



**REVIEW BY FORT BEND COUNTY
COMMISSIONERS COURT**

**Fort Bend County
Engineering Department**
301 Jackson Suite 401
Richmond, Texas 77469
281.633.7500
Permits@fortbendcountytexas.gov

☒ Right of Way Permit
☐ Commercial Driveway Permit
Permit No: 2018-20471

Applicant: Hurtado Construction Company

Job Location Site: Gapps Slough, Rosenberg, TX 77469

Bond No. **Date of Bond:** 5/31/2018 **Amount:** \$7,383.43

The above applicant came to make use of certain Fort Bend County property subject to, "The Order Regulating the Laying, Construction, Maintenance, and Repair of Buried Cables, Conduits, and Pole Lines, In, Under, Across or Along Roads, Streets, Highways, and Drainage Ditches in Fort Bend County, Texas, Under the Jurisdiction of the Commissioners Court of Fort Bend County, Texas," as passed by the Commissioners Court of Fort Bend County, Texas, of the Minutes of the Commissioners Court of Fort Bend County, Texas, to the extent that such order is not inconsistent with Chapter 181, Vernon's Texas Statutes and Codes Annotated.

Notes:

1. Evidence of review by the Commissioners Court must be kept on the job site and failure to do so constitutes grounds for job shutdown.
2. Written notices are required:
 - a. 48 hours in advance of construction start up, and
 - b. When construction is completed and ready for final inspection, submit notification to Permit Administrator thru MyGovernmentOnline.org portal.
3. This permit expires one (1) year from date of permit if construction has not commenced.

On this 12th day of June, 2018, Upon Motion of Commissioner Meyers, seconded by Commissioner Morales, duly put and carried, it is ORDERED, ADJUDGED AND DECREED that said notice of said above purpose is hereby acknowledged by the Commissioners Court of Fort Bend County, Texas, and that said notice be placed on record according to the regulation order thereof.

Signature

Presented to Commissioners Court and approved.

By: Sean Eglinton

County Engineer

Date Recorded 6-15-2018 Comm. Court No. 91

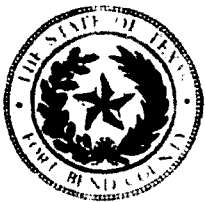
By: Mark Vogler

Drainage District Engineer/Manager

Clerk of Commissioners Court

By: Andy Walker

Deputy



**PERMIT APPLICATION REVIEW FORM FOR
CABLE, CONDUIT, AND POLE LINE ACTIVITY
IN FORT BEND COUNTY**

**Fort Bend County
Engineering Department**
301 Jackson Suite 401
Richmond, Texas 77469
281.633.7500
Permits@fortbendcountytx.gov

- ☒ Right of Way Permit
☐ Commercial Driveway Permit

Permit No: 2018-20471

The following "Notice of Proposed Cable, Conduit, and/or Pole Line activity in Fort Bend County" and accompanying attachments have been reviewed and the notice conforms to appropriate regulations set by Commissioner's Court of Fort Bend County, Texas.

(1) COMPLETE APPLICATION FORM:

- ☒ a. Name of road, street, and/or drainage ditch affected.
☒ b. Vicinity map showing course of directions
☒ c. Plans and specifications

(2) BOND:

- ☐ County Attorney, approval when applicable.
- ☐ Perpetual bond currently posted. Bond No: _____ Amount: _____
- ☒ Performance bond submitted. Bond No: [REDACTED] Amount: \$7,383.43
- ☐ Cashier's Check Check No: _____ Amount: _____

(3) DRAINAGE DISTRICT APPROVAL (WHEN APPLICABLE):

Adam Wright
Drainage District Approval

6-5-18
Date

We have reviewed this project and agree it meets minimum requirements.

Ken Epton
Permit Administrator

6/1/2018
Date



**PERFORMANCE BOND COVERING ALL CABLE CONDUIT AND/OR POLE LINE
ACTIVITY IN UNDER ACROSS OR ALONG FORT BEND COUNTY ROAD
COMMERCIAL DRIVEWAY AND MEDIAN OPENINGS OR MODIFICATIONS
(AUTHORIZED)**

Detention Pond G to Serve
Bonbrook Plantation South

BOND NO

THE STATE OF TEXAS

KNOW ALL MEN BY THESE PRESENTS:

COUNTY OF FORT BEND

THAT WE, Hurtado Construction Company whose (address, phone) is 5629 FM 359 RD S
Brookshire, TX 77423, 281-533-9498 Texas, hereinafter called the Principal, and Liberty Mutual Insurance Company
a Corporation existing under and by virtue of the laws of the state of MA and authorized to do an indemnifying business
in the state of Texas, and whose principal office is located at (name/address/phone) Liberty Mutual Insurance Company
175 Berkeley Street, Boston, MA 02116 866-547-6203 whose officer
residing in the State of Texas, authorized to accept service in all suits and actions brought whining said state is
***See Below and whose address is 211 East 7th Street, Suite 620, Austin, Texas 78701
hereinafter called the Surety, and held and firmly bound unto, Robert E.
Hebert, County Judge of Fort Bend County, Texas, or his successors in office, in the full sum of
Seven Thousand Three Hundred Eighty Three Dollars and 43/100 Dollars (\$7,383.43) current, lawful money of the
United States of America, to be paid to said Robert E. Hebert, County Judge of Fort Bend County, Texas, or his successors in
office, to which payment well and truly to be made and done, we, the undersigned, bind ourselves and each of us, our heirs,
executors, administrators, successors, assigns, and legal representatives, jointly and severally, by these presents.

THE CONDITION OF THIS BOND IS SUCH THAT, WHEREAS, the above bounden principal contemplates laying,
constructing maintaining and/or repairing one or more cables, conduits, and/or pole lines in, under, across and/or along
roads, streets and highways, commercial driveway and median openings or modifications in the County of Fort Bend, and
the State of Texas, under the jurisdiction of the Commissioners' Court of Fort Bend County, Texas, pursuant to the
Commissioners' Court order adopted on the 1st day of December, A.D. 1980, recorded in Volume 13, of the Commissioners'
Court Minutes of Fort Bend County, Texas, regulating same, which Commissioners' Court order is hereby referred to and
made a part hereof for all purposes as though fully set out herein;

AND WHEREAS, the principal desires to provide Fort Bend County with a performance bond covering all such cable,
conduit and/or pole line activity, commercial driveway and median Openings or modifications;

NOW, THEREFORE, if the above bounden principal shall faithfully perform all its cable, conduit and/or pole line
activity (including, but not limited to the laying, construction, maintenance and/or repair of cables, conduits and/or pole
lines) in, under, across and/or along roads, streets and highways, commercial driveway and median openings or
modifications in the County of Fort Bend and State of Texas, under the jurisdiction of the Commissioners Court of Fort Bend
County, Texas, pursuant to and in accordance with minimum requirements and conditions of the above mentioned
Commissioners' Court order set forth and specified to be by said principal done and performed, at the time and in the manner
therein specified, and shaft pay over and make good and reimburse Fort Bend County, all loss and damages which Fort Bend
County may sustain by reason of any failure or default on the part of said principal, then this obligation shall be null and
void, otherwise to remain in full force and effect.

This bond is payable at the County Courthouse in the County of Fort Bend and State of Texas.

It is understood that at any time Fort Bend County deems itself insecure under this bond, it may require further
and/or additional bonds of the principal.

EXECUTED this 31st day of May, 2018

***Michael Ross McCormick/Corporation Service Company d/b/a/
CSC-Lawyers Incorporating Service Company

Hurtado Construction Company

PRINCIPAL

BY 

Liberty Mutual Insurance Company

SURETY


BY Denise Raker, Attorney-in-Fact



CCM 6-12-2018 # 91
Fort Bend County Clerk
Return Admin Serv Coord
Permit # 2018-20471 RAC

THIS POWER OF ATTORNEY IS NOT VALID UNLESS IT IS PRINTED ON RED BACKGROUND.

This Power of Attorney limits the acts of those named herein, and they have no authority to bind the Company except in the manner and to the extent herein stated.

Certificate No. 7847717

Liberty Mutual Insurance Company
The Ohio Casualty Insurance Company West American Insurance Company

POWER OF ATTORNEY

KNOWN ALL PERSONS BY THESE PRESENTS: That The Ohio Casualty Insurance Company is a corporation duly organized under the laws of the State of New Hampshire, that Liberty Mutual Insurance Company is a corporation duly organized under the laws of the State of Massachusetts, and West American Insurance Company is a corporation duly organized under the laws of the State of Indiana (herein collectively called the "Companies"), pursuant to and by authority herein set forth, does hereby name, constitute and appoint, David Stephen Wightman; Denise Raker; Jo Ann Parker; Sylvia Hinojosa

all of the city of Houston, state of TX each individually if there be more than one named, its true and lawful attorney-in-fact to make, execute, seal, acknowledge and deliver, for and on its behalf as surety and as its act and deed, any and all undertakings, bonds, recognizances and other surety obligations, in pursuance of these presents and shall be as binding upon the Companies as if they have been duly signed by the president and attested by the secretary of the Companies in their own proper persons.

IN WITNESS WHEREOF, this Power of Attorney has been subscribed by an authorized officer or official of the Companies and the corporate seals of the Companies have been affixed thereto this 28th day of July, 2017.



STATE OF PENNSYLVANIA ss
COUNTY OF MONTGOMERY

On this 28th day of July, 2017, before me personally appeared David M. Carey, who acknowledged himself to be the Assistant Secretary of Liberty Mutual Insurance Company, The Ohio Casualty Company, and West American Insurance Company, and that he, as such, being authorized so to do, execute the foregoing instrument for the purposes therein contained by signing on behalf of the corporations by himself as a duly authorized officer.

IN WITNESS WHEREOF, I have hereunto subscribed my name and affixed my notarial seal at King of Prussia, Pennsylvania, on the day and year first above written.



COMMONWEALTH OF PENNSYLVANIA
Notarial Seal
Teresa Pastella, Notary Public
Upper Merion Twp., Montgomery County
My Commission Expires March 28, 2021
Member, Pennsylvania Association of Notaries

The Ohio Casualty Insurance Company
Liberty Mutual Insurance Company
West American Insurance Company

By: David M. Carey
David M. Carey, Assistant Secretary

This Power of Attorney is made and executed pursuant to and by authority of the following By-laws and Authorizations of The Ohio Casualty Insurance Company, Liberty Mutual Insurance Company, and West American Insurance Company which resolutions are now in full force and effect reading as follows:

ARTICLE IV – OFFICERS – Section 12. Power of Attorney. Any officer or other official of the Corporation authorized for that purpose in writing by the Chairman or the President, and subject to such limitation as the Chairman or the President may prescribe, shall appoint such attorneys-in-fact, as may be necessary to act in behalf of the Corporation to make, execute, seal, acknowledge and deliver as surety any and all undertakings, bonds, recognizances and other surety obligations. Such attorneys-in-fact, subject to the limitations set forth in their respective powers of attorney, shall have full power to bind the Corporation by their signature and execution of any such instruments and to attach thereto the seal of the Corporation. When so executed, such instruments shall be as binding as if signed by the President and attested to by the Secretary. Any power or authority granted to any representative or attorney-in-fact under the provisions of this article may be revoked at any time by the Board, the Chairman, the President or by the officer or officers granting such power or authority.

ARTICLE XIII – Execution of Contracts – SECTION 5. Surety Bonds and Undertakings. Any officer of the Company authorized for that purpose in writing by the chairman or the president, and subject to such limitations as the chairman or the president may prescribe, shall appoint such attorneys-in-fact, as may be necessary to act in behalf of the Company to make, execute, seal, acknowledge and deliver as surety any and all undertakings, bonds, recognizances and other surety obligations. Such attorneys-in-fact subject to the limitations set forth in their respective powers of attorney, shall have full power to bind the Company by their signature and execution of any such instruments and to attach thereto the seal of the Company. When so executed such instruments shall be as binding as if signed by the president and attested by the secretary.

Certificate of Designation – The President of the Company, acting pursuant to the Bylaws of the Company, authorizes David M. Carey, Assistant Secretary to appoint such attorneys-in-fact as may be necessary to act on behalf of the Company to make, execute, seal, acknowledge and deliver as surety any and all undertakings, bonds, recognizances and other surety obligations.

Authorization – By unanimous consent of the Company's Board of Directors, the Company consents that facsimile or mechanically reproduced signature of any assistant secretary of the Company, wherever appearing upon a certified copy of any power of attorney issued by the Company in connection with surety bonds, shall be valid and binding upon the Company with the same force and effect as though manually affixed.

I, Renee C. Llewellyn, the undersigned, Assistant Secretary, The Ohio Casualty Insurance Company, Liberty Mutual Insurance Company, and West American Insurance Company do hereby certify that the original power of attorney of which the foregoing is a full, true and correct copy of the Power of Attorney executed by said Companies, is in full force and effect and has not been revoked.

IN TESTIMONY WHEREOF, I have hereunto set my hand and affixed the seals of said Companies this 31st day of May, 2018.



By: Renee C. Llewellyn
Renee C. Llewellyn, Assistant Secretary

Not valid for mortgage, note, loan, letter of credit, currency rate, interest rate or residual value guarantees.

To confirm the validity of this Power of Attorney call 1-610-832-8240 between 9:00 am and 4:30 pm EST on any business day.



TEXAS IMPORTANT NOTICE

To obtain information or make a complaint:

You may call toll-free for information or to make a complaint at
1-877-751-2640

You may also write to:

2200 Renaissance Blvd., Ste. 400
King of Prussia, PA 19406-2755

You may contact the Texas Department of Insurance to obtain information on companies, coverages, rights or complaints at
1-800-252-3439

You may write the Texas Department of Insurance Consumer Protection (111-1A)
P. O. Box 149091
Austin, TX 78714-9091
FAX: (512) 490-1007
Web: <http://www.tdi.texas.gov>
E-mail: ConsumerProtection@tdi.texas.gov

PREMIUM OR CLAIM DISPUTES:

Should you have a dispute concerning your premium or about a claim you should first contact the agent or call 1-800-843-6446. If the dispute is not resolved, you may contact the Texas Department of Insurance.

ATTACH THIS NOTICE TO YOUR POLICY:

This notice is for information only and does not become a part or condition of the attached document.

TEXAS AVISO IMPORTANTE

Para obtener informacion o para someter una queja:

Usted puede llamar al numero de telefono gratis para informacion o para someter una queja al
1-877-751-2640

Usted tambien puede escribir a:

2200 Renaissance Blvd., Ste. 400
King of Prussia, PA 19406-2755

Puede comunicarse con el Departamento de Seguros de Texas para obtener informacion acerca de companias, coberturas, derechos o quejas al
1-800-252-3439

Puede escribir al Departamento de Seguros de Texas Consumer Protection (111-1A)
P. O. Box 149091
Austin, TX 78714-9091
FAX # (512) 490-1007
Web: <http://www.tdi.texas.gov>
E-mail: ConsumerProtection@tdi.texas.gov

DISPUTAS SOBRE PRIMAS O RECLAMOS:

Si tiene una disputa concerniente a su prima o a un reclamo, debe comunicarse con el agente o primero. Si no se resuelve la disputa, puede entonces comunicarse con el departamento (TDI)

UNA ESTE AVISO A SU POLIZA:

Este aviso es solo para proposito de informacion y no se convierte en parte o condicion del documento adjunto.

FILED AND RECORDED
OFFICIAL PUBLIC RECORDS

Laura Richard

Laura Richard, County Clerk

Fort Bend County Texas

June 15, 2018 09:37:48 AM



FEE: \$0.00

SG

2018066301

CONSTRUCTION PLANS FOR DETENTION POND "G"

TO SERVE BONBROOK PLANTATION SOUTH

FORT BEND COUNTY MUD NO. 155
CITY OF ROSENBERG E.T.J.
FORT BEND COUNTY, TEXAS

JOB NO. 2304-1110B

DATE : FEBRUARY 2018

NOTES

1. THESE PLANS WERE DESIGNED TO MEET OR EXCEED CITY OF ROSENBERG AND FORT BEND COUNTY SUBDIVISION RULES AND REGULATIONS (AS APPLICABLE) AS CURRENTLY AMENDED

RECORD DRAWING

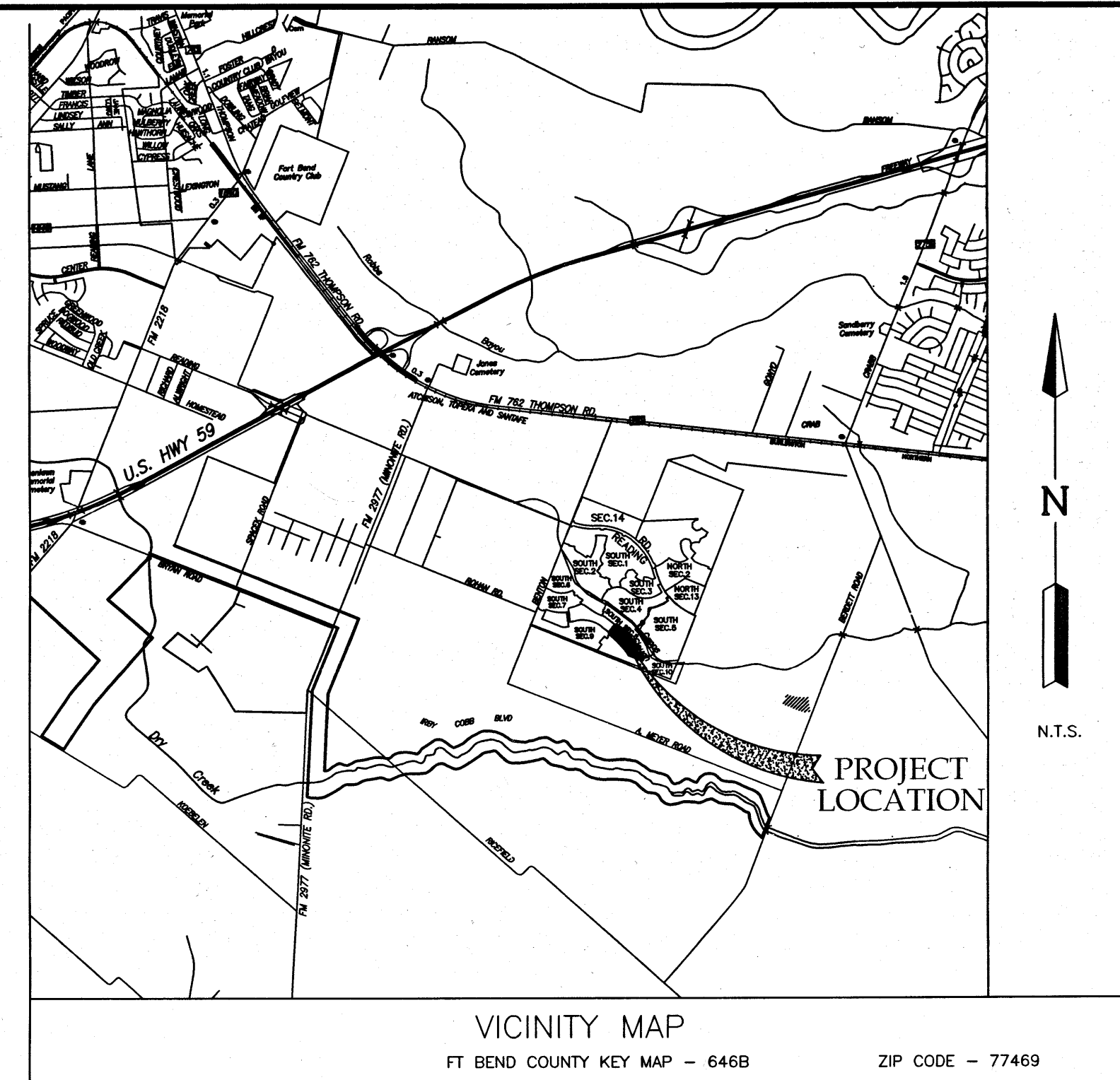
I CERTIFY THAT THIS DRAWING REFLECTS THE IMPROVEMENTS CONSTRUCTED AS TO SIZE, LOCATION AND GRADE AND THAT THE CONSTRUCTION WAS IN FULL COMPLIANCE WITH THE CONTRACT DOCUMENTS

BY _____ DATE _____
TITLE _____

DEVELOPER:
B-BROOK LAND PARTNERS, L.P.

APPROVED FOR CONSTRUCTION

BY _____ DATE _____



SHEET INDEX

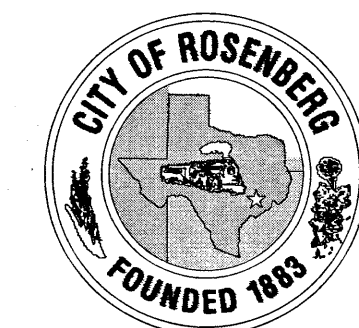
1. COVER SHEET
2. GENERAL CONSTRUCTION NOTES
3. OVERALL SITE LAYOUT & DRAINAGE AREA MAP
4. POND "G" & OFFSITE DITCHES LAYOUT
5. FLOODPLAIN MITIGATION PLAN
6. TEMPORARY DRAINAGE SWALES & FUTURE FACILITIES FOR SECTION 10
7. 3-YR DRAINAGE CALCULATIONS
8. 3-YR ADJ. DRAINAGE CALCULATIONS
9. 100-YR DRAINAGE CALCULATIONS
10. OVERALL CLEARING & GRADING PLAN
11. SECTIONS 8 & 10 GRADING PLAN
12. STORM WATER POLLUTION PREVENTION PLAN

PLAN & PROFILE

13. POND "G" STA. 0+00 TO END
14. OFFSITE DITCH 1 STA. 0+00 TO 13+25
15. OFFSITE DITCH 1 & 2 STA. 13+25 TO END
16. OFFSITE OUTFALL 1 TO GAPPS SLOUGH STA. 0+00 TO END
17. OFFSITE OUTFALL 2 TO GAPPS SLOUGH STA. 0+00 TO END

DETAILS

18. STORM SEWER CONSTRUCTION DETAILS
19. STORM WATER POLLUTION PREVENTION PLAN DETAILS
20. TXDOT PEDESTRIAN FACILITIES PED-12A



CITY OF ROSENBERG

APPROVED: Rigo Calzoncin DATE: 4-9-18
RIGO CALZONCIN
EXECUTIVE DIRECTOR OF PUBLIC SERVICES

APPROVED: Charles M. Eastland DATE: 4/5/18
CHARLES M. EASTLAND, PE
CITY ENGINEER

APPROVAL VOID IF NO PROGRESS HAS BEEN MADE TOWARDS THE COMPLETION OF THE PROJECT WITHIN TWO YEARS FROM DATE OF SIGNATURE.

ENGINEER:

LJA Engineering, Inc.

2929 Briarpark Drive
Suite 600
Houston, Texas 77042

Phone 713.953.5200
Fax 713.953.5026
FRN-F-1386

SHEET NO. 1 OF 20

GENERAL NOTES

1. SURFACE RESTORATION: AT THE END OF ALL CONSTRUCTION PROJECTS, THE CONTRACTOR SHALL RESTORE EXISTING FACILITY (I.E. PROPERTY) EQUAL TO OR BETTER THAN EXISTING SITE CONDITIONS PRIOR TO CONSTRUCTION.
2. THE CONTRACTOR SHALL FURNISH ALL MATERIALS, EQUIPMENT, AND LABOR FOR EXCAVATION, INSTALLATION, BACKFILLING OF WATER AND/OR SEWER MAINS AND RELATED APPURTENANCES AS SHOWN ON THE PLANS AND/OR DESCRIBED IN THE SPECIAL PROVISIONS.
3. THE LOADING AND UNLOADING OF ALL PIPE, VALVES, HYDRANTS, MANHOLES AND OTHER ACCESSORIES SHALL BE IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDED PRACTICES AND SHALL AT ALL TIMES BE PERFORMED WITH CARE TO AVOID ANY DAMAGE TO THE MATERIAL. THE CONTRACTOR SHALL LOCATE AND PROVIDE THE NECESSARY STORAGE AREAS FOR MATERIALS AND EQUIPMENT.
4. THE CONTRACTOR SHALL BE RESPONSIBLE FOR SAFEGUARDING AND PROTECTING ALL MATERIAL AND EQUIPMENT STORED ON THE JOBSITE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE STORAGE OF MATERIALS IN A SAFE AND WORKMANLIKE MANNER TO PREVENT INJURIES, DURING AND AFTER WORKING HOURS, UNTIL PROJECT COMPLETION.
5. ALL MATERIALS AND WORKMANSHIP SHALL CONFORM TO THE TEXAS DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS, 1982, AND TEXAS MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, 1980 AND ANY REVISIONS THERETO.
6. CONTRACTOR SHALL PROVIDE SHEETING, SHORING AND BRACING AS NECESSARY TO PROTECT WORKMEN AND EXISTING UTILITIES DURING ALL PHASES OF CONSTRUCTION, AS PER O.S.H.A. REQUIREMENTS.
7. ALL TESTING PROCEDURES USED ON THIS PROJECT SHALL CONFORM TO THE CITY OF ROSENBERG AND FORT BEND COUNTY STANDARDS. THE INITIAL TESTING EXPENSE SHALL BE BORNE BY THE OWNER. IF ANY OF THE TEST RESULTS DO NOT MEET THE TESTING STANDARDS, IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO REMOVE OR REPLACE SUCH MATERIAL SO THAT THE TESTING STANDARDS CAN BE MET. ADDITIONAL TESTING TO COMPLY WITH THESE STANDARDS SHALL BE AT THE CONTRACTOR'S EXPENSE.
8. ALL FINISHED GRADES SHALL VARY UNIFORMLY BETWEEN FINISHED ELEVATIONS.
9. CONTRACTOR SHALL UNCOVER EXISTING UTILITIES AT ALL "POINTS OF CROSSING" TO DETERMINE IF CONFLICTS EXIST BEFORE COMMENCING ANY CONSTRUCTION. NOTIFY THE ENGINEER AT ONCE OF ANY CONFLICT.
10. TOP OF FOUNDATION (SLAB) SHALL BE A MINIMUM OF 18" ABOVE TOP OF CURB AND/OR 18" ABOVE NATURAL GROUND OR 1' ABOVE 100 YR FLOOD ELEVATION, WHICHEVER IS HIGHER.
11. ALL FINISHED GRADES ARE TO CONFORM TO A MINIMUM SLOPE OF 12" PER 100'. DRAINAGE IS DEPICTED BY ARROWS.
12. THE CONTRACTOR SHALL NOT UNLOAD ANY TRACK-TYPE CONSTRUCTION MACHINERY ON ANY EXISTING PAVEMENT OR CROSS OVER ANY EXISTING PAVEMENT OR CURB DURING ANY PROJECT.
13. IT IS PERMISSIBLE TO USE A BACKHOE FOR TRENCH EXCAVATION IN LIEU OF A TRENCHING MACHINE.
14. CONTRACTOR SHALL NOTIFY CITY OF ROSENBERG UTILITY DEPARTMENT AT (832) 595-3500, CITY ENGINEER AT (713) 462-3242, AND FORT BEND COUNTY ENGINEERING AT CONSTRUCTION@FORTBENDCOUNTYTX.GOV AT LEAST 48 HOURS PRIOR TO COMMENCEMENT OF WORK. CONTRACTOR SHALL ALSO CONTACT TEXAS ONE-CALL AT 1-800-245-4545. CONTRACTOR SHALL ALSO NOTIFY COBB FENDLEY AT 713-462-3242.
15. CONTRACTOR SHALL NOTIFY CITY OF ROSENBERG UTILITY DEPARTMENT AND CITY ENGINEER (713) 462-3242 AT LEAST 24 HOURS PRIOR TO COMMENCEMENT OF ALL WORK REQUIRING NORMAL CITY INSPECTION AT (832) 595-3500. WORK REQUIRING INSPECTIONS INCLUDES, BUT IS NOT LIMITED TO, CONCRETE PLACEMENT, SUBGRADE STABILIZATION, UTILITY FACILITY BACKFILL, REINFORCING PLACEMENT, ETC.
16. REGULAR INSPECTION HOURS ARE 7 AM THROUGH 5 PM, MONDAY THROUGH FRIDAY, EXCEPT ON CITY HOLIDAYS. ON SATURDAYS, SUNDAYS AND DAYS DESIGNATED AS CITY HOLIDAYS NO WORK WILL BE ALLOWED THAT REQUIRES INSPECTION BY CITY STAFF, UNLESS THE CITY DEEMS THE WORK NECESSARY TO FACILITATE THE TIMELY COMPLETION OF THE PROJECT. ADVANCE WRITTEN NOTICE OF 72 HOURS, IS REQUIRED. ADVANCED NOTICE CAN BE FAXED TO (832) 595-3501. CONTRACTOR SHALL NOTIFY CITY OF ROSENBERG UTILITY DEPARTMENT AT (832) 595-3500 AND CITY ENGINEER AT (713) 462-3242.
17. INFORMATION REGARDING INSPECTION FEES FOR AFTER HOURS AND HOLIDAY INSPECTIONS IS AVAILABLE BY CALLING CITY OF ROSENBERG AT (832) 595-3500 AND CITY ENGINEER AT (713) 462-3242. CONTRACTOR SHALL BE RESPONSIBLE FOR CHARGES ASSOCIATED WITH THESE INSPECTIONS.
18. AREAS TO BE FILLED SHALL BE SCARIFIED AND COMPACTED TO AT LEAST 95% OF MAXIMUM DENSITY PER ASTM D-698, TO A DEPTH OF 8" PRIOR TO FILL PLACEMENT. FILL MATERIAL SHALL BE AT PLACED IN MAXIMUM 8" THICK LIFTS (MEASURED LOOSE) AND COMPACTED TO AT LEAST 95% OF MAXIMUM DENSITY PER ASTM D-698. MOISTURE CONTENT SHALL BE BETWEEN OPTIMUM AND +3% OF OPTIMUM UNLESS OTHERWISE DIRECTED BY OWNER'S TESTING LAB OR THE ENGINEER. FILL SHALL BE CLEAN EARTH, SAND, OR A COMBINATION, AND BE FREE FROM THRASH, VEGETATION, AND LARGE STONES.
19. ALL TRENCH BACKFILL SHALL HAVE AT LEAST ONE DENSITY TESTING ON EACH LIFT. ONLY STANDARD BACKFILL PROCEDURES ARE ALLOWED. ANY DEVIATION TO THIS STANDARD MUST BE APPROVED BY THE CITY OF ROSENBERG DIRECTOR OF PUBLIC WORKS.
20. CONTACT FORT BEND COUNTY MUNICIPAL UTILITY DISTRICT NO. 155 OPERATOR TO OPERATE EXISTING UTILITIES.
21. CONTACT FORT BEND COUNTY MUNICIPAL UTILITY DISTRICT NO. 155 OPERATOR PRIOR TO MAKING TIE-INS TO EXISTING UTILITIES.
22. WHEN HYDROMULCH IS REQUIRED, CONTRACTOR SHALL KEEP MULCH MOIST AFTER INSTALLATION AND UNTIL AREA SHOWS GROWTH.

STORM SEWER NOTES

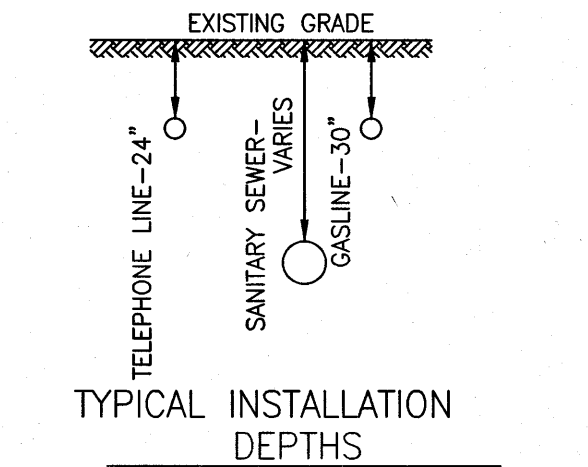
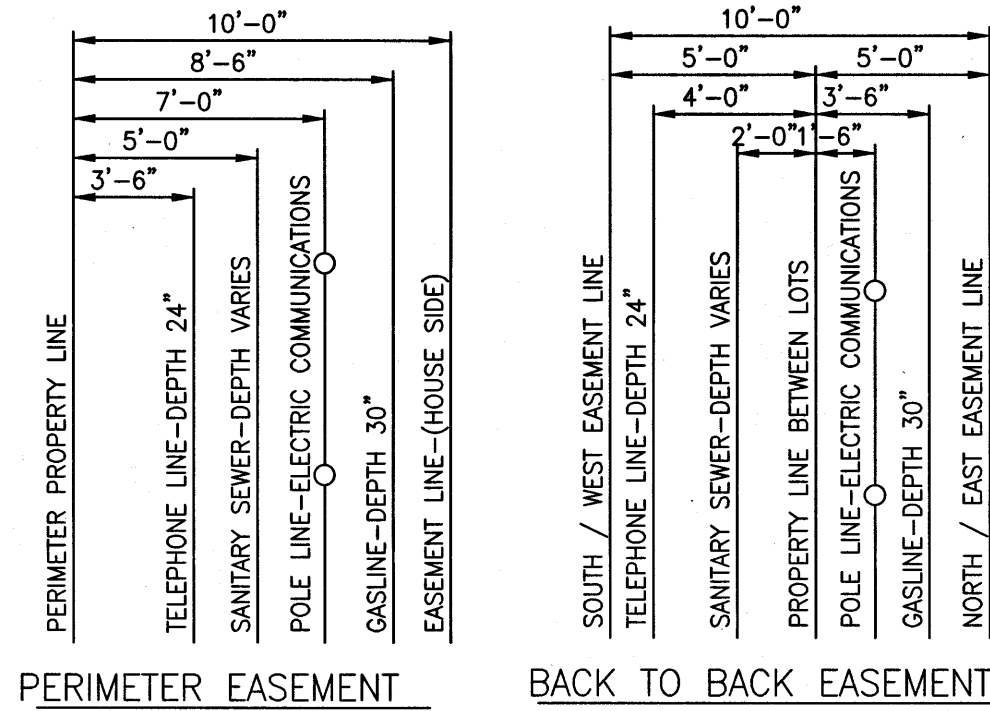
1. ALL STATIONS ARE CENTERLINE OF STREET RIGHT-OF-WAY STATIONS EXCEPT WHERE STORM SEWER IS IN SIDE LOT EASEMENTS; THIS STATIONING IS BASED ON CENTERLINE OF PIPE.
2. STORM SEWERS SHALL BE CONSTRUCTED IN ACCORDANCE WITH CITY OF ROSENBERG STANDARD DETAIL SHEETS AND LATEST REVISIONS AND/OR AMENDMENTS OF SAME SHALL BE OBSERVED.
3. ALL STORM SEWER 24" AND LARGER TO BE REINFORCED CONCRETE RUBBER GASKET PIPE, A.S.T.M. C-76 CLASS III, INCLUDING INLET LEADS CROSSING UNDER EXISTING OR PROPOSED PAVEMENT.
4. REINFORCED CONCRETE PIPE STORM SEWER SHALL BE INSTALLED, BEDDED AND BACKFILLED IN CONFORMITY WITH CITY OF ROSENBERG STANDARD DETAIL SHEETS. BACKFILL UNDER OR WITHIN 1' (ONE FOOT) OF EXISTING, PROPOSED, OR FUTURE PAVEMENT WITH CEMENT STABILIZED SAND (1.5 SACKS PER CUBIC YARD MIX), CEMENT STABILIZED SAND BEDDING AND/OR BACKFILL COMPACTED IN 12" LIFTS FOR INSTALLATION UNDER OR WITHIN 1' (ONE FOOT) OF PAVEMENT SHALL BE CONSIDERED AS SUBSIDIARY TO THE PAY ITEM FOR PIPE AND SHALL NOT BE PAID FOR DIRECTLY. ALL NORMALLY SUBMERGED STORM SEWER PIPE SHALL BE RUBBER GASKETED.
5. CONTRACTOR SHALL PROVIDE A MINIMUM OF 6" (SIX INCHES) CLEARANCE AT STORM SEWER AND WATER LINE CROSSINGS, AND A MINIMUM OF 6" (SIX INCHES) AT STORM SEWER AND SANITARY SEWER CROSSINGS.
6. ALL STORM SEWER MANHOLES SHALL BE CITY OF ROSENBERG TYPE "C" UNLESS OTHERWISE NOTED AND SHALL BE LOCATED A MINIMUM OF 3' BACK OF CURB.
7. ALL INLETS TO BE CITY OF ROSENBERG TYPE "A" WITH CAST IRON GRATES UNLESS OTHERWISE NOTED. STREETS ARE TO HAVE H-2 INLETS.
8. CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING LOCATION OF ALL EXISTING UTILITIES PRIOR TO EXCAVATION.
9. MINIMUM STORM SEWER SIZE IS 24 INCH DIAMETER.
10. ALL STORM SEWER MANHOLE COVER MUST INCLUDE THE WORD "STORM SEWER".
11. STORM SEWER MANHOLE ADJUSTMENTS SHALL BE BY THROAT RINGS ONLY.
12. ALL STORM SEWER CORRUGATED METAL PIPE MUST BE POLYMER COATED.

FORT BEND COUNTY
GENERAL NOTES

1. FORT BEND COUNTY MUST BE INVITED TO THE PRE-CONSTRUCTION MEETING.
2. CONTRACTOR SHALL NOTIFY FORT BEND COUNTY ENGINEERING DEPARTMENT 48 HOURS PRIOR TO COMMENCING CONSTRUCTION AND 48 HOUR NOTICE TO ANY CONSTRUCTION ACTIVITY WITHIN THE LIMITS OF THE PAVING AT CONSTRUCTION@FORTBENDCOUNTYTX.GOV
3. CONTRACTOR IS RESPONSIBLE FOR OBTAINING ALL PERMITS REQUIRED FROM FORT BEND COUNTY PRIOR TO COMMENCING CONSTRUCTION OF ANY IMPROVEMENTS WITHIN COUNTY ROAD RIGHT OF WAYS.
4. ALL PAVING IMPROVEMENTS SHALL BE CONSTRUCTED IN ACCORDANCE WITH FORT BEND COUNTY "RULES, REGULATIONS, AND REQUIREMENTS" RELATING TO THE APPROVAL AND ACCEPTANCE OF IMPROVEMENTS IN SUBDIVISIONS AS CURRENTLY AMENDED.
5. ALL ROAD WIDTHS, CURB RADII, AND CURB ALIGNMENT SHOWN INDICATES BACK OF CURB.
6. A CONTINUOUS LONGITUDINAL REINFORCING BAR SHALL BE USED IN THE CURBS.
7. ALL CONCRETE PAVEMENT SHALL BE 5 1/2 SACK CEMENT WITH A MINIMUM COMPRESSIVE STRENGTH OF 3500 PSI AT 28 DAYS. TRANSVERSE EXPANSION JOINTS SHALL BE INSTALLED AT EACH CURB RETURN AND AT A MAXIMUM SPACING OF 60 FEET.
8. ALL WEATHER ACCESS TO ALL EXISTING STREETS AND DRIVEWAYS SHALL BE MAINTAINED AT ALL TIMES.
9. 4" X 12" REINFORCED CONCRETE CURB SHALL BE PLACED IN FRONT OF SINGLE FAMILY LOTS ONLY. ALL OTHER AREAS SHALL BE 6" REINFORCED CONCRETE CURB.
10. AT ALL INTERSECTION LOCATIONS, TYPE 7 RAMPS SHALL BE PLACE IN ACCORDANCE WITH TxDOT Ped-12a STANDARD DETAIL SHEET. A.D.A.-HANDICAP RAMPS SHALL BE INSTALLED WITH STREET PAVING AT ALL INTERSECTIONS AND COMPLY WITH CURRENT A.D.A. REGULATIONS.
11. CURB HEADERS ARE REQUIRED AT CURB CONNECTIONS TO HANDICAP RAMPS, WITH NO CONSTRUCTION JOINT WITHIN 5' OF RAMPS.
12. ALL INTERSECTIONS UTILIZING TRAFFIC CONTROL MEASURES SHALL HAVE A.D.A. WHEEL CHAIR RAMPS INSTALLED.
13. GUIDELINES ARE SET FORTH IN THE TEXAS "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES", AS CURRENTLY AMENDED, SHALL BE OBSERVED. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING ADEQUATE FLAGMEN, SIGNING, STRIPING AND WARNING DEVICES, ETC., DURING CONSTRUCTION - BOTH DAY AND NIGHT.
14. ALL R1-1 STOP SIGNS SHALL BE 30"x30" WITH DIAMOND GRADE SHEETING PER TEXAS MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.
15. STREET NAME SIGNAGE SHALL BE ON A 9" HIGH SIGN FLAT BLADE W/REFLECTIVE GREEN BACKGROUND. STREET NAMES SHALL BE UPPER AND LOWERCASE LETTERING WITH UPPERCASE LETTERS OF 6" MINIMUM AND LOWERCASE LETTERS OF 4.5" MINIMUM. THE LETTERS SHALL BE REFLECTIVE WHITE. STREET NAME SIGNS SHALL BE MOUNTED ON STOP SIGN POST.
16. A BLUE DOUBLE REFLECTORIZED BUTTON SHALL BE PLACED AT ALL FIRE HYDRANT LOCATIONS. THE BUTTON SHALL BE PLACED 12 INCHES OFF THE CENTERLINE OF THE STREET ON THE SAME SIDE AS THE HYDRANT.
17. THE PROJECT AND ALL PARTS THEREOF SHALL BE SUBJECT TO INSPECTION FROM TIME TO TIME BY INSPECTORS DESIGNATED BY FORT BEND COUNTY. NO SUCH INSPECTIONS SHALL RELIEVE THE CONTRACTOR OF ANY OF ITS OBLIGATIONS HEREUNDER. NEITHER FAILURE TO INSPECT NOR FAILURE TO DISCOVER OR REJECT ANY OF THE WORK AS NOT IN ACCORDANCE WITH THE DRAWINGS AND SPECIFICATIONS, REQUIREMENTS AND SPECIFICATIONS OF FORT BEND COUNTY OR ANY PROVISION OF THIS PROJECT SHALL BE CONSTRUCTED TO IMPLY AN ACCEPTANCE OF SUCH WORK OR TO RELIEVE THE CONTRACTOR OF ANY OF ITS OBLIGATION HEREUNDER.

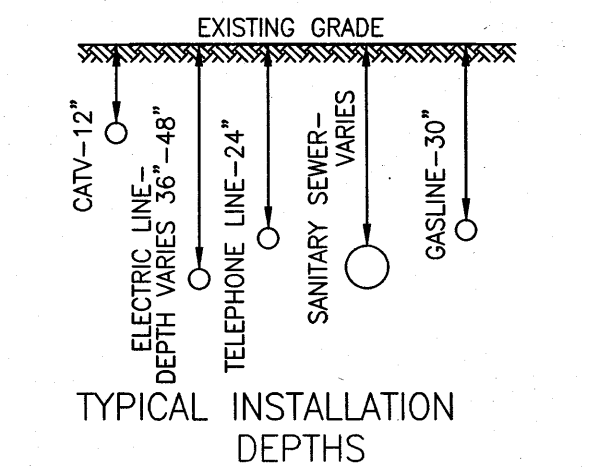
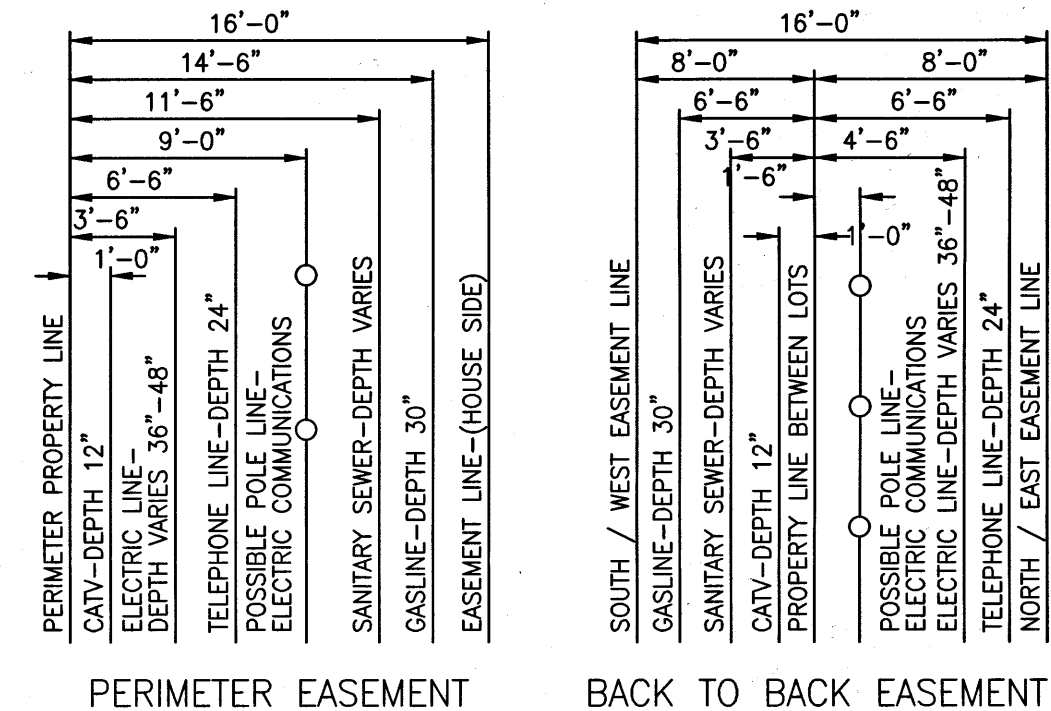
NOTE: FORT BEND COUNTY NOTES SUPERCEDE ANY CONFLICTING NOTES.

TEN-FOOT (10') WIDE EASEMENT



UTILITIES ARE NORMALLY INSTALLED AS SHOWN BUT DEPTH MAY VARY DUE TO CUT BY OTHERS MAINTAIN MINIMUM 4" CLEARANCE BETWEEN ALL UTILITY LINES EXTENDING FROM EASEMENT TO HOUSE/BUILDING

SIXTEEN-FOOT (16') WIDE EASEMENT



UTILITIES ARE NORMALLY INSTALLED AS SHOWN BUT DEPTH MAY VARY DUE TO CUT BY OTHERS MAINTAIN MINIMUM 4" CLEARANCE BETWEEN ALL UTILITY LINES EXTENDING FROM EASEMENT TO HOUSE/BUILDING

BENCHMARK:
A BRASS DISK STAMPED K-1219, SET IN A CONCRETE HEADWALL, LOCATED IN FORT BEND COUNTY, 0.15 MILE SOUTH OF THE INTERSECTION OF STATE HIGHWAY 36 AND MEYER ROAD, SET IN THE TOP OF A CONCRETE HEADWALL AND 1.7 FEET SOUTH OF THE NORTH END OF THE EAST CONCRETE HEADWALL OF A CULVERT, 24 FEET EAST OF THE CENTERLINE OF STATE HIGHWAY 36, AND LEVEL WITH THE HIGHWAY'S SURFACE. NAVD-88 (1991 ADJ.) ELEV = 91.69 FEET
TBM (LJA 1)
A 3/4-INCH IRON ROD WITH CAP SET AT THE INTERSECTION OF BRYAN ROAD AND SPACEK ROAD, APPROXIMATELY 18.8 FEET NORTH OF THE CENTERLINE OF BRYAN ROAD AND 40.4 FEET WEST OF THE CENTERLINE OF SPACEK ROAD. NAVD-88(1991 ADJ.) ELEV = 90.758 FEET
INTERNAL 100-YR FLOOD ELEV = 79.38
PER LJA REPORT "MASTER DRAINAGE PLAN FOR BONBROOK PLANTATION DEVELOPMENT" FORT BEND COUNTY MUD 155, JAN. 2005
FIRM PANEL: 48157C0265 L
DATE: APRIL 2, 2014

- NOTES:**
- 1) ALL UTILITIES ARE PROPOSED UNLESS OTHERWISE NOTED.
 - 2) THIS CONTRACTOR SHALL FIELD VERIFY ALL EXISTING UTILITIES PRIOR TO CONSTRUCTION
 - 3) CAUTION: THERE ARE EXISTING UTILITIES WITHIN THE PROJECT AREA. CONTRACTOR SHALL FIELD VERIFY LOCATION OF ALL EXISTING UTILITIES AFFECTING PROPOSED UTILITIES PRIOR TO CONSTRUCTION. IN THE EVENT OF CONFLICT BETWEEN EXISTING UTILITIES AND PROPOSED UTILITIES, THE CONTRACTOR SHALL SUSPEND CONSTRUCTION IN THE VICINITY OF THE CONFLICT, AND SHALL COMMENCE ONLY UPON AUTHORIZATION BY OWNER.


RECORD DRAWING

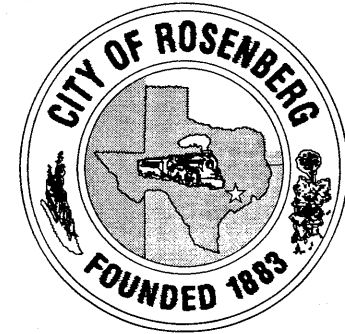
I CERTIFY THAT THIS DRAWING REFLECTS THE IMPROVEMENTS CONSTRUCTED AS TO SIZE, LOCATION AND GRADE AND THAT THE CONSTRUCTION WAS IN FULL COMPLIANCE WITH THE CONTRACT DOCUMENTS

BY _____ DATE _____
TITLE _____

DATE	REVISION	BY

FORT BEND COUNTY ENGINEERING DEPARTMENT

APPROVED: 
DEVELOPMENT COORDINATOR
DATE: 4/3/18



B-BROOK LAND PARTNERS, L.P.

BONBROOK PLANTATION SOUTH
DETENTION POND "G"

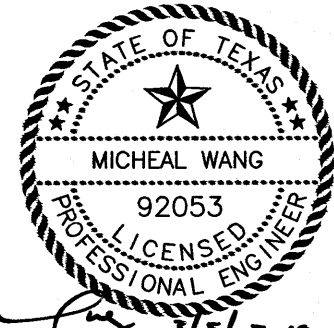
GENERAL CONSTRUCTION
NOTES

LJA Engineering, Inc.
2929 Briarpark Drive Phone 713.953.5200
Suite 600 Fax 713.953.5026
Houston, Texas 77042 FRN - F-1386

LJA PROJECT NO.: 2304-1110B

DRAWN: L.O.R. DESIGN: M.F./K.T. DATE: FEBRUARY 2018

SCALE: NONE SHEET NO. 2 OF 20



FLOODPLAIN MITIGATION CALCULATIONS		
TOTAL MITIGATION REQUIRED	21.52	ac-ft
MITIGATION PROVIDED		
MITIGATION PROVIDED FOR ALL 3 PONDS	21.52	ac-ft

LEGEND

INDICATES 100-YR FLOODPLAIN

INDICATES EXISTING NATURAL GROUND CONTOUR

BENCHMARK:
A BRASS DISK STAMPED K-1219, SET IN A CONCRETE HEADWALL, LOCATED IN FORT BEND COUNTY, 0.15 MILE SOUTH OF THE INTERSECTION OF STATE HIGHWAY 36 AND MEYER ROAD, SET IN THE TOP OF A CONCRETE HEADWALL AND 1.7 FEET SOUTH OF THE NORTH END OF THE EAST CONCRETE HEADWALL, 24 FEET EAST OF THE CENTERLINE OF STATE HIGHWAY 36, AND LEVEL WITH THE HIGHWAYS SURFACE. NAVD-88 (1991 ADJ.) ELEV = 91.69 FEET
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FIRM PANEL: 48157C0265 L
DATE: APRIL 2, 2014

NOTES:

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RECORD DRAWING

I CERTIFY THAT THIS DRAWING REFLECTS THE IMPROVEMENTS CONSTRUCTED AS TO SIZE, LOCATION AND GRADE AND THAT THE CONSTRUCTION WAS IN FULL COMPLIANCE WITH THE CONTRACT DOCUMENTS

BY _____ DATE _____

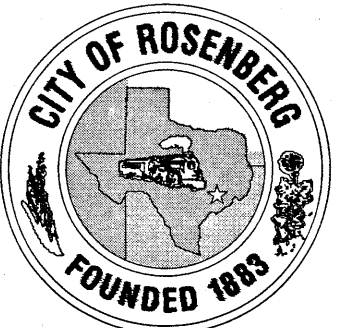
TITLE _____

DATE	REVISION	BY

FORT BEND COUNTY ENGINEERING DEPARTMENT

APPROVED: _____
DEVELOPMENT COORDINATOR

DATE: 4/13/12



B-BROOK LAND PARTNERS, L.P.

BONBROOK PLANTATION SOUTH DETENTION POND "G"

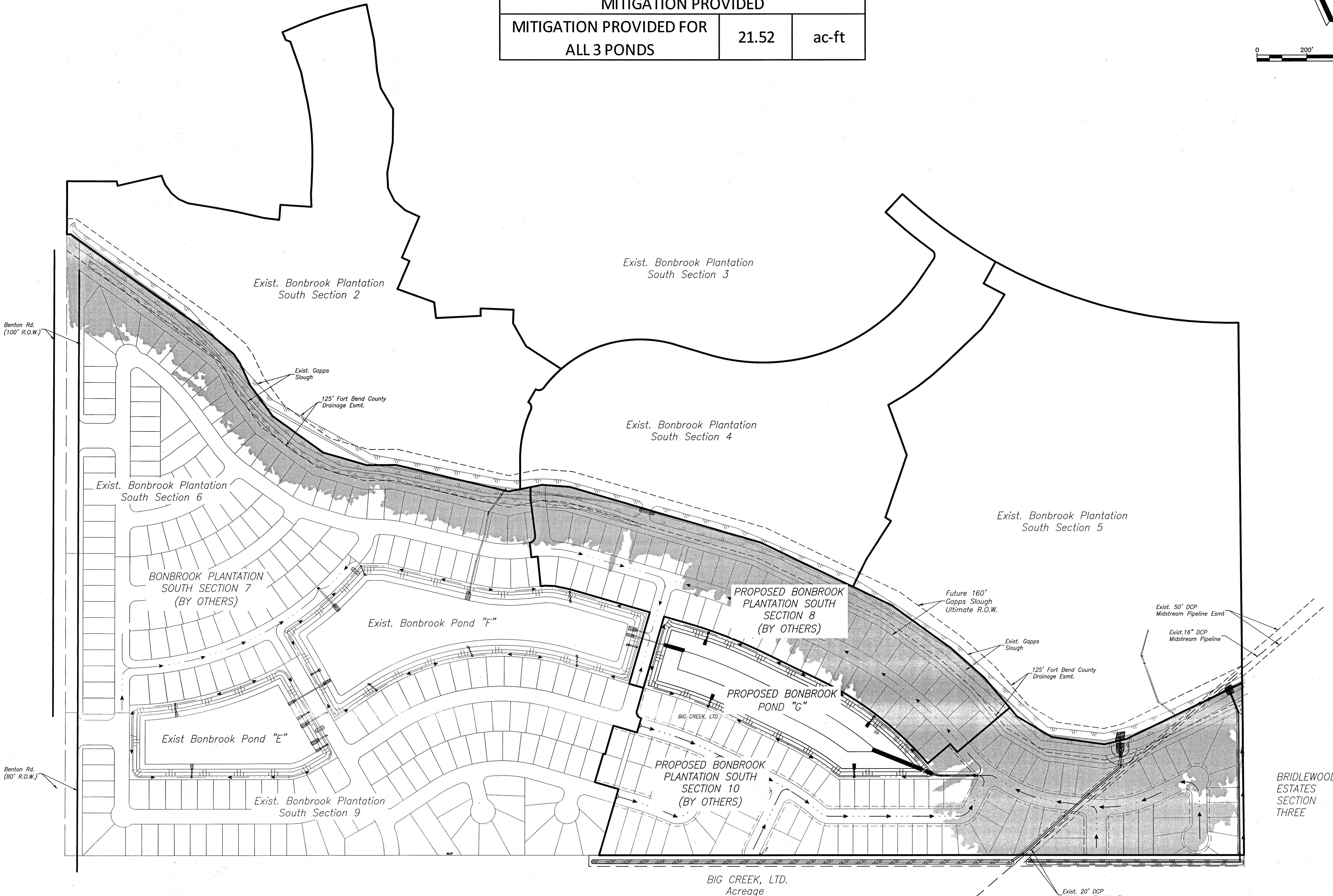
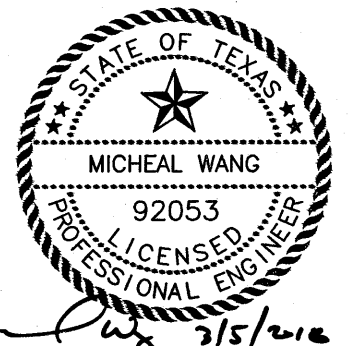
FLOODPLAIN MITIGATION PLAN

LJA Engineering, Inc.
2929 Briarpark Drive Suite 600 Houston, Texas 77042
Phone 713.953.5200 Fax 713.953.5026 FRN - F-1386

LJA PROJECT NO.: 2304-1110B

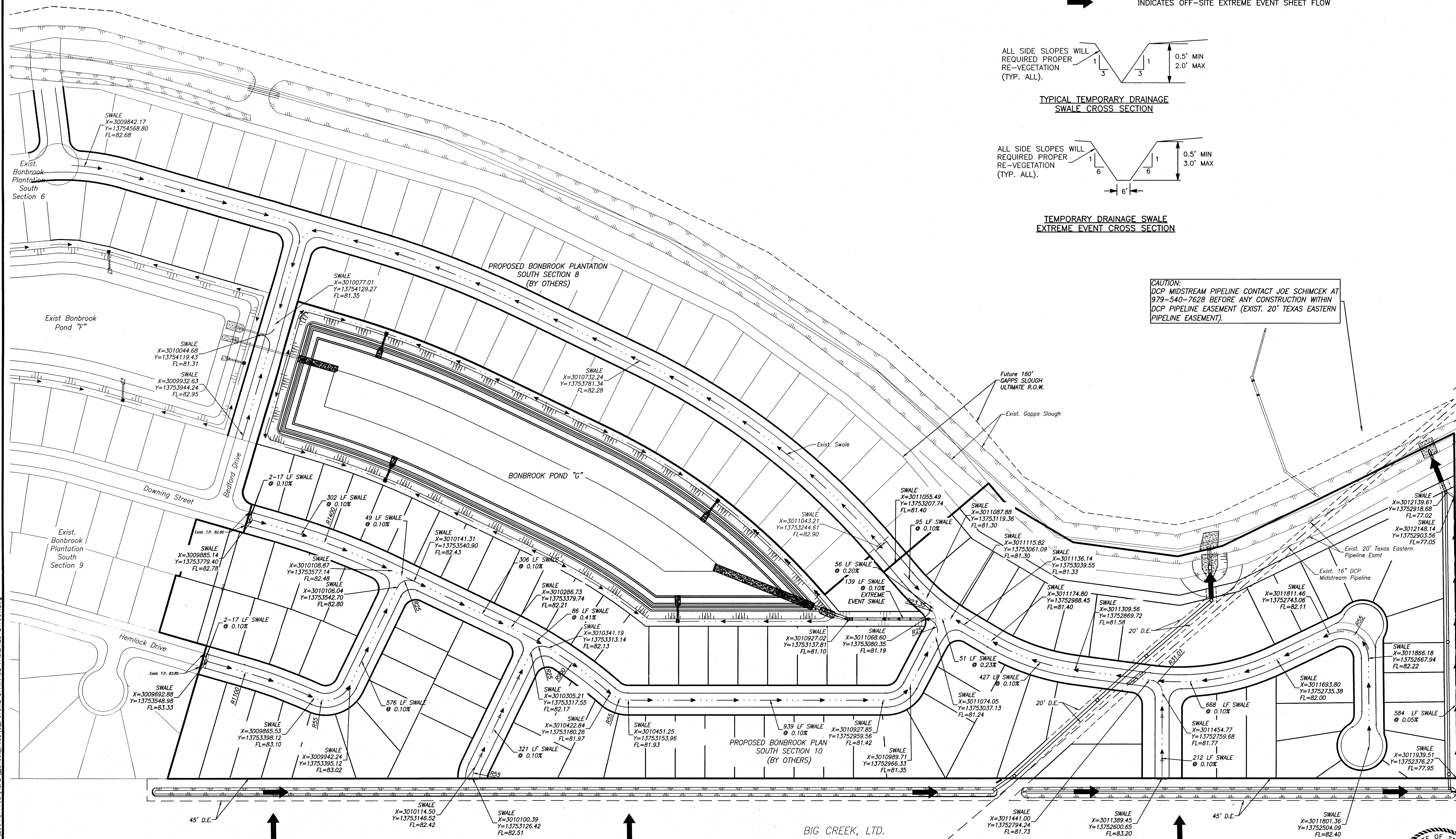
DRAWN: L.O.R. DESIGN: M.F./K.T. DATE: FEBRUARY 2018

SCALE: 1" = 200' SHEET NO. 5 OF 20



BRIDLEWOOD ESTATES SECTION THREE

6
Date: Time - Fri, 09 Mar 2018 - 4:35pm User Name: jtrocheal
Path Name: I:\Projects\2304\11108\ACAD\Sheet Files\6_FUTURE DRAINAGE FACILITIES LAYOUT.dwg



LEGEND

- FUTURE STORM SEWER & MANHOLE
- EXISTING STORM SEWER AND MANHOLE
- FUTURE STORM SEWER, MANHOLE, AND "H-2" OR "C-1" INLETS
- FUTURE PAVEMENT
- FUTURE PAVING SUMMIT
- PROPOSED SWALES
- INDICATES OFF-SITE EXTREME EVENT SHEET FLOW

ALL SIDE SLOPES WILL
REQUIRED PROPER
RE-VEGETATION
(TYP. ALL).

TYPICAL TEMPORARY DRAINAGE
SWALE CROSS SECTION

ALL SIDE SLOPES WILL
REQUIRED PROPER
RE-VEGETATION
(TYP. ALL).

TEMPORARY DRAINAGE SWALE
EXTREME EVENT CROSS SECTION

CAUTION:
DCP MIDSTREAM PIPELINE CONTACT JOE SCHIMCEK AT
979-540-7628 BEFORE ANY CONSTRUCTION WITHIN
DCP PIPELINE EASEMENT (EXIST. 20' TEXAS EASTERN
PIPELINE EASEMENT).

BENCHMARK:
A BRASS DISK STAMPED K-1219, SET IN A CONCRETE
HEADWALL, LOCATED IN FORT BEND COUNTY, 0.15 MILE SOUTH
OF
THE INTERSECTION OF STATE HIGHWAY 36 AND MEYER ROAD,
SET IN THE TOP OF A CONCRETE HEADWALL AND 1.7 FEET
SOUTH OF THE NORTH END OF THE EAST CONCRETE
HEADWALL
OF A CULVERT, 24 FEET EAST OF THE CENTERLINE OF STATE
HIGHWAY 36, AND LEVEL WITH THE HIGHWAY'S SURFACE.
NAVD-88 (1991 ADJ.) ELEV = 91.69 FEET
TBM (LJA 1)
A 3/8-INCH IRON ROD WITH CAP SET AT THE INTERSECTION
OF BRYAN ROAD AND SPACEK ROAD, APPROXIMATELY 18.8
FEET NORTH OF THE CENTERLINE OF BRYAN ROAD AND 40.4
FEET WEST OF THE CENTERLINE OF SPACEK ROAD.
NAVD-88(1991 ADJ.) ELEV = 90.758 FEET
INTERNAL 100-YR FLOOD ELEV = 79.38
PER LJA REPORT "MASTER DRAINAGE PLAN FOR BONBROOK
PLANTATION DEVELOPMENT" FORT BEND COUNTY MUD 155,
JAN. 2005
FIRM PANEL: 481570265 L
DATE: APRIL 2, 2014

NOTES:

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RECORD DRAWING

I CERTIFY THAT THIS DRAWING REFLECTS THE IMPROVEMENTS CONSTRUCTED AS TO SIZE, LOCATION AND GRADE AND THAT THE CONSTRUCTION WAS IN FULL COMPLIANCE WITH THE CONTRACT DOCUMENTS

BY _____ DATE _____

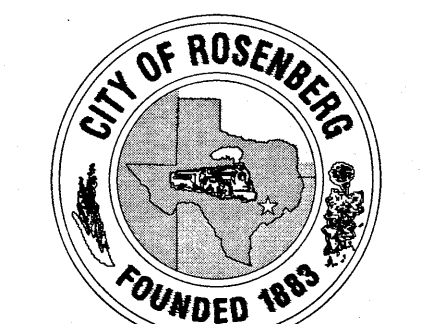
TITLE _____

DATE	REVISION	BY

FORT BEND COUNTY ENGINEERING DEPARTMENT

APPROVED: DEVELOPMENT COORDINATOR

DATE: 4/13/18



B-BROOK LAND PARTNERS, L.P.

BONBROOK PLANTATION SOUTH
DETENTION POND "G"

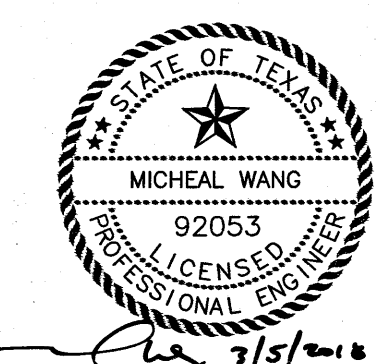
TEMPORARY DRAINAGE
SWALES & FUTURE DRAINAGE
FACILITIES FOR SECTION 10

LJA Engineering, Inc.
2829 Briarpark Drive Phone 713.953.5200
Suite 600 Fax 713.953.5026
Houston, Texas 77042 FRN - F-1386

LJA PROJECT NO.: 2304-11108

DRAWN: L.O.R. DESIGN: M.F./K.T. DATE: FEBRUARY 2018

SCALE: 1" = 100' SHEET NO. 6 OF 20



BONBROOK PLANTATION SOUTH DETENTION POND "G" - JOB NO. 2304-11108

Bonbrook Plantation Pond G																													
3-YR Storm Calcs																													
				TOTAL	CITY			Q	Q		LINE				DESIGN	SLOPE	M.H.	OTHER		FLOWLINE			THEOR.		ACTUAL		UPST.	H.G.L.	
LINE	FROM	TO	AREA	AREA	CURVE	Tc		INPUT	TOTAL	REACH	SIZE	MANN.	SLOPE	Q	V	FALL	DROP	LOSS	UP-	DOWN-	ACTUAL	H.G.L.	H	H.G.L.	UPST.	DNST.	TC	IN RELATION	
	MH	MH	(AC)	(AC)	NO.	(MIN)	CI	(CFS)	(CFS)	(FT)	(IN)	(FT)	CONST.	(%)	(CFS)	(FPS)	(FT)	(FT)	(FT)	STREAM	STREAM	V	SLOPE	(FT)	(%)	(FT)	(%)	(FT)	TO TOC
DITCH 1																													
LINE	Ditch	A1	0.00	0.00	4	10.00	1.15	68.70	68.70	52	6	3	0.013	0.0010	65.1	3.61	0.05	0.00	0.00	76.65	76.60	3.82	0.00	0.00	0.00	78.51	78.51	82.45	-3.94
A	A1	A2	0.00	0.00	4	10.24	1.14	0.00	68.70	227	6	3	0.013	0.0010	65.1	3.61	0.23	0.00	0.00	76.60	76.37	3.82	0.00	0.01	0.00	78.51	78.50	84.20	-5.69
A	A2	A3	0.00	0.00	4	11.28	1.13	0.00	68.70	133	6	3	0.013	0.0010	65.1	3.61	0.13	4.87	0.00	71.50	71.37	3.82	0.00	0.00	0.00	78.50	78.50	82.90	-4.40
A	A3	A4	0.00	0.00	4	11.90	1.12	0.00	68.70	173	6	3	0.013	0.0010	65.1	3.61	0.17	-0.96	0.00	72.33	72.16	3.82	0.00	0.01	0.00	78.50	78.49	82.92	-4.42
A	A4	A1001	0.00	0.00	4	12.70	1.11	0.00	68.70	71	6	3	0.013	0.0010	65.1	3.61	0.07	0.00	0.00	72.16	72.09	3.82	0.00	0.00	0.00	78.49	78.49	83.37	-4.88
DITCH 2																													
LINE	Ditch	B1	0.00	0.00	4	10.00	1.15	64.60	64.60	32	48		0.013	0.0049	100.8	8.02	0.16	0.00	0.00	75.00	74.84	5.14	0.20	0.06	0.20	79.89	79.82	82.81	-2.92
B	B1	B2	0.00	0.00	4	10.07	1.15	0.00	64.60	267	48		0.013	0.0010	45.5	3.62	0.27	2.99	0.00	71.85	71.58	5.14	0.20	0.54	0.20	79.82	79.29	82.83	-3.01
B	B2	B3	0.00	0.00	4	11.30	1.13	0.00	64.60	302	48		0.013	0.0010	45.5	3.62	0.30	0.00	0.00	71.58	71.28	5.14	0.20	0.61	0.20	79.29	78.68	82.43	-3.14
B	B3	B1001	0.00	0.00	4	12.69	1.11	0.00	64.60	93	48		0.013	0.0020	64.4	5.12	0.19	0.00	0.00	71.28	71.09	5.14	0.20	0.19	0.20	78.68	78.49	78.53	0.15

Bonbrook Plantation South Section 10																									
3-YR Storm Calcs																									

Bonbrook Plantation Pond G																																	
3-YR Adj. Storm Calcs																																	
			TOTAL		CITY				Q		Q		LINE		DESIGN			SLOPE		M.H.		OTHER		FLOWLINE		THEOR.		ACTUAL		UPST.		H.G.L.	
LINE	FROM	TO	AREA	AREA	CURVE	Tc		INPUT	TOTAL	REACH	SIZE	MANN.	SLOPE	Q	V	FALL	DROP	LOSS	UP- STREAM	DOWN- STREAM	ACTUAL V	H.G.L. SLOPE	H	H.G.L. SLOPE	H.G.L.	UPST. H.G.L.	DNST. H.G.L.	TC ELEV.	IN RELATION TO TOC				
			(AC)	(AC)	NO.	(MIN)	CI	(CFS)	(CFS)	(FT)	(IN)	(FT)	CONST.	(%)	(CFS)	(FPS)	(FT)	(FT)	(FT)	(FT)	(FT)	(FPS)	(%)	(FT)	(%)	(FT)	(FT)	(FT)	(FT)	(FT)			
DITCH 1																																	
LINE	Ditch	A1	0.00	0.00	4	10.00	1.15	68.70	137.40	52	0	6	3	0.013	0.0010	65.1	1.02	0.05	0.00	0.00	76.65	76.60	19.44	0.01	0.01	0.10	79.65	79.60	82.45	-2.80			
A	A1	A2	0.00	0.00	4	10.84	1.13	0.00	137.40	227	0	6	3	0.013	0.0010	65.1	1.02	0.23	0.00	0.00	76.60	76.37	19.44	0.01	0.03	0.10	79.60	79.37	84.20	-4.60			
A	A2	A3	0.00	0.00	4	14.54	1.08	0.00	137.40	133	0	6	3	0.013	0.0010	65.1	1.02	0.13	4.87	0.00	71.50	71.37	19.44	0.01	0.02	0.01	78.54	78.52	82.90	-4.36			
A	A3	A4	0.00	0.00	4	16.71	1.06	0.00	137.40	173	0	6	3	0.013	0.0010	65.1	1.02	0.17	-0.96	0.00	72.33	72.16	19.44	0.01	0.02	0.01	78.52	78.50	82.92	-4.40			
A	A4	A1001	0.00	0.00	4	19.53	1.03	0.00	137.40	71	0	6	3	0.013	0.0010	65.1	1.02	0.07	0.00	0.00	72.16	72.08	19.44	0.01	0.01	0.01	78.50	78.49	83.37	-4.87			
Adjustment factor			2.00																														
DITCH 2																																	
LINE	Ditch	B1	0.00	0.00	4	10.00	1.15	64.60	67.18	32	48		0.013	0.0049	100.8	8.02	0.16	0.00	0.00	75.00	74.84	5.35	0.22	0.07	0.22	80.00	79.93	82.81	-2.81				
B	B1	B2	0.00	0.00	4	10.07	1.15	0.00	67.18	267	48		0.013	0.0010	45.5	3.62	0.27	2.99	0.00	71.85	71.59	5.35	0.22	0.58	0.22	79.93	79.35	82.83	-2.90				
B	B2	B3	0.00	0.00	4	11.30	1.13	0.00	67.18	302	48		0.013	0.0010	45.5	3.62	0.30	0.00	0.00	71.58	71.27	5.35	0.22	0.66	0.22	79.35	78.69	82.43	-3.08				
B	B3	B1001	0.00	0.00	4	12.69	1.11	0.00	67.18	93	48		0.013	0.0020	64.4	5.12	0.19	0.00	0.00	71.28	71.10	5.35	0.22	0.20	0.22	78.69	78.49	78.53	0.16				
Adjustment factor			1.04																														

Bonbrook Plantation South Section 10																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																					</	
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LINE	FROM MH	TO MH	AREA (AC)	TOTAL AREA (AC)	C VALUE	Tc (MIN)	I	Q INPUT (CFS)	Q TOTAL (CFS)	REACH (FT)	LINE			DESIGN		SLOPE FALL (FT)	M.H. DROP (FT)	FLOWLINE		ACTUAL V (FPS)	THEOR. H.G.L. SLOPE (%)	H (FT)	ACTUAL H.G.L. SLOPE (%)	UPST. H.G.L. (FT)	DNST. H.G.L. (FT)	UPST. TC ELEV. (FT)	UPST. MAX H.G.L. (FT)	H.G.L. IN RELATION TO GUTTER (FT)	H.G.L. IN RELATION TO TOC (FT)		
											SIZE (IN)	(FT)	(FT)	MANN. CONST.	SLOPE			Q (CFS)	V (FPS)											UP- STREAM (FT)	DOWN- STREAM (FT)
DITCH 1																															
LINE	Ditch	A1	0.00	0.00	0.20	10.00	11.63	68.70	68.70	51.52	6 3	0.013	0.0010	65.1	3.61	0.05	0.00	76.650	76.598	3.82	0.00	0.00	0.00	78.51	78.51	82.45	81.95	-3.44	-3.94		
A	A1	A2	0.00	0.00	0.20	10.24	11.55	0.00	68.70	226.94	6 3	0.013	0.0010	65.1	3.61	0.23	0.00	76.598	76.372	3.82	0.00	0.01	0.00	78.51	78.50	84.20	83.70	-5.19	-5.69		
A	A2	A3	0.00	0.00	0.20	11.28	11.19	0.00	68.70	133.32	6 3	0.013	0.0010	65.1	3.61	0.13	4.87	71.502	71.368	3.82	0.00	0.00	0.00	78.50	78.50	82.90	82.40	-3.90	-4.40		
A	A3	A4	0.00	0.00	0.20	11.90	10.99	0.00	68.70	172.84	6 3	0.013	0.0010	65.1	3.61	0.17	-0.96	72.328	72.155	3.82	0.00	0.01	0.00	78.50	78.49	82.92	82.42	-3.92	-4.42		
A	A4	A1001	0.00	0.00	0.20	12.70	10.74	0.00	68.70	71.21	6 3	0.013	0.0010	65.1	3.61	0.07	0.00	72.155	72.094	3.82	0.00	0.00	0.00	78.49	78.49	83.37	82.87	-4.38	-4.88		

DITCH 2																													
LINE	Ditch 2	B1	0.00	0.00	0.20	10.00	11.63	64.60	64.60	31.91	48	0.013	0.0049	100.8	8.02	0.16	0.00	75.000	74.844	5.14	0.20	0.06	0.20	79.89	79.82	82.81	82.31	-2.42	-2.92
B	B1	B2	0.00	0.00	0.20	10.07	11.61	0.00	64.60	267.44	48	0.013	0.0010	45.5	3.62	0.27	2.99	71.854	71.576	5.14	0.20	0.54	0.20	79.82	79.29	82.83	82.33	-2.51	-3.01
B	B2	B3	0.00	0.00	0.20	11.30	11.18	0.00	64.60	302.26	48	0.013	0.0010	45.5	3.62	0.30	0.00	71.576	71.284	5.14	0.20	0.61	0.20	79.29	78.68	82.43	81.93	-2.64	-3.14
B	B3	B1001	0.00	0.00	0.20	12.69	10.74	0.00	64.60	93.30	48	0.013	0.0020	64.4	5.12	0.19	0.00	71.284	71.090	5.14	0.20	0.19	0.20	78.68	78.49	78.53	78.03	0.65	0.15

Manning's Equation for a Ditch or Channel w/ flat bottom - Offsite Ditch 1				
Q=(1.49/n)*A*(R ^{2/3} *S ^{0.5}		S= 0.002	Slope % = 0.22	
		n= 0.04	n= 0.04	
Q= 63.35	cfs	A= 28.92	Ditch Width= 19.9	FT.
V= 2.19	fps	P= 20.60	Bottom Width= 7	FT.
		R= 1.40	Depth= 2.15	FT.
			Side Slope= 3	:1

Manning's Equation for a Ditch or Channel w/ flat bottom - Offsets Ditch 2				
Q=(1.49/n)*A*(R) ^{2/3} *S ^{0.5}	S= 0.001	Slope % = 0.1		
	n= 0.04	n= 0.04		
Q= 94.44	cfs	A= 51.82	Ditch Width= 25.9	FT.
V= 1.82	fps	P= 26.92	Bottom Width= 7	FT.
		R= 1.92	Depth= 3.15	FT.
			Side Slope= 3	:1

Bonbrook Plantation South Section 10										100-YR Storm Calcs										
										100 Yr. =										
										Difference										
Area	From MH No.	To MH No.	High TC downstream	Low TC Elev.	Max Elev. Ponding	Height Feet	H + 0.35 Feet	Area (Acres)	Intensity	C Value	1.25SCIA CFS	3Yr. Upstream	Accum. CFS	CFS Pipe	Pass in CFS to Sheet Flow					Tc (MIN)
LINE A																				
A	1	2	83.40	82.81	83.81	0.41	0.76	3.00	9.06	0.55	18.70	0.00	18.70	9.93	8.77					10.00
A	2	3	83.40	82.66	83.66	0.26	0.61	3.00	8.82	0.55	18.18	0.00	18.18	9.77	8.41					11.01
A	3	4	83.39	82.66	83.66	0.27	0.62	3.00	8.71	0.55	17.96	0.00	17.96	9.71	8.25					11.49
A	4	5	83.39	82.66	83.66	0.27	0.62	5.83	8.54	0.55	34.25	0.00	34.25	18.67	15.58					12.25
A	5	6	83.39	82.66	83.66	0.27	0.62	5.83	8.39	0.55	33.62	0.00	33.62	18.48	15.14					13.02
A	6	7	82.70	82.19	83.19	0.49	0.84	6.63	8.31	0.55	37.88	0.00	37.88	20.92	16.97					13.42
A	7	8	82.70	82.19	83.19	0.49	0.84	6.63	8.28	0.55	37.74	0.00	37.74	20.87	16.87					13.58
A	8	9	82.70	82.19	83.19	0.49	0.84	6.63	8.20	0.55	37.37	0.00	37.37	20.77	16.60					14.02
A	9	10	82.85	82.35	83.35	0.50	0.85	9.08	8.13	0.55	50.75	0.00	50.75	28.32	22.43					14.40
A	10	11	83.10	82.30	83.30	0.20	0.55	9.08	7.97	0.55	49.77	0.00	49.77	28.04	21.74					15.31
A	11	12	83.10	82.30	83.30	0.20	0.55	10.00	7.86	0.55	54.06	0.00	54.06	30.66	23.39					15.98
A	12	Stub	82.54	81.70	82.70	0.16	0.51	25.86	7.81	0.55	138.80	0.00	138.80	79.02	59.78					16.33
A	Stub	A13	82.54	81.70	82.70	0.16	0.51	25.86	7.70	0.55	136.82	0.00	136.82	78.46	58.36					17.06
A	A13	Outfall	82.54	81.70	82.70	0.16	0.51	25.86	7.69	0.55	136.72	0.00	136.72	78.43	58.29	*	Worst Case less than 59.24 CFS			17.09
LINE A INLETS																				
A	101	102	83.40	82.81	83.81	0.41	0.76	1.03	9.06	0.55	6.42	0.00	6.42	3.41	3.01					10.00
A	102	1	83.40	82.81	83.81	0.41	0.76	3.00	9.04	0.55	18.65	0.00	18.65	9.91	8.74					10.08
A	401	402	83.39	82.66	83.66	0.27	0.62	1.02	9.06	0.55	6.36	0.00	6.36	3.38	2.98					10.00
A	402	4	83.39	82.66	83.66	0.27	0.62	2.83	9.04	0.55	17.60	0.00	17.60	9.35	8.24					10.08
A	901	902	82.85	82.35	83.35	0.50	0.85	1.30	9.06	0.55	8.10	0.00	8.10	4.30	3.80					10.00
A	902	9	82.85	82.35	83.35	0.50	0.85	2.45	9.04	0.55	15.23	0.00	15.23	8.10	7.14					10.08
A	1101	11	82.54	82.30	83.30	0.76	1.11	0.92	9.06	0.55	5.73	0.00	5.73	3.04	2.69					10.00
LINE B																				
B	1	A6	83.20	82.78	83.78	0.58	0.93	0.80	9.06	0.55	4.99	0.00	4.99	2.65	2.34					10.00
LINE B INLETS																				
B	101	102	83.20	82.78	83.78	0.58	0.93	0.62	9.06	0.55	3.86	0.00	3.86	2.05	1.81					10.00
B	102	1	83.20	82.78	83.78	0.58	0.93	0.80	9.04	0.55	4.97	0.00	4.97	2.64	2.33					10.08
LINE C																				
C	1	2	83.41	82.88	83.88	0.47	0.82	2.69	9.06	0.55	16.76	0.00	16.76	8.90	7.86					10.00
C	2	3	83.05	82.20	83.20	0.15	0.50	2.69	8.96	0.55	16.57	0.00	16.57	8.84	7.73					10.42
C	3	4	83.00	82.20	83.20	0.20	0.55	5.09	8.67	0.55	30.34	0.00	30.34	16.43	13.91					11.66
C	4	5	83.00	82.45	83.45	0.45	0.80	5.09	8.60	0.55	30.08	0.00	30.08	16.35	13.73					12.00
C	5	6	83.08	82.45	83.45	0.37	0.72	6.56	8.56	0.55	38.61	0.00	38.61	21.03	17.59					12.17
C	6	7	82.94	82.20	83.20	0.26	0.61	8.82	8.26	0.55	50.11	0.00	50.11	27.74	22.37					13.66
C	7	8	82.94	82.20	83.20	0.26	0.61	10.04	8.23	0.55	56.84	0.00	56.84	31.52	25.32					13.82
C	8	9	82.54	81.80	82.80	0.26	0.61	10.04	8.03	0.55	55.43	0.00	55.43	34.00	21.44					14.97
C	9	10	82.54	81.80	82.80	0.26	0.61	14.04	7.82	0.55	75.45	0.00	75.45	42.93	32.53					16.27
C	10	11	82.70	81.70	82.70	0.00	0.35	14.04	7.64	0.55	73.72	0.00	73.72	42.44	31.28					17.45
C	C11	A12	82.70	81.70	82.70	0.00	0.35	15.86	7.55	0.55	82.28	0.00	82.28	50.54	31.73					18.09
LINE C INLETS																				
C	101	102	83.03	82.88	83.88	0.85	1.20	1.47	9.06	0.55	9.16	0.00	9.16	4.86	4.30					10.00
C	102	1	83.03	82.88	83.88	0.85	1.20	2.69	9.04	0.55	16.72	0.00	16.72	8.89	7.83					10.09
C	301	302	83.00	82.20	83.20	0.20	0.55	1.30	9.06	0.55	8.10	0.00	8.10	4.30	3.80					10.00
C	302	3	83.00	82.20	83.20	0.20	0.55	2.40	9.04	0.55	14.92	0.00	14.92	7.93	6.99					10.08
C	501	5	83.00	82.45	83.45	0.45	0.80	1.47	9.06	0.55	9.16	0.00	9.16	4.86	4.30					10.00
C	701	7	82.94	82.20	83.20	0.26	0.61	1.22	9.06	0.55	7.60	0.00	7.60	4.04	3.57					10.00
C	901	902	82.54	81.80	82.80	0.26	0.61	2.21	9.06	0.55	13.77	0.00	13.77	7.31	6.46					10.00
C	902	9	82.54	81.80	82.80	0.26	0.61	4.00	9.04	0.55	24.87	0.00	24.87	13.22	11.65					10.08
C	1101	1102	82.70	81.70	82.70	0.00	0.35	1.08	9.06	0.55	6.73	0.00	6.73	3.57	3.16					10.00
C	1102	11	82.70	81.70	82.70	0.00	0.35	1.82	9.04	0.55	11.32	0.00	11.32	6.01	5.30					10.08
LINE D																				
D	1	C6	82.27	82.11	83.11	0.84	1.19	2.26	9.06	0.55	14.08	0.00	14.08	3.57	10.51					10.00
LINE D INLETS																				
D	101	102	82.27	82.11	83.11	0.84	1.19	1.06	9.06	0.55	6.61	0.00	6.61	3.51	3.10					10.00
D	102	1	82.27	82.11	83.11	0.84	1.19	2.26	9.04	0.55	14.05	0.00	14.05	7.47	6.58					10.08

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THE CFS PASS PIPE COLUMN IS THE MAXIMUM AMOUNT OF CFS THAT CAN BE HYDRAULICALLY FORCED THROUGH PIPES. THIS NUMBER COMES FROM THE 3-YR. ADJUSTED CFS. THIS IS THEN USED TO SHOW THE AMOUNT OF CFS REMAINING CAN BE CARRIED BY THE STREET USING THE WEIR EQUATION.

CLEARING	SURFACE	CUT (C.Y.)	FILL (C.Y.)	Future Utility Spoils	CLEARING (AC.)	STRIPPING (AC.)
	SECTION 10	9,687	130,731	8,321	0.00	28.92
	SECTION 8	12,390	21,429	4,165		
	POND "G"	119,460	5,722	4,098	0.00	7.586
	TOTAL	141,537	157,882	16,584	0.00	36.51

LEGEND

— 72 — INDICATES EXISTING NATURAL GROUND CONTOUR

0 200' 400'

BENCHMARK:
A BRASS DISK STAMPED K-1219, SET IN A CONCRETE HEADWALL, LOCATED IN FORT BEND COUNTY, 0.15 MILE SOUTH OF THE INTERSECTION OF STATE HIGHWAY 36 AND MEYER ROAD, SET IN THE TOP OF A CONCRETE HEADWALL AND 1.7 FEET SOUTH OF THE NORTH END OF THE EAST CONCRETE HEADWALL OF A CULVERT, 24 FEET EAST OF THE CENTERLINE OF STATE HIGHWAY 36, AND LEVEL WITH THE HIGHWAY'S SURFACE. NAVD-88 (1991 ADJ.) ELEV = 91.69 FEET
TBM (LJA 1)
A 3/8-INCH IRON ROD WITH CAP SET AT THE INTERSECTION OF BRYAN ROAD AND SPACKER ROAD, APPROXIMATELY 18.8 FEET NORTH OF THE CENTERLINE OF BRYAN ROAD AND 40.4 FEET WEST OF THE CENTERLINE OF SPACKER ROAD. NAVD-88(1991 ADJ.) ELEV = 90.758 FEET
INTERNAL 100-YR FLOOD ELEV = 79.38
PER LJA REPORT "MASTER DRAINAGE PLAN FOR BONBROOK PLANTATION DEVELOPMENT" FORT BEND COUNTY MUD 155, JAN. 2005

FIRM PANEL: 48157C0265 L
DATE: APRIL 2, 2014

NOTES:

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RECORD DRAWING

I CERTIFY THAT THIS DRAWING REFLECTS THE IMPROVEMENTS CONSTRUCTED AS TO SIZE, LOCATION AND GRADE AND THAT THE CONSTRUCTION WAS IN FULL COMPLIANCE WITH THE CONTRACT DOCUMENTS

BY _____ DATE _____

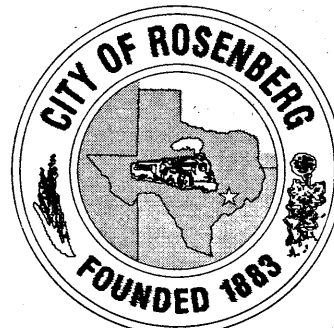
TITLE _____

DATE	REVISION	BY

FORT BEND COUNTY ENGINEERING DEPARTMENT

APPROVED: DEVELOPMENT COORDINATOR

DATE: 4/13/18



B-BROOK LAND PARTNERS, L.P.

BONBROOK PLANTATION SOUTH DETENTION POND "G"

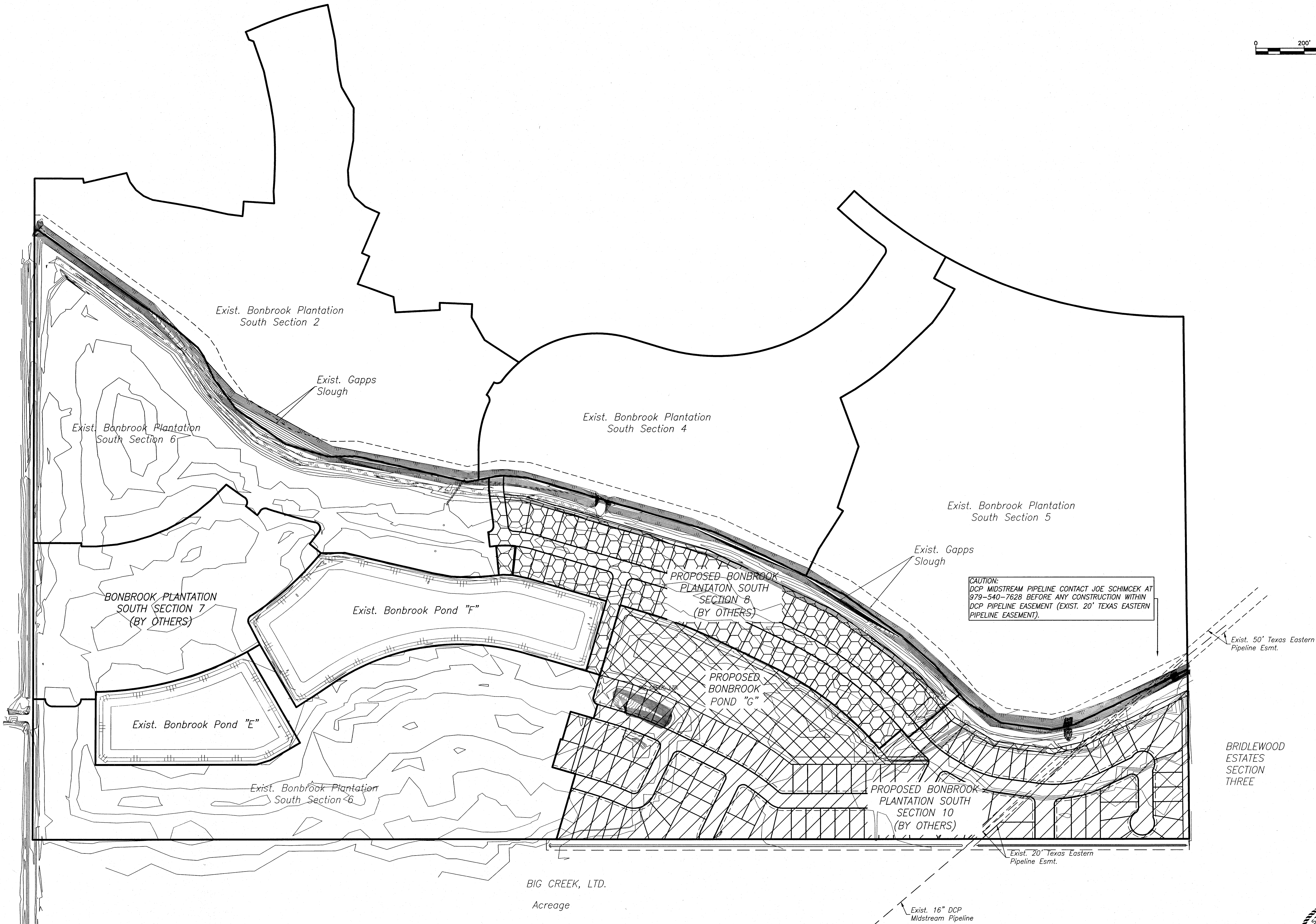
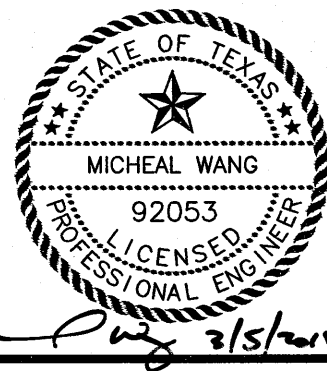
OVERALL CLEARING & GRADING PLAN

LJA Engineering, Inc.
2929 Briarpark Drive Suite 600 Houston, Texas 77042
Phone 713.953.5200 Fax 713.953.5026 FRN - F-1386

LJA PROJECT NO.: 2304-1110B

DRAWN: L.O.R. DESIGN: M.F./K.T. DATE: FEBRUARY 2018

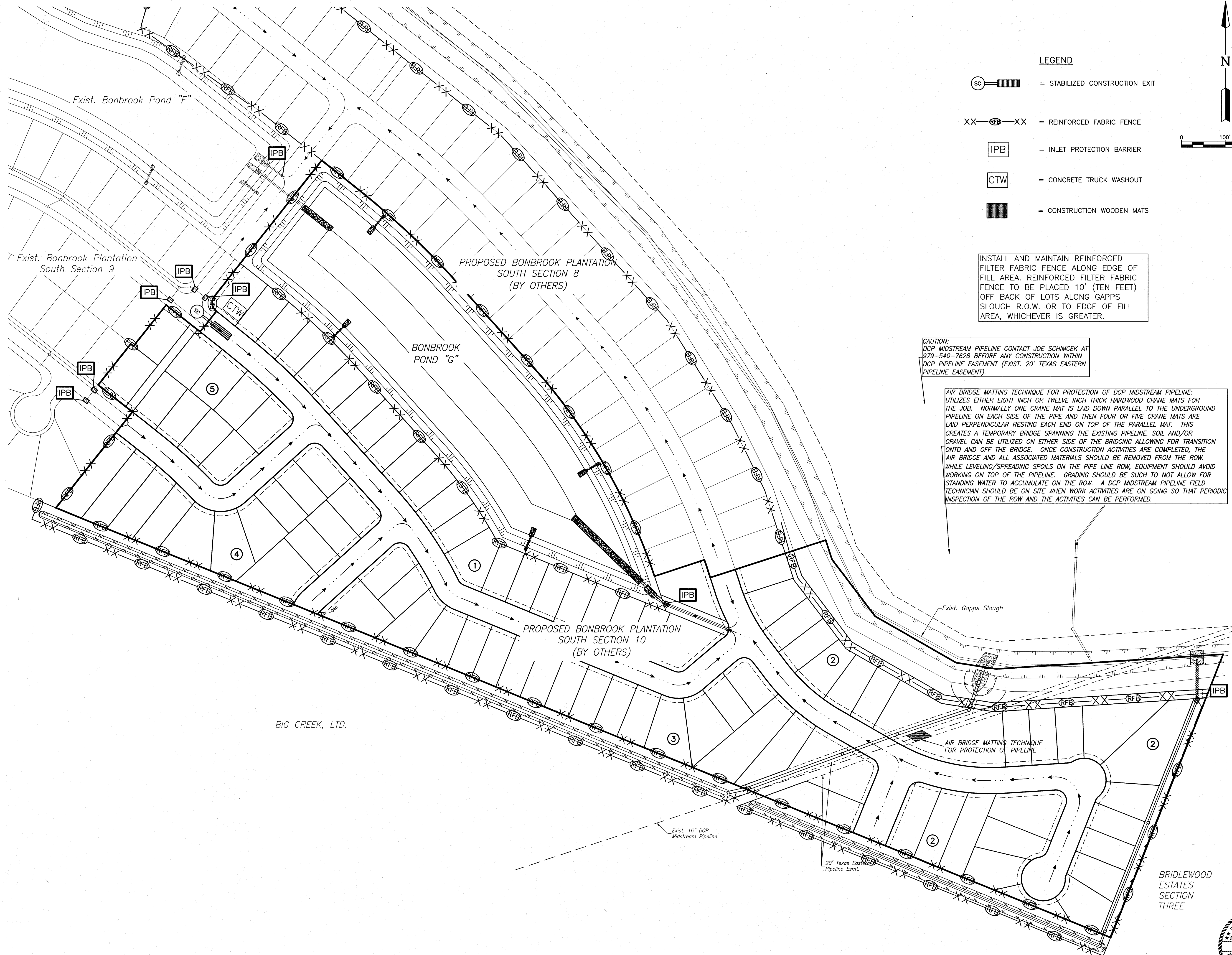
SCALE: 1" = 200' SHEET NO. 10 OF 20



BIG CREEK, LTD.
Acreage

BRIDLEWOOD
ESTATES
SECTION
THREE

CAUTION:
DCP MIDSTREAM PIPELINE CONTACT JOE SCHIMCEK AT 979-540-7628 BEFORE ANY CONSTRUCTION WITHIN DCP PIPELINE EASEMENT (EXIST. 20' TEXAS EASTERN PIPELINE EASEMENT).



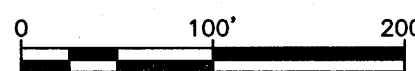
LEGEND

- SC = STABILIZED CONSTRUCTION EXIT
- XX-IPB-XX = REINFORCED FABRIC FENCE
- IPB = INLET PROTECTION BARRIER
- CTW = CONCRETE TRUCK WASHOUT
- [Hatched Box] = CONSTRUCTION WOODEN MATS

INSTALL AND MAINTAIN REINFORCED FILTER FABRIC FENCE ALONG EDGE OF FILL AREA. REINFORCED FILTER FABRIC FENCE TO BE PLACED 10' (TEN FEET) OFF BACK OF LOTS ALONG GAPPS SLOUGH R.O.W. OR TO EDGE OF FILL AREA, WHICHEVER IS GREATER.

CAUTION:
DCP MIDSTREAM PIPELINE CONTACT JOE SCHIMCEK AT 979-540-7628 BEFORE ANY CONSTRUCTION WITHIN DCP PIPELINE EASEMENT (EXIST. 20' TEXAS EASTERN PIPELINE EASEMENT).

AIR BRIDGE MATTING TECHNIQUE FOR PROTECTION OF DCP MIDSTREAM PIPELINE:
UTILIZES EITHER EIGHT INCH OR TWELVE INCH THICK HARDWOOD CRANE MATS FOR THE JOB. NORMALLY ONE CRANE MAT IS LAID DOWN PARALLEL TO THE UNDERGROUND PIPELINE ON EACH SIDE OF THE PIPE AND THEN FOUR OR FIVE CRANE MATS ARE LAID PERPENDICULAR RESTING EACH END ON TOP OF THE PARALLEL MAT. THIS CREATES A TEMPORARY BRIDGE SPANNING THE EXISTING PIPELINE. SOIL AND/OR GRAVEL CAN BE UTILIZED ON EITHER SIDE OF THE BRIDGING ALLOWING FOR TRANSITION ONTO AND OFF THE BRIDGE. ONCE CONSTRUCTION ACTIVITIES ARE COMPLETED, THE AIR BRIDGE AND ALL ASSOCIATED MATERIALS SHOULD BE REMOVED FROM THE ROW. WHILE LEVELING/SPREADING SPOILS ON THE PIPE LINE ROW, EQUIPMENT SHOULD AVOID WORKING ON TOP OF THE PIPELINE. GRADING SHOULD BE SUCH TO NOT ALLOW FOR STANDING WATER TO ACCUMULATE ON THE ROW. A DCP MIDSTREAM PIPELINE FIELD TECHNICIAN SHOULD BE ON SITE WHEN WORK ACTIVITIES ARE ON GOING SO THAT PERIODIC INSPECTION OF THE ROW AND THE ACTIVITIES CAN BE PERFORMED.



BENCHMARK:
A BRASS DISK STAMPED K-1219, SET IN A CONCRETE HEADWALL, LOCATED IN FORT BEND COUNTY, 0.15 MILE SOUTH OF THE INTERSECTION OF STATE HIGHWAY 36 AND MEYER ROAD, SET IN THE TOP OF A CONCRETE HEADWALL AND 1.7 FEET SOUTH OF THE NORTH END OF THE EAST CONCRETE HEADWALL OF A CULVERT, 24 FEET EAST OF THE CENTERLINE OF STATE HIGHWAY 36, AND LEVEL WITH THE HIGHWAY'S SURFACE.
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NAVD-88 (1991 ADJ.) ELEV = 90.758 FEET
INTERNAL 100-YR FLOOD ELEV = 79.38
PER LJA REPORT "MASTER DRAINAGE PLAN FOR BONBROOK PLANTATION DEVELOPMENT" FORT BEND COUNTY MUD 155, JAN. 2005

FIRM PANEL: 48157C0265 L
DATE: APRIL 2, 2014

NOTES:

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RECORD DRAWING

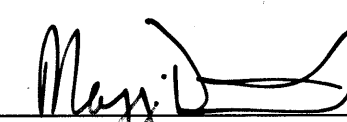
I CERTIFY THAT THIS DRAWING REFLECTS THE IMPROVEMENTS CONSTRUCTED AS TO SIZE, LOCATION AND GRADE AND THAT THE CONSTRUCTION WAS IN FULL COMPLIANCE WITH THE CONTRACT DOCUMENTS

BY _____ DATE _____

TITLE _____

DATE	REVISION	BY

FORT BEND COUNTY ENGINEERING DEPARTMENT

APPROVED: 
DEVELOPMENT COORDINATOR
DATE: 4/13/18



B-BROOK LAND PARTNERS, L.P.

BONBROOK PLANTATION SOUTH
DETENTION POND "G"

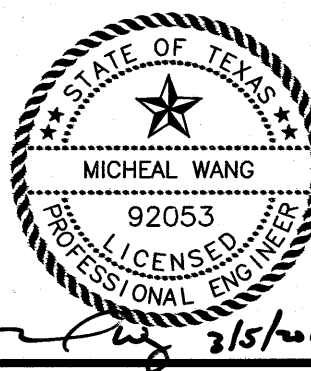
STORM WATER POLLUTION
PREVENTION PLAN

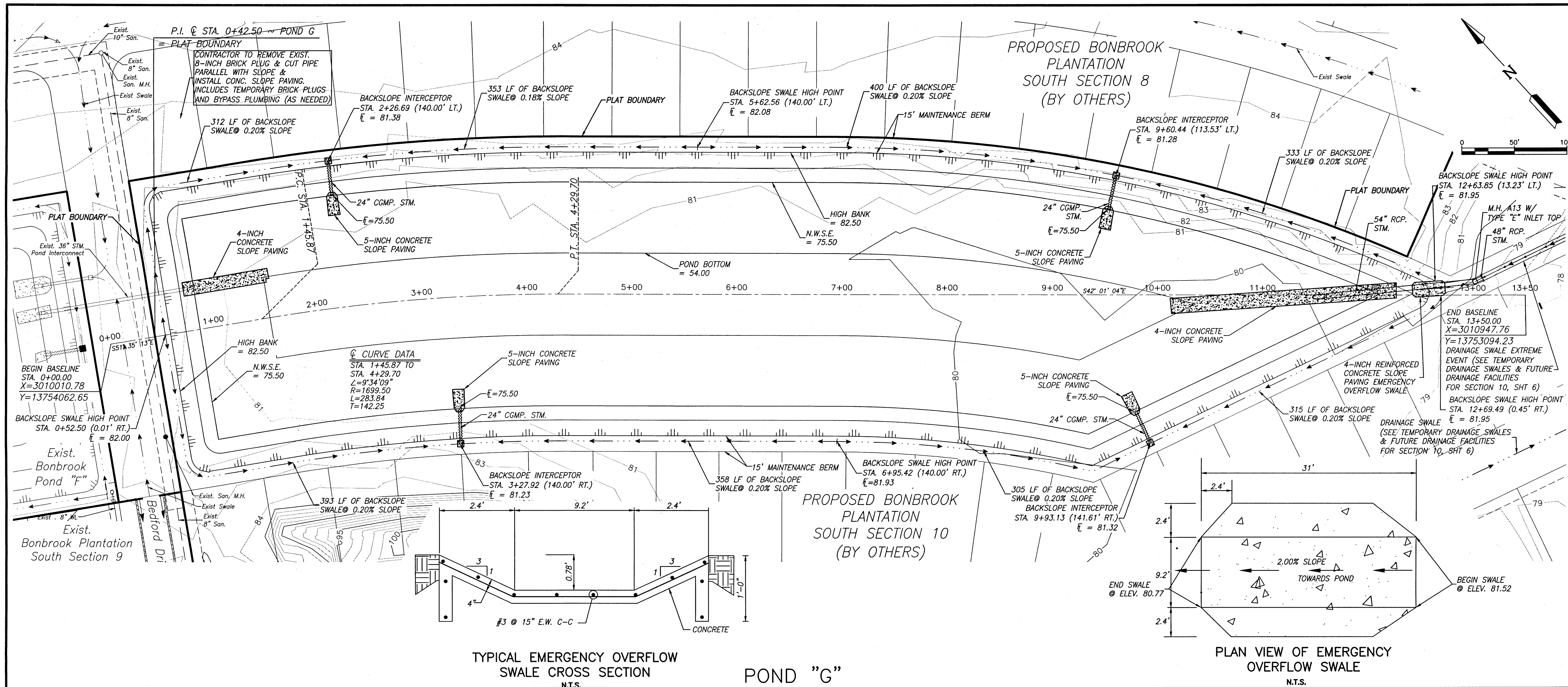
LJA Engineering, Inc.
2929 Briarpark Drive Phone 713.953.5200
Suite 600 Fax 713.953.5026
Houston, Texas 77042 FRN - F-1386

LJA PROJECT NO.: 2304-1110B

DRAWN: L.O.R. DESIGN: M.F./K.T. DATE: FEBRUARY 2018

SCALE: 1" = 100' SHEET NO. 12 OF 20





BENCHMARK:
A BRASS NICKEL STAMPED K-1219, SET IN A CONCRETE HEADWALL, LOCATED IN FORT BEND COUNTY, 0.15 MILE SOUTH OF THE INTERSECTION OF STATE HIGHWAY 36 AND MEYER ROAD, SET IN THE TOP OF A CONCRETE HEADWALL AND 1.7 FEET SOUTH OF THE NORTH END OF THE EAST CONCRETE HEADWALL
OF A CULVERT, 24 FEET EAST OF THE CENTERLINE OF STATE HIGHWAY 36, AND LEVEL WITH THE HIGHWAY'S SURFACE.
BAND--88 (1991 ADJ.) ELEV = 91.69 FEET
TBM (LUA)
A 1/2" IRON ROD WITH CAP SET AT THE INTERSECTION OF BRYAN ROAD AND SPACEK ROAD, APPROXIMATELY 18.8 FEET NORTH OF THE CENTERLINE OF BRYAN ROAD AND 40.4 FEET WEST OF THE CENTERLINE OF SPACEK ROAD.
BAND--88(1991 ADJ.) ELEV = 90.75 FEET
INTERNAL 100-YR FLOOD ELEV = 79.38
PER REPORT "MASTER DRAINAGE PLAN FOR BONBROOK PLANTATION DEVELOPMENT" FORT BEND COUNTY MUD 155, JAN. 2005

FIRM PANEL: 48157C0265 L
DATE: APRIL 2, 2014

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BY _____ DATE _____

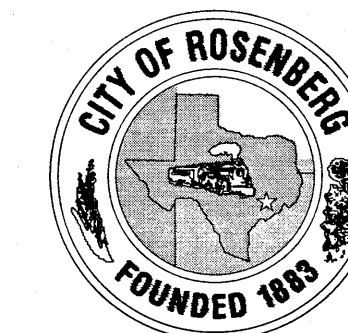
TITEL _____

[illegible]

FORT BEND COUNTY ENGINEERING DEPARTMENT

APPROVED: Mary Jo
DEVELOPMENT COORDINATOR


DATE: 4/13/18



B-BROOK LAND PARTNERS, L.P.

BONBROOK PLANTATION SOUTH
DETENTION POND "G"

POND "G"
STA. 0+00 TO END

LJA Engineering, Inc. 
2929 Briarpark Drive Phone 713.953.5200
Suite 600 Fax 713.953.5026
Houston, Texas 77042 FRN - F-1386

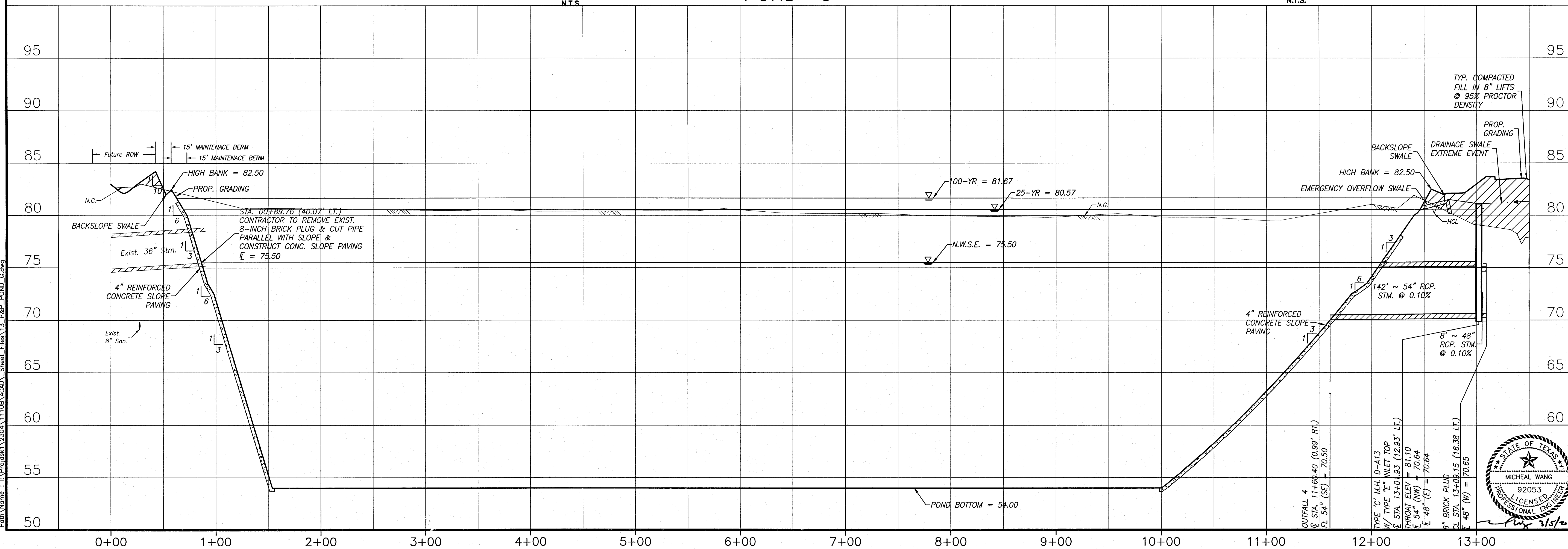
LJA PROJECT NO.: 2304-1110B

DRAWN: L.O.R. DESIGN: M.F./K.T. DATE: FEBRUARY 2018

DRAWN: _____ DESIGN: _____ DATE: _____

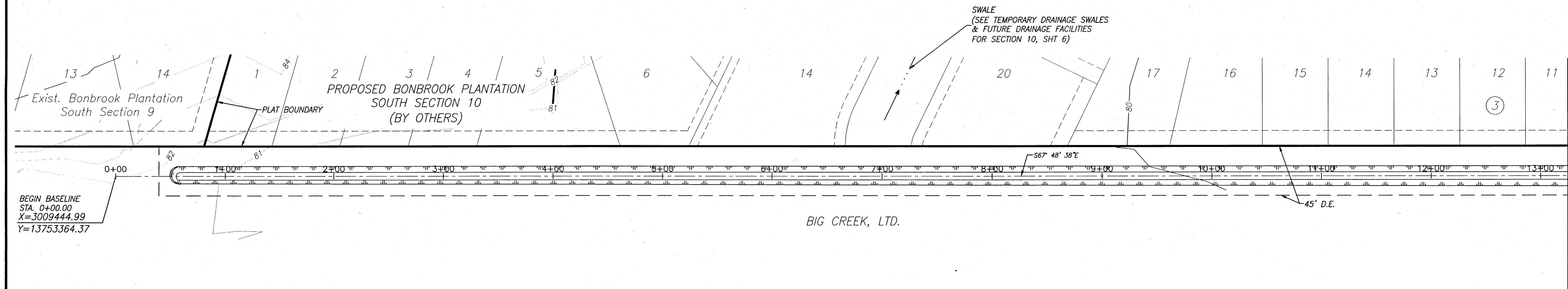
HORZ: 1" = 50' 17 20

VERT: 1" = 5' SHEET NO. 15 OF 20



Date/Time : Fri, 09 Mar 2018 - 4:05pm User Name : ktrachsel

BONBROOK PLANTATION SOUTH DETENTION POND "G" - JOB NO. 2304-1110B



BENCHMARK:
A BRASS DISK STAMPED K-1219, SET IN A CONCRETE HEADWALL, LOCATED IN FORT BEND COUNTY, 0.15 MILE SOUTH OF THE INTERSECTION OF STATE HIGHWAY 36 AND MEYER ROAD, SET IN THE TOP OF A CONCRETE HEADWALL AND 1.7 FEET SOUTH OF THE NORTH END OF THE EAST CONCRETE HEADWALL OF A CULVERT, 24 FEET EAST OF THE CENTERLINE OF STATE HIGHWAY 36, AND LEVEL WITH THE HIGHWAY'S SURFACE. NAVD-88 (1991 ADJ.) ELEV = 91.69 FEET
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FIRM PANEL: 48157C0265 L
DATE: APRIL 2, 2014

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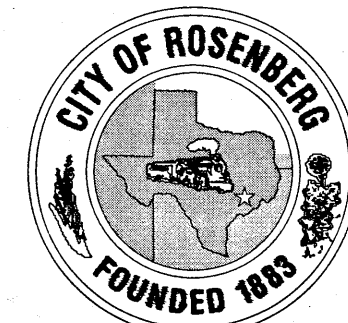
TITLE _____

DATE	REVISION	BY

FORT BEND COUNTY ENGINEERING DEPARTMENT

APPROVED: _____
DEVELOPMENT COORDINATOR

DATE: 4/13/18



B-BROOK LAND PARTNERS, L.P.

BONBROOK PLANTATION SOUTH
DETENTION POND "G"

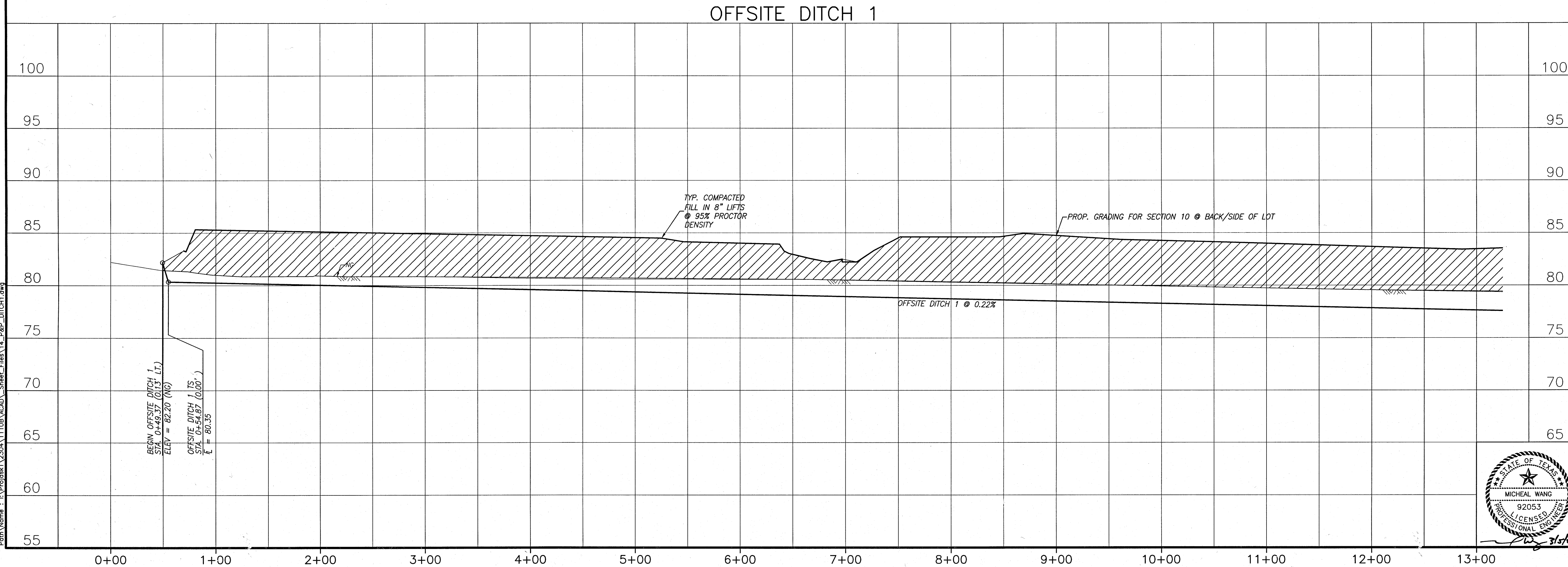
OFFSITE DITCH 1
STA. 0+00 TO 13+25

LJA Engineering, Inc.
2929 Briarpark Drive Phone 713.953.5200
Suite 600 Fax 713.953.5026
Houston, Texas 77042 FRN - F-1386

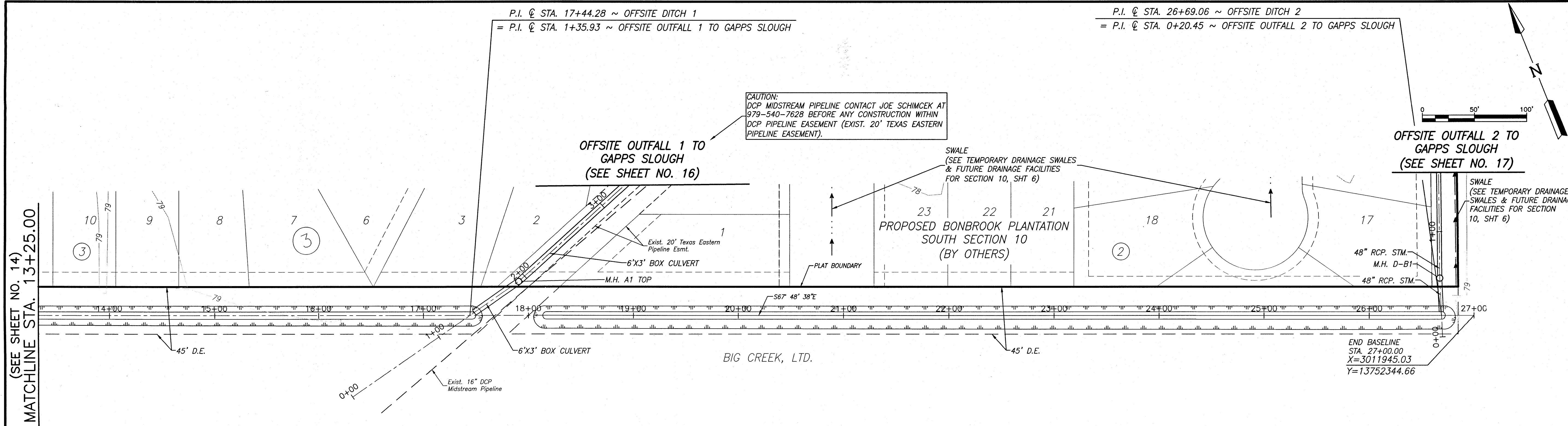
LJA PROJECT NO.: 2304-1110B

DRAWN: L.O.R. DESIGN: M.F./K.T. DATE: FEBRUARY 2018

HORIZ: 1" = 50'
VERT: 1" = 5' SHEET NO. 14 OF 20



P:\1\Tia - F1_09_Mar_2018 - 4050.dwg User Name: Hrcalapl
Plot Name: F:\Projects\2304\1110B\WAD_Sheet_F14.dwg Plot Date: 3/27/18



BENCHMARK:
A BRASS DISK STAMPED K-1219, SET IN A CONCRETE HEADWALL, LOCATED IN FORT BEND COUNTY, 0.15 MILE SOUTH OF THE INTERSECTION OF STATE HIGHWAY 36 AND MEYER ROAD, SET IN THE TOP OF A CONCRETE HEADWALL AND 1.77 FEET SOUTH OF THE NORTH END OF THE EAST CONCRETE HEADWALL OF A CULVERT, 24 FEET EAST OF THE CENTERLINE OF STATE HIGHWAY 36, AND LEVEL WITH THE HIGHWAY'S SURFACE. NAVD-88 (1991 ADJ.) ELEV = 91.69 FEET
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FRM PANEL: 4815700265 L
DATE: APRIL 2, 2014

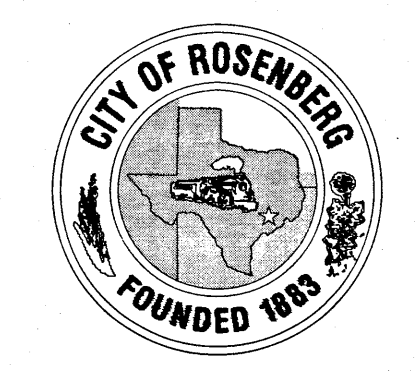
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FORT BEND COUNTY ENGINEERING DEPARTMENT

APPROVED:
DEVELOPMENT COORDINATOR
DATE: 4/13/18



B-BROOK LAND PARTNERS, L.P.

BONBROOK PLANTATION SOUTH DETENTION POND "G"

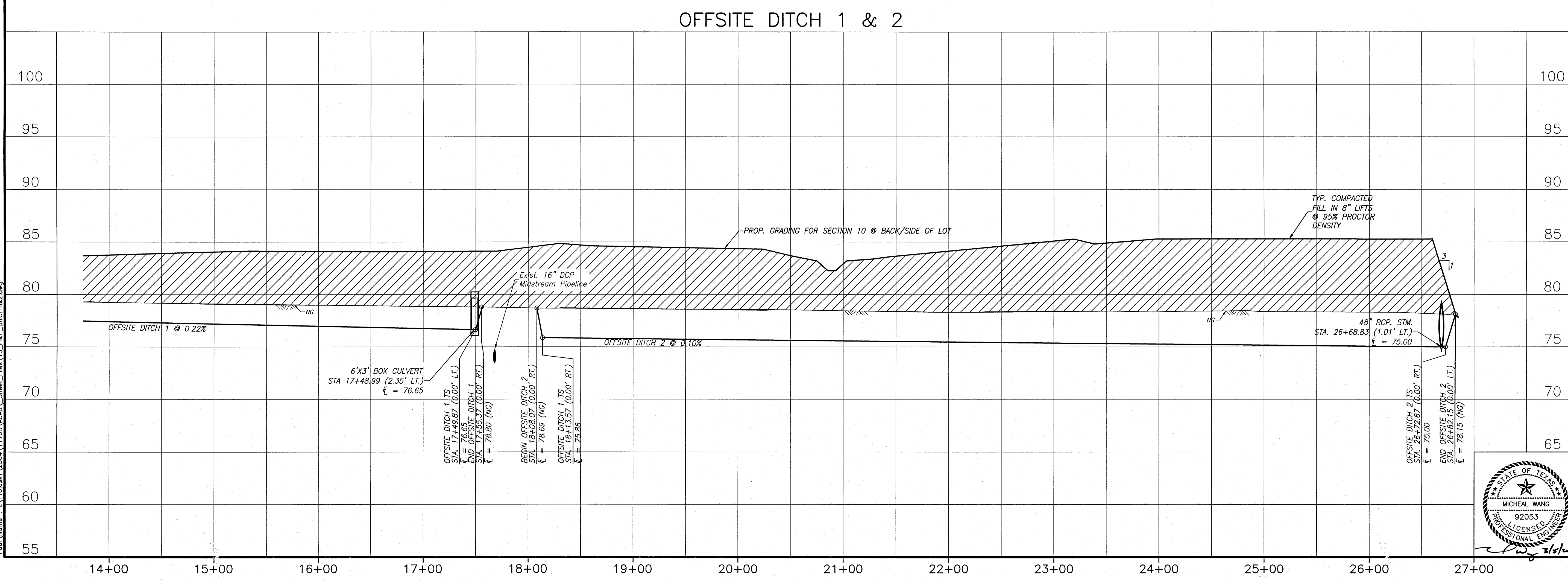
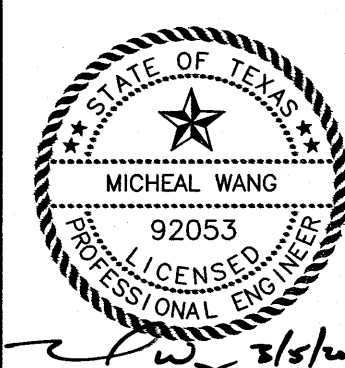
OFFSITE DITCH 1 & 2
STA. 13+25 TO END

LJA Engineering, Inc.
2929 Briarpark Drive Phone 713.953.5200
Suite 600 Fax 713.953.5026
Houston, Texas 77042 FRN - F-1386

LJA PROJECT NO.: 2304-1110B

DRAWN: L.O.R. DESIGN: M.F./K.T. DATE: FEBRUARY 2018

HORZ: 1" = 50'
VERT: 1" = 5' SHEET NO. 15 OF 20

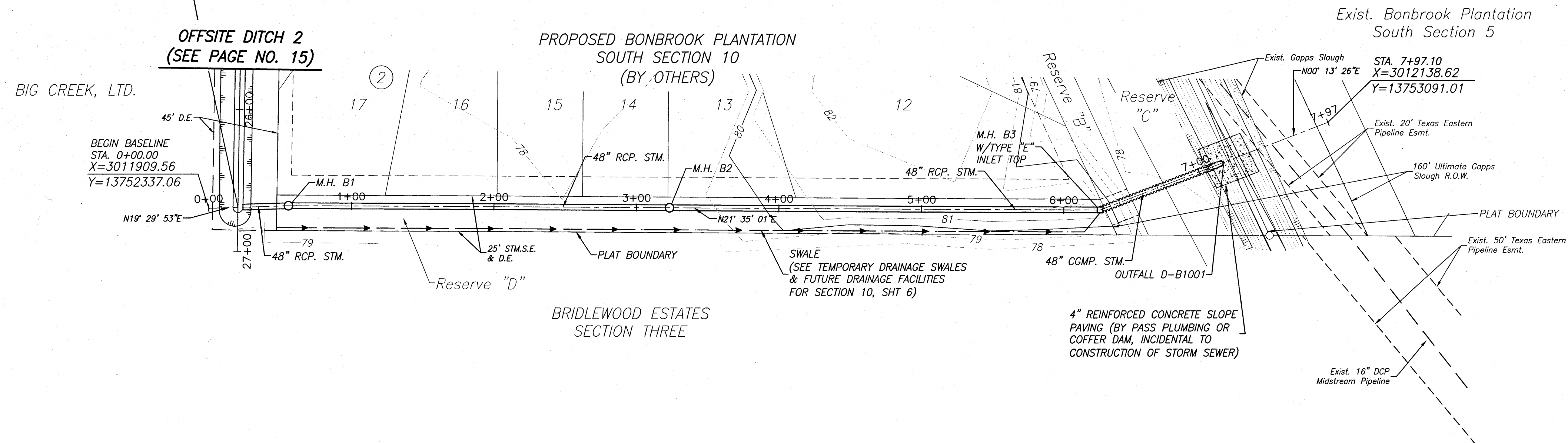
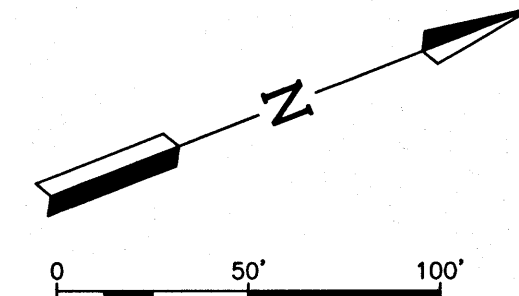


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Data Time: Fri, 09 Mar 2018 - 4:05pm User Name: Kirochael
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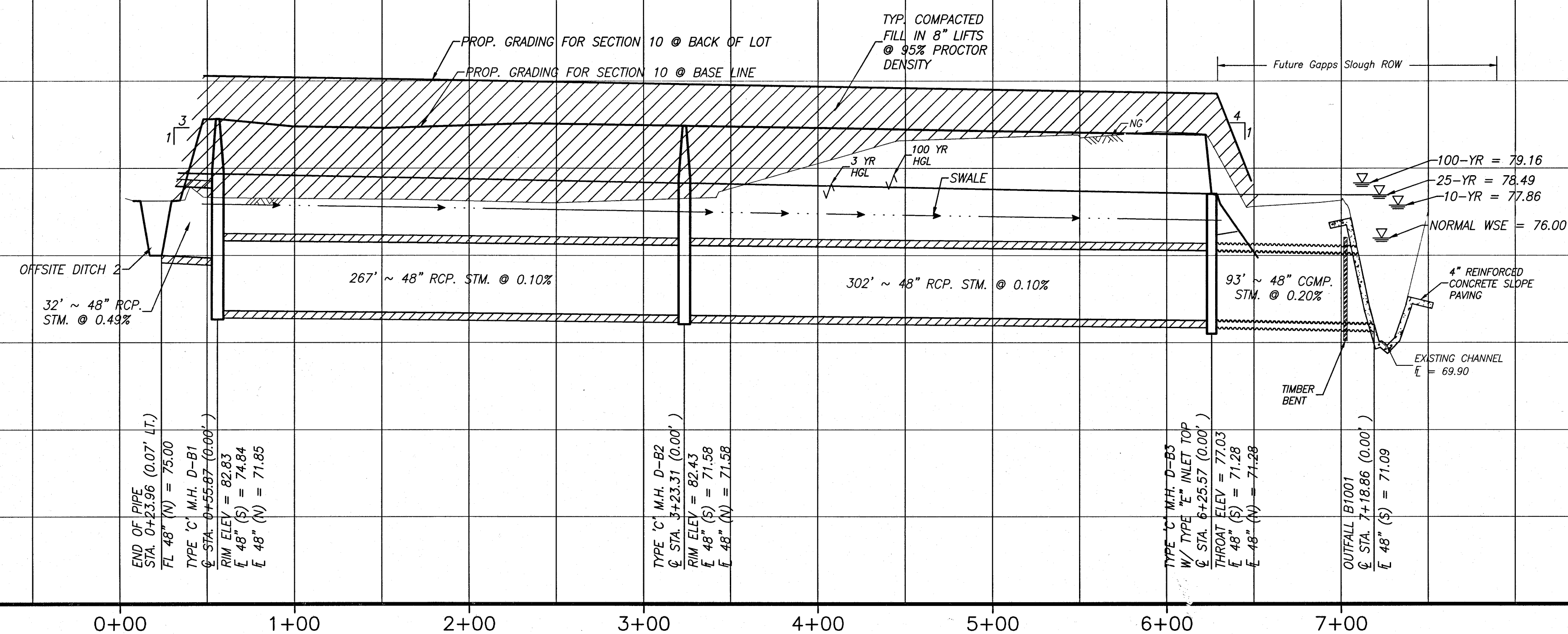
BONBROOK PLANTATION SOUTH DETENTION POND "G" - JOB NO. 2304-1110B

P.I. @ STA. 0+20.43 ~ OFFSITE OUTFALL 2 TO GAPPS SLOUGH
= P.I. @ STA. 26+69.07 ~ OFFSITE DITCHES

NOTE:
CONTRACTOR MUST CONTACT FOR BEND COUNTY ENGINEERING DEPARTMENT
FOR A PERMIT PRIOR TO CONSTRUCTION WITHIN THE FORT BEND COUNTY
DRAINAGE DISTRICT RIGHT-OF-WAY



OFFSITE OUTFALL 2 TO GAPPS SLOUGH



BENCHMARK:
A BRASS DISK STAMPED K-1219, SET IN A CONCRETE
HEADWALL, LOCATED IN FORT BEND COUNTY, 0.15 MILE SOUTH
OF
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SOUTH OF THE NORTH END OF THE EAST CONCRETE
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OF A CULVERT, 24 FEET EAST OF THE CENTERLINE OF STATE
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PER LJA REPORT "MASTER DRAINAGE PLAN FOR BONBROOK
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JAN. 2005

FIRM PANEL: 48157C0265 L
DATE: APRIL 2, 2014

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BY _____ DATE _____

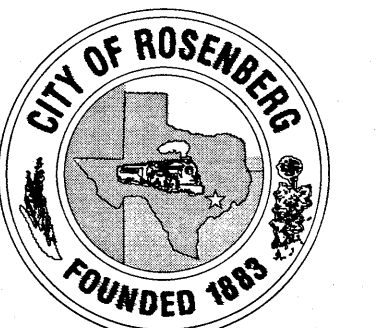
TITLE _____

DATE	REVISION	BY

FORT BEND COUNTY ENGINEERING DEPARTMENT

APPROVED: _____
DEVELOPMENT COORDINATOR

DATE: 4/13/18



B-BROOK LAND PARTNERS, L.P.

BONBROOK PLANTATION SOUTH
DETENTION POND "G"

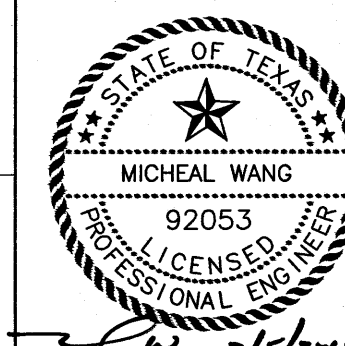
OFFSITE OUTFALL 2 TO
GAPPS SLOUGH
STA. 00+00 TO END

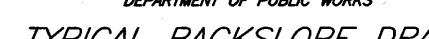
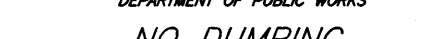
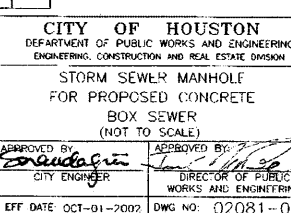
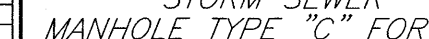
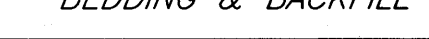
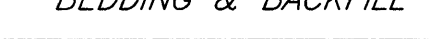
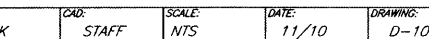
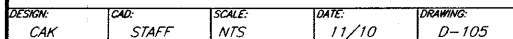
LJA Engineering, Inc.
2929 Briarpark Drive Phone 713.953.5200
Suite 600 Fax 713.953.5026
Houston, Texas 77042 FRN - F-1386

LJA PROJECT NO.: 2304-1110B

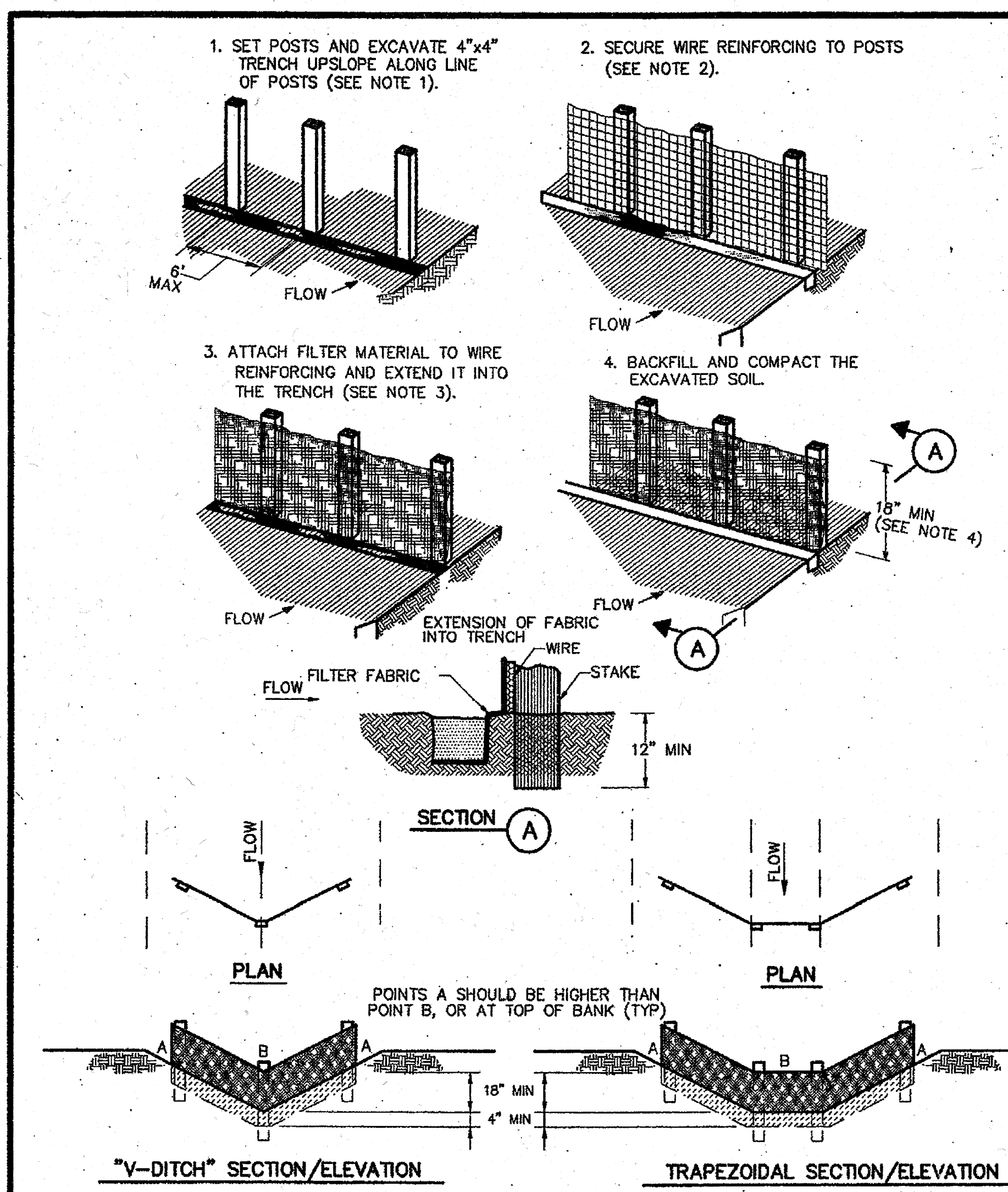
DRAWN: L.O.R. DESIGN: M.F./K.T. DATE: FEBRUARY 2018

HORZ: 1" = 50'
VERT: 1" = 5' SHEET NO. 17 OF 20



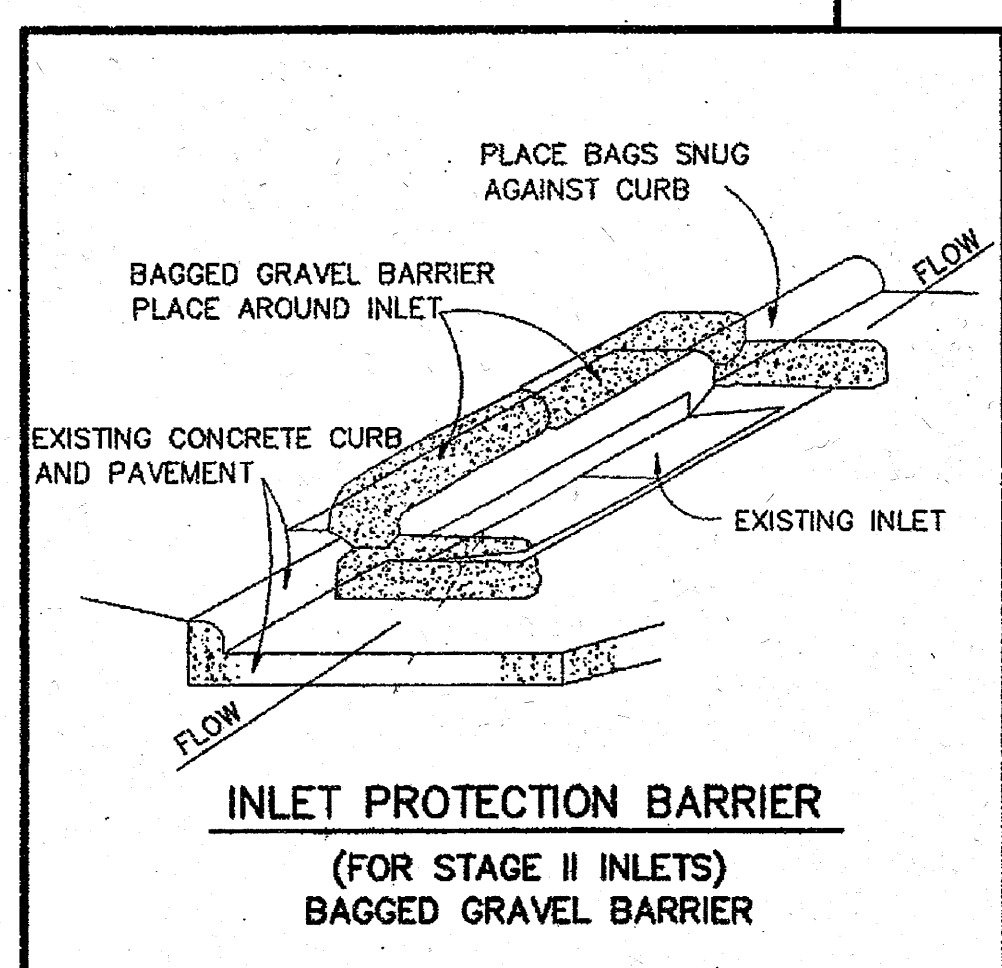


SCALE: NONE SHEET NO. 8 OF 20

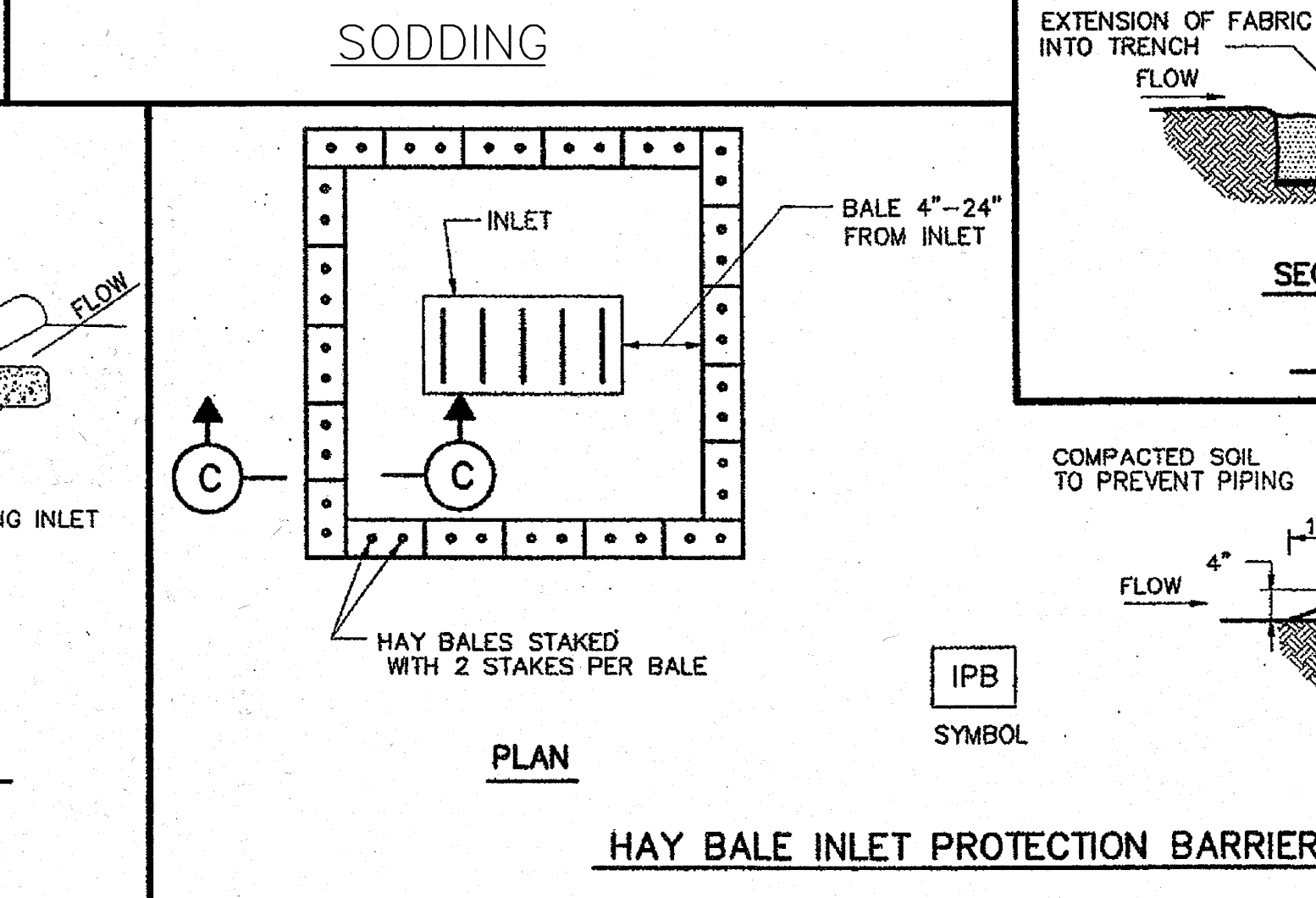
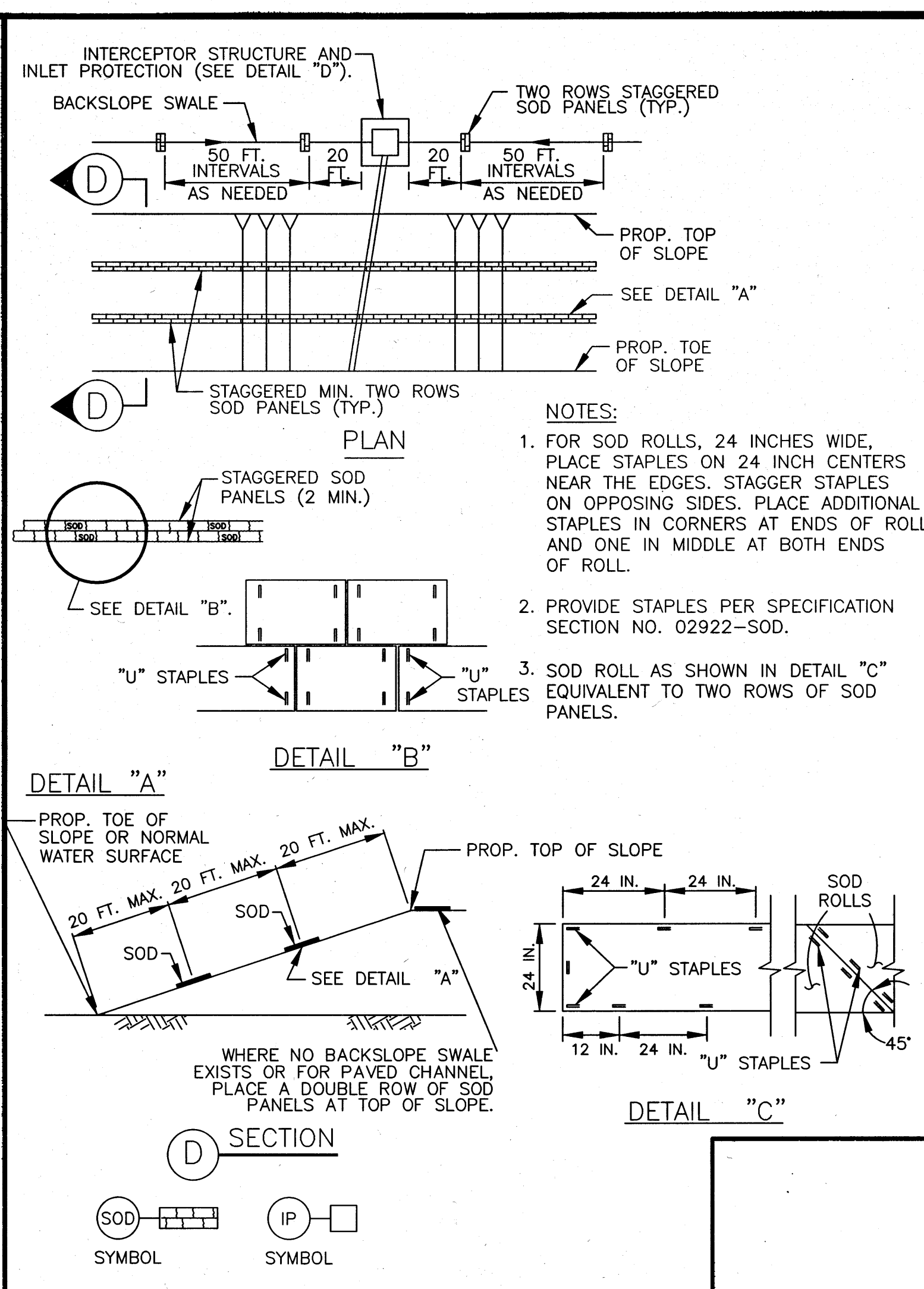


- CONSTRUCTION NOTES:**
- SET 2 INCH BY 2 INCH WOODEN STAKES SPACED A MAX OF 6 FEET APART AND EMBEDDED A MIN OF 12 INCHES.
 - WOVEN WIRE REINFORCING TO BE FASTENED SECURELY TO BARRIER POSTS WITH STAPLES.
 - FILTER CLOTH TO BE FASTENED SECURELY TO WOVEN WIRE REINFORCING, WITH TIES SPACED EVERY 24 INCHES AT TOP AND MIDSECTION.
 - MINIMUM HEIGHT OF FILTER SHOULD BE 18 INCHES AND A MAXIMUM OF 36 INCHES ABOVE NATURAL GROUND.
 - WHEN TWO SECTIONS OF FILTER CLOTH ADJOIN EACH OTHER THEY SHALL BE OVERLAPPED 6 INCHES AT THE POSTS, AND FOLDED.
 - SEE COH STANDARD SPECIFICATION FOR FILTER FABRIC BARRIER.

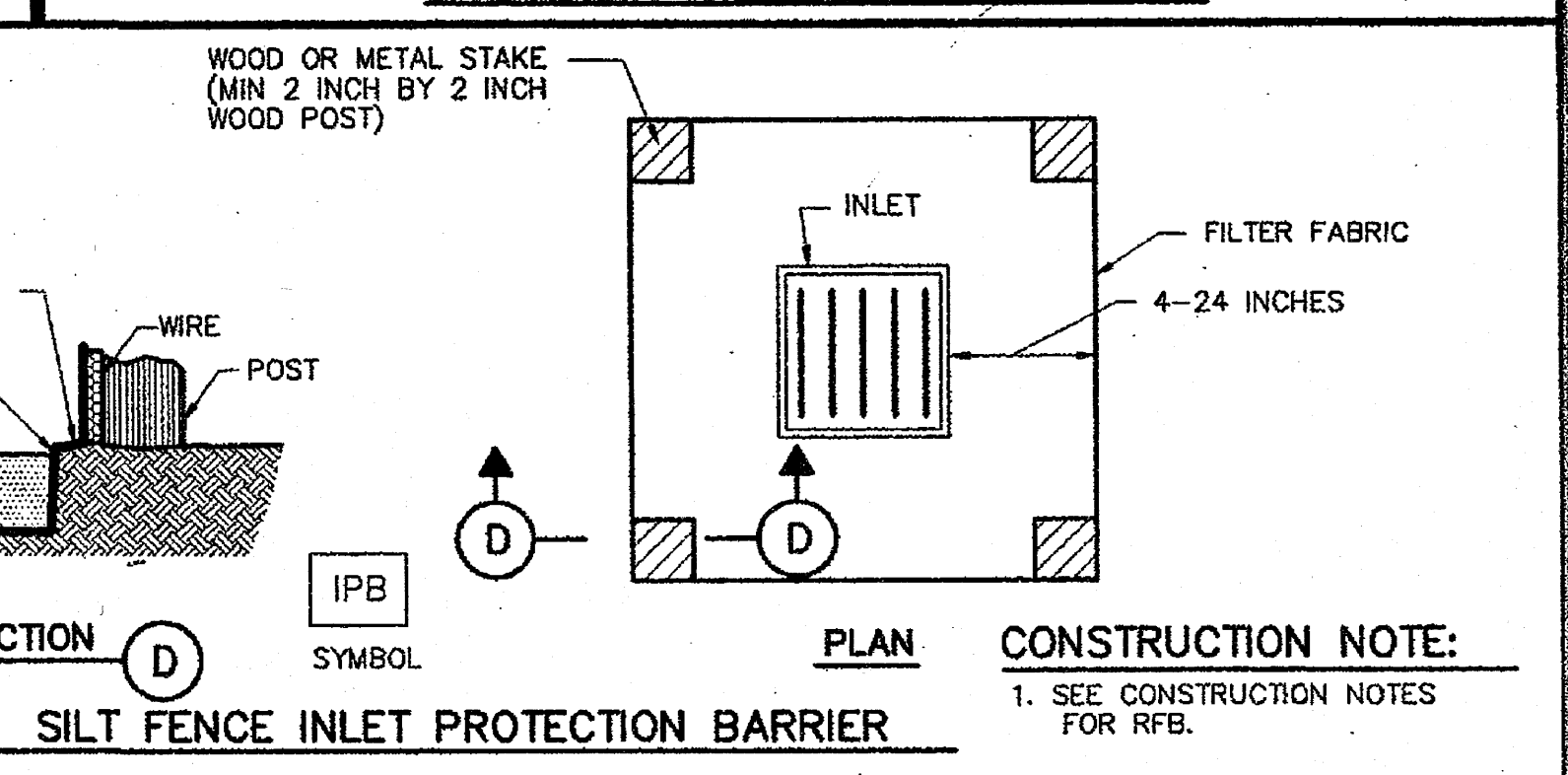
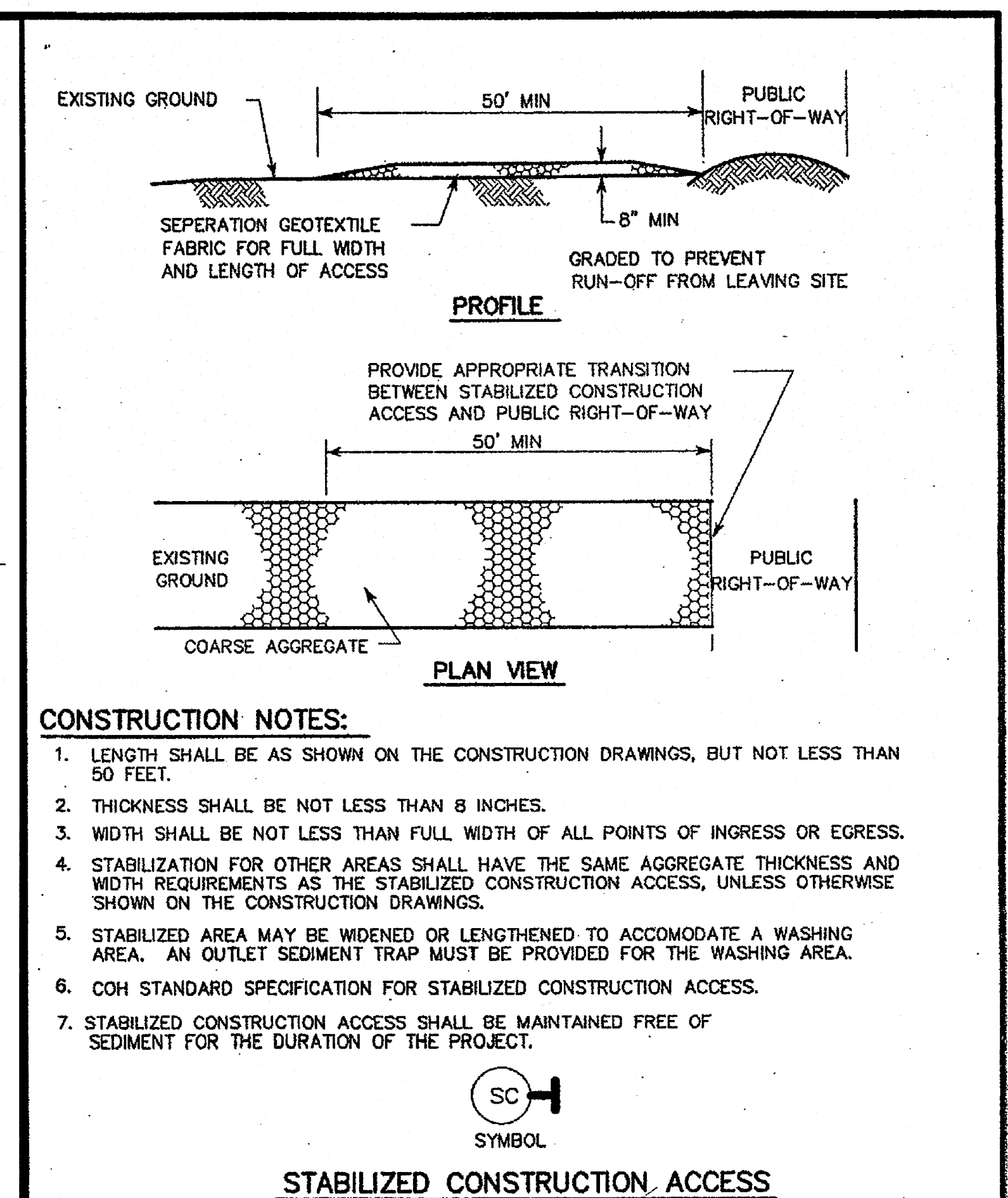
REINFORCED FILTER FABRIC BARRIER



INLET PROTECTION BARRIER (FOR STAGE II INLETS) BAGGED GRAVEL BARRIER



HAY BALE INLET PROTECTION BARRIER



CITY OF HOUSTON
DEPARTMENT OF PUBLIC WORKS AND ENGINEERING

STORM WATER POLLUTION PREVENTION PLAN DETAILS
(NOT TO SCALE)

APPROVED: [Signature] CITY ENGINEER
DIRECTOR OF PUBLIC WORKS AND ENGINEERING

EFF DATE: JULY-01-2010 DWG NO: 01571-01

BENCHMARK:
A BRASS DISK STAMPED K-1219, SET IN A CONCRETE HEADWALL, LOCATED IN FORT BEND COUNTY, 0.15 MILE SOUTH OF THE INTERSECTION OF STATE HIGHWAY 36 AND MEYER ROAD, SET IN THE TOP OF A CONCRETE HEADWALL AND 1.7 FEET SOUTH OF THE NORTH END OF THE EAST CONCRETE HEADWALL OF A CULVERT, 24 FEET EAST OF THE CENTERLINE OF STATE HIGHWAY 36, AND LEVEL WITH THE HIGHWAY'S SURFACE. NAVD-88 (1991 ADJ.) ELEV = 91.69 FEET TBM (L/A 1)
A 5/8-INCH IRON ROD WITH CAP SET AT THE INTERSECTION OF BRYAN ROAD AND SPACE ROAD, APPROXIMATELY 18.8 FEET NORTH OF THE CENTERLINE OF BRYAN ROAD AND 40.4 FEET WEST OF THE CENTERLINE OF SPACE ROAD. NAVD-88 (1991 ADJ.) ELEV = 90.758 FEET
INTERNAL 100-YR FLOOD ELEV = 79.38
PER LJA REPORT "MASTER DRAINAGE PLAN FOR BONBROOK PLANTATION DEVELOPMENT" FORT BEND COUNTY MUD 155, JAN. 2005
FIRM PANEL: 48157C0265 L
DATE: APRIL 2, 2014

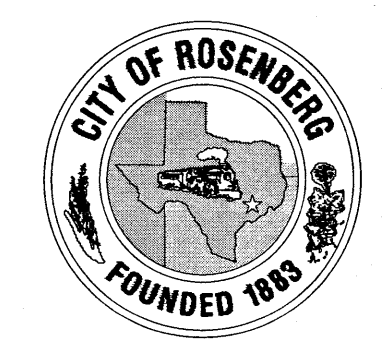
- NOTES:**
- ALL UTILITIES ARE PROPOSED UNLESS OTHERWISE NOTED.
 - THIS CONTRACTOR SHALL FIELD VERIFY ALL EXISTING UTILITIES PRIOR TO CONSTRUCTION
 - CAUTION: THERE ARE EXISTING UTILITIES WITHIN THE PROJECT AREA. CONTRACTOR SHALL FIELD VERIFY LOCATION OF ALL EXISTING UTILITIES AFFECTING PROPOSED UTILITIES PRIOR TO CONSTRUCTION. IN THE EVENT OF CONFLICT BETWEEN EXISTING UTILITIES AND PROPOSED UTILITIES, THE CONTRACTOR SHALL SUSPEND CONSTRUCTION IN THE VICINITY OF THE CONFLICT, AND SHALL COMMENCE ONLY UPON AUTHORIZATION BY OWNER.

RECORD DRAWING
I CERTIFY THAT THIS DRAWING REFLECTS THE IMPROVEMENTS CONSTRUCTED AS TO SIZE, LOCATION AND GRADE AND THAT THE CONSTRUCTION WAS IN FULL COMPLIANCE WITH THE CONTRACT DOCUMENTS
BY: _____ DATE: _____
TITLE: _____

DATE	REVISION	BY

FORT BEND COUNTY ENGINEERING DEPARTMENT

APPROVED: [Signature] DEVELOPMENT COORDINATOR
DATE: 4/15/18



B-BROOK LAND PARTNERS, L.P.

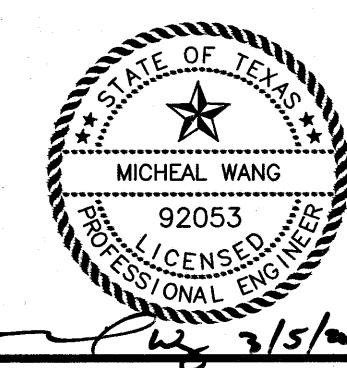
BONBROOK PLANTATION SOUTH DETENTION POND "C"

STORM WATER POLLUTION PREVENTION PLAN DETAILS

LJA Engineering, Inc.
2929 Briarpark Drive Suite 600 Houston, Texas 77042
Phone 713.953.5200 Fax 713.953.5028 FRN-F-1386
LJA PROJECT NO.: 2304-1110B

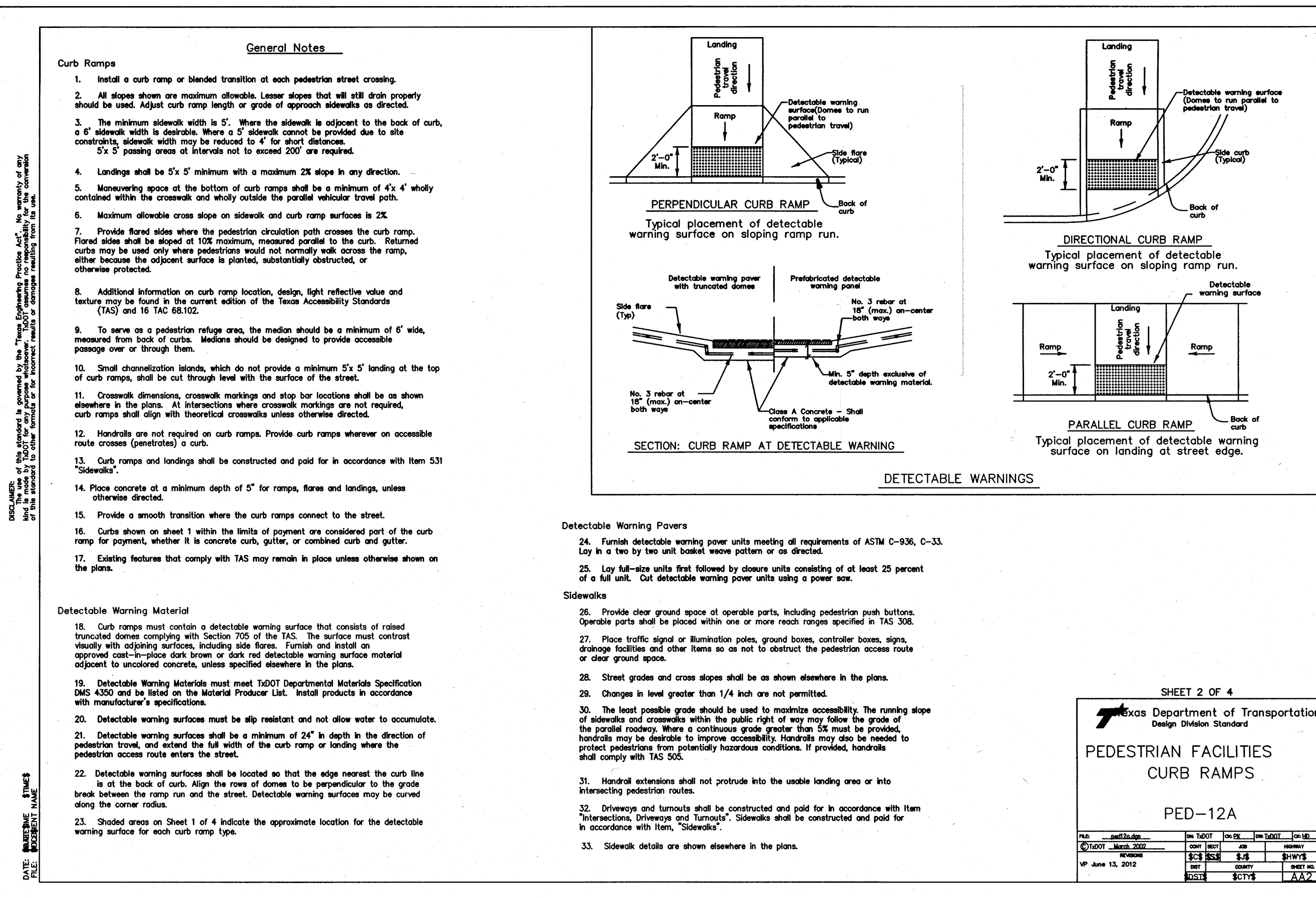
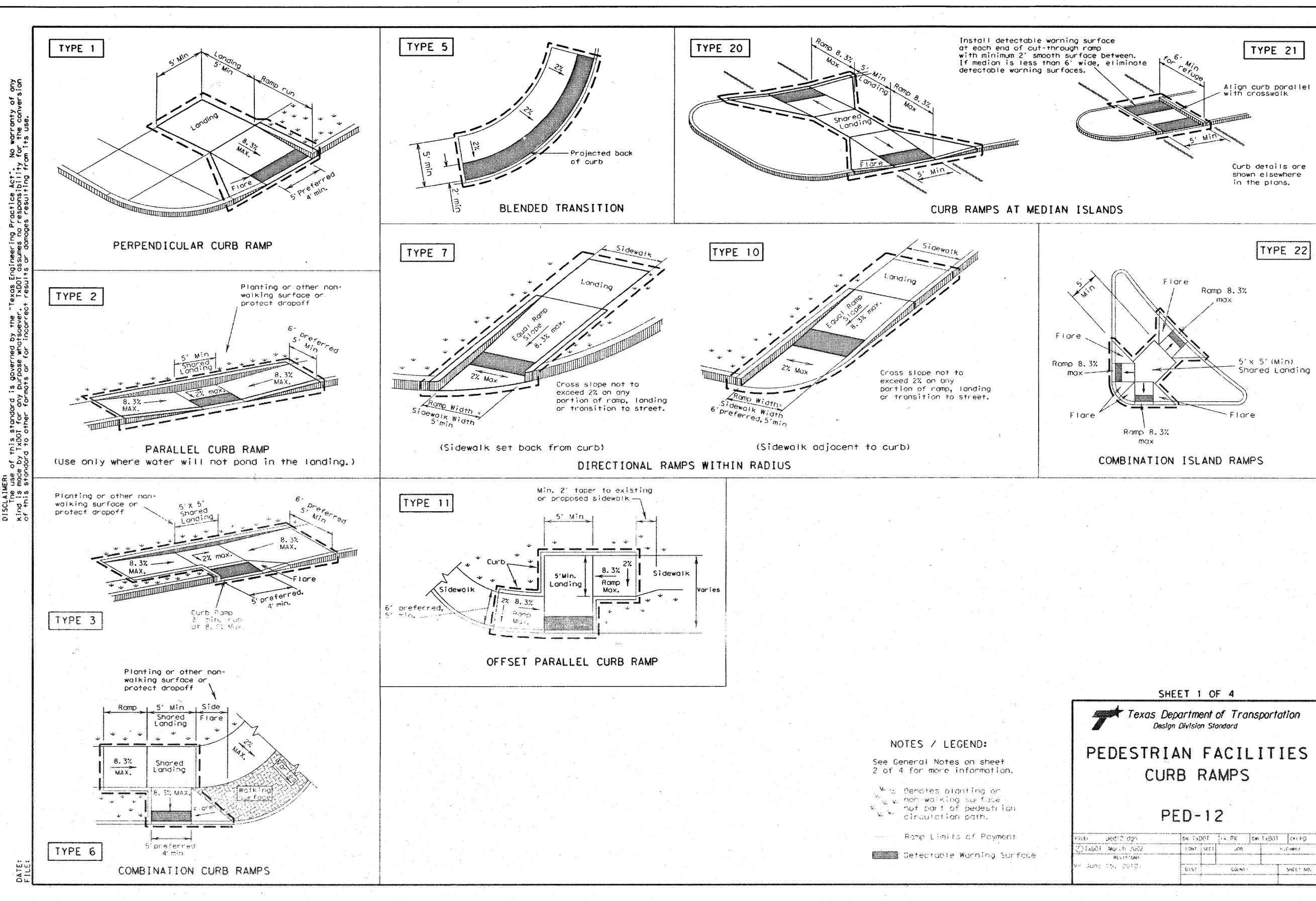
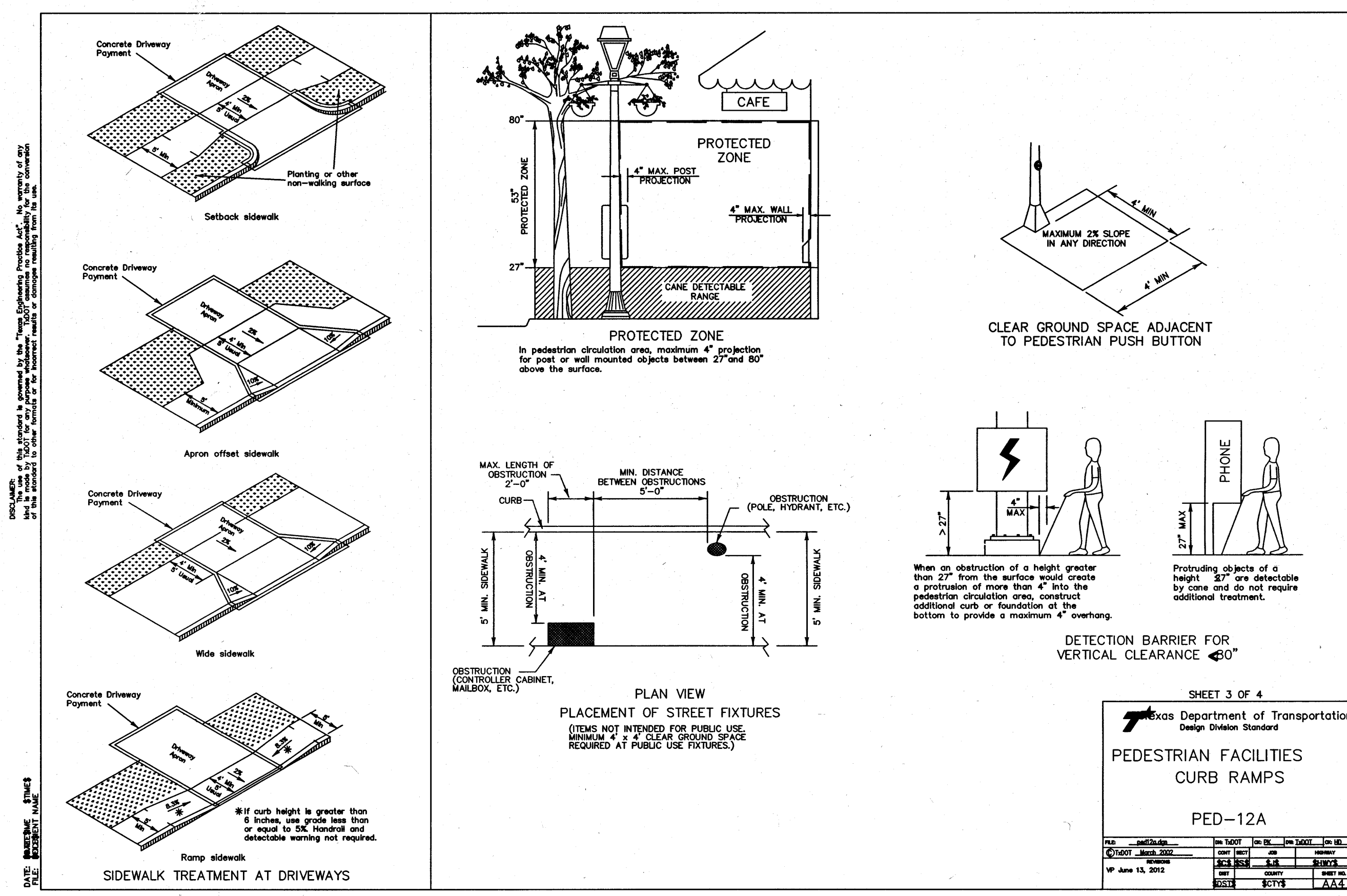
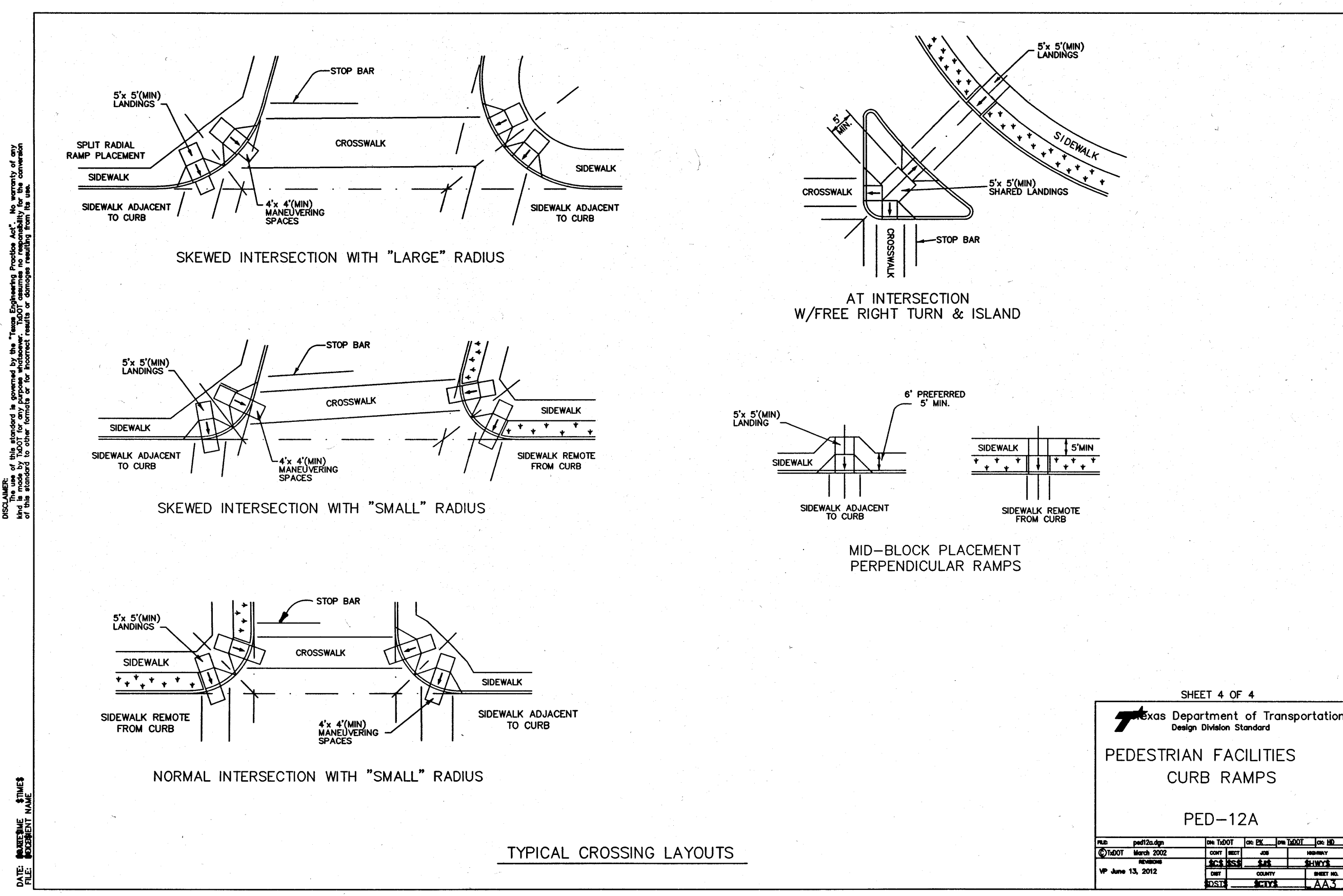
DRAWN: L.O.R. DESIGN: M.F./K.T. DATE: FEBRUARY 2018

SCALE: NONE SHEET NO. 19 OF 20



Data Time: Fri, 09 Mar 2018 - 4:07 PM User Name: Mrochael Path Name: F:\Projects\2304-1110B\VCAD\Sheet Files\19-STORM WATER POLLUTION PREVENTION PLAN DETAILS.dwg

BONBROOK PLANTATION SOUTH DETENTION POND "C" - JOB NO. 2304-1110B



BENCHMARK:
A BRASS DISC STAMPED K-1219, SET IN A CONCRETE
HEADWALL, LOCATED IN FORT BEND COUNTY, 0.15 MILE SOUTH
OF
THE INTERSECTION OF STATE HIGHWAY 36 AND MEYER ROAD,
SET IN THE TOP OF A CONCRETE HEADWALL AND 1.7 FEET
SOUTH OF THE NORTH END OF THE EAST CONCRETE
HEADWALL.
A CULVERT, 24 FEET EAST OF THE CENTERLINE OF STATE
HIGHWAY 36, AND LEVEL WITH THE HIGHWAY'S SURFACE.
NAVD=88 (1991 ADJ) ELEV = 91.69 FEET
TBM (LJA 1)
A 1/4-INCH IRON ROD WITH CAP SET AT THE INTERSECTION
OF BRYAN ROAD AND SPACKER ROAD, APPROXIMATELY 18.8
FEET NORTH OF THE CENTERLINE OF BRYAN ROAD AND 40.4
FEET WEST OF THE CENTERLINE OF SPACKER ROAD.
NAVD=88 (1991 ADJ) ELEV = 90.758 FEET
INTERNAL 100-YR FLOOD ELEV = 79.38
PER LJA REPORT "MASTER DRAINAGE PLAN FOR BONBROOK
PLANTATION DEVELOPMENT" FORT BEND COUNTY MUD 155,
JAN. 2005
FIRM PANEL: 4815700265 L

DATE: APRIL 2, 2014

NOTES:

- 1) ALL UTILITIES ARE PROPOSED UNLESS OTHERWISE NOTED.
- 2) THIS CONTRACTOR SHALL FIELD VERIFY ALL EXISTING UTILITIES PRIOR TO CONSTRUCTION
- 3) CAUTION:
THERE ARE EXISTING UTILITIES WITHIN THE PROJECT AREA. CONTRACTOR SHALL FIELD VERIFY LOCATION OF ALL EXISTING UTILITIES AFFECTING PROPOSED UTILITIES PRIOR TO CONSTRUCTION. IN THE EVENT OF CONFLICT BETWEEN EXISTING UTILITIES AND PROPOSED UTILITIES, THE CONTRACTOR SHALL SUSPEND CONSTRUCTION IN THE VICINITY OF THE CONFLICT, AND SHALL COMMENCE ONLY UPON AUTHORIZATION BY OWNER.

RECORD DRAWING

I CERTIFY THAT THIS DRAWING REFLECTS THE IMPROVEMENTS CONSTRUCTED AS TO SIZE, LOCATION AND GRADE AND THAT THE CONSTRUCTION WAS IN FULL COMPLIANCE WITH THE CONTRACT DOCUMENTS

BY _____ DATE _____

TITLE _____


[illegible]

FORT BEND COUNTY ENGINEERING DEPARTMENT

10B

APPROVED: Mary [Signature]
DEVELOPMENT COORDINATOR

DATE: 4/15/18




JOB NO.

ON BOND

B-BROOK LAND PARTNERS, L.P.	DEFINITION
BONBROOK PLANTATION SOUTH	

DETENTION POND "G"	N SOUTH
TXDOT PEDESTRIAN EQUIPMENT	

FACILITIES PED-12A

LJA Engineering, Inc. 
2929 Briarpark Drive Phone 713.953.5200

Suite 600
 Houston, Texas 77042
 Fax 713.953.5026
 FRN - F-1386
 LJA PROJECT NO.: 2304-1110B
 DRAWN: L.O.R. DESIGN: M.F./K.T. DATE: FEBRUARY 2018

SCALE: NONE SHEET NO. 20 OF 20