

CITY ENGINEER'S OFFICE

Post Office Box 144 Addison, Texas 75001

(214) 450-2886

16801 Westgrove

M E M O R A N D U M

May 9, 1991

To: Lynn Chandler, Building Official

From: John Baumgartner, City Engineer <sup>ARB</sup> 5-10-91

RE: Floodplain Construction/Reclamation along White Rock Creek -  
"The Woods" Subdivision

In response to the phone calls regarding the fences/fill placed in the floodway easement, please consider the following:

- A. History
1. The City of Dallas issued a permit (FP-79-12) to reclaim 4.37 acres from the White Rock Creek floodplain.
  2. The fill was placed in accordance with the plans developed by the engineers, Huitt-Zollars and accepted by the City of Dallas and the Town of Addison.
- B. Required information for approving additional improvements to the floodway easement:
1. All improvements must comply with the City of Dallas' 10 point criteria, which requires no net increase in the floodplain elevation.
  2. Prior to constructing any structures or adding fill to the floodway portion of the lot, the owner should provide a detailed survey/drawing indicating the floodway limit; the limits, elevation, and contours of fill; and the location elevation and details for the proposed improvements.
  3. Fill is permitted to bring the lot into conformance with the approved floodplain reclamation plan. Material in excess of the plan should be removed.
  4. Any fill or improvements that further the floodplain reclamation must be approved by the City of Dallas.
- C. City of Dallas Approval Process for floodplain reclamation:
1. Floodplain reclamation is a very technical process in Dallas and requires a detailed engineering study.

2. Preliminary discussions with Mike Askew (948-4230) Dallas Stormwater Management indicate that they will need the following to evaluate a request:
  - a) Floodplain review fee - estimated at \$700.
  - b) Detailed engineering study to demonstrate that the reclamation project complies with Dallas' 10 point criteria.

If you have any questions or need additional information, please call me at 450-2886.

JRB/rp

Attachments:

1. September 18, 1984 letter from the City of Dallas.
2. Procedure for filling in a floodplain under the floodplain management guidelines - City of Dallas.



CITY OF DALLAS

September 18, 1984

Mr. Wayne Ginn  
Town of Addison Engineer  
Town of Addison, Texas

Re: Fill Request FP 79-12  
Oak Bend Estates  
Winwood Lane

Dear Mr. Ginn:

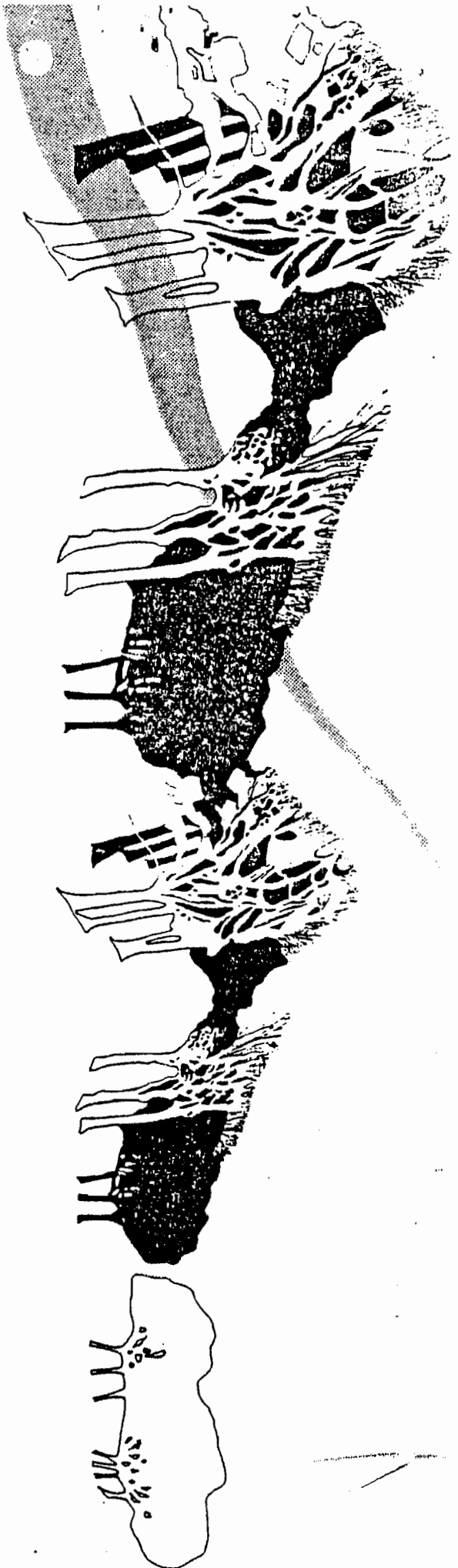
The engineering plans for the subject property was reviewed by the City of Dallas in 1979 and approved by the Council on September 26, 1979. Reclamation of land from the flood plain by filling is allowed by the City of Dallas when the fill meets the 10-point engineering criteria. The maximum reclamation was 4.269 acres out of the 18.6491 acre tract. The remaining 14.38 acres must remain Flood Plain Management Area for conveyance of flood waters.

No engineering study has been submitted for the tract south of this property, therefore, development or fill would not be allowed.

Sincerely,

Tommie McPherson  
Program Manager  
Storm Water Management

sp



procedures for filling in a flood plain under  
the flood plain management guidelines



City of Dallas

procedures for filling in a flood plain under  
the flood plain management guidelines

prepared by:  
the department of urban planning  
june, 1977; revised oct., 1977

## PROCEDURES FOR FILLING IN A FLOOD PLAIN UNDER THE FLOOD PLAIN MANAGEMENT GUIDELINES

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## INTRODUCTION

This booklet provides, for property owners, developers, engineers, and other interested parties, explanations of City of Dallas regulation, guidelines, and procedures for taking land out of a flood plain. The regulations and guidelines described are part of a larger program of flood plain management, which includes flood plain delineation, the development of area-specific flood plain management plans, flood insurance, and flood warning systems. The purpose of the City's flood plain management program are to minimize hazards to life and property, to ensure compliance with the National Flood Insurance Program, and to otherwise promote the health, safety, and general welfare of the community.

Most land in the City which has a history or a potential for flooding is designated by the Flood Plain ("FP") prefix on the official zoning maps. Section 10-1100 of the Zoning Ordinance describes the uses permitted on land so designated, and also sets out the conditions for removal of an "FP" designation by filling.

This ordinance has been supplemented by City Council Resolutions 762940, and 772917 which sets forth guidelines for evaluating the removal of the "FP" prefix and for alteration of flood plains not yet zoned. Land which is not designated "FP", but is found to be flood-prone by the City staff in the course of reviewing sub-division plats or other development proposals, will also be governed by these criteria. Flood-prone areas which have specific flood plain management plans will be regulated by the plan requirements rather than the criteria contained in Council Resolutions 762940 and 772917.

## EXPLANATION OF THE FLOOD PLAIN MANAGEMENT GUIDELINES

Filling in all flood plains which do not have adopted management plans is governed by a set of general guidelines or criteria adopted by City Council resolution in November, 1976. These criteria were formulated to provide a more systematic approach to review of fill requests for all flood plains not covered by specific guidelines from adopted management plans. The criteria reflect the City's concern that storm water be moved naturally rather than relying on extensive and costly systems of channel improvements. They also reflect the City's philosophy that fill and development which is not unreasonably damaging to the environment should be permitted where it would not create other flood problems and where public acquisition is not required for environmental protection or recreation purposes.

There are three broad types of criteria:

- a. Engineering criteria, based on the hydraulic effects of filling in the flood plain; these are aimed at protecting life and property while preserving natural features where possible.
- b. Ecological and scenic resource criteria, which identify areas worthy of preservation as open space and passive recreation.
- c. Recreation criteria, which identify land suitable for meeting the demand for active recreation space.

These criteria are applied by the staff in review of all fill applications outside of management plan areas. Although there may be considerable overlap, the Department of Public Works (Drainage Division), Urban Planning (Environmental Management Section), and Parks and Recreation assume primary responsibility for applying the engineering, environmental, and recreation criteria, respectively. Urban Planning is responsible for coordinating all review and recommendations since the fill application is a request to amend the zoning ordinance.

The purpose of the engineering criteria is to assist in determining the merits of the fill request, while the environmental and recreation criteria are used mainly to identify land which is appropriate for public acquisition. The environmental criteria contain both ecological and scenic factors. Ecological factors include maturity and diversity of woodland stands, wildlife habitat potential, and finding of some rare or endangered or locally threatened species. Scenic factors include unique views, com-



positional effects, and other visual features. Criteria for recreation involve evaluation of the inherent suitability of the land for active and passive recreation purposes as well as the demand for recreation facilities in the local community.

Resolution 762940 calls for the application of the flood plain criteria to all creeks and streams, not just those that have flood plain zoning. By amendment in Resolution 772917, the application of the criteria are limited to creeks and drainage ways with a contributing drainage area equal to or greater than 130 acres. For affected creeks without flood plain zoning, the staff will require applicants who are subdividing or building along these creeks to comply with these criteria if any alteration is proposed within that creek's flood plain. For unzoned flood plains, review will take place as part of the subdivision process.

#### PROCEDURES FOR REMOVING THE "FP" PREFIX

The sequence and timing of procedures for review of fill requests in areas designated by the "FP" prefix are outlined in the accompanying chart. The procedures can be divided into a number of stages: preapplication, application and review, public hearing, fill operation and verification.

Preapplication: Particularly in areas not governed by a management plan, staff encourages the potential applicant to arrange a meeting with representatives from all three departments to discuss the criteria and their relationship to his site prior to preparing or submitting any documents for his application. This will often reduce the cost and time of his preparation, and the City's review of the application.

Public Works will assist consulting engineers by supplying them with a computer print-out of existing hydraulic conditions, if available, and discussing additional cross-sections that may be needed to describe the fill area. Urban Planning will be able to identify any special environmental features on the proposed site and discuss the nature of environmental concerns in the area. The possibilities of public acquisition or incentives for preserving the flood plain as private open space could also be explored in this stage; before the applicant invests in detailed engineering design for his property.

Application and Review: When the applicant has all materials necessary for formal application, he submits his materials along with a \$600.00 fee to the Department of Urban Planning, Environmental Management Section. Copies of appropriate materials are then routed by Urban Planning to the two other departments, as well as to other city agencies that may be affected by the proposal. The applicant will be promptly notified if his application is incomplete, in which case processing will halt until all additional material required for adequate staff review has been provided.

The complete application is then reviewed by the three departments, using the management plan guidelines or the criteria adopted by the Council in Resolution 762940 for all areas not covered by management plans. In some cases governed by that resolution, the Public Works Department will have available a computer program to evaluate the hydraulic effects of the fill proposal. After the official submission, Public Works will punch computer cards which have been coded by the consultant to represent proposed changes, and run it on the computer. If a second run is necessary, the consultant will punch cards and Public Works will run the computer again.

If no major issues are raised in the initial review period, the Urban Planning staff will coordinate a joint recommendation for submission to the City Council through the City Manager. The applicant will be notified of the joint staff recommendation and the date for Public Hearing by the City Council.

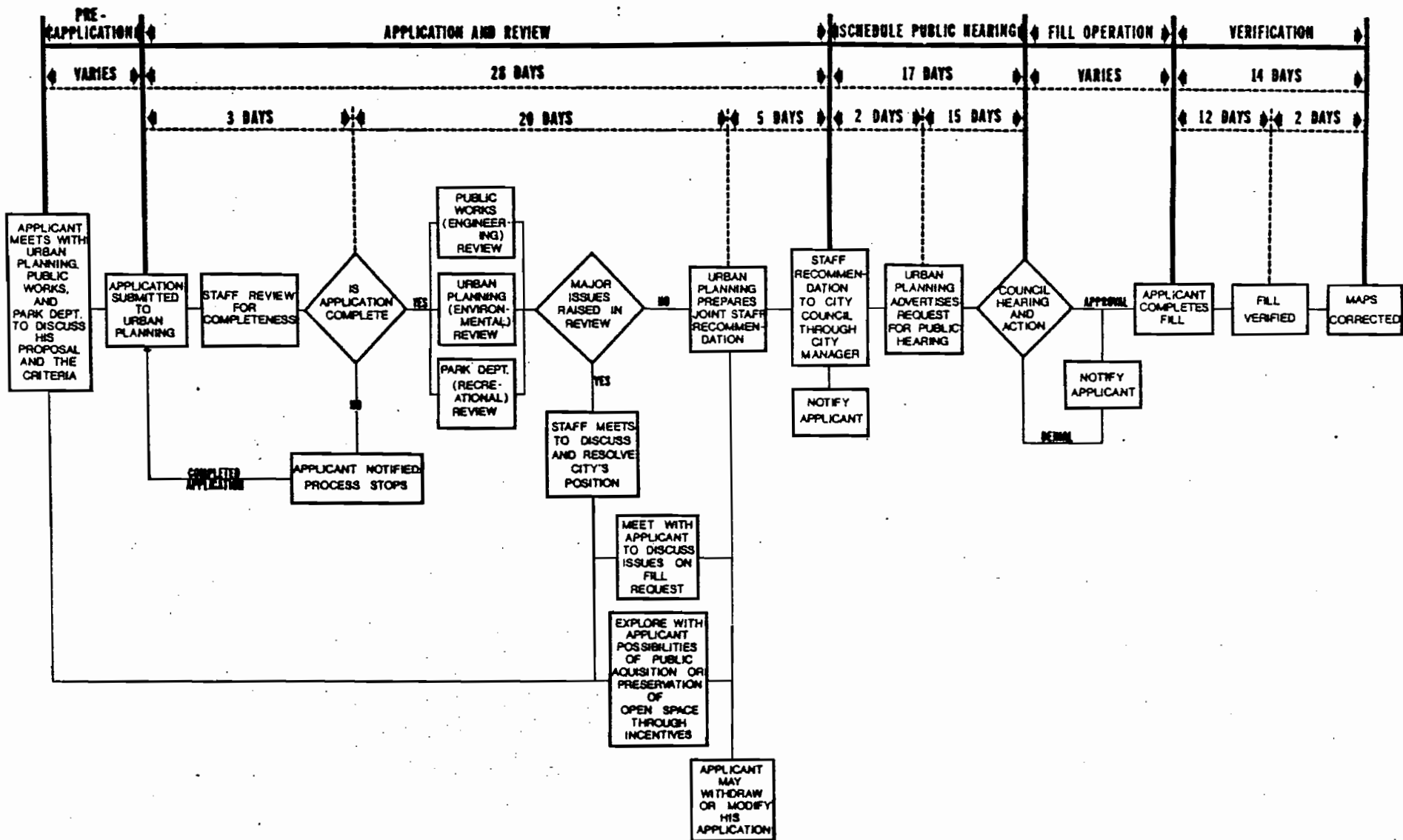
If some major issues are raised, such as potential purchase for parkland or non-compliance with one or more of the engineering criteria, the applicant will be notified and given the opportunity to meet with representatives from one or more of the departments to discuss those issues. At his option, the applicant may decide to proceed with his request as originally submitted, or to revise his submission in response to staff comments, or to hold or withdraw his application while exploring possible parkland acquisition or incentives which would modify or eliminate the need for a fill request. In all cases the staff recommendation will reflect any problems it sees with the proposal.

If the applicant decides to modify his proposal to overcome problems identified by staff review, scheduling of his case will be delayed at the applicant's request to give him adequate time to modify his proposal. Such modifications should be submitted to Urban Planning, who will route them to the other two departments for their further comments.

Public Hearing: The Director of Urban Planning will submit the joint staff recommendation to the Council through the City Manager. The Environmental Management Section in Urban Planning will turn its file on the case over to Planning Operations, who will ensure that the Public Hearing is advertised and notices are sent to all property owners as required by law.

Fill operation and verification: If the application is approved at the Council hearing, the applicant will obtain a fill permit from the Director of Public Works and conduct fill operations. After the fill is completed, inspected by staff, and elevations are verified by Public Works, Urban Planning is notified to correct the official zoning maps by removing the "FP" prefix from the area removed from the flood plain.

# FLOODPLAIN REVIEW PROCESS

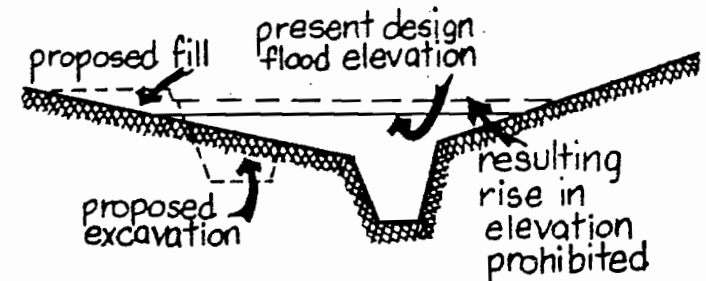


## ENGINEERING CRITERIA FOR FILL REQUESTS UNDER FLOOD PLAIN MANAGEMENT GUIDELINES

Following are the ten engineering criteria which were adopted by the City Council, in Resolution 762940, for fill requests outside of "management plan" areas, along with explanatory text and diagrams. It should be noted that the applicant must meet all ten criteria as a minimum in order to receive a staff recommendation of approval.

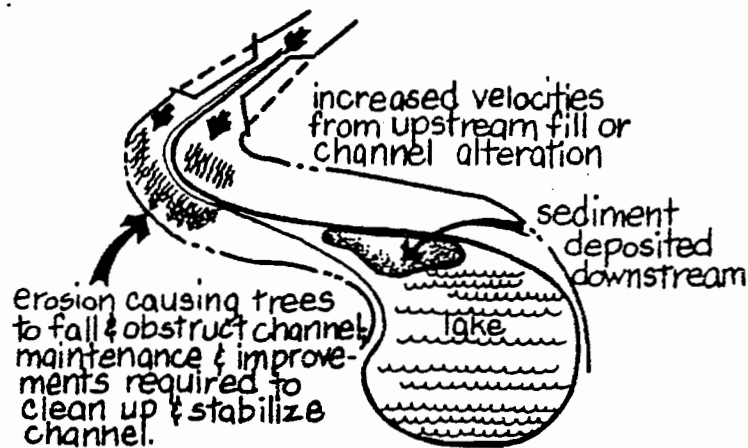
### 1. Alterations of the flood plain shall result in no increase in water surface elevation of the design flood of the creek.

No alteration of the channel or adjacent flood plain will be permitted which would result in any degree of increased flooding to other properties, adjacent, upstream, or downstream. Increased flood elevation could cause inundation and damage to areas not presently inundated by the "design flood". The "design flood" for a creek is defined by either the 100-year flood—the flood having a one percent chance of being equalled or exceeded at least once in any given year—or the maximum recorded flood, whichever results in the highest peak flood discharges.



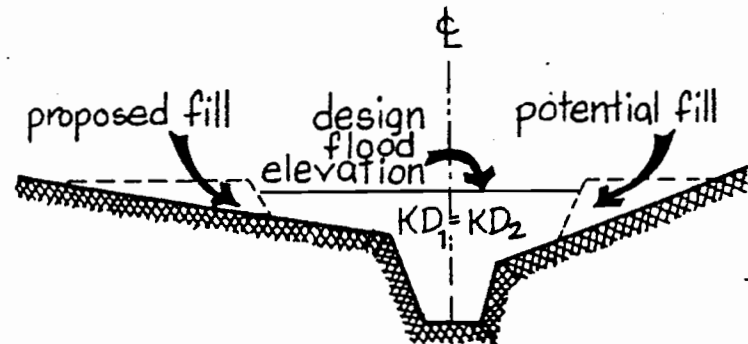
2. Alterations of the flood plain shall not create an erosive water velocity on or off site. The mean velocity of stream flow at the downstream end of the site after fill shall be no greater than the mean velocity of the stream flow under existing conditions.\*

No alteration to the flood plain will be permitted which would increase velocities of flood waters to the extent that significant erosion of flood plain soils will occur either on the subject property or on other property up or downstream. Soil erosion results in loss of existing vegetation as well as augments destructive sedimentation downstream. Eventual public costs in channel improvements and maintenance (such as removal of debris and dredging of lakes) can be expected as a result. Staff's determination of what constitutes an "erosive" velocity will be based on analysis of the surface material and permissible velocities for specific cross-sections affected by the proposed alteration, using standard engineering tables as a general guide.



3. Alterations of the flood plain shall be permitted only to the extent permitted by equal conveyance on both sides of the natural channel.

Staff's calculation of the impact of the proposed alteration will be based on the "equal conveyance" principle in order to insure equitable treatment for all property owners. Under equal conveyance, if the City allows a change in the flood carrying capacity (capacity to carry a particular volume of water per unit of time) on one side of the creek due to a proposed alteration of the flood plain, it must also allow an equal change to the owner on the other side. The combined change in flood carrying capacity, due to the proposed alteration plus a corresponding alteration to the other side of the creek, may not cause either an increase in flood elevation or an erosive velocity (criteria 1 and 2) or violate the other criteria. Conveyance is mathematically expressed as  $KD = \frac{1.486}{n} AR^{2/3}$  where  $n$  = Manning's friction factor,



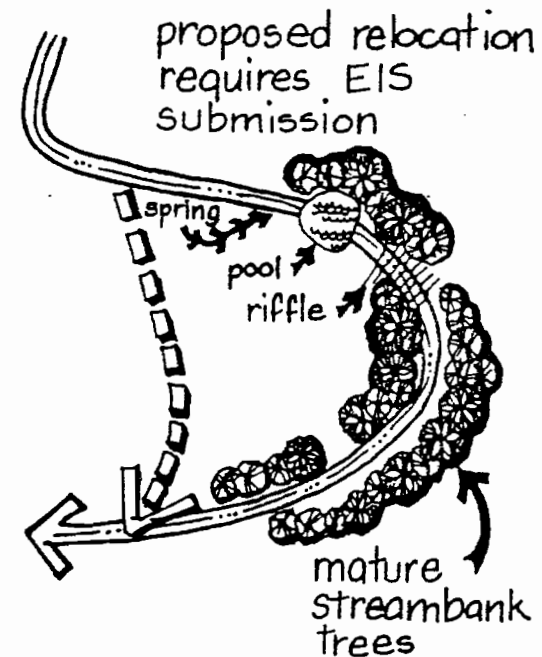
$A$  = cross sectional area, and  $R$  = hydraulic radius.

4. Relocation or alteration of the natural channel shall not be permitted without an Environmental Impact Study and a complete stream rehabilitation program.

Protection of the natural channel is a prime objective of the fill criteria. Relocation or alteration such as widening, deepening, enclosing in a pipe, or lining of the natural channel (other than as necessary to construct a bypass channel or swale) often involves steepening of the gradient and/or increasing velocities, which can cause increased peak discharges, flood elevations, and erosion and sedimentation downstream. These effects are covered by criteria 1, 2, and 3. However, some actions may not violate these criteria but may still result in significant negative environmental impacts. This criterion requires submission by the applicant of an environmental impact study for any proposed channel relocation or alteration.

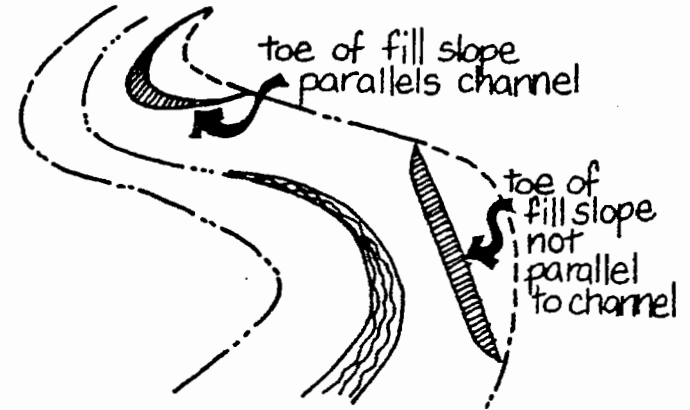
The EIS should be prepared by qualified experts. The study should focus on the following items: (1) Description of the proposed action and the existing stream-flood plain environment (physical and biological), (2) Probable impacts of the proposed action (positive and negative; direct and indirect; short term and long term, and upstream and downstream) on the stream and flood plain, (3) Alternatives to the proposed action, and (4) Mitigating measures designed to minimize negative impacts (the stream rehabilitation program).

Areas of specific concern will include the impacts on stream dynamics (erosional and depositional effects) effects of removal of streamside vegetation (on erosion, on water temperatures, on detritus input, on faunal habitats), the alteration of aquatic communities, the loss of aesthetic values, and the implications for public maintenance expenses in the future. Staff is not looking for mountainous or irrelevant data, but for a concise report on the implications of the proposal and proposed rehabilitation efforts.



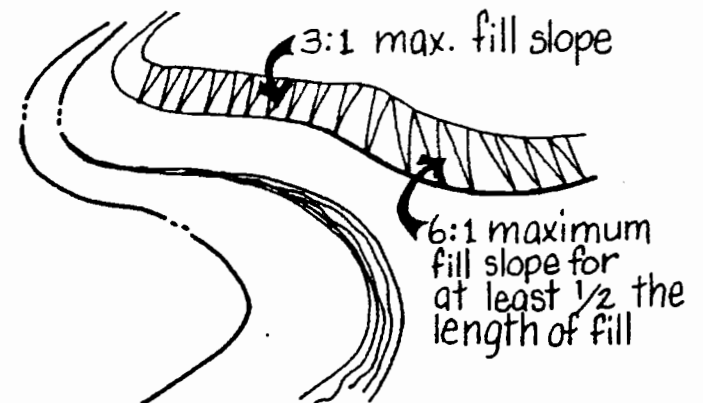
5. The toe of any fill slope shall parallel the natural channel to prevent an unbalancing of stream flow in the altered flood plain.

If the alignment of the proposed fill slope departs from the contours of the natural flood plain, the flow characteristics of the flood waters may be altered, causing possible damaging erosional and depositional effects in the altered flood plain. If the fill slope follows the natural channel it will also tend to minimize the visual impact of the alteration.



6. To insure maximum accessibility to the flood plain for maintenance and other purposes and to lessen the probability of slope erosion during periods of high water, maximum slopes of filled area shall not exceed 3 to 1 for 50 percent of the length of the fill and 6 to 1 for the remaining length of the fill. The slope of any excavated area not in rock shall not exceed 4 to 1. Vertical walls, terracing and other slope treatments will be considered only as a part of a landscaping plan submission and if no unbalancing of stream flow results.

The purposes of the slope restrictions are to maintain stability and prevent erosion of the slopes, to ease maintenance (e.g. mowing) on the slopes themselves, and to provide accessibility to the areas below the slopes. Being more frequently inundated and therefore subject to greater hazard of erosion, cut slopes must be shallower than fill slopes.

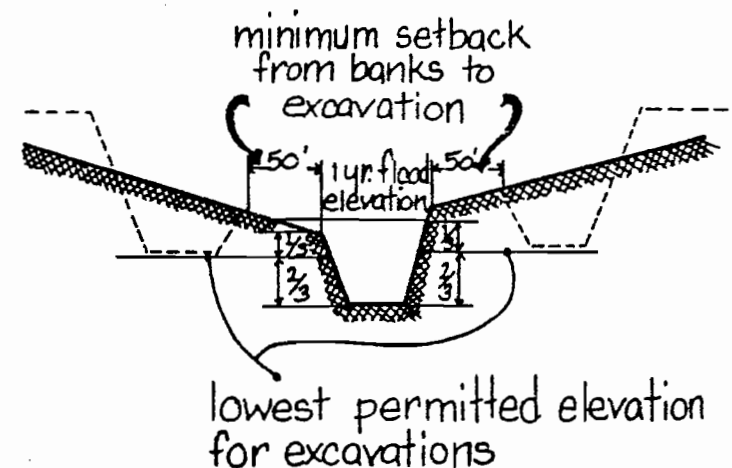


7. The elevation of excavated areas in the flood plain shall not be lower than one-third of the depth of the natural channel as measured from the adjacent bank or the one (1) year frequency flood, whichever is lower, except for excavation of lakes. No excavation shall be closer than 50 feet from the bank of the natural channel except as necessary to drain.

The limitations on excavations are designed to protect the integrity of the natural channel. Natural stream morphology and ecology are protected by preserving the natural channel cross-section, such that excavation will not alter normal flow and flow from smaller, more frequent (greater than 1 year frequency) storms.

The "buffer" between the natural channel and excavated areas is designed to preserve streamside vegetation, whose root systems stabilize the streambanks and which, together with the protection of surface cover, helps protect against bank erosion. Excavation should not enter the drip line of any trees whose root systems are important to the stability of the bank. Excavation will only be permitted within 50 feet of the top of the channel bank to permit construction of a bypass channel or swale.

A "lake" is a permanent impoundment of water having a relatively constant depth and perimeter. Lakes may be constructed in-channel or outside. Proposals for in-channel lakes must be accompanied by impact studies as per criterion 4. (Lakes over 200 acre-feet for all but livestock or domestic uses must also be permitted by the Texas Water Rights Commission, Austin, Texas).





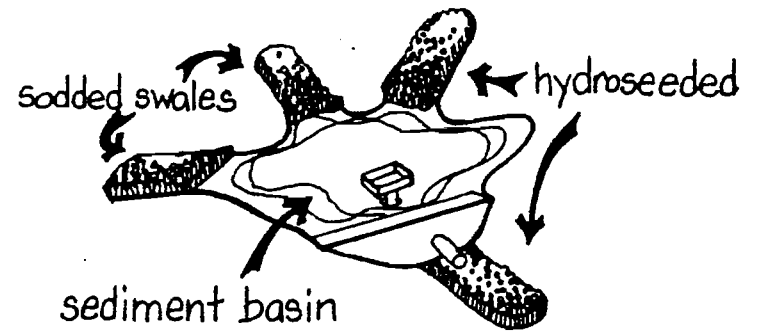
8 Landscaping plan submission shall include plans for erosion control of cut and fill slopes, restoration of excavated areas, and tree protection where possible in and below fill area. Landscaping should incorporate natural materials (earth, stone, wood) on cut or fill slopes wherever possible.

Applicant should show in plan the general natural and extent of existing vegetation on the tract, and which areas will be preserved, altered, or removed as a result of the proposed alterations. Locations and construction details should be provided showing how trees will be preserved in areas which will be altered by filling or paving within the drip line of those trees. Applicant should also submit plans showing location, type, and size of new plant materials and other landscape features planned for altered flood plain areas.

Erosion control plans should demonstrate how the developer intends to minimize soil erosion and sedimentation from his site during and after the fill operation. Plans should include a timing schedule showing anticipated starting and completion dates for each step of the proposed operation. Area and time of exposed soils should be minimized, and existing vegetation cover should be retained and protected wherever feasible. Disturbed areas should be sodded or covered with mulch and/or temporary vegetation as quickly as possible. Structural measures (e.g. drop structures, sediment ponds, etc.) should be utilized where necessary for effective erosion control, but measures should also minimize structures and materials which detract from the natural appearance of the flood plain.



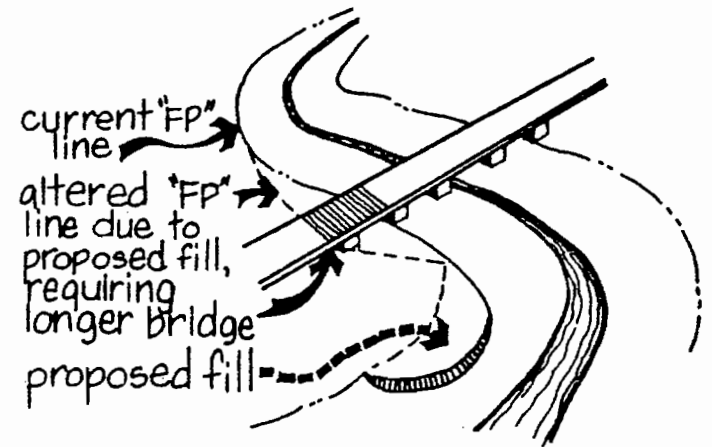
maintain existing grades within dripline  
or install drywall around trees to be  
preserved



typical erosion control measures

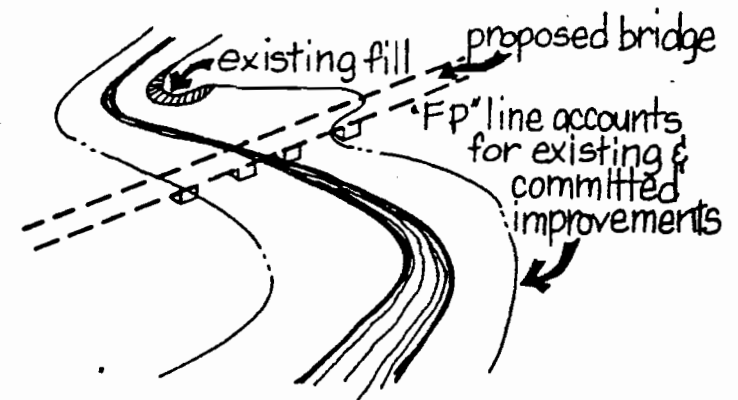
9. The effects of existing or proposed public and private improvements will be used in determining water surface elevations and velocities.

Calculations for delineating flood elevations and evaluating requests for fill and/or excavation will be based on recognition of existing and "committed" flood plain improvements (e.g. private fill requests previously approved by City Council; bridges, channel improvement schemes, etc. with authorized funding). Design of public improvements will also be governed by these criteria to the extent possible. However, it should be recognized that some proposed public improvements, in order to meet overriding public needs (e.g. a remedy to an existing severe flooding problem) may not be capable of design in conformance with all the criteria.



10. Any alteration of the flood plain necessary to obtain a removal of the flood plain zoning shall not cause any additional expense in any current or projected public capital improvements.

No reclamation request will be approved if it would result in additional burdens to Dallas taxpayers due to probable increased capital improvements costs (e.g. longer bridges, new channel improvements).



## DATA REQUIREMENTS FOR FILL REQUESTS UNDER FLOOD PLAIN MANAGEMENT GUIDELINES

In order to adequately review fill requests for compliance with the engineering criteria, staff has developed standard data requirements to be submitted for all requests. These requirements include a letter of request as well as certain engineering texts and exhibits.

### LETTER OF REQUEST (5 COPIES)

The purpose of the letter is to identify the applicant and how he can be contacted, and to provide a general description of his plans for fill and development of the property. The letter should be signed by the owner of record and addressed to the City Council.

1. Stating that he is the owner of the area of request and/or that the request (if under contract) is made with his consent,
2. Requesting a "Fill Permit" for that area of flood plain to be filled, including acreage figures for the entire tract, the area currently designated as flood plain, and the area proposed to be removed from flood plain designation, and
3. Providing a short description of the intended use(s).

## ENGINEERING TEXT (3 COPIES)

The purpose of the text is to locate the property, to describe the methodology used in designing the proposed fill, to supplement the engineering exhibits, and to explain how the fill operation will be handled so as to minimize soil erosion and sedimentation. The text should include the following:

1. Vicinity Map (1" - 800 ft.)
2. Description of Project
  - a. Creek description
  - b. Project description
3. Description of hydrologic and hydraulic analysis
  - a. Method used to determine design and 1-year discharges for project.
  - b. Method used to determine design water surface profile for project.
  - c. Historical stream data hydrographs and high water marks - used to calibrate models.
  - d. References for erosive velocity values.
4. Landscape and Erosion Control Text
  - a. Development schedule showing anticipated starting and completion dates for each step of fill operation and corresponding erosion control activities.
  - b. Construction details as appropriate for:
    - Tree protection where grades are to be paved or altered within the drip line of the tree.
    - Temporary or permanent erosion control structures, e.g. drop structures, sediment ponds.
  - c. Schedule of long term landscape maintenance for the altered flood plain which applicant will follow or which City should follow if dedicated.
  - d. References used, e.g. Erosion and Sediment Control, Guidelines for Developing, Areas in Texas, 1976, U. S. Department of Agriculture, Soil Conservation Service, P. O. Box 648, Temple, Texas, 76501.

**ENGINEERING EXHIBITS ( 3 COPIES, except 3. below: 7 COPIES)**

These materials are necessary for the staff to adequately and efficiently review the fill request for compliance with the adopted criteria. They include plans and cross-sectional drawings necessary to describe all existing and proposed conditions. All exhibits and text must be certified by a registered civil engineer. Exhibits should include the following:

1. Table of values for analysis of first 3 criteria.
2. Water surface profile
  - a. Scale
  - b. Channel flow line
  - c. Existing design water surface
  - d. Recorded high water marks - with dates and elevations - used in calibration.
  - e. Cross-sections, labeled and darkened
  - f. Title block
    1. Date
    2. Tract
    3. Creek
    4. Design discharge
    5. Consulting engineer seal
    6. Reviewed by
3. Plan view (blue or black line prints (24" x 30" paper))
  - a. Scale and north arrow
  - b. Bearings and dimensions on the boundary lines and to the nearest street intersection for reference.
  - c. Existing and proposed 2 foot contours (1 foot where available).
  - d. Inundation limits, existing and proposed, with metes and bounds description of that area being "taken out" of Flood Plain.
  - e. Toe of slope, labeled and darkened
  - f. Adjacent stream bank, labeled and darkened
  - g. Slope values and lateral limits

- h. Cross-sections, labeled and darkened
  - i. Title block (with same data as 2, f)
  - j. Location of existing and proposed dedications and permanent improvements.
4. Plotted cross-sections
- a. Scale
  - b. Existing and proposed ground surface
  - c. Rock probes, soil corings
  - d. Existing design and 1-year water surface
  - e. Existing and proposed "n" values, labeled and limits
  - f. Amount of conveyance change by project
  - g. Show equal conveyance removed from opposite side
  - h. Title block (with same data as 2, f)
5. Overall map of project area
- a. 1" - 200' scale topo
  - b. North arrow
  - c. Existing and proposed improvements with file number
  - d. Title block (with same data as 2, f)
6. Landscape and Erosion Control Plan  
(Overlay on, or at same scale as, plans showing existing/proposed contours)
- a. General nature and extent of existing vegetation, e.g. open-grassland, cultivated, wooded (canopy shown), and areas where vegetation is proposed to be preserved, altered or removed.
  - b. Location, type, and size of new plant materials on and below proposed fill slopes.
  - c. Location and type of landscape features other than plant materials, e.g. retaining walls, fences.
  - d. Location of all proposed erosion control measures:
    - Mechanical measures, e.g. diversion dikes, drop structures, sediment ponds.
    - Vegetative measures, e.g. ground surfaces to be sodded and/or reseeded or protected by some other means such as wood-chips or straw.

We hope that this booklet has been helpful to you in describing the regulations and procedures for filling in a flood plain within the City of Dallas. If you have any additional questions about the flood plain ordinance, the fill criteria and data requirements, specific flood plain management plans, or administrative procedures, we would be glad to speak to you by telephone or arrange a personal meeting.

Department of Urban Planning  
Environmental Planning Program  
5B-North, City Hall  
Dallas, Texas 75201  
670-4185

Public Works Department  
Floodwater Management Program  
1500 West Mockingbird  
Dallas, Texas 75235  
630-1111, Ext. 335

## APPENDIX A: EXCERPT FROM ZONING ORDINANCE SECTION 10-1100 (FLOOD PLAIN PREFIX)

### 10-1100 FLOOD PLAIN PREFIX TO DISTRICT DESIGNATION

10-1101 To provide for the appropriate use of land which has a history of inundation or is determined to be subject to flood hazard and to promote the health, safety and general welfare of the community, portions of certain districts are designated with a Flood Plain Prefix "FP" and shall be subject to the following provisions.

### 10-1110 USES PERMITTED

10-1111 The following are the only uses permitted within that portion of a district designated with a flood plain "FP" prefix:

- A. Agricultural activities including the ordinary cultivation of land or legal forms of animal husbandry.
- B. Electrical substation
- C. All types of local utilities, including but not limited to water distribution and waste water collection systems, water and waste water treatment facilities and water quality/monitoring stations or other structures required to provide water and sewerage services.
- D. Parks, community centers, playgrounds, public golf courses.
- E. Private commercial open area amusements such as golf courses, driving ranges, archery courses and similar uses when approved by specific use permit as provided by 10-900.
- F. Private open space as part of a community unit development.
- G. Helistop when approved by Specific Use Permit as provided in 10-900.
- H. Sanitary fills for rubbish disposal, rubbish collection, and transfer stations.

10-1112 No building or structure shall be erected in that portion of a district designated with a flood plain "FP" prefix other than those listed in Section 10-1111.

10-1113 There shall be no dumping, excavation, storage or filling operations within that portion of a district having a flood plain "FP" prefix designation except for the use of sanitary fill operations which have been approved by the Department of Planning and Urban Development, the Texas State Department of Health, and other state agencies governing the operations of such sanitary fills as set out in the "Municipal Solid Waste Rules, Standards, and Regulations" which were adopted by the Texas State Board of Health, September 13, 1970, and for the improvement or repair of levees or drainage facilities when such are located within a locally constituted district charged with such responsibility.

### 10-1120 CONDITIONS FOR REMOVAL OF A FLOOD PLAIN "FP" PREFIX DESIGNATION

10-1121 The City Council, in considering and determining its recommendation relative to any application for the removal of the flood plain "FP" prefix designation, requires the applicant to furnish to the Department of Planning and Urban Development, fill and development plans, (hydraulic calculations concerning maximum high water and their effect on abutting properties,) and data concerning the operation, location, function and characteristics of any use of land or building proposed.



- 10-1122 Each request for the removal of the flood plain "FP" prefix designation shall be evaluated as to its probable effect on the adjacent property upstream and downstream and the community welfare and may be approved or denied as the findings indicate appropriate.
- 10-1123 The City Council may, after a public hearing and upon recommendation of the City Manager's office after a written report has been submitted by the Director of Parks and Recreation, Director of Public Works, and the Director of Planning and Urban Development, authorize the removal of the flood plain "FP" prefix designation from an area. The Director of Public Works will inform the Director of Planning and Urban Development to remove such flood plain "FP" prefix designation from the zoning district maps, after the necessary fill has been placed to the required elevation in keeping with all of the requirements of the city.
- 10-1124 A fill permit shall be required from the Director, Department of Public Works, to conduct dumping, excavation, storage or filling operation within that portion of a district where the flood plain "FP" prefix designation has been required to be removed on the basis of the presented fill and development plan. This permit will be issued after requirements of Sections 10-1121, 10-1122, and 10-1123 have been complied with.
- 10-1125 Any dumping, excavation, storage or filling operations within that portion of a district having a flood plain "FP" prefix prior to the issuance of a fill permit is illegal, and such operation shall cease until such time the flood plain "FP" designation is removed in accordance with Section 10-1120.

#### 10-1130 CONDITIONS FOR ADDING A FLOOD PLAIN "FP" PREFIX DESIGNATION

- 10-1131 The City Council may, after a public hearing, amend the zoning classification of any property by adding the flood plain "FP" prefix designation, upon recommendation of the City Manager's office based upon hydraulic engineering studies indicating new boundaries of the area that is subject to inundation by flood waters. The City Council will by resolution instruct the Director of Planning and Urban Development to add such flood plain "FP" prefix designation to the zoning district maps.

#### 10-1140 RESPONSIBILITY FOR FLOODING

- 10-1141 The fact that land or property is or is not within a district having a flood plain prefix shall not constitute assurance that such land or property is not subject to local flooding and the designation of the flood plain prefix in this ordinance shall not be so interpreted.

#### 10-1150 SPECIAL PROVISIONS

- 10-1151 The Director of Public Works Department may authorize filling operations to be conducted in any existing excavation, depression, or hole within that portion of a district having a flood plain "FP" prefix designation, provided the elevation of the proposed fill does not exceed the average of the contiguous flood plain elevations.
- 10-1152 Improvements to existing structure located within a district having a flood plain "FP" prefix may be authorized by the Director of Public Works Department, provided such improvements do not exceed a total of three hundred dollars (\$300.00). Improvement exceeding a total of three hundred dollars (\$300.00) must be authorized by the Board of Adjustment.

APPENDIX B: COUNCIL RESOLUTION 762940 & 772917

NOTE: Council Resolution 762940 was adopted by Council on November 8, 1976. The criteria attached as part of this resolution and passed by Council have been included in this brochure. A full copy of the resolution and attached criteria as passed by the Council can be obtained from the City Secretary's office, room 200, City Hall, Main and Harwood, 75201. Council Resolution 772917 was adopted by Council on September 28, 1977. Amendments as specified in Resolution 772917 are included in this brochure. They will apply to fill requests submitted after September 28, 1977.

COUNCIL CHAMBER

November 8, 1976

COUNCIL CHAMBER

September 28, 1977

772917

WHEREAS, there is a need to develop an overall flood plain management program including a systematic approach to decisions on applications for removal of the "FP" zoning prefix; and

WHEREAS, there is a concern on the part of the City that storm water be moved naturally rather than relying on extensive and costly systems of channel improvements, that development be permitted where it would not create other flood problems and where acquisition of property is not required for ecological, scenic, or recreational reasons, that the City maintains its eligibility in the Federal Flood Insurance Program by assuring protection against loss of lives and property in the flood plain, that ecologically and scenically valued areas in the flood plain are preserved where possible, and that a reasonable amount of the flood plain be provided in public ownership to meet the recreational open space needs of the community; Now, Therefore,

BE IT RESOLVED BY THE CITY COUNCIL OF THE CITY OF DALLAS, TEXAS:

Section 1. That the City Council hereby adopts the attached engineering criteria, ecological and scenic resource criteria, and recreation criteria, as interim administrative guidelines to be applied to all creeks which do not have special adopted flood plain management plans.

Section 2. That the City Manager and Park Board be and are hereby instructed to seek all possible sources of revenue for acquisition of flood plain land for open space and recreation use where warranted.

Section 3. That these criteria are to be reviewed periodically, with the first report in six (6) months after passage of this resolution. That the periodic review cover the effectiveness of the criteria based on experience and their effect on flood plains, and further that the Department of Urban Planning and Park Department continue with current studies, specifically the creek study and the up-date of the recreation of open space plan. These studies will result in more precise standards and guidelines as well as the refinement of the open space component of the Comprehensive Plan.

Section 4. That this resolution shall take effect immediately from and after its passage in accordance with the provisions of the Charter of the City of Dallas, and it is accordingly so resolved.

Approved as to form:

LEE E. HOLT, City Attorney

By *[Signature]*  
Assistant City Attorney

APPROVED BY  
CITY COUNCIL

NOV 8 1976

*[Signature]*  
City Secretary

APPROVED BY  
CITY COUNCIL

SEP 28 1977

*[Signature]*  
City Secretary

APPROVED

*[Signature]*  
HEAD OF DEPARTMENT

APPROVED

CITY AUDITOR

APPROVED

*[Signature]*  
CITY MANAGER

APPROVED

HEAD OF DEPARTMENT

APPROVED

CITY AUDITOR

APPROVED

*[Signature]*  
CITY MANAGER

G.H.



Publication No. 79-1040

A City of Dallas Publication

Additional Copies May Be Obtained From

Director of Purchasing, City Hall, Dallas, Texas

**B. Resolution No. 76-2940, November 8, 1976: Floodplain Ordinance**

On November 8, 1976 the City Council passed Resolution No. 76-2940, that established the criteria for filling in the floodplain. Ten (10) specific criteria were established that apply to all floodplains which do not already have special floodplain management programs such as the Trinity River, Elm Fork, or Dixon Branch and others.

This ordinance has been termed the "Ten (10) Point Criteria". All of the following criteria must be met in order to obtain approval by the Director of Public Works.

(1) Alterations of the floodplain area may not increase the water surface elevation of the design flood of the creek.

(2) Alterations of the floodplain area may not create an erosive water velocity on or off site. The mean velocity of stream flow at the downstream end of the site, after fill, may not exceed the mean velocity of the stream flow under existing conditions.

(3) The effects of the existing or proposed public or private improvements will be used in determining subsequent water surface elevations and velocities.

(4) The floodplain area may be altered only to the extent permitted by equal conveyance on both sides of the natural channel with separate owners.

(5) An environmental impact study and a complete stream rehabilitation program must be approved prior to any relocation or alteration of a natural channel.

(6) The toe of any fill slope must parallel the natural channel to prevent an unbalanced stream flow in the altered floodplain area.

(7) To insure maximum accessibility to the floodplain area for maintenance and other purposes and to lessen the probability of slope erosion during periods of high water, maximum slopes of filled areas shall not exceed 3 to 1 for 50 percent of the length of the fill and 6 to 1 for the remaining length of the fill. The slope of any excavated area not in rock may not exceed 4 to 1. Vertical walls, terracing and other slope treatments may be considered providing no unbalancing of stream flow results and only as a part of a landscaping plan submission.

(8) The elevation of excavated areas in the floodplain area may not be lower than one-third of the depth of the natural channel, as measured from the adjacent bank or the one (1) year frequency flood, whichever is lower, except for excavation of lakes. No excavation shall be closer than 50 feet to the bank of the natural channel except as necessary to drain.

(9) A landscaping plan submission must include plans for erosion control of cut and filled slopes, restoration of excavated areas, and tree protection where possible in and below the filled area. Landscaping must incorporate natural materials (earth, stone, wood) on cut or fill slopes whenever possible.

(10) Any alteration of the floodplain area necessary to obtain removal of an FP prefix may not cause any additional expense in any current or projected public improvements.

Compliance with the "Ten (10) Point Criteria" is required prior to submission to City Council for consideration and approval.

C. January 3, 1977: Storm Drainage Policy Resolution No. 77005

On January 3, 1977, the City Council adopted a storm drainage policy that provided five (5) Policy statements and six (6) design criteria to govern the construction of drainage facilities and their accessories.

Five (5) Policy statements are provided to guide the development process. Highlights of these Policies are:

-When enclosed storm sewers are required, based on a five year storm, emergency overflow provisions of paved streets, paved alleys or paved easements will be provided, that will, combined with the storm sewer, provide for a 100-year storm.

-When the creek is to remain open, that adequate access is provided for maintenance operations.

-When there is an existing pattern of streets paralleling one side of the creek, every effort shall be made to continue the same on the other side of the creek.

-Whenever possible, adequate access for maintenance of the floodplain shall be permitted from one side only.

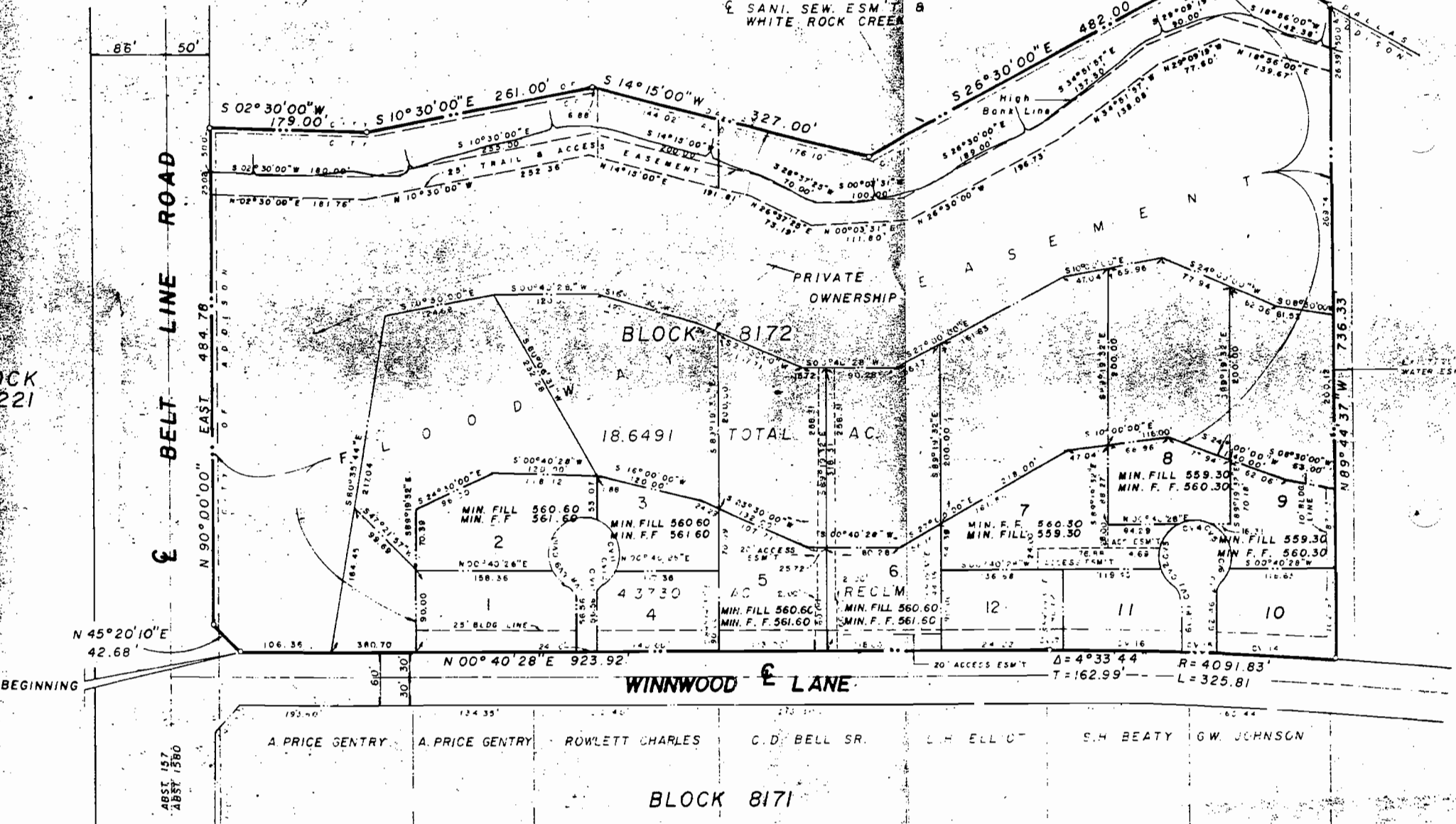
-When there is an entity of record capable of maintaining the floodplain, the floodplain may be dedicated as common open space or as a floodway easement so long as no alterations of the floodplain occur and a satisfactory development and maintenance plan is filed with the Department of Public Works.

NOTE:

Access to all lots must be from the common drive access easements

BLOCK A/8172

SEMI SANI. SEW. ESM'T. B  
WHITE ROCK CREEK



CK 221

BEGINNING

ABST 157  
ABST 1580

A. PRICE GENTRY    A. PRICE GENTRY    ROWLETT CHARLES    C.D. BELL SR.    L.H. ELLIOTT    S.H. BEATTY    G.W. JOHNSON

BLOCK 8171

COABR

**GINN, INC.**

**CONSULTING ENGINEERS**

November 15, 1985

Mark Hill, P & Z Coordinator  
Town of Addison  
Post Office Box 144  
Addison, Texas 75001

Re: "The Woods" Subdivision  
Addison, Texas

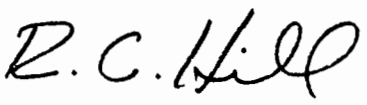
Dear Mark:

Please note the final paragraph of the letter from Huitt-Zollars concerning existing fill at "The Woods" development along Winnwood Road.

We recommend that the building permit be issued subject to the following: 1) the final slope on Lot 6 be prepared to a 6:1 slope and, 2) the existing slope of 2.5:1 on Lots 1 and 8 be prepared to a final slope of 3:1. Before final approval of any buildings or homes, the grading of these lots should conform to the slopes just mentioned.

In addition, we recommend that the developer have Huitt-Zollars, Inc. certify that the final grading on the remaining lots in "The Woods" subdivision conforms to the flood study which was prepared for this project. This letter of certification should be received by the Town of Addison or Ginn, Inc. prior to issuing approval of final inspection.

Sincerely,



R. C. Hill, P.E.

RCH:jc

Enclosures

cc: Dennis Pitts, Plans Examiner

HUITT-ZOLLARS

Huitt-Zollars, Inc. / Consulting Engineers / 3131 McKinney Avenue / Suite 600 / LB 105 / Dallas, Texas 75204 / 214-871-3311

November 13, 1985

Mr. Randy Hill, P.E.  
Ginn, Inc.  
Consulting Engineers  
16135 Preston Road, Suite 106  
Dallas, TX 75248

Re: "The Woods" Subdivision, Addison, Tx  
Huitt-Zollars Project No. 1-0438-01

Dear Mr. Hill:

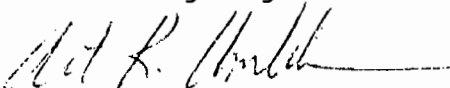
This is to verify that the placement of fill material for floodplain reclamation purposes at the above referenced subdivision is in compliance with the reclamation proposals developed by floodplain modeling.

In general, the As-Built contours shown on the individual lot boundary surveys prepared for Michael Hall, Inc. by Huitt-Zollars, Inc., for Lots 1, 6, 7, 8, 9, and 10, reflect that the fill material has been adequately placed for flood conditions to respond hydraulically as modeled.

We must, however, point out that the fill on Lot 6 exceeds the maximum 6:1 slope in a localized area. But the As-Built 5:1 slope in that location will not have any adverse effect on the hydraulic conditions in flood stage. In addition, the maximum 3:1 slope permitted along the rear of Lots 1 & 8, exists as 2.5:1 in the As-Built condition. Again, hydraulically this will have no effect but it is our judgement that from an erosion point of view, this could create problems in the future if the soil is not adequately protected.

Sincerely yours,

HUITT-ZOLLARS, INC.  
Consulting Engineers



Art K. Umble  
Project Manager

cc: James Clark

AKU:rkj





CITY OF DALLAS

April 8, 1985

Mr. Mark J. Hill  
Zoning Administrator  
City of Addison  
P. O. Box 1444  
Addison, Texas 75001

Dear Mr. Hill:

We have recently received from Huitt-Zollars Consulting Engineers the results of a floodplain reclamation analysis for lot 6, block 8172, on Winnwood Road. This lot borders White Rock Creek in the City of Addison. In September, 1979, the City of Dallas issued a permit to fill 4.37 acres of this tract. The present request is to fill and reclaim an additional 100 square feet from the White Rock Creek floodplain. We have reviewed this request and found it to meet the City of Dallas criteria for filling in a floodplain.

If you have any questions, please call Mr. Mike Askew in Storm Water Management at 670-6188.

Sincerely,

Clifford V. Keneley  
Director of Public Works

ri

# HUITT-ZOLLARS

Huitt-Zollars, Inc. / Consulting Engineers / 3131 McKinney Avenue / Suite 600 / Dallas, Texas 75204 / 214-871-3311

March 21, 1985

Michael Hall Enterprises, Inc.  
4488 Spring Valley Road  
Suite 101  
Dallas, Texas 75234

Attention: Mr. James Clark

Reference: The Woods  
Huitt-Zollars, Inc. Project No. 1-0438

Dear Mr. Clark:

At your request, today I personally made a field observation of The Woods, an addition to the Town of Addison, to view the extent of which fill has occurred and formulate an opinion with regard to whether the fill is consistent with approved plans and permits.

I found lots 6 thru 10 of the approved final plat to be completed to rough grade. Lots 1 thru 5 and 11 still require additional fill to bring them to rough grade.

A field survey of the subject property will be required in order to verify and certify the completed reclamation to be in compliance with the approved plat and fill permit. However, at this time, it is my opinion that the work completed to date is in substantial compliance with the requirements of the approved plat and City of Dallas fill permit #FP79-12.

If additional information is needed at this time, please do not hesitate to call.

Sincerely,

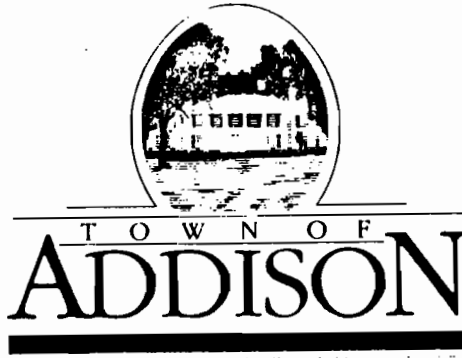
HUITT-ZOLLARS, INC.  
Consulting Engineers

*T.R. Blunck, LKP*

Tedde R. Blunck, P.E.  
Technical Vice President

TRB/lkp

cc: Mr. Wayne Ginn



MEMO

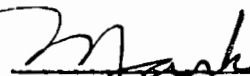
TO: Wayne Ginn, City Engineer  
FROM: Mark J. Hill, Zoning Administrator  
SUBJECT: Final Plat/The Woods  
DATE: April 10, 1985

Last night, the City Council approved the final plat for The Woods subject to the following conditions:

- a letter from the City of Dallas confirming compliance with permit #FP79-12 be received by the city prior to the issuance of any building permit, and
- the city Engineer also submit a letter confirming compliance.

Following the hearing, Mr. James Clark gave me the attached letter from the City of Dallas. As the second condition above indicates, we will need a letter from your office confirming compliance.

Please contact me if you need further information.

  
\_\_\_\_\_  
Mark

CC: Ron Whitehead, City Manager  
James Clark  
File