SECTION 4 - PLAT GRAPHIC REQUIREMENTS

4.0 General Graphics

A. All plats of proposed subdivisions which are to be submitted to Commissioners' Court shall be drawn in the form giver below and contain the following specific information:

4.1 Engineering

A. All plats shall be prepared by engineering or surveying firms. Plats prepared by architectural firms will not be accepted. The engineering or surveying firm's name, address and telephone number shall be shown on the plat.

4.2 Plat Size

A. The plat size shall be 24 inches x 36 inches and the minimum print or type sizes shall be 6 cpi.

4.3 Orientation

A. The preferred orientation of the drawing of the subdivision drawing orientation is with the north point to the top of the drawing. It is acceptable to have north to the left of the drawing. Title block shall be in the lower right hand corner.

4.4 Scale

A. The scale shall be shown both numerically and graphically. The preferred scale is one (1) inch equals 100 feet. A smaller scale may be used, where appropriate, with the approval of the County Engineer.

4.5 Vicinity Map

A. A vicinity map shall be provided and made a part of the plat indicating the general location of the subdivision and its relationship with well known streets, railroads, water courses and similar features adjacent to and within one (1) mile of the subdivision. The vicinity map should be in the upper right hand corner of the plat or on the cover sheet and shall be oriented with north to the top of the drawing.

4.6 Legal Description

A. A legal description of the property to be subdivided listing the name of the County, survey and abstract number shall be noted on the plat.

4.7 Acreage

A. The total acreage and total number of lots, blocks and reserves shall be noted on

the plat.

4.8 Names

A. The name, address, and telephone number of the subdivision owner shall be shown on the plat. If the subdivider is a company or corporation, the name of the principal officer of the company or corporation responsible for the subdivision must also be shown.

4.9 Date

A. The plat shall be dated.

4.10 Engineering and Surveying Requirements

A. Engineering and surveying data shall be shown on the plat in sufficient detail to accurately locate, by surveying methods, all features of the subdivision on the ground. This data shall include, but not be limited to, full dimensions along all boundaries of the plat, street and alley right-of-ways, easements and drainage ways, gullies, creeks, and bayous together with the location of the high bank of such drainage ways and water courses, street center lines, lots, building setback lines, blocks, reserves, out tracts or any other tracts designated separately within the plat boundaries, fee strips, pipelines or any other physical or topographical features. Such information shall include line dimensions, widths, bearings of deflecting angles, radii, central angles and degree of curvature, length of curves and tangent distances, all of which are to be shown in feet and decimal fractions thereof.

4.11 Plat Boundaries

A. The plat boundaries shall be drawn with heavy lines to indicate the subdivided area and shall show overall survey dimensions and bearings. Lines outside the plat boundary shall be drawn as dashed lines.

4.12 Adjacent Areas

A. The adjacent areas outside the plat boundaries shall be identified to indicate the name of adjacent subdivisions, churches, schools, parks, drainage ways, acreage, and all existing streets, alleys, easements, pipelines or other restricted uses.

4.13 Pipeline and Pipeline Easements

A. The plat shall have a note stating that all existing pipelines or pipeline easements through the proposed subdivision have been shown or that there are no existing pipelines or pipeline easements within the limits of the proposed subdivision.

4.14 Lots, Tracts, Reserves, Easements and Right-of-Way

A. All lots, tracts, reserves, easements and rights-of-way shall be designated within the plat boundaries and noted on the plat.

4.15 Contour Lines

A. The plat shall have contour lines showing natural ground contours with a maximum of one (1) foot intervals.

4.16 Minimum Slab Elevation

A. The County Engineer will set the minimum slab elevation for each subdivision based upon the recommendation of the Drainage District Engineer. The minimum slab elevation shown on the plat will be set using the criteria given in the Fort Bend County Drainage Criteria Manual.
   1. Twelve inches above the maximum street ponding level or
   2. Twelve inches above the 100 year flood plain.
   3. The following note shall be shown on the plat:
      "The top of all floor slabs shall be a minimum of _____ feet above mean sea level. The top of slab elevation at any point on the perimeter of the slab shall not be less than eighteen (18) inches above natural ground."

4.17 Vertical and Horizontal Control

A. The location and elevation of the vertical and horizontal control used for a subdivision shall be indicated on the Fort Bend County Survey Sheet. These reference points shall be expressed in units of feet as part of the Texas South Central, State Plane Coordinate System, South Central Zone, North American Datum of 1983, (use current adjustment and Geoid model) and North American Vertical Datum, 1988 and state Geoid model.

   1. An Iron Rod benchmark shall be placed within every subdivision that is less than 5 acres in size with an X, and Y coordinate (3^{rd} order or better) which shall be used as a reference point and identified upon the subdivision plat. Also, an existing National Geodetic Survey monument (identification) as a reference point shall be used and identified upon the subdivision plat. If there is an existing rod Permanent Benchmark which already meets all afore mentioned criteria and requirements, that rod may be utilized.

   2. A permanent benchmark shall be set in every subdivision 5 acres in size or greater with an X, Y and Z coordinate, unless the subdivision is completely contained within a 2,000 foot radius of an existing benchmark that can be located and occupied. An X and Y coordinate shall also be established within the subdivision plat boundary and placed upon the subdivision plat. All attempts shall be made to create the monument such that it can be GPS observable (no trees or overhead obstructions). An existing National

Geodetic monument (identification) as a reference point shall be used and identified upon the Fort Bend County Survey sheet along with the permanent benchmark location. The Fort Bend County Engineering Department shall approve the location for the permanent benchmark.

B. When monument values are established through conventional survey methods, all positions for horizontal (X, Y) and vertical control (Z) points shall be established according to the accuracy standards for TSPS (Texas Society of Professional Surveyors), current requirements for Category 7, Condition II State Plane NAD 83 feet coordinates (X and Y) and Category 8, Condition III State Plane NAVD 88 feet coordinates (Z), (TSPS 2nd order) and a TSPS, Category 8, Condition III (TSPS 3rd order) as promulgated by the Texas Society of Professional Surveyors and all reference bearings "Manual of Practice".

When monument values are established by GPS, all horizontal values shall conform to the accuracy standards of TSPS, Category 7, Condition I (TSPS 1st order) and the vertical values shall conform to the accuracy standards of a TSPS, Category 8, Condition III (TSPS 3rd order).

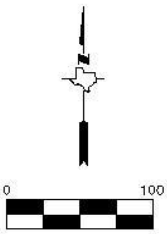
C. All permanent benchmark elevation and horizontal location data shall be certified by a Registered Professional Land Surveyor as a Texas Society of Professional Surveyor Association standard. For Category 8, TSPS Third Order Vertical Control Survey shall certify all permanent benchmark Survey Data Sheets.

D. Permanent benchmark brass discs shall be obtained from the County Engineer, it will be set in concrete as approved by Fort Bend County. The concrete footing of the benchmark shall conform to the design provided by Fort Bend Engineering. The assigned survey sheet shall be completed and returned to Fort Bend County Engineering Department.

E. The permanent survey marker and completed survey marker data sheet must be in place prior to acceptance of the road and streets within the subdivision into the Fort Bend County Road Maintenance System.

Survey Marker Sheet

FORT BEND COUNTY SURVEY SHEET



Key Map Page:
( )

FORT BEND COUNTY MARKER NUMBER ( )

General Location:
Subdivision: ( ) Plat No. ( ) Fort Bend County Plat Records.

Horizontal Datum: Texas State Plane Coordinate System
South Central Zone, NAD–83, US Ft.
Vertical Datum: NAVD–88, (CORS – Geoid 03)

Grid:
Y=( ) US Ft.
X=( ) US Ft.
Elevation: ( ) NAVD–88
Scale Factor: ( )

Latitude: ( )
Longitude: ( )
(NAD–83)

Registered Professional Land Surveyor's Seal

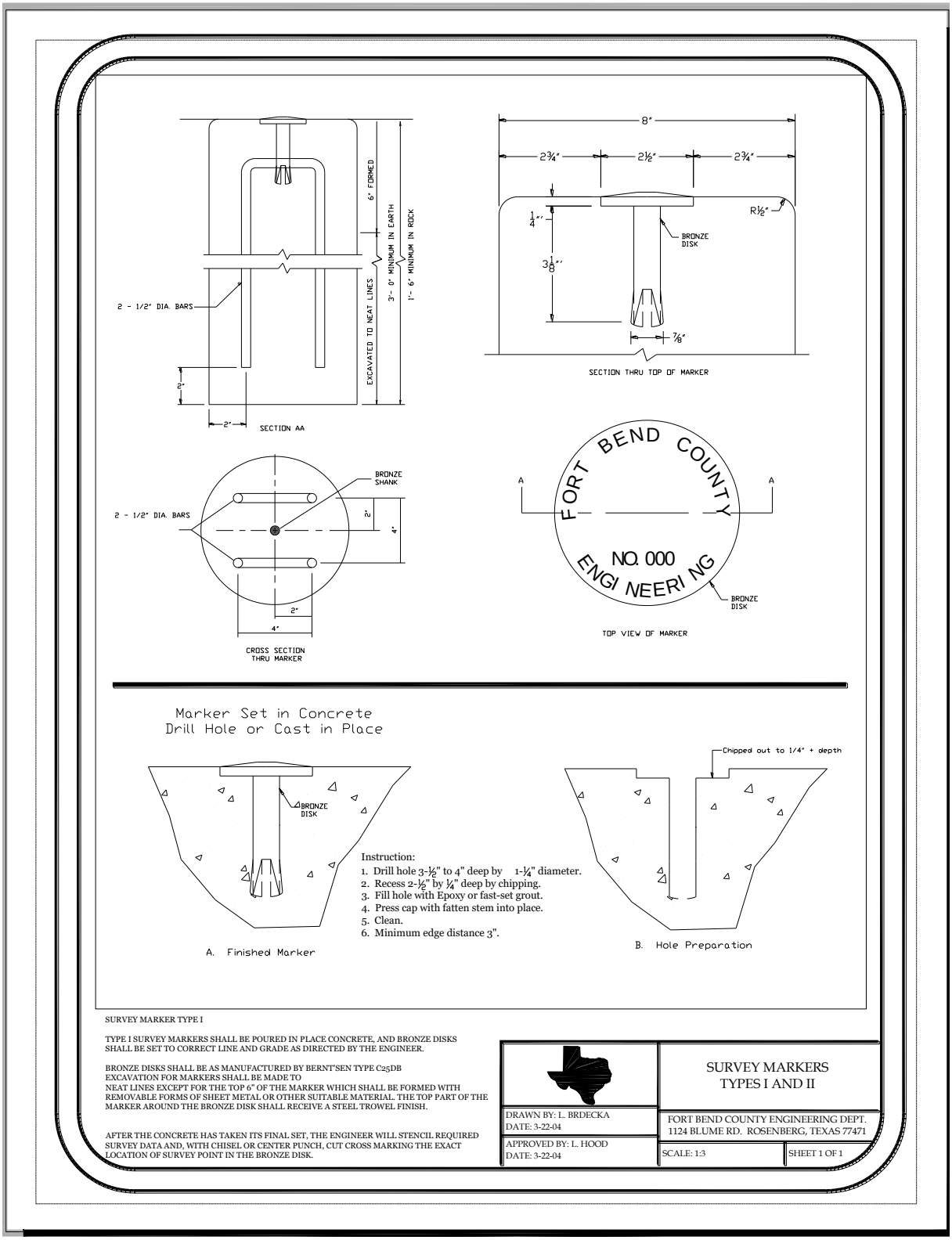
Type of Monument: Bronze Disk in concrete – Set ( )
date

Coordinates shown are referenced to the Texas State Plane Coordinate System, South Central Zone, NAD–83 and were derived by the post–processing of static GPS observations made on (date:) using the National Geodetic Survey (NGS) OPUS Utility (Online Positioning User Service). The following three NGS CORS (Continuously Operating Reference Stations) were used to compute the coordinate values shown:

Name:
RPLS No.
Company:
Address:

Telephone:

Survey Marker Detail



SURVEY MARKER TYPE I

TYPE I SURVEY MARKERS SHALL BE POURED IN PLACE CONCRETE, AND BRONZE DISKS SHALL BE SET TO CORRECT LINE AND GRADE AS DIRECTED BY THE ENGINEER.

BRONZE DISKS SHALL BE AS MANUFACTURED BY BERNT'SEN TYPE C25DB
EXCAVATION FOR MARKERS SHALL BE MADE TO
NEAT LINES EXCEPT FOR THE TOP 6" OF THE MARKER WHICH SHALL BE FORMED WITH REMOVABLE FORMS OF SHEET METAL OR OTHER SUITABLE MATERIAL. THE TOP PART OF THE MARKER AROUND THE BRONZE DISK SHALL RECEIVE A STEEL TROWEL FINISH.

AFTER THE CONCRETE HAS TAKEN ITS FINAL SET, THE ENGINEER WILL STENCIL REQUIRED SURVEY DATA AND, WITH CHISEL OR CENTER PUNCH, CUT CROSS MARKING THE EXACT LOCATION OF SURVEY POINT IN THE BRONZE DISK.

	SURVEY MARKERS TYPES I AND II
DRAWN BY: L. BRDECKA DATE: 3-22-04	FORT BEND COUNTY ENGINEERING DEPT. 1124 BLUME RD. ROSENBERG, TEXAS 77471
APPROVED BY: L. HOOD DATE: 3-22-04	SCALE: 1:3 / SHEET 1 OF 1

4.18 Surveyor Certification

A. The plat must be in full accordance with the required certification made upon the plat by the Registered Public Surveyor ascertaining that the subdivision boundary represents a survey made by him and that all boundary corners, angle points, points of curvature and other points of reference have been marked with iron (or other suitable permanent ferrous metal) pipes or rods having a minimum outside diameter of five eights (5/8) inch and a minimum length of three (3) feet. The monuments shall be driven securely into solid ground and the top of the monument shall be flush with the ground.

4.19 Survey Closure

A. The boundary survey shall close to within one in ten thousands (1:10,000) and shall be tied to an original corner of the original abstract survey. The metes and bounds description of this tie shall be shown on the plat.

4.20 Dedication Statements and Certificates

A. All dedication statements and certificates shall be made a part of the plat drawing and shall include and not be limited to the following statements: The general form and content of these statements are provided in the Appendix of this Manual.

1. Owner's Acknowledgment. Refer to *(Appendix A*).
2. Execution of Owner's Acknowledgment. Refer to *(Appendix B*).
3. Lienholder's Acknowledgment and Subordination Statement. Refer to *(Appendix C*).
4. Notary Public Acknowledgment for all signatures. Refer to *(Appendix D*).
5. Certificate for Surveyor. Refer to *(Appendix E*).
6. Certificate for Fort Bend County Engineer and Commissioners' Court. Refer to *(Appendix F*).
7. County Clerk's Filing Acknowledgment Statement. Refer to *(Appendix G*).
8. Engineer's Plat Affidavit. Refer to *(Appendix H*).
9. A certificate of City approval shall be included on the plat if the subdivision is within the extraterritorial jurisdiction of a city. Use the form required by the city.

4.21 Public Facilities Listing

A. The names of all existing County Assistance Districts, Municipal Utility Districts, Levee Improvement Districts, Water Control and Improvement Districts, Drainage Improvement Districts, School Districts, Fire Districts, Impact Fee Areas, City or City ETJ and Utilities Companies who provide service in which the property is located shall be shown on the plat in a table format as shown below.

District Names	
COUNTY ASSISTANCE DISTRICT	
WCID	
MUD	
LID	
DID	
SCHOOL	
FIRE	
IMPACT FEE AREA	
CITY OR CITY ETJ	
UTILITIES CO.	

4.22 Drainage Statement

A. The plat shall have a note requiring that all drainage easements be kept clear of fences, buildings, vegetation and other obstructions for the purpose of the operation and maintenance of the drainage facility by the appropriate entity. The plat shall also have a note requiring all property to drain into the drainage easement only through an approved drainage structure.

4.23 Easements

A. All easements or fee strips created prior to the subdivision of any tract of land shall be shown on the subdivision plat of said land with appropriate notations indicating the name of the holder of such easement or fee strip and the purpose of the easement, and the dimensions of the easement or fee strip tied to all adjacent lot lines, street right-of-way and plat boundary lines and the recording reference of the instruments creating and establishing said easement or fee strip. In those instances where easements have not been defined by accurate survey dimensions such as "over and across" type easements, the subdivider shall request the holder of such easement to accurately define the limits and location of his easement through the property within the subdivision boundaries. If the holder of such undefined easement does not define the easement involved and certifies his refusal to define such easement to the County Engineer, the subdivision plat shall show accurate recorded information as to the centerline location of all such undefined easements and the centerline of all existing pipelines or other utility facilities placed in conformance with the easement holder's rights. Building setback lines must be established a minimum of 15 feet on each side of and parallel to the centerline of any pipelines, pole lines, or other utility facilities located in such undefined easement.

4.24 Side Lot Lines

A. Where all side lot lines are either perpendicular and at right angles or radial to adjacent street right-of-ways, a suitable notation stating same may be placed upon the plat in lieu of lot line bearings.

4.25 Key Lots

A. Where key or flag lots are permitted and used, the plat shall bear a note restricting the staff portion of such lots from the construction of any building, structure, wall or fence.

4.26 Access Denied

A. Where vehicular access from lots to major thoroughfares or other streets is not permitted, the plat shall bear a note that such access is denied. Such note shall be shown adjacent to those lots from which access is denied.

END OF SECTION FOUR