

REVIEW BY FORT BEND COUNTY COMMISSIONERS COURT

Fort Bend County

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

Right of Way X Commercial Permit No: 2018-2	Driveway Permit			
The above applicant came to make use of certain Fort Boundary, Construction, Maintenance, and Repair of Buried Roads, Streets, Highways, and Drainage Ditches in Fort E Commissioners Court of Fort Bend County, Texas," as page	send County property subject to, "The Order Regulating the Cables, Conduits, and Pole Lines, In, Under, Across or Along Bend County, Texas, Under the Jurisdiction of the assed by the Commissioners Court of Fort Bend County, rt Bend County, Texas, to the extent that such order is not			
 Notes: Evidence of review by the Commissioners Court must be kept on the job site and failure to do so constitutes grounds for job shutdown. Written notices are required:				
On this 6th day of November, 2018, Upon Motion of Commissioner				
By: County Engineer	Presented to Commissioners Court and approved. Date Recorded $1 - 13 2018$ Comm. Court No. 120			
N/A By: Drainage District Engineer/Manager	Clerk of Commissioners Court By: 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

C.V.O.	Right of Way Permit	_			
	X Commercial Driveway	Permit			
	Permit No: 2018-23861				
		e activity in Fort Bend County" and accompa copriate regulations set by Commissioner's Co			
(1) COMPLETE APPLICATION FORM	:				
X a. Name of road, str	eet, and/or drainage ditch affe	cted.			
χ b. Vicinity map show	ing course of directions				
X c. Plans and specifica	X c. Plans and specifications				
(2) BOND:	3				
County Attorney, ap applicable.	proval when				
Perpetual bond curre posted.	ently Bond No:	Amount:			
X Performance bond s	ubmitted. Bond No:	Amount: \$10,000.00			
Cashier's Check	Check No:	Amount:			
(3) DRAINAGE DISTRICT APPRO	OVAL (WHEN APPLICABLE):	Date			
We have reviewed this project and agree it meets minimum requirements.					
han Eliter		10/29/2018			
Permit Administrator		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)

BOND NO

Permit No. 2018-23861

THE STATE OF TEXAS

§

KNOW ALL MEN BY THESE PRESENTS:

COUNTY OF FORT BEND

§

THAT WE, Camden Builders, Inc. whose (address, phone) is 11 Greenway Plaza, Ste. 2400, Houston, Texas 77046, hereinafter called the Principal, and Travelers Casualty and Surety Company of America, a Corporation existing under and by virtue of the laws of the state of CT and authorized to do an indemnifying business in the state of Texas, and whose principal office is located at (name/address/phone) One Tower Square Bond/5PB, Hartford, CT 06183, whose officer residing in the State of Texas, authorized to accept service in all suits and actions brought within said state is Christopher Noble and whose address is 1301 E. Collins Blvd, Richardson, TX 75081, 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 Ten Thousand and No/100 Dollars (\$ 10,000.00) 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 shall 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 15th day of October, 2018.

Camden Builders, Inc.

PRINCIPAL

Travelers Casualty and Surety Company of America

SURETY

BY Vanessa Dominguez, Attorney-in-Fact

CCM 11-6-2018 # 12 P Fort Bend County Clerk Return Admin Serv Coord Recmit # 2018-23861 RAC



POWER OF ATTORNEY

Farmington Casualty Company
Fidelity and Guaranty Insurance Company
Fidelity and Guaranty Insurance Underwriters, Inc.
St. Paul Fire and Marine Insurance Company
St. Paul Guardian Insurance Company

St. Paul Mercury Insurance Company Travelers Casualty and Surety Company Travelers Casualty and Surety Company of America United States Fidelity and Guaranty Company

Attorney-In Fact No.

232300

Certificate No. 007308964

KNOW ALL MEN BY THESE PRESENTS: That Farmington Casualty Company, St. Paul Fire and Marine Insurance Company, St. Paul Guardian Insurance Company, St. Paul Mercury Insurance Company, Travelers Casualty and Surety Company, Travelers Casualty and Surety Company of America, and United States Fidelity and Guaranty Company are corporations duly organized under the laws of the State of Connecticut, that Fidelity and Guaranty Insurance Company is a corporation duly organized under the laws of the State of Iowa, and that Fidelity and Guaranty Insurance Underwriters, Inc., is a corporation duly organized under the laws of the State of Wisconsin (herein collectively called the "Companies"), and that the Companies do hereby make, constitute and appoint

Michael J. Herrod, Wendy W. Stuckey, Lisa A. Ward, Lupe Tyler, Vanessa Dominguez, Melissa L. Fortier, Naomi Harris-Thompson, Misty Wright, and Donna L. Williams

of the City of	Houston	nore than one is name	, State o					Attorney(s)-in-Fact,
each in their separate capacity if more than one is named above, to sign, execute, seal and acknowledge any and all bonds, recognizances, conditional undertakings and other writings obligatory in the nature thereof on behalf of the Companies in their business of guaranteeing the fidelity of persons, guaranteeing the performance of contracts and executing or guaranteeing bonds and undertakings required or permitted in any actions or proceedings allowed by law.								
IN WITNESS WH	IFDEOE the	Companies have cause	ed this instrument	to be signed and t	peir cornorate sea	ls to be bereto affi	ved this	27th
day of July	iEREOF, the C	2017 	d this histituhene	to be signed and the	ich corporate sea	is to be nereto ann	Acu, uns	
		Farmington Casual Fidelity and Guara Fidelity and Guara St. Paul Fire and M St. Paul Guardian	nty Insurance C nty Insurance U Iarine Insurance	nderwriters, Inc. e Company	Trav Trav	elers Casualty ar	urance Company ad Surety Compan ad Surety Compan and Guaranty Co	y of America
TOPPORT LA	1977 C	MCORPORATED STATES	FIRE Q PARTY OF THE PARTY OF TH	SEAL S	SEAL 3	HARTFORD, CONN.	HARTFORD OF TOUR	MICOPOGNIED 2 1896
State of Connecticut City of Hartford ss.					Ву:	Robert L. Rane	y, Senior Vice Preside	nt
On this the 27th day of July , 2017, before me personally appeared Robert L. Raney, who acknowledged himself to be the Senior Vice President of Farmington Casualty Company, Fidelity and Guaranty Insurance Company, Fidelity and Guaranty Insurance Underwriters, Inc., St. Paul Fire and Marine Insurance Company, St. Paul Guardian Insurance Company, St. Paul Mercury Insurance Company, Travelers Casualty and Surety Company of America, and United States Fidelity and Guaranty Company, and that he, as such, being authorized so to do, executed the foregoing instrument for the purposes therein contained by signing on behalf of the corporations by himself as a duly authorized officer.								
In Witness Where My Commission ex		set my hand and offici day of June, 2021.	ial seal.	OTARA WELIG *		Man	arie C. Tetreault, Nota	theoult ry Public

58440-5-16 Printed in U.S.A.

WARNING: THIS POWER OF ATTORNEY IS INVALID WITHOUT THE RED BORDER

This Power of Attorney is granted under and by the authority of the following resolutions adopted by the Boards of Directors of Farmington Casualty Company, Fidelity and Guaranty Insurance Company, Fidelity and Guaranty Insurance Company, St. Paul Fire and Marine Insurance Company, St. Paul Guardian Insurance Company, St. Paul Mercury Insurance Company, Travelers Casualty and Surety Company of America, and United States Fidelity and Guaranty Company, which resolutions are now in full force and effect, reading as follows:

RESOLVED, that the Chairman, the President, any Vice Chairman, any Executive Vice President, any Senior Vice President, any Vice President, any Second Vice President, the Treasurer, any Assistant Treasurer, the Corporate Secretary or any Assistant Secretary may appoint Attorneys-in-Fact and Agents to act for and on behalf of the Company and may give such appointee such authority as his or her certificate of authority may prescribe to sign with the Company's name and seal with the Company's seal bonds, recognizances, contracts of indemnity, and other writings obligatory in the nature of a bond, recognizance, or conditional undertaking, and any of said officers or the Board of Directors at any time may remove any such appointee and revoke the power given him or her; and it is

FURTHER RESOLVED, that the Chairman, the President, any Vice Chairman, any Executive Vice President, any Senior Vice President or any Vice President may delegate all or any part of the foregoing authority to one or more officers or employees of this Company, provided that each such delegation is in writing and a copy thereof is filed in the office of the Secretary; and it is

FURTHER RESOLVED, that any bond, recognizance, contract of indemnity, or writing obligatory in the nature of a bond, recognizance, or conditional undertaking shall be valid and binding upon the Company when (a) signed by the President, any Vice Chairman, any Executive Vice President, any Senior Vice President or any Vice President, any Second Vice President, the Treasurer, any Assistant Treasurer, the Corporate Secretary or any Assistant Secretary and duly attested and sealed with the Company's seal by a Secretary or Assistant Secretary; or (b) duly executed (under seal, if required) by one or more Attorneys-in-Fact and Agents pursuant to the power prescribed in his or her certificate or their certificates of authority or by one or more Company officers pursuant to a written delegation of authority; and it is

FURTHER RESOLVED, that the signature of each of the following officers: President, any Executive Vice President, any Senior Vice President, any Vice President, any Assistant Vice President, any Secretary, and the seal of the Company may be affixed by facsimile to any Power of Attorney or to any certificate relating thereto appointing Resident Vice Presidents, Resident Assistant Secretaries or Attorneys-in-Fact for purposes only of executing and attesting bonds and undertakings and other writings obligatory in the nature thereof, and any such Power of Attorney or certificate bearing such facsimile signature or facsimile seal shall be valid and binding upon the Company and any such power so executed and certified by such facsimile signature and facsimile seal shall be valid and binding on the Company in the future with respect to any bond or understanding to which it is attached.

I, Kevin E. Hughes, the undersigned, Assistant Secretary, of Farmington Casualty Company, Fidelity and Guaranty Insurance Company, Fidelity and Guaranty Insurance Company, Fidelity and Guaranty Insurance Company, St. Paul Fire and Marine Insurance Company, St. Paul Guardian Insurance Company, St. Paul Mercury Insurance Company, Travelers Casualty and Surety Company, Travelers Casualty and Surety Company of America, and United States Fidelity and Guaranty Company do hereby certify that the above and foregoing is a true and correct copy of the Power of Attorney executed by said Companies, which 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 _

of October

20 6

Kevin E. Hughes, Assistant Secretary



















To verify the authenticity of this Power of Attorney, call 1-800-421-3880 or contact us at www.travelersbond.com. Please refer to the Attorney-In-Fact number, the above-named individuals and the details of the bond to which the power is attached.

IMPORTANT NOTICE

To obtain information or make a complaint:

You may call Travelers Casualty and Surety Company of America and its affiliates' toll-free telephone number for information or to make a complaint at:

1-800-328-2189

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:

P. O. Box 149104 Austin, TX 78714-9104 Fax: (512) 475-1771

Web: http://www.tdi.state.tx.us

E-mail: ConsumerProtection@tdi.state.tx.us

PREMIUM OR CLAIM DISPUTES:

Should you have a dispute concerning your premium or about a claim you should contact your Agent or Travelers first. If the dispute is not resolved, you may contact the Texas Department of Insurance.

ATTACH THIS NOTICE TO YOUR BOND:

This notice is for information only and does not become a part or condition of the attached document and is given to comply with Texas legal and regulatory requirements.

FILED AND RECORDED OFFICIAL PUBLIC RECORDS

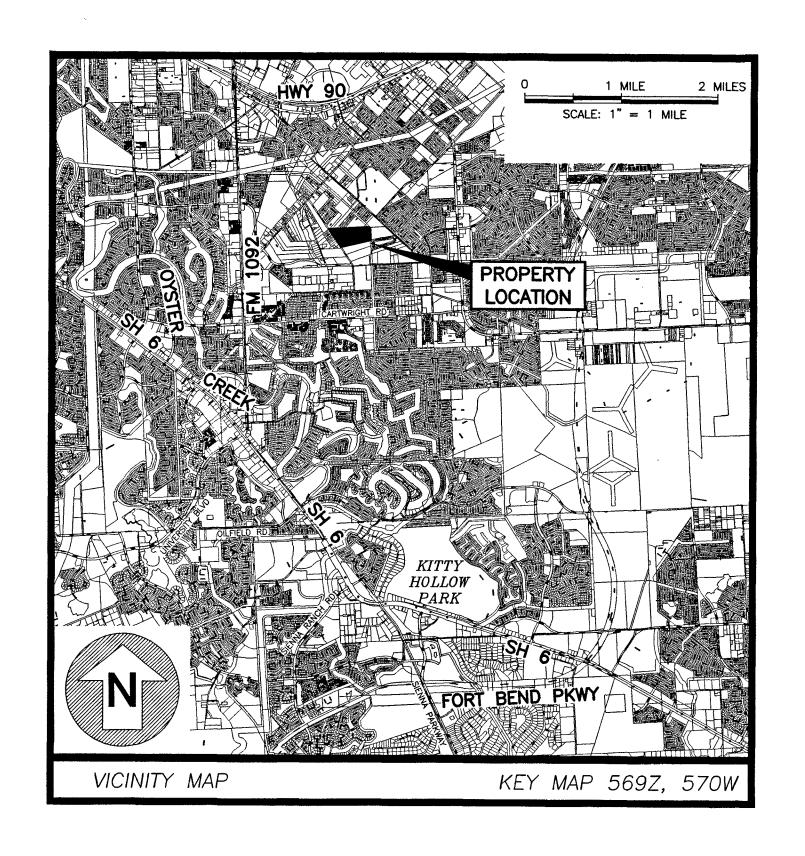
Laura Richard County Clerk Fort Bend County Texas November 09: 2018 03:08:49 PM

FEE: \$0.00

ADS

2018126342

THE MIRAMONTE RESERVE "A" FORT BEND COUNTY, TEXAS



CONSTRUCTION PLANS - SHEET INDEX

SHEET No.	<u>DESCRIPTION</u>
COVER	COVER SHEET
. 1	FINAL PLAT 1 OF 2
2	FINAL PLAT 2 OF 2
CO.01	EXISTING CONDITIONS
C1.01	PAVING PLAN
C1.02	GRADING PLAN
C2.01	DRAINAGE PLAN
C3.01	WATER AND SEWER PLAN
C3.02	PUBLIC WATER LINE PLAN AND PROFILE MOORE ROAD TO DEBORAH STREET
C4.01	EROSION CONTROL PLAN
C4.02	EROSION CONTROL DETAILS
C5.01	CONSTRUCTION NOTES
C5.02-C5.07	CONSTRUCTION DETAILS

ENGINEER

KELLY R. KALUZA & ASSOCIATES, INC.

CONSULTING ENGINEERS AND SURVEYORS

ENGINEERING FIRM No. F-1339

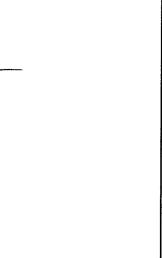
SURVEYING FIRM No. 10010000

3014 AVENUE I, ROSENBERG, TX 77471

(281) 341-0808

SEPTEMBER 2018





ENGINEER:

REAL Straglo, PR, PTOE

FOR RICHARD W. STOLLEIS, P.E.

DATE:

10/3/18

THESE SIGNATURES ARE VOID IF CONSTRUCTION HAS NOT COMMENCED IN (1) YEAR FROM DATE OF APPROVAL.

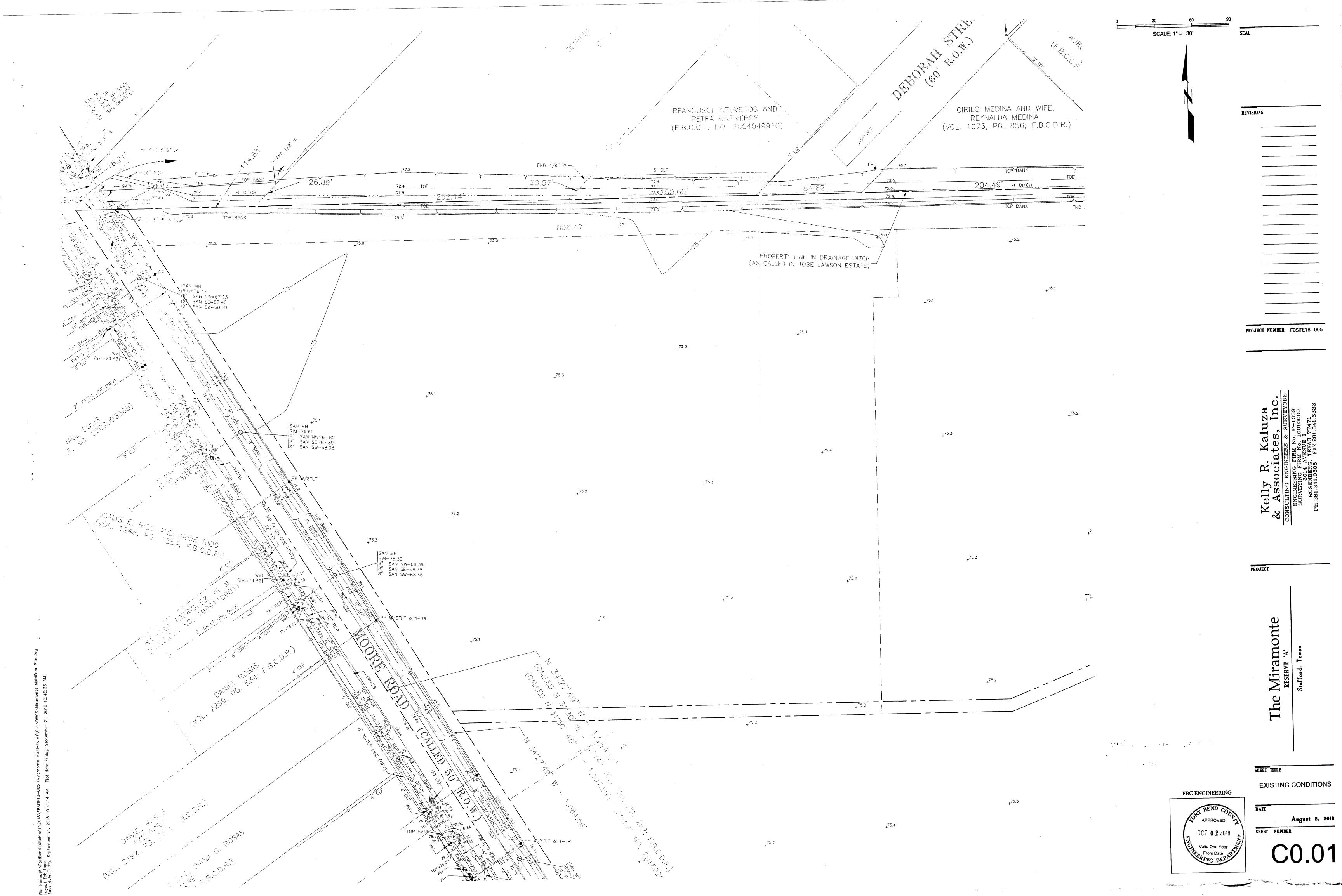
APPROVED:

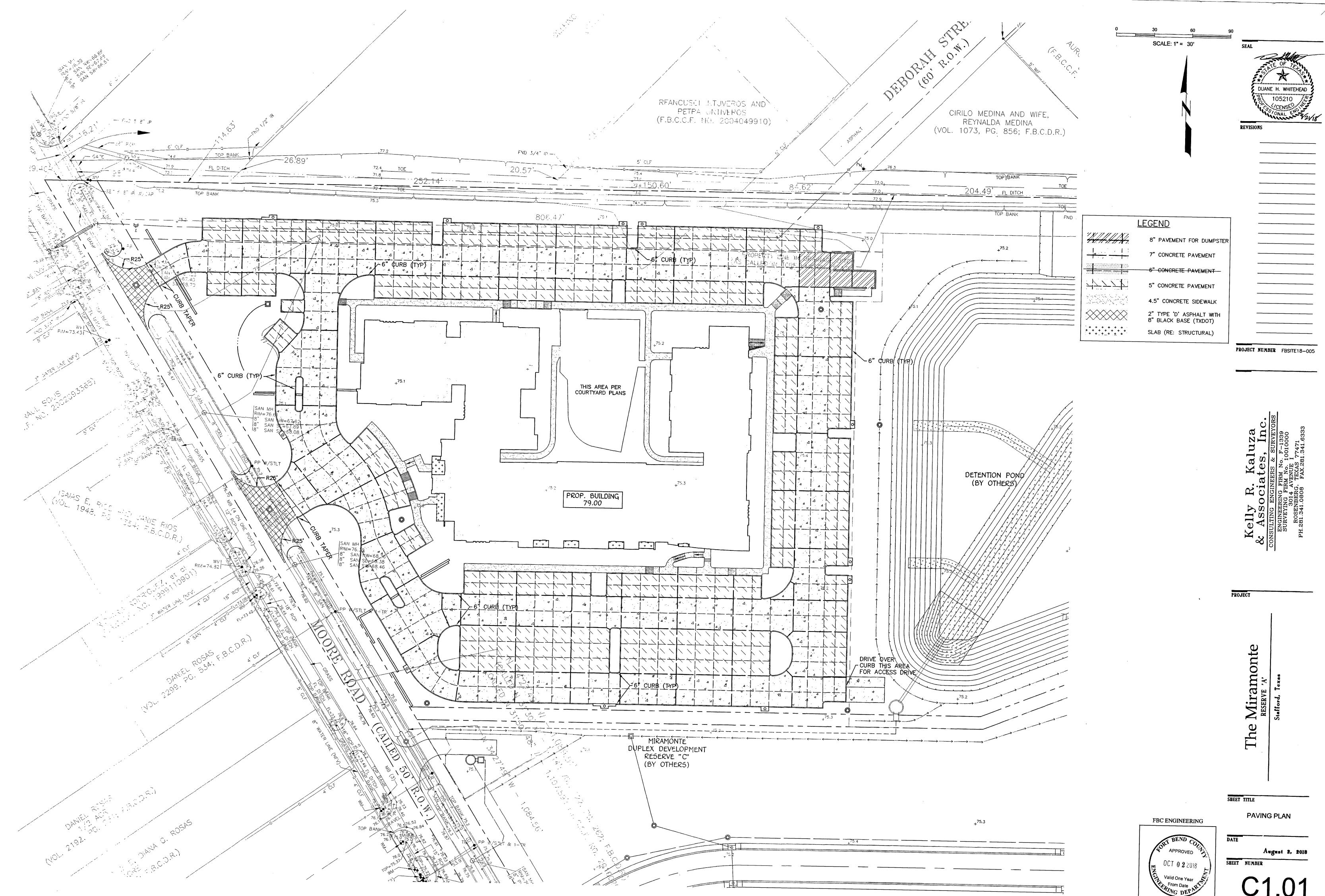
DEVELOPMENT COORDINATOR

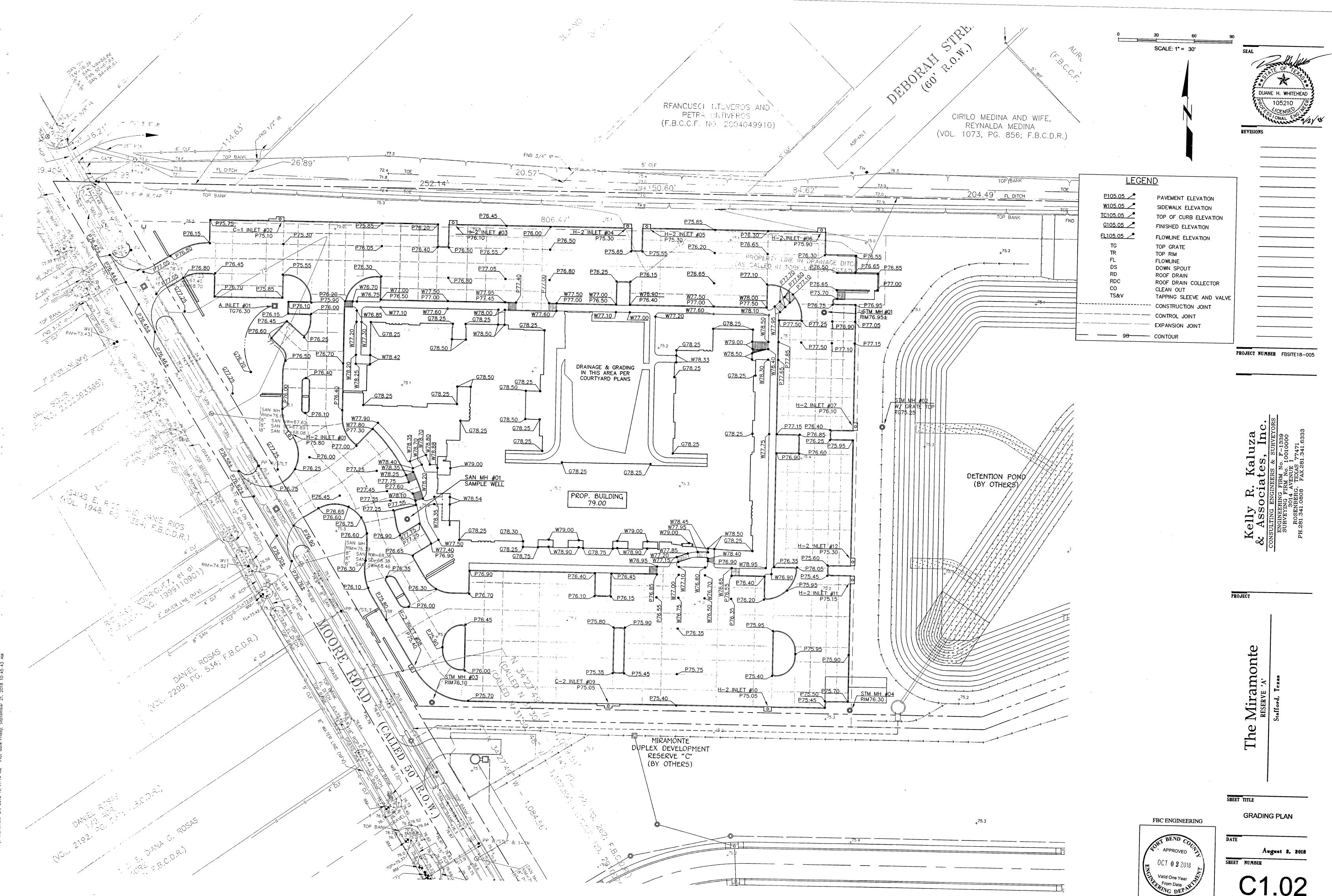
DATE:

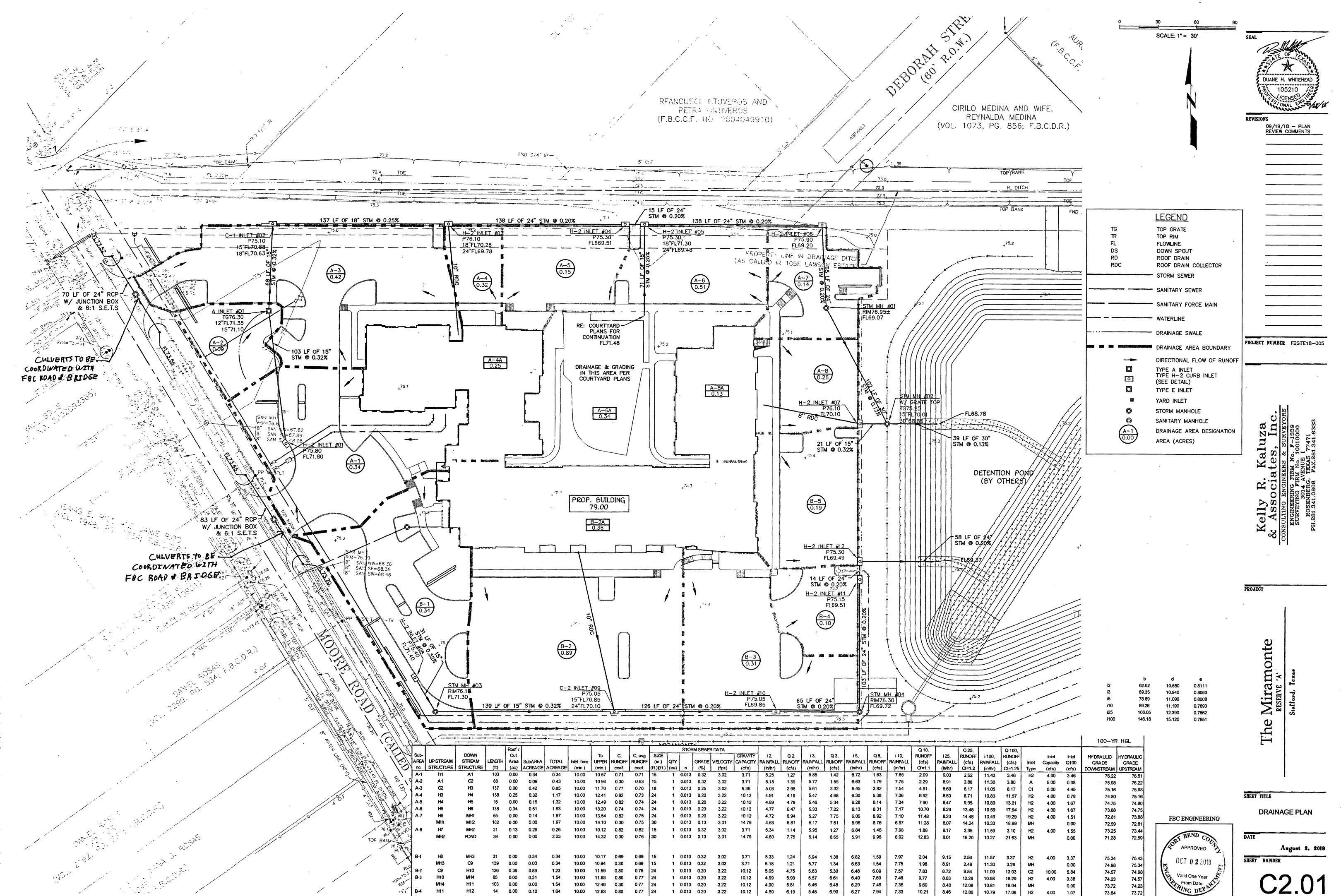
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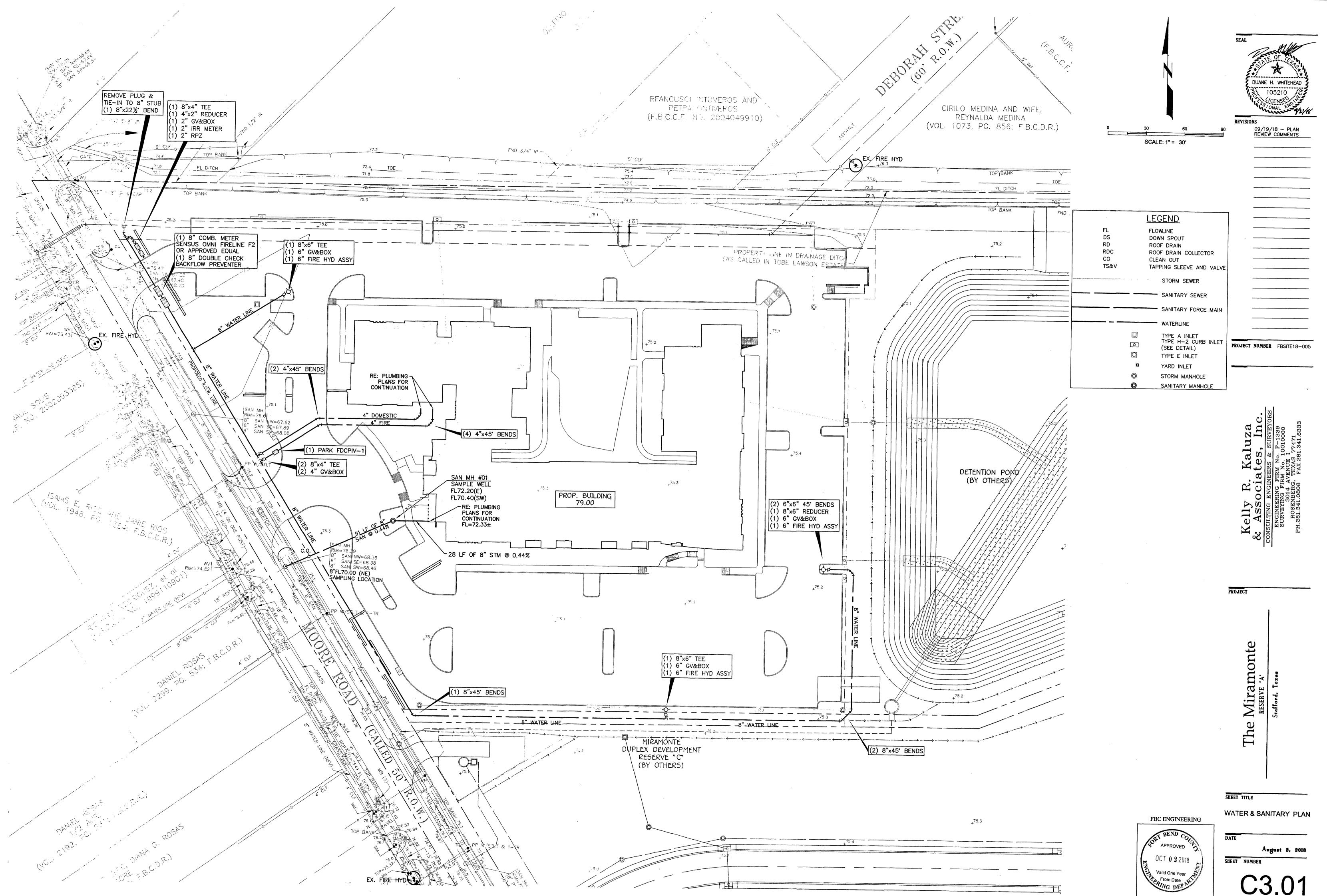
File Name;W:\FortBend\SitePlans\2018\FBSITE18-005 (Miramonte Multi-Fam)\Civil\DWGS\Miramonte-Cover Apts Layout Tab:COVER ')

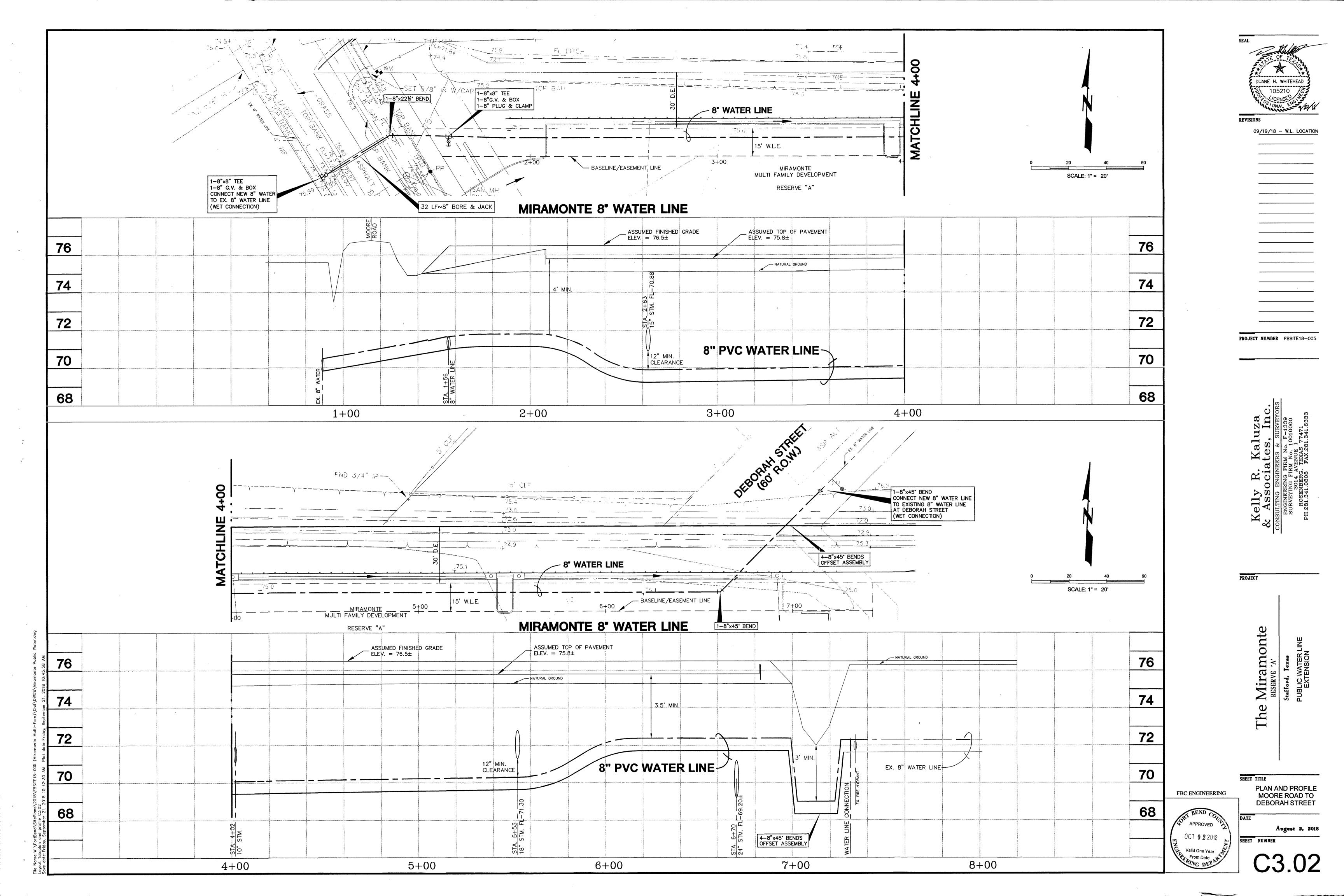


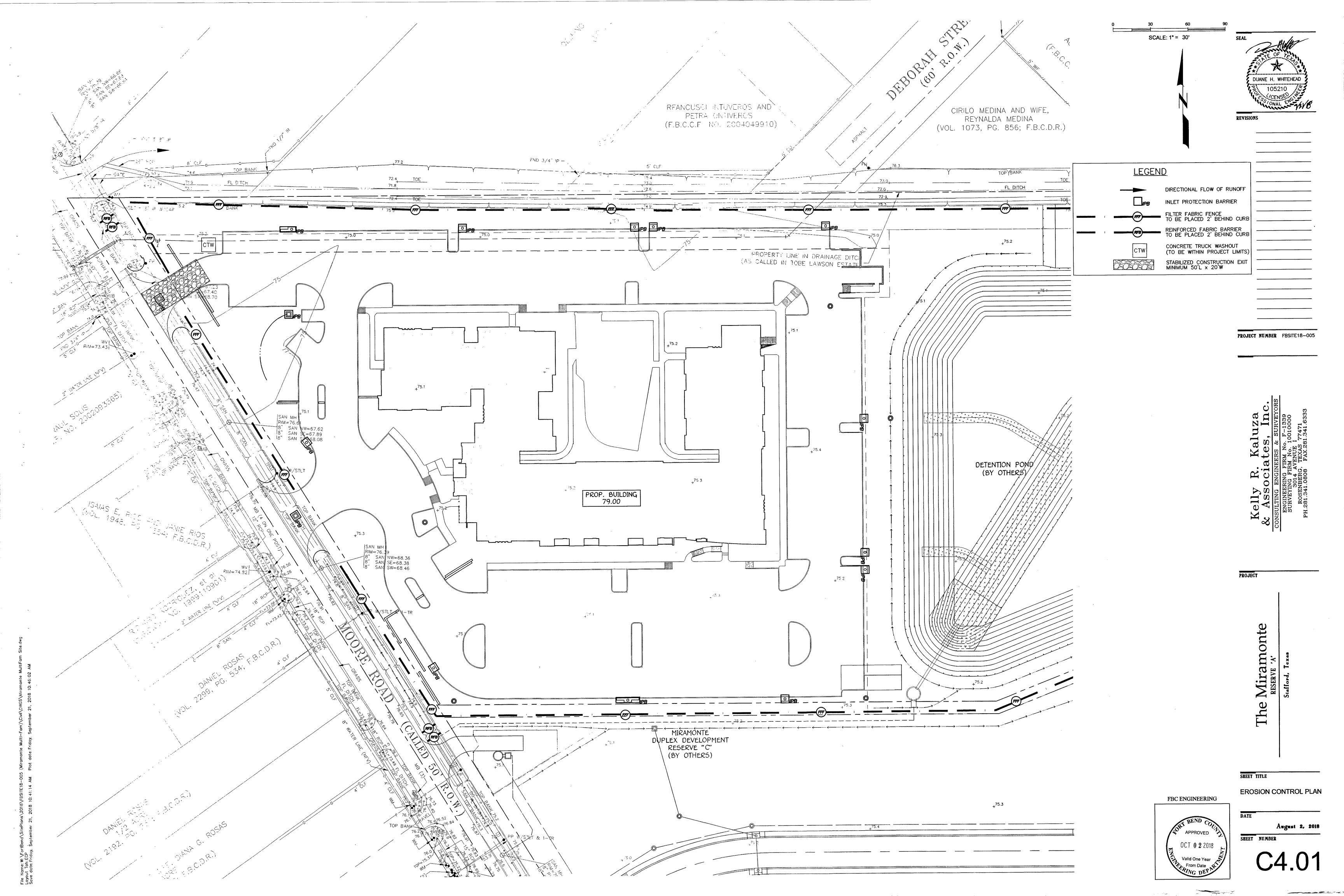


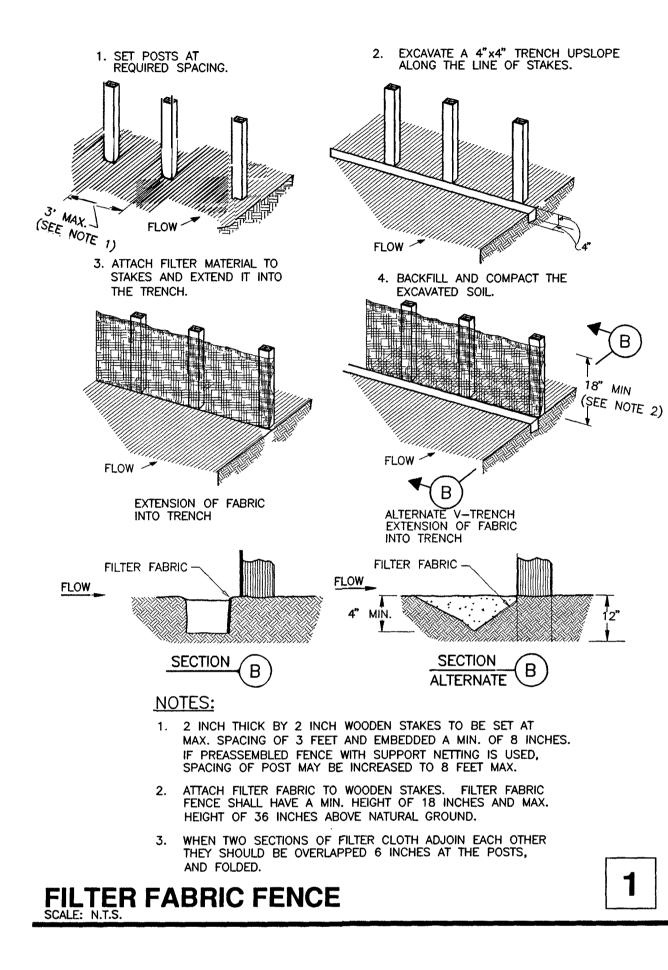


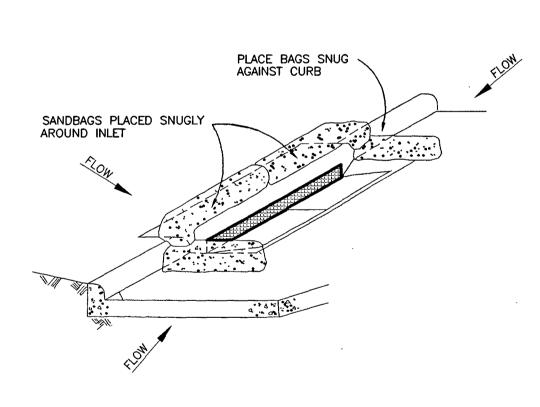










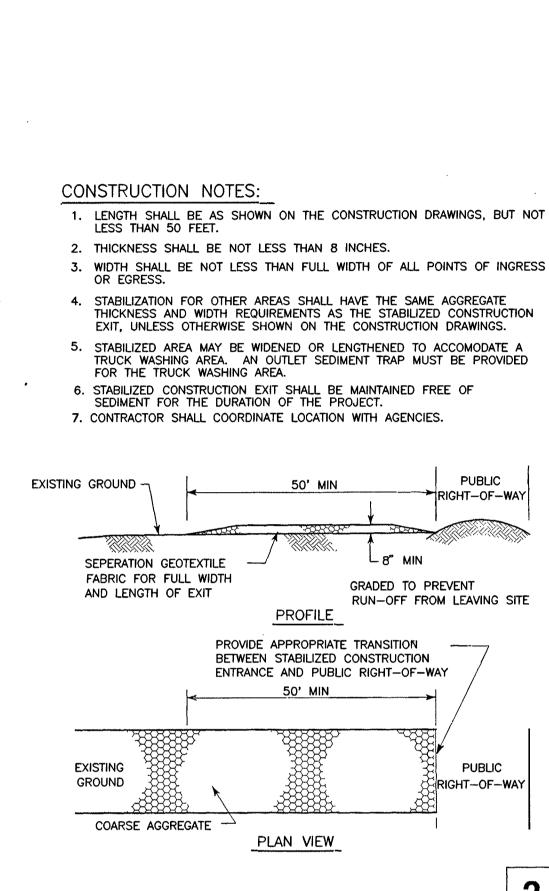


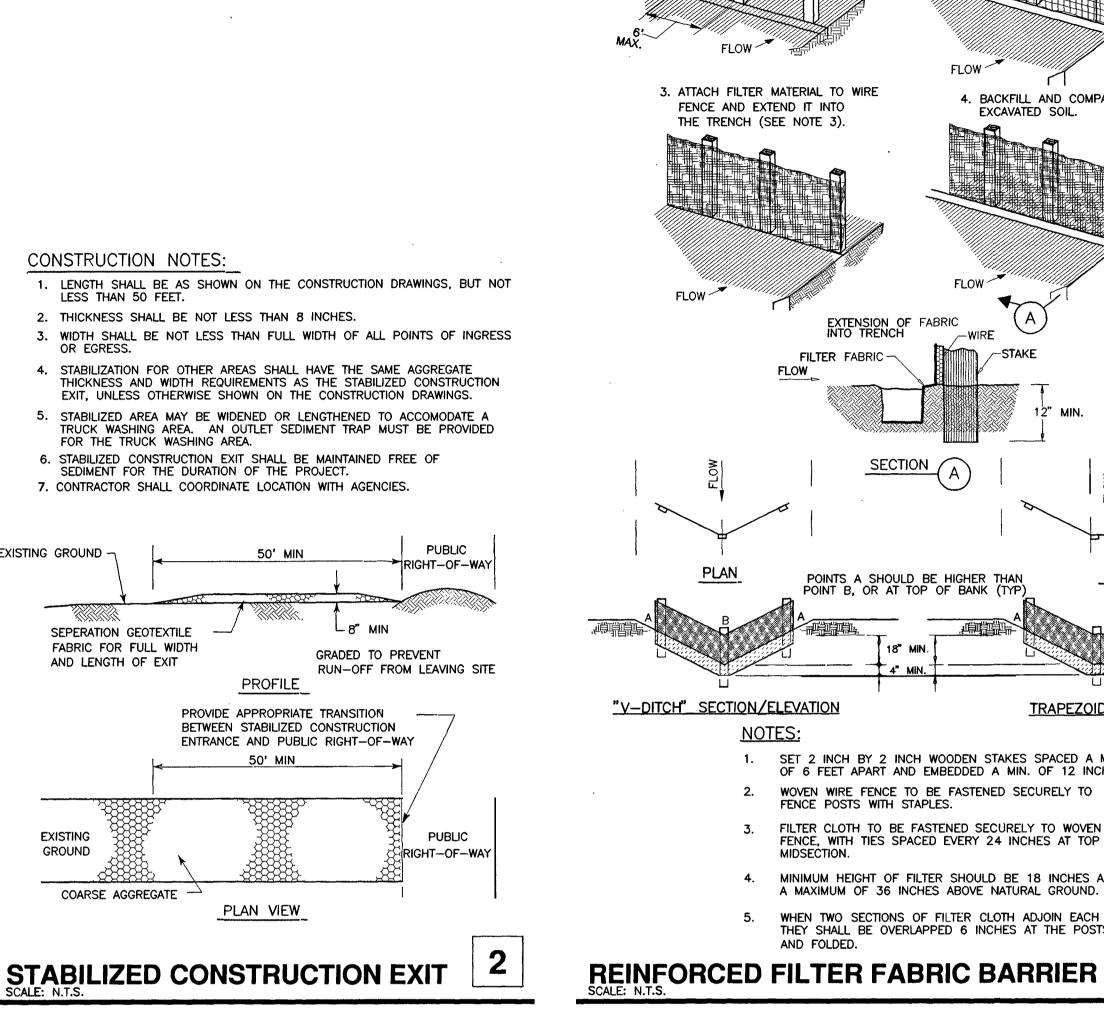
GENERAL NOTES:

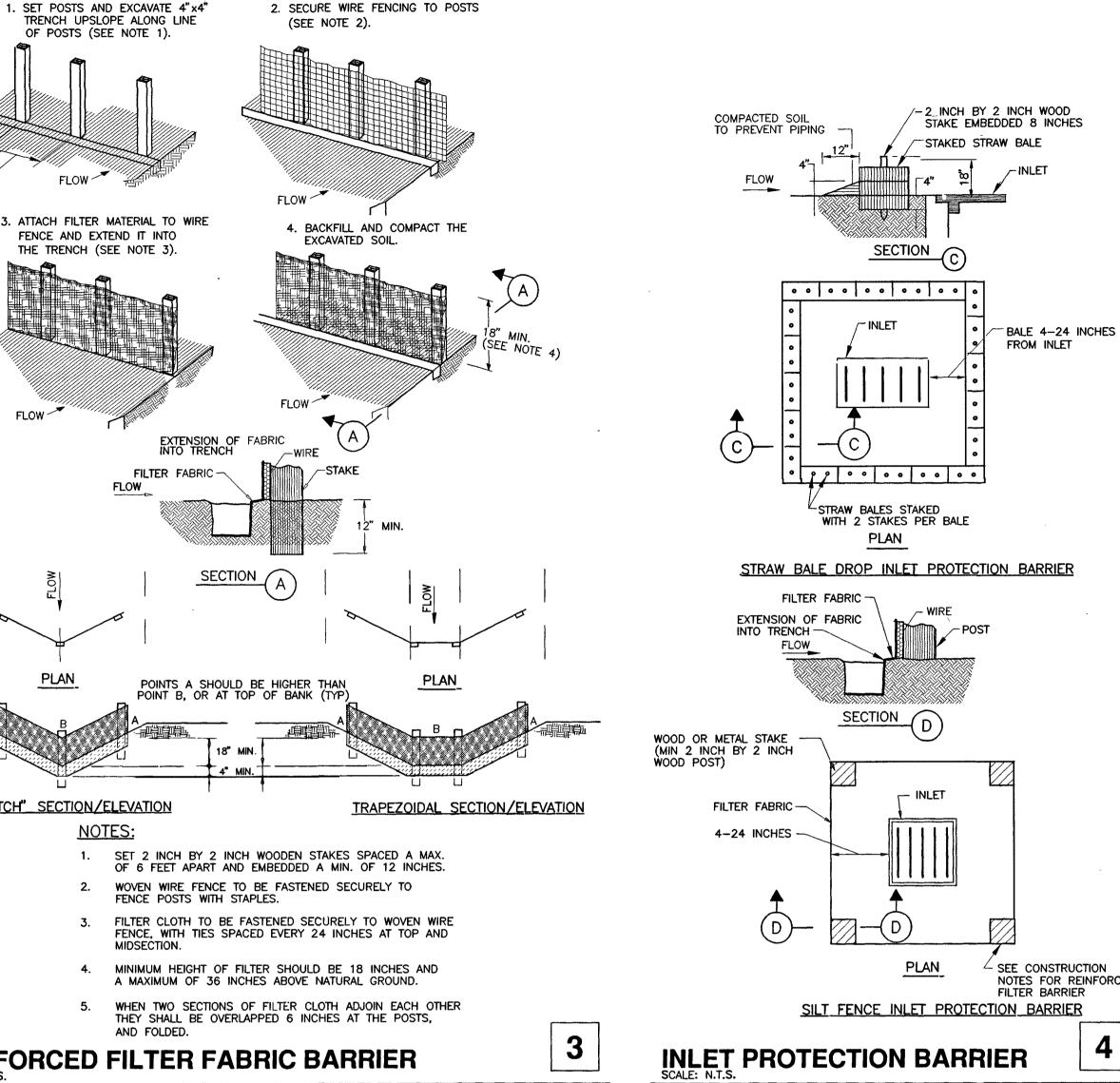
- 1. BAGS OR WATTLES CAN BE USED FOR THIS APPLICATION.
- 2. PROVIDE WOVEN OR UNWOVEN GEOTEXTILE FILTER FABRIC FOR BAGS. 3. PROVIDE COARSE SAND AND AGGREGATE MIX FOR FILL MATERIAL FOR
- BAGS. USE ONLY PARTICLES CONSISTING OF CLEAN, HARD, DURABLE MATERIALS FREE FROM ADHERENT COATINGS, SALT, ALKALI, DIRT, CLAY, LOAM, SHALE, SOFT OR FLAKY MATERIALS, OR ORGANIC AND INJURIOUS MATTER.
- 4. REMOVE SEDIMENT DEPOSIT WHEN THE SEDIMENT HAS ACCUMULATED TO ONE-THIRD THE HEIGHT OF THE BARRIER.
- 5. PRE-MANUFACTURED CURB INLET PROTECTION, SUCH AS GutterGator® OR APPROVED EQUAL, MAY BE SUBSTITUTED FOR SAND BAGS AT CURB INLETS.

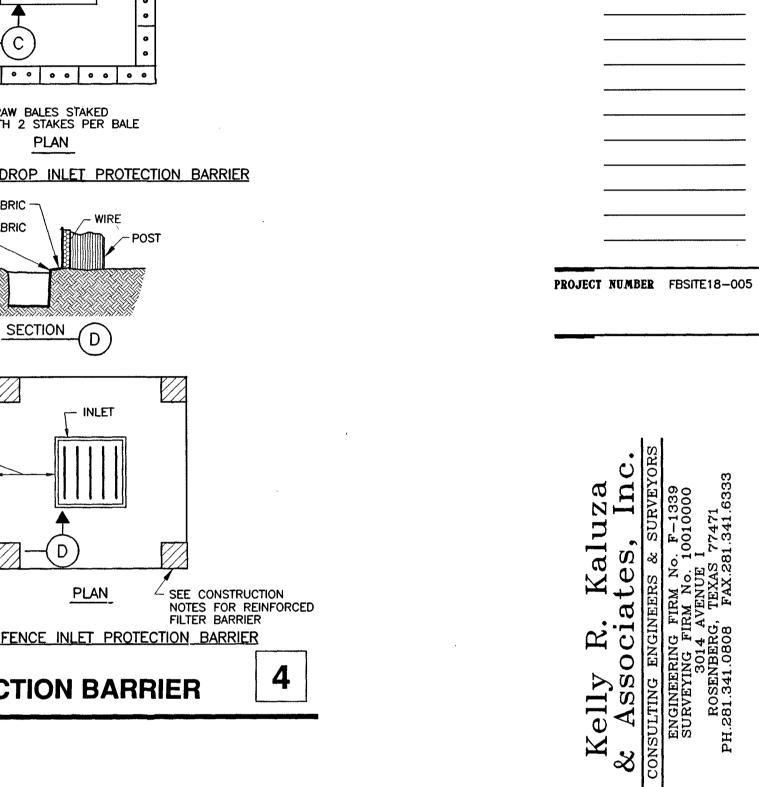
CURB INLET PROTECTION











EROSION AND SEDIMENT CONTROL PLAN NOTES:

- SW-2 CONTRACTOR SHALL PREPARE, FILE AND EXECUTE THE STORM WATER PREVENTION PLAN IN ACCORDANCE WITH ALL FEDERAL, STATE AND LOCAL
- SW-3 ALL DETAILS SHALL BE IN ACCORDANCE WITH THE PROJECT SPECIFICATIONS. REFERENCE: STORM WATER MANAGEMENT HANDBOOK, HARRIS COUNTY et.al.
- SW-4 CONTRACTOR SHALL KEEP ADJOINING STREETS CLEAR OF MUD AND
- DISCHARGE CONTROL DEVICE ON SITE. EXCESS MATERIALS SHALL BE
- SW-6 CONTRACTOR SHALL PROVIDE INLET PROTECTION FOR ALL INLETS IN PUBLIC RIGHT-OF-WAYS ADJACENT TO THE SITE, ON SAME SIDE OF STREET, AS CONSTRUCTION ACTIVITIES.
- FABRIC FENCE AND/OR SAND BAGS WHEN APPROVED BY THE ENGINEER.

FBC ENGINEERING APPROVED Valid One Year From Date

SHEET TITLE EROSION CONTROL DETAILS August 2, 2018

firamonte

The

SHEET NUMBER

DUANE H. WHITEHEAD 105210

REVISIONS

SW-1 STORM WATER FROM ALL AREAS DISTURBED BY THE CONSTRUCTION ACTIVITIES SHALL BE DISCHARGED THROUGH AN APPROVED CONTROL

DEBRIS DEPOSITED DUE TO ON-SITE CONSTRUCTION ACTIVITIES. SW-5 ALL STOCKPILED MATERIALS SHALL BE CONTAINED WITHIN AN APPROVED

REMOVED FROM THE SITE AND DISPOSED OF PROPERLY.

SW-7 PREFABRICATED INLET PROTECTION MAY BE USED IN PLACE OF FILTER

SIGN

GENERAL NOTES: . POST A SIGN READING "CONCRETE WASH OUT PIT" NEXT TO THE PIT.

"VERBALLY INSTRUCT THE CONCRETE TRUCK DRIVERS WHERE THE PIT IS AND TO WASH OUT THEIR TRUCKS IN THE PIT ONLY.

CLEAN FILL MATERIAL AND COMPACTED TO IN-SITU CONDITIONS, OR AS DIRECTED BY THE PROJECT SPECIFICATIONS.

CONCRETE TRUCK WASH OUT AREA

SECTION A-A

PLAN VIEW

3. UPON THE CONCRETE SETTING UP (CURING, DRYING OUT), THE CONCRETE WASTE SHALL BE REMOVED FROM THE PROJECT SITE AND DISPOSED OF PROPERLY BY THE CONTRACTOR. AFTER REMOVAL OF THE CONCRETE WASTE, THE WASH OUT PIT SHALL BE FILLED WITH

4. CONCRETE WASH OUT PITS SHALL NOT BE LOCATED DIRECTLY ADJACENT TO, NOR AT ANY TIME DRAIN INTO THE STORM SEWER SYSTEM OR ANY OTHER SWALE, DITCH, OR WATERWAY.

5. CONSTRUCT ENTRY ROAD AND BOTTOM OF WASH OUT AREA TO SUPPORT EXPECTED LOADINGS FROM TRUCKS & EQUIPMENT.

ADDITIONAL CONSTRUCTION NOTES

sewers and appurtenances.

GENERAL NOTES

- 1. Connections to public utilities, including water and sanitary sewer, drainage, and streets shall be constructed in conformance with the minimum requirements of Fort Bend Water Control Improvements District No. 2 (WCID No. 2), City of Stafford (Chris Riggs) (281) 261—3946, and Fort Bend County. Contractor shall notify WCID No. 2 forty—eight (48) hours prior to making any connection to existing public utilities, streets, or drainage system.
- 2. Excess clean soil from construction may be distributed on project site, at locations approved by the Architect. All excess debris, trees, and/or waste materials shall be removed from the site and disposed of in an approved landfill or approved equal. All costs shall be at the expense of the contractor.
- Contractor shall notify all utility companies in the area prior to commencing work
 in any right—of—way or existing easement. A verification number from the
 one—call utility coordinating committee will be required.
- 4. The drawings show as much information as can be reasonably obtained from on the ground observation and existing construction drawings regarding the entire topography, contours, sub—surface soils, as well as the location and nature of pipelines, storm sewers, water lines, natural gas lines, underground cables, etc., however, the accuracy of or completeness of such information is not guaranteed.
- 5. Contractor shall comply with all Occupation, Safety, and Health Act (OSHA)
- 6. Contractor must obtain all permits and supply all bonds required by WCID No. 2, Fort Bend County, City of Stafford.
- 7. All dimensions shown on civil plans are to the back of curb or to the outside wall of any structure, unless otherwise specified.
- 8. Guidelines set forth in the Texas Manual of Uniform Traffic Control Devices shall be observed.
- 9. All work shall be done in accordance with applicable national, state, municipal, and local codes.
- 10. It is the Contractor's responsibility to supervise and coordinate all work to insure the proper execution. All work is to be accomplished in a neat, workmanlike manner, and all excess materials, trash, and debris, etc., shall be removed from the job by the Contractor, at his expense.
- 11. Prior to bidding the project, the Contractor shall inspect the site and satisfy himself that the above and below ground conditions of the site of this project are acceptable for construction.
- 12. Overhead power lines exist on the site. Centerpoint Energy has not attempted to mark those lines since they are clearly visible, but you should locate them prior to beginning any construction. Texas law, Section 752, Health and Safety Code, forbids all activities in which persons or things may come within six (6) feet of live overhead high voltage lines. Contractors and owners are legally responsible for safety of construction workers under this law. This law carries both criminal and civil liability. To arrange for lines to be turned off or moved, call Houston Lighting and Power Company at (713) 228—7400. Excavations within three feet (3') of existing power poles shall not be allowed. Pipe locations that will require excavation closer than the minimum shall be bored and jacked, with the written approval of the Owner.
- 13. In the event of conflict between the City of STAFFORD, City of Stafford, requirements and these construction plans, the more stringent requirements will govern.
- Contractor shall notify the following forty—eight (48) hours prior to beginning construction
 - WCID No. 2 (Jason Kelly) (281) 499-2041
 Kelly R. Kaluza & Associates, Inc. (Duane Whitehead) (281) 341-0808
 City of Stafford (Chris Riggs) (281) 261-3946
- 15. Trench safety system is required for all trench construction.

STORM SEWER CONSTRUCTION NOTES

- 1. All storm sewers shall meet the requirements of Fort Bend County Drainage District
- 2. All storm sewer manhole covers must include the words "storm sewer". All storm sewer manholes shall be adjusted to match finished final grades of pavement or final grading.
- 3. All storm sewer bedding and backfill shall meet the requirements of the City of Stafford. It is noted that all storm sewer under paving or within one foot (1') of pavement shall be backfilled up to the pavement subgrade with cement stabilized sand (2.0 sacks cement per cubic yard) and compacted to 95% Standard Proctor Density. All storm sewer bedding outside pavement area shall conform to Detail 529—S1 and 530—S1.
- 4. All storm sewer structures such as manholes and inlets under and adjoining paving shall be backfilled with cement stabilized sand to within one foot of finished grade. Cement stabilized sand backfill shall extend twelve inches (12") minimum from the outside wall of all structures.
- 5. Minimum grades on all storm sewers shall be as follows, except as otherwise noted on the plans:

Pipe		Pipe	
Size	Slope (%)	Size	Slope (%)
6 "	1.0	24"	0.18
8"	0.75	30 "	0.13
10"	0.55	36 "	0.10
12"	0.45	42"	0.08
15"	0.35	48"	0.07

- 6. All areas shall be uniformly graded to positively drain toward inlets, swales, or top of curbs. Contractor shall provide materials, labor, and equipment to perform all grading operations.
- 7. All storm sewer pipe, including inlet leads, shall be reinforced concrete pipe rubber gasketed, A.S.T.M. C-76, Class III, installed, bedded, and backfilled in accordance with construction details, City of Stafford, and Fort Bend County Drainage District criteria. Contractor shall use mechanical roller or mechanical tamper in compacting all backfill for the project. Corrugated Polyethylene Pipe ADSN-12 or Hancor H1-Q or approved equal meeting AASHTO Designation M294 is an approved alternate to reinforced concrete storm sewer pipe. All cast iron storm sewers shall be constructed of materials as specified for plumbing under buildings. P.V.C. SDR-26 pipe may be used in areas outside of building and pavement areas for roof drain collection system for 4" to 15" storm sewer size. All storm sewer in the public street right-of-way shall be reinforced concrete pipe rubber gasketed.
- 8. All drainage swales shall be constructed to proper grade and cross—section for positive drainage to inlets. Maximum side slope on all swales shall be 5:1 cross—section unless otherwise approved by Architect. In playground areas maximum side slope on all swales shall be 10:1 cross—section.
- 9. Contractor to use 18" x 18" catch basin or minimum 18" Nyloplast Druin Basin\Inline Drain or approved equal with light traffic rated grates for all yard inlets.

WATER LINE CONSTRUCTION NOTES

- 1. All water lines shall be constructed in accordance with Texas Commission on Environmental Quality, WCID No. 2 and City of Stafford criteria.
- 2. 8" water lines shall be polyvinyl chloride (PVC), DR18, Class 150, conforming to AWWA C-900, current. Water line size 6" or less shall be Class 200. (No A.C. pipe allowed.)
- 3. Water lines shall have sand embedment to six (6) inches above the top of pipe.
- 4. Minimum profile clearance between water lines and other utilities shall be twelve (12) inches.
- 5. All fire hydrants shall be color coded in accordance with City of Stafford criteria.
- 7. All fittings and buried portion of flush valves shall be polyethylene encased as per minimum requirements of "Polyethylene Encasement for Gray or Ductile Cast Iron

6. Flushing valve shall be installed a minimum of ten (10) feet from all sanitary

- Piping for Water and Other Liquids" ANSI/AWWA C105, as currently revised.

 8. All bacteriological samples will be collected by the contractor. The bacteriological
- 9. Only WCID No. 2 shall operate water main valves. The Contractor shall contact WCID No. 2 and coordinate as necessary.

test samples will be taken after pressure testing water lines.

- Contractor shall contact WCID No. 2 for working of valves and to coordinate testing of line. Contractor shall pressure test all water lines in accordance with City of STAFFORD and WCID No. 2 Criteria.
- 11. Centerline of flushing valves shall be three (3) feet behind back of curb or edge of payement
- 12. Contractor to purchase, pay for installation, and coordinate the installation of water meters with WCID No. 2. The district will install the water meters.

PAVING CONSTRUCTION NOTES

- 1. Concrete for driveways, sidewalks, and parking areas for the project shall be Portland Cement Concrete, five and a half (5.5) sacks of cement per cubic yard of concrete. Concrete paving shall have a minimum compressive strength of 3,500 psi. The compressive strength is equivalent to a flexure strength of approximately 550 psi in third—point loading at 28 days.
- 2. All pavement subgrade shall be stabilized with hydrated lime slurry method. The subgrade for 6" concrete pavement shall be stabilized to 6" depth with hydrated lime. An application rate of 38 lb/yd² is anticipated to be suitable to stabilize the subgrade. This application rate corresponds to 6% to 8% of lime, by dry weight, for clay having dry unit weights between 85 lb/ft² and 110 lb/ft². For 7" thick concrete pavement, stabilization should extend to 8" depth. An application rate of 42 lb/ft² should be sufficient to stabilize clay within the 7" concrete pavement area. The actual percentage of lime and thus application rate, shall be determined by laboratory tests on samples of the subgrade once grade has been achieved. The amount of lime needed to stabilize the soils should be determined according to ASTM C-6276. Lime stabilization shall be performed according to Item 260 of the TxDOT Specifications. Hydrated lime should meet the requirements of TxDOT Specifications, Item 264. Stabilized soils should be compacted to at least 95% of the standard maximum dry density (ASTM D-698). The moisture content should be within two percentage points of the optimum moisture content. (See Geotechnical Report)
- 3. Minimum reinforcing steel for concrete pavement shall conform to ASTM A-615 current Grade 40. Minimum lap at all splices shall be ten (10) inches.

7" Concrete — #4 bars on 18" centers each way. 6" Concrete — #4 bars on 24" centers each way. 5" Concrete — #4 bars on 24" centers each way 4½" Sidewalks — #3 bars on 24" centers.

- 4. Transverse expansion joints are required at maximum spacing of 60'-0" C-C each way, with joints and vertical curb joints to be sealed with liquid rubber conforming to T.H.D. Item 360.2 (7)b Class 1-b (Two component, synthetic polymer, cold-pourable, self-leveling type.) Construction or control joints shall not exceed a spacing of twenty (20) feet, center to center, each way. All substitutions shall be approved by the Architect prior to construction. Contractor to furnish joint layout
- Sidewalks shall have expansion joints on twenty (20) foot centers and tooled control
 joints at minimum four (4) foot spacing each way or as otherwise required by the
 Architect.
- 6. Slopes on sidewalk shall be one-fourth (1/4) inch per foot, except as shown on the plans.
- 7. Finished concrete pavement surfaces shall not vary from the proposed grade by more than 1/8 inch in ten (10) feet.
- 8. At all sawed joints, expose fifteen (15) inches of reinforcing steel. If no reinforcing
- steel exists, use horizontal dowels.

 9. Horizontal dowels shall be No. 6 bars, twenty—four (24) inches long, drilled and embedded eight (8) inches into the center of the existing slab with "Po—Roc" or equal. Dowels shall be twenty—four (24) inch C—C, unless otherwise specified.
- 10. Testing services shall be performed by a laboratory approved by the Architect.
 - Minimum laboratory testing required is as follows:

 1. Subgrade one filed density per four thousand (4,000) square feet of subgrade test and shall be a representative sample of subgrade.
 - 2. Concrete per technical specifications and a minimum of one (1) set of three (3) cylinders per pour.

Any laboratory call backs for retesting due to failure of the contractor to execute his work shall be at the expense of the contractor.

- 11. There are several accessible parking areas and access points at locations shown on site plan. (See Architect's plan for location.)
- 12. Sidewalk ramps shall be located at all intersections, driveways, and street crossings.
- Match existing gutter or existing pavement for grade. Match back of curb for alignment. Match top of curb at existing pavement.
- 14. All dimensions on road widths, curb radii, and curb alignments are measured to the back of curb. TC indicates top of curb. TP indicates top of paving.15. All dimensions for paving, including parking lots and driveways, shall be coordinated
- with the architectural site plans.

 16. Finished surfaces in accessible areas and along accessible routes shall conform to the requirements of the Americans with Disabilities Act and Texas Accessibility Standards. Accessible routes shall be constructed in accordance with the
- architectural drawings. All paving, sidewalks and ramps in accessible areas shall comply with the requirements of the Americans with Disabilities Act, Texas Accessibility Standards and with the following:

 A. Parking and loading areas: maximum slope of 1:50 in all directions
 - within accessible parking spaces and aisles.

 B. Accessible Routes: maximum slope of 1:20 in the direction of travel. Maximum cross slope of 1:50.
 - C. Building entrances and exists: at all locations 5'x5' (minimum) accessible, concrete walk with a maximum slope of 1:50 in all directions.

SANITARY SEWER CONSTRUCTION NOTES

- All sanitary sewers shall be constructed in accordance with the Texas Commission on Environmental Quality "Rules and Regulations," WCID No. 2, City of Stafford, and the contract documents.
- 2. Sanitary sewer outside buildings shall be P.V.C. SDR-26, conforming to the minimum standards of performance of ASTM D-3034, except as otherwise shown on the plans. All ductile iron pipe (D.I.P.) shall be Class 51, bituminous coated, conforming to AWWA C-151 or as otherwise required in the plumbing specification. Exterior of ductile iron pipe to be wrapped in 8 mil polyethylene in accordance with
- 3. Sanitary sewers shall not be placed within ten (10) feet of a fire hydrant.
- 4. Sanitary sewer manholes shall be constructed of monolithic or precast concrete.

 All sanitary sewer manhole covers must include the words "sanitary sewer". Precast sanitary sewer manholes shall be constructed as to limit adjustment rings to reduce the potential of infiltration. All precast manhole joints shall be rubber gasketed.

 All precast adjustment rings to have mastic adjustment material (Ram—Nek).
- 5. All sanitary sewer under paving or within one foot (1') of pavement shall be backfilled up to the pavement subgrade with cement stabilized sand (2 sacks cement per cubic yard) and compacted to 95% Standard Proctor Density.
- 6. All bedding for sanitary sewer outside pavement area shall be Class "A" bedding. All bedding for sanitary sewer under pavement areas shall be Class "A—A" bedding with cement stabilized sand (2 sacks cement per cubic yard) and compacted to 95% Standard Proctor Density, except in wet sand conditions.
- 7. Minimum grades for sanitary sewer lines shall be as follows:

Pipe Size Slope (%) 8" 0.44 6" 0.70

- 8. Sanitary sewer manhole will be set two (2) to three (3) inches above finished ground level and/or grade to divert storm water drainage away from manhole rim.
- 9. All sanitary sewer lines shall be air tested according to WCID No. 2 specifications and plumbing code prior to connection of service. Contractor shall provide fittings and lead with temporary plug during testing of line. Temporary plug may be removed after testing is complete. A mandrel test shall be performed 30 day after backfilled has been placed prior to acceptance of all installed P.V.C. pipe.
- 10. Steps in sanitary sewer manholes will not be permitted.
- 11. Brick manholes and brick adjustment rings are not allowed.
- 12. Fiberglass manholes are prohibited.
- 13. Flowlines of sanitary sewer service lines from buildings at manholes may be field adjusted in order to alleviate conflicts with other utilities as long as minimum slope requirements are met.

Fort Bend County Construction — General Notes

- Fort Bend County must be invited to the Pre—Construction Meeting.
 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
- 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 ½ 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 <u>front</u> of single family lots only. All other great shall be 6" reinforced concrete curb.
- 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 brackground. 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 of the centerline of the street on the same side as the hydrant.

Note: Fort Bend County notes supersede any conflicting notes.

Inspection. 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 construed to imply an acceptance of such work or to relieve the Contractor of any of its obligations hereunder.

Pre Construction Meeting

Notification of pre-construction meeting and all paving activites. email: construction@fortbendcountytx.gov

(provide one set of approved construction plans).

[****For direction only, not parts of Standard Notes, all references or notes, either specific or general utilized from other entitles, concerning sentiary sewer and public water distribution or service utilities notes must state that Fort Bend County WC&ID No. 2 (the District) requirements control construction for public water and sanitary sewer construction and will be utilized for inspection of private utilities that connection to public water facilities. The appropriate City authority may also have separate jurisdiction over private plumbing inspection as well. This paragraph is not part of the Standard Notes*****

FORT BEND COUNTY W.C. & I. D. No. 2 STANDARD NOTES:

- 1. All public potable water and sanitary sewer facilities are controlled and operated by Fort Bend County Water Control & Improvement District No. 2 (the District) within the boundaries of the District. District requirements, standards, directives and regulations control and supersede others for public water and sanitary sewer construction directives.
- 2. Permits, approvals and inspections are the responsibility of Owner/Contractor to obtain prior to commencing construction,
- 3. It shall be the responsibility of the contractor to notify the District's Engineer 48-hours prior to the start of construction (281-499-2041) for approved projects or work.
- 4. All connections to the District's water and sanitary sewer systems, including sample wells, grease traps, backflow devices, etc.; shall be made in accordance with the District's "Construction Standards for Service Connections". It is the responsibility of the contractor to see that no water or sanitary sewer connection shall be backfilled and water service shall not commence until a representative of the District has inspected and approved the water and sanitary sewer connection and service line.
- 5. The Contractor shall be fully responsible for any and all damage to the existing public or private utility lines, including but not limited to water lines, wastewater collection systems and storm sewers during construction. All damages shall be repaired in accordance with the District's "Construction Standards for Public Utilities" latest addenda and amendments thereto, with no cost to the public.
- 6. Both the General Contractor and the Utility Contractor shall obtain a copy of the District's "Construction Standards for Public Service Connections" prior to the start of construction.
- 7. Any revisions/changes to the utility construction shall be resubmitted to the District. Construction shall be in accordance with plans approved by the District. Public water and wastewater service will be withheld for accounts with water or sanitary sewer construction not in accordance with approved plans or requirements until corrections are made and approved by the District.
- 8. All connections to the District's water system shall be performed by The District. Connections to the sanitary sewer system must be performed or witnessed by Representatives of the District.
- 9. Manholes, testing requirements, water meters, valves, and hydrants shall be per District standards and requirements. District specific covers are required for manholes and valves on public lines. All District waterline valves open left (counter clockwise).
- 10. All waterline tees, hydrants, elbows, and plugs shall be installed with restrained fittings. Restraint may be from thrust blocking or restrained pipe joint (of approved manufacturer). All pipe must include a minimum of two (2) joints of restraint on each side of the fitting. Public fire hydrants shall be manufactured by either Mueller or EJ, supplied with five-inch Storz connect with debris cap, and painted according to District color standards. All fire and backflow equipment in vaults must be in a reinforced concrete vault, placed outside of structures and near the public right-of-way property edge or adjacent to but not obstructing a District assessable easement. The vault must be installed on stabilized compacted sub-base material.
- 11. An expansion joint is required at all boundaries in proposed concrete pavement placed over existing District utility easements to facilitate concrete removal and restoration for gravity line maintenance. If a section of pavement crosses twice, a deformed metal strip joint is allowed for the second crossing.

SPECIAL WATER LINE NOTES

- 1. Connection to an existing public sanitary sewer manhole must be cored above the bench and sealed with a resilient boot connection. No damage or penetrations will be permitted into the existing manhole bench. District Standard lid castings and protective coatings are required.
- 2. Cleanouts placed in pavement must have traffic rated fixtures installed.
- 3. Contractor on maintain TCEQ required separation and crossing requirements for proposed sanitary sewer service line crossing existing public waterline.
- 4. All meter and backflow vaults must be placed on stabilized bedding to prevent settling or movement of vault.
- 5. The District must witness and inspect the work prior to backfilling service lines and be provided a minimum of 48-hours prior to commencing and work.

ADDITIONAL FORT BEND COUTNY WATER CONTROL & IMPROVEMENT DISTRICT NOTES:

- 1. ALL METER VAULTS MUST BE PLACED ON STABILIZED BEDDING TO PREVENT SETTLING ORMOVEMENT OF VAULT.
- 2. PRIVATE HYDRANTS MUST BE PAINTED YELLOW FOR PROTECTIVE COATING, AND INCLUDE ISOLATION VALVE, AND FIVE-INCH HYDRO STORZ CONNECTION.
- 3. THE DISTRICT MUST WITNESS AND INSPECT THE WORK PRIOR TO BACKFILLING AND BE PROVIDED A MINIMUM OF 48—HOURS PRIOR TO COMMENCING AND WORK.
 4. LIFT STATION FORCE MAIN CONNECTION TO AN EXISTING PUBLIC SANITARY SEWER MANHOLE

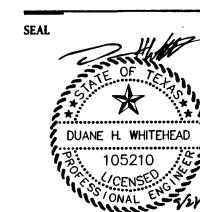
MUST BE CORED ABOVE THE BENCH AND SEALED WITH A RESILIENT BOOT CONNECTION. N

- DAMAGE OR PENETRATIONS WILL BE PERMITTED INTO THE EXISTING MANHOLE BENCH. DISTRICT STANDARD LID CASTINGS AND PROTECTIVE COATINGS ARE REQUIRED.

 5. AS SANITARY SEWER MANHOLES WILL BE A PRIVATE THE COVER CASTING MUST STATE SANITARY OR SIMILAR CASTING. CITY, DISTRICT OR OTHER GOVERNMENTAL AGENCY OWNERSHIP CASTINGS
- 6. ALL CONNECTIONS TO THE FIFTH STREET WATER SUPPLY CORPORATION WATER AND SANITARY SEWER SYSTEMS SHALL BE MADE IN ACCORDANCE WITH THE CONSTRUCTION STANDARDS AND REQUIREMENTS. NO WATER OR SANITARY SEWER CONNECTION SHALL BE BACKFILLED AND WATER SERVICE SHALL NOT COMMENCE UNTIL A REPRESENTATIVE OF THE DISTRICT HAS INSPECTED AND APPROVED THE WATER AND SANITARY SEWER CONNECTION AND SERVICE LINE. IN ACCORDANCE WITH THE DISTRICT'S RATE ORDER, THE DISTRICT MAY WITHHOLD THE PROVISION OF SERVICE TO
- THE PROPERTY, IF THESE INSPECTIONS HAVE NOT BEEN MADE.

 7. THE CONTRACTOR SHALL BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGE TO THE EXISTING PUBLIC OR PRIVATE UTILITY LINES, INCLUDING BUT NOT LIMITED TO WATER LINES, WASTEWATER COLLECTION SYSTEMS AND STORM SEWERS DURING CONSTRUCTION. ALL DAMAGES SHALL BE REPAIRED IN ACCORDANCE WITH THE DISTRICT'S "CONSTRUCTION STANDARDS FOR PUBLIC
- UTILITIES" LATEST ADDENDA AND AMENDMENTS THERETO, WITH NO COST TO THE PUBLIC.

 8. AT THE TIME OF INSPECTIONS, IF THE PERMIT CARD IS NOT POSTED, THE INSPECTIONS WILL NOT BE PERFORMED, BUT THERE WILL BE A CHARGE FOR THE TRIP.
- 9. IN ACCORDANCE WITH TCEQ RULE 290.46, THE DISTRICT IS REQUIRED TO COMPLETE A CUSTOMER SERVICE INSPECTION ON ALL NEW CONSTRUCTION PRIOR TO PROVIDING CONTINUOUS WATER SERVICE TO THE PREMISES. THIS MUST BE COMPLETED FOR EACH RESIDENCE AND COMMUNITY BUILDING PRIOR TO OCCUPANCY. IT IS THE BUILDER/OWNERS RESPONSIBILITY TO NOTIFY THE DISTRICT WHEN THE BUILDING IS READY TO BE INSPECTED AT LEAST THREE (3) BUSINESS DAYS PRIOR TO OCCUPANCY.



REVISIONS

09/19/18 - PLAN REVIEW COMMENTS

PROJECT NUMBER FBSITE18-005

Kelly R. Kaluza & Associates, Inc. consulting engineers & surveyors engineering firm No. F-1339 surveying firm No. 10010000

e Miramonte RESERVE 'A'

SHEET TITLE

CONSTRUCTION NOTES

DATE

FBC ENGINEERING

BEND

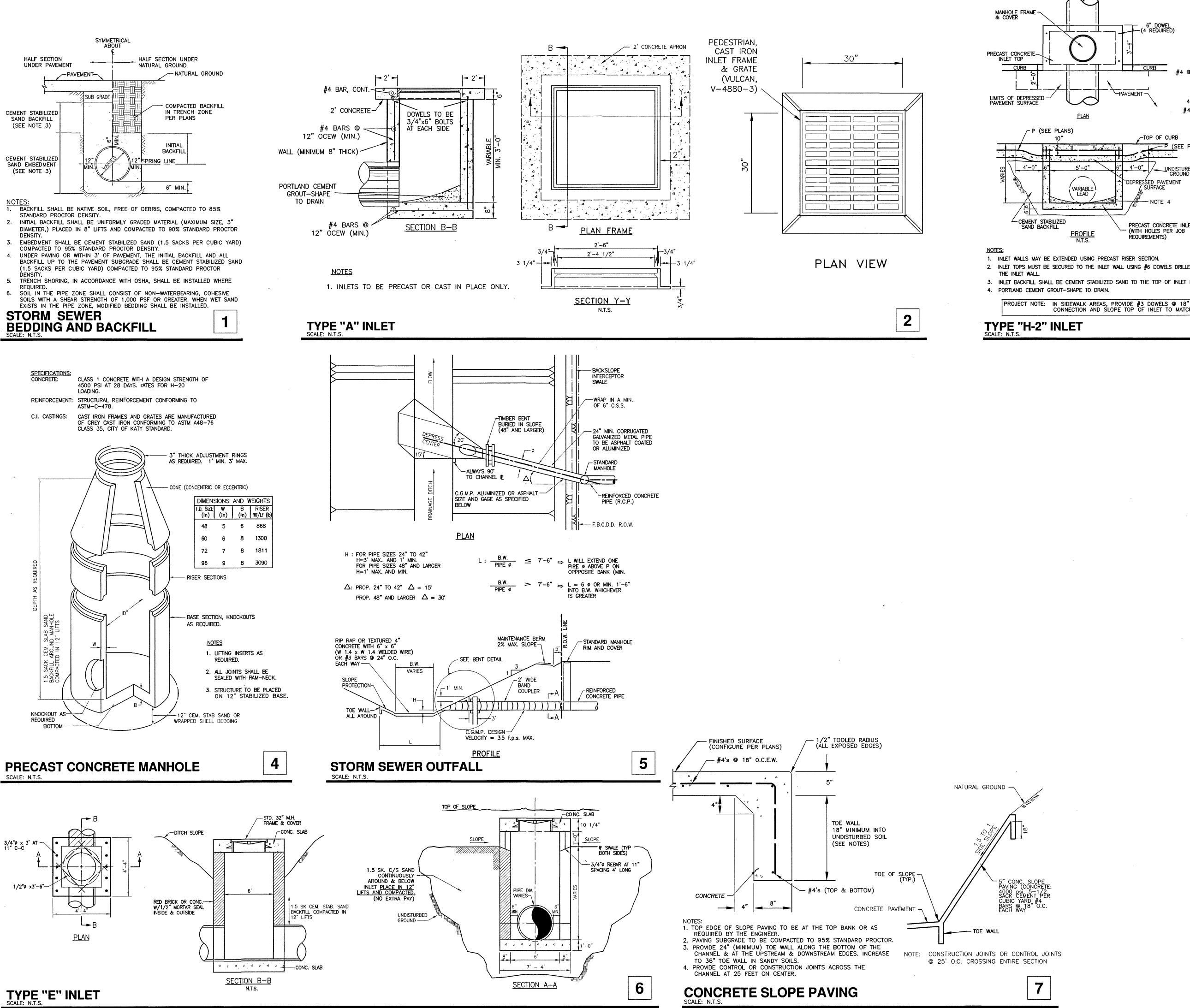
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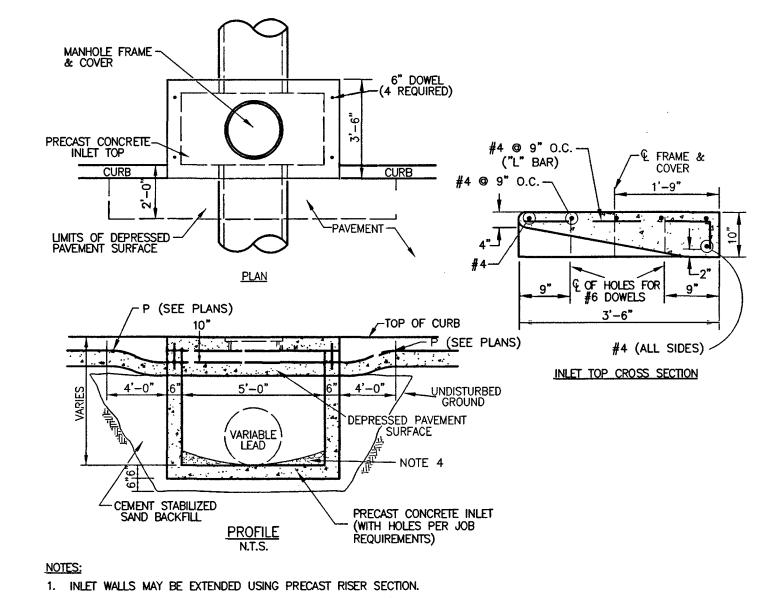
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Valid One Year

August 2, 2018
SHEET NUMBER

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2. INLET TOPS MUST BE SECURED TO THE INLET WALL USING #6 DOWELS DRILLED AND GROUTED A MINIMUM DEPTH OF 5" INTO

3. INLET BACKFILL SHALL BE CEMENT STABILIZED SAND TO THE TOP OF INLET FIRST STAGE

PROJECT NOTE: IN SIDEWALK AREAS, PROVIDE #3 DOWELS @ 18" O.C. AT INLET WALL/SIDEWALK CONNECTION AND SLOPE TOP OF INLET TO MATCH SIDEWALK (2% CROSS SLOPE).

PROJECT NUMBER FBSITE18-005

DUANE H. WHITEHEAD

105210

REVISIONS

PROJECT

SHEET TITLE

CONSTRUCTION DETAILS

FBC ENGINEERING

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APPROVED

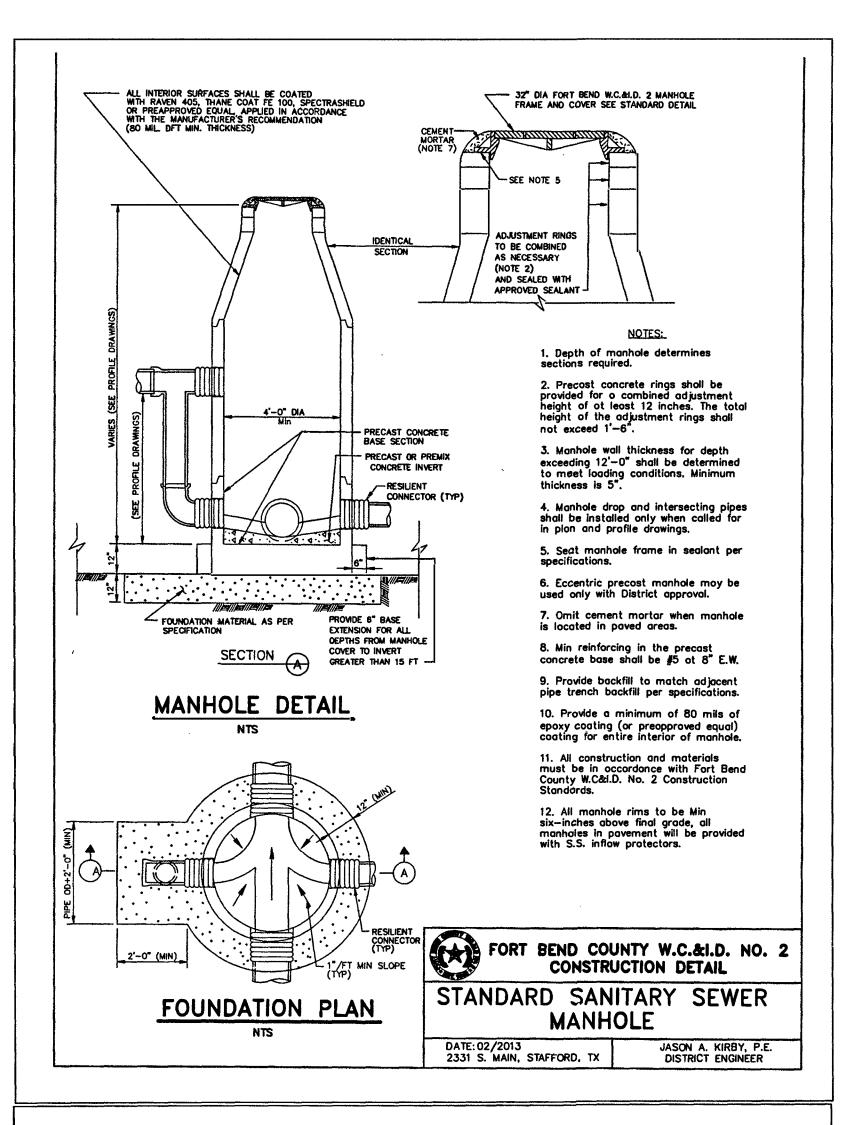
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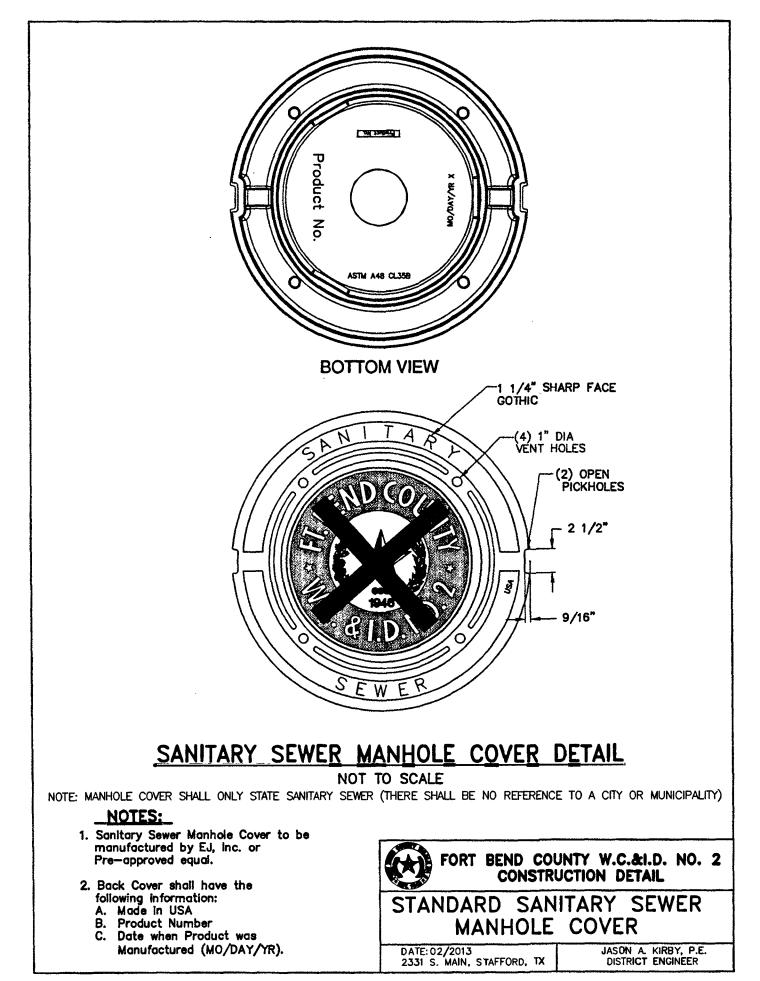
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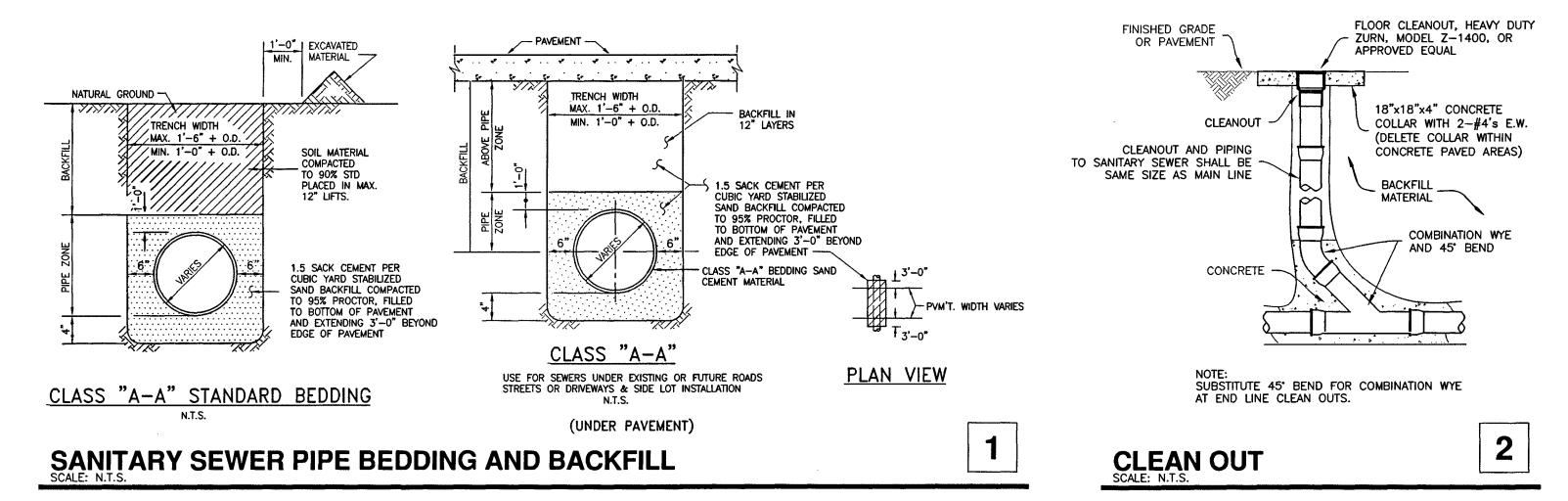
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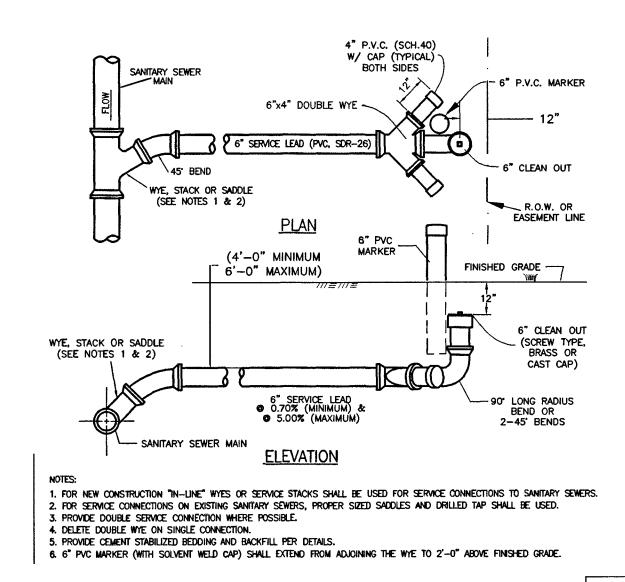
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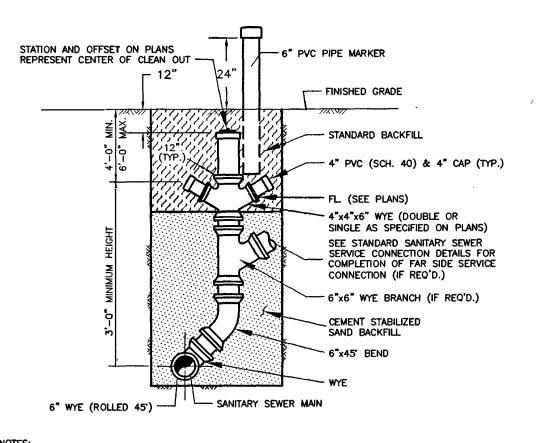








SANITARY SEWER SERVICE CONNECTION 3



ALL STACK CONNECTIONS SHALL BE "IN-LINE" FITTINGS.
 NO STACKS TO BE CONSTRUCTED ON EXISTING SANITARY SEWER LINES; LINES GREATER THAN 12' DEEP OR IN WET TRENCH CONDITIONS.
 ALL FITTINGS TO BE PVC, SDR-26.
 6" PVC MARKER (WITH SOLVENT WELD CAP) SHALL EXTEND FROM ADJOINING THE WYE TO 2'-0" ABOVE FINISHED GRADE.

SANITARY SEWER STACK SCALE: N.T.S. 4

DUANE H. WHITEHEAD

105210

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REVISIONS

09/19/18 - PLAN
REVIEW COMMENTS

PROJECT NUMBER FBSITE18-005

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ASSOCIATES, Inc SULTING ENGINEERS & SURVEYOR ENGINEERING FIRM No. F-1339 SURVEYING FIRM No. 10010000 3014 AVENUE I

PRO.

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SHEET TITLE

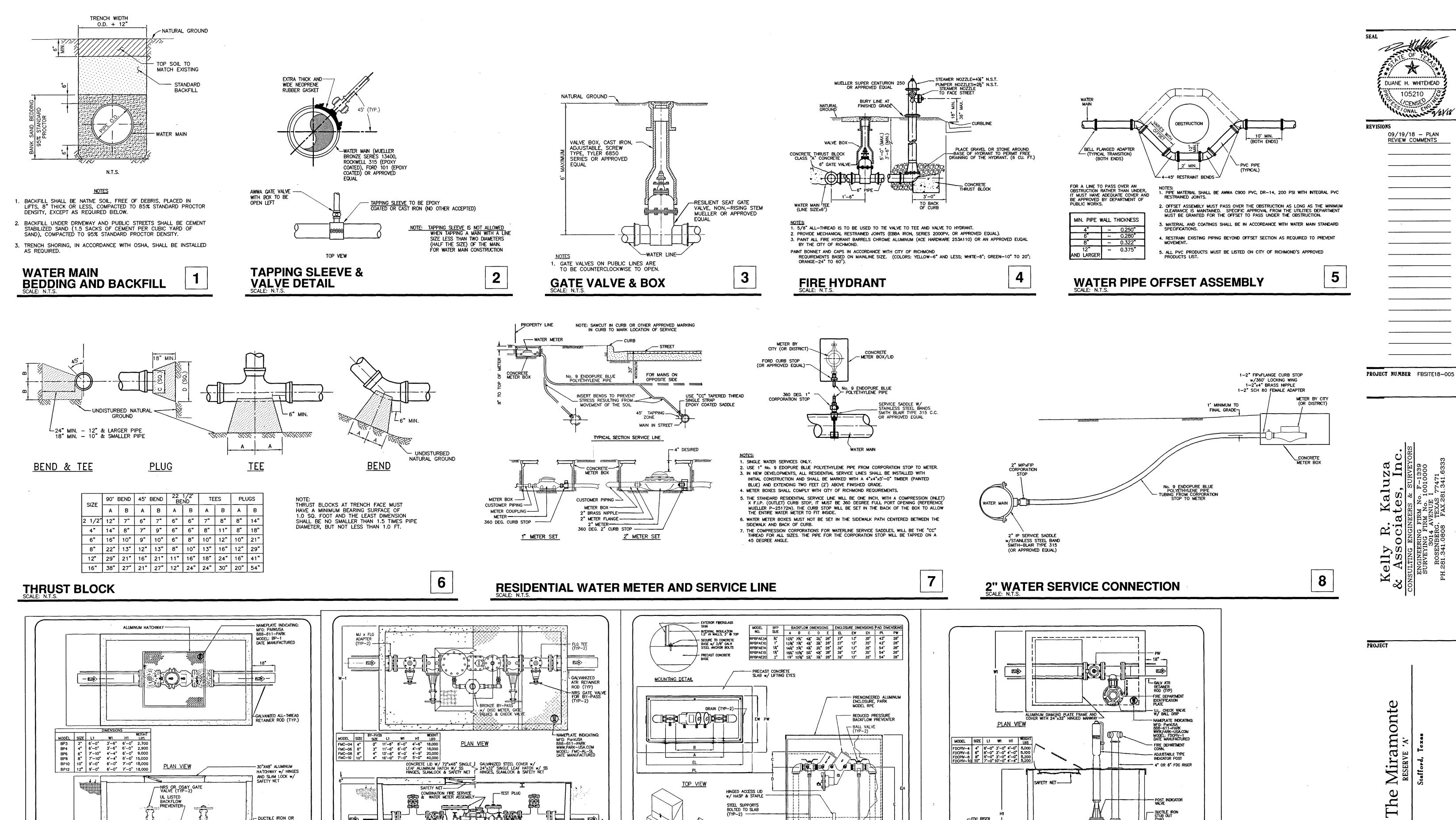
CONSTRUCTION DETAILS



FBC ENGINEERING

DATE
August 2, 201

C5.03



PRECAST CONCRETE SLAB w/ LIFTING EYES-

BY OTHERS (TYP.) -

Grade 60 reinforced. Steel rebar conforming to ASTM A615 on required centers or equal.

in water services to industrial plants, hospital facilities, morgues, mortuaries, and chemical plants. They are also used in irrigation systems, boiler feed, water lines and other installations requiring

The backflow assembly shall be factory assembled on pad & hydrostatically tested prior to delivery. Field excavation & preparation shall be

complete prior to delivery. Pipe, valves and fittings of the assembly shall

be approved by one or more of the following associations:

MAKE AND MODEL OF BACKFLOW MAY VARY REFER TO PARK SUBMITTAL

REFER TO MTG

DATE 01/17

FRONT VIEW

PARK

1/4" thru 2" REDUCED PRESSURE BACKFLOW PREVENTER ON PRECAST CONCRETE PAD

The valve assembly shall be factory assembled in vault & hydrostatically tested prior to delivery. Field excavation & preparation shall be complete prior to delivery. Pipe, valves and fittings of the assembly shall be approved by one or more of the following associations:

____ <u>____</u>

LOUCTILE IRON STUB OUT (TYP) 2'-

www.park-usa.com

PARKE DESIGN FOR WATER

STEEL PIPE SUPPORTS

VAULT MUST BE PLACED ON STABILIZED BEDDING

Class I/II concrete with design strength of 4500 PSI at 28 days. Unit is of monolithic construction at floor and first stage of wall with sectional riser to required depth.

ACCESS COVER: 1/4" steel skid-resistant floor plate welded to 3" angle frame with (2) 3"x2-3/8" I-beam supports. Hatch to be furnished with 316 stainless steel bolts and hinges

The meter assembly shall be factory assembled in vault & hydrostatically tested prior to delivery. Field excavation & preparation shall be complete prior to delivery. Pipe, valves and fittings of the assembly shall be approved by one or more of the following associations:

CONCRETE:

ELEVATION

~12" SQ SUMP W/ CAST IRON GRATE AND OPTIONAL DRAIN

CLOSED POSITION

OPEN POSITION

Specifications

maximum protection.

Engineering Data

PVC STUB-OUT

888.611.PAR

v•ww.park■sa.com

PARKE DESIGN FOR WATER

BP-1

PREVENTER ASSEMBLY

- FLANGED

CAST IRON GRATE

CUSTOMER:

ELEVATION

Class I/II concrete with design strength of 4500 PSI at 28 days. Unit is of monolithic construction at floor and first stage of wall

with sectional riser to required depth.

Aluminum diamond plate cover with extruded aluminum frame furnished with drop handle, open door support and slam lock. (300 P.S.F. live load)

⟨FM⟩

REINFORCEMENT: Grade 60 reinforced. Steel rebar conforming to ASTM A615 on required centers or equal.

The backflow assembly shall be factory assembled in vault & hydrostatically tested prior to delivery. Field excavation & preparation shall be

be approved by one or more of the following associations:

Specifications

Engineering Data

-FDC RISER - UNI-FLANGE 2'-0" LUL/FM WAFER CHECK VALVE BALL DRIP SECTION A-A @ Park 2012 Class 1 concrete with design strength of 4500 PSI at 28 days. Unit is of monolithic construction at floor and FBC ENGINEERING BEND COL ACCESS COVER: 1/4" skid-resistant aluminum floor plate welded to 3" angle frame with (2) 3"x2-3/8" I-beam supports. Hatch to be furnished with 316 stainless steel bolts PARK

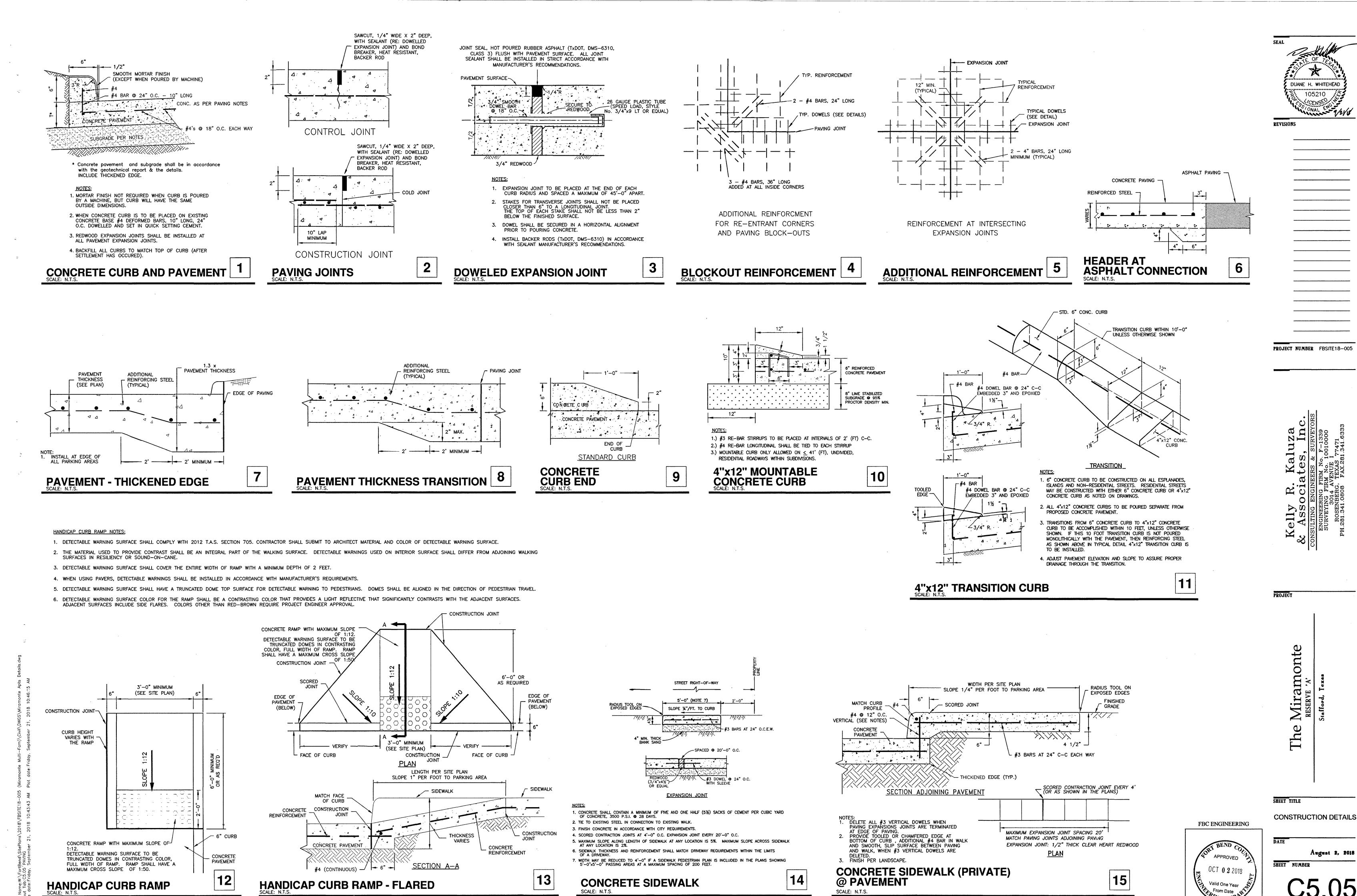
CHECK VALVE ASSEMBLY w/ 4" FDC & PIV MODEL FDCP - 4" THRU 10"

FDCPIV-1

APPROVED OCT **0 2** 2018 Valid One Year

SHEET TITLE **CONSTRUCTION DETAILS**

SHEET NUMBER



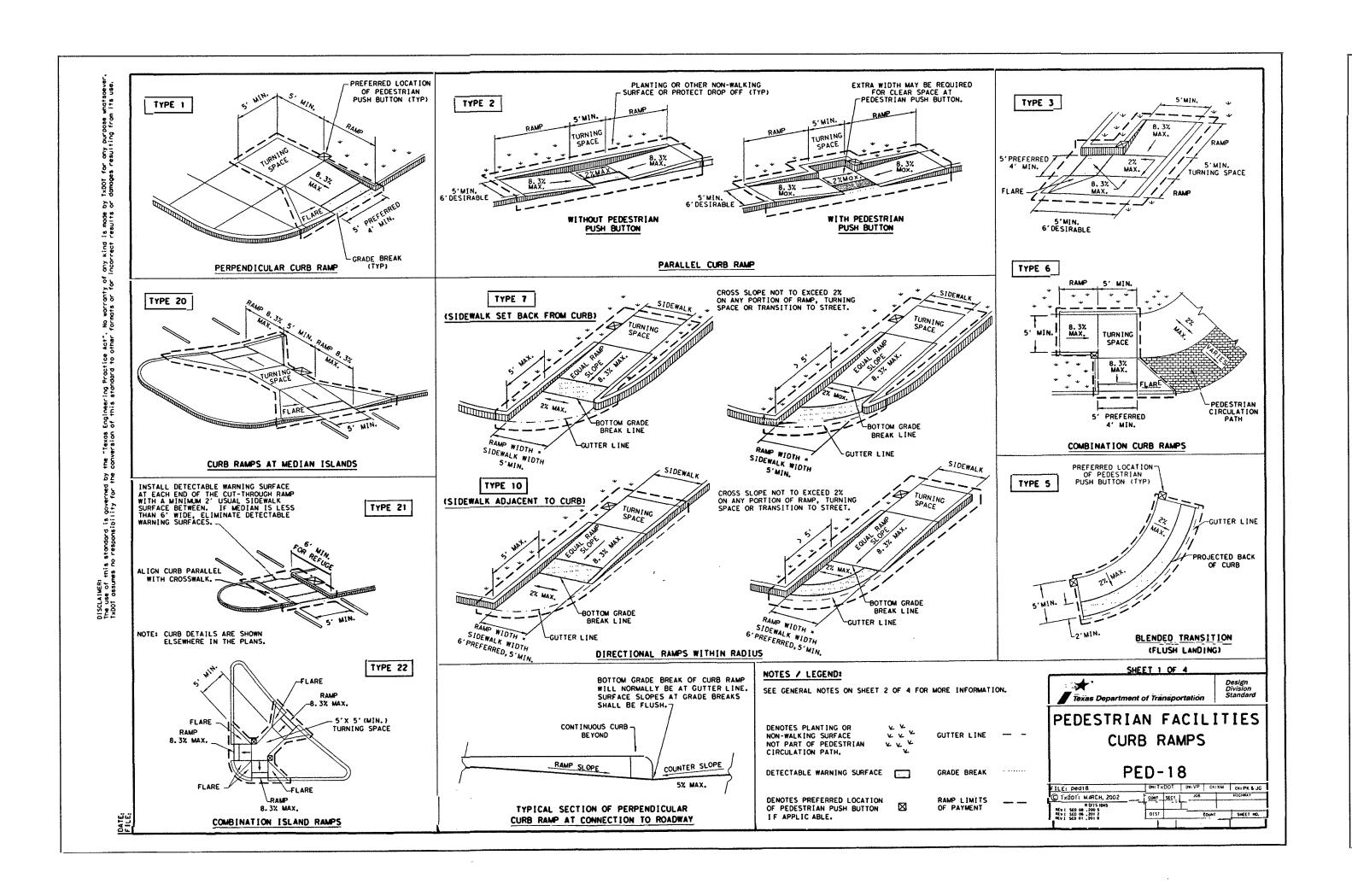
CONCRETE SIDEWALK

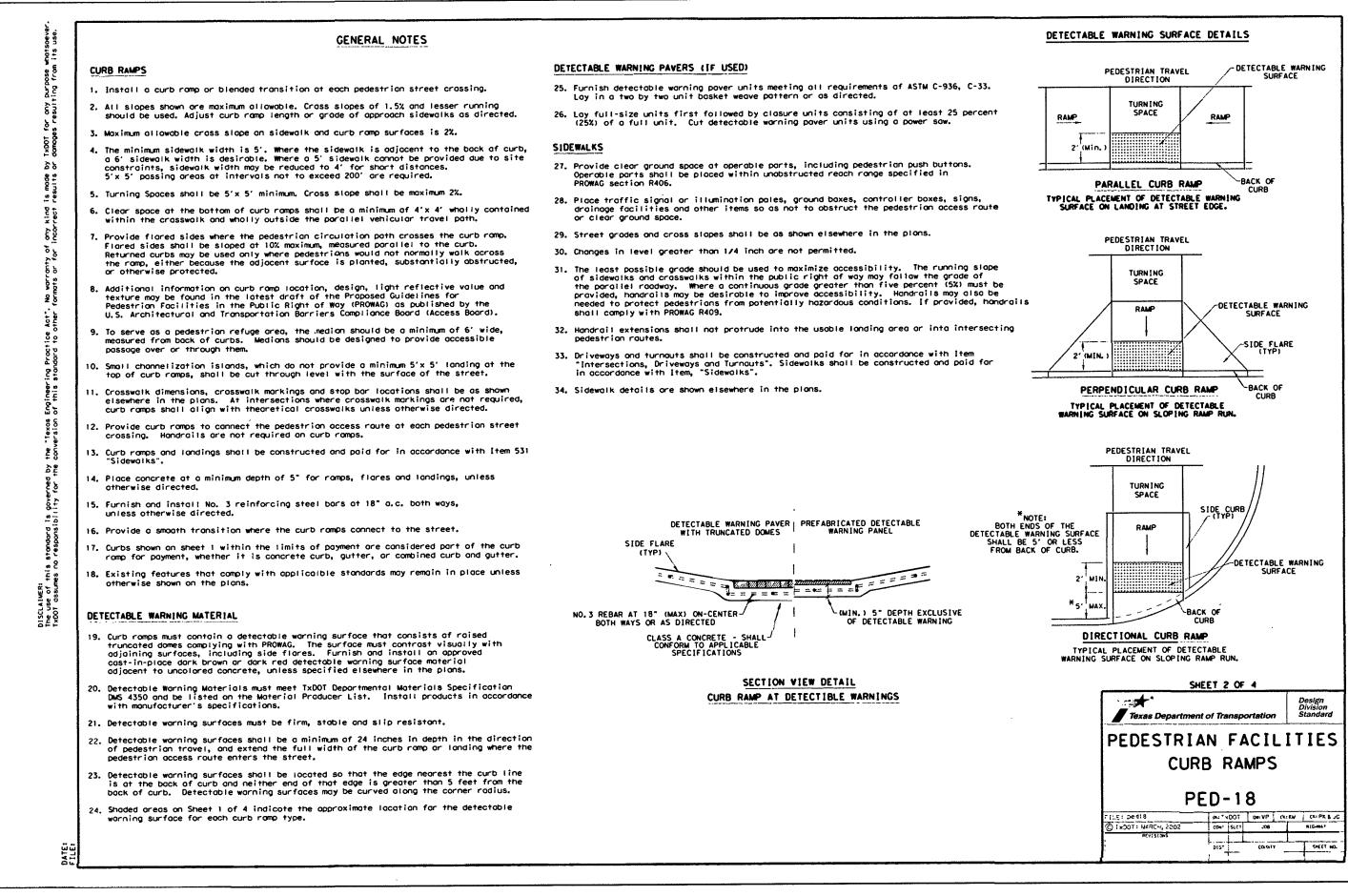
HANDICAP CURB RAMP

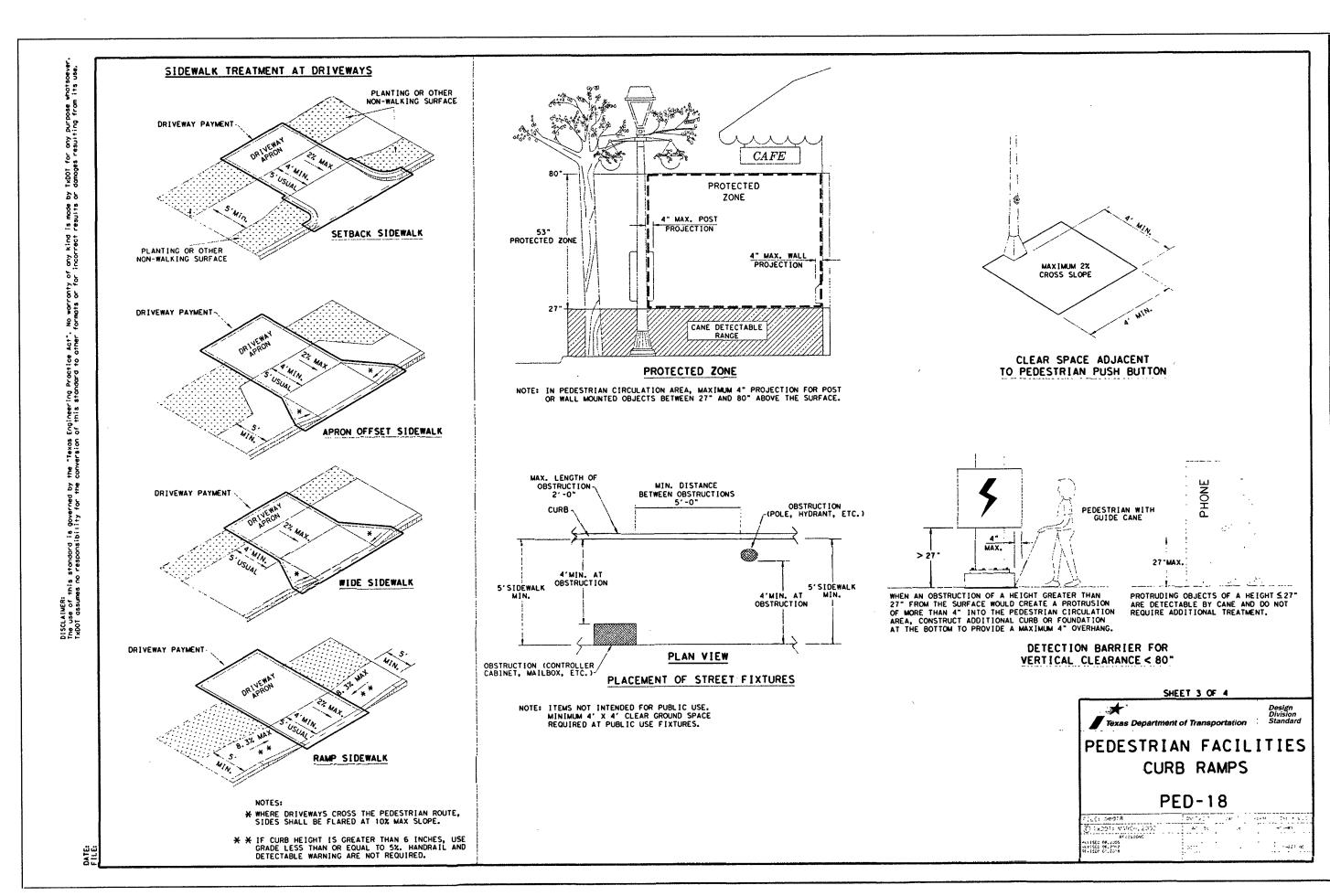
@ PAVEMENT

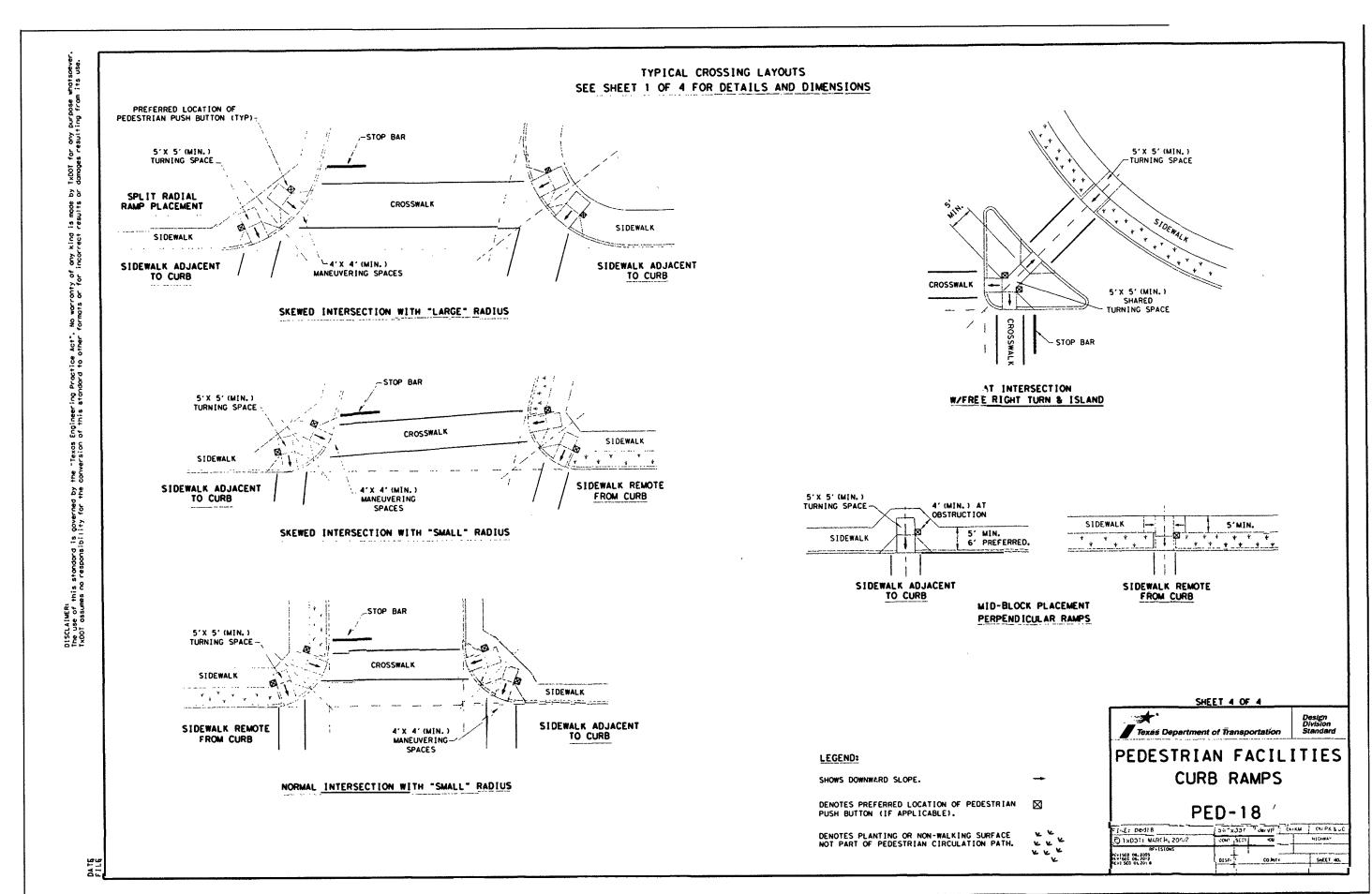
SCALE: N.T.S.

Valid One Year From Date











PROJECT NUMBER FBSITE18-005

DUANE H. WHITEHEAD

105210

& Associates, Inc.

consulting engineers & surveyors

Engineering firm No. F-1339

Surveying firm No. 10010000

3014 AVENUE I

ROSENBERG, TEXASS 77471

PROJECT

The Miramonte RESERVE 'A'

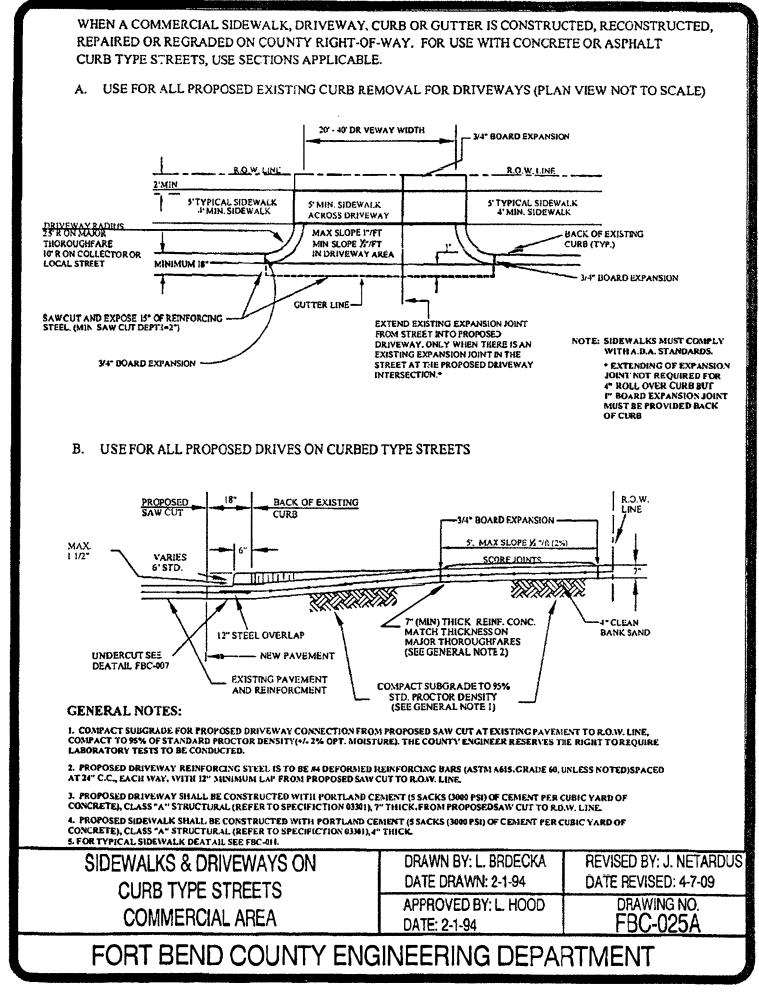
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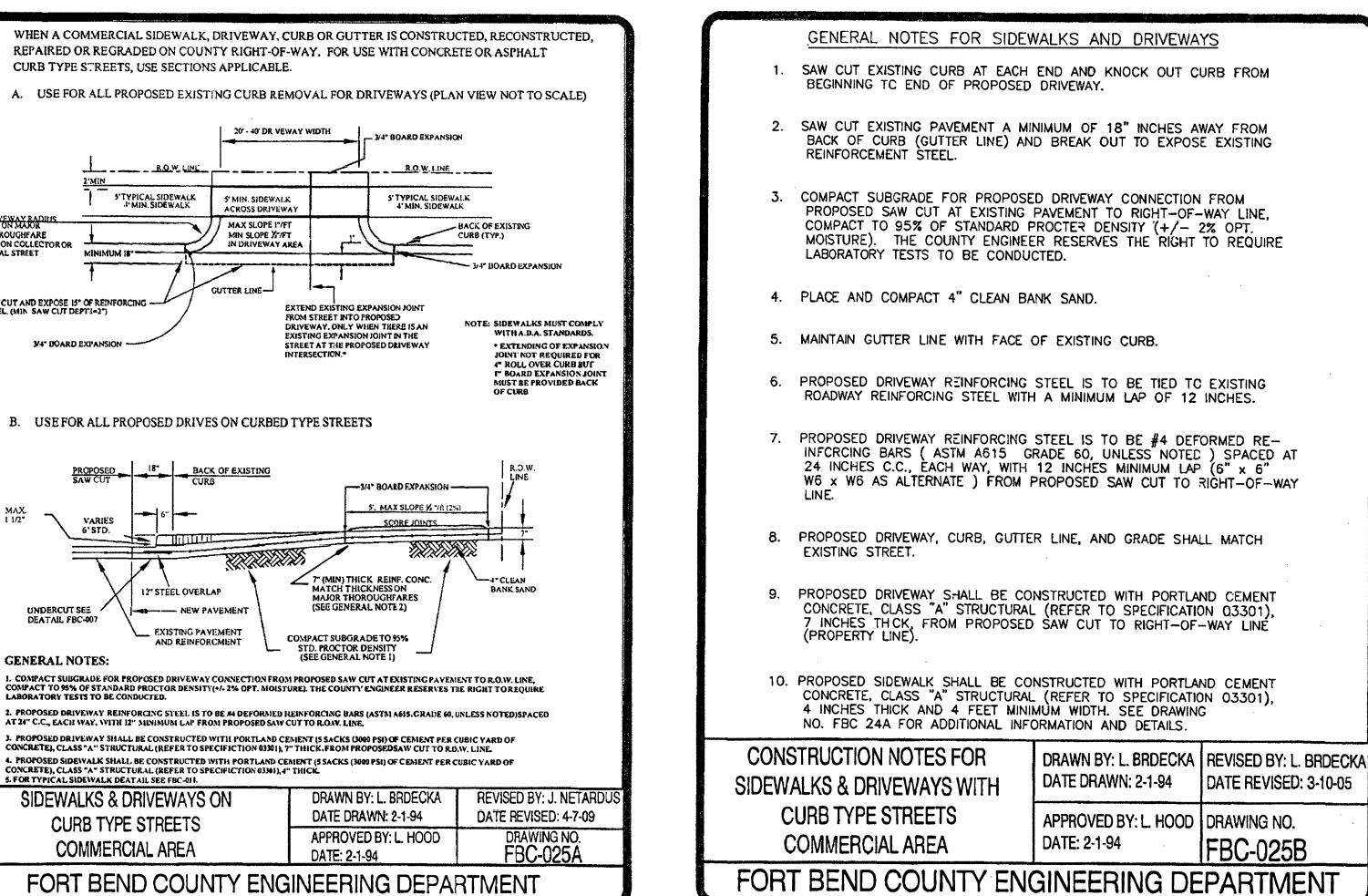
CONSTRUCTION DETAILS

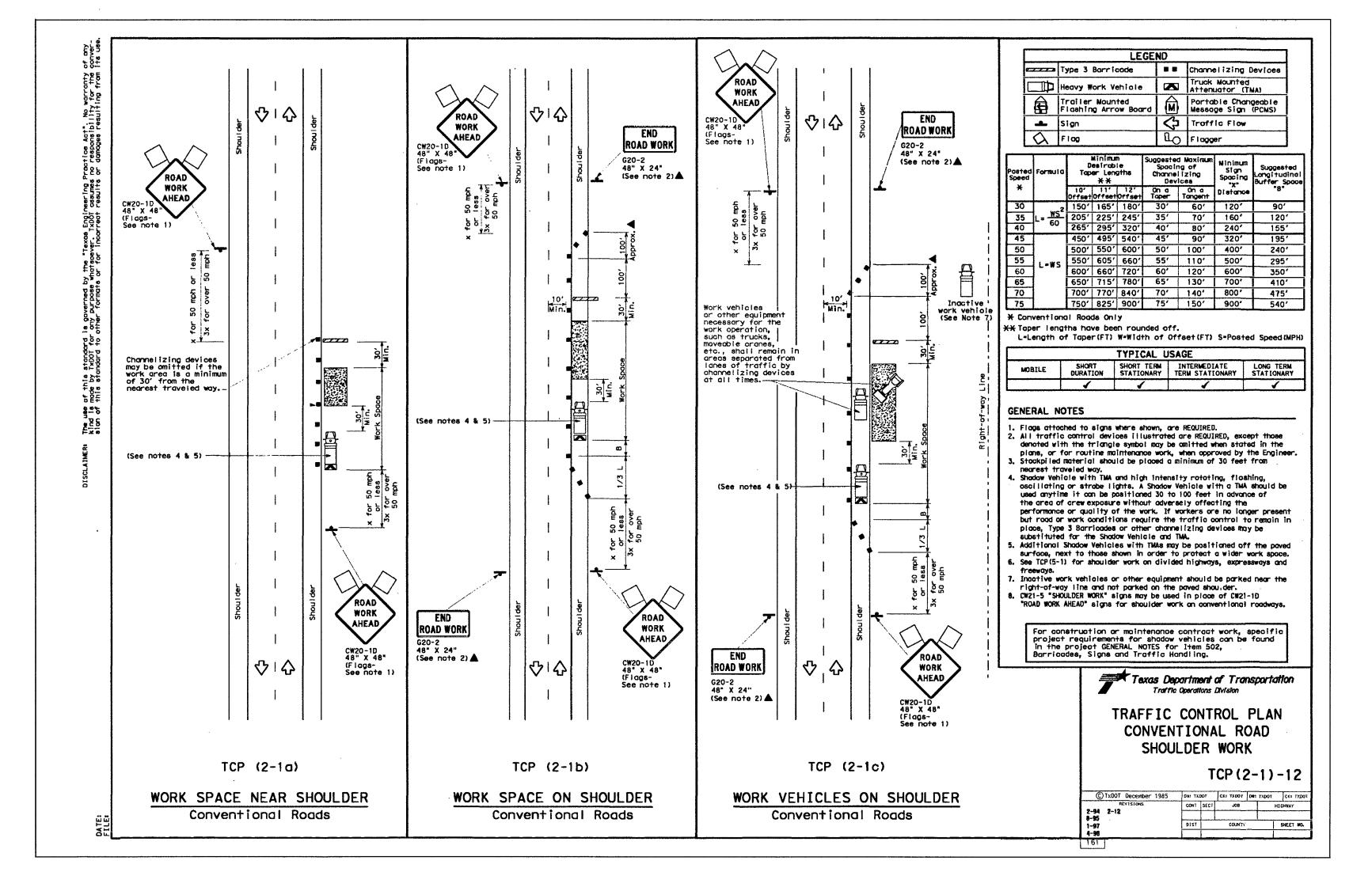
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August 2, 2018

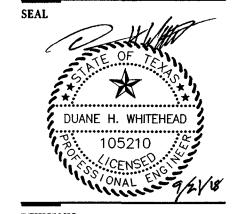
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PROJECT NUMBER FBSITE18-005

Miramonte RESERVE 'A'

SHEET TITLE

FBC ENGINEERING

APPROVED

Valid One Year

CONSTRUCTION DETAILS

August 2, 2018 SHEET NUMBER