

ENGINEERING APPROVAL SUBDIVISION CHECKLIST

Y N N/A

Commercial and/or Light Industrial

- 1. Name of proposed development *24.5.4.7.1*
- 2. Name of developer *24.5.4.7.2*
- 3. Signature of Civil Engineer, Seal *24.5.4.8; R.S.37:696-LAC19-3:(10.2, 10.3,10.4)*
 - a. Plat required *24.5.4.6.5; R.S.33:5051*
 - b. Specifications received *24.5.3.3*
- 4. Vicinity map *24.5.4.7.4*
- 5. Located by Township, Range and Section *24.5.4.3.7.E*
 - a. Section, Township, Range, City Limits, and/or Parish Boundaries which abut or cross the proposed subdivision *24.5.4.7.8*
- 6. Date, scale (1" = 200' minimum suggested) and north arrow *24.5.4.7.5*
- 7. Preliminary approval granted and written staff comments submitted *24.5.3.3*
- 8. Development Improvements Residential
 - a. Proposed street names *24.5.4.7.6*
 - b. Lot and block numbers *24.5.4.7.6*
 - c. Alignments of existing streets, rights-of-ways, easements, and servitudes which join or cross the proposed subdivision shown *24.5.4.7.7*
 - 1. Right-of-way
 - a. 60' minimum *24.7.2.1*
 - 1. Blocks $\leq 1,500'$ in length rural *24.7.6.3*
 - 2. Blocks $\leq 600'$ in length urban *24.7.6.3*
 - 2. Roadway
 - a. Street jogs with centerline offsets of less than 125' avoided *24.7.6.1.5*
 - b. Test cylinders (2,750 psi @ 7 days or 4,000 psi @ 28 days) 2 per 500' of pavement *24.7.6.1.9, 24.7.6.1.10*
 - 1. Open Ditch - 8" thick, 24' wide PCC pavement or equivalent asphaltic concrete design. *24.7.2.1.a*
 - a. Shoulder
 - 1. 6' wide 8" thick compacted aggregate *24.7.2.1.a*
 - 2. Curb and Gutter (Mandatory inside city)- 8" thick, 27' wide from back-to-back of curb PCC pavement or equivalent asphaltic concrete design. Curb must be roll-over not less than 12" in width and 4" in height and/or barrier type curb not less than 6" in width and 6" in height *24.7.2.1.b*
 - d. Cul-de-sacs & Turnarounds

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- | Y | N | N/A | Commercial and/or Light Industrial |
|--------------------------|--------------------------|--------------------------|---|
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 1. Cul-de-sacs as per A.A.S.H.T.O. specifications (1984) inside radius $\geq 35'$
<i>24.7.6.1.6</i> |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 2. Turnarounds 80' wide by 40' each side of centerline <i>24.7.6.1.6</i> |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | e. Plans use current LADOTD construction standards <i>24.7.6.1.10</i> |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | f. Street and Traffic signs as per "Louisiana Manual on Uniform Traffic Control Devices" <i>24.7.6.1.7</i> |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | g. Profiles of all streets <i>24.5.4.8.3</i> |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | h. No more than one lot created at the end of a stubout cross street <i>24.7.6.3.1</i> |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | i. Lots |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 1. Lot size shall be of such size, including off street parking, so as to accommodate the development <i>24.7.2.2</i> |
| | | | 9. Drainage |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | a. Flood hazard area <i>24.5.5.9.H</i> |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | b. Existing contours at one (1) foot intervals or less shown on final drainage plan <i>24.5.4.8</i> |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | c. All lots graded to drain to the street or to major drainage arteries as defined by the SDDM <i>24.7.1.2.6</i> |
| | | | d. Rights-of-way |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 1. Definition <i>22-186</i> |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 2. Construction in right-of-way without consent <i>22-189</i> |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 3. Storm drainage pipe shall be located within street right-of-way, special outfall or interconnection right-of-way may be required <i>24.7.1.2.6</i> |
| | | | e. Complies with the T.P.C.G. Storm Drainage Design Manual as per <i>24.7.6.2.6</i> |
| | | | IV. HYDROLOGY |
| | | | A. Rainfall |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Designed for 25-year, 24-hour duration as defined by TP40 (Exhibit 3) |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Discharge limited to 10-year, 24-hour pre-development unless downstream improvements are made as to not cause adverse impacts (Exhibit 4) |
| | | | B. Hydrologic Data: Preliminary Plan |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Vicinity Map |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Topographic Map |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Aerial photographs |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Stream flow records |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Historical high water elevations |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | FEMA 100 year flood elevation |

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- | Y | N | N/A | |
|--------------------------|--------------------------|--------------------------|--|
| | | | Commercial and/or Light Industrial |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Soil types |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Land use |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Slope |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Surface infiltration |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Storage |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | C. Coordination: Maximum stage elevation furnished or approved by Terrebonne Parish Engineering Division |
| | | | D. Runoff Computation, Hydrograph Development and Modeling: |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 1. Rational Method |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Drainage area no greater than 150 acres |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | c value taken from Exhibit 5 |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | DOTD HYDR6020 and HYDR6000 used for storm drain and inlet spacing |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 2. Soil Conservation Service (SCS) Method (NRCS) (TR-55) |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Curve Number (CN) taken from Exhibit 5 |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Type III, 24-hour rainfall distribution |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Shape factor 256 |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 3. Unit Hydrograph Method (HEC-1, SWMM, TR-20) |
| | | | E. Flood Routing: |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 1. Stream Flow Routing |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 2. Reservoir Routing |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | F. Land Use |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | G. Datum: Elevation referenced to the latest Parish adopted Vertical Datum |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | H. Gage Reading (Historic Data) at major drainage artery |
| | | | V. HYDRAULIC DESIGN |
| | | | A. Storm Design Requirements: |
| | | | 1. Existing site plan: |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Minimum scale 1"=100' |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Drainage features |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 1 foot contours |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Utilities |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Roads |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Structures |

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Y	N	N/A	Commercial and/or Light Industrial
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Impervious areas
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Flood encroachment areas
			2. Proposed site plan:
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Minimum scale 1"=100'
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Streets
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Utilities
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Drainage features
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Lot lines
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Lot grading
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Discharge canals
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Location of major drainage artery
			3. Plan/Profile Sheets
			Drainage
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Horizontal Scale 1"=50' minimum
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Vertical Scale 1"=5' minimum
			Roads
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Horizontal Scale 1"=40' minimum
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Vertical Scale 1"=4' minimum
			Geometric layout
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Centerline
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Roadway stations
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Finished centerline slopes (0.35% minimum curb and gutter)
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Points of vertical intersection
			Drainpipes
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Size
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Type
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Invert elevation
			Structures & Utility lines
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Size
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Type
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Invert elevation
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Top elevation
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Finished grade at right-of-way

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Hydraulic gradient

Tailwater elevation

Ditch flow lines

Utility lines

Dimension of all servitudes

North arrow

Legend

4. Drainage Map/Hydraulic Computations

Drainage Map

All drainage features

Right-of-ways and servitudes

Tributary areas

Watershed boundaries

Structure reference numbers

Discharge points

North arrow

Legend

Hydraulic Computations

Design criteria

Rounded to nearest 0.10 foot

Maximum stages at all nodes

Tailwater elevation

Graphic representation of surface and subsurface flow

Statement of no adverse impact

Maximum flows (pre vs. post)

Volume runoff (pre vs. post)

Hydrographs at discharge points (pre vs. post) (Exhibit 6)

Runoff factors

Time of concentration

Land slope

Onsite elevation determined by routing flows from downstream tailwater elevation

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5. Typical roadway section

Roadway width

Roadway thickness

Shoulder width

Ditch dimensions

Ditch side slopes

Location of all utilities

Subsurface drainage location

Right-of-way width

Transverse road slopes

6. Lot drainage

Storm drain pipe located within street right-of-way

Special servitude for interconnection or outfall purposes within subdivision

All lots inside the Urban Services District and Urban Planning Area graded to drain to the street or to a Major Drainage Artery (Exhibit 1)

All lots inside Rural Subdivisions graded to drain to the street or to a Major Drainage Artery (Exhibit 1)
Outside the Urban Services District and Urban Planning Area the HTRPC can allow a portion to drain to the rear if:

Drainage is to be perpetually privately maintained, or

i. Drainage to the rear already exists or is to be dedicated; however, the percentage may not exceed 60% of the total depth of lots up to 225' deep, or that portion greater than 135' on lots greater than 225' deep unless a greater percentage is required to comply with items ii or iii below.

ii. Where the size limitation of the roadside ditches will be exceeded

iii. Where the size of the curb and gutter drainage pipe exceeds 36" in diameter

7. Reference standard plan details of all drainage structures

8. Existing cross sections at maximum 100' intervals showing:

Roadway

Ditch

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Lot grades

9. Time of concentration

a. Rational method

b. SCS LAG method

10. South of the South Terrebonne Development Zone

Minimum roadway elevation +3.5'

Minimum lot elevation +2.0'

B. Closed Storm Drainage System

1. Minimum sizes

15" minimum diameter

8" minimum diameter for restrictor pipe

2. Minimum Service Life

Diameter less than 48" 50 year service life

Diameter greater than or equal to 48" 70 years

Side drain 30 years

3. Sized to operate full with a minimum self cleansing velocity

4. Slopes

Maximum slope 10 ft/sec

Outlet protection for velocity above 10 ft/sec

5. Manholes or catch basins

Located at all changed in vertical and horizontal direction

Maximum Spacing (LaDOTD Hydraulics Manual), but shall not exceed 250'

Pipe Diameter	3-7 ft/sec	8-12 ft/sec	13-20 ft/sec
15"	150'	250'	300'
18"	300'	350'	400'
24" – 36"	400'	450'	500'
42" and larger	600'	650'	700'

6. n value taken from Exhibit 8

7. Minimum vertical distance of 6" from bottom of pavement to top of drain pipe

8. All drainpipes under roadway joined in conformance with LaDOTD Type 3 joints

9. Catch basins, manholes and grate inlets in conformance with LaDOTD standard plans

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10. Minimum servitude for drain pipe

Diameter less than 42" = 15'

Diameter 42" and greater = 20'

11. Inlet spacing

LaDOTD HYDR6000 used

Gutter flow less than 10 cfs

Width of flooding less than 8'

Spacing less than 250'

12. Pipe size and hydraulic grade line

LaDOTD HYDR6020 used

Maximum hydraulic clearance at gutter line of 0.2' above gutter grade

Design sketches of numbered structures & drainage areas provided

13. Other model with prior approval

C. Open Storm Drainage System

1. Minimum sizes

15" minimum diameter

8" minimum diameter for restrictor pipe

2. Minimum Service Life

Cross drains 50 year service life

All Storm drain pipe 70 years

Side drain 30 years

3. Pipes installed in major drainage arteries shall be sized for a maximum allowable headwater of 0.5' or 1.0' below the edge of roadway whichever is less

4. Outlet protection for velocity above 10 ft/sec

5. n value taken from Exhibit 8

6. Entrance loss coefficients in conformance with LaDOTD Hydraulics Manual

7. Minimum vertical distance of 6" from bottom of pavement to top of drain pipe

8. All drainpipes under roadway joined in conformance with LaDOTD Type 3 joints

9. Minimum servitude for drain pipe

Diameter less than 42" = 15'

Diameter 42" and greater = 20'

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- 10. Roadside ditches
 - 3:1 side slope
 - Maximum depth of 3'-6"
- 11. Ditch centerline not less than 12' from edge of roadway
- 12. Minimum longitudinal ditch invert slope = 0.001 ft/ft
- 13. Minimum road right-of-way with open ditch = 60'
- 14. LaDOTD HYDR1140 used to determine normal depth of flow in channel
- 15. Minimum width of ditch bottom 2'
- 16. n for channels taken from Exhibit 8
- 17. Water surface profile computed and shown on final drawings
- 18. Culvert sizes
 - Future driveway sizes shown on plat
 - Culverts sized as though entire subdivision was subsurface
- 19. Other model with prior approval

VI. SYSTEM STORAGE

A. Detention Facilities:

- 1. Greater than 1 acre
- 2. Compensatory storage
- 3. Type
 - Open basin or pond
 - Roof top storage
 - Parking lot ponding
 - Underground storage
 - Uninhabited areas
 - Designated as raw land
- 4. Drainage Plan
 - Plan
 - Profile
 - Cross Section
 - Pipes & Structures
 - Size
 - Length
 - Invert

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<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Design volume
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Grades
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Bottom Elevation
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Maximum stage elevation
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	5. Onsite system designed to handle both on-site runoff and conveyance through the site of off-site runoff
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	6. Designed to anticipate, enable and minimize future maintenance needs
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	7. Multiple uses encouraged
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	8. Visual impacts considered
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	9. Adequate access for maintenance personnel
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	10. Maximum depth of parking lot detention 8"
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	11. Slopes for parking lot detention no less than 1% no more than 3%
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	12. Flood surface elevation of parking lot detention at least 1' below the lowest habitable floor elevation of building within 50' of the detention area
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	13. Detention pond slopes
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Interior slope does not exceed 2:1
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Exterior slope does not exceed 3:1
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	14. Private benefit = private ownership
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Methods, procedures and guarantees, including appropriate documentation, that the facilities will be perpetually maintained so as to function as designed and not result in nuisances or health hazards
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	15. Pond dimensions
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	If depth is less than 3' deep minimum width = 6'
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	If depth is 3' or deeper minimum width = 15'
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	16. Landscaped for aesthetic purposes and to stabilize banks
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Seeding and sodding
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	No floatable or erodible material (bark mulch) in interior
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	17. Failure of owner to maintain will be cause for Parish to perform work and bill owner
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	18. Parish maintained pond control structures that do not abut a public right-of-way should be accessible by a 15' minimum right-of-way to allow vehicle access

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|--|--------------------------|--------------------------|--|
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| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 19. Control structures designed and constructed to operate automatically as much as possible |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 20. Designed with 1' of freeboard above the elevation of the design flood (except parking lot ponds) |
| | | | 21. Pond design |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Dry - Sloped no flatter than 0.3% toward drainage outlet |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Wet – “low flow” channel installed with lining at minimum 0.3% slope |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 22. Wet pond bottom elevation 1.5 ft below normal low water elevation if constructed flat |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 23. “Flow through” pond has well defined low flow channel |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 24. Ponds greater than 4' in depth have fence and locked gate |
| | | | 25. Design Volume |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Shown on plans |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Storage measured from the on-site 25 year stage elevation to a maximum depth of the pump drawdown elevation |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Wet and dry basins designed so that the portion of their bottom area, which is intended to be dry, shall have standing water no longer than 48 hours for all runoff events equal to or less than the 25-year event |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 26. Hydraulic losses and structural integrity considered in closed systems on private property |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 27. Written restriction on final plat stating that no structure, fill or obstructions shall be located within any drainage easement or delineated flood plain |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 28. All publicly maintained facilities located in a recorded drainage servitude including any necessary for access |
| VII. EROSION AND SEDIMENT CONTROL | | | |
| A. Design: | | | |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 1. Required on all proposed developed sites of one acre or greater |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 2. Incorporated into excavation, construction and post-construction |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 3. Provisions for interception of all potential silt-laden runoff made before initial clearing and grading |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 4. Erosion control and storm water pollution plan provided |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 5. Erosion protection provided for all disturbed areas |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | B. Maintenance agreement provided before building permit is obtained |

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C. Best Management Practices:

- 1. Existing vegetation preserved where feasible and disturbed portions stabilized as soon as practicable
- 2. Structural practices to divert flows from exposed soil, store flows, or otherwise limit runoff and the discharge of pollutants from the site to the extent feasible
- 3. Prevention of the discharge of building materials into the Parish storm sewers or waters of the United States
- 4. Provide general good housekeeping measures to prevent and contain spills
- 5. Implementation of proper waste disposal and waste management techniques
- 6. Timely maintenance of vegetation, erosion and sediment control measures

VIII. SERVITUDE REQUIREMENTS AND DEDICATION

A. Ditches not adjacent to a roadway

- 1. Ditch less than or equal to 4' deep or 18' wide 15' on both sides
- 2. Ditch greater than 4' deep and/or 18' wide 15' on one side and 20' on the other
- 3. Parallel ditches minimum 20' crown between
- 4. Ditch adjacent to roadway not greater than 3.5' and 23' wide
- 5. Minimum servitude for drain pipe
Diameter less than 42" = 15'
Diameter 42" and greater = 20'

B. Letter Of No Objection required for work in parish right-of-way or parish property

- C. Developer's responsibility to record any necessary servitude that are needed to connect a development site with an approved point of discharge**

- f. Minimum size and grade of culverts denoted and profiles of all ditches submitted 24.5.4.8.2,3**

- Proposed culverts fit within ditch

- g. Roadside ditch less than 4' deep and less than 18' wide 24.7.6.2.4**

- h. Building of bulkheads on Bayou Black (permit) 6-6**

10. Utilities

a. Water

- 1. Fire hydrants – spacing \leq 300' 24.7.6.1.8

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- | Y | N | N/A | |
|--|--------------------------|--------------------------|---|
| | | | Commercial and/or Light Industrial |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 2. Approval letter from Waterworks 24.5.4.6.7; 24.7.5.6 |
| | | | b. Gas |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 1. Gas mains 2" I.D. 3' deep 24.7.5.4.1 |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 2. Servitude for gas main provided 24.7.5.4.2 |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 3. Approval letter from Gas Utility 24.5.4.6.7 |
| | | | c. Electricity |
| | | | 1. Light Standards 22-51 |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | a. Standards, "cobra head" or decorative type of appropriate height style and lamping 24.7.5.2 |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | b. Easements 24.7.5.2 |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | c. Location, spacing (spacing 300' > x > 150' and one at each intersection within street right of way) 24.7.5.2 |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 3. Approval Letter from Electric Utility 24.5.4.6.7 |
| | | | d. Sewerage |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 1. Sewerage collection system provided 24.7.5.5 |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 2. Approval letter from Department of Health and Hospitals 24.5.4.6.7 |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 3. Approval letter from TPCG Pollution Control 24.5.4.6.7 |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 4. Easements 24.7.5.1 |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | e. General servitudes 24.7.5.1 |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 11. Benchmarks: brass or aluminum disk located in the street near the centerline of each road intersection shown on engineering plan 24.7.6.4 |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | a. Location |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | b. Description |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | c. Elevation msl
Datum used |
| <hr style="width: 50px; margin-left: 0;"/> | | | 12. Miscellaneous compliance |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | a. Drawings showing final alignment of streets and sewerage, method of sewerage disposal and/or tie-in with existing collective systems, lagoons, lift stations, force mains, etc. 24.7.6.4 |
| | | | b. Sidewalks 24.7.6.5 |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 1. Within street right-of-way |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 2. Parallel to the street |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 3. Placement |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | a. Abut the curb – 5' in width |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | b. Separated from curb – 4' in width |

ENGINEERING APPROVAL SUBDIVISION CHECKLIST

Y N N/A

Commercial and/or Light Industrial

- 4. Thickness
 - a. 4" thick typical
 - b. 6" thick at points of vehicle crossings with welded wire fabric
- 5. PCC concrete with compressive strength of 4000 psi

Recommended Runoff Coefficients For Subdivisions

Description of Area	Runoff Coefficients
Business	
Downtown	0.80
Neighborhood	0.50
Residential	
Single-family	0.50
Multi-units, detached	0.50
Multi-units, attached	0.65
Residential (suburban)	0.50
Apartment	0.60
Industrial	
Light	0.65
Heavy	0.75
Parks, cemeteries	0.40
Playgrounds	0.25
Railroad yard	0.30
Unimproved	0.20

EXHIBIT NO. 1

Determine the Design Discharge

TRIBUTARY AREA IN ACRES	UNIMPROVED	OPEN SPACE FOR PUBLIC AND INDUSTRIAL USE	RESIDENTIAL	INDUSTRIAL	COMMERCIAL AREAS
UP TO 150	10	10	10	25	25
150 TO 3,000	25	25	25	50	50
OVER 3,000	100	100	100	100	100

EXHIBIT NO. 2

Use TPR 40 and HDR 35 published by the U.S.N.O.A.A.

MAJOR DRAINAGE ARTERIES
TERREBONNE PARISH, LOUISIANA

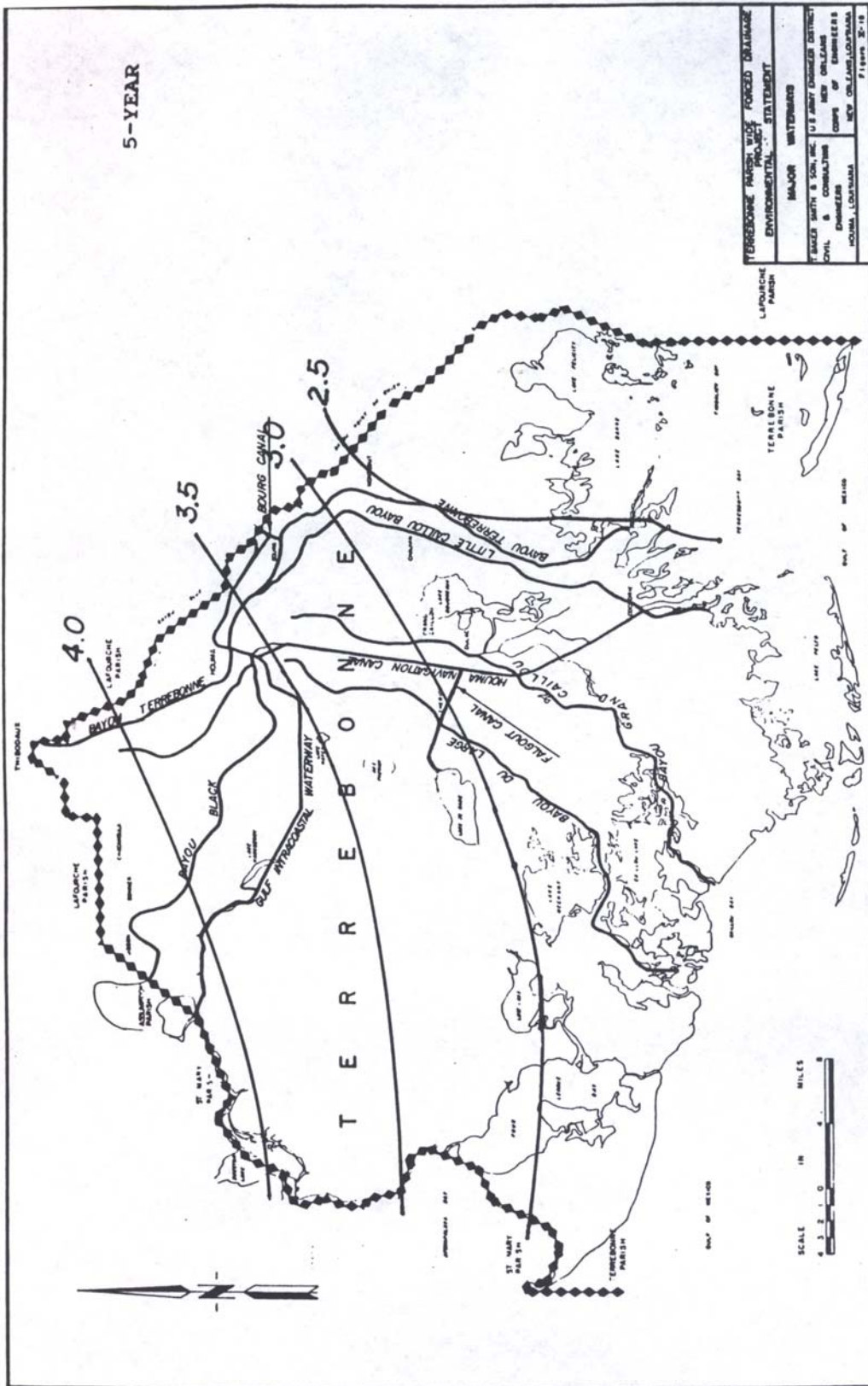
Bayou Black
Bayou Blue
Bayou Cane
Bayou Chauvin
Bayou Dularge
Bayou Grand Caillou
Bayou LaCache
Bayou Petit Caillou
Bayou Point Au Chien
CCC Ditch
Chacahoula Bayou
Company Canal
Donner Canal
Falgout Canal
Gulf Intracoastal Waterway
Hanson Canal
Little Bayou Black
Marmande Canal
Minors Canal
Ouiski Bayou
Ringo-Cocke Canal
Six Foot Ditch
St. Louis Bayou
St. Louis Canal
Terrebonne-Lafourche Drainage Canal
Also include any forced drainage pumping station feeder channel.

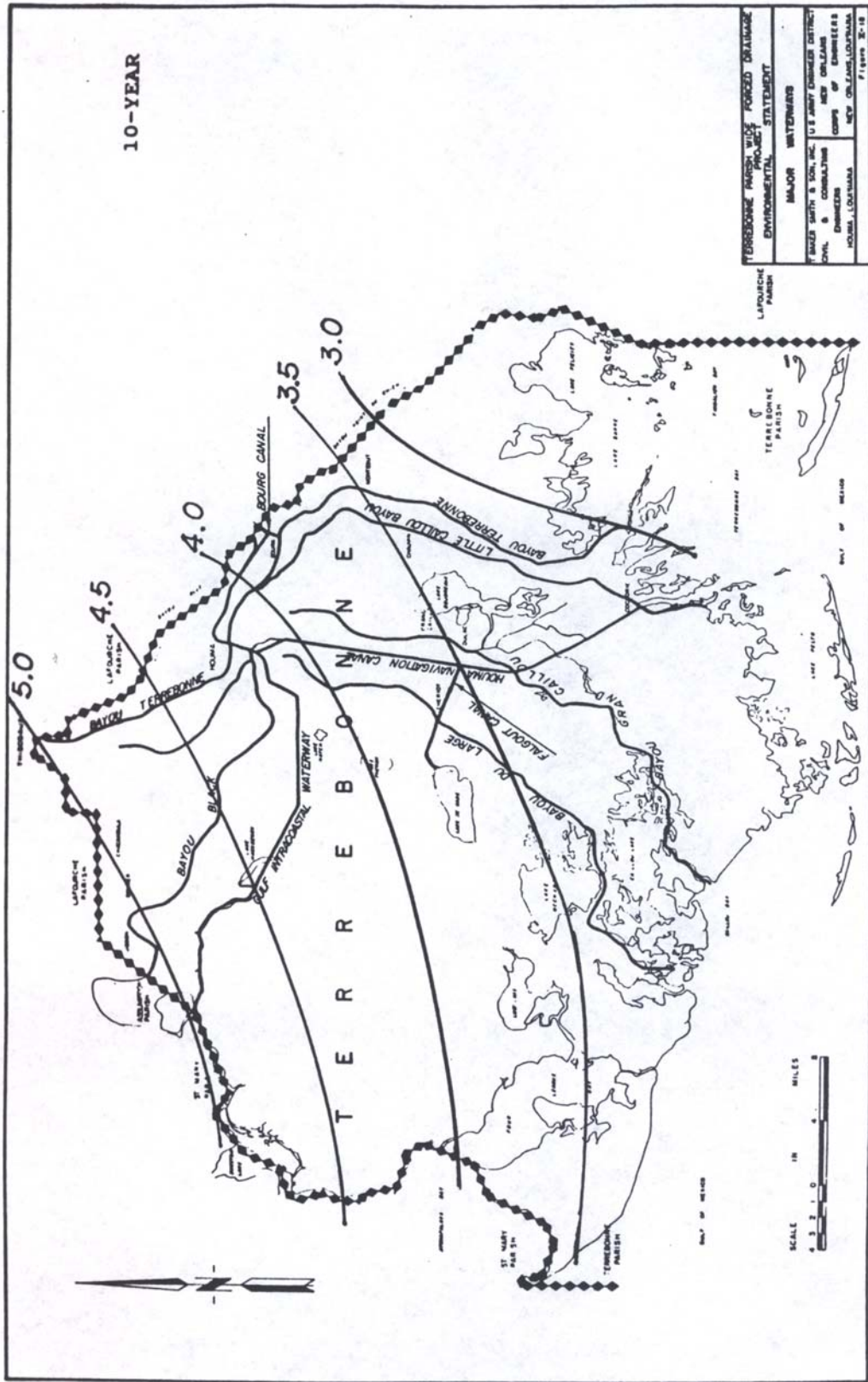
FLOOD ELEVATIONS RESULTING FROM EXTRA-TROPICAL DESIGN STORM

PROJECT NAME	LEVEE MIN EL	100YR MAX EL	25 YR MAX EL	10 YR MAX EL	5 YR MAX EL	2 YR MAX EL
1-1A (Bonanza)	4.30	4.21	3.31	2.47	1.76	0.15
1-2 (Ashland)	6.00	3.84	3.59	3.29	3.14	2.74
1-3 (Industrial Blvd)	4.92	3.47	2.50	1.33	0.33	-4.00
1-5 (Bayou Chauvin)	5.00	4.48	3.62	3.02	2.10	0.00
1-7 (Baroid)	6.00	6.45	6.20	5.97	5.64	5.13
1-8 (M&L)	5.10	6.80	6.00	5.22	4.69	3.26
2-1A (Schriever)	1.24	2.92	2.05	1.34	1.22	1.15
2-1B (Summerfield)	10.00	2.59	2.19	1.66	1.33	0.65
3-1B (Boudreaux)	3.00	1.19	1.00	1.00	0.85	0.67
3-1C (Boudreaux)	3.70	2.12	1.67	1.31	1.15	1.02
4-1 (Pnt Aux Chien)	4.00	1.58	1.24	1.02	0.95	0.00
4-2A (Smithridge)	5.00	4.47	4.09	3.80	3.50	3.02
4-7 (Bourg)	4.20	4.73	3.95	3.34	2.85	1.60
4-MONTE (Montegut)	5.00	2.23	1.71	1.26	1.08	1.01
5-1A (Chauvin)	2.50	1.68	1.33	1.08	1.00	0.92
5-1B (Chauvin)	1.10	1.19	1.00	0.91	0.75	0.50
6-1 (Gibson)	4.30	1.16	1.01	0.88	0.74	0.51
6-2A (Donner)	4.20	4.20	4.20	4.20	3.53	0.00
8-2 (Bayou Dularge)	2.80	2.52	1.65	1.16	1.01	1.00
D-38 (Concord Rd)	3.67	3.33	2.40	1.00	0.42	-0.80
D-39 (Barataria)	10.00	6.83	6.26	5.73	5.36	1.87
D-40 (Cenac St)	3.00	1.74	1.47	1.27	1.18	1.04
D-41 (Williams St)	5.00	4.98	4.21	3.49	-1.20	-3.00
HOUMA LAKE S.A.	-	2.03	1.60	1.20	1.04	0.73
OUISKI BAYOU S.A.	-	0.94	0.74	0.60	0.51	0.38
TIGER BAYOU S.A.	-	1.40	0.81	0.65	0.60	0.41
COTEAU-ST LOUIS S.A.	-	2.34	1.82	1.42	1.20	0.82
BULL RUN S.A.	-	1.44	1.12	0.90	0.70	0.50

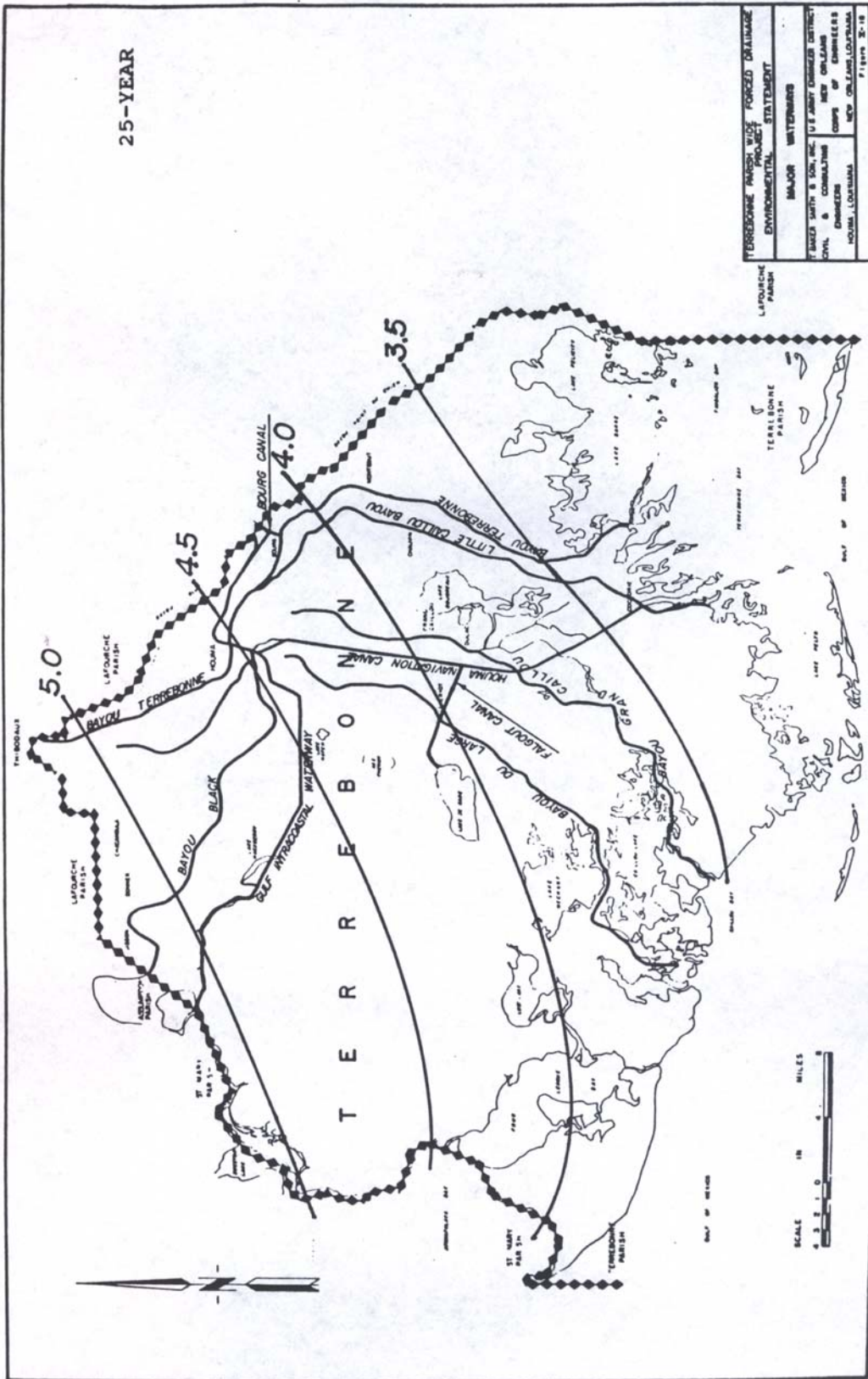
TABLE 4-3. Extra-tropical storm peak pump station reservoir flood elevations.

Check with Engineering Division to see if these elevations have changed.





25-YEAR



TERREBONNE PARISH WIDE FORCED DRAINAGE PROJECT ENVIRONMENTAL STATEMENT MAJOR WATERWAYS

TERREBONNE PARISH WIDE FORCED DRAINAGE PROJECT ENVIRONMENTAL STATEMENT	MAJOR WATERWAYS
TERREBONNE PARISH WIDE FORCED DRAINAGE PROJECT ENVIRONMENTAL STATEMENT MAJOR WATERWAYS TERREBONNE PARISH WIDE FORCED DRAINAGE PROJECT ENVIRONMENTAL STATEMENT MAJOR WATERWAYS	TERREBONNE PARISH WIDE FORCED DRAINAGE PROJECT ENVIRONMENTAL STATEMENT MAJOR WATERWAYS TERREBONNE PARISH WIDE FORCED DRAINAGE PROJECT ENVIRONMENTAL STATEMENT MAJOR WATERWAYS

