### FEASIBILITY STUDY ON HIGH PRIORITY URBAN TOLL EXPRESSWAYS IN CAIRO

E1-2 (6TH OF OCTOBER FLYOVER)

E2-2 (26TH OF JULY ST. - RAMSIS ST.)

E3-1 EXPRESSWAY (AL NASR ROAD)

E3-2 EXPRESSWAY

E3-3 EXPRESSWAY

# DRAWINGS







GENERAL AUTHORITY FOR ROADS BRIDGES AND LAND TRANSPORT (GARBLT) MINISTRY OF TRANSPORT ARAB REPUBLIC OF EGYPT

## INDEX OF DRAWINGS

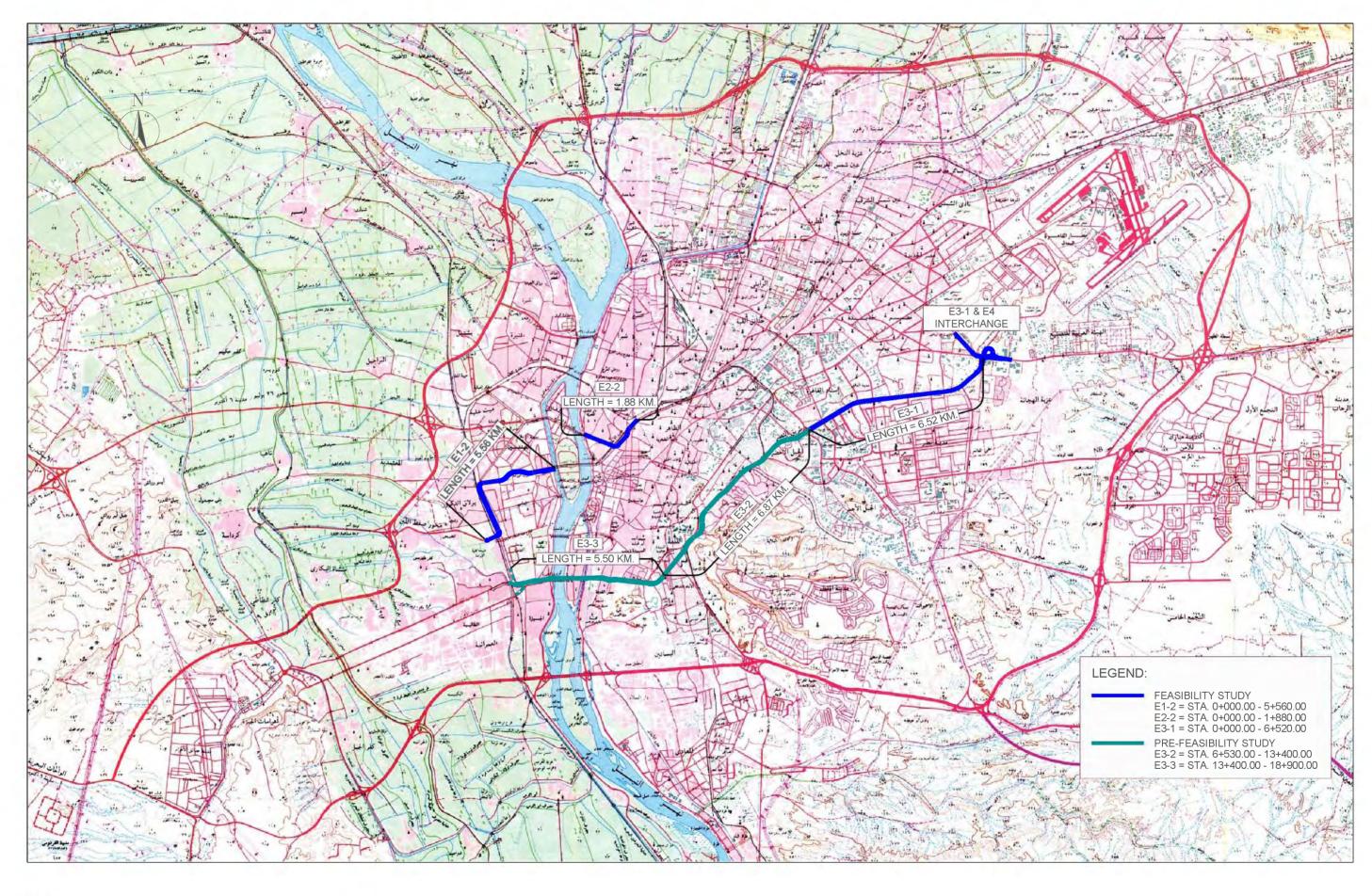
DWG. NO.	DRAWING TITLE	SHEET NO.	DWG. NO.	DRAWING TITLE	SHEET NO.	DWG. NO.	DRAWING TITLE	SHEET NO.
GENERAL			E1-2 (Length =	= 5.56 Km.)		E3-1 (Length =	6.52 Km.)	
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			E1-2/L-01	LAND PLAN	1	E3-1/L-01	LAND PLAN	1
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F-04	DETAILS OF ROAD SIGNBOARDS	4	E2-2/I-01	INDEX OF DRAWINGS		E3-2/I-01	INDEX OF DRAWINGS	
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MISCELLANE	EOUS							
M-01	TYPICAL PAVEMENT MARKINGS DETAILS	1				E3-3 (Length =	5.50 Km.)	
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ROJECT AND LOCATION :	SCALE :	DRAWING TITLE :	DRAWING NO :
FEASIBILITY STUDY ON		INDEX OF DRAWINGS	I-00
HIGH PRIORITY URBAN TOLL EXPRESSWAYS IN CAIRO CAIRO. EGYPT		INDEX OF DRAWINGS	SHEET NO:
SAINO, 2011	FULL SIZE A3		1/1









GENERAL AUTHORITY FOR ROADS BRIDGES AND LAND TRANSPORT (GARBLT) MINISTRY OF TRANSPORT ARAB REPUBLIC OF EGYPT

PROJECT AND LOCATION :	SCALE :	DRAWING TITLE :	DRAWING NO :
FEASIBILITY STUDY ON	AS SHOWN	LOCATION MAP	G-01
HIGH PRIORITY URBAN TOLL EXPRESSWAYS IN CAIRO		EOGATION WAF	SHEET NO :
	FULL SIZE A3		1/2

### LEGENDS

	EXISTING TOPOGRAPHIC FEATURES					NEW TOPOGRAPHIC FEATURES					
CONTOUR	5 4 3 4 5	BOX CULVERT		NIPA HOUSE		PROJECT ROAD	===	TRANSVERSE DIRECTION OF FLOW	<b>-</b> ₩	GPS STATION	
BANANA / CORN / COCONUT PLANTS	* + T	SINGLE PIPE CULVERT	PLAN PROFILE	WOODEN HOUSE		Ç OF PROJECT ROAD		DITCH FLOW DIRECTION	LEFT	PRIMARY TRAVERSE POINT	•
TREES / FRUITS / BAMBOO	00 6 6 % % 00 6 6 6 %	DOUBLE PIPE CULVERT	PLAN PROFILE	WATER TANK	WT	BRIDGE	PLAN PROFILE	POINT OF INTERSECTION / TANGENT	•	SKEW REFERENCES (RT OR LT FORWARDS)	- 6
SWAMP OR MARSHLAND	# - # - # - # # - # - # - # # - # - # - #	DITCH FLOW	>>	CONCRETE FENCE	-00-	BOX CULVERT	PLAN PROFILE	SECTION TARGET	$\Diamond$	KILOMETER POST	KM 10
RICE FIELD	ттт ттт	RIPRAP	+	CYLONE OR BARBED WIRE FENCE	-00-	SINGLE RC PIPE CULVERT	PLAN PROFILE	GRID COORDINATES	1139,200 N	VERTICAL CURVATURE	-
GRASS	** * * *	GUARDRAIL	mmm.	ARTESIAN / DEEP WELL	•	DOUBLE RC PIPE CULVERT	PLAN PROFILE	NORTH SIGN		RIGHT-OF-WAY	
CLIFF	Kuunz	KILOMETER POST	$\boxtimes$	BENCH MARK	•	EMBANKMENT		FINISHED GRADE ON PROFILE	9=+3.00 %	STONE MASONRY FOR CUT SLOPES (SMCS)	
RIVER / CREEK		ELECTRIC / TELEPHONE LIGHTING POST		PORTLAND CEMENT CONCRETE PAVEMENT		EXCAVATION		GRADIENT OF SIDE DITCH	5=+3.00 %	GABIONS	+
SHORE LINE		CHURCH / SCHOOL		ORIGINAL GROUND		RETAINING WALL (MASONRY), SMRW	<u> </u>	GUARDRAIL ON PROFILE	BOTH RIGHT		
WATER LINE		GOVERNMENT BUILDING	G B	ROAD SIGN	2 9	RETAINING WALL (CONCRETE), CRW		SECTION IN WATER	<b>\</b>		
ROAD		CONCRETE BUILDING (3 STOREY)	3	EDGE OF EXISTING SIDE CUT SLOPE	tddddddd	GROUTED RIPRAP	######################################	SECTION IN EARTH			
BRIDGE	PLAN PROFILE	CONCRETE HOUSE		PLANT BOX		GUARDRAIL ON PLAN		DRILL HOLE, DH AUGER HOLE, AH BORE HOLE, BH	● DH, AH, BH		

### ABBREVIATIONS AND DESIGN SYMBOLS

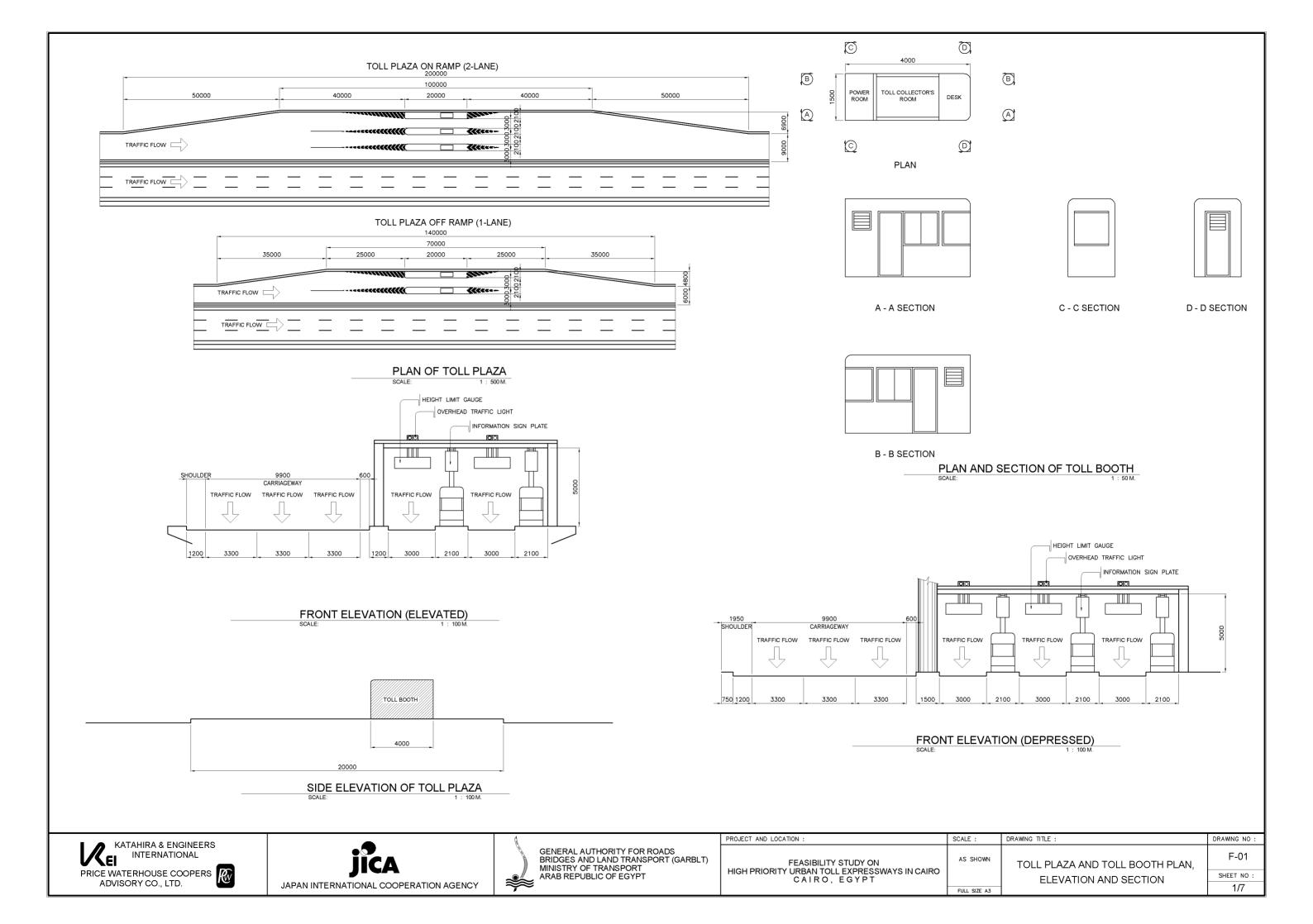
ABUTMENT	ABUT	DISTANCE	DIST.	LENGTH OF WIDTH OF FULL WIDENING	LW	REINFORCED CONCRETE DECK GIRDER	RCDG
AHEAD STATION	AH.	DRAWING	DRWG.	LINEAR METER	LM	REINFORCED CONCRETE PIPE CULVERT	RCPC
AND	&c	EACH	EA.	LONGITUDINAL	LONGIT	RETAINING WALL	RET. WALL
APPROACH	APP	EACH FACE	EF	LUMP SUM	LS	RIGHT	Rt.
ASPHALT CONCRETE PAVEMENT	ACP	EACH WAY	EW	MAXIMUM	MAX.	RIGHT OF WAY	R-O-W
AT	<b>©</b>	ELEVATION	ELEV./EL.	MEAN SEA LEVEL	MSL	ROAD	RD
AZIMUTH	AZIM.	EMBANKMENT	EMB.	MEAN TIDE LEVEL	MTL	ROADWAY	RDWY
BACK STATION	BK.	ENGINEER	ENGR.	METER	m	SIDE DITCH GRADE	S
BARANGAY	BGY.	EQUATION	EQ.	METRIC TON	MT	SIDEWALK	SDWK
BEARING	BRG.	EXCAVATION	EXCA.	MIDDLE ORDINATE	Mo	SPACED	SPCD
BEGINNING	BEG.	EXISTING	EXTG.	MILLIMETER	mm	SPACES	SPC
BELOW MEAN SEA LEVEL	BMSL	EXPANSION	EXPN.	MINIMUM	MIN	SPECIAL	SPL
BENCH MARK	RM RM	EXTENSION	EXTN.	NEAR FACE	NC	SQUARE	SQ./
BETWEEN	BET.	EXTERIOR	FXTR.	NORTHING	NO NI	SQUARE METER	sq.m. / m2
BETWEEN BITUMINOUS SURFACE TREATMENT	BST	EXTERIOR  EXTERNAL DISTANCE/EASTING	EAIN.		N NA	STANDARD	STD STD
BORE HOLE			E CINI	NOT APPLICABLE	13/3	STATION	STA.
	BH	FINISHED	FIN.	NUMBER	NO.		
BOTH WAYS	BW	FINISHED GRADE	FG	OFFSET WITH RESPECT TO DISTANCE X (VERTICAL CURVE)	Υ	STIFFENERS	STIFF.
воттом	BOT.	FINISHED PAVEMENT LEVEL	FPL	ON CENTER	OC	STIRRUPS	STIRR.
BRIDGE	BR.	FLOOD WATER LEVEL	FWL	ORDINARY FLOOD LEVEL	OFL	STRAIGHT	STR
BUILDING	BLDG.	FOOTING	FTG.	ORDINARY WATER LEVEL	OWL	STREET	ST.
CATCH BASIN	CB	FULL SUPERELEVATION	e	ORIGINAL GROUND LEVEL	OGL	STRUCTURE	STRUCT.
CENTER	CTR.	GALVANIZED IRON PIPE	GIP	OUT INVERT	OUT INV.	SUPERELEVATION RUN OFF	Lo
CENTERLINE	<u>Q</u>	GENERAL	GEN.	OUTSIDE DIAMETER	OD.	SYMMETRY	SYMM.
CENTIMETER	cm	GRADE IN PERCENT	g	OVERSEAS ECONOMIC COOPERATION FUND	OECF	TANGENT DISTANCE	T
CLEAR	CLR	GRAVEL	Ġ	PAVEMENT WIDTH	PW	TEMPERATURE	TEMP.
COLUMN	COL.	GROUND LEVEL	GL	PERCENT	%	TEMPORARY BENCH MARK	TBM
CONCRETE	CONC.	HEAD WALL	HW	PHILIPPINES	PHIL.	TRANSITION LENGTH OF WIDENING (DECREASING SECTION)	Ld
CONCRETE HOLLOW BLOCK	CHB	HIGH FLOOD LEVEL	HFL	PLUS/MINUS	+/-	TRANSITION LENGTH OF WIDENING (INCREASING SECTION)	Li
CONCRETE MONUMENT	CONC. MON.	HIGH TIDE LEVEL	HTL	POINT OF COMPOUND CURVE	PCC	TRANSVERSE	TRANSV.
CONSTRUCTION	CONST.	HORIZONTAL	HOR.	POINT OF CURVATURE	PC	TURN OUT AREA	TRN-A
CONSTRUCTION JOINT	CONST. JT.	INVERT FLEVATION	INV. FL.	POINT OF INTERSECTION	PI	TYPICAL	TYP.
CONTINUOUS	CONT.	INCHES	IN.	POINT OF TANGENCY	PT	VARIABLE	VAR
COVER	COV.	INFINITY		POINT OF VERTICAL CURVE	VC	VERIFIED	VER
CROSS PIPE	CD.	INSIDE DIAMETER	ID.	POINT OF VERTICAL INTERSECTION	PVI	VERTICAL	VERT
CUBIC METER	cu.m. / m³	INTERIOR	INT.	POINT OF VERTICAL INTERSECTION POINT OF VERTICAL TANGENT	PVT	WATER TANK	WT
CYLINDRICAL	CYL.	INTERIOR	INT. INTERM.	POINT OF VERTICAL TANGENT	POT	WIDENING	W/
DEGREE OF CURVE	CIL.	INTERMEDIATE INTERSECTION ANGLE	INTERM.	POINT ON TANGENT PORTLAND CEMENT CONCRETE PAVEMENT	PCCP	WIDTH	**
DEPARTMENT OF PUBLIC WORKS AND HIGHWAYS	DPWH	JOINT	I IT	PROJECT	PROJ.	WING WALL	W W
DEPARTMENT OF PUBLIC WORKS AND HIGHWAYS			JI.	PROJECT ROAD	PROJ. RD	WING WALL	w/
	Df.	KILOGRAM	KG.		PROJ. RD		
DESIGN MAXIMUM FLOOD LEVEL	DFL	KILOMETER	km	RADIUS	K	WOODEN ELECTRICAL POST	WEP
DESIGN VELOCITY	V	KILOMETER PER HOUR	KPH	RATE OF VERTICAL CURVATURE	K		
DETAIL	DET.	LEFT	Lt.	REFERENCE POINT	RP		
DIAMETER	DIA./ø	LENGTH OF CIRCULAR CURVE	LC	REINFORCED	REINF		
DIAPHRAGM	DIAP.	LENGTH OF VERTICAL CURVE	LVC	REINFORCED CONCRETE BOX CULVERT	RCBC	l l	

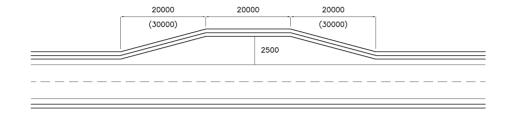






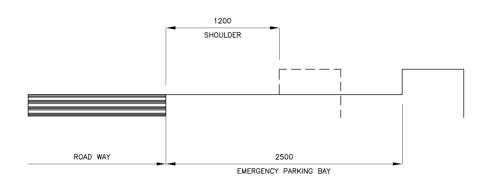
PR	OJECT AND LOCATION :	SCALE :	DRAWING TITLE :	DRAWING NO :
	FEASIBILITY STUDY ON		LEGENDS, ABBREVIATIONS	G-02
11	GH PRIORITY URBAN TOLL EXPRESSWAYS IN CAIRO CAIRO. EGYPT		AND DESIGN SYMBOLS	SHEET NO:
	57(1KG, 2G111	FULL SIZE A3		2/2





#### \* ( ) is Tunnel Section





#### SECTION

### EMERGENCY PARKING BAY CALE: 1 : 50 M.

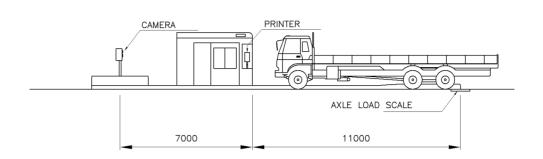


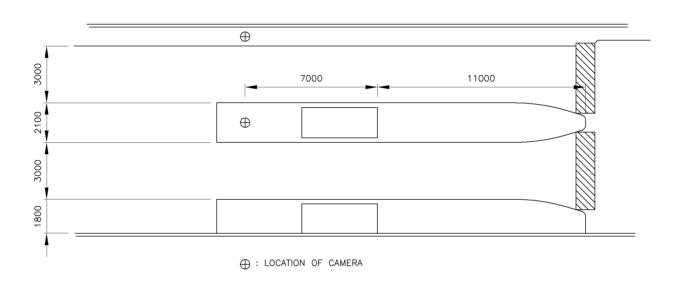


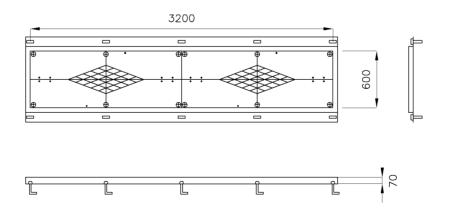


				1
PROJECT AND LOCATION :	SCALE :	DRAWING TITLE :	DRAWING NO :	
FEASIBILITY STUDY ON	AS SHOWN	EMERGENCY PARKING BAY	F-02	
HIGH PRIORITY URBAN TOLL EXPRESSWAYS IN CAIRO CAIRO, EGYPT		EWERGENCT FARRING BAT	SHEET NO :	
	FULL SIZE A3		2/7	

#### TOLL BOOTH





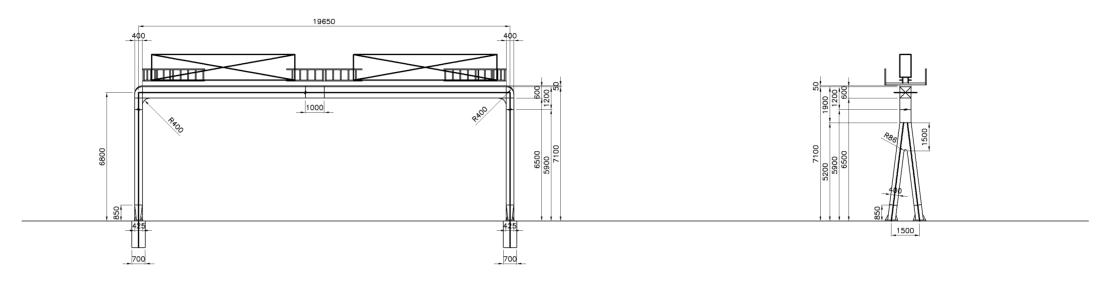




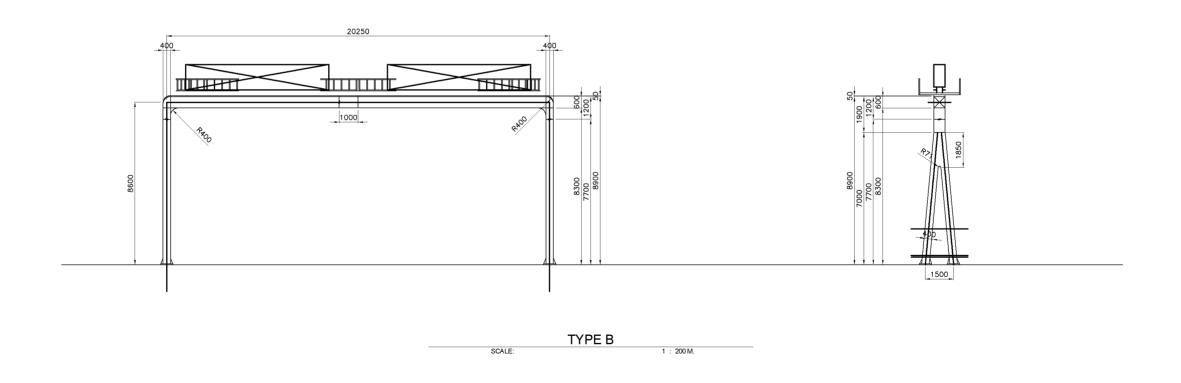




PROJECT AND LOCATION :	SCALE :	DRAWING TITLE :	DRAWING NO :
FEASIBILITY STUDY ON	AS SHOWN	DETAILS OF AXLE LOAD	F-03
HIGH PRIORITY URBAN TOLL EXPRESSWAYS IN CAIRO C A I R O . E G Y P T		DETAILS OF AXLE LOAD	SHEET NO :
5X1110, 2011 1	FULL SIZE A3		3/7





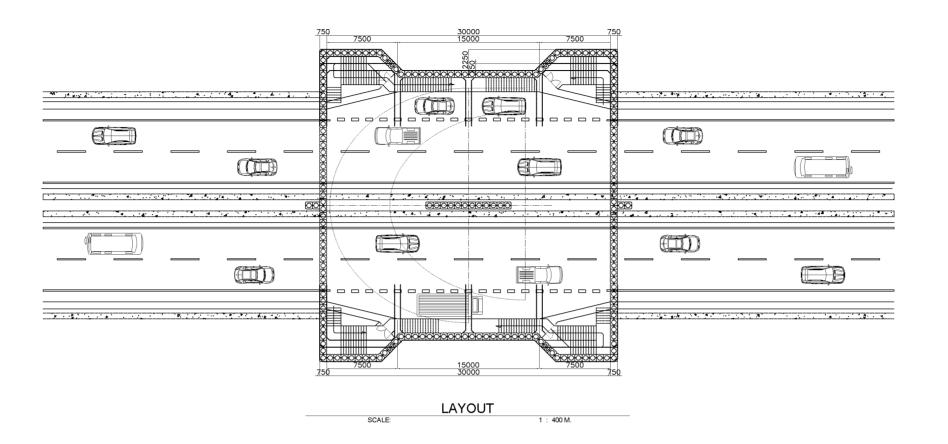


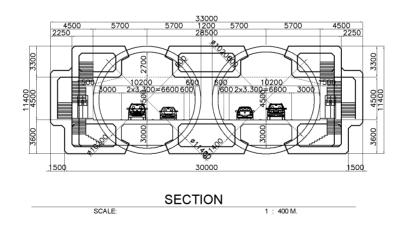






ROJECT AND LOCATION :	SCALE :	DRAWING TITLE :	DRAWING NO :
FEASIBILITY STUDY ON	AS SHOWN	DETAILS OF SIGNBOARDS	F-04
HIGH PRIORITY URBAN TOLL EXPRESSWAYS IN CAIRO CAIRO CAIRO CAIRO		DETAILS OF SIGNBOARDS	SHEET NO :
	FULL SIZE A3		4/7



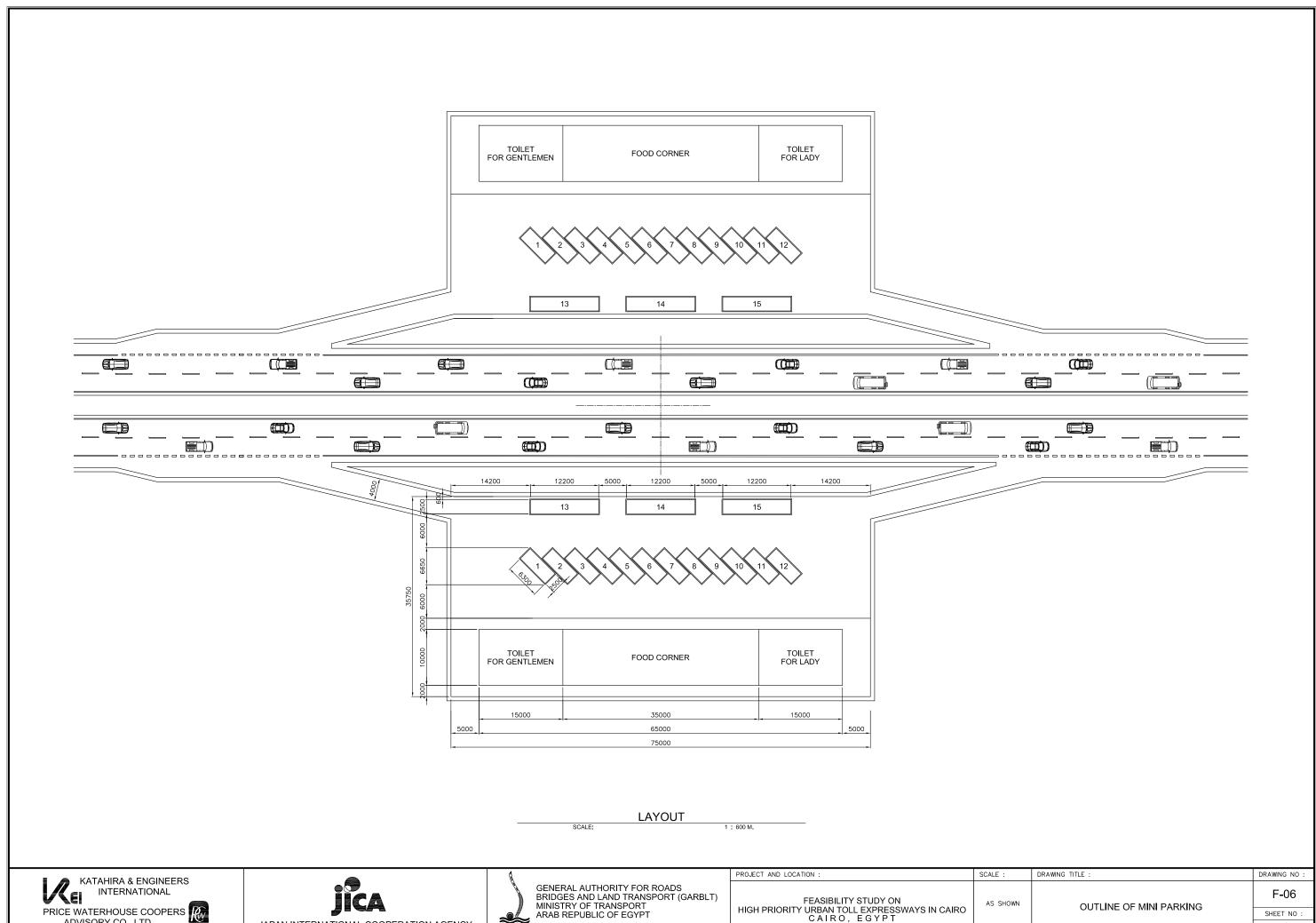








PROJECT AND LOCATION :	SCALE :	DRAWING TITLE :	DRAWING NO :
FEASIBILITY STUDY ON	AS SHOWN	DETAILS OF EMERGENCY PARKING SPACE	F-05
HIGH PRIORITY URBAN TOLL EXPRESSWAYS IN CAIRO CAIRO, EGYPT		IN THE SHILD TUNNEL	SHEET NO :
	FULL SIZE A3	IN THE SHIED TOWNER	5/7
	FULL SIZE AS	I	

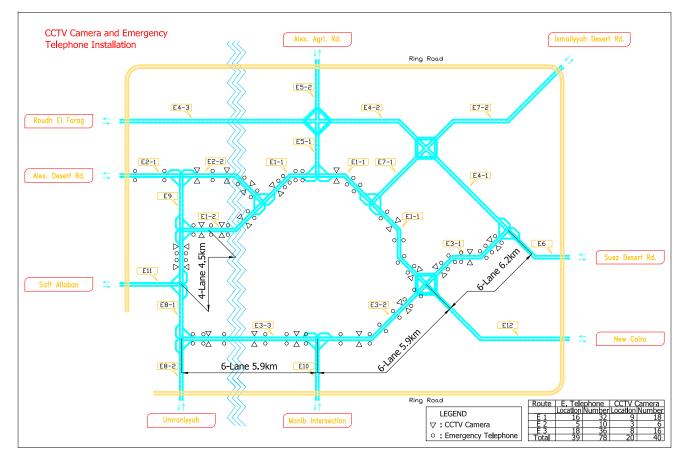


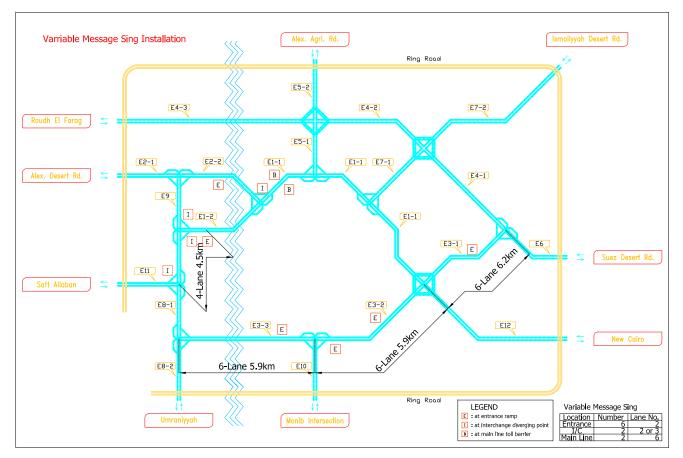
PRICE WATERHOUSE COOPERS ADVISORY CO., LTD.

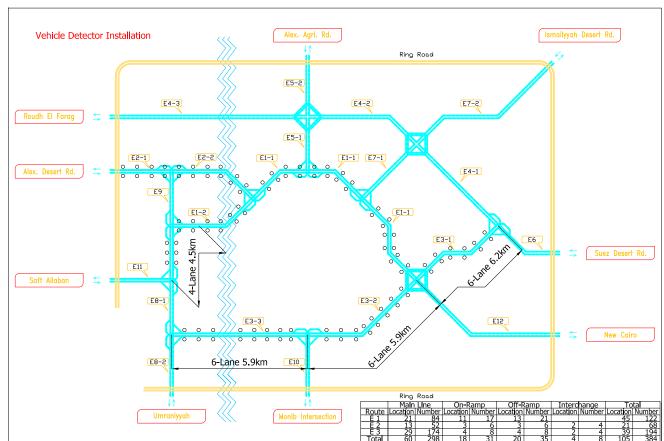


FEASIBILITY STUDY ON HIGH PRIORITY URBAN TOLL EXPRESSWAYS IN CAIRO CAIRO, EGYPT	AS SHOWN	
	FULL SIZE A3	

SHEET NO : 6/7













PROJECT AND LOCATION :	SCALE :	DRAWING TITLE :	DRAWING NO :
FEASIBILITY STUDY ON	AS SHOWN	SCHEMATIC LAYOUT PLAN	F-07
HIGH PRIORITY URBAN TOLL EXPRESSWAYS IN CAIRO CAIRO EGYPT		FOR TRAFFIC CONTROL SYSTEM	SHEET NO :
	FULL SIZE A3		7/7

