



**BRYANT HAMMETT
& ASSOCIATES, LLC**
CIVIL ENGINEERING & LAND SURVEYING

BRYANT O. HAMMETT, JR., P.E./P.L.S.
C. KEITH CAPDEPON, JR., P.E.
HUGH "BUD" MCCURDY, III, P.L.S.

February 5, 2021

Miles B Bingham, PE
Director of Public Works
100 River Oaks Drive
Destrehan, LA 70047

RE: Primrose Canal

Bryant Hammett & Associates, LLC (BHA) is pleased to provide this proposal for surveying and mapping. We understand that you desire to have a topographic and cross section survey along the Primrose Canal from the Cousin Canal to the Blouin Canal. The limits of the survey will extend from the Southern edge of road of Primrose Drive, across the drainage canal to approximately 10 feet past the Southerly Top Bank. We understand the segment of the canal survey between Acadian Oaks Drive and the Blouin Canal will be submitted as a separate deliverable for the Parish only (Phase 5). The survey limits are outlined on the attached maps.

TECHNICAL PROPOSAL

Control Point Surveys: Control points will be established for the project to provide horizontal and vertical reference points for the project. Two main control points will be established using GPS technology with NGS OPUS Solutions. Temporary work points will also be established, as needed, along the route to facilitate the survey work. The horizontal control will be referenced to the North American Datum of 1983 (NAD83), with northings and easting coordinates shown as State Plane Coordinates. The vertical control network will be referenced to the North American Vertical Datum of 1988 (NAVD88).

Topographic Surveys: Topographic features that are visible and accessible will be surveyed within the survey limits to identify the northing, easting, and elevation value for each data point. Topographic features include items such as culverts, drains, inlets, pavements, trees (over 12" in diameter at breast height), perimeter outlines of heavily wooded areas, utility poles, overhead electric, fences, bulkheads, etc. BHA will collect data at each concrete headwall along the route to best show the geometry of the structures.

The top banks will be located to include the erosion area around the concrete headwalls. Additional elevation shots will be collected to show the severity of the erosion. The rock bank erosion control area between Wade St. and the Judge's property will be identified on the survey.

At the Maryland Drive/Primrose intersection the survey limits will include collecting all topographic features from r/w to r/w.



Cross Sections: Cross sections will be collected at 100-foot intervals. The cross-section elevation shots will extend from the Southern Edge of Primrose Drive to approximately 10 feet past the southern top bank of the canal. Cross sections will be collected by all concrete headwalls/crossings and at any significant grade changes inside the canal. In Phase 1a, BHA will collect cross section data 100' North and South along the Cousin Canal, adjacent to Texaco Road. Those elevation shots will include the area between the Westerly toe of the canal to 10' past the top bank (West Side).

Along the ditch adjacent to Acadian Oaks Dr (Phase 4), BHA will collect elevation shots approximately 50' down the ditch.

Daily water surface elevations will be recorded while surveying cross sections in the canals.

Culverts/Utility Survey: All drainage culverts entering the Primrose Canal will be identified with a size, type, and invert measurement. BHA will also collect all drainage structures located on the North side of Primrose Drive that drain directly into the Primrose Canal. The additional structures collected on the north side of Primrose Drive will include the ineffective catch basin just East of River Oaks. BHA will collect data for the high catch basin on the southern side of Primrose Canal and the Maryland Dr. intersection.

Any visible and accessible utility features crossing the Primrose Canal will be surveyed and mapped. These features include items such as valves, hydrants, meters, utility poles, utility boxes, overhead electric lines, pipelines, communication systems, etc. For underground utilities, BHA will contact Louisiana One Call to prompt the marking of underground utility lines by the respective utility owner. All resulting paint marks will be surveyed and mapped to show the apparent line routes.

Inverts for any drainage and sewerage lines entering or crossing the Primrose Canal will be obtained in the field. Data for surcharged manholes or other inaccessible (bolted shut) structures will be noted. Any as-built information provided can be shown on the drawing for manholes that are inaccessible.

BHA will request as-built information from St. Charles Parish for drainage, sewage, and water line connections underground. BHA will not be responsible for any errors or omissions from the information provided by Louisiana One Call or any as built drawings.

Items Not Included: BHA does not intend to conduct a boundary survey or right-of-way survey for this project. Boundary work or R/W work will be limited to apparent lines of ownership that are observed due to lines of occupation or apparent property boundary markers observed in the field. BHA will request any r/w or subdivision maps that the parish has for the survey area. Elevation data will be limited to the elevation shots and topographic data collected during the survey.

Cross Section profiles will *not* be provided as part of the scope for Phases 1-4, from Cousins to Acadian Oaks Dr. Cross section profiles will be provided for Phase 5, from Acadian Oaks to Blouin Canal.



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Any other desired work not included in this proposal can be proposed and performed under a separate scope of work as needed.

Deliverables: A plan and profile drawing will be developed at a horizontal scale of 1"=20' to show the features surveyed in the field. The plan view will show the survey corridor and topographic features of the area. Profiles will include the top bank elevation on the southern side (resident's side) and the centerline of the canal. The profile scale will be 1"=2'. Electronic drawing files will be produced using AutoCAD software. Hard copies of the survey will be produced on 24x36 inch PDF sheets. The PDF sheets will be sealed and stamped by a Professional Land Surveyor.

SCHEDULE

BHA has compiled a list of work tasks and associated labor efforts necessary to conduct the work and furnish the final deliverables. We anticipate that our field activities will take approximately four weeks to complete and the associated mapping and QAQC efforts will take an additional four weeks, for a two month long total project duration.

We understand that the areas identified as Phase 1A and Phase 1B will be prioritized for submittal to Civil and Environmental Consulting Engineers for review as soon as the field survey and drafting are completed.

COST PROPOSAL

Our proposed cost for the project, including all labor, supervision, equipment, and transportation totals \$39,810. We propose to keep this price valid for 30 days. After 30 days, we reserve the right to re-evaluate the final price.

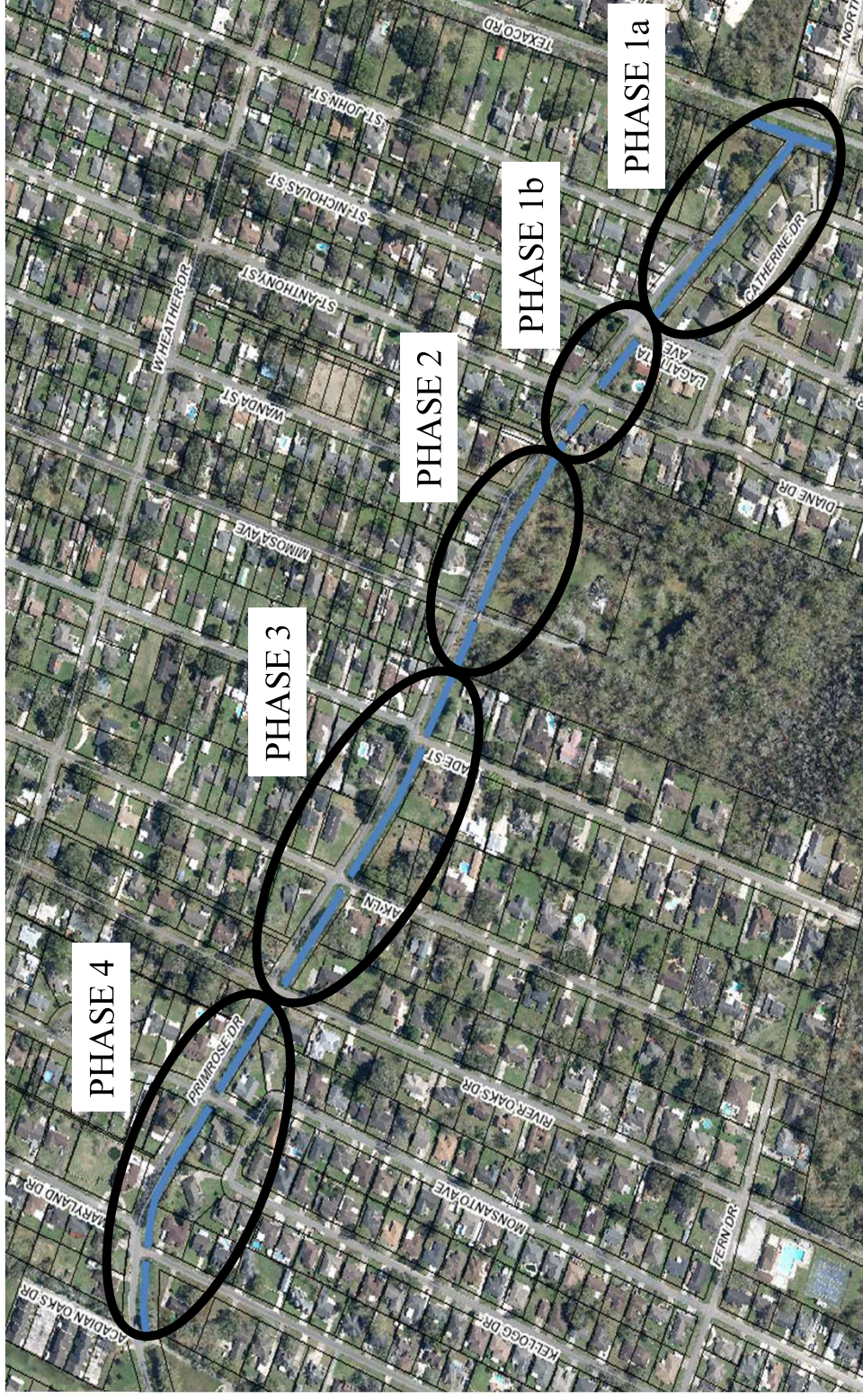
We appreciate this opportunity to submit this technical and cost proposal. If there are any questions, feel free to contact us at any time.

Sincerely,

BRYANT HAMMETT & ASSOCIATES, L.L.C.

Bryant O. Hammett, Jr. P.E., P.L.S.
Owner/Manager

Scope: Cousins Canal to Acadian Oaks Dr.



Phase 5: Acadian Oaks Dr. to Blouin Canal

