Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	60	R24.4/R25.3	100	384

REGISTERED CIVIL ENGINEER 1-15-16 DATE

3-14-16
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER MICHAEL HYNES No. C 67872 Exp. 06-30-17 CIVIL STATE OF CALIFORNIA

THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

WKE, INC
400 N. TUSTIN AVENUE
SUITE 275
SANTA ANA, CA 92705

CITY OF INDUSTRY
15651 EAST STAFFORD STREET
CITY OF INDUSTRY, CA 91744

NOTES:

1. FOR AUSTIN VAULT SAND FILTER, GSRD, BIOFILTRATION SWALE, AND UNLINED SWALE QUANTITIES, SEE WATER POLLUTION CONTROL QUANTITIES SHEET WQ-1.
2. ALL JOINTS ARE STANDARD JOINT TYPE.

DRAINAGE QUANTITIES

DRAINAGE SHEET No.	DRAINAGE SYSTEM No.	DRAINAGE UNIT	REMOVE HEADWALL	REMOVE INLET	REMOVE CULVERT	REMOVE Conc FES	REMOVE CONCRETE (MISCELLANEOUS)	ABANDON CULVERT	REMOVE REINFORCED CONCRETE BOX CULVERT	REMOVE Conc (CHANNEL)	CAP INLET	36" TEMPORARY CULVERT	REINFORCED CONCRETE PIPE (CLASS IV) 18"	24"	30"	36"	CONCRETE FLARED END SECTION 18"	24"	18" CORRUGATED STEEL PIPE (0.079" THICK)	PLACE HOT MIX ASPHALT (MISCELLANEOUS AREA)	HMA (TYPE A)	ADJUST MANHOLE TO GRADE	6" NON-PERFORATED PLASTIC PIPE UNDERDRAIN	36" PRECAST CONCRETE PIPE MANHOLE	STRUCTURAL CONCRETE, BOX CULVERT	BAR REINFORCING STEEL (BOX CULVERT)	ROCK SLOPE PROTECTION (FACING, METHOD B)	ROCK SLOPE PROTECTION FABRIC (CLASS 8)	DRAINAGE INLET MARKER	SAND BACKFILL	MISCELLANEOUS IRON AND STEEL	MINOR CONCRETE (MINOR STRUCTURE)	MANHOLE FRAME AND COVER (U45) (N)	MANHOLE FRAME AND COVER (U46) (N)	(N) "H" OR "V" OR "M"	(N) HEIGHT OF COVER	DESCRIPTION	STATION
			EA	EA	LF	EA	SQFT	EA	LF	CY	EA	LF	LF				EA		LF	SQYD	TON	EA	LF	LF	CY	LB	CY	SQYD	EA	CY	LB	CY	EA	EA	LF	LF		
D-4	5	l																				1															Adj MH TO GRADE	67.45′ Lt "G" 128+72.29
		m																				1															Adj MH TO GRADE	67.52′ Lt "G" 128+92.72
D-1	6	a																													326.0	1.4			5.0		TYPE G1 DI, GRATE TYPE 24-12	78.00′ Lt "AL" 297+81.52
		b											17.4																							5.0	18" RCP	
		c																													326.0	2.3			6.7		TYPE G2 DI, GRATE TYPE 24-12	78.00′ Lt "AL" 297+62.25
		d												55.6																						5.2	24" RCP	
		e																													326.0	2.2			6.5		TYPE G2 DI, GRATE TYPE 24-12	40.06′ Lt "WG-3" 97+85.31
		f												250.0																						6.2	24" RCP	
		g																													326.0	2.5			7.7		TYPE G2 DI, GRATE TYPE 24-12	22.00′ Lt "WG-3" 95+29.33
		h												43.3																						6.2	24" RCP	
		i																														0.9					JS 3	69.78′ Lt "WG-3" 95+30.87
		j																													326.0	1.5			5.4		TYPE G1 DI, GRATE TYPE 24-12	35.53′ Lt "WG-3" 98+50.04
		k											60.7																							5.0	18" RCP	
D-1	7	a		1																																	REMOVE INLET	12.69′ Rt "WG-3" 97+25.69
		b			19.9																															5.2	REMOVE CULVERT	
		c		1																																	REMOVE INLET	10.24′ Rt "WG-3" 97+02.66
		d			44.9																															5.4	REMOVE CULVERT	
		e		1																																	REMOVE INLET	35.11′ Lt "WG-3" 96+83.06
		f			149.9																															6.1	REMOVE CULVERT	
		g		1																																	REMOVE INLET	25.16′ Lt "WG-3" 95+29.35
		h			30.7																															3.7	REMOVE CULVERT	
		i	1																						2	2											REMOVE HW	58.06′ Lt "WG-3" 95+30.22
D-1	8	a	1																																		REMOVE HW	62.73′ Lt "WG-3" 98+18.90
		b																							244.4 ~~175.7~~	55,915.0 ~~34,017.6~~											Dbl 6′ x 6′ RCB	
		c																														12.8					Trans Str No. 3	47.11′ Rt "WG-3" 100+21.15
		d								131.5														2				2									REMOVE Conc (CHANNEL)	
			2	4	245.4					132			78.1	348.9								2			244.4 ~~176~~	55,914.0 ~~34,018~~					1,630.0	23.5					TOTAL (THIS SHEET)	

(N) - NOT A SEPARATE PAY ITEM, FOR INFORMATION ONLY.

2 REPLACED PER ADDENDUM No. 2 DATED AUGUST 4, 2016

DRAINAGE QUANTITIES
DQ-3

REVISED BY | DATE REVISED
JOSEPH CARBAJAL | MICHAEL HYNES
CALCULATED-DESIGNED BY | CHECKED BY
CONSULTANT FUNCTIONAL SUPERVISOR: MICHAEL HYNES
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
DESIGN
Caltrans

LAST REVISION 00-00-00 | DATE PLOTTED => 02-AUG-2016 | TIME PLOTTED => 15:40

NOTES:

1. FOR AUSTIN VAULT SAND FILTER, GSRD, BIOFILTRATION SWALE, AND UNLINED SWALE QUANTITIES, SEE WATER POLLUTION CONTROL QUANTITIES SHEET WQ-1.
2. ALL JOINTS ARE STANDARD JOINT TYPE.

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	60	R24.4/R25.3	101	384

REGISTERED CIVIL ENGINEER 1-15-16 DATE

3-14-16
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER MICHAEL HYNES No. C 67872 Exp. 06-30-17 CIVIL STATE OF CALIFORNIA

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WKE, INC
400 N. TUSTIN AVENUE
SUITE 275
SANTA ANA, CA 92705

CITY OF INDUSTRY
15651 EAST STAFFORD STREET
CITY OF INDUSTRY, CA 91744

DRAINAGE QUANTITIES

DRAINAGE SHEET No.	DRAINAGE SYSTEM No. (⬡)	DRAINAGE UNIT (○)	REMOVE HEADWALL (EA)	REMOVE INLET (EA)	REMOVE CULVERT (LF)	REMOVE Conc FES (EA)	REMOVE CONCRETE (MISCELLANEOUS) (SQFT)	ABANDON CULVERT (EA)	REMOVE REINFORCED CONCRETE BOX CULVERT (LF)	REMOVE Conc (CHANNEL) (CY)	CAP INLET (EA)	36" TEMPORARY CULVERT (LF)	REINFORCED CONCRETE PIPE (CLASS IV) 18" (LF)	REINFORCED CONCRETE PIPE (CLASS IV) 24" (LF)	REINFORCED CONCRETE PIPE (CLASS IV) 30" (LF)	REINFORCED CONCRETE PIPE (CLASS IV) 36" (LF)	CONCRETE FLARED END SECTION 18" (EA)	CONCRETE FLARED END SECTION 24" (EA)	18" CORRUGATED STEEL PIPE (0.079" THICK) (LF)	PLACE HOT MIX ASPHALT (MISCELLANEOUS AREA) (SQYD)	HMA (TYPE A) (TON)	ADJUST MANHOLE TO GRADE (EA)	6" NON-PERFORATED PLASTIC PIPE UNDERDRAIN (LF)	36" PRECAST CONCRETE PIPE MANHOLE (LF)	STRUCTURAL CONCRETE, BOX CULVERT (CY)	BAR REINFORCING STEEL (BOX CULVERT) (LB)	ROCK SLOPE PROTECTION (FACING, METHOD B) (CY)	ROCK SLOPE PROTECTION FABRIC (CLASS 8) (SQYD)	DRAINAGE INLET MARKER (EA)	SAND BACKFILL (CY)	MISCELLANEOUS IRON AND STEEL (LB)	MINOR CONCRETE (MINOR STRUCTURE) (CY)	MANHOLE FRAME AND COVER (U45) (N) (EA)	MANHOLE FRAME AND COVER (U46) (N) (EA)	(N) "H" OR "V" OR "M" (LF)	(N) HEIGHT OF COVER (LF)	DESCRIPTION	STATION
D-1	9	a							60.0																													REMOVE RCB CULVERT	
		b																							2	248.3 ~~185.4~~	31,590.0											Dbl 6' x 6' RCB (Mod)	
		c	1																																			REMOVE HW	122.49' Lt "WG-3" 94+10.45
		d								85.8																												REMOVE Conc (CHANNEL)	
		e																							2	68.5 ~~89.4~~	15,665 ~~15,236.1~~	2										Dbl 6' x 6' RCB	
		f																																15.9				Trans Str No. 3	75.94' Lt "WG-3" 95+33.48
D-6	10	a																															326.0	1.4			5.0		TYPE G1 DI, GRATE TYPE 24-12	95.82' Lt "AL" 300+59.39
		b											25.1																									3.5	18" RCP	
		c																															326.0	2.0			5.7		TYPE G2 DI, GRATE TYPE 24-12	95.67' Lt "AL" 300+89.74
		d												9.2																								4.3	24" RCP	
		e																							1.3								457.0	3.1	1		1.3		MH No. 1	107.76' Lt "AL" 300+89.82
		f												6.0																								2.9	24" RCP	
		g																																					GSRD (TYPE LR-2)	107.81' Lt "AL" 300+82.04
		h												8.8																								3.6	24" RCP	
		i																							1.3								457.0	2.7	1		1.3		MH No. 1	107.92' Lt "AL" 300+53.91
		j												27.0																								3.3	24" RCP	
		k																	1																				24" Conc FES	136.59' Lt "AL" 300+53.98
		l		1																																			REMOVE INLET	76.54' Lt "AL" 300+90.42
		m			22.3																																	5.8	REMOVE CULVERT	
		n				1																																	REMOVE Conc FES	99.89' Lt "AL" 300+90.43
D-1	11	a		1																																			REMOVE INLET	42.17' Lt "WG-3" 101+61.90
		b			95.9																																	9.1	REMOVE CULVERT	
		c		1																																			REMOVE INLET	29.63' Rt "WG-3" 100+87.84
		d			68.1																																	9.2	REMOVE CULVERT	
		e				1																				2	2												REMOVE Conc FES	36.64' Rt "WG-3" 100+30.57
			1	3	186.3	2			60.0	85.8			25.1	51.0					1						2.6	316.8 ~~274.8~~	47,255.0 ~~46,826.1~~						1,566.0	25.1	2				TOTAL (THIS SHEET)	

(N) - NOT A SEPARATE PAY ITEM, FOR INFORMATION ONLY.

2 REPLACED PER ADDENDUM No. 2 DATED AUGUST 4, 2016

DRAINAGE QUANTITIES
DQ-4

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans DESIGN

CONSULTANT FUNCTIONAL SUPERVISOR: MICHAEL HYNES
CALCULATED-DESIGNED BY: JOSEPH CARBAJAL
CHECKED BY: MICHAEL HYNES
REVISED BY
DATE REVISED

LAST REVISION 00-00-00 DATE PLOTTED => 02-AUG-2016 TIME PLOTTED => 15:40

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	60	R24.4/R25.3	103	384

REGISTERED CIVIL ENGINEER 1-15-16 DATE

3-14-16
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER MICHAEL HYNES No. C 67872 Exp. 06-30-17 CIVIL STATE OF CALIFORNIA

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NOTES:

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2. ALL JOINTS ARE STANDARD JOINT TYPE.

2 **REPLACED PER ADDENDUM No. 2 DATED AUGUST 4, 2016**

DRAINAGE QUANTITIES

DRAINAGE SHEET No.	DRAINAGE SYSTEM No.	DRAINAGE UNIT	REMOVE HEADWALL	REMOVE INLET	REMOVE CULVERT	REMOVE Conc FES	REMOVE CONCRETE (MISCELLANEOUS)	ABANDON CULVERT	REMOVE REINFORCED CONCRETE BOX CULVERT	REMOVE Conc (CHANNEL)	CAP INLET	36" TEMPORARY CULVERT	REINFORCED CONCRETE PIPE (CLASS IV) 18"	24"	30"	36"	CONCRETE FLARED END SECTION 18"	24"	18" CORRUGATED STEEL PIPE (0.079" THICK)	PLACE HOT MIX ASPHALT (MISCELLANEOUS AREA)	HMA (TYPE A)	ADJUST MANHOLE TO GRADE	6" NON-PERFORATED PLASTIC PIPE UNDERDRAIN	36" PRECAST CONCRETE PIPE MANHOLE	STRUCTURAL CONCRETE, BOX CULVERT	BAR REINFORCING STEEL (BOX CULVERT)	ROCK SLOPE PROTECTION (FACING, METHOD B)	ROCK SLOPE PROTECTION FABRIC (CLASS 8)	DRAINAGE INLET MARKER	SAND BACKFILL	MISCELLANEOUS IRON AND STEEL	MINOR CONCRETE (MINOR STRUCTURE)	MANHOLE FRAME AND COVER (U45) (N)	MANHOLE FRAME AND COVER (U46) (N)	(N) "H" OR "V" OR "M"	(N) HEIGHT OF COVER	DESCRIPTION	STATION
			EA	EA	LF	EA	SQFT	EA	LF	CY	EA	LF	LF				EA		LF	SQYD	TON	EA	LF	LF	CY	LB	CY	SQYD	EA	CY	LB	CY	EA	EA	LF	LF		
D-2	15	a																													326.0	1.8			5.0		TYPE G1 DI, GRATE TYPE 24-12	32.00' L+ "WG-2" 105+85.00
		b											6.9																							5.2	18" RCP	
		c			16.8																															4.0	REMOVE CULVERT	
		d		1																																	REMOVE INLET	3.98' L+ "WG-2" 105+59.65
D-2	16	a	1																																		REMOVE HW	16.28' R+ "WG-2" 102+60.40
		b							91.0																												REMOVE RCB CULVERT	
D-1	17	a																							54.8	13,282.7											Dbl 6' x 4' RCB	
		b								49.7																											REMOVE Conc (CHANNEL)	
D-3	18	a																									2.7	11.6									RSP	98.48' L+ "AL" 326+96.96
		b																		3.8	0.6																HMA OVERSIDE DRAIN	98.00' L+ "AL" 327+00.00
		c																																			UNLINED SWALE	
		d																									3.0	14.3									RSP	99.75' L+ "AL" 318+82.55
		e																																			BIOFILTRATION SWALE	
		f																																			UNLINED SWALE	
D-1	19	a																													326.0	1.3			4.1		TYPE G3 DI, GRATE TYPE 24-12	61.24' R+ "G" 121+66.42
		b											31.0																							3.3	18" RCP	
		c																																	4.7		TYPE G3 DI, GRATE TYPE 24-12	67.31' R+ "G" 122+00.00
		d																	7.7																		18" CSP RISER	67.31' R+ "G" 122+00.00
		e									1																										CAP INLET	41.12' R+ "G" 121+62.83
		f			27.1																															3.9	REMOVE CULVERT	
		g									1																										CAP INLET	41.33' R+ "G" 121+93.25
DD-14	20	a										238.2																								48.0	36" Temp CULVERT	44.37' R+ "G" 121+93.09
		b										235.8																								48.0	36" Temp CULVERT	42.50' R+ "G" 122+00.00
			1	1	43.9	0			91.0	49.7	2	474.0	37.9						7.7	3.8	0.6			0.0	54.8	13,282.7	5.7	25.9			652.0	3.1					TOTAL (THIS SHEET)	
					199.3								218.4	814.2	15.3	252.4	1						127.1	9.1					2		3,015.0	28.6	3				TOTAL (SHEET DQ-1)	
				2	232.8		1,928.0	1			4		5.1	226.6		395.1								10.0					2	8.8	1,267.0	20.3	1	2			TOTAL (SHEET DQ-2)	
			2	4	245.4					131.5			78.1	348.9								2			244.7	55,914.0					1,630.0	23.5					TOTAL (SHEET DQ-3)	
			1	3	186.3	2			60.0	85.8			25.1	51.0				1						2.6	316.8	47,255.0					1,566.0	25.1	2				TOTAL (SHEET DQ-4)	
				0	50.2	1							34.1	247.2	745.5	209.2		1						12.6			6.2	32.2			3,132.0	27.7	3				TOTAL (SHEET DQ-5)	
			4	10	957.9	3	1,928.0	1	151.0	267.0	6	474.0	398.7	1,687.9	760.8	856.7	1	2	7.7	3.8	*0.6	2	127.1 **	34.3	616.3	116,451.7	11.9	58.1	4	8.8	11,262.0	128.3					TOTAL	

(N) - NOT A SEPARATE PAY ITEM, FOR INFORMATION ONLY.
* - SEE SUMMARY OF QUANTITIES SHEET Q-1 FOR GRAND TOTAL.
** - SEE WATER POLLUTION CONTROL QUANTITIES SHEET WQ-1 FOR GRAND TOTAL.

DRAINAGE QUANTITIES
DQ-6

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans® DESIGN
CONSULTANT FUNCTIONAL SUPERVISOR: MICHAEL HYNES
CALCULATED-DESIGNED BY: JOSEPH CARBAJAL
CHECKED BY: MICHAEL HYNES
REVISED BY
DATE REVISED

LAST REVISION 00-00-00
DATE PLOTTED => 02-AUG-2016
TIME PLOTTED => 15:40