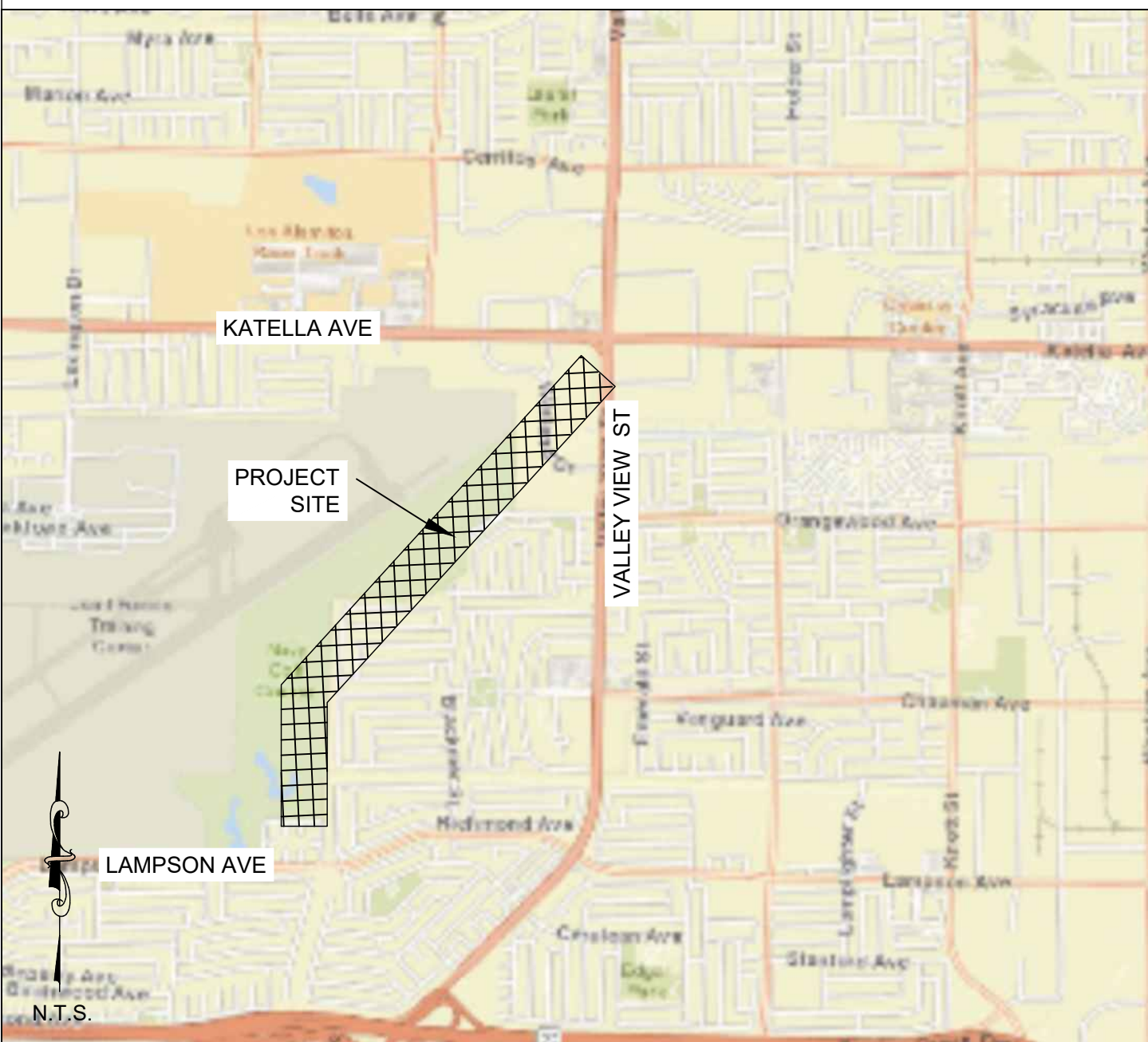




OC PUBLIC WORKS DEPARTMENT
SHANE SILSBY, DIRECTOR
KEVIN HILLS, COUNTY SURVEYOR
BOLSA CHICA CHANNEL (C02) PHASE I
LIMITS: LAMPSON AVE TO 783' D/S KATELLA AVE



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 19TH DAY OF NOVEMBER, 2019.

ELLIOTT MEDINA PLS SENIOR LAND SURVEYOR

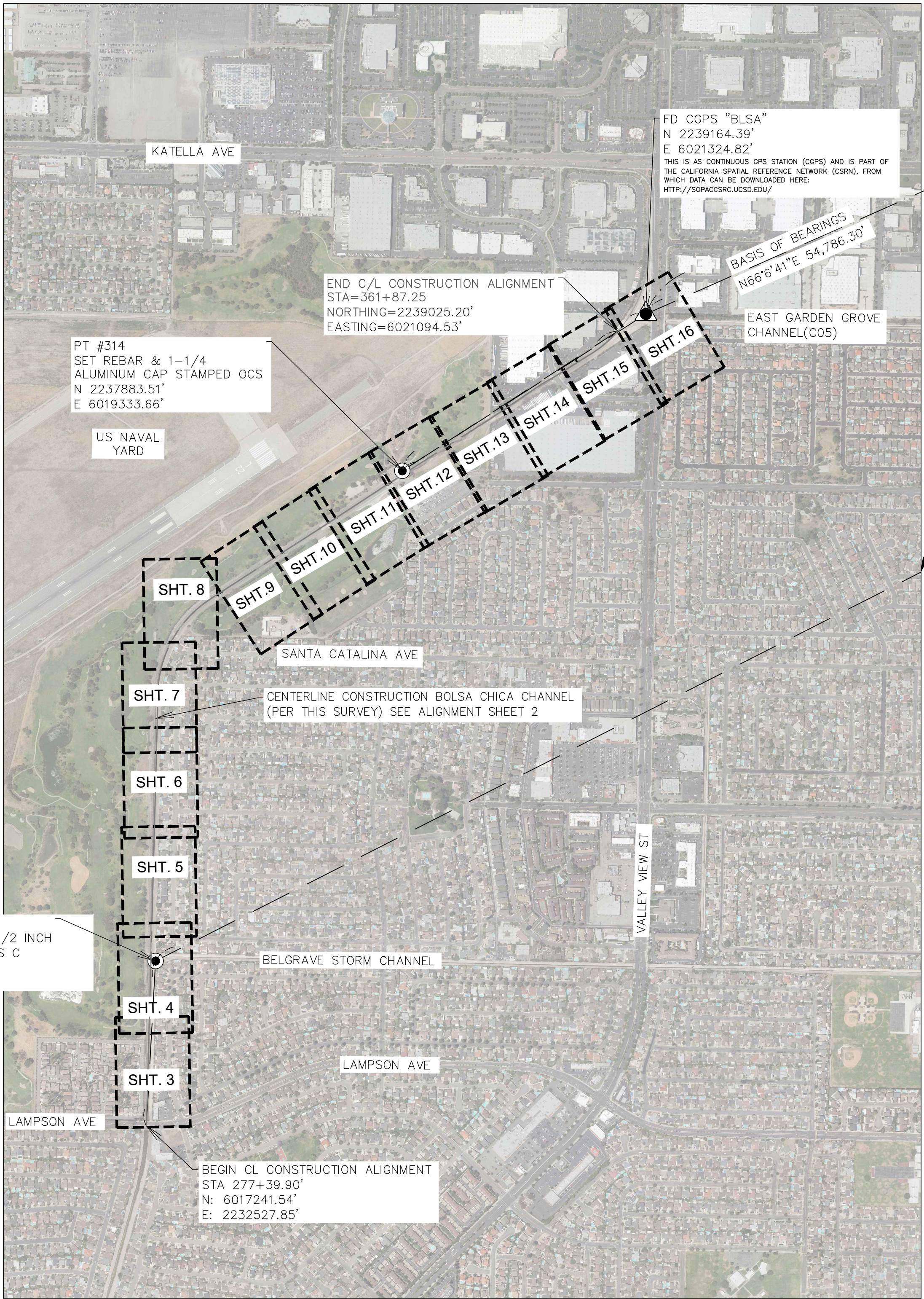
DEPUTY COUNTY SURVEYOR'S STATEMENT:

THIS MAP HAS BEEN EXAMINED IN ACCORDANCE WITH THE PROFESSIONAL LAND SURVEYOR'S ACT; THIS 19TH DAY OF NOVEMBER, 2019.

WADE WEAVER PLS DEPUTY COUNTY SURVEYOR

U.S. Survey Foot

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



FD CGPS "CCCS"
N 2261350.67'
E 6071417.81'
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.SRC.UCSD.EDU/](http://sopac.src.ucsd.edu/)

BASIS OF BEARINGS

THE BASIS OF BEARINGS FOR THIS SURVEY IS BASED ON THE CALIFORNIA COORDINATE SYSTEM (CCS83), ZONE VI, NAD 83, OCS (2017.50) EPOCH ADJUSTMENT, AS DETERMINED LOCALLY BY A LINE BETWEEN CONTINUOUS GLOBAL POSITIONING STATIONS (CGPS) "BLSA" AND "CCCS", BEING N66°41'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 (2017.50 EPOCH O.C.S. G.P.S. ADJUSTMENT).

ALL DISTANCES SHOWN ARE GRID, UNLESS OTHERWISE NOTED. MULTIPLY A GRID DISTANCE BY 1.00000985 TO OBTAIN GROUND DISTANCE. THE COMBINATION FACTOR WAS HELD AT POINT NUMBER 314 N=2237883.51' E=6019333.66'

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

VERTICAL DATUM

O.C.S. BM. 1B-97-99 ELEV. = 37.160' YEAR LEVELED: 2005
NAVD 1988 (O.C.S. 1995 ADJUSTMENT)

DESCRIBED BY OCS 2002- FOUND 3 3/4" OCS ALUMINUM BENCHMARK DISK STAMPED "1B-97-99" SET ON TOP OF THE NORTHWEST CORNER OF A 4 FT. BY 5 FT. CONCRETE CATCH BASIN. MONUMENT IS LOCATED IN THE NORTHWEST PORTION OF THE INTERSECTION OF KATELLA AVENUE AND VALLEY VIEW STREET, 185 FT. NORTHERLY OF THE CENTERLINE OF KATELLA AVENUE, AND 60 FT. WESTERLY OF THE CENTERLINE OF VALLEY VIEW STREET. MONUMENT IS SET LEVEL WITH THE SIDEWALK.

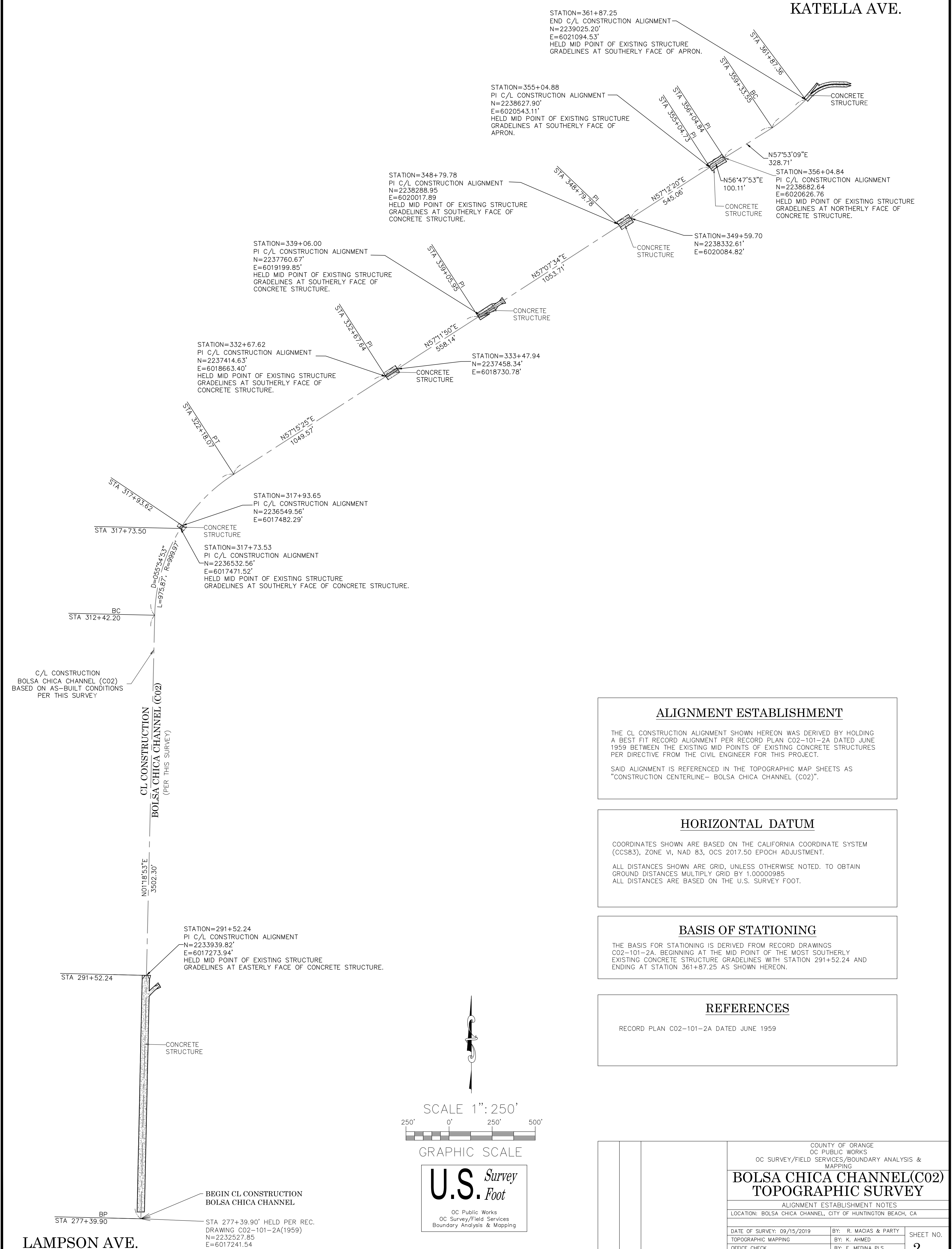
SHEET INDEX

SHEET NO.	DESCRIPTION
SHEET #1	TITLE SHEET
SHEET #2	ALIGNMENT ESTABLISHMENT
SHEET #3-16	TOPOGRAPHIC MAP



TOPOGRAPHIC MAPPING PROJECT

		COUNTY OF ORANGE OC PUBLIC WORKS OC SURVEY/FIELD SERVICES/BOUNDARY ANALYSIS & MAPPING				SHEET NO. 1 of 16
		BOLSA CHICA CHANNEL (C02) TOPOGRAPHIC SURVEY				
		TITLE SHEET				
		DATE OF SURVEY: 09-25-2019		BY: MACIAS & PARTY		
		TOPOGRAPHIC MAPPING		BY: KARIM AHMED		
		OFFICE CHECK		BY: E. MEDINA, PLS		
		FIELD CHECK		BY: R. MACIAS, PLS		
		SCALE: N.T.S.		WO#: EF21454		
		FILE: BOLSA CHICA_CHANNEL_TOPO_2019.DWG				
MARK	DATE	ITEM	REVISIONS			



ALIGNMENT ESTABLISHMENT

THE CL CONSTRUCTION ALIGNMENT SHOWN HEREON WAS DERIVED BY HOLDING A BEST FIT RECORD ALIGNMENT PER RECORD PLAN C02-101-2A DATED JUNE 1959 BETWEEN THE EXISTING MID POINTS OF EXISTING CONCRETE STRUCTURES PER DIRECTIVE FROM THE CIVIL ENGINEER FOR THIS PROJECT.

SAID ALIGNMENT IS REFERENCED IN THE TOPOGRAPHIC MAP SHEETS AS "CONSTRUCTION CENTERLINE- BOLSA CHICA CHANNEL (C02)".

HORIZONTAL DATUM

COORDINATES SHOWN ARE BASED ON THE CALIFORNIA COORDINATE SYSTEM (CCS83), ZONE VI, NAD 83, OCS 2017.50 EPOCH ADJUSTMENT.

ALL DISTANCES SHOWN ARE GRID, UNLESS OTHERWISE NOTED. TO OBTAIN GROUND DISTANCES MULTIPLY GRID BY 1.00000985

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

BASIS OF STATIONING

THE BASIS FOR STATIONING IS DERIVED FROM RECORD DRAWINGS C02-101-2A. BEGINNING AT THE MID POINT OF THE MOST SOUTHERLY EXISTING CONCRETE STRUCTURE GRADELINES WITH STATION 291+52.24 AND ENDING AT STATION 361+87.25 AS SHOWN HEREON.

REFERENCES

RECORD PLAN C02-101-2A DATED JUNE 1959

			COUNTY OF ORANGE OC PUBLIC WORKS OC SURVEY/FIELD SERVICES/BOUNDARY ANALYSIS & MAPPING					
			BOLSA CHICA CHANNEL(C02) TOPOGRAPHIC SURVEY					
			ALIGNMENT ESTABLISHMENT NOTES					
			LOCATION: BOLSA CHICA CHANNEL, CITY OF HUNTINGTON BEACH, CA					
			DATE OF SURVEY: 09/15/2019		BY: R. MACIAS & PARTY		SHEET NO. 2 of 16	
			TOPOGRAPHIC MAPPING		BY: K. AHMED			
			OFFICE CHECK		BY: E. MEDINA PLS			
			FIELD CHECK		BY: R. MACIAS PLS			
			SCALE: 1"=250'		W.O. # EF21454			
			BOLSA CHICA CHANNEL_TOPO_2019.dwg					
MARK	DATE	ITEM	REVISIONS					

MATCHLINE - SEE SHEET 4

CL CONSTRUCTION BOLSA CHICA CHANNEL
(PER THIS SURVEY SEE ALIGNMENT SHEET 2)

18" PIPE OUTLET UNKNOWN
INV EL.=18.2'

18" PIPE OUTLET UNKNOWN
INV EL.=18.9'

30" PIPE OUTLET UNKNOWN
INV EL.=15.8'

18" PIPE OUTLET UNKNOWN
INV EL.=17.8'

36" PIPE OUTLET UNKNOWN
INV EL.=15.9'

BEGIN CL CONSTRUCTION
ALIGNMENT (PER THIS SURVEY)
SEE ALIGNMENT NOTE SHEET 2

LEGEND

SYMBOL

	BMK	Bench Mark
	CBXTR	Control Box - Traffic
	CBXEL	Control Box - Electrical
	CBXWA	Control Box - Water
	CBXIR	Control Box - Irrigation
	DII	Drop Inlet
	FHH	Fire Hydrant
	DGT	Gate - Double
	SGT	Gate - Single
	GRI	Grate Inlet
	LPL	Light Pole - Single
	MHHEL	Manhole - Electrical
	MHHSW	Manhole - Sewer
	MHHUN	Manhole - Undefined
	MTRWA	Meter - Water
	PBXEL	Pull Box - Electrical
	PBXTL	Pull Box - Telephone
	PPO/PPi	Pipe Outlet/Inlet
	SNN	Sign Post
	CONC	Concrete
	UP0WD	Utility Pole-Wood
	TRE	Tree
	PBXUN	Pullbox-Unknown

LINE PATTERN KEY

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

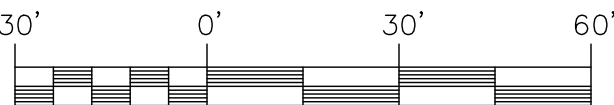
AREA PATTERN KEY

	Concrete
	Dirt/Gravel
	Rip-Rap

U.S. Survey
Foot

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

SCALE 1"=30'



GRAPHIC SCALE

CONTOUR INTERVAL= 1'

LAMPSON AVENUE

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

**BOLSA CHICA CHANNEL (C02)
TOPOGRAPHIC SURVEY**

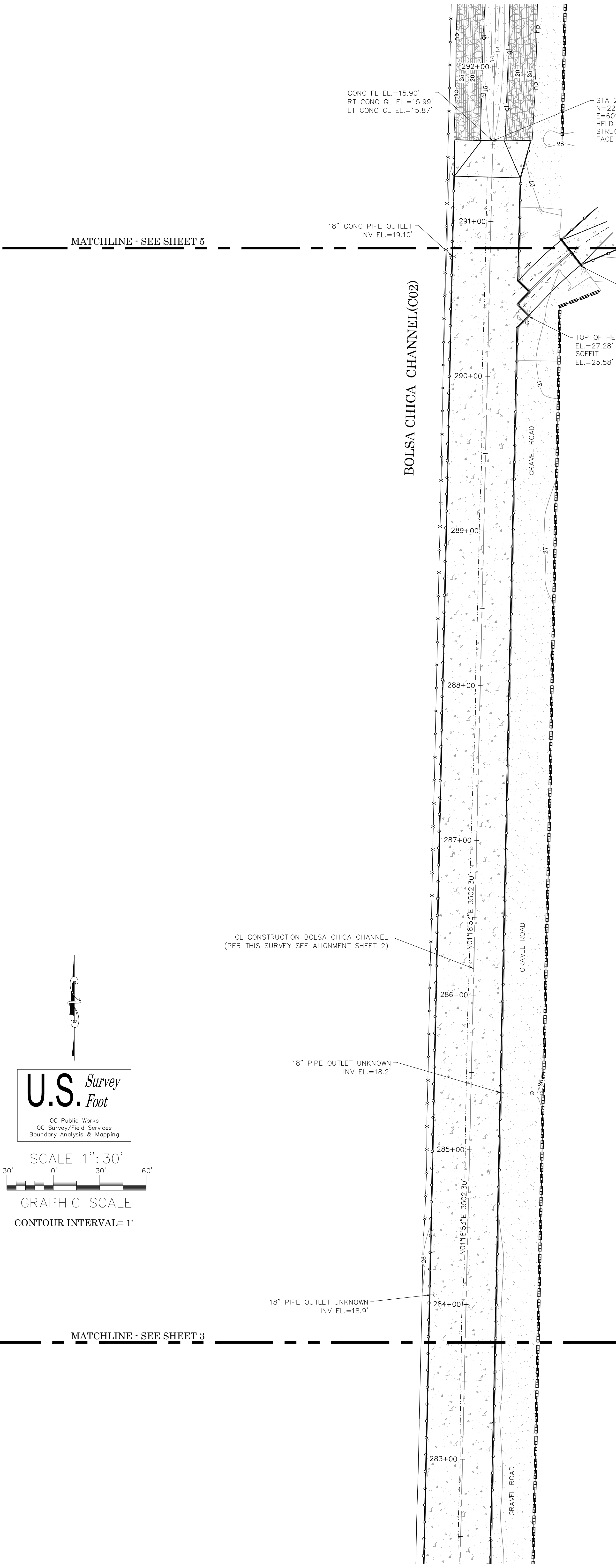
TOPOGRAPHIC MAP

LOCATION: BOLSA CHICA CHANNEL, CITY OF HUNTINGTON BEACH, CA

DATE OF SURVEY: 09/15/2019	BY: R. MACIAS & PARTY
TOPOGRAPHIC MAPPING	BY: K. AHMED
OFFICE CHECK	BY: E. MEDINA, PLS
FIELD CHECK	BY: R. MACIAS, PLS
SCALE: 1" = 30'	W.O. #EF21454
FILE: BOLSA CHICA CHANNEL_TOPO_2019.DWG	

SHEET NO.
3
of
16

MARK	DATE	ITEM
REVISIONS		



BELGRAVE STORM CHANNEL

MATCHLINE - SEE SHEET 5

BOLSA CHICA CHANNEL(C02)

GRAVEL ROAD

GRAVEL ROAD

GRAVEL ROAD

SYMBOL

BMK

Bench Mark

CBXTR

Control Box - Traffic

CBXEL

Control Box - Electrical

CBXWA

Control Box - Water

CBXIR

Control Box - Irrigation

DII

Drop Inlet

FHH

Fire Hydrant

DGT

Gate - Double

SGT

Gate - Single

GRI

Grate Inlet

LPL

Light Pole - Single

MHHEL

Manhole - Electrical

MHHSW

Manhole - Sewer

MHHUN

Manhole - Undefined

MTRWA

Meter - Water

PBXEL

Pull Box - Electrical

PBXTL

Pull Box - Telephone

PPO/PPI

Pipe Outlet/Inlet

SNN

Sign Post

CONC

Concrete

UPOWD

Utility Pole-Wood

TRE

Tree

PBXUN

Pulbox-Unknown

BMK

Bench Mark

CBXTR

Control Box - Traffic

CBXEL

Control Box - Electrical

CBXWA

Control Box - Water

CBXIR

Control Box - Irrigation

DII

Drop Inlet

FHH

Fire Hydrant

DGT

Gate - Double

SGT

Gate - Single

GRI

Grate Inlet

LPL

Light Pole - Single

MHHEL

Manhole - Electrical

MHHSW

Manhole - Sewer

MHHUN

Manhole - Undefined

MTRWA

Meter - Water

PBXEL

Pull Box - Electrical

PBXTL

Pull Box - Telephone

PPO/PPI

Pipe Outlet/Inlet

SNN

Sign Post

CONC

Concrete

UPOWD

Utility Pole-Wood

TRE

Tree

PBXUN

Pulbox-Unknown

LEGEND

LINE PATTERN KEY

Building Outline

Bush Row Outline

Centerline

Edge of Concrete

Edge of Asphalt Pavement

Fence - Chain Link

Flowline

Guard 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 BOLSA CHICA CHANNEL
(PER THIS SURVEY SEE ALIGNMENT SHEET 2)

18" PIPE OUTLET UNKNOWN
INV. EL.=18.2'

18" PIPE OUTLET UNKNOWN
INV. EL.=18.9'

MATCHLINE - SEE SHEET 3

U.S. Survey

Foot

OC Public Works

OC Survey/Field Services

Boundary Analysis & Mapping

SCALE 1"= 30'

30'

0'

30'

60'

GRAPHIC SCALE

CONTOUR INTERVAL= 1'

			COUNTY OF ORANGE OC PUBLIC WORKS OC SURVEY/FIELD SERVICES/BOUNDARY ANALYSIS & MAPPING		
			BOLSA CHICA CHANNEL (C02) TOPOGRAPHIC SURVEY		
			LOCATION: BOLSA CHICA CHANNEL, CITY OF HUNTINGTON BEACH, CA		
MARK	DATE	ITEM	DATE OF SURVEY: 09/15/2019	BY: R. MACIAS & PARTY	SHEET NO. 4 of 16
			TOPOGRAPHIC MAPPING	BY: K. AHMED	
			OFFICE CHECK	BY: E. MEDINA, PLS	
			FIELD CHECK	BY: R. MACIAS, PLS	
			REVISIONS		
		FILE: BOLSA CHICA CHANNEL_TOPO_2019.DWG			

MATCHLINE - SEE SHEET 6

SYMBOL

- BMK Bench Mark
- CBXTR Control Box-Traffic
- CBXEL Control Box - Electrical
- CBXWA Control Box - Water
- CBXIR Control Box- Irrigation
- DII Drop Inlet
- FHH Fire Hydrant
- DGT Gate - Double
- SGT Gate - Single
- GRI Grate Inlet
- LPL Light Pole - Single
- MHHEL Manhole - Electrical
- MHHSW Manhole - Sewer
- MHHUN Manhole - Undefined
- MTRWA Meter - Water
- PBXEL Pull Box - Electrical
- PBXTL Pull Box - Telephone
- PPO/PI Pipe Outlet/Inlet
- SNN Sign Post
- CONC Concrete
- UPOWD Utility Pole-Wood
- TRE Tree
- PBXUN Pullbox-Unknown

LEGEND

LINE PATTERN KEY

- Building Outline
- Bush Row Outline
- Centerline
- Edge of Concrete
- Edge of Asphalt Pavement
- Fence - Chain Link
- Flowline
- Guard 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

BOLSA CHICA CHANNEL(C02)

CL CONSTRUCTION BOLSA CHICA CHANNEL
(PER THIS SURVEY SEE ALIGNMENT SHEET 2)

CONC FL EL.=15.90'
RT CONC GL EL.=15.99'
LT CONC GL EL.=15.87'

STA 291+52.24
N=2233939.82
E=6017273.94
HELD MID POINT OF EXISTING
STRUCTURE GRADELINES AT NORTHERLY
FACE OF CONCRETE STRUCTURE.

BELGRAVE STORM
CHANNEL

18" CONC PIPE OUTLET
INV EL.=19.10'

TOP OF HEADWALL
EL.=27.50'

TOP OF HEADWALL
EL.=27.28'
SOFFIT
EL.=25.58'

BOLSA CHICA CHANNEL(C02)

GRAVEL ROAD

MATCHLINE - SEE SHEET 4



U.S. Survey
Foot

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

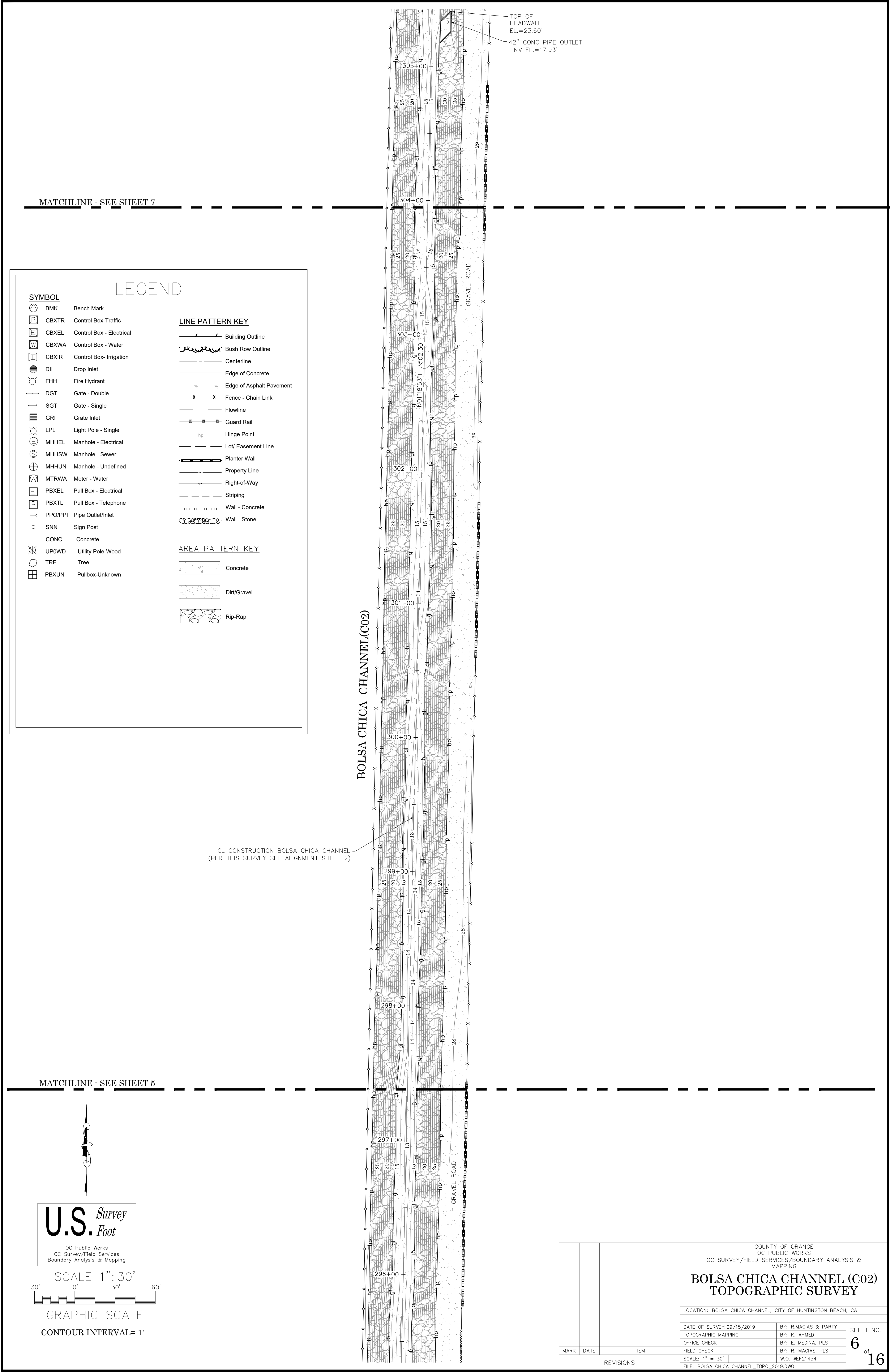
SCALE 1"= 30'



GRAPHIC SCALE

CONTOUR INTERVAL= 1'

		COUNTY OF ORANGE OC PUBLIC WORKS OC SURVEY/FIELD SERVICES/BOUNDARY ANALYSIS & MAPPING			
		BOLSA CHICA CHANNEL (C02) TOPOGRAPHIC SURVEY			
		LOCATION: BOLSA CHICA CHANNEL, CITY OF HUNTINGTON BEACH, CA			
		DATE OF SURVEY: 09/15/2019		BY: R. MACIAS & PARTY	
		TOPOGRAPHIC MAPPING		BY: K. AHMED	
		OFFICE CHECK		BY: E. MEDINA, PLS	
		FIELD CHECK		BY: R. MACIAS, PLS	
		SCALE: 1" = 30'		W.O. #EF21454	
		FILE: BOLSA CHICA CHANNEL_TOPO_2019.DWG			
		REVISIONS			
MARK	DATE	ITEM		SHEET NO. 5 of 16	



MATCHLINE - SEE SHEET 8

SYMBOL

-  BMK

 CBXTR

 CBXEL

 CBXWA

 CBXIR

 DII

 FHH

 DGT

 SGT

 GRI

 LPL

 MHHEL

 MHHSW

 MHHUN

 MTRWA

 PBXEL

 PBXTL

 PPO/PPi

 SNN

 CONC

 UPOWD

 TRE

 PBXUN

Control Box-Traffic

Control Box - Electrical

Control Box - Water

Control Box- Irrigation

Drop Inlet

Fire Hydrant

Gate - Double

Gate - Single

Grate Inlet

Light Pole - Single

Manhole - Electrical

Manhole - Sewer

Manhole - Undefined

Meter - Water

Pull Box - Electrical

Pull Box - Telephone

Pipe Outlet/Inlet

Sign Post

Concrete

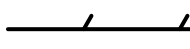
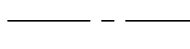
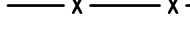
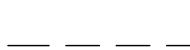
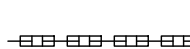
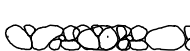
Utility Pole-Wood

Tree

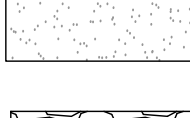
Pullbox-Unknown

LEGEND

LINE PATTERN KEY

-  Building Outline
-  Bush Row Outline
-  Centerline
-  Edge of Concrete
-  Edge of Asphalt Pavement
-  Fence - Chain Link
-  Flowline
-  Guard 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

BOLSA CHICA CHANNEL(C02)

CL CONSTRUCTION BOLSA CHICA CHANNEL
(PER THIS SURVEY SEE ALIGNMENT SHEET 2)

18" CMP PIPE INLET
INV EL.=27.95'

8" CMP PIPE OUTLET
INV EL.=24.44'

TOP OF
HEADWALL
EL.=23.60'

42" CONC PIPE OUTLET
INV EL.=17.93'

RESIDENTIAL
AREA

MATCHLINE - SEE SHEET 6



U.S. *Survey*
Foot

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

SCALE 1"= 30'



GRAPHIC SCALE

CONTOUR INTERVAL= 1'

		COUNTY OF ORANGE OC PUBLIC WORKS OC SURVEY/FIELD SERVICES/BOUNDARY ANALYSIS & MAPPING		
		BOLSA CHICA CHANNEL (C02) TOPOGRAPHIC SURVEY		
		LOCATION: BOLSA CHICA CHANNEL, CITY OF HUNTINGTON BEACH, CA		
		DATE OF SURVEY:09/15/2019		
		TOPOGRAPHIC MAPPING		SHEET NO. 7 of 16
		OFFICE CHECK		
		FIELD CHECK		
		SCALE: 1" = 30'		
		FILE: BOLSA CHICA CHANNEL_TOPO_2019.DWG		
		MARK	DATE	ITEM

SYMBOL

	BMK	Bench Mark
	CBXTR	Control Box-Traffic
	CBXEL	Control Box - Electrical
	CBXWA	Control Box - Water
	CBXIR	Control Box- Irrigation
	DII	Drop Inlet
	FHH	Fire Hydrant
	DGT	Gate - Double
	SGT	Gate - Single
	GRI	Grate Inlet
	LPL	Light Pole - Single
	MHHEL	Manhole - Electrical
	MHHSW	Manhole - Sewer
	MHHUH	Manhole - Undefined
	MTRWA	Meter - Water
	PBXEL	Pull Box - Electrical
	PBXTL	Pull Box - Telephone
	PPPO/PIPI	Pipe Outlet/Inlet
	SNN	Sign Post
	CONC	Concrete
	UPOWUD	Utility Pole-Wood
	TREE	Tree
	PBXUN	Pullbox-Unknown

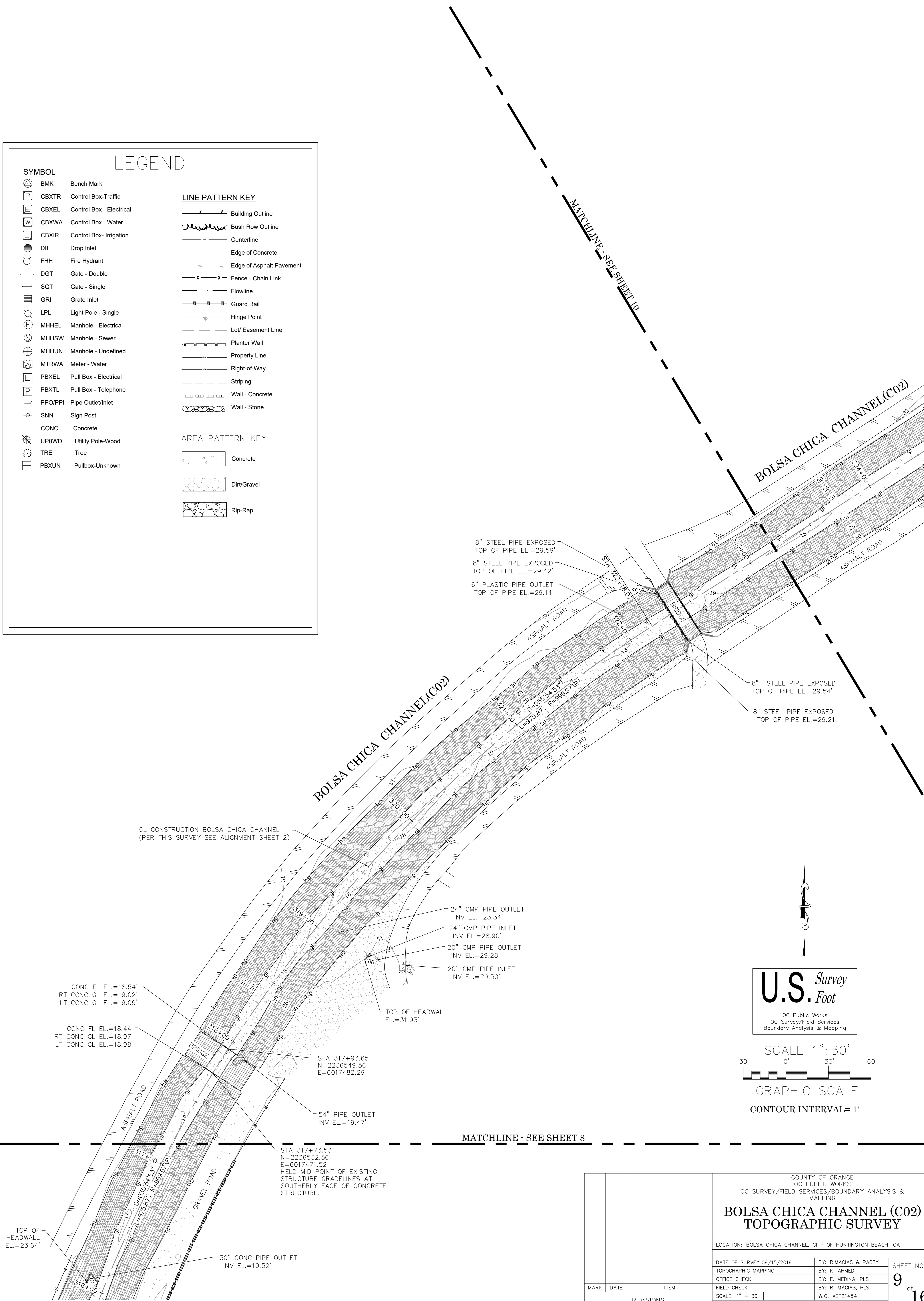
LINE PATTERN KEY

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

AREA PATTERN KEY

The diagram illustrates three different pavement types, each shown in a rectangular cross-section:

- Concrete:** A solid, uniform rectangular block.
- Dirt/Gravel:** A rectangular block filled with numerous small, irregular shapes representing aggregate particles.
- Rip-Rap:** A rectangular block composed of large, irregular, rounded shapes representing stones or gravel.



MARK DATE ITEM REVISIONS			COUNTY OF ORANGE OC PUBLIC WORKS OC SURVEY/FIELD SERVICES/BOUNDARY ANALYSIS & MAPPING		SHEET NO. 9 of 16
			BOLSA CHICA CHANNEL (C02) TOPOGRAPHIC SURVEY		
			LOCATION: BOLSA CHICA CHANNEL, CITY OF HUNTINGTON BEACH, CA		
	DATE OF SURVEY: 09/15/2019		BY: R. MACIAS & PARTY		
	TOPOGRAPHIC MAPPING		BY: K. AHMED		
	OFFICE CHECK		BY: E. MEDINA, PLS		
	FIELD CHECK		BY: R. MACIAS, PLS		
	SCALE: 1" = 30'		W.D. #EF21454		
	FILE: BOLSA CHICA CHANNEL_TOPO_2019.DWG				

SYMBOL

- LINE PATTERN KEY

- AREA PATTERN KEY

-
- Concrete
- Dirt/Gravel
- Rip-Rap

-GOLF COURSE-AREA

CL CONSTRUCTION BOLSA CHICA CHANNEL
(PER THIS SURVEY SEE ALIGNMENT SHEET 2)

BOLSAS CHICAS CHANNEL (C02)

10 20 30 40

0 200

- 24" CMP PIPE OUTLET
INV. EL.=21.65'

8" STEEL PIPE EXPOSED
TOP OF PIPE EL = 29.54'

8" STEEL PIPE EXPOSED
TOP OF PIPE EL = 29.21

U.S. *Survey*
Foot

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

SCALE 1":30'

GRAPHIC SCALE

CONTOUR INTERVAL= 1'

			COUNTY OF ORANGE OC PUBLIC WORKS OC SURVEY/FIELD SERVICES/BOUNDARY ANALYSIS & MAPPING				
			BOLSA CHICA CHANNEL (C02) TOPOGRAPHIC SURVEY				
			LOCATION: BOLSA CHICA CHANNEL, CITY OF HUNTINGTON BEACH, CA				
			DATE OF SURVEY: 09/15/2019		BY: R. MACIAS & PARTY		SHEET NO. 10 of 16
			TOPOGRAPHIC MAPPING		BY: K. AHMED		
			OFFICE CHECK		BY: E. MEDINA, PLS		
			FIELD CHECK		BY: R. MACIAS, PLS		
			SCALE: 1" = 30'		W.D. #EF21454		
			MARK	DATE	ITEM		FILE F: BOLSA CHICA CHANNEL TOPO 2019.FWG
REVISIONS							

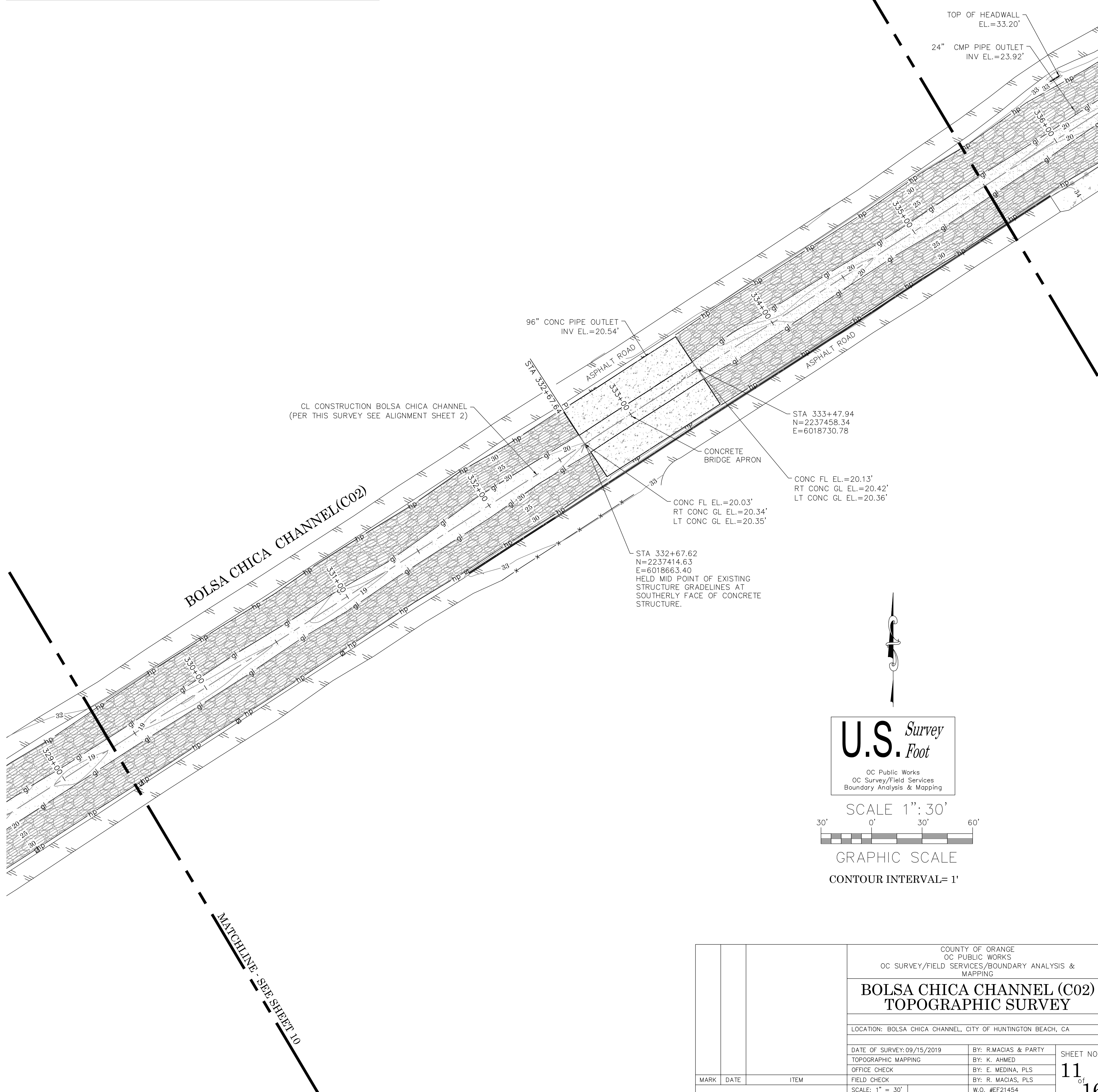
SYMBOL

- LINE PATTERN KEY

- | | |
|---|--------------------------|
|  | Building Outline |
|  | Bush Row Outline |
|  | Centerline |
|  | Edge of Concrete |
|  | Edge of Asphalt Pavement |
|  | Fence - Chain Link |
|  | Flowline |
|  | Guard 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
OC Survey/Field Services
Boundary Analysis & Mapping

SCALE 1":30



GRAPHIC SCALE

CONTOUR INTERVAL= 1

MARK	DATE	ITEM	COUNTY OF ORANGE OC PUBLIC WORKS OC SURVEY/FIELD SERVICES/BOUNDARY ANALYSIS & MAPPING			
			BOLSA CHICA CHANNEL (C02) TOPOGRAPHIC SURVEY			
			LOCATION: BOLSA CHICA CHANNEL, CITY OF HUNTINGTON BEACH, CA			
			DATE OF SURVEY: 09/15/2019		BY: R. MACIAS & PARTY	
			TOPOGRAPHIC MAPPING		BY: K. AHMED	
			OFFICE CHECK		BY: E. MEDINA, PLS	
			FIELD CHECK		BY: R. MACIAS, PLS	
			SCALE: 1" = 30'		W.O. #EF21454	
		FILE: BOLSA CHICA CHANNEL_TOPO_2019.DWG				
				SHEET NO. 11 of 16		
REVISIONS						

LEGEND

SYMBOL

- BMK
- CBXTR Control Box-Traffic
- CBXEL Control Box - Electrical
- CBXWA Control Box - Water
- CBXIR Control Box- Irrigation
- DII Drop Inlet
- FHH Fire Hydrant
- DGT Gate - Double
- SGT Gate - Single
- GRI Grate Inlet
- LPL Light Pole - Single
- MHHEL Manhole - Electrical
- MHHSW Manhole - Sewer
- MHHUN Manhole - Undefined
- MTRWA Meter - Water
- PBXEL Pull Box - Electrical
- PBXTL Pull Box - Telephone
- PPO/PPI Pipe Outlet/Inlet
- SNN Sign Post
- CONC Concrete
- UPOWD Utility Pole-Wood
- TRE Tree
- PBXUN Pullbox-Unknown

LINE PATTERN KEY

-
- Building Outline

Bush Row Outline

Centerline

Edge of Concrete

Edge of Asphalt Pavement

Fence - Chain Link

Flowline

Guard 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

GOLF COURSE—AREA

CL CONSTRUCTION BOLSA CHICA CHANNEL
(PER THIS SURVEY SEE ALIGNMENT SHEET 2)

STA 339+06.00
N=2237760.67
E=6019199.85
HELD MID POINT OF EXISTING
STRUCTURE GRADELINES AT SOUTHERLY
FACE OF CONCRETE STRUCTURE.

BOLSA CHICA CHANNEL(C02)

CONCRETE
BRIDGE
APRON

CONCRETE
BRIDGE
APRON

ASPHALT ROAD

ASPHALT ROAD

TOP OF
HEADWALL
EL.=32.43'
CONC FL EL.=20.89'
RT CONC GL EL.=21.35'
LT CONC GL EL.=21.29'

30" CMP PIPE OUTLET
INV EL.=23.69'

TOP OF GRATE
EL.=32.04'

30" CMP PIPE OUTLET
INV EL.=27.40'

18" PLASTIC PIPE OUTLET
INV EL.=27.61'

TOP OF HEADWALL
EL.=33.20'
24" CMP PIPE OUTLET
INV EL.=23.92'

U.S. Survey
Foot
OC Public Works
OC Survey/Field Services
Boundary Analysis & Mapping



GRAPHIC SCALE
CONTOUR INTERVAL= 1'

BOLSA CHICA CHANNEL (C02)
TOPOGRAPHIC SURVEY

LOCATION: BOLSA CHICA CHANNEL, CITY OF HUNTINGTON BEACH, CA

DATE OF SURVEY:09/15/2019	BY: R.MACIAS & PARTY
TOPOGRAPHIC MAPPING	BY: K. AHMED
OFFICE CHECK	BY: E. MEDINA, PLS
FIELD CHECK	BY: R. MACIAS, PLS
SCALE: 1" = 30'	W.O. #EF21454
FILE: BOLSA CHICA CHANNEL_TOPO_2019.DWG	

SHEET NO.
12
of
16

REVISIONS		
MARK	DATE	ITEM

LEGEND

SYMBOL

- BMK

Bench Mark
- CBXTR

Control Box-Traffic
- CBXEL

Control Box - Electrical
- CBXWA

Control Box - Water
- CBXIR

Control Box- Irrigation
- DII

Drop Inlet
- FHH

Fire Hydrant
- DGT

Gate - Double
- SGT

Gate - Single
- GRI

Grate Inlet
- LPL

Light Pole - Single
- MHHEL

Manhole - Electrical
- MHHSW

Manhole - Sewer
- MHHUN

Manhole - Undefined
- MTRWA

Meter - Water
- PBXEL

Pull Box - Electrical
- PBXTL

Pull Box - Telephone
- PPO/PPI

Pipe Outlet/Inlet
- SNN

Sign Post
- CONC

Concrete
- UPOWD

Utility Pole-Wood
- TRE

Tree
- PBXUN

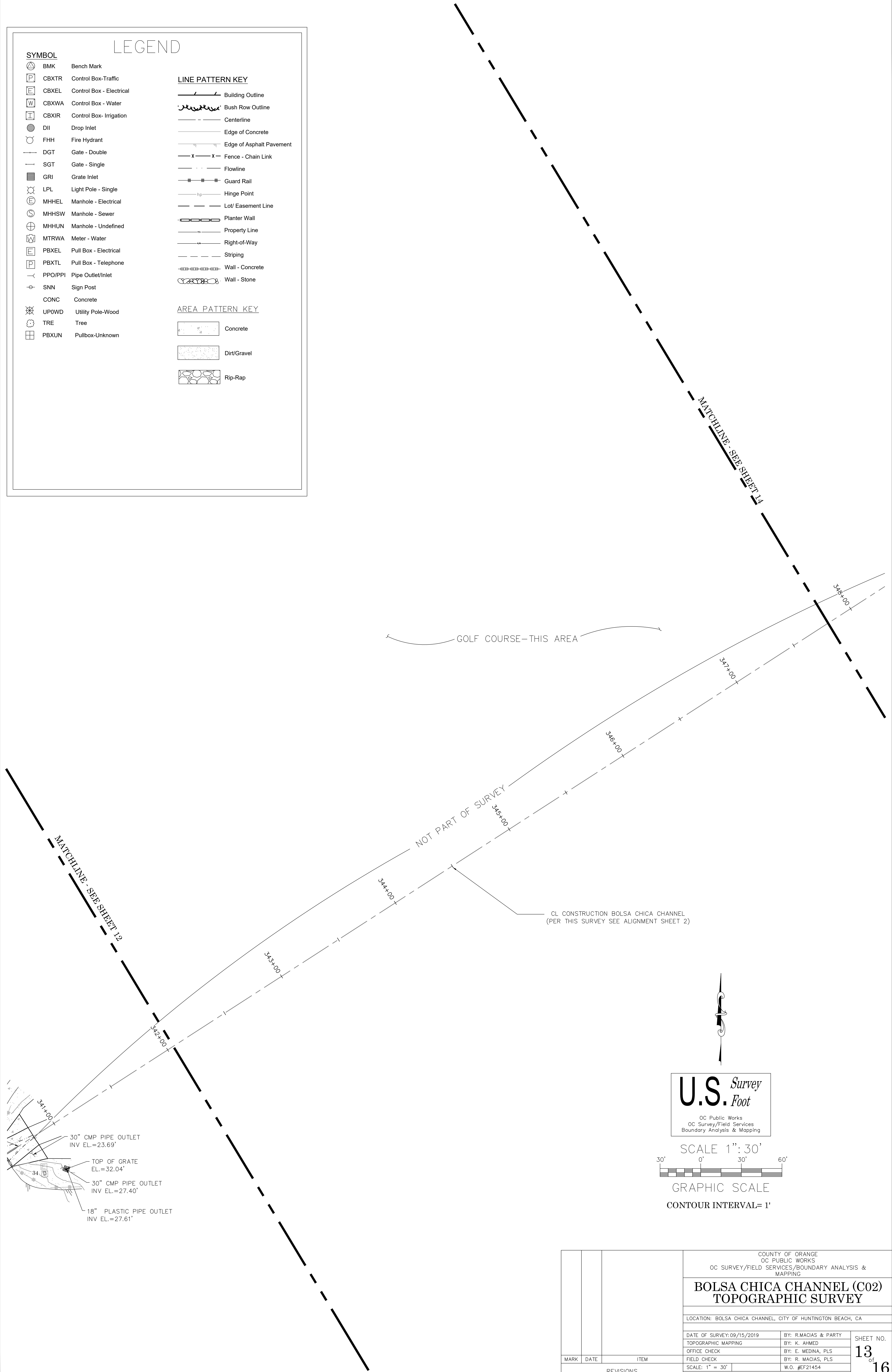
Pullbox-Unknown

LINE PATTERN KEY

-
- Building Outline
-
- Bush Row Outline
-
- Centerline
-
- Edge of Concrete
-
- Edge of Asphalt Pavement
-
- Fence - Chain Link
-
- Flowline
-
- Guard 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
OC Survey/Field Services
Boundary Analysis & Mapping



GRAPHIC SCALE

CONTOUR INTERVAL= 1'

			COUNTY OF ORANGE OC PUBLIC WORKS OC SURVEY/FIELD SERVICES/BOUNDARY ANALYSIS & MAPPING				
			BOLSA CHICA CHANNEL (C02) TOPOGRAPHIC SURVEY				
			LOCATION: BOLSA CHICA CHANNEL, CITY OF HUNTINGTON BEACH, CA				
			DATE OF SURVEY: 09/15/2019		BY: R. MACIAS & PARTY		SHEET NO. 13 of 16
			TOPOGRAPHIC MAPPING		BY: K. AHMED		
			OFFICE CHECK		BY: E. MEDINA, PLS		
			FIELD CHECK		BY: R. MACIAS, PLS		
			SCALE: 1" = 30'		W.O. #EF21454		
MARK	DATE	ITEM	FILE: BOLSA CHICA CHANNEL_TOPO_2019.DWG				
REVISIONS							

SYMBOL

LINE PATTERN KEY

	Building Outline
	Bush Row Outline
	Centerline
	Edge of Concrete
	Edge of Asphalt Pavement
	Fence - Chain Link
	Flowline
	Guard 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 BOLSA CHICA CHANNEL
(PER THIS SURVEY SEE ALIGNMENT SHEET 2 HERIN)

72 "CONC PIPE OUTLET
INV. EL.=24.11'

CONC FL EL.=23.16'
RT CONC GL EL.=23.58
LT CONC GL EL.=23.59'

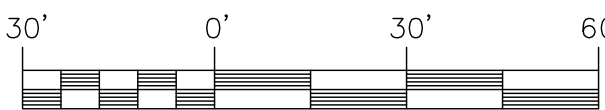
- STA=349+59.70
N=2238332.61'
E=6020084.82'

- STA 348+79.78
N=2238288.95
E=6020017.89
HELD MID POINT OF EXISTING
STRUCTURE GRADELINES AT SOUTHERLY
FACE OF CONCRETE STRUCTURE.

U.S. *Survey*
Foot

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

SCALE 1":30



GRAPHIC SCALE

CONTOUR INTERVAL= 1

			COUNTY OF ORANGE OC PUBLIC WORKS OC SURVEY/FIELD SERVICES/BOUNDARY ANALYSIS & MAPPING			
			BOLSA CHICA CHANNEL (C02) TOPOGRAPHIC SURVEY			
			LOCATION: BOLSA CHICA CHANNEL, CITY OF HUNTINGTON BEACH, CA			
MARK	DATE	ITEM	DATE OF SURVEY: 09/15/2019		BY: R.MACIAS & PARTY	SHEET NO. 14 of 16
			TOPOGRAPHIC MAPPING		BY: K. AHMED	
			OFFICE CHECK		BY: E. MEDINA, PLS	
			FIELD CHECK		BY: R. MACIAS, PLS	
			SCALE: 1" = 30'		W.O. #F21454	
REVISIONS			FILE: BOLSA CHICA_CHANNEL_TOPO_2019.DWG			

SHEET NO.
14
of
16

LEGEND

SYMBOL

- BMK

Bench Mark
- CBXTR

Control Box-Traffic
- CBXEL

Control Box - Electrical
- CBXWA

Control Box - Water
- CBXIR

Control Box- Irrigation
- DII

Drop Inlet
- FHH

Fire Hydrant
- DGT

Gate - Double
- SGT

Gate - Single
- GRI

Grate Inlet
- LPL

Light Pole - Single
- MHHEL

Manhole - Electrical
- MHHSW

Manhole - Sewer
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Manhole - Undefined
- MTRWA

Meter - Water
- PBXEL

Pull Box - Electrical
- PBXTL

Pull Box - Telephone
- PPO/PPi

Pipe Outlet/Inlet
- SNN

Sign Post
- CONC

Concrete
- UPOWD

Utility Pole-Wood
- TRE

Tree
- PBXUN

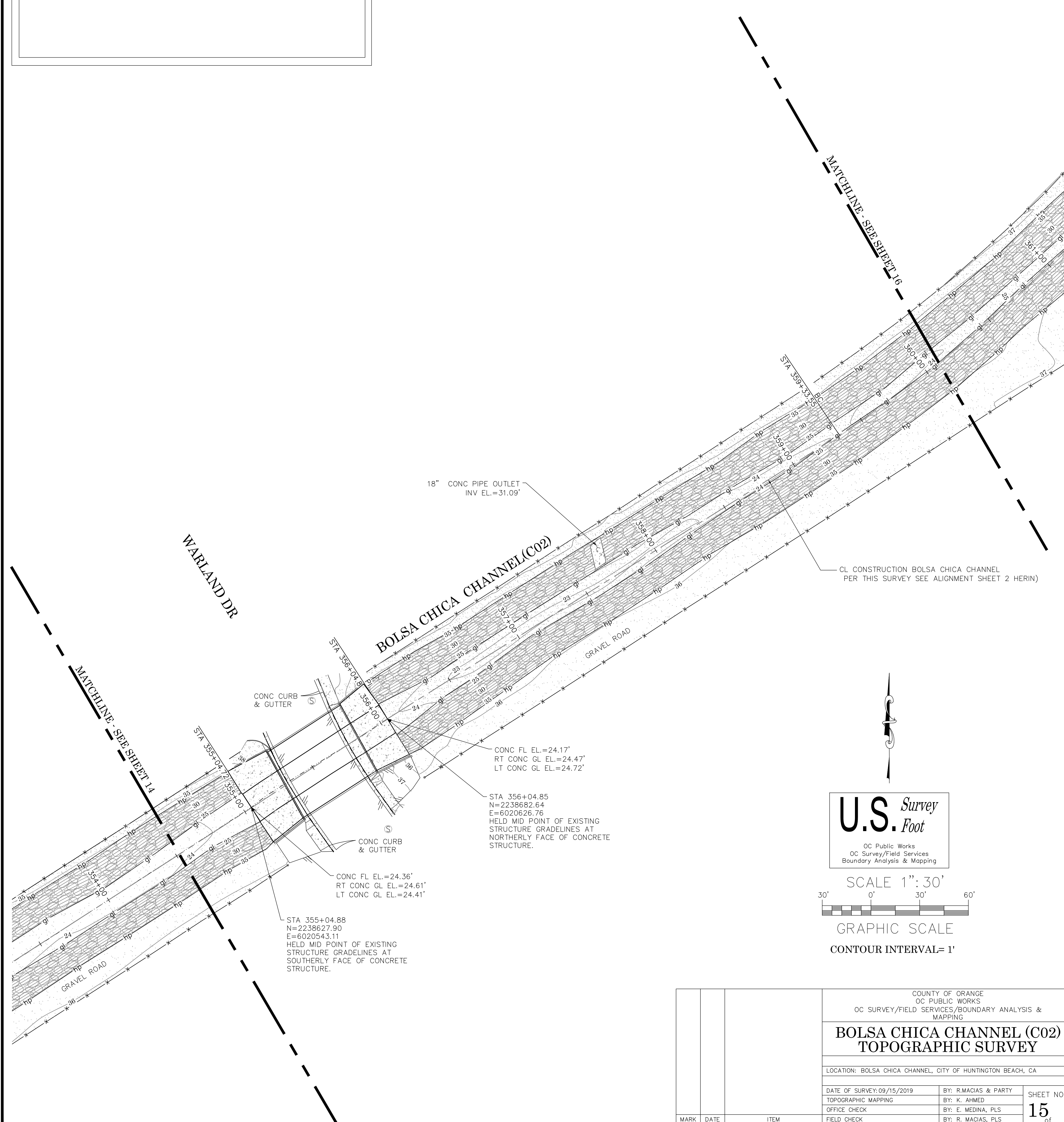
Pullbox-Unknown

LINE PATTERN KEY

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

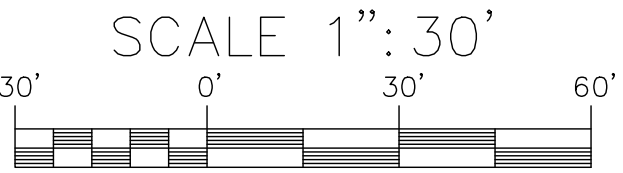
AREA PATTERN KEY

- Concrete
- Dirt/Gravel
- Rip-Rap



U.S. Survey
Foot

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



GRAPHIC SCALE

CONTOUR INTERVAL= 1'

			COUNTY OF ORANGE OC PUBLIC WORKS OC SURVEY/FIELD SERVICES/BOUNDARY ANALYSIS & MAPPING		
			BOLSA CHICA CHANNEL (C02) TOPOGRAPHIC SURVEY		
			LOCATION: BOLSA CHICA CHANNEL, CITY OF HUNTINGTON BEACH, CA		
			DATE OF SURVEY: 09/15/2019		SHEET NO. 15 of 16
			TOPOGRAPHIC MAPPING		
			OFFICE CHECK		
			FIELD CHECK		
SCALE: 1" = 30'					
MARK	DATE	ITEM	REVISIONS		FILE: BOLSA CHICA CHANNEL_TOPO_2019.DWG

LEGEND

SYMBOL

- BMK Bench Mark
- CBXTR Control Box-Traffic
- CBXEL Control Box - Electrical
- CBXWA Control Box - Water
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- MHHUN Manhole - Undefined
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LINE PATTERN KEY

- Building Outline
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- Property Line
- Right-of-Way
- Striping
- Wall - Concrete
- Wall - Stone

AREA PATTERN KEY

- Concrete
- Dirt/Gravel
- Rip-Rap

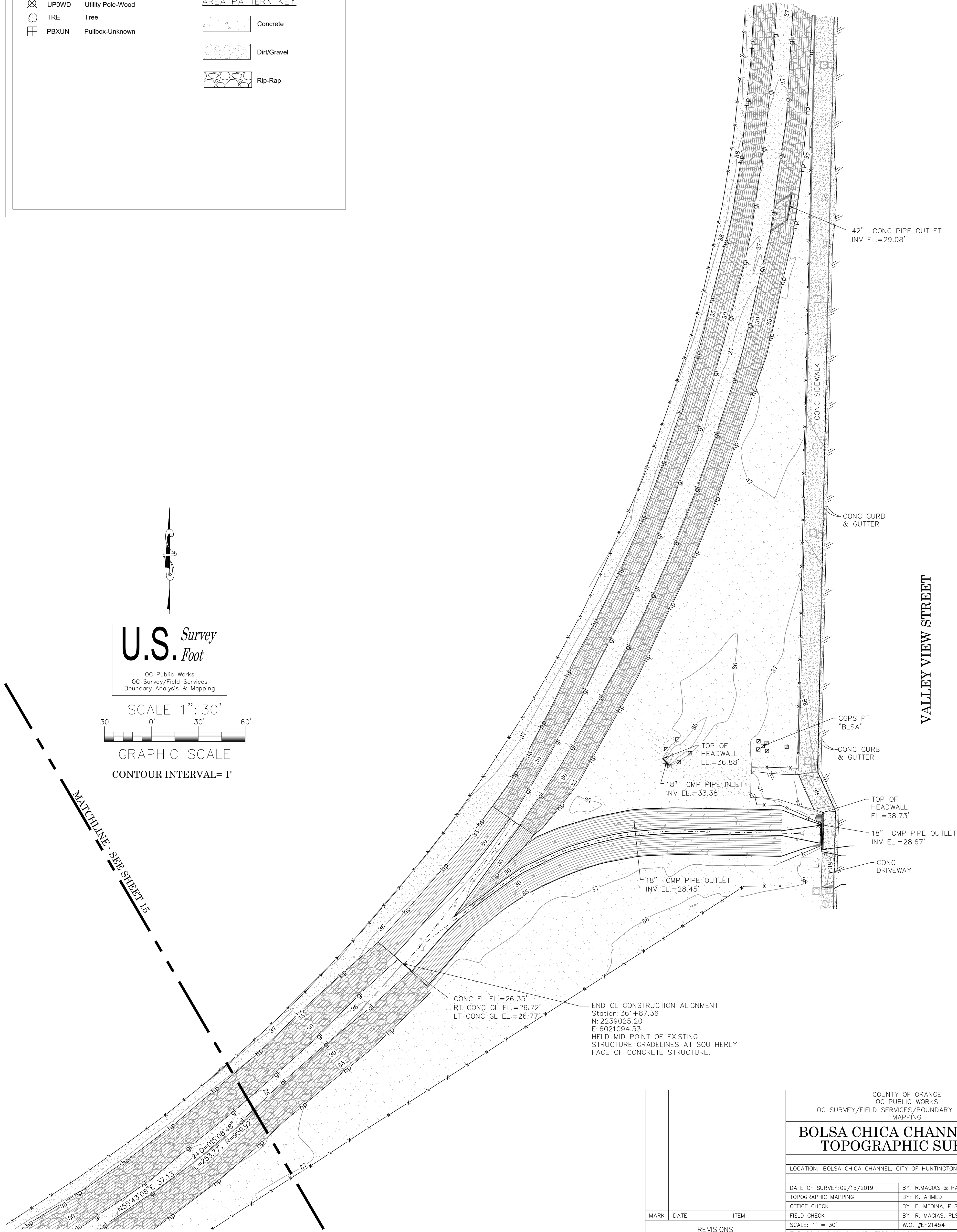
U.S. Survey Foot

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



GRAPHIC SCALE
CONTOUR INTERVAL= 1'

MATCHLINE - SEE SHEET 15



VALLEY VIEW STREET

COUNTY OF ORANGE OC PUBLIC WORKS OC SURVEY/FIELD SERVICES/BOUNDARY ANALYSIS & MAPPING			
BOLSA CHICA CHANNEL (C02) TOPOGRAPHIC SURVEY			
LOCATION: BOLSA CHICA CHANNEL, CITY OF HUNTINGTON BEACH, CA			
DATE OF SURVEY: 09/15/2019	BY: R. MACIAS & PARTY	SHEET NO. 16 of 16	
TOPOGRAPHIC MAPPING	BY: K. AHMED		
OFFICE CHECK	BY: E. MEDINA, PLS		
FIELD CHECK	BY: R. MACIAS, PLS		
SCALE: 1" = 30'	W.O. #EF21454		
REVISIONS		FILE: BOLSA CHICA CHANNEL_TOPO_2019.DWG	