — EX. PARKING SPACES
- 130 — EX. TREE
- XX — XX — TEMPORARY CONSTRUCTION FENCE
- L — LIMIT OF DISTURBANCE
- P — PROP. CURB
- C — PROP. CONTOUR
- A — APPROXIMATE LIMITS OF TREE REMOVAL
- B — APPROXIMATE LIMITS OF PROP. HEAVY DUTY PAVING
- 100' — 100' CRITICAL AREA BUFFER
- A — APPROX. LIMITS OF MILLING AND RESURFACING
- S — PROP. STONE SHOULDER
- P — PROP. PARKING
- L — PROP. LIGHT POLE
- BOF — BLAZE ORANGE FENCE

NOTE:
CONTRACTOR SHALL "FIELD LOCATE" THE PROPOSED SHEET GUM TRAIL AND "FLAG" TREES TO BE REMOVED (IF ANY) AND SHALL HAVE THE OWNER'S APPROVAL OF THE PATH LOCATION PRIOR TO THE COMMENCEMENT OF WORK ON THE PATHWAY.

MATCH LINE - SEE DRAWING C-3



NOTE:
FLOOD PLAIN LINE, CRITICAL AREA BUFFER, MEAN LOW & MEAN HIGH WATER LINES, TOPOGRAPHY (EXCEPT FOR THE NEW PARKING AREA, ACCESS DRIVE, CANOE BUILDING & CANOE LAUNCH AREA) FROM DRAWINGS HOODS & WETLANDS LOCATIONS ARE FROM DRAWINGS PREPARED BY ANDRZEJ, HILLER & ASSOCIATES INC. DATED MARCH, 1996.

GENERAL NOTES

1. THE CONTRACTOR SHALL NOTIFY "MISS UTILITY" (1-800-281-TUTT) AT LEAST FIVE (5) WORKING DAYS PRIOR TO STARTING ANY WORK.
 2. SANICUT EXISTING PAVING AS NEEDED TO INSTALL NEW CONSTRUCTION.
 3. MILL AND RESURFACE EXISTING PAVING AS DIRECTED BY THE ENGINEER IN FIELD TO PROVIDE SMOOTH TRANSITION TO EXISTING PAVING.
 4. IT SHALL BE DISTINCTLY UNDERSTOOD THAT FAILURE TO MENTION SPECIFICALLY ANY WORK WHICH WOULD NORMALLY BE REQUIRED TO COMPLETE THIS PROJECT SHALL NOT RELIEVE THE CONTRACTOR OF HIS RESPONSIBILITY TO COMPLETE SUCH WORK.
 5. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO NOTIFY THE ENGINEER OF ANY DEVIATION FROM THIS PLAN PRIOR TO ANY CHANGE BEING MADE. ANY DEVIATION FROM THIS PLAN WITHOUT WRITTEN AUTHORIZATION FROM THE ENGINEER WILL BE THE RESPONSIBILITY OF THE CONTRACTOR.
 6. SHOULD THE CONTRACTOR DISCOVER DISCREPANCIES BETWEEN THE PLANS AND FIELD CONDITIONS, THE ENGINEER IS TO BE NOTIFIED IMMEDIATELY TO RESOLVE THE SITUATION. SHOULD THE CONTRACTOR MAKE FIELD CORRECTIONS OR ADJUSTMENTS WITHOUT NOTIFYING THE ENGINEER, THEN THE CONTRACTOR ASSUMES ALL RESPONSIBILITY FOR THOSE CHANGES.
 7. THE CONTRACTOR SHALL NOTE THAT IN CASE OF ANY DISCREPANCY BETWEEN THE SCALED AND FIGURED DIMENSIONS SHOWN ON THESE PLANS THE FIGURED DIMENSIONS SHALL GOVERN.
 8. PRIOR TO BEGINNING CONSTRUCTION, THE CONTRACTOR SHALL VERIFY ALL TIE-IN ELEVATIONS.
 9. FILL IN STRUCTURAL AND PAVEMENT AREAS SHALL BE PLACED IN HORIZONTAL, EIGHT-INCH MAXIMUM LOOSE LIFT, AND COMPACTED TO AT LEAST 95 PERCENT OF THE MODIFIED PROCTOR MAXIMUM DRY DENSITY PER ASTM C-997.1 IN AREAS TO SUPPORT FLOOR SLABS AND PAVEMENTS THE UPPERMOST ONE FOOT (AFTER COMPACTION) SHALL BE COMPACTED TO 95 PERCENT OF THE MAXIMUM DRY DENSITY. THE MOISTURE CONTENT OF THE FILL SHALL BE PROPERLY CONTROLLED DURING PLACEMENT. IN BUILDING AREAS FILL SHALL EXTEND MINIMUM OF 10 FEET BEYOND THE BUILDING LIMITS AND FILL SLOPES NO STEEPER THAN 3:1 SHALL BE USED. SEE THE PROJECT SPECIFICATIONS FOR ADDITIONAL INFORMATION.
 10. ALL CONSTRUCTION SHALL BE COMPLETED IN ACCORDANCE WITH THE LATEST BALTIMORE COUNTY STANDARD DETAILS AND SPECIFICATIONS AND ALL REVISIONS THEREOF, AND THE BALTIMORE COUNTY PLUMBING CODE UNLESS OTHERWISE NOTED.
 11. CONTRACTOR SHALL ADJUST ALL FRAMES, GRATES AND COVERS OF ALL EXISTING UTILITIES WITHIN THE LIMITS OF THE CONTRACT TO THE PROPOSED GRADIES, AS REQUIRED.
 12. THE CONTRACTOR SHALL MAINTAIN POSITIVE DRAINAGE TO SHALES AND/OR STORM DRAIN SYSTEMS AT ALL TIMES.
 13. ROADWAY SIGNAGE LOCATIONS SHALL BE FIELD ADJUSTED BY THE OWNER. SEE DRAWINGS C-11 FOR SIGNS.
- NOTES:**
1. THE PROPOSED GRADING SHOWN ON THIS PLAN MEETS THE REQUIREMENTS SET FORTH BY BALTIMORE COUNTY DEPARTMENT OF ENVIRONMENTAL PROTECTION AND RESOURCE MANAGEMENT AND COMPLES WITH TITLE 3, ARTICLE 28 OF THE BALTIMORE COUNTY CODE. HOWEVER, DUE TO BUILDING TYPES AND LAYOUT, SOME FIELD ADJUSTMENTS MAY BE REQUIRED. ALL CHANGES MUST COMPLY WITH THE ABOVE MENTIONED REQUIREMENTS.
 2. ALL SHALES HAVE BEEN DESIGNED BY THE ENGINEER TO CONVEY RUNOFF ACCORDING TO BALTIMORE COUNTY DEPARTMENT OF PUBLIC WORKS DESIGN STANDARDS.
 3. THERE SHALL BE NO CLEARING, GRADING, CONSTRUCTION OR DISTURBANCE OF VEGETATION IN THE FOREST BUFFER EASEMENT OR OTHER FOREST RESTRICTION AREAS, EXCEPT AS PERMITTED BY THE BALTIMORE COUNTY DEPARTMENT OF ENVIRONMENTAL PROTECTION AND RESOURCE MANAGEMENT.

SITE PLAN

SCALE: 1"=50'

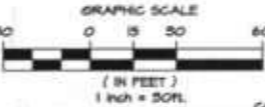
OWNER'S/DEVELOPER'S CERTIFICATION - GRADING:
I/WE CERTIFY THAT ALL GRADING ON THIS SITE WILL BE DONE IN ACCORDANCE WITH THE CURRENT GRADING REQUIREMENTS AS SET FORTH BY THE BALTIMORE COUNTY DEPARTMENT OF ENVIRONMENTAL PROTECTION AND RESOURCE MANAGEMENT AND WITH THE REQUIREMENTS SPECIFIED IN TITLE 3, ARTICLE 28 OF THE BALTIMORE COUNTY CODE.

SIGNATURE OWNER/DEVELOPER _____ DATE _____
PRINT NAME _____ TITLE _____

OWNER'S/DEVELOPER'S CERTIFICATION - AIR QUALITY:
I/WE ACKNOWLEDGE THAT I AM RESPONSIBLE UNDER THE CODE OF MARYLAND REGULATIONS (8.01.03) TO PREVENT PARTICULATE MATTER FROM BECOMING AIRBORNE DUE TO GRADING, LAND CLEARING, EXCAVATION, CONSTRUCTION OR OTHER RELATED ACTIVITIES. I HAVE RECEIVED A COPY OF "GUIDELINES TO THE AIR POLLUTION REGULATIONS FOR CONTROLLING EXCESS AIR DUST" ON ACTIVITY SITES WHICH INCLUDES A COPY OF COMAR 26.04.02. I WILL CONTACT THE WASTE MANAGEMENT AND AIR QUALITY SECTION AT 410-681-8775 AT LEAST THREE DAYS PRIOR TO BEGINNING THE WORK.

SIGNATURE OWNER/DEVELOPER _____ DATE _____
PRINT NAME _____ TITLE _____

NOTE:
DURING ALL CONSTRUCTION PHASES CONTRACTOR SHALL PROVIDE ACCESS TO IRON POINT TRAIL. COORDINATE ACCESS WITH THE NATURE CENTER STAFF.



COORDINATE SYSTEM USED: MARYLAND COORDINATE SYSTEM
BALTIMORE COUNTY DEPARTMENT OF PUBLIC WORKS BUREAU OF ENGINEERING & CONSTRUCTION

**MARSHY POINT PARK IMPROVEMENTS AND CANOE FACILITY
PARKING AREA, CANOE LAUNCH AREA**



10 North Elm Drive
Hart Woods, MD 21030
Phone (410) 316-7800
Fax (410) 316-7817
www.kci.com

ROAD PERMIT AND GRADING	REVISED AS PER DESIGN PRINT	DATE	REVISION	BY	P. E. & S.E. NO.	KEY SHEET	SCALE	DEPT. OF RECREATION AND PARKS
PERMIT REQUIRED	DRAFTSMAN	DATE						
PERMIT NUMBER								
GRADE ESTABLISHED								
PROFILE NUMBER								
KCI TECHNOLOGIES, INC.	DESIGNED BY	REVIEWED BY	APPROVED BY	DATE				
ENGINEER: RICHARD BUTT	DRAWN: CO/JA	REVIEWED:	APPROVED:	DATE:				
DATE: DEC 08, 2008	CHECKED: BLS	DATE:	DATE:	DATE:				

NOTE:
CONTRACTOR SHALL "FIELD LOCATE" THE PROPOSED HALFWAY AND "FLAG" TREES TO BE REMOVED (IF ANY) AND SHALL HAVE THE OWNER'S APPROVAL OF THE HALFWAY LOCATION PRIOR TO THE COMMENCEMENT OF WORK ON THE HALFWAY.

MATCH LINE 'A' - THIS SHEET

MATCH LINE 'A' - THIS SHEET

6" x 50' ALUMINUM CANOE LAUNCH RAMP W/ HANDRAILS
12" x 40' FLOATING CANOE LAUNCH PIER
ANCHOR PILES, 1 EACH CORNER OF PIER, 2 REGD. AS SHOWN

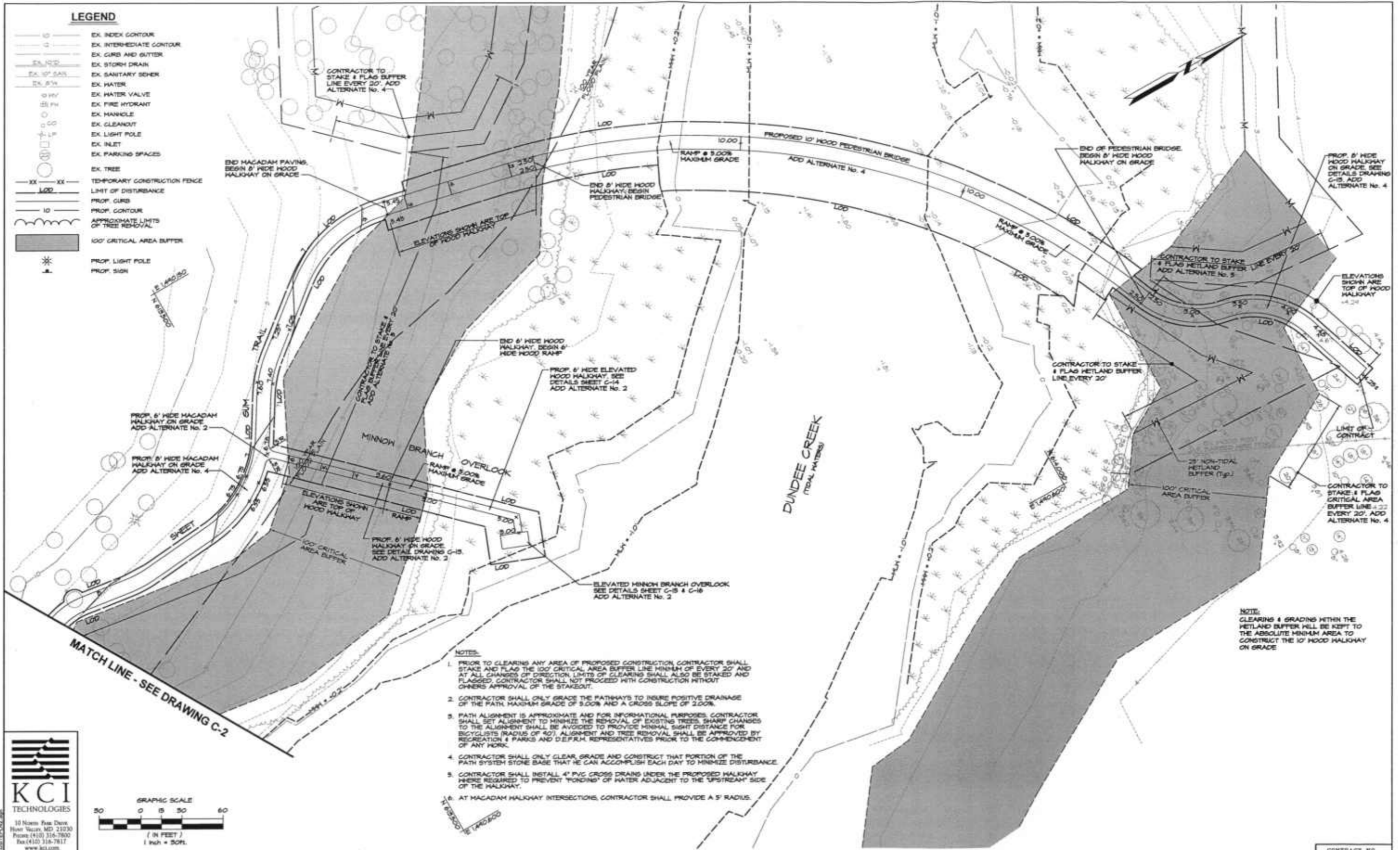
TOTAL DISTURBED AREA = 174,050 S.F. ± = 3.94 AC. ±
CUT = 650 C.Y.
FILL = 701 C.Y.



CONTRACT NO.	060980X0
JOB ORDER NO.	212.313.0012
SHEET 3 OF 26	
FILE	C-2

LEGEND

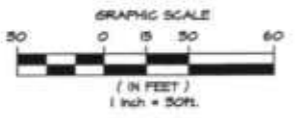
- 0 — EK. INDEX CONTOUR
- 0 — EK. INTERMEDIATE CONTOUR
- 0 — EK. CURB AND GUTTER
- 0 — EK. STORM DRAIN
- 0 — EK. 12" SAN.
- 0 — EK. 8" SAN.
- 0 — EK. WATER
- 0 — EK. WATER VALVE
- 0 — EK. FIRE HYDRANT
- 0 — EK. MANHOLE
- 0 — EK. CLEANOUT
- 0 — EK. LIGHT POLE
- 0 — EK. INLET
- 0 — EK. PARKING SPACES
- 0 — EK. TREE
- XX — XX — TEMPORARY CONSTRUCTION FENCE
- 0 — 0 — LIMIT OF DISTURBANCE
- 0 — 0 — PROP. CURB
- 0 — 0 — PROP. CONTOUR
- 0 — 0 — APPROXIMATE LIMITS OF TREE REMOVAL
- 0 — 0 — 100' CRITICAL AREA BUFFER
- 0 — 0 — PROP. LIGHT POLE
- 0 — 0 — PROP. SIGN



- NOTES**
1. PRIOR TO CLEARING ANY AREA OF PROPOSED CONSTRUCTION CONTRACTOR SHALL STAKE AND FLAG THE 100' CRITICAL AREA BUFFER LINE MINIMUM OF EVERY 20' AND AT ALL CHANGES OF DIRECTION LIMITS OF CLEARING SHALL ALSO BE STAKED AND FLAGGED. CONTRACTOR SHALL NOT PROCEED WITH CONSTRUCTION WITHOUT OWNER'S APPROVAL OF THE STAKEOUT.
 2. CONTRACTOR SHALL ONLY GRADE THE PATHWAYS TO INSURE POSITIVE DRAINAGE OF THE PATH, MAXIMUM GRADE OF 3.00% AND A CROSS SLOPE OF 2.00%.
 3. PATH ALIGNMENT IS APPROXIMATE AND FOR INFORMATIONAL PURPOSES. CONTRACTOR SHALL SET ALIGNMENT TO MINIMIZE THE REMOVAL OF EXISTING TREES. SHARP CHANGES TO THE ALIGNMENT SHALL BE AVOIDED TO PROVIDE MINIMAL SIGHT DISTANCE FOR BICYCLISTS (RADIUS OF 40'). ALIGNMENT AND TREE REMOVAL SHALL BE APPROVED BY RECREATION & PARKS AND D.E.P.R.M. REPRESENTATIVES PRIOR TO THE COMMENCEMENT OF ANY WORK.
 4. CONTRACTOR SHALL ONLY CLEAR, GRADE AND CONSTRUCT THAT PORTION OF THE PATH SYSTEM STONE BASE THAT HE CAN ACCOMPLISH EACH DAY TO MINIMIZE DISTURBANCE.
 5. CONTRACTOR SHALL INSTALL 4" PVC CROSS DRAINS UNDER THE PROPOSED WALKWAY WHERE REQUIRED TO PREVENT "PONDING" OF WATER ADJACENT TO THE "UPSTREAM" SIDE OF THE WALKWAY.
 6. AT MACADAM WALKWAY INTERSECTIONS, CONTRACTOR SHALL PROVIDE A 5' RADIUS.

NOTE:
CLEARING & GRADING WITHIN THE WETLAND BUFFER WILL BE KEPT TO THE ABSOLUTE MINIMUM AREA TO CONSTRUCT THE 10' WOOD WALKWAY ON GRADE.

MATCH LINE - SEE DRAWING C-2



PLOTTED: 04/03 PM on Monday, June 05, 2006
BY: Chris Eberhart/Chris Eberhart, U.P. & E.
FILE: C:\PROJECTS\212.313.0012\212.313.0012.DWG

ROAD PERMIT AND GRADES	DESIGNED AS PER RECORD PRINT	DATE	REVISION	BY	P. R. & SIB. NO.	SET SHEET	SCALE	DEPT. OF RECREATION AND PARKS
PERMIT REQUESTED	DATE							
PERMIT NUMBER								
GRADE ESTABLISHED								
PROFILE NUMBER								

DESIGNED BY	REVIEWED BY	DATE	DATE

ENGINEER	DESIGNED BY	REVIEWED BY	DATE	DATE

COORDINATE SYSTEM USED: MARYLAND COORDINATE SYSTEM

NOTE:
INFORMATION SHOWN ON THIS DRAWING IS PARTIALLY FROM A PLAN PREPARED BY ANDREWS MILLER AND ASSOC. INC. DATED MAY 15, 1998, REVISED, SEPTEMBER 16, 1998.



CONTRACT NO.	06098GX0
JOB ORDER NO.	212.313.0012
SHEET 4 OF 26	
FILE	C-3

BALTIMORE COUNTY DEPARTMENT OF PUBLIC WORKS BUREAU OF ENGINEERING & CONSTRUCTION
MARSHY POINT PARK IMPROVEMENTS AND CANOE FACILITY
 GRADING & SITE PLAN
 SWEET GUM TRAIL & PEDESTRIAN BRIDGE, MINNOW BRANCH TRAIL & OVERLOOK
 BL. DISTRICT NO. 15



Baltimore County Department of Recreation and Parks

MARSHY POINT PARK

Chart to accompany Conditional Approval Request

June 27, 2006

	OUTSIDE 100 FT BUFFER			INSIDE 100 FT BUFFER		
	DISTURBANCE		MITIGATION FOR BUFFER IMPACTS**	DISTURBANCE		MITIGATION FOR UPLAND IMPACTS**
	BIKE PATH and Overlook Path	CANOE AREA		BIKE PATH and Overlook Path*	CANOE AREA*	
FOREST AND DEVEL WOODLAND (Non-FIDS)	NA	9595 SF tree removal	1:1 ratio for clearing = 9595 sf +/-	NA	960 sf* disturbed	2:1 Ratio for clearing = 1920 sf +/-
PLANT AND WILDLIFE HABITAT (FIDS)	4250 sf disturbed	NA	1:1 ratio for clearing = 4250 sf +/-	1510 sf* disturbed	NA	3:1 Ratio for clearing = 4530 sf +/-

* Pervious (boardwalk) surfaces

** Mitigation calculations are based on a worst-case scenario where clearing equals disturbance. However, in most instances, the amount of clearing is expected to be less than the area of disturbance and final mitigation requirements will be modified accordingly.