



CITY OF HORSESHOE BAY
 1 Community Drive
 P.O. Box 7765
 Horseshoe Bay, Tx 78657
 830-598-9959

**MULTI DEPARTMENT
 DEVELOPMENT REVIEW COMMITTEE**
 DEVELOPMENT SERVICES
 GIS/POLICE/FIRE/CONSULTING
 FIELD/PLANT/UTILITY SERVICES

Development Guide

Appendix D

Infrastructure Plan Checklist

(Complete this checklist for all Major Projects, Subdivision and Planned Development projects)

- A. General Requirements**
- B. Plan Annotations**
- C. Water Lines**
- D. Wastewater Lines**
- E. Raw/Reclaimed Water Lines**
- F. Grease and Sand/Oil Interceptors**
- G. Streets/Roads**
- H. Storm Drainage**

Project Name: _____

Note: Questions concerning additional design requirements not included in this checklist shall be submitted to the City of Horseshoe Bay (HSB) Development Services Department

Water and Wastewater Standard Notes and Specifications may be acquired from HSB Utility Department. Design criteria for all water systems shall comply with Texas Commission on Environmental Quality (TCEQ) Chapter 290 (Rules and Regulations for Public Water Systems), Chapter 217 Sub Chapter D (Rules and Regulations for Alternative Wastewater Systems, latest revision).

Check (✓) if completed; or (N/A) if not applicable

A. General Requirements

- _____ 1) Plans shall be submitted using 24" X 36" format and in pdf format.
- _____ 2) Show north arrow and scale. Choose scale (approximately 1" = 50') to accurately show details.
- _____ 3) Include site map
- _____ 4) Include vicinity map
- _____ 5) Include title of project

- _____6) Provide addresses and lot numbers for all lots/buildings
- _____7) If multi-family, label as townhomes, apartments, duplexes or condominiums
- _____8) Add Owner/Developer signature block to cover sheet only.
- _____9) Add HSB Signature block for Utility Service Plan Approval. One block for each phase; applies to all pages of plan set.
- _____10) If fire service line is proposed, add HSBFD Signature Block to cover sheet.
- _____11) Include HSB standard utility service plan notes.
- _____12) For water and fire service lines 4” or greater, add standard Water Plan Notes, including project specific notes.
- _____13) For water and fire service lines 4” or greater, include a copy of fire flow report (required prior to plan approval). Also include Fire Flow information (Building Data and Fire Flow).
- _____14) Utilize Plan Information Block detail information:
 - a. Label Water pressure zone
 - b. Define Max static pressure (see Fire Flow Report and calculate the max static pressure)
 - c. Provide Utility Design CAD file no.
 - d. List Plat Reception no.
 - e. Development Plan no. and date of approval
 - f. Statement by Engineer declaring plans meet all TCEQ rules and regulations.

B. Plan Annotations:

- _____1) Show and label all existing utilities including gas and electric. Include diameter and material for water, wastewater and storm sewer. Indicate as public or private. Also label HSB existing water and wastewater mains to which connections are proposed. Contact HSB at (830) 598-9959 for “as-builts” of existing utility infrastructure.
- _____2) Label and GPS all existing and proposed valves and fire hydrants.
- _____3) Label existing and proposed rights of way and/or easements with reception number and widths
- _____4) Label street names (note if private or public)
- _____5) Label subdivision boundaries and adjacent filings
- _____6) Label phase lines
- _____7) Label match lines with stations and corresponding sheet numbers

- _____ 8) Label all existing and proposed pavement, curb and gutter, sidewalks and medians
- _____ 9) Label all existing or proposed surface improvements, including but not limited to signs, retaining walls, fences, water quality features, etc.
- _____ 10) For townhomes, show driveways and all proposed utility service lines, to include gas, telecommunications and electric.

C. Water Lines:

- _____ 1) Label line size diameter and material. Note: All water mains 2" shall be DR 11 IPS constructed with AWWA-C906 HDPE (200 psi) with blue stripe. Water mains 2.5"-12" shall be constructed with PE4710-DR11 HDPE with blue stripe. All connections to water mains shall utilize electrofusion transition saddles per HSB utility details.
- _____ 2) Label length, diameter, and material of proposed service line
- _____ 3) Identify meter locations by GPS
- _____ 4) Label tap size; no 3" taps; domestic and fire service lines 4" or greater require tee in lieu of tap
- _____ 5) No service taps allowed on mains 16" or greater
- _____ 6) No taps allowed on fire service lines or fire hydrant laterals, unless pre-approved by City.
- _____ 7) Maintain all required vertical and horizontal separations as required by TCEQ regulations. (TAC 290 Chapter 290, Subchapter D, Rule 290.44(e) and Chapter 217, Subchapter C, Rule 217.53(d))
- _____ 8) For service lines 2" or greater, call out caution note for utility crossings and label minimum required clearance. For service lines 4" or greater, call out utility elevations and proposed clearance.
- _____ 9) Unused service connections shall be abandoned at main.
- _____ 10) Profiles are required for fire service lines 4" or greater
- _____ 11) If crossing other parcels prior to main connection, provide private service line easement and label reception number on plan.

D. Wastewater Lines

- _____ 1) Label line size diameter and pipe material. Note: All wastewater mains shall be constructed with PE4710 - DR17 IPS HDPE (125 psi) with green stripe. All connections to water mains shall utilize electrofusion saddles per HSB utility details.
- _____ 2) Label length, diameter, and material of proposed service lines

- _____ 3) Label tap size and show connection perpendicular to main
- _____ 4) Label invert elevation of service line at building and main at connection point
- _____ 5) No service taps allowed on mains 15" or greater
- _____ 6) Label fittings and distances between them
- _____ 7) Maintain all required vertical and horizontal separations as required by TCEQ regulations.
- _____ 8) Call out caution note for utility crossings. Add pipe elevations for water main and stormwater pipe crossings.
- _____ 9) Unused service connections to be abandoned at main.
- _____ 10) Service connections require a minimum of 2' between connections
- _____ 11) If project has a swimming pool, add 100 GPM max discharge note
- _____ 12) Show service locations in accordance with drawing
- _____ 13) If crossing other parcels prior to main connection, provide private service line easement and label reception number on plan
- _____ 14) Provide recorded document for Notice of Private Wastewater Pump System and label reception number on plan.

E. Raw/Reclaimed Water Lines:

- _____ 1) Label line size diameter and material. All raw or reclaimed water mains shall be constructed with PE4710 - DR17 IPS HDPE (125 psi) with purple stripe. All connections to water mains shall utilize electrofusion saddles per HSB utility details.
- _____ 2) Label length, diameter, and material of proposed service lines
- _____ 3) Label tap size and show connection perpendicular to main

F. Grease and Sand/Oil Interceptors:

- _____ 1) Provide a copy of the kitchen Mechanical or Plumbing plan with legend showing number of fixtures connecting to the interceptor to verify its size
- _____ 2) Provide copy of calculations to determine size
- _____ 3) Show and label size of interceptor on plan
- _____ 4) Label whether traffic or non-traffic rated

- _____ 5) Refer to Wastewater Detail Drawings for grease and sand/oil interceptor design specifications
- _____ 6) Ensure the interceptor is accessible for maintenance
- _____ 7) Grease interceptor will be located within 50' of last fixture
- _____ 8) Ensure outlet is a minimum of 2" and a maximum of 4" lower than inlet. Provide invert in and invert out elevations on the plan.
- _____ 9) For car wash facilities, backwater valve required downstream of the sand/oil interceptor.

G. Streets/Roads:

- _____ 1) Designate pavement widths, curb widths and type of curbs
- _____ 2) Define street/road material for finished driving surface and depth of materials, including base material. Reference applicable TXDOT standards are necessary.
- _____ 3) All roads shall be in accordance with the current version of the International Fire Code (IFC) that is adopted by the City of Horseshoe Bay. This includes minimum road widths exclusive of shoulders or curbs. It also includes percent of grade, turning radius, dead-ends, number of means of access, and proper fire lane markings.
- _____ 4) Dead-end fire apparatus access road turnarounds shall be in compliance of the current version of the International Fire Code (IFC) adopted by the City.
- _____ 5) Facilities, buildings, or portions of buildings hereafter constructed shall be accessible to fire department apparatus by way of an approved fire apparatus access road with an asphalt, concrete, or other approved driving surface capable of supporting the imposed load of fire apparatus weighing at least 75,000 pounds.
- _____ 6) All roads with gates shall comply with the International Fire Code and all City ordinances adopted concerning KNOX system entry for Fire Department access. All gates shall also not be less than the width stated in the current adopted International Fire Code.
- _____ 7) If streets are considered private, Texas Transportation Code article 542.008 requires an agreement to be in place between the entity owning/maintaining the roadways within a privately owned subdivision and the governing body of the Municipality where the subdivision is located before an Ordinance can be enacted by the Municipality authorizing the enforcement of traffic offenses within the subdivision.

H. Storm Drainage:

- _____ 1) Define drainage area and provide calculations for 5, 10, 25 and 100 year storms
- _____ 2) Designate storm drainpipe location, size, material and type

_____3) Designate storm drain inlet location, size, material and type

_____4) Provide proof compliance with LCRA Highland Lakes Watershed Ordinance

Add any project related comments below:

Signatures of engineering firm:

Plan drawn by (type name below):

_____ **Date :** _____

Plan reviewed by (type name below):

_____ **Date:** _____