

INDEX OF SHEETS

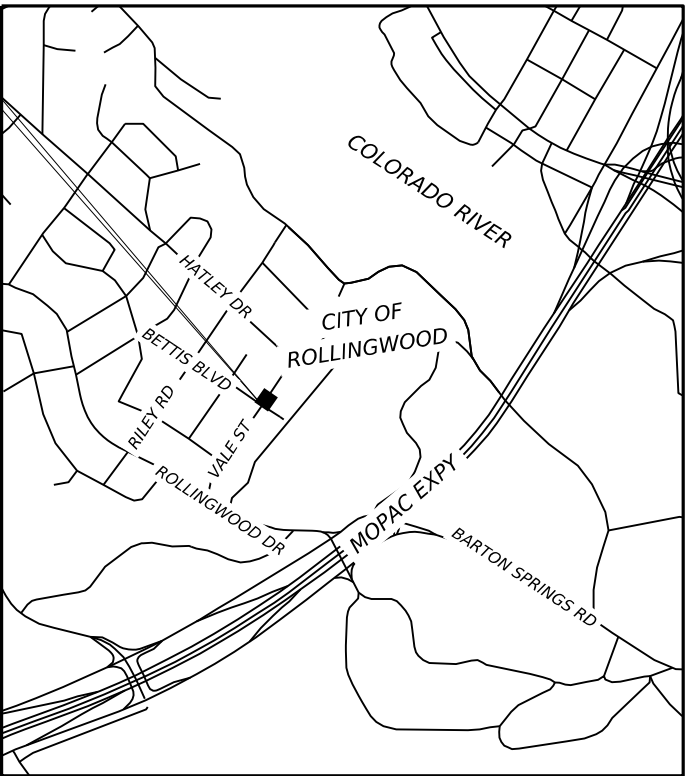
SHEET NO.	DESCRIPTION
1	TITLE SHEET
2	SUMMARY OF QUANTITIES
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CITY OF ROLLINGWOOD

BETTIS AND VALE
DRAINAGE ANALYSIS

CONSISTING OF: IMPROVING STORMWATER CONVEYANCE AT THE INTERSECTION
OF BETTIS BOULEVARD AND VALE STREET IN THE CITY OF
ROLLINGWOOD TO REDUCE RECURRING FLOODING IMPACTING
NEARBY RESIDENTS.

VALE ST @
BETTIS BLVD



N. T. S.

THE CONSTRUCTION WORK WAS PERFORMED IN ACCORDANCE WITH THE
PLANS AND CONTRACT.

P. E.

DATE

REGISTERED ACCESSIBILITY SPECIALIST (RAS) INSPECTION NOT REQUIRED.

REQUIRED SIGNS SHALL BE PLACED IN ACCORDANCE WITH STANDARD
SHEETS 804S-5 AND THE "TEXAS MANUAL ON UNIFORM
TRAFFIC CONTROL DEVICES.:

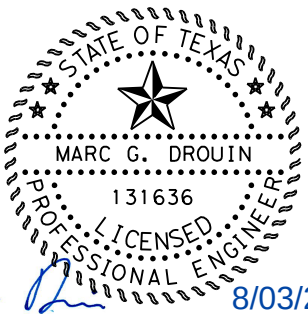
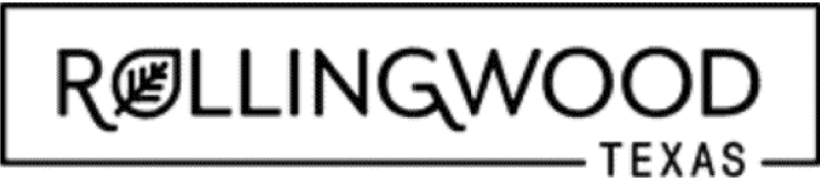
ALL RESPONSIBILITY FOR THE ACCURACY OF THESE PLANS REMAINS WITH
THE ENGINEER WHO PREPARED THEM. IN REVIEWING THESE PLANS, THE
CITY OF ROLLINGWOOD MUST RELY ON THE ADEQUACY OF THE WORK OF
THE DESIGN ENGINEER.

CITY OF AUSTIN STANDARD SPECIFICATIONS
AT TIME OF BIDDING SHALL GOVERN
THIS PROJECT.

FINAL
SUBMITTAL



PREPARED BY:
WSB LLC -
FIRM # 16849



APPROVED FOR CONSTRUCTION BY:

ALUN THOMAS
CITY OF ROLLINGWOOD

DATE

SUMMARY OF QUANTITIES											
ITEM	104S	110S	132S	430S	436S	504S	602S	648S	803S	824S	860S
DESC CODE	A	A	A	B	-	3G	D	-	CD	-	D
DESCRIPTION	REMOVE P.C. CONCRETE CURB	STREET EXCAVATION	EMBANKMENT	P.C. CONCRETE CURB AND GUTTER (FINE GRADING)	P.C. CONCRETE VALLEY GUTTERS	ADJUSTING GAS VALVE BOXES TO GRADE	GRASS SODDING	MULCH SOCK	BARRICADES, SIGNS, AND TRAFFIC HANDLING	TRAFFIC SIGNS	PAVEMENT MARKING PAINT YELLOW (REFLECTORIZED)
UNIT	LF	CY	CY	LF	SF	EA	SY	LF	CD	EA	SF
SHEET 1 OF 1	113	7.0	2.0	113	320	1	18	75	21	2	75
TOTAL	113	7.0	2.0	113	320	1	18	75	21	2	75





WSB LLC
FIRM # 16849

BETTIS AND VALE
DRAINAGE ANALYSIS

SUMMARY OF
QUANTITIES

COUNTY

CITY

SHEET NO.

TRAVIS

ROLLINGWOOD

2

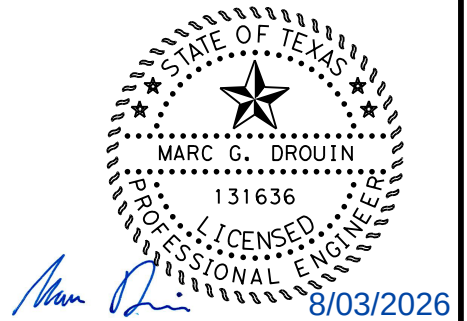
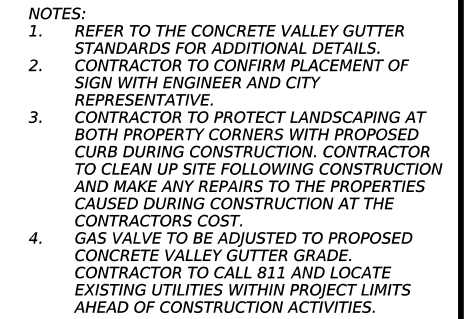


-
- STATE OF TEXAS
- MARC G. DROUIN
- 131636
- PROFESSIONAL ENGINEER
- 8/03/2026

wsp  WSB LLC
FIRM # 16849

SHEET 1 OF 1

COUNTY	CITY	SHEET NO.
TRAVIS	ROLLINGWOOD	3



NICHOLAS A. &
RACHEL VENNING TYS
DOCUMENT NO. 2020108385
O.P.R.T.C.T.

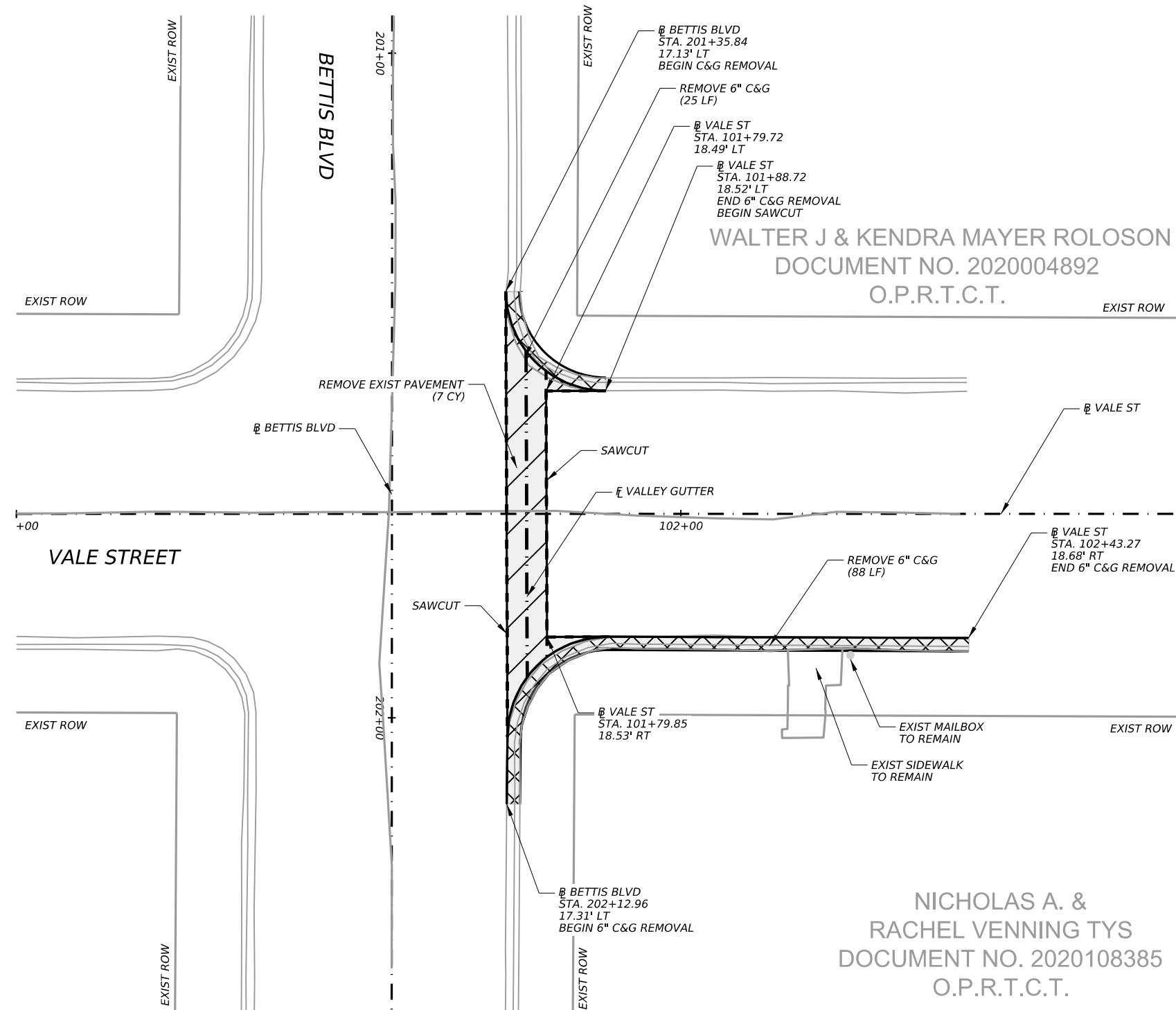
ROLLINGWOOD
TEXAS

wsb  WSB LLC
FIRM # 16849

*BETTIS AND VALE
DRAINAGE ANALYSIS
DRAINAGE PLAN*

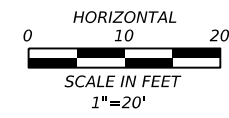
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WALTER J & KENDRA MAYER ROLOSON
DOCUMENT NO. 2020004892
O.P.R.T.C.T.

NICHOLAS A. &
RACHEL VENNING TYS
DOCUMENT NO. 2020108385
O.P.R.T.C.T.



REMOVALS LEGEND

- 6" C&G REMOVAL
- PAVEMENT REMOVAL
- SAWCUT LIMITS

- NOTES:
- CONTRACTOR TO REMOVE EXISTING ASPHALT PAVEMENT AND LEAVE EXISTING ROADWAY BASE.
 - CONTRACTOR RESPONSIBLE FOR ANY DAMAGE CAUSED TO EXISTING MAILBOX TO REMAIN AT VENNINGS PROPERTY.

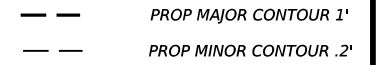
Professional Engineer Seal for Marc G. Drouin, State of Texas, License No. 131636. The seal includes a star and the text 'STATE OF TEXAS', 'MARC G. DROUIN', '131636', and 'PROFESSIONAL ENGINEER'. A signature and the date '8/03/2026' are present.

WSB LLC
FIRM # 16849

BETTIS AND VALE
DRAINAGE ANALYSIS

REMOVAL PLAN

SHEET 1 OF 1		
COUNTY	CITY	SHEET NO.
TRAVIS	ROLLINGWOOD	5



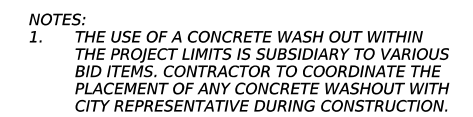
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FIRM # 16849

GRADING PLAN

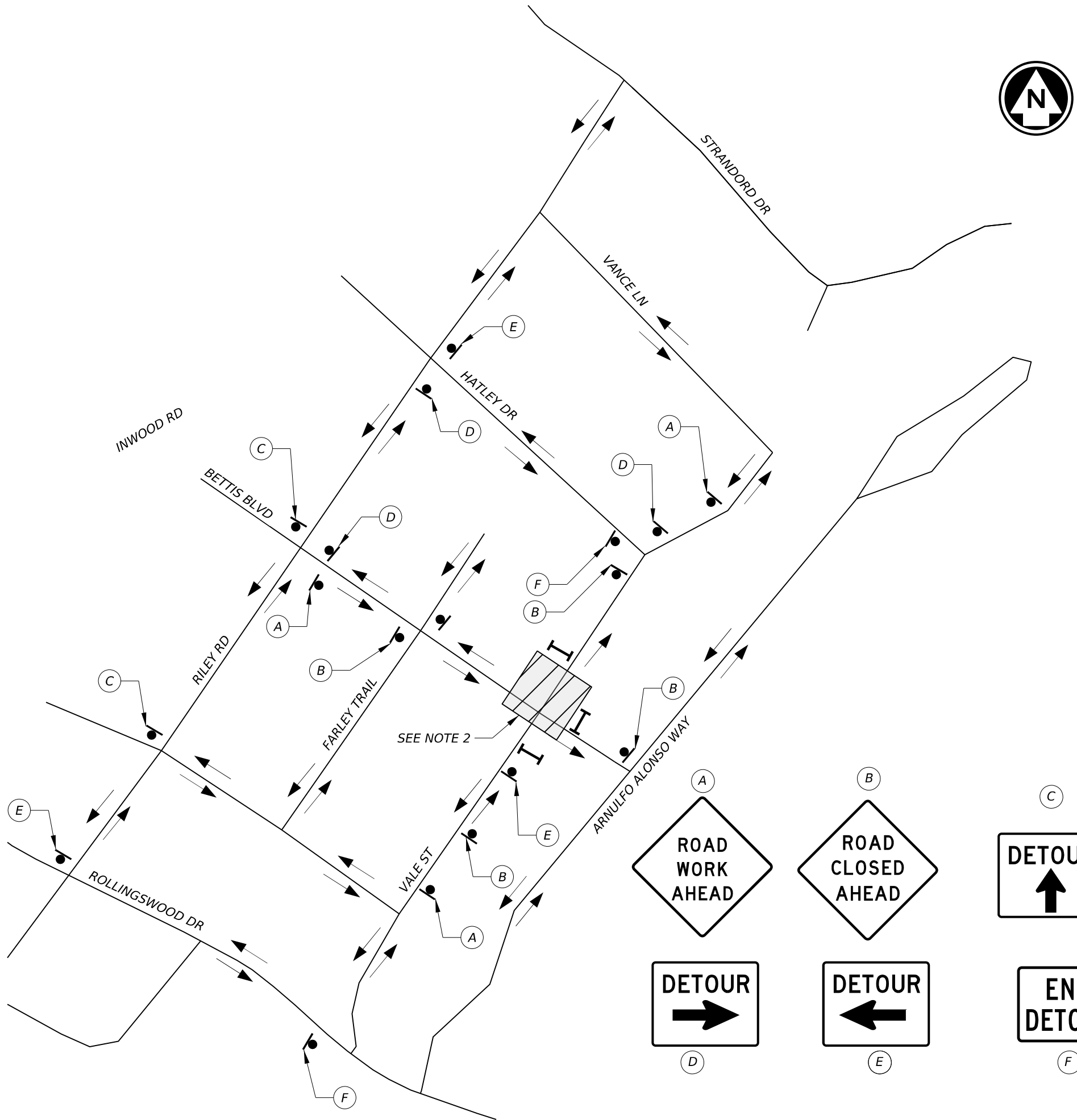
SHEET 1 OF 1

COUNTY	CITY	SHEET NO.
TRAVIS	ROLLINGWOOD	6



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TCP LEGEND

- WORKZONE
- TYPE III BARRICADE
- TRAFFIC CONTROL SIGN
- TRAFFIC CONTROL FLOW

- NOTES:
- CONTRACTOR TO PLACE SIGNS IN ACCORDANCE WITH CITY OF AUSTIN STANDARDS 804S-5.
 - ADDITIONAL CHANNELIZING DEVICES REQUIRED FOR TRAFFIC CONTROL SHALL BE SUBSIDIARY TO ITEM 8035.

STATE OF TEXAS
MARC G. DROUIN
131636
PROFESSIONAL ENGINEER
8/03/2026

ROLLINGWOOD TEXAS

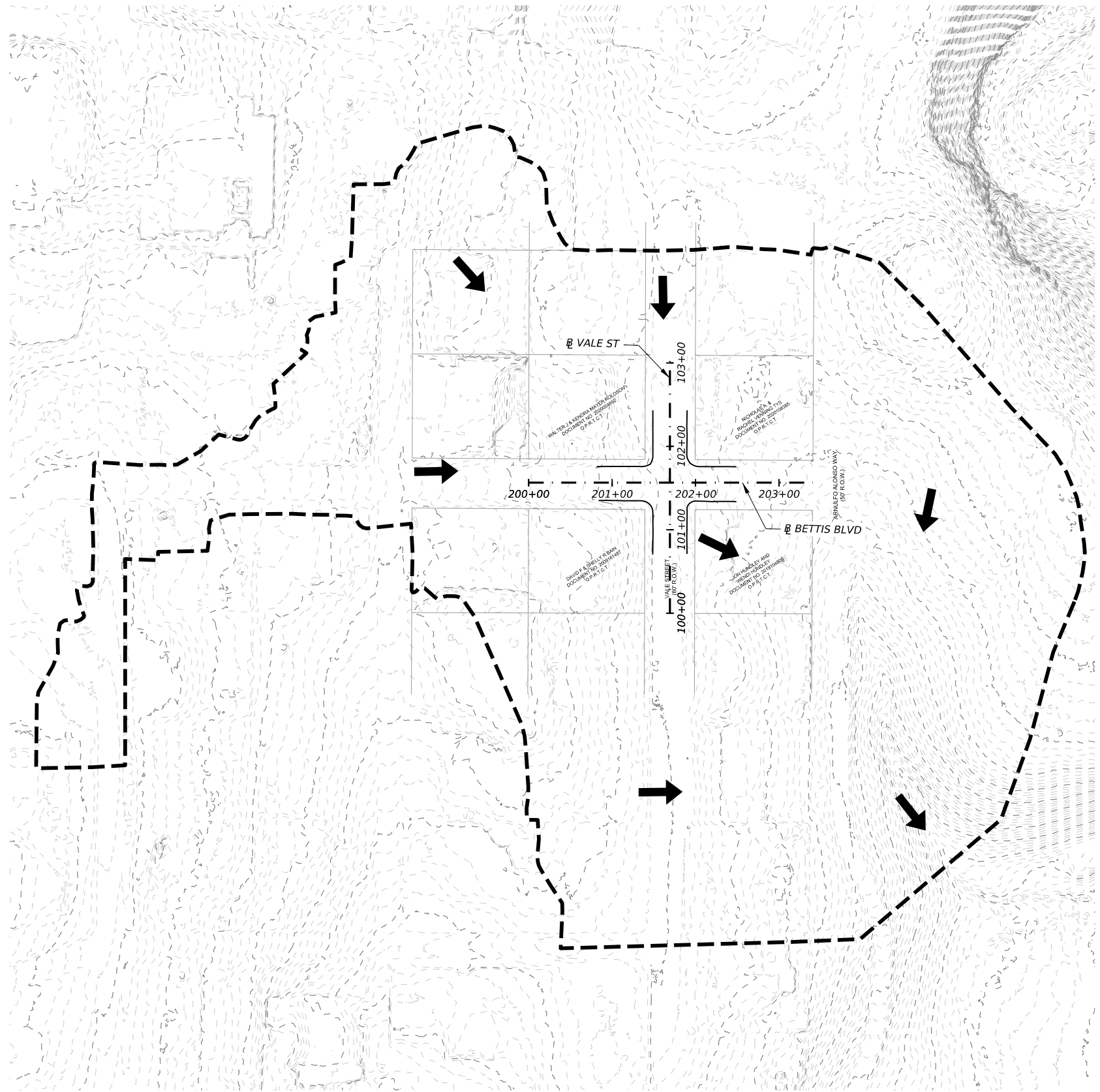
wsb WSB LLC FIRM # 16849

BETTIS AND VALE DRAINAGE ANALYSIS

TRAFFIC CONTROL PLAN

SHEET 1 OF 1

COUNTY	CITY	SHEET NO.
TRAVIS	ROLLINGWOOD	8



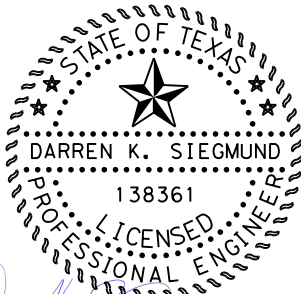
HORIZONTAL
0 75 150
SCALE IN FEET
1"=150'

LEGEND

- DRAINAGE AREA BOUNDARY
- - - BASELINE
- - - EXISTING 1-FT CONTOURS
- - - EXISTING 5-FT CONTOURS
- RIGHT OF WAY
- FLOW OF WATER

NOTES:

1. HYDROLOGIC AND HYDRAULIC CALCULATIONS CAN BE REFERENCED IN THE SUPPORTING DRAINAGE MEMO.
2. SEE PLAN SHEETS FOR ADDITIONAL INFORMATION.
3. EXISTING TOPOGRAPHY, OUTSIDE OF THE SURVEY LIMITS, WAS DOWNLOADED AND SOURCED FROM THE 2021 CENTRAL TEXAS LIDAR VIA TXGIO.



08/03/2026

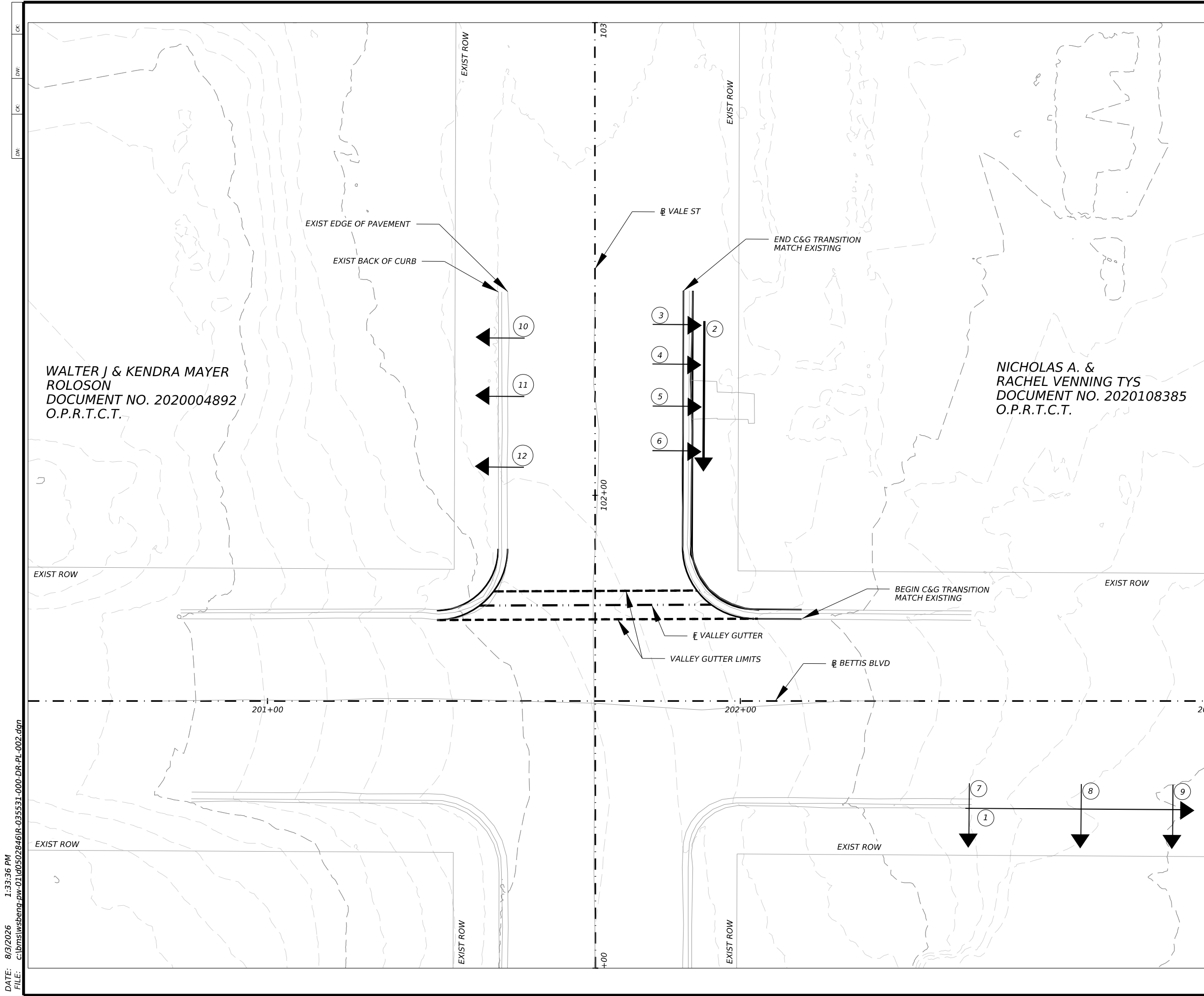


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FIRM # 16849

BETTIS AND VALE
DRAINAGE ANALYSIS

DRAINAGE AREA MAP

HYDROLOGIC SUMMARY TABLE		
DESCRIPTION	VALUE	UNIT
DRAINAGE AREA	15.54	ACRES
AVERAGE CURVE NUMBER	84.76	
AVERAGE TERRAIN SLOPE	5%	



WALTER J & KENDRA MAYER
ROLOSON
DOCUMENT NO. 2020004892
O.P.R.T.C.T.

NICHOLAS A. &
RACHEL VENNING TYS
DOCUMENT NO. 2020108385
O.P.R.T.C.T.

- LEGEND**
- BASELINE
 - PROP C&G
 - #> PROFILE LINES
 - VALLEY GUTTER FLOWLINE
 - LIMITS OF VALLEY GUTTER
 - EXISTING 1-FT CONTOURS
 - EXISTING 5-FT CONTOURS

- NOTES:**
1. HYDROLOGIC AND HYDRAULIC CALCULATIONS CAN BE REFERENCED IN THE SUPPORTING DRAINAGE MEMO.
 2. SEE PLAN SHEETS FOR ADDITIONAL INFORMATION.
 3. EXISTING TOPOGRAPHY, OUTSIDE OF THE SURVEY LIMITS, WAS DOWNLOADED AND SOURCED FROM THE 2021 CENTRAL TEXAS LIDAR VIA TXGIO.
 4. SEE SHEET 11 FOR HYDRAULIC MODEL RESULTS.



ROLLINGWOOD
TEXAS

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FIRM # 16849

**BETTIS AND VALE
DRAINAGE ANALYSIS**

**HYDRAULIC
REFERENCE MAP**

SHEET 2 OF 3

COUNTY	CITY	SHEET NO.
TRAVIS	ROLLINGWOOD	10

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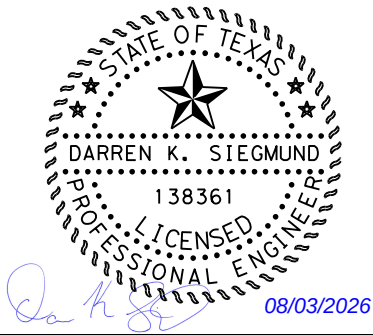
NOTES:

1. HYDROLOGIC AND HYDRAULIC CALCULATIONS CAN BE REFERENCED IN THE SUPPORTING DRAINAGE MEMO.

2. SEE SHEET 10 FOR PROFILE LINE LOCATIONS.

EVENT	PEAK FLOW (CFS)					
	PROFILE LINE 1			PROFILE LINE 2		
	EXISTING (EX)	PROPOSED (PR)	PR VS EX	EXISTING (EX)	PROPOSED (PR)	PR VS EX
2-YEAR	0.9	0.9	0.0	1.2	0.0	-1.2
25-YEAR	3.2	3.3	0.1	5.2	0.1	-5.1
100-YEAR	4.7	4.6	-0.1	8.2	0.1	-8.1

WATER SURFACE ELEVATION (FT)									
PROFILE LINE ID	2-YEAR STORM EVENT			25-YEAR STORM EVENT			100-YEAR STORM EVENT		
	EX	PR	PR VS EX	EX	PR	PR VS EX	EX	PR	PR VS EX
PROFILE LINE 1	548.1	548.1	0.0	548.3	548.3	0.0	548.3	548.3	0.0
PROFILE LINE 2	552.7	552.7	0.0	552.8	552.7	-0.1	552.9	552.7	-0.2
PROFILE LINE 3	552.7	552.7	0.0	552.9	552.9	0.0	553.0	553.0	0.0
PROFILE LINE 4	552.7	552.7	0.0	552.9	552.9	0.0	553.0	553.0	0.0
PROFILE LINE 5	552.7	552.7	0.0	552.9	552.9	0.0	553.0	553.0	0.0
PROFILE LINE 6	552.7	552.7	0.0	552.9	552.9	0.0	552.9	553.0	0.1
PROFILE LINE 7	548.2	548.2	0.0	548.2	548.2	0.0	548.3	548.3	0.0
PROFILE LINE 8	546.2	546.2	0.0	546.3	546.3	0.0	546.3	546.3	0.0
PROFILE LINE 9	545.3	545.3	0.0	545.4	545.4	0.0	545.4	545.4	0.0
PROFILE LINE 10	552.8	552.8	0.0	553.5	553.5	0.0	553.5	553.5	0.0
PROFILE LINE 11	552.8	552.8	0.0	552.9	552.9	0.0	553.1	553.1	0.0
PROFILE LINE 12	552.9	552.9	0.0	553.0	553.0	0.0	553.2	553.2	0.0



ROLLINGWOOD
TEXAS

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FIRM # 16849

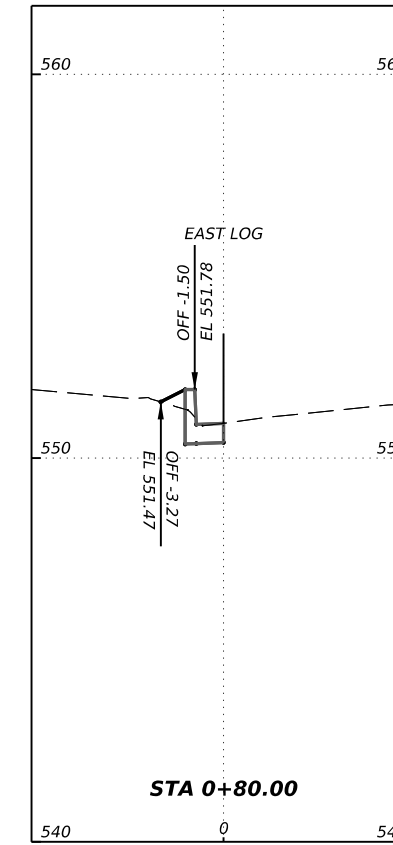
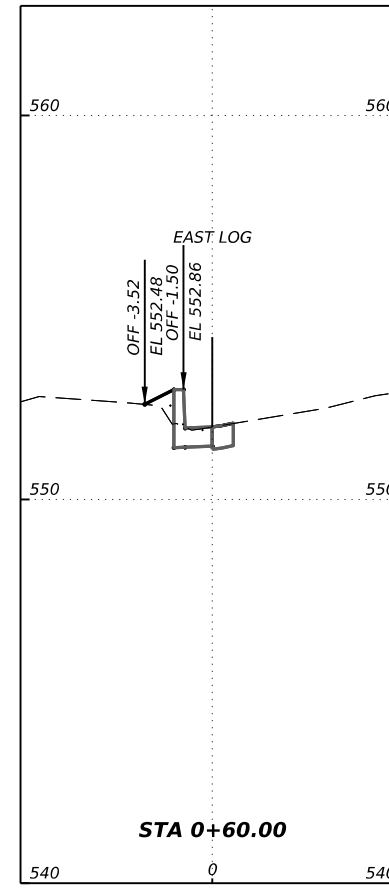
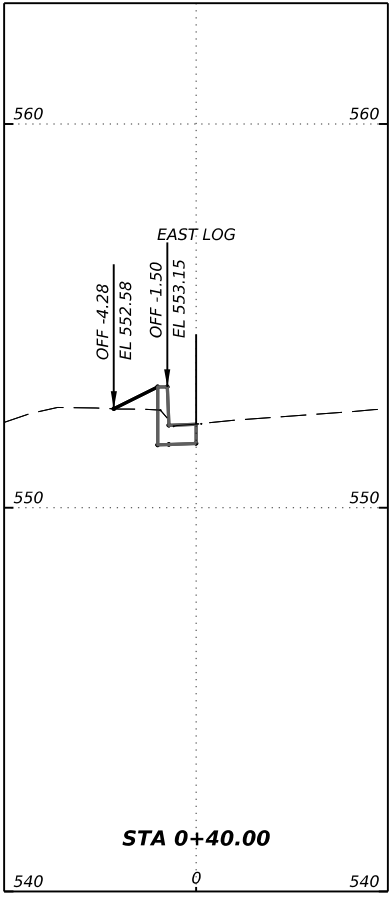
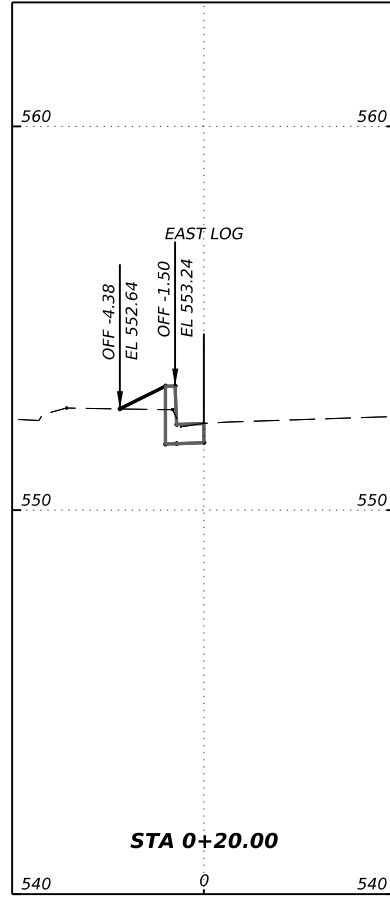
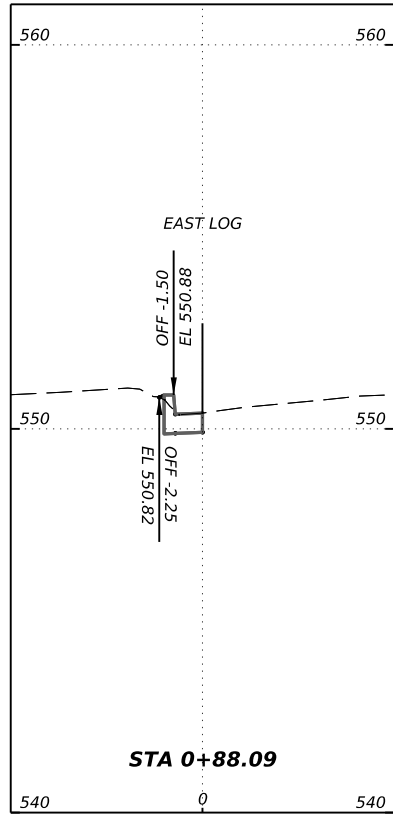
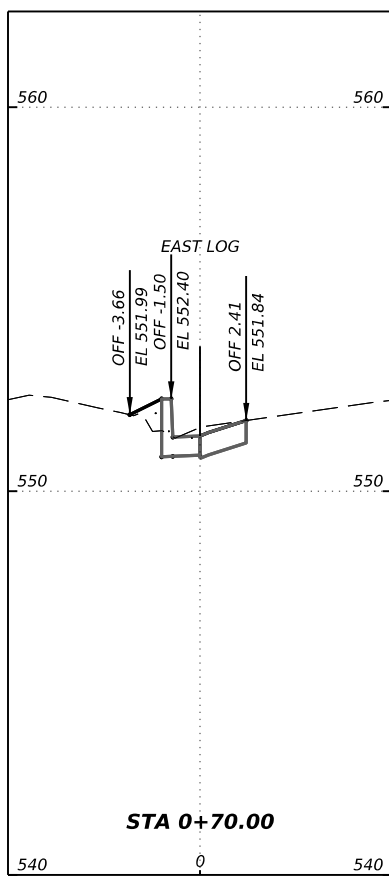
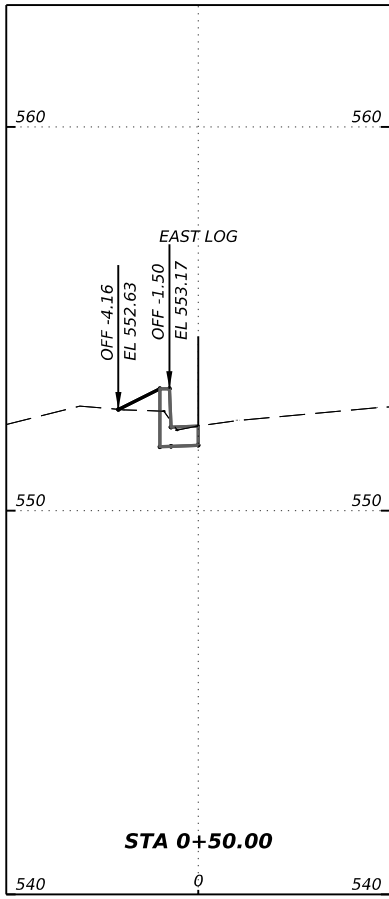
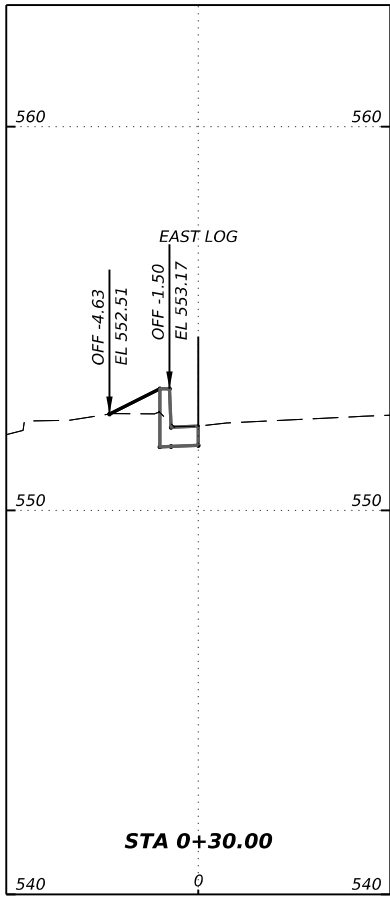
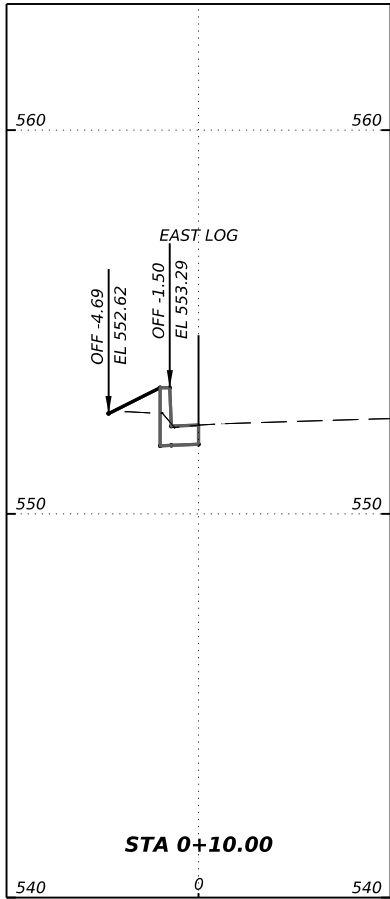
BETTIS AND VALE
DRAINAGE ANALYSIS

HYDRAULIC MODEL
RESULTS

SHEET 3 OF 3

COUNTY	CITY	SHEET NO.
TRAVIS	ROLLINGWOOD	11

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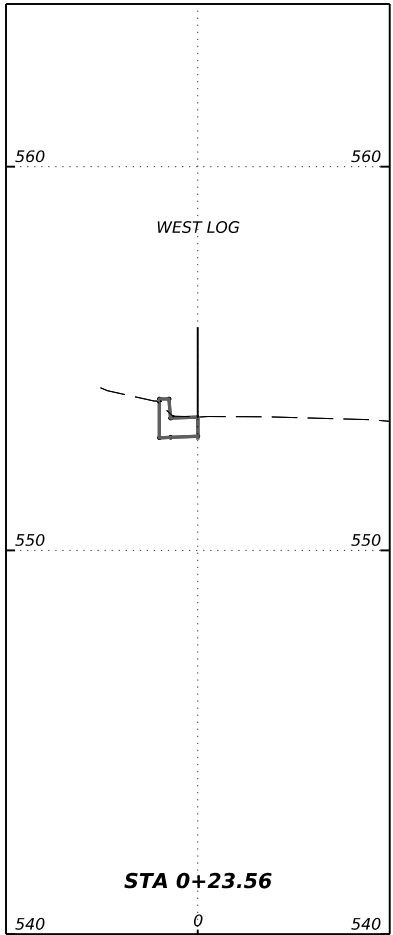
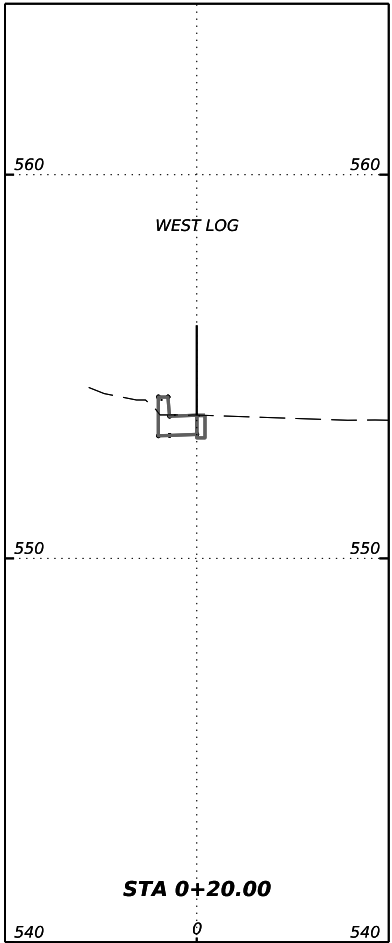
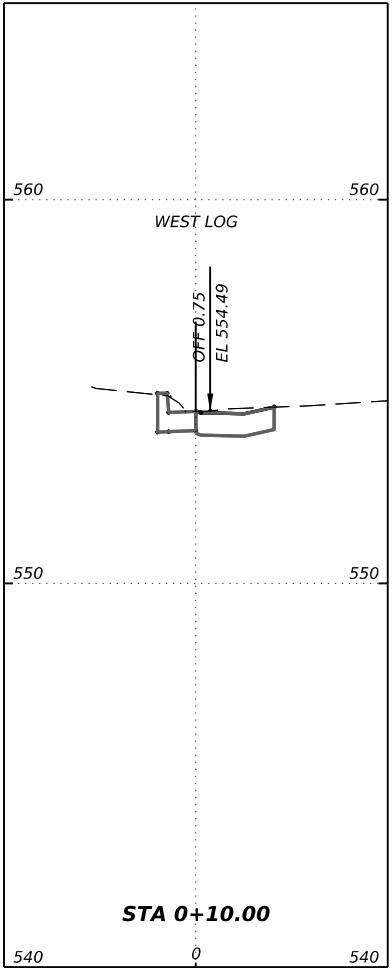
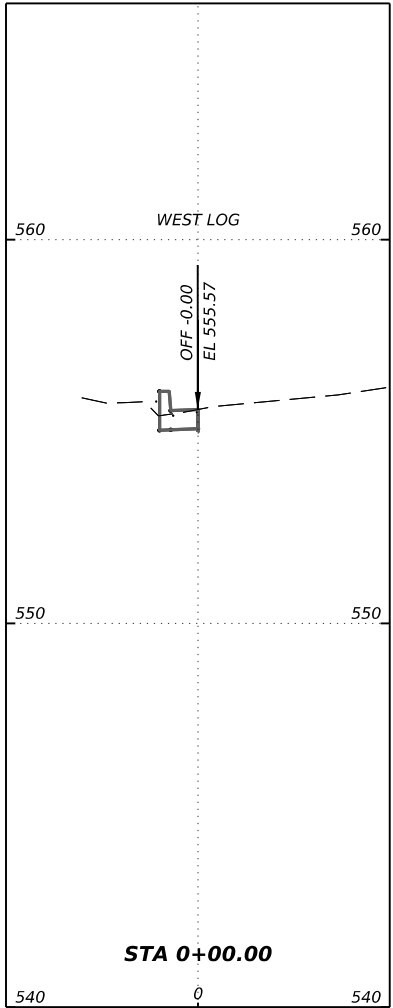
WSB LLC
FIRM # 16849

BETTIS AND VALE
DRAINAGE ANALYSIS

CROSS SECTIONS

SHEET 1 OF 3

COUNTY	CITY	SHEET NO.
TRAVIS	ROLLINGWOOD	12



ROLLINGWOOD
TEXAS

wsb

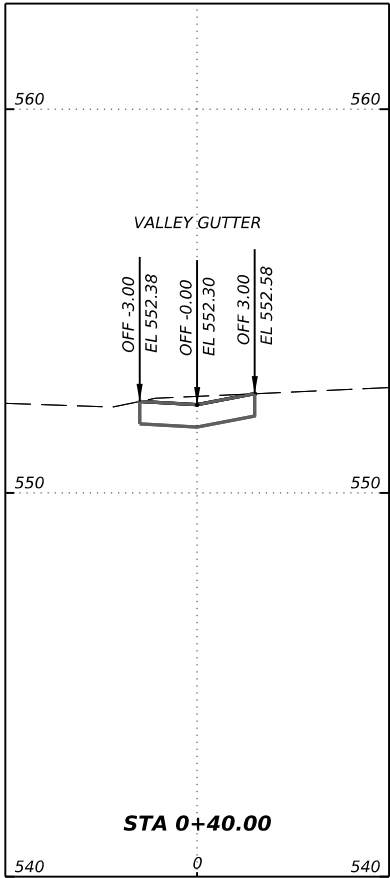
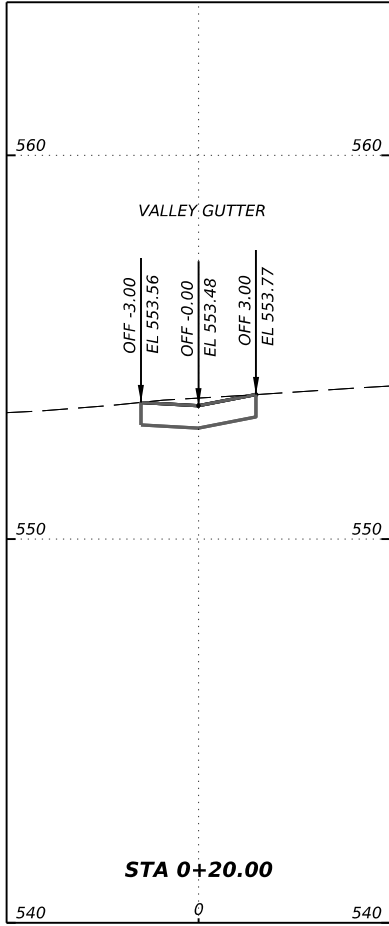
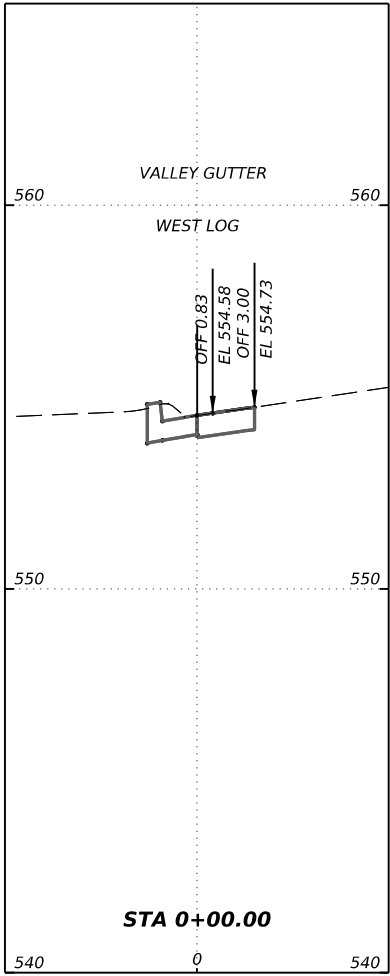
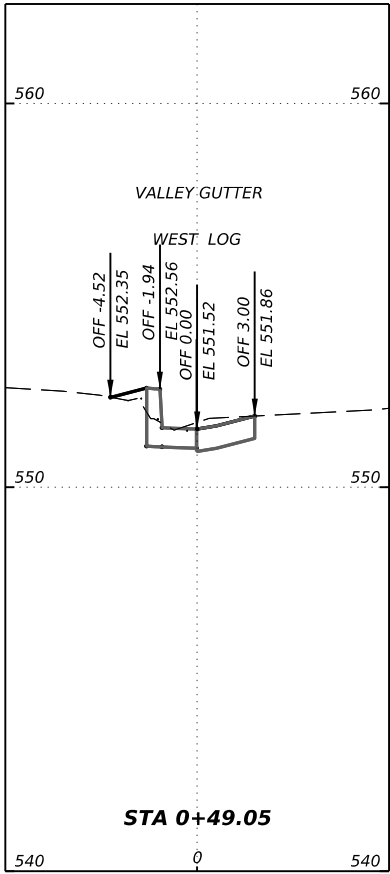
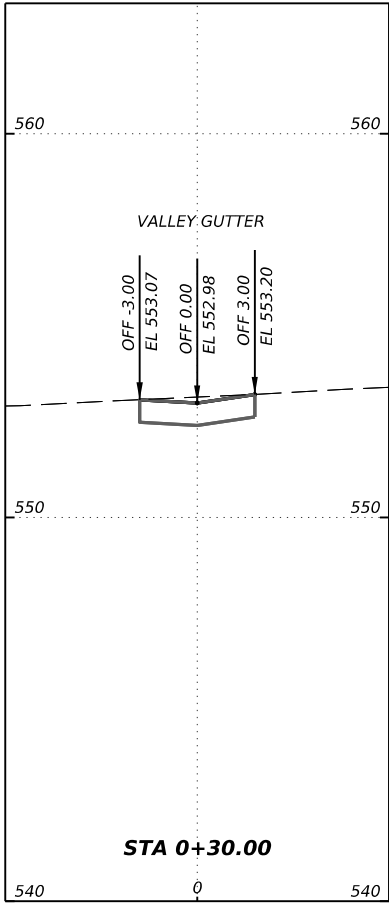
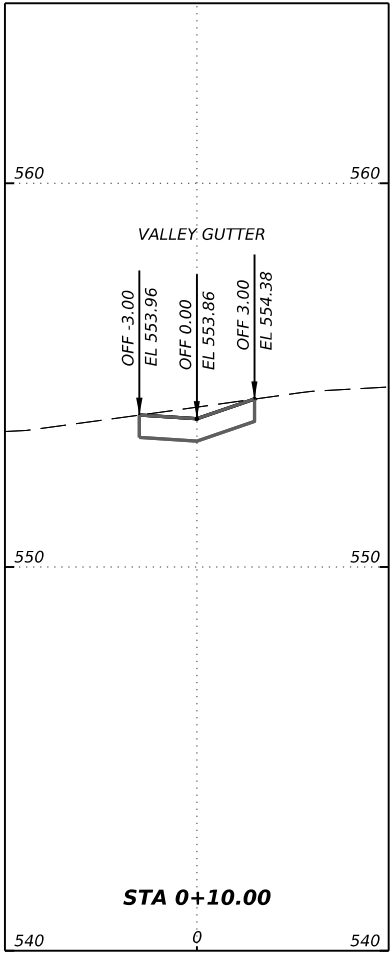
WSB LLC
FIRM # 16849

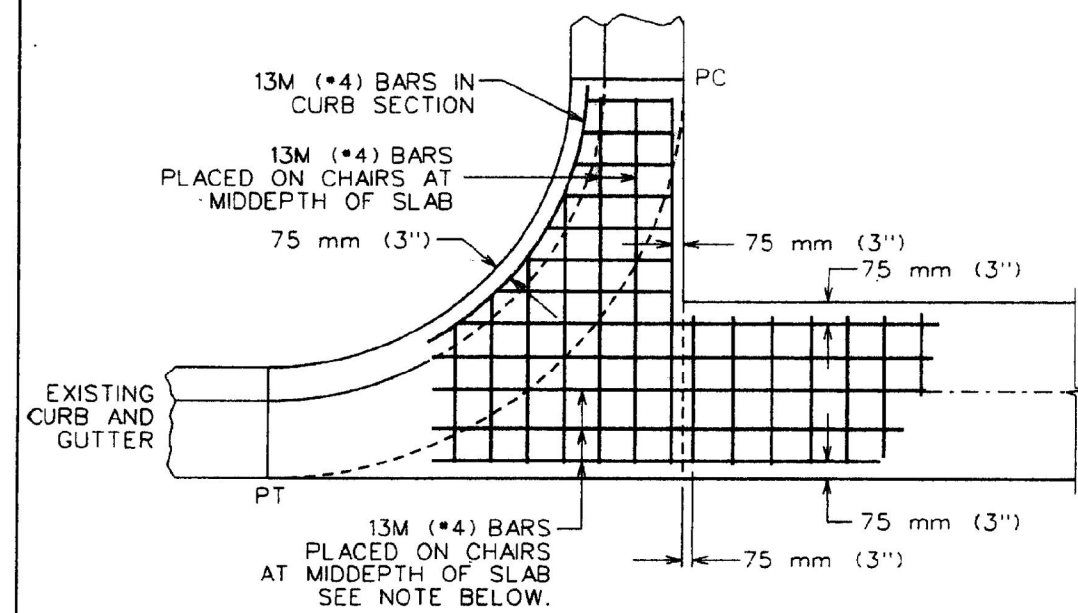
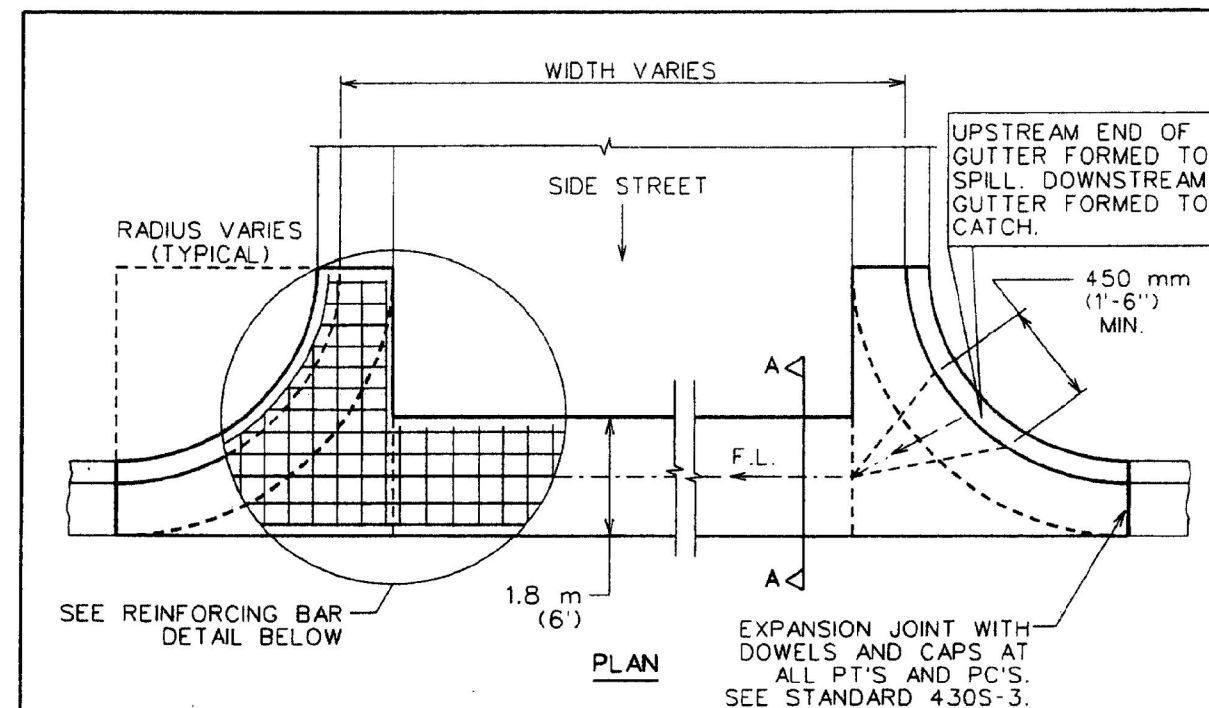
BETTIS AND VALE
DRAINAGE ANALYSIS

CROSS SECTIONS

SHEET 2 OF 3

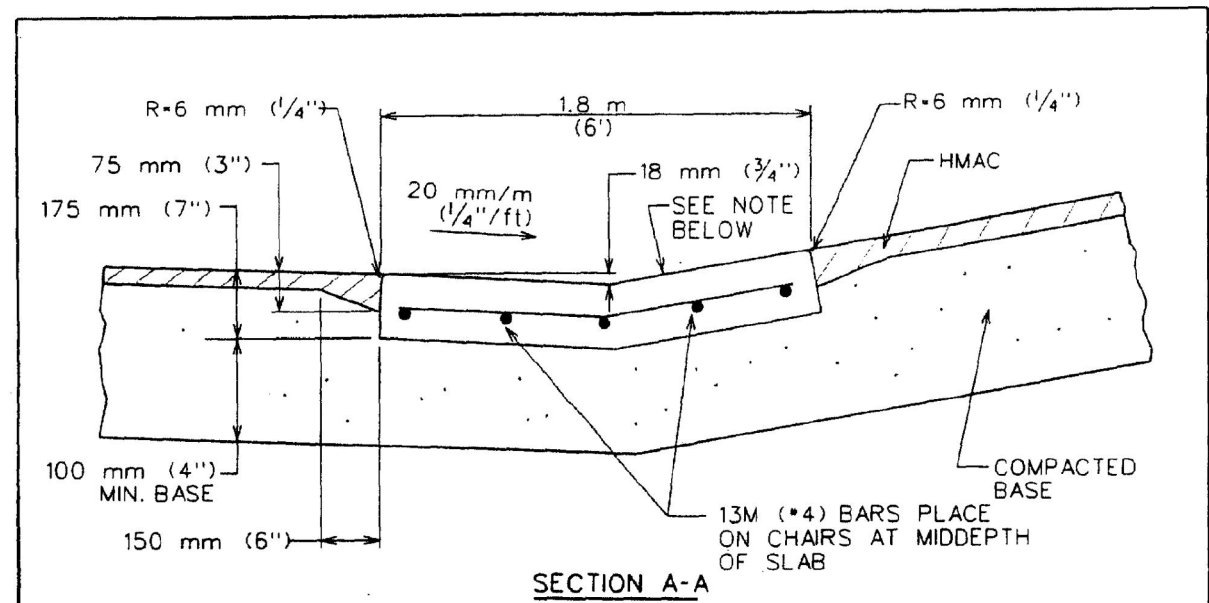
COUNTY	CITY	SHEET NO.
TRAVIS	ROLLINGWOOD	13





NOTE: REINFORCING BAR DETAIL
ALTERNATE 13M (#4) BARS PLACED ON CHAIRS AT MIDDEPTH OF SLAB TO BE CONTINUOUS ACROSS EXPANSION JOINT. BREAK BOND 150 mm (6") ON EACH SIDE OF EXPANSION JOINT.

CITY OF AUSTIN DEPARTMENT OF PUBLIC WORKS		CONCRETE VALLEY GUTTER	
 4/12/06 ADOPTED		THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 436S-2 1 OF 2



NOTE:
ADJUST SLOPE FROM 20 mm/m (1/4"/ft) MINIMUM TO THE SLOPE OF THE SIDE STREET.

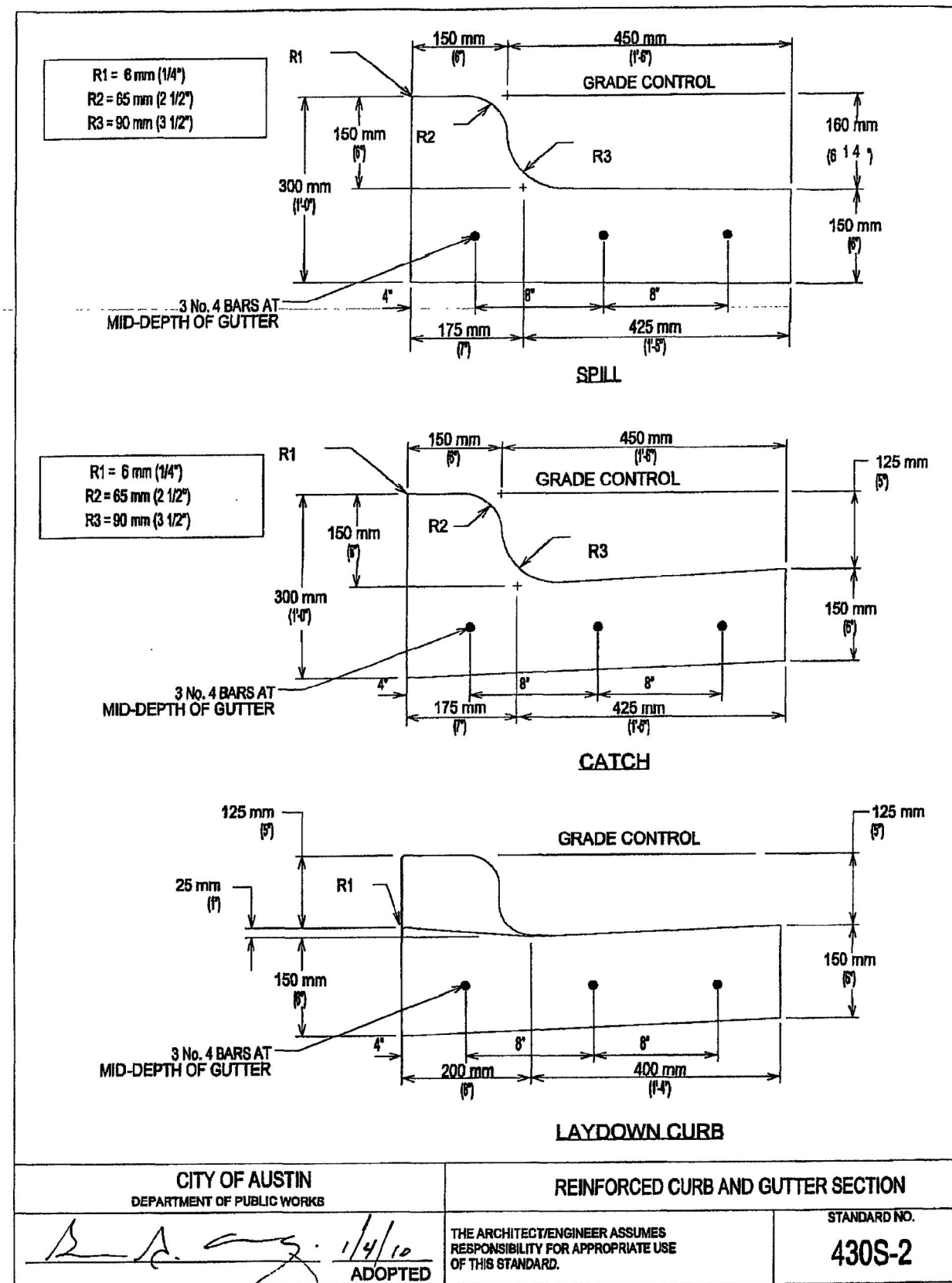
- NOTES:
1. MATERIALS AND CONSTRUCTION METHODS SHALL CONFORM TO THE CITY OF AUSTIN STANDARD SPECIFICATIONS.
 2. CONCRETE FOR THE VALLEY GUTTER SHALL BE CLASS A, ITEM 403S, "CONCRETE FOR STRUCTURES".
 3. MONOLITHIC CURB AND GUTTER SHALL BE MEASURED BY PLAN QUANTITY PER SQUARE FEET AND PAID AS VALLEY GUTTER.
 4. THE UPSTREAM CURB MID POINT MUST BE AT OR LOWER THAN THE BEGINNING P.C. AND 0.5% MINIMUM HIGHER THAN THE OPPOSING MID POINT.
 5. ALLOWABLE CONSTRUCTION JOINT AT THE CENTER LINE WHEN TRAFFIC FLOW MUST BE MAINTAINED, CONSTRUCTED AS A CONTROL JOINT.

CITY OF AUSTIN DEPARTMENT OF PUBLIC WORKS		CONCRETE VALLEY GUTTER	
<u>Bill Anderson</u> <u>6/12/06</u> ADOPTED		THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 436S-2 2 OF 2

 ROLLINGWOOD TEXAS		
 <i>WSB LLC</i> <i>FIRM # 16849</i>		
<i>BETTIS AND VALE</i> <i>DRAINAGE ANALYSIS</i> <i>STANDARDS</i>		
<i>SHEET 1 OF 14</i>		
COUNTY TRAVIS	CITY ROLLINGWOOD	SHEET NO. 15

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ROLLINGWOOD
TEXAS

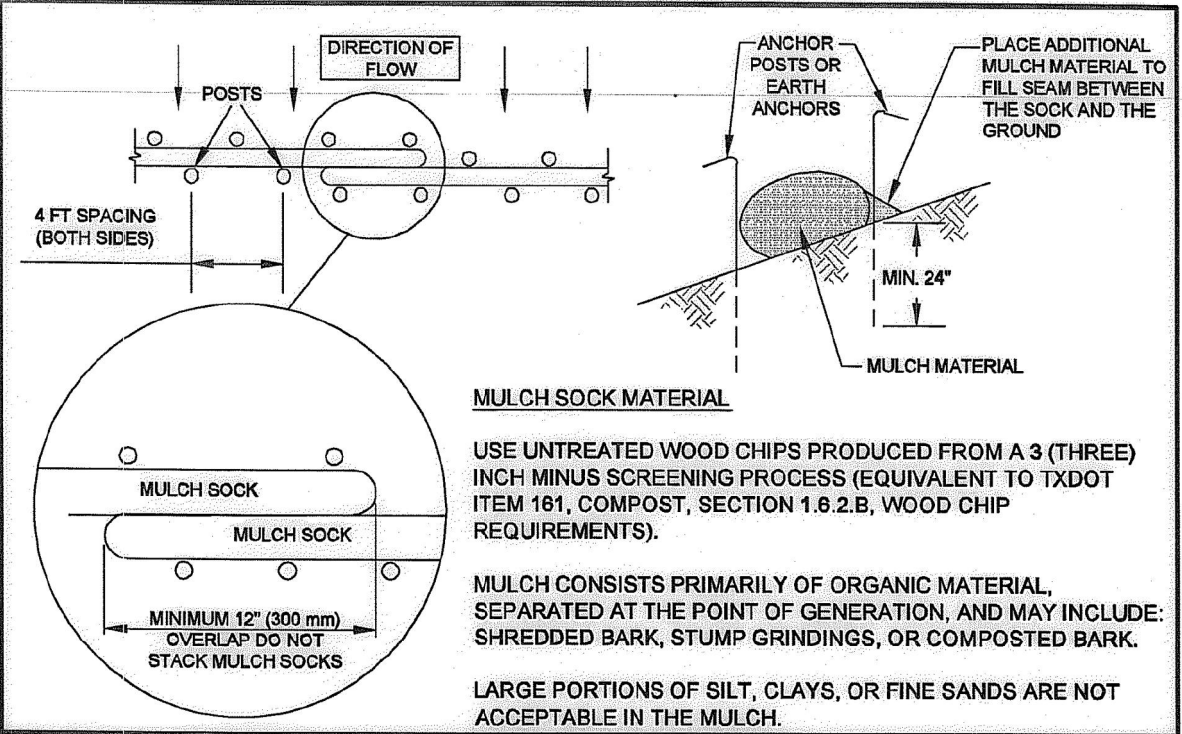
wsb WSB LLC
FIRM # 16849

BETTIS AND VALE
DRAINAGE ANALYSIS

STANDARDS

SHEET 2 OF 14

COUNTY	CITY	SHEET NO.
TRAVIS	ROLLINGWOOD	16



NOTES:

1. STEEL OR WOOD POSTS WHICH SUPPORT THE MULCH SOCK SHALL BE INSTALLED ON A SLIGHT ANGLE TOWARD THE ANTICIPATED RUNOFF SOURCE. POST MUST BE EMBEDDED A MINIMUM OF 600mm (24 inches). IF WOOD POSTS CANNOT ACHIEVE 600mm (24 inches) DEPTH, USE STEEL POSTS. EARTH ANCHORS ARE ALSO ACCEPTABLE.
2. THE TOE OF THE MULCH SOCK SHALL BE PLACED SO THAT THE MULCH SOCK IS FLAT AND PERPENDICULAR TO THE LINE OF FLOW. IN ORDER TO PREVENT WATER FROM FLOWING BETWEEN THE JOINTS OF ADJACENT ENDS OF MULCH SOCKS, LAP THE ENDS OF ADJACENT MULCH SOCKS A MINIMUM OF 300mm (12 inches).
3. MULCH MATERIAL MUST BE FREE OF REFUSE, PHYSICAL CONTAMINANTS, AND MATERIAL TOXIC TO PLANT GROWTH; IT IS NOT ACCEPTABLE FOR THE MULCH MATERIAL TO CONTAIN GROUND CONSTRUCTION DEBRIS, BIOSOLIDS, OR MANURE.
4. SOCK MATERIAL WILL BE 100% BIODEGRADABLE, PHOTODEGRADABLE, OR RECYCLABLE SUCH AS BURLAP, TWINE, UV PHOTOBIODEGRADABLE PLASTIC, POLYESTER, OR ANY OTHER ACCEPTABLE MATERIAL.
5. MULCH SOCKS SHOULD BE USED AT THE BASE OF SLOPES NO STEEPER THAN 2:1 AND SHOULD NOT EXCEED THE MAXIMUM SPACING CRITERIA PROVIDED IN CITY OF AUSTIN ENVIRONMENTAL CRITERIA MANUAL TABLE 1.4.5.F.1 FOR A GIVEN SLOPE CATEGORY.
6. ACCUMULATED SILT SHALL BE REMOVED WHEN IT REACHES A DEPTH OF 150mm (6 inches). THE SILT SHALL BE DISPOSED OF ON AN APPROVED SITE AND IN SUCH A MANNER THAT WILL NOT CONTRIBUTE TO ADDITIONAL SILTATION.

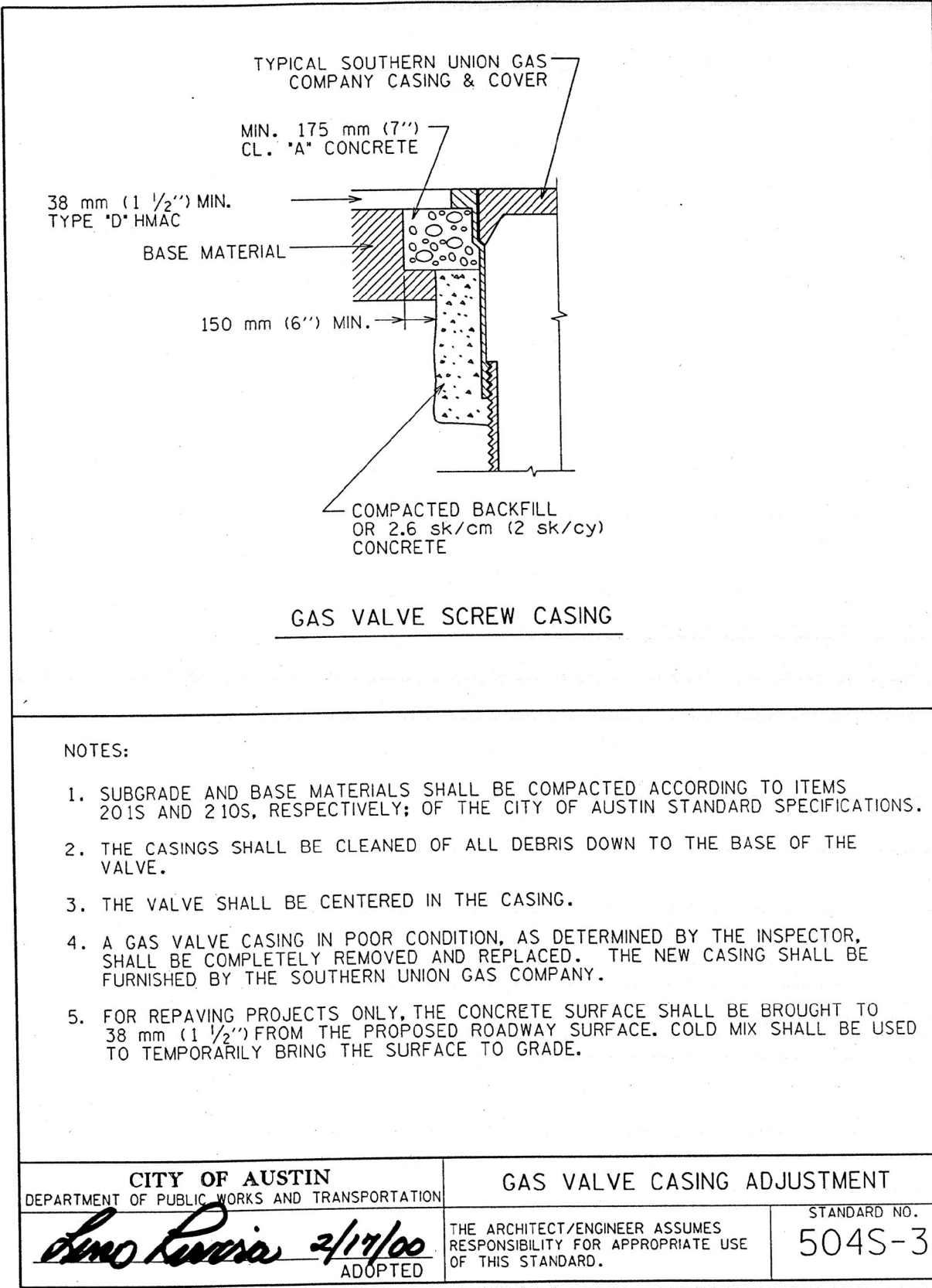
CITY OF AUSTIN WATERSHED PROTECTION DEPARTMENT		MULCH SOCK	
<i>Megan S. Ryan, P.E.</i> 08/24/2010 ADOPTED		THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 648S-1

ROLLINGWOOD
TEXAS

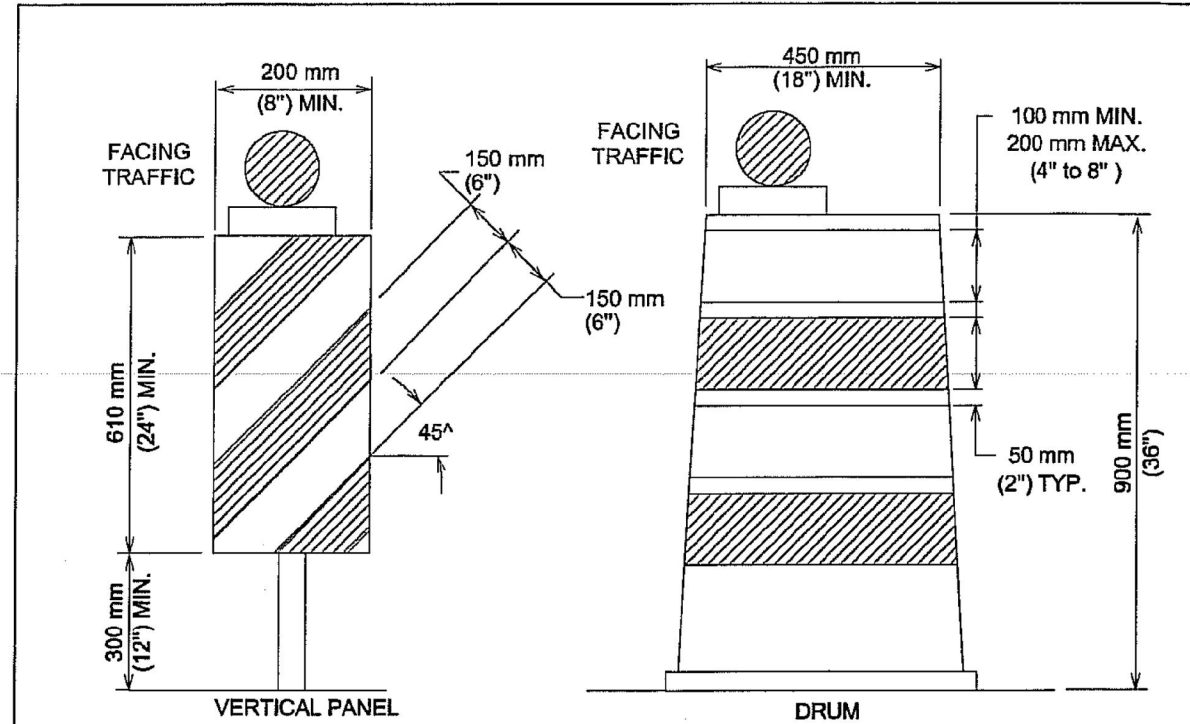
wsb WSB LLC
FIRM # 16849

BETTIS AND VALE
DRAINAGE ANALYSIS

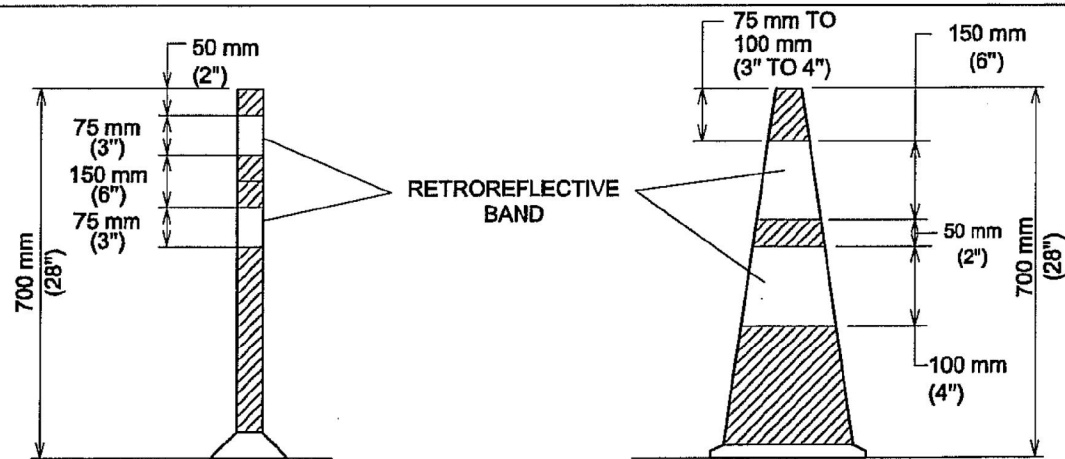
STANDARDS



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LONG TERM AND INTERMEDIATE TERM STATIONARY WORK



TUBULAR MARKERS
SHORT TERM AND SHORT DURATION WORK

SEE STANDARD 804S-5
SHEET 12 OF 13 AND SHEET 13 OF 13
FOR GENERAL NOTES AND DEVICE SPACING.

CITY OF AUSTIN DEPARTMENT OF PUBLIC WORKS		CHANNELIZING DEVICES	
<i>K. A. Long</i> 1/4/10 ADOPTED		THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 804S-5 1 OF 13

CHANNELIZING DEVICES

1. ALL CHANNELIZING DEVICES SHALL HAVE WARNING LIGHTS OR LARGE REFLECTORS WHEN USED AT NIGHT. FLASHING WARNING LIGHTS MAY BE PLACED ON CHANNELIZING DEVICES USED SINGULARLY OR IN GROUPS TO MARK A SPOT CONDITION. WARNING LIGHTS ON CHANNELIZING DEVICES USED IN A SERIES SHALL BE STEADY-BURN. CHANNELIZING DEVICES IN TAPERS AT NIGHT SHALL HAVE TYPE C WARNING LIGHTS.
2. THE RETROREFLECTIVE MATERIAL USED ON CHANNELIZING DEVICES SHALL HAVE A SMOOTH, SEALED OUTER SURFACE.
3. THE NAME AND TELEPHONE NUMBER OF THE AGENCY, CONTRACTOR OR SUPPLIER SHALL BE SHOWN ON THE NON-RETROREFLECTIVE SURFACE OF ALL CHANNELIZING DEVICES. THE LETTERS AND NUMBERS SHALL BE A NON-RETROREFLECTIVE COLOR AND NOT OVER 50 mm (2") IN HEIGHT.
4. PARTICULAR ATTENTION SHOULD BE GIVEN TO ASSURE THAT CHANNELIZING DEVICES ARE MAINTAINED AND KEPT CLEAN, VISIBLE AND PROPERLY POSITIONED AT ALL TIMES. DEVICES SHALL BE REPLACED THAT ARE DAMAGED AND HAVE LOST A SIGNIFICANT AMOUNT OF THEIR RETROREFLECTIVITY AND EFFECTIVENESS.

CONES

CONES SHALL PREDOMINANTLY BE ORANGE, FLUORESCENT RED-ORANGE, OR FLUORESCENT YELLOW-ORANGE IN COLOR, NOT LESS THAN 70 mm (28") IN HEIGHT, AND SHALL BE MADE OF A MATERIAL THAT CAN BE STRUCK WITHOUT DAMAGING VEHICLES ON IMPACT. FOR NIGHT TIME USE, CONES SHALL BE RETROREFLECTIVE OR EQUIPPED WITH LIGHTING DEVICES FOR MAXIMUM VISIBILITY. RETROREFLECTION OF CONES SHALL BE PROVIDED BY A WHITE BOND 150 mm (6") WIDE, NO MORE THAN 75 TO 100 mm (3 TO 4") FROM THE TOP OF THE CONE, AND AN ADDITIONAL 100 mm (4") WHITE BAND A MINIMUM OF 50 mm (2") BELOW THE 150 mm (6") BAND. TRAFFIC CONES ARE NORMALLY USED FOR SHORT-TERM STATIONARY AND SHORT DURATION WORK. HOWEVER, CONES MAY BE USED FOR INTERMEDIATE-TERM STATIONARY WORK AT NIGHT, IF THE SITE IS CONTINUOUSLY MANNED.

TUBULAR MARKERS

TUBULAR MARKERS SHALL PREDOMINANTLY BE ORANGE IN COLOR, NOT LESS THAN 700 mm (28") IN HEIGHT, A MINIMUM 50 mm (2") WIDE WHEN FACING TRAFFIC AND MADE OF A MATERIAL THAT CAN BE STRUCK WITHOUT DAMAGING VEHICLES. FOR NIGHT TIME USE, TUBULAR MARKERS SHALL BE RETROREFLECTIVE PROVIDED BY TWO (2) 75 mm (3") WIDE WHITE BANDS PLACED A MAXIMUM OF 50 mm (2") FROM THE TOP, WITH A MAXIMUM OF 150 mm (6") BETWEEN BANDS. TUBULAR MARKERS ARE NORMALLY USED FOR SHORT-TERM STATIONARY AND SHORT DURATION WORK. HOWEVER, TUBULAR MARKERS MAY BE USED FOR INTERMEDIATE-TERM STATIONARY WORK AT NIGHT, IF THE SITE IS CONTINUOUSLY MANNED.

VERTICAL PANELS

VERTICAL PANELS SHALL BE 200 TO 300 mm (8 TO 12") WIDE AND AT LEAST 600 mm (24") IN HEIGHT. THEY SHALL HAVE ORANGE AND WHITE STRIPES, AND BE RETROREFLECTIVE. PANEL STRIPE WIDTHS SHALL BE 150 mm (6") EXCEPT WHERE PANEL HEIGHTS ARE LESS THAN 900 mm (36"), WHEN 100 mm (4") STRIPES MAY BE USED. IF USED FOR TWO-WAY TRAFFIC, BACK-TO-BACK PANELS SHALL BE USED.

DRUMS

1. DRUMS USED FOR TRAFFIC WARNING OR CHANNELIZATION SHALL BE CONSTRUCTED OF LIGHT-WEIGHT FLEXIBLE AND DEFORMABLE MATERIALS AND BE A MINIMUM OF 900 mm (36") IN HEIGHT, AND HAVE AT LEAST 450 mm (18") MINIMUM WIDTH, REGARDLESS OF ORIENTATION. STEEL DRUMS SHALL NOT BE USED. THE MARKINGS ON DRUMS SHALL BE HORIZONTAL, CIRCUMFERENTIAL, ALTERNATING ORANGE AND WHITE RETROREFLECTIVE STRIPES 100 TO 200 mm (4 TO 8") WIDE. EACH DRUM SHALL HAVE A MINIMUM OF TWO (2) ORANGE AND TWO (2) WHITE STRIPES. ANY NON-RETROREFLECTIVE SPACES BETWEEN THE HORIZONTAL ORANGE AND WHITE STRIPES, SHALL NOT EXCEED 50 mm (2") WIDE. DRUMS SHALL HAVE CLOSED TOPS THAT WILL NOT ALLOW COLLECTION OF ROADWORK OR OTHER DEBRIS.

2. DRUMS SHOULD NOT BE WEIGHTED WITH SAND, WATER OR ANY MATERIAL TO AN EXTENT THAT WOULD MAKE THE HAZARDOUS TO MOTORISTS, PEDESTRIANS OR WORKERS. WHEN THEY ARE USED IN REGIONS SUSCEPTIBLE TO FREEZING, THEY SHOULD HAVE DRAINAGE HOLES IN THE BOTTOM SO WATER WILL NOT ACCUMULATE AND FREEZE, CAUSING A HAZARD IF STRUCK BY A MOTORIST. BALLAST SHALL NOT BE PLACED ON TOP OF THE DRUM.

CITY OF AUSTIN DEPARTMENT OF PUBLIC WORKS		CHANNELIZING DEVICES	
<i>K. A. Long</i> 1/4/10 ADOPTED		THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 804S-5 2 OF 13

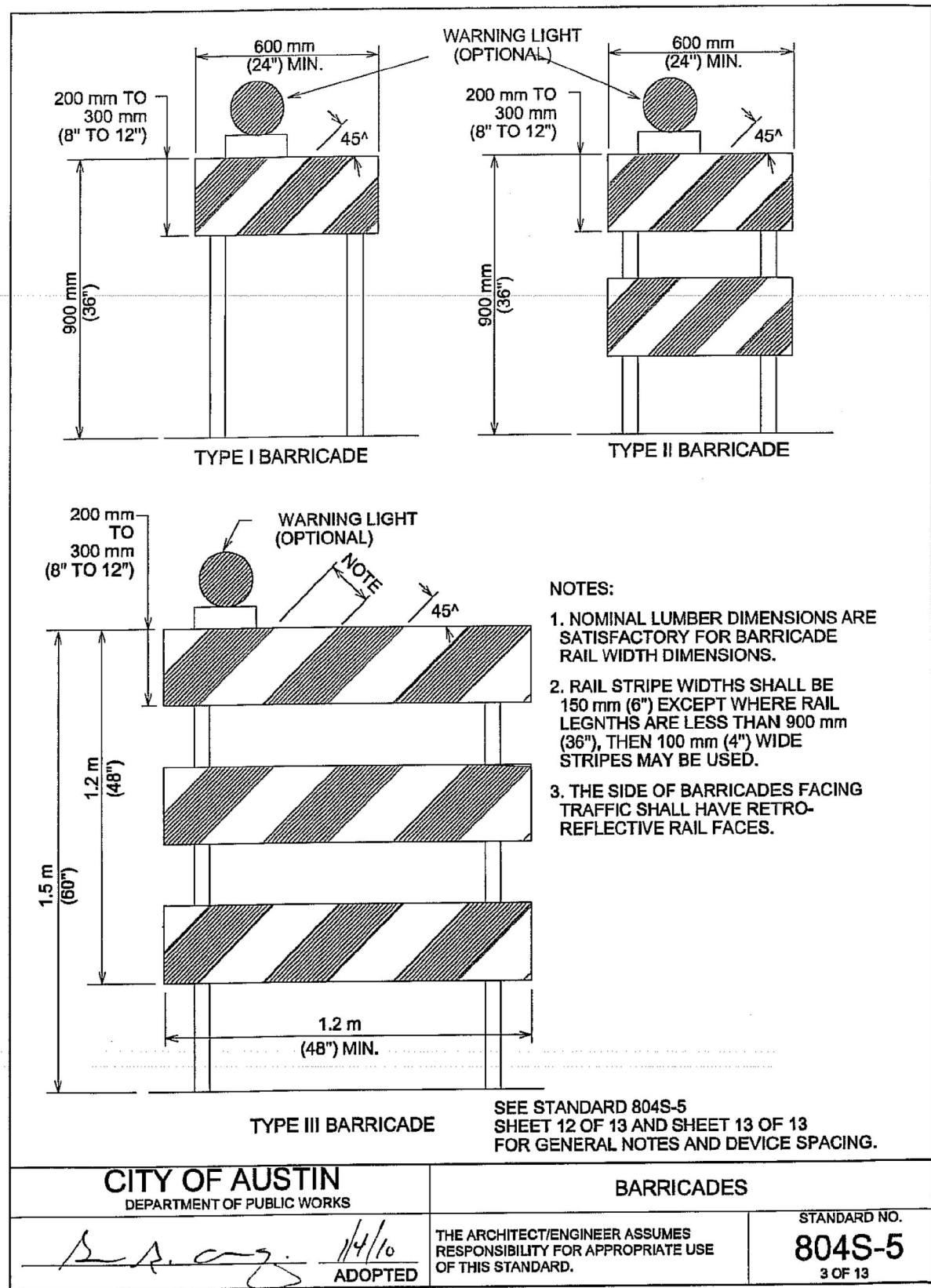
ROLLINGWOOD
TEXAS

wsb WSB LLC
FIRM # 16849

BETTIS AND VALE
DRAINAGE ANALYSIS

STANDARDS

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BARRICADES

1. BARRICADES SHALL BE OF THREE TYPES: TYPE I, TYPE II OR TYPE III.
2. STRIPES ON BARRICADE RAILS SHALL BE ALTERNATING ORANGE AND WHITE RETRO-REFLECTIVE STRIPES (SLOPING DOWNWARD AT AN ANGLE OF 45 DEGREES IN THE DIRECTION TRAFFIC IS TO PASS). THE STRIPES SHALL BE 150 mm (6") WIDE, EXCEPT WHERE RAIL LENGTHS ARE LESS THAN 900 mm (36"), WHEN 100 mm (4") WIDE STRIPES MAY BE USED.
3. WHERE A BARRICADE EXTENDS ENTIRELY ACROSS A ROADWAY, THE SURFACE STRIPES SHOULD SLOPE DOWNWARD IN THE DIRECTION TOWARD WHICH TRAFFIC MUST TURN. WHERE BOTH RIGHT AND LEFT TURNS ARE PROVIDED, THE STRIPES MAY SLOPE DOWNWARD IN BOTH DIRECTIONS FROM THE CENTER OF THE BARRICADE OR BARRICADES. WHERE NO TURNS ARE INTENDED, THE STRIPES SHOULD SLOPE DOWNWARD TOWARD THE CENTER OF THE BARRICADE OR BARRICADES.
4. BARRICADE RAILS SHOULD BE SUPPORTED IN A MANNER THAT WILL ALLOW THEM TO BE SEEN BY THE MOTORIST AND PROVIDE A STABLE SUPPORT NOT EASILY BLOWN OVER BY THE WIND OR TRAFFIC. FOR TYPE I BARRICADES, THE SUPPORT MAY INCLUDE OTHER UNSTRIPED HORIZONTAL PANELS NECESSARY TO PROVIDE STABILITY.
5. BARRICADES ARE LOCATED ADJACENT TO TRAFFIC AND ARE THEREFORE SUBJECT TO IMPACT WITH ERRANT VEHICLES. BECAUSE OF THEIR VULNERABLE POSITION AND THE HAZARD THEY COULD CREATE, THEY SHOULD BE CONSTRUCTED OF LIGHTWEIGHT MATERIALS AND HAVE NO RIGID STAY BRACING FOR A-FRAME DESIGNS. ALL BARRICADE SYSTEMS SHOULD BE CRASHWORTHY.
6. ON HIGH-SPEED EXPRESSWAYS OR IN OTHER SITUATION WHERE BARRICADES MAY BE SUSCEPTIBLE TO OVERTURNING IN THE WIND, SANDBAGS SHOULD BE USED FOR BALLASTING. SANDBAGS MAY BE PLACED ON PARTS OF THE FRAME OR STAYS TO PROVIDE THE REQUIRED BALLAST BUT SHALL NOT BE PLACED ON TOP OF ANY STRIPED RAIL. BARRICADES SHALL NOT BE BALLASTED BY HEAVY OBJECTS SUCH AS ROCKS OR CHUNKS OF CONCRETE.

CITY OF AUSTIN DEPARTMENT OF PUBLIC WORKS		BARRICADES	
<i>[Signature]</i> 1/4/10 ADOPTED		THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 804S-5 4 OF 13

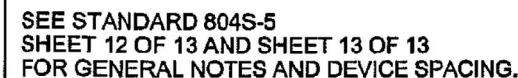
ROLLINGWOOD
TEXAS

wsb WSB LLC
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BETTIS AND VALE
DRAINAGE ANALYSIS

STANDARDS

SHEET 6 OF 14		
COUNTY	CITY	SHEET NO.
TRAVIS	ROLLINGWOOD	20



915 mm (36")

915 mm (36")

PAVEMENT EDGE OR CURB

2.1 m (7')

NOMINAL 100 mm x 100 mm (4" x 4") POST (TYP.)

SEE DETAIL BELOW

FOR 915 mm x 915 mm (36" x 36") AND SMALLER WARNING SIGNS & OTHER SIGNS HAVING AN AREA NOT EXCEEDING 1 sm (10.7 sf).

1220 mm (48")

1220 mm (48")

PAVEMENT EDGE OR CURB

2.1 m (7')

1.8 m (6')

PLAQUE

SEE DETAIL BELOW

FOR 1220 mm x 1220 mm (48" x 48") WARNING SIGNS.

150 mm (6")

DIRECTION OF TRAFFIC

9.5 mm (3/8") DRILLED HOLE FOR BREAKAGE AT GROUND LEVEL

WOOD POST SIGN SUPPORT USED AS FIXED SIGN SUPPORTS

915 mm x 915 mm x 13 mm (36" x 36" x 1/2") PLYWOOD

300 mm (12")

100 mm x 100 mm (4" x 4") PLASTIC POST

ROLL-UP SIGN

FIBERGLASS STAYS

300 mm (12")

300 mm (12")

300 mm (12")

300 mm (12")

300 mm (1') MOUNTING HEIGHT (SHORT TERM AND SHORT DURATION WORK)

SEE STANDARD 804S-5 SHEET 12 OF 13 AND PORTABLE SIGN SUPPORT

CITY OF AUSTIN DEPARTMENT OF PUBLIC WORKS		TRAFFIC CONTROL SIGNS	
 <u>S. A. Ortiz</u>	1/4/10 ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 804S-5 OF 12

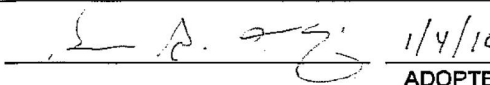
1. WARNING SIGNS SHALL BE ORANGE, FLUORESCENT RED-ORANGE OR FLUORESCENT YELLOW-ORANGE IN COLOR. THE FLUORESCENT VERSIONS OF ORANGE PROVIDE HIGHER CONSPICUITY THAN STANDARD ORANGE, ESPECIALLY DURING TWILIGHT. ALL SIGNS USED AT NIGHT SHALL BE EITHER RETROREFLECTIVE, WITH A MATERIAL THAT HAS A SMOOTH, SEALED OUTER SURFACE, OR ILLUMINATED TO SHOW SIMILAR SHAPE AND COLOR BOTH DAY AND NIGHT. SIGN ILLUMINATION MAY BE EITHER INTERNAL OR EXTERNAL. ROADWAY LIGHTING DOES NOT MEET THE REQUIREMENTS FOR SIGN ILLUMINATION.
2. TYPE A FLASHING WARNING LIGHTS MAY BE USED IN CONJUNCTION WITH SIGNS AT NIGHT. STANDARD ORANGE FLAGS MAY BE USED FOR DAY TIME OPERATIONS. HOWEVER, NEITHER LIGHTS NOR FLAGS MAY BLOCK THE SIGN LEGEND.
3. SIGNS SHOULD BE LOCATED ON THE RIGHT-HAND SIDE OF THE ROADWAY. WHEN SPECIAL EMPHASIS IS NEEDED, SIGNS MAY BE PLACED ON BOTH THE LEFT AND RIGHT SIDES OF ROADWAY. SIGNS SHALL BE PLACED ON BOTH THE LEFT AND RIGHT SIDES OF ONE-WAY OR DIVIDED ROADWAYS. SIGNS USED FOR LONG-TERM STATIONARY AND INTERMEDIATE-TERM STATIONARY WORK SHALL BE MOUNTED AT A HEIGHT OF AT LEAST 2.1 m (7'), MEASURED FROM THE BOTTOM OF THE SIGN. THE HEIGHT TO THE BOTTOM OF A SECONDARY SIGN MOUNTED BELOW ANOTHER SIGN MAY BE 0.3 m (1') LESS THAN THE APPROPRIATE HEIGHT ABOVE.
4. SIGNS MAY BE MOUNTED ON PORTABLE SUPPORTS FOR SHORT-TERM, SHORT DURATION, MOBILE CONDITIONS AND EMERGENCIES. SIGNS MOUNTED ON PORTABLE SUPPORTS SHALL BE AT A HEIGHT OF AT LEAST 0.3 m (1'), MEASURED FROM THE BOTTOM OF THE SIGN.
5. ALL SIGN SYSTEMS SHOULD BE CRASHWORTHY. NO SIGN MOUNTS SHALL BLOCK OR IMPEDE SIDEWALKS UNLESS NO OTHER OPTION IS AVAILABLE. ONLY SANDBAGS SHOULD BE USED FOR BALLASTING SIGN MOUNTS.

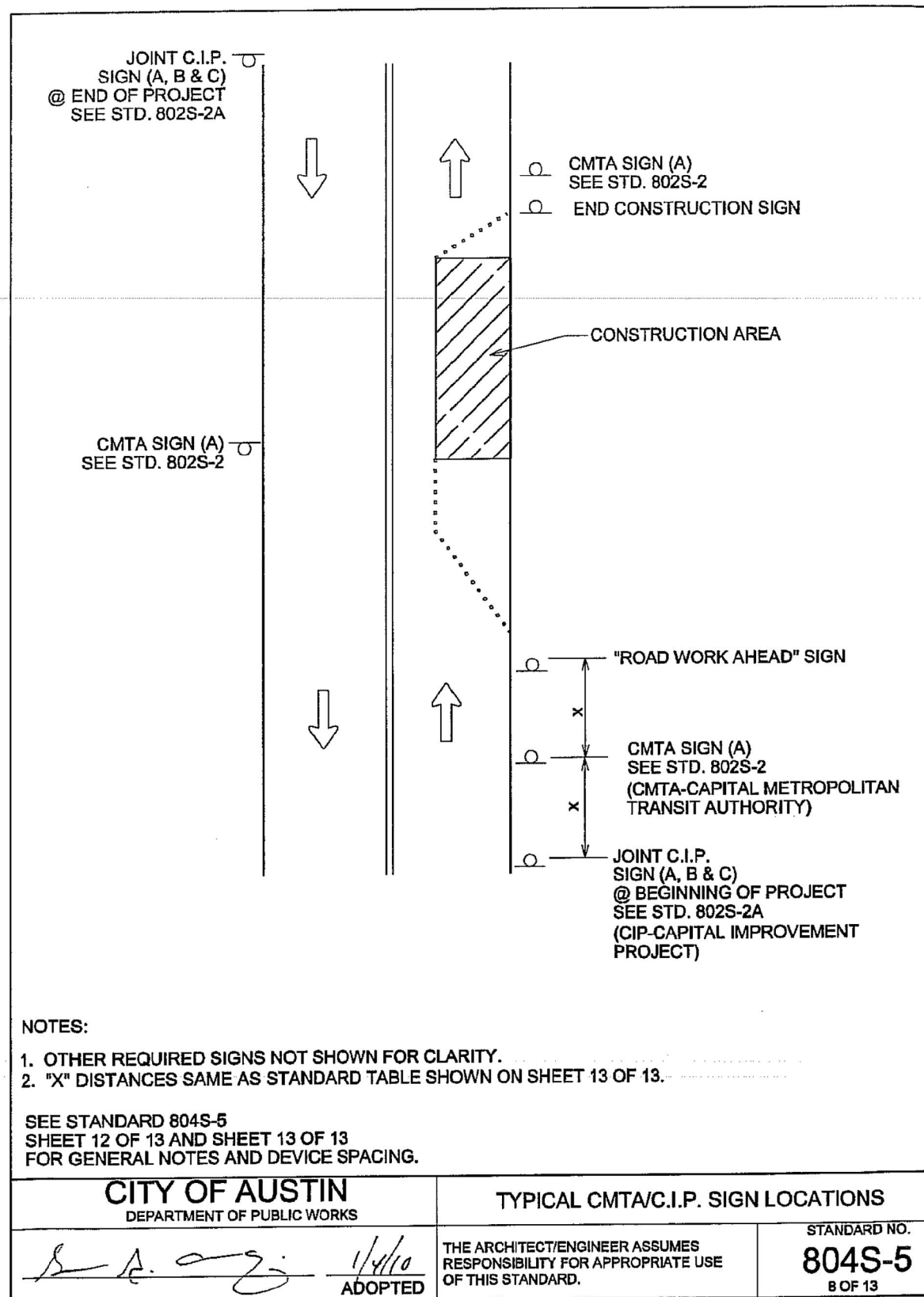
TABLE VI-3 TYPICAL CONSTRUCTION WARNING SIGN SIZE AND SPACING

Roadway Classification	Posted Speed	Sign Spacing ☆	Long-term Stationary Or Intermediate-term Stationary Approaching Warning Signs CW20 Series And CW22-1 Sign		Short-term Stationary Or Short Duration Approach Warning Signs CW22 Series		Other Warning Signs
			Standard	Minimum†	Standard	Minimum†	
Conven.	KPH (MPH)	meters (feet)	mm (inches)	mm (inches)	mm (inches)	mm (inches)	mm (inches)
	50 (30)	40 (120)	1220x1220 (48x48)	915x915 (36x36)			
	55 (35)	50 (160)			915x915 (36x36)		915x915 (36x36)
	65 (40)	75 (240)					
	70 (45)	100 (320)		Use Standard Size		Use Standard Size	
	80 (50)	120 (400)					
	90 (55)	150 2 (500)					
	100 (60)	180 2 (600)			1220x1220 (48x48)		1220x1220 (48x48)
	105 (65)	210 2 (700)					
	115 (70)	240 2 (800)					
Exp. or Fwy	☆☆	☆☆ 3			☆☆☆	☆☆☆	☆☆☆

- ☆ MINIMUM DISTANCE FROM WORK TO 1st ADVANCE WARNING SIGN AND/OR DISTANCE BETWEEN EACH ADDITIONAL SIGN.
- ☆☆ FOR TYPICAL SIGN SPACINGS ON EXPRESSWAYS AND FREEWAYS, REFER TO THE CURRENT ADDITION OF TMUTCD.
- ☆☆☆ SMALLER SIGN SIZES MAY BE USED WHERE SIGN DESIGNS HAVE NOT BEEN INCLUDED IN THE "STANDARD HIGHWAY SIGNS DESIGN MANUAL".

1. SPECIAL OR LARGER SIZE SIGNS MAY BE USED AS NECESSARY.
2. DISTANCE BETWEEN SIGNS SHOULD BE INCREASED AS REQUIRED TO HAVE 450 m (1500') OR MORE ADVANCE WARNING.
3. DISTANCE BETWEEN SIGNS SHOULD BE INCREASED AS REQUIRED TO HAVE A 0.8 km (½ MILE) OR MORE ADVANCE WARNING.
4. FOR USE ONLY ON SECONDARY ROADS OR CITY STREETS WHERE SPEEDS ARE LOW.

CITY OF AUSTIN DEPARTMENT OF PUBLIC WORKS		TRAFFIC CONTROL SIGNS	
 1/4/10 ADOPTED		THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 804S-5 7 OF 13



ROLLINGWOOD
TEXAS

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BETTIS AND VALE
DRAINAGE ANALYSIS
STANDARDS

35 mm R
(1 1/2")

600 mm
(24")

450 mm
(18")

15 mm
(5/8")

25 mm
(1")

65 mm
(2 1/2")

125 mm
(5")

75 mm
(3")

125 mm
(5")

65 mm
(2 1/2")

WORK
ZONE

LETTERS - BLACK
BORDER - BLACK
BACKGROUND - ORANGE
REFL.

35 mm R
(1 1/2")

750 mm
(30")

115 mm
(4 1/2")

125 mm
(5")

75 mm
(3")

125 mm
(5")

75 mm
(3")

125 mm
(5")

115 mm
(4 1/2")

15 mm
(5/8")

25 mm
(1")

TRAFFIC
FINES
DOUBLE

LETTERS - BLACK
BORDER - BLACK
BACKGROUND - WHITE
REFL.

SEE STANDARD DETAIL 804S-5
SHEET 5 OF 13 FOR SKID-
MOUNTED SIGN SUPPORT.

CITY OF AUSTIN
DEPARTMENT OF PUBLIC WORKS

11/4/10

ADOPTED

THE ARCHITECT/ENGINEER ASSUMES
RESPONSIBILITY FOR APPROPRIATE USE
OF THIS STANDARD.

STANDARD NO.
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9 OF 13

750 mm (30")

120 mm
(4 13/16")

88 mm
(3 1/2")

63 mm
(2 1/2")

900 mm
(36")

575 mm (23")

ACCESS TO

Service

Food

Gasoline

WHITE RETROREFLECTIVE BORDER

BLUE RETROREFLECTIVE BACKGROUND

WHITE RETROREFLECTIVE ARROW AND LETTERS

WHITE RETROREFLECTIVE BUSINESS LOGO

NOTES:
1. CONTRACTORS CAN MAKE BUSINESS NAMES REMOVABLE/CHANGEABLE AS AN OPTION.
2. BUSINESS LOGO ARE OPTIONAL. IF USED LETTERING MUST BE MINIMIZED.

CITY OF AUSTIN
DEPARTMENT OF PUBLIC WORKS

11/4/10

ADOPTED

THE ARCHITECT/ENGINEER ASSUMES
RESPONSIBILITY FOR APPROPRIATE USE
OF THIS STANDARD.

STANDARD NO.
804S-5
10 OF 13

ROLLINGWOOD
TEXAS

wsb

WSB LLC
FIRM # 16849

BETTIS AND VALE
DRAINAGE ANALYSIS

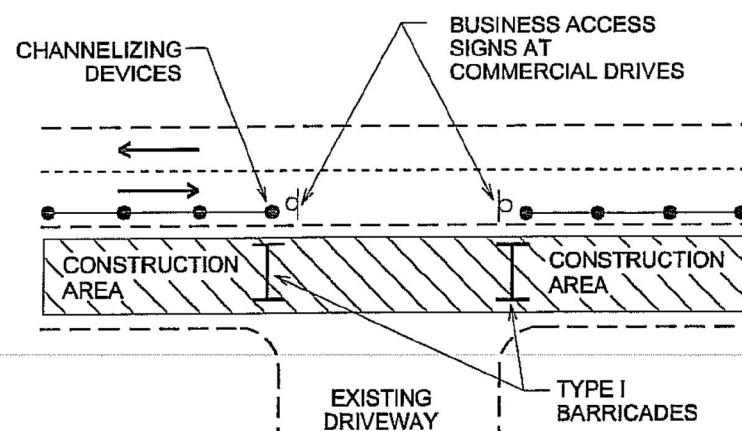
STANDARDS

COUNTY
TRAVIS

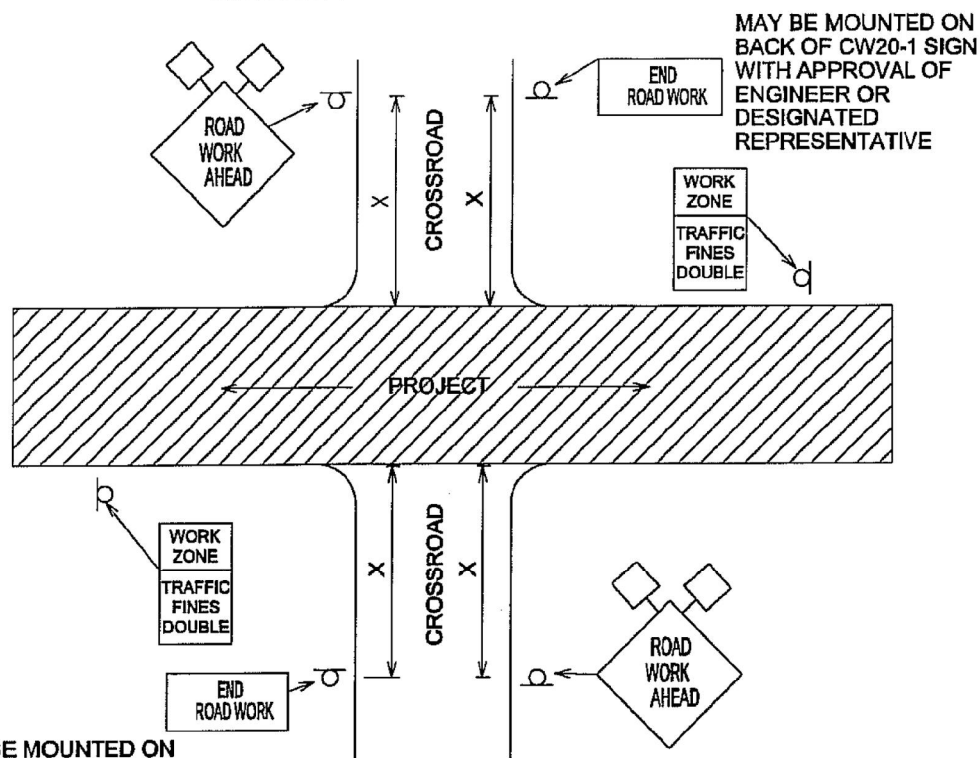
CITY
ROLLINGWOOD

SHEET NO.
23

SHEET 9 OF 14



DRIVEWAY ACCESS BARRICADE DETAIL



MAY BE MOUNTED ON BACK OF TMUTCD CW20-1 SIGN WITH APPROVAL OF ENGINEER OR DESIGNATED REPRESENTATIVE (TMUTCD-TEXAS MANUAL FOR UNIFORM TRAFFIC CONTROL DEVICES)

CROSSROAD SIGNING AND BARRICADING

SEE STANDARD 804S-5 SHEET 12 OF 13 AND SHEET 13 OF 13 FOR GENERAL NOTES AND DEVICE SPACING.

CITY OF AUSTIN
DEPARTMENT OF PUBLIC WORKS

SIGNING AND BARRICADING
CROSSROAD & DRIVEWAY

THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.

STANDARD NO.
804S-5
11 OF 13

1. ALL TRAFFIC CONTROL DEVICES, SIGNS, BARRICADES AND WARNING SIGNS SHALL BE FURNISHED, PLACED, CONSTRUCTED AND MAINTAINED IN THE APPROPRIATE TYPES AND SIZES AND FLAGGER OPERATIONS EXECUTED IN ACCORDANCE WITH THE CURRENT EDITION OF THE TEXAS MANUAL ON UNIFORM CONTROL DEVICES (TMUTCD), THE CITY OF AUSTIN STANDARD SPECIFICATIONS SERIES 800 AND THE CITY OF AUSTIN TRANSPORTATION CRITERIA MANUAL, OR AS DIRECTED BY THE ENGINEER OR DESIGNATED REPRESENTATIVE. IF A CONFLICT ARISES THEN THE CITY OF AUSTIN TRANSPORTATION CRITERIA MANUAL SHALL CONTROL UNLESS OTHERWISE INSTRUCTED BY THE ENGINEER OR DESIGNATED REPRESENTATIVE.

2. THE CONTRACTOR SHALL NOTIFY THE TRANSPORTATION DIVISION OF THE DEPARTMENT OF PUBLIC WORKS AT 974-7024 NO LATER THAN THE MONDAY OF THE WEEK DURING WHICH THE CONTRACTOR INTENDS TO SET UP BARRICADES TO START CONSTRUCTION.

3. PROPOSED CONSTRUCTION TRAFFIC MOVEMENTS MAY REQUIRE EXISTING SIGNAL HEADS TO BE RELOCATED. THE CITY OF AUSTIN WILL REVIEW SIGNAL HEAD LOCATIONS DURING CONSTRUCTION AND PERFORM THE REQUIRED ADJUSTMENTS. THE CONTRACTOR SHALL CONTACT THE TRANSPORTATION DIVISION OF THE DEPARTMENT OF PUBLIC WORKS AT 974-7024, THREE (3) DAYS PRIOR TO PLACEMENT ANY TRAFFIC CONTROLS WHICH MAY REQUIRE SIGNAL HEAD ADJUSTMENTS/RELOCATION.

4. THE CONTRACTOR SHALL PROVIDE ONE (1) FULL-TIME OFF-DUTY, UNIFORMED AUSTIN POLICE DEPARTMENT CERTIFIED PEACE OFFICER AND ONE (1) VEHICLE OF THE TYPE APPROVED BY THE ENGINEER OR DESIGNATED REPRESENTATIVE FOR TEMPORARY LANE CLOSURES WHEN UNDERSEALING, MILLING, PAVING AND WHEN WORKING IN INTERSECTIONS AS PART OF THE TRAFFIC CONTROL OPERATIONS. THE PEACE OFFICER SHALL BE ABLE TO SHOW PROOF OF CERTIFICATION BY THE TEXAS COMMISSION ON LAW ENFORCEMENT OFFICER STANDARDS.

5. THE CONTRACTOR SHALL NOTIFY ALL OTHER GOVERNMENTAL AGENCIES WHOSE RIGHTS-OF-WAY ARE AFFECTED BY HIS WORK ACTIVITIES. THE CONTRACTOR SHALL PROVIDE ANY ADDITIONAL TRAFFIC CONTROL DEVICES THAT THEY MAY NEED.

6. THE CONTRACTOR SHALL MAINTAIN ONE (1) DUST-FREE LANE OF TRAFFIC IN EACH DIRECTION AT ALL TIMES, UNLESS OTHERWISE NOTED IN THE DRAWINGS OR APPROVED THE ENGINEER OR DESIGNATED REPRESENTATIVE.

7. THERE SHALL BE A MINIMUM OF THREE (3) METERS (10 FEET) CLEAR WIDTH FOR EACH LANE OF TRAFFIC IN CHANNELIZED AREAS, UNLESS OTHERWISE NOTED ON THE DRAWINGS OR APPROVED BY THE ENGINEER OR DESIGNATED REPRESENTATIVE.

8. THE CONTRACTOR SHALL MAINTAIN DRIVEWAY ACCESS AT ALL TIMES. IF ACCESS CANNOT BE MAINTAINED, THE CONTRACTOR WITH THE APPROVAL OF THE ENGINEER OR DESIGNATED REPRESENTATIVE SHALL PROVIDE AT LEAST 24 HOUR WRITTEN NOTICE OF LIMITED ACCESS TO AFFECTED PROPERTY OWNERS. THE CONTRACTOR SHALL PROVIDE BUSINESS ACCESS SIGNS AS NEEDED TO INFORM DRIVERS OF THE LOCATIONS OF ALL DRIVEWAYS.

9. TEMPORARY LANE CLOSURES IN THE CENTRAL BUSINESS DISTRICT (CBD) OR ON ARTERIAL STREETS SHALL NOT BE PERMITTED DURING THE HOURS OF 7 AM TO 9 AM AND 4 PM TO 6PM MONDAY THROUGH FRIDAY UNLESS PRIOR APPROVAL HAS BEEN OBTAINED FROM THE TRANSPORTATION DIVISION.

10. TRAFFIC CONTROL SHOWN ON STANDARD DETAILS IS TYPICAL. ADDITIONAL SIGNING AND/OR BARRICADING, AS WELL AS TEMPORARY PAVEMENT MARKINGS AND OBLITERATION/RESTORATION OF EXISTING PAVEMENT MARKINGS, MAY BE REQUIRED DEPENDING ON FIELD CONDITIONS. FIELD ADJUSTMENTS TO TRAFFIC CONTROLS WILL NOT BE PAID FOR DIRECTLY, BUT WILL BE CONSIDERED SUBSIDIARY TO ITEM NO. 803S "BARRICADES, SIGNS AND TRAFFIC HANDLING".

11. THE CONTRACTOR SHALL DESIGNATE A COMPETENT PERSON FOR TRAFFIC CONTROL. THE COMPETENT PERSON SHALL MAKE INSPECTIONS OF THE TRAFFIC CONTROL DEVICES AT LEAST TWO (2) TIMES A DAY (ONCE AT THE BEGINNING OF THE DAY AND ONCE AT THE END OF THE DAY), INCLUDING NON-WORKING DAYS, ENSURING THAT ALL DEVICES ARE IN THEIR PROPER PLACE AND ARE IN WORKING ORDER.

12. ALL DEVICES SHALL BE MADE USING MATERIALS LISTED ON THE TxDOT APPROVED PRODUCTS LIST.

CITY OF AUSTIN
DEPARTMENT OF PUBLIC WORKS

GENERAL TRAFFIC CONTROL NOTES

THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.

THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.

STANDARD NO.
804S-5
12 OF 13

ROLLINGWOOD
TEXAS

wsb WSB LLC
FIRM # 16849

BETTIS AND VALE
DRAINAGE ANALYSIS
STANDARDS

13. ALL PERSONS WORKING WITHIN THE RIGHT-OF-WAY SHALL WEAR A BRIGHTLY COLORED SAFETY VEST. FOR NIGHTTIME WORK THE VEST SHALL BE RETROREFLECTIVE,
14. WHEN AN INTERSECTION IS CLOSED FOR CONSTRUCTION, THE CONTRACTOR SHALL PROCEED WITH CONSTRUCTION IN SUCH A MANNER THAT THE CLOSURE TIME IS MINIMIZED.
15. THE CONTRACTOR SHALL NOTIFY THE CAPITAL METRO DISPATCHER AT 385-4295 ONE (1) WEEK PRIOR TO LANE CLOSURES ADJACENT TO BUS STOPS.

DURATION OF WORK

WORK DURATION IS A MAJOR FACTOR IN DETERMINING THE NUMBER AND TYPES OF DEVICES USED IN TEMPORARY TRAFFIC ZONES. THE FIVE (5) CATEGORIES OF WORK DURATION AND THEIR TIME AT A LOCATION ARE AS FOLLOWS:

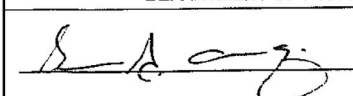
- LONG-TERM STATIONARY-WORK THAT OCCUPIES A LOCATION FOR MORE THAN 3 DAYS.
- INTERMEDIATE-TERM STATIONARY-WORK THAT OCCUPIES A LOCATION FROM OVERNIGHT TO 3 DAYS.
- SHORT-TERM STATIONARY-DAYTIME WORK THAT OCCUPIES A LOCATION FROM 1 TO 12 HOURS.
- SHORT-DURATION WORK THAT OCCUPIES A LOCATION UP TO 1 HOUR.
- MOBILE-WORK THAT MOVES INTERMITTENTLY OR CONTINUOUSLY.

Typical Transition Lengths and
Suggested Maximum Spacing of Devices

		Minimum Desirable Taper Lengths (L) Meters (Feet)			Suggested Max. Device Spacing		Suggested Sign Spacing Meters (Feet)
Posted Speed KPH (MPH)	Formula	3.0(10) Offset Meters (feet)	3.3(11) Offset Meters (feet)	3.6(12) Offset Meters (feet)	On a taper Meters (feet)	On a tangent Meters (feet)	"X" Dimension
50 (30)	$L = WS^2 / 60$	45 (150)	50 (165)	55 (180)	9 (30)	15-20 (60-75)	40 (120)
55 (35)		65 (205)	70 (225)	75 (245)	10 (35)	25-25 (70-90)	50 (160)
65 (40)		80 (265)	90 (295)	100 (320)	12 (40)	25-30 (80-100)	75 (240)
70 (45)	L=WS	135 (450)	165 (495)	165 (540)	13 (45)	25-30 (90-110)	100 (320)
80 (50)		150 (500)	165 (550)	180 (600)	15 (50)	30-35 (100-125)	120 (400)
90 (55)		165 (550)	185 (605)	200 (660)	16 (55)	35-40 (110-140)	150 (500)
100 (60)		180 (600)	200 (660)	220 (720)	18 (60)	40-45 (120-150)	180 (600)
105 (65)		195 (650)	215 (715)	235 (780)	19 (65)	40-50 (130-165)	210 (700)
115 (70)		215 (700)	235 (770)	255 (840)	21 (70)	45-55 (140-175)	240 (800)

CITY OF AUSTIN
DEPARTMENT OF PUBLIC WORKS

GENERAL TRAFFIC CONTROL NOTES

 1/4/10
ADOPTED

THE ARCHITECT/ENGINEER ASSUMES
RESPONSIBILITY FOR APPROPRIATE USE
OF THIS STANDARD.

STANDARD NO.
804S-5
13 OF 13

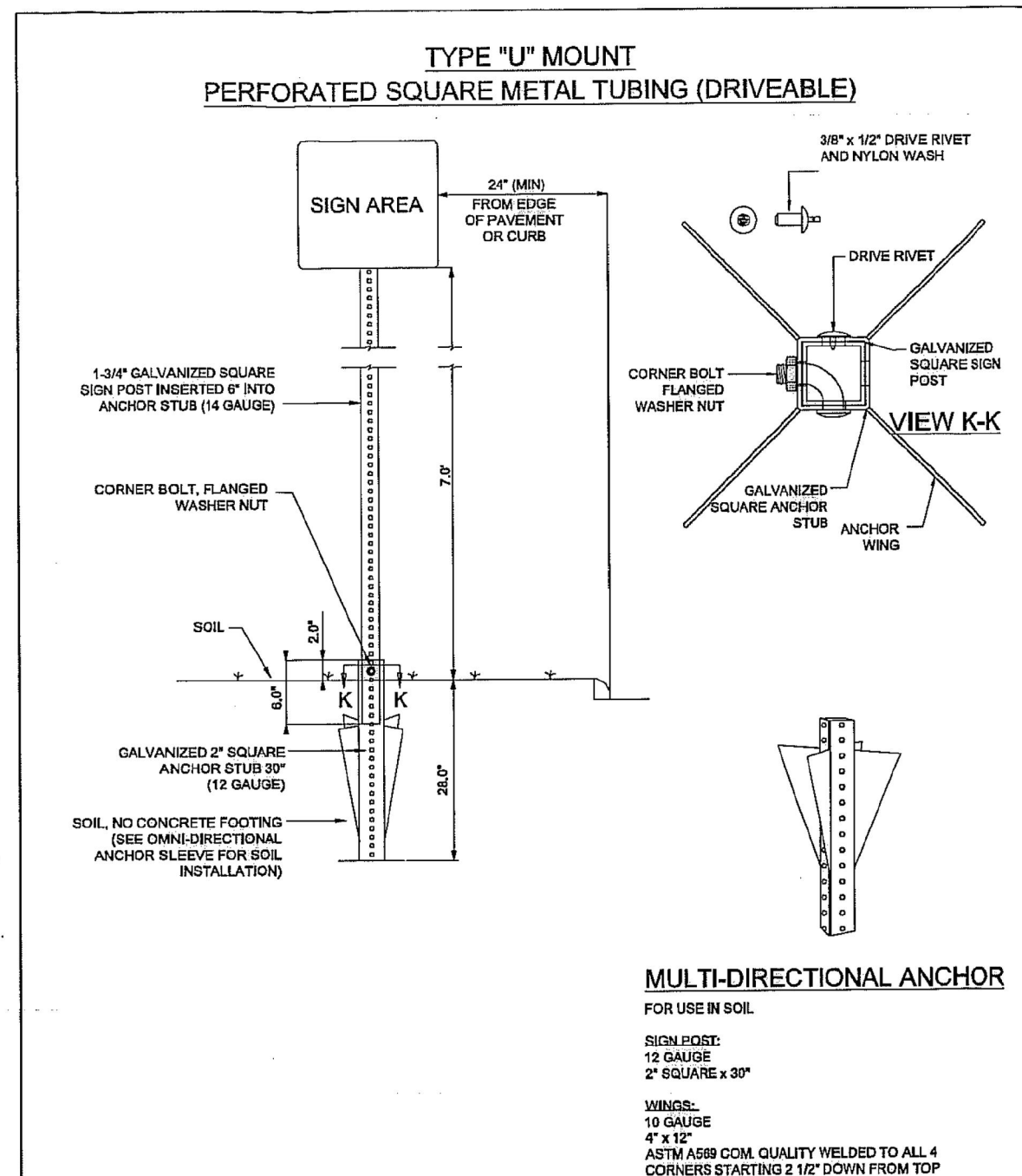
ROLLINGWOOD
TEXAS

wsb WSB LLC
FIRM # 16849

BETTIS AND VALE
DRAINAGE ANALYSIS

STANDARDS

CITY OF AUSTIN DEPARTMENT OF PUBLIC WORKS	GROUND MOUNTED TRAFFIC AND STREET NAME SIGNS	
<i>Kui Burdard - Jan 14/11</i> ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 824-2 1 OF 3



CITY OF AUSTIN DEPARTMENT OF PUBLIC WORKS	GROUND MOUNTED TRAFFIC AND STREET NAME SIGNS - SOIL	
<i>Ken Dunchard - Mayor</i> 4/4/11 ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 824-2 2 OF 3

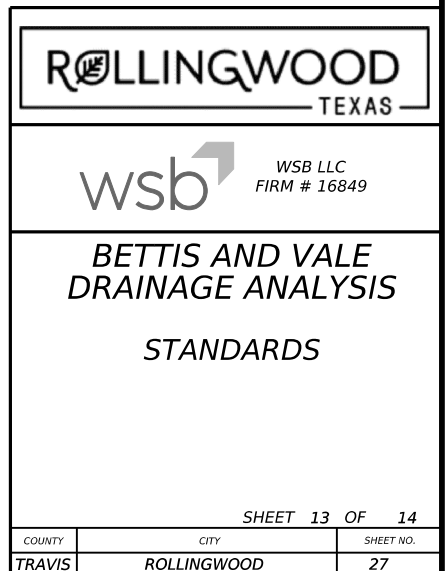




Diagram illustrating a 10'-0" CURB TRANSITION (6" TO 1'-0"). The diagram shows a horizontal line representing the TOP OF PAVEMENT and a sloped line representing the TOP OF CURB. The transition length is 10'-0". The vertical change in height is indicated as CHANGE IN HEIGHT.

NOTE: TO BE PAID FOR AS HIGHEST CURB



STANDARDS