

WILLIAMSON COUNTY, TEXAS

CHANGE ORDER NUMBER: 6

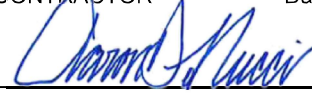
1. CONTRACTOR: DeNucci Constructors
2. Change Order Work Limits: Sta. 15+50 to Sta. 16+50
3. Type of Change(on federal-aid non-exempt projects): Minor (Major/Minor)
4. Reasons: 2G (3 Max. - In order of importance - Primary first)

Project:	<u>Great Oaks Dr. Improvements</u>
Roadway:	<u>Great Oaks Dr. @ Brushy Creek</u>
CSJ Number:	<u>T4327</u>

5. Describe the work being revised:

2G. Miscellaneous difference in site conditions. Unadjusted utility (unforeseeable). This Change Order adds an item to pay for the redesigned Panel 7 at Wall 1A due to BCMUD water line elevations differing from that shown in the plans. This Change Order also adds an item to pay for the reinforcing steel previously ordered and delivered to the project for the original design of Panel 7 at Wall 1A. In addition, this Change Order reduces the original item 423-6005 RETAINING WALL (SPREAD FOOTING) due to this change.

6. Work to be performed in accordance with Items: See Attached
7. New or revised plan sheet(s) are attached and numbered: 244, 245, 266A, 266B
8. New Special Provisions/Specifications to the contract are attached: ☐ Yes ☒ No
9. New Special Provisions to Item N/A No. N/A, Special Specification Item N/A are attached.
- Each signatory hereby warrants that each has the authority to execute this Change Order (CO).

<p><i>The contractor must sign the Change Order and, by doing so, agrees to waive any and all claims for additional compensation due to any and all other expenses; additional changes for time, overhead and profit; or loss of compensation as a result of this change.</i></p> <p>THE CONTRACTOR Date <u>6/23/23</u></p> <p>By <u></u></p> <p>Typed/Printed Name <u>Aaron DeNucci</u></p> <p>Typed/Printed Title <u>Project Manager</u></p>	<p>The following information must be provided</p> <p>Time Ext. #: <u>N/A</u> Days added on this CO: <u>0</u></p> <p>Amount added by this change order: <u>\$65,607.52</u></p>
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RECOMMENDED FOR EXECUTION:

 6/26/2023
Project Manager Date

N/A
Design Engineer Date

 6/26/2023
Program Manager Date

Design Engineer's Seal:

County Commissioner Precinct 1 Date
☐ APPROVED ☐ REQUEST APPROVAL

County Commissioner Precinct 2 Date
☐ APPROVED ☐ REQUEST APPROVAL

Valerie Covey Jul 11, 2023

County Commissioner Precinct 3 Date
☐ APPROVED ☐ REQUEST APPROVAL

County Commissioner Precinct 4 Date
☐ APPROVED ☐ REQUEST APPROVAL

County Judge Date
☐ APPROVED

WILLIAMSON COUNTY, TEXAS

CHANGE ORDER NUMBER: 6

Project # Great Oaks Dr. Improvements

TABLE A: Force Account Work and Materials Placed into Stock[illegible]**TABLE B: Contract Items:**

				ORIGINAL + PREVIOUSLY REVISED		ADD or (DEDUCT)	NEW		
ITEM	DESCRIPTION	UNIT	UNIT PRICE	QUANTITY	ITEM COST	QUANTITY	QUANTITY	ITEM COST	OVERRUN/ UNDERRUN
423-6005	RETAINING WALL (SPREAD FOOTING)	SF	\$60.00	5,717.00	\$343,020.00	(384.00)	5,333.00	\$319,980.00	(\$23,040.00)
423-WC01	RETAINING WALL (SPREAD FOOTING) PANEL 7	SF	\$223.21	0.00	\$0.00	384.00	384.00	\$85,712.64	\$85,712.64
440-WC01	ORIGINAL WALL 1A-PANEL 7 REINFORCEMENT	LB	\$0.83	0.00	\$0.00	3,536.00	3,536.00	\$2,934.88	\$2,934.88
TOTALS					\$343,020.00			\$408,627.52	\$65,607.52

CHANGE ORDER REASON(S) CODE CHART

1. Design Error or Omission	1A. Incorrect PS&E 1B. Other
2. Differing Site Conditions (unforeseeable)	2A. Dispute resolution (expense caused by conditions and/or resulting delay) 2B. Unavailable material 2C. New development (conditions changing after PS&E completed) 2D. Environmental remediation 2E. Miscellaneous difference in site conditions (unforeseeable)(Item 9) 2F. Site conditions altered by an act of nature 2G. Unadjusted utility (unforeseeable) 2H. Unacquired Right-of-Way (unforeseeable) 2I. Additional safety needs (unforeseeable) 2J. Other
3. County Convenience	3A. Dispute resolution (not resulting from error in plans or differing site conditions) 3B. Public relations improvement 3C. Implementation of a Value Engineering finding 3D. Achievement of an early project completion 3E. Reduction of future maintenance 3F. Additional work desired by the County 3G. Compliance requirements of new laws and/or policies 3H. Cost savings opportunity discovered during construction 3I. Implementation of improved technology or better process 3J. Price adjustment on finished work (price reduced in exchange for acceptance) 3K. Addition of stock account or material supplied by state provision 3L. Revising safety work/measures desired by the County 3M. Other
4. Third Party Accommodation	4A. Failure of a third party to meet commitment 4B. Third party requested work 4C. Compliance requirements of new laws and/or policies (impacting third party) 4D. Other
5. Contractor Convenience	5A. Contractor exercises option to change the traffic control plan 5B. Contractor requested change in the sequence and/or method of work 5C. Payment for Partnering workshop 5D. Additional safety work/measures desired by the contractor 5E. Other
6. Untimely ROW/Utilities	6A. Right-of-Way not clear (third party responsibility for ROW) 6B. Right-of-Way not clear (County responsibility for ROW) 6C. Utilities not clear 6D. Other

Williamson County Road Bond Program

Great Oaks Drive Improvements Williamson County Project No. T4327

Change Order No.6

Reason for Change

This Change Order adds a new pay item for the redesigned Panel 7 at Retaining Wall 1A, due to the BCMUD water lines differing from the project plans. This Change Order also adds a new pay item to pay for the reinforcing steel previously ordered and delivered to the project for the original design of Panel 7. In addition, the original retaining wall item will be reduced according to this change.

The following new items will be added by this Change Order.

ITEM	DESCRIPTION	QUANTITY	UNIT
423-WC01	RETAINING WALL (SPREAD FOOTING) PANEL 7	384	SF
440-WC01	ORIGINAL WALL 1A-PANEL 7 REINFORCEMENT	3,536	LB

This Change Order results in a net increase of \$65,607.52 to the Contract amount, for an adjusted Contract total of \$10,818,542.93. The original Contract amount was \$10,580,634.11. As a result of this and all Change Orders to-date, \$237,908.82 has been added to the Contract, resulting in a 2.25% net increase in the overall Contract cost. No time will be added to the Contract for this Change Order at this time.

HNTB Corporation

Oscar Salazar-Bueno, P.E.

CHANGE ORDER PROPOSAL

Contractor:DeNucci Constructors, LLC.

Project Name:T4327 Great Oaks Dr Improvements at Brushy Creek

Change Order Proposal Number:12.1Date:6/9/2023

Description: Breakdown showing labor, material, equipment used to construct revised RW 1-A Panel 7. Excavation began on 5/8 using 329, 304, 299, trash pump. Footer began on 5/11, half was poured on 5/12, the remainder poured the following week 5/15. Flowable fill, panel construction, thickened frame, riprap followed. Panel was poured on 5/24, wrecked on 5/26. CRCP parking lot had to be poured in one additional pour due to panel 7 delays, resulting in an additional pump expense.

Labor:

Position	Quantity	OT	Unit	HR Rate	OT Rate	Total
Concrete Foreman (AR)	100	0	HR	\$26.50	\$39.75	\$2,650.00
Concrete Laborer (ZLG)	100	0	HR	\$25.00	\$37.50	\$2,500.00
Concrete Laborer (APV)	100	0	HR	\$24.50	\$36.75	\$2,450.00
Concrete Laborer (IPH)	100	0	HR	\$22.00	\$33.00	\$2,200.00
Concrete Laborer (MPR)	30	0	HR	\$24.50	\$36.75	\$735.00
Concrete Laborer (LHC)	30	0	HR	\$22.00	\$33.00	\$660.00
Excavation Foreman (NC)	50	0	HR	\$60.00	\$90.00	\$3,000.00
Excavation Operator (MRC)	60	0	HR	\$24.50	\$36.75	\$1,470.00
Excavation Laborer (EG)	60	0	HR	\$22.00	\$33.00	\$1,320.00
Excavation Laborer (LFV)	60	0	HR	\$21.00	\$31.50	\$1,260.00
		0	HR	\$0.00	\$0.00	\$0.00
		0	HR	\$0.00	\$0.00	\$0.00
Subtotal						\$18,245.00

Material

Description	Quantity	Unit	Rate	Total
Revised 32.1 Panel 7 Steel	1	LS	\$9,131.15	\$9,131.15
Lauren TXDOTC Concrete	50.2	CY	\$142.10	\$7,133.42
Lauren TXDOTA Concrete (thrust block)	6	CY	\$139.10	\$834.60
Form Wood, Accessories	1	LS	\$3,563.47	\$3,563.47
Lauren TXDOT CLSM	110	CY	\$109.60	\$12,056.00
UR Road Plates	1	LS	\$1,818.97	\$1,818.97
Rivet Buster + Air Compressor	1	LS	\$314.60	\$314.60
Capital Pumping (additional)	1	LS	\$1,703.44	\$1,703.44
Subtotal				\$36,555.65

Subcontractors/Vendors:

Description	Quantity	Unit	Rate	Total
GK Steel Tying	1	LS	\$3,566.40	\$3,566.40
Subtotal				\$3,566.40

Unit Pricing

Description	Quantity	Unit	Price	Total
				\$0.00
				\$0.00
				\$0.00
				\$0.00
				\$0.00
				\$0.00
				\$0.00
				\$0.00
				\$0.00
Subtotal				\$0.00

Equipment:

Description	Quantity	Unit	Operating Cost/Day	FHWA	Total
Trash Pump	10	DAY		\$204.00	\$2,040.00
CAT 329 Excavator + Hammer	18	HR		\$163.45	\$2,942.10
CAT 304 Mini Excavator + Hammer	24	HR		\$56.27	\$1,350.48
CAT 299 Skid Steer	13	HR		\$105.79	\$1,375.27
	0	HR		\$0.00	\$0.00
Subtotal					\$7,707.85

Labor		\$18,245.00
Labor Burden	55%	\$10,034.75
Labor P & O	15%	\$2,736.75
Material		\$36,555.65
Material P & O	15%	\$5,483.35
Subcontractor		\$3,566.40
Subcontractor P & O	15%	\$534.96
Bid Item		\$0.00
Equipment	15%	\$7,707.85
Bond	1%	\$848.65
TOTAL		\$85,713.36

Additional days requested: TBD

85,713.36/384=223.21.
\$223.21x384=\$85,712.64.
Total=\$223.21 per SF

CHANGE ORDER PROPOSAL

Contractor: DeNucci Constructors, LLC.

Project Name: T4327 Great Oaks Dr Improvements at Brushy Creek

Change Order Proposal Number: 11.2 Date: 6/1/2023

Description: Payment for original material not used due to RFI #32.1. ~~Payment for original material not used due to RFI #21 (Original Item \$16,500 - Original Cost \$9,222 = \$7,278 margin. New Item \$17,669.98 - New Cost (\$9,222+\$9,552) = -\$1,105 resulting in a credit to DC of \$8,382.02). Price proposal for additional/new scope of work to relocate existing LP, (existing items to be used for conc. removal, conduit, wire etc, ground box etc.)~~

Labor:	Position	Quantity	OT	Unit	HR Rate	OT Rate	Total
		0	0	HR	\$51.50	\$77.25	\$0.00
		0	0	HR	\$22.00	\$33.00	\$0.00
		0	0	HR	\$24.50	\$36.75	\$0.00
		0	0	HR	\$21.00	\$31.50	\$0.00
		0	0	HR	\$20.00	\$30.00	\$0.00
		0	0	HR	\$20.50	\$30.75	\$0.00
		0	0	HR	\$21.00	\$31.50	\$0.00
		0	0	HR	\$24.50	\$36.75	\$0.00
						Subtotal	\$0.00

Material	Description	Quantity	Unit	Rate	Total
	RW 1-A Original Panel 7 Rebar	3536	LB	\$0.72	\$2,545.92
	Traffic Signal Upright Only	1	EA	\$8,382.02	\$8,382.02
					\$0.00
					\$0.00
					\$0.00
					\$0.00
				Subtotal	\$10,927.94

Subcontractors/Vendors:	Description						Total
							\$0.00
	Subtotal						\$0.00

[illegible]

Equipment:	Description	Quantity	Unit	Operating Cost/Day	FHWA	Total
		0	HR		\$0.00	\$0.00
		0	HR		\$0.00	\$0.00
		0	HR		\$0.00	\$0.00
		0	HR		\$0.00	\$0.00
		0	DAY		\$0.00	\$0.00
		0	HR		\$0.00	\$0.00
					Subtotal	\$0.00

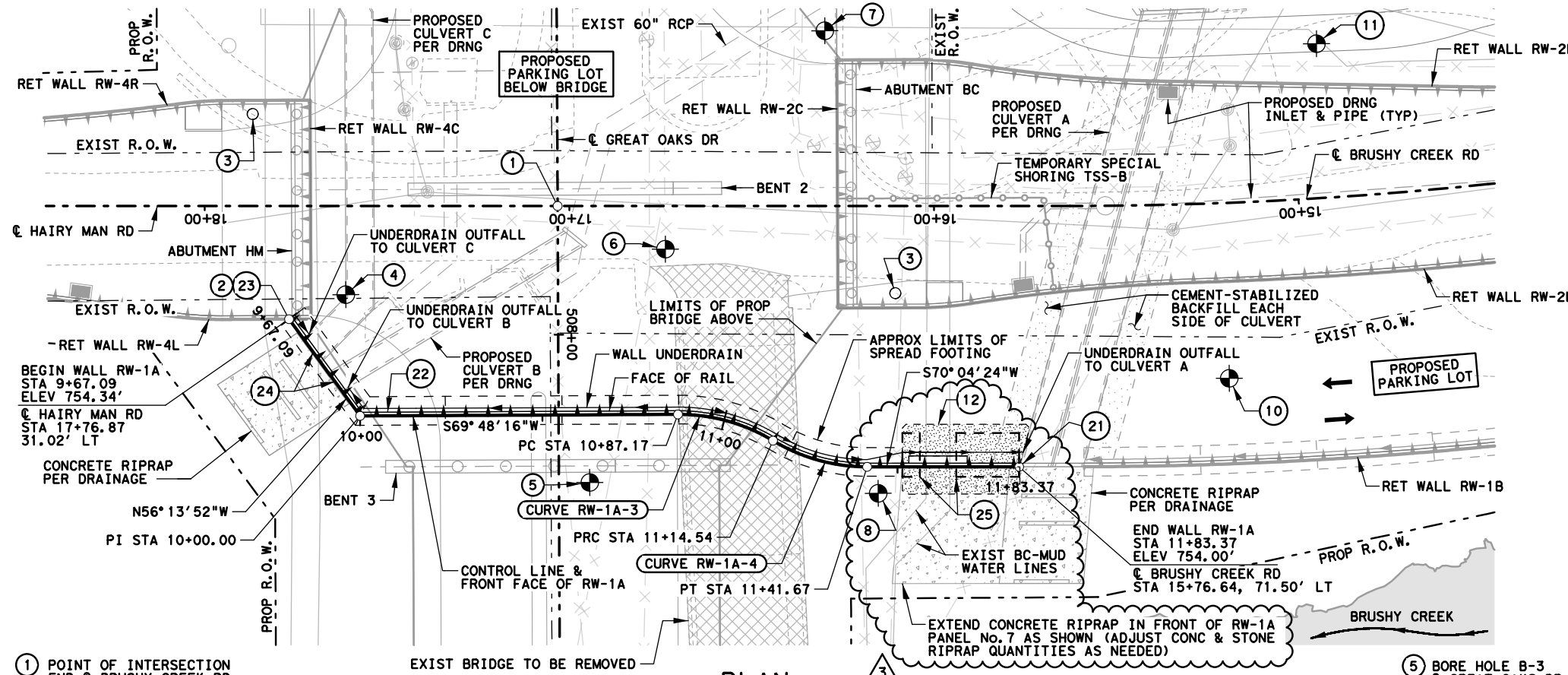
Labor		\$0.00	
Labor Burden	55%	\$0.00	
Labor P & O	15%	\$0.00	
Material		\$10,927.94	\$ 3,545.92
Material P & O	15%	\$1,839.19	381.88
Subcontractor		\$0.00	
Subcontractor P & O	15%	\$0.00	
Bid Item		\$0.00	
Equipment	15%	\$0.00	
Bond	1%	\$125.67	29.28
TOTAL		<u><u>\$12,692.80</u></u>	2,957.08

Additional days requested: TBD

$\div 3536 \text{ LB}$

$\$0.83 \text{ LB} \times 3536 \text{ LB} = \$2,934.88$

$\$0.83 / \text{LB}$



1 POINT OF INTERSECTION
END @ BRUSHY CREEK RD
BEGIN @ HAIRY MAN RD
@ GREAT OAKS DR 507+64.72
@ BRUSHY CREEK RD 17+03.22
@ HAIRY MAN RD 17+03.22

2 POINT OF INTERSECTION
RW-4L STA 14+23.07
RW-1A STA 9+67.09

PLAN

3 DRILLED SHAFT FOR TRAFFIC
POLE TO BE INSTALLED PRIOR
TO WALL CONSTRUCTION - SEE
SIGNAL LAYOUT

4 BORE HOLE B-109
@ HAIRY MAN RD
STA 17+61.32
24.31' LT

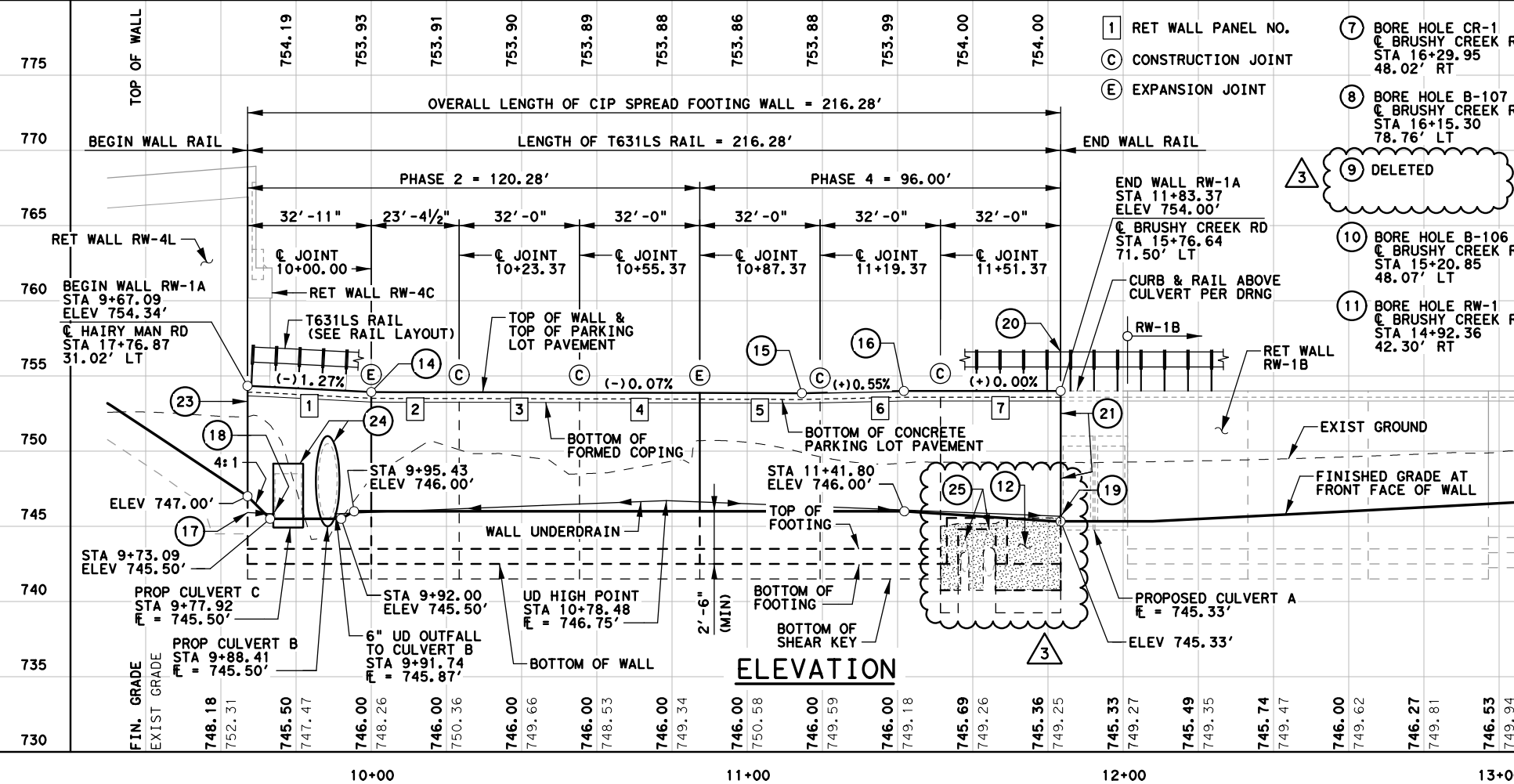
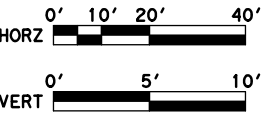
5 BORE HOLE B-3
@ GREAT OAKS DR
STA 508+40.54
8.46' LT

6 BORE HOLE B-108
@ BRUSHY CREEK RD
STA 16+73.67
11.84' LT

3 REV-3 CONSISTS OF
MODIFIED DETAILS FOR
CIP RETAINING WALL
RW-1A, WALL PANEL NO. 7.

GENERAL NOTES:

- DESIGNED IN ACCORDANCE WITH AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, 8TH EDITION (2017) WITH CURRENT INTERIM REVISIONS FOR HL93 LOADING.
- ALL STATIONING AND OFFSETS ARE MEASURED ALONG WALL CONTROL LINE UNLESS NOTED OTHERWISE.
- REFER TO RETAINING WALL ALIGNMENT DATA SHEETS FOR CONTROL POINT DATA.
- CONTRACTOR SHALL VERIFY LOCATIONS OF ALL EXISTING UTILITIES PRIOR TO CONSTRUCTION. NOTIFY ENGINEER OF ANY CONFLICT. REFER TO UTILITY PLANS FOR EXISTING AND PROPOSED UTILITIES.
- CONTRACTOR SHALL PROVIDE POSITIVE DRAINAGE AWAY FROM WALL AT ALL TIMES (DURING AND POST CONSTRUCTION).
- SEE CIP SPREAD FOOTING RETAINING WALL DETAILS FOR WALL DESIGN INFORMATION AND WALL DETAILS.
- SEE RETAINING WALL AESTHETIC TREATMENT DETAILS FOR INFORMATION REGARDING WALL FORM LINER, ANTI-GRAFFITI TREATMENT AND FORMED COPING.
- REFER TO SOIL BORING LOGS FOR SOIL BORING PROFILES.
- SEE ROADWAY PLANS FOR PROPOSED PAVEMENT, EMBANKMENT AND GRADING INFORMATION.
- SEE TRAFFIC CONTROL PLANS FOR CONSTRUCTION PHASING AND TEMP SPL SHORING INFORMATION.
- SEE DRAINAGE PLANS FOR LOCATIONS OF DRAINAGE ELEMENTS AND PROPOSED CHANNEL RIPRAP.
- SEE SHEET 2 OF 2 FOR TYPICAL SECTIONS, ESTIMATED QUANTITIES AND CIP PANEL IDENTIFICATION TABLE.



ELEVATION

1 RET WALL PANEL NO.
C CONSTRUCTION JOINT
E EXPANSION JOINT

7 BORE HOLE CR-1
@ BRUSHY CREEK RD
STA 16+29.95
48.02' RT

8 BORE HOLE B-107
@ BRUSHY CREEK RD
STA 16+15.30
78.76' LT

9 DELETED

10 BORE HOLE B-106
@ BRUSHY CREEK RD
STA 15+20.85
48.07' LT

11 BORE HOLE RW-1
@ BRUSHY CREEK RD
STA 14+92.36
42.30' RT

12 AFTER FOOTING & WALL HAVE BEEN
CAST, PLACE SELF-CONSOLIDATING
FLOWABLE BACKFILL PER SPEC ITEM 401
FROM BOTTOM OF EXCAVATION IN FRONT
OF AND BEHIND WALL PANEL NO. 7
FOOTING & WALL. BRING FLOWABLE FILL
MATERIAL UP TO TOP OF PIPE CASING
AND TO UNDERSIDE OF UNDERDRAIN.

13 DELETED

14 VPI STA 10+00.00
ELEV 753.93'

15 VPI STA 11+14.54
ELEV 753.85'

16 VPI STA 11+41.67
ELEV 754.00'

17 UD HIGH POINT
STA 9+67.09
E = 745.97'

18 6" UD OUTFALL TO CULVERT C
STA 9+73.64
E = 745.90'

19 6" UD OUTFALL TO CULVERT A
STA 11+83.37
E = 745.70'

20 PROVIDE EXPANSION JOINT IN RAIL
AT END OF WALL (SEE RAIL LAYOUT)

21 END OF WALL CONNECTION TO
CULVERT A SIDEWALLS & CURB

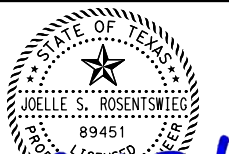
22 TOP OF WALL CONNECTION TO
CONCRETE PARKING LOT PAVEMENT

23 END OF WALL ABUTS FRONT
FACE OF MSE WALL RW-4L

24 WALL OPENING DETAIL & ADD'L
REINFORCEMENT AT CULVERTS B & C

25 SEE WALL NOTCH DETAILS FOR
SPECIAL WALL GEOMETRY &
REINFORCEMENT AT EXISTING
WATER LINES

HL93 LOADING



April 23, 2023



P.E. STRUCTURAL CONSULTANTS
8436 SPICEWOOD SPRINGS ROAD
AUSTIN, TX 78759
TEL 512.250.2500
www.PEStructural.com
www.HardestyHanover.com



TBPE FIRM NO. F-3379

GREAT OAKS DR AT BRUSHY CREEK RD

RETAINING WALL LAYOUT
WALL RW-1A

4/23/2023	SHEET 1 OF 2		
DESIGN KSD	FED. RD. DIV. NO. 6	FEDERAL AID PROJECT NO.	HWY NO.
DRAWN TSL	STATE TEXAS	DISTRICT AUS	COUNTY WILLIAMSON
DES' CHECK JSR	CONTROL	SECTION	JOB
DRN CHECK JSR			
			244 OF 491

RETAINING WALL RW-1A
ESTIMATED QUANTITY SUMMARY

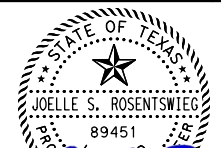
PHASE 2 & 4 CONSTRUCTION					
ITEM NO.	DESCRIPTION	UNIT	QUANTITY		
			PHASE 2	PHASE 4	TOTAL
110 6003	EXCAVATION (SPECIAL)	CY	0	7	7
401 6001	FLOWABLE BACKFILL	CY	0	70	70
423 6005	RETAINING WALL (SPREAD FOOTING)	SF	1,379	1,098	2,477
450 6019	RAIL (TY T631LS)	LF	120.3	96.0	216.3
556 6008	PIPE UNDERDRAINS (TY 8) (6 IN)	LF	0	1	1
740 6004	ANTI-GRAFFITI COATING (PERMANENT - TY II)	SF	967	777	1,744

RETAINING WALL RW-1A
CIP PANEL IDENTIFICATION TABLE

PANEL NO.	TYPE OF PANEL	AREA (SF)	TOP OF FTG ELEV	BOTTOM OF FTG ELEV	BOTTOM OF KEY ELEV
PHASE 2 CONSTRUCTION					
1	HC-12-32.91	395	743.50	742.50	741.50
2	HC-12-23.37	280	743.50	742.50	741.50
3	HC-12-32	384	743.50	742.50	741.50
4	HC-12-32	384	743.50	742.50	741.50
PHASE 4 CONSTRUCTION					
5	HC-12-32	384	743.50	742.50	741.50
6	HC-12-32	384	743.50	742.50	741.50
7	CUSTOM (2)	384	742.50	740.75	736.75

REV-3 CONSISTS OF MODIFIED DETAILS FOR CIP RETAINING WALL RW-1A, WALL PANEL NO. 7.

HL93 LOADING



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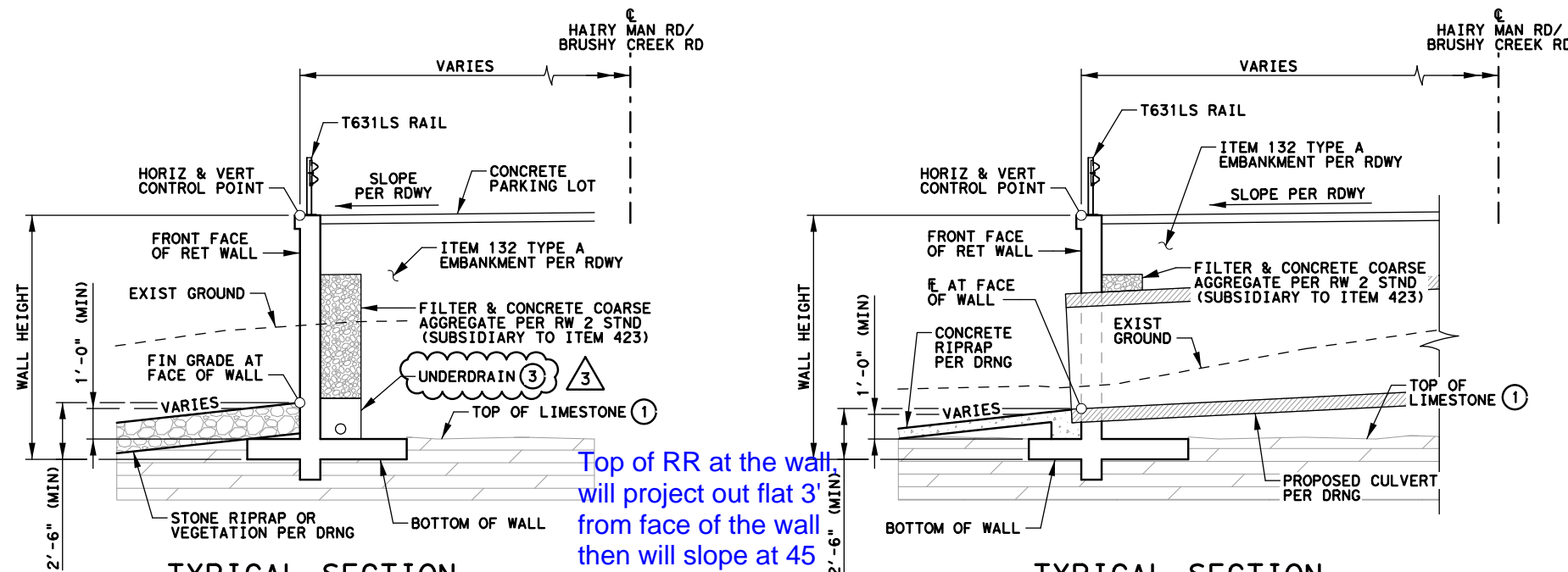
PESC
A Hardesty & Hanover Company

TBPE FIRM NO. F-3379

GREAT OAKS DR AT BRUSHY CREEK RD

RETAINING WALL LAYOUT
WALL RW-1A

4/28/2023		SHEET 2 OF 2	
DESIGN KSD	FED. RD. DIV. NO. 6	FEDERAL AID PROJECT NO.	HWY NO.
DRAWN TLS	STATE TEXAS	DISTRICT AUS	COUNTY WILLIAMSON
DES. CHECK JSR	CONTROL	SECTION	JOB
DRN CHECK JSR			
			245 OF 491



TYPICAL SECTION

STA 9+67.09 TO 11+53.12
STA 11+69.12 TO 11+83.37

TYPICAL SECTION

STA 9+77.92 & 9+88.41
(AT PENETRATING CULVERT)

Top of RR at the wall will project out flat 3' from face of the wall then will slope at 45 degrees up to existing ground. Concrete riprap is 5" thick with 1' X 1' toe ditch at the face of wall joint and at the original ground.

1 TOP OF FOOTING SHALL BE LOCATED AT OR BELOW THE TOP OF LIMESTONE. IF LIMESTONE IS ENCOUNTERED AT AN ELEVATION LOWER THAN THE "TOP OF FTG ELEV" SHOWN IN THE CIP PANEL IDENTIFICATION TABLE, THE FOOTING ELEVATIONS AND DIMENSIONS SHALL BE ADJUSTED AS NEEDED PER TXDOT STANDARD RW 1(L)C.

2 SEE SHEET 266B FOR RW-1A PANEL No. 7 DESIGN DATA.

SEE SHEET 266A FOR WALL NOTCH DETAILS WITH ADDITIONAL REINFORCEMENT REQUIREMENTS, DIMENSIONS, NOTES AND OTHER INFORMATION.

3 WHERE UNDERDRAIN VEERS AWAY FROM BACK OF WALL OR IS AT A HIGHER ELEVATION THAN TOP OF FOOTING, USE FLOWABLE FILL TO PREVENT STANDING WATER BEHIND WALL AND TO GUIDE RUNOFF INTO UNDERDRAIN.

4 SEAL WITH APPROVED JOINT SEALANT.

5 ANY EXCAVATED SOILS IN FRONT OF FOOTING SHALL BE INFILLED WITH A SELF-CONSOLIDATING FLOWABLE FILL.

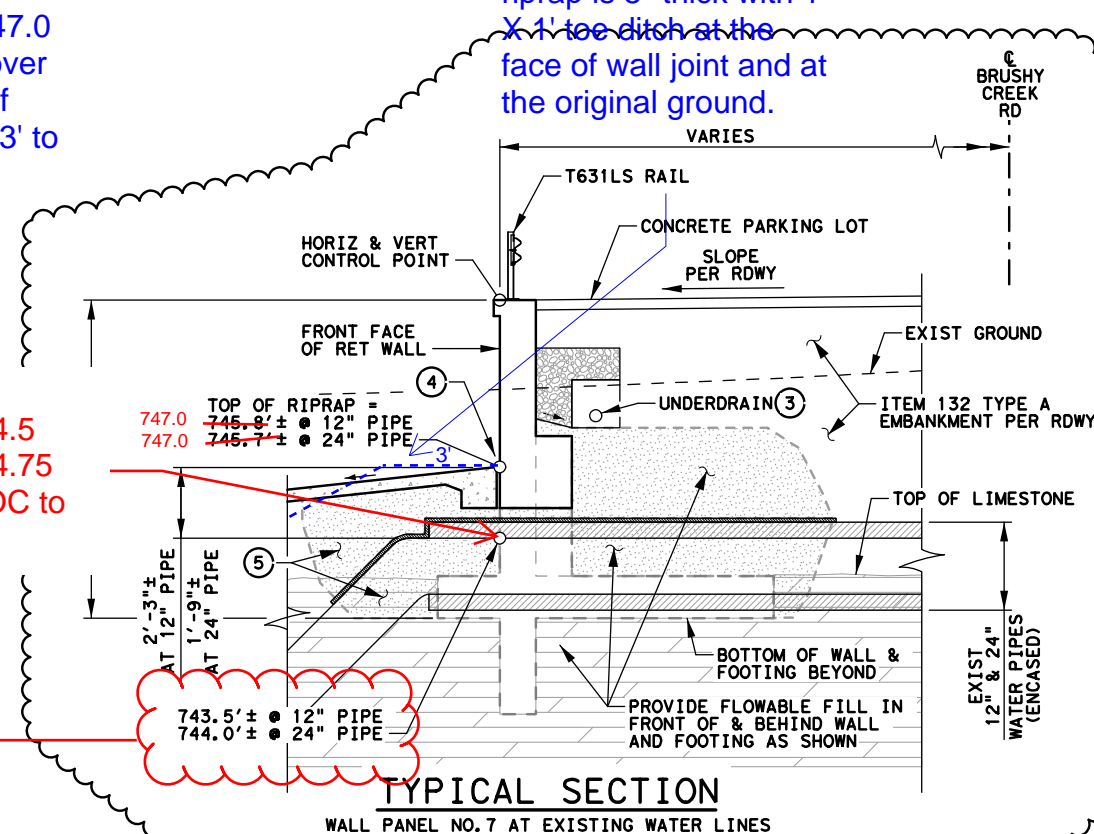
NOTE: IF CONDITIONS DIFFER FROM THOSE SHOWN, NOTIFY ENGINEER BEFORE PROCEEDING WITH WORK.

The proposed 747.0 elevation gives over 2' cover on top of casing and over 3' to top of pipe -- (flowable fill + concrete riprap)

If elevations are top of pipe
top 24" casing for 12" = 744.5
top 42" casing for 24" = 744.75
This means only 1' from TOC to top of RR at 42" casing

confirm whether these elevations are top of pipe (as they appear to be drawn) or top of casing

These elevations are top of pipe



TYPICAL SECTION

WALL PANEL NO. 7 AT EXISTING WATER LINES

ENLARGED ELEVATION VIEW
(SHOWING FOOTING AT WALL RW-1A PANEL NO.7)
(SHOWING A BARS, OTHER BARS NOT SHOWN FOR CLARITY)

SECTION A-A

CONTRACTOR SHALL TAKE CARE TO AVOID DAMAGING EXISTING WATER PIPES DURING WALL CONSTRUCTION.

NOTIFY ENGINEER IF CONDITIONS DIFFER FROM THOSE SHOWN HERE.

ENLARGED PLAN VIEW
(SHOWING FOOTING AT WALL RW-1A PANEL NO. 7)
(SHOWING A & B BARS, OTHER BARS NOT SHOWN FOR CLARITY)

△ 3 REV-3 CONSISTS OF MODIFIED
DETAILS FOR CIP RETAINING
WALL RW-1A, WALL PANEL NO.7.



JOELLE S. ROSENTHAL
89451
PROF. S. J. ROSENTHAL

April 27, 2023



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TBPE FIRM NO. F-3379

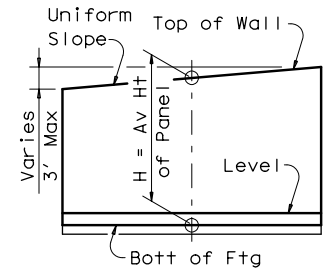
GREAT OAKS DR AT BRUSHY CREEK RD

RETAINING WALL DETAILS
WALL RW1-A PANEL NO.7
WALL & FOOTING DETAILS
AT EXISTING WATER PIPE

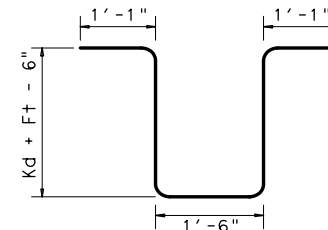
4/27/2023

DESIGN	FED. RD.	FEDERAL AID PROJECT NO.		HWY. NO.
SSW	DIV. NO.			
DRAWN	6			
SSW	STATE	DISTRICT	COUNTY	SHEET NO.
DES. CHECK	TEXAS	AUS	WILLIAMSON	266A OF 491
JSR	CONTROL	SECTION	JOB	
DRN. CHECK				
ISR				

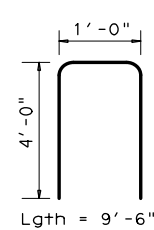
RW	Panel	Wall Height "H"	REINFORCING STEEL FOR ONE 32' PANEL																										QUANTITY FOR ONE 32' PANEL	
			A1 ~ 52 #8 at 5" c-c		A2 ~ 22 #8 at 5" c-c		A3 ~ 52 #8 at 5" c-c		B ~ 52 #5 at 5" c-c		C ~ 52 #8 at 10" c-c top & bot		D ~ 26 #6 at 12" c-c		Dowel F at 12" c-c		H ~ 56 #6 at 6" c-c top & bot		S ~ 35 #5		T ~ 18 #8 at 6" c-c ea. face		U ~ 78 #5 at 5" c-c		X ~ 16 #6 at 6" c-c		Y ~ 22 #5 at 5" c-c			
		(Ft)	Lgth	Wt	Lgth	Wt	Lgth	Wt	Lgth	Wt	Lgth	Wt	Lgth	Wt	No	Wt	Lgth	Wt	Lgth	Wt	Lgth	Wt	Lgth	Wt	Lgth	Wt	Lgth	Wt	CONC (CY)	REINF (LB)
		1-A	7	13'-3"	15'-1"	2,094	10'-8"	629	8'-6"	1,180	12'-10"	1,748	13'-6"	1,874	31'-6"	1,230	15	120	21'-0"	1,766	11'-0"	402	21'-0"	1,009	9'-6"	773	21'-0"	505	14'-2"	768



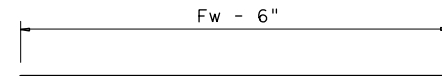
H DEFINITION



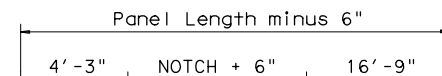
BARS Y



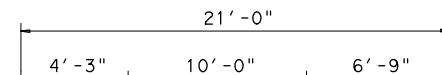
BARS U



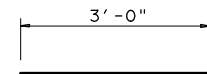
BARS C



BARS D, H & X



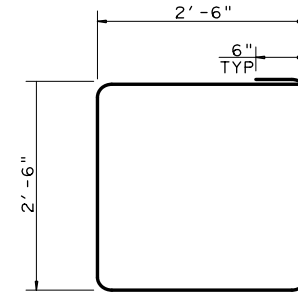
BARS T



BARS F ③

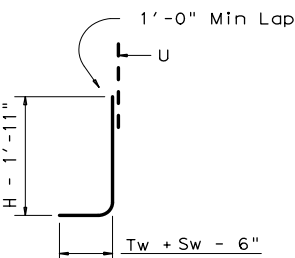
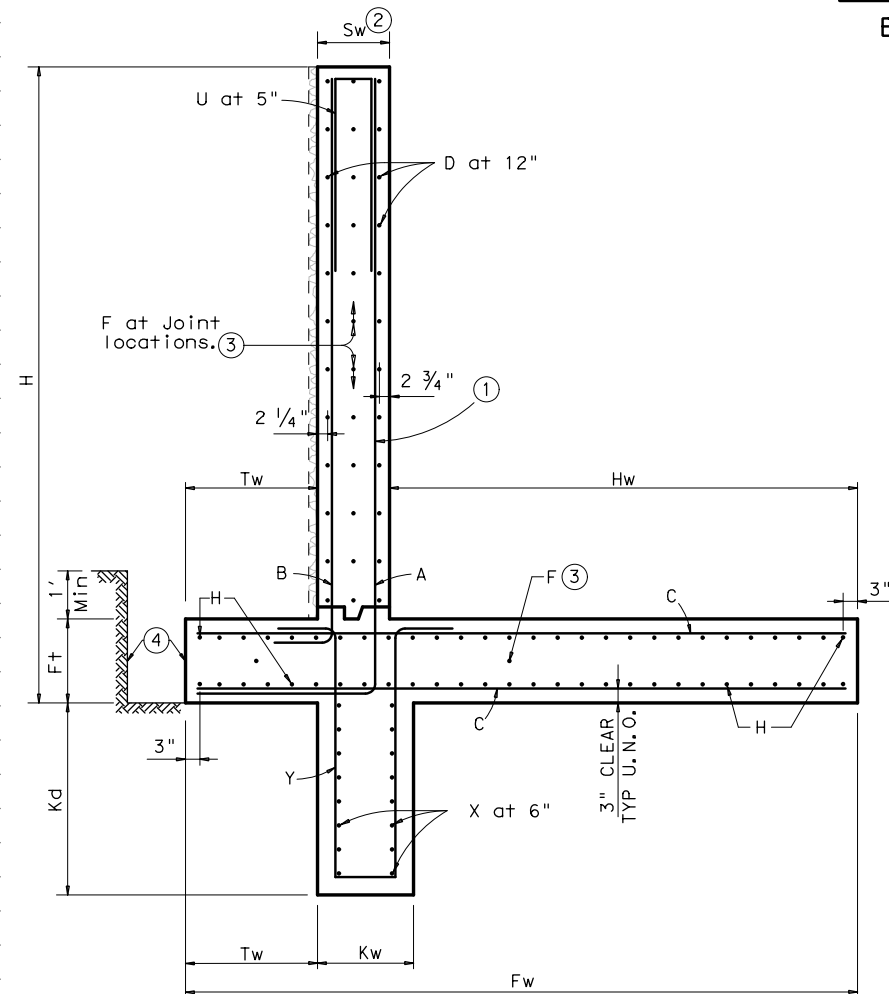
- ① Place vertical bars inside of horizontal bars (Typ both faces).
- ② Wall Structural Thickness. See CIP Spread Footing Retaining Wall Details for information regarding coping & formliner on front face of wall.
- ③ See standard RW 2 for size.
- ④ Form face of toe, and place self-consolidating flowable fill in front of footing after wall & footing are placed.

Provide 1'-4" hook in Bars that cannot extend into wall (i.e. bars behind limits of wall)

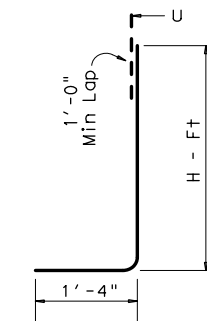


BARS S ⑤

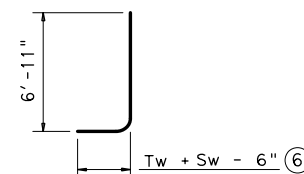
- ⑤ Space Vertical S Stirrups at 10" c-c, and space Horizontal S Ties at 6" c-c. See Notch Details for additional information.



BARS A1

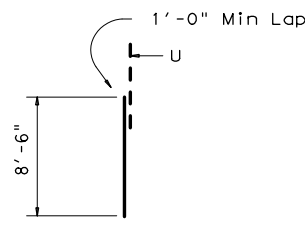


BARS B

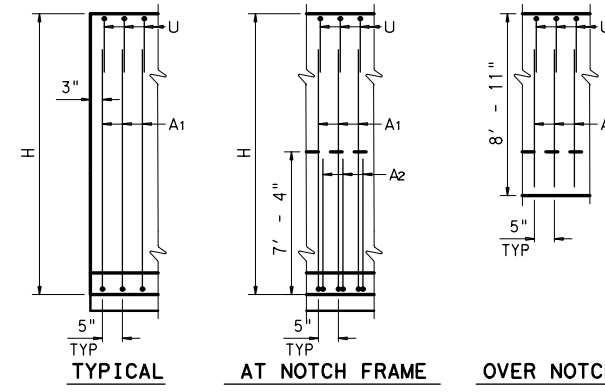


BARS A2

- ⑥ Reduce horizontal leg length where shown on Sheet 266A Enlarged Plan View.



BARS A3



PARTIAL WALL ELEVATIONS

(Showing vertical reinforcing pattern of A bars)

GENERAL NOTES:

All concrete to be Class "C".
All reinforcing steel to be Grade 60.
For notes and details not shown on this sheet see sheet RW2.
Quantities are based on "H" being average height of panel.
See Sheet 266A for placement of bars A2, A3, S & T.

REV-1 CONSISTS OF MODIFIED DETAILS FOR CIP RETAINING WALL RW-1A, WALL PANEL NO. 7.

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TBPE FIRM NO. F-3379

GREAT OAKS DR AT BRUSHY CREEK RD

RETAINING WALL DETAILS
WALL RW1-A PANEL NO. 7
WALL & FOOTING
DETAILS

4/23/2023

DESIGN	SSW	FED. RD. DIV. NO.	6	FEDERAL AID PROJECT NO.		HWY NO.	
DRAWN	SSW	STATE	Texas	DISTRICT	AUS	COUNTY	WILLIAMSON
DES. CHECK	JSR	CONTROL		SECTION		JOB	
DRN CHECK	JSR						

266B OF 491