

Joint Participation Agreement

(Drainage and Paving Repair and Rehabilitation for Millwood Sections 2 and 3)

This Joint Participation Agreement (“Agreement”) is made and entered into by and between the following persons and entities:

- a) Fort Bend County, Texas, a political subdivision of the State of Texas (hereafter the “County”);
- b) Fort Bend County Municipal Utility District No. 149, a political subdivision of the State of Texas (the “District”); and
- c) Herrin Ranch Development II Inc. (“Herrin”).

The County, the District and Herrin are collectively referred to as the “Parties” or individually as a “Party”, as the context indicates.

I. *Definitions*

For purposes of this Agreement, the following defined terms used in this Agreement have the meanings set forth in this section:

Jaho means Jaho, Incorporated;

Millwood 2 means the subdivision in Fort Bend County, Texas known as Millwood at Riverstone, Section 2;

Millwood 3 means the subdivision in Fort Bend County, Texas known as Millwood at Riverstone, Section 3;

Subdivisions means collectively Millwood 2 and Millwood 3;

Millwood 2 Bond means that certain Bond number MNT9118159 executed on or about May 22, 2013 in the penal sum of \$161,280.00 with respect to the Millwood at Riverstone Section Two, a subdivision located in Fort Bend County, Texas, which bond was recorded in the Real Property Records of Fort Bend County under Clerk’s File No. 2013103522 and in which Herrin and Jaho, each as defined above, are “principal” and Colonial American Casualty and Surety Company is “surety”

Millwood 3 Bond means that certain Bond number MNT9118199 executed on or about October 18, 2013 in the penal sum of \$214,550.00 with respect to the Millwood at Riverstone Section Three, a subdivision located in Fort Bend County, Texas, which bond was recorded in the Real Property Records of Fort Bend County under Clerk’s File No. 2013147923 and in which Herrin and Jaho, each as defined above, are “principal” and Colonial American Casualty and Surety Company is “surety”;

Bonds means collectively the Millwood 2 Bond and the Millwood 3 Bond, each as defined above;

Regulations means those certain rules, regulations and requirements relating to Subdivisions in Fort Bend County, Texas, as more specifically set out in “Fort Bend County Regulations of Subdivisions,” as amended from time to time;

Colonial means Colonial American Casualty and surety Company, in its capacity as surety on the Bonds;

Plat means the respective plat for each of the Subdivisions which was approved by the County;

Bond Condition means that Jaho and Herrin, as principal under the Bonds, and their successors and assigns, will comply with the Regulations with respect to the construction and maintenance of the Work until approval of such maintenance by the Fort Bend County Engineer (the “County Engineer”) and acceptance of such roads, streets, bridges and drainage in the right-of-way by the Commissioners Court of Fort Bend County, Texas;

Work means the construction and maintenance of all drainage and paving in the right-of-way in the Subdivisions in accordance with the Regulations, or other agreement of the County and the District, until approval of same by the County Engineer and acceptance of same by the Commissioners Court of Fort Bend County, Texas; and

Deficiencies and Cost Estimates means the deficiencies claimed by the County with respect to the Work and the projected costs to correct such deficiencies, each of which are set forth in Exhibit “1” (for Millwood 2) and Exhibit “2” (for Millwood 3), each attached hereto and incorporated by reference herein.

II. *Recitals*

1. The County, the District, and Herrin, desire to participate in Work in the Subdivisions by providing funding and administration for the construction of such improvements.
2. The County and the District have determined in good faith that the expenditure of funds for the Scope of Work provided herein serves a public purpose in that it protects the public health and safety by protecting the property of the residents and business-owners, reducing the risk of mosquito or other insect-borne illnesses, and aiding in the flow of traffic in the Subdivisions.
3. Herrin contracted with Jaho to perform the Work.
4. Herrin has claimed that it has paid Jaho all sums due under its contracts with Jaho with respect to the Work.

5. County provided Herrin with a preliminary punch list of items that the County alleges constitute the Deficiencies as well the Cost Estimates to correct such Deficiencies, the same of which are set forth in Exhibit 1 and Exhibit 2.
6. Herrin contends the Deficiencies, if any, in the Work are the responsibility of Jaho.
7. The District has agreed to complete the Work, at the District's expense, subject to the terms herein.

III.

Terms, Stipulations, and Representations

NOW, THEREFORE, in consideration for the mutual promises and covenants herein contained, the County, the District and Herrin enter into this Agreement as follows:

1. *Period of the Agreement.* This Agreement becomes effective on the date signed by the last Party hereto and shall remain in effect until the Scope of Work, contemplated herein, is completed to the reasonable satisfaction of the County, in accordance with the terms hereof.
2. *Scope of Work.* The County and the District, by and through their respective engineers, agree to work together in good faith to prepare a scope of work as set forth in Exhibit "3" attached hereto and incorporated by reference herein, including specifications, updated cost estimate, and/or plans (hereafter the "Scope of Work") which are intended to correct the Deficiencies to the reasonable satisfaction of the County with respect to the Work.
3. *Costs to Complete the Scope of Work.* The District agrees to bear all reasonable costs for the Scope of Work herein provided, in an amount not to exceed \$900,000.
4. *District's Further Rights and Responsibilities.*
 - A. Once the Scope of Work contemplated by paragraph No. 2 above is agreed to by both the County and the District, the District shall, within a reasonable time from the date of such agreement, bid the agreed Scope of Work out, i.e. publicly advertise the Scope of Work thereby inviting bids from qualified contractors to complete the Scope of Work.
 - B. The District will enter into a contract with the successful bidder (the "Contractor"), which contract shall require payment and performance bonds as required by Texas law from a surety authorized to write such bonds in the State of Texas (the "Contract"). Both the County and the District will be named as joint obligees under the payment and performance bonds. The Scope of Work performed under the Contract is sometimes referred to as the "Project" in this Agreement.

- C. Any modification of the Contract by the District which reduces the Scope of Work shall require written approval and consent of the County, which consent shall not be unreasonably withheld, conditioned, or delayed. Unless the County notifies the District in writing that it does not consent to same within twenty-one (21) days of written notice requesting such approval and consent, consent and approval shall be deemed given.
- D. The District will be responsible for managing the construction and completion of the Scope of Work and the Project, including construction management, interim inspections, and construction materials testing in compliance with applicable state and federal law. District shall notify County of activities and request all standard interim inspections as normally required for subdivision work through construction@fbctx.gov.
- E. The District shall submit monthly reports to the County Engineer describing in sufficient detail the progress of the Project.
- F. The District shall have the right to participate in the final inspection by the County.
- G. The District will notify the County, by and through its engineer (the "District Engineer"), once it believes the Project is completed and request that the County perform a final inspection to determine whether the Scope of Work has been satisfactorily completed and approved by the County Engineer. County shall inspect the Project within thirty (30) days after receipt of District's notice. The District's submittal of any final inspection requests to County shall be permitted incrementally upon the "Substantial Completion" (as hereinafter defined) of identified streets and drainage areas by District. Upon the declaration of Final Completion for a street and drainage area following a final inspection, no additional inspections shall be required by County for said street and drainage area. Notwithstanding anything to the contrary set forth herein, save and except for the District's obligations to notify the County that it believes the Project is completed and to request a final inspection as set forth in this paragraph G, when the Scope of Work is deemed Substantially Complete by the District Engineer, in the District Engineer's reasonable discretion, the District's obligations to the County and Herrin under this Agreement shall be deemed complete; provided, however, that the District, the County and Herrin shall each have the right to require the Contractor to perform any Work deemed outstanding and required to achieve Final Completion (the "Punch List Items") by the County Engineer. Further, nothing contained herein shall

be interpreted to affect the contractual obligations between the District and the Contractor.

- H. *Substantial Completion* means the time at which the Project is sufficiently completed in accordance with the Contract with passing lab results and satisfies Fort Bend County Regulations of Subdivisions Appendix X, as set forth in Exhibit “4” attached hereto and incorporated by reference herein. The term “Substantially Complete” shall have the same meaning as set forth in this section.
- I. *Final Completion* means the time at which the Project, including the Punch List Items, has been completed in its entirety so that the County, upon final inspection, may accept the Work into the County Road Maintenance System.

5. *County’s Further Rights and Responsibilities.*

- A. The County shall have the right to approve the Scope of Work in the Contract that the District proposes to enter into with the successful bidder, as contemplated by paragraph 4 (B) above. Such approval shall not be unreasonably withheld. The failure to provide such approval within 14 days after receiving a written request for such approval, and then only after the District provides the County with an additional 3 day notice that the County has not responded in writing, shall be deemed to constitute approval of the terms and conditions of the Contract.
- B. To the extent allowed by law, the County will assign all rights it has against Jaho to the District.
- C. Within 45 days of the date that the Work is completed under the Contract and approved by the County Engineer, which approval shall not be unreasonably withheld, conditioned, or delayed, the roads, streets, and bridges in the rights-of-way of the Subdivisions shall be submitted to the Commissioners Court of Fort Bend County, Texas for acceptance into the County Road Maintenance System. Once accepted into the County Road Maintenance System, the County will release the Bonds.
- E. The County shall have the right to review all documents, maps, plats, records, photographs, reports and drawings related to the Scope of Work and shall have the right to approve all change orders under the Contract.

6. *Herrin's Further Rights and Responsibilities.*

- A. Herrin assigns all causes of action it has against Jaho, including for warranty work under Herrin's contracts with Jaho, to the District.
- B. Herrin agrees to cooperate with the County and the District in connection with the causes of action assigned in this Agreement to the District.

7. *Dispute Resolution.*

- A. In the event of a dispute related to the breach of this Agreement that cannot be settled through negotiation, the Parties agree to submit the dispute to mediation.
- B. In the event any Party hereto desires to mediate any dispute, that Party shall notify the other in writing of the dispute desired to be mediated. If the Parties are unable to resolve their differences within ten (10) days of the receipt of such notice, such dispute shall be submitted for mediation.
- C. All expenses associated with mediation herein shall be shared equally among the Parties to the dispute.
- D. The requirement to seek mediation shall be a condition required before filing an action at law or in equity. Any such action shall be filed in a court of competent jurisdiction in Fort Bend County, Texas, and the laws of Texas shall apply.

8. *Amendments.* All amendments or changes to this Agreement shall only be effective if reduced to writing and signed by all Parties effected thereby.

9. *Notices.*

- A. All notices by any Party hereto to any other Party required under this Agreement shall be delivered personally or sent by certified U.S. mail, postage prepaid, or by nationally recognized overnight carrier (such as Federal Express or USPS), as well as by email if an email address is provided below, and addressed to such Party at the following addresses:

The County	Fort Bend County, Texas Attn: County Judge 401 Jackson Street, First Floor Richmond, Texas 77469
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With a Copy to:

Fort Bend County Engineering
Attn: County Engineer
301 Jackson Street, 4th Floor
Richmond, Texas 77469
Email: construction@fbctx.gov

And

Fort Bend County Attorney's Office
Attn: Jennifer Fox and Kevin Hedges
401 Jackson St., 3rd Floor
Richmond, Texas 77469
Email: Jennifer.Fox@fbctx.gov
Kevin.Hedges@fbctx.gov

The District

Fort Bend County MUD No. 149
c/o Muller Law Group, PLLC
Attn: Shima Jalalipour
202 Century Square Blvd.
Sugar Land, Texas 77478
Email: shima@mullerlawgroup.com

With a Copy to:

Pape-Dawson Engineers
Attn: Chad Hablinski, P.E.
2107 CityWest Boulevard, Third Floor
Houston, Texas 77042
Email: chablinski@pape-dawson.com

Herrin

Herrin Ranch Development II Inc.
c/o Johnson Development Corporation
Attn: Elizabeth York
F.W. (Trey) Reichert, III
5005 Riverway, Suite 500
Houston, Texas 77056
Email: elizabeth@johnsondev.com
treyr@johnsondev.com

With a Copy to:

Coats Rose, P.C.

Attn: Nancy H. Hamren

9 Greenway Plaza, Suite 1000

Houston, Texas 77046

Email: nhamren@coatsrose.com

10. *Joint Product.* This Agreement is the joint product of each of the Parties hereto and shall not be construed more strictly against one or the other.
11. *Signatures.* This Agreement may be executed in two or more counterparts, each of which shall be deemed an original. Further, the Parties agree that signatures transmitted by DocuSign or email (.pdf) shall be deemed to be original signatures for all purposes.
12. *Legal Construction.* In case one or more of the provisions contained in this Agreement shall for any reason be held invalid, illegal, or unenforceable in any respect, such invalidity, illegality or unenforceability shall not affect any other provisions and this Agreement shall be construed as if it did not contain the invalid, illegal, or unenforceable provision.
13. *Responsibilities of the Parties.* The Parties agree that neither Party is an agent, servant, or employee of the other Party.
14. *Ownership of Documents.* Upon completion or termination of this Agreement, all documents prepared by or for the County or the District shall remain the property of the County or the District, as the case may be.
15. *Compliance with Laws.* The Parties shall comply with all federal, state, county, and local laws, statutes, ordinances, rules and regulations, and the orders and decrees of any courts or administrative bodies or tribunals in any manner affecting the performance of this Agreement.
16. *Sole Agreement.* This Agreement constitutes the sole and only agreement between the Parties and supersedes any prior understandings or written or oral agreements respecting the Agreement's subject matter.

17. *Inspection of Books and Records.* The Parties shall maintain all books, documents, papers, accounting records and other documentation relating to costs incurred under this Agreement or in connection with the Scope of Work to be performed hereunder and shall make such materials available to County and District, or their duly authorized representatives for review and inspection at their respective offices during the contract period and for four (4) years from the date of completion of Work defined under this contract or until any impending litigation, or claims are resolved. Additionally, the County and District and their duly authorized representatives shall have access to all the governmental records that are directly applicable to this Agreement for the purpose of making audits, examinations, excerpts, and transcriptions.
18. *Signatory Warranty.* The signatories to this Agreement warrant that each has the authority to enter into this Agreement on behalf of the Party represented.

[End of Agreement. Signatures and Exhibits to Follow]

IN TESTIMONY HEREOF, the Parties hereto have caused this Agreement to be executed in duplicate counterparts.

**Fort Bend County Municipal
Utility District No. 149**

Laura Thompson
Laura Thompson (May 6, 2025 17:24 CDT)

Laura Thompson, President

Date: 05/06/2025

Attest:

Rose Herbst

Rose Herbst, Secretary

Date: 05/06/2025

Fort Bend County, Texas

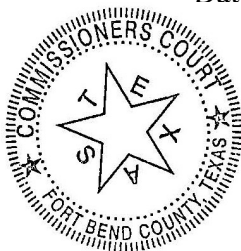
KP George

KP George, County Judge

Date: May 13, 2025

Attest:

Laura Richard
Laura Richard, County Clerk



Approved:

J. Stacy Slawinski

J. Stacy Slawinski, P.E., County Engineer

Herrin Ranch Development II Inc.

F.W. Reichert III
57AD51DD2E7D4BE...

F.W. (Trey) Reichert, III, Vice President

Date: 5/5/2025

EXHIBIT 1

(Follows Behind)



Fort Bend County Engineering
FORT BEND COUNTY, TEXAS

J. Stacy Slawinski, P.E.
County Engineer

May 02, 2024

Mr. Name
Company
Address
Address
[Email](#)

RE: Millwood at Riverstone Section 2

Dear Mr. :

A Final Street Acceptance Inspection on the above listed subject was made on 04/30/2024. Attached, please find the list of deficiencies which should be corrected in **120 days (from the date of this letter)**, or a new inspection may be scheduled after that time.

In addition, the gutters on all streets should be checked and cleaned of dirt, any leaves, etc., where applicable. All expansion joints shall be cleaned out and resealed. All concrete spills shall be removed. All debris shall be cleaned from the right-of-way.

Please email us at Construction@fortbendcountytexas.gov when these deficiencies have been corrected so a final inspection can be arranged. **Before acceptance of streets in to the County Road Maintenance system a permanent benchmark survey marker must be placed within the subdivision boundary according to Section 4.17 (Vertical & Horizontal Control) of the Regulations of Subdivisions. Call Courtney Velasquez at 281-633-7516 to obtain the brass survey marker.**

If you should have any questions regarding this punch list or need additional information, we can be contacted at Construction@fortbendcountytexas.gov.

Sincerely,

Billy Kovar
Construction Inspector
Engineer Technician I

BK/mw/bc

Attachment

cc: Commissioner , Pct.
Mr. Developer
Mr. Contractor
Mr. City
Mr. Brent McCauley, FBC Road & Bridge
Mr. Scott Wieghat, FBC Road & Bridge
File

brent.mccauley@fbctx.gov

301 Jackson St., Suite 401 | Richmond, TX 77469
Phone 281-633-7500

FORT BEND COUNTY ENGINEERING DEPARTMENT

SUBDIVISION Millwood at Riverstone Section 2 **DATE** 04/30/2024

GENERAL NOTES:

1. Clean and reseal expansion, construction, control joints as required. Clean out gutters as required. Remove all debris in streets as required. Surface cracks may be sealed with a TxDOT approved sealed with a super low viscosity epoxy (gravity fed) sealant or approved alternative in accordance with manufacture application procedures. Prior to crack sealing submit to the County for approval of product and method of application.
2. Pollution Prevention Plan must be in place protecting all streets and drainage structures.
3. **DRIVEWAY RETURN:** Saw-cut beyond cracked curb, break out and replace.
4. **BIRD BATH:** Light grinding permitted, no more than ½ " deep, 6" from face of curb and within 15' of expansion joint. Repairs may be pavement removal and replacement, light grinding or lifting. Bird Baths moved upstream or down due to repair will also need to be eliminated. The extent of pavement removal will be determined in the field with FBC Engineering staff based on location of bird bath, joints, cracks, inlets, or other items.
5. **BROKEN CURB:** Saw-cut beyond cracks on both ends, break out curb and replace. Replace a minimum full length of curb adjacent to sidewalks that extend from front door walks. Replace expansion joints with 3/4" fiberboard.
6. Sidewalks across residential driveways shall be 5 ft. minimum width with a cross slope no greater than ¼ " per foot or 2 %, and adhere to ADA specifications.
7. Replace all missing buttons for flush valves and street knuckle locations.
8. Clean up all concrete spills within project area.
9. Add permanent benchmark survey marker.

SPECIFIC NOTES RELATED TO THIS SUBDIVISION

STREET NAME

DESCRIPTION

Miller Ridge Lane at Sotoria Lane	
Sta 4+46 to 7+80 Lot 14, Blk 3	Replace missing street sign blades
Reserve "D"	Remove and replace 190' of laydown curb with 6" curb per plan
Sta 3+49	Replace missing ER8-3 sign
Sotoria Lane at Quiet Dawn Lane	
Sta 3+00 Lot 1, Blk 1	Submit revised plans to Development for approval of street signage – Signage does not reflect approved plans
Quiet Dawn Lane at LJ Parkway	
Sta 1+50 Side of Lot 1, Blk 1	Remove and replace 1 non-compliant ADA ramp – Slope

FORT BEND COUNTY ENGINEERING DEPARTMENT

SUBDIVISION Millwood at Riverstone Section 2 **DATE** 04/30/2024

	+2%
Miller Ridge Lane	
4527 Lot 16, Blk 1	Remove and replace 1 ADA ramp – Cracked / Damaged
4526 Lot 12, Blk 3	Remove and replace 1 ADA ramp – Cracked / Damaged
Sotoria Lane	
Side of Lot 6703 Lot 1, Blk 1	Remove and replace 150' of laydown curb with 6" curb per plan
Sta 3+50 Lot 1, Blk 1	Remove and replace 60'x28' pavement area – Subgrade failed at inlet
Montcliff Bend lane	
4503 Lot 1, Blk 3	Repair inlet top
4507 Lot 2, Blk 3 Sta 8+21	Bird Bath
Across from 4507 Lot 2, Blk 3 Sta 8+21	Bird Bath
4515 Lot 4, Blk 3 Sta 9+50	Bird Bath; 1 Sidewalk Panel
Across from 4515 Lot 4, Blk 3 Sta 9+50	Bird Bath
4518 Lot 11, Blk 2 – 4522 Lot 10, Blk 2	Remove and replace 28'x50' pavement area – Pavement area failed
4519 Lot 5, Blk 3	Remove and replace 14'x46' pavement area – Spalling
4515 Lot 4, Blk 3 Sta 9+72	Bird Bath
4523 Lot 6, Blk 3 Sta 11+00	Bird Bath; 3 LF broken curb
4531 Lot 8, Blk 3 Sta 11+78	Bird Bath
4526 Lot 9, Blk 2 Sta 11+78 and Sta 11+95	Bird Bath (x2)
4543 Lot 11, Blk 3 Sta 13+57	Remove and replace 12'x14' pavement area – Spall
Side of Lot 12, Blk 3 Sta 14+25 LP# 683856	Bird Bath
4606 Lot 4, Blk 2 to 4602 Lot 3, Blk 2	Remove and replace 28'x60' pavement area – Spall / Uncontrolled cracking
Side of Lot 16, Blk 1	2 Sidewalk Panels
4611 Lot 18, Blk 1	6 LF broken curb
4610 Lot 2, Blk 2	3 LF broken curb
4615 Lot 19, Blk 1	6 LF broken curb
4619 Lot 20, Blk 1	6 LF broken curb
4623 Lot 21, Blk 1 Sta 18+47	Bird Bath
Reserve "B" at Mailbox Sta 19+00	Bird Bath; 3 LF broken curb
Sta 15+50 Lot 4, Blk 2	Remove and replace 70'x28' pavement area – Subgrade failed
Miller Ridge Lane	
4527 Lot 16, Blk 1 Sta 1+42	Remove and replace 28'x66' pavement area – Spall / Uncontrolled cracking; 3 LF broken curb; 25 LF broken curb
4523 Lot 15, Blk 1 Sta 2+19	Bird Bath
4519 Lot 14, Blk 1	3 LF broken curb
4518 Lot 13, Blk 3 Sta 3+00 LP# 683867	Bird Bath

FORT BEND COUNTY ENGINEERING DEPARTMENT

SUBDIVISION Millwood at Riverstone Section 2 **DATE** 04/30/2024

4511 Lot 12, Blk 1 Sta 3+33	Bird Bath; 3 LF broken curb (x2)
4507	6 LF broken curb; Repair inlet top
Across from 4507 Lot 11, Blk 1	3 Sidewalk Panels
Across 4503 Lot 14, Blk 3 at Fire Hydrant Sta 4+18	Bird Bath
Sotoria Lane	
6730 Lot 14, Blk 3 Sta 7+42	Bird Bath
6726 Lot 15, Blk 3	15 LF broken curb
6723 Lot 6, Blk 1	6 LF broken curb; 12 LF broken curb; Repair inlet top
6722 Lot 16, Blk 3 Sta 6+10 LP# 683865	3 LF broken curb
6718 Lot 17, Blk 3 Sta 5+55	Bird Bath
6719 Lot 4, Blk 1 Sta 5+55	Bird Bath
6706 Lot 20, Blk 3 Sta 4+45	Bird Bath
6707 Lot 2, Blk 1 Sta 4+25	Bird Bath
Across from 6703 Lot 1, Blk 1 at Mailbox	12 LF broken curb
6703 Lot 1, Blk 1	Repair inlet top
Quiet Dawn Lane at LJ Parkway	
Sta 1+50	Bird Bath (x2)
Entire Section	Remove and replace all ADA ramps – truncated domes do not meet ADA requirements
	Stop signs should be 36"x36"
	Street sign should reflect FBC Sign Detail
	Please refer to all additional notes below.

ADDITIONAL NOTE(S):

Documentation needed at the time of punch list inspection request:



**OPINION OF PROBABLE CONSTRUCTION COSTS
MILLWOOD SECTION 2 PAVING REPAIRS
12-Nov-24**

ITEM NO.	APPROX QTY	DESCRIPTION	UNIT PRICE	TOTAL AMOUNT
<u>Site Preparation</u>				
1 .	1	LS Mobilization and Bonds	\$4,800.00	\$4,800.00
2 .	2	Mo Traffic Control	\$15,000.00	\$30,000.00
3 .	1	EA Concrete Washout Area	\$2,000.00	\$2,000.00
4 .	898	LF Sod Strip Behind Curb	\$10.00	\$8,980.00
			SUBTOTAL	\$45,780.00
<u>Signage and Striping</u>				
5 .	2	EA Replace Sign Post	\$400.00	\$800.00
6 .	3	EA Replace Sign Blade	\$250.00	\$750.00
7 .	5	EA Blue Buttons	\$6.00	\$30.00
8 .	124	LF Yellow Buttons	\$6.00	\$744.00
9 .	28	LF White Buttons	\$6.00	\$168.00
10 .	2	EA Repaint 24" Wide Stop Bar	\$1,500.00	\$3,000.00
			SUBTOTAL	\$5,492.00
<u>Drainage System</u>				
11 .	4	EA Repair Inlet Top	\$1,250.00	\$5,000.00
			SUBTOTAL	\$5,000.00



**OPINION OF PROBABLE CONSTRUCTION COSTS
MILLWOOD SECTION 2 PAVING REPAIRS
12-Nov-24**

ITEM NO.	APPROX QTY	DESCRIPTION	UNIT PRICE	TOTAL AMOUNT
<u>Paving Items</u>				
1 .	252	LF Sawcut Pavement	\$20.00	\$5,040.00
2 .	1,042	SY Remove and Dispose of Concrete Pavement and 6" subgrade	\$50.00	\$52,111.11
3 .	1,042	SY 6" Cement Stabilized Sand Subgrade	\$20.00	\$20,844.44
4 .	1,042	SY 6" High Early Strength Reinforced Concrete Pavement	\$100.00	\$104,222.22
5 .	898	LF Remove and Dispose of Existing Curb	\$5.00	\$4,490.00
6 .	150	LF 6" Curb	\$7.50	\$1,125.00
7 .	748	LF 4" Roll Over (Residential) Curb	\$7.50	\$5,610.00
8 .	3	EA Remove and Replace Wheelchair Ramp	\$3,500.00	\$10,500.00
9 .	0	LS Remove and Replace Wheelchair Ramp Landing Only	\$1,000.00	\$0.00
10 .	400	LF Superficial Crack Sealing (As Needed)	\$10.00	\$4,000.00
11 .	20	EA Polyurethane Foam Lifting - Bird Bath Removal (Per Location)	\$2,500.00	\$50,000.00
12 .	200	LF Diamond Grinding of Pavement (1/2" Max) - Bird Bath Removal	\$25.00	\$5,000.00
SUBTOTAL				\$262,942.78
TOTAL				\$319,214.78
Contingency (20%)				\$63,842.96
				\$383,057.73

EXHIBIT 2

(Follows Behind)



Fort Bend County Engineering
FORT BEND COUNTY, TEXAS

J. Stacy Slawinski, P.E.
County Engineer

May 02, 2024

Mr. Name
Company
Address
Address
[Email](#)

RE: Millwood at Riverstone Section 3

Dear Mr. :

A Final Street Acceptance Inspection on the above listed subject was made on 04/30/2024. Attached, please find the list of deficiencies which should be corrected in **120 days (from the date of this letter)**, or a new inspection may be scheduled after that time.

In addition, the gutters on all streets should be checked and cleaned of dirt, any leaves, etc., where applicable. All expansion joints shall be cleaned out and resealed. All concrete spills shall be removed. All debris shall be cleaned from the right-of-way.

Please email us at Construction@fortbendcountytexas.gov when these deficiencies have been corrected so a final inspection can be arranged. **Before acceptance of streets in to the County Road Maintenance system a permanent benchmark survey marker must be placed within the subdivision boundary according to Section 4.17 (Vertical & Horizontal Control) of the Regulations of Subdivisions. Call Courtney Velasquez at 281-633-7516 to obtain the brass survey marker.**

If you should have any questions regarding this punch list or need additional information, we can be contacted at Construction@fortbendcountytexas.gov.

Sincerely,

Billy Kovar
Construction Inspector
Engineer Technician I

BK/mw/bc

Attachment

cc: Commissioner , Pct.
Mr. Developer
Mr. Contractor
Mr. City
Mr. Brent McCauley, FBC Road & Bridge brent.mccauley@fbctx.gov
Mr. Scott Wieghat, FBC Road & Bridge
File

301 Jackson St., Suite 401 | Richmond, TX 77469
Phone 281-633-7500

FORT BEND COUNTY ENGINEERING DEPARTMENT

SUBDIVISION Millwood at Riverstone Section 3 DATE 04/30/2024

GENERAL NOTES:

- 1. Clean and reseal expansion, construction, control joints as required. Clean out gutters as required. Remove all debris in streets as required. Surface cracks may be sealed with a TxDOT approved sealed with a super low viscosity epoxy (gravity fed) sealant or approved alternative in accordance with manufacture application procedures. Prior to crack sealing submit to the County for approval of product and method of application.
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- 6. Sidewalks across residential driveways shall be 5 ft. minimum width with a cross slope no greater than ¼ “ per foot or 2 %, and adhere to ADA specifications.
- 7. Replace all missing buttons for flush valves and street knuckle locations.
- 8. Clean up all concrete spills within project area.
- 9. Add permanent benchmark survey marker.

SPECIFIC NOTES RELATED TO THIS SUBDIVISION

<u>STREET NAME</u>	<u>DESCRIPTION</u>
Rising Hills Lane at Hickory Branch Lane	
Lot 25, Blk 4	Street sign pole must be 7’ and sign blades should be re-aligned to represent correct streets to meet FBC sign detail
Millstone Canyon Lane at Rising Hills Lane	
Lot 1, Blk 1	Street sign pole must be 7’ and sign blades should be re-aligned to represent correct streets to meet FBC sign detail; 4-Sidewalk Panels
Miller Shadow Lane	

FORT BEND COUNTY ENGINEERING DEPARTMENT

SUBDIVISION Millwood at Riverstone Section 3 **DATE** 04/30/2024

6723 at ADA Ramp	4 Sidewalk Panels
6719 Lot 5, Blk 2 at ADA Ramp	5 LF broken curb; 2 Sidewalk Panels ; Remove and replace 1 non-compliant ADA landing – Settled / Trip hazard
6702 Lot 5, Blk 3 at ADA Ramp	Remove and replace 1 non-compliant ADA ramp and landing – Slope +2% / Settled / Trip hazard
Hickory Branch Lane	
4603 Lot 6, Blk 3 at ADA Ramp	2 Sidewalk Panels
Turlock Springs Court	
6622 Lot 1, Blk 4	Verify ADA ramp meets requirements – Submerged under water at time of inspection; Remove and replace 1 non-compliant ADA landing – Settled / Trip hazard
6623 Lot 12, Blk 4	5 LF broken curb (x2)
Tara Creek Court	
6622 Lot 13, Blk 4	Remove and replace 1 non-compliant ADA landing – Settled / Trip hazard
6623 Lot 24, Blk 4	Remove and replace 1 non-compliant ADA ramp – Slope +2%
Montcliff Bend Lane	
Lot 5, Blk 2 Sta 1+42 LP# 689284	Repair inlet top
Across from LP# 689284 Sta 1+42	Repair inlet top
Miller Shadow Lane	
6718 Lot 1, Blk 3 Sta 14+56 and Sta 15+16	Bird Bath; Repair inlet top
6711 Lot 3, Blk 2 Sta 13+15	3 LF broken curb; 1 Sidewalk Panel ; Repair inlet top
6707 Lot 2, Blk 2	12 LF broken curb
6703 Lot 1, Blk 2 Sta 12+57	Bird Bath; 1 Sidewalk Panel ; Repair inlet top
6642 Lot 17, Blk 1 Sta 9+00	Bird Bath
6638 Lot 18, Blk 1	1 Sidewalk Panel
Across from 6634 Lot 19, Blk 1 Sta 7+09	Repair inlet top
6630 Lot 20, Blk 1	12 LF broken curb
6626 Lot 21, Blk 1 Sta 6+28 LP# 689292	Bird Bath
Across from 6626 Lot 21, Blk 1 Sta 6+28	Bird Bath
Shade Terrace Lane	
South Bound Side of Lot 13, Blk 1 Sta 2+70	Bird Bath
South Bound Side of Lots 12 and 13, Blk 1 Sta 2+50	Bird Bath
North Bound Side of Lots 5 and 6, Blk 3 Sta 2+50	Bird Bath
Side of Lot 6, Blk 3 and Lot 12, Blk 1 Sta 1+40	Remove and replace 28'x80' pavement area – Spall / Uncontrolled cracking; Repair inlet top

FORT BEND COUNTY ENGINEERING DEPARTMENT

SUBDIVISION Millwood at Riverstone Section 3 **DATE** 04/30/2024

Rising Hills Lane	
6602 Lot 29, Blk 4	3 LF broken curb
6607 Lot 1, Blk 1	3 Sidewalk Panels ; Backfill back of curb
6611 Lot 2, Blk 1	Redo Drive to ADA Specs
6615 Lot 3, Blk 1	12 LF broken curb; Repair inlet top
6614 Lot 26, Blk 4	1 Sidewalk Panel ; Repair inlet top
6606 Lot 28, Blk 4	3 LF broken curb; 3 Sidewalk Panels
6614 Lot 26, Blk 4 to 6618 Lot 25, Blk 4	12 LF broken curb; Remove and replace 28'x90' pavement area – Spall / Uncontrolled cracking
6623 Lot 5, Blk 1	Redo Drive to ADA Specs
Sta 4+25 Lot 4, Blk 1	Remove and replace 60'x28' pavement area – Subgrade failed at inlet
Hickory Branch Lane	
4507 Lot 7, Blk 1 Sta 5+50	Bird Bath
Across from 4507 Lot 25, Blk 4 Sta 5+60	Bird Bath
Side of Lots 24 and 25, Blk 4 LP# 689270 Sta 6+12	6 LF broken curb (x2); Repair inlet top
4511 Lot 8, Blk 1 Sta 6+12	12 LF broken curb; Repair inlet top
4519 Lot 10, Blk 1	Backfill back of curb; 3 LF broken curb
4523 Lot 11, Blk 1	8 LF broken curb
4523 Lot 11 and 4527 Lot 12, Blk 1 Sta 7+74 LP# 689271	Remove and replace 28'x40' pavement area – Spall
4527 Lot 12, Blk 1 Sta 8+31	Remove and replace 14'x70' pavement area – Spall; Bird Bath; 3 LF broken curb; Remove and replace 4'x12' Drive Apron
4603 Lot 6, Blk 3 to 4607 Lot 7, Blk 3 Sta 10+07	Remove and replace 14'x60' pavement area – Spall / Uncontrolled cracking; Bird Bath
4607 Lot 7, Blk 3 Sta 10+62	Remove and replace 28'x60' pavement area – Spall / Uncontrolled cracking; 3 LF broken curb; Repair inlet top
Across from 4527 Lot 12, Blk 1 Sta 7+91	Bird Bath
Sta 7+50 Lot 11, Blk 1	Remove and replace 100'x28' pavement area – Subgrade failed
Turlock Springs Court	
6622 Lot 1, Blk 4 Sta 3+35	Bird Bath
6623 Lot 12, Blk 4 Sta 3+35	Bird Bath; 3 LF broken curb; 4 Sidewalk Panels ; Repair inlet top (x2)
6622 Lot 1, Blk 4 to 6618 Lot 2, Blk 4	Remove and replace 14'x25' pavement area – Spall / Uncontrolled cracking; Repair inlet top
Tara Creek Court	
6622 Lot 13, Blk 4 Sta 3+24	Remove and replace 6'x18' pavement area – Spall / Uncontrolled cracking; Bird Bath; Repair inlet
6623 Lot 24, Blk 4 Sta 3+24	Bird Bath; Repair inlet top
6619 Lot 23, Blk 4 Sta 2+50	Bird Bath; 2 Sidewalk Panels
6618 Lot 14, Blk 4 Sta 2+50	Bird Bath; 3 LF broken curb

FORT BEND COUNTY ENGINEERING DEPARTMENT

SUBDIVISION Millwood at Riverstone Section 3 DATE 04/30/2024

6614 Lot 15, Blk 4 Sta 2+00	Bird Bath
6610 Lot 16, Blk 4	Remove and replace 12'x14' pavement area – Crack within 12" of expansion joint
Sta 3+00 Lot 24, Blk 4	Remove and replace 70'x28' pavement area – Subgrade failed
Entire Section	Street signs should reflect FBC Sign Detail
	Stop signs should be 36"x36"
	Please refer to all additional notes below.

ADDITIONAL NOTE(S):

Documentation needed at the time of punch list inspection request:



**OPINION OF PROBABLE CONSTRUCTION COSTS
MILLWOOD SECTION 3 PAVING REPAIRS
12-Nov-24**

ITEM NO.	APPROX QTY	DESCRIPTION	UNIT PRICE	TOTAL AMOUNT
<u>Site Preparation</u>				
1 .	1	LS Mobilization and Bonds	\$6,100.00	\$6,100.00
2 .	2	Mo Traffic Control	\$15,000.00	\$30,000.00
3 .	1	EA Concrete Washout Area	\$2,000.00	\$2,000.00
4 .	995	LF Sod Strip Behind Curb	\$10.00	\$9,950.00
			SUBTOTAL	\$48,050.00
<u>Signage and Striping</u>				
5 .	2	EA Replace Sign Post	\$400.00	\$800.00
6 .	3	EA Replace Sign Blade	\$250.00	\$750.00
7 .	10	EA Blue Buttons	\$6.00	\$60.00
8 .	93	LF Yellow Buttons	\$6.00	\$558.00
9 .	53	LF White Buttons	\$6.00	\$318.00
10 .	5	EA Repaint 24" Wide Stop Bar	\$1,500.00	\$7,500.00
			SUBTOTAL	\$9,986.00
<u>Drainage System</u>				
11 .	17	EA Repair Inlet Top	\$1,250.00	\$21,250.00
			SUBTOTAL	\$21,250.00



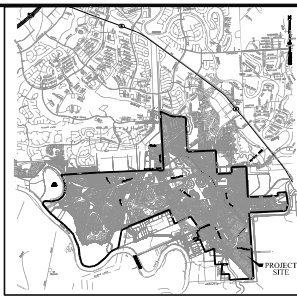
OPINION OF PROBABLE CONSTRUCTION COSTS
MILLWOOD SECTION 3 PAVING REPAIRS
12-Nov-24

ITEM NO.	APPROX QTY	DESCRIPTION	UNIT PRICE	TOTAL AMOUNT
<u>Paving Items</u>				
1 .	364	LF Sawcut Pavement	\$20.00	\$7,280.00
2 .	1,489	SY Remove and Dispose of Concrete Pavement and 6" subgrade	\$50.00	\$74,433.33
3 .	1,489	SY 6" Cement Stabilized Sand Subgrade	\$20.00	\$29,773.33
4 .	1,489	SY 6" High Early Strength Reinforced Concrete Pavement	\$100.00	\$148,866.67
5 .	995	LF Remove and Dispose of Existing Curb	\$5.00	\$4,975.00
6 .	0	LF 6" Curb	\$7.50	\$0.00
7 .	995	LF 4" Roll Over (Residential) Curb	\$7.50	\$7,462.50
8 .	2	EA Remove and Replace Wheelchair Ramp	\$3,500.00	\$7,000.00
9 .	3	LS Remove and Replace Wheelchair Ramp Landing Only	\$1,000.00	\$3,000.00
10 .	400	LF Superficial Crack Sealing (As Needed)	\$10.00	\$4,000.00
11 .	15	EA Polyurethane Foam Lifting - Bird Bath Removal (Per Location)	\$2,500.00	\$37,500.00
12 .	150	LF Diamond Grinding of Pavement (1/2" Max) - Bird Bath Removal	\$25.00	\$3,750.00
SUBTOTAL				\$328,040.83
TOTAL				\$407,326.83
Contingency (20%)				\$81,465.37
				\$488,792.20

EXHIBIT 3

(Follows Behind)

Date: September 10, 2024
File: P:\Projects\2024\Millwood\Millwood SEC.
Millwood SEC. 2 at Riverstone
11/14/2024



LOCATION MAP
NOT TO SCALE



60 30 0 60 120
SCALE: 1"=60'

GENERAL NOTES:

1. Clean and seal expansion, construction, control joints as required. Clean out gutters as required. Remove all debris to streets as required. Surface cracks may be sealed with a TxDOT approved sealed with a super low viscosity epoxy (gravity fed) sealer or approved alternative in accordance with manufacturer application procedures. Prior to crack sealing submit to the County for approval of product and method of application.
2. Pollution Prevention Plan must be in place protecting all streets and drainage structures.
3. DRIVEWAY RETURN: Saw-cut beyond cracked curb, break out and replace.
4. BIRD BATH: Light grinding permitted, no more than 1/4" deep, 6" from face of curb and within 18" of expansion joint. Repairs may be pavement removal and replacement, light grinding or lifting. Bird Baths moved upstream or down due to repair will remain in place. The location of pavement removal will be determined in the field with FBC Engineering staff based on location of bird bath, joints, cracks, inlets, or other items.
5. BROKEN CURB: Saw-cut beyond cracked curb on both ends, break out curb and replace. Replace a minimum full length of curb adjacent to sidewalks that extend from front door walls. Replace expansion joints with 24" fiberboard.
6. Sidewalks across residential driveways shall be 5 ft. minimum width with a cross slope no greater than 1/4" per foot or 2%, and adhere to ADA specifications.
7. Replace all missing buttons for flush valves and street knuckle locations.
8. Clean up all concrete spills within project area.
9. Add permanent benchmark survey marker.

LEGEND

- PAVEMENT TO BE REMOVED AND REPLACED
- AREAS OF BIRD BATH REPAIR (POLYURETHANE) OR MANHOLES GRINDING AS DETERMINED IN THE FIELD
- CONCRETE CURB TO BE REPLACED

MILLWOOD SECTION 2
AT RIVERSTONE
MISSOURI CITY, TEXAS
PAVEMENT REHAB EXHIBIT

PAPE-DAWSON
ENGINEERS
2107 CITYWIDE BLVD., 3RD FLOOR, HOUSTON, TX 77027 (713) 428-2400
TEXAS ENGINEERING NO. 16444-A-1 TEXAS SURVEYING NO. 11002-B-1

PLAT NO. _____
JOB NO. 41444-09
DATE 11/14/2024
DESIGNER AD
CHECKED CEH DRAWN AD
SHEET 1 OF 1

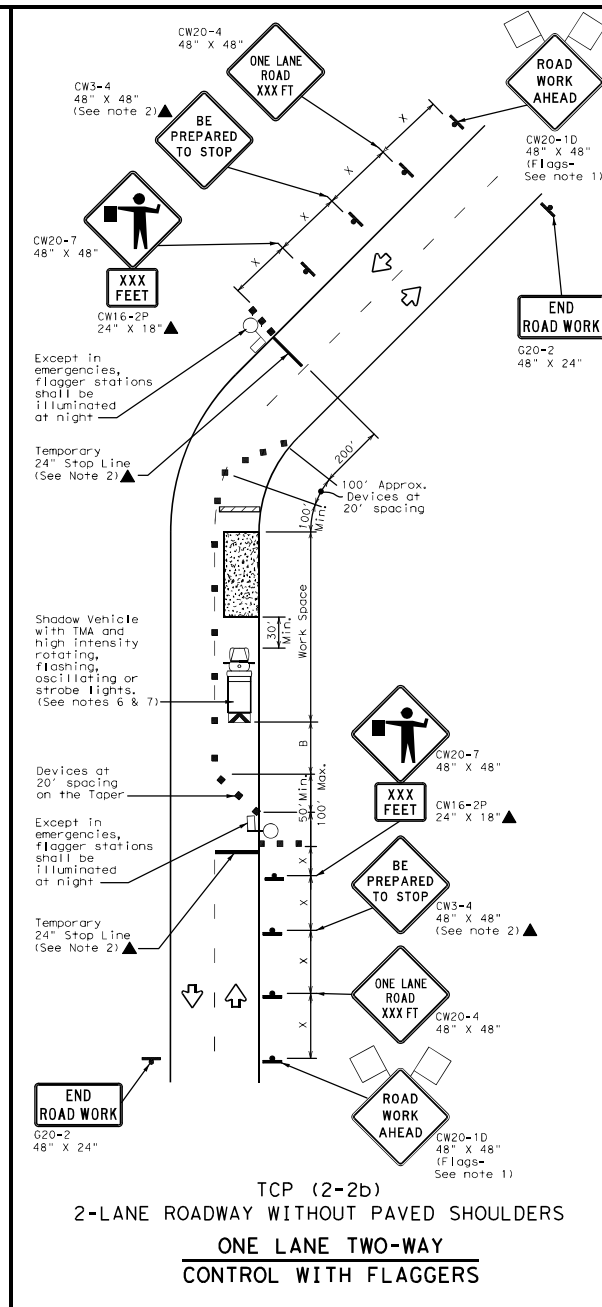
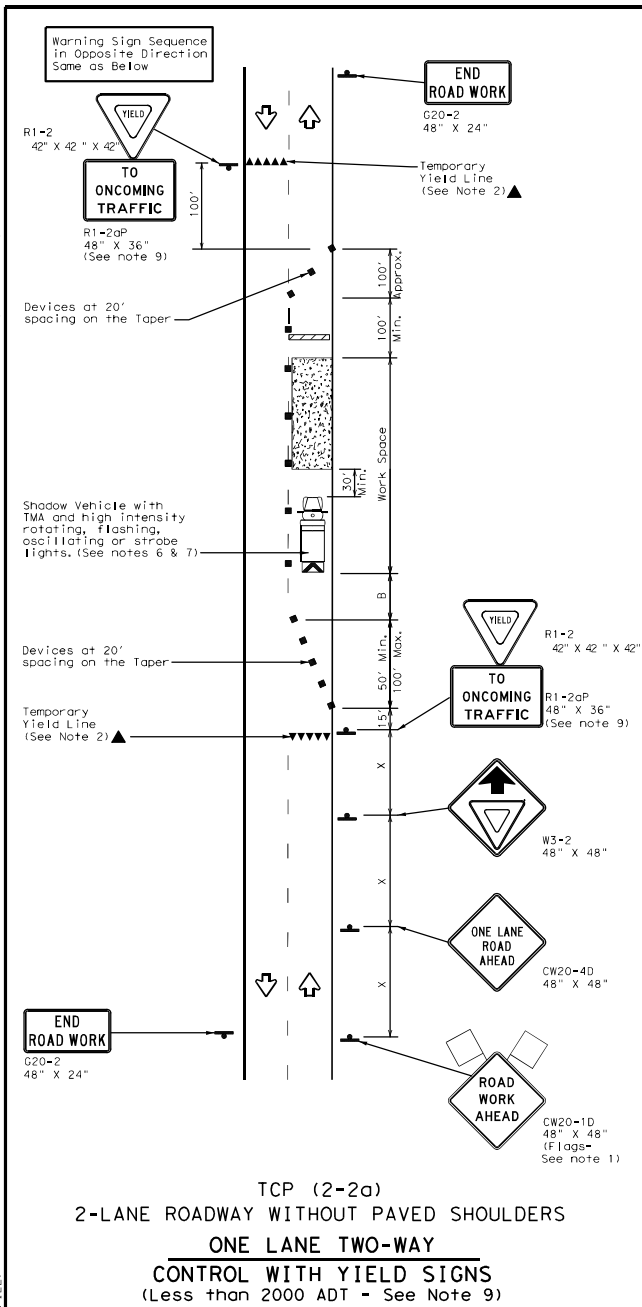
DATE _____
NO. REVISION _____
11/14/2024



PD JOB NO 41444-10 - MILL WOOD SECTION 3 AT RIVERSTONE PAVEMENT BEHAR

DISCLAIMER: The use of this standard is governed by the "Texas Engineering Practice Act". No warranty of any kind is made by TxDOT for any purpose whatsoever. TxDOT assumes no responsibility for the conversion of this standard to other formats or for incorrect results or damages resulting from its use.

DATE: FILE:



LEGEND

Type 3 Barricade	Channelizing Devices
Heavy Work Vehicle	Truck Mounted Attenuator (TMA)
Trailer Mounted Flashing Arrow Board	Portable Changeable Message Sign (PCMS)
Sign	Traffic Flow
Flag	Flagger

Posted Speed * L	Formula	Minimum Desirable Taper Lengths **		Suggested Maximum Spacing of Channelizing Devices		Minimum Sign Spacing * Distance	Suggested Longitudinal Buffer Space "B"	Stopping Sight Distance	
		10' Offset	12' Offset	On a Taper	On a Tangent				
30	$L = \frac{WS^2}{60}$	150'	165'	180'	30'	60'	120'	90'	200'
35		205'	225'	245'	35'	70'	160'	120'	250'
40		265'	295'	320'	40'	80'	240'	155'	305'
45		450'	495'	540'	45'	90'	320'	195'	360'
50	$L = WS$	500'	550'	600'	50'	100'	400'	240'	425'
55		550'	605'	660'	55'	110'	500'	295'	495'
60		600'	660'	720'	60'	120'	600'	350'	570'
65		650'	715'	780'	65'	130'	700'	410'	645'
70		700'	770'	840'	70'	140'	800'	475'	730'
75		750'	825'	900'	75'	150'	900'	540'	820'

* Conventional Roads Only
** Taper lengths have been rounded off.
L=Length of Taper(FT) W=Width of Offset(FT) S=Posted Speed(MPH)

TYPICAL USAGE			
MOBILE	SHORT DURATION	SHORT TERM STATIONARY	INTERMEDIATE TERM STATIONARY
	✓	✓	✓

GENERAL NOTES

- Flags attached to signs where shown, are REQUIRED.
- All traffic control devices illustrated are REQUIRED, except those denoted with the triangle symbol may be omitted when stated elsewhere in the plans, or for routine maintenance work, when approved by the Engineer.
- The CW3-4 "BE PREPARED TO STOP" sign may be installed after the CW20-4 "ONE LANE ROAD XXX FT" sign, but proper sign spacing shall be maintained.
- Flaggers should use two-way radios or other methods of communication to control traffic.
- Length of work space should be based on the ability of flaggers to communicate.
- A Shadow Vehicle with a TMA should be used anytime it can be positioned 30 to 100 feet in advance of the area of crew exposure without adversely affecting the performance or quality of the work. If workers are no longer present but road or work conditions require the traffic control to remain in place, Type 3 Barricades or other channelizing devices may be substituted for the Shadow Vehicle and TMA.
- Additional Shadow Vehicles with TMAs may be positioned off the paved surface, next to those shown in order to protect a wider work space.

TCP (2-2a)

- The R1-2 "YIELD" sign traffic control may be used on projects with approaches that have adequate sight distance. For projects in urban areas, work space should be no longer than one half city block. In rural areas, roadways with less than 2000 ADT, work space should be no longer than 400 feet.
- The R1-2aP "YIELD TO ONCOMING TRAFFIC" sign shall be placed on a support at a 7 foot minimum mounting height.

TCP (2-2b)

- Channelizing devices on the center line may be omitted when a pilot car is leading traffic and approved by the Engineer.
- If the work space is located near a horizontal or vertical curve, the buffer distances should be increased in order to maintain stopping sight distance to the flagger and a queue of stopped vehicles. (See table above).
- Flaggers should use 24" STOP/SLOW paddles to control traffic. Flags should be limited to emergency situations.

Texas Department of Transportation

Traffic Operations Division Standard

TRAFFIC CONTROL PLAN
ONE-LANE TWO-WAY
TRAFFIC CONTROL

TCP (2-2)-18

FILE: tcp2-2-18.dgn	ON: December 1985	CONT	SECT	JOB	HIGHWAY
REVISIONS	8-95 3-05	DIST	COUNTY	SHEET NO.	
1-97 2-12					
4-98 2-18					

162

CONSTRUCTION

- 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@FBCTX.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 5½ 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. CURB HEADERS ARE REQUIRED AT CURB CONNECTIONS TO HANDICAP RAMPS, WITH NO CONSTRUCTION JOINT WITHIN 5' OF RAMPS.
- 11. 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.
- 12. ALL R1-1 STOP SIGNS SHALL BE A MINIMUM OF 36"x36" WITH DIAMOND GRADE SHEETING PER TEXAS MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.
- 13. 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.
- 14. 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.
- 15. 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.
- 16. STABILIZED SUBGRADE: DETERMINE THE THICKNESS OF THE STABILIZED SUBGRADE AFTER CURING AND COMPACTION. IF THE SUBGRADE DEPTH IS GREATER THAN THE PROPOSED THICKNESS BY 20% OR MORE, THE CMT LAB MUST PROVIDE VERIFICATION THE PERCENTAGE OF MATERIAL BEING USED TO STABILIZE THE SUBGRADE MEETS OR EXCEEDS PROJECT REQUIREMENTS. TEST RESULTS REQUIRED.

NOTE: FORT BEND COUNTY NOTES SUPERSEDE ANY CONFLICTING NOTES.

CDR Hall

12/20/2024

NO.	REVISIONS	DATE	NAME
Δ	ORIGINAL STANDARD ISSUED	2-1-22	RJS
Δ			
Δ			
Δ			
Δ			

FORT BEND COUNTY
ENGINEERING DEPARTMENT



PROJECT TITLE: Millwood Paving and Drainage Repairs		FBCD STANDARD
DRAWN BY: INIT	SHEET DESCRIPTION: CONSTRUCTION GENERAL NOTES	02
CHK'D BY: INIT		
SCALE: NONE	APPROVED BY:	SHEET NO: /
DATE: 2-1-22		

GENERAL

1. THE CONTRACTOR SHALL FIELD VERIFY EXISTING CONDITIONS BEFORE BEGINNING CONSTRUCTION.
2. THE CONTRACTOR IS RESPONSIBLE FOR PROVIDING SECURITY TO PROTECT THE PROJECT SITE, CONTRACTOR PROPERTY, EQUIPMENT, AND WORK.
3. THE CONTRACTOR IS RESPONSIBLE FOR CLEANING STREETS OF CONSTRUCTION DIRT AND DEBRIS AT CLOSE OF EACH WORK DAY.
4. THE CONDITION OF THE ROAD AND/OR RIGHT-OF-WAY, UPON COMPLETION OF THE JOB SHALL BE AS GOOD AS OR BETTER THAN PRIOR TO STARTING WORK.
5. PRIOR TO CONSTRUCTION, THE CONTRACTOR, ALONG WITH CONCURRENCE FROM THE FIELD ENGINEER, SHALL DETERMINE HIS/HER LAY-DOWN AND/OR STAGING AREA LOCATIONS.
6. THE CONTRACTOR SHALL NOTIFY ALL PROPERTY OWNERS A MINIMUM OF 24 HOURS PRIOR TO BLOCKING DRIVEWAYS OR ENTERING UTILITY EASEMENTS.
7. TRAFFIC INGRESS AND EGRESS FOR DRIVEWAYS AND PEDESTRIAN ACCESS FACILITIES SHALL BE MAINTAINED THROUGHOUT CONSTRUCTION WITH ALL WEATHER SURFACES.
8. THE CONTRACTOR SHALL REMOVE ANY FENCES, POSTS, MAILBOXES, PLANTERS, PERMANENT TRASH CONTAINERS, CULVERTS, ETC. OR SECTIONS THEREOF, THAT ENCR OACH WITHIN THE COUNTY'S RIGHT-OF-WAY. NOTE: PRIOR TO CONSTRUCTION, THE PROPERTY OWNER WAS PAID TO RELOCATE OR REPLACE THESE ITEMS OUTSIDE OF THE COUNTY'S RIGHT-OF-WAY. IF THE OWNER HAS FAILED TO DO SO, THE CONTRACTOR WILL REPLACE THEM WITH THE MINIMUM LEVEL OF QUALITY NEEDED TO SECURE THE PROPERTY AND/OR MAINTAIN MAIL DELIVERY. IN THAT CASE, PAYMENT FOR THESE INSTALLATIONS WILL BE INCLUDED AS EXTRA WORK ITEMS OR AS OVERRUNS TO EXISTING PAY ITEMS.

ANY DAMAGE CAUSED BY THE CONTRACTOR TO SUCH ITEMS LOCATED OUTSIDE OF THE COUNTY'S RIGHT-OF-WAY, SHALL BE REPLACED WITH LIKE-KIND OR BETTER AT THE CONTRACTOR'S EXPENSE.

ALSO, IF THESE ITEMS ARE LOCATED WITHIN THE PROJECT RIGHT-OF-WAY AND ARE DESIGNATED TO REMAIN, ANY DAMAGE CAUSED BY THE CONTRACTOR TO SUCH ITEMS, SHALL BE REPLACED WITH LIKE-KIND OR BETTER AT THE CONTRACTOR'S EXPENSE.

TREES, BUSHES, SHRUBBERY AND OTHER DAMAGED PLANTINGS DESIGNATED TO REMAIN SHALL BE REPLACED WITHIN 72 HOURS OF REMOVAL AND ARE TO BE THOROUGHLY WATERED-IN. NO SEPARATE PAY.
9. PAVED SURFACES, PAVEMENT MARKERS AND MARKINGS SHALL BE PROTECTED FROM DAMAGE BY TRACKED EQUIPMENT.
10. IRON RODS DISTURBED DURING CONSTRUCTION ARE TO BE REPLACED BY A REGISTERED PROFESSIONAL LAND SURVEYOR FOR THE ORIGINAL PROPERTY OWNER AT NO SEPARATE PAY.
11. CONSTRUCTION STAKING WILL BE PROVIDED BY THE CONTRACTOR. TWO COPIES OF STAKING NOTES TO BE PROVIDED TO THE ENGINEER PRIOR TO CONSTRUCTION.
12. THE COUNTY OR THE COUNTY'S SURVEYOR SHALL PROVIDE A BENCHMARK OR TEMPORARY BENCHMARK AND SURVEY CONTROLS.
13. THE CONTRACTOR SHALL MAINTAIN UPDATED RED-LINED RECORD DRAWINGS ON SITE FOR INSPECTION BY THE ENGINEER.
14. MOWING, MAINTENANCE, AND CLEAN-UP OF THE PROJECT SHALL MEET THE REQUIREMENT OF SPECIFICATION ITEM 560 (NO SEPARATE PAY). MOWING, MAINTENANCE, AND CLEAN-UP IS REQUIRED FOR THE PROJECT LIMITS AND DURATION, REGARDLESS OF THE CONTRACTOR'S SCOPE OF ACTIVITIES WITHIN THE PROJECT LIMITS.
15. THE REMOVAL OF ANY ABANDONED UTILITIES REQUIRED TO COMPLETE THE WORK SHALL BE INCIDENTAL AND NO SEPARATE PAYMENT SHALL BE MADE.
16. IT IS THE CONTRACTOR'S RESPONSIBILITY TO STOCKPILE NECESSARY MATERIAL ON-SITE OR AT A SECURED OFF-SITE LOCATION AT NO ADDITIONAL EXPENSE TO FORT BEND COUNTY. ANY SUITABLE EXCAVATED MATERIAL ON THE PROJECT WHICH IS AVAILABLE AT THE TIME OF NEED, WHETHER FROM STORM SEWER, ROADWAY, AND/OR CHANNEL EXCAVATION, SHALL BE USED BEFORE BORROW IS BROUGHT ON-SITE.
17. MANHOLES, JUNCTION BOXES, INLETS, AND RISERS ARE TO BE PRE-CAST OR CAST IN PLACE.
18. THE FOLLOWING DETAILS ARE MINIMUM REQUIREMENTS AND MAY BE SUPERSEDED BY GEOTECHNICAL ENGINEER RECOMMENDATIONS OR MORE STRINGENT REQUIREMENTS FROM THE CITY'S ETJ PROJECT IS WITHIN.
19. POP UP DRAINS ARE NOT ALLOWED IN FORT BEND COUNTY RIGHT OF WAY.

TRAFFIC SIGNAL

1. ALL ITEMS RELATING TO THE CONSTRUCTION OF TRAFFIC SIGNAL INSTALLATIONS, EXCEPT FOR PUNCHLIST ITEMS, SHALL BE COMPLETED PRIOR TO THE ACTIVATION OF THE SIGNAL SYSTEM(S), UNLESS OTHERWISE REQUIRED BY THE CONTRACT.
2. THE CONTRACTOR SHALL MEET WITH THE FORT BEND COUNTY TRAFFIC SIGNAL MAINTENANCE GROUPS FIELD INSPECTOR, HEREAFTER REFERRED TO AS THE TRAFFIC INSPECTOR, ONE-WEEK PRIOR TO THE DESIRED ACTIVATION OF ANY NEW TRAFFIC SIGNALS. THE CONTRACTOR SHALL OBTAIN VERBAL CONCURRENCE FROM THE TRAFFIC INSPECTOR THAT ADEQUATE PROGRESS HAS BEEN ACHIEVED AND THAT ADEQUATE PREPARATIONS ARE IN PLACE TO SCHEDULE A PRE-TURN ON WALK-THROUGH INSPECTION MEETING. IF IN THE OPINION OF THE TRAFFIC INSPECTOR, REQUIRED PROGRESS AND ADEQUATE PREPARATIONS ARE NOT COMPLETE, THE PRE-TURN ON WALK-THROUGH INSPECTION MEETING WILL BE POSTPONED TO ALLOW ADEQUATE TIME FOR INCOMPLETE CONSTRUCTION ITEMS AND PREPARATIONS TO BE COMPLETED. AFTER THE CONTRACTOR HAS COMPLETED ALL INCOMPLETE ITEMS AND PREPARATIONS, THE CONTRACTOR SHALL REQUEST THE TRAFFIC INSPECTOR REVIEW AND APPROVE ITEMS PREVIOUSLY IDENTIFIED. IF, IN THE OPINION OF THE TRAFFIC INSPECTOR, ALL ITEMS HAVE BEEN ADDRESSED SATISFACTORILY, THE DATE OF THE PRE-TURN ON WALK-THROUGH INSPECTION SHALL BE ESTABLISHED. TIME EXTENSIONS TO THE CONTRACT TIME WILL NOT BE GRANTED FOR DELAYS CAUSED BY INCOMPLETE CONSTRUCTION OR INADEQUATE CONTRACTOR PREPARATIONS REQUIRED TO COMPLETE TRAFFIC SIGNAL SYSTEM WITHIN THE TIMEFRAME SET FORTH IN THE CONTRACT.
3. PRIOR TO ACTIVATING A NEW TRAFFIC SIGNAL, THE CONTRACTOR SHALL REQUEST A PRE-TURN ON WALK-THROUGH INSPECTION MEETING, IN ACCORDANCE WITH ITEM 2. THE PURPOSE OF THE MEETING WILL BE TO ESTABLISH THAT THE TRAFFIC SIGNAL SYSTEM HAS BEEN CONSTRUCTED IN ACCORDANCE WITH THE CONTRACT, AND IN A MANNER THAT DOES NOT ADVERSELY IMPACT PUBLIC SAFETY. THIS MEETING SHALL BE ATTENDED BY THE TRAFFIC INSPECTOR, THE ENGINEER OF RECORD, AND THE CONTRACTOR. AS A MINIMUM, ANY DEFICIENCIES THAT ADVERSELY IMPACT PUBLIC SAFETY WILL BE IDENTIFIED FOR CORRECTION PRIOR TO ESTABLISHING THE "TURN ON" DATE FOR THE TRAFFIC SIGNAL SYSTEM. ITEMS THAT HAVE AN IMPACT ON PUBLIC SAFETY INCLUDE, BUT ARE NOT LIMITED TO: PAVEMENT MARKINGS AND SIGNAGE, PROPER AND ACCEPTABLE BONDING OF EARTH GROUND, PROPERLY ALIGNED TRAFFIC SIGNALS, FULLY OPERATIONAL VEHICULAR AND PEDESTRIAN DETECTION, COMPLETED CABINET-TO-FIELD WIRING, AND PROPERLY TERMINATED ELECTRICAL SERVICE CONDUCTORS. FAILURE TO ADDRESS THE PUNCHLIST ITEMS IDENTIFIED AS BEING CRITICAL TO PUBLIC SAFETY PRIOR TO THE PRE-TURN ON WALK-THROUGH MEETING WILL RESULT IN THE "TURN ON" BEING POSTPONED TO ALLOW ADEQUATE TIME FOR THE INCOMPLETE ITEMS TO BE COMPLETED. AT SUCH TIME AS MEETING ATTENDEES AGREE THAT THE TRAFFIC SIGNAL HAS BEEN CONSTRUCTED IN ACCORDANCE WITH THE CONTRACT, AND THAT THE TRAFFIC SIGNAL, AS IT EXISTS, IS NOT A THREAT TO PUBLIC SAFETY, A "TURN ON" DATE WILL BE ESTABLISHED.
4. THE CONTRACTOR SHALL HAVE 10 DAYS FROM THE DATE THE TRAFFIC SIGNAL SYSTEM IS TURNED ON TO COMPLETE ANY PUNCHLIST ITEMS IDENTIFIED AT THE PRE-TURN ON WALK-THROUGH MEETING OR AT THE TIME THE SIGNAL SYSTEM IS ACTIVATED THAT ARE NOT OTHERWISE ADDRESSED PRIOR TO ACTIVATION OF THE TRAFFIC SIGNAL SYSTEM.
5. THE CONTRACTOR'S ATTENTION IS DIRECTED TO STANDARD SPECIFICATION ITEM 1000, TRAFFIC SIGNAL INSTALLATION AND MODIFICATION, WHICH INCLUDES PROCEDURES AND REQUIREMENTS REGARDING ACTIVATION OF TRAFFIC SIGNAL CONTROL SYSTEMS. THE PROJECT MANUAL MAY INCLUDE SPECIAL SPECIFICATIONS AND/OR SPECIAL PROVISIONS RELATED TO PROPOSED TRAFFIC CONTROL SIGNAL SYSTEM INSTALLATION(S) AND MODIFICATION(S) REQUIRING THE CONTRACTOR'S ADHERENCE TO DEFINED CHECKLISTS, PROCEDURES AND/OR REPORTS AT NO ADDITIONAL COST TO THE COUNTY BEYOND THE ESTABLISHED BID ITEMS OF THE CONTRACT.
6. ALL SIGNAL ALTERATIONS MUST BE APPROVED AND COORDINATED THROUGH FBC ENGINEERING AND ROAD & BRIDGE.

TRAFFIC CONTROL

1. THE CONTRACTOR SHALL PROVIDE AND INSTALL TRAFFIC CONTROL DEVICES IN CONFORMANCE WITH PART VI OF THE MOST RECENT EDITION OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES AND THE APPROVED TRAFFIC CONTROL PLAN.
2. THE CONTRACTOR SHALL MAINTAIN AT LEAST ONE LANE OF TRAFFIC IN EACH DIRECTION DURING WORKING HOURS EXCEPT DURING FLAGGING OPERATION
3. LANE CLOSURES SHALL BE DURING OFF-PEAK HOURS ONLY (MONDAY THROUGH FRIDAY 9 A.M. TO 4 P.M.) UNIFORMED PEACE OFFICERS OR FLAGGERS IN RADIO CONTACT ARE REQUIRED TO DIRECT TRAFFIC DURING LANE CLOSURES.
4. DETOURS REQUIRE PRIOR APPROVAL OF THE FIELD ENGINEER AND PRECINCT. DETOUR PLANS, IF ALLOWED, MUST INCLUDE APPROPRIATE DETOUR SIGNAGE, PUBLIC NOTICE VIA SIGNAGE TWO WEEKS IN ADVANCE STATING THE DATES OF THE AGREED UPON DATE OF CLOSURE AND DATE THE ROAD WILL RE-OPEN TO TRAFFIC. CONTRACTOR TO USE (WITH PRIOR APPROVAL OF THE FIELD ENGINEER) HIGH EARLY STRENGTH CONCRETE AND OTHER RELATED CONSTRUCTION METHODS TO MINIMIZE THE DURATION OF THE DETOUR AND TO ENSURE THAT THE ROADWAY IS OPEN ON, OR PRIOR TO, THE AGREED UPON DATE.
5. ONE DAY PRIOR TO THE IMPLEMENTATION OF A TRAFFIC CONTROL PLAN PHASE OR STEP, OR THE IMPLEMENTATION OF AN ADDITIONAL, REVISED, OR NEW TRAFFIC CONTROL ELEMENT, THE CONTRACTOR SHALL MEET WITH THE ENGINEER TO GIVE A DETAILED DESCRIPTION OF THE CONTRACTOR'S PLAN AND PREPARATIONS. THE CONTRACTOR SHALL OBTAIN WRITTEN CONCURRENCE FROM THE ENGINEER THAT ADEQUATE PROJECT PROGRESS HAS BEEN ACHIEVED AND THAT ADEQUATE PREPARATIONS ARE IN PLACE PRIOR TO SWITCHING TRAFFIC. IF, IN THE OPINION OF THE ENGINEER, REQUIRED PROGRESS AND ADEQUATE PREPARATIONS ARE NOT COMPLETE, THE CONTRACTOR SHALL NOT IMPLEMENT THE NEXT PHASE, STEP, OR ELEMENT OF TRAFFIC CONTROL UNTIL INCOMPLETE CONSTRUCTION ITEMS OR PREPARATIONS ARE COMPLETED. TIME EXTENSIONS WILL NOT BE GRANTED FOR DELAYS CAUSED BY THE INCOMPLETE CONSTRUCTION ITEMS OR INADEQUATE CONTRACTOR PREPARATIONS REQUIRED TO IMPLEMENT TRAFFIC CONTROL.
6. TRAFFIC CONTROL PER THE CONTRACT IS REQUIRED FOR THE ENTIRE DURATION OF THE PROJECT, INCLUDING THE PUNCHLIST PERIOD. PAYMENT FOR TRAFFIC CONTROL THAT IS PROPERLY INSTALLED FOR LESS THAN A FULL MONTH SHALL BE BASED ON A PERCENTAGE BASIS OF THE TIME INSTALLED. TRAFFIC CONTROL PAYMENTS TO THE CONTRACTOR SHALL END 10 DAYS AFTER SUBSTANTIAL COMPLETION, ALTHOUGH PROPER TRAFFIC CONTROL MUST BE MAINTAINED UNTIL PUNCHLIST COMPLETION.
7. THE PURPOSE OF THE CONSTRUCTION SEQUENCE AND TRAFFIC HANDLING OUTLINED HEREIN IS TO DOCUMENT A VIABLE TCP THAT CAN BE UTILIZED TO CONSTRUCT THE PROJECT. IT IS THE BASIS OF ESTIMATION FOR THE TRAFFIC CONTROL BID ITEMS, AND IS TO BE UTILIZED AND IMPLEMENTED, UNLESS OTHERWISE DIRECTED BY THE ENGINEER. IF THE CONTRACTOR CHOOSES TO USE A DIFFERENT TCP, HE/SHE SHALL PREPARE AND SUBMIT THE ALTERNATIVE TCP TO THE COUNTY FOR APPROVAL NO LESS THAN 10 WORKING DAYS PRIOR TO THE PROPOSED IMPLEMENTATION DATE. THE TCP SHALL BE DRAWN TO SCALE AND SIGNED & SEALED BY A PROFESSIONAL ENGINEER LICENSED TO PRACTICE IN THE STATE OF TEXAS. UPON APPROVAL BY FORT BEND COUNTY, THE ALTERNATIVE PLAN SHALL BECOME THE BASIS FOR A "CHANGE IN CONTRACT" TO REVISE THE TRAFFIC CONTROL BID ITEMS ACCORDINGLY AND BECOME PART OF THE CONTRACT DOCUMENTS.
8. ALL TEMPORARY PAVEMENT MARKINGS ON PERMANENT PAVEMENT SHOULD BE RPMS OR TABS.
9. TRAFFIC PATTERN CHANGES REQUIRE CHANGEABLE MESSAGE BOARDS PLACED AT LEAST 2 WEEKS IN ADVANCE OF PROPOSED CHANGE. QUANTITY, PLACEMENT AND WORDING TBD BY FBC.

Chad Hall

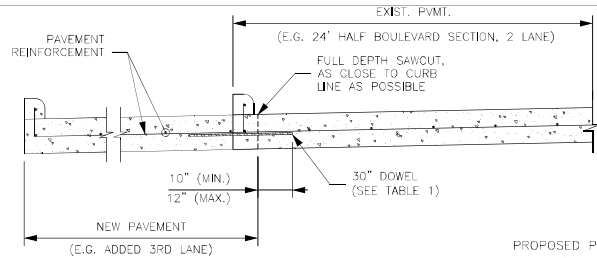
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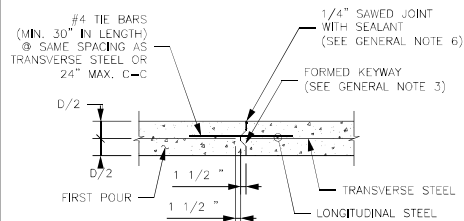
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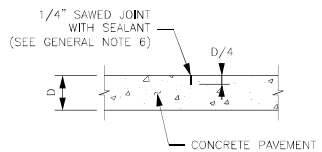
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DRAWN BY:	INIT		FBCD STANDARD
CHECKED BY:	INIT	SHEET DESCRIPTION:	03
SCALE:	NONE	PUBLIC WORKS AND SUBDIVISION	
DATE:	2-1-22	APPROVED BY:	GENERAL NOTES
			SHEET NO:
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TYPICAL CONCRETE ROADWAY WIDENING DETAIL
SCALE: 1" = 1'-6"



LONGITUDINAL CONSTRUCTION JOINT
SCALE: 1" = 1'-6"



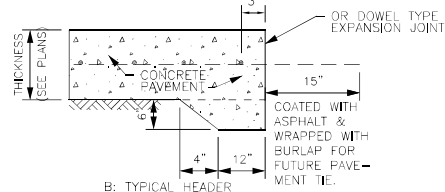
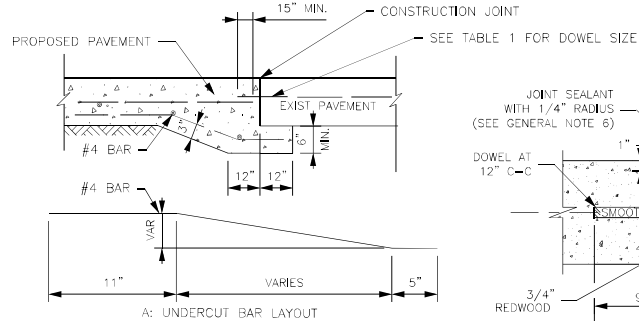
CONTRACTION JOINT (SAWED)
SCALE: 1" = 1'-6"

NOTE FOR CONTRACTION JOINT:
1. 20'-0" MAXIMUM SPACING BETWEEN JOINTS.

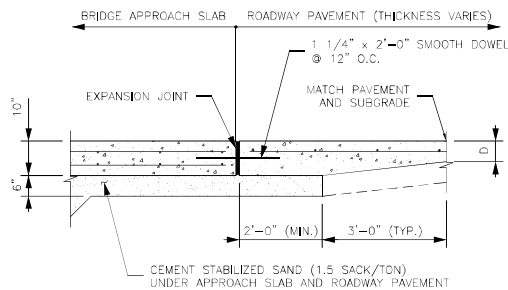
**TABLE 1
(CONSTRUCTION JOINT DOWELS)**

DOWEL SIZE	PAVEMENT DEPTH
#4 BAR	< 6"
#5 BAR	6" ≤ D < 9"
#6 BAR	≥ 9"

DOWEL SHALL BE DRILLED INTO EXISTING PAVEMENT (MIN. 10", MAX. 12") AND EPOXIED. (SEE ITEM 361.3)



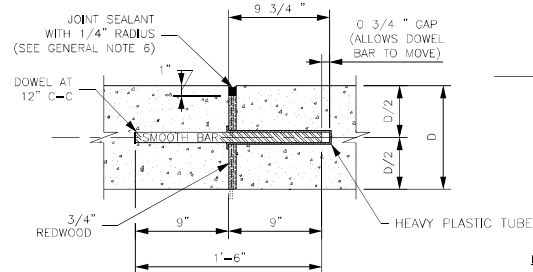
PAVEMENT HEADER/ UNDERCUT
N.T.S.



TYPICAL SECTION PAVING TIE-IN TO BRIDGE APPROACH SLAB
SCALE: 1" = 1'-6"

EXPANSION JOINT DOWELS 12" O.C.

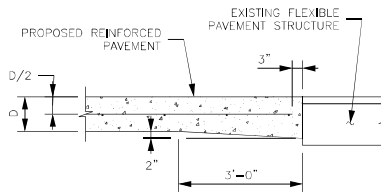
PAVEMENT THICKNESS (D)	DOWEL DIA.
6"	3/4"
7"	1"
8"	1"
9" & 10"	1 1/4"



DOWEL TYPE EXPANSION JOINT
SCALE: 1" = 6"

NOTES FOR DOWEL EXPANSION JOINT:

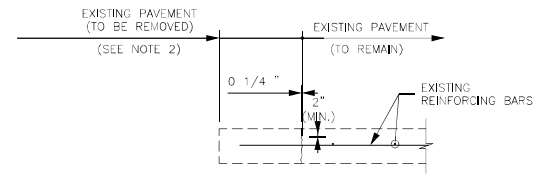
- EXPANSION JOINT SHALL BE PLACED AT THE END OF EACH CURB RADIUS AND SPACED AT A MAXIMUM DISTANCE OF 60 FEET.
- CENTER DOWEL HORIZONTALLY ON JOINT.
- EXPANSION JOINT BARS SHALL BE HELD PARALLEL TO THE FINISHED CONCRETE SURFACE.



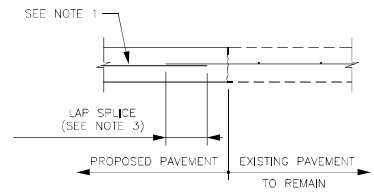
TYPICAL PAVING HEADER
SCALE: 1" = 1'-6"

NOTES FOR PAVING HEADER:

- ADDITIONAL CONCRETE FOR PAVING HEADER SHALL BE CONSIDERED INCIDENTAL TO VARIOUS PAVING BID ITEMS.
- DISTURBED MATERIAL IN THE FLEXIBLE PAVEMENT WILL BE BACKFILLED WITH ASPHALT CONCRETE PAVEMENT (ACP). THE ACP WILL BE CONSIDERED INCIDENTAL TO VARIOUS PAVING BID ITEMS.



STEP 1 DEMOLITION OF EXISTING PAVEMENT



CONCRETE TO CONCRETE STANDARD PAVEMENT TIE-IN
SCALE: 1" = 1'-6"

NOTES FOR STANDARD PAVEMENT TIE-IN:

- REINFORCING CENTERED IN PROPOSED PAVEMENT, 3" CLEAR AT EDGES.
- ONLY FULL DEPTH SAWCUTS WILL BE ALLOWED
- USE FULL DEPTH SAWCUT WITH DRILLED IN DOWELS (AS SHOWN IN THE "TYPICAL CONCRETE ROADWAY WIDENING DETAIL" ON THIS SHEET. THE SAWCUTTING AND DOWELS WILL BE AT CONTRACTOR'S EXPENSE.
- ALL PAVED CONCRETE SHALL BE 5½ SACK PER CY, 3500. PSI AT 28 DAYS
- SIZE OF DOWEL BARS SHALL CONFORM TO TABLE 1. DOWELS SHALL BE PLACED 24" CENTER TO CENTER OR MATCH EXISTING, IF CLOSER

GENERAL NOTES:

- FOR FURTHER INFORMATION REGARDING THE PLACEMENT OF CONCRETE AND REINFORCING, REFER TO ITEM 360 HARRIS COUNTY SPECIFICATIONS
- THE CHAIRS USED TO SUPPORT THE BAR MATS SHALL BE OF SUFFICIENT STRUCTURAL QUALITY AND NUMBER TO HOLD THE MAT WITHIN THE PLACEMENT HEIGHT, AND SHALL BE OF A TYPE APPROVED BY THE ENGINEER. SPACING OF BAR SUPPORT CHAIRS SHALL BE 3'-0" MAXIMUM.
- SAWED CONTRACTION JOINTS SHALL BE USED FOR LONGITUDINAL JOINTS WHEREVER MORE THAN ONE LANE WIDTH IS PLACED IN A SINGLE POUR. KEYED CONTRACTION JOINTS SHALL BE USED AT ALL OTHER JOINTS.
- ALL SAW CUTTING SHOWN ON THIS DETAIL SHALL BE INCIDENTAL TO ITEM 360 "CONCRETE PAVEMENT".
 - FOR DEVELOPMENT PROJECTS SEE REGULATIONS OF FORT BEND COUNTY, TEXAS FOR THE APPROVAL AND ACCEPTANCE OF INFRASTRUCTURE.
- ALL CONSTRUCTION JOINTS SHALL BE SEALED. JOINT SEALANT SHALL CONFORM TO THE REQUIREMENTS OF ITEM 360
- NO TRAFFIC ON CONCRETE PAVEMENT UNTIL 7 DAYS CURE TIME AND 3,500 PSI HAS BEEN REACHED.

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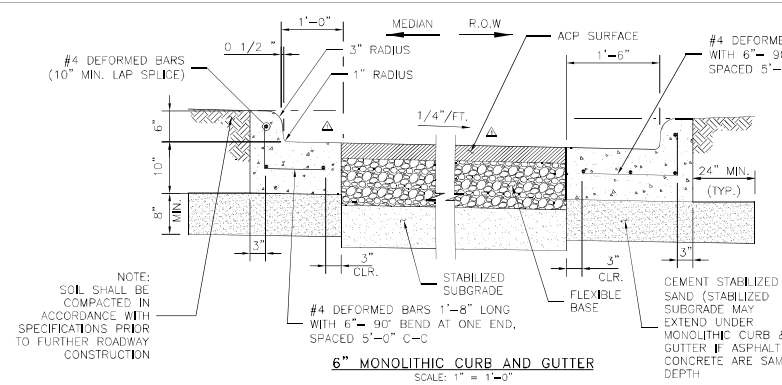
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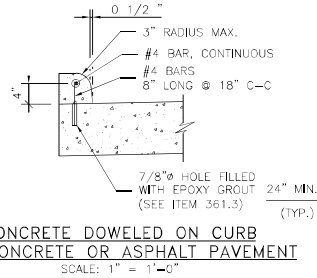
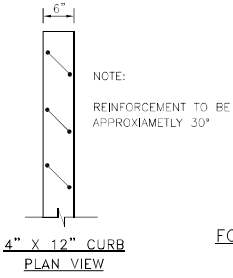
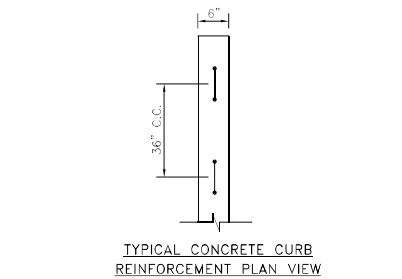
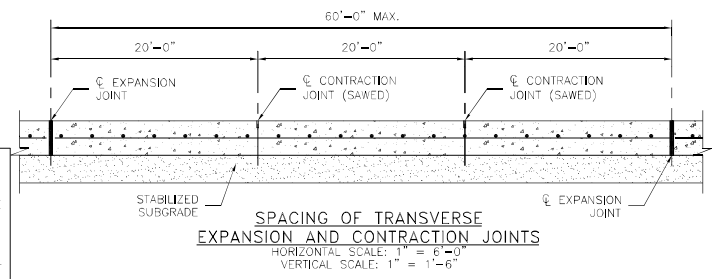
Colleen

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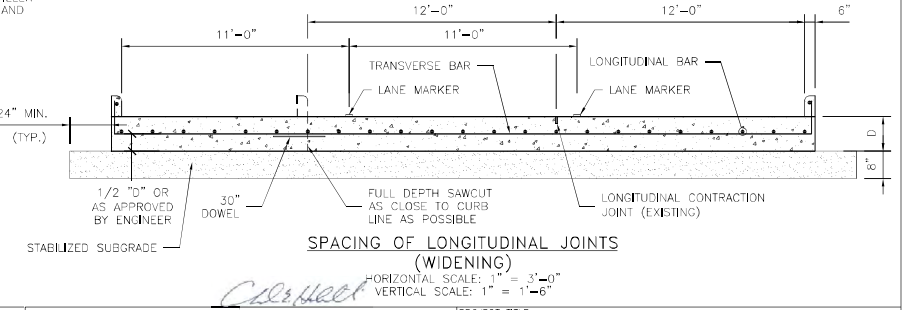
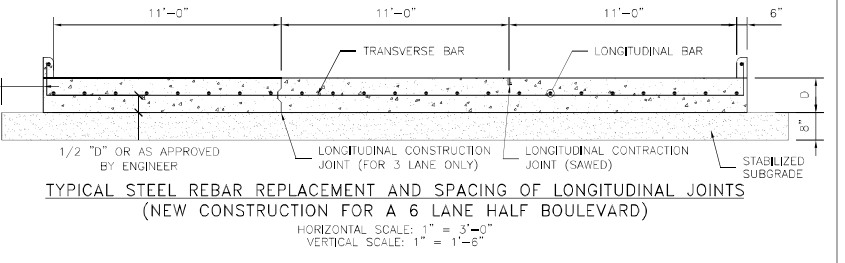
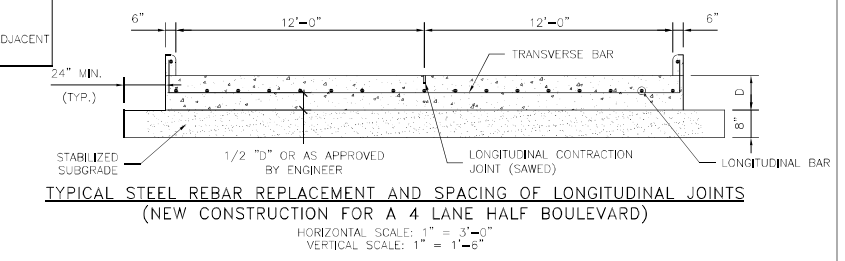
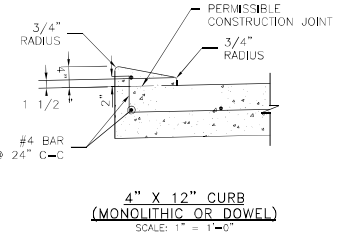
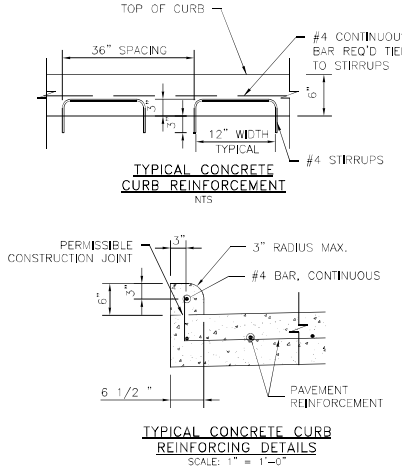
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DRAWN BY:	INIT	FBCD STANDARD
CHECKED BY:	INIT	05
SCALE:	AS NOTED	SHEET 1 OF 3
DATE:	2-1-22	SHEET NO: /
APPROVED BY:		



- SLAB AND REBAR NOTES:**
1. TYPICAL SLAB THICKNESS D=8"
 2. TYPICAL REBAR SIZE AND SPACING ARE:
a. #4 BAR @ 18" C-C LONGITUDINAL
b. #4 BAR @ 18" C-C TRANSVERSE
 3. REBAR SIZE FOR PAVEMENT LESS THAN 8" THICK
a. #4 BAR @ 24" C-C LONGITUDINAL
b. #4 BAR @ 24" C-C TRANSVERSE
 4. REBAR SHALL NOT BE PLACED WITHIN 3" FROM THE EDGE OF PAVEMENT.
 5. TYPICAL STABILIZED SUBGRADE THICKNESS IS 8 INCHES.
 6. FOR HEAVY INDUSTRIAL TRAFFIC, SLAB THICKNESS AND REBAR SIZE AND SPACING WILL BE AS PER GEOTECHNICAL RECOMMENDATION.
 7. ALL BENT BARS SHALL BE GRADE 40 STEEL, ALL OTHER SHALL BE GRADE 60.
 8. MINIMUM LAP SPICE 16".
 9. LAP SPICES SHOULD BE ON ALTERNATING BARS, ADJACENT LAP SPICES ARE NOT ACCEPTABLE.

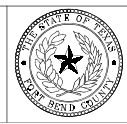


- NOTES FOR CURB:**
1. AT EACH PAVEMENT CONTRACTION JOINT, PROVIDE A 1/4" THICK, PRE-MOLDED EXPANSION JOINT AT THE FULL WIDTH AND HEIGHT OF THE CURB.
 2. FOR EACH PAVEMENT EXPANSION JOINT, THE PRE-MOLDED EXPANSION JOINT FILLER MATERIAL SHALL BE THE FULL WIDTH AND HEIGHT OF THE CURB.

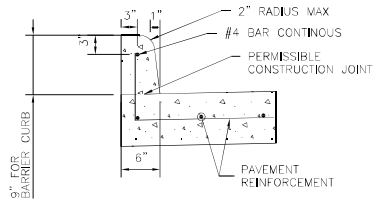


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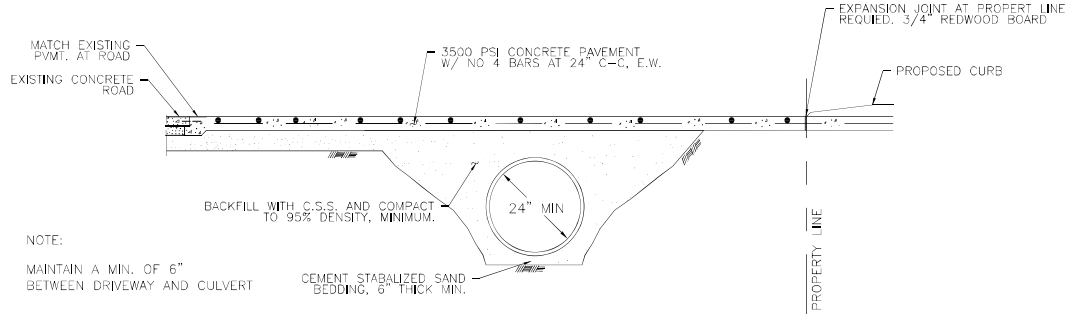
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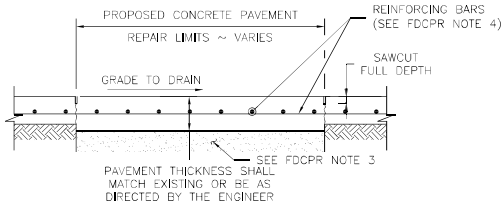
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CHKD BY: INIT	SCALE: AS NOTED	DATE: 12/20/2024
DATE: 2-1-22	APPROVED BY:	



9" BARRIER CURB



CONCRETE APRON DETAIL - DRIVEWAY PROFILE
FOR CULVERT DRAINAGE



FULL DEPTH CONCRETE PAVEMENT REPAIR

HORIZONTAL SCALE: 1" = 3'-0"
VERTICAL SCALE: 1" = 1'-6"

FULL DEPTH CONCRETE PAVEMENT REPAIR (FDCPR) NOTES:

1. ONLY FULL DEPTH SAWCUTS WILL BE ALLOWED
2. EXISTING CONCRETE VERTICAL FACES SHALL BE CLEANED OF ALL DELETERIOUS LOOSE MATERIAL PRIOR TO CONCRETE PLACEMENT.
3. FOR REPAIR/REPLACE AREAS, A 8" DEPTH BASE SHALL BE REMOVED AND REPLACED WITH CEMENT STABILIZED SAND PER ITEM 433 HARRIS COUNTY SPECIFICATIONS.
4. REINFORCEMENT OF 9"-10" THICK CONCRETE PAVEMENT SHALL BE NO. 5 BARS AT 18" SPACING IN EACH DIRECTION. REFER TO TABLE ON CONCRETE PAVEMENT SHEET 2 OF 2
5. REFER TO FBC STREET ACCEPTANCE GUIDELINES

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FORT BEND COUNTY
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PROJECT TITLE:	Millwood Paving and Drainage Repairs	
DRAWN BY:	INIT	FBCD STANDARD
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APPROVED BY:		/

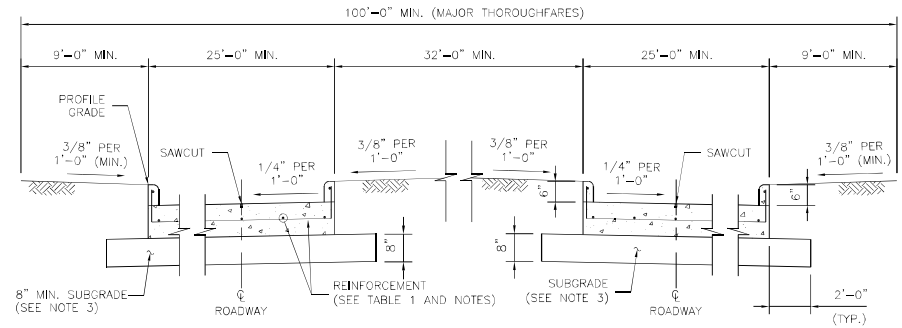
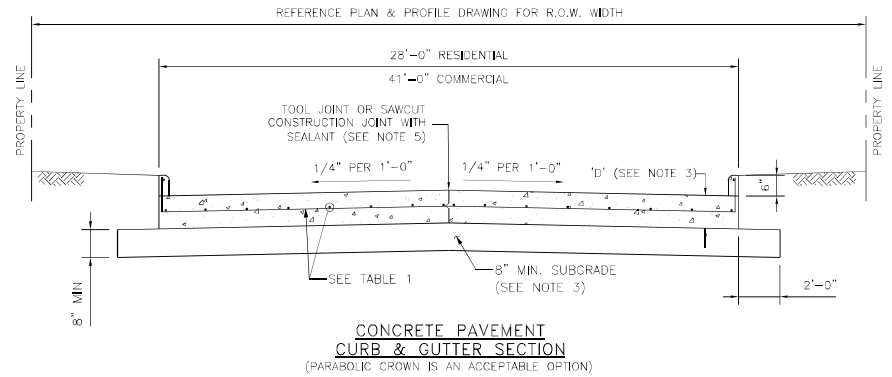
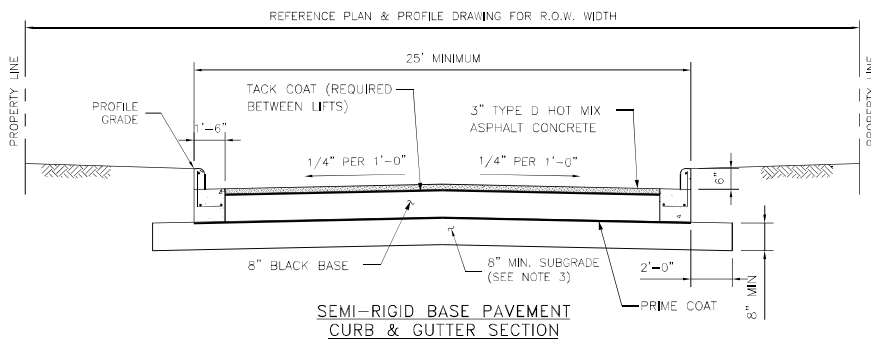
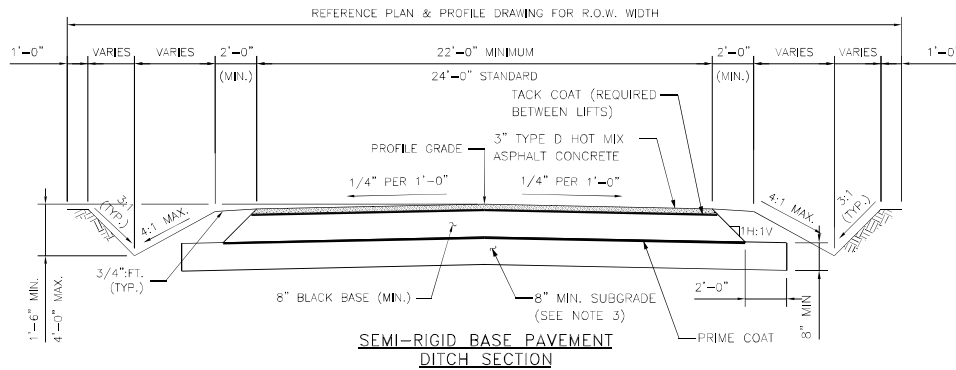
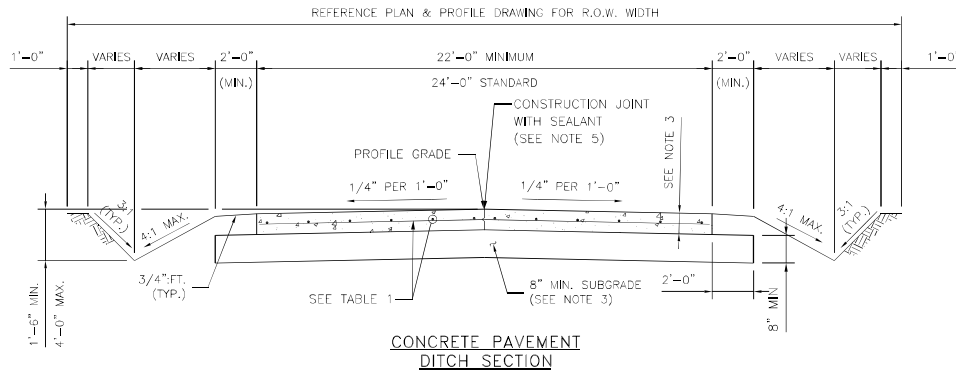


TABLE 1
(CONSTRUCTION JOINT DOWELS)

DOWEL SIZE	PAVEMENT DEPTH
#4 BAR	< 6"
#5 BAR	6" ≤ D < 9"
#6 BAR	≥ 9"

DOWEL SHALL BE FILLED INTO EXISTING PAVEMENT (MIN. 10", MAX. 12") AND EPOXIED. (SEE ITEM 361.3)

NOTES:

- PAVEMENT SECTIONS SHOWN ARE INTENDED FOR DEVELOPMENT PROJECTS AND NOT FOR PUBLIC PROJECTS, WHERE WIDTH OF R.O.W. MAY VARY.
- PAVEMENT SECTIONS SHALL BE LOCATED IN CENTER OF R.O.W.
- SUBGRADE TREATMENT AND PAVEMENT THICKNESS AS DESIGNATED IN PLANS
- REFERENCE CONSTRUCTION JOINT DETAIL ON THE STANDARD CIVIL DRAWING "CONCRETE PAVEMENT DETAILS - SHEET 1 OF 2" FOR JOINT AND SEALANT REQUIREMENTS.
- NO TRAFFIC ON CONCRETE PAVEMENT FOR 7 DAYS AND COMPRESSIVE STRENGTH OF 3,500 psi HAS BEEN REACHED.
- ALL CONSTRUCTION JOINTS SHALL BE SEALED

HORIZONTAL SCALE: 1"=3'-0"
VERTICAL SCALE: 1"=1'-6"

SLAB AND REBAR NOTES:

- TYPICAL SLAB THICKNESS D=8"
- TYPICAL REBAR SIZE AND SPACING ARE:
a. #4 BAR @ 18" C-C LONGITUDINAL
b. #4 BAR @ 18" C-C TRANSVERSE
- REBAR SIZE FOR PAVEMENT LESS THAN 8" THICK
a. #4 BAR @ 24" C-C LONGITUDINAL
b. #4 BAR @ 24" C-C TRANSVERSE
- REBAR SHALL NOT BE PLACED WITHIN 3" FROM THE EDGE OF PAVEMENT.
- TYPICAL STABILIZED SUBGRADE THICKNESS IS 8 INCHES.
- FOR HEAVY INDUSTRIAL TRAFFIC, SLAB THICKNESS AND REBAR SIZE AND SPACING WILL BE AS PER GEOTECHNICAL RECOMMENDATION.
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- MINIMUM LAP SPICE 16".
- LAP SPICES SHOULD BE ON ALTERNATING BARS, ADJACENT LAP SPICES ARE NOT ACCEPTABLE.

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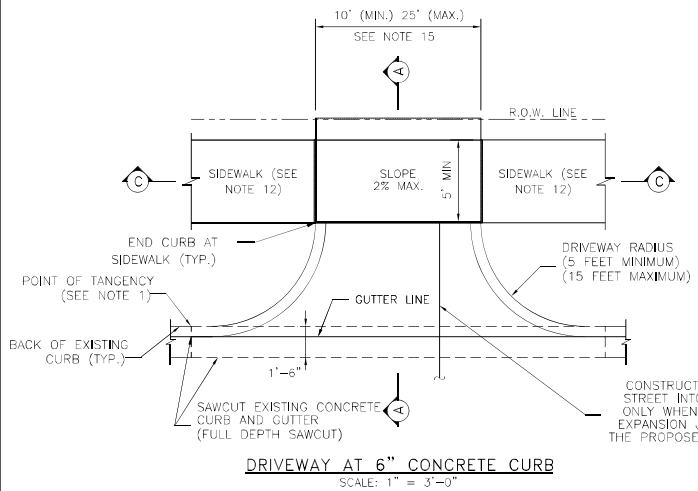
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ENGINEERING DEPARTMENT



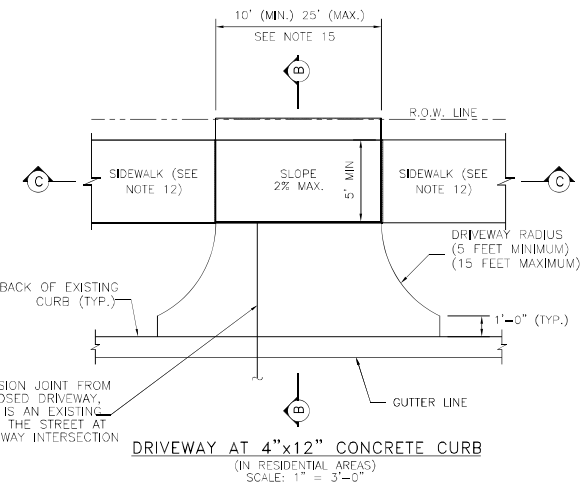
12/20/2024

PROJECT TITLE	Millwood Paving and Drainage Repairs
DRAWN BY:	INIT
CHECKED BY:	INIT
SCALE:	AS NOTED
DATE:	2-1-22
SHEET DESCRIPTION	TYPICAL PAVEMENT SECTIONS
FOR DEVELOPMENT PROJECTS	
APPROVED BY:	
FBCE STANDARD	09
SHEET NO:	/

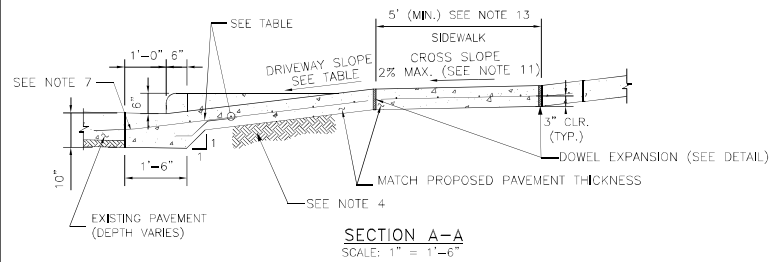
J:\170A\1601\Fort Bend County Standards\Fort Bend County STD.DWG\FBC SUBDIVISION DRIVEWAY DETAILS.DWG



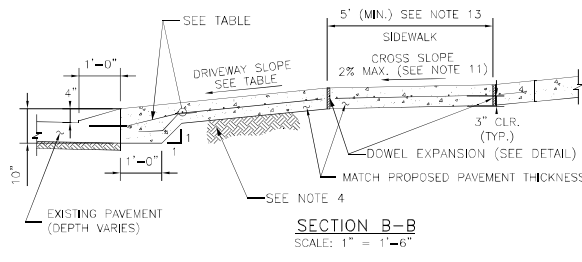
DRIVEWAY AT 6" CONCRETE CURB
SCALE: 1" = 3'-0"



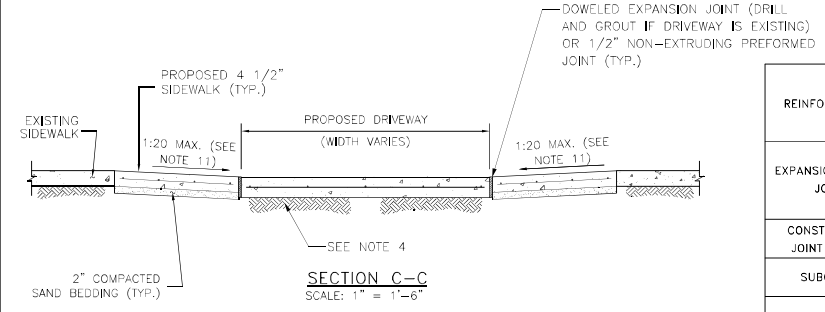
DRIVEWAY AT 4"x12" CONCRETE CURB
(IN RESIDENTIAL AREAS)
SCALE: 1" = 3'-0"



SECTION A-A
SCALE: 1" = 1'-6"



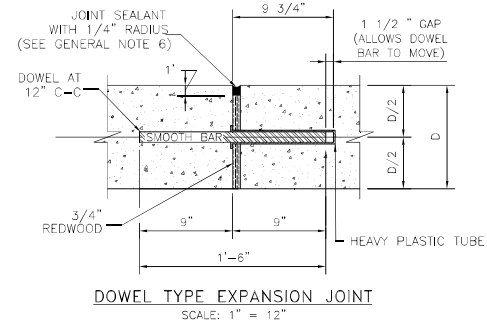
SECTION B-B
SCALE: 1" = 1'-6"



SECTION C-C
SCALE: 1" = 1'-6"

NOTES:

1. PROPOSED DRIVEWAY AT 6" CONCRETE CURB SHALL MATCH EXISTING CURB AT POINT OF TANGENCY.
2. PROPOSED DRIVEWAY SHALL BE BUILT WITH PORTLAND CEMENT CONCRETE, 5 1/2 SACK MINIMUM PER CUBIC YARD, 3,500 PSI STRENGTH AT 28 DAYS. THIS DRIVEWAY INSTALLATION IS GOVERNED BY HARRIS COUNTY ITEM 530.
3. COMPACTION OF SUBGRADE TO 95% OF STANDARD PROCTOR DENSITY (ASTM D698) (+/- 2% OPTIMUM MOISTURE) FOR PROPOSED DRIVEWAY CONNECTION. THE COUNTY ENGINEER RESERVES THE RIGHT TO INSPECT AND REQUIRE LABORATORY TEST TO BE CONDUCTED.
4. FOR COMMERCIAL DRIVEWAYS, USE 6" OF COMPACTED CEMENT STABILIZED SAND. FOR RESIDENTIAL DRIVEWAYS, USE 2" OF COMPACTED BANK SAND.
5. A PROPOSED DRIVEWAY TO BE BUILT ON A CORNER LOT CANNOT BE LOCATED WITHIN ANY PORTION OF THE PUBLIC STREET CURB RADIUS. (THE POINTS OF TANGENCY MAY BE THE SAME POINT ALONG THE STREET CURB LINE)
6. PROPOSED DRIVEWAY REINFORCING STEEL SHALL BE TIED TO EXISTING CONCRETE PAVEMENT WITH A MINIMUM LAP OF 16 INCHES.
7. IF EXISTING STREET REBAR IS CUT OFF, THEN #4 DOWEL BARS (18" LONG) NEED TO BE INSTALLED AT 24" SPACING, EMBEDDED 9 INCHES AND EPOXYED OR MATCH EXISTING SPACING IF TIGHTER.
8. 3" NON-METALLIC CHAIRS ARE REQUIRED.
9. FOR CAPITAL IMPROVEMENT PROJECTS, THE SUBGRADE SHALL BE STABILIZED ACCORDING TO THE GEOTECHNICAL REPORT RECOMMENDATIONS.
10. SAW AND SEAL ALL CONSTRUCTION JOINTS.
11. SIDEWALK SLOPES SHALL COMPLY WITH THE TEXAS ACCESSIBILITY STANDARDS 403.3 "SLOPE"
12. IF SIDEWALK IS EXISTING, SEE SECTION C-C.
13. SIDEWALKS MAY BE REDUCED TO 4' IN FRONT OF SINGLE-FAMILY RESIDENTIAL LOTS WHEN A 5' PASSING AREA IS PROVIDED IN THE DRIVEWAY.
14. FOR SIDEWALK DETAILS SEE SIDEWALK DETAILS SHEET
15. DRIVEWAY WIDTHS ARE MEASURED AT THE ROW LINE



DOWEL TYPE EXPANSION JOINT
SCALE: 1" = 12"

	PAVEMENT THICKNESS	COLLECTOR/MAJOR	RESIDENTIAL (MAJOR THOROUGHFARE)	RESIDENTIAL (COLLECTORS AND LOCAL STREETS)
REINFORCEMENT	6"	#4 @ 24" O.C.E.W.	N/A	#4 @ 24" O.C.E.W.
	7"	#4 @ 24" O.C.E.W.	#4 @ 24" O.C.E.W.	#4 @ 24" O.C.E.W.
	8"	#4 @ 18" O.C.E.W.	#4 @ 18" O.C.E.W.	#4 @ 18" O.C.E.W.
	9"-10"	#5 @ 18" O.C.E.W.	#5 @ 18" O.C.E.W.	#5 @ 18" O.C.E.W.
EXPANSION DOWEL JOINT	6"	3/4" DIA. SMOOTH BAR	3/4" DIA. SMOOTH BAR	3/4" DIA. SMOOTH BAR
	7"	1" DIA. SMOOTH BAR	1" DIA. SMOOTH BAR	1" DIA. SMOOTH BAR
	8"	1" DIA. SMOOTH BAR	1" DIA. SMOOTH BAR	1" DIA. SMOOTH BAR
	9"-10"	1 1/2" DIA. SMOOTH BAR	1 1/2" DIA. SMOOTH BAR	1 1/2" DIA. SMOOTH BAR
CONSTRUCTION JOINT DOWEL	ALL	#5 REBAR	#5 REBAR	#5 REBAR
SUBGRADE	ALL	6" CEMENT-STABILIZED SAND	2" BANK SAND	2" BANK SAND
DRIVEWAY SLOPE	ALL	2% TO 4%	2% TO 6%	2% TO 10%*

*10% ALLOWABLE ON PRIVATELY CONSTRUCTED PROJECTS
6% MAX ON PUBLIC PROJECTS

NO.	REVISIONS	DATE	NAME
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FORT BEND COUNTY
ENGINEERING DEPARTMENT



12/20/2024

PROJECT TITLE: Millwood Paving and Drainage Repairs

DRAWN BY: INT

CHECKED BY: INT

SCALE: AS NOTED

DATE: 3-1-22

SHEET DESCRIPTION: DRIVEWAY DETAILS FOR

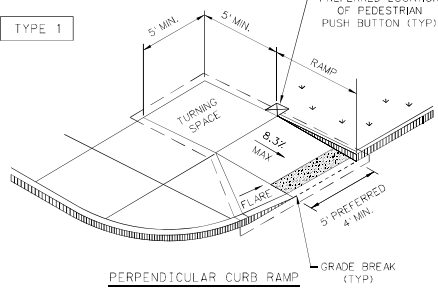
RESIDENTIAL DRIVEWAYS

APPROVED BY:

PROJECT NO: 11

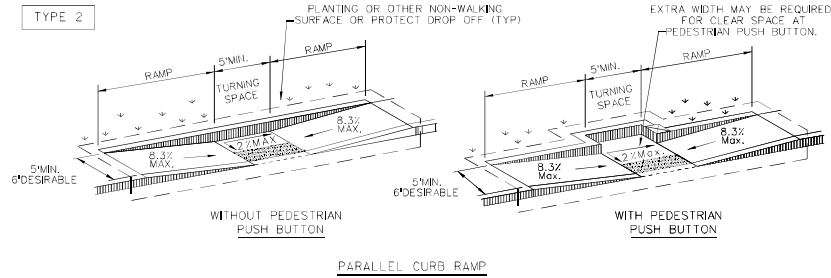
SHEET NO: /

TYPE 1



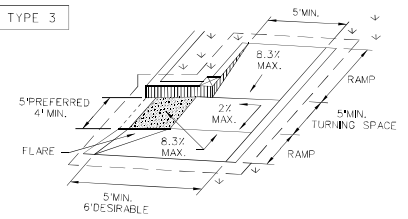
PERPENDICULAR CURB RAMP

TYPE 2



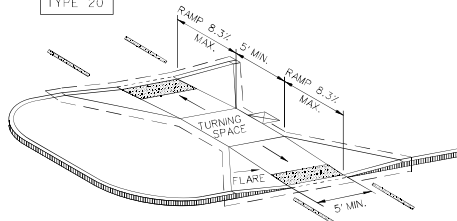
PARALLEL CURB RAMP

TYPE 3



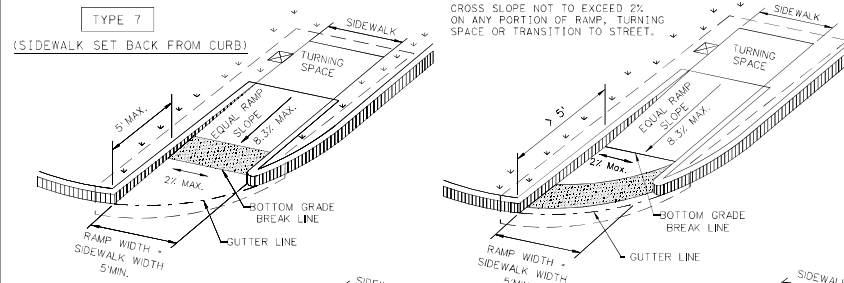
COMBINATION CURB RAMP

TYPE 20

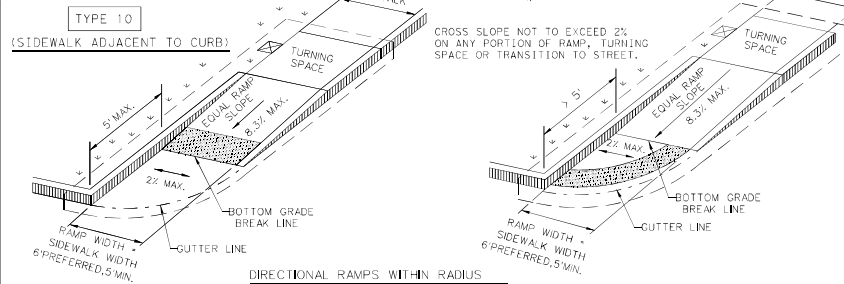


CURB RAMP AT MEDIAN ISLANDS

TYPE 7

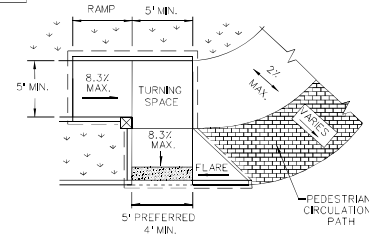


TYPE 10

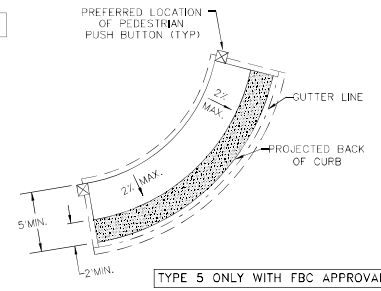


DIRECTIONAL RAMPS WITHIN RADIUS

TYPE 6



TYPE 5

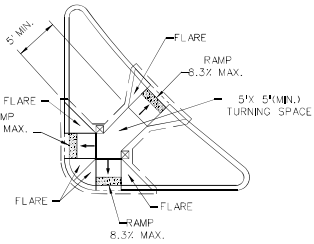


INSTALL DETECTABLE WARNING SURFACE AT EACH END OF THE CUT-THROUGH RAMP WITH A MINIMUM 2' USUAL SIDEWALK SURFACE BETWEEN. IF MEDIAN IS LESS THAN 6' WIDE, ELIMINATE DETECTABLE WARNING SURFACES.

ALIGN CURB PARALLEL WITH CROSSWALK.

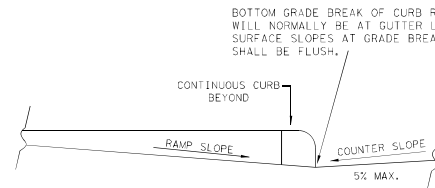
NOTE: CURB DETAILS ARE SHOWN ELSEWHERE IN THE PLANS.

TYPE 21



COMBINATION ISLAND RAMPS

TYPE 22



TYPICAL SECTION OF PERPENDICULAR CURB RAMP AT CONNECTION TO ROADWAY

NOTES / LEGEND:

SEE GENERAL NOTES ON SHEET 2 OF 4 FOR MORE INFORMATION.

Denotes planting or non-walking surface not part of pedestrian circulation path.

Detachable warning surface

Denotes preferred location of pedestrian push button if applicable.

OUTER LINE

GRADE BREAK

RAMP LIMITS OF PAYMENT

NO.	REVISIONS	DATE	NAME
1	ORIGINAL STANDARD ISSUED	1-1-22	RJS
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FORT BEND COUNTY
ENGINEERING DEPARTMENT



12/20/2024

PROJECT TITLE: Millwood Paving and Drainage Repairs		
DRAWN BY: INIT	SHEET DESCRIPTION: PED-18 RAMP DETAILS	FBCD STANDARD: 14
DATE: 2-1-22	SHEET 1 OF 4	SHEET NO: /

GENERAL NOTES

CURB RAMPS

1. Install a curb ramp or blended transition at each pedestrian street crossing.
2. All slopes shown are maximum allowable. Cross slopes of 1.5% and lesser running should be used. Adjust curb ramp length or grade of approach sidewalks as directed.
3. Maximum allowable cross slope on sidewalk and curb ramp surfaces is 2%.
4. The minimum sidewalk width is 5'. Where the sidewalk is adjacent to the back of curb, a 6' sidewalk width is desirable. Where a 5' sidewalk cannot be provided due to site constraints, sidewalk width may be reduced to 4' for short distances. 5' x 5' passing areas at intervals not to exceed 200' are required.
5. Turning spaces shall be 5' x 5' minimum. Cross slope shall be maximum 2%.
6. Clear space at the bottom of curb ramps shall be a minimum of 4' x 4' wholly contained within the crosswalk and wholly outside the parallel vehicular travel path.
7. Provide flared sides where the pedestrian circulation path crosses the curb ramp. Flared sides shall be sloped at 10% maximum, measured parallel to the curb. Returned curbs may be used only where pedestrians would not normally walk across the ramp, either because the adjacent surface is planted, substantially obstructed, or otherwise protected.
8. Additional information on curb ramp location, design, light reflective value and texture may be found in the latest draft of the Proposed Guidelines for Pedestrian Facilities in the Public Right of Way (PROWAG) as published by the U.S. Architectural and Transportation Barriers Compliance Board (Access Board).
9. To serve as a pedestrian refuge area, the median should be a minimum of 6' wide, measured from back of curbs. Medians should be designed to provide accessible passage over or through them.
10. Small channelization islands, which do not provide a minimum 5' x 5' landing at the top of curb ramps, shall be cut through level with the surface of the street.
11. Crosswalk dimensions, crosswalk markings and stop bar locations shall be as shown elsewhere in the plans. At intersections where crosswalk markings are not required, curb ramps shall align with theoretical crosswalks unless otherwise directed.
12. Provide curb ramps to connect the pedestrian access route at each pedestrian street crossing. Handrails are not required on curb ramps.
13. Curb ramps and landings shall be constructed and paid for in accordance with Item 531 "Sidewalks".
14. Place concrete at a minimum depth of 5" for ramps, flares and landings, unless otherwise directed.
15. Furnish and install No. 3 reinforcing steel bars at 18" o.c. both ways, unless otherwise directed.
16. Provide a smooth transition where the curb ramps connect to the street.
17. Curbs shown on sheet 1 within the limits of payment are considered part of the curb ramp for payment, whether it is concrete curb, gutter, or combined curb and gutter.
18. Existing features that comply with applicable standards may remain in place unless otherwise shown on the plans.

DETECTABLE WARNING MATERIAL

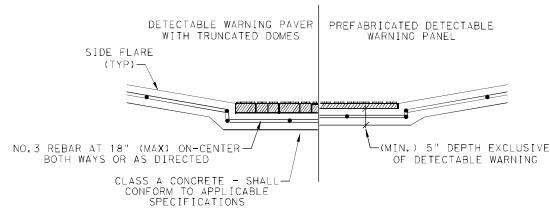
19. Curb ramps must contain a detectable warning surface that consists of raised truncated domes complying with PROWAG. The surface must contrast visually with adjoining surfaces, including side flares. Furnish and install an approved cast-in-place dark brown or dark red detectable warning surface material adjacent to uncolored concrete, unless specified elsewhere in the plans.
20. Detectable Warning Materials must meet TxDOT Departmental Materials Specification DMS 4350 and be listed on the Material Producer List. Install products in accordance with manufacturer's specifications.
21. Detectable warning surfaces must be firm, stable and slip resistant.
22. Detectable warning surfaces shall be a minimum of 24 inches in depth in the direction of pedestrian travel, and extend the full width of the curb ramp or landing where the pedestrian access route enters the street.
23. Detectable warning surfaces shall be located so that the edge nearest the curb line is at the back of curb and neither end of that edge is greater than 5 feet from the back of curb. Detectable warning surfaces may be curved along the corner radius.
24. Shaded areas on Sheet 1 of 4 indicate the approximate location for the detectable warning surface for each curb ramp type.

DETECTABLE WARNING PAVERS (IF USED)

25. Furnish detectable warning paver units meeting all requirements of ASTM C-936, C-33. Lay in a two by two unit basket weave pattern or as directed.
26. Lay full-size units first followed by closure units consisting of at least 25 percent (25%) of a full unit. Cut detectable warning paver units using a power saw.

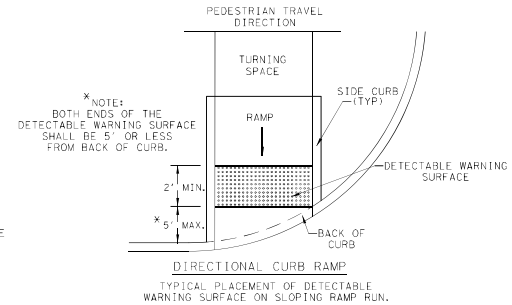
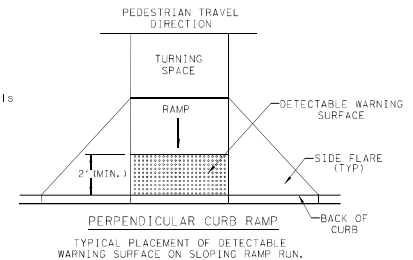
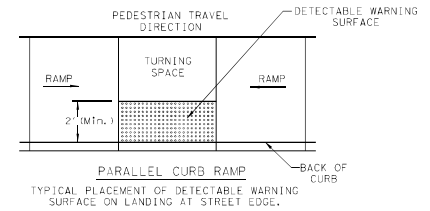
SIDEWALKS

27. Provide clear ground space at operable parts, including pedestrian push buttons. Operable parts shall be placed within unobstructed reach range specified in PROWAG section R406.
28. Place traffic signal or illumination poles, ground boxes, controller boxes, signs, drainage facilities and other items so as not to obstruct the pedestrian access route or clear ground space.
29. Street grades and cross slopes shall be as shown elsewhere in the plans.
30. Changes in level greater than 1/4 inch are not permitted.
31. The least possible grade should be used to maximize accessibility. The running slope of sidewalks and crosswalks within the public right of way may follow the grade of the parallel roadway. Where a continuous grade greater than five percent (5%) must be provided, handrails may be desirable to improve accessibility. Handrails may also be needed to protect pedestrians from potentially hazardous conditions. If provided, handrails shall comply with PROWAG R409.
32. Handrail extensions shall not protrude into the usable landing area or into intersecting pedestrian routes.
33. Driveways and turnouts shall be constructed and paid for in accordance with Item "Intersections, Driveways and Turnouts". Sidewalks shall be constructed and paid for in accordance with Item, "Sidewalks".
34. Sidewalk details are shown elsewhere in the plans.



SECTION VIEW DETAIL
CURB RAMP AT DETECTABLE WARNINGS

DETECTABLE WARNING SURFACE DETAILS



NO.	REVISIONS	DATE	NAME
1	ORIGINAL STANDARD ISSUED	2-1-22	RJS
2			
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FORT BEND COUNTY
ENGINEERING DEPARTMENT

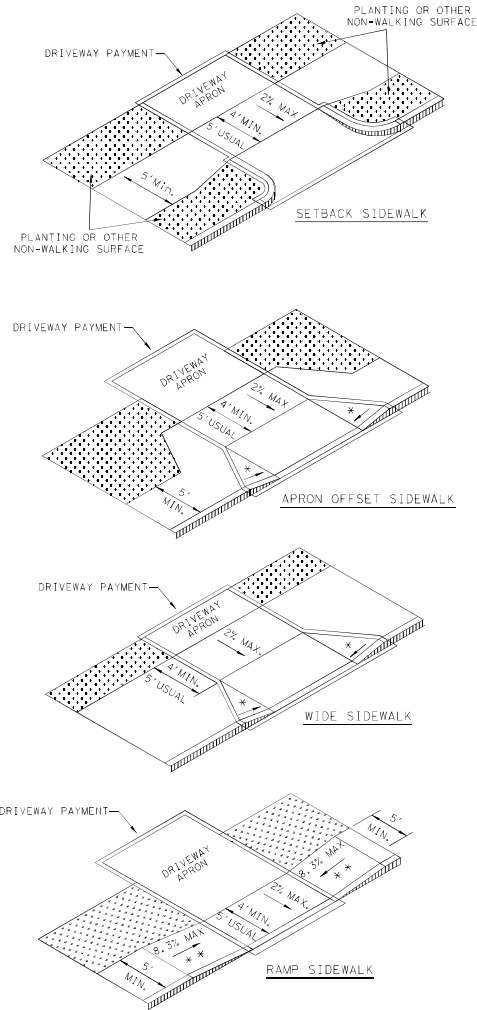


Chlorfield

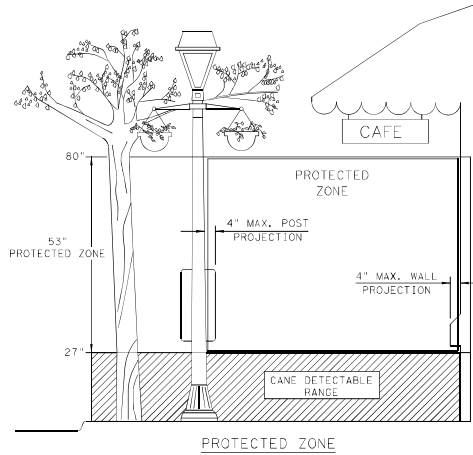
12/20/2024

PROJECT TITLE:	Millwood Paving and Drainage Repairs	
DRAWN BY:	INIT	FBCD STANDARD
CK'D BY:	INIT	15
SCALE:	1" = 1'	SHEET NO:
DATE:	2-1-22	/
APPROVED BY:	SHEET 2 OF 4	

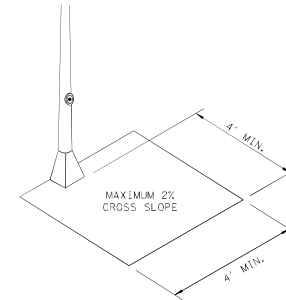
SIDEWALK TREATMENT AT DRIVEWAYS



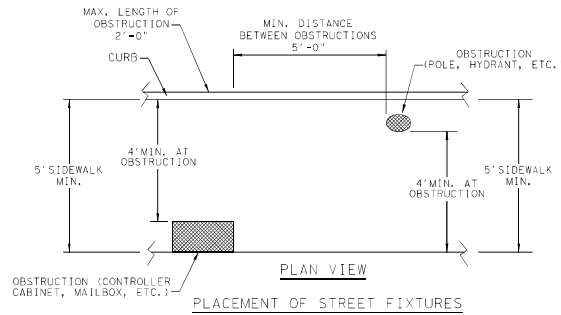
- NOTES:
- * WHERE DRIVEWAYS CROSS THE PEDESTRIAN ROUTE, SIDES SHALL BE FLARED AT 10% MAX SLOPE.
 - * IF CURB HEIGHT IS GREATER THAN 6 INCHES, USE GRADE LESS THAN OR EQUAL TO 5%. HANDRAIL AND DETECTABLE WARNING ARE NOT REQUIRED.



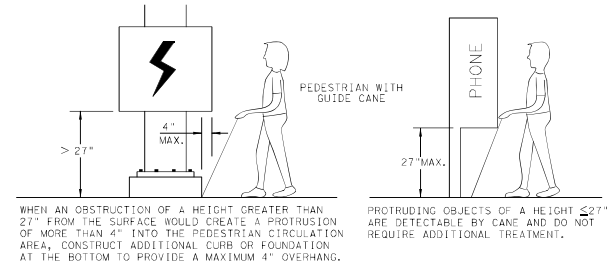
NOTE: IN PEDESTRIAN CIRCULATION AREA, MAXIMUM 4" PROJECTION FOR POST OR WALL MOUNTED OBJECTS BETWEEN 27" AND 80" ABOVE THE SURFACE.



CLEAR SPACE ADJACENT TO PEDESTRIAN PUSH BUTTON



NOTE: ITEMS NOT INTENDED FOR PUBLIC USE. MINIMUM 4' X 4' CLEAR GROUND SPACE REQUIRED AT PUBLIC USE FIXTURES.



DETECTION BARRIER FOR VERTICAL CLEARANCE < 80"

NO.	REVISIONS	DATE	NAME
1	ORIGINAL STANDARD ISSUED	2-1-22	RJS
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FORT BEND COUNTY
ENGINEERING DEPARTMENT

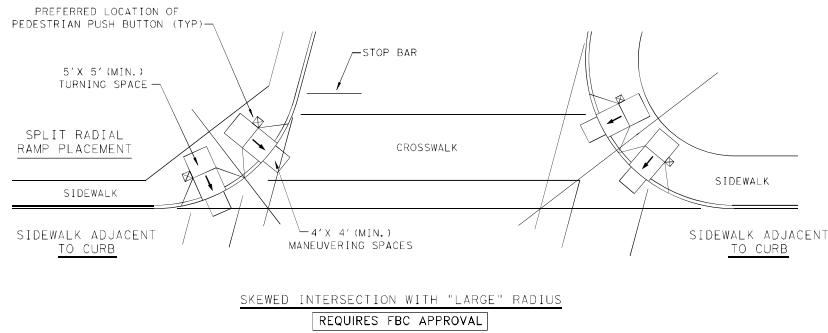


12/20/2024

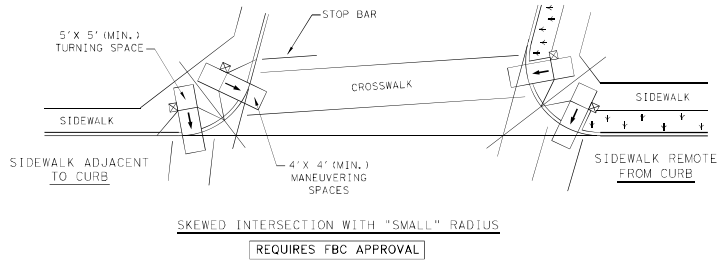
PROJECT TITLE: Millwood Paving and Drainage Repairs		
DRAWN BY: INIT	SHEET DESCRIPTION: PED-18 RAMP DETAILS	FBCD STANDARD: 16
CK'D BY: INIT		
SCALE: 1" = 1'	SHEET 3 OF 4	SHEET NO: /
DATE: 2-1-22	APPROVED BY:	

J:\1706A\1703\Standard Sheets\07 FBC PED-18 RAMP DETAILS\FED-18_RAMP_DETAILS.dwg

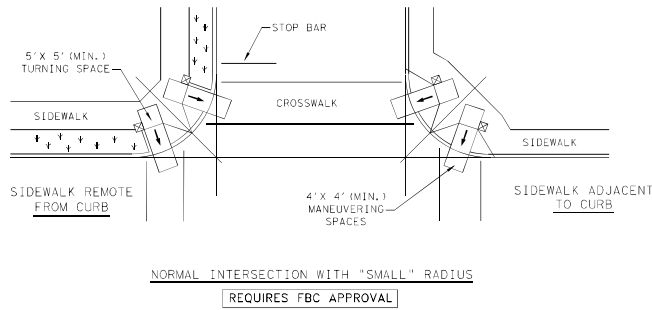
TYPICAL CROSSING LAYOUTS
SEE SHEET 1 OF 4 FOR DETAILS AND DIMENSIONS



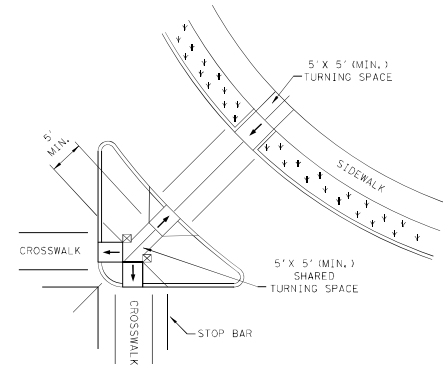
SKEWED INTERSECTION WITH "LARGE" RADIUS
REQUIRES FBC APPROVAL



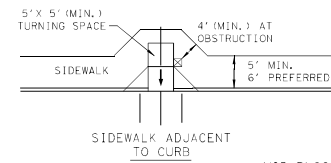
SKEWED INTERSECTION WITH "SMALL" RADIUS
REQUIRES FBC APPROVAL



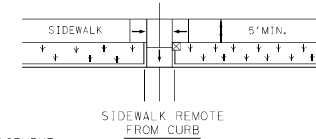
NORMAL INTERSECTION WITH "SMALL" RADIUS
REQUIRES FBC APPROVAL



AT INTERSECTION
W/FREE RIGHT TURN & ISLAND



MID-BLOCK PLACEMENT
PERPENDICULAR RAMP



LEGEND:

SHOWS DOWNWARD SLOPE. →

DENOTES PREFERRED LOCATION OF PEDESTRIAN PUSH BUTTON (IF APPLICABLE). ☒

DENOTES PLANTING OR NON-WALKING SURFACE NOT PART OF PEDESTRIAN CIRCULATION PATH. ~ ~ ~

C. Lee Hecht

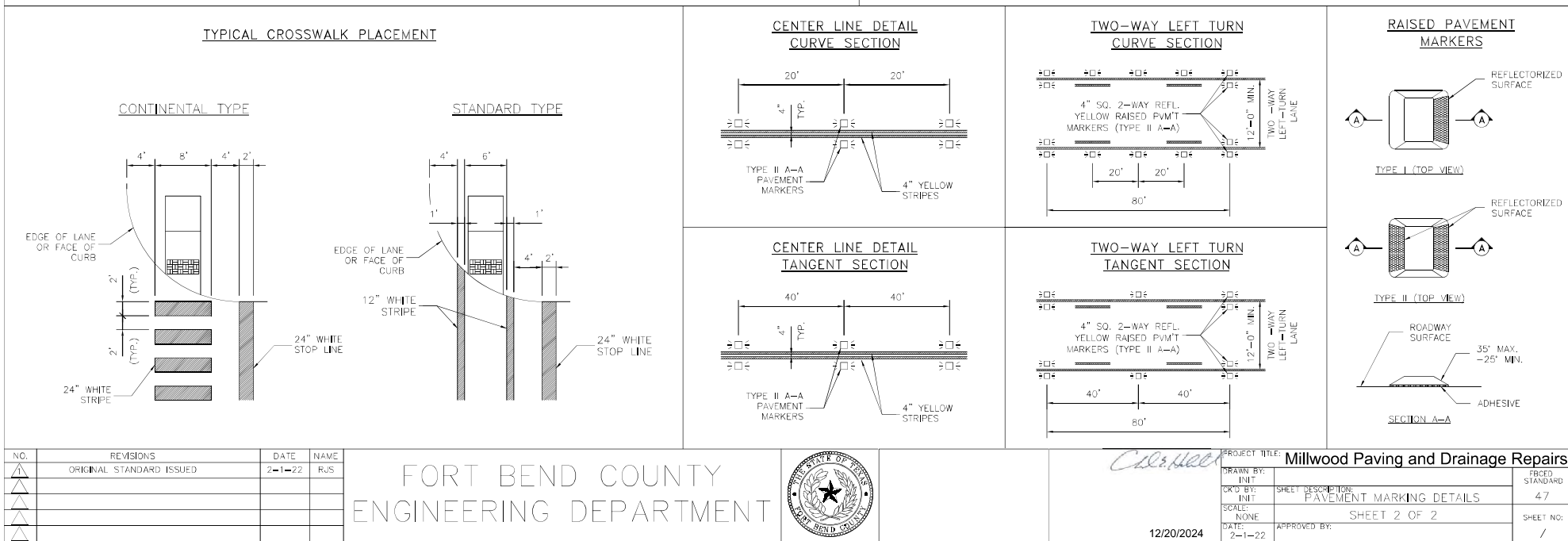
NO.	REVISIONS	DATE	NAME
1	ORIGINAL STANDARD ISSUED	2-1-22	RJS
2			
3			
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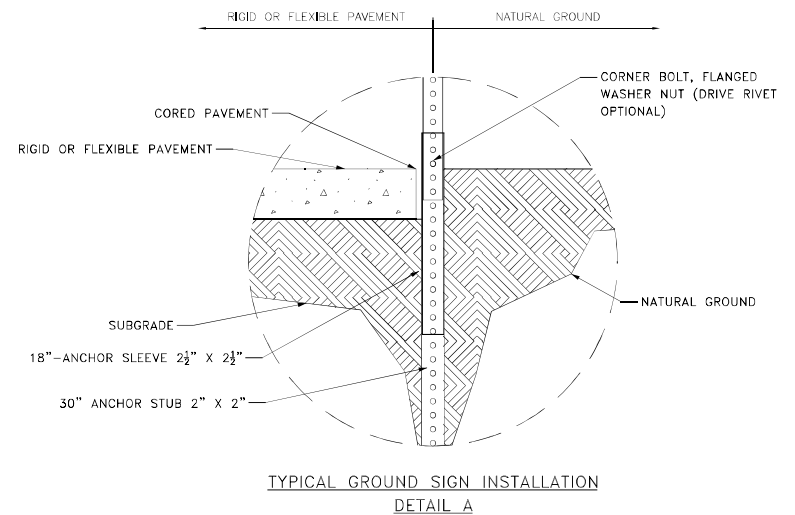
FORT BEND COUNTY
ENGINEERING DEPARTMENT



12/20/2024

PROJECT TITLE:	Millwood Paving and Drainage Repairs	
DRAWN BY:	INIT	FBCD STANDARD
CHK'D BY:	INIT	17
SCALE:	1" = 1'	SHEET NO:
DATE:	2-1-22	APPROVED BY:
		/





1. THE CROSS SECTION OF ALL MEMBERS SHALL BE SQUARE TUBE FORMED OF 12 GAUGE AND MANUFACTURED FROM HOT-GALVANIZED STEEL
2. THE TELESCOPE BREAKAWAY SYSTEM OR "SYSTEM" IS DEFINED AS FOLLOW:
 - A MINIMUM 30" ANCHOR STUB;
 - 18" ANCHOR SLEEVE.
3. DRIVE THE SYSTEM TOGETHER MAKING SURE THE HOLES ARE ALIGNED.
4. THE SYSTEM IS TO BE DRIVEN INTO NATURAL GROUND EXPOSED SUBGRADE UNTIL ONLY 1 TO 2 INCHES ARE LEFT EXPOSED.
5. ATTACH THE SIGN TO AN 1 3/4" SQUARE POST AT THE DESIRED HEIGHT, SUCH THAT IT MEETS THE MINIMUM VERTICAL CLEARANCE.
6. SIGNS ARE FASTENED TO THE POST BY USING DRIVE RIVETS OR BOLTS.
7. INSERT THE SIGN POST APPROXIMATELY 6 TO 8 INCHES INTO THE ANCHOR BASE.
8. BOLT THE SIGN POST TO THE ANCHOR ASSEMBLY WITH A CORNER BOLT.
9. WHEN INSTALLING IN RIGID OR FLEXIBLE PAVEMENT, USE A CORING MACHINE TO EXPOSE THE SUBGRADE MATERIAL AND INSTALL THE SYSTEM.

NO.	REVISIONS	DATE	NAME
1	ORIGINAL STANDARD ISSUED	2-1-22	RJS

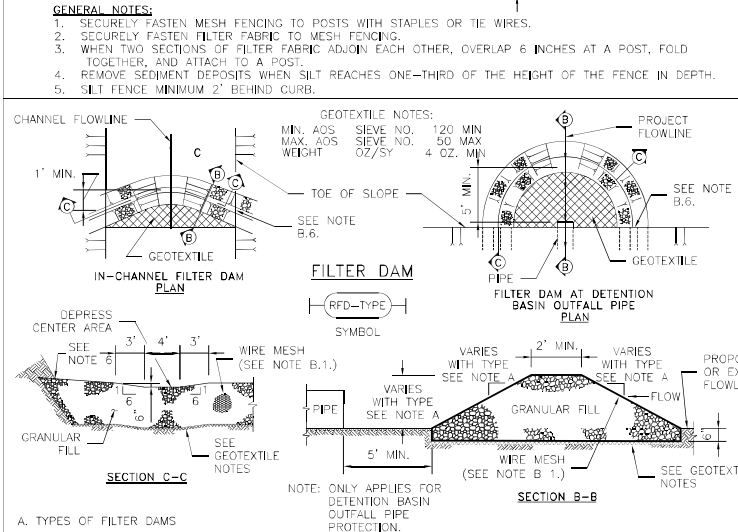
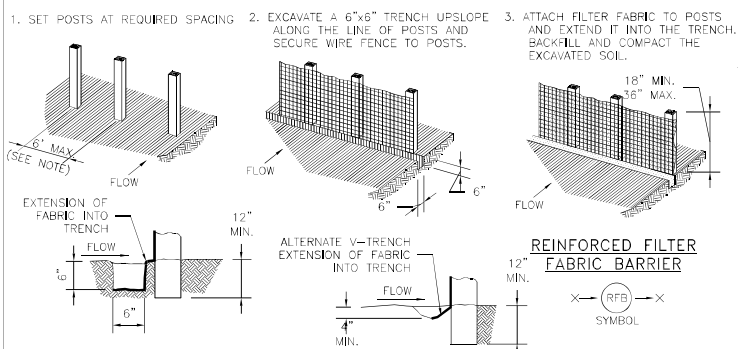
FORT BEND COUNTY
ENGINEERING DEPARTMENT



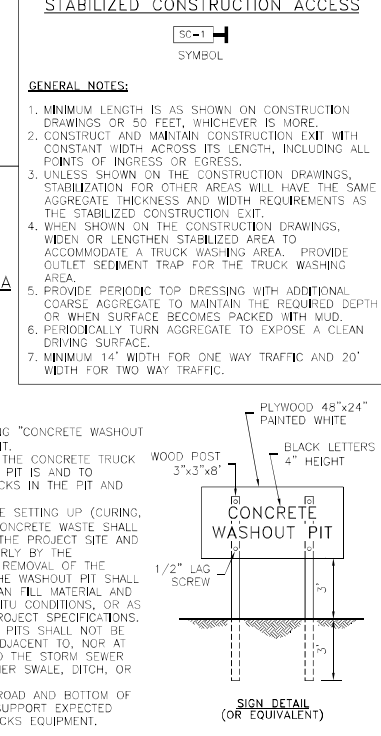
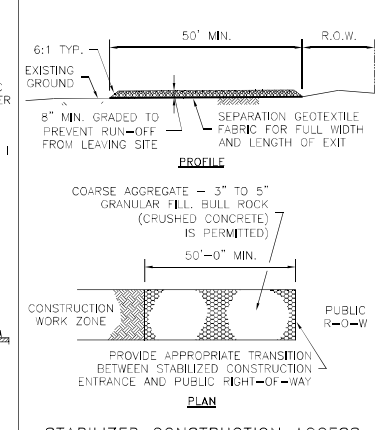
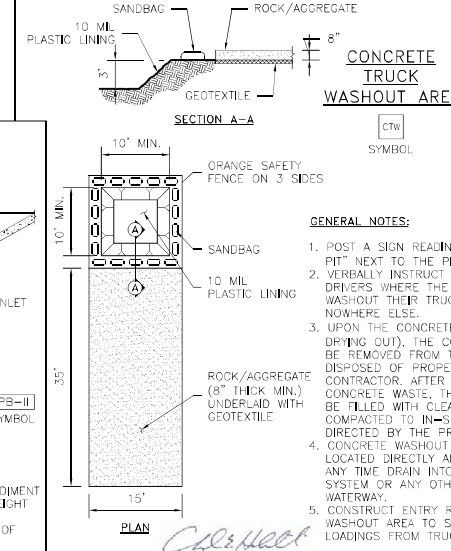
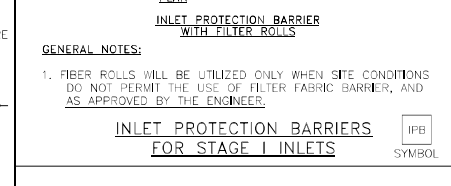
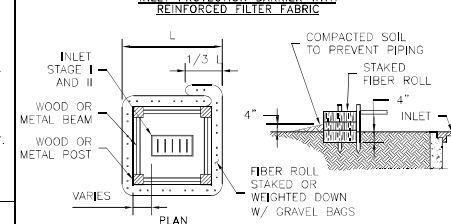
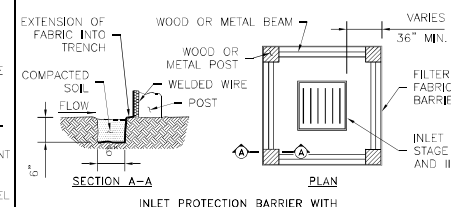
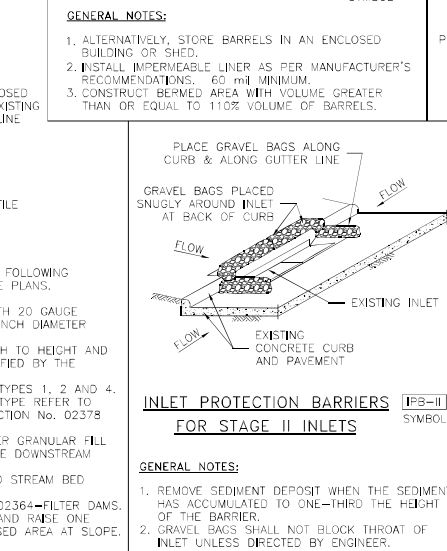
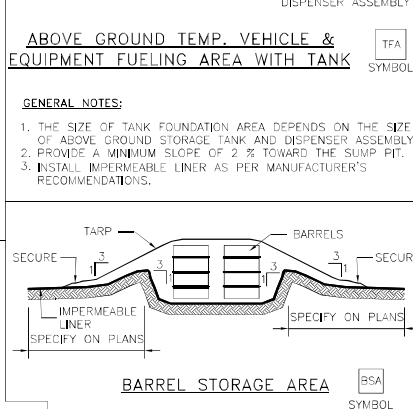
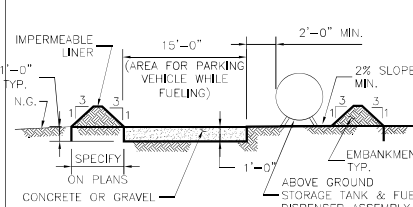
12/20/2024

PROJECT TITLE:	Millwood Paving and Drainage Repairs
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DRAWN BY: INIT		FBED STANDARD
CKD BY: INIT	SHEET DESCRIPTION: TYPICAL GROUND SIGN INSTALLATION	52
SCALE: AS NOTED		SHEET NO:
DATE: 2-1-22	APPROVED BY:	/



- A. TYPES OF FILTER DAMS
- TYPE 1 (NON-REINFORCED)
 - HEIGHT = 18-24 INCHES. MEASURE VERTICALLY FROM EXISTING GROUND TO TOP OF FILTER DAM.
 - TOP WIDTH = 2 FEET (MINIMUM).
 - SLOPES = 2:1 (MAXIMUM).
 - TYPE 2 (REINFORCED)
 - HEIGHT = 18-36 INCHES. MEASURE VERTICALLY FROM EXISTING GROUND TO TOP OF FILTER DAM.
 - TOP WIDTH = 2 FEET (MINIMUM).
 - SLOPES = 2:1 (MAXIMUM).
 - TYPE 3 (REINFORCED)
 - HEIGHT = 36-48 INCHES. MEASURE VERTICALLY FROM EXISTING GROUND TO TOP OF FILTER DAM.
 - TOP WIDTH = 2 FEET (MINIMUM).
 - SLOPES = 3:1 (MAXIMUM).
 - TYPE 4 (GABION)
 - HEIGHT = 30 INCHES (MINIMUM). MEASURE VERTICALLY FROM EXISTING GROUND TO TOP OF FILTER DAM.
 - TOP WIDTH = 2 FEET (MINIMUM).
 - SLOPES = 3:1 (MAXIMUM).
 - TYPE 5. AS SHOWN ON THE PLANS.
- B. CONSTRUCT FILTER DAMS ACCORDING TO THE FOLLOWING CRITERIA UNLESS SHOWN OTHERWISE ON THE PLANS.
- TYPE 2 AND 3 FILTER DAMS: SECURE WITH 20 GAUGE GALVANIZED WOVEN WIRE MESH WITH 1 INCH DIAMETER HEXAGONAL OPENINGS.
 - PLACE GRANULAR FILL ON THE WIRE MESH TO HEIGHT AND SLOPES SHOWN ON PLANS OR AS SPECIFIED BY THE ENGINEER.
 - 3-5 INCHES FOR ROCK FILTER DAM TYPES 1, 2 AND 4.
 - 4-8 INCHES FOR ROCK FILTER DAM TYPE REFER TO GRANULAR FILL IN SPECIFICATION SECTION NO. 02378 RIPRAP AND GRANULAR FILL.
 - FOLD WIRE MESH AT UPSTREAM SIDE OVER GRANULAR FILL AND TIGHTLY SECURED TO ITSELF ON THE DOWNSTREAM SIDE USING WIRE TIES OR HOC RINGS.
 - IN STREAMS: SECURE OR STAKE MESH TO STREAM BED PRIOR TO AGGREGATE PLACEMENT.
 - SEE HCFCD SPECIFICATION SECTION NO. 02364-FILTER DAMS.
 - EMBED ONE FOOT MINIMUM INTO SLOPE AND RAISE ONE FOOT HIGHER THAN CENTER OF DEPRESSED AREA AT SLOPE.



NO.	REVISIONS	DATE	NAME
1	ORIGINAL STANDARD ISSUED	2-1-22	RJS
2			
3			
4			
5			

FORT BEND COUNTY
ENGINEERING DEPARTMENT



PROJECT TITLE	Millwood Paving and Drainage Repairs	
DRAWN BY:	INIT	FBCE STANDARD
CHK BY:	INIT	54
SCALE:	NONE	SHEET NO:
DATE:	2-1-22	APPROVED BY:
		/

12/20/2024

EXHIBIT 4

(Follows Behind)

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Appendix**

APPENDIX**APPENDIX X - STREET ACCEPTANCE GUIDELINES**

This guidance document is prepared for use by Fort Bend County (FBC) staff, Developers, Engineers, and Contractors to provide understanding and clarity of County pavement requirements for acceptance of public roadways into County Maintenance. The General Acceptance Procedures can be found in the FBC Regulations of Subdivisions, Section 6 – Acceptance of Improvements within Subdivisions. This document provides guidance in determining if concrete pavement can be repaired and when it is necessary to replace.

Compliance with contract documents is required. Development within unincorporated FBC shall use Harris County specifications (Item 360 & 361 for Concrete Pavement). Development within City limits or extraterritorial jurisdiction shall use that City's specifications.

Engineer of Record or their designee shall notify County Engineer or their designee via email of deficiencies that are not within the specification limits as soon as the deficiency becomes known but in no case more than 24 hours after the construction activity. Examples include proof rolling, subgrade density, and concrete placement. **These guidelines do not relieve the developer, engineer, or contractor from adhering to applicable specifications and standards.**

Membrane curing compound shall be applied as soon as the surface water disappears in compliance with the manufacturer's recommendations. Sawing shall take place when concrete strength is acceptable for sawing and in compliance with the specifications without creating excessive raveling along the sawcut.

The following elements are covered in this document:

- Pavement cracking
- Bird Baths
- Construction practices that contribute to pavement failure

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APPENDIX**Concrete Pavement Cracking**

Visible cracks with no measureable width and no surface deflection are acceptable (e.g. shrinkage cracks).

Cracks less than or equal to 1/8" wide for less than 50% of the length of the crack may be sealed with a super low viscosity epoxy (gravity fed) sealant or approved alternative. Crack preparation and application of sealant will be in accordance with manufacturer's recommendations.

Cracks greater than 1/8" for more than 50% of the length of the crack must be removed and replaced.

Cracks within 12" of control or expansion joints must be removed and replaced.

Cracks with a difference in elevation (e.g. surface deflection or joint fault) greater than 1/8" must be removed and replaced.

Spalled concrete pavement must be removed and replaced.

Concrete Removal and Replacement

Minimum pavement removal area will be minimum 6-feet long and the full-lane width in accordance with Harris County Item 361 - Full Depth Repair of Concrete Pavement which states;

The minimum dimensions for full depth concrete pavement repair are one lane-width, and not less than 6 feet long. Repair areas smaller than the minimum will show excessive "rocking" against the adjoining concrete pavement sections. Likewise, the minimum remainder of the slab shall be at least 6 feet (to the end of slab or next repair area).

Evaluation of Subgrade

After pavement removal and before placement of concrete, the subgrade and the material beneath the subgrade must be evaluated by a certified testing laboratory to determine the material is suitably stable. Provide lab report for density, moisture, lime depth, and other related analysis of subgrade to FBC. Lab reports shall be sealed by a Texas licensed Professional Engineer and include recommendations for over-excavation of subgrade material, subgrade treatment, or other mitigation needed to address pavement cracking issues.

If the lab analysis recommends the subgrade be removed, new subgrade shall be Cement Stabilized Sand (2 sack/cy, compacted) or as recommended by the lab report, whichever is more stringent.

Concrete Slump, Temperature and Placement Time

Harris County Item 360 - Concrete Pavement, states;

Unless otherwise permitted, the concrete mix design shall be proportioned to provide a slump between 1 and 6 inches.

Any slump in excess of 6" will require the entire load of concrete (typically 10 yards) to be removed and replaced. A 10 cubic yard truck is equivalent to 60 square yards (SY) of 6" thick pavement, 52 SY of 7" thick pavement, or 45 SY of 8" thick pavement.

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Harris County Item 360.6 states, “*A slump test will be made for each sample of concrete obtained, or when slumps appear to be outside specification requirements.*” Therefore, when a slump is in excess of 6”, the CMT technician must perform a slump test on every subsequent truck until the slump is within specification.

Concrete temperature and placement time must be in accordance with the project specifications. Concrete temperature in excess of 100°F shall be rejected. Concrete discharged more than 90 minutes after batch time shall be rejected.

Concrete not meeting these specifications must be removed and replaced. If the pavement is otherwise undamaged (no cracking), the contractor has the option to reimburse Fort Bend County 25% of the cost of removal and replacement. The cost will be determined using the current FBC on-call contract unit prices. Funds will be placed in a Road & Bridge account to fund concrete repair contracts.

Mix designs containing admixtures which may modify the slump, temperature and/or placement time must be submitted and approved by FBC prior to use. For example, Harris County Item 421.6 states, “*If High Range Water-Reducing admixture is used, maximum acceptable placement slump shall be 9 inches.*”

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Appendix**APPENDIX****Bird Baths**

The following images are of bird baths that would require correction. Correction may be pavement removal and replacement, light grinding, lifting, or removal of obstruction (i.e. joint sealant). The extent of pavement removal will be determined in the field with FBC Engineering staff based on location of bird bath, joints, cracks, inlets, or other items.

Light grinding may be done within 6 inches of the curb and no more than 1/2 inch in depth. Grind must be “feathered” so as not to create an edge.



Image 1 - Bird bath extends into driving lane; corrective measures required.



Image 2 - Bird bath has significant length and depth. Lifting, light grinding, or removal of joint sealant obstruction may be acceptable based on field conditions. Grinding shall be limited to 15' either side of the expansion joint.

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Image 3 - Bird bath has significant length, width, and depth. Lifting or pavement replacement is required. If the lifted pavement cracks then use Concrete Pavement Cracking Evaluation Criteria included in this document.



Image 4 - Bird baths which are relatively small in length, width, and depth do not require pavement replacement or lifting. Allowable width is approximately 12 inches.

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Appendix**APPENDIX****Construction Practices That Contribute To Pavement Failure**

The information below is to assist developers, engineers, contractors, and inspectors on identifying conditions that may lead to inadequate pavement structures and costly pavement replacement upon construction completion.

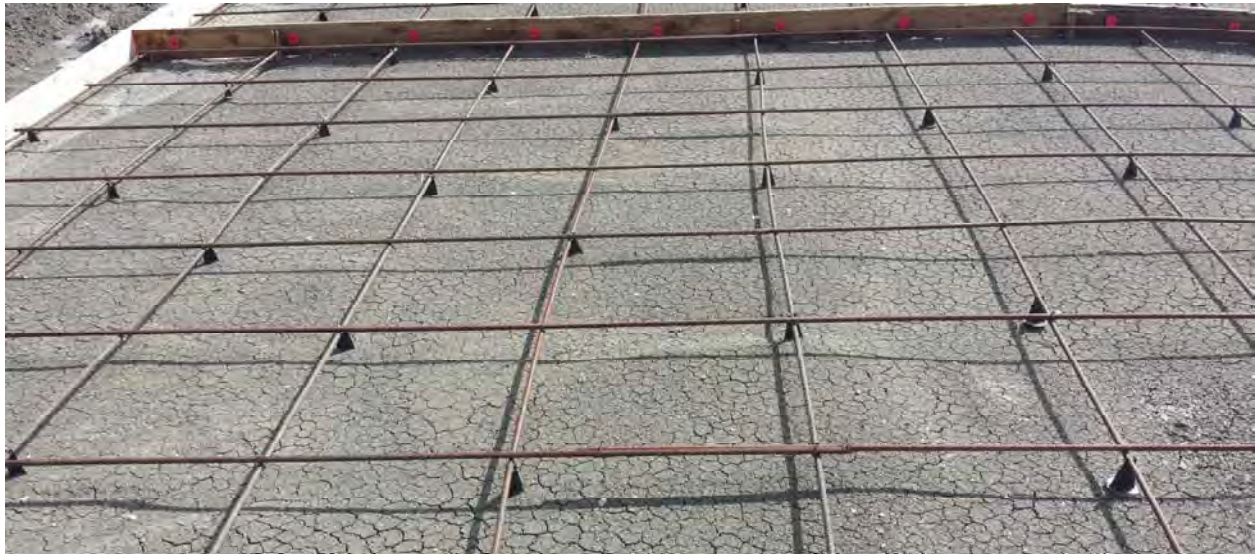


Image 5 - Subgrade is too dry.



Image 6 - Subgrade is too dry.

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Image 7 - Possible deficiencies in subgrade and base include: Inadequate proof rolling or improper mixing of lime for subgrade, not extending lime mixture to edges of proposed limits of the stabilized subgrade, calculating lime for a 6 inch subgrade and mixing it 8 or more inches deep.



Image 8 - Concrete under headers at expansion joints does not allow expansion to occur correctly.

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Image 9 - Misaligned dowels may cause spalling near the joint.



Image 10 - Misaligned dowels may cause spalling near the joint.

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Image 11 - Membrane curing compound not applied to pavement



Image 12 - Inadequate curing compound

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Image 13 - Silt fence or irrigation is placed directly behind curb cuts through subgrade and impacts lateral support.



Image 14 - Excavation under or near pavement

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Image 15 - Not saw cutting within specified time (photo shows 4 day old concrete with no sawcuts)



Image 16 - Equipment operating on pavement with inadequate cure time.

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Image 17 - Driveway cut with water sitting weakens the subgrade



Image 18 – Private utility excavation beneath pavement

CERTIFICATE OF INTERESTED PARTIES

FORM 1295

1 of 1

Complete Nos. 1 - 4 and 6 if there are interested parties.
Complete Nos. 1, 2, 3, 5, and 6 if there are no interested parties.

OFFICE USE ONLY CERTIFICATION OF FILING

1 Name of business entity filing form, and the city, state and country of the business entity's place of business.

Herrin Ranch Development II, Inc.
Sugar Land, TX United States

Certificate Number:
2025-1306225

Date Filed:
05/07/2025

Date Acknowledged:
05/14/2025

2 Name of governmental entity or state agency that is a party to the contract for which the form is being filed.

Fort Bend County

3 Provide the identification number used by the governmental entity or state agency to track or identify the contract, and provide a description of the services, goods, or other property to be provided under the contract.

05132025
Joint Participation Agreement

4	Name of Interested Party	City, State, Country (place of business)	Nature of interest (check applicable)	
			Controlling	Intermediary
	Wong, Lawrence	Sugar Land, TX United States	X	
	Johnson, Suzanne	Houston, TX United States	X	
	Johnson Marital Trust	Houston, TX United States	X	
	Lai, Rocky	Houston, TX United States	X	

5 Check only if there is NO Interested Party.

☐

6 UNSWORN DECLARATION

My name is _____, and my date of birth is _____.

My address is _____, _____, _____, _____, _____.
(street) (city) (state) (zip code) (country)

I declare under penalty of perjury that the foregoing is true and correct.

Executed in _____ County, State of _____, on the _____ day of _____, 20____.
(month) (year)

Signature of authorized agent of contracting business entity
(Declarant)