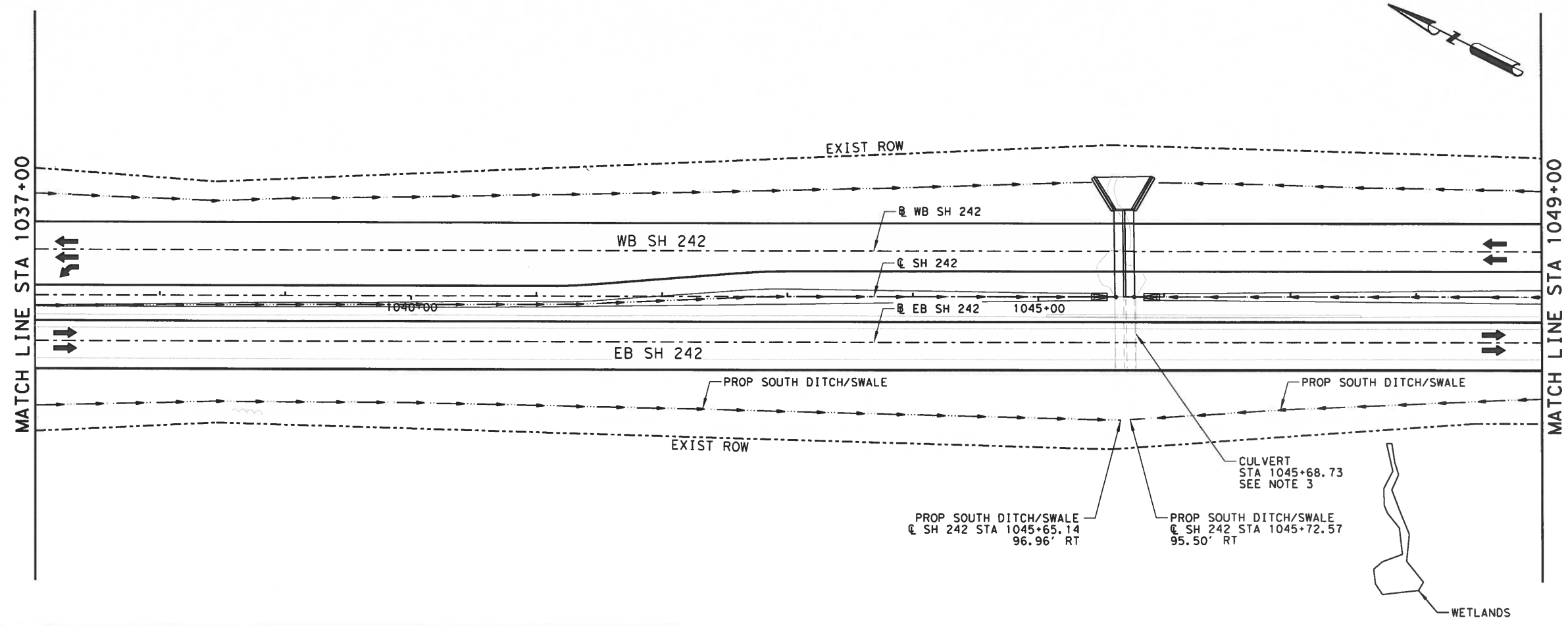


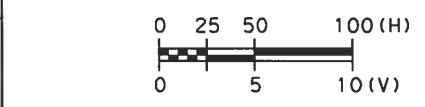
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LEGEND

- PROP TY AD DROP INLET
- ▣ PROP TY C CURB INLET
- ▣ PROP TY C CURB INLET W/2 EXT
- ▣ PROP SET
- PROP MANHOLE
- PROP PIPE CROSSING
- ▭ PROP RCP CULVERT W/SET
- ▭ PROP RCB CULVERT W/HEADWALL
- PROP DITCH/SWALE

- NOTES:**
1. STORM SEWER LENGTH SHOWN IS CENTER TO CENTER OF STRUCTURE WHICH DIFFERS FROM PAY LENGTH IN QUANTITY SHEETS.
 2. HORIZONTAL CONTROL FOR ALL DRAINAGE STRUCTURES IS AT CENTER OF STRUCTURE.
 3. SEE CULVERT LAYOUT PLAN & PROFILE SHEETS FOR ADDITIONAL INFORMATION.

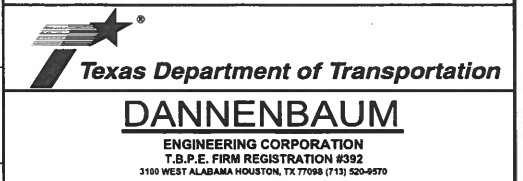


REV. NO.	DATE	DESCRIPTION	BY

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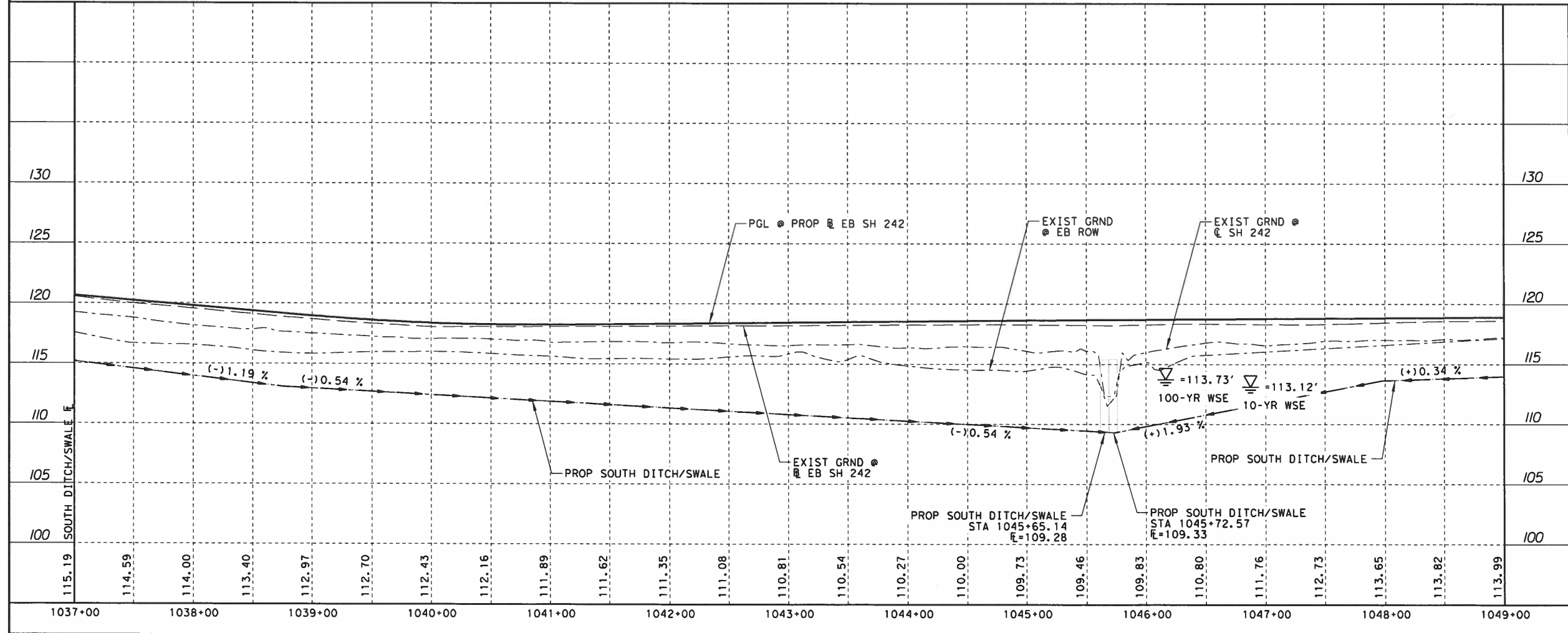
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EB DRAINAGE PLAN & PROFILE

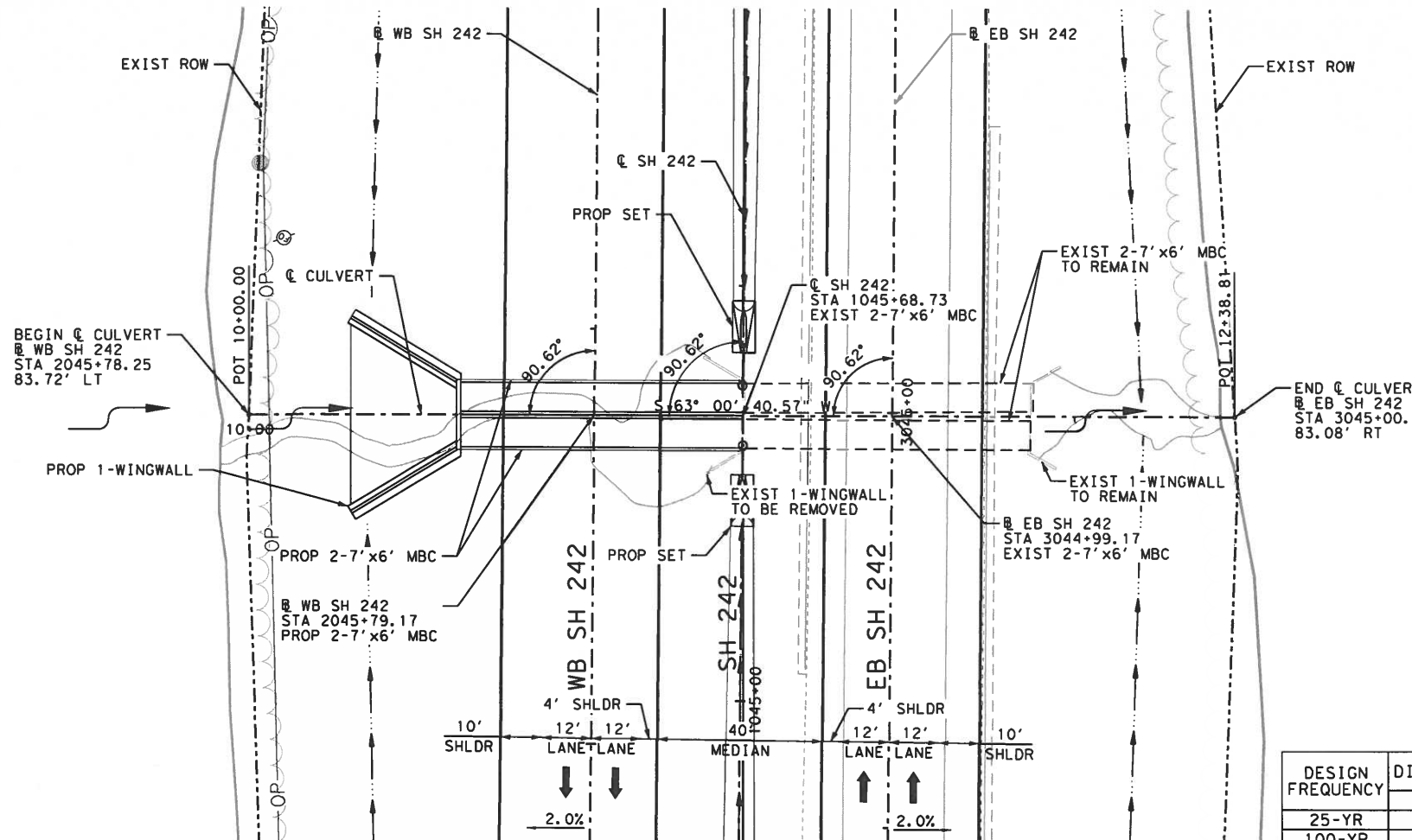
STA 1037+00 TO STA 1049+00

SHEET 19 OF 33

DSN: XXX	FED. RD. DIV. NO. 6	STATE TEXAS	FEDERAL AID PROJECT NO.		HIGHWAY NO.
CK: XXX					SH 242
DRN: XXX	STATE DISTRICT HOU	COUNTY MONT	CONTROL NO. 3538	SECTION NO. 01	JOB NO. 036
CK: XXX					SHEET NO. 529



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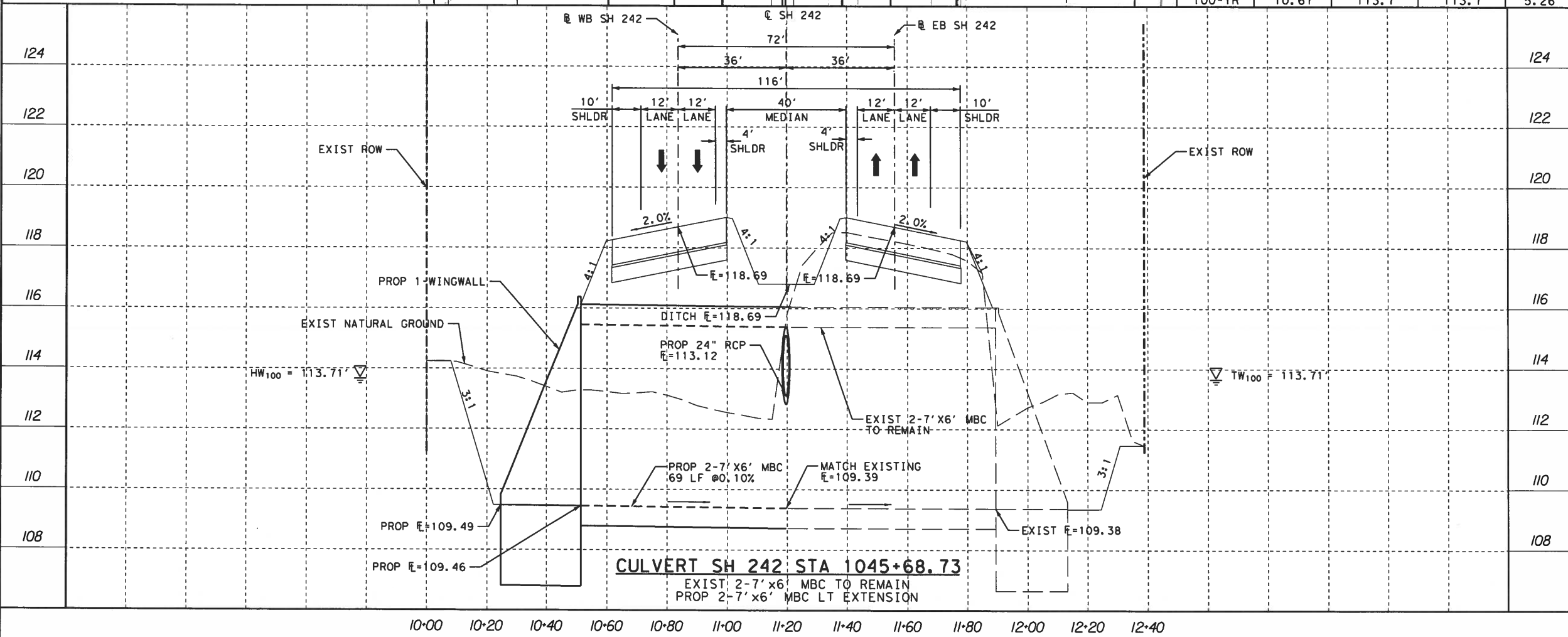
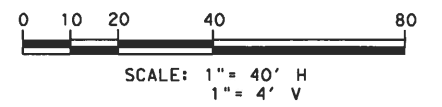


LEGEND

- EXIST MANHOLE
- EXIST INLET
- PROP MANHOLE
- PROP AREA INLET
- ▬ PROP CURB INLET
- PROP DITCH OR SWALE
- PROP JUNCTION BOX
- ▭ PROP CONCRETE RIPRAP (4 IN)
- DIRECTION OF FLOW

- NOTES:**
- DIMENSIONS IN PROFILE ARE NOMINAL TO VIEW.
 - STORM SEWER LENGTH SHOWN IS CENTER TO CENTER OF STRUCTURE WHICH DIFFERS FROM PAY LENGTH IN QUANTITY SHEETS.
 - HORIZONTAL CONTROL FOR ALL DRAINAGE STRUCTURES IS AT THE CENTER OF THE STRUCTURE.

DESIGN FREQUENCY	DISCHARGE (CFS)	HEADWATER ELEVATION (FT)	TAILWATER ELEVATION (FT)	VELOCITY (FT/S)
25-YR	9.15			4.51
100-YR	10.67	113.7	113.7	5.26



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Texas Department of Transportation

DANNENBAUM
 ENGINEERING CORPORATION
 T.B.P.E. FIRM REGISTRATION #392
 3100 WEST ALABAMA HOUSTON, TX 77098 (713) 520-4970

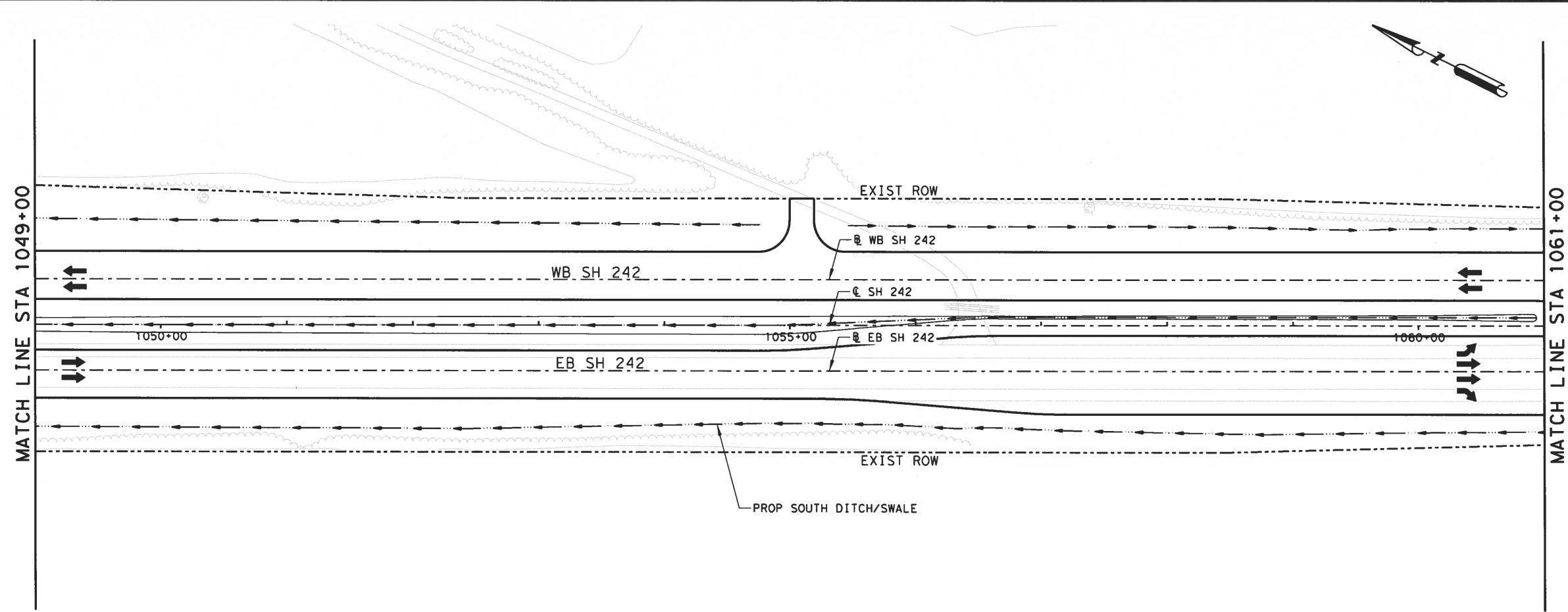
SH 242

**CULVERT LAYOUT
 STA 1045+68.73**

SHEET 12 OF 22

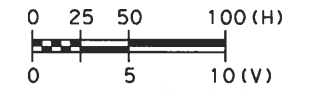
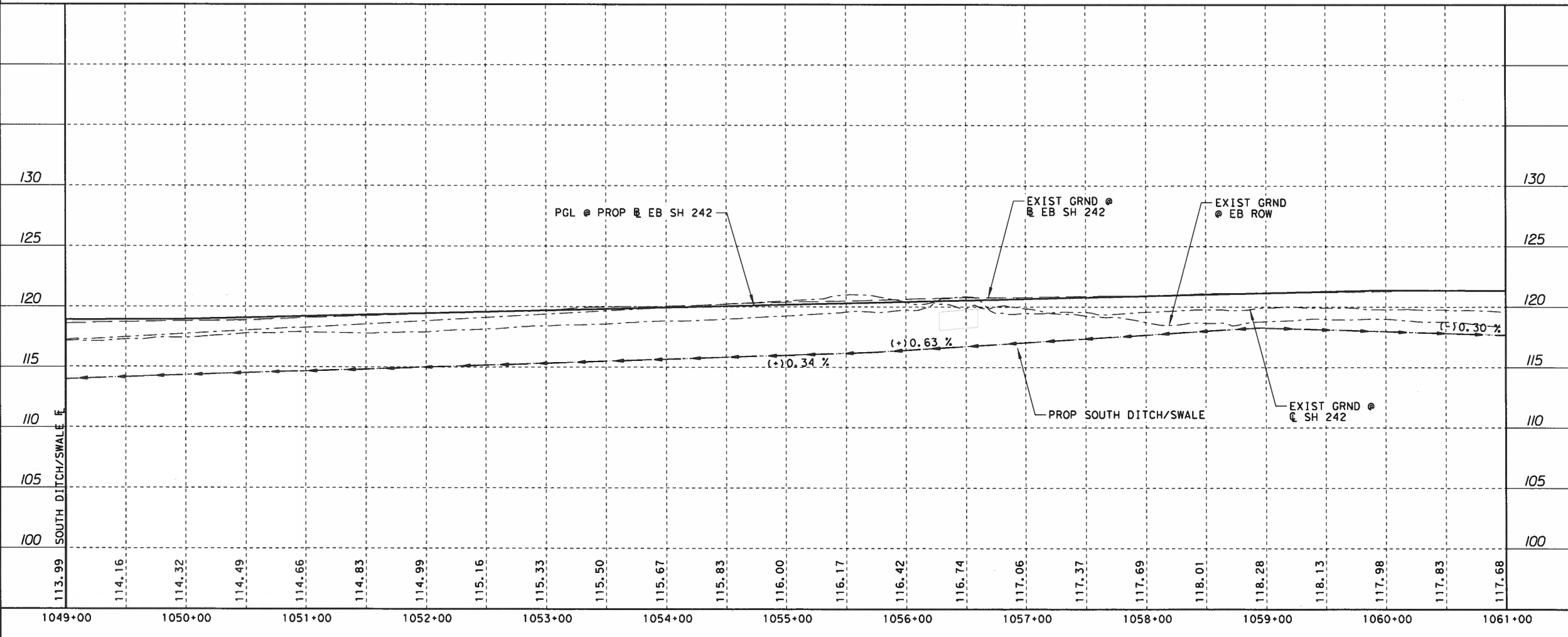
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CK: XXX	STATE DISTRICT	COUNTY	CONTROL NO. 3538	SECTION NO. 01	JOB NO. 036
DRN: XXX	DISTRICT	COUNTY	CONTROL NO. 3538	SECTION NO. 01	JOB NO. 036
CK: XXX	HOU	MONT	3538	01	036

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- LEGEND**
- PROP TY AD DROP INLET
 - ▣ PROP TY C CURB INLET
 - ▣ PROP TY C CURB INLET W/2 EXT
 - ▣ PROP SET
 - PROP MANHOLE
 - PROP PIPE CROSSING
 - ▭ PROP RCP CULVERT W/SET
 - ▭ PROP RCB CULVERT W/HEADWALL
 - PROP DITCH/SWALE

- NOTES:**
1. STORM SEWER LENGTH SHOWN IS CENTER TO CENTER OF STRUCTURE WHICH DIFFERS FROM PAY LENGTH IN QUANTITY SHEETS.
 2. HORIZONTAL CONTROL FOR ALL DRAINAGE STRUCTURES IS AT CENTER OF STRUCTURE.
 3. SEE CULVERT LAYOUT PLAN & PROFILE SHEETS FOR ADDITIONAL INFORMATION.



REV. NO.	DATE	DESCRIPTION	BY

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 T.B.P.E. FIRM REGISTRATION #392
 3100 WEST ALABAMA HOUSTON, TX 77058 (713) 520-9570

SH 242

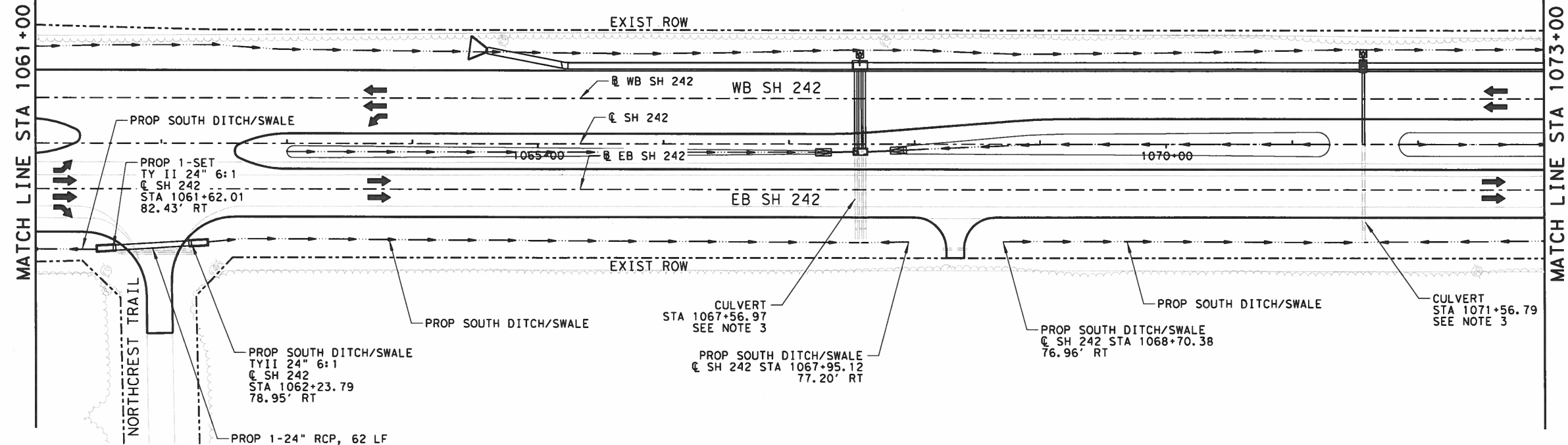
EB DRAINAGE PLAN & PROFILE

STA 1049+00 TO STA 1061+00

SHEET 20 OF 33

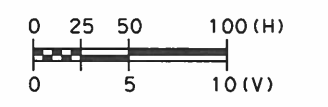
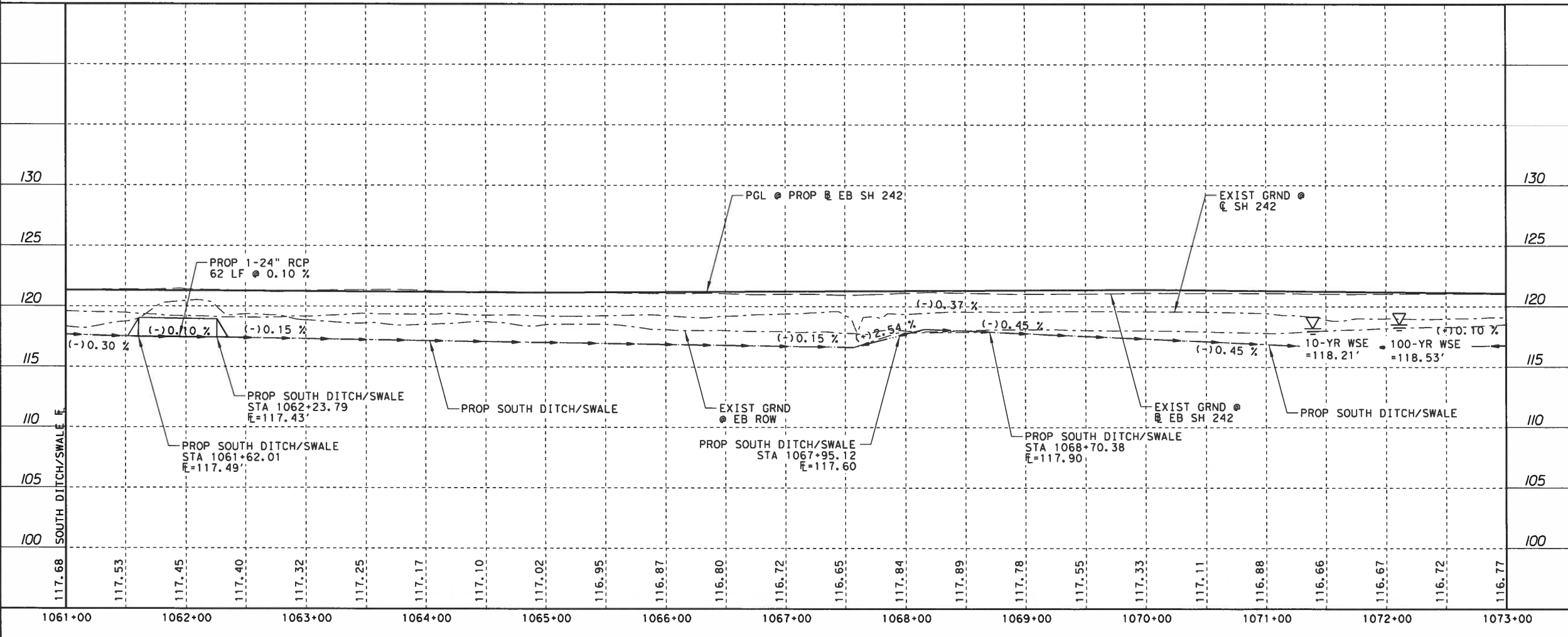
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CK: XXX					SH 242
DRN: XXX	STATE DISTRICT	COUNTY	CONTROL NO.	SECTION NO.	JOB NO.
CK: XXX	HOU	MONT	3538	01	036
					SHEET NO. 530

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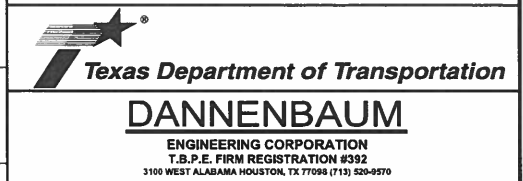
- LEGEND**
- PROP TY AD DROP INLET
 - ▣ PROP TY C CURB INLET
 - ▣ PROP TY C CURB INLET W/2 EXT
 - ▣ PROP SET
 - PROP MANHOLE
 - PROP PIPE CROSSING
 - ▭ PROP RCP CULVERT W/SET
 - ▭ PROP RCB CULVERT W/HEADWALL
 - PROP DITCH/SWALE

- NOTES:**
1. STORM SEWER LENGTH SHOWN IS CENTER TO CENTER OF STRUCTURE WHICH DIFFERS FROM PAY LENGTH IN QUANTITY SHEETS.
 2. HORIZONTAL CONTROL FOR ALL DRAINAGE STRUCTURES IS AT CENTER OF STRUCTURE.
 3. SEE CULVERT LAYOUT PLAN & PROFILE SHEETS FOR ADDITIONAL INFORMATION.



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SH 242
EB DRAINAGE PLAN & PROFILE
 STA 1061+00 TO STA 1073+00

SHEET 21 OF 33

DSN: XXX	FED. RD. DIV. NO. 6	STATE TEXAS	FEDERAL AID PROJECT NO.		HIGHWAY NO. SH 242
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CK: XXX					SHEET NO. 531

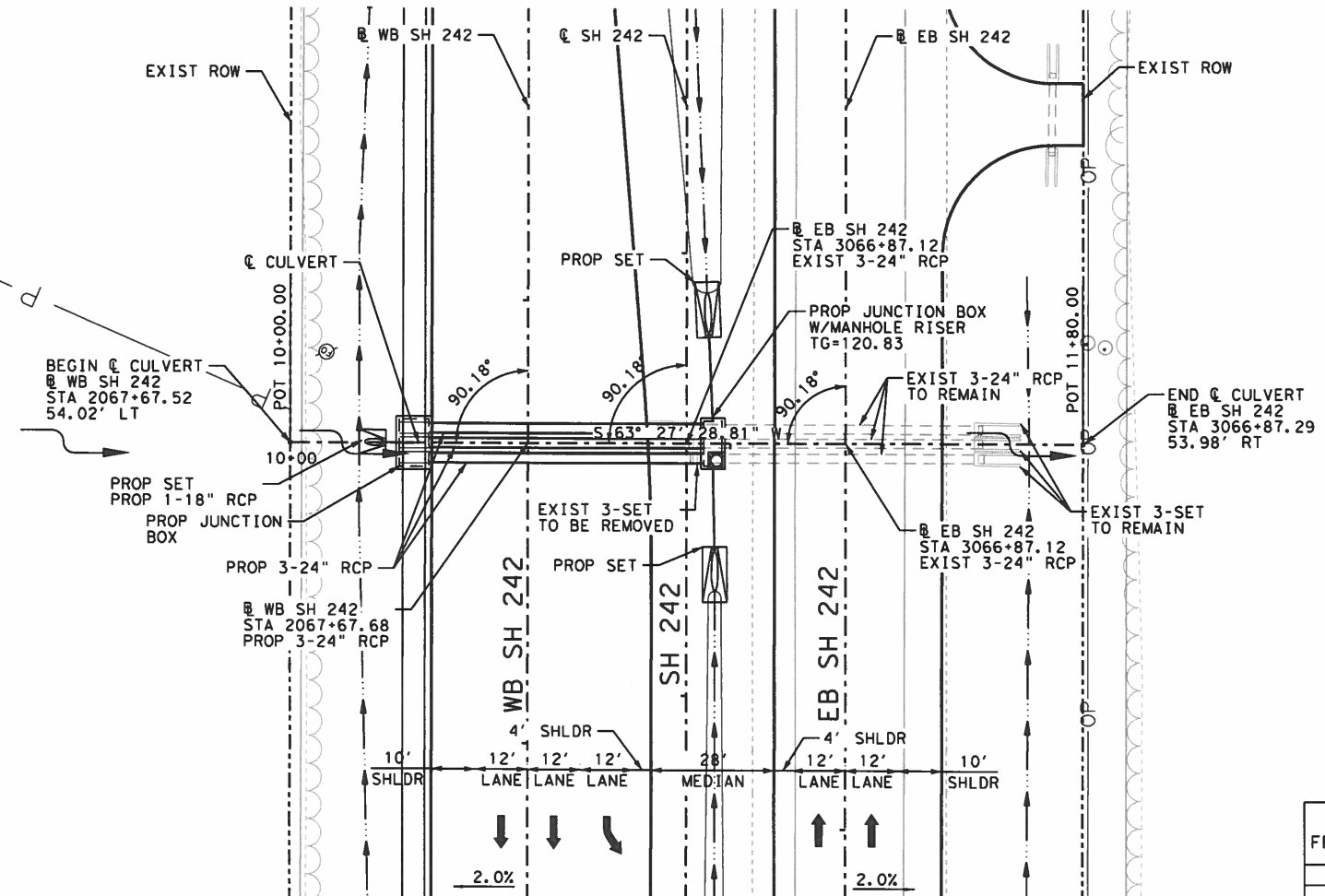
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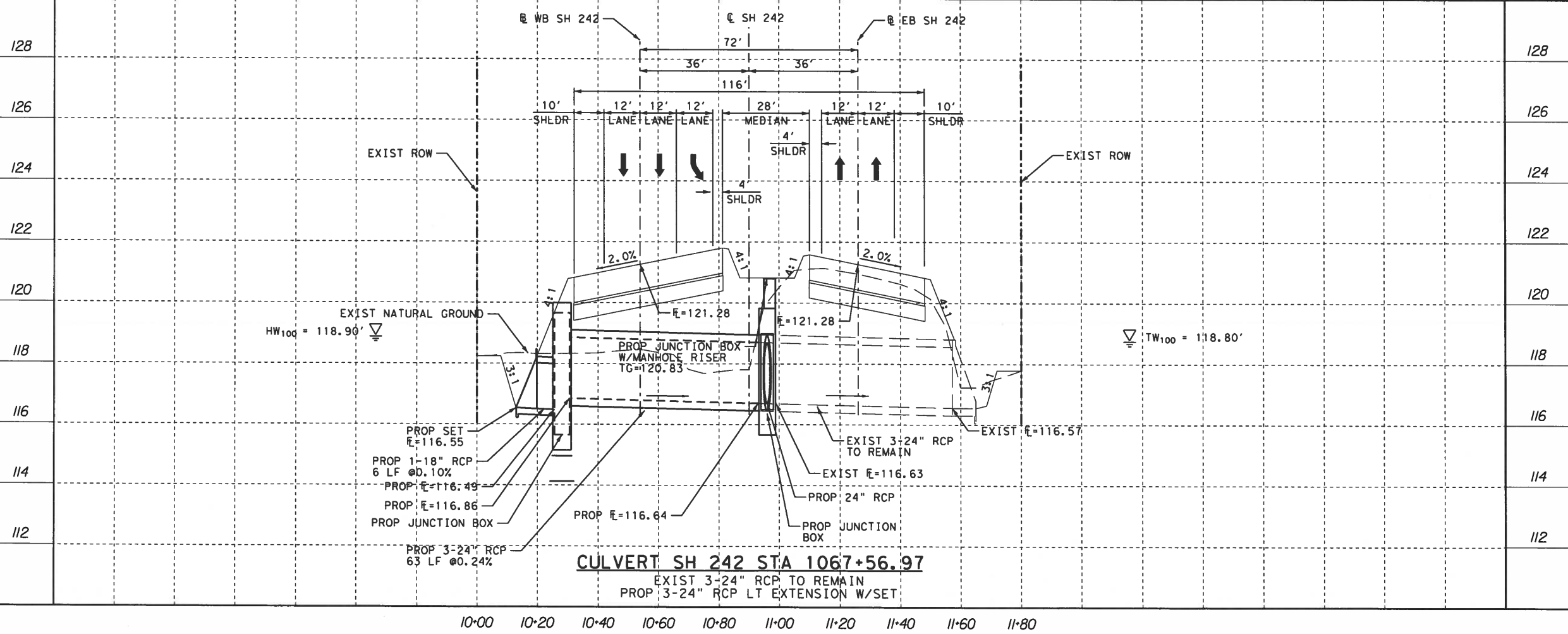
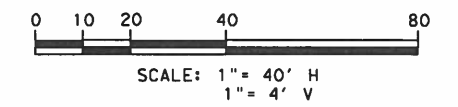
- EXIST MANHOLE
- EXIST INLET
- PROP MANHOLE
- PROP AREA INLET
- ▬ PROP CURB INLET
- ▬▬ PROP DITCH OR SWALE
- PROP JUNCTION BOX
- ▭ PROP CONCRETE RIPRAP (4 IN)
- DIRECTION OF FLOW

NOTES:

1. DIMENSIONS IN PROFILE ARE NOMINAL TO VIEW.
2. STORM SEWER LENGTH SHOWN IS CENTER TO CENTER OF STRUCTURE WHICH DIFFERS FROM PAY LENGTH IN QUANTITY SHEETS.
3. HORIZONTAL CONTROL FOR ALL DRAINAGE STRUCTURES IS AT THE CENTER OF THE STRUCTURE.



DESIGN FREQUENCY	DISCHARGE (CFS)	HEADWATER ELEVATION (FT)	TAILWATER ELEVATION (FT)	VELOCITY (FT/S)
25-YR	8.47			6.67
100-YR	9.87	118.9	118.8	7.77



CULVERT SH 242 STA 1067+56.97
 EXIST 3-24" RCP TO REMAIN
 PROP 3-24" RCP LT EXTENSION W/SET

REV. NO.	DATE	DESCRIPTION	BY

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 ENGINEERING CORPORATION
 T.S.P.E. FIRM REGISTRATION #332
 3100 WEST ALABAMA HOUSTON, TX 77098 (713) 520-9970

SH 242

CULVERT LAYOUT
 STA 1067+56.79

SHEET 13 OF 22

DSN: XXX	FED. RD. DIV. NO.	STATE	FEDERAL AID PROJECT NO.			HIGHWAY NO.
CK: XXX	6	TEXAS				SH 242
DRN: XXX	DISTRICT	COUNTY	CONTROL NO.	SECTION NO.	JOB NO.	SHEET NO.
CK: XXX	HOU	MONT	3538	01	036	559

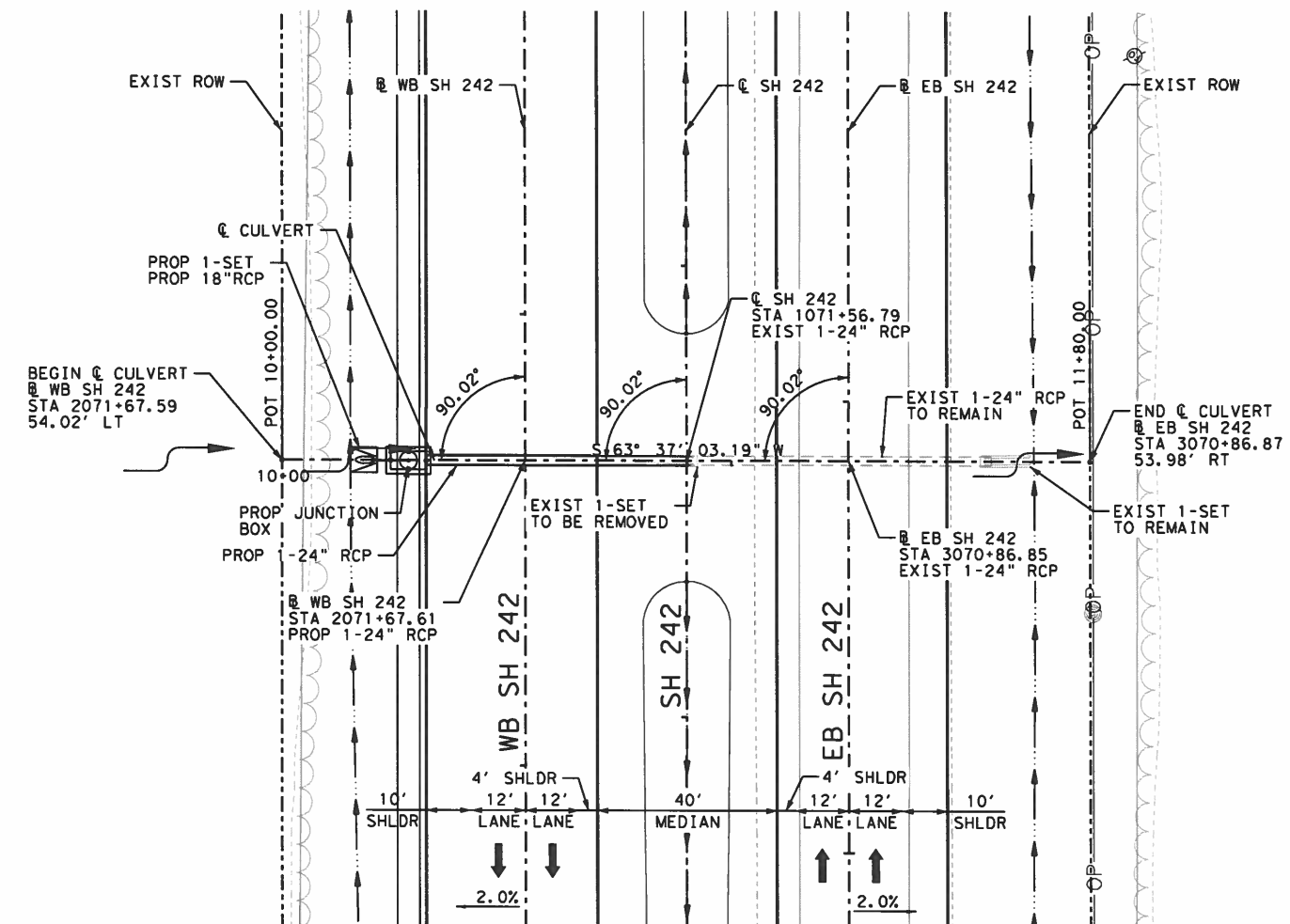
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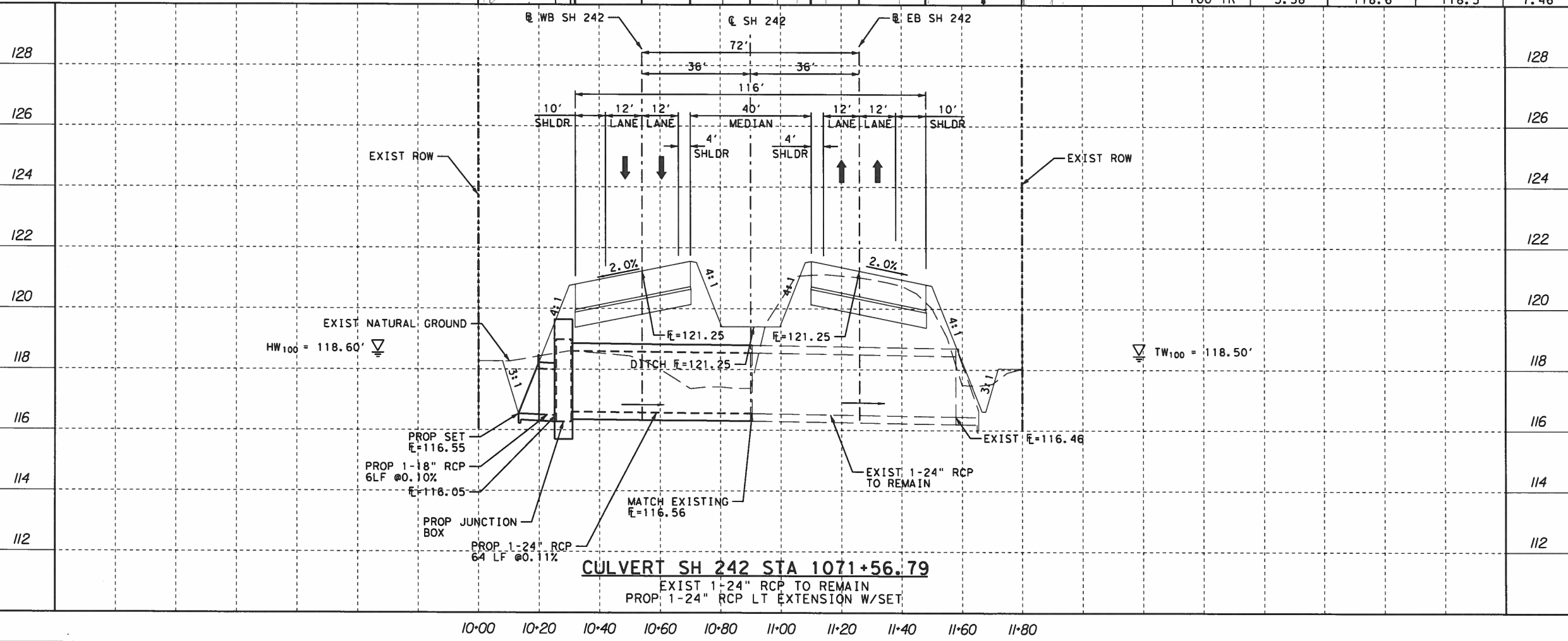
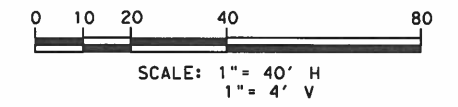
- EXIST MANHOLE
- EXIST INLET
- PROP MANHOLE
- PROP AREA INLET
- PROP CURB INLET
- PROP DITCH OR SWALE
- PROP JUNCTION BOX
- PROP CONCRETE RIPRAP (4 IN)
- DIRECTION OF FLOW

NOTES:

1. DIMENSIONS IN PROFILE ARE NOMINAL TO VIEW.
2. STORM SEWER LENGTH SHOWN IS CENTER TO CENTER OF STRUCTURE WHICH DIFFERS FROM PAY LENGTH IN QUANTITY SHEETS.
3. HORIZONTAL CONTROL FOR ALL DRAINAGE STRUCTURES IS AT THE CENTER OF THE STRUCTURE.



DESIGN FREQUENCY	DISCHARGE (CFS)	HEADWATER ELEVATION (FT)	TAILWATER ELEVATION (FT)	VELOCITY (FT/S)
25-YR	3.07			6.40
100-YR	3.58	118.6	118.5	7.46



CULVERT SH 242 STA 1071+56.79
 EXIST 1-24" RCP TO REMAIN
 PROP 1-24" RCP LT EXTENSION W/SET

REV. NO.	DATE	DESCRIPTION	BY

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DANNENBAUM
 ENGINEERING CORPORATION
 T.B.P.E. FIRM REGISTRATION #392
 3100 WEST ALABAMA HOUSTON, TX 77056 (713) 520-9570

SH 242

**CULVERT LAYOUT
 STA 1071+56.79**

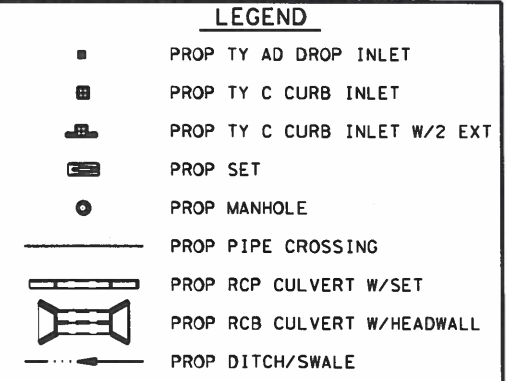
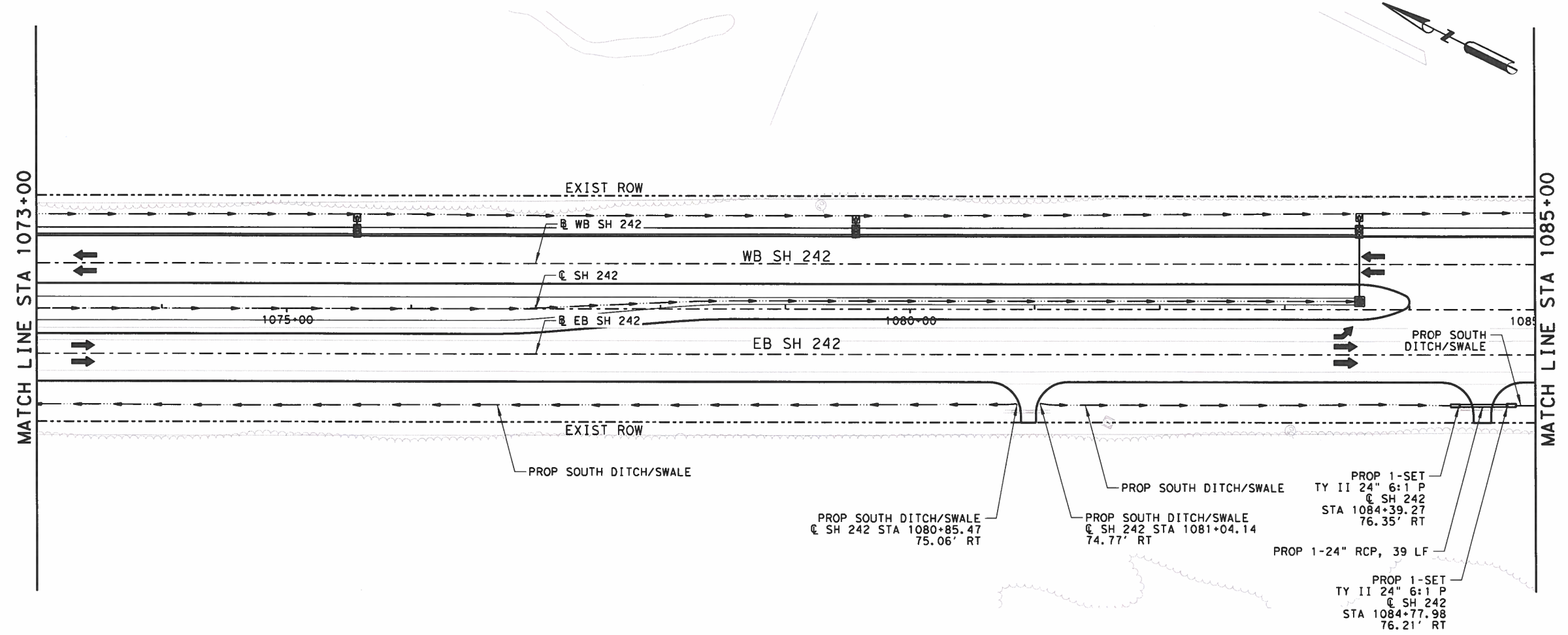
SHEET 14 OF 22

DSN: XXX	FED. RD. DIV. NO. 6	STATE TEXAS	FEDERAL AID PROJECT NO.			HIGHWAY NO.
CK: XXX	DISTRICT	COUNTY	CONTROL NO.	SECTION NO.	JOB NO.	SHEET NO.
CK: XXX	HOU	MONT	3538	01	036	560

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MATCH LINE STA 1073+00

MATCH LINE STA 1085+00



- NOTES:**
1. STORM SEWER LENGTH SHOWN IS CENTER TO CENTER OF STRUCTURE WHICH DIFFERS FROM PAY LENGTH IN QUANTITY SHEETS.
 2. HORIZONTAL CONTROL FOR ALL DRAINAGE STRUCTURES IS AT CENTER OF STRUCTURE.
 3. SEE CULVERT LAYOUT PLAN & PROFILE SHEETS FOR ADDITIONAL INFORMATION.

PROP SOUTH DITCH/SWALE
 C SH 242 STA 1080+85.47
 75.06' RT

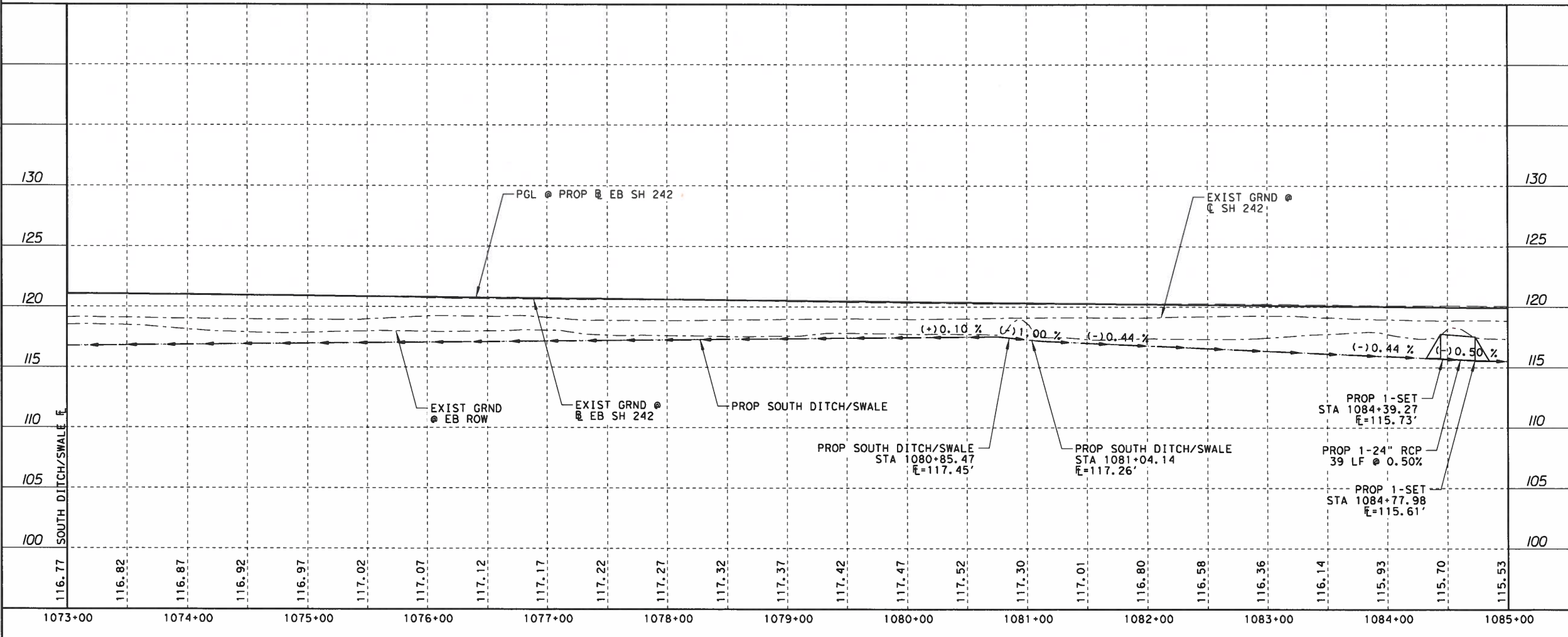
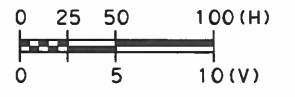
PROP SOUTH DITCH/SWALE
 C SH 242 STA 1081+04.14
 74.77' RT

PROP SOUTH DITCH/SWALE
 C SH 242 STA 1084+39.27
 76.35' RT

PROP 1-SET
 TY II 24" 6:1 P
 C SH 242
 STA 1084+39.27
 76.35' RT

PROP 1-24" RCP, 39 LF

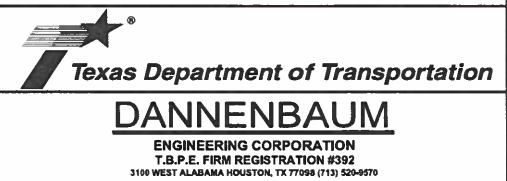
PROP 1-SET
 TY II 24" 6:1 P
 C SH 242
 STA 1084+77.98
 76.21' RT



REV. NO.	DATE	DESCRIPTION	BY

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SH 242

EB DRAINAGE PLAN & PROFILE

STA 1073+00 TO STA 1085+00

SHEET 22 OF 33

DSN: XXX	FED. RD. DIV. NO. 6	STATE TEXAS	FEDERAL AID PROJECT NO.			HIGHWAY NO.
CK: XXX						SH 242
DRN: XXX	STATE DISTRICT	COUNTY	CONTROL NO.	SECTION NO.	JOB NO.	SHEET NO.
CK: XXX	HOU	MONT	3538	01	036	532

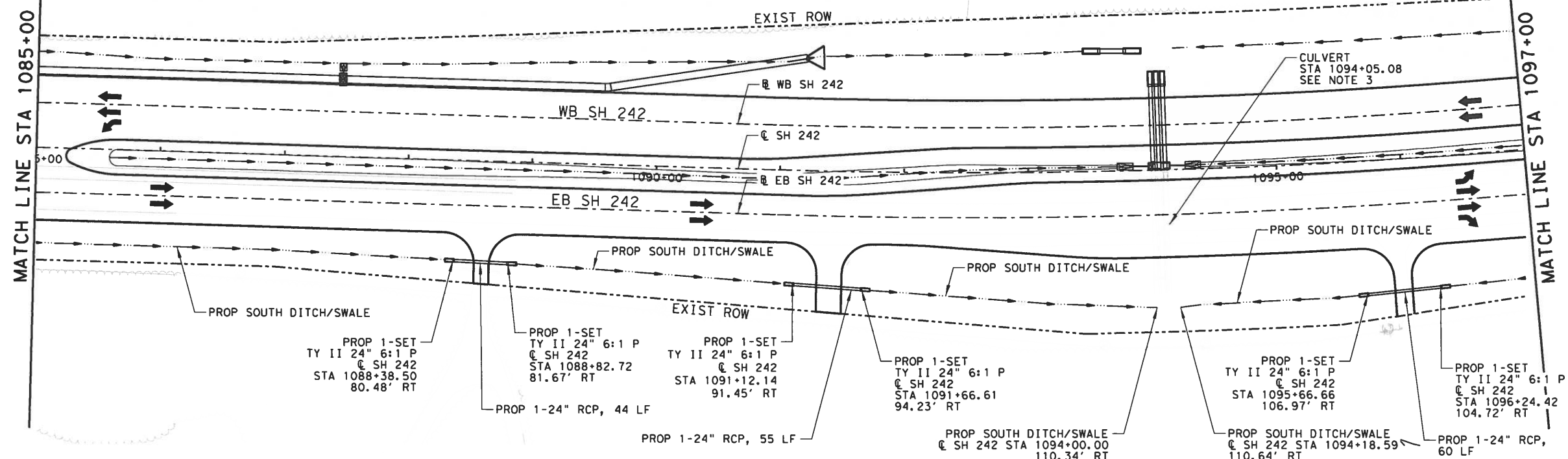
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LEGEND

- PROP TY AD DROP INLET
- ▣ PROP TY C CURB INLET
- ▣ PROP TY C CURB INLET W/2 EXT
- ▣ PROP SET
- PROP MANHOLE
- PROP PIPE CROSSING
- ▭ PROP RCP CULVERT W/SET
- ▭ PROP RCB CULVERT W/HEADWALL
- PROP DITCH/SWALE

NOTES:

1. STORM SEWER LENGTH SHOWN IS CENTER TO CENTER OF STRUCTURE WHICH DIFFERS FROM PAY LENGTH IN QUANTITY SHEETS.
2. HORIZONTAL CONTROL FOR ALL DRAINAGE STRUCTURES IS AT CENTER OF STRUCTURE.
3. SEE CULVERT LAYOUT PLAN & PROFILE SHEETS FOR ADDITIONAL INFORMATION.



PROP 1-SET TY II 24" 6:1 P @ SH 242 STA 1088+38.50 80.48' RT

PROP 1-SET TY II 24" 6:1 P @ SH 242 STA 1088+82.72 81.67' RT

PROP 1-SET TY II 24" 6:1 P @ SH 242 STA 1091+12.14 91.45' RT

PROP 1-SET TY II 24" 6:1 P @ SH 242 STA 1091+66.61 94.23' RT

PROP 1-SET TY II 24" 6:1 P @ SH 242 STA 1095+66.66 106.97' RT

PROP 1-SET TY II 24" 6:1 P @ SH 242 STA 1096+24.42 104.72' RT

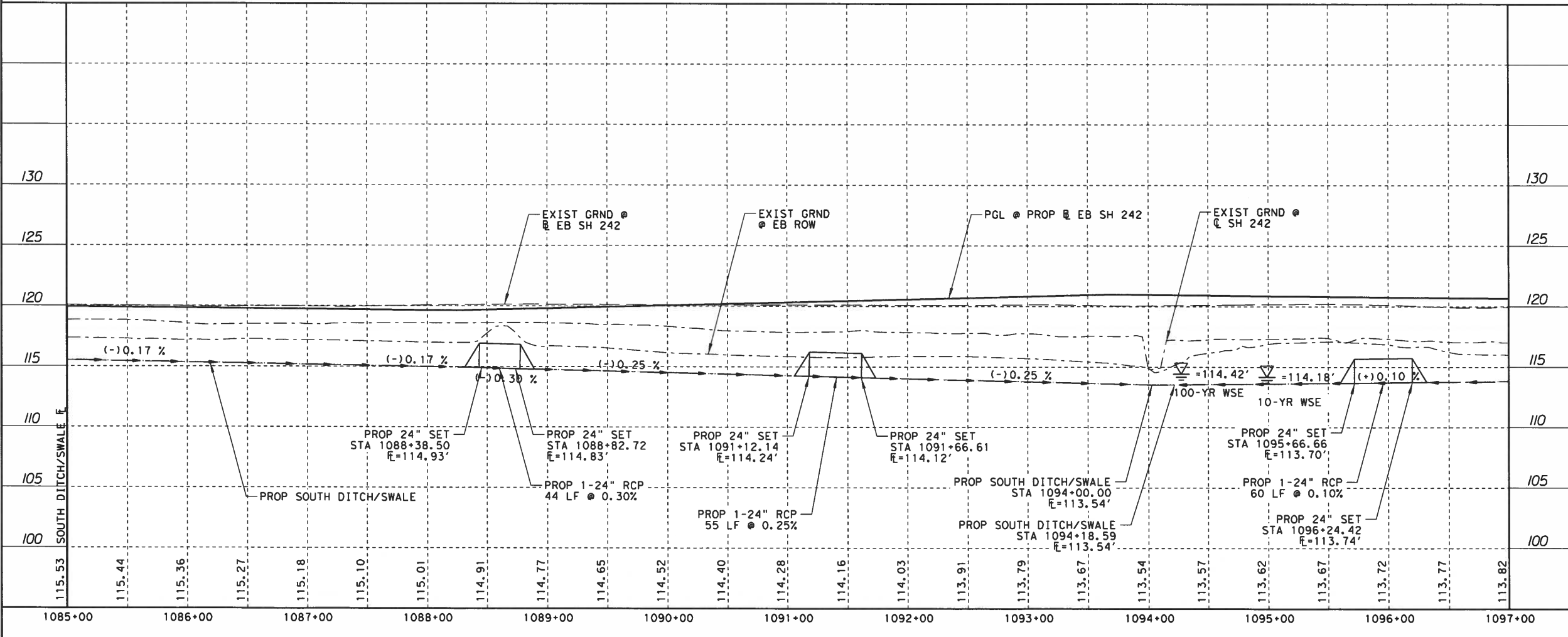
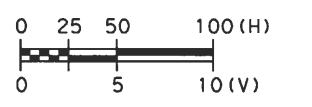
PROP 1-24" RCP, 44 LF

PROP 1-24" RCP, 55 LF

PROP SOUTH DITCH/SWALE @ SH 242 STA 1094+00.00 110.34' RT

PROP SOUTH DITCH/SWALE @ SH 242 STA 1094+18.59 110.64' RT

PROP 1-24" RCP, 60 LF



REV. NO.	DATE	DESCRIPTION	BY

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 DATE: 11/19/2018



DANNENBAUM
 ENGINEERING CORPORATION
 T.B.P.E. FIRM REGISTRATION #392
 3100 WEST ALABAMA HOUSTON, TX 77098 (713) 520-9570

SH 242
EB DRAINAGE PLAN & PROFILE
 STA 1085+00 TO STA 1097+00

DSN: XXX	FED. RD. DIV. NO. 6	STATE TEXAS	FEDERAL AID PROJECT NO.			HIGHWAY NO.
CK: XXX						SH 242
DRN: XXX	STATE DISTRICT	COUNTY	CONTROL NO.	SECTION NO.	JOB NO.	SHEET NO.
CK: XXX	HOU	MONT	3538	01	036	533

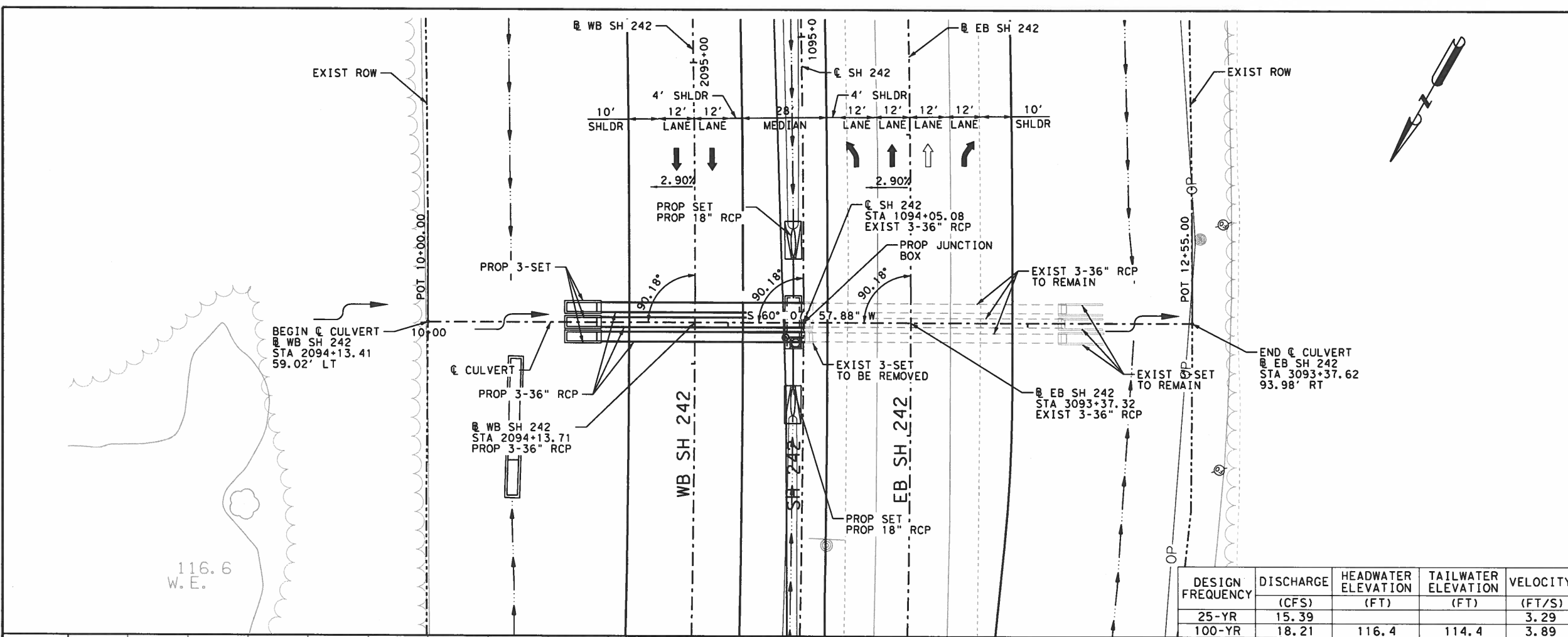
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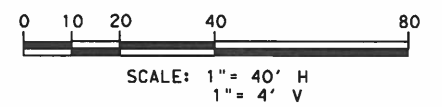
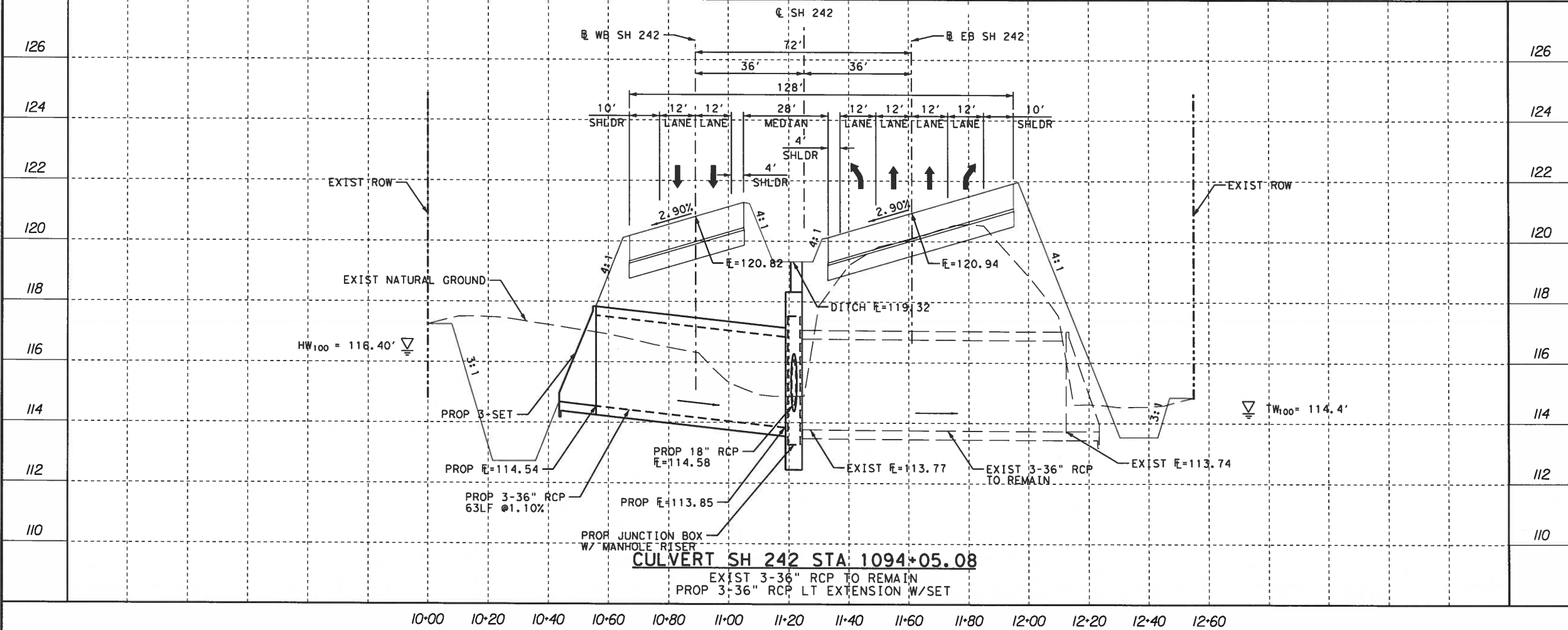
- EXIST MANHOLE
- EXIST INLET
- PROP MANHOLE
- PROP AREA INLET
- ▬ PROP CURB INLET
- ▬ PROP DITCH OR SWALE
- PROP JUNCTION BOX
- ▭ PROP CONCRETE RIPRAP (4 IN)
- DIRECTION OF FLOW

NOTES:

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3. HORIZONTAL CONTROL FOR ALL DRAINAGE STRUCTURES IS AT THE CENTER OF THE STRUCTURE.



DESIGN FREQUENCY	DISCHARGE (CFS)	HEADWATER ELEVATION (FT)	TAILWATER ELEVATION (FT)	VELOCITY (FT/S)
25-YR	15.39			3.29
100-YR	18.21	116.4	114.4	3.89



REV. NO.	DATE	DESCRIPTION	BY

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ENGINEERING CORPORATION
 T.S.P.E. FIRM REGISTRATION #392
 3100 WEST ALABAMA HOUSTON, TX 77056 (713) 509-8970

SH 242

**CULVERT LAYOUT
 STA 1094+05.08**

SHEET 15 OF 22

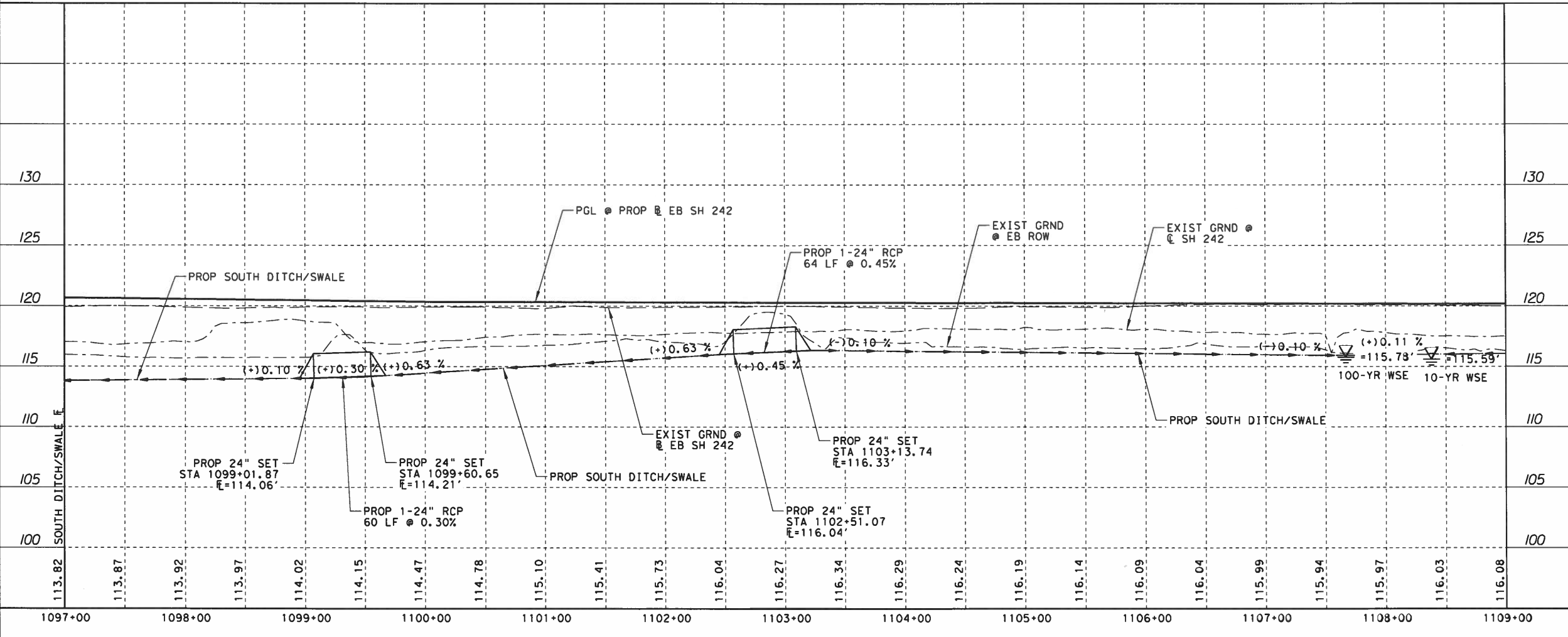
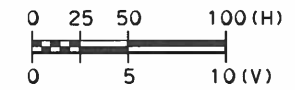
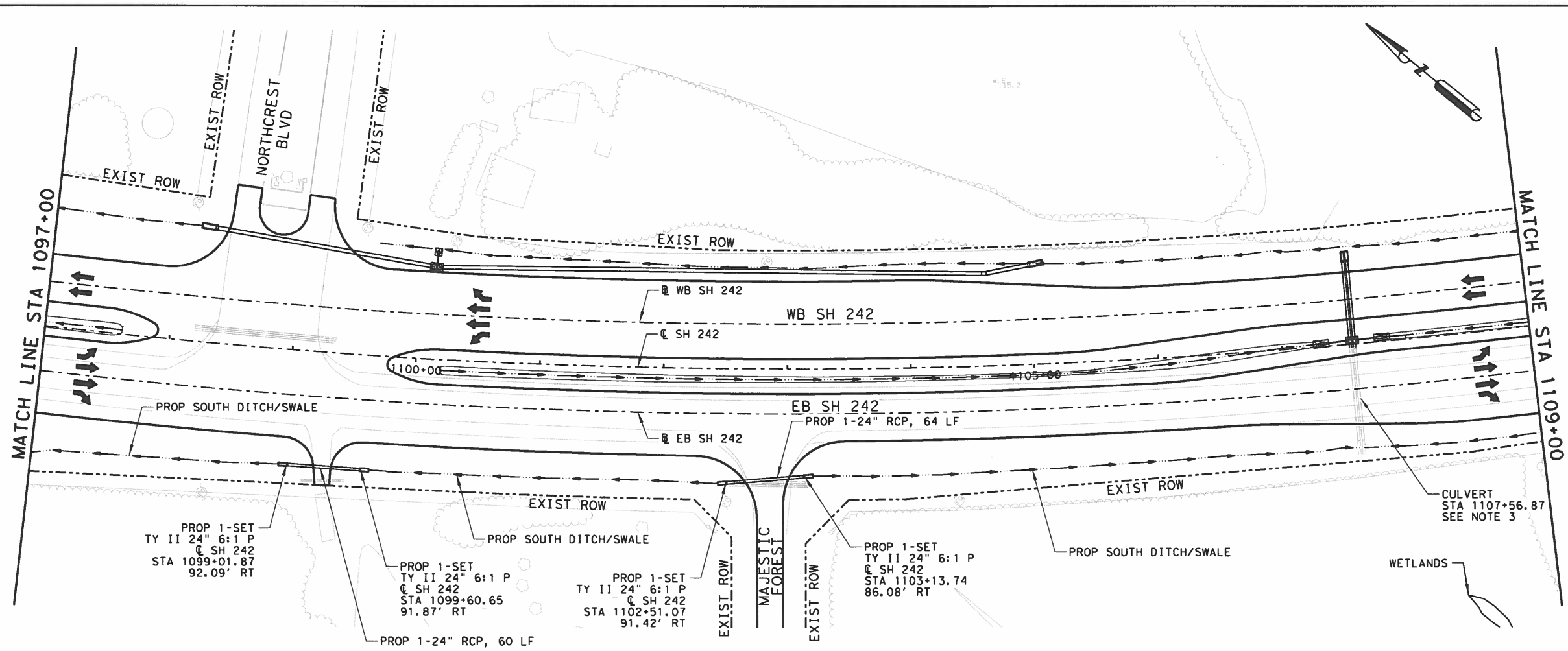
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	6	TEXAS		SH 242		
CK: XXX	STATE DISTRICT	COUNTY	CONTROL NO.	SECTION NO.	JOB NO.	SHEET NO.
	HOU	MONT	3538	01	036	561

LEGEND

- PROP TY AD DROP INLET
- PROP TY C CURB INLET
- PROP TY C CURB INLET W/2 EXT
- PROP SET
- PROP MANHOLE
- PROP PIPE CROSSING
- ▭ PROP RCP CULVERT W/SET
- ▭ PROP RCB CULVERT W/HEADWALL
- PROP DITCH/SWALE

NOTES:

1. STORM SEWER LENGTH SHOWN IS CENTER TO CENTER OF STRUCTURE WHICH DIFFERS FROM PAY LENGTH IN QUANTITY SHEETS.
2. HORIZONTAL CONTROL FOR ALL DRAINAGE STRUCTURES IS AT CENTER OF STRUCTURE.
3. SEE CULVERT LAYOUT PLAN & PROFILE SHEETS FOR ADDITIONAL INFORMATION.



REV. NO.	DATE	DESCRIPTION	BY

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ENGINEERING CORPORATION
T.B.P.E. FIRM REGISTRATION #392
3100 WEST ALABAMA HOUSTON, TX 77056 (713) 520-9970

SH 242

EB DRAINAGE PLAN & PROFILE

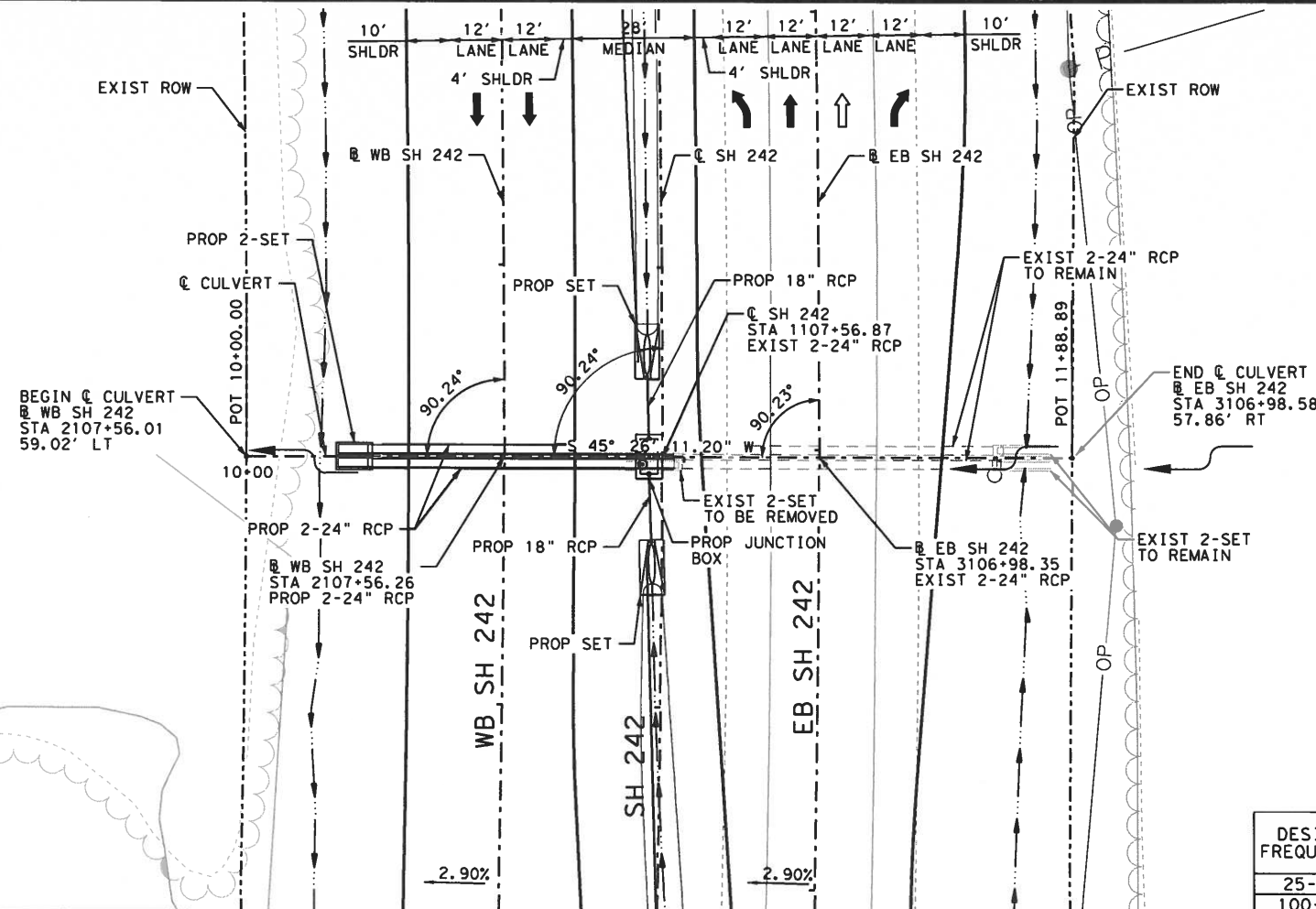
STA 1097+00 TO STA 1109+00

SHEET 24 OF 33

DSN: XXX	FED. RD. DIV. NO. 6	STATE TEXAS	FEDERAL AID PROJECT NO.		HIGHWAY NO. SH 242
CK: XXX	STATE DISTRICT HOU	COUNTY MONT	CONTROL NO. 3538	SECTION NO. 01	JOB NO. 036
DRN: XXX	DISTRICT				SHEET NO. 534
CK: XXX					

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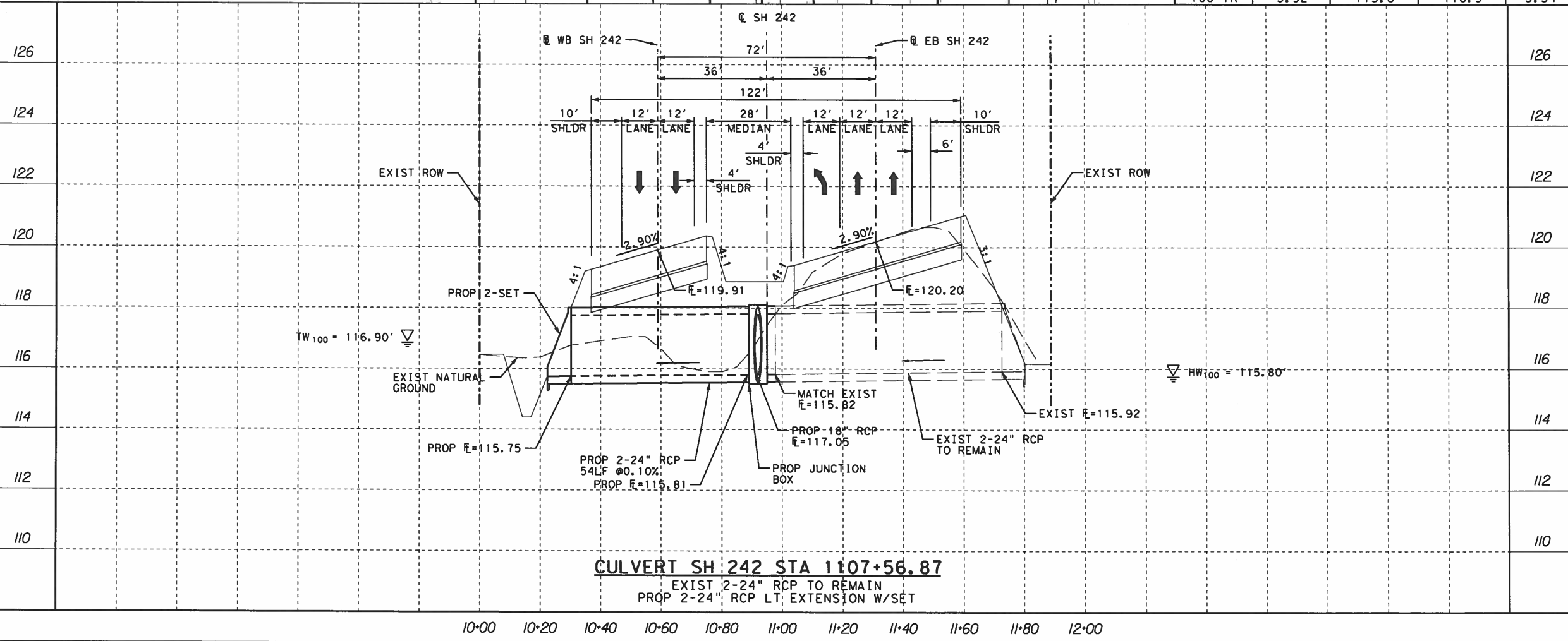
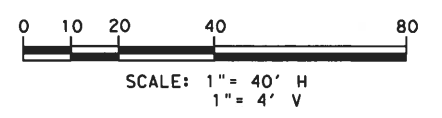


LEGEND

- EXIST MANHOLE
- EXIST INLET
- PROP MANHOLE
- PROP AREA INLET
- ▬ PROP CURB INLET
- ▬▬ PROP DITCH OR SWALE
- PROP JUNCTION BOX
- ▭ PROP CONCRETE RIPRAP (4 IN)
- DIRECTION OF FLOW

- NOTES:**
- DIMENSIONS IN PROFILE ARE NOMINAL TO VIEW.
 - STORM SEWER LENGTH SHOWN IS CENTER TO CENTER OF STRUCTURE WHICH DIFFERS FROM PAY LENGTH IN QUANTITY SHEETS.
 - HORIZONTAL CONTROL FOR ALL DRAINAGE STRUCTURES IS AT THE CENTER OF THE STRUCTURE.

DESIGN FREQUENCY	DISCHARGE (CFS)	HEADWATER ELEVATION (FT)	TAILWATER ELEVATION (FT)	VELOCITY (FT/S)
25-YR	5.03			3.01
100-YR	5.92	115.8	116.9	3.54



REV. NO. DATE DESCRIPTION BY

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Texas Department of Transportation

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ENGINEERING CORPORATION
T.B.P.E. FIRM REGISTRATION #392
3100 WEST ALABAMA HOUSTON, TX 77098 (713) 520-9570

SH 242

CULVERT LAYOUT
STA 1107+56.87

SHEET 16 OF 22

DSN: XXX	FED. RD. DIV. NO.	STATE	FEDERAL AID PROJECT NO.		HIGHWAY NO.
CK: XXX	6	TEXAS			SH 242
DRN: XXX	STATE DISTRICT	COUNTY	CONTROL NO.	SECTION NO.	JOB NO.
CK: XXX	HOU	MONT	3538	01	036
					SHEET NO. 562

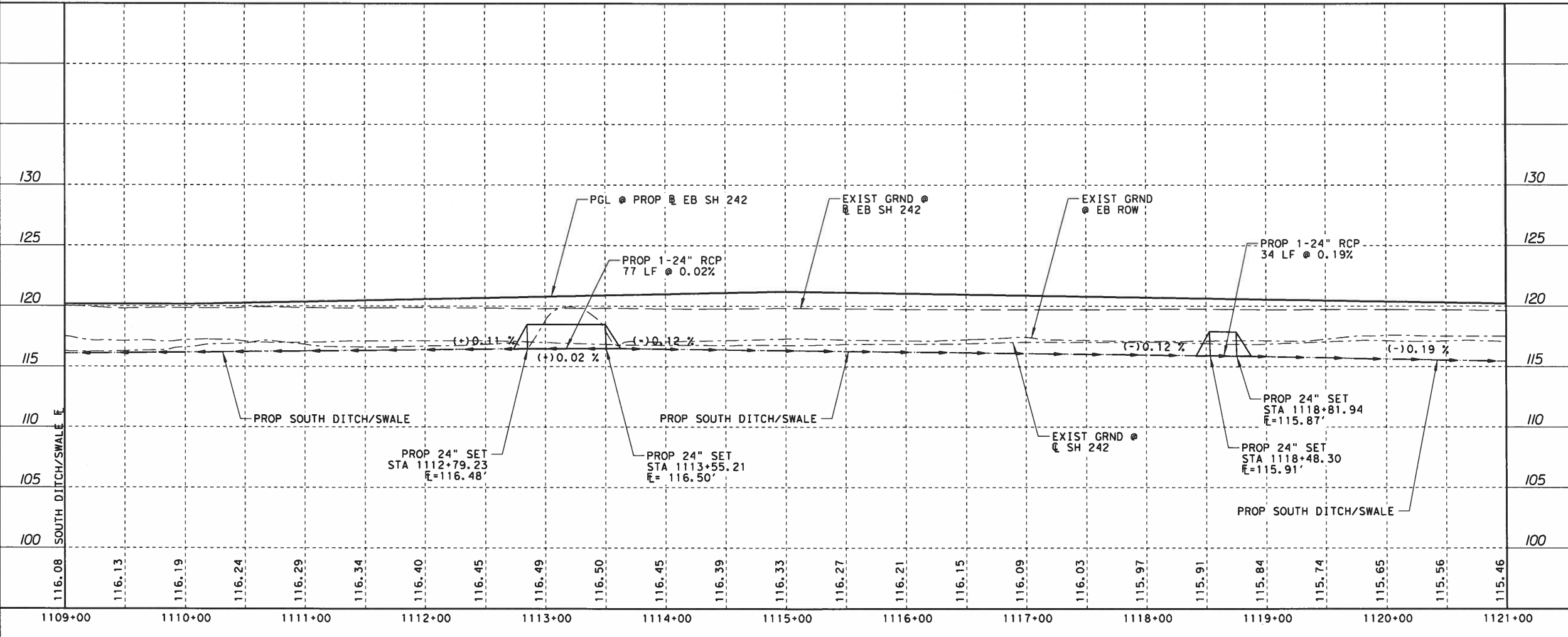
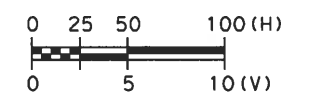
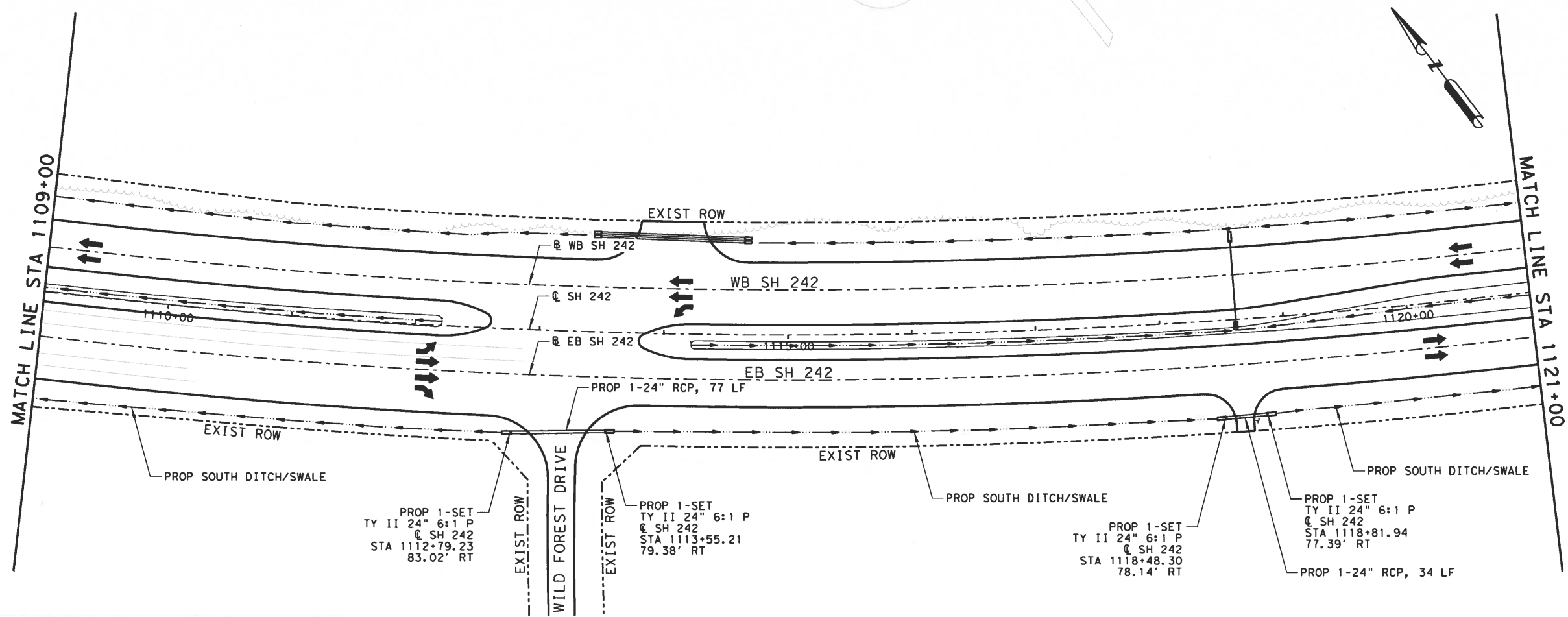
CULVERT SH 242 STA 1107+56.87
 EXIST 2-24" RCP TO REMAIN
 PROP 2-24" RCP LT EXTENSION W/SET

LEGEND

- PROP TY AD DROP INLET
- ▣ PROP TY C CURB INLET
- ▣ PROP TY C CURB INLET W/2 EXT
- ▣ PROP SET
- PROP MANHOLE
- PROP PIPE CROSSING
- ▭ PROP RCP CULVERT W/SET
- ▭ PROP RCB CULVERT W/HEADWALL
- PROP DITCH/SWALE

NOTES:

1. STORM SEWER LENGTH SHOWN IS CENTER TO CENTER OF STRUCTURE WHICH DIFFERS FROM PAY LENGTH IN QUANTITY SHEETS.
2. HORIZONTAL CONTROL FOR ALL DRAINAGE STRUCTURES IS AT CENTER OF STRUCTURE.
3. SEE CULVERT LAYOUT PLAN & PROFILE SHEETS FOR ADDITIONAL INFORMATION.



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SH 242

EB DRAINAGE PLAN & PROFILE

STA 1109+00 TO STA 1121+00

SHEET 25 OF 33

DSN: XXX	FED. RD. DIV. NO. 6	STATE TEXAS	FEDERAL AID PROJECT NO.			HIGHWAY NO.
CK: XXX	STATE DISTRICT	COUNTY	CONTROL NO. 3538	SECTION NO. 01	JOB NO. 036	SHEET NO. 535

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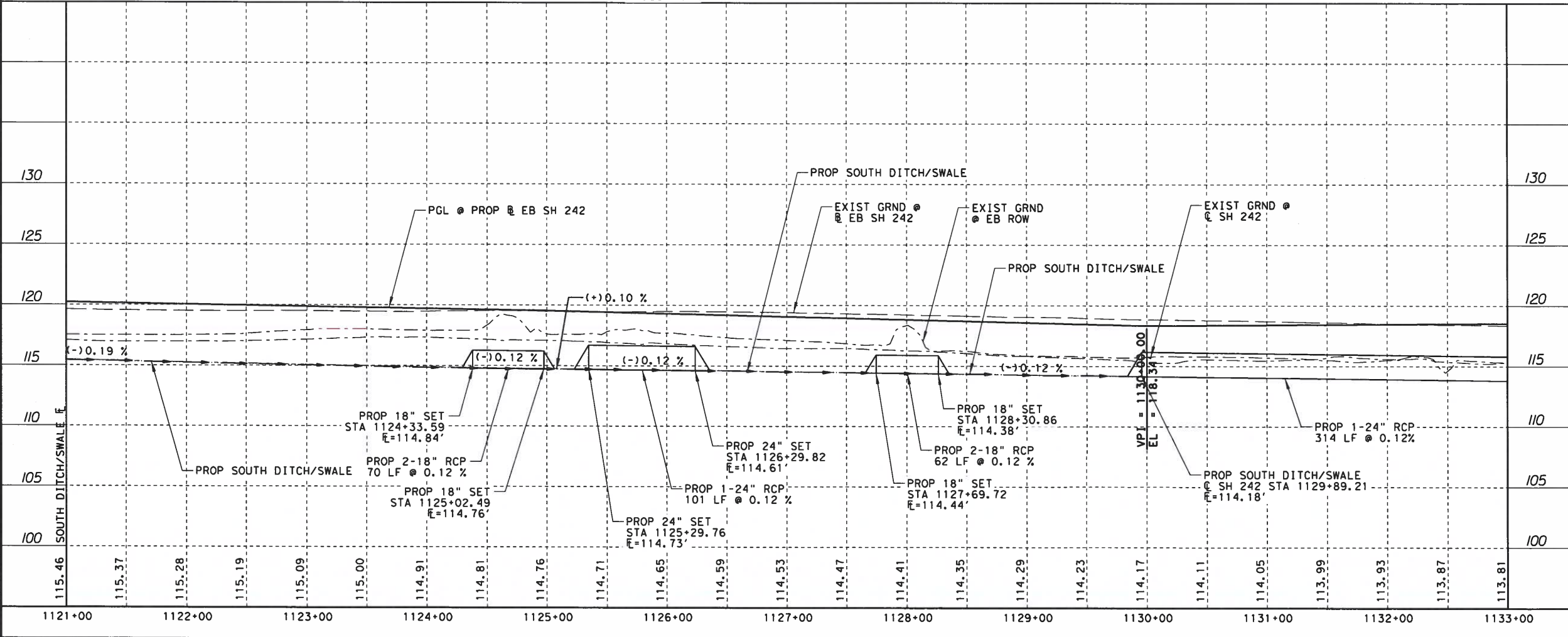
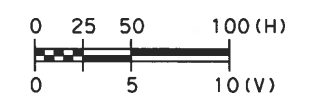
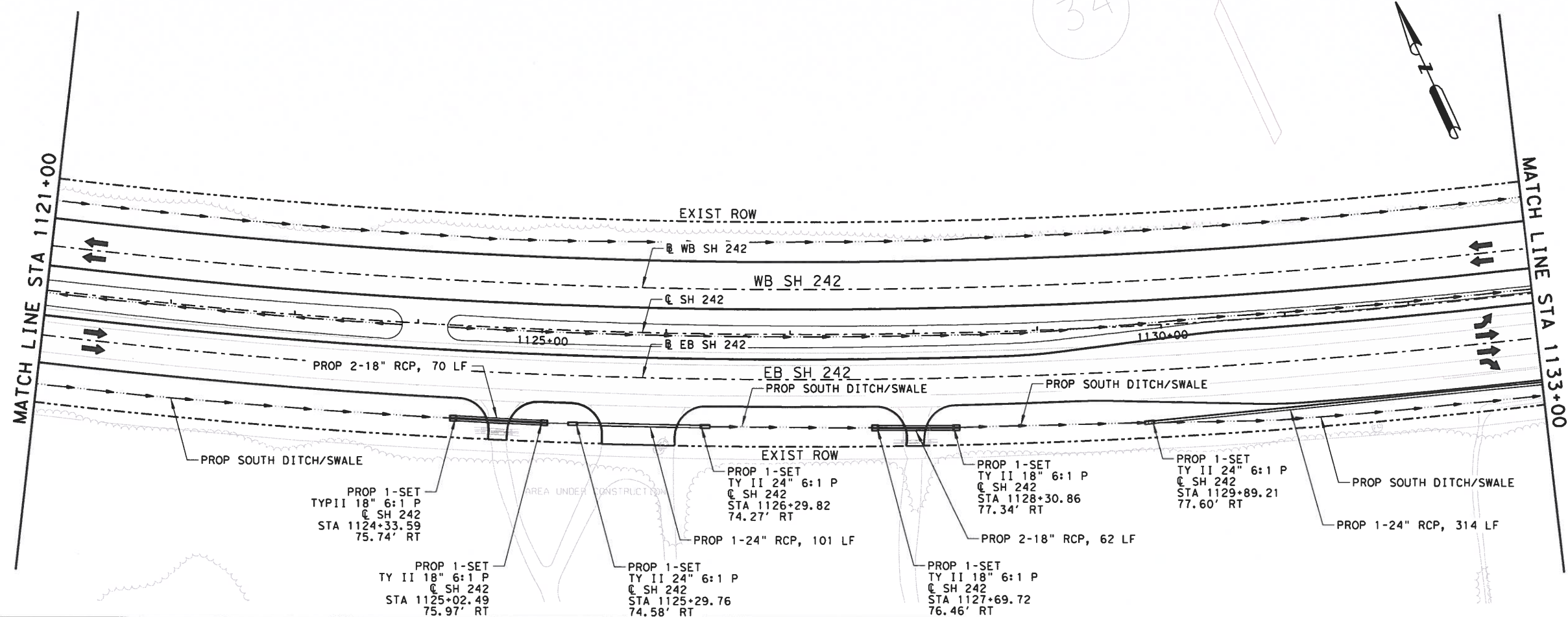
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LEGEND

- PROP TY AD DROP INLET
- ▣ PROP TY C CURB INLET
- ▣ PROP TY C CURB INLET W/2 EXT
- ▣ PROP SET
- PROP MANHOLE
- PROP PIPE CROSSING
- ▭ PROP RCP CULVERT W/SET
- ▭ PROP RCB CULVERT W/HEADWALL
- PROP DITCH/SWALE

NOTES:

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3. SEE CULVERT LAYOUT PLAN & PROFILE SHEETS FOR ADDITIONAL INFORMATION.



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SH 242

EB DRAINAGE PLAN & PROFILE

STA 1121+00 TO STA 1133+00

SHEET 26 OF 33

DSN: XXX	FED. RD. DIV. NO. 6	STATE TEXAS	FEDERAL AID PROJECT NO.		HIGHWAY NO. SH 242
CK: XXX	STATE DISTRICT	COUNTY	CONTROL NO. 3538	SECTION NO. 01	JOB NO. 036
DRN: XXX	DISTRICT	COUNTY	CONTROL NO. 3538	SECTION NO. 01	JOB NO. 036
CK: XXX	HOU	MONT	3538	01	036 536

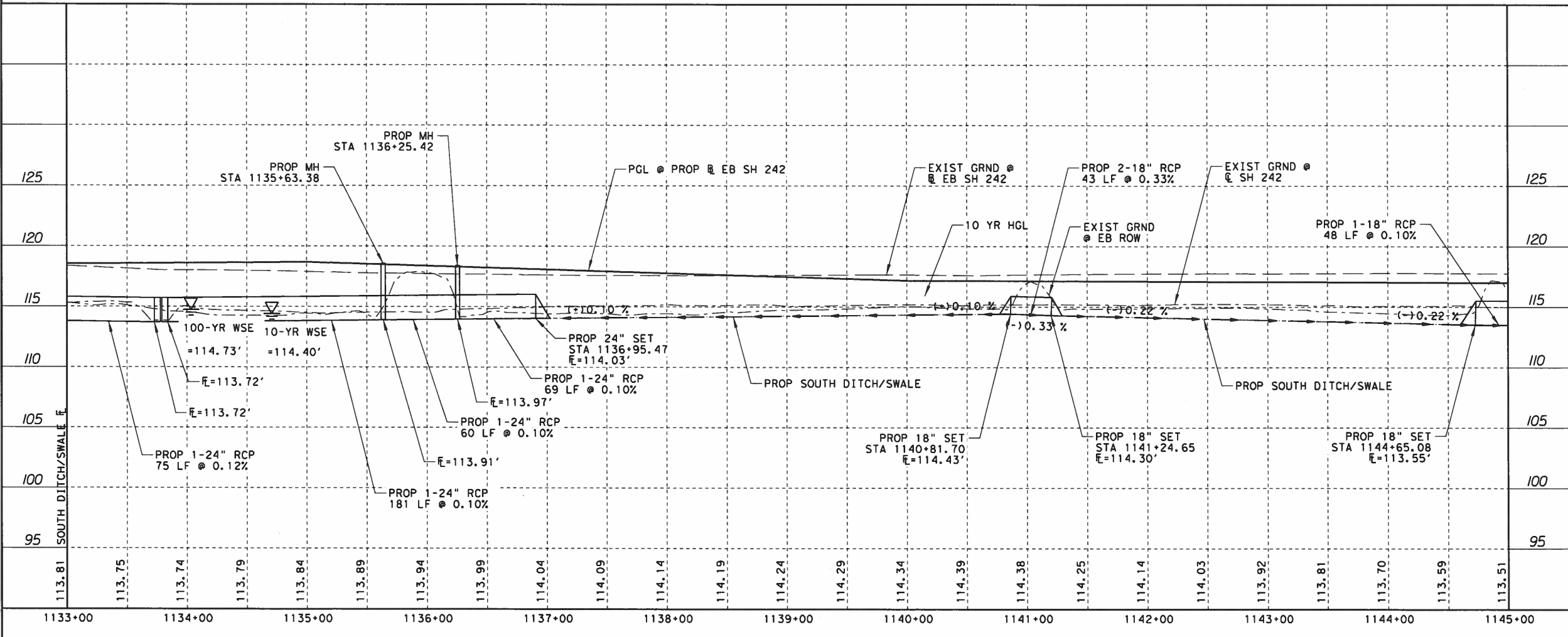
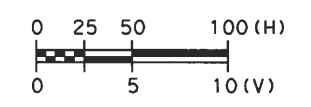
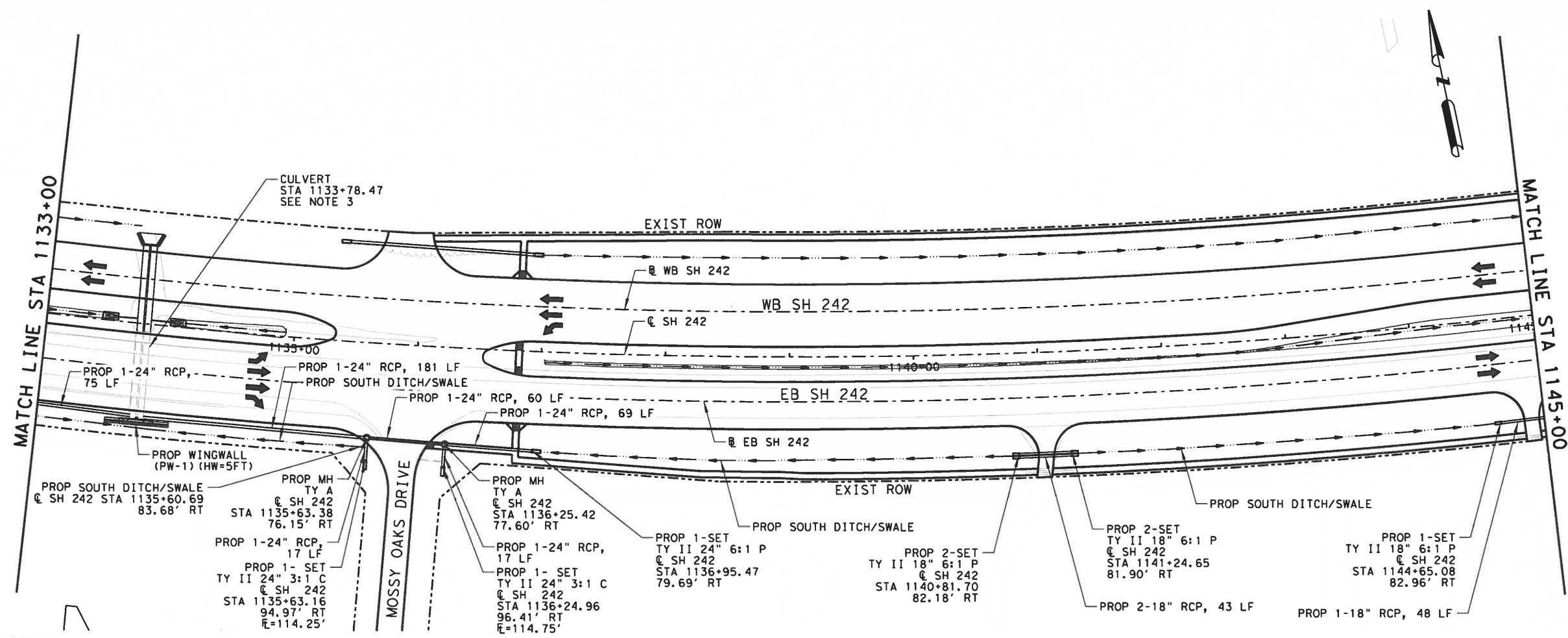
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LEGEND

- PROP TY AD DROP INLET
- ▣ PROP TY C CURB INLET
- ▣ PROP TY C CURB INLET W/2 EXT
- ▣ PROP SET
- PROP MANHOLE
- PROP PIPE CROSSING
- ▭ PROP RCP CULVERT W/SET
- ▭ PROP RCB CULVERT W/HEADWALL
- PROP DITCH/SWALE

NOTES:

1. STORM SEWER LENGTH SHOWN IS CENTER TO CENTER OF STRUCTURE WHICH DIFFERS FROM PAY LENGTH IN QUANTITY SHEETS.
2. HORIZONTAL CONTROL FOR ALL DRAINAGE STRUCTURES IS AT CENTER OF STRUCTURE.
3. SEE CULVERT LAYOUT PLAN & PROFILE SHEETS FOR ADDITIONAL INFORMATION.



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DATE: 11/19/2018

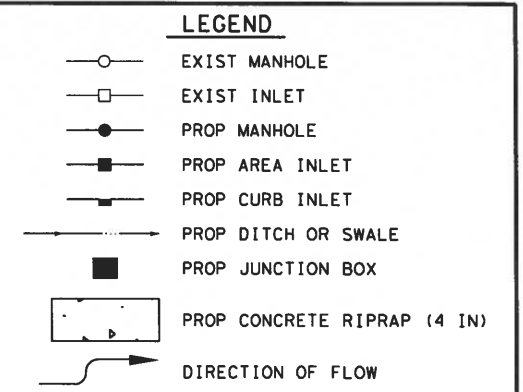
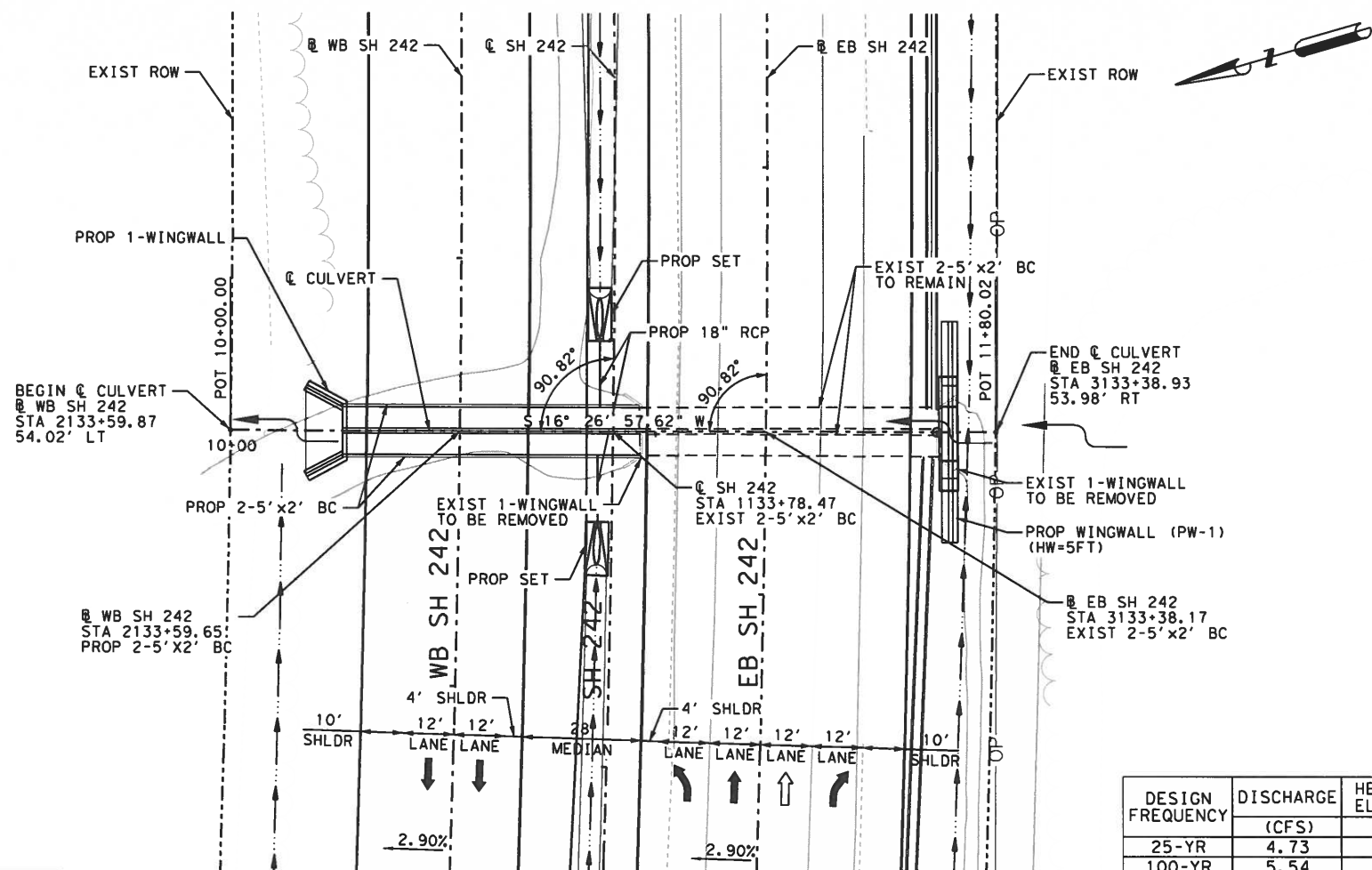
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T.B.P.E. FIRM REGISTRATION #392
3100 WEST ALABAMA HOUSTON, TX 77098 (713) 520-9570

SH 242
EB DRAINAGE PLAN & PROFILE
STA 1133+00 TO STA 1145+00

DSN: XXX	FED. RD. DIV. NO. 6	STATE TEXAS	FEDERAL AID PROJECT NO.		HIGHWAY NO. SH 242
CK: XXX	STATE DISTRICT	COUNTY HOU	CONTROL NO. 3538	SECTION NO. 01	JOB NO. 036
DRN: XXX	DISTRICT	COUNTY	CONTROL NO.	SECTION NO.	JOB NO.
CK: XXX	HOU	MONT	3538	01	036

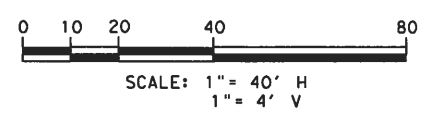
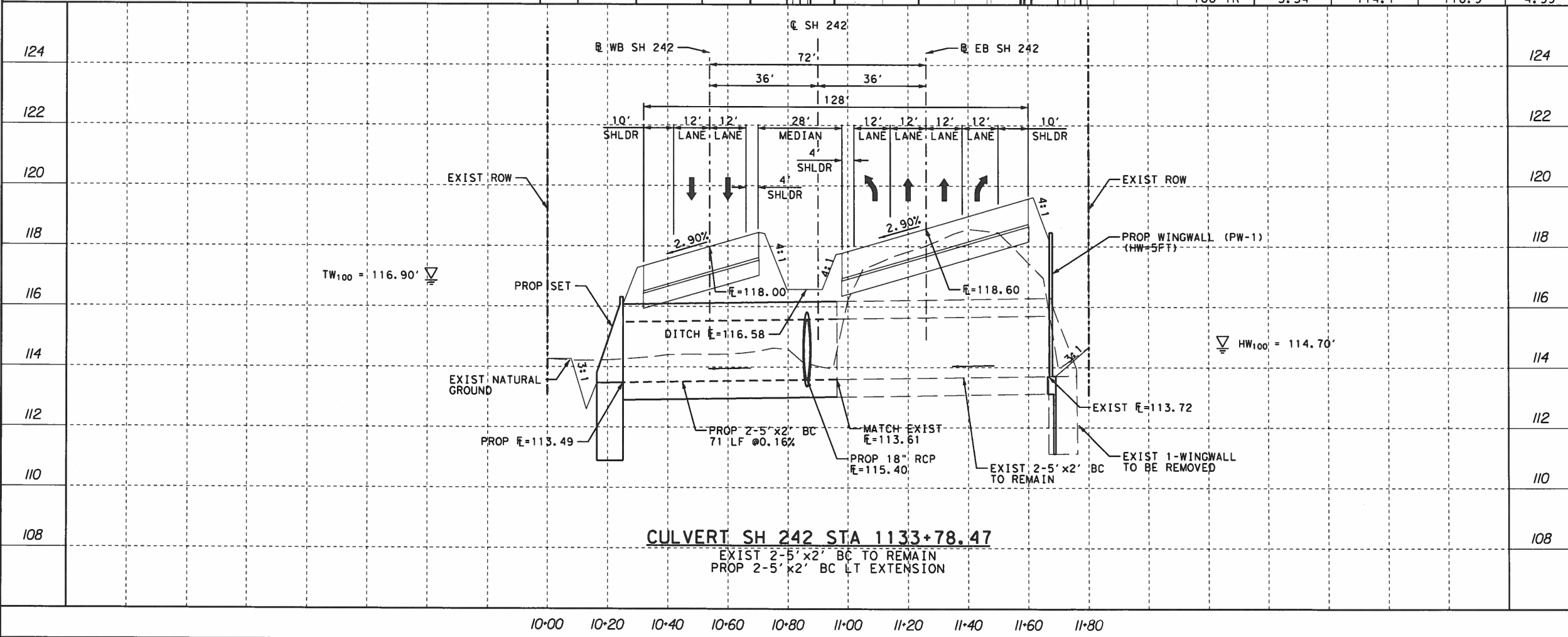
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- NOTES:**
1. DIMENSIONS IN PROFILE ARE NOMINAL TO VIEW.
 2. STORM SEWER LENGTH SHOWN IS CENTER TO CENTER OF STRUCTURE WHICH DIFFERS FROM PAY LENGTH IN QUANTITY SHEETS.
 3. HORIZONTAL CONTROL FOR ALL DRAINAGE STRUCTURES IS AT THE CENTER OF THE STRUCTURE.

DESIGN FREQUENCY	DISCHARGE (CFS)	HEADWATER ELEVATION (FT)	TAILWATER ELEVATION (FT)	VELOCITY (FT/S)
25-YR	4.73			4.26
100-YR	5.54	114.7	116.9	4.99



REV. NO.	DATE	DESCRIPTION	BY

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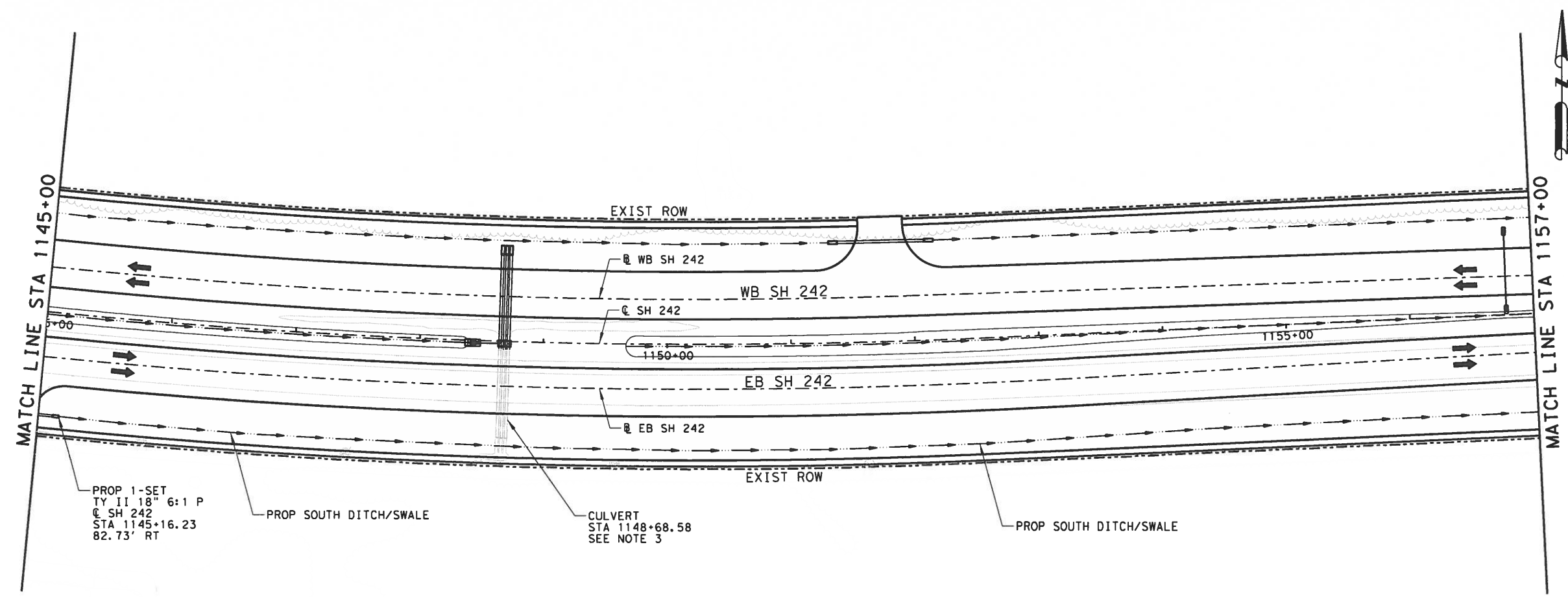
SH 242

CULVERT LAYOUT
 STA 1133+78.47

SHEET 17 OF 22

DSN: XXX	FED. RD. DIV. NO.	STATE	FEDERAL AID PROJECT NO.			HIGHWAY NO.
CK: XXX	6	TEXAS				SH 242
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CK: XXX	HOU	MONT	3538	01	036	563

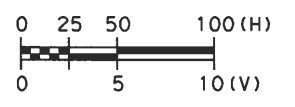
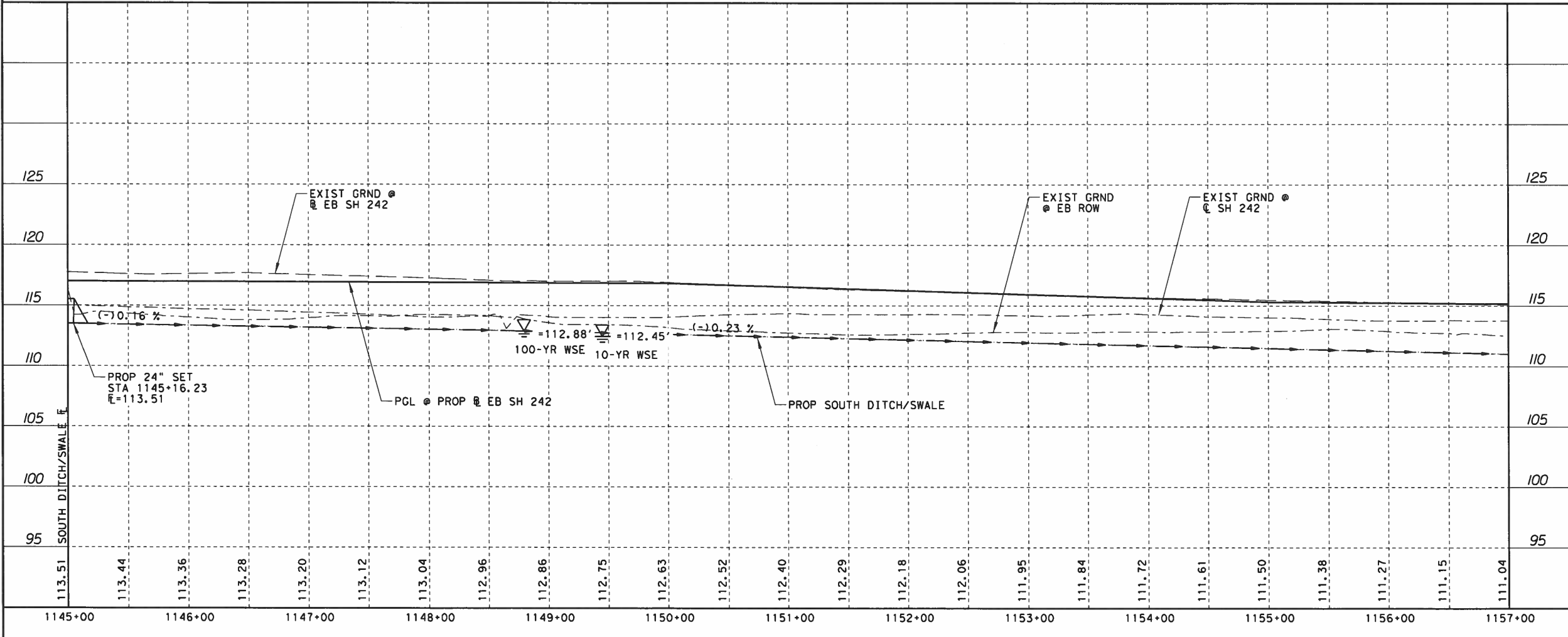
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LEGEND

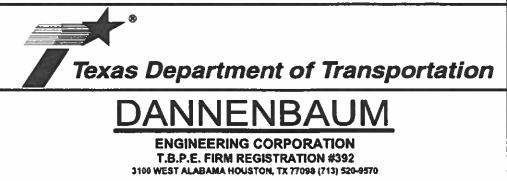
- PROP TY AD DROP INLET
- ▣ PROP TY C CURB INLET
- ▣ PROP TY C CURB INLET W/2 EXT
- ▣ PROP SET
- PROP MANHOLE
- PROP PIPE CROSSING
- ▭ PROP RCP CULVERT W/SET
- ▭ PROP RCB CULVERT W/HEADWALL
- PROP DITCH/SWALE

- NOTES:**
1. STORM SEWER LENGTH SHOWN IS CENTER TO CENTER OF STRUCTURE WHICH DIFFERS FROM PAY LENGTH IN QUANTITY SHEETS.
 2. HORIZONTAL CONTROL FOR ALL DRAINAGE STRUCTURES IS AT CENTER OF STRUCTURE.
 3. SEE CULVERT LAYOUT PLAN & PROFILE SHEETS FOR ADDITIONAL INFORMATION.



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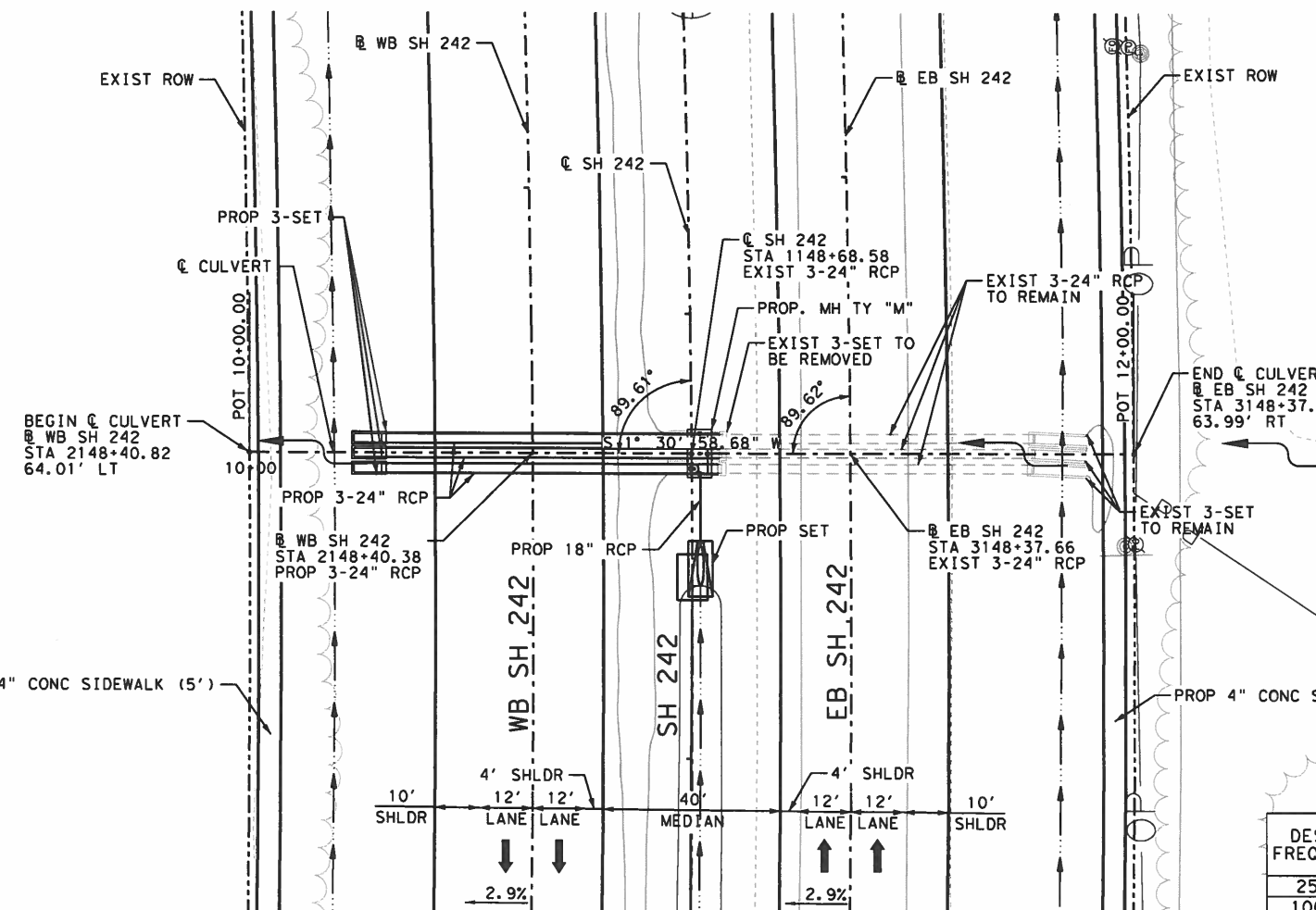


SH 242
EB DRAINAGE PLAN & PROFILE
 STA 1145+00 TO STA 1157+00

SHEET 28 OF 33

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CK: XXX	6	TEXAS			SH 242
DRN: XXX	STATE DISTRICT	COUNTY	CONTROL NO.	SECTION NO.	JOB NO.
CK: XXX	HOU	MONT	3538	01	036
					SHEET NO.
					538

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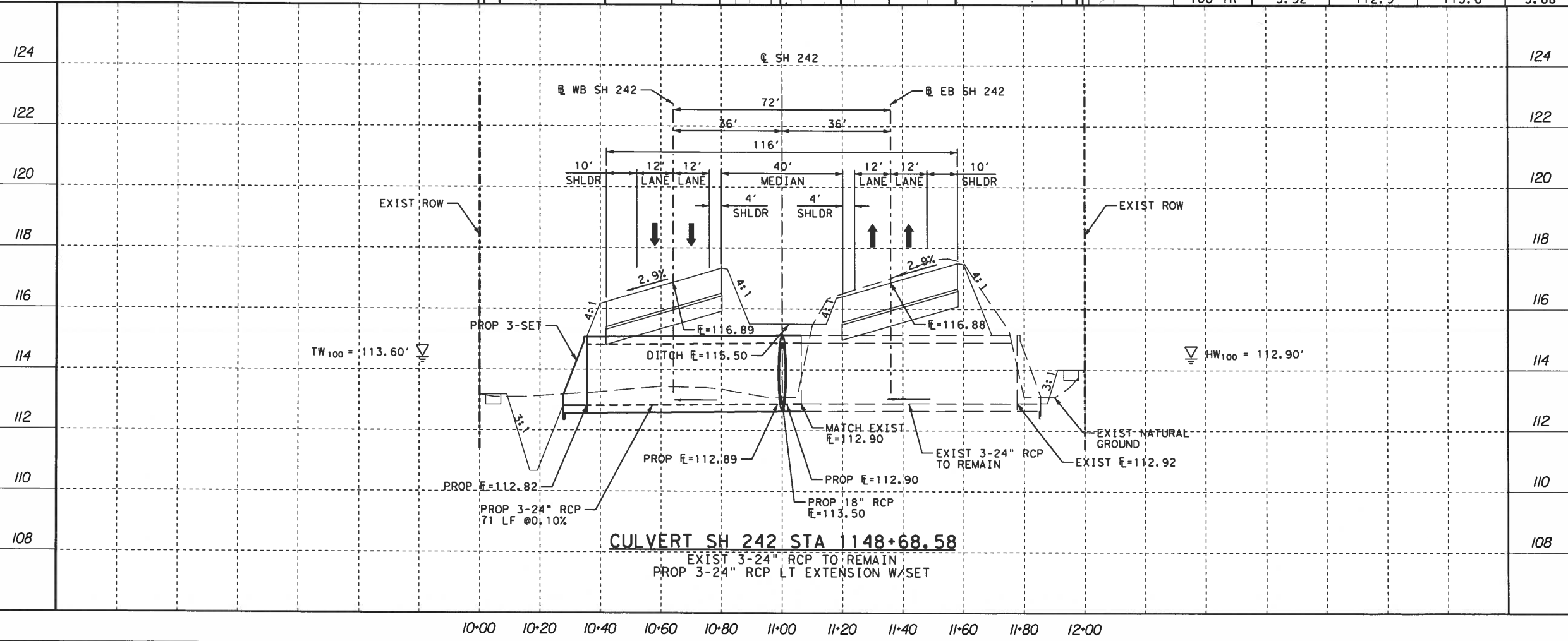
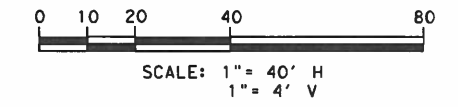


DESIGN FREQUENCY	DISCHARGE (CFS)	HEADWATER ELEVATION (FT)	TAILWATER ELEVATION (FT)	VELOCITY (FT/S)
25-YR	5.04			3.13
100-YR	5.92	112.9	113.6	3.68

LEGEND

- EXIST MANHOLE
- EXIST INLET
- PROP MANHOLE
- PROP AREA INLET
- PROP CURB INLET
- PROP DITCH OR SWALE
- PROP JUNCTION BOX
- PROP CONCRETE RIPRAP (4 IN)
- DIRECTION OF FLOW

- NOTES:**
- DIMENSIONS IN PROFILE ARE NOMINAL TO VIEW.
 - STORM SEWER LENGTH SHOWN IS CENTER TO CENTER OF STRUCTURE WHICH DIFFERS FROM PAY LENGTH IN QUANTITY SHEETS.
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CULVERT SH 242 STA 1148+68.58
 EXIST 3-24" RCP TO REMAIN
 PROP 3-24" RCP LT EXTENSION W/SET

REV. NO.	DATE	DESCRIPTION	BY

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 3100 WEST ALABAMA HOUSTON, TX 77098 (713) 520-0570

SH 242

CULVERT LAYOUT
STA 1148+68.58

SHEET 18 OF 22

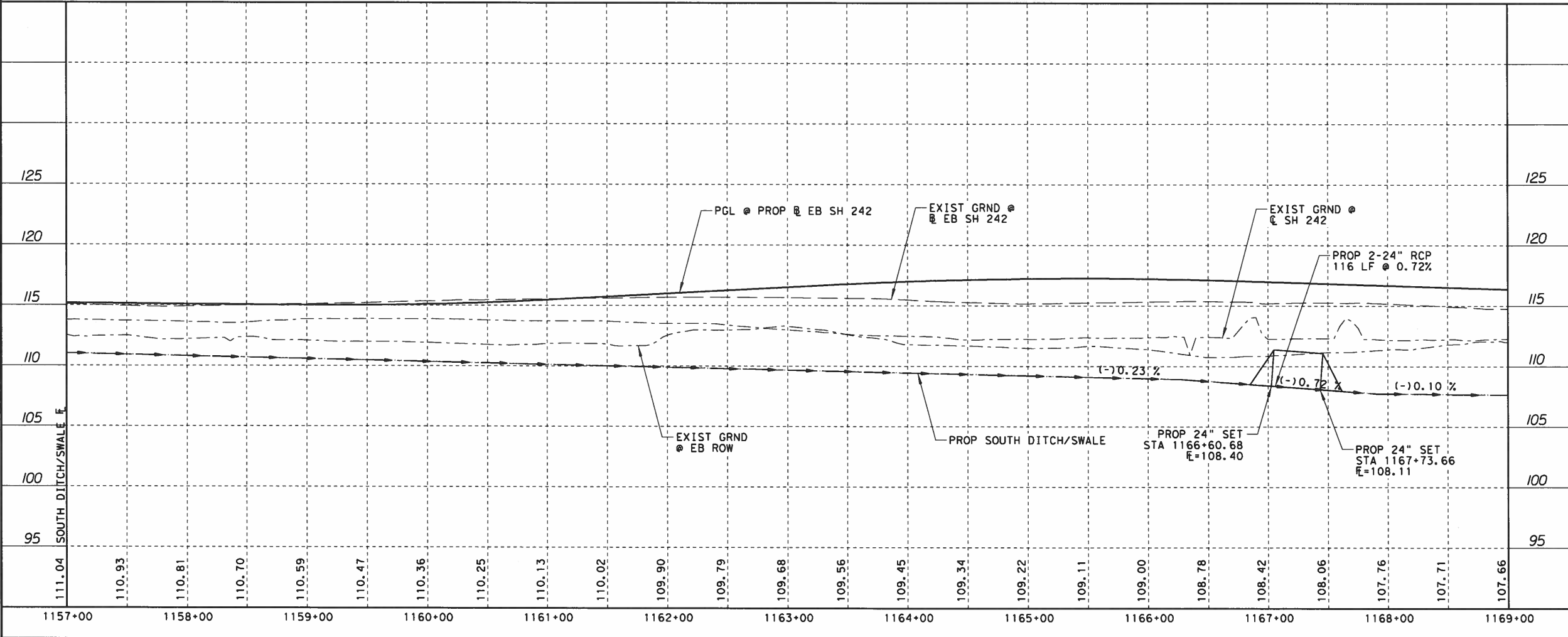
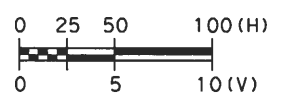
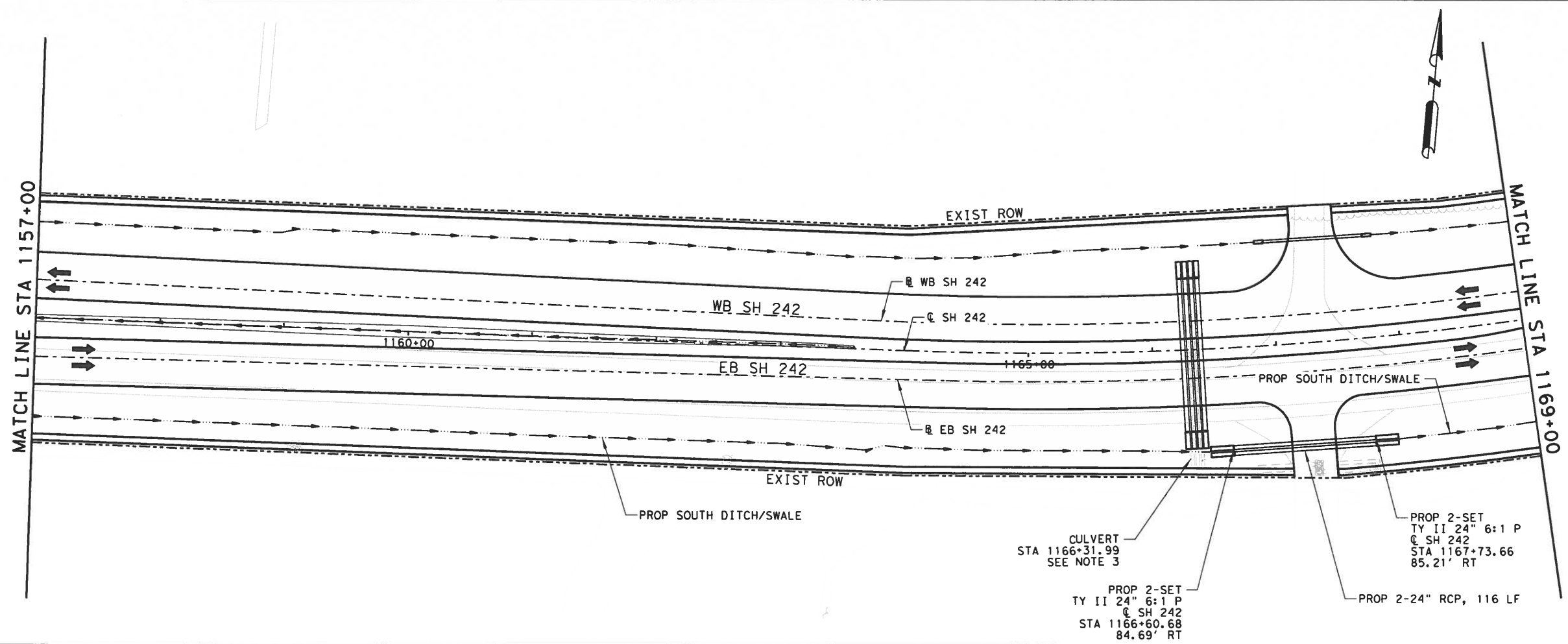
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CK: XXX	6	TEXAS				SH 242
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CK: XXX	HOU	MONT	3538	01	036	564

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LEGEND

- PROP TY AD DROP INLET
- ▣ PROP TY C CURB INLET
- ▣ PROP TY C CURB INLET W/2 EXT
- ▣ PROP SET
- PROP MANHOLE
- PROP PIPE CROSSING
- ▭ PROP RCP CULVERT W/SET
- ▭ PROP RCB CULVERT W/HEADWALL
- PROP DITCH/SWALE

- NOTES:**
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 3100 WEST ALABAMA HOUSTON, TX 77098 (713) 520-9570

SH 242

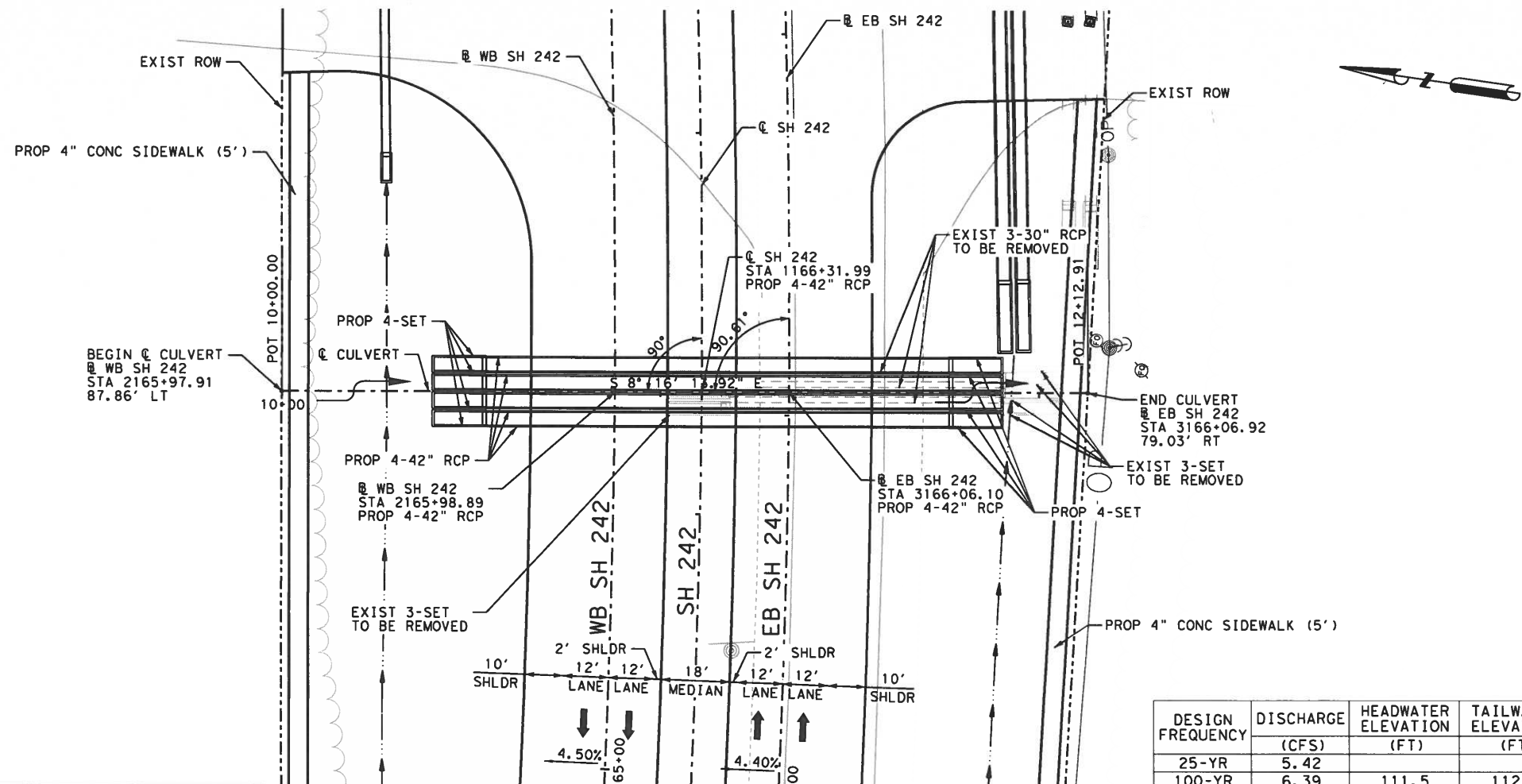
EB DRAINAGE PLAN & PROFILE

STA 1157+00 TO STA 1169+00

SHEET 29 OF 33

DSN: XXX	FED. RD. DIV. NO. 6	STATE TEXAS	FEDERAL AID PROJECT NO.		HIGHWAY NO. SH 242
CK: XXX	STATE DISTRICT	COUNTY	CONTROL NO. 3538	SECTION NO. 01	JOB NO. 036
DRN: XXX	DISTRICT	COUNTY	CONTROL NO. 3538	SECTION NO. 01	JOB NO. 036
CK: XXX	HOU	MONT	3538	01	036

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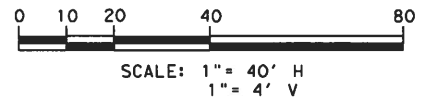
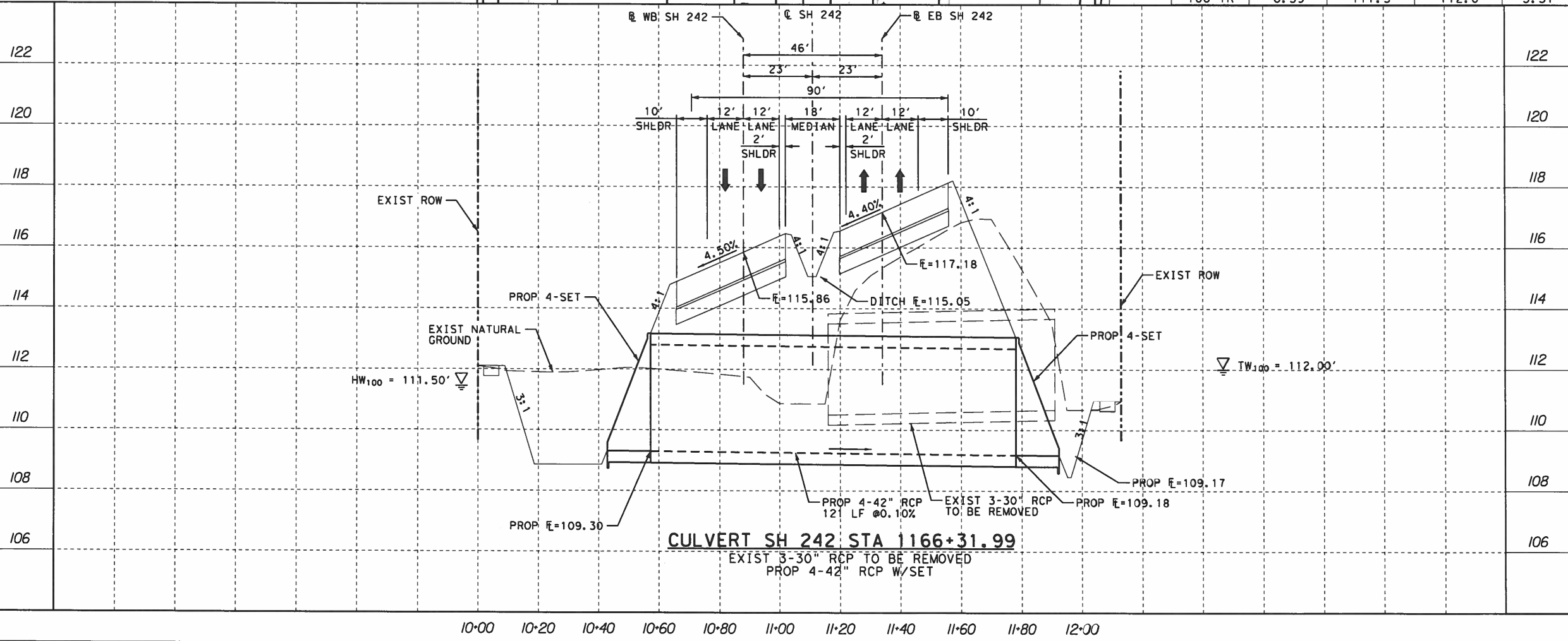


LEGEND

- EXIST MANHOLE
- EXIST INLET
- PROP MANHOLE
- PROP AREA INLET
- ▬ PROP CURB INLET
- ▬▬ PROP DITCH OR SWALE
- PROP JUNCTION BOX
- ▭ PROP CONCRETE RIPRAP (4 IN)
- DIRECTION OF FLOW

- NOTES:**
- DIMENSIONS IN PROFILE ARE NOMINAL TO VIEW.
 - STORM SEWER LENGTH SHOWN IS CENTER TO CENTER OF STRUCTURE WHICH DIFFERS FROM PAY LENGTH IN QUANTITY SHEETS.
 - HORIZONTAL CONTROL FOR ALL DRAINAGE STRUCTURES IS AT THE CENTER OF THE STRUCTURE.

DESIGN FREQUENCY	DISCHARGE (CFS)	HEADWATER ELEVATION (FT)	TAILWATER ELEVATION (FT)	VELOCITY (FT/S)
25-YR	5.42			2.98
100-YR	6.39	111.5	112.0	3.51



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Texas Department of Transportation

DANNENBAUM
 ENGINEERING CORPORATION
 T.B.P.E. FIRM REGISTRATION #392
 3100 WEST ALABAMA HOUSTON, TX 77058 (713) 520-9970

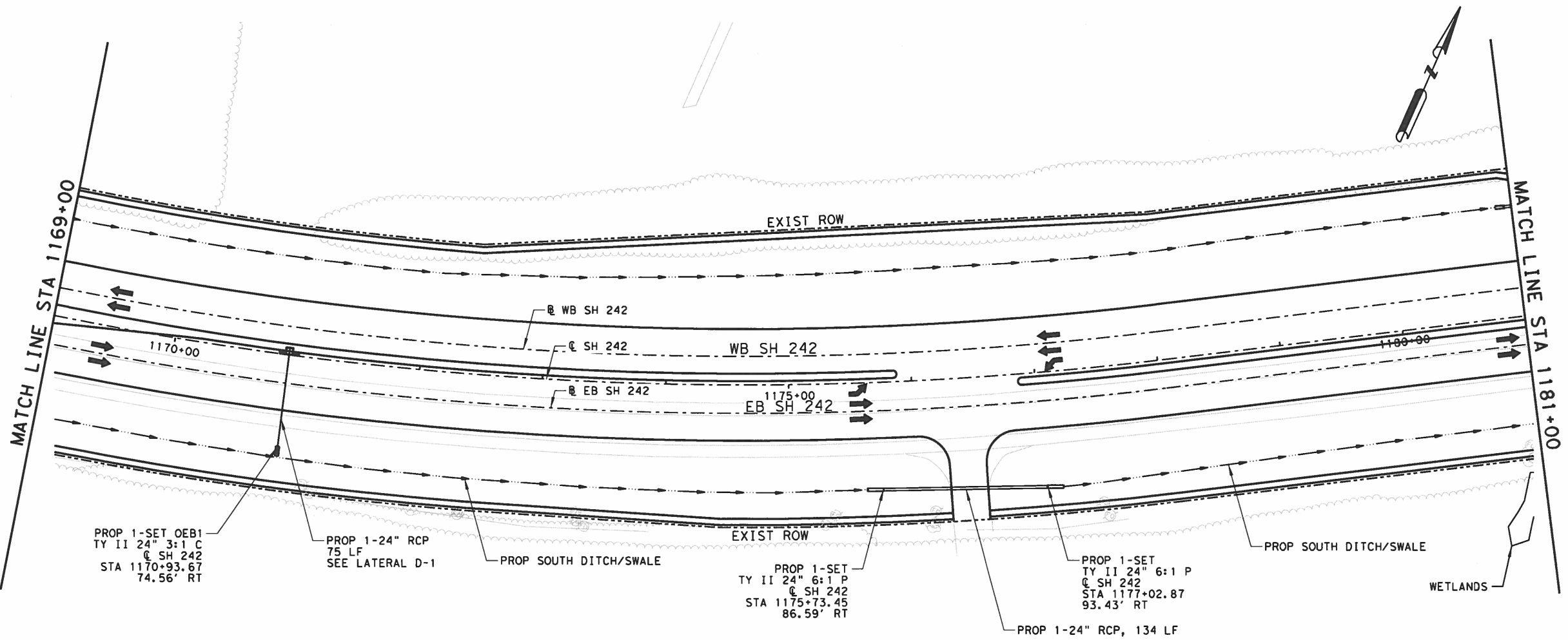
SH 242

CULVERT LAYOUT
 STA 1166+31.99

SHEET 19 OF 22

DSN: XXX	FED. RD. DIV. NO. 6	STATE TEXAS	FEDERAL AID PROJECT NO.		HIGHWAY NO. SH 242
DRN: XXX	DISTRICT	COUNTY	CONTROL NO. 3538	SECTION NO. 01	JOB NO. 036
CK: XXX	HOU	MONT			SHEET NO. 565

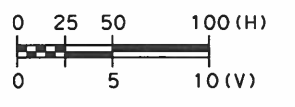
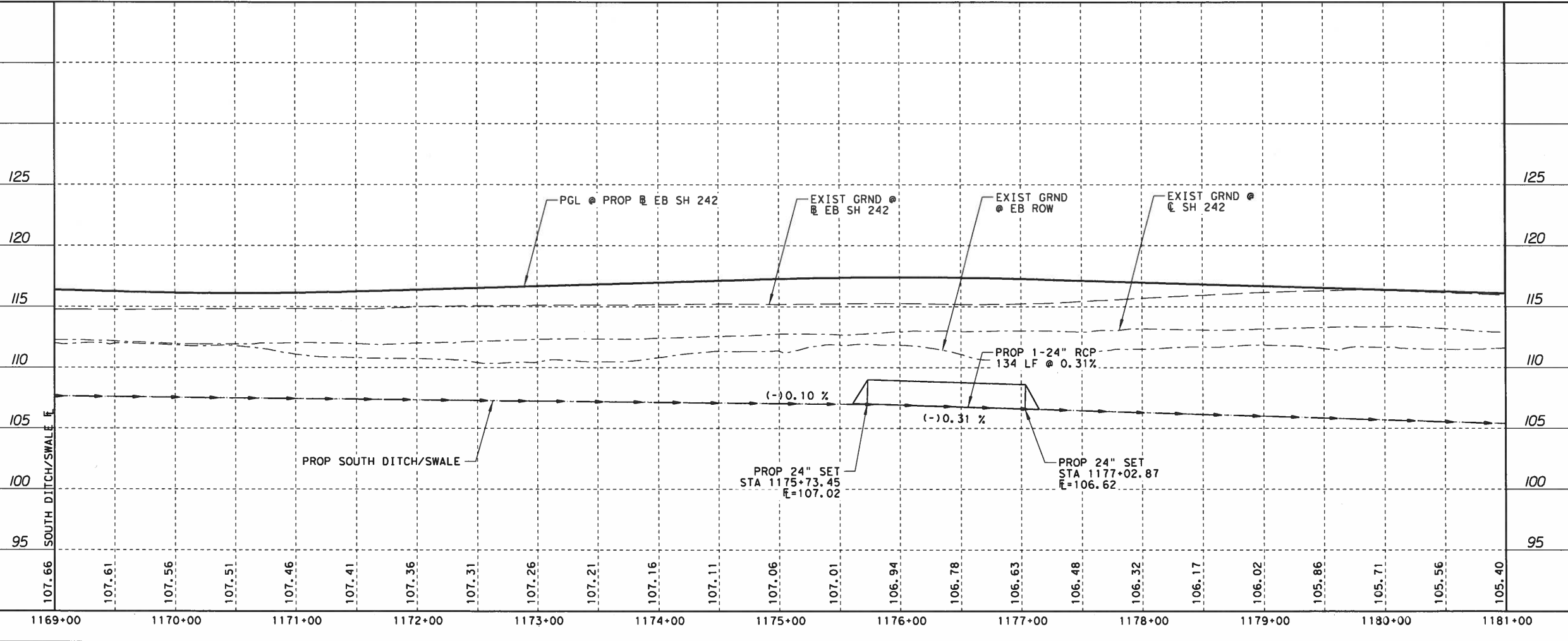
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LEGEND

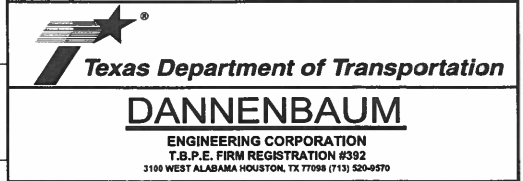
- PROP TY AD DROP INLET
- ▣ PROP TY C CURB INLET
- ▣ PROP TY C CURB INLET W/2 EXT
- ▣ PROP SET
- PROP MANHOLE
- PROP PIPE CROSSING
- ▣ PROP RCP CULVERT W/SET
- ▣ PROP RCB CULVERT W/HEADWALL
- PROP DITCH/SWALE

- NOTES:**
- STORM SEWER LENGTH SHOWN IS CENTER TO CENTER OF STRUCTURE WHICH DIFFERS FROM PAY LENGTH IN QUANTITY SHEETS.
 - HORIZONTAL CONTROL FOR ALL DRAINAGE STRUCTURES IS AT CENTER OF STRUCTURE.
 - SEE CULVERT LAYOUT PLAN & PROFILE SHEETS FOR ADDITIONAL INFORMATION.



REV. NO.	DATE	DESCRIPTION	BY

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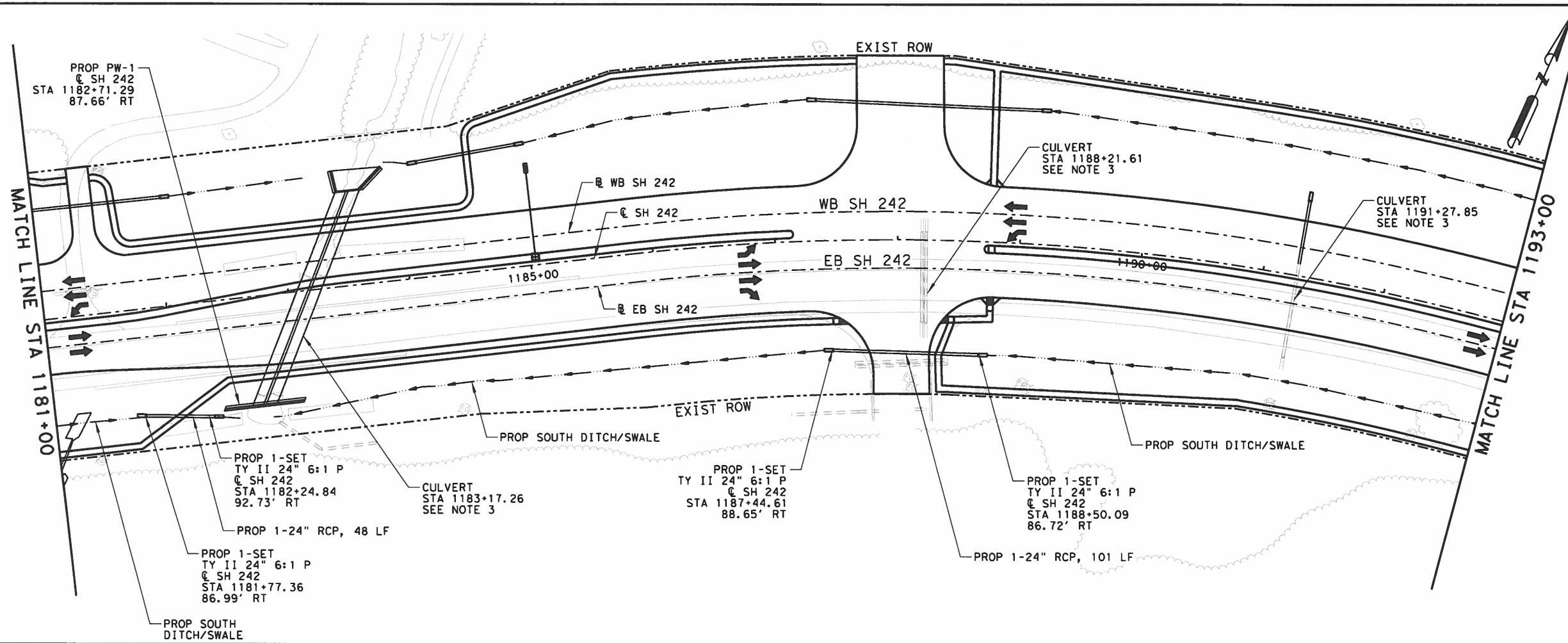


SH 242
EB DRAINAGE PLAN & PROFILE
 STA 1169+00 TO STA 1181+00

SHEET 30 OF 33

DSN: XXX	FED. RD. DIV. NO. 6	STATE TEXAS	FEDERAL AID PROJECT NO.			HIGHWAY NO.
CK: XXX						SH 242
DRN: XXX	STATE DISTRICT HOU	COUNTY MONT	CONTROL NO. 3538	SECTION NO. 01	JOB NO. 036	SHEET NO. 540

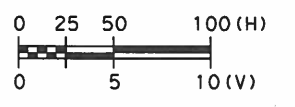
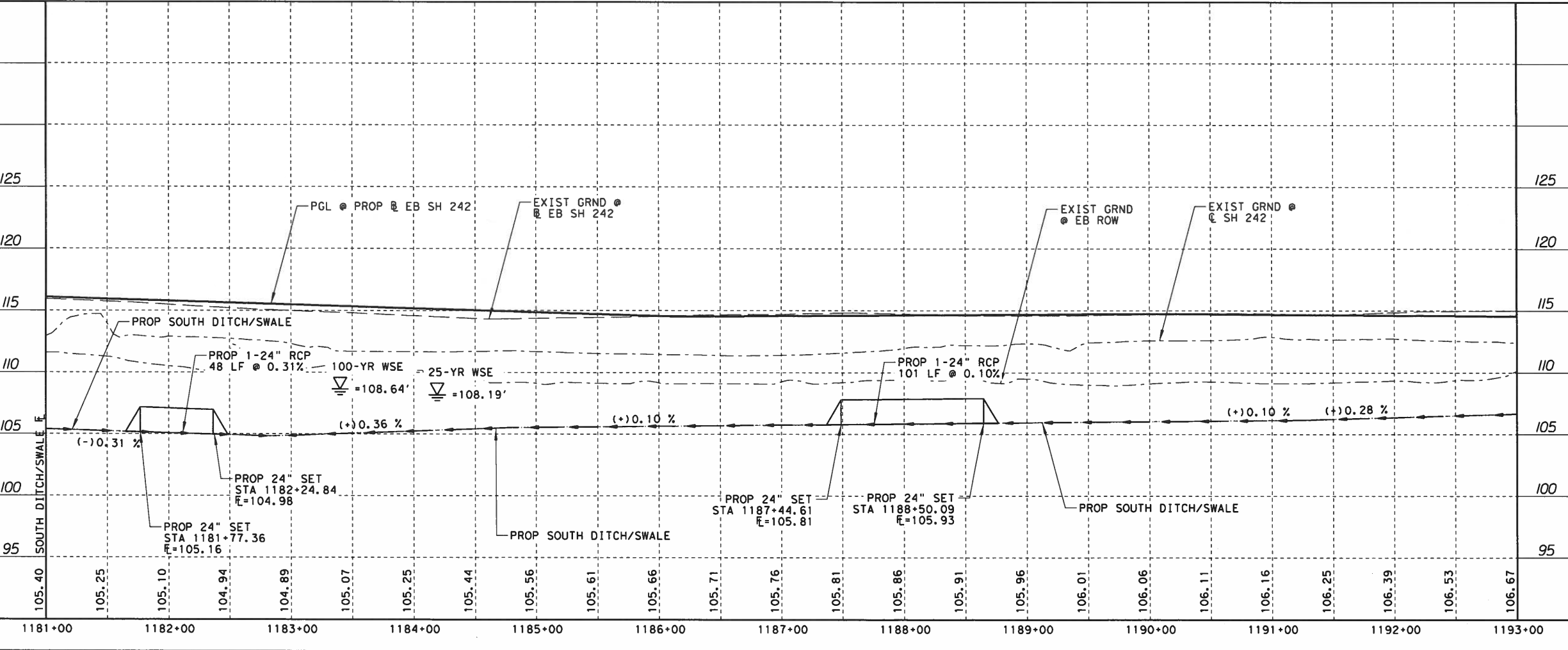
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LEGEND

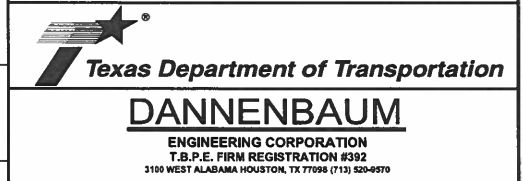
- PROP TY AD DROP INLET
- ▣ PROP TY C CURB INLET
- ▤ PROP TY C CURB INLET W/2 EXT
- ▥ PROP SET
- PROP MANHOLE
- PROP PIPE CROSSING
- ▭ PROP RCP CULVERT W/SET
- ▭ PROP RCB CULVERT W/HEADWALL
- PROP DITCH/SWALE

- NOTES:**
- STORM SEWER LENGTH SHOWN IS CENTER TO CENTER OF STRUCTURE WHICH DIFFERS FROM PAY LENGTH IN QUANTITY SHEETS.
 - HORIZONTAL CONTROL FOR ALL DRAINAGE STRUCTURES IS AT CENTER OF STRUCTURE.
 - SEE CULVERT LAYOUT PLAN & PROFILE SHEETS FOR ADDITIONAL INFORMATION.



REV. NO.	DATE	DESCRIPTION	BY

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 DATE: 11/19/2018

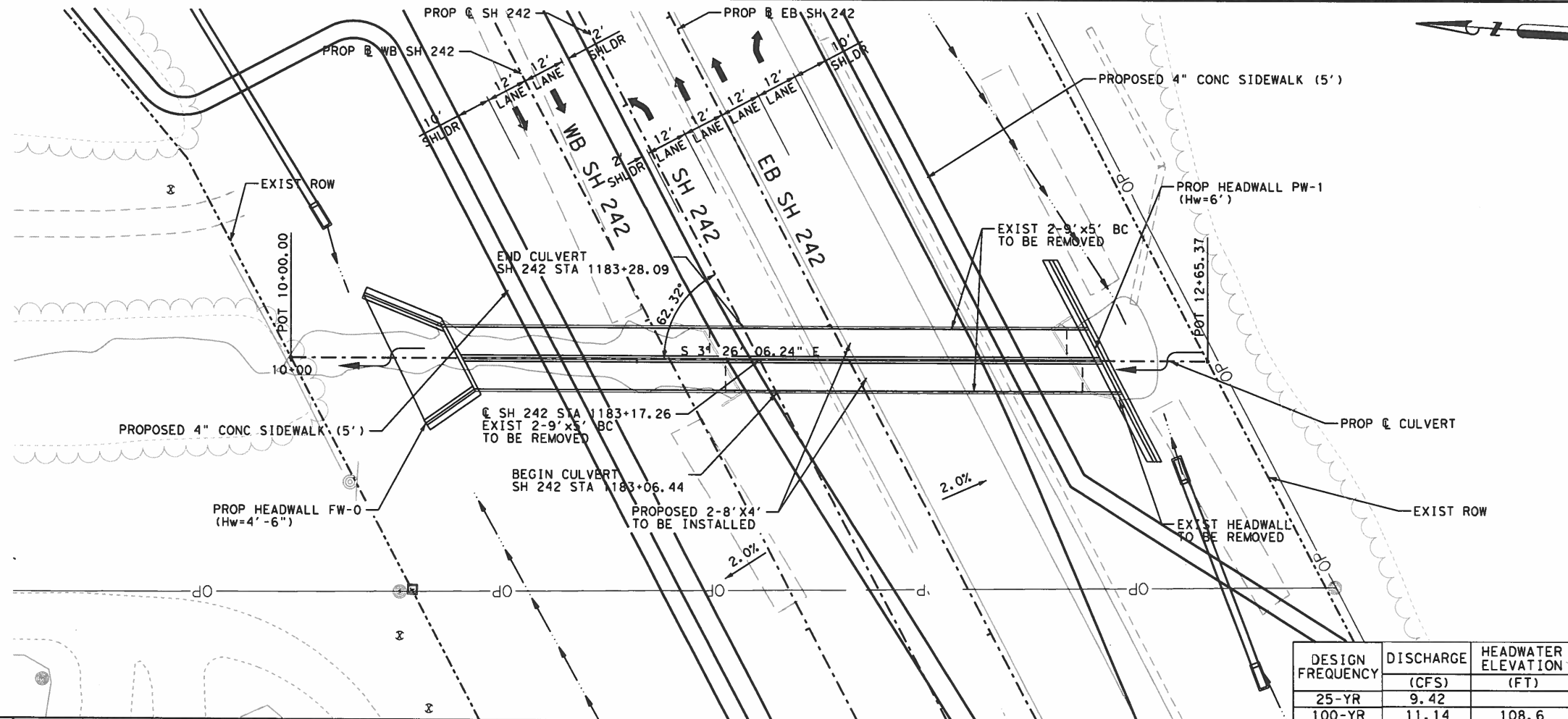


SH 242
EB DRAINAGE PLAN & PROFILE
 STA 1181+00 TO STA 1193+00

SHEET 31 OF 33

DSN: XXX	FED. RD. DIV. NO. 6	STATE TEXAS	FEDERAL AID PROJECT NO.			HIGHWAY NO.
CK: XXX						SH 242
DRN: XXX	STATE DISTRICT HOU	COUNTY MONT	CONTROL NO. 3538	SECTION NO. 01	JOB NO. 036	SHEET NO. 541

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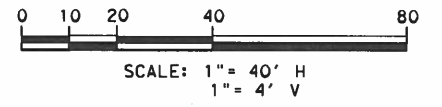


LEGEND

- EXIST MANHOLE
- EXIST INLET
- PROP MANHOLE
- PROP AREA INLET
- PROP CURB INLET
- PROP DITCH OR SWALE
- PROP JUNCTION BOX
- PROP CONCRETE RIPRAP (4 IN)
- DIRECTION OF FLOW

- NOTES:**
- DIMENSIONS IN PROFILE ARE NOMINAL TO VIEW.
 - STORM SEWER LENGTH SHOWN IS CENTER TO CENTER OF STRUCTURE WHICH DIFFERS FROM PAY LENGTH IN QUANTITY SHEETS.
 - HORIZONTAL CONTROL FOR ALL DRAINAGE STRUCTURES IS AT THE CENTER OF THE STRUCTURE.

DESIGN FREQUENCY	DISCHARGE (CFS)	HEADWATER ELEVATION (FT)	TAILWATER ELEVATION (FT)	VELOCITY (FT/S)
25-YR	9.42			2.74
100-YR	11.14	108.6	108.9	3.24



REV. NO.	DATE	DESCRIPTION	BY

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ENGINEERING CORPORATION
 T.B.P.E. FIRM REGISTRATION #392
 3100 WEST ALABAMA HOUSTON, TX 77098 (713) 520-9570

SH 242

CULVERT LAYOUT

OUTFALL
 2-8' x 4' MBC

SHEET 20 OF 22

DSN: XXX	FED. RD. DIV. NO. 6	STATE TEXAS	FEDERAL AID PROJECT NO.			HIGHWAY NO. SH 242
DRN: XXX	STATE DISTRICT	COUNTY	CONTROL NO. 3538	SECTION NO. 01	JOB NO. 036	SHEET NO. 566
CK: XXX	HOU	MONT				

