



OC PUBLIC WORKS DEPARTMENT

SHANE SILSBY, DIRECTOR

KEVIN HILLS, COUNTY SURVEYOR

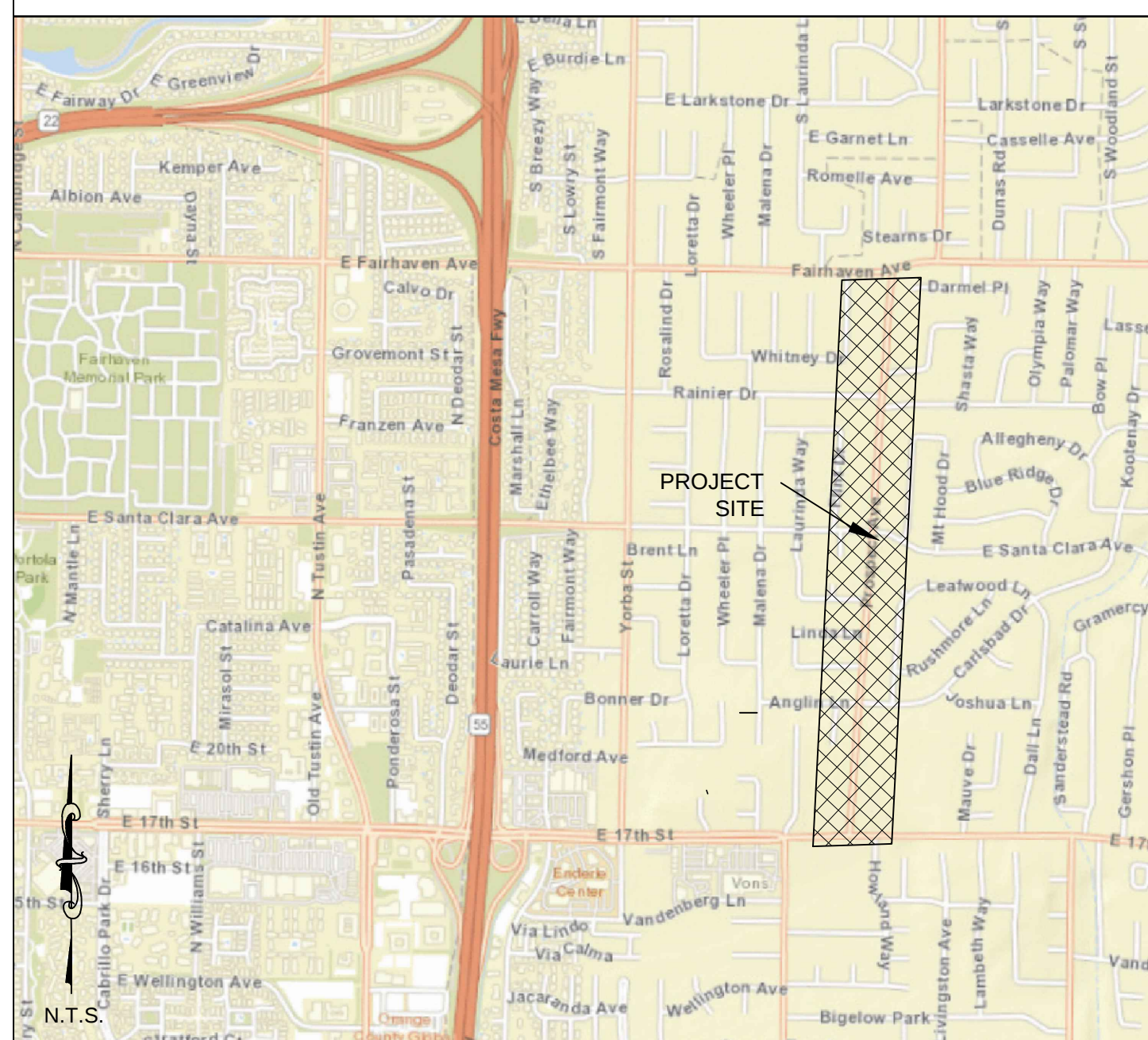
EL MODENA IRVINE CHANNEL (F07)

LIMITS: 17TH ST TO FAIRHAVEN AVE, NORTH TUSTIN



FD CGPS "SACY"
N 2218015.22'
E 6061433.12'
THIS IS A CONTINUOUS GPS STATION
(CGPS) AND IS PART OF THE
CALIFORNIA SPATIAL REFERENCE
NETWORK (CSRN), FROM WHICH DATA
CAN BE DOWNLOADED HERE:
[HTTP://SOPAC.SCRS.UCSD.EDU/](http://sopac.scrs.ucsd.edu/)

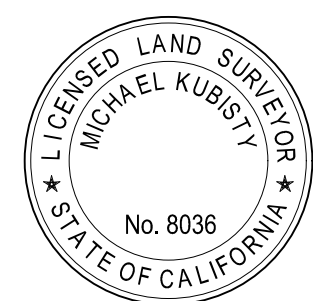
LOCATION MAP



SENIOR LAND SURVEYOR'S CERTIFICATE:

THIS MAP CORRECTLY REPRESENTS A SURVEY MADE BY ME OR UNDER MY DIRECTION IN CONFORMANCE WITH REQUIREMENTS OF THE PROFESSIONAL LAND SURVEYOR'S ACT; THIS 21ST DAY OF MAY, 2019.

MICHAEL KUBISTY SENIOR LAND SURVEYOR



DEPUTY COUNTY SURVEYOR'S STATEMENT:

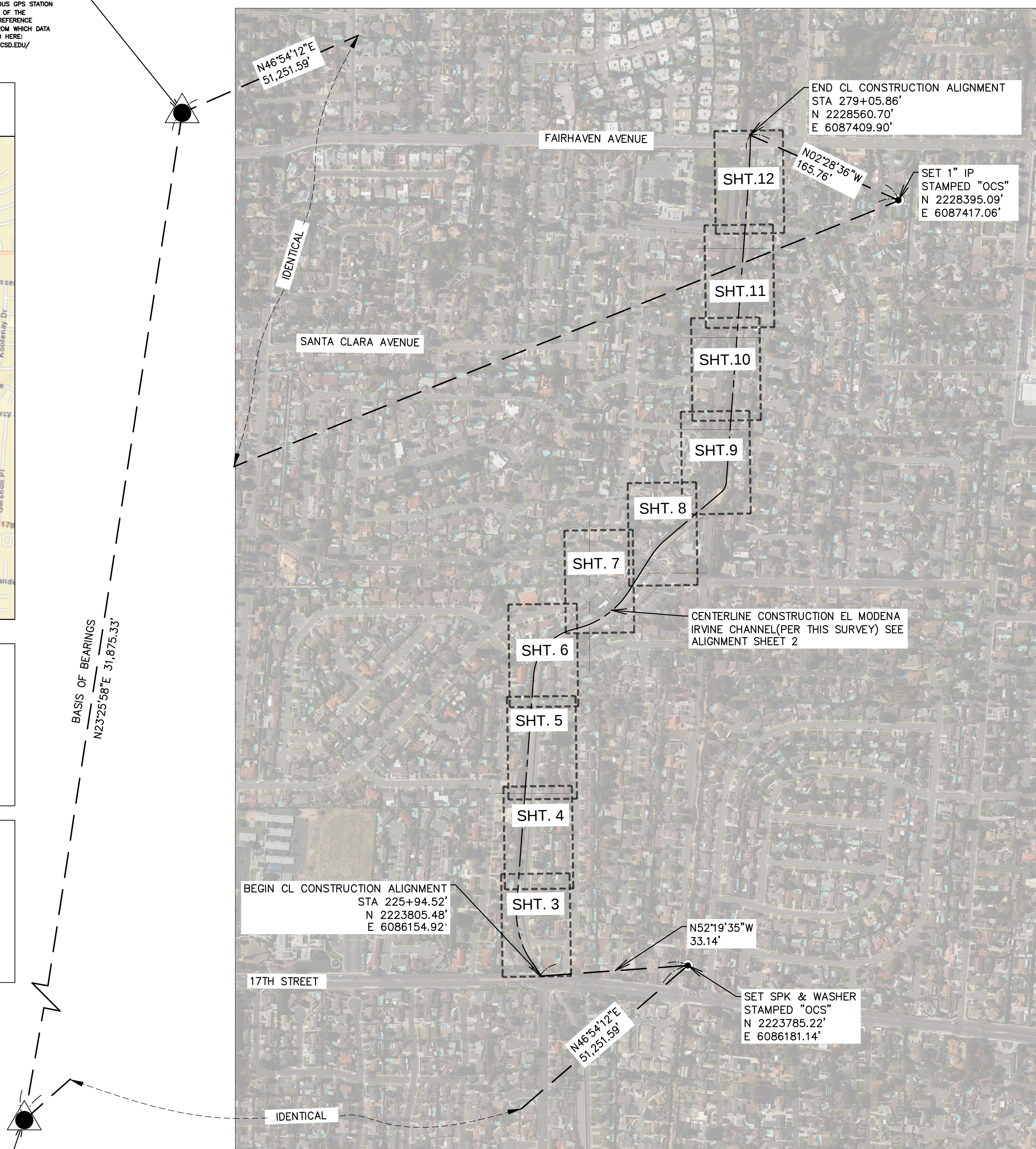
THIS MAP HAS BEEN EXAMINED IN ACCORDANCE WITH THE PROFESSIONAL LAND SURVEYOR'S ACT; THIS 21ST DAY OF MAY, 2019.

WADE WEAVER DEPUTY COUNTY SURVEYOR



U.S. Survey Foot

OC Public Works/Engineering Services
OC Survey/Field Services
Boundary Analysis & Mapping



FD CGPS "FVPM"
N 2188768.54'
E 6048757.12'
THIS IS A CONTINUOUS GPS STATION (CGPS) AND IS PART OF THE
CALIFORNIA SPATIAL REFERENCE NETWORK (CSRN), FROM
WHICH DATA CAN BE DOWNLOADED HERE:
[HTTP://SOPAC.SCRS.UCSD.EDU/](http://sopac.scrs.ucsd.edu/)

TOPOGRAPHIC MAPPING PROJECT

BASIS OF BEARINGS

THE BASIS OF BEARINGS FOR THIS SURVEY IS BASED ON THE CALIFORNIA COORDINATE SYSTEM (CCS83), ZONE VI, NAD 83, OCS (2007.00) EPOCH ADJUSTMENT, AS DETERMINED LOCALLY BY A LINE BETWEEN CONTINUOUS GLOBAL POSITIONING STATIONS (CGPS) "FVPM" AND "SACY", BEING N23°25'58"E AS DERIVED FROM THE COORDINATES ESTABLISHED BY THE CALIFORNIA SPATIAL REFERENCE CENTER (CSRC) ALONG WITH DATASHEETS ON FILE IN THE OFFICE OF ORANGE COUNTY SURVEYOR.

HORIZONTAL DATUM

COORDINATES SHOWN HEREON ARE BASED ON THE CALIFORNIA COORDINATE SYSTEM (CCS83), ZONE VI, 1983 NORTH AMERICAN DATUM (2007.00 EPOCH O.C.S. G.P.S. ADJUSTMENT).

ALL DISTANCES SHOWN ARE GRID, UNLESS OTHERWISE NOTED.
MULTIPLY A GRID DISTANCE BY 1.0000216 TO OBTAIN GROUND DISTANCE.

ALL DISTANCES ARE BASED ON THE U.S. SURVEY FOOT.

VERTICAL DATUM

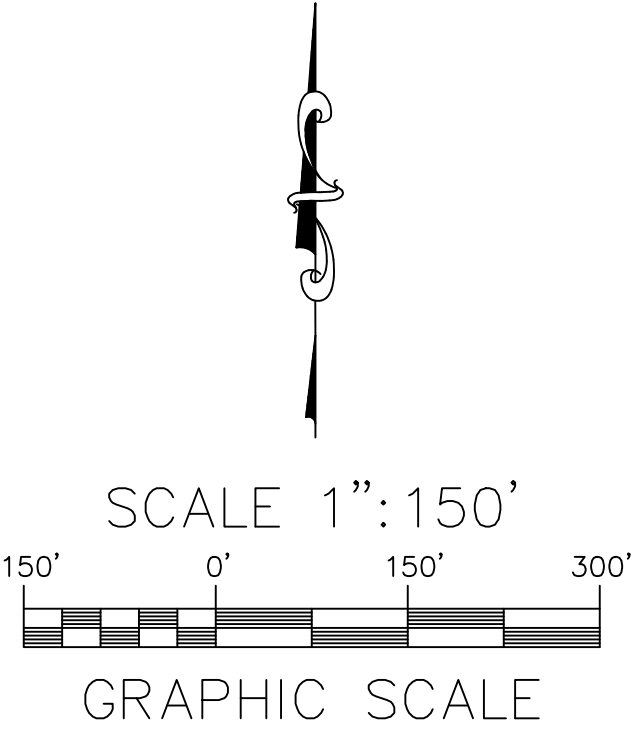
O.C.S. BM. 3C-22-71 ELEV. = 174.752' YEAR LEVELED: 2015
NAVD 1988 (O.C.S. 1995 ADJUSTMENT)

DESCRIPTION: MONUMENT IS SET IN KNOWN SUBSIDENCE ZONE AND MAY NOT FIT ADJACENT BENCHMARKS. DESCRIBED BY OCS 2001 - FOUND 3 3/4" OCS ALUMINUM BENCHMARK DISK STAMPED "3C-22-71", SET IN THE TOP OF A 4 IN. BY 4 IN. CONCRETE POST. MONUMENT IS LOCATED IN THE SOUTHEAST CORNER OF THE INTERSECTION OF LAMBETH WAY AND 17TH STREET, 43 FT. SOUTHERLY OF THE CENTERLINE OF 17TH STREET AND 42.6 FT. EASTERLY OF THE CENTERLINE OF LAMBETH WAY. MONUMENT IS SET UP 0.1 FT. FROM THE TOP OF CURB.

SHEET INDEX

SHEET NO.	DESCRIPTION
SHEET #1	TITLE SHEET
SHEET #2	ALIGNMENT ESTABLISHMENT
SHEET #3-12	TOPOGRAPHIC MAP

			COUNTY OF ORANGE OC PUBLIC WORKS/ENGINEERING SERVICES OC SURVEY/FIELD SERVICES/BOUNDARY ANALYSIS & MAPPING				
			EL MODENA IRVINE CHANNEL (F07) TOPO SURVEY				
			TITLE SHEET				
			DATE OF SURVEY: 02-25-2019		BY: RUSSO & PARTY		SHEET NO. 1 of 12
			TOPOGRAPHIC MAPPING		BY: KARIM AHMED		
			OFFICE CHECK		BY: M. KUBISTY, PLS		
			FIELD CHECK		BY: J. RUSSO		
			SCALE: N.T.S.		WO#: EF21271		
FILE: ELMODENA TOPOGRAPHICMAP_2019.DWG							
MARK	DATE	ITEM					
REVISIONS							



			COUNTY OF ORANGE OC PUBLIC WORKS/ENGINEERING SERVICES OC SURVEY/FIELD SERVICES/BOUNDARY ANALYSIS & MAPPING				
			EL MODENA CHANNEL				
			ALIGNMENT ESTABLISHMENT NOTES				
			LOCATION: EL MODENA CHANNEL, CITY OF TUSTIN, CA				
			DATE OF SURVEY: 02/20/2019		BY: J. RUSSO & PARTY		SHEET NO. 2 of 12
			TOPOGRAPHIC MAPPING		BY: K. AHMED		
			OFFICE CHECK		BY: M. KUBISTY PLS		
			FIELD CHECK		BY: W. WEAVER PLS		
			SCALE: 1"=150'		W.O. # EF21271		
ELMODENA_TOPOGRAPHICMAP_2019.dwg							
MARK	DATE	ITEM					
REVISIONS							

MATCHLINE - SEE SHEET 4

LEGEND

SYMBOL

	BMK	Bench Mark
	BPD	Backflow Preventer Device
	CBXEL	Control Box - Electrical
	CBXWA	Control Box - Water
	CPT	Control Point
	DII	Drop Inlet
	FHH	Fire Hydrant
	DGT	Gate - Double
	SGT	Gate - Single
	GRI	Grate Inlet
	HBB	Hose Bib
	LPL	Light Pole - Single
	MHHEL	Manhole - Electrical
	MHSD	Manhole - Storm Drain
	MHWS	Manhole - Sewer
	MHHTL	Manhole - Telephone
	MHUN	Manhole - Undefined
	MTRWA	Meter - Water
	PBXEL	Pull Box - Electrical
	PBXTL	Pull Box - Telephone
		Concrete Dissipator
	PPO/PPI	Pipe Outlet/Inlet
	PSG	Pedestrian Signal Pole
	PST	Post
	SCO	Sewer Cleanout
	SCV	Sidewalk Culvert
	SGL	Traffic Signal w/ Light
	SNN	Sign Post
	SBD	Sign Board
	VLTEL	Vault - Electrical
	VLTUN	Vault - Undefined
	VLVIR	Valve - Irrigation
	VLVWA	Valve - Water
	VPP	Vent Pipe
	CONC	Concrete

SYMBOL

	TRE	Tree
	TREPM	Tree - Palm
	YDL	Yard Light
	PBXTR	Pull Box - Traffic

LINE PATTERN KEY

	Building Outline
	Bush Row Outline
	Centerline
	Edge of Concrete
	Edge of Asphalt Pavement
	Fence - Chain Link
	Flowline
	Guard Rail
	Hand Rail
	Hinge Point
	Lot/ Easement Line
	Planter Wall
	Property Line
	Right-of-Way
	Striping
	Wall - Concrete
	Wall - Stone

AREA PATTERN KEY

	Concrete
	Dirt
	Gravel
	Rip-Rap

TOP OF WEIR EL.=169.41'
CONC FL EL.=166.41'
RT CONC GL EL.=166.80'
LT CONC GL EL.=166.86'

CONC FL EL.=166.10'
RT CONC GL EL.=166.58'
LT CONC GL EL.=166.47'

Station: 230+80.46

CONCRETE DISSIPATOR(TYP.)

Station: 230+50.13

STA 229+73.53

4" PVC PIPE EXPOSED
INV EL.=174.04'

2.5" PVC PIPE EXPOSED
INV EL.=174.08'

CL CONSTRUCTION EL MODENA IRVINE CHANNEL

4" STEEL PIPE EXPOSED
INV EL.=169.59'

18" CMP PIPE INLET
INV EL.=169.01'
TOP OF HEADWALL
EL.=171.84'
18" CMP PIPE OUTLET
INV EL.=165.81'

BEGIN CL CONSTRUCTION ALIGNMENT
Station: 225+94.52
Northing: 2223805.48
Easting: 6086154.92

CONC FL EL.=161.92'
CONC GL LT EL.=162.45'
CONC GL RT EL.=162.38'

4" STEEL PIPE EXPOSED
INV EL.=170.34'

TOP OF HEADWALL
EL.=170.74'
SOFFIT
EL.=169.08'

U.S. Survey
Foot

OC Public Works/Engineering Services
OC Survey/Field Services
Boundary Analysis & Mapping

17TH STREET

COUNTY OF ORANGE
OC PUBLIC WORKS/ENGINEERING SERVICES
OC SURVEY/FIELD SERVICES/BOUNDARY ANALYSIS & MAPPING

EL MODENA IRVINE CHANNEL
(F07) TOPO SURVEY

TOPOGRAPHIC MAP
LOCATION: EL MODENA CHANNEL, CITY OF TUSTIN, CA

DATE OF SURVEY: 01/29/2019	BY: RUSSO & PARTY
TOPOGRAPHIC MAPPING	BY: K. AHMED
OFFICE CHECK	BY: M. KUBISTY, PLS
FIELD CHECK	BY: J. RUSSO
SCALE: 1" = 20'	W.O. #EF21271
FILE: ELMODENA_TOPOGRAPHICMAP_2019.DWG	

SHEET NO.
3 of 12

REVISIONS

MATCHLINE - SEE SHEET 5

236+00

TOP OF HEADWALL
EL.=181.90'

TOP OF WEIRWALL
EL.=174.41'

18" CMP PIPE OUTLET
INV EL.=173.24'

18" RCP PIPE OUTLET
INV EL.=172.02'

CONC FL EL.=171.02'
RT CONC GL EL.=171.05'
LT CONC GL EL.=171.43'

Station: 236+00.19

Station: 235+69.85

CONC FL EL.=170.65'
RT CONC GL EL.=171.05'
LT CONC GL EL.=171.06'

18" CMP PIPE OUTLET
INV EL.=176.44'

18" CMP PIPE INLET
INV EL.=177.20'

235+00

3" STEEL PIPE EXPOSED
INV EL.=176.30'

EL MODENA IRVINE CHANNEL(F07)

CL CONSTRUCTION EL MODENA IRVINE CHANNEL

MATCHLINE - SEE SHEET 3

LEGEND

SYMBOL

	BMK	Bench Mark
	BPD	Backflow Preventer Device
	CBXEL	Control Box - Electrical
	CBXWA	Control Box - Water
	CPT	Control Point
	DII	Drop Inlet
	FHH	Fire Hydrant
	DGT	Gate - Double
	SGT	Gate - Single
	GRI	Grate Inlet
	HBB	Hose Bib
	LPL	Light Pole - Single
	MHHEL	Manhole - Electrical
	MHHSD	Manhole - Storm Drain
	MHHSW	Manhole - Sewer
	MHHTL	Manhole - Telephone
	MHHUN	Manhole - Undefined
	MTRWA	Meter - Water
	PBXEL	Pull Box - Electrical
	PBXTL	Pull Box - Telephone
		Concrete Dissipator
	PPO/PPI	Pipe Outlet/Inlet
	PSG	Pedestrian Signal Pole
	PST	Post
	SCO	Sewer Cleanout
	SCV	Sidewalk Culvert
	SGL	Traffic Signal w/ Light
	SNN	Sign Post
	SBD	Sign Board
	VLTEL	Vault - Electrical
	VLTUN	Vault - Undefined
	VLVIR	Valve - Irrigation
	VLVWA	Valve - Water
	VPP	Vent Pipe
	CONC	Concrete

SYMBOL

	TRE	Tree
	TREPM	Tree - Palm
	YDL	Yard Light
	PBXTR	Pull Box - Traffic

LINE PATTERN KEY

	Building Outline
	Bush Row Outline
	Centerline
	Edge of Concrete
	Edge of Asphalt Pavement
	Fence - Chain Link
	Flowline
	Guard Rail
	Hand Rail
	Hinge Point
	Lot/ Easement Line
	Planter Wall
	Property Line
	Right-of-Way
	Striping
	Wall - Concrete
	Wall - Stone

AREA PATTERN KEY

	Concrete
	Dirt
	Gravel
	Rip-Rap

U.S. Survey
Foot

OC Public Works/Engineering Services
OC Survey/Field Services
Boundary Analysis & Mapping

TOP OF WEIR EL.=169.41'
CONC FL EL.=166.41'
RT CONC GL EL.=166.80'
LT CONC GL EL.=166.86'

CONC FL EL.=166.10'
RT CONC GL EL.=166.58'
LT CONC GL EL.=166.47'

Station: 230+80.46

CONCRETE DISSIPATOR(TYP.)

Station: 230+50.13

COUNTY OF ORANGE
OC PUBLIC WORKS/ENGINEERING SERVICES
OC SURVEY/FIELD SERVICES/BOUNDARY ANALYSIS & MAPPING

EL MODENA IRVINE CHANNEL (F07) TOPO SURVEY

TOPOGRAPHIC MAP
LOCATION: EL MODENA CHANNEL, CITY OF TUSTIN, CA

DATE OF SURVEY: 01/29/2019	BY: RUSSO & PARTY
TOPOGRAPHIC MAPPING	BY: K. AHMED
OFFICE CHECK	BY: M. KUBISTY, PLS
FIELD CHECK	BY: J. RUSSO
SCALE: 1" = 20'	W.O. #EF21271
FILE: ELMODENA_TOPOGRAPHICMAP_2019.DWG	

SHEET NO.
4 of 12

MARK DATE ITEM REVISIONS

MATCHLINE - SEE SHEET 6

Station: 242+05.46
12"x18" CMP PIPE
OUTLET INV EL.=180.39'
Station: 241+75.27
TOP OF WEIR EL.=178.58'
CONC FL EL.=176.41'
RT CONC GL EL.=176.84'
LT CONC GL EL.=176.81'
CONC FL EL.=176.13'
RT CONC GL EL.=176.65'
LT CONC GL EL.=176.57'

CL CONSTRUCTION EL MODENA IRVINE CHANNEL

EL MODENA CHANNEL(F07)

18" CMP PIPE OUTLET
INV EL.=175.89'
TOP OF HEADWALL
EL.=179.14'

LEGEND

SYMBOL

	BMK	Bench Mark
	BPD	Backflow Preventer Device
	CBXEL	Control Box - Electrical
	CBXWA	Control Box - Water
	CPT	Control Point
	DII	Drop Inlet
	FHH	Fire Hydrant
	DGT	Gate - Double
	SGT	Gate - Single
	GRI	Grate Inlet
	HBB	Hose Bib
	LPL	Light Pole - Single
	MHHEL	Manhole - Electrical
	MHHSD	Manhole - Storm Drain
	MHHSW	Manhole - Sewer
	MHHTL	Manhole - Telephone
	MHHUN	Manhole - Undefined
	MTRWA	Meter - Water
	PBXEL	Pull Box - Electrical
	PBXTL	Pull Box - Telephone
		Concrete Dissipator
	PPO/PPI	Pipe Outlet/Inlet
	PSG	Pedestrian Signal Pole
	PST	Post
	SCO	Sewer Cleanout
	SCV	Sidewalk Culvert
	SGL	Traffic Signal w/ Light
	SNN	Sign Post
	SBD	Sign Board
	VLTEL	Vault - Electrical
	VLTUN	Vault - Undefined
	VLVIR	Valve - Irrigation
	VLVWA	Valve - Water
	VPP	Vent Pipe
	CONC	Concrete

SYMBOL

	TRE	Tree
	TREPM	Tree - Palm
	YDL	Yard Light
	PBXTR	Pull Box - Traffic

LINE PATTERN KEY

	Building Outline
	Bush Row Outline
	Centerline
	Edge of Concrete
	Edge of Asphalt Pavement
	Fence - Chain Link
	Flowline
	Guard Rail
	Hand Rail
	Hinge Point
	Lot/ Easement Line
	Planter Wall
	Property Line
	Right-of-Way
	Striping
	Wall - Concrete
	Wall - Stone

AREA PATTERN KEY

	Concrete
	Dirt
	Gravel
	Rip-Rap



U.S. Survey
Foot

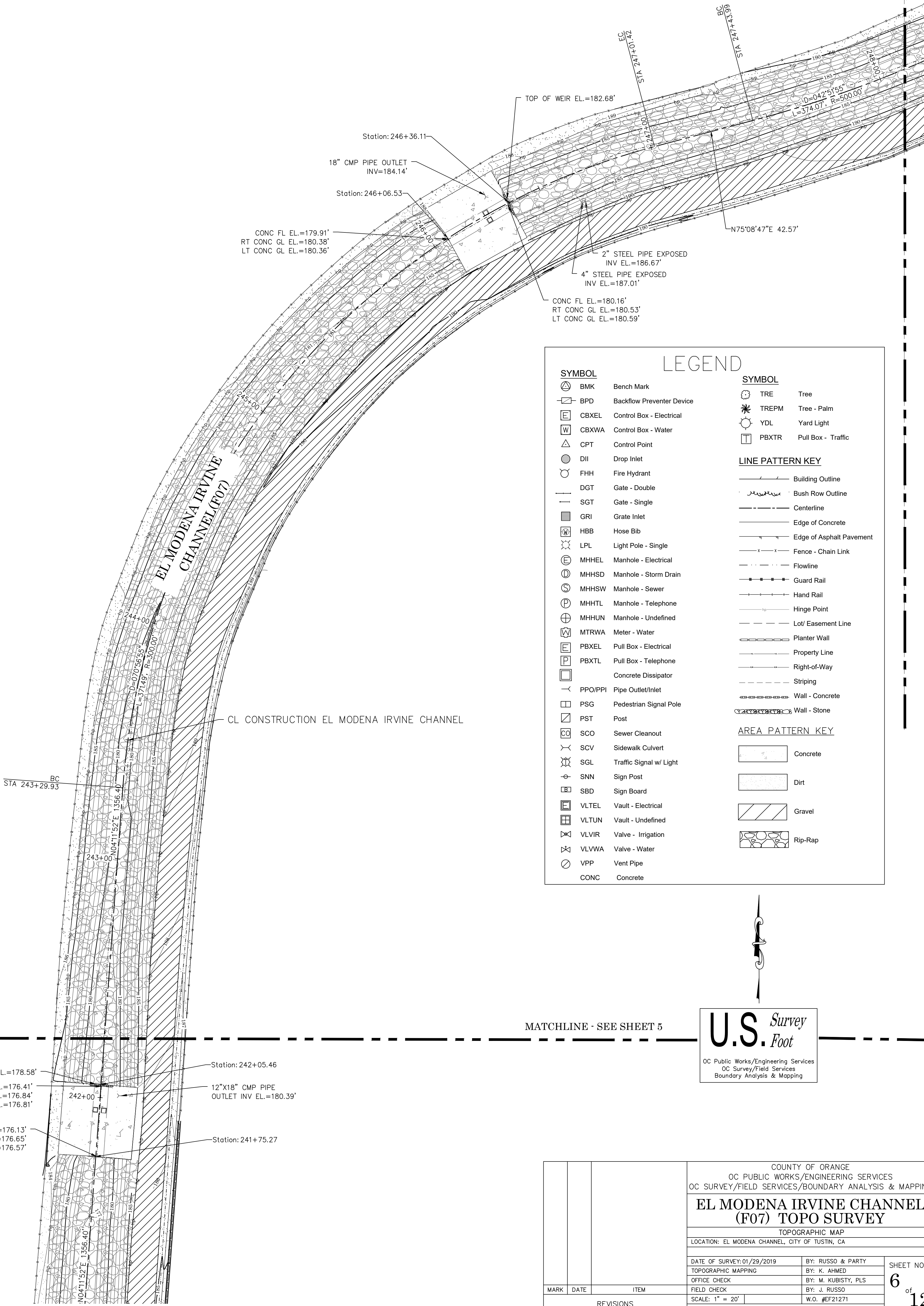
OC Public Works/Engineering Services
OC Survey/Field Services
Boundary Analysis & Mapping

MATCHLINE - SEE SHEET 4

236+00

			COUNTY OF ORANGE OC PUBLIC WORKS/ENGINEERING SERVICES OC SURVEY/FIELD SERVICES/BOUNDARY ANALYSIS & MAPPING				
			EL MODENA IRVINE CHANNEL (F07) TOPO SURVEY				
			TOPOGRAPHIC MAP				
			LOCATION: EL MODENA CHANNEL, CITY OF TUSTIN, CA				
			DATE OF SURVEY: 01/29/2019		BY: RUSSO & PARTY		SHEET NO. 5 of 12
			TOPOGRAPHIC MAPPING		BY: K. AHMED		
			OFFICE CHECK		BY: M. KUBISTY, PLS		
			FIELD CHECK		BY: J. RUSSO		
			SCALE: 1" = 20'		W.O. #EF21271		
MARK	DATE	ITEM	FILE: ELMODENA_TOPOGRAPHICMAP_2019.DWG				
REVISIONS							

MATCHLINE - SEE SHEET 7



SYMBOL

BMK Bench Mark

BPD Backflow Preventer Device

CBXEL Control Box - Electrical

CBXWA Control Box - Water

CPT Control Point

DII Drop Inlet

FHH Fire Hydrant

DGT Gate - Double

SGT Gate - Single

GRI Grate Inlet

HBB Hose Bib

LPL Light Pole - Single

MHHEL Manhole - Electrical

MHHS D Manhole - Storm Drain

MHHS W Manhole - Sewer

MHHT L Manhole - Telephone

MHHUN Manhole - Undefined

MTRWA Meter - Water

PBXEL Pull Box - Electrical

PBXTL Pull Box - Telephone

Concrete Dissipator

PPO/PPI Pipe Outlet/Inlet

PSG Pedestrian Signal Pole

PST Post

SCO Sewer Cleanout

SCV Sidewalk Culvert

SGL Traffic Signal w/ Light

SNN Sign Post

SBD Sign Board

VLTEL Vault - Electrical

VLTUN Vault - Undefined

VLVIR Valve - Irrigation

VLVWA Valve - Water

VPP Vent Pipe

CONC Concrete

LEGEND

SYMBOL

TRE Tree

TREPM Tree - Palm

YDL Yard Light

PBXTR Pull Box - Traffic

LINE PATTERN KEY

Building Outline

Bush Row Outline

Centerline

Edge of Concrete

Edge of Asphalt Pavement

Fence - Chain Link

Flowline

Guard Rail

Hand Rail

Hinge Point

Lot/ Easement Line

Planter Wall

Property Line

Right-of-Way

Striping

Wall - Concrete

Wall - Stone

AREA PATTERN KEY

Concrete

Dirt

Gravel

Rip-Rap

MATCHLINE - SEE SHEET 5

U.S. Survey
Foot

OC Public Works/Engineering Services
OC Survey/Field Services
Boundary Analysis & Mapping

		COUNTY OF ORANGE OC PUBLIC WORKS/ENGINEERING SERVICES OC SURVEY/FIELD SERVICES/BOUNDARY ANALYSIS & MAPPING						
		EL MODENA IRVINE CHANNEL (F07) TOPO SURVEY						
		TOPOGRAPHIC MAP						
		LOCATION: EL MODENA CHANNEL, CITY OF TUSTIN, CA						
		DATE OF SURVEY: 01/29/2019		BY: RUSSO & PARTY				
		TOPOGRAPHIC MAPPING		BY: K. AHMED				
MARK	DATE	ITEM		OFFICE CHECK		BY: M. KUBISTY, PLS		SHEET NO. 6 ^{of} 12
		FIELD CHECK		BY: J. RUSSO				
		SCALE: 1" = 20'		W.O. #EF21271				
REVISIONS		FILE: ELMODENA_TOPOGRAPHICMAP_2019.DWG						

SYMBOL

BMK

BPD

CBXEL

CBXWA

CPT

DII

FHH

DGT

SGT

GRI

HBB

LPL

MHHEL

MHHSD

MHHSW

MHHTL

MHHUN

MTRWA

PBXEL

PBXTL

PPO/PPPI

PSG

PST

SCO

SCV

SGL

SNN

SBD

VLTEL

VLTUN

VLVIR

VLVWA

VPP

CONC

SYMBOL

TRE

TREPM

YDL

PBXTR

LINE PATTERN KEY

Building Outline

Bush Row Outline

Centerline

Edge of Concrete

Edge of Asphalt Pavement

Fence - Chain Link

Flowline

Guard Rail

Hand Rail

Hinge Point

Lot/ Easement Line

Planter Wall

Property Line

Right-of-Way

Striping

Wall - Concrete

Wall - Stone

AREA PATTERN KEY

Concrete

Dirt

Gravel

Rip-Rap

SYMBOL

TRE

TREPM

YDL

PBXTR

LINE PATTERN KEY

Building Outline

Bush Row Outline

Centerline

Edge of Concrete

Edge of Asphalt Pavement

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Planter Wall

Property Line

Right-of-Way

Striping

Wall - Concrete

Wall - Stone

AREA PATTERN KEY

Concrete

Dirt

Gravel

Rip-Rap

U.S. Survey Foot

OC Public Works/Engineering Services
OC Survey/Field Services
Boundary Analysis & Mapping

The figure is a detailed topographic map of the El Modena Irvine Channel (F07). It shows the channel's alignment, stationing from 247+43.99 to 251+70.70, and various structural features. Key elements include:
 - **Matchlines:** Vertical dashed lines at station 247+43.99 (left) and 251+70.70 (right) indicate connections to sheets 6 and 8.
 - **Channel Features:** The channel is shown with a centerline and right-of-way. It includes several 18" CMP pipe inlets and outlets with their respective elevations and invert heights.
 - **Headwalls:** Four headwalls are shown with their top elevations and 18" CMP pipe outlet elevations.
 - **Stationing and Elevation:** Stationing is marked along the channel alignment. Elevation points are provided for various features, including concrete floor levels and ground levels.
 - **Geographic Context:** The channel is located near Santa Clara Avenue, which is shown at the top right of the map.
 - **Legend:** A comprehensive legend is located in the top left corner, defining symbols for various infrastructure elements and area patterns.

			COUNTY OF ORANGE OC PUBLIC WORKS/ENGINEERING SERVICES OC SURVEY/FIELD SERVICES/BOUNDARY ANALYSIS & MAPPING		
			EL MODENA IRVINE CHANNEL (F07) TOPO SURVEY		
			TOPOGRAPHIC MAP LOCATION: EL MODENA CHANNEL, CITY OF TUSTIN, CA		
MARK	DATE	ITEM	DATE OF SURVEY: 01/29/2019	BY: RUSSO & PARTY	SHEET NO. 7 of 12
			TOPOGRAPHIC MAPPING	BY: K. AHMED	
			OFFICE CHECK	BY: M. KUBISTY, PLS	
			FIELD CHECK	BY: J. RUSSO	
			SCALE: 1" = 20'	W.O. #EF21271	
REVISIONS			FILE: ELMODENA_TOPOGRAPHICMAP_2019.DWG		

SYMBOL

SYMBOL

LINE PATTERN KEY

MATCHLINE - SEE SHEET 7

AREA PATTERN KEY

SHEET NO.
8 of 12

MATCHLINE - SEE SHEET 10

CL CONSTRUCTION EL MODENA IRVINE CHANNEL

LEGEND

SYMBOL

- BMK Bench Mark
BPD Backflow Preventer Device
CBXEL Control Box - Electrical
CBXWA Control Box - Water
CPT Control Point
DII Drop Inlet
FHH Fire Hydrant
DGT Gate - Double
SGT Gate - Single
GRI Grate Inlet
HBB Hose Bib
LPL Light Pole - Single
MHHEL Manhole - Electrical
MHHSD Manhole - Storm Drain
MHHSW Manhole - Sewer
MHHTL Manhole - Telephone
MHHUN Manhole - Undefined
MTRWA Meter - Water
PBXEL Pull Box - Electrical
PBXTL Pull Box - Telephone
Concrete Dissipator
PPO/PPi Pipe Outlet/Inlet
PSG Pedestrian Signal Pole
PST Post
SCO Sewer Cleanout
SCV Sidewalk Culvert
SGL Traffic Signal w/ Light
SNN Sign Post
SBD Sign Board
VLTEL Vault - Electrical
VLTUN Vault - Undefined
VLVIR Valve - Irrigation
VLVWA Valve - Water
VPP Vent Pipe
CONC Concrete

SYMBOL

- TRE Tree
TREPM Tree - Palm
YDL Yard Light
PBXTR Pull Box - Traffic

LINE PATTERN KEY

- Building Outline
Bush Row Outline
Centerline
Edge of Concrete
Edge of Asphalt Pavement
Fence - Chain Link
Flowline
Guard Rail
Hand Rail
Hinge Point
Lot/ Easement Line
Planter Wall
Property Line
Right-of-Way
Striping
Wall - Concrete
Wall - Stone

AREA PATTERN KEY

- Concrete
Dirt
Gravel
Rip-Rap

EL MODENA IRVINE CHANNEL (F07)

4" PLASTIC PIPE EXPOSED
INV EL.=205.34'

24"x36" CMP PIPE
OUTLET INV EL.=198.47'

24"x36" CMP PIPE
OUTLET INV EL.=198.48'

TOP OF WEIR EL.=196.22'

Station: 260+10.62

STA 259+80.76 EC

24"x36" CMP PIPE OUTLET
INV EL.=194.56'

STA 259+77.20 BC

TOP OF HEADWALL
EL.=202.14'
SOFFIT
EL.=198.72'

18" CMP PIPE OUTLET
INV EL.=192.45'

18" CMP PIPE INLET
INV EL.=199.44'
TOP OF HEADWALL
EL.=202.70'

FAIRHAVEN AVENUE

Station: 257+46.05

CONC FL EL.=188.95'
RT CONC GL EL.=186.57'
LT CONC GL EL.=189.32'

TOP OF HEADWALL
EL.=201.66'
SOFFIT
EL.=197.33'

MATCHLINE - SEE SHEET 8

TOP OF HEADWALL
EL.=192.82'
18" CMP PIPE OUTLET
INV EL.=189.85'

CL CONSTRUCTION EL MODENA IRVINE CHANNEL



U.S. Survey Foot

OC Public Works/Engineering Services
OC Survey/Field Services
Boundary Analysis & Mapping

COUNTY OF ORANGE OC PUBLIC WORKS/ENGINEERING SERVICES OC SURVEY/FIELD SERVICES/BOUNDARY ANALYSIS & MAPPING			
EL MODENA IRVINE CHANNEL (F07) TOPO SURVEY			
TOPOGRAPHIC MAP			
LOCATION: EL MODENA CHANNEL, CITY OF TUSTIN, CA			
DATE OF SURVEY: 01/29/2019		BY: RUSSO & PARTY	
TOPOGRAPHIC MAPPING		BY: K. AHMED	
OFFICE CHECK		BY: M. KUBISTY, PLS	
FIELD CHECK		BY: J. RUSSO	
SCALE: 1" = 20'		W.O. #EF21271	
FILE: ELMODENA_TOPOGRAPHICMAP_2019.DWG			
		SHEET NO. 9 ^{of} 12	

MARK	DATE	ITEM
REVISIONS		

MATCHLINE - SEE SHEET 11

LEGEND

SYMBOL

- BMK Bench Mark
BPD Backflow Preventer Device
CBXEL Control Box - Electrical
CBXWA Control Box - Water
CPT Control Point
DII Drop Inlet
FHH Fire Hydrant
DGT Gate - Double
SGT Gate - Single
GRI Grate Inlet
HBB Hose Bib
LPL Light Pole - Single
MHHEL Manhole - Electrical
MHHSD Manhole - Storm Drain
MHHSW Manhole - Sewer
MHHTL Manhole - Telephone
MHHUN Manhole - Undefined
MTRWA Meter - Water
PBXEL Pull Box - Electrical
PBXTL Pull Box - Telephone
Concrete Dissipator
PPO/PPI Pipe Outlet/Inlet
PSG Pedestrian Signal Pole
PST Post
SCO Sewer Cleanout
SCV Sidewalk Culvert
SGL Traffic Signal w/ Light
SNN Sign Post
SBD Sign Board
VLTEL Vault - Electrical
VLTUN Vault - Undefined
VLVIR Valve - Irrigation
VLVWA Valve - Water
VPP Vent Pipe
CONC Concrete

SYMBOL

- TRE Tree
TREPM Tree - Palm
YDL Yard Light
PBXTR Pull Box - Traffic

LINE PATTERN KEY

- Building Outline
Bush Row Outline
Centerline
Edge of Concrete
Edge of Asphalt Pavement
Fence - Chain Link
Flowline
Guard Rail
Hand Rail
Hinge Point
Lot/ Easement Line
Planter Wall
Property Line
Right-of-Way
Striping
Wall - Concrete
Wall - Stone

AREA PATTERN KEY

- Concrete
Dirt
Gravel
Rip-Rap

CL CONSTRUCTION EL MODENA IRVINE CHANNEL

MATCHLINE - SEE SHEET 9

CL CONSTRUCTION EL MODENA IRVINE CHANNEL

EL MODENA IRVINE CHANNEL (F07)

24"x36" CMP PIPE OUTLET
INV EL.=202.73'

24"x36" CMP PIPE OUTLET
INV EL.=202.73'



U.S. Survey
Foot

OC Public Works/Engineering Services
OC Survey/Field Services
Boundary Analysis & Mapping

COUNTY OF ORANGE
OC PUBLIC WORKS/ENGINEERING SERVICES
OC SURVEY/FIELD SERVICES/BOUNDARY ANALYSIS & MAPPING

EL MODENA IRVINE CHANNEL
(F07) TOPO SURVEY

TOPOGRAPHIC MAP
LOCATION: EL MODENA CHANNEL, CITY OF TUSTIN, CA

DATE OF SURVEY: 01/29/2019 BY: RUSSO & PARTY
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SCALE: 1" = 20' W.O. #EF21271
FILE: ELMODENA_TOPOGRAPHICMAP_2019.DWG

SHEET NO.
10
of
12

MATCHLINE - SEE SHEET 12

SYMBOL

 BMK

 BPD

 CBXEL

 CBXWA

 CPT

 DII

 FHH

 DGT

 SGT

 GRI

 HBB

 LPL

 MHHEL

 MHHSD

 MHHSW

 MHHTL

 MHHUN

 MTRWA

 PBXEL

 PBXTL



 PPO/PPI

 PSG

 PST

 SCO

 SCV

 SGL

 SNN

 SBD

 VLTEL

 VLTUN

 VLVIR

 VLVWA

 VPP

 CONC

LEGEND

SYMBOL

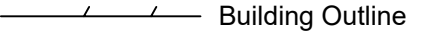
 TRE

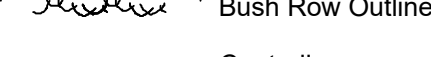
 TREPM

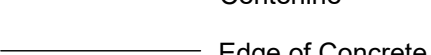
 YDL

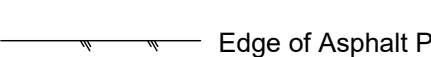
 PBXTR

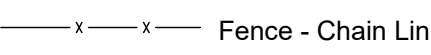
LINE PATTERN KEY

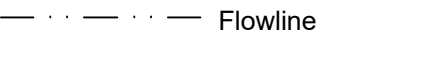
 Building Outline

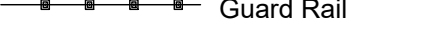
 Bush Row Outline

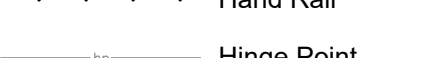
 Centerline

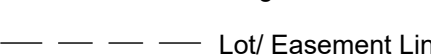
 Edge of Concrete

 Edge of Asphalt Pavement

 Fence - Chain Link

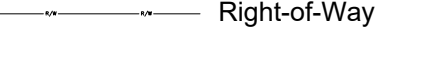
 Flowline

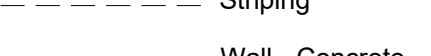
 Guard Rail

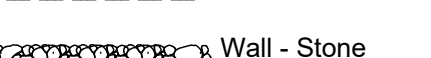
 Hand Rail

 Hinge Point

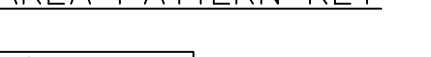
 Lot/ Easement Line

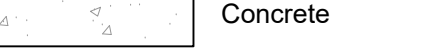
 Planter Wall

 Property Line

 Right-of-Way

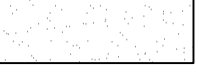
 Striping

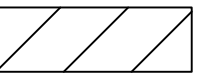
 Wall - Concrete

 Wall - Stone

AREA PATTERN KEY

 Concrete

 Dirt

 Gravel

 Rip-Rap

CL CONSTRUCTION EL MODENA IRVINE CHANNEL

4" PVC PIPE EXPOSED
INV EL.=211.60'

MATCHLINE - SEE SHEET 10

U.S. Survey
Foot

OC Public Works/Engineering Services
OC Survey/Field Services
Boundary Analysis & Mapping

COUNTY OF ORANGE OC PUBLIC WORKS/ENGINEERING SERVICES OC SURVEY/FIELD SERVICES/BOUNDARY ANALYSIS & MAPPING			EL MODENA IRVINE CHANNEL (F07) TOPO SURVEY		
TOPOGRAPHIC MAP			LOCATION: EL MODENA CHANNEL, CITY OF TUSTIN, CA		
DATE OF SURVEY: 01/29/2019		BY: RUSSO & PARTY		SHEET NO. 11 of 12	
TOPOGRAPHIC MAPPING		BY: K. AHMED			
OFFICE CHECK		BY: M. KUBISTY, PLS			
FIELD CHECK		BY: J. RUSSO			
SCALE: 1" = 20'		W.O. #EF21271			
REVISIONS			FILE: ELMODENA_TOPOGRAPHICMAP_2019.DWG		

SYMBOL

BMK

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CBXEL

CBXWA

CPT

DII

FHH

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SGT

GRI

HBB

LPL

MHHEL

MHHSD

MHHSW

MHHTL

MHHUN

MTRWA

PBXEL

PBXTL

PPO/PPI

PSG

PST

SCO

SCV

SGL

SNN

SBD

VLTEL

VLTUN

VLVIR

VLVWA

VPP

CONC

SYMBOL

TRE

TREPM

YDL

PBXTR

LINE PATTERN KEY

Building Outline

Bush Row Outline

Centerline

Edge of Concrete

Edge of Asphalt Pavement

Fence - Chain Link

Flowline

Guard Rail

Hand Rail

Hinge Point

Lot/ Easement Line

Planter Wall

Property Line

Right-of-Way

Striping

Wall - Concrete

Wall - Stone

AREA PATTERN KEY

Concrete

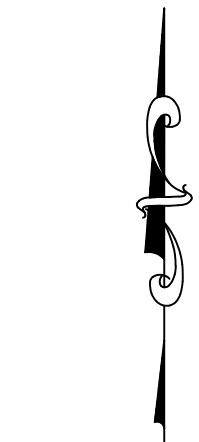
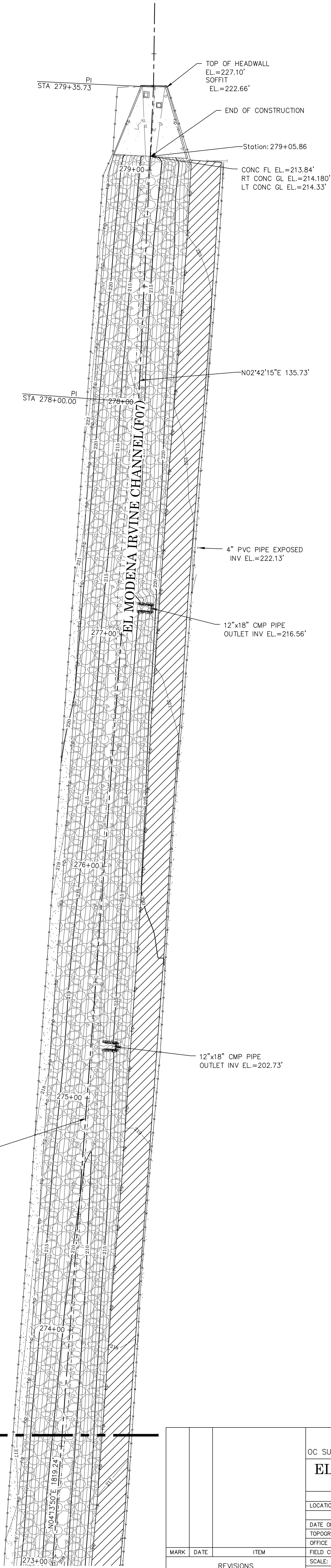
Dirt

Gravel

Rip-Rap

LEGEND

CL CONSTRUCTION EL MODENA IRVINE CHANNEL



U.S. Survey

Foot

OC Public Works/Engineering Services
OC Survey/Field Services
Boundary Analysis & Mapping

MATCHLINE - SEE SHEET 11

			COUNTY OF ORANGE OC PUBLIC WORKS/ENGINEERING SERVICES OC SURVEY/FIELD SERVICES/BOUNDARY ANALYSIS & MAPPING			
			EL MODENA IRVINE CHANNEL (F07) TOPO SURVEY			
			TOPOGRAPHIC MAP			
			LOCATION: EL MODENA CHANNEL, CITY OF TUSTIN, CA			
			DATE OF SURVEY: 01/29/2019		BY: RUSSO & PARTY	
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			SCALE: 1" = 20'		W.O. #EF21271	
FILE: ELMODENA_TOPOGRAPHICMAP_2019.DWG						
MARK	DATE	ITEM			SHEET NO. 12_{of}12	
REVISIONS						