

INDIAN LAKES HOMEOWNERS ASSOCIATION, INC. CULVERT DESIGN GUIDELINES

All Driveways or Lot Access Routes that cross the Brazos County ROW ditches, require that each individual Lot Owner apply for a Culvert Permit prior to installation. The purpose is to properly size each culvert per Brazos County standards as not to impede ROW drainage flows. Contact the Brazos County Road & Bridge Department to begin the permitting process:

Brazos County Road & Bridge Department:

Address: 2617 Highway 21 West
Bryan, TX 77803

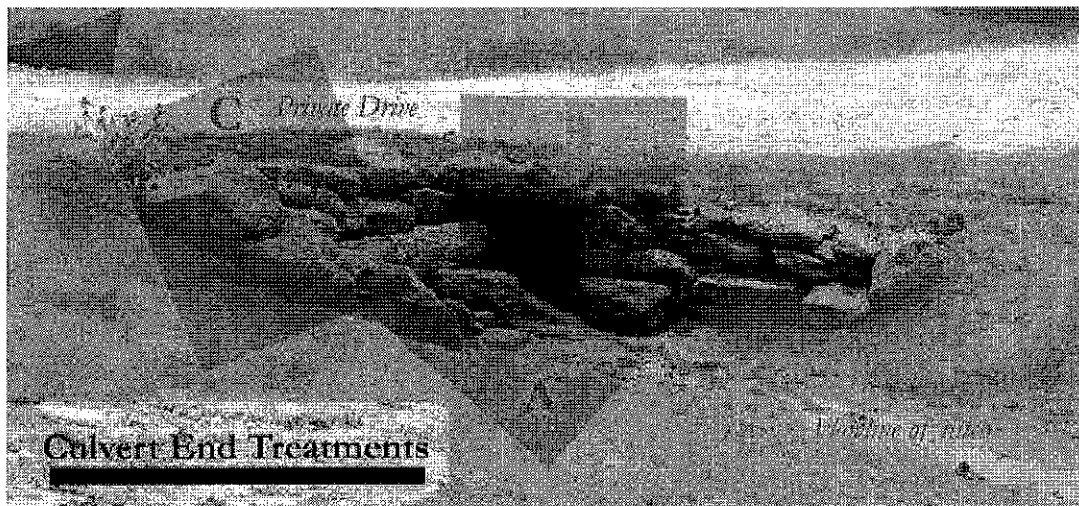
Phone Number: (979) 822-2127
Fax Number: (979) 775-0453

The following modification is hereby approved and granted to the Declaration of Covenants, Conditions, Reservations and Restrictions of Villages of Indian Lakes Article 4, Restrictions, Paragraph 4.01 Building, Construction, and Use Restrictions, Subparagraph 4.01.03 Driveways. Current requirements require concrete end treatments. To help with uniformity in appearance of culverts and end treatments the ACC Committee is requiring the following design and/or modification for all end treatments. Please see attached "End Treatment Design" for specifications and/or direction. Please note Indian Lakes Homeowner Association will provide the stone used in the End Treatment Design to the Lot Owner at cost. The stone used in the End Treatment Design will be available to Lot Owner and/or Builder at a location on the Villages of Indian Lakes. Transportation and installation will be the full responsibility of each individual Lot Owner. Please check the www.txcamco.com website for location, day(s) and time(s) of stone availability.

Installation Requirements:

1. Culvert sizes must be in accordance with Brazos County Road & Bridge Department's requirements, and, further, approved by the ACC. The ACC requires a full copy of the approved permit for installation issued by Brazos County Road & Bridge Department.
2. It is the responsibility of the Lot Owner to install the culvert at the correct elevation and in accordance to Brazos County Road & Bridge Department's requirements. If the culvert moves or is damaged during construction, it is the Lot Owner's responsibility to replace or correct the culvert before pouring the concrete driveway.
3. It is the Lot Owner's responsibility to install and maintain the end treatments as described on the attached End Treatment Design.
4. The cost of culvert installation and maintenance is the responsibility of the property owner.

End Treatment Design



Notes/ References

- ?? Only native iron ore stones will be permitted on culvert crossings end treatments.
- ?? All governing authorities requirements must be adhered to.
- ?? Design intent is to provide as natural a look as possible while minimizing the visibility of the culvert pipe and to allow the stonework to return into the existing grades and prevent erosion.
- ?? Note "A": All stonework must be set on a stabilized footing. Flat stones are to be placed a minimum of 3 feet from the discharge end of the culvert pipe and flush with the flowline to prevent scouring. Adequate size stones should be placed near each side of culvert pipe to prevent erosion and provide firm support for continuing stonework.
- ?? Note "B": Stonework should be battered for strength and backfilled with stabilized materials such as stabilized sand. Stone overlap should be at least 1/3 the previous stone. Top course stones or capping stones must adequately stabilize existing grade and be mortared in place. It is recommended all stonework be rear-mortared in-place. Care should be given to prevent visible mortar.
- ?? Note "C": End stones and caps should be substantial enough to withstand "short-cutting" and encourage drainage angling down the slope rather than directly down the slope to minimize soil erosion or undermining.
- ?? Exposed culvert pipe should be cleaned and painted with matching metal reddish brown primer.