OC PUBLIC WORKS DEPARTMENT

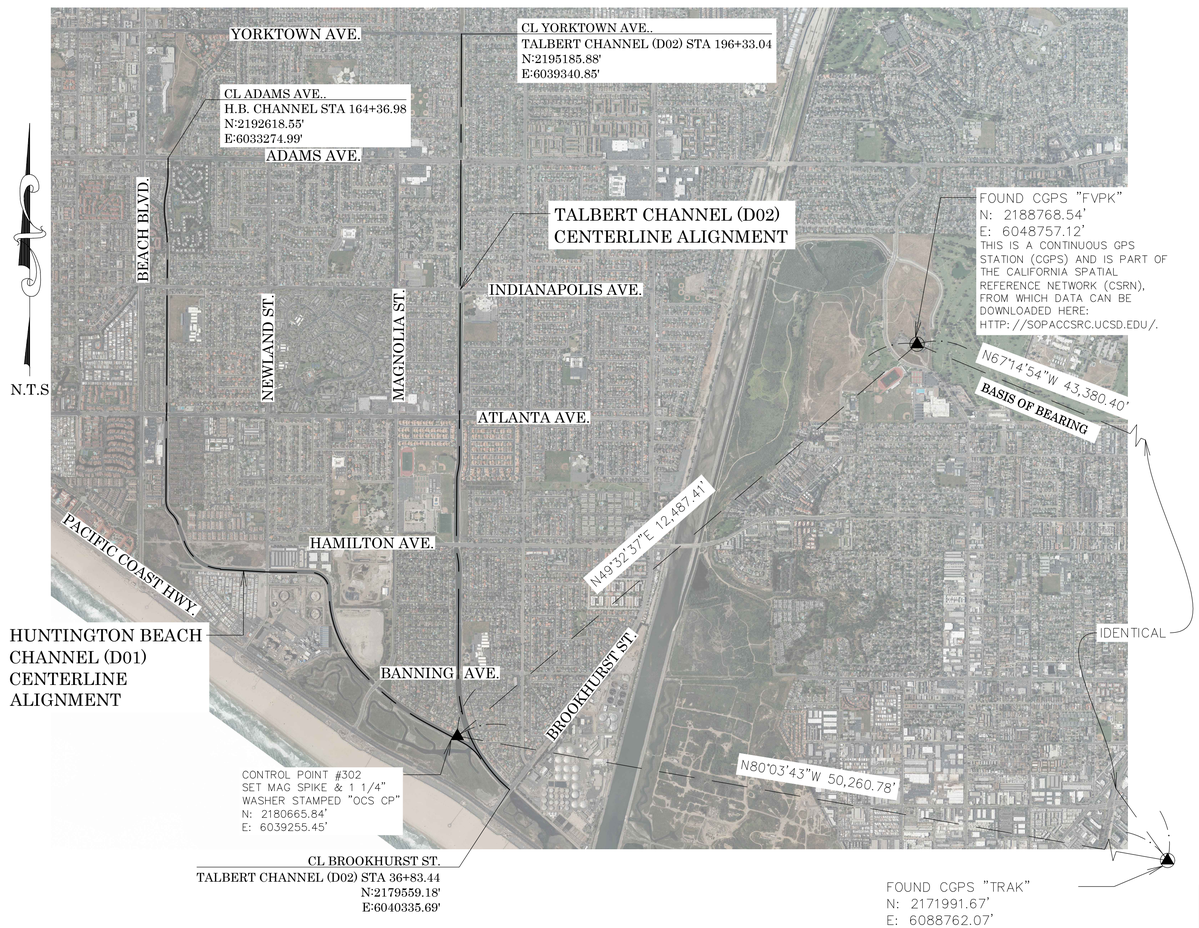
JAMES TREADAWAY, DIRECTOR OF PUBLIC WORKS

KEVIN HILLS, COUNTY SURVEYOR

HUNTINGTON BEACH (D01) AND TALBERT (D02) CHANNEL

CHANNEL MAINTENANCE

LOCATION MAP



BASIS OF BEARINGS

THE BASIS OF BEARINGS FOR THIS SURVEY IS BASED ON THE CALIFORNIA COORDINATE SYSTEM (CCS83), ZONE VI, NAD 83, OCS (2007.0) EPOCH ADJUSTMENT, AS DETERMINED LOCALLY BY A LINE BETWEEN CONTINUOUS GLOBAL POSITIONING STATIONS CGPS STATIONS (FVPK) AND (TRAK) BEING NORTH 67°14'54" WEST AS DERIVED FROM THE COORDINATES PUBLISHED BY THE CALIFORNIA SPATIAL REFERENCE CENTER (CSRC) ALONG WITH DATA SHEETS ON FILE IN THE OFFICE OF THE ORANGE COUNTY SURVEYOR.

HORIZONTAL DATUM

COORDINATES SHOWN ARE BASED ON THE CALIFORNIA COORDINATE SYSTEM (CCS83), ZONE VI, NAD 83, OCS (2007.0) EPOCH ADJUSTMENT.

ALL DISTANCES SHOWN ARE GRID, UNLESS OTHERWISE NOTED. TO OBTAIN GROUND DISTANCES MULTIPLY GRID BY A COMBINED FACTOR OF 1.00002697.

THIS COMBINATION FACTOR HEREON WAS DERIVED FROM POINT #302
N: 2180665.84' E: 6039255.45' EL: 9.93'

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

VERTICAL DATUM

O.C.S. BM. HB-196-71 ELEV. = 5.460' YEAR LEVELED: 2005

NAVD 1988 (O.C.S. 1995 ADJUSTMENT)

DESCRIPTION: FOUND 3 3\4" OCS ALUMINUM BENCHMARK DISK STAMPED "HB-196-71", SET IN THE NORTHEAST CORNER OF A 3 FT. BY 5 FT. CONCRETE CATCH BASIN. MONUMENT IS LOCATED IN THE SOUTHEAST CORNER OF THE INTERSECTION OF BEACH BOULEVARD AND ATLANTA AVENUE, 250 FT. EASTERLY OF THE CENTERLINE OF BEACH BOULEVARD AND 42.5 FT. SOUTHERLY OF THE CENTERLINE OF ATLANTA AVENUE. MONUMENT IS SET LEVEL WITH THE SIDEWALK.

NOTES

THE SURVEY INFORMATION SHOWN HEREON IS TO BE USED FOR TOPOGRAPHIC RELATIONSHIPS ONLY AND IS NOT INTENDED FOR LAND ACQUISITION OR BOUNDARY PURPOSES.
PARCELS SHOWN WITHOUT BEARING AND DISTANCES ARE FOR GRAPHICAL PURPOSES ONLY.

SHEET INDEX

PURPOSE OF SURVEY

THE PURPOSE OF THE SURVEY IS TO PROVIDE TOPOGRAPHIC MAP AND RIGHT OF WAY ESTABLISHMENT FOR CHANNEL MAINTENANCE.

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 JANUARY, 2022.

ELLIOTT MEDINA, PLS. SENIOR LAND SURVEYOR

LICENSED LAND SURVEYOR ELLIOTT MEDINA No. 9294 STATE OF CALIFORNIA

DEPUTY COUNTY SURVEYOR'S STATEMENT:

THIS MAP HAS BEEN EXAMINED IN ACCORDANCE WITH THE PROFESSIONAL LAND SURVEYOR'S ACT; 19TH DAY OF JANUARY, 2022.

WADE WEAVER, PLS. DEPUTY COUNTY SURVEYOR

LICENSED LAND SURVEYOR WADE D. WEAVER No. 4337 STATE OF CALIFORNIA

U.S. Survey Foot

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

TOPOGRAPHIC MAPPING PROJECT

MARK	DATE	ITEM
REVISIONS		

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

H.B. & TALBERT CHANNEL
CHANNEL MAINTENANCE

TITLE SHEET

PROJECT LIMITS: H.B. CHANNEL (D01) FROM BROOKHURST ST. TO ADAMS AVE.
TALBERT CHANNEL (D02) FROM BROOKHURST ST. TO YORKTOWN AVE.

DATE OF SURVEY: 12/11/2019		BY: R.MACIAS, PLS & CREW
MAPPING		BY: A.VU
OFFICE CHECK		BY: E. MEDINA, PLS
FIELD CHECK		BY: R.MACIAS, PLS
SCALE: N.T.S.	W.O. #EF19401S	FILE #1920PW-IN0009
FILE: HB CHANNEL PHASE 1_TOPO_2019.DWG		

SHEET NO. 1 of 63

MONUMENT NOTES

1000 FOUND A GEAR SPIKE & WASHER STAMPED "CITY OF H.B." FLUSH IN AC, ACCEPTED AS THE COMMON 1/4 CORNER OF SECTION 12/6/11 AND SECTION 7/6/10.

1001 FOUND 2" IRON PIPE & TAG STAMPED "RCE 12589", DOWN 0.6' IN WELL, ACCEPTED AS THE COMMON 1/4 CORNER, SECTION 24/6/11 AND SECTION 19/6/10.

1003 FOUND PUNCHED SPIKE & WASHER STAMPED "PLS 7914" PER (R1) AND (R2), FLUSH, 0.05' SOUTH OF CENTERLINE OF YORKTOWN AVE.

1330 FOUND MAG NAIL & BRASS WASHER STAMPED "CITY H.B." PER (R3), FLUSH, 0.03' SOUTH OF CENTERLINE OF INDIANAPOLIS AVE.

1637 FOUND MAG NAIL & 2" BRASS WASHER STAMPED "CITY OF H.B." PER (R4), FLUSH ACCEPTED AS POINT ON CENTERLINE OF TALBERT CHANNEL.

1772 FOUND 3 3/4" PUNCHED ALUMINUM DISK STAMPED "CALIFORNIA DEPARTMENT OF TRANSPORTATION" PER (R5), 0.9' DOWN IN WELL.

1775 FOUND MAG NAIL & BRASS WASHER STAMPED "LS 5411" PER (R6), FLUSH, ACCEPTED AS POINT ON CENTERLINE OF BUSHARD ST.

1777 FOUND GEAR SPIKE & BRASS WASHER STAMPED "PLS 6965" PER (R7), FLUSH, ACCEPTED AS POINT ON CENTERLINE OF NEWLAND ST.

1780 FOUND SHANK IN LIEU OF SPIKE AND WASHER PER (R8), DOWN 0.1', ACCEPTED AS POINT ON CENTERLINE OF MAGNOLIA.

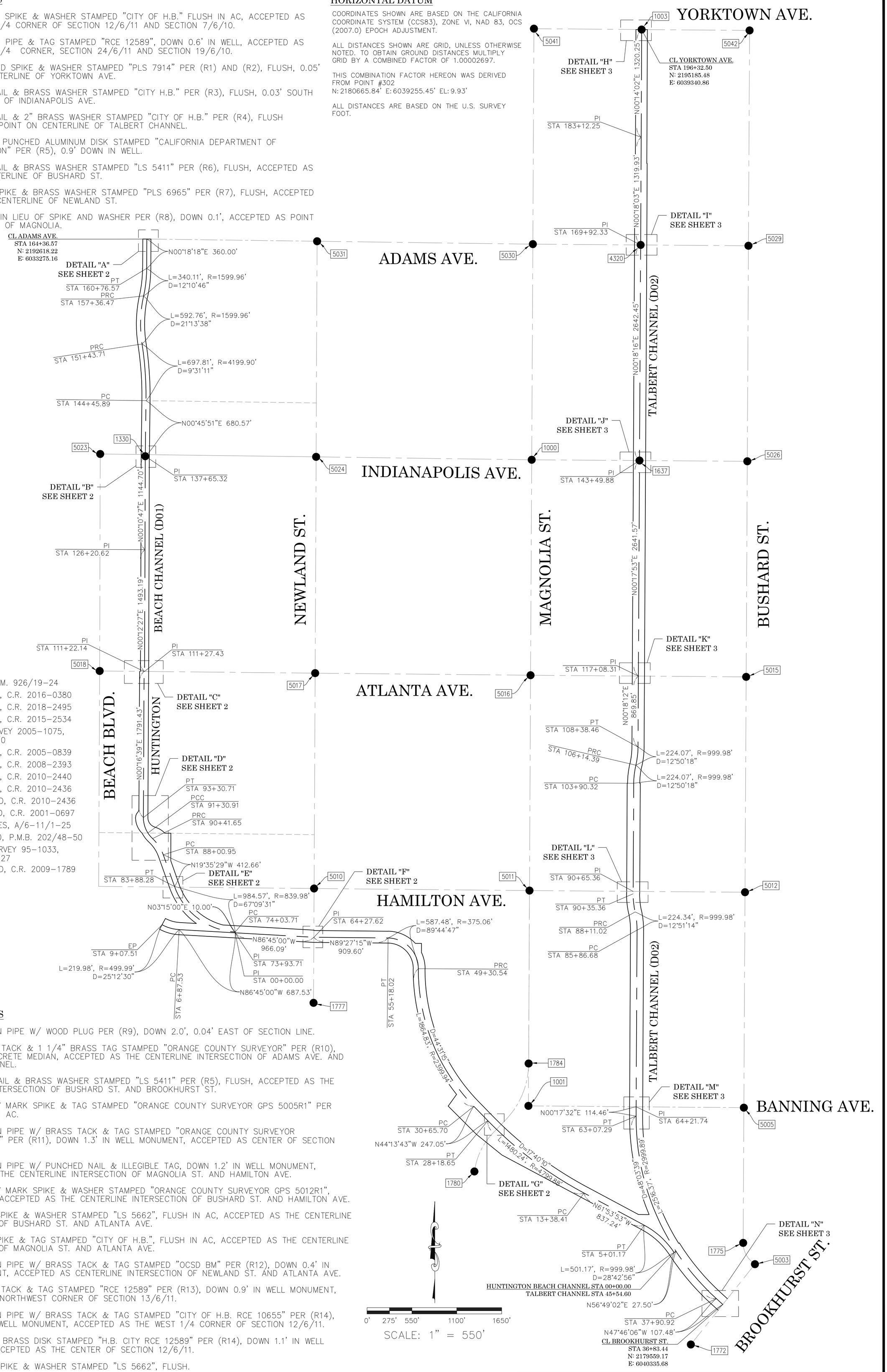
HORIZONTAL DATUM

COORDINATES SHOWN ARE BASED ON THE CALIFORNIA COORDINATE SYSTEM (CCS83), ZONE VI, NAD 83, OCS (2007.0) EPOCH ADJUSTMENT.

ALL DISTANCES SHOWN ARE GRID, UNLESS OTHERWISE NOTED. TO OBTAIN GROUND DISTANCES MULTIPLY GRID BY A COMBINED FACTOR OF 1.00002697.

THIS COMBINATION FACTOR HEREON WAS DERIVED FROM POINT #302
N: 2180665.84' E: 6039255.45' EL: 9.93'

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



LEGEND

● MONUMENT AS NOTED

REFERENCES

(R1) = TRACT 17239, M.M. 926/19-24
(R2) = CORNER RECORD, C.R. 2016-0380
(R3) = CORNER RECORD, C.R. 2018-2495
(R4) = CORNER RECORD, C.R. 2015-2534
(R5) = RECORD OF SURVEY 2005-1075, R.S.B. 232/1-10
(R6) = CORNER RECORD, C.R. 2005-0839
(R7) = CORNER RECORD, C.R. 2008-2393
(R8) = CORNER RECORD, C.R. 2010-2440
(R9) = CORNER RECORD, C.R. 2010-2436
(R10) = CORNER RECORD, C.R. 2010-2436
(R11) = CORNER RECORD, C.R. 2001-0697
(R12) = ALIGNMENT NOTES, A/6-11/1-25
(R13) = PARCEL 84-590, P.M.B. 202/48-50
(R14) = RECORD OF SURVEY 95-1033, R.S.B. 153/25-27
(R15) = CORNER RECORD, C.R. 2009-1789

MONUMENT NOTES

1784 FOUND 2" IRON PIPE W/ WOOD PLUG PER (R9), DOWN 2.0', 0.04' EAST OF SECTION LINE.

4320 FOUND BRASS TACK & 1 1/4" BRASS TAG STAMPED "ORANGE COUNTY SURVEYOR" PER (R10), FLUSH IN CONCRETE MEDIAN, ACCEPTED AS THE CENTERLINE INTERSECTION OF ADAMS AVE. AND TALBERT CHANNEL.

5003 FOUND MAG NAIL & BRASS WASHER STAMPED "LS 5411" PER (R5), FLUSH, ACCEPTED AS THE CENTERLINE INTERSECTION OF BUSHARD ST. AND BROOKHURST ST.

5005 FOUND SURVEY MARK SPIKE & TAG STAMPED "ORANGE COUNTY SURVEYOR GPS 5005R1" PER (R5), FLUSH IN AC.

5010 FOUND 2" IRON PIPE W/ BRASS TACK & TAG STAMPED "ORANGE COUNTY SURVEYOR 03-01-5010R1" PER (R11), DOWN 1.3' IN WELL MONUMENT, ACCEPTED AS CENTER OF SECTION 13/6/11.

5011 FOUND 2" IRON PIPE W/ PUNCHED NAIL & ILLEGIBLE TAG, DOWN 1.2' IN WELL MONUMENT, ACCEPTED AS THE CENTERLINE INTERSECTION OF MAGNOLIA ST. AND HAMILTON AVE.

5012 FOUND SURVEY MARK SPIKE & WASHER STAMPED "ORANGE COUNTY SURVEYOR GPS 5012R1", FLUSH IN AC, ACCEPTED AS THE CENTERLINE INTERSECTION OF BUSHARD ST. AND HAMILTON AVE.

5015 FOUND GEAR SPIKE & WASHER STAMPED "LS 5662", FLUSH IN AC, ACCEPTED AS THE CENTERLINE INTERSECTION OF BUSHARD ST. AND ATLANTA AVE.

5016 FOUND MAG SPIKE & TAG STAMPED "CITY OF H.B.", FLUSH IN AC, ACCEPTED AS THE CENTERLINE INTERSECTION OF MAGNOLIA ST. AND ATLANTA AVE.

5017 FOUND 2" IRON PIPE W/ BRASS TACK & TAG STAMPED "OCSD BM" PER (R12), DOWN 0.4' IN WELL MONUMENT, ACCEPTED AS CENTERLINE INTERSECTION OF NEWLAND ST. AND ATLANTA AVE.

5018 FOUND BRASS TACK & TAG STAMPED "RCE 12589" PER (R13), DOWN 0.9' IN WELL MONUMENT, ACCEPTED AS NORTHWEST CORNER OF SECTION 13/6/11.

5023 FOUND 2" IRON PIPE W/ BRASS TACK & TAG STAMPED "CITY OF H.B. RCE 10655" PER (R14), DOWN 0.8' IN WELL MONUMENT, ACCEPTED AS THE WEST 1/4 CORNER OF SECTION 12/6/11.

5024 FOUND 2 1/2" BRASS DISK STAMPED "H.B. CITY RCE 12589" PER (R14), DOWN 1.1' IN WELL MONUMENT, ACCEPTED AS THE CENTER OF SECTION 12/6/11.

5026 FOUND GEAR SPIKE & WASHER STAMPED "LS 5662", FLUSH.

5029 FOUND GEAR SPIKE & WASHER STAMPED "LS 6970" PER (R15), FLUSH IN AC.

5030 FOUND 2" IRON PIPE & BRASS TAG STAMPED "CITY OF H.B. RCE 10655", DOWN 1.25' IN WELL MONUMENT, ACCEPTED AS CENTERLINE INTERSECTION OF MAGNOLIA ST. AND ADAMS AVE.

5031 FOUND 1 1/2" IRON PIPE W/ BRASS TACK & TAG STAMPED "CITY OF H.B. RCE 10655", DOWN 1.0' IN WELL MONUMENT.

5041 FOUND 2" IRON PIPE & BRASS TAG STAMPED "CITY OF H.B. RCE 10655", DOWN 1.2' IN WELL MONUMENT, ACCEPTED AS THE COMMON 1/4 CORNER OF SECTION 6/6/10 AND SECTION 1/6/11.

5042 FOUND GEAR SPIKE & WASHER STAMPED "LS 5662" PER (R16), FLUSH, ACCEPTED AS THE CENTER OF SECTION 6/6/10.

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

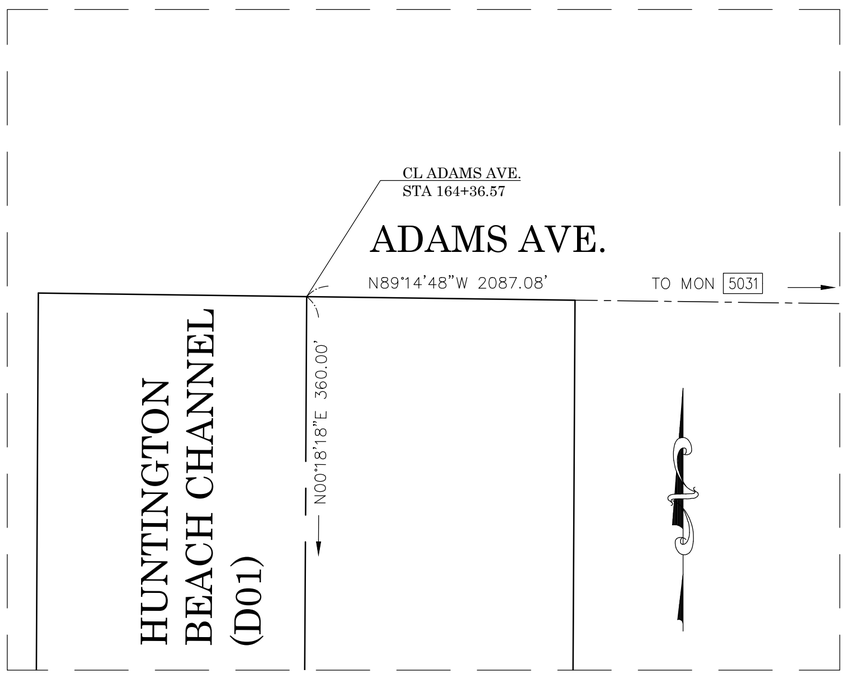
MARK	DATE	ITEM
REVISIONS		

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

H.B. & TALBERT CHANNEL
ALIGNMENT

ALIGNMENT
PROJECT LIMITS: H.B. CHANNEL (D01) FROM BROOKHURST ST. TO ADAMS AVE.
TALBERT CHANNEL (D02) FROM BROOKHURST ST. TO YORKTOWN AVE.

DATE OF SURVEY: 04/08/2020		BY: J.F.A. & ASSOCIATES
MAPPING		BY: A. VU
OFFICE CHECK		BY: E. MEDINA, PLS
FIELD CHECK		BY: J.F.A. & ASSOCIATES
SCALE: 1" = 20'	W.O. #EF19401S	FILE #1920PW-IN0009
FILE: HUNTINGTON BEACH CHANNEL_ALGN_2020.DWG		



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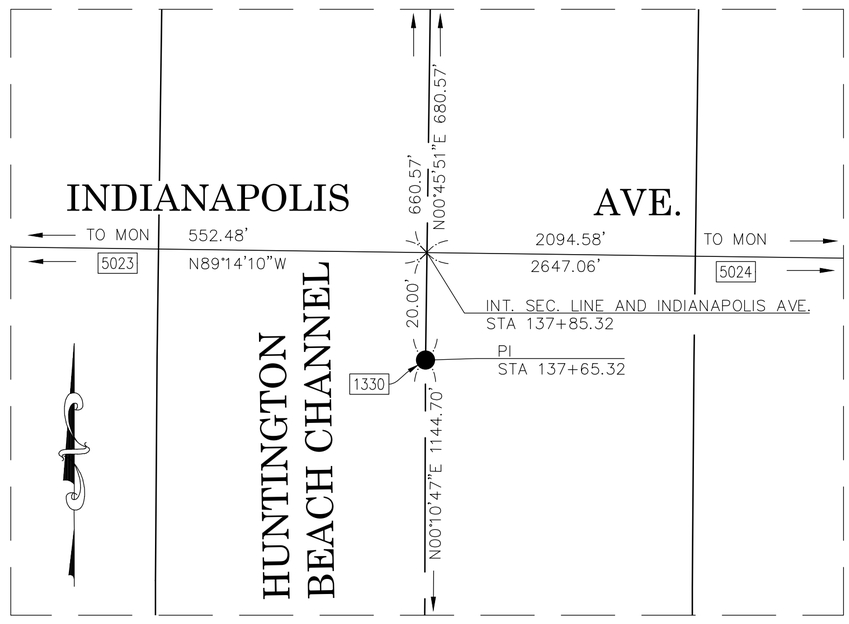

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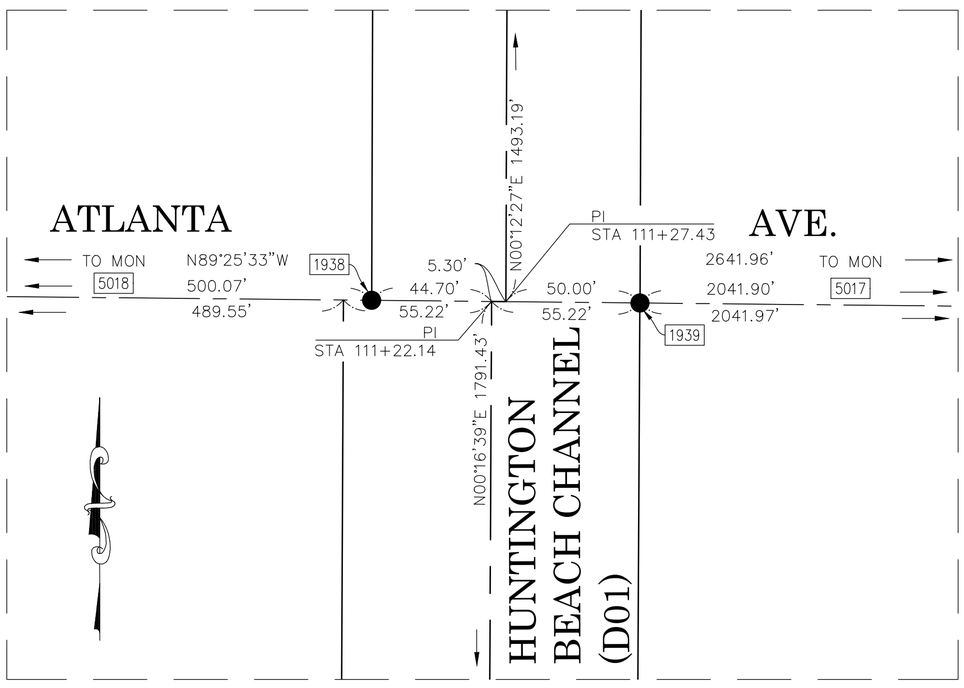

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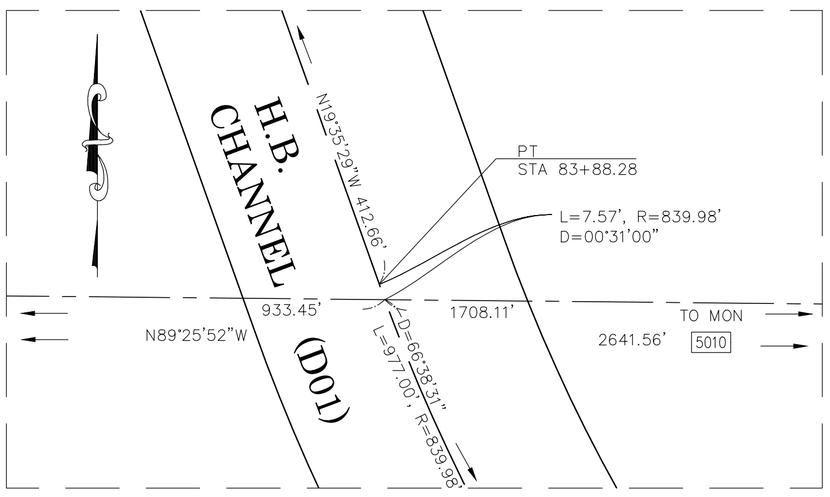

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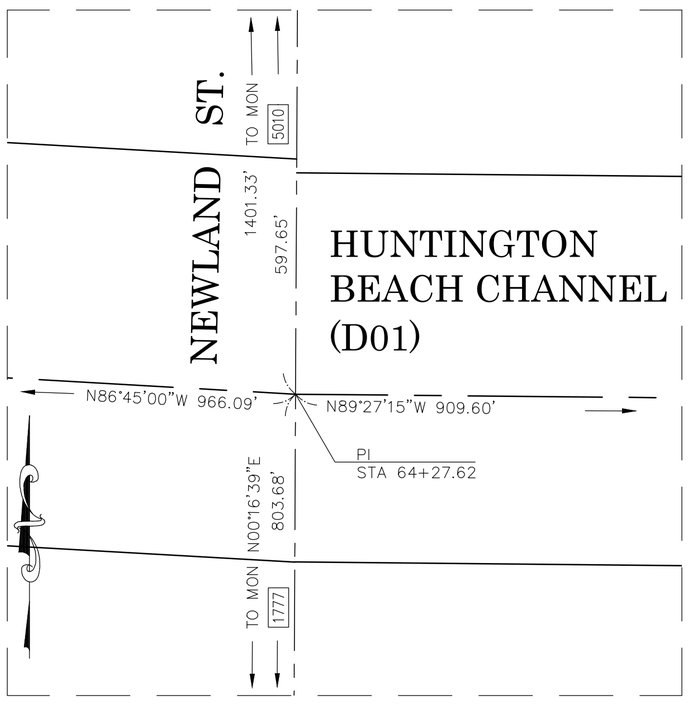

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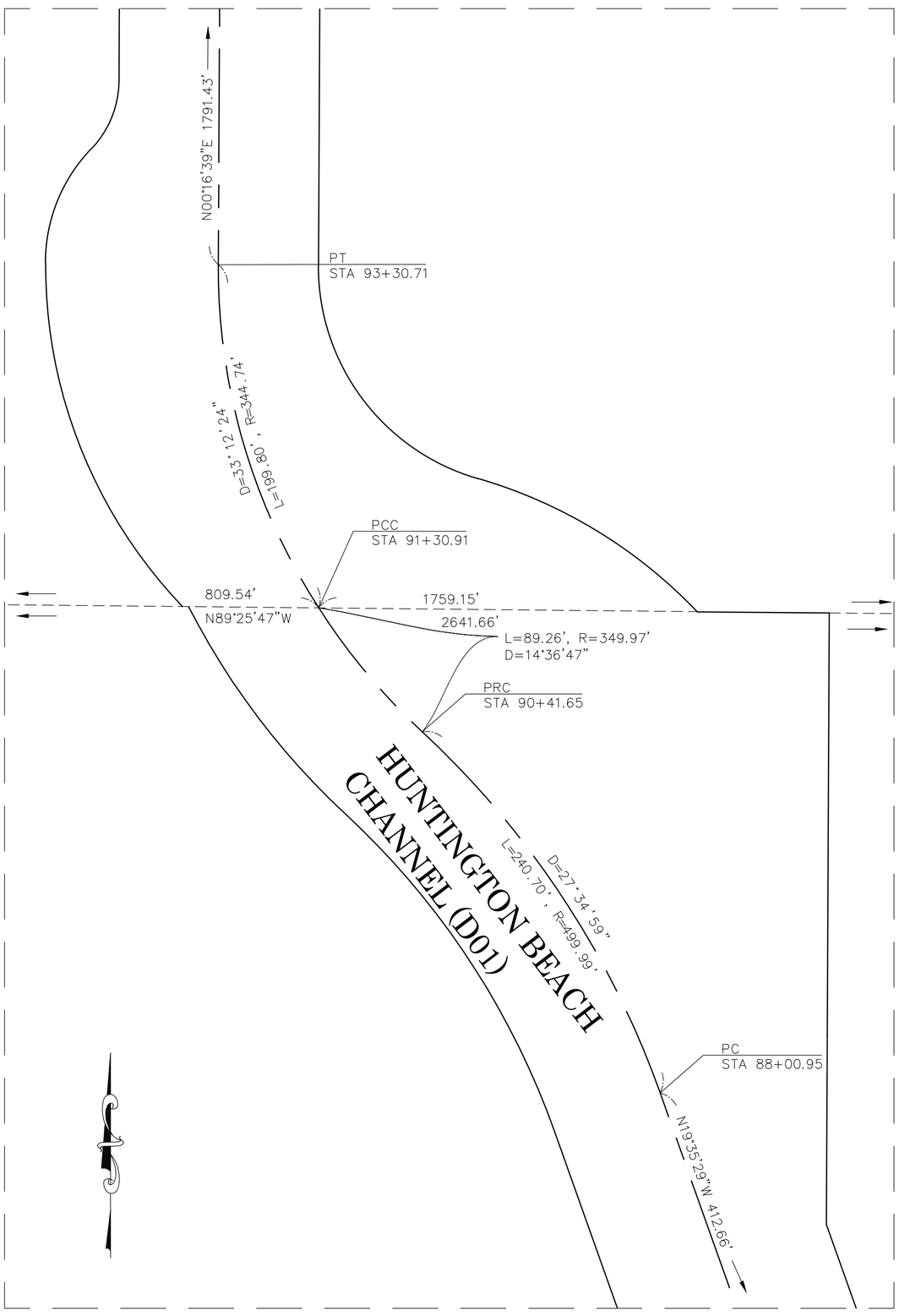

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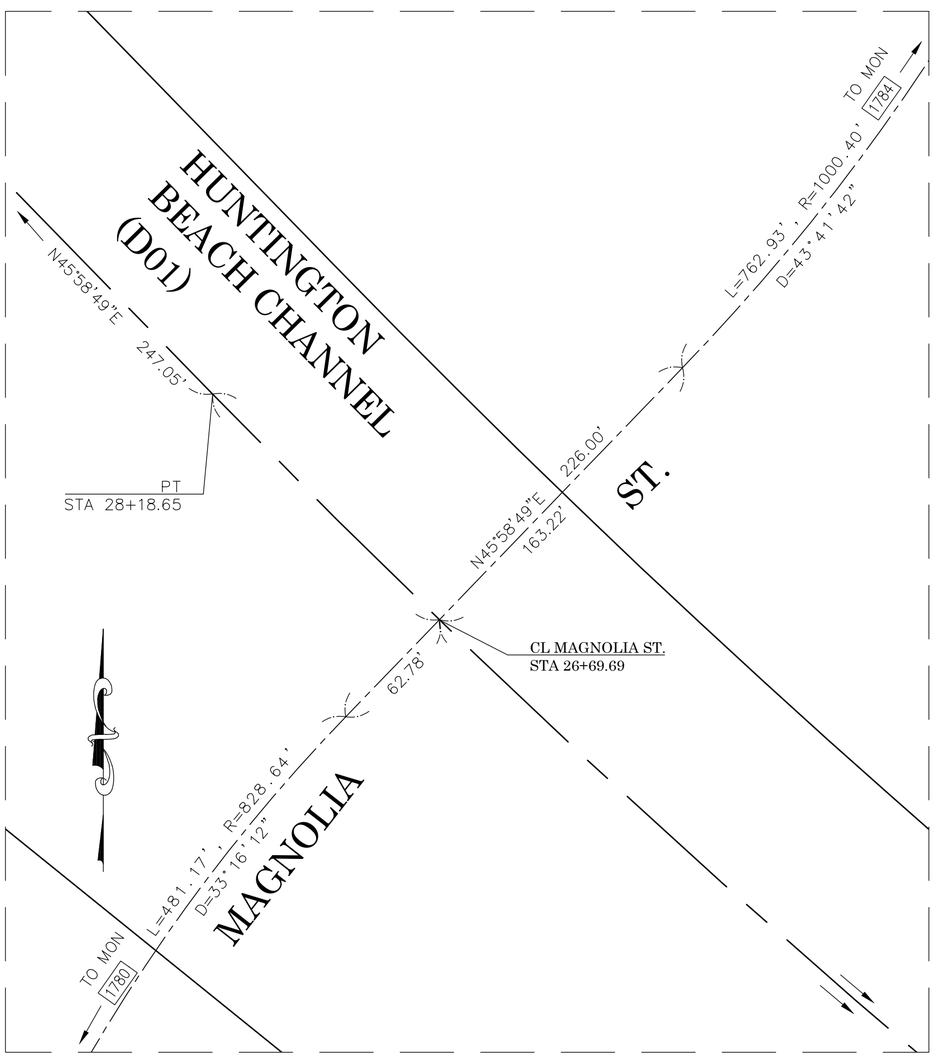


DETAIL "G"
SCALE:1"=50'

U.S. Survey Foot

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

MARK	DATE	ITEM
REVISIONS		

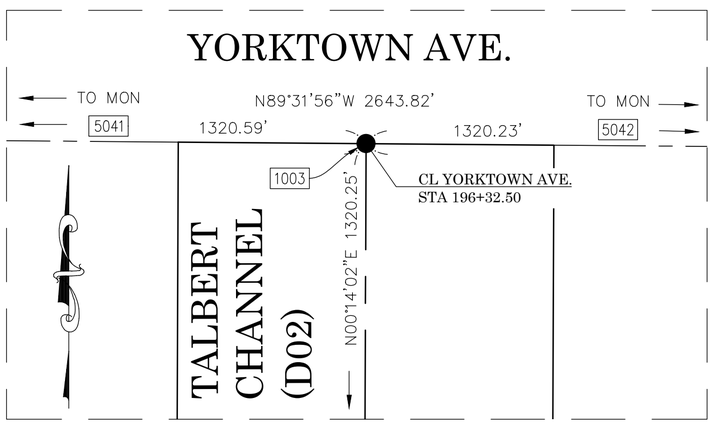
COUNTY OF ORANGE
OC PUBLIC WORKS/ENGINEERING SERVICES
OC SURVEY/FIELD SERVICES/BOUNDARY ANALYSIS & MAPPING

H.B. & TALBERT CHANNEL
ALIGNMENT DETAILS

ALIGNMENT

PROJECT LIMITS: H.B. CHANNEL (D01) FROM BROOKHURST ST. TO ADAMS AVE.
TALBERT CHANNEL (D02) FROM BROOKHURST ST. TO YORKTOWN AVE.

DATE OF SURVEY: 04/08/2020	BY: J.F.A. & ASSOCIATES	SHEET NO.
MAPPING	BY: A. VU	3
OFFICE CHECK	BY: E. MEDINA, PLS	of
FIELD CHECK	BY: J.F.A. & ASSOCIATES	63
SCALE: 1" = 20' W.O. #EF19401S	FILE #1920PW-IN0009	
FILE: HUNTINGTON BEACH CHANNEL_ALGN_2020.DWG		



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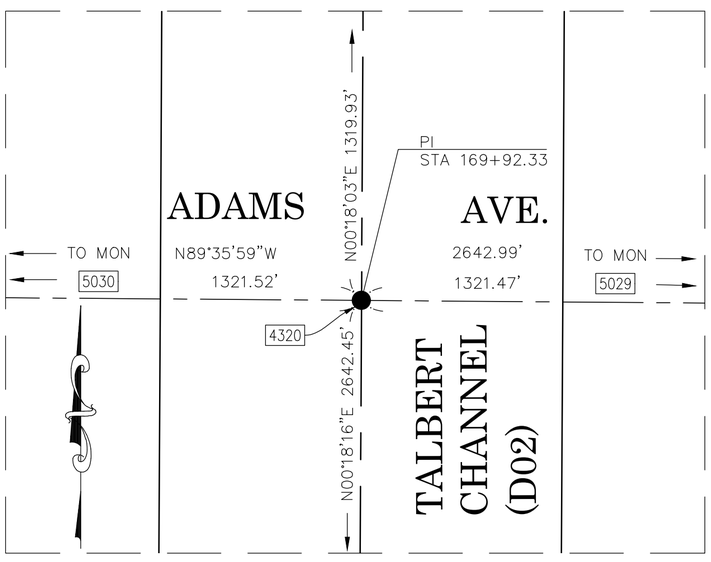

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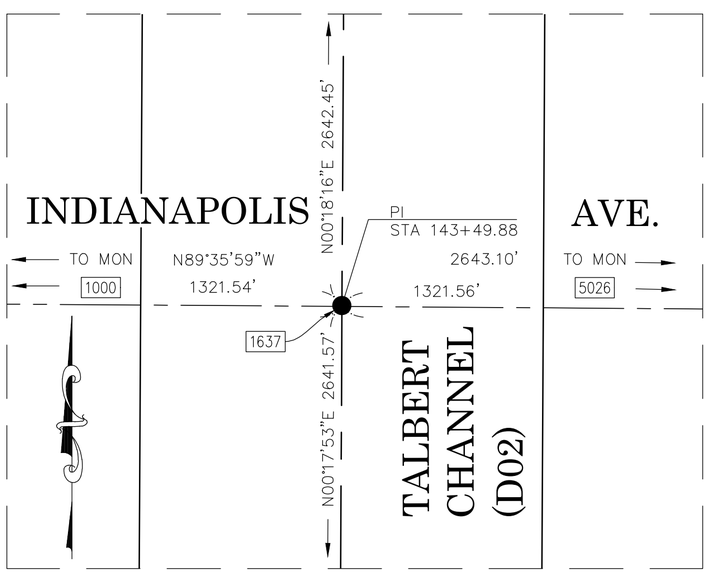

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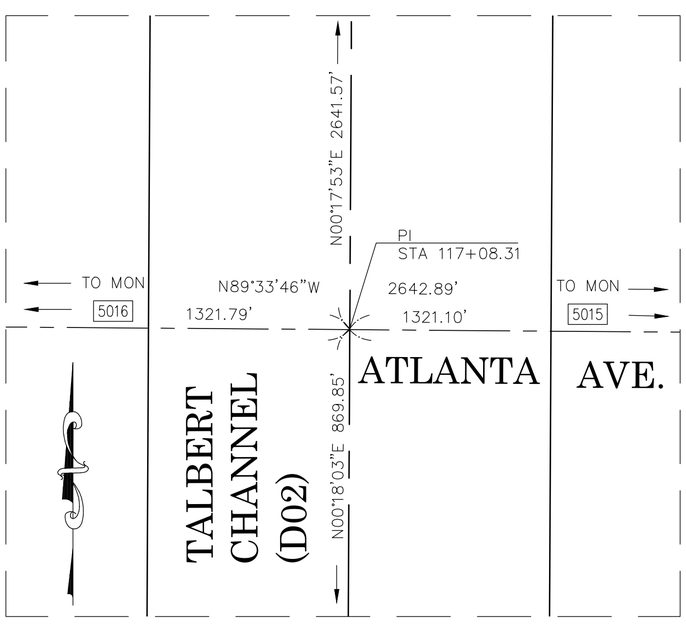

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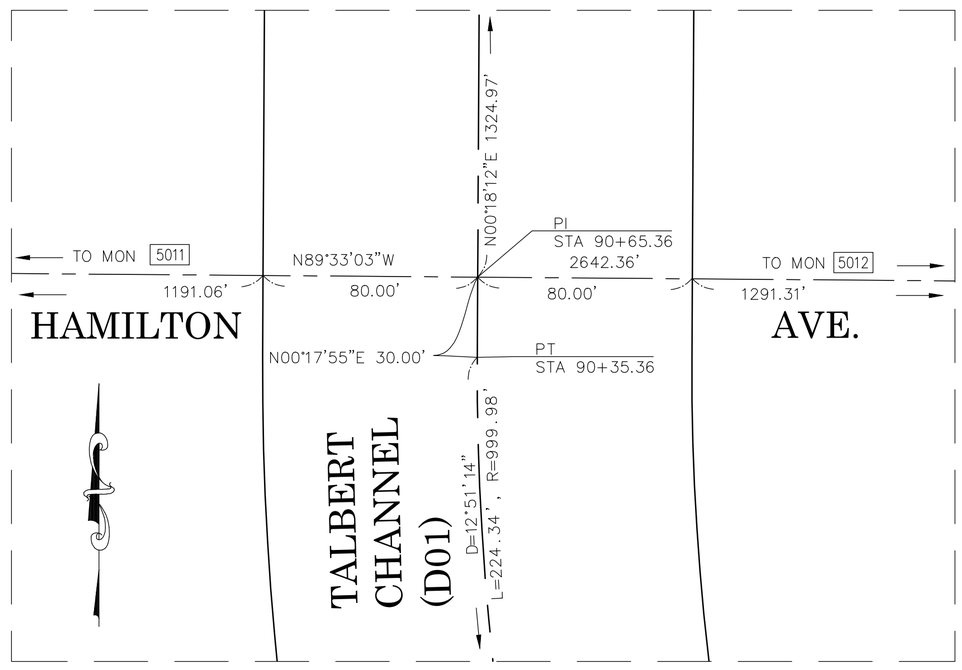

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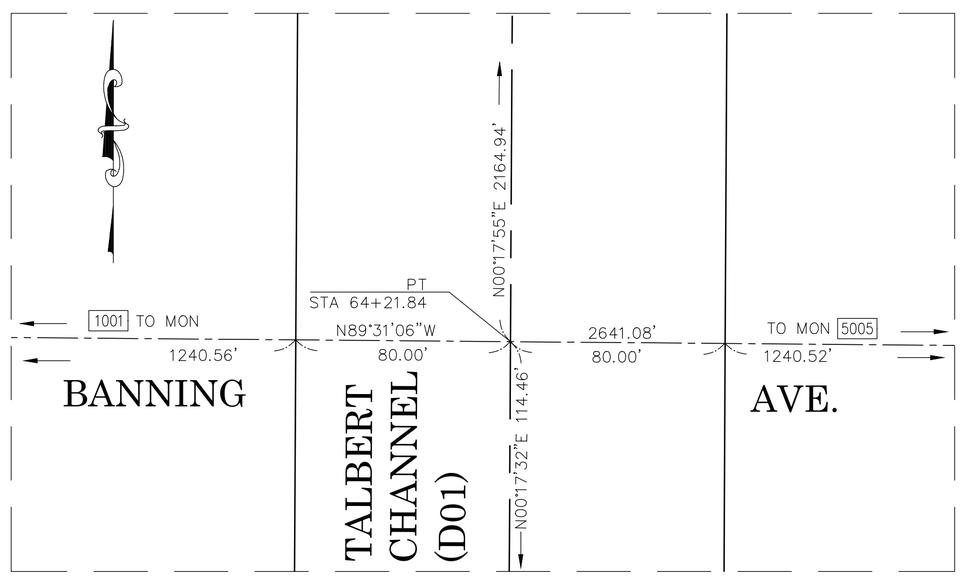

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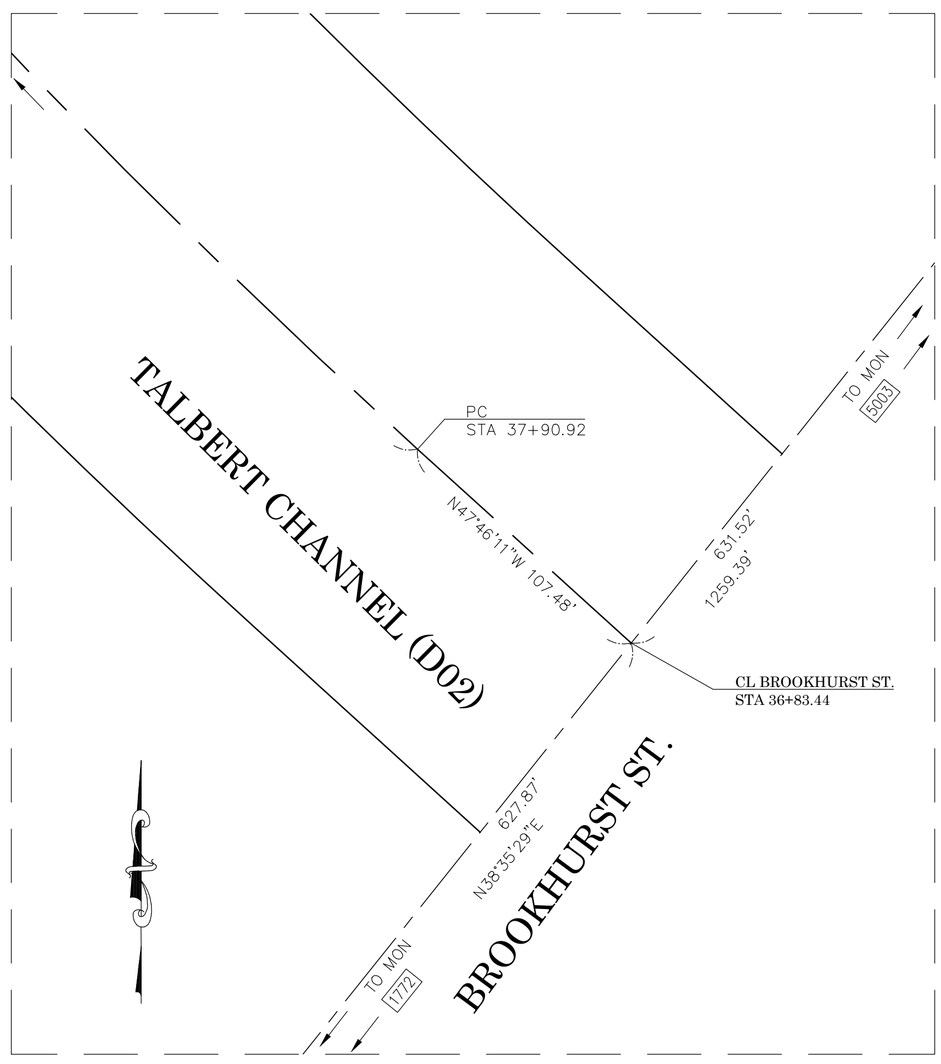


DETAIL "N"
SCALE:1"=40'

U.S. Survey Foot

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

MARK	DATE	ITEM
REVISIONS		

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

H.B. & TALBERT CHANNEL
ALIGNMENT DETAILS

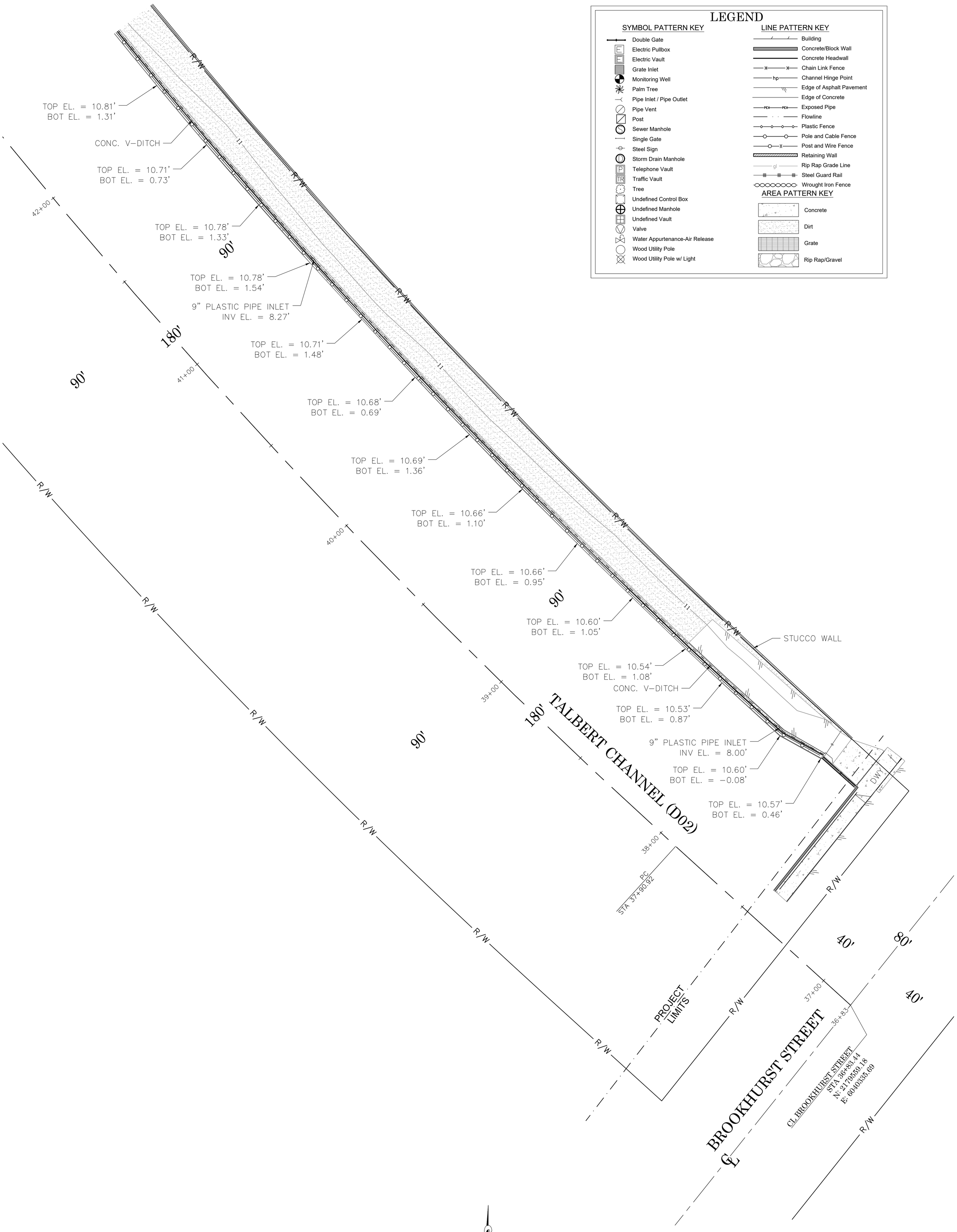
ALIGNMENT

PROJECT LIMITS: H.B. CHANNEL (D01) FROM BROOKHURST ST. TO ADAMS AVE.
TALBERT CHANNEL (D02) FROM BROOKHURST ST. TO YORKTOWN AVE.

DATE OF SURVEY: 04/08/2020		BY: J.F.A. & ASSOCIATES
MAPPING		BY: A. VU
OFFICE CHECK		BY: E. MEDINA, PLS
FIELD CHECK		BY: J.F.A. & ASSOCIATES
SCALE: 1" = 20'	W.O. #EF19401S	FILE #1920PW-IN0009
FILE: HUNTINGTON BEACH CHANNEL_ALGN_2020.DWG		

SHEET NO. 4 of 63

SEE SHEET 6



LEGEND

SYMBOL PATTERN KEY

- Double Gate
- Electric Pullbox
- Electric Vault
- Grate Inlet
- Monitoring Well
- Palm Tree
- Pipe Inlet / Pipe Outlet
- Pipe Vent
- Post
- Sewer Manhole
- Single Gate
- Steel Sign
- Storm Drain Manhole
- Telephone Vault
- Traffic Vault
- Tree
- Undefined Control Box
- Undefined Manhole
- Undefined Vault
- Valve
- Water Appurtenance-Air Release
- Wood Utility Pole
- Wood Utility Pole w/ Light

LINE PATTERN KEY

- Building
- Concrete/Block Wall
- Concrete Headwall
- Chain Link Fence
- Channel Hinge Point
- Edge of Asphalt Pavement
- Edge of Concrete
- Exposed Pipe
- Flowline
- Plastic Fence
- Pole and Cable Fence
- Post and Wire Fence
- Retaining Wall
- Rip Rap Grade Line
- Steel Guard Rail
- Wrought Iron Fence

AREA PATTERN KEY

- Concrete
- Dirt
- Grate
- Rip Rap/Gravel

U.S. Survey Foot

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

0' 10' 20' 40' 60'

SCALE: 1" = 20'
CONTOUR INTERVAL: 1'

MARK	DATE	ITEM
REVISIONS		

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

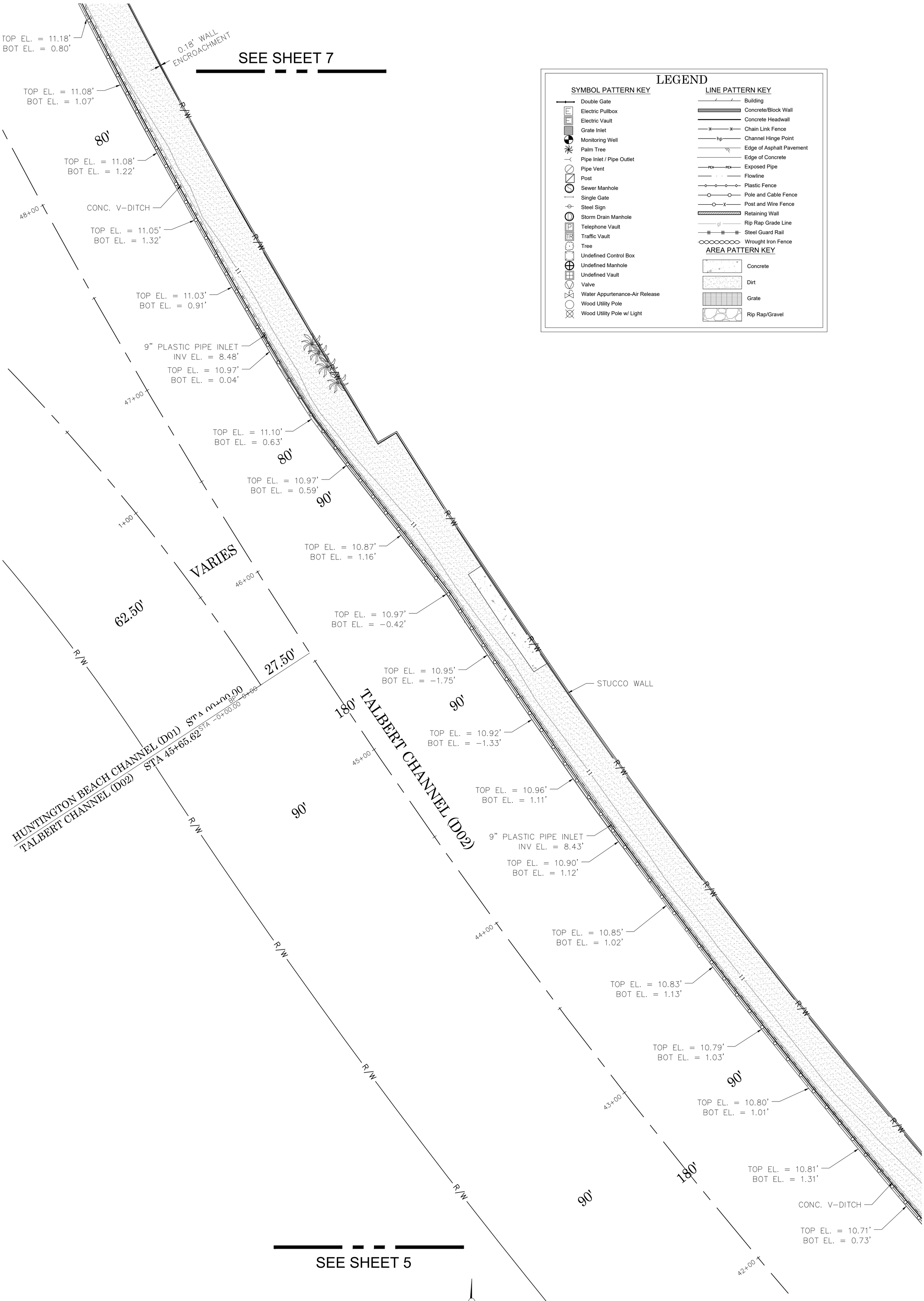
H.B. & TALBERT CHANNEL
CHANNEL MAINTENANCE

TOPOGRAPHIC MAP

PROJECT LIMITS: H.B. CHANNEL (D01) FROM BROOKHURST ST. TO ADAMS AVE.
TALBERT CHANNEL (D02) FROM BROOKHURST ST. TO YORKTOWN AVE.

DATE OF SURVEY:12/11/2019		BY: R.MACIAS, PLS & CREW
MAPPING		BY: A.VU
OFFICE CHECK		BY: E. MEDINA, PLS
FIELD CHECK		BY: R.MACIAS, PLS
SCALE:1" = 20'	W.O. #EF19401S	FILE #1920PW-IN0009
FILE: HB CHANNEL PHASE 1_TOPO_2019.DWG		

SHEET NO. 5 of 63



LEGEND

SYMBOL PATTERN KEY

- Double Gate
- Electric Pullbox
- Electric Vault
- Grate Inlet
- Monitoring Well
- Palm Tree
- Pipe Inlet / Pipe Outlet
- Pipe Vent
- Post
- Sewer Manhole
- Single Gate
- Steel Sign
- Storm Drain Manhole
- Telephone Vault
- Traffic Vault
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- Undefined Control Box
- Undefined Manhole
- Undefined Vault
- Valve
- Water Appurtenance-Air Release
- Wood Utility Pole
- Wood Utility Pole w/ Light

LINE PATTERN KEY

- Building
- Concrete/Block Wall
- Concrete Headwall
- Chain Link Fence
- Channel Hinge Point
- Edge of Asphalt Pavement
- Edge of Concrete
- Exposed Pipe
- Flowline
- Plastic Fence
- Pole and Cable Fence
- Post and Wire Fence
- Retaining Wall
- Rip Rap Grade Line
- Steel Guard Rail
- Wrought Iron Fence

AREA PATTERN KEY

- Concrete
- Dirt
- Grate
- Rip Rap/Gravel

U.S. Survey Foot

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

MARK	DATE	ITEM
REVISIONS		

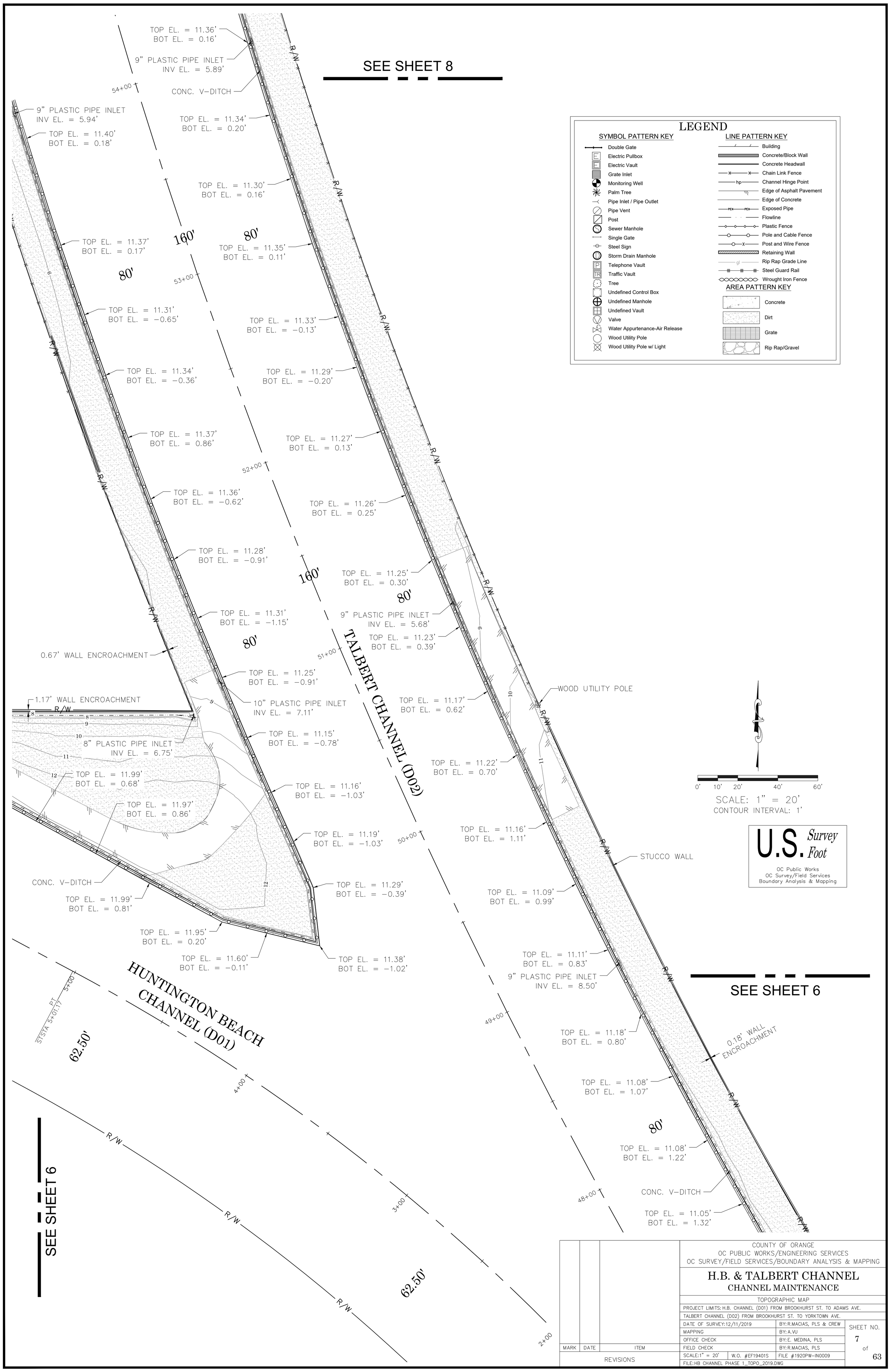
COUNTY OF ORANGE
OC PUBLIC WORKS/ENGINEERING SERVICES
OC SURVEY/FIELD SERVICES/BOUNDARY ANALYSIS & MAPPING

H.B. & TALBERT CHANNEL
CHANNEL MAINTENANCE

TOPOGRAPHIC MAP

PROJECT LIMITS: H.B. CHANNEL (D01) FROM BROOKHURST ST. TO ADAMS AVE.
TALBERT CHANNEL (D02) FROM BROOKHURST ST. TO YORKTOWN AVE.

DATE OF SURVEY: 12/11/2019	BY: R.MACIAS, PLS & CREW	SHEET NO.
MAPPING	BY: A.VU	6
OFFICE CHECK	BY: E. MEDINA, PLS	of
FIELD CHECK	BY: R.MACIAS, PLS	63
SCALE: 1" = 20' W.O. #EF19401S	FILE #1920PW-IN0009	
FILE: HB CHANNEL PHASE 1_TOPO_2019.DWG		



LEGEND

SYMBOL PATTERN KEY

- Double Gate
- Electric Pullbox
- Electric Vault
- Grate Inlet
- Monitoring Well
- Palm Tree
- Pipe Inlet / Pipe Outlet
- Pipe Vent
- Post
- Sewer Manhole
- Single Gate
- Steel Sign
- Storm Drain Manhole
- Telephone Vault
- Traffic Vault
- Tree
- Undefined Control Box
- Undefined Manhole
- Undefined Vault
- Valve
- Water Appurtenance-Air Release
- Wood Utility Pole
- Wood Utility Pole w/ Light

LINE PATTERN KEY

- Building
- Concrete/Block Wall
- Concrete Headwall
- Chain Link Fence
- Channel Hinge Point
- Edge of Asphalt Pavement
- Edge of Concrete
- Exposed Pipe
- Flowline
- Plastic Fence
- Pole and Cable Fence
- Post and Wire Fence
- Retaining Wall
- Rip Rap Grade Line
- Steel Guard Rail
- Wrought Iron Fence

AREA PATTERN KEY

- Concrete
- Dirt
- Grate
- Rip Rap/Gravel

MARK	DATE	ITEM
REVISIONS		

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

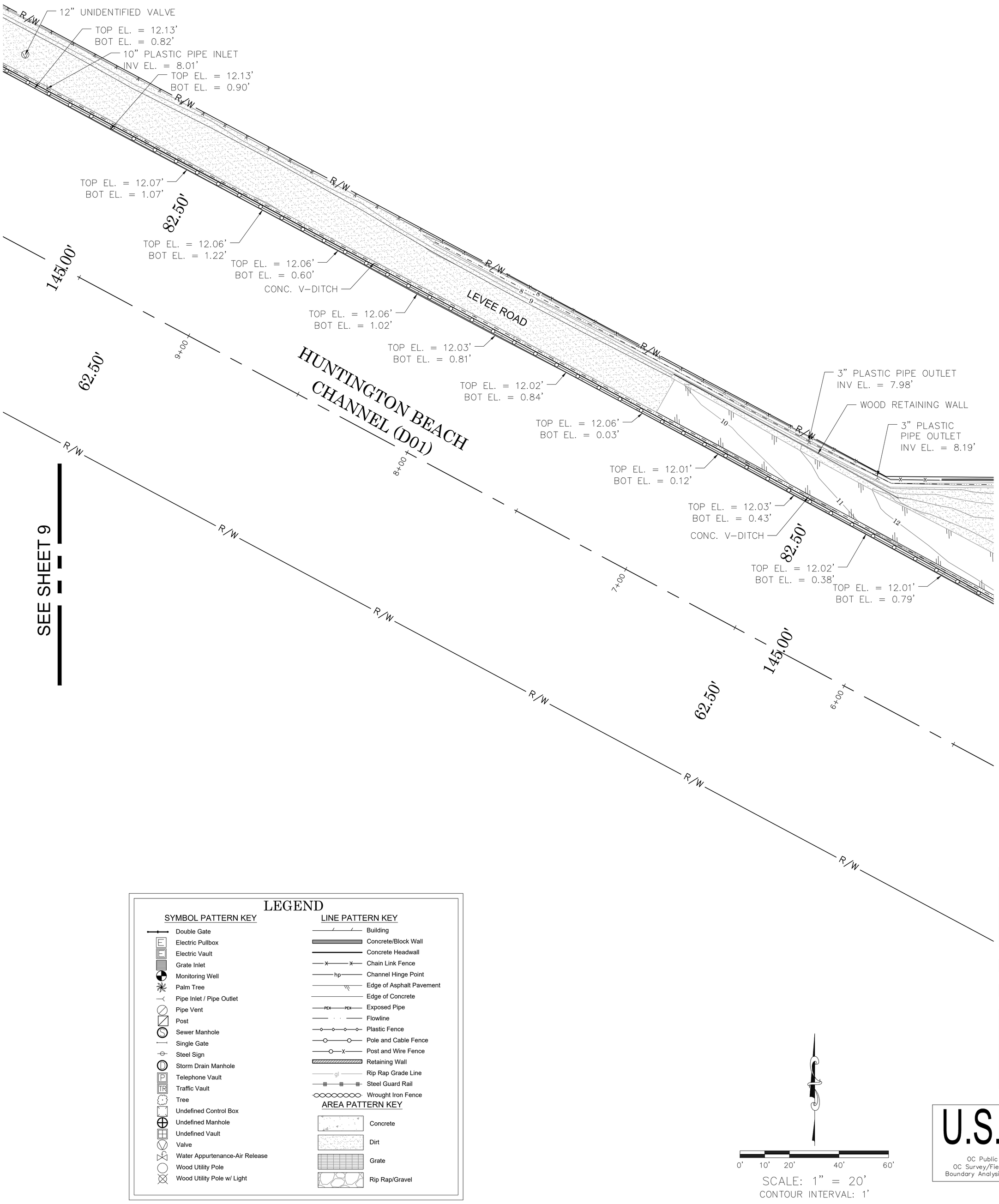
H.B. & TALBERT CHANNEL
CHANNEL MAINTENANCE

TOPOGRAPHIC MAP

PROJECT LIMITS: H.B. CHANNEL (D01) FROM BROOKHURST ST. TO ADAMS AVE.
TALBERT CHANNEL (D02) FROM BROOKHURST ST. TO YORKTOWN AVE.

DATE OF SURVEY:12/11/2019		BY: R.MACIAS, PLS & CREW
MAPPING		BY: A.VU
OFFICE CHECK		BY: E. MEDINA, PLS
FIELD CHECK		BY: R.MACIAS, PLS
SCALE:1" = 20'	W.O. #EF19401S	FILE #1920PW-IN0009
FILE:HB CHANNEL PHASE 1_TOPO_2019.DWG		

SHEET NO. 7 of 63



LEGEND

SYMBOL PATTERN KEY

- Double Gate
- Electric Pullbox
- Electric Vault
- Grate Inlet
- Monitoring Well
- Palm Tree
- Pipe Inlet / Pipe Outlet
- Pipe Vent
- Post
- Sewer Manhole
- Single Gate
- Steel Sign
- Storm Drain Manhole
- Telephone Vault
- Traffic Vault
- Tree
- Undefined Control Box
- Undefined Manhole
- Undefined Vault
- Valve
- Water Appurtenance-Air Release
- Wood Utility Pole
- Wood Utility Pole w/ Light

LINE PATTERN KEY

- Building
- Concrete/Block Wall
- Concrete Headwall
- Chain Link Fence
- Channel Hinge Point
- Edge of Asphalt Pavement
- Edge of Concrete
- Exposed Pipe
- Flowline
- Plastic Fence
- Pole and Cable Fence
- Post and Wire Fence
- Retaining Wall
- Rip Rap Grade Line
- Steel Guard Rail
- Wrought Iron Fence

AREA PATTERN KEY

- Concrete
- Dirt
- Grate
- Rip Rap/Gravel

0' 10' 20' 40' 60'

SCALE: 1" = 20'

CONTOUR INTERVAL: 1'

U.S. Survey Foot

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

MARK	DATE	ITEM
REVISIONS		

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

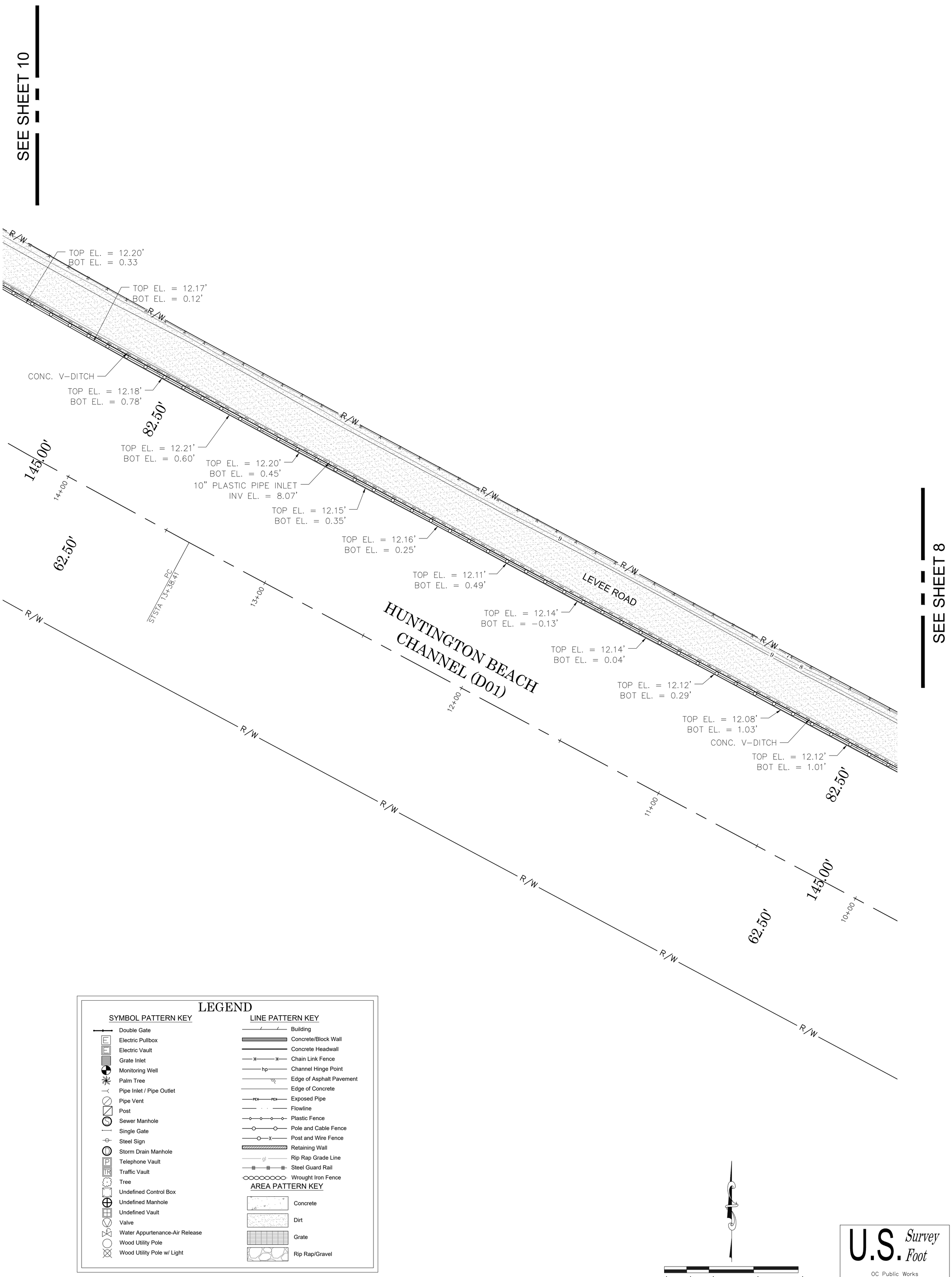
H.B. & TALBERT CHANNEL
CHANNEL MAINTENANCE

TOPOGRAPHIC MAP

PROJECT LIMITS: H.B. CHANNEL (D01) FROM BROOKHURST ST. TO ADAMS AVE.
TALBERT CHANNEL (D02) FROM BROOKHURST ST. TO YORKTOWN AVE.

DATE OF SURVEY: 12/11/2019		BY: R.MACIAS, PLS & CREW
MAPPING		BY: A.VU
OFFICE CHECK		BY: E. MEDINA, PLS
FIELD CHECK		BY: R.MACIAS, PLS
SCALE: 1" = 20'	W.O. #EF19401S	FILE #1920PW-IN0009
FILE: HB CHANNEL PHASE 1_TOPO_2019.DWG		

SHEET NO. 8 of 63



LEGEND

SYMBOL PATTERN KEY

- Double Gate
- Electric Pullbox
- Electric Vault
- Grate Inlet
- Monitoring Well
- Palm Tree
- Pipe Inlet / Pipe Outlet
- Pipe Vent
- Post
- Sewer Manhole
- Single Gate
- Steel Sign
- Storm Drain Manhole
- Telephone Vault
- Traffic Vault
- Tree
- Undefined Control Box
- Undefined Manhole
- Undefined Vault
- Valve
- Water Appurtenance-Air Release
- Wood Utility Pole
- Wood Utility Pole w/ Light

LINE PATTERN KEY

- Building
- Concrete/Block Wall
- Concrete Headwall
- Chain Link Fence
- Channel Hinge Point
- Edge of Asphalt Pavement
- Edge of Concrete
- Exposed Pipe
- Flowline
- Plastic Fence
- Pole and Cable Fence
- Post and Wire Fence
- Retaining Wall
- Rip Rap Grade Line
- Steel Guard Rail
- Wrought Iron Fence

AREA PATTERN KEY

- Concrete
- Dirt
- Grate
- Rip Rap/Gravel

0' 10' 20' 40' 60'

SCALE: 1" = 20'

CONTOUR INTERVAL: 1'

U.S. Survey Foot

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

MARK	DATE	ITEM
REVISIONS		

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

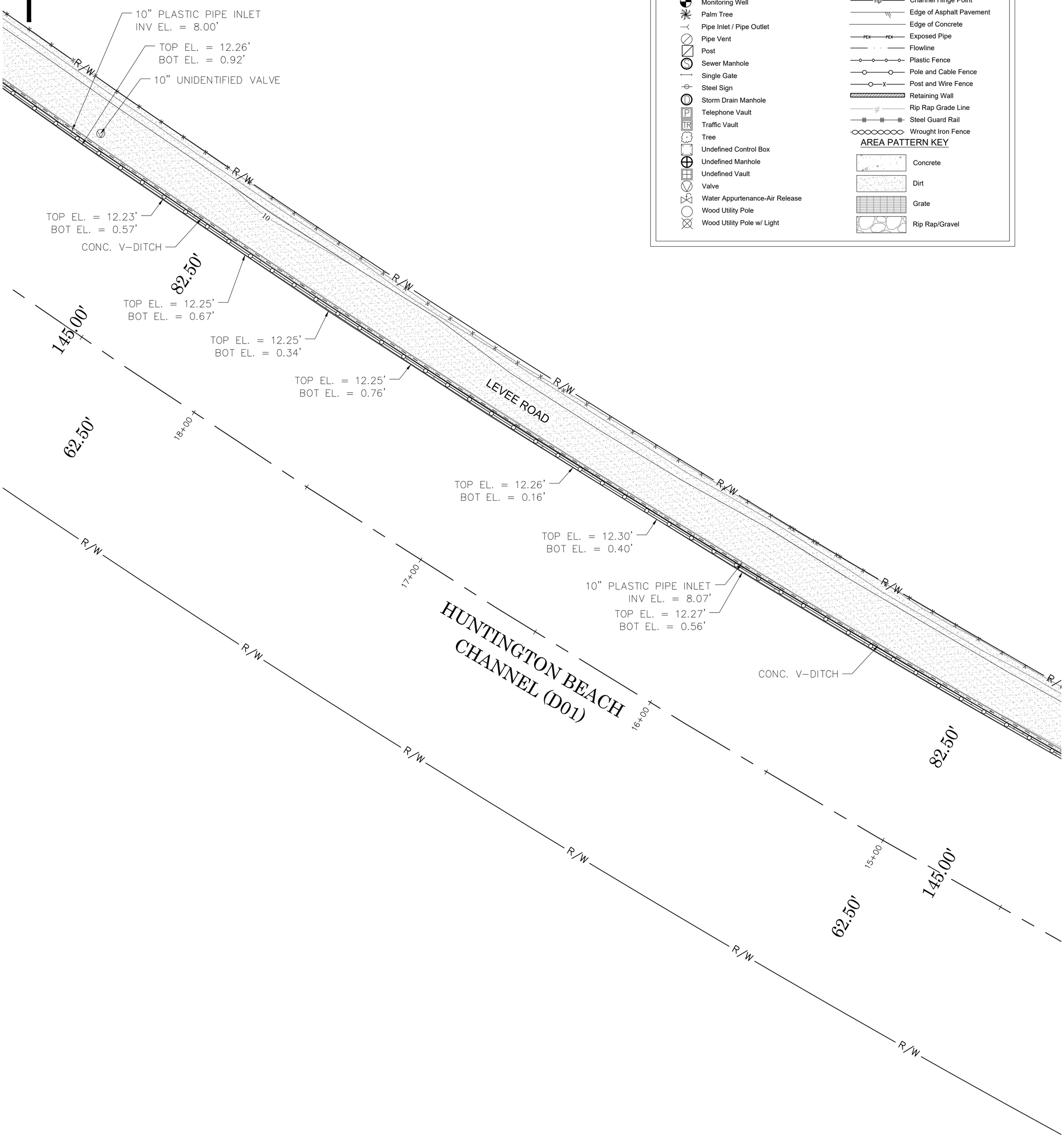
H.B. & TALBERT CHANNEL
CHANNEL MAINTENANCE

TOPOGRAPHIC MAP

PROJECT LIMITS: H.B. CHANNEL (D01) FROM BROOKHURST ST. TO ADAMS AVE.
TALBERT CHANNEL (D02) FROM BROOKHURST ST. TO YORKTOWN AVE.

DATE OF SURVEY: 12/11/2019	BY: R.MACIAS, PLS & CREW	SHEET NO.
MAPPING	BY: A.VU	9
OFFICE CHECK	BY: E. MEDINA, PLS	of
FIELD CHECK	BY: R.MACIAS, PLS	63
SCALE: 1" = 20' W.O. #EF19401S	FILE #1920PW-IN0009	
FILE: HB CHANNEL PHASE 1_TOPO_2019.DWG		

SEE SHEET 11



SEE SHEET 9

LEGEND

SYMBOL PATTERN KEY

- Double Gate
- Electric Pullbox
- Electric Vault
- Grate Inlet
- Monitoring Well
- Palm Tree
- Pipe Inlet / Pipe Outlet
- Pipe Vent
- Post
- Sewer Manhole
- Single Gate
- Steel Sign
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- Telephone Vault
- Traffic Vault
- Tree
- Undefined Control Box
- Undefined Manhole
- Undefined Vault
- Valve
- Water Appurtenance-Air Release
- Wood Utility Pole
- Wood Utility Pole w/ Light

LINE PATTERN KEY

- Building
- Concrete/Block Wall
- Concrete Headwall
- Chain Link Fence
- Channel Hinge Point
- Edge of Asphalt Pavement
- Edge of Concrete
- Exposed Pipe
- Flowline
- Plastic Fence
- Pole and Cable Fence
- Post and Wire Fence
- Retaining Wall
- Rip Rap Grade Line
- Steel Guard Rail
- Wrought Iron Fence

AREA PATTERN KEY

- Concrete
- Dirt
- Grate
- Rip Rap/Gravel

0' 10' 20' 40' 60'

SCALE: 1" = 20'
CONTOUR INTERVAL: 1'

U.S. Survey Foot

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

MARK	DATE	ITEM
REVISIONS		

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

H.B. & TALBERT CHANNEL
CHANNEL MAINTENANCE

TOPOGRAPHIC MAP

PROJECT LIMITS: H.B. CHANNEL (D01) FROM BROOKHURST ST. TO ADAMS AVE.
TALBERT CHANNEL (D02) FROM BROOKHURST ST. TO YORKTOWN AVE.

DATE OF SURVEY:12/11/2019		BY: R.MACIAS, PLS & CREW
MAPPING		BY: A.VU
OFFICE CHECK		BY: E. MEDINA, PLS
FIELD CHECK		BY: R.MACIAS, PLS
SCALE:1" = 20'	W.O. #EF19401S	FILE #1920PW-IN0009
FILE:HB CHANNEL PHASE 1_TOPO_2019.DWG		

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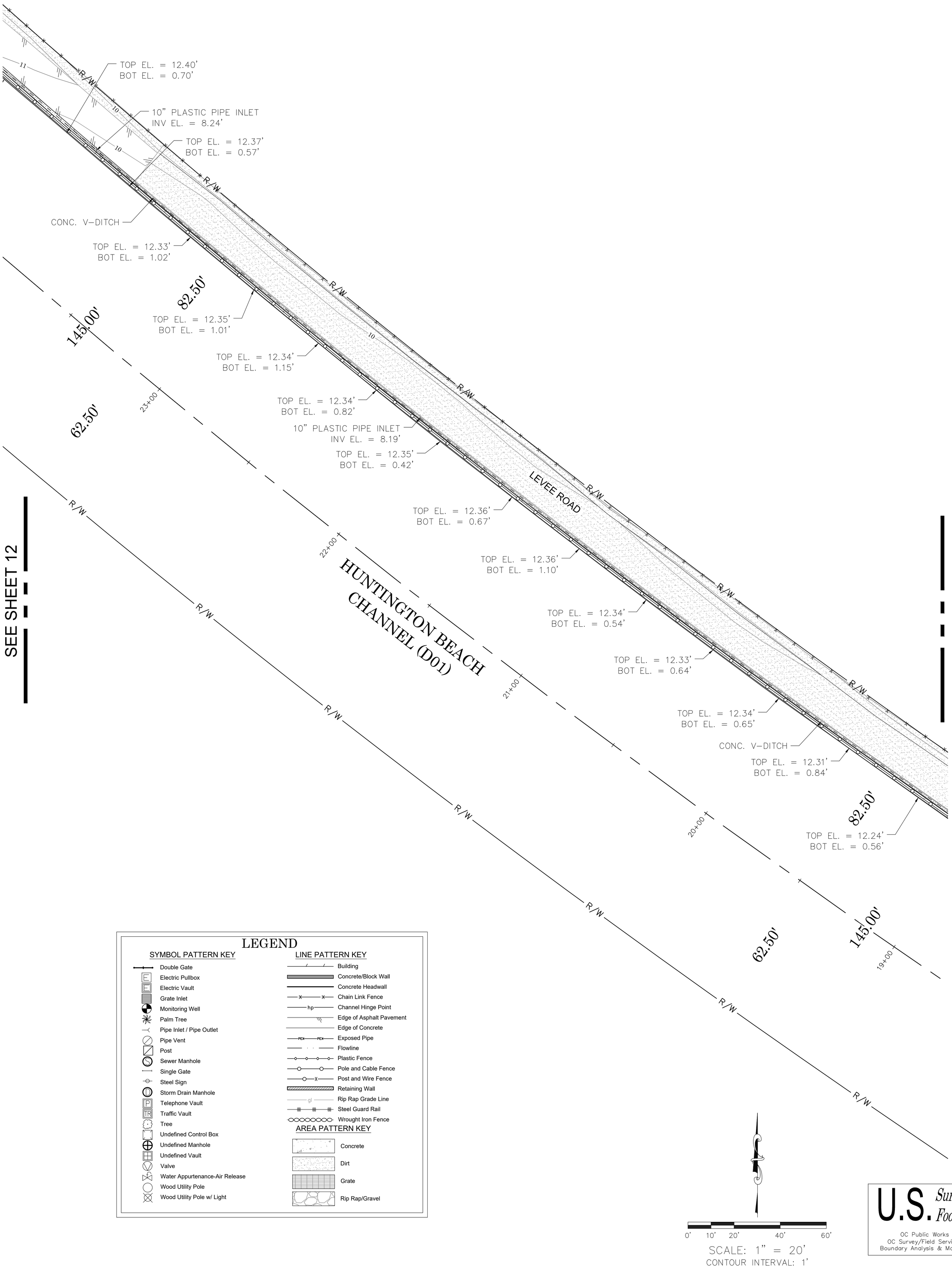

LEGEND

SYMBOL PATTERN KEY

- Double Gate
- Electric Pullbox
- Electric Vault
- Grate Inlet
- Monitoring Well
- Palm Tree
- Pipe Inlet / Pipe Outlet
- Pipe Vent
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- Telephone Vault
- Traffic Vault
- Tree
- Undefined Control Box
- Undefined Manhole
- Undefined Vault
- Valve
- Water Appurtenance-Air Release
- Wood Utility Pole
- Wood Utility Pole w/ Light

LINE PATTERN KEY

- Building
- Concrete/Block Wall
- Concrete Headwall
- Chain Link Fence
- Channel Hinge Point
- Edge of Asphalt Pavement
- Edge of Concrete
- Exposed Pipe
- Flowline
- Plastic Fence
- Pole and Cable Fence
- Post and Wire Fence
- Retaining Wall
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- Steel Guard Rail
- Wrought Iron Fence

AREA PATTERN KEY

- Concrete
- Dirt
- Grate
- Rip Rap/Gravel

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CONTOUR INTERVAL: 1'

U.S. Survey Foot

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

H.B. & TALBERT CHANNEL
CHANNEL MAINTENANCE

TOPOGRAPHIC MAP

PROJECT LIMITS: H.B. CHANNEL (D01) FROM BROOKHURST ST. TO ADAMS AVE.
TALBERT CHANNEL (D02) FROM BROOKHURST ST. TO YORKTOWN AVE.

DATE OF SURVEY: 12/11/2019		BY: R.MACIAS, PLS & CREW
MAPPING		BY: A.VU
OFFICE CHECK		BY: E. MEDINA, PLS
FIELD CHECK		BY: R.MACIAS, PLS
SCALE: 1" = 20'	W.O. #EF19401S	FILE #1920PW-IN0009
FILE: HB CHANNEL PHASE 1_TOPO_2019.DWG		

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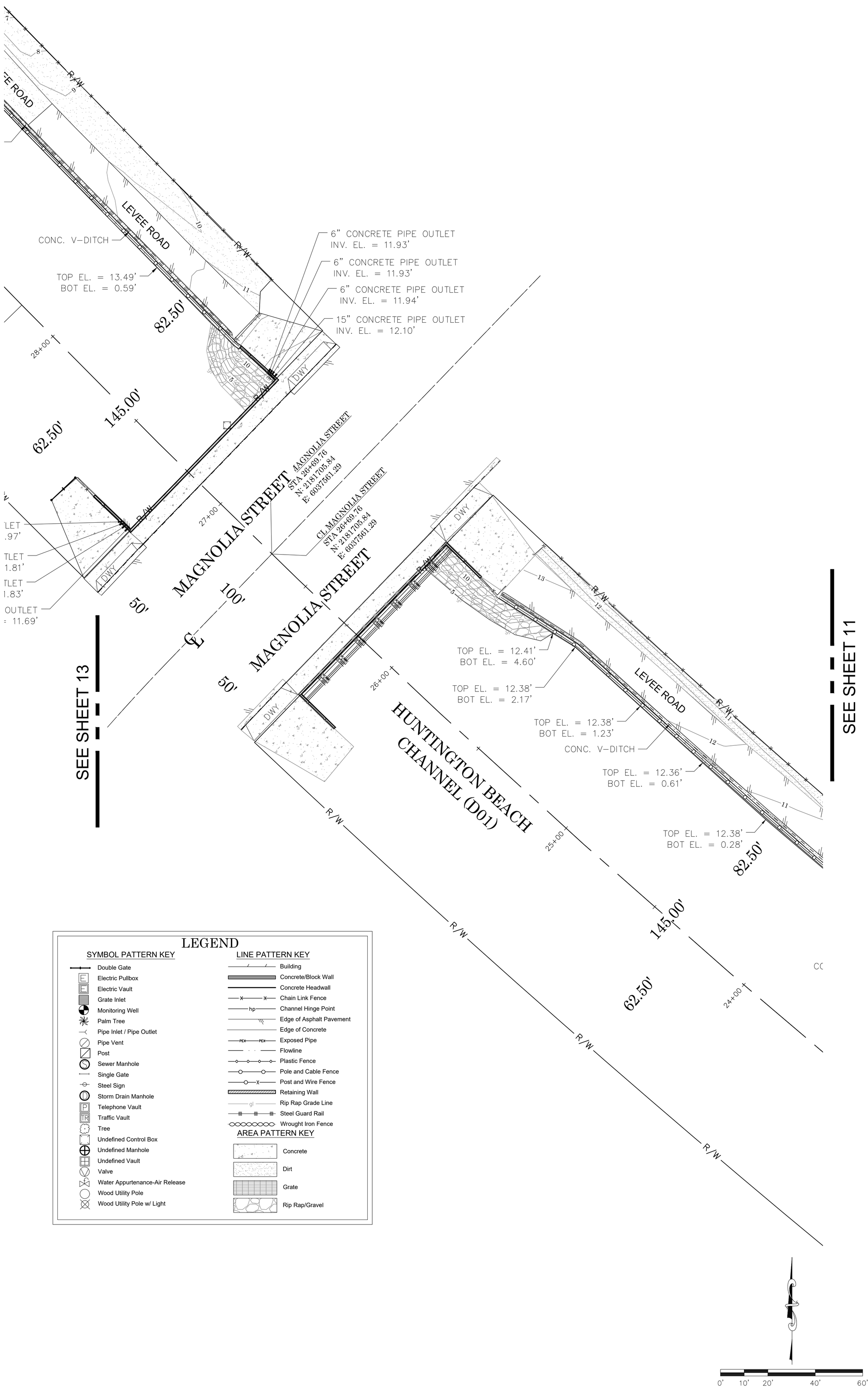

LEGEND

SYMBOL PATTERN KEY

- Double Gate
- Electric Pullbox
- Electric Vault
- Grate Inlet
- Monitoring Well
- Palm Tree
- Pipe Inlet / Pipe Outlet
- Pipe Vent
- Post
- Sewer Manhole
- Single Gate
- Steel Sign
- Storm Drain Manhole
- Telephone Vault
- Traffic Vault
- Tree
- Undefined Control Box
- Undefined Manhole
- Undefined Vault
- Valve
- Water Appurtenance-Air Release
- Wood Utility Pole
- Wood Utility Pole w/ Light

LINE PATTERN KEY

- Building
- Concrete/Block Wall
- Concrete Headwall
- Chain Link Fence
- Channel Hinge Point
- Edge of Asphalt Pavement
- Edge of Concrete
- Exposed Pipe
- Flowline
- Plastic Fence
- Pole and Cable Fence
- Post and Wire Fence
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- Rip Rap Grade Line
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AREA PATTERN KEY

- Concrete
- Dirt
- Grate
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CONTOUR INTERVAL: 1'

U.S. Survey Foot

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

H.B. & TALBERT CHANNEL
CHANNEL MAINTENANCE

TOPOGRAPHIC MAP

PROJECT LIMITS: H.B. CHANNEL (D01) FROM BROOKHURST ST. TO ADAMS AVE.
TALBERT CHANNEL (D02) FROM BROOKHURST ST. TO YORKTOWN AVE.

DATE OF SURVEY: 12/11/2019		BY: R.MACIAS, PLS & CREW
MAPPING		BY: A.VU
OFFICE CHECK		BY: E. MEDINA, PLS
FIELD CHECK		BY: R.MACIAS, PLS
SCALE: 1" = 20'	W.O. #EF19401S	FILE #1920PW-IN0009
FILE: HB CHANNEL PHASE 1_TOPO_2019.DWG		

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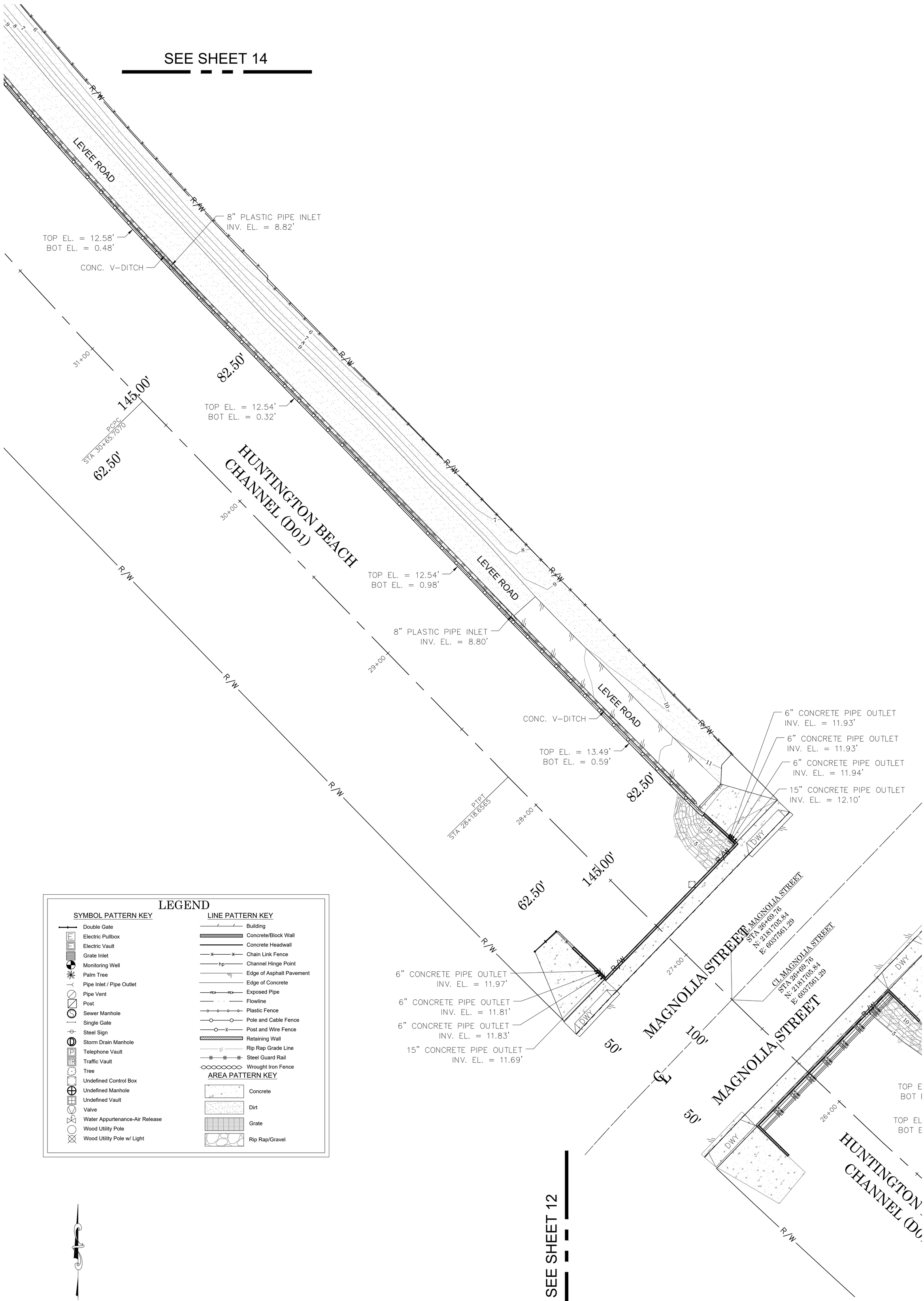

LEGEND

SYMBOL PATTERN KEY

- Double Gate
- Electric Pullbox
- Electric Vault
- Grate Inlet
- Monitoring Well
- Palm Tree
- Pipe Inlet / Pipe Outlet
- Pipe Vent
- Post
- Sewer Manhole
- Single Gate
- Steel Sign
- Storm Drain Manhole
- Telephone Vault
- Traffic Vault
- Tree
- Undefined Control Box
- Undefined Manhole
- Undefined Vault
- Valve
- Water Appurtenance-Air Release
- Wood Utility Pole
- Wood Utility Pole w/ Light

LINE PATTERN KEY

- Building
- Concrete/Block Wall
- Concrete Headwall
- Chain Link Fence
- Channel Hinge Point
- Edge of Asphalt Pavement
- Edge of Concrete
- Exposed Pipe
- Flowline
- Plastic Fence
- Pole and Cable Fence
- Post and Wire Fence
- Retaining Wall
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- Steel Guard Rail
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AREA PATTERN KEY

- Concrete
- Dirt
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CONTOUR INTERVAL: 1'

U.S. Survey Foot

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

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

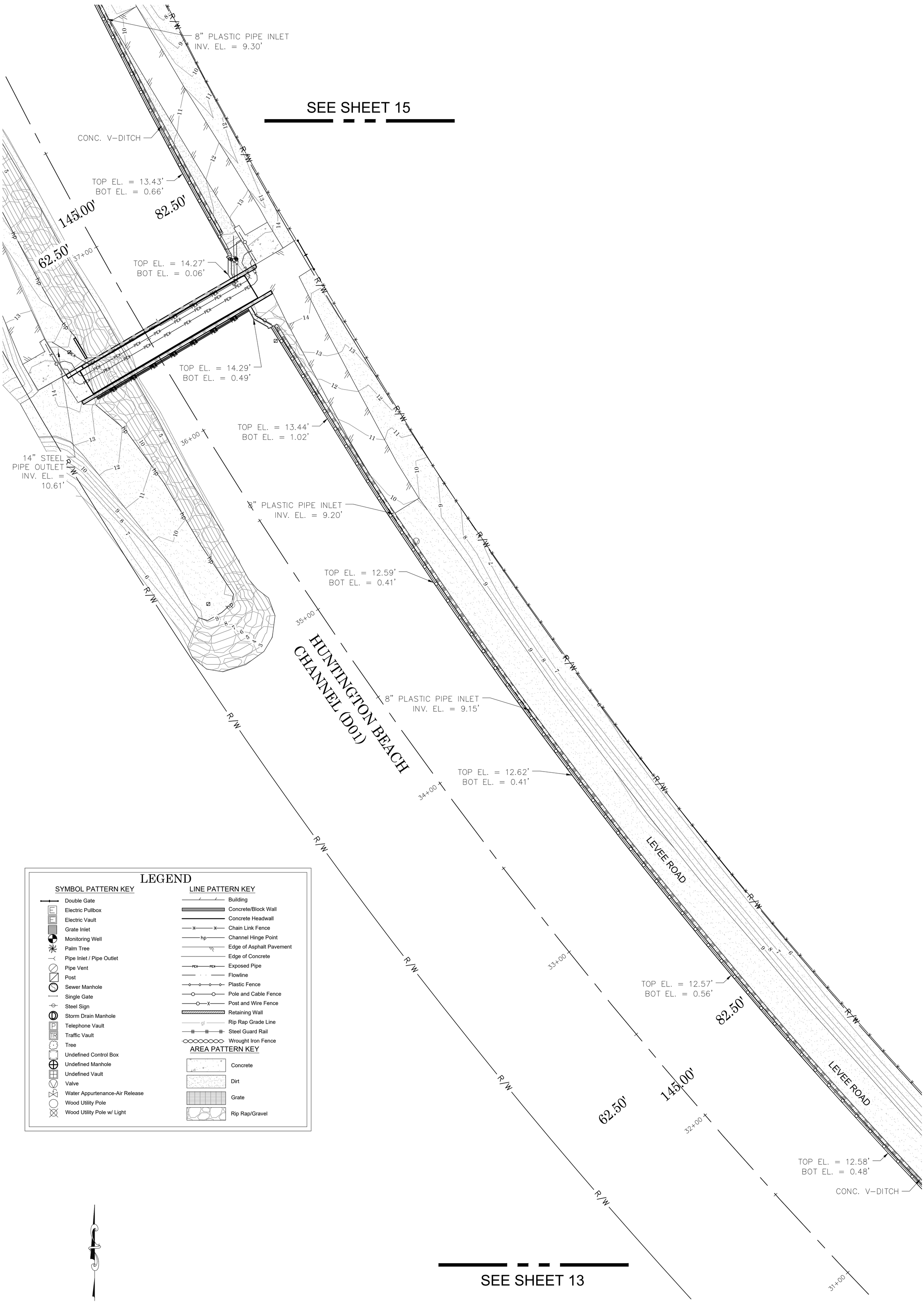
H.B. & TALBERT CHANNEL
CHANNEL MAINTENANCE

TOPOGRAPHIC MAP

PROJECT LIMITS: H.B. CHANNEL (D01) FROM BROOKHURST ST. TO ADAMS AVE.
TALBERT CHANNEL (D02) FROM BROOKHURST ST. TO YORKTOWN AVE.

DATE OF SURVEY: 12/11/2019		BY: R.MACIAS, PLS & CREW
MAPPING		BY: A.VU
OFFICE CHECK		BY: E. MEDINA, PLS
FIELD CHECK		BY: R.MACIAS, PLS
SCALE: 1" = 20'	W.O. #EF19401S	FILE #1920PW-IN0009
FILE: HUNTINGTON BEACH CHANNEL PHASE 2_TOPO_2019.DWG		

SHEET NO. 13 of 63



LEGEND

SYMBOL PATTERN KEY

- Double Gate
- Electric Pullbox
- Electric Vault
- Grate Inlet
- Monitoring Well
- Palm Tree
- Pipe Inlet / Pipe Outlet
- Pipe Vent
- Post
- Sewer Manhole
- Single Gate
- Steel Sign
- Storm Drain Manhole
- Telephone Vault
- Traffic Vault
- Tree
- Undefined Control Box
- Undefined Manhole
- Undefined Vault
- Valve
- Water Appurtenance-Air Release
- Wood Utility Pole
- Wood Utility Pole w/ Light

LINE PATTERN KEY

- Building
- Concrete/Block Wall
- Concrete Headwall
- Chain Link Fence
- Channel Hinge Point
- Edge of Asphalt Pavement
- Edge of Concrete
- Exposed Pipe
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- Post and Wire Fence
- Retaining Wall
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AREA PATTERN KEY

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- Dirt
- Grate
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CONTOUR INTERVAL: 1'

U.S. Survey Foot

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

MARK	DATE	ITEM
REVISIONS		

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

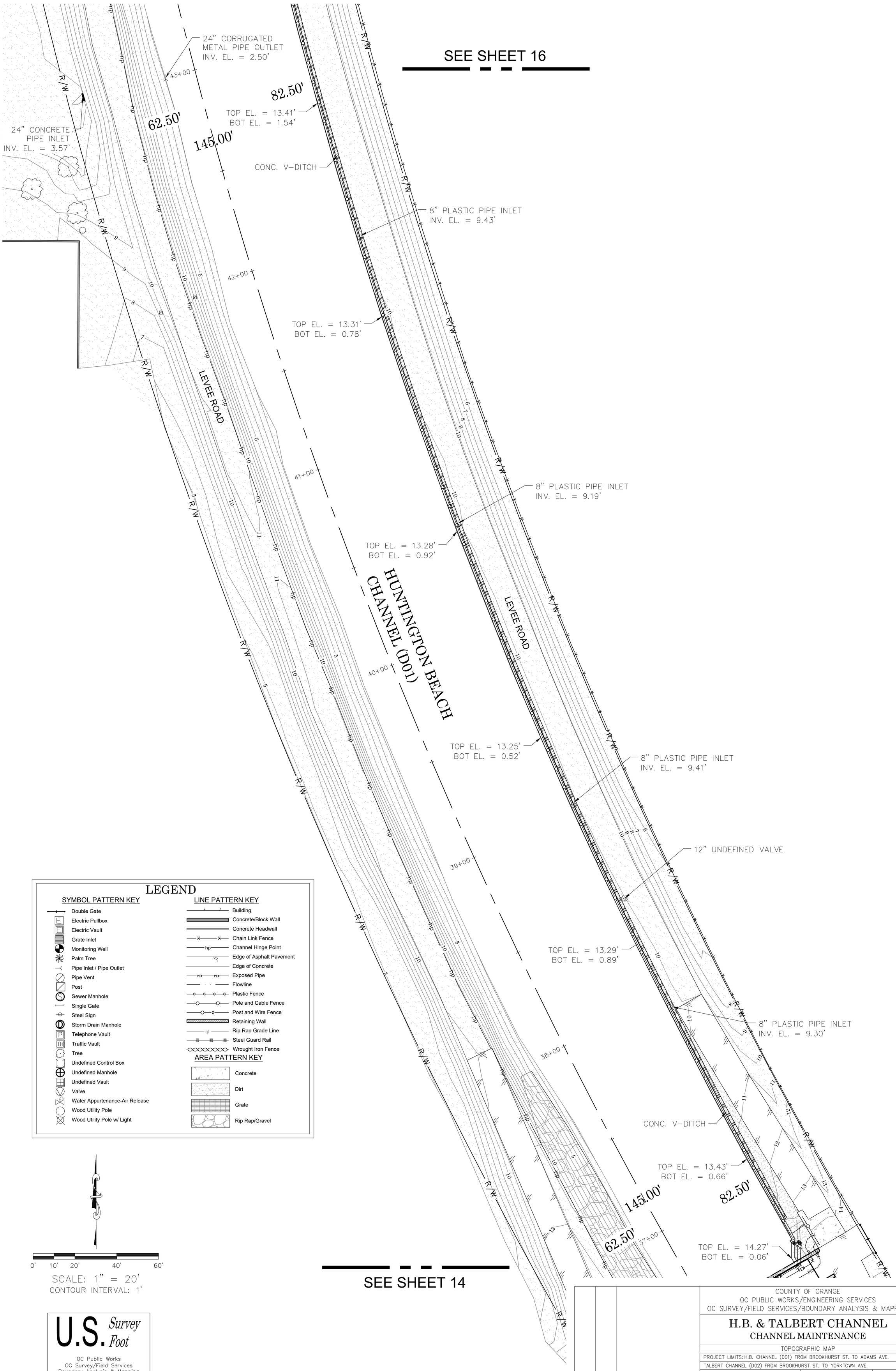
H.B. & TALBERT CHANNEL
CHANNEL MAINTENANCE

TOPOGRAPHIC MAP

PROJECT LIMITS: H.B. CHANNEL (D01) FROM BROOKHURST ST. TO ADAMS AVE.
TALBERT CHANNEL (D02) FROM BROOKHURST ST. TO YORKTOWN AVE.

DATE OF SURVEY: 12/11/2019		BY: R.MACIAS, PLS & CREW
MAPPING		BY: A.VU
OFFICE CHECK		BY: E. MEDINA, PLS
FIELD CHECK		BY: R.MACIAS, PLS
SCALE: 1" = 20'	W.O. #EF19401S	FILE #1920PW-IN0009
FILE: HUNTINGTON BEACH CHANNEL PHASE 2_TOPO_2019.DWG		

SHEET NO. 14 of 63



LEGEND

SYMBOL PATTERN KEY

- Double Gate
- Electric Pullbox
- Electric Vault
- Grate Inlet
- Monitoring Well
- Palm Tree
- Pipe Inlet / Pipe Outlet
- Pipe Vent
- Post
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- Telephone Vault
- Traffic Vault
- Tree
- Undefined Control Box
- Undefined Manhole
- Undefined Vault
- Valve
- Water Appurtenance-Air Release
- Wood Utility Pole
- Wood Utility Pole w/ Light

LINE PATTERN KEY

- Building
- Concrete/Block Wall
- Concrete Headwall
- Chain Link Fence
- Channel Hinge Point
- Edge of Asphalt Pavement
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- Flowline
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- Post and Wire Fence
- Retaining Wall
- Rip Rap Grade Line
- Steel Guard Rail
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AREA PATTERN KEY

- Concrete
- Dirt
- Grate
- Rip Rap/Gravel

0' 10' 20' 40' 60'

SCALE: 1" = 20'
CONTOUR INTERVAL: 1'

U.S. Survey Foot

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

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

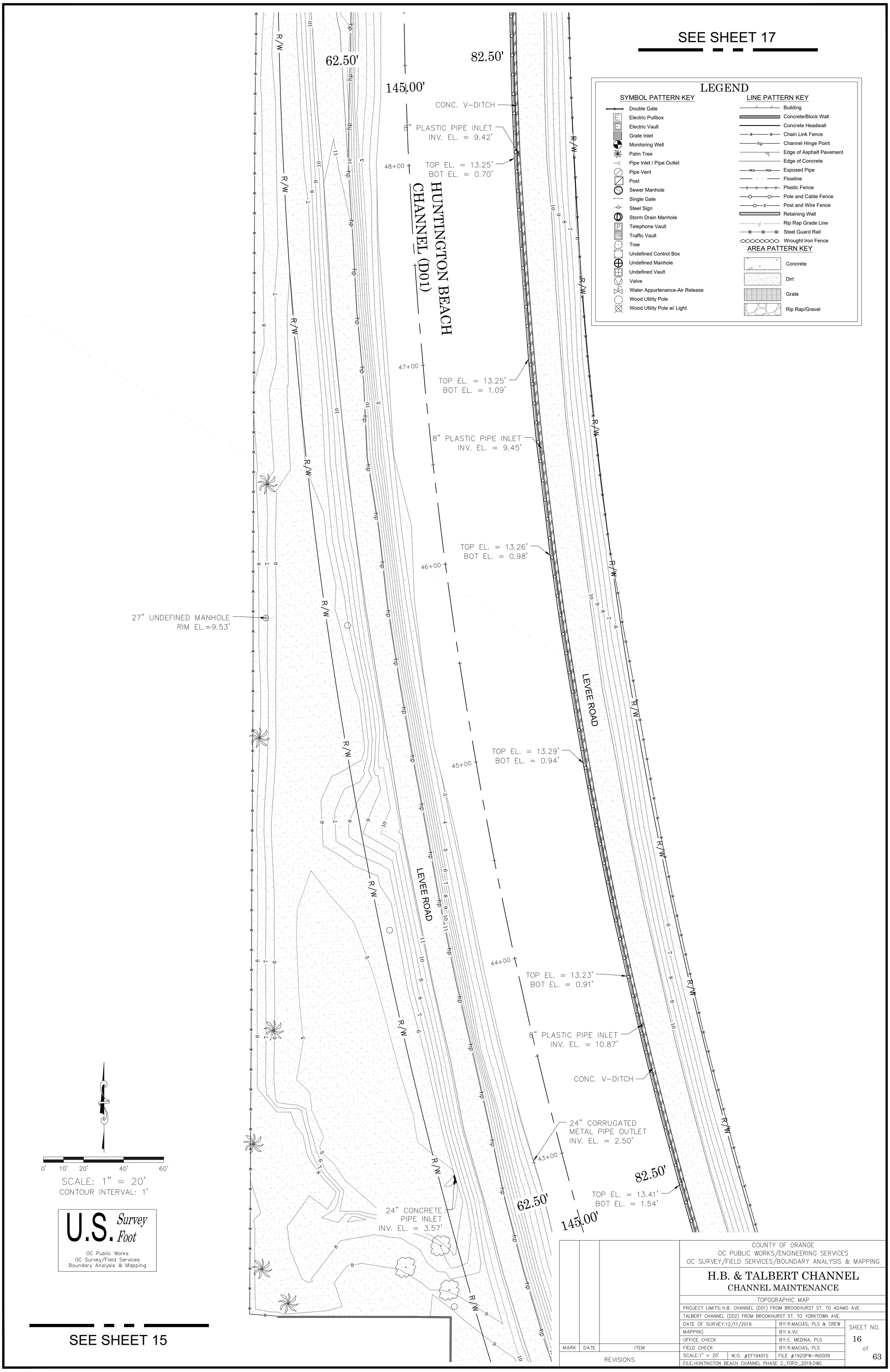
H.B. & TALBERT CHANNEL
CHANNEL MAINTENANCE

TOPOGRAPHIC MAP

PROJECT LIMITS: H.B. CHANNEL (D01) FROM BROOKHURST ST. TO ADAMS AVE.
TALBERT CHANNEL (D02) FROM BROOKHURST ST. TO YORKTOWN AVE.

DATE OF SURVEY: 12/11/2019		BY: R.MACIAS, PLS & CREW
MAPPING		BY: A.VU
OFFICE CHECK		BY: E. MEDINA, PLS
FIELD CHECK		BY: R.MACIAS, PLS
SCALE: 1" = 20'	W.O. #EF19401S	FILE #1920PW-IN0009
FILE: HUNTINGTON BEACH CHANNEL PHASE 2_TOPO_2019.DWG		

SHEET NO. 15 of 63



MARK	DATE	ITEM
REVISIONS		

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

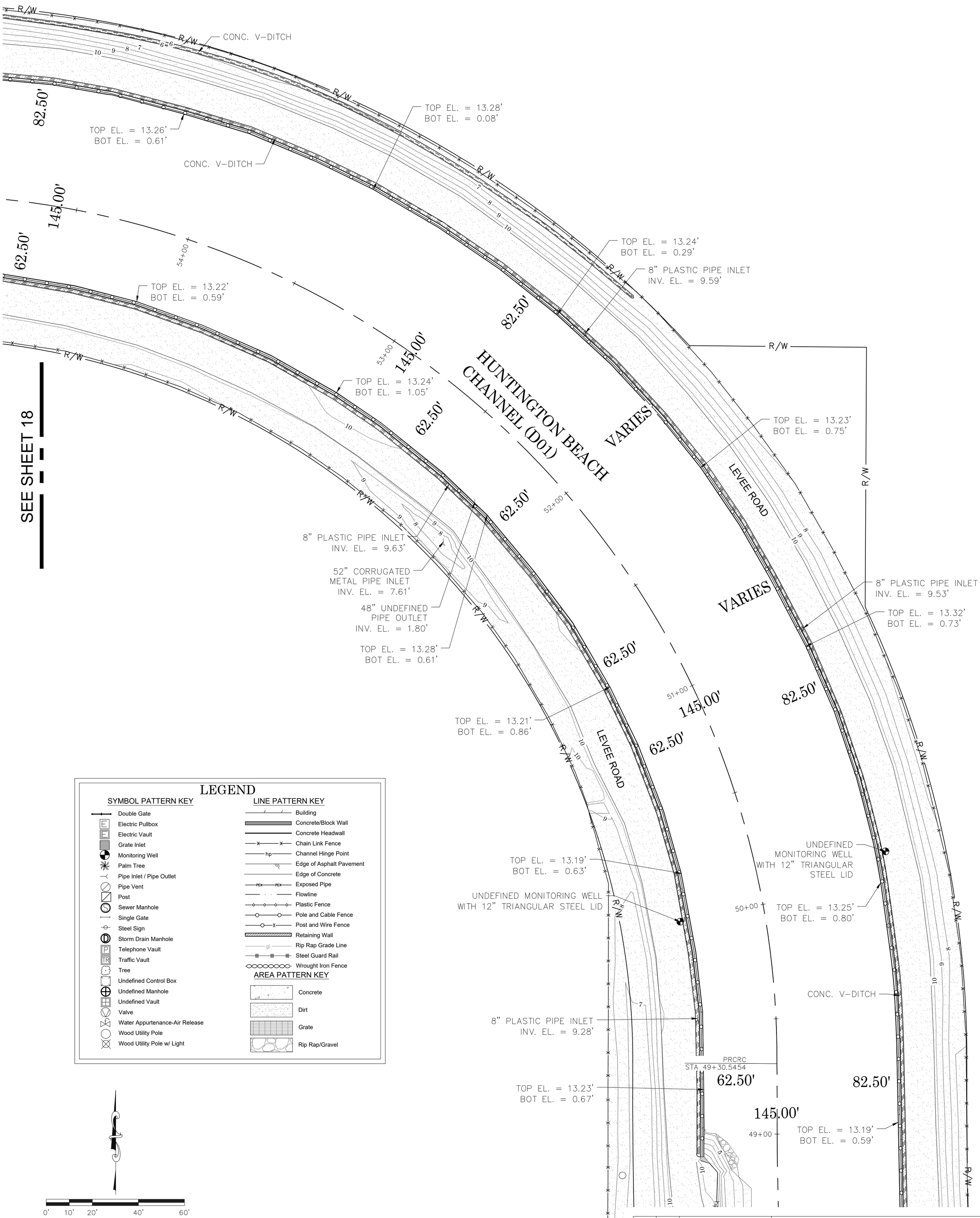
H.B. & TALBERT CHANNEL
CHANNEL MAINTENANCE

TOPOGRAPHIC MAP

PROJECT LIMITS: H.B. CHANNEL (D01) FROM BROOKHURST ST. TO ADAMS AVE.
TALBERT CHANNEL (D02) FROM BROOKHURST ST. TO YORKTOWN AVE.

DATE OF SURVEY: 12/11/2019		BY: R.MACIAS, PLS & CREW
MAPPING		BY: A.VU
OFFICE CHECK		BY: E. MEDINA, PLS
FIELD CHECK		BY: R.MACIAS, PLS
SCALE: 1" = 20'	W.O. #EF19401S	FILE #1920PW-IN0009
FILE: HUNTINGTON BEACH CHANNEL PHASE 2_TOPO_2019.DWG		

SHEET NO. 16 of 63



LEGEND

SYMBOL PATTERN KEY

- Double Gate
- Electric Pullbox
- Electric Vault
- Grate Inlet
- Monitoring Well
- Palm Tree
- Pipe Inlet / Pipe Outlet
- Pipe Vent
- Post
- Sewer Manhole
- Single Gate
- Steel Sign
- Storm Drain Manhole
- Telephone Vault
- Traffic Vault
- Tree
- Undefined Control Box
- Undefined Manhole
- Undefined Vault
- Valve
- Water Appurtenance-Air Release
- Wood Utility Pole
- Wood Utility Pole w/ Light

LINE PATTERN KEY

- Building
- Concrete/Block Wall
- Concrete Headwall
- Chain Link Fence
- Channel Hinge Point
- Edge of Asphalt Pavement
- Edge of Concrete
- Exposed Pipe
- Flowline
- Plastic Fence
- Pole and Cable Fence
- Post and Wire Fence
- Retaining Wall
- Rip Rap Grade Line
- Steel Guard Rail
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AREA PATTERN KEY

- Concrete
- Dirt
- Grate
- Rip Rap/Gravel

U.S. Survey Foot

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

MARK	DATE	ITEM
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COUNTY OF ORANGE
OC PUBLIC WORKS/ENGINEERING SERVICES
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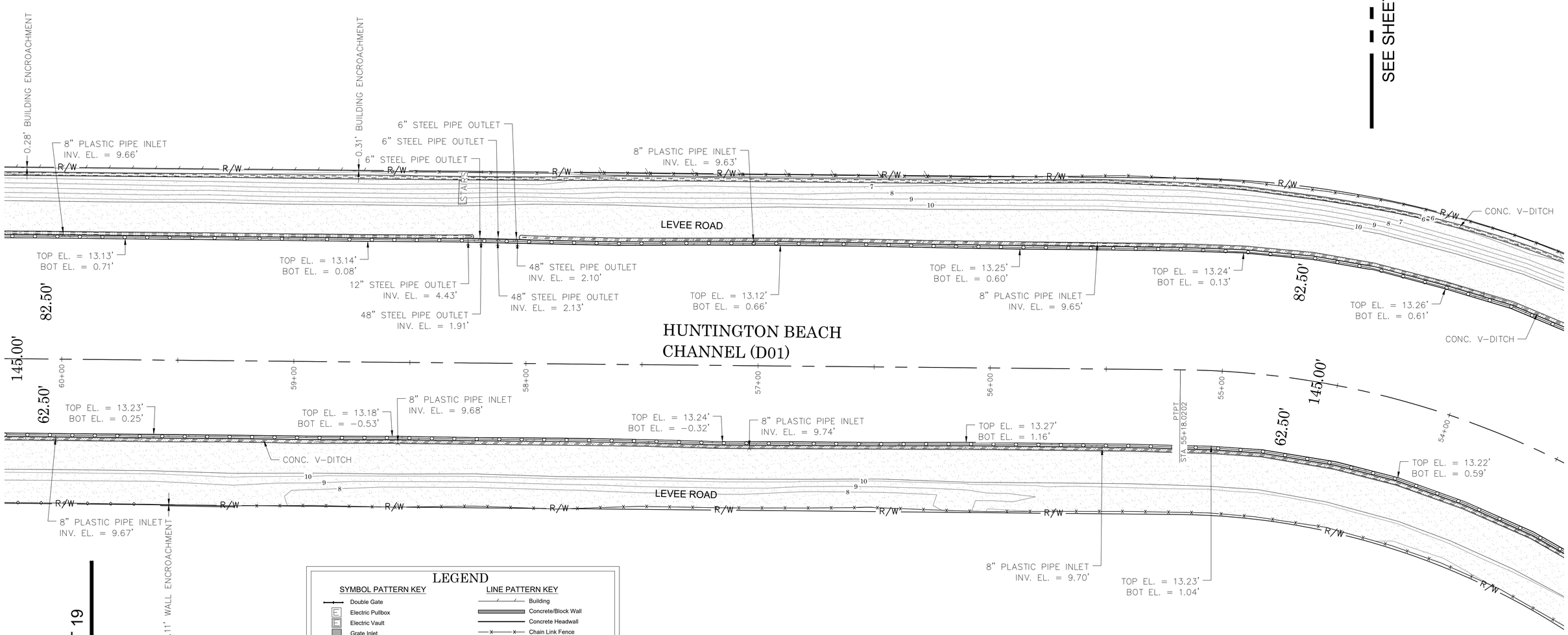
H.B. & TALBERT CHANNEL
CHANNEL MAINTENANCE

TOPOGRAPHIC MAP

PROJECT LIMITS: H.B. CHANNEL (D01) FROM BROOKHURST ST. TO ADAMS AVE.
TALBERT CHANNEL (D02) FROM BROOKHURST ST. TO YORKTOWN AVE.

DATE OF SURVEY: 12/11/2019		BY: R.MACIAS, PLS & CREW
MAPPING		BY: A.VU
OFFICE CHECK		BY: E. MEDINA, PLS
FIELD CHECK		BY: R.MACIAS, PLS
SCALE: 1" = 20'	W.O. #EF19401S	FILE #1920PW-IN0009
FILE: HUNTINGTON BEACH CHANNEL PHASE 2_TOPO_2019.DWG		

SHEET NO. 17 of 63



LEGEND

SYMBOL PATTERN KEY

- Double Gate
- Electric Pullbox
- Electric Vault
- Grate Inlet
- Monitoring Well
- Palm Tree
- Pipe Inlet / Pipe Outlet
- Pipe Vent
- Post
- Sewer Manhole
- Single Gate
- Steel Sign
- Storm Drain Manhole
- Telephone Vault
- Traffic Vault
- Tree
- Undefined Control Box
- Undefined Manhole
- Undefined Vault
- Valve
- Water Appurtenance-Air Release
- Wood Utility Pole
- Wood Utility Pole w/ Light

LINE PATTERN KEY

- Building
- Concrete/Block Wall
- Concrete Headwall
- Chain Link Fence
- Channel Hinge Point
- Edge of Asphalt Pavement
- Edge of Concrete
- Exposed Pipe
- Flowline
- Plastic Fence
- Pole and Cable Fence
- Post and Wire Fence
- Retaining Wall
- Rip Rap Grade Line
- Steel Guard Rail
- Wrought Iron Fence

AREA PATTERN KEY

- Concrete
- Dirt
- Grate
- Rip Rap/Gravel

0' 10' 20' 40' 60'

SCALE: 1" = 20'
CONTOUR INTERVAL: 1'

U.S. Survey Foot

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

MARK	DATE	ITEM
REVISIONS		

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

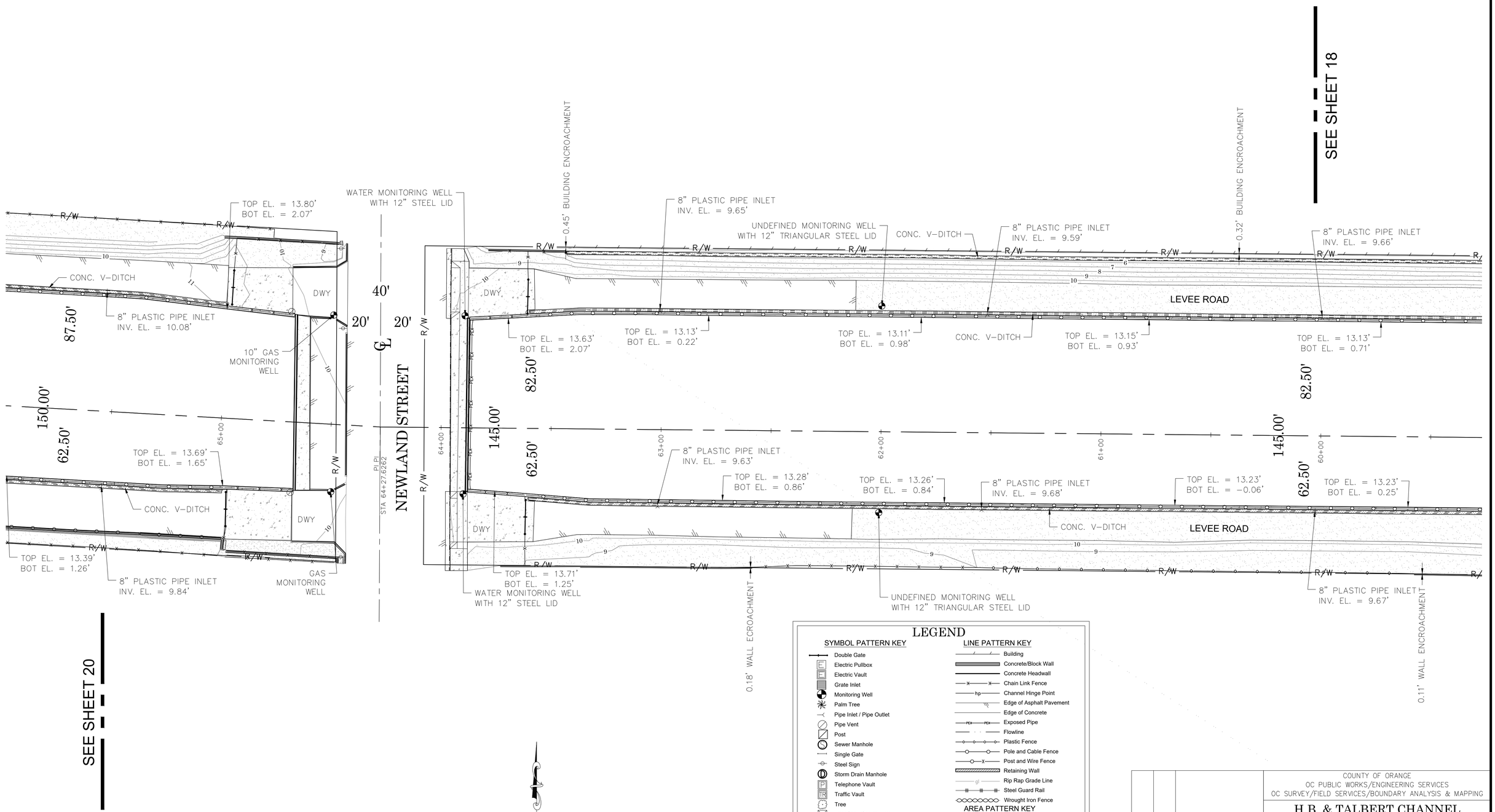
H.B. & TALBERT CHANNEL
CHANNEL MAINTENANCE

TOPOGRAPHIC MAP

PROJECT LIMITS: H.B. CHANNEL (D01) FROM BROOKHURST ST. TO ADAMS AVE.
TALBERT CHANNEL (D02) FROM BROOKHURST ST. TO YORKTOWN AVE.

DATE OF SURVEY: 12/11/2019		BY: R.MACIAS, PLS & CREW
MAPPING		BY: A.VU
OFFICE CHECK		BY: E. MEDINA, PLS
FIELD CHECK		BY: R.MACIAS, PLS
SCALE: 1" = 20'	W.O. #EF19401S	FILE #1920PW-IN0009
FILE: HUNTINGTON BEACH CHANNEL PHASE 2_TOPO_2019.DWG		

SHEET NO. 18 of 63



MARK	DATE	ITEM
REVISIONS		

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

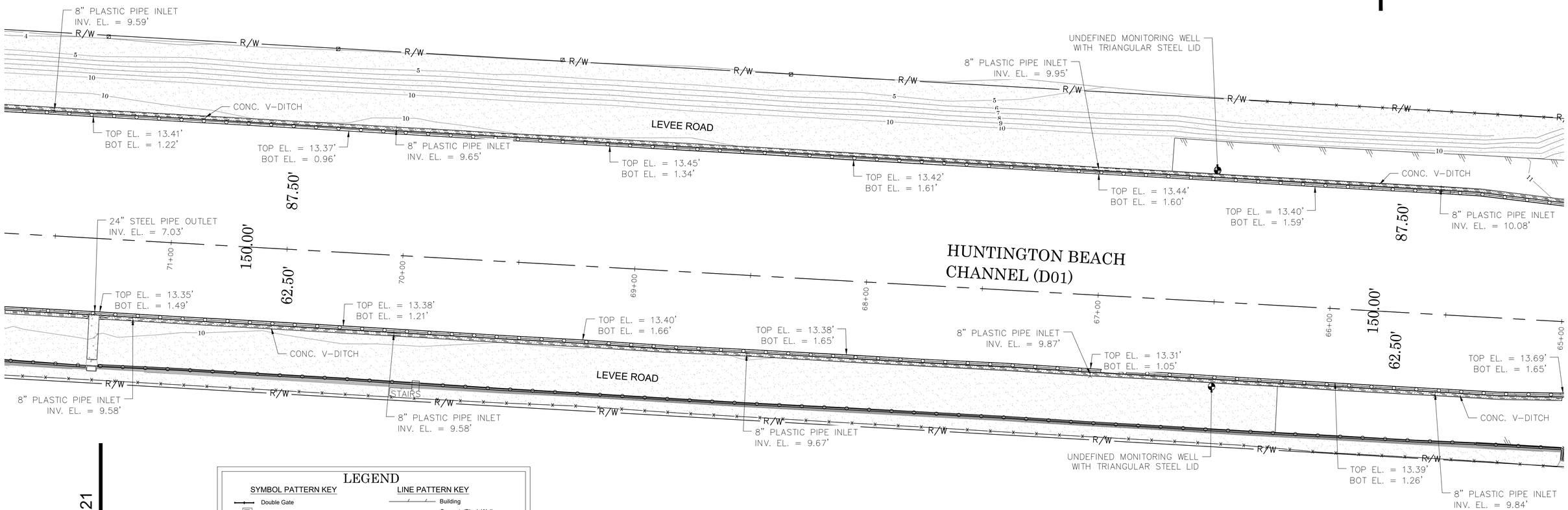
H.B. & TALBERT CHANNEL
CHANNEL MAINTENANCE

TOPOGRAPHIC MAP

PROJECT LIMITS: H.B. CHANNEL (D01) FROM BROOKHURST ST. TO ADAMS AVE.
TALBERT CHANNEL (D02) FROM BROOKHURST ST. TO YORKTOWN AVE.

DATE OF SURVEY:12/11/2019		BY:R.MACIAS, PLS & CREW
MAPPING		BY: A.VU
OFFICE CHECK		BY:E. MEDINA, PLS
FIELD CHECK		BY:R.MACIAS, PLS
SCALE:1" = 20'	W.O. #EF19401S	FILE #1920PW-IN0009
FILE:HUNTINGTON BEACH CHANNEL PHASE 2_TOPO_2019.DWG		

SHEET NO. 19 of 63



LEGEND

SYMBOL PATTERN KEY

- Double Gate
- Electric Pullbox
- Electric Vault
- Grate Inlet
- Monitoring Well
- Palm Tree
- Pipe Inlet / Pipe Outlet
- Pipe Vent
- Post
- Sewer Manhole
- Single Gate
- Steel Sign
- Storm Drain Manhole
- Telephone Vault
- Traffic Vault
- Tree
- Undefined Control Box
- Undefined Manhole
- Undefined Vault
- Valve
- Water Appurtenance-Air Release
- Wood Utility Pole
- Wood Utility Pole w/ Light

LINE PATTERN KEY

- Building
- Concrete/Block Wall
- Concrete Headwall
- Chain Link Fence
- Channel Hinge Point
- Edge of Asphalt Pavement
- Edge of Concrete
- Exposed Pipe
- Flowline
- Plastic Fence
- Pole and Cable Fence
- Post and Wire Fence
- Retaining Wall
- Rip Rap Grade Line
- Steel Guard Rail
- Wrought Iron Fence

AREA PATTERN KEY

- Concrete
- Dirt
- Grate
- Rip Rap/Gravel

0' 10' 20' 40' 60'

SCALE: 1" = 20'
CONTOUR INTERVAL: 1'

U.S. Survey Foot

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

MARK	DATE	ITEM

REVISIONS

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

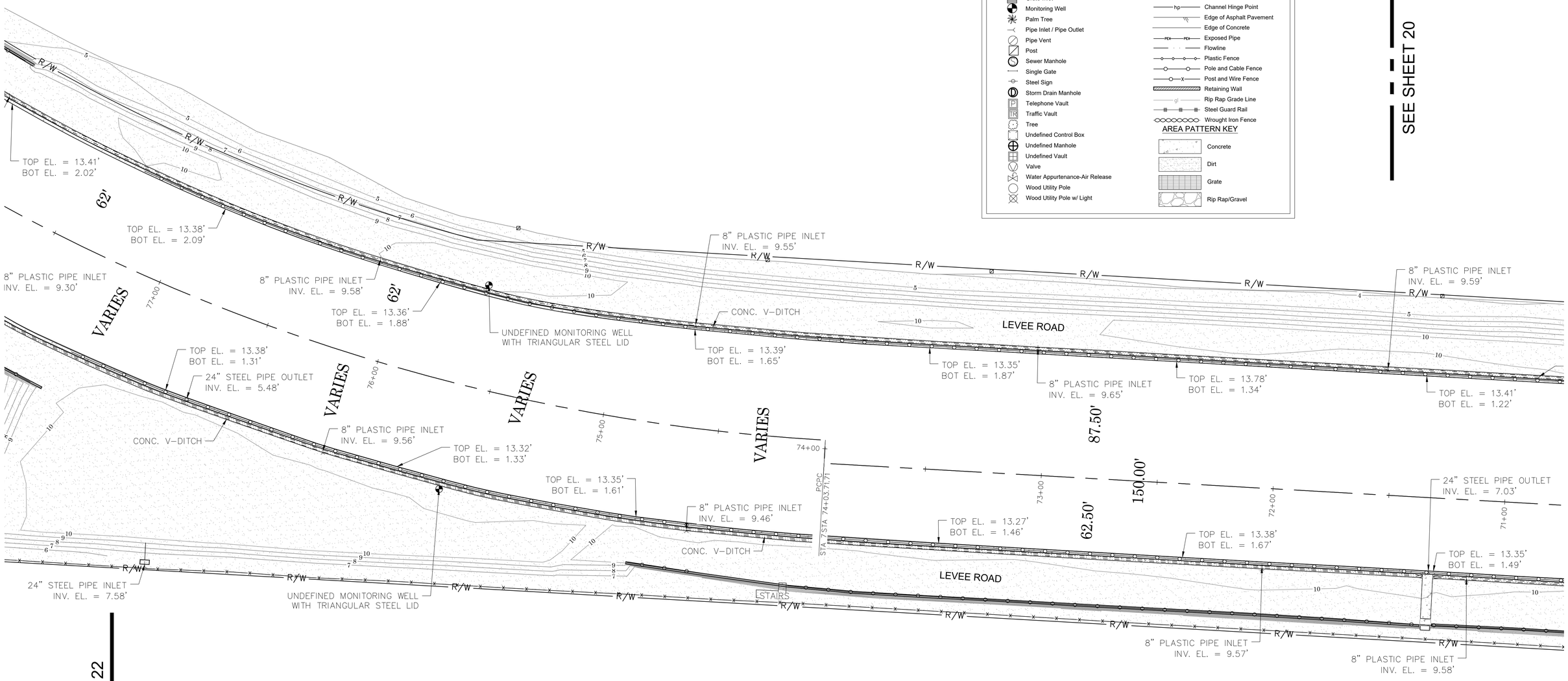
H.B. & TALBERT CHANNEL
CHANNEL MAINTENANCE

TOPOGRAPHIC MAP

PROJECT LIMITS: H.B. CHANNEL (D01) FROM BROOKHURST ST. TO ADAMS AVE.
TALBERT CHANNEL (D02) FROM BROOKHURST ST. TO YORKTOWN AVE.

DATE OF SURVEY:12/11/2019		BY:R.MACIAS, PLS & CREW
MAPPING		BY:A.VU
OFFICE CHECK		BY:E. MEDINA, PLS
FIELD CHECK		BY:R.MACIAS, PLS
SCALE:1" = 20'	W.O. #EF19401S	FILE #1920PW-IN0009
FILE:HUNTINGTON BEACH CHANNEL PHASE 2_TOPO_2019.DWG		

SHEET NO. 20 of 63



LEGEND

SYMBOL PATTERN KEY

- Double Gate
- Electric Pullbox
- Electric Vault
- Grate Inlet
- Monitoring Well
- Palm Tree
- Pipe Inlet / Pipe Outlet
- Pipe Vent
- Post
- Sewer Manhole
- Single Gate
- Steel Sign
- Storm Drain Manhole
- Telephone Vault
- Traffic Vault
- Tree
- Undefined Control Box
- Undefined Manhole
- Undefined Vault
- Valve
- Water Appurtenance-Air Release
- Wood Utility Pole
- Wood Utility Pole w/ Light

LINE PATTERN KEY

- Building
- Concrete/Block Wall
- Concrete Headwall
- Chain Link Fence
- Channel Hinge Point
- Edge of Asphalt Pavement
- Edge of Concrete
- Exposed Pipe
- Flowline
- Plastic Fence
- Pole and Cable Fence
- Post and Wire Fence
- Retaining Wall
- Rip Rap Grade Line
- Steel Guard Rail
- Wrought Iron Fence

AREA PATTERN KEY

- Concrete
- Dirt
- Grate
- Rip Rap/Gravel

SEE SHEET 20

SEE SHEET 22

0' 10' 20' 40' 60'

SCALE: 1" = 20'
CONTOUR INTERVAL: 1'

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

MARK	DATE	ITEM
REVISIONS		

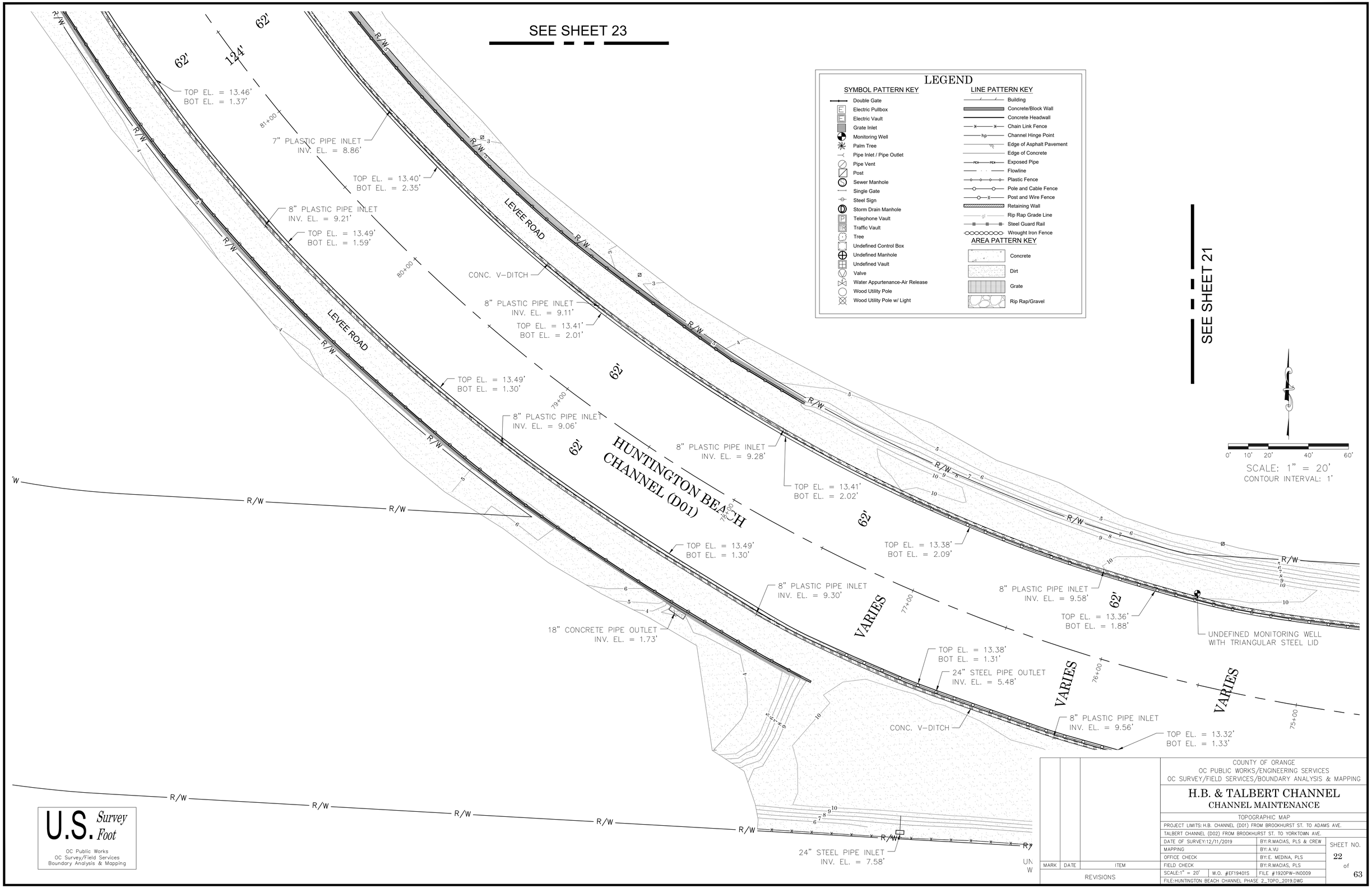
COUNTY OF ORANGE
OC PUBLIC WORKS/ENGINEERING SERVICES
OC SURVEY/FIELD SERVICES/BOUNDARY ANALYSIS & MAPPING

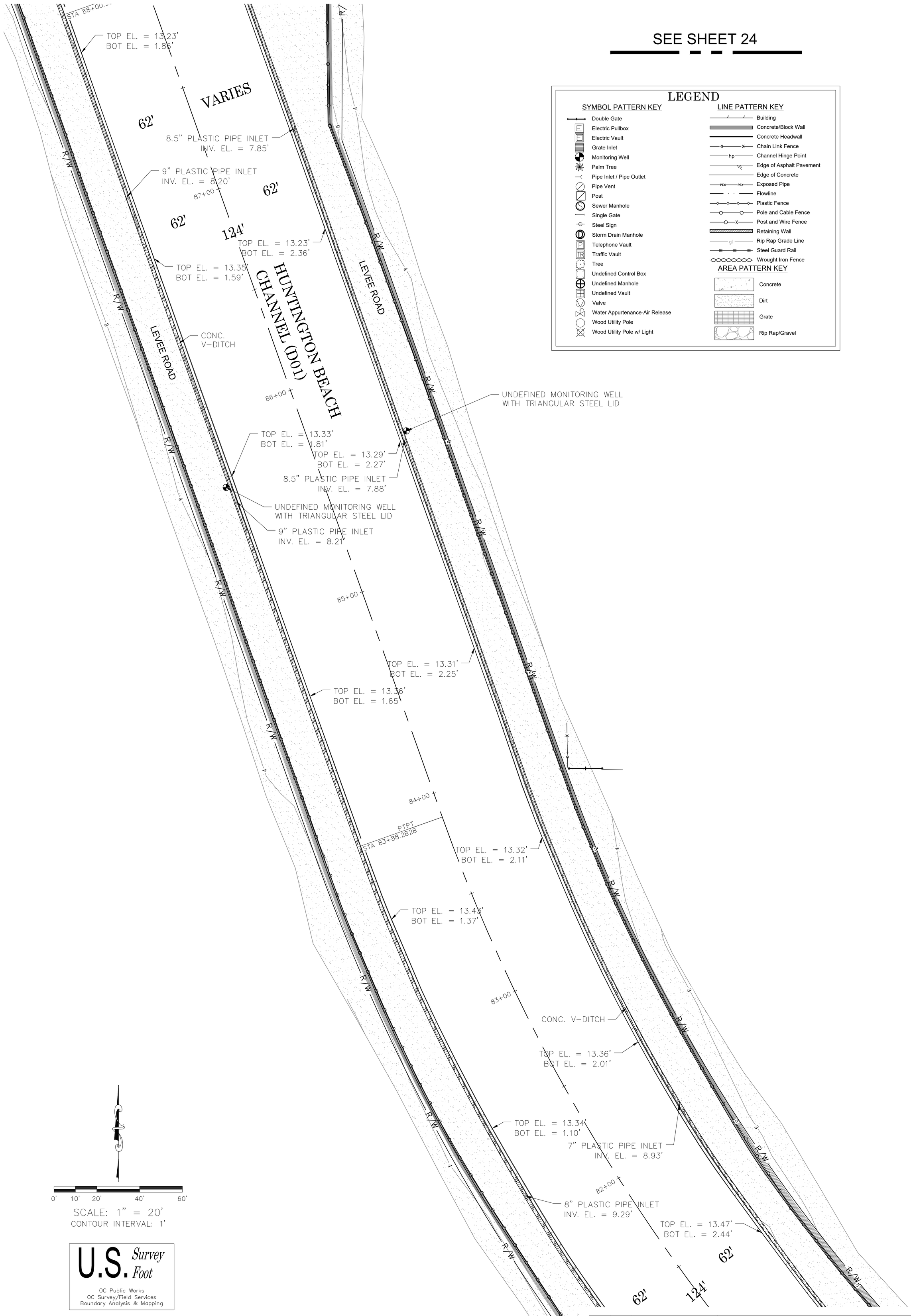
H.B. & TALBERT CHANNEL
CHANNEL MAINTENANCE

TOPOGRAPHIC MAP

PROJECT LIMITS: H.B. CHANNEL (D01) FROM BROOKHURST ST. TO ADAMS AVE.
TALBERT CHANNEL (D02) FROM BROOKHURST ST. TO YORKTOWN AVE.

DATE OF SURVEY:12/11/2019		BY:R.MACIAS, PLS & CREW
MAPPING		BY: A.VU
OFFICE CHECK		BY:E. MEDINA, PLS
FIELD CHECK		BY:R.MACIAS, PLS
SCALE:1" = 20'	W.O. #EF19401S	FILE #1920PW-IN0009
FILE:HUNTINGTON BEACH CHANNEL PHASE 2_TOPO_2019.DWG		


SEE SHEET 23
SEE SHEET 21
LEGEND
SYMBOL PATTERN KEY
Double Gate
Electric Pullbox
Electric Vault
Grate Inlet
Monitoring Well
Palm Tree
Pipe Inlet / Pipe Outlet
Pipe Vent
Post
Sewer Manhole
Single Gate
Steel Sign
Storm Drain Manhole
Telephone Vault
Traffic Vault
Tree
Undefined Control Box
Undefined Manhole
Undefined Vault
Valve
Water Appurtenance-Air Release
Wood Utility Pole
Wood Utility Pole w/ Light
LINE PATTERN KEY
Building
Concrete/Block Wall
Concrete Headwall
Chain Link Fence
Channel Hinge Point
Edge of Asphalt Pavement
Edge of Concrete
Exposed Pipe
Flowline
Plastic Fence
Pole and Cable Fence
Post and Wire Fence
Retaining Wall
Rip Rap Grade Line
Steel Guard Rail
Wrought Iron Fence
AREA PATTERN KEY
Concrete
Dirt
Grate
Rip Rap/Gravel
SCALE: 1" = 20'
CONTOUR INTERVAL: 1'
0' 10' 20' 40' 60'
LEVEE ROAD
HUNTINGTON BEACH CHANNEL (D01)
R/W
62'
144'
VARIES
TOP EL. = 13.46'
BOT EL. = 1.37'
7" PLASTIC PIPE INLET
INV. EL. = 8.86'
TOP EL. = 13.40'
BOT EL. = 2.35'
8" PLASTIC PIPE INLET
INV. EL. = 9.21'
TOP EL. = 13.49'
BOT EL. = 1.59'
CONC. V-DITCH
8" PLASTIC PIPE INLET
INV. EL. = 9.11'
TOP EL. = 13.41'
BOT EL. = 2.01'
TOP EL. = 13.49'
BOT EL. = 1.30'
8" PLASTIC PIPE INLET
INV. EL. = 9.06'
8" PLASTIC PIPE INLET
INV. EL. = 9.28'
TOP EL. = 13.41'
BOT EL. = 2.02'
TOP EL. = 13.49'
BOT EL. = 1.30'
TOP EL. = 13.38'
BOT EL. = 2.09'
8" PLASTIC PIPE INLET
INV. EL. = 9.30'
8" PLASTIC PIPE INLET
INV. EL. = 9.58'
TOP EL. = 13.36'
BOT EL. = 1.88'
UNDEFINED MONITORING WELL
WITH TRIANGULAR STEEL LID
18" CONCRETE PIPE OUTLET
INV. EL. = 1.73'
TOP EL. = 13.38'
BOT EL. = 1.31'
24" STEEL PIPE OUTLET
INV. EL. = 5.48'
CONC. V-DITCH
8" PLASTIC PIPE INLET
INV. EL. = 9.56'
TOP EL. = 13.32'
BOT EL. = 1.33'
24" STEEL PIPE INLET
INV. EL. = 7.58'
81+00
80+00
79+00
78+00
77+00
76+00
75+00
U.S. Survey Foot
OC Public Works
OC Survey/Field Services
Boundary Analysis & Mapping
COUNTY OF ORANGE
OC PUBLIC WORKS/ENGINEERING SERVICES
OC SURVEY/FIELD SERVICES/BOUNDARY ANALYSIS & MAPPING
H.B. & TALBERT CHANNEL
CHANNEL MAINTENANCE
TOPOGRAPHIC MAP
PROJECT LIMITS: H.B. CHANNEL (D01) FROM BROOKHURST ST. TO ADAMS AVE.
TALBERT CHANNEL (D02) FROM BROOKHURST ST. TO YORKTOWN AVE.
DATE OF SURVEY:12/11/2019
BY:R.MACIAS, PLS & CREW
MAPPING
BY: A.VU
OFFICE CHECK
BY:E. MEDINA, PLS
FIELD CHECK
BY:R.MACIAS, PLS
SCALE:1" = 20'
W.O. #EF19401S
FILE #1920PW-IN0009
FILE:HUNTINGTON BEACH CHANNEL PHASE 2_TOPO_2019.DWG
MARK
DATE
ITEM
REVISIONS
SHEET NO.
22
of
63



MARK	DATE	ITEM

REVISIONS

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

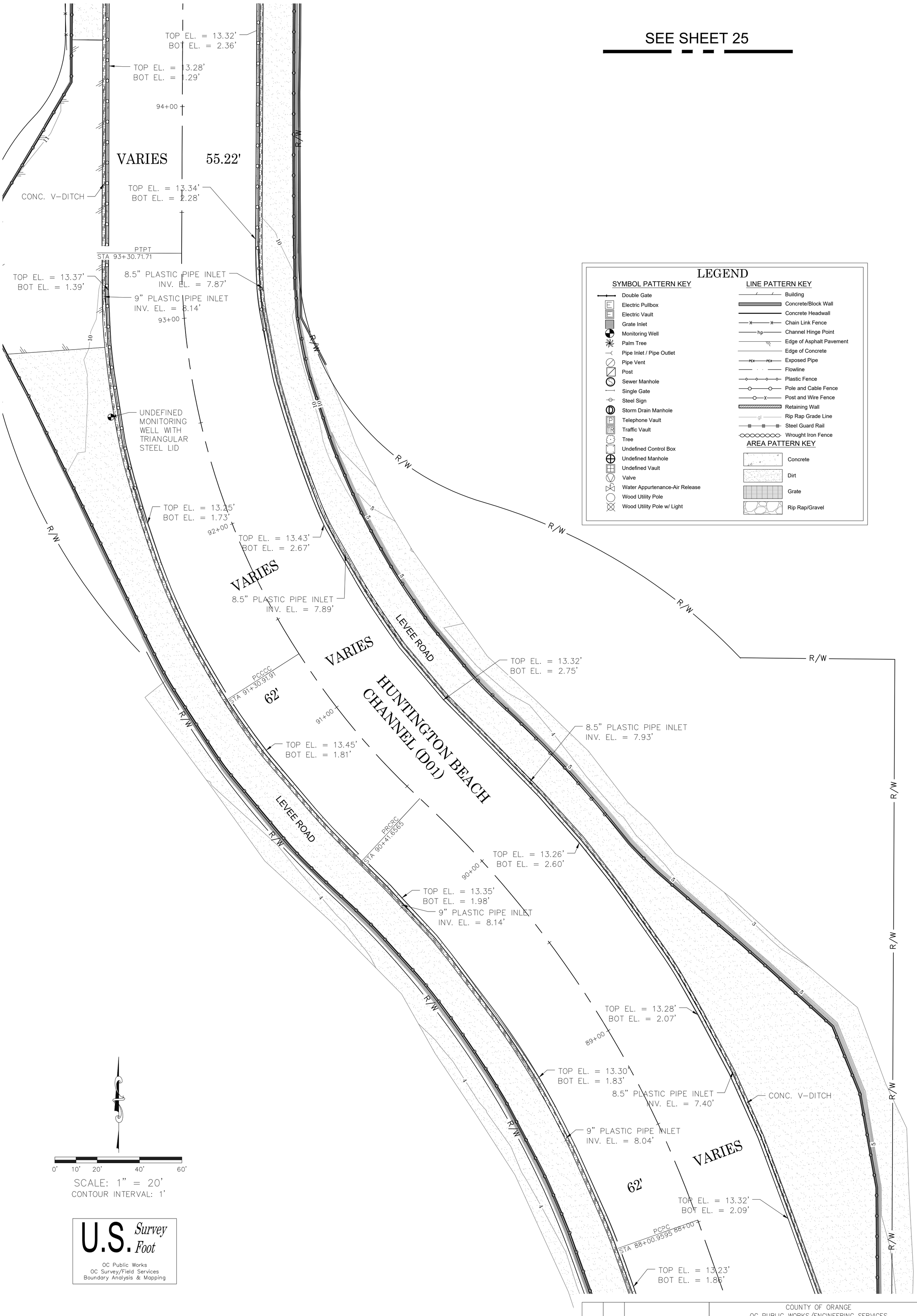
H.B. & TALBERT CHANNEL
CHANNEL MAINTENANCE

TOPOGRAPHIC MAP

PROJECT LIMITS: H.B. CHANNEL (D01) FROM BROOKHURST ST. TO ADAMS AVE.
TALBERT CHANNEL (D02) FROM BROOKHURST ST. TO YORKTOWN AVE.

DATE OF SURVEY: 12/11/2019	BY: R.MACIAS, PLS & CREW	SHEET NO.
MAPPING	BY: A.VU	23
OFFICE CHECK	BY: E. MEDINA, PLS	of
FIELD CHECK	BY: R.MACIAS, PLS	63
SCALE: 1" = 20' W.O. #EF19401S	FILE #1920PW-IN0009	

FILE: HUNTINGTON BEACH CHANNEL PHASE 2_TOPO_2019.DWG



LEGEND

SYMBOL PATTERN KEY

- Double Gate
- Electric Pullbox
- Electric Vault
- Grate Inlet
- Monitoring Well
- Palm Tree
- Pipe Inlet / Pipe Outlet
- Pipe Vent
- Post
- Sewer Manhole
- Single Gate
- Steel Sign
- Storm Drain Manhole
- Telephone Vault
- Traffic Vault
- Tree
- Undefined Control Box
- Undefined Manhole
- Undefined Vault
- Valve
- Water Appurtenance-Air Release
- Wood Utility Pole
- Wood Utility Pole w/ Light

LINE PATTERN KEY

- Building
- Concrete/Block Wall
- Concrete Headwall
- Chain Link Fence
- Channel Hinge Point
- Edge of Asphalt Pavement
- Edge of Concrete
- Exposed Pipe
- Flowline
- Plastic Fence
- Pole and Cable Fence
- Post and Wire Fence
- Retaining Wall
- Rip Rap Grade Line
- Steel Guard Rail
- Wrought Iron Fence

AREA PATTERN KEY

- Concrete
- Dirt
- Grate
- Rip Rap/Gravel

MARK	DATE	ITEM
REVISIONS		

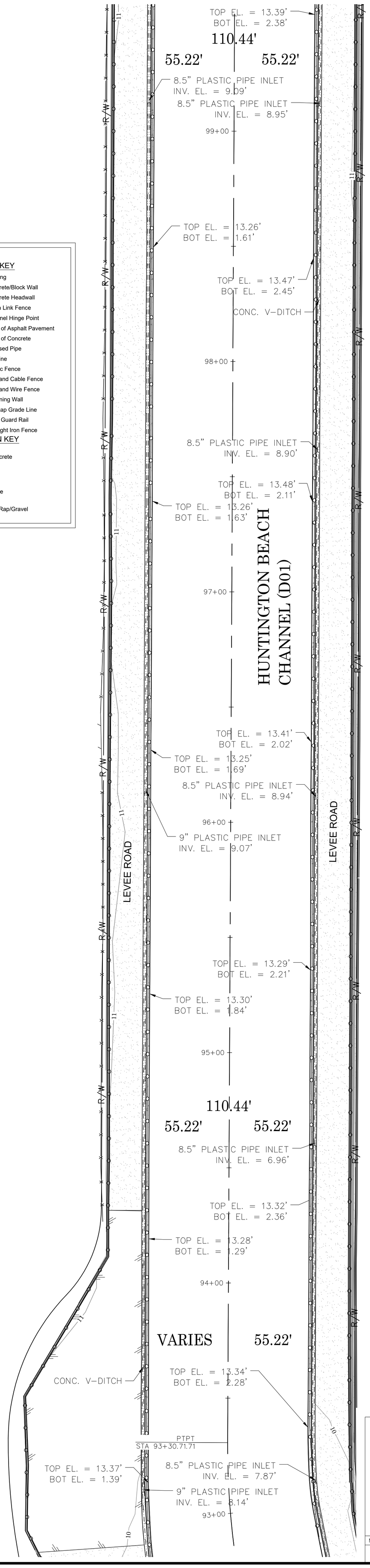
COUNTY OF ORANGE
OC PUBLIC WORKS/ENGINEERING SERVICES
OC SURVEY/FIELD SERVICES/BOUNDARY ANALYSIS & MAPPING

H.B. & TALBERT CHANNEL
CHANNEL MAINTENANCE

TOPOGRAPHIC MAP

PROJECT LIMITS: H.B. CHANNEL (D01) FROM BROOKHURST ST. TO ADAMS AVE.
TALBERT CHANNEL (D02) FROM BROOKHURST ST. TO YORKTOWN AVE.

DATE OF SURVEY: 12/11/2019	BY: R.MACIAS, PLS & CREW	SHEET NO.
MAPPING	BY: A.VU	24
OFFICE CHECK	BY: E. MEDINA, PLS	of
FIELD CHECK	BY: R.MACIAS, PLS	63
SCALE: 1" = 20' W.O. #EF19401S	FILE #1920PW-IN0009	
FILE: HUNTINGTON BEACH CHANNEL PHASE 2_TOPO_2019.DWG		



LEGEND

SYMBOL PATTERN KEY

- Double Gate
- Electric Pullbox
- Electric Vault
- Grate Inlet
- Monitoring Well
- Palm Tree
- Pipe Inlet / Pipe Outlet
- Pipe Vent
- Post
- Sewer Manhole
- Single Gate
- Steel Sign
- Storm Drain Manhole
- Telephone Vault
- Traffic Vault
- Tree
- Undefined Control Box
- Undefined Manhole
- Undefined Vault
- Valve
- Water Appurtenance-Air Release
- Wood Utility Pole
- Wood Utility Pole w/ Light

LINE PATTERN KEY

- Building
- Concrete/Block Wall
- Concrete Headwall
- Chain Link Fence
- Channel Hinge Point
- Edge of Asphalt Pavement
- Edge of Concrete
- Exposed Pipe
- Flowline
- Plastic Fence
- Pole and Cable Fence
- Post and Wire Fence
- Retaining Wall
- Rip Rap Grade Line
- Steel Guard Rail
- Wrought Iron Fence

AREA PATTERN KEY

- Concrete
- Dirt
- Grate
- Rip Rap/Gravel

0' 10' 20' 40' 60'

SCALE: 1" = 20'
CONTOUR INTERVAL: 1'

U.S. Survey Foot

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

SEE SHEET 24

MARK	DATE	ITEM
REVISIONS		

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

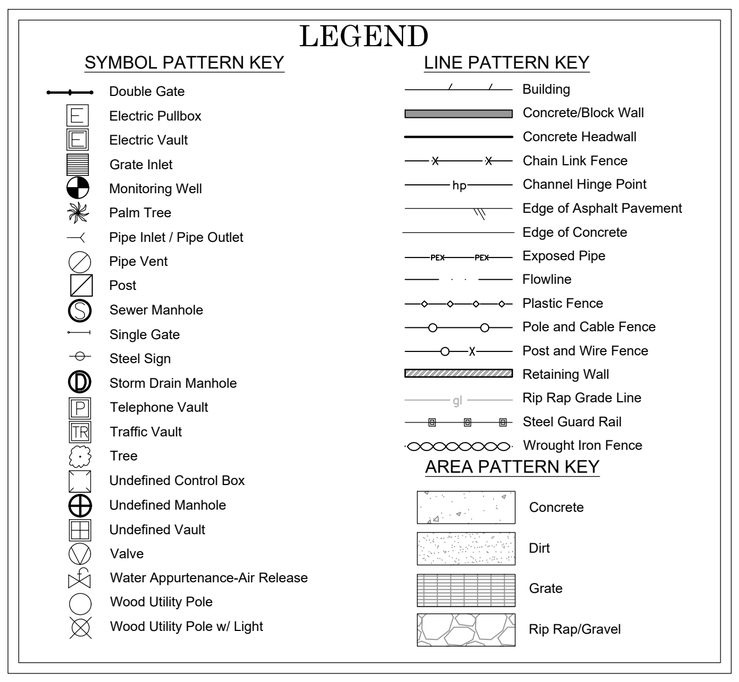
H.B. & TALBERT CHANNEL
CHANNEL MAINTENANCE

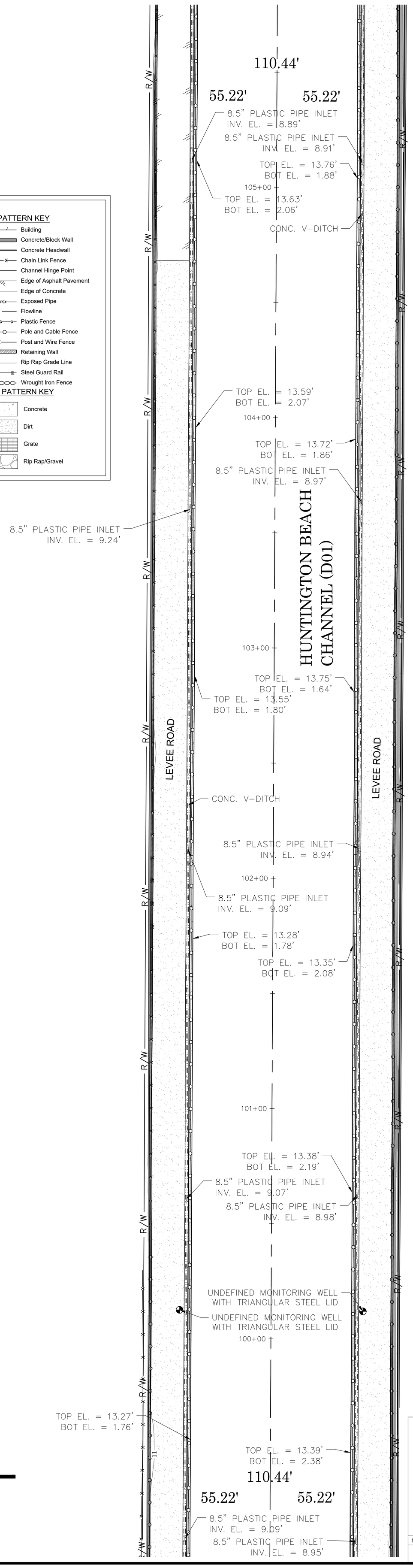
TOPOGRAPHIC MAP

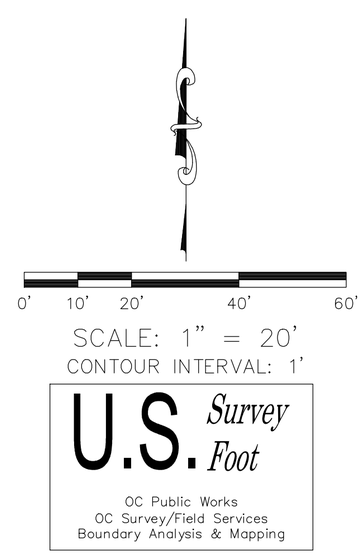
PROJECT LIMITS: H.B. CHANNEL (D01) FROM BROOKHURST ST. TO ADAMS AVE.
TALBERT CHANNEL (D02) FROM BROOKHURST ST. TO YORKTOWN AVE.

DATE OF SURVEY: 12/11/2019		BY: R.MACIAS, PLS & CREW
MAPPING		BY: A.VU
OFFICE CHECK		BY: E. MEDINA, PLS
FIELD CHECK		BY: R.MACIAS, PLS
SCALE: 1" = 20'	W.O. #EF19401S	FILE #1920PW-IN0009
FILE: HUNTINGTON BEACH CHANNEL PHASE 2_TOPO_2019.DWG		

SHEET NO. 25 of 63







MARK	DATE	ITEM

REVISIONS

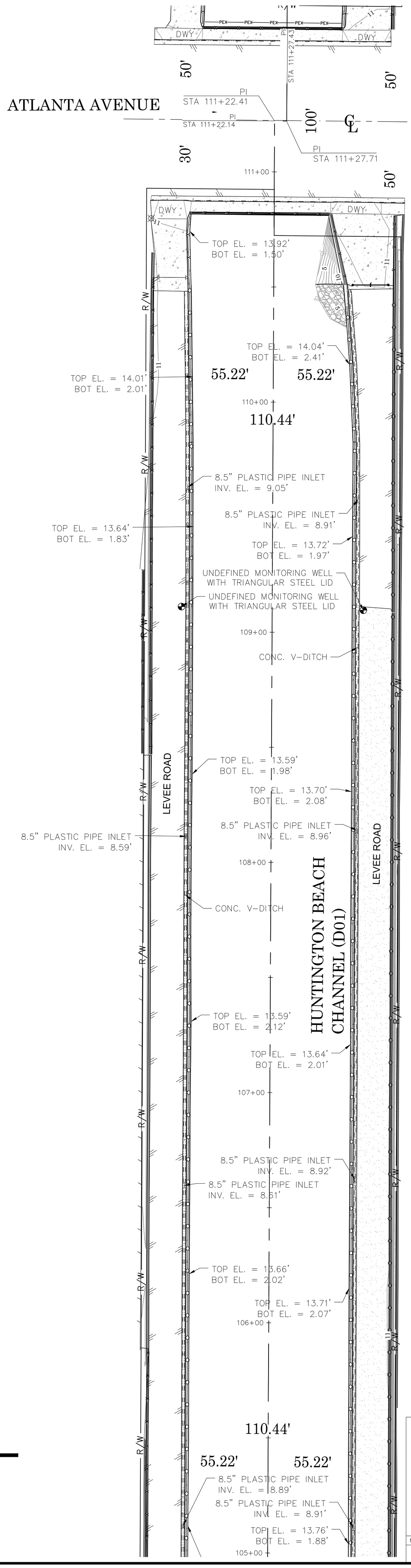
COUNTY OF ORANGE
OC PUBLIC WORKS/ENGINEERING SERVICES
OC SURVEY/FIELD SERVICES/BOUNDARY ANALYSIS & MAPPING

H.B. & TALBERT CHANNEL
CHANNEL MAINTENANCE

TOPOGRAPHIC MAP

PROJECT LIMITS: H.B. CHANNEL (D01) FROM BROOKHURST ST. TO ADAMS AVE.
TALBERT CHANNEL (D02) FROM BROOKHURST ST. TO YORKTOWN AVE.

DATE OF SURVEY: 12/11/2019	BY: R.MACIAS, PLS & CREW	SHEET NO.
MAPPING	BY: A.VU	26
OFFICE CHECK	BY: E. MEDINA, PLS	of
FIELD CHECK	BY: R.MACIAS, PLS	63
SCALE: 1" = 20' W.O. #EF19401S	FILE #1920PW-IN0009	
FILE: HUNTINGTON BEACH CHANNEL PHASE 2_TOPO_2019.DWG		



SEE SHEET 28

LEGEND

SYMBOL PATTERN KEY

- Double Gate
- Electric Pullbox
- Electric Vault
- Grate Inlet
- Monitoring Well
- Palm Tree
- Pipe Inlet / Pipe Outlet
- Pipe Vent
- Post
- Sewer Manhole
- Single Gate
- Steel Sign
- Storm Drain Manhole
- Telephone Vault
- Traffic Vault
- Tree
- Undefined Control Box
- Undefined Manhole
- Undefined Vault
- Valve
- Water Appurtenance-Air Release
- Wood Utility Pole
- Wood Utility Pole w/ Light

LINE PATTERN KEY

- Building
- Concrete/Block Wall
- Concrete Headwall
- Chain Link Fence
- Channel Hinge Point
- Edge of Asphalt Pavement
- Edge of Concrete
- Exposed Pipe
- Flowline
- Plastic Fence
- Pole and Cable Fence
- Post and Wire Fence
- Retaining Wall
- Rip Rap Grade Line
- Steel Guard Rail
- Wrought Iron Fence

AREA PATTERN KEY

- Concrete
- Dirt
- Grate
- Rip Rap/Gravel

0' 10' 20' 40' 60'

SCALE: 1" = 20'
CONTOUR INTERVAL: 1'

U.S. Survey Foot

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

SEE SHEET 26

MARK	DATE	ITEM
REVISIONS		

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

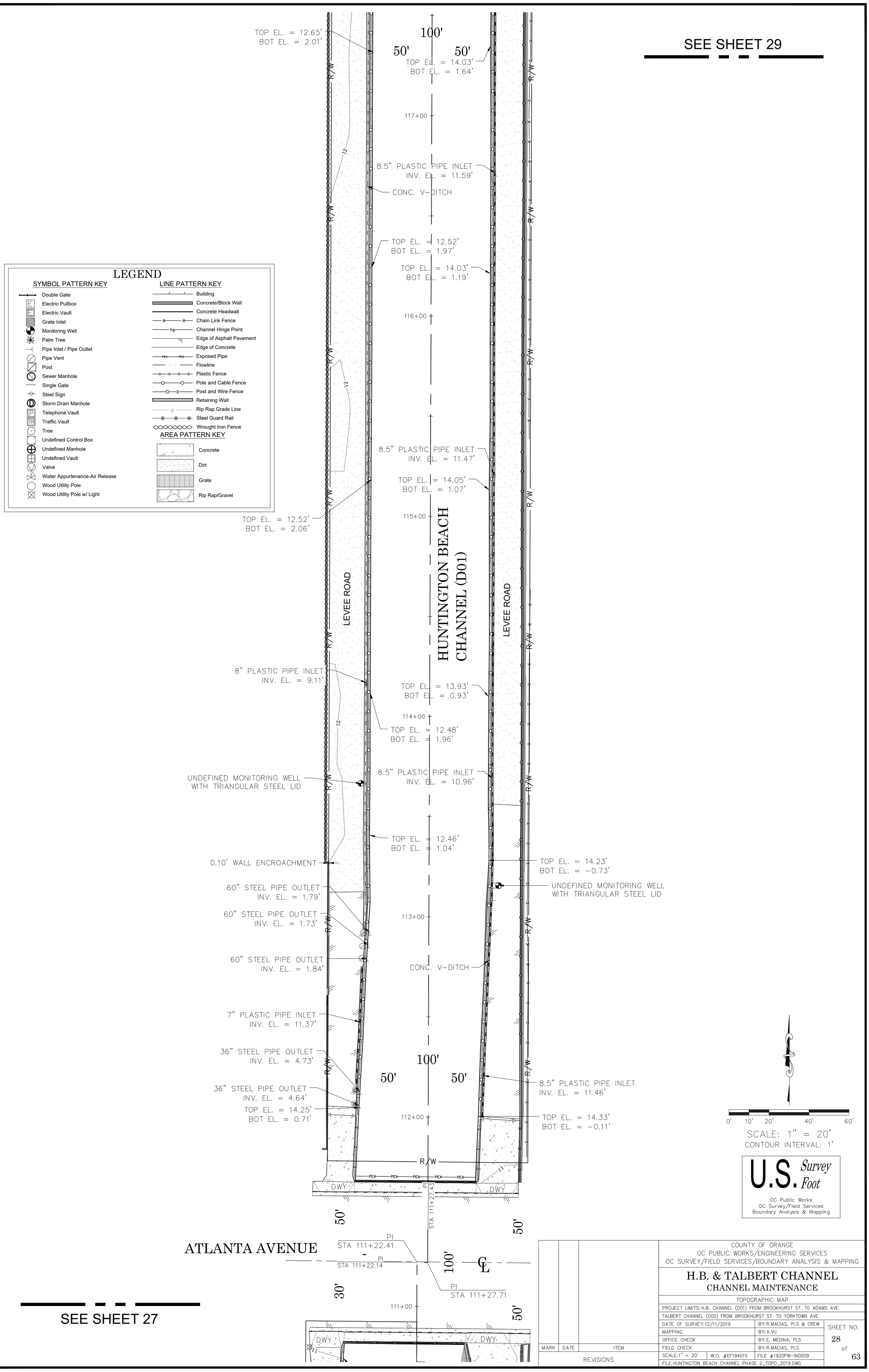
H.B. & TALBERT CHANNEL
CHANNEL MAINTENANCE

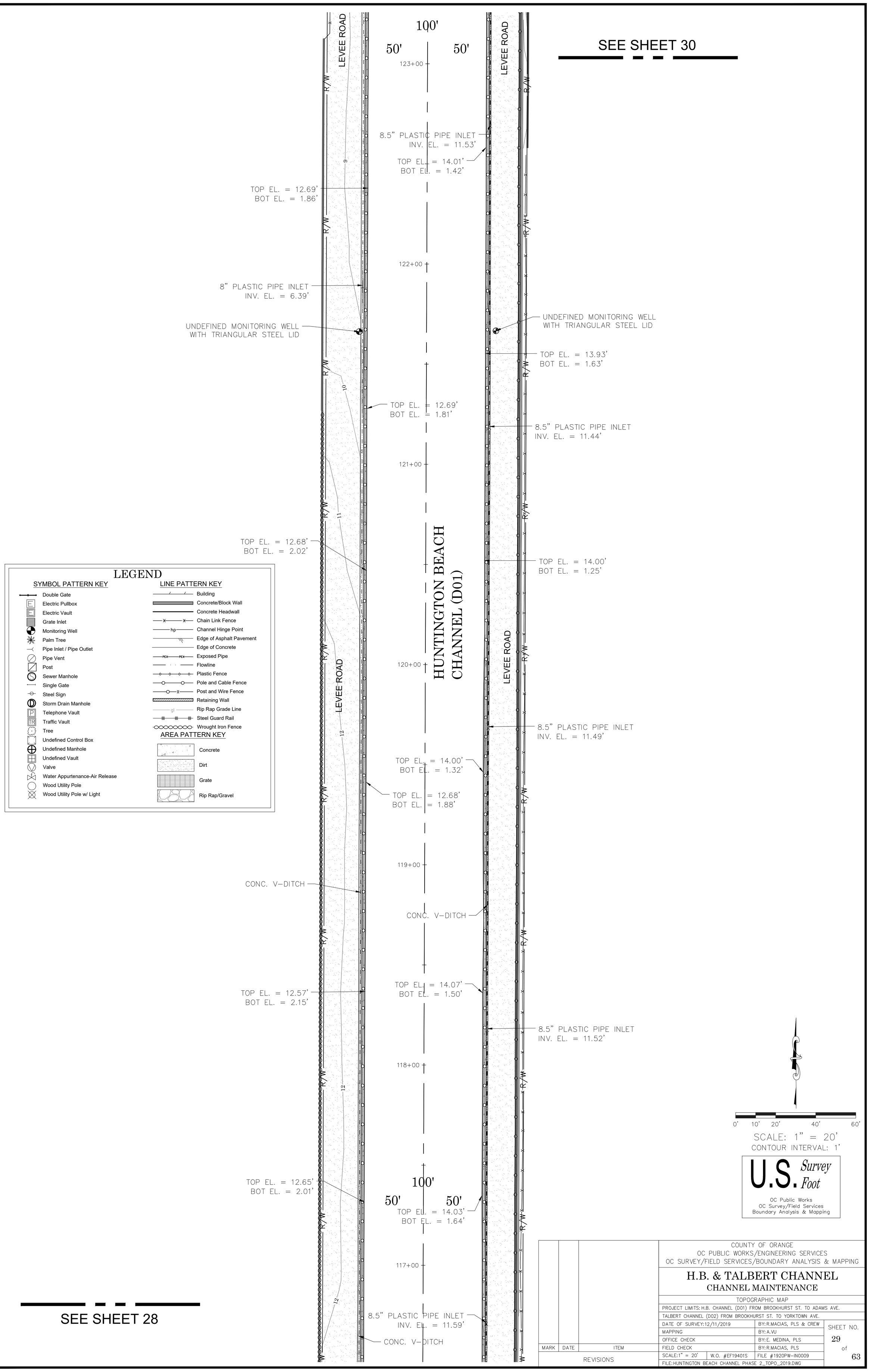
TOPOGRAPHIC MAP

PROJECT LIMITS: H.B. CHANNEL (D01) FROM BROOKHURST ST. TO ADAMS AVE.
TALBERT CHANNEL (D02) FROM BROOKHURST ST. TO YORKTOWN AVE.

DATE OF SURVEY:12/11/2019		BY: R.MACIAS, PLS & CREW
MAPPING		BY: A.VU
OFFICE CHECK		BY: E. MEDINA, PLS
FIELD CHECK		BY: R.MACIAS, PLS
SCALE:1" = 20'	W.O. #EF19401S	FILE #1920PW-IN0009
FILE: HUNTINGTON BEACH CHANNEL PHASE 2_TOPO_2019.DWG		

SHEET NO. 27 of 63


SEE SHEET 29
LEGEND
SYMBOL PATTERN KEY
Double Gate
Electric Pullbox
Electric Vault
Grate Inlet
Monitoring Well
Palm Tree
Pipe Inlet / Pipe Outlet
Pipe Vent
Post
Sewer Manhole
Single Gate
Steel Sign
Storm Drain Manhole
Telephone Vault
Traffic Vault
Tree
Undefined Control Box
Undefined Manhole
Undefined Vault
Valve
Water Appurtenance-Air Release
Wood Utility Pole
Wood Utility Pole w/ Light
LINE PATTERN KEY
Building
Concrete/Block Wall
Concrete Headwall
Chain Link Fence
Channel Hinge Point
Edge of Asphalt Pavement
Edge of Concrete
Exposed Pipe
Flowline
Plastic Fence
Pole and Cable Fence
Post and Wire Fence
Retaining Wall
Rip Rap Grade Line
Steel Guard Rail
Wrought Iron Fence
AREA PATTERN KEY
Concrete
Dirt
Grate
Rip Rap/Gravel
TOP EL. = 12.65'
BOT EL. = 2.01'
100'
50'
50'
TOP EL. = 14.03'
BOT EL. = 1.64'
117+00
8.5" PLASTIC PIPE INLET
INV. EL. = 11.59'
CONC. V-DITCH
TOP EL. = 12.52'
BOT EL. = 1.97'
TOP EL. = 14.03'
BOT EL. = 1.19'
116+00
8.5" PLASTIC PIPE INLET
INV. EL. = 11.47'
TOP EL. = 14.05'
BOT EL. = 1.07'
TOP EL. = 12.52'
BOT EL. = 2.06'
115+00
HUNTINGTON BEACH
CHANNEL (D01)
LEVEE ROAD
LEVEE ROAD
8" PLASTIC PIPE INLET
INV. EL. = 9.11'
TOP EL. = 13.93'
BOT EL. = 0.93'
114+00
TOP EL. = 12.48'
BOT EL. = 1.96'
UNDEFINED MONITORING WELL
WITH TRIANGULAR STEEL LID
8.5" PLASTIC PIPE INLET
INV. EL. = 10.96'
TOP EL. = 12.46'
BOT EL. = 1.04'
0.10' WALL ENCROACHMENT
TOP EL. = 14.23'
BOT EL. = -0.73'
UNDEFINED MONITORING WELL
WITH TRIANGULAR STEEL LID
60" STEEL PIPE OUTLET
INV. EL. = 1.79'
60" STEEL PIPE OUTLET
INV. EL. = 1.73'
113+00
60" STEEL PIPE OUTLET
INV. EL. = 1.84'
CONC. V-DITCH
7" PLASTIC PIPE INLET
INV. EL. = 11.37'
36" STEEL PIPE OUTLET
INV. EL. = 4.73'
100'
50'
50'
8.5" PLASTIC PIPE INLET
INV. EL. = 11.46'
36" STEEL PIPE OUTLET
INV. EL. = 4.64'
TOP EL. = 14.25'
BOT EL. = 0.71'
112+00
TOP EL. = 14.33'
BOT EL. = -0.11'
R/W
DWY
DWY
STA 111+27.43
50'
50'
ATLANTA AVENUE
PI
STA 111+22.41
PI
STA 111+22.14
100'
PI
STA 111+27.71
30'
111+00
50'
DWY
DWY
SEE SHEET 27
0' 10' 20' 40' 60'
SCALE: 1" = 20'
CONTOUR INTERVAL: 1'
U.S. Survey Foot
OC Public Works
OC Survey/Field Services
Boundary Analysis & Mapping
MARK
DATE
ITEM
REVISIONS
COUNTY OF ORANGE
OC PUBLIC WORKS/ENGINEERING SERVICES
OC SURVEY/FIELD SERVICES/BOUNDARY ANALYSIS & MAPPING
H.B. & TALBERT CHANNEL
CHANNEL MAINTENANCE
TOPOGRAPHIC MAP
PROJECT LIMITS: H.B. CHANNEL (D01) FROM BROOKHURST ST. TO ADAMS AVE.
TALBERT CHANNEL (D02) FROM BROOKHURST ST. TO YORKTOWN AVE.
DATE OF SURVEY:12/11/2019
BY: R.MACIAS, PLS & CREW
MAPPING
BY: A.VU
OFFICE CHECK
BY: E. MEDINA, PLS
FIELD CHECK
BY: R.MACIAS, PLS
SCALE:1" = 20'
W.O. #EF19401S
FILE #1920PW-IN0009
FILE: HUNTINGTON BEACH CHANNEL PHASE 2_TOPO_2019.DWG
SHEET NO.
28
of
63


SEE SHEET 30
100'
50'
50'
LEVEE ROAD
R/W
123+00
8.5" PLASTIC PIPE INLET
INV. EL. = 11.53'
TOP EL. = 14.01'
BOT EL. = 1.42'
TOP EL. = 12.69'
BOT EL. = 1.86'
122+00
8" PLASTIC PIPE INLET
INV. EL. = 6.39'
UNDEFINED MONITORING WELL
WITH TRIANGULAR STEEL LID
TOP EL. = 13.93'
BOT EL. = 1.63'
TOP EL. = 12.69'
BOT EL. = 1.81'
8.5" PLASTIC PIPE INLET
INV. EL. = 11.44'
121+00
TOP EL. = 12.68'
BOT EL. = 2.02'
TOP EL. = 14.00'
BOT EL. = 1.25'
HUNTINGTON BEACH
CHANNEL (D01)
120+00
8.5" PLASTIC PIPE INLET
INV. EL. = 11.49'
TOP EL. = 14.00'
BOT EL. = 1.32'
TOP EL. = 12.68'
BOT EL. = 1.88'
119+00
CONC. V-DITCH
TOP EL. = 14.07'
BOT EL. = 1.50'
TOP EL. = 12.57'
BOT EL. = 2.15'
8.5" PLASTIC PIPE INLET
INV. EL. = 11.52'
118+00
TOP EL. = 12.65'
BOT EL. = 2.01'
TOP EL. = 14.03'
BOT EL. = 1.64'
117+00
8.5" PLASTIC PIPE INLET
INV. EL. = 11.59'
CONC. V-DITCH
SEE SHEET 28
LEGEND
SYMBOL PATTERN KEY
Double Gate
Electric Pullbox
Electric Vault
Grate Inlet
Monitoring Well
Palm Tree
Pipe Inlet / Pipe Outlet
Pipe Vent
Post
Sewer Manhole
Single Gate
Steel Sign
Storm Drain Manhole
Telephone Vault
Traffic Vault
Tree
Undefined Control Box
Undefined Manhole
Undefined Vault
Valve
Water Appurtenance-Air Release
Wood Utility Pole
Wood Utility Pole w/ Light
LINE PATTERN KEY
Building
Concrete/Block Wall
Concrete Headwall
Chain Link Fence
Channel Hinge Point
Edge of Asphalt Pavement
Edge of Concrete
Exposed Pipe
Flowline
Plastic Fence
Pole and Cable Fence
Post and Wire Fence
Retaining Wall
Rip Rap Grade Line
Steel Guard Rail
Wrought Iron Fence
AREA PATTERN KEY
Concrete
Dirt
Grate
Rip Rap/Gravel
0' 10' 20' 40' 60'
SCALE: 1" = 20'
CONTOUR INTERVAL: 1'
U.S. Survey Foot
OC Public Works
OC Survey/Field Services
Boundary Analysis & Mapping
MARK
DATE
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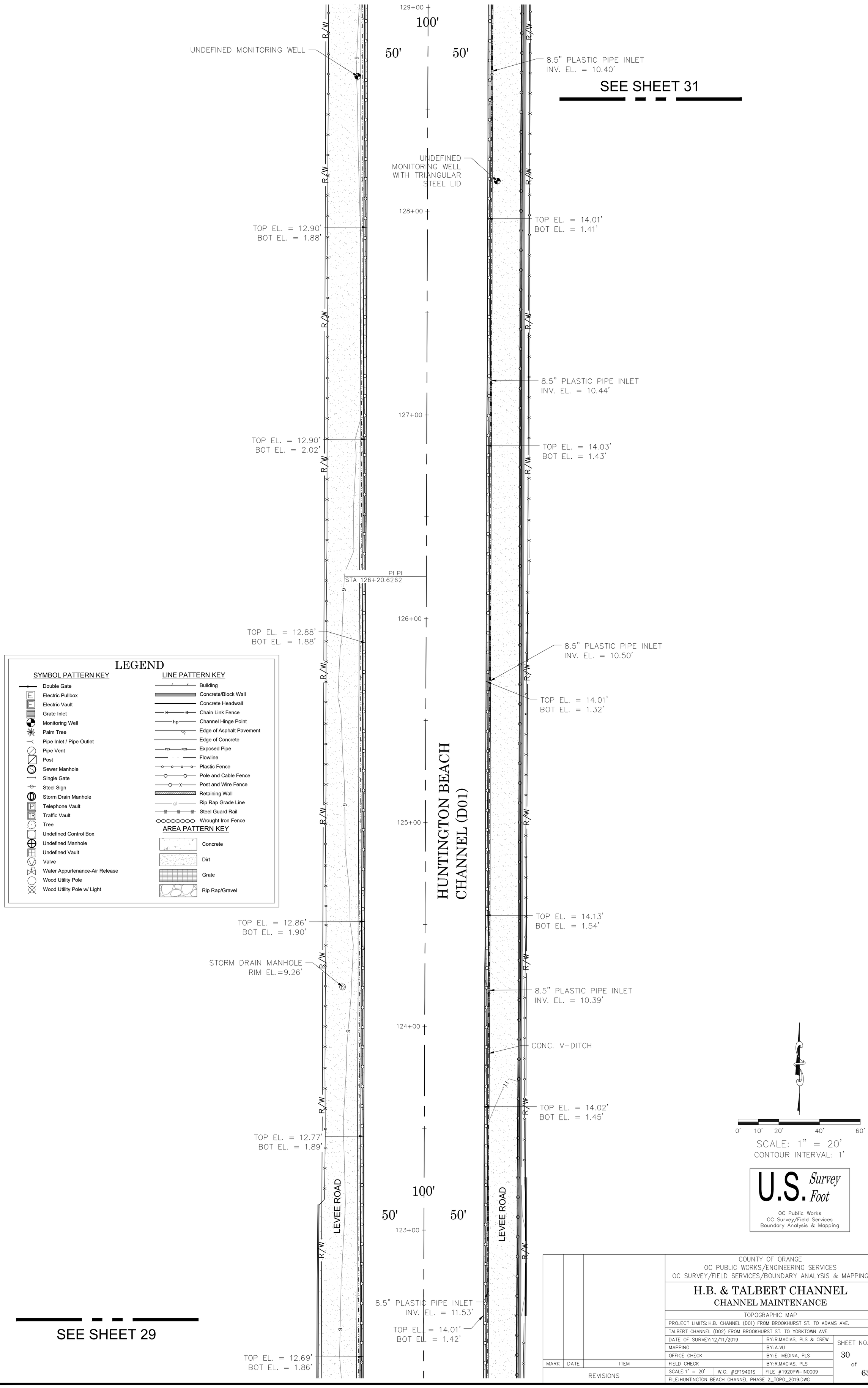
COUNTY OF ORANGE
OC PUBLIC WORKS/ENGINEERING SERVICES
OC SURVEY/FIELD SERVICES/BOUNDARY ANALYSIS & MAPPING
H.B. & TALBERT CHANNEL
CHANNEL MAINTENANCE
TOPOGRAPHIC MAP
PROJECT LIMITS: H.B. CHANNEL (D01) FROM BROOKHURST ST. TO ADAMS AVE.
TALBERT CHANNEL (D02) FROM BROOKHURST ST. TO YORKTOWN AVE.
DATE OF SURVEY: 12/11/2019
BY: R.MACIAS, PLS & CREW
MAPPING
BY: A.VU
OFFICE CHECK
BY: E. MEDINA, PLS
FIELD CHECK
BY: R.MACIAS, PLS
SCALE: 1" = 20'
W.O. #EF19401S
FILE #1920PW-IN0009
FILE: HUNTINGTON BEACH CHANNEL PHASE 2_TOPO_2019.DWG
SHEET NO.
29
of
63



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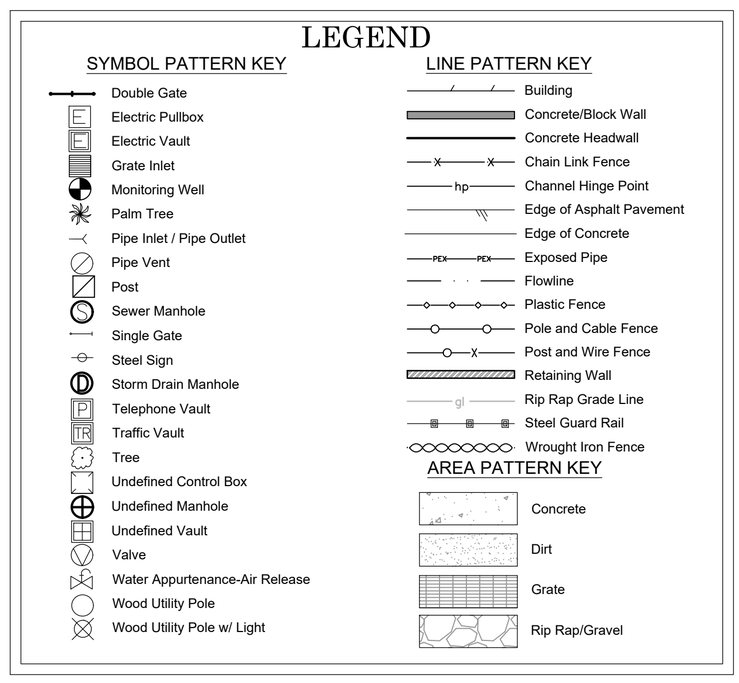
COUNTY OF ORANGE
OC PUBLIC WORKS/ENGINEERING SERVICES
OC SURVEY/FIELD SERVICES/BOUNDARY ANALYSIS & MAPPING

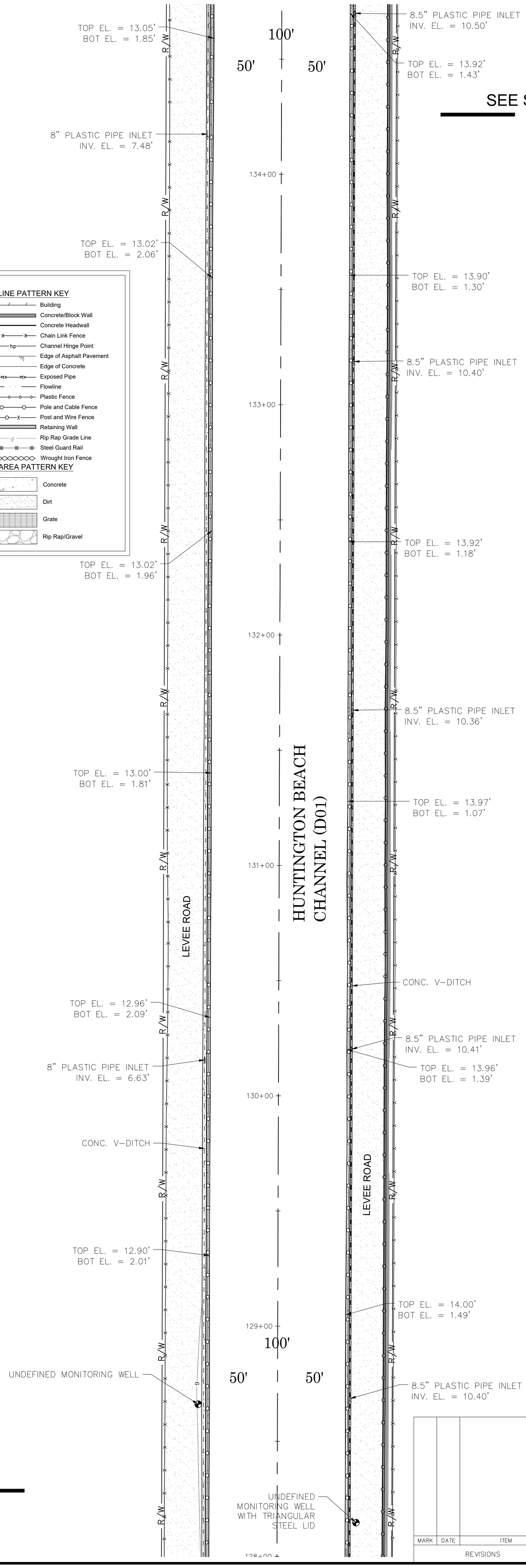
H.B. & TALBERT CHANNEL
CHANNEL MAINTENANCE

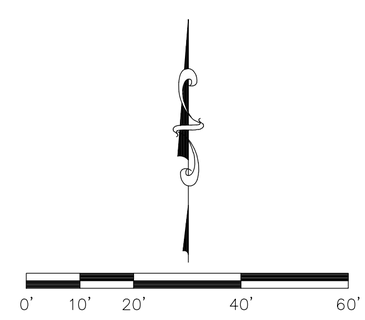
TOPOGRAPHIC MAP

PROJECT LIMITS: H.B. CHANNEL (D01) FROM BROOKHURST ST. TO ADAMS AVE.
TALBERT CHANNEL (D02) FROM BROOKHURST ST. TO YORKTOWN AVE.

DATE OF SURVEY:12/11/2019	BY: R.MACIAS, PLS & CREW	SHEET NO.
MAPPING	BY: A.VU	30
OFFICE CHECK	BY: E. MEDINA, PLS	of
FIELD CHECK	BY: R.MACIAS, PLS	63
SCALE: 1" = 20' W.O. #EF19401S	FILE #1920PW-IN0009	
FILE: HUNTINGTON BEACH CHANNEL PHASE 2_TOPO_2019.DWG		







SCALE: 1" = 20'
CONTOUR INTERVAL: 1'

U.S. Survey Foot

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

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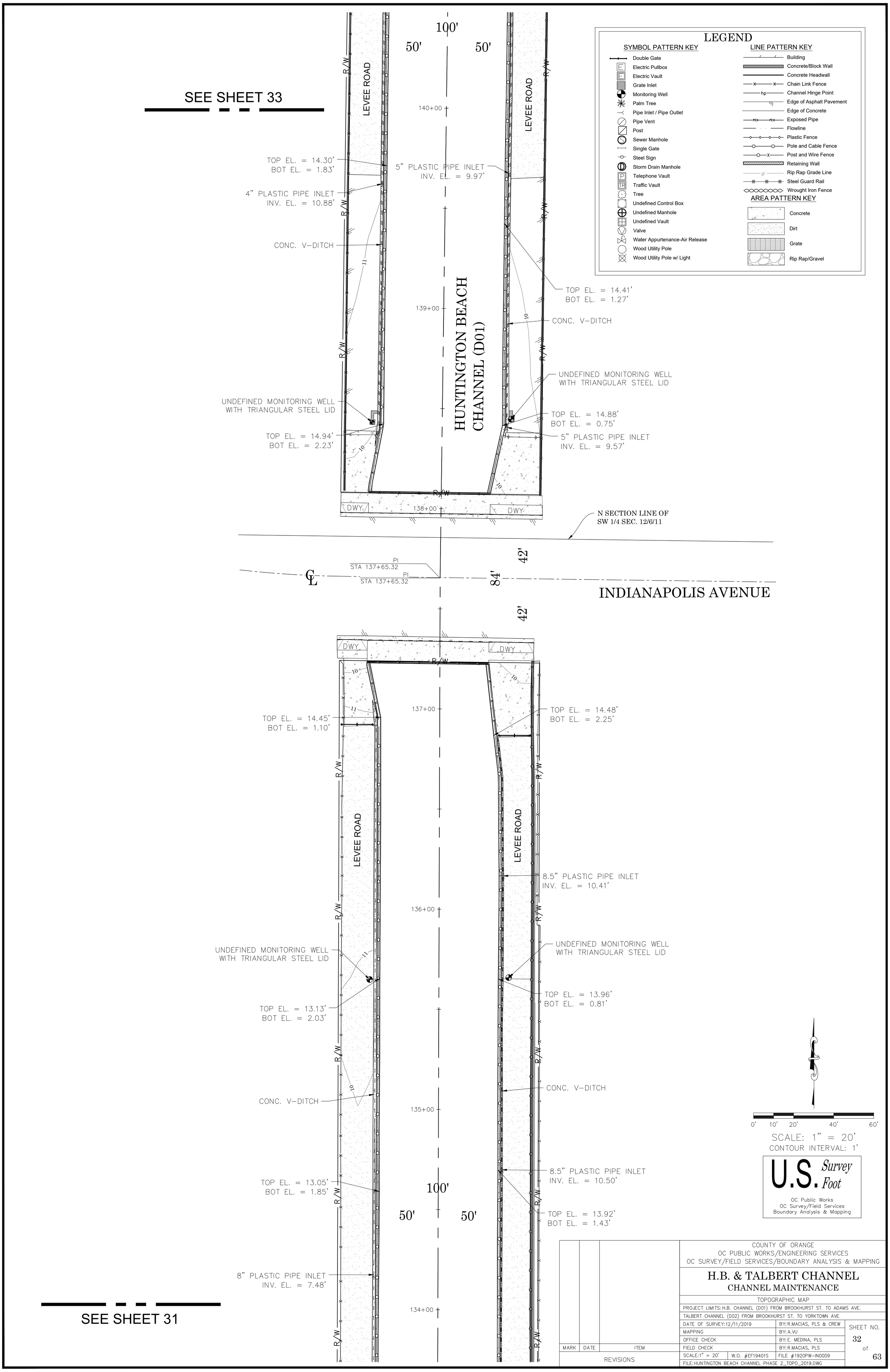
COUNTY OF ORANGE
OC PUBLIC WORKS/ENGINEERING SERVICES
OC SURVEY/FIELD SERVICES/BOUNDARY ANALYSIS & MAPPING

H.B. & TALBERT CHANNEL
CHANNEL MAINTENANCE

TOPOGRAPHIC MAP

PROJECT LIMITS: H.B. CHANNEL (D01) FROM BROOKHURST ST. TO ADAMS AVE.
TALBERT CHANNEL (D02) FROM BROOKHURST ST. TO YORKTOWN AVE.

DATE OF SURVEY: 12/11/2019	BY: R.MACIAS, PLS & CREW	SHEET NO.
MAPPING	BY: A.VU	31
OFFICE CHECK	BY: E. MEDINA, PLS	of
FIELD CHECK	BY: R.MACIAS, PLS	63
SCALE: 1" = 20' W.O. #EF19401S	FILE #1920PW-IN0009	
FILE: HUNTINGTON BEACH CHANNEL PHASE 2_TOPO_2019.DWG		


SEE SHEET 33
LEGEND
SYMBOL PATTERN KEY
Double Gate
Electric Pullbox
Electric Vault
Grate Inlet
Monitoring Well
Palm Tree
Pipe Inlet / Pipe Outlet
Pipe Vent
Post
Sewer Manhole
Single Gate
Steel Sign
Storm Drain Manhole
Telephone Vault
Traffic Vault
Tree
Undefined Control Box
Undefined Manhole
Undefined Vault
Valve
Water Appurtenance-Air Release
Wood Utility Pole
Wood Utility Pole w/ Light
LINE PATTERN KEY
Building
Concrete/Block Wall
Concrete Headwall
Chain Link Fence
Channel Hinge Point
Edge of Asphalt Pavement
Edge of Concrete
Exposed Pipe
Flowline
Plastic Fence
Pole and Cable Fence
Post and Wire Fence
Retaining Wall
Rip Rap Grade Line
Steel Guard Rail
Wrought Iron Fence
AREA PATTERN KEY
Concrete
Dirt
Grate
Rip Rap/Gravel
100'
50'
50'
LEVEE ROAD
R/W
140+00
139+00
138+00
137+00
136+00
135+00
134+00
HUNTINGTON BEACH CHANNEL (D01)
TOP EL. = 14.30'
BOT EL. = 1.83'
4" PLASTIC PIPE INLET
INV. EL. = 10.88'
CONC. V-DITCH
UNDEFINED MONITORING WELL
WITH TRIANGULAR STEEL LID
TOP EL. = 14.94'
BOT EL. = 2.23'
5" PLASTIC PIPE INLET
INV. EL. = 9.97'
TOP EL. = 14.41'
BOT EL. = 1.27'
CONC. V-DITCH
UNDEFINED MONITORING WELL
WITH TRIANGULAR STEEL LID
TOP EL. = 14.88'
BOT EL. = 0.75'
5" PLASTIC PIPE INLET
INV. EL. = 9.57'
DWY
N SECTION LINE OF
SW 1/4 SEC. 12/6/11
PI
STA 137+65.32
PI
STA 137+65.32
42'
84'
42'
INDIANAPOLIS AVENUE
TOP EL. = 14.45'
BOT EL. = 1.10'
TOP EL. = 14.48'
BOT EL. = 2.25'
8.5" PLASTIC PIPE INLET
INV. EL. = 10.41'
UNDEFINED MONITORING WELL
WITH TRIANGULAR STEEL LID
TOP EL. = 13.13'
BOT EL. = 2.03'
UNDEFINED MONITORING WELL
WITH TRIANGULAR STEEL LID
TOP EL. = 13.96'
BOT EL. = 0.81'
CONC. V-DITCH
CONC. V-DITCH
TOP EL. = 13.05'
BOT EL. = 1.85'
8.5" PLASTIC PIPE INLET
INV. EL. = 10.50'
TOP EL. = 13.92'
BOT EL. = 1.43'
8" PLASTIC PIPE INLET
INV. EL. = 7.48'
SEE SHEET 31
0' 10' 20' 40' 60'
SCALE: 1" = 20'
CONTOUR INTERVAL: 1'
U.S. Survey Foot
OC Public Works
OC Survey/Field Services
Boundary Analysis & Mapping
COUNTY OF ORANGE
OC PUBLIC WORKS/ENGINEERING SERVICES
OC SURVEY/FIELD SERVICES/BOUNDARY ANALYSIS & MAPPING
H.B. & TALBERT CHANNEL
CHANNEL MAINTENANCE
TOPOGRAPHIC MAP
PROJECT LIMITS: H.B. CHANNEL (D01) FROM BROOKHURST ST. TO ADAMS AVE.
TALBERT CHANNEL (D02) FROM BROOKHURST ST. TO YORKTOWN AVE.
DATE OF SURVEY: 12/11/2019
BY: R.MACIAS, PLS & CREW
MAPPING
BY: A.VU
OFFICE CHECK
BY: E. MEDINA, PLS
FIELD CHECK
BY: R.MACIAS, PLS
SCALE: 1" = 20'
W.O. #EF19401S
FILE #1920PW-IN0009
FILE: HUNTINGTON BEACH CHANNEL PHASE 2_TOPO_2019.DWG
MARK
DATE
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SHEET NO.
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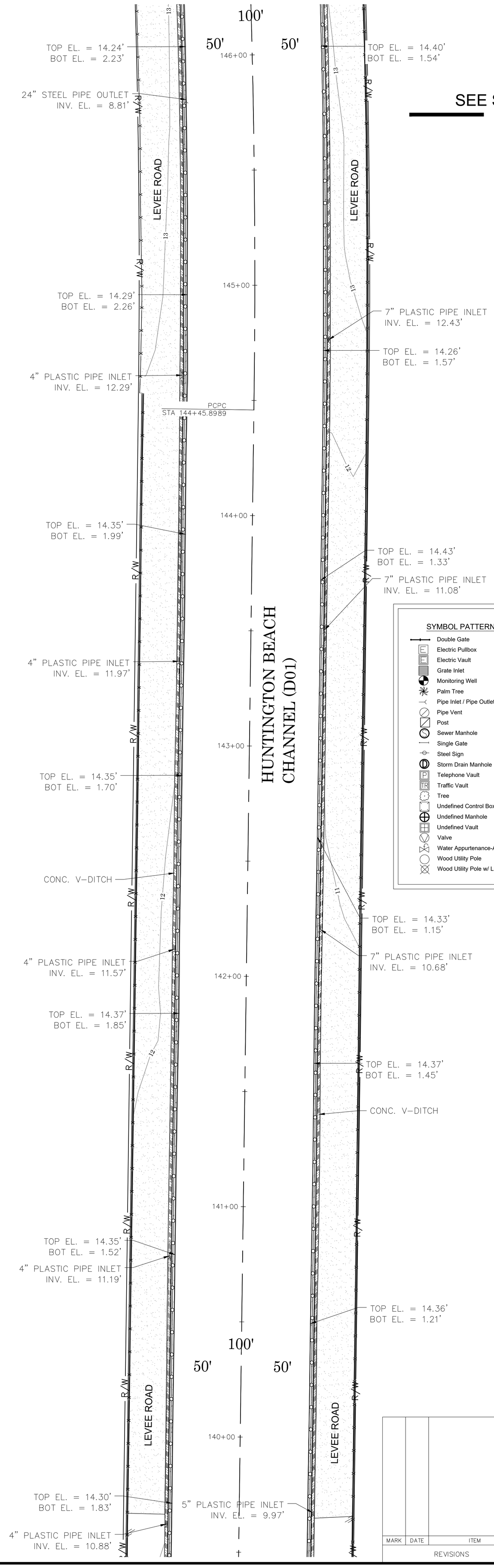
63



LEGEND

SYMBOL PATTERN KEY

- Double Gate
- Electric Pullbox
- Electric Vault
- Grate Inlet
- Monitoring Well
- Palm Tree
- Pipe Inlet / Pipe Outlet
- Pipe Vent
- Post
- Sewer Manhole
- Single Gate
- Steel Sign
- Storm Drain Manhole
- Telephone Vault
- Traffic Vault
- Tree
- Undefined Control Box
- Undefined Manhole
- Undefined Vault
- Valve
- Water Appurtenance-Air Release
- Wood Utility Pole
- Wood Utility Pole w/ Light

LINE PATTERN KEY

- Building
- Concrete/Block Wall
- Concrete Headwall
- Chain Link Fence
- Channel Hinge Point
- Edge of Asphalt Pavement
- Edge of Concrete
- Exposed Pipe
- Flowline
- Plastic Fence
- Pole and Cable Fence
- Post and Wire Fence
- Retaining Wall
- Rip Rap Grade Line
- Steel Guard Rail
- Wrought Iron Fence

AREA PATTERN KEY

- Concrete
- Dirt
- Grate
- Rip Rap/Gravel

0' 10' 20' 40' 60'

SCALE: 1" = 20'
CONTOUR INTERVAL: 1'

U.S. Survey Foot

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

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

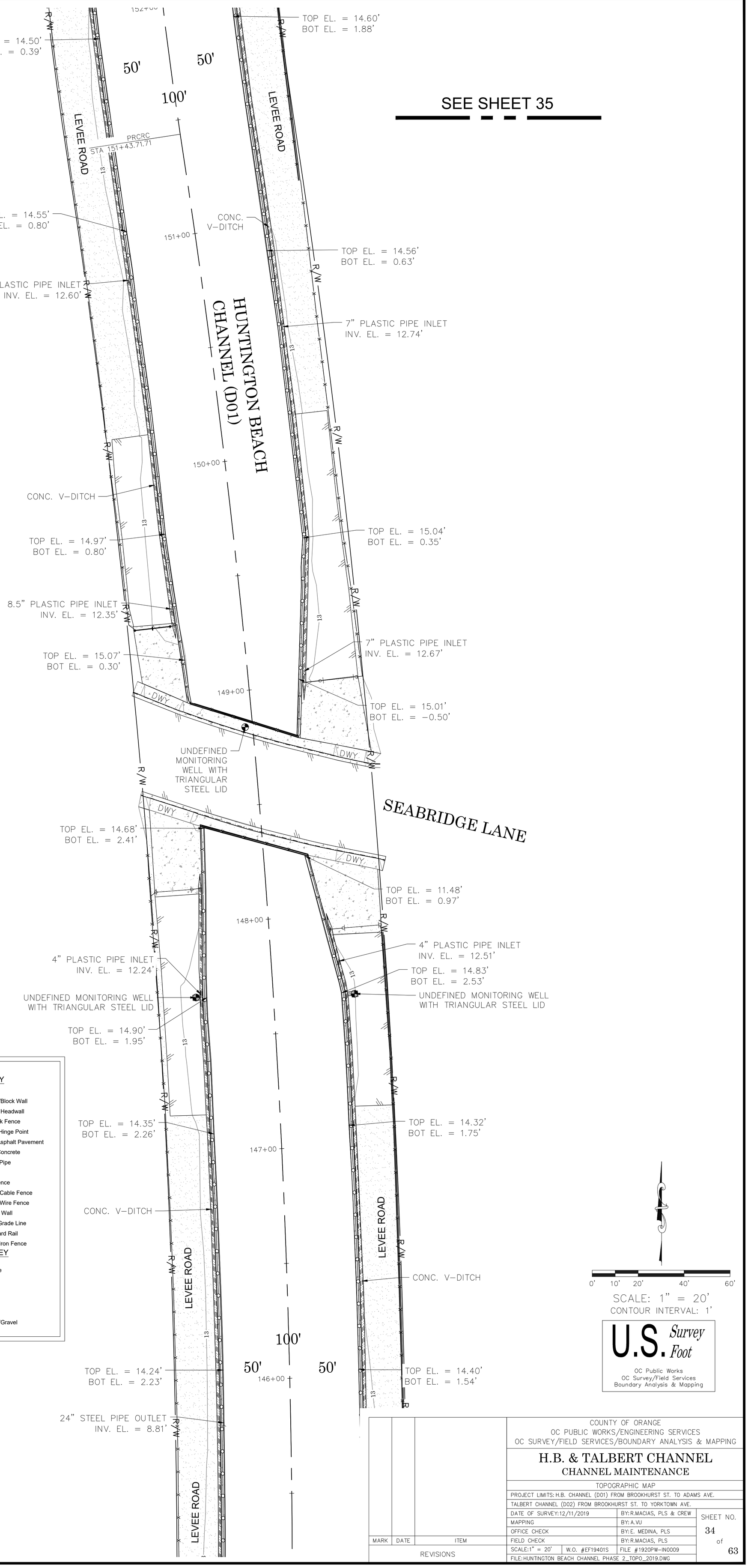
H.B. & TALBERT CHANNEL
CHANNEL MAINTENANCE

TOPOGRAPHIC MAP

PROJECT LIMITS: H.B. CHANNEL (D01) FROM BROOKHURST ST. TO ADAMS AVE.
TALBERT CHANNEL (D02) FROM BROOKHURST ST. TO YORKTOWN AVE.

DATE OF SURVEY:12/11/2019		BY: R.MACIAS, PLS & CREW
MAPPING		BY: A.VU
OFFICE CHECK		BY: E. MEDINA, PLS
FIELD CHECK		BY: R.MACIAS, PLS
SCALE:1" = 20'	W.O. #EF19401S	FILE #1920PW-IN0009
FILE: HUNTINGTON BEACH CHANNEL PHASE 2_TOPO_2019.DWG		

SHEET NO. 33 of 63



MARK	DATE	ITEM

REVISIONS

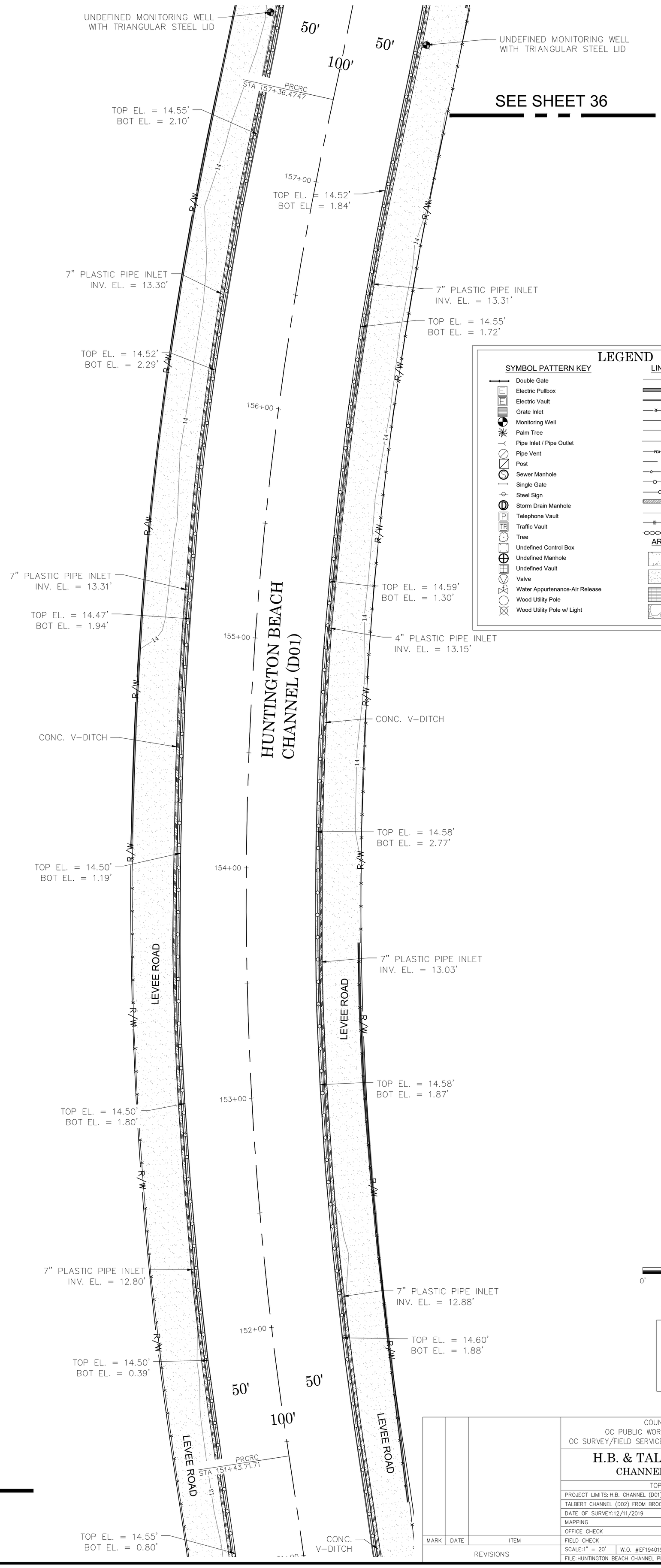
COUNTY OF ORANGE
OC PUBLIC WORKS/ENGINEERING SERVICES
OC SURVEY/FIELD SERVICES/BOUNDARY ANALYSIS & MAPPING

H.B. & TALBERT CHANNEL
CHANNEL MAINTENANCE

TOPOGRAPHIC MAP

PROJECT LIMITS: H.B. CHANNEL (D01) FROM BROOKHURST ST. TO ADAMS AVE.
TALBERT CHANNEL (D02) FROM BROOKHURST ST. TO YORKTOWN AVE.

DATE OF SURVEY: 12/11/2019	BY: R.MACIAS, PLS & CREW	SHEET NO.
MAPPING	BY: A.VU	34
OFFICE CHECK	BY: E. MEDINA, PLS	of
FIELD CHECK	BY: R.MACIAS, PLS	63
SCALE: 1" = 20' W.O. #EF19401S	FILE #1920PW-IN0009	
FILE: HUNTINGTON BEACH CHANNEL PHASE 2_TOPO_2019.DWG		



LEGEND

SYMBOL PATTERN KEY

- Double Gate
- Electric Pullbox
- Electric Vault
- Grate Inlet
- Monitoring Well
- Palm Tree
- Pipe Inlet / Pipe Outlet
- Pipe Vent
- Post
- Sewer Manhole
- Single Gate
- Steel Sign
- Storm Drain Manhole
- Telephone Vault
- Traffic Vault
- Tree
- Undefined Control Box
- Undefined Manhole
- Undefined Vault
- Valve
- Water Appurtenance-Air Release
- Wood Utility Pole
- Wood Utility Pole w/ Light

LINE PATTERN KEY

- Building
- Concrete/Block Wall
- Concrete Headwall
- Chain Link Fence
- Channel Hinge Point
- Edge of Asphalt Pavement
- Edge of Concrete
- Exposed Pipe
- Flowline
- Plastic Fence
- Pole and Cable Fence
- Post and Wire Fence
- Retaining Wall
- Rip Rap Grade Line
- Steel Guard Rail
- Wrought Iron Fence

AREA PATTERN KEY

- Concrete
- Dirt
- Grate
- Rip Rap/Gravel

MARK	DATE	ITEM
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COUNTY OF ORANGE
OC PUBLIC WORKS/ENGINEERING SERVICES
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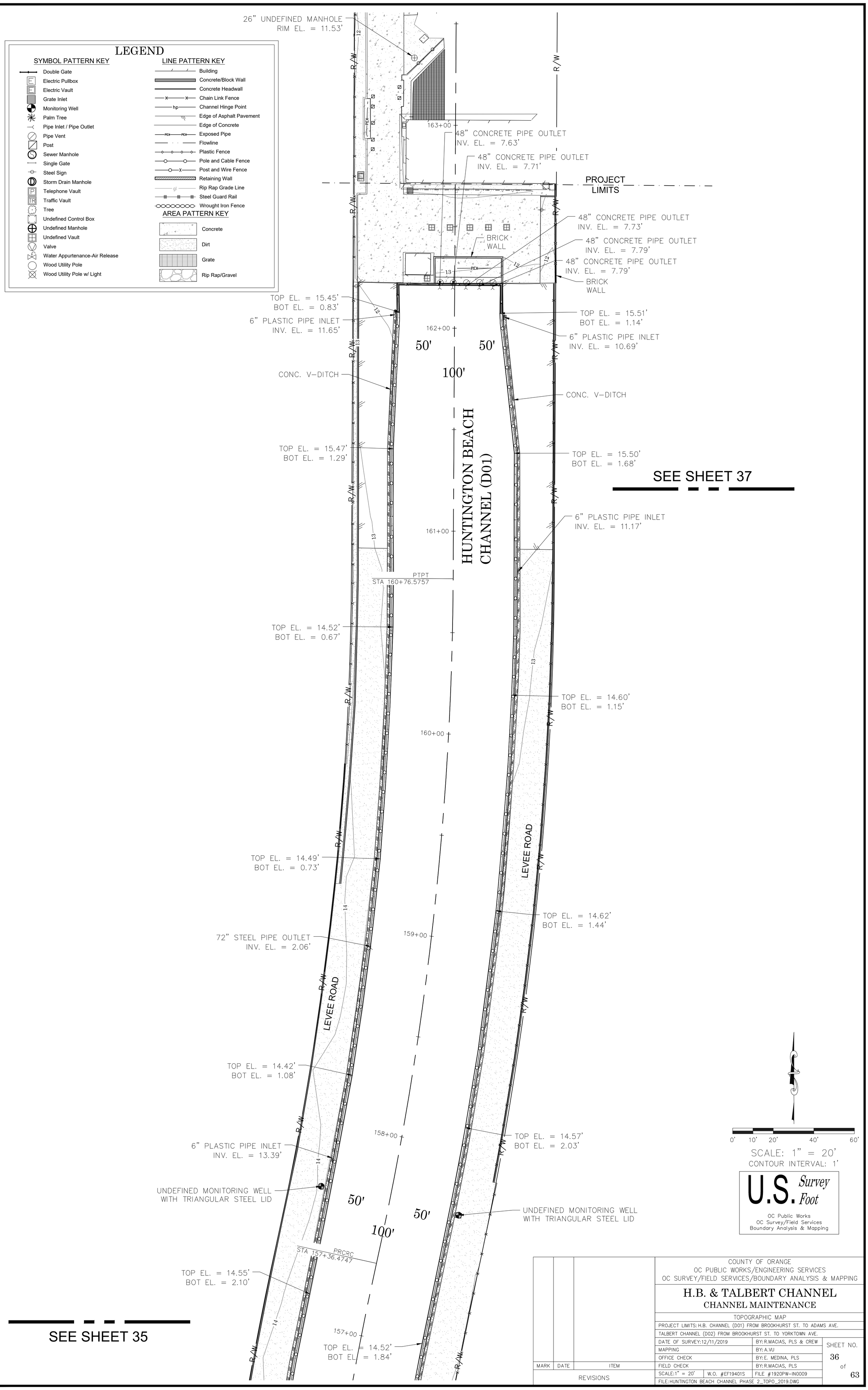
H.B. & TALBERT CHANNEL
CHANNEL MAINTENANCE

TOPOGRAPHIC MAP

PROJECT LIMITS: H.B. CHANNEL (D01) FROM BROOKHURST ST. TO ADAMS AVE.
TALBERT CHANNEL (D02) FROM BROOKHURST ST. TO YORKTOWN AVE.

DATE OF SURVEY: 12/11/2019	BY: R.MACIAS, PLS & CREW	SHEET NO. 35 of 63
MAPPING	BY: A.VU	
OFFICE CHECK	BY: E. MEDINA, PLS	
FIELD CHECK	BY: R.MACIAS, PLS	
SCALE: 1" = 20' W.O. #EF19401S	FILE #1920PW-IN0009	
FILE: HUNTINGTON BEACH CHANNEL PHASE 2_TOPO_2019.DWG		


LEGEND
SYMBOL PATTERN KEY
Double Gate
Electric Pullbox
Electric Vault
Grate Inlet
Monitoring Well
Palm Tree
Pipe Inlet / Pipe Outlet
Pipe Vent
Post
Sewer Manhole
Single Gate
Steel Sign
Storm Drain Manhole
Telephone Vault
Traffic Vault
Tree
Undefined Control Box
Undefined Manhole
Undefined Vault
Valve
Water Appurtenance-Air Release
Wood Utility Pole
Wood Utility Pole w/ Light
LINE PATTERN KEY
Building
Concrete/Block Wall
Concrete Headwall
Chain Link Fence
Channel Hinge Point
Edge of Asphalt Pavement
Edge of Concrete
Exposed Pipe
Flowline
Plastic Fence
Pole and Cable Fence
Post and Wire Fence
Retaining Wall
Rip Rap Grade Line
Steel Guard Rail
Wrought Iron Fence
AREA PATTERN KEY
Concrete
Dirt
Grate
Rip Rap/Gravel
26" UNDEFINED MANHOLE
RIM EL. = 11.53'
48" CONCRETE PIPE OUTLET
INV. EL. = 7.63'
48" CONCRETE PIPE OUTLET
INV. EL. = 7.71'
PROJECT LIMITS
48" CONCRETE PIPE OUTLET
INV. EL. = 7.73'
48" CONCRETE PIPE OUTLET
INV. EL. = 7.79'
48" CONCRETE PIPE OUTLET
INV. EL. = 7.79'
BRICK WALL
BRICK WALL
TOP EL. = 15.45'
BOT EL. = 0.83'
6" PLASTIC PIPE INLET
INV. EL. = 11.65'
TOP EL. = 15.51'
BOT EL. = 1.14'
6" PLASTIC PIPE INLET
INV. EL. = 10.69'
CONC. V-DITCH
CONC. V-DITCH
TOP EL. = 15.47'
BOT EL. = 1.29'
TOP EL. = 15.50'
BOT EL. = 1.68'
SEE SHEET 37
6" PLASTIC PIPE INLET
INV. EL. = 11.17'
HUNTINGTON BEACH CHANNEL (D01)
PTPT
STA 160+76.5757
TOP EL. = 14.52'
BOT EL. = 0.67'
TOP EL. = 14.60'
BOT EL. = 1.15'
TOP EL. = 14.49'
BOT EL. = 0.73'
LEVEE ROAD
LEVEE ROAD
TOP EL. = 14.62'
BOT EL. = 1.44'
72" STEEL PIPE OUTLET
INV. EL. = 2.06'
TOP EL. = 14.42'
BOT EL. = 1.08'
6" PLASTIC PIPE INLET
INV. EL. = 13.39'
TOP EL. = 14.57'
BOT EL. = 2.03'
UNDEFINED MONITORING WELL
WITH TRIANGULAR STEEL LID
UNDEFINED MONITORING WELL
WITH TRIANGULAR STEEL LID
PRCRC
STA 157+36.4747
TOP EL. = 14.55'
BOT EL. = 2.10'
TOP EL. = 14.52'
BOT EL. = 1.84'
SEE SHEET 35
50'
100'
50'
50'
100'
50'
163+00
162+00
161+00
160+00
159+00
158+00
157+00
0' 10' 20' 40' 60'
SCALE: 1" = 20'
CONTOUR INTERVAL: 1'
U.S. Survey Foot
OC Public Works
OC Survey/Field Services
Boundary Analysis & Mapping
MARK
DATE
ITEM
REVISIONS
COUNTY OF ORANGE
OC PUBLIC WORKS/ENGINEERING SERVICES
OC SURVEY/FIELD SERVICES/BOUNDARY ANALYSIS & MAPPING
H.B. & TALBERT CHANNEL
CHANNEL MAINTENANCE
TOPOGRAPHIC MAP
PROJECT LIMITS: H.B. CHANNEL (D01) FROM BROOKHURST ST. TO ADAMS AVE.
TALBERT CHANNEL (D02) FROM BROOKHURST ST. TO YORKTOWN AVE.
DATE OF SURVEY:12/11/2019
BY: R.MACIAS, PLS & CREW
MAPPING
BY: A.VU
OFFICE CHECK
BY: E. MEDINA, PLS
FIELD CHECK
BY: R.MACIAS, PLS
SCALE:1" = 20'
W.O. #EF19401S
FILE #1920PW-IN0009
FILE:HUNTINGTON BEACH CHANNEL PHASE 2_TOPO_2019.DWG
SHEET NO.
36
of
63

LEGEND

SYMBOL PATTERN KEY

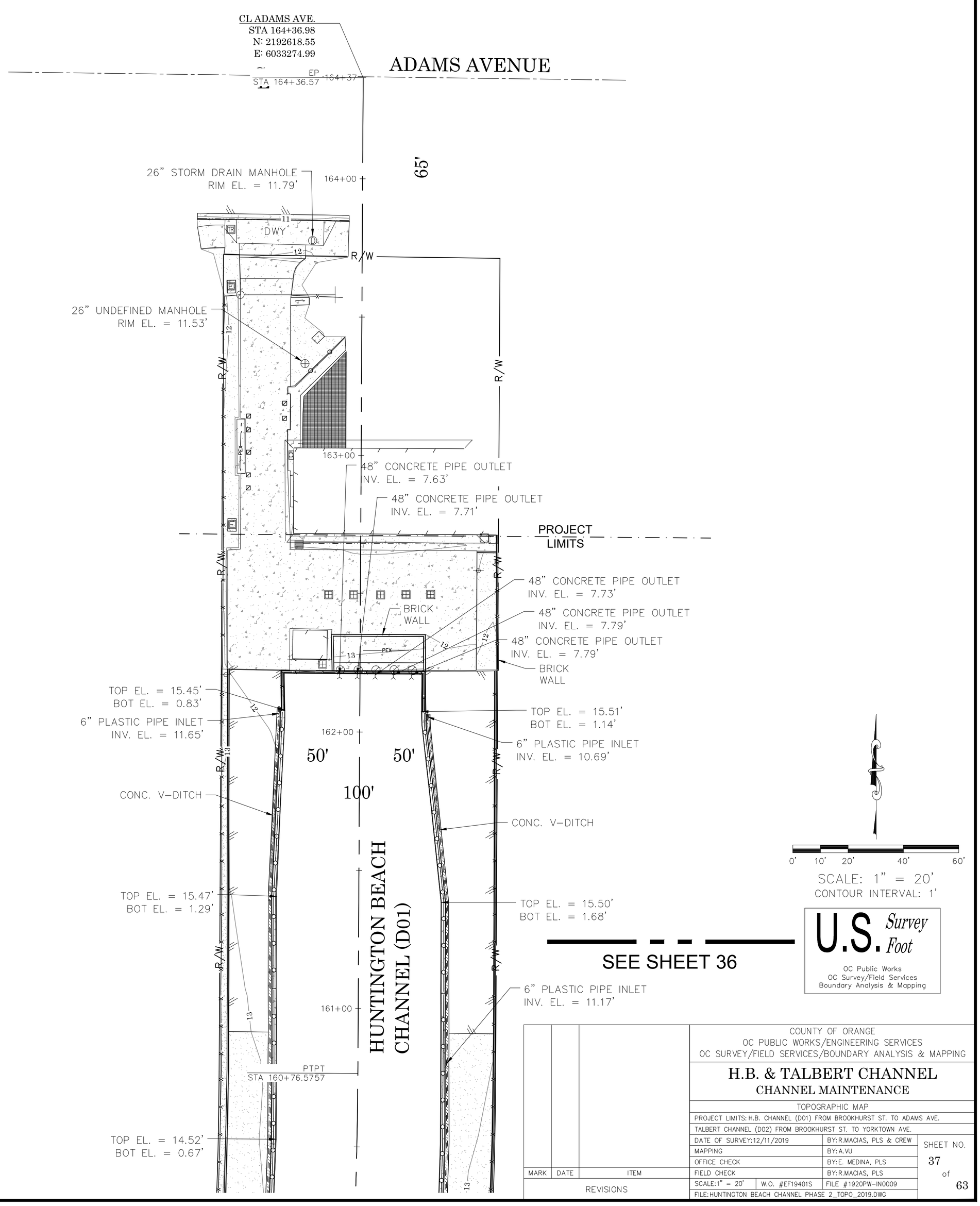
- Double Gate
- Electric Vault
- Grate Inlet
- Monitoring Well
- Palm Tree
- Pipe Inlet / Pipe Outlet
- Pipe Vent
- Post
- Sewer Manhole
- Single Gate
- Steel Sign
- Storm Drain Manhole
- Traffic Vault
- Tree
- Valve
- Undefined Control Box
- Undefined Manhole
- Undefined Vault
- Wood Utility Pole
- Wood Utility Pole w/ Light

LINE PATTERN KEY

- Building
- Brick Wall
- Concrete Block Wall
- Concrete Headwall
- Chain Link Fence
- Concrete Hinge Point
- Edge of Asphalt Pavement
- Exposed Pipe
- Flowline
- Pole and Cable Fence
- Post and Wire Fence
- Retaining Wall
- Rip Rap Grade Line
- Steel Guard Rail
- Wrought Iron Fence

AREA PATTERN KEY

- Concrete
- Dirt
- Grate
- Rip Rap/Gravel



U.S. Survey Foot

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

MARK	DATE	ITEM

REVISIONS

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

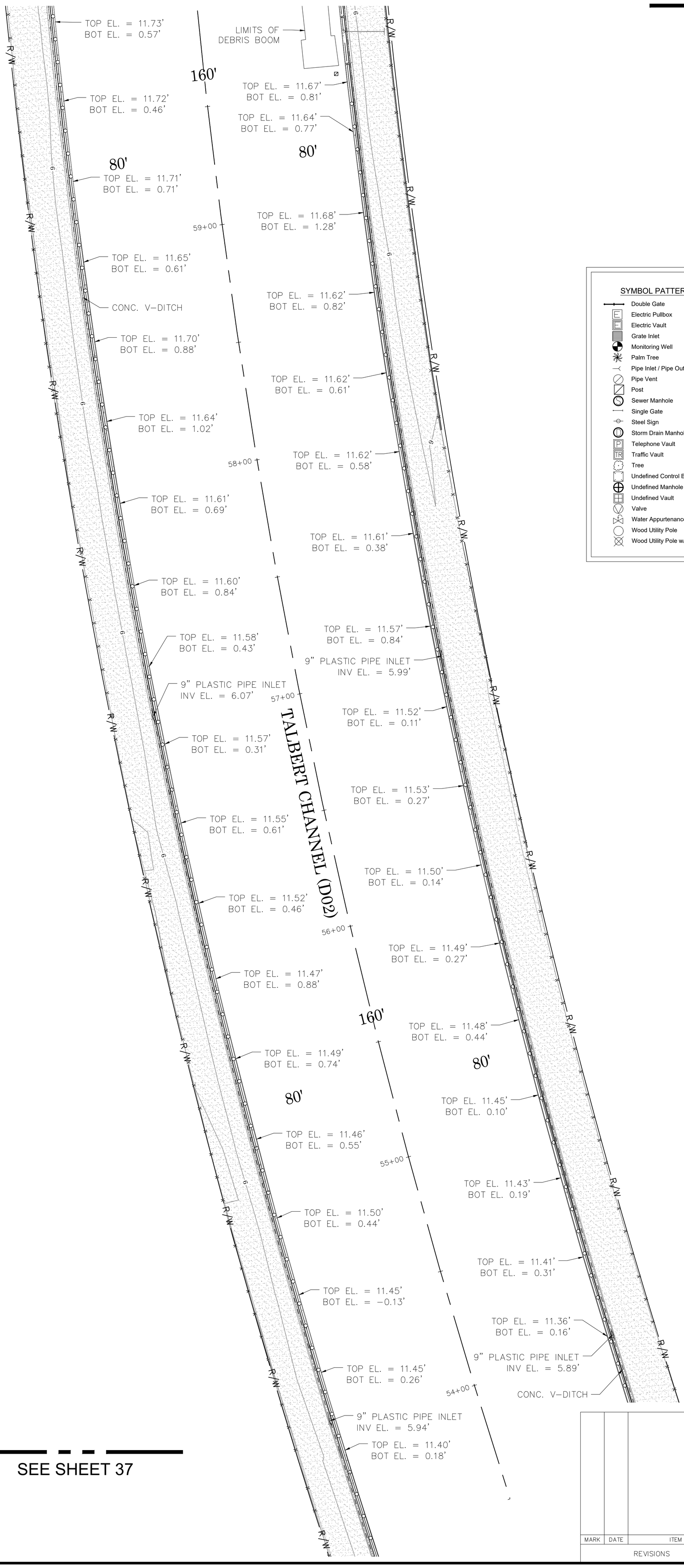
H.B. & TALBERT CHANNEL
CHANNEL MAINTENANCE

TOPOGRAPHIC MAP

PROJECT LIMITS: H.B. CHANNEL (D01) FROM BROOKHURST ST. TO ADAMS AVE.
TALBERT CHANNEL (D02) FROM BROOKHURST ST. TO YORKTOWN AVE.

DATE OF SURVEY: 12/11/2019	BY: R.MACIAS, PLS & CREW	SHEET NO.
MAPPING	BY: A.VU	37
OFFICE CHECK	BY: E. MEDINA, PLS	of
FIELD CHECK	BY: R.MACIAS, PLS	63
SCALE: 1" = 20' W.O. #EF19401S	FILE #1920PW-IN0009	
FILE: HUNTINGTON BEACH CHANNEL PHASE 2_TOPO_2019.DWG		

SEE SHEET 39



LEGEND

SYMBOL PATTERN KEY

- Double Gate
- Electric Pullbox
- Electric Vault
- Grate Inlet
- Monitoring Well
- Palm Tree
- Pipe Inlet / Pipe Outlet
- Pipe Vent
- Post
- Sewer Manhole
- Single Gate
- Steel Sign
- Storm Drain Manhole
- Telephone Vault
- Traffic Vault
- Tree
- Undefined Control Box
- Undefined Manhole
- Undefined Vault
- Valve
- Water Appurtenance-Air Release
- Wood Utility Pole
- Wood Utility Pole w/ Light

LINE PATTERN KEY

- Building
- Concrete/Block Wall
- Concrete Headwall
- Chain Link Fence
- Channel Hinge Point
- Edge of Asphalt Pavement
- Edge of Concrete
- Exposed Pipe
- Flowline
- Plastic Fence
- Pole and Cable Fence
- Post and Wire Fence
- Retaining Wall
- Rip Rap Grade Line
- Steel Guard Rail
- Wrought Iron Fence

AREA PATTERN KEY

- Concrete
- Dirt
- Grate
- Rip Rap/Gravel

0' 10' 20' 40' 60'

SCALE: 1" = 20'
CONTOUR INTERVAL: 1'

U.S. Survey Foot

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

SEE SHEET 37

MARK	DATE	ITEM

REVISIONS

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

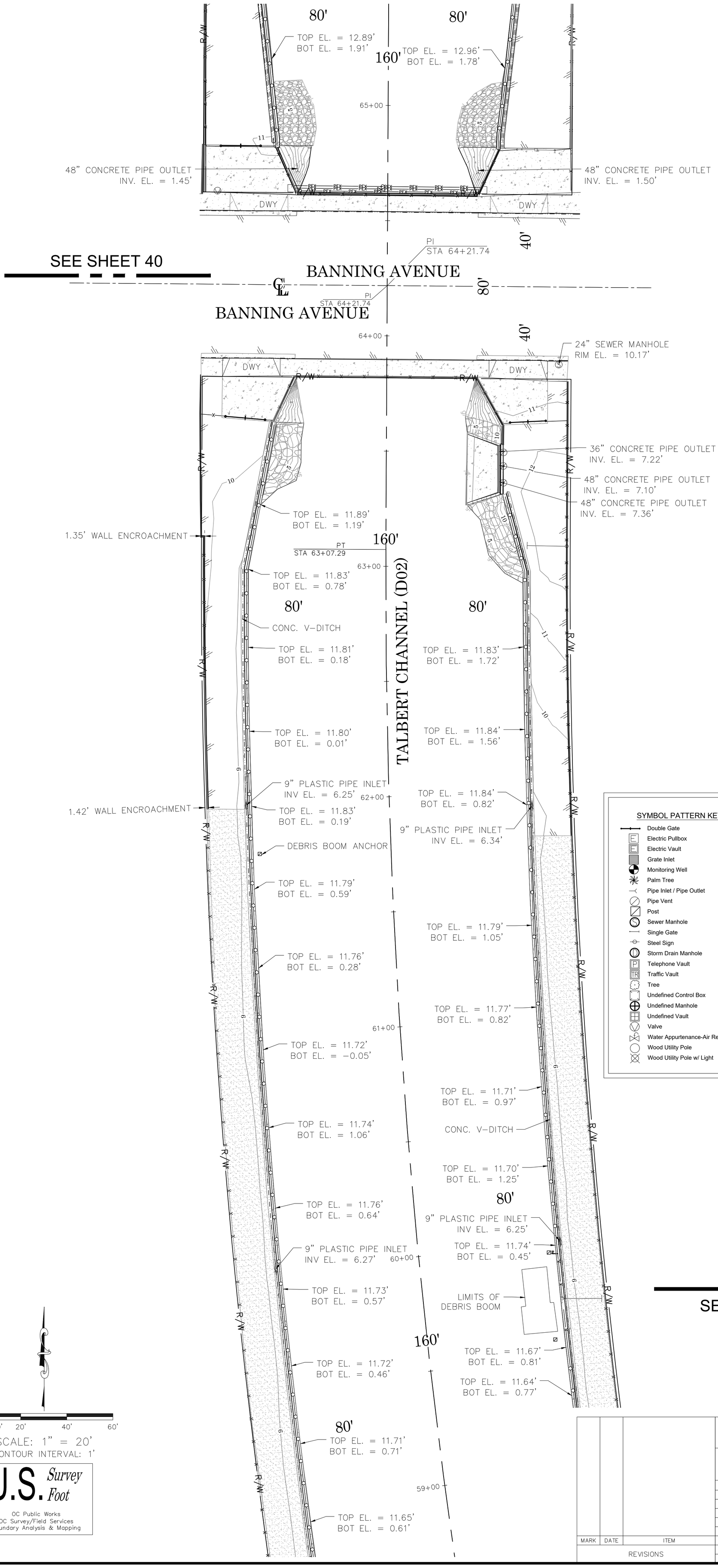
H.B. & TALBERT CHANNEL
CHANNEL MAINTENANCE

TOPOGRAPHIC MAP

PROJECT LIMITS: H.B. CHANNEL (D01) FROM BROOKHURST ST. TO ADAMS AVE.
TALBERT CHANNEL (D02) FROM BROOKHURST ST. TO YORKTOWN AVE.

DATE OF SURVEY: 12/11/2019		BY: R.MACIAS, PLS & CREW
MAPPING		BY: A.VU
OFFICE CHECK		BY: E. MEDINA, PLS
FIELD CHECK		BY: R.MACIAS, PLS
SCALE: 1" = 20'	W.O. #EF19401S	FILE #1920PW-IN0009
FILE: HB CHANNEL PHASE 1_TOPO_2019.DWG		

SHEET NO. 38 of 63



LEGEND

SYMBOL PATTERN KEY

- Double Gate
- Electric Pullbox
- Electric Vault
- Grate Inlet
- Monitoring Well
- Palm Tree
- Pipe Inlet / Pipe Outlet
- Pipe Vent
- Post
- Sewer Manhole
- Single Gate
- Steel Sign
- Storm Drain Manhole
- Telephone Vault
- Traffic Vault
- Tree
- Undefined Control Box
- Undefined Manhole
- Undefined Vault
- Valve
- Water Appurtenance-Air Release
- Wood Utility Pole
- Wood Utility Pole w/ Light

LINE PATTERN KEY

- Building
- Concrete/Block Wall
- Concrete Headwall
- Chain Link Fence
- Channel Hinge Point
- Edge of Asphalt Pavement
- Edge of Concrete
- Exposed Pipe
- Flowline
- Plastic Fence
- Pole and Cable Fence
- Post and Wire Fence
- Retaining Wall
- Rip Rap Grade Line
- Steel Guard Rail
- Wrought Iron Fence

AREA PATTERN KEY

- Concrete
- Dirt
- Grate
- Rip Rap/Gravel

MARK	DATE	ITEM
REVISIONS		

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

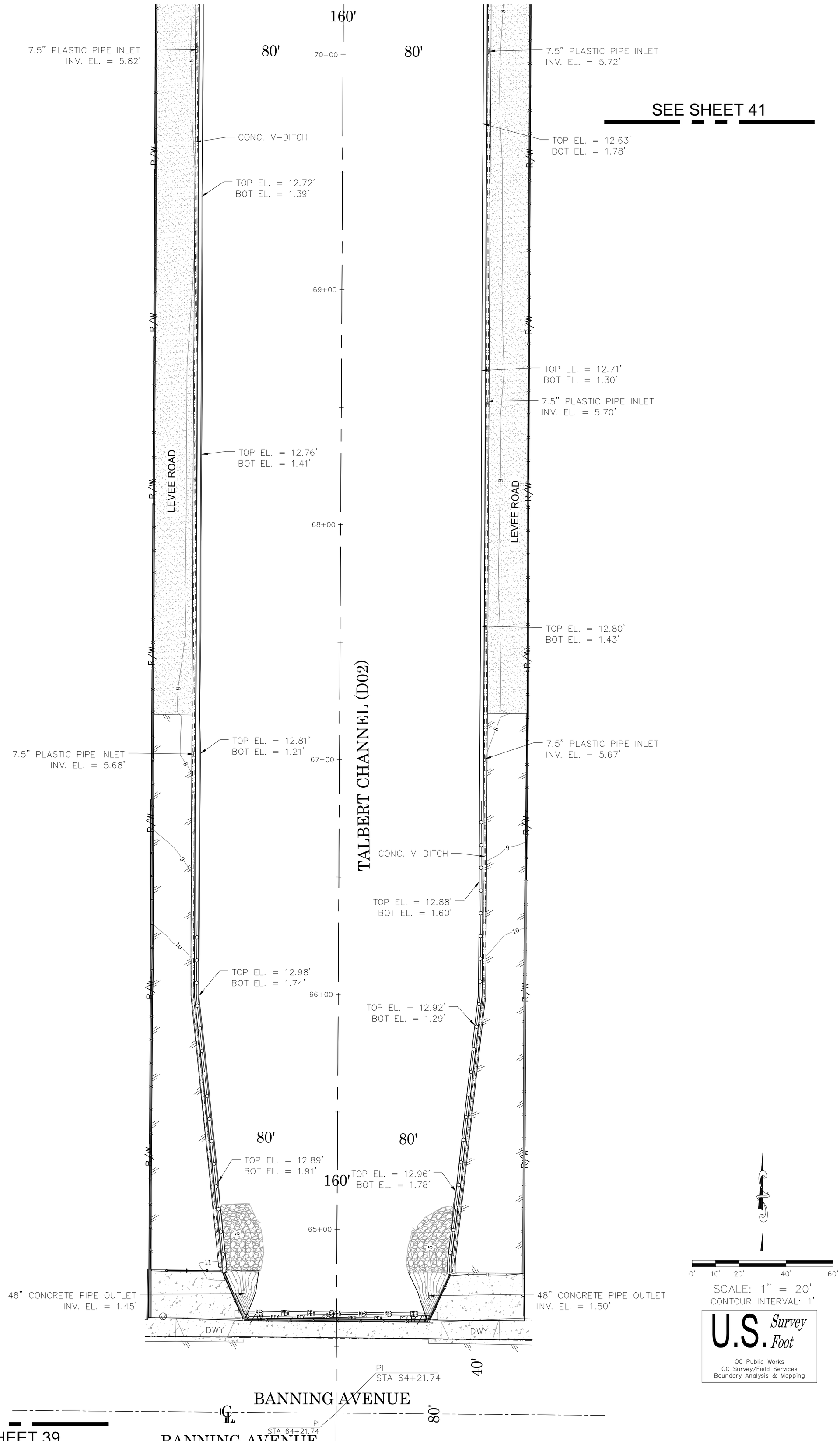
H.B. & TALBERT CHANNEL
CHANNEL MAINTENANCE

TOPOGRAPHIC MAP

PROJECT LIMITS: H.B. CHANNEL (D01) FROM BROOKHURST ST. TO ADAMS AVE.
TALBERT CHANNEL (D02) FROM BROOKHURST ST. TO YORKTOWN AVE.

DATE OF SURVEY: 12/11/2019		BY: R.MACIAS, PLS & CREW
MAPPING		BY: A.VU
OFFICE CHECK		BY: E. MEDINA, PLS
FIELD CHECK		BY: R.MACIAS, PLS
SCALE: 1" = 20'	W.O. #EF19401S	FILE #1920PW-IN0009
FILE: HB CHANNEL PHASE 1_TOPO_2019.DWG		

SHEET NO. 39 of 63



SEE SHEET 39

MARK	DATE	ITEM
		REVISIONS

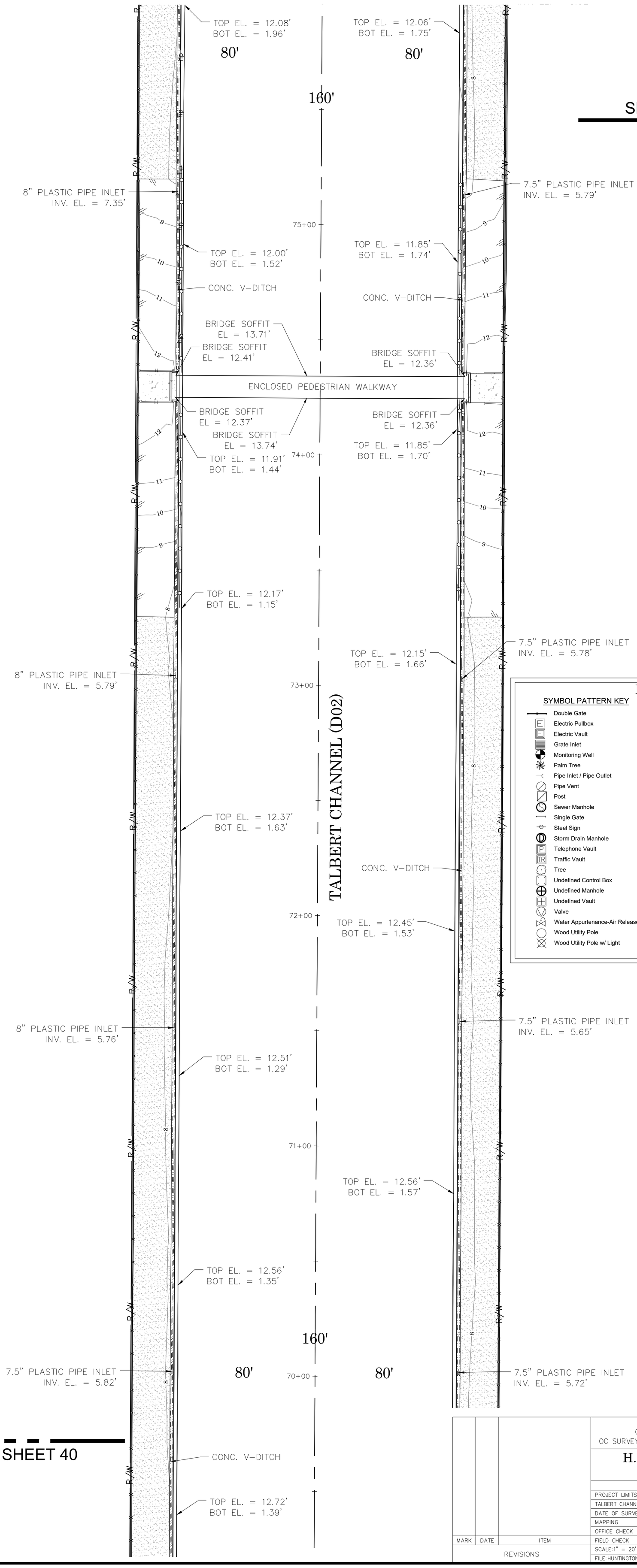
COUNTY OF ORANGE
OC PUBLIC WORKS/ENGINEERING SERVICES
OC SURVEY/FIELD SERVICES/BOUNDARY ANALYSIS & MAPPING

H.B. & TALBERT CHANNEL
CHANNEL MAINTENANCE

TOPOGRAPHIC MAP

PROJECT LIMITS: H.B. CHANNEL (D01) FROM BROOKHURST ST. TO ADAMS AVE.
TALBERT CHANNEL (D02) FROM BROOKHURST ST. TO YORKTOWN AVE.

DATE OF SURVEY: 12/11/2019	BY: R.MACIAS, PLS & CREW	SHEET NO.
MAPPING	BY: A.VU	40
OFFICE CHECK	BY: E. MEDINA, PLS	of
FIELD CHECK	BY: R.MACIAS, PLS	63
SCALE: 1" = 20' W.O. #EF19401S	FILE #1920PW-IN0009	
FILE: HUNTINGTON BEACH CHANNEL PHASE 3_TOPO_2020.DWG		



MARK	DATE	ITEM
REVISIONS		

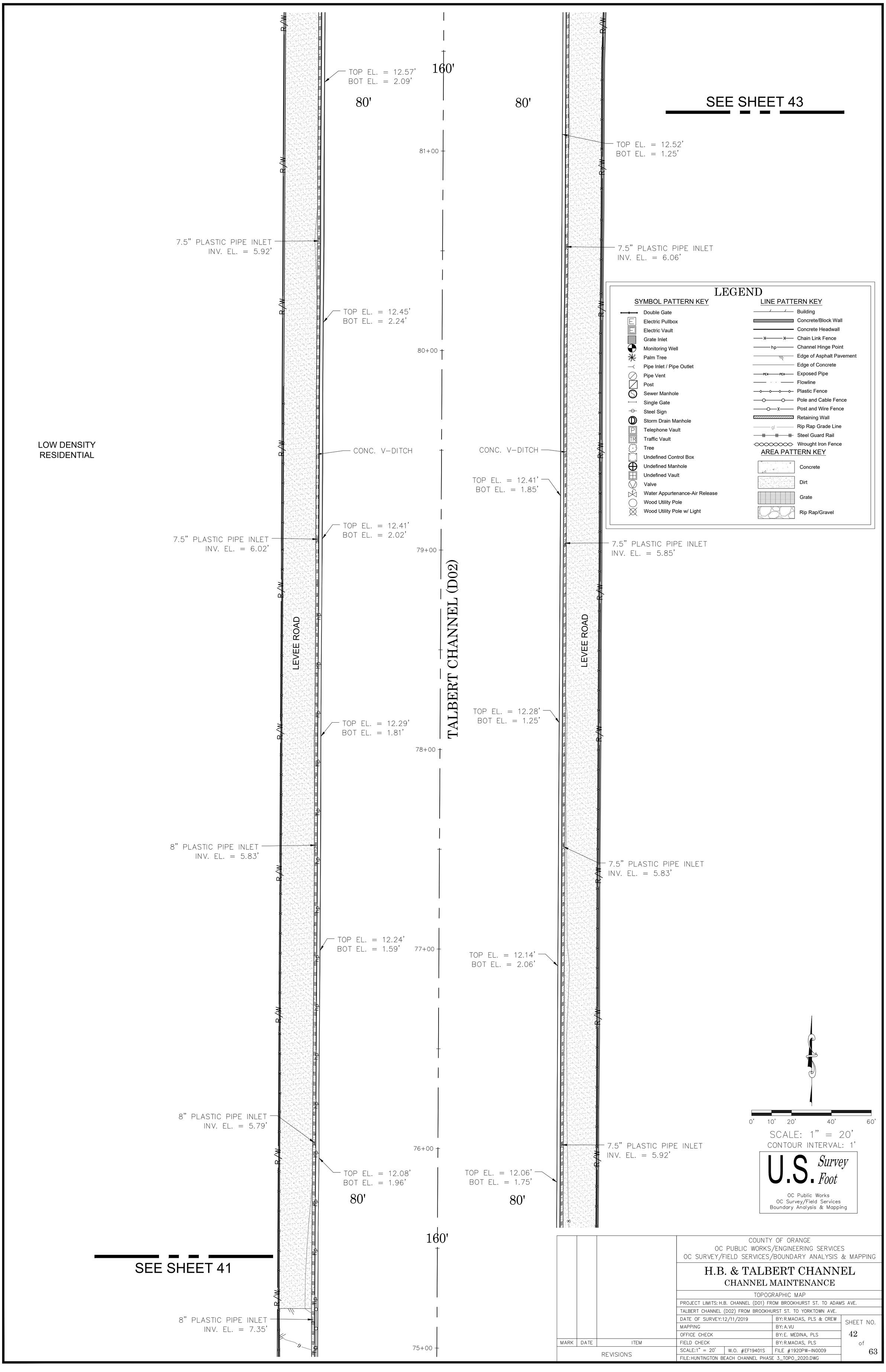
COUNTY OF ORANGE
OC PUBLIC WORKS/ENGINEERING SERVICES
OC SURVEY/FIELD SERVICES/BOUNDARY ANALYSIS & MAPPING

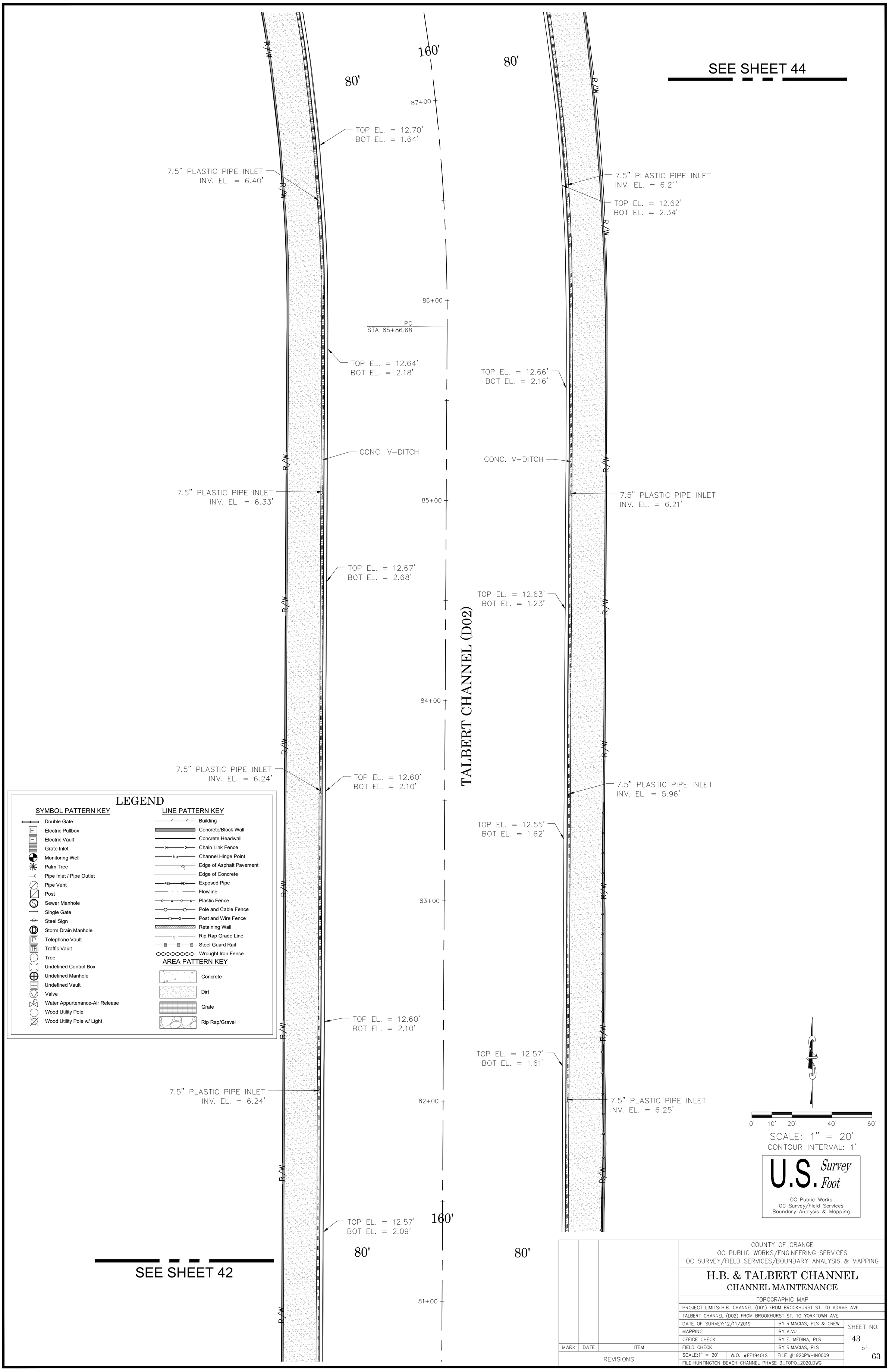
H.B. & TALBERT CHANNEL
CHANNEL MAINTENANCE

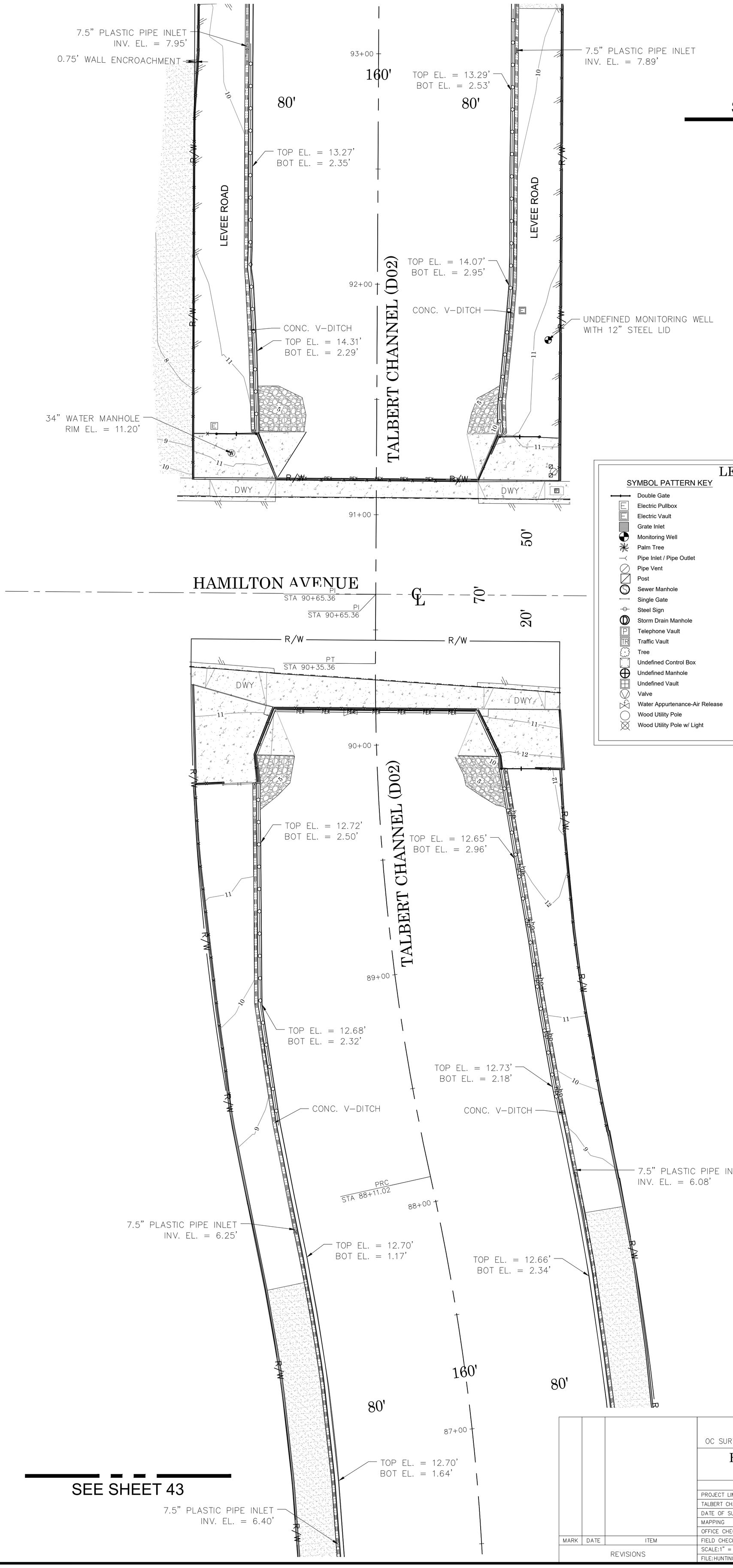
TOPOGRAPHIC MAP

PROJECT LIMITS: H.B. CHANNEL (D01) FROM BROOKHURST ST. TO ADAMS AVE.
TALBERT CHANNEL (D02) FROM BROOKHURST ST. TO YORKTOWN AVE.

DATE OF SURVEY: 12/11/2019	BY: R.MACIAS, PLS & CREW	SHEET NO.
MAPPING	BY: A.VU	41
OFFICE CHECK	BY: E. MEDINA, PLS	of
FIELD CHECK	BY: R.MACIAS, PLS	63
SCALE: 1" = 20' W.O. #EF19401S	FILE #1920PW-IN0009	
FILE: HUNTINGTON BEACH CHANNEL PHASE 3_TOPO_2020.DWG		


SEE SHEET 43
SEE SHEET 41
LOW DENSITY RESIDENTIAL
TALBERT CHANNEL (D02)
LEVEE ROAD
R/W
hp
160'
80'
81+00
80+00
79+00
78+00
77+00
76+00
75+00
TOP EL. = 12.57'
BOT EL. = 2.09'
7.5" PLASTIC PIPE INLET
INV. EL. = 5.92'
TOP EL. = 12.45'
BOT EL. = 2.24'
CONC. V-DITCH
TOP EL. = 12.41'
BOT EL. = 2.02'
7.5" PLASTIC PIPE INLET
INV. EL. = 6.02'
TOP EL. = 12.29'
BOT EL. = 1.81'
8" PLASTIC PIPE INLET
INV. EL. = 5.83'
TOP EL. = 12.24'
BOT EL. = 1.59'
8" PLASTIC PIPE INLET
INV. EL. = 5.79'
TOP EL. = 12.08'
BOT EL. = 1.96'
8" PLASTIC PIPE INLET
INV. EL. = 7.35'
TOP EL. = 12.52'
BOT EL. = 1.25'
7.5" PLASTIC PIPE INLET
INV. EL. = 6.06'
CONC. V-DITCH
TOP EL. = 12.41'
BOT EL. = 1.85'
7.5" PLASTIC PIPE INLET
INV. EL. = 5.85'
TOP EL. = 12.28'
BOT EL. = 1.25'
7.5" PLASTIC PIPE INLET
INV. EL. = 5.83'
TOP EL. = 12.14'
BOT EL. = 2.06'
7.5" PLASTIC PIPE INLET
INV. EL. = 5.92'
TOP EL. = 12.06'
BOT EL. = 1.75'
LEGEND
SYMBOL PATTERN KEY
Double Gate
Electric Pullbox
Electric Vault
Grate Inlet
Monitoring Well
Palm Tree
Pipe Inlet / Pipe Outlet
Pipe Vent
Post
Sewer Manhole
Single Gate
Steel Sign
Storm Drain Manhole
Telephone Vault
Traffic Vault
Tree
Undefined Control Box
Undefined Manhole
Undefined Vault
Valve
Water Appurtenance-Air Release
Wood Utility Pole
Wood Utility Pole w/ Light
LINE PATTERN KEY
Building
Concrete/Block Wall
Concrete Headwall
Chain Link Fence
Channel Hinge Point
Edge of Asphalt Pavement
Edge of Concrete
Exposed Pipe
Flowline
Plastic Fence
Pole and Cable Fence
Post and Wire Fence
Retaining Wall
Rip Rap Grade Line
Steel Guard Rail
Wrought Iron Fence
AREA PATTERN KEY
Concrete
Dirt
Grate
Rip Rap/Gravel
0' 10' 20' 40' 60'
SCALE: 1" = 20'
CONTOUR INTERVAL: 1'
U.S. Survey Foot
OC Public Works
OC Survey/Field Services
Boundary Analysis & Mapping
MARK
DATE
ITEM
REVISIONS
COUNTY OF ORANGE
OC PUBLIC WORKS/ENGINEERING SERVICES
OC SURVEY/FIELD SERVICES/BOUNDARY ANALYSIS & MAPPING
H.B. & TALBERT CHANNEL
CHANNEL MAINTENANCE
TOPOGRAPHIC MAP
PROJECT LIMITS: H.B. CHANNEL (D01) FROM BROOKHURST ST. TO ADAMS AVE.
TALBERT CHANNEL (D02) FROM BROOKHURST ST. TO YORKTOWN AVE.
DATE OF SURVEY: 12/11/2019
BY: R.MACIAS, PLS & CREW
MAPPING
BY: A.VU
OFFICE CHECK
BY: E. MEDINA, PLS
FIELD CHECK
BY: R.MACIAS, PLS
SCALE: 1" = 20'
W.O. #EF19401S
FILE #1920PW-IN0009
FILE: HUNTINGTON BEACH CHANNEL PHASE 3_TOPO_2020.DWG
SHEET NO.
42
of
63


SEE SHEET 44
SEE SHEET 42
TALBERT CHANNEL (D02)
160'
80'
87+00
86+00
85+00
84+00
83+00
82+00
81+00
PC
STA 85+86.68
R/W
TOP EL. = 12.70'
BOT EL. = 1.64'
7.5" PLASTIC PIPE INLET
INV. EL. = 6.40'
TOP EL. = 12.64'
BOT EL. = 2.18'
CONC. V-DITCH
7.5" PLASTIC PIPE INLET
INV. EL. = 6.33'
TOP EL. = 12.67'
BOT EL. = 2.68'
7.5" PLASTIC PIPE INLET
INV. EL. = 6.24'
TOP EL. = 12.60'
BOT EL. = 2.10'
TOP EL. = 12.60'
BOT EL. = 2.10'
7.5" PLASTIC PIPE INLET
INV. EL. = 6.24'
TOP EL. = 12.57'
BOT EL. = 2.09'
7.5" PLASTIC PIPE INLET
INV. EL. = 6.21'
TOP EL. = 12.62'
BOT EL. = 2.34'
TOP EL. = 12.66'
BOT EL. = 2.16'
CONC. V-DITCH
7.5" PLASTIC PIPE INLET
INV. EL. = 6.21'
TOP EL. = 12.63'
BOT EL. = 1.23'
7.5" PLASTIC PIPE INLET
INV. EL. = 5.96'
TOP EL. = 12.55'
BOT EL. = 1.62'
TOP EL. = 12.57'
BOT EL. = 1.61'
7.5" PLASTIC PIPE INLET
INV. EL. = 6.25'
LEGEND
SYMBOL PATTERN KEY
Double Gate
Electric Pullbox
Electric Vault
Grate Inlet
Monitoring Well
Palm Tree
Pipe Inlet / Pipe Outlet
Pipe Vent
Post
Sewer Manhole
Single Gate
Steel Sign
Storm Drain Manhole
Telephone Vault
Traffic Vault
Tree
Undefined Control Box
Undefined Manhole
Undefined Vault
Valve
Water Appurtenance-Air Release
Wood Utility Pole
Wood Utility Pole w/ Light
LINE PATTERN KEY
Building
Concrete/Block Wall
Concrete Headwall
Chain Link Fence
Channel Hinge Point
Edge of Asphalt Pavement
Edge of Concrete
Exposed Pipe
Flowline
Plastic Fence
Pole and Cable Fence
Post and Wire Fence
Retaining Wall
Rip Rap Grade Line
Steel Guard Rail
Wrought Iron Fence
AREA PATTERN KEY
Concrete
Dirt
Grate
Rip Rap/Gravel
0' 10' 20' 40' 60'
SCALE: 1" = 20'
CONTOUR INTERVAL: 1'
U.S. Survey Foot
OC Public Works
OC Survey/Field Services
Boundary Analysis & Mapping
MARK
DATE
ITEM
REVISIONS
COUNTY OF ORANGE
OC PUBLIC WORKS/ENGINEERING SERVICES
OC SURVEY/FIELD SERVICES/BOUNDARY ANALYSIS & MAPPING
H.B. & TALBERT CHANNEL
CHANNEL MAINTENANCE
TOPOGRAPHIC MAP
PROJECT LIMITS: H.B. CHANNEL (D01) FROM BROOKHURST ST. TO ADAMS AVE.
TALBERT CHANNEL (D02) FROM BROOKHURST ST. TO YORKTOWN AVE.
DATE OF SURVEY:12/11/2019
BY: R.MACIAS, PLS & CREW
MAPPING
BY: A.VU
OFFICE CHECK
BY: E. MEDINA, PLS
FIELD CHECK
BY: R.MACIAS, PLS
SCALE:1" = 20'
W.O. #EF19401S
FILE #1920PW-IN0009
FILE:HUNTINGTON BEACH CHANNEL PHASE 3_TOPO_2020.DWG
SHEET NO.
43
of
63



LEGEND

SYMBOL PATTERN KEY

- Double Gate
- Electric Pullbox
- Electric Vault
- Grate Inlet
- Monitoring Well
- Palm Tree
- Pipe Inlet / Pipe Outlet
- Pipe Vent
- Post
- Sewer Manhole
- Single Gate
- Steel Sign
- Storm Drain Manhole
- Telephone Vault
- Traffic Vault
- Tree
- Undefined Control Box
- Undefined Manhole
- Undefined Vault
- Valve
- Water Appurtenance-Air Release
- Wood Utility Pole
- Wood Utility Pole w/ Light

LINE PATTERN KEY

- Building
- Concrete/Block Wall
- Concrete Headwall
- Chain Link Fence
- Channel Hinge Point
- Edge of Asphalt Pavement
- Edge of Concrete
- Exposed Pipe
- Flowline
- Plastic Fence
- Pole and Cable Fence
- Post and Wire Fence
- Retaining Wall
- Rip Rap Grade Line
- Steel Guard Rail
- Wrought Iron Fence

AREA PATTERN KEY

- Concrete
- Dirt
- Grate
- Rip Rap/Gravel

0' 10' 20' 40' 60'

SCALE: 1" = 20'
CONTOUR INTERVAL: 1'

U.S. Survey Foot

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

MARK	DATE	ITEM
REVISIONS		

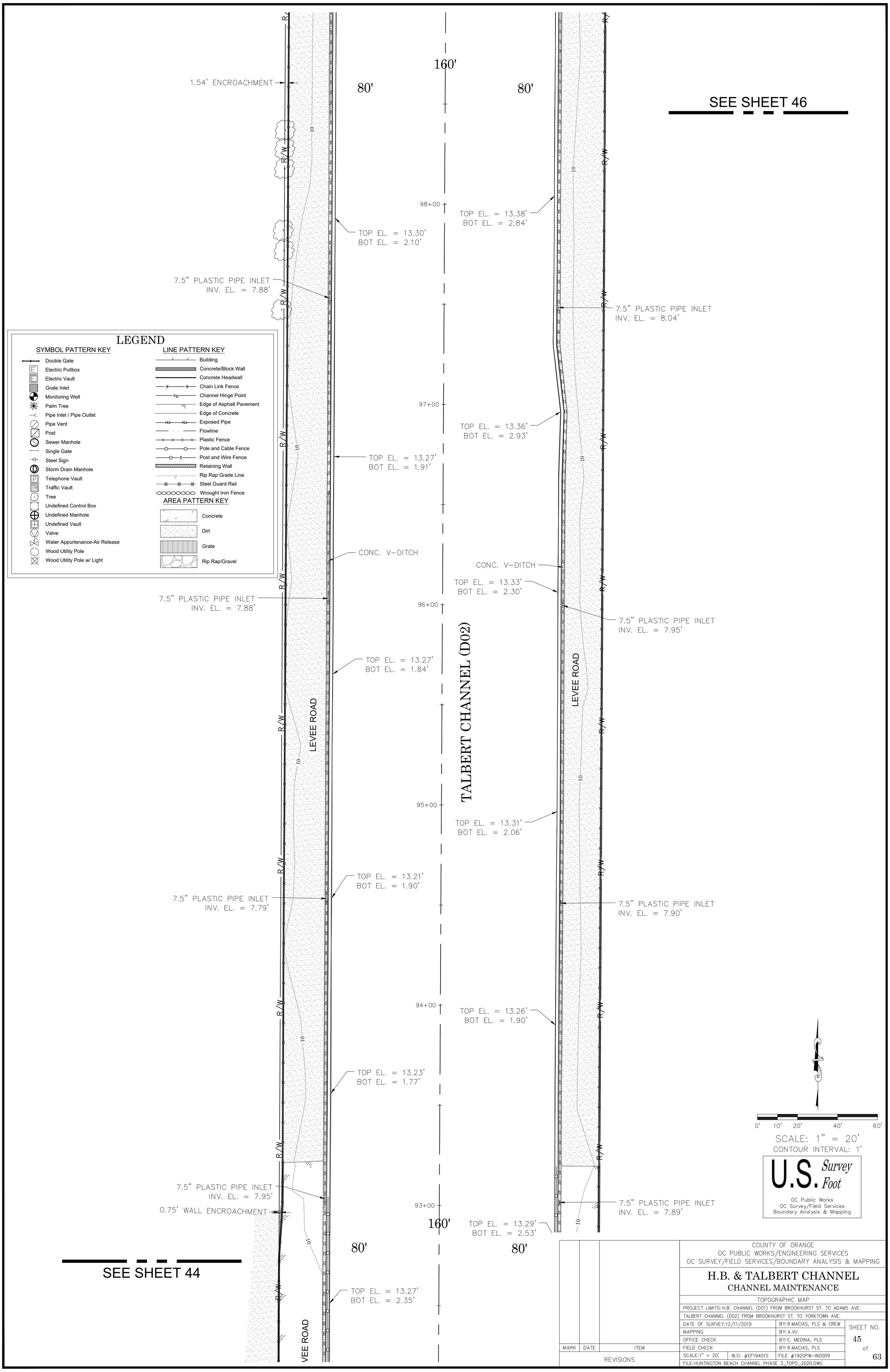
COUNTY OF ORANGE
OC PUBLIC WORKS/ENGINEERING SERVICES
OC SURVEY/FIELD SERVICES/BOUNDARY ANALYSIS & MAPPING

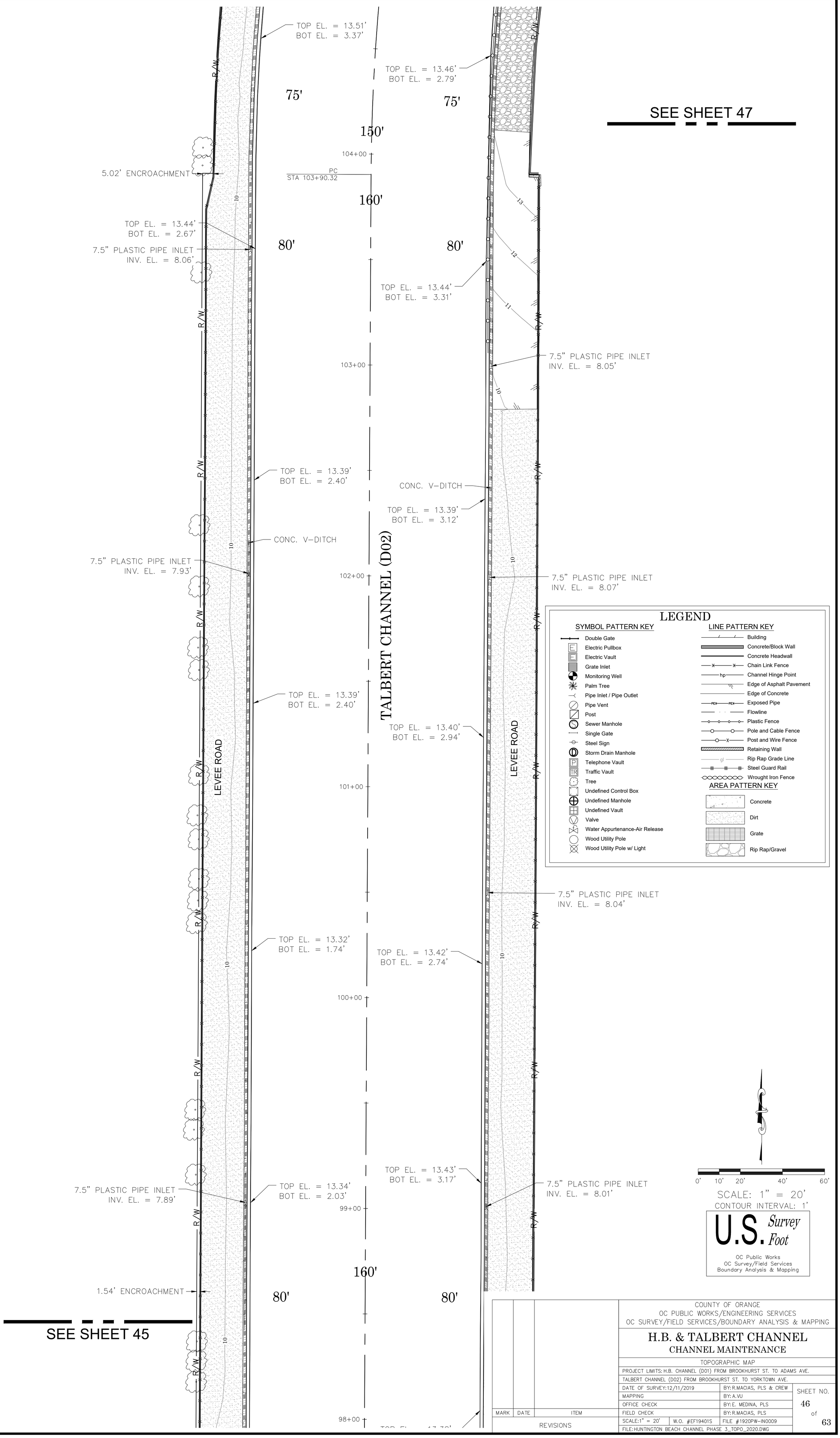
H.B. & TALBERT CHANNEL
CHANNEL MAINTENANCE

TOPOGRAPHIC MAP

PROJECT LIMITS: H.B. CHANNEL (D01) FROM BROOKHURST ST. TO ADAMS AVE.
TALBERT CHANNEL (D02) FROM BROOKHURST ST. TO YORKTOWN AVE.

DATE OF SURVEY: 12/11/2019	BY: R.MACIAS, PLS & CREW	SHEET NO.
MAPPING	BY: A.VU	44
OFFICE CHECK	BY: E. MEDINA, PLS	of
FIELD CHECK	BY: R.MACIAS, PLS	63
SCALE: 1" = 20' W.O. #EF19401S	FILE #1920PW-IN0009	
FILE: HUNTINGTON BEACH CHANNEL PHASE 3_TOPO_2020.DWG		


SEE SHEET 46
SEE SHEET 44
160'
80'
80'
1.54' ENCROACHMENT
98+00
97+00
96+00
95+00
94+00
93+00
TOP EL. = 13.30'
BOT EL. = 2.10'
TOP EL. = 13.38'
BOT EL. = 2.84'
7.5" PLASTIC PIPE INLET
INV. EL. = 7.88'
7.5" PLASTIC PIPE INLET
INV. EL. = 8.04'
TOP EL. = 13.36'
BOT EL. = 2.93'
TOP EL. = 13.27'
BOT EL. = 1.91'
CONC. V-DITCH
CONC. V-DITCH
TOP EL. = 13.33'
BOT EL. = 2.30'
7.5" PLASTIC PIPE INLET
INV. EL. = 7.88'
7.5" PLASTIC PIPE INLET
INV. EL. = 7.95'
TOP EL. = 13.27'
BOT EL. = 1.84'
TALBERT CHANNEL (D02)
LEVEE ROAD
LEVEE ROAD
TOP EL. = 13.31'
BOT EL. = 2.06'
TOP EL. = 13.21'
BOT EL. = 1.90'
7.5" PLASTIC PIPE INLET
INV. EL. = 7.79'
7.5" PLASTIC PIPE INLET
INV. EL. = 7.90'
TOP EL. = 13.26'
BOT EL. = 1.90'
TOP EL. = 13.23'
BOT EL. = 1.77'
7.5" PLASTIC PIPE INLET
INV. EL. = 7.95'
0.75' WALL ENCROACHMENT
7.5" PLASTIC PIPE INLET
INV. EL. = 7.89'
TOP EL. = 13.29'
BOT EL. = 2.53'
TOP EL. = 13.27'
BOT EL. = 2.35'
VEE ROAD
R/W
10
LEGEND
SYMBOL PATTERN KEY
Double Gate
Electric Pullbox
Electric Vault
Grate Inlet
Monitoring Well
Palm Tree
Pipe Inlet / Pipe Outlet
Pipe Vent
Post
Sewer Manhole
Single Gate
Steel Sign
Storm Drain Manhole
Telephone Vault
Traffic Vault
Tree
Undefined Control Box
Undefined Manhole
Undefined Vault
Valve
Water Appurtenance-Air Release
Wood Utility Pole
Wood Utility Pole w/ Light
LINE PATTERN KEY
Building
Concrete/Block Wall
Concrete Headwall
Chain Link Fence
Channel Hinge Point
Edge of Asphalt Pavement
Edge of Concrete
Exposed Pipe
Flowline
Plastic Fence
Pole and Cable Fence
Post and Wire Fence
Retaining Wall
Rip Rap Grade Line
Steel Guard Rail
Wrought Iron Fence
AREA PATTERN KEY
Concrete
Dirt
Grate
Rip Rap/Gravel
0' 10' 20' 40' 60'
SCALE: 1" = 20'
CONTOUR INTERVAL: 1'
U.S. Survey Foot
OC Public Works
OC Survey/Field Services
Boundary Analysis & Mapping
MARK
DATE
ITEM
REVISIONS
COUNTY OF ORANGE
OC PUBLIC WORKS/ENGINEERING SERVICES
OC SURVEY/FIELD SERVICES/BOUNDARY ANALYSIS & MAPPING
H.B. & TALBERT CHANNEL
CHANNEL MAINTENANCE
TOPOGRAPHIC MAP
PROJECT LIMITS: H.B. CHANNEL (D01) FROM BROOKHURST ST. TO ADAMS AVE.
TALBERT CHANNEL (D02) FROM BROOKHURST ST. TO YORKTOWN AVE.
DATE OF SURVEY: 12/11/2019
BY: R.MACIAS, PLS & CREW
MAPPING
BY: A.VU
OFFICE CHECK
BY: E. MEDINA, PLS
FIELD CHECK
BY: R.MACIAS, PLS
SCALE: 1" = 20'
W.O. #EF19401S
FILE #1920PW-IN0009
FILE: HUNTINGTON BEACH CHANNEL PHASE 3_TOPO_2020.DWG
SHEET NO.
45
of
63



MARK	DATE	ITEM
		REVISIONS

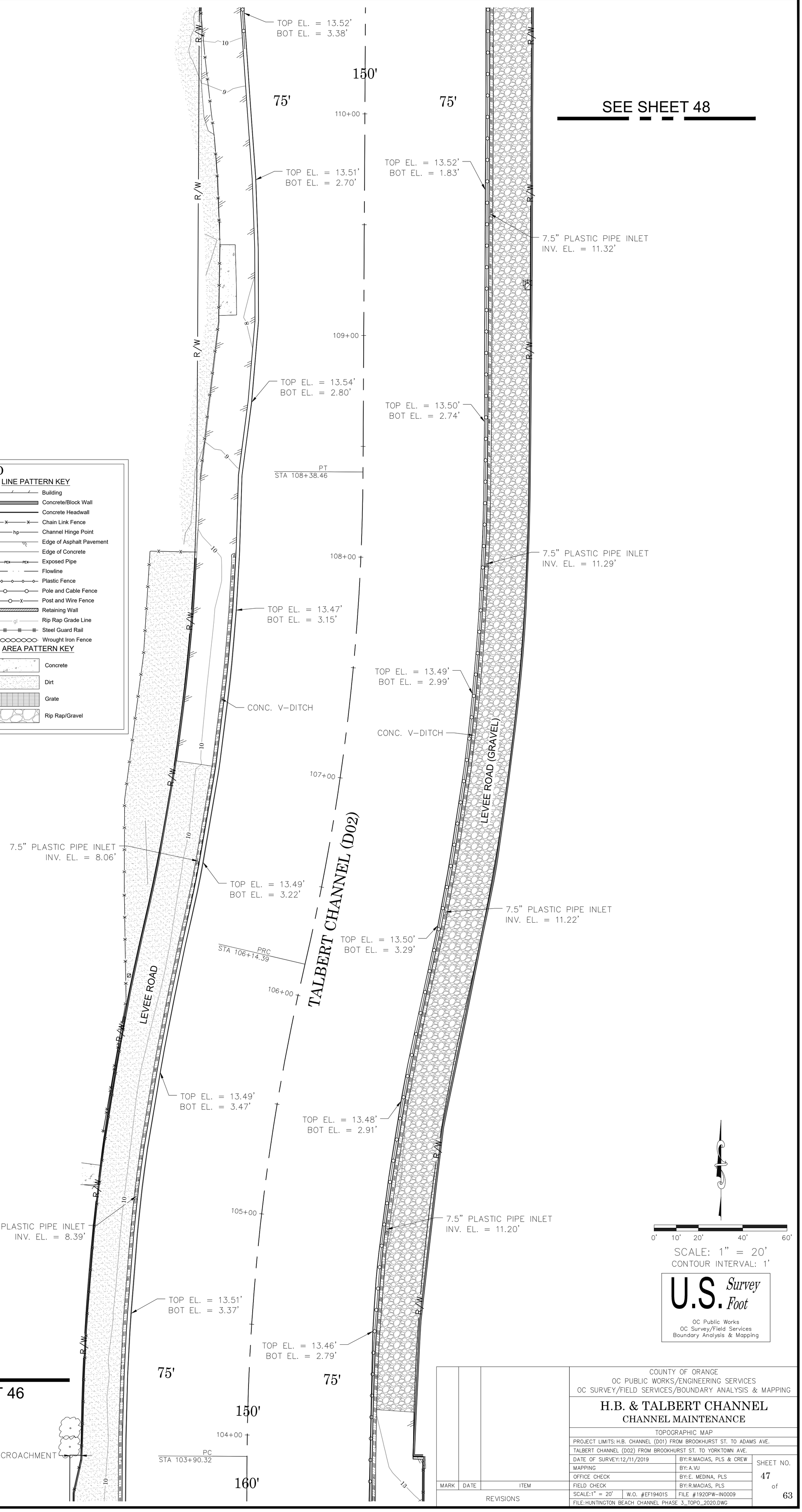
COUNTY OF ORANGE
OC PUBLIC WORKS/ENGINEERING SERVICES
OC SURVEY/FIELD SERVICES/BOUNDARY ANALYSIS & MAPPING

H.B. & TALBERT CHANNEL
CHANNEL MAINTENANCE

TOPOGRAPHIC MAP

PROJECT LIMITS: H.B. CHANNEL (D01) FROM BROOKHURST ST. TO ADAMS AVE.
TALBERT CHANNEL (D02) FROM BROOKHURST ST. TO YORKTOWN AVE.

DATE OF SURVEY: 12/11/2019	BY: R.MACIAS, PLS & CREW	SHEET NO.
MAPPING	BY: A.VU	46
OFFICE CHECK	BY: E. MEDINA, PLS	of
FIELD CHECK	BY: R.MACIAS, PLS	63
SCALE: 1" = 20' W.O. #EF19401S	FILE #1920PW-IN0009	
FILE: HUNTINGTON BEACH CHANNEL PHASE 3_TOPO_2020.DWG		



LEGEND

SYMBOL PATTERN KEY

- Double Gate
- Electric Pullbox
- Electric Vault
- Grate Inlet
- Monitoring Well
- Palm Tree
- Pipe Inlet / Pipe Outlet
- Pipe Vent
- Post
- Sewer Manhole
- Single Gate
- Steel Sign
- Storm Drain Manhole
- Telephone Vault
- Traffic Vault
- Tree
- Undefined Control Box
- Undefined Manhole
- Undefined Vault
- Valve
- Water Appurtenance-Air Release
- Wood Utility Pole
- Wood Utility Pole w/ Light

LINE PATTERN KEY

- Building
- Concrete/Block Wall
- Concrete Headwall
- Chain Link Fence
- Channel Hinge Point
- Edge of Asphalt Pavement
- Edge of Concrete
- Exposed Pipe
- Flowline
- Plastic Fence
- Pole and Cable Fence
- Post and Wire Fence
- Retaining Wall
- Rip Rap Grade Line
- Steel Guard Rail
- Wrought Iron Fence

AREA PATTERN KEY

- Concrete
- Dirt
- Grate
- Rip Rap/Gravel

MARK	DATE	ITEM
REVISIONS		

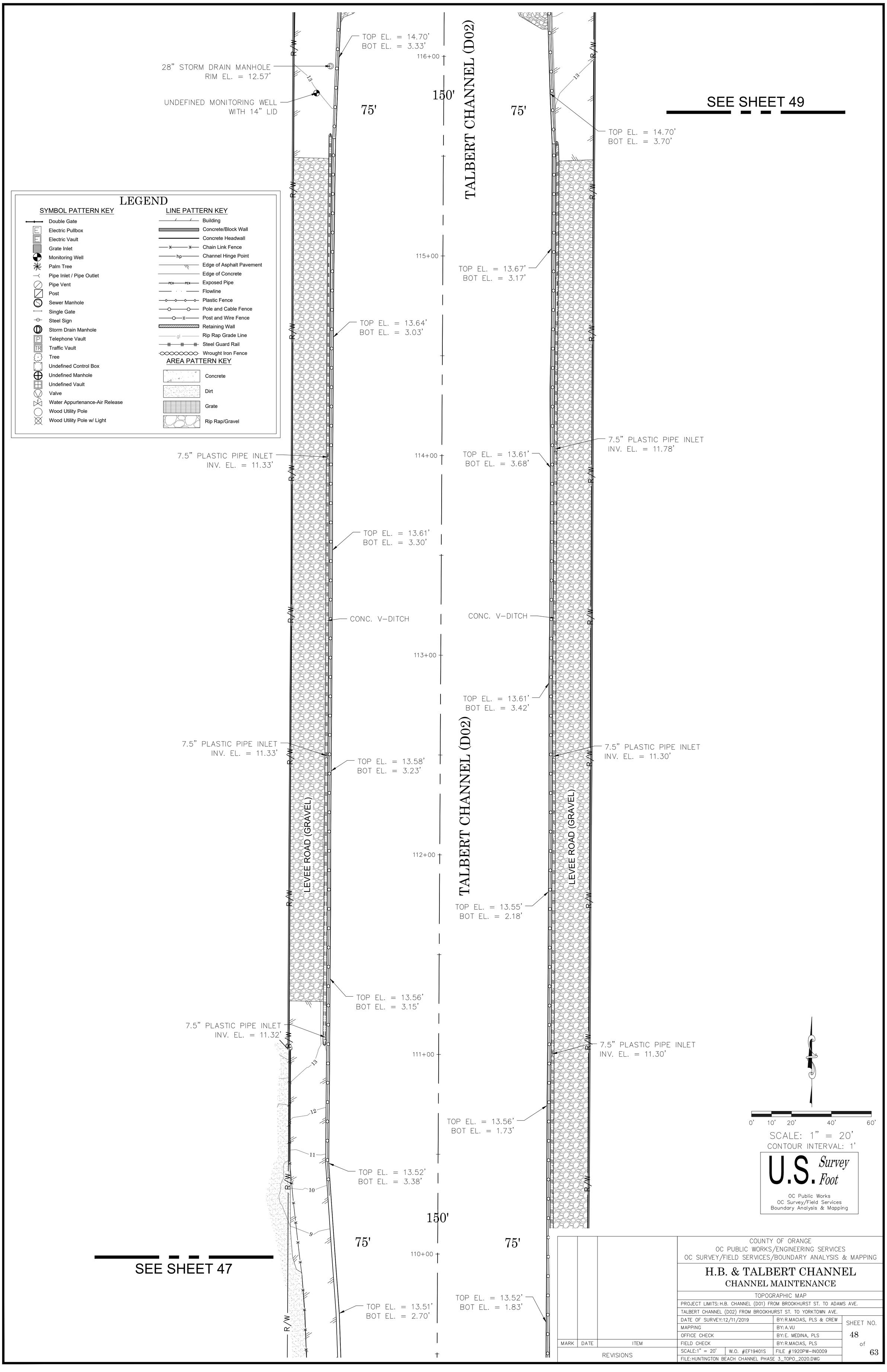
COUNTY OF ORANGE
OC PUBLIC WORKS/ENGINEERING SERVICES
OC SURVEY/FIELD SERVICES/BOUNDARY ANALYSIS & MAPPING

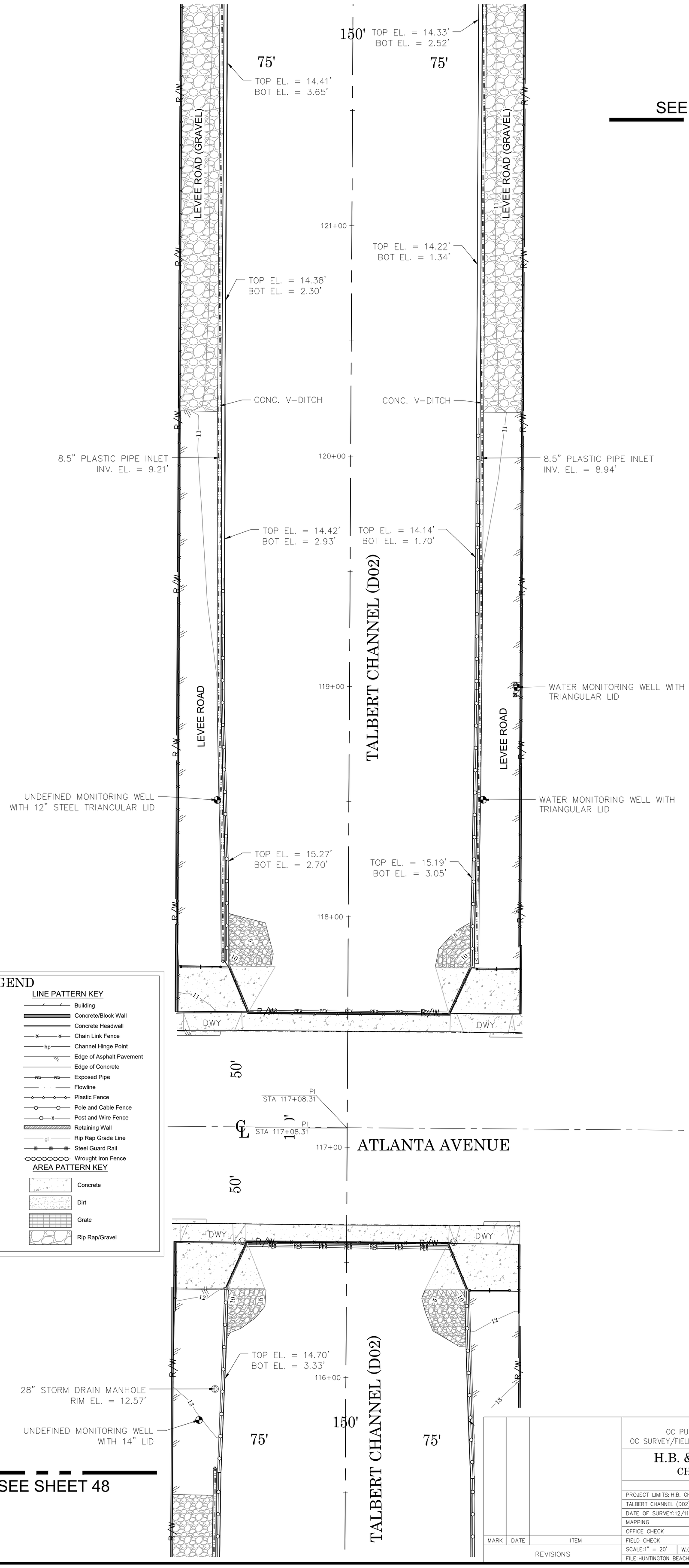
H.B. & TALBERT CHANNEL
CHANNEL MAINTENANCE

TOPOGRAPHIC MAP

PROJECT LIMITS: H.B. CHANNEL (D01) FROM BROOKHURST ST. TO ADAMS AVE.
TALBERT CHANNEL (D02) FROM BROOKHURST ST. TO YORKTOWN AVE.

DATE OF SURVEY: 12/11/2019	BY: R.MACIAS, PLS & CREW	SHEET NO.
MAPPING	BY: A.VU	47
OFFICE CHECK	BY: E. MEDINA, PLS	of
FIELD CHECK	BY: R.MACIAS, PLS	63
SCALE: 1" = 20' W.O. #EF19401S	FILE #1920PW-IN0009	
FILE: HUNTINGTON BEACH CHANNEL PHASE 3_TOPO_2020.DWG		


TALBERT CHANNEL (D02)
TOP EL. = 14.70'
BOT EL. = 3.33'
28" STORM DRAIN MANHOLE
RIM EL. = 12.57'
UNDEFINED MONITORING WELL
WITH 14" LID
75'
150'
75'
SEE SHEET 49
TOP EL. = 14.70'
BOT EL. = 3.70'
LEGEND
SYMBOL PATTERN KEY
Double Gate
Electric Pullbox
Electric Vault
Grate Inlet
Monitoring Well
Palm Tree
Pipe Inlet / Pipe Outlet
Pipe Vent
Post
Sewer Manhole
Single Gate
Steel Sign
Storm Drain Manhole
Telephone Vault
Traffic Vault
Tree
Undefined Control Box
Undefined Manhole
Undefined Vault
Valve
Water Appurtenance-Air Release
Wood Utility Pole
Wood Utility Pole w/ Light
LINE PATTERN KEY
Building
Concrete/Block Wall
Concrete Headwall
Chain Link Fence
Channel Hinge Point
Edge of Asphalt Pavement
Edge of Concrete
Exposed Pipe
Flowline
Plastic Fence
Pole and Cable Fence
Post and Wire Fence
Retaining Wall
Rip Rap Grade Line
Steel Guard Rail
Wrought Iron Fence
AREA PATTERN KEY
Concrete
Dirt
Grate
Rip Rap/Gravel
116+00
115+00
114+00
113+00
112+00
111+00
110+00
TOP EL. = 13.67'
BOT EL. = 3.17'
TOP EL. = 13.64'
BOT EL. = 3.03'
7.5" PLASTIC PIPE INLET
INV. EL. = 11.33'
7.5" PLASTIC PIPE INLET
INV. EL. = 11.78'
TOP EL. = 13.61'
BOT EL. = 3.68'
TOP EL. = 13.61'
BOT EL. = 3.30'
CONC. V-DITCH
CONC. V-DITCH
TOP EL. = 13.61'
BOT EL. = 3.42'
7.5" PLASTIC PIPE INLET
INV. EL. = 11.33'
TOP EL. = 13.58'
BOT EL. = 3.23'
7.5" PLASTIC PIPE INLET
INV. EL. = 11.30'
LEVEE ROAD (GRAVEL)
LEVEE ROAD (GRAVEL)
TOP EL. = 13.55'
BOT EL. = 2.18'
TOP EL. = 13.56'
BOT EL. = 3.15'
7.5" PLASTIC PIPE INLET
INV. EL. = 11.32'
7.5" PLASTIC PIPE INLET
INV. EL. = 11.30'
TOP EL. = 13.56'
BOT EL. = 1.73'
TOP EL. = 13.52'
BOT EL. = 3.38'
150'
75'
75'
SEE SHEET 47
TOP EL. = 13.51'
BOT EL. = 2.70'
TOP EL. = 13.52'
BOT EL. = 1.83'
R/W
1:3
13
12
11
10
9
0' 10' 20' 40' 60'
SCALE: 1" = 20'
CONTOUR INTERVAL: 1'
U.S. Survey Foot
OC Public Works
OC Survey/Field Services
Boundary Analysis & Mapping
MARK
DATE
ITEM
REVISIONS
COUNTY OF ORANGE
OC PUBLIC WORKS/ENGINEERING SERVICES
OC SURVEY/FIELD SERVICES/BOUNDARY ANALYSIS & MAPPING
H.B. & TALBERT CHANNEL
CHANNEL MAINTENANCE
TOPOGRAPHIC MAP
PROJECT LIMITS: H.B. CHANNEL (D01) FROM BROOKHURST ST. TO ADAMS AVE.
TALBERT CHANNEL (D02) FROM BROOKHURST ST. TO YORKTOWN AVE.
DATE OF SURVEY: 12/11/2019
BY: R.MACIAS, PLS & CREW
MAPPING
BY: A.VU
OFFICE CHECK
BY: E. MEDINA, PLS
FIELD CHECK
BY: R.MACIAS, PLS
SCALE: 1" = 20'
W.O. #EF19401S
FILE #1920PW-IN0009
FILE: HUNTINGTON BEACH CHANNEL PHASE 3_TOPO_2020.DWG
SHEET NO.
48
of
63



LEGEND

SYMBOL PATTERN KEY

- Double Gate
- Electric Pullbox
- Electric Vault
- Grate Inlet
- Monitoring Well
- Palm Tree
- Pipe Inlet / Pipe Outlet
- Pipe Vent
- Post
- Sewer Manhole
- Single Gate
- Steel Sign
- Storm Drain Manhole
- Telephone Vault
- Traffic Vault
- Tree
- Undefined Control Box
- Undefined Manhole
- Undefined Vault
- Valve
- Water Appurtenance-Air Release
- Wood Utility Pole
- Wood Utility Pole w/ Light

LINE PATTERN KEY

- Building
- Concrete/Block Wall
- Concrete Headwall
- Chain Link Fence
- Channel Hinge Point
- Edge of Asphalt Pavement
- Edge of Concrete
- Exposed Pipe
- Flowline
- Plastic Fence
- Pole and Cable Fence
- Post and Wire Fence
- Retaining Wall
- Rip Rap Grade Line
- Steel Guard Rail
- Wrought Iron Fence

AREA PATTERN KEY

- Concrete
- Dirt
- Grate
- Rip Rap/Gravel

MARK	DATE	ITEM
REVISIONS		

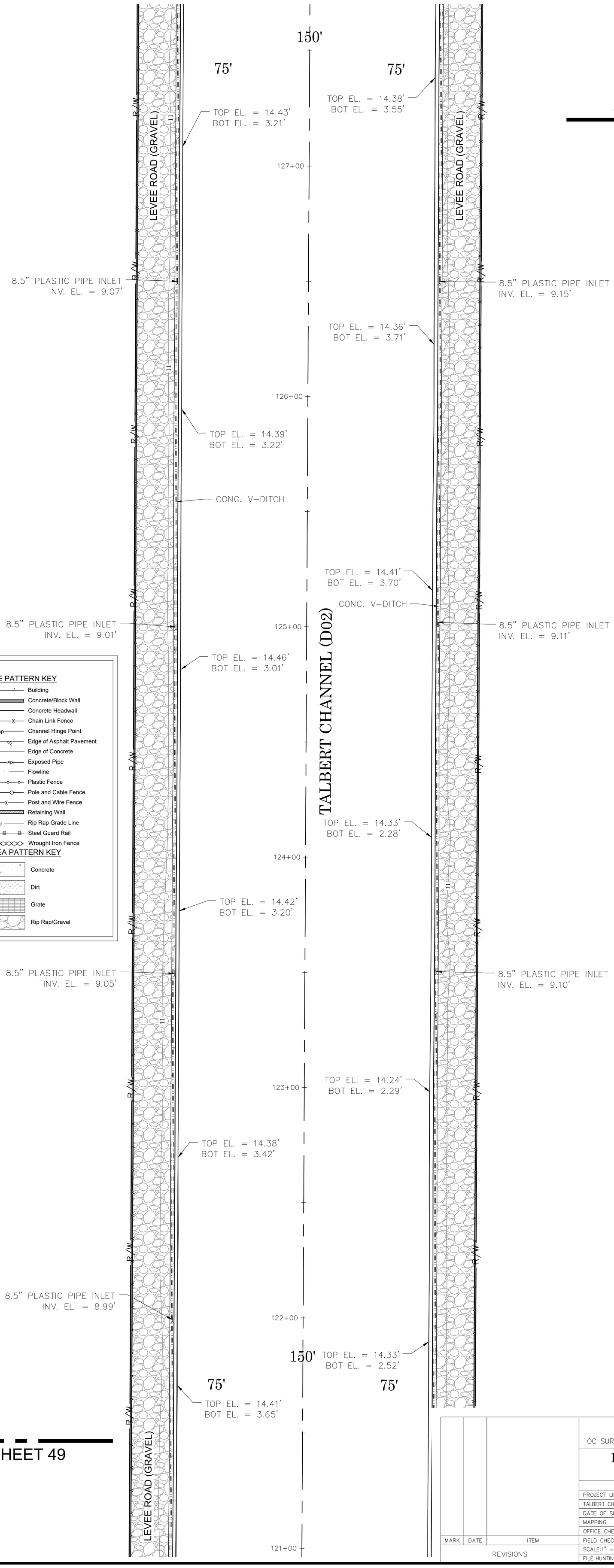
COUNTY OF ORANGE
OC PUBLIC WORKS/ENGINEERING SERVICES
OC SURVEY/FIELD SERVICES/BOUNDARY ANALYSIS & MAPPING

H.B. & TALBERT CHANNEL
CHANNEL MAINTENANCE

TOPOGRAPHIC MAP

PROJECT LIMITS: H.B. CHANNEL (D01) FROM BROOKHURST ST. TO ADAMS AVE.
TALBERT CHANNEL (D02) FROM BROOKHURST ST. TO YORKTOWN AVE.

DATE OF SURVEY: 12/11/2019	BY: R.MACIAS, PLS & CREW	SHEET NO.
MAPPING	BY: A.VU	49
OFFICE CHECK	BY: E. MEDINA, PLS	of
FIELD CHECK	BY: R.MACIAS, PLS	63
SCALE: 1" = 20' W.O. #EF19401S	FILE #1920PW-IN0009	
FILE: HUNTINGTON BEACH CHANNEL PHASE 3_TOPO_2020.DWG		



MARK	DATE	ITEM
		REVISIONS

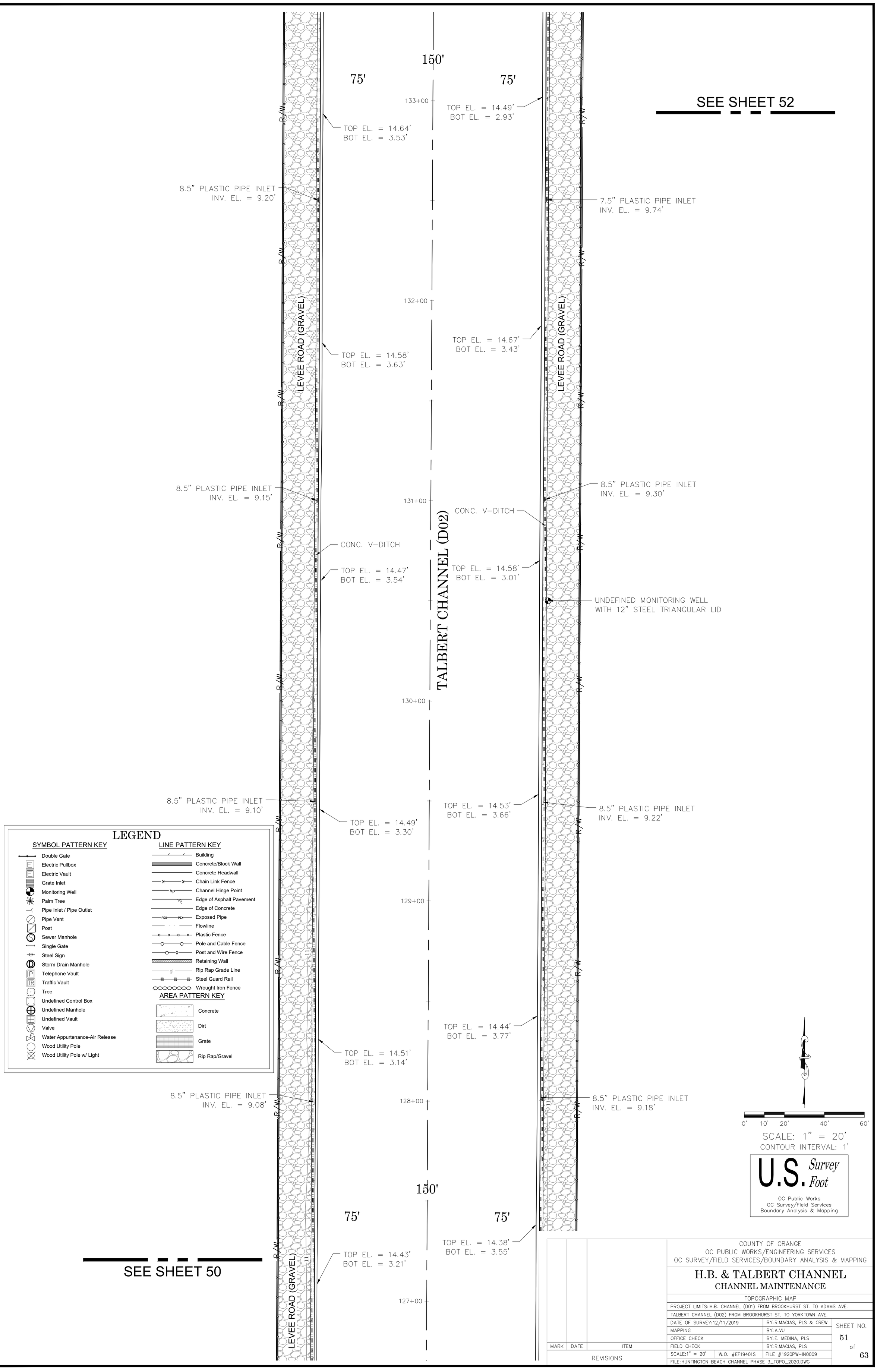
COUNTY OF ORANGE
OC PUBLIC WORKS/ENGINEERING SERVICES
OC SURVEY/FIELD SERVICES/BOUNDARY ANALYSIS & MAPPING

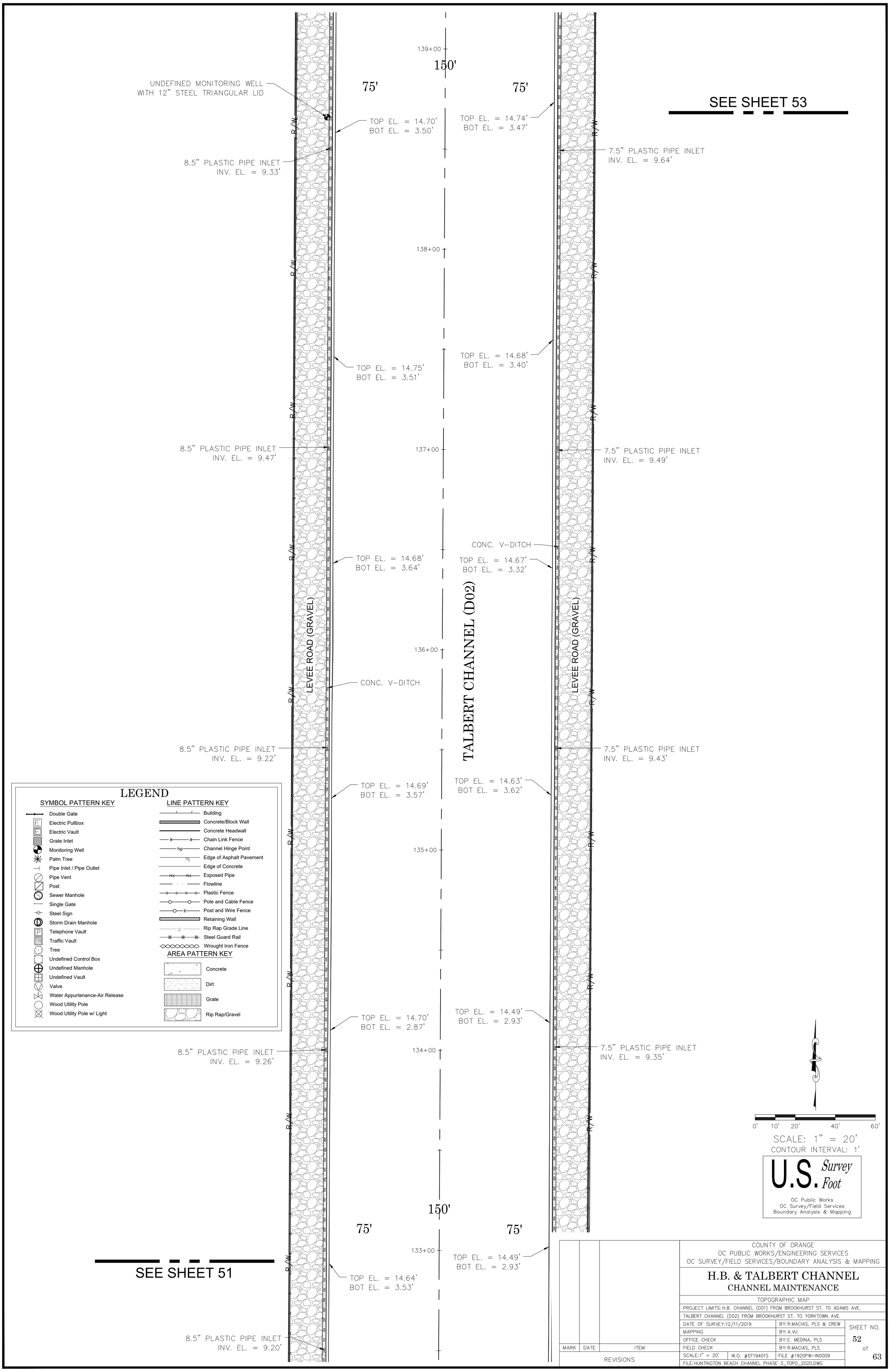
H.B. & TALBERT CHANNEL
CHANNEL MAINTENANCE

TOPOGRAPHIC MAP

PROJECT LIMITS: H.B. CHANNEL (D01) FROM BROOKHURST ST. TO ADAMS AVE.
TALBERT CHANNEL (D02) FROM BROOKHURST ST. TO YORKTOWN AVE.

DATE OF SURVEY: 12/11/2019	BY: R.MACIAS, PLS & CREW	SHEET NO.
MAPPING	BY: A.VU	50
OFFICE CHECK	BY: E. MEDINA, PLS	of
FIELD CHECK	BY: R.MACIAS, PLS	63
SCALE: 1" = 20' W.O. #EF19401S	FILE #1920PW-IN0009	
FILE: HUNTINGTON BEACH CHANNEL PHASE 3_TOPO_2020.DWG		


150'
75'
75'
SEE SHEET 52
133+00
TOP EL. = 14.64'
BOT EL. = 3.53'
TOP EL. = 14.49'
BOT EL. = 2.93'
8.5" PLASTIC PIPE INLET
INV. EL. = 9.20'
7.5" PLASTIC PIPE INLET
INV. EL. = 9.74'
132+00
TOP EL. = 14.58'
BOT EL. = 3.63'
TOP EL. = 14.67'
BOT EL. = 3.43'
LEVEE ROAD (GRAVEL)
8.5" PLASTIC PIPE INLET
INV. EL. = 9.15'
8.5" PLASTIC PIPE INLET
INV. EL. = 9.30'
131+00
CONC. V-DITCH
CONC. V-DITCH
TOP EL. = 14.47'
BOT EL. = 3.54'
TOP EL. = 14.58'
BOT EL. = 3.01'
UNDEFINED MONITORING WELL
WITH 12" STEEL TRIANGULAR LID
TALBERT CHANNEL (D02)
130+00
8.5" PLASTIC PIPE INLET
INV. EL. = 9.10'
TOP EL. = 14.53'
BOT EL. = 3.66'
8.5" PLASTIC PIPE INLET
INV. EL. = 9.22'
TOP EL. = 14.49'
BOT EL. = 3.30'
129+00
TOP EL. = 14.44'
BOT EL. = 3.77'
TOP EL. = 14.51'
BOT EL. = 3.14'
8.5" PLASTIC PIPE INLET
INV. EL. = 9.08'
128+00
8.5" PLASTIC PIPE INLET
INV. EL. = 9.18'
0' 10' 20' 40' 60'
SCALE: 1" = 20'
CONTOUR INTERVAL: 1'
U.S. Survey Foot
OC Public Works
OC Survey/Field Services
Boundary Analysis & Mapping
150'
75'
75'
TOP EL. = 14.38'
BOT EL. = 3.55'
TOP EL. = 14.43'
BOT EL. = 3.21'
SEE SHEET 50
127+00
LEVEE ROAD (GRAVEL)
R/W
LEGEND
SYMBOL PATTERN KEY
Double Gate
Electric Pullbox
Electric Vault
Grate Inlet
Monitoring Well
Palm Tree
Pipe Inlet / Pipe Outlet
Pipe Vent
Post
Sewer Manhole
Single Gate
Steel Sign
Storm Drain Manhole
Telephone Vault
Traffic Vault
Tree
Undefined Control Box
Undefined Manhole
Undefined Vault
Valve
Water Appurtenance-Air Release
Wood Utility Pole
Wood Utility Pole w/ Light
LINE PATTERN KEY
Building
Concrete/Block Wall
Concrete Headwall
Chain Link Fence
Channel Hinge Point
Edge of Asphalt Pavement
Edge of Concrete
Exposed Pipe
Flowline
Plastic Fence
Pole and Cable Fence
Post and Wire Fence
Retaining Wall
Rip Rap Grade Line
Steel Guard Rail
Wrought Iron Fence
AREA PATTERN KEY
Concrete
Dirt
Grate
Rip Rap/Gravel
MARK
DATE
ITEM
REVISIONS
COUNTY OF ORANGE
OC PUBLIC WORKS/ENGINEERING SERVICES
OC SURVEY/FIELD SERVICES/BOUNDARY ANALYSIS & MAPPING
H.B. & TALBERT CHANNEL
CHANNEL MAINTENANCE
TOPOGRAPHIC MAP
PROJECT LIMITS: H.B. CHANNEL (D01) FROM BROOKHURST ST. TO ADAMS AVE.
TALBERT CHANNEL (D02) FROM BROOKHURST ST. TO YORKTOWN AVE.
DATE OF SURVEY: 12/11/2019
BY: R.MACIAS, PLS & CREW
MAPPING
BY: A.VU
OFFICE CHECK
BY: E. MEDINA, PLS
FIELD CHECK
BY: R.MACIAS, PLS
SCALE: 1" = 20'
W.O. #EF19401S
FILE #1920PW-IN0009
FILE: HUNTINGTON BEACH CHANNEL PHASE 3_TOPO_2020.DWG
SHEET NO.
51
of
63



MARK	DATE	ITEM
REVISIONS		

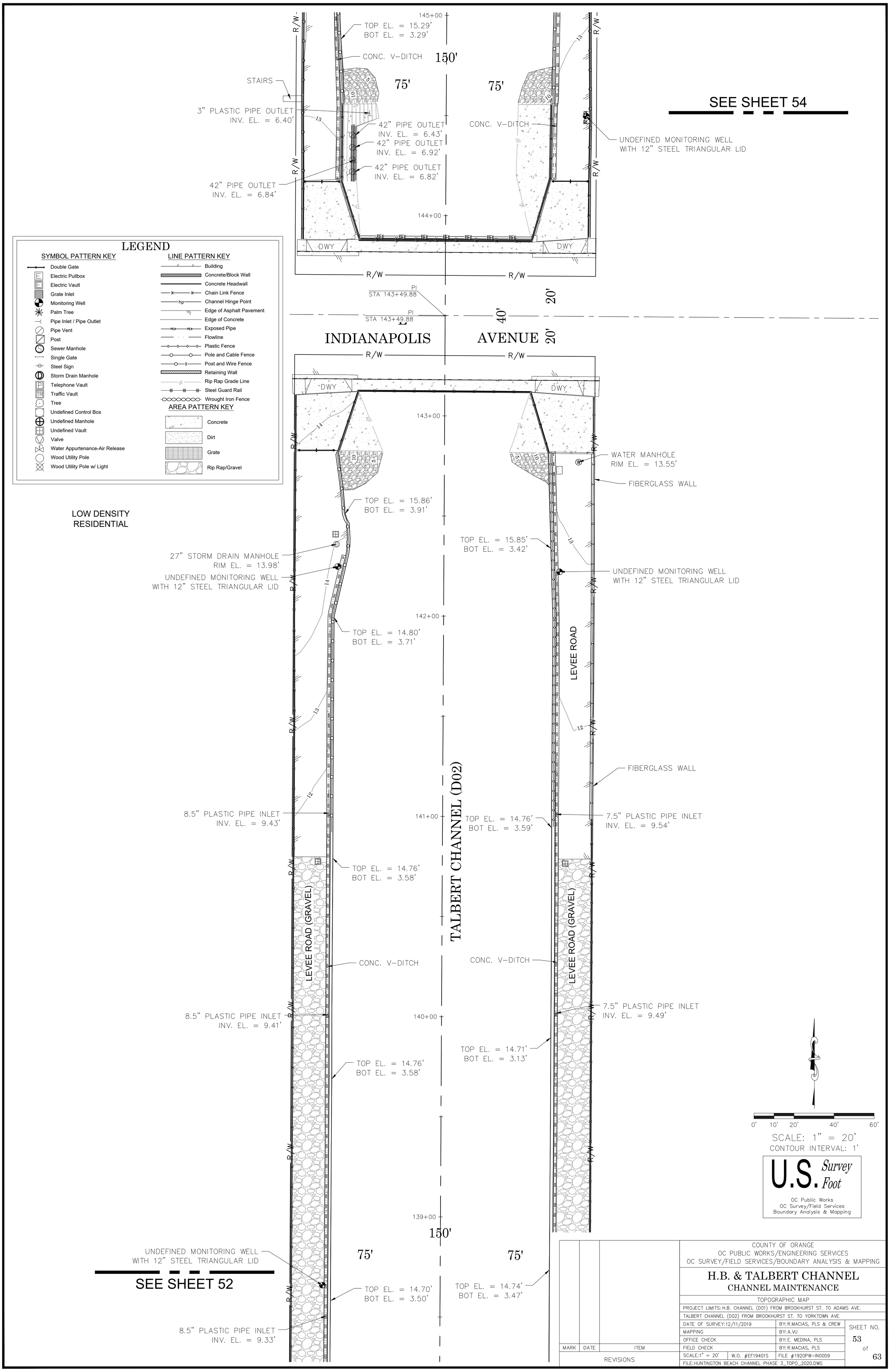
COUNTY OF ORANGE
OC PUBLIC WORKS/ENGINEERING SERVICES
OC SURVEY/FIELD SERVICES/BOUNDARY ANALYSIS & MAPPING

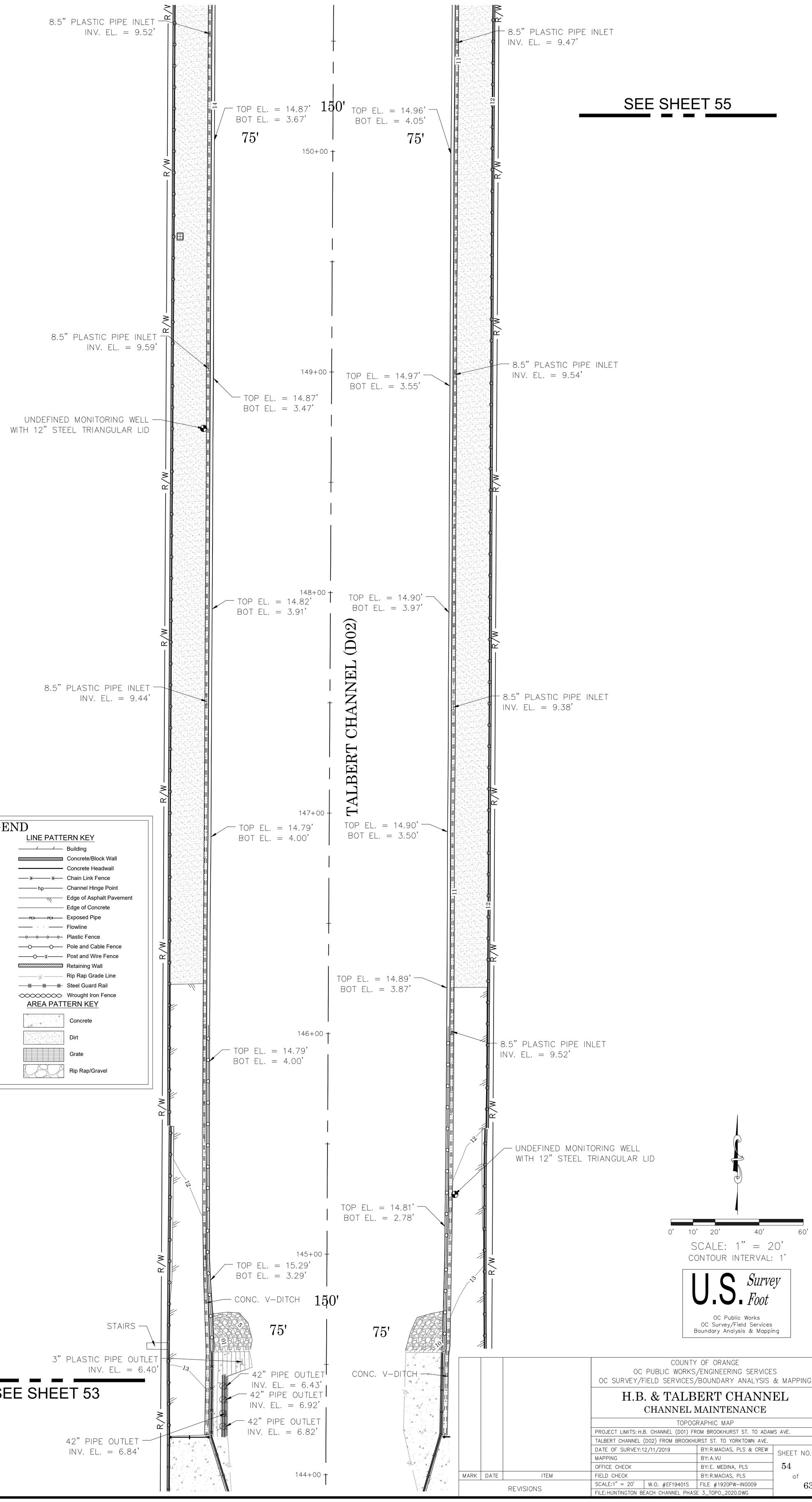
H.B. & TALBERT CHANNEL
CHANNEL MAINTENANCE

TOPOGRAPHIC MAP

PROJECT LIMITS: H.B. CHANNEL (D01) FROM BROOKHURST ST. TO ADAMS AVE.
TALBERT CHANNEL (D02) FROM BROOKHURST ST. TO YORKTOWN AVE.

DATE OF SURVEY: 12/11/2019	BY: R.MACIAS, PLS & CREW	SHEET NO.
MAPPING	BY: A.VU	52
OFFICE CHECK	BY: E. MEDINA, PLS	of
FIELD CHECK	BY: R.MACIAS, PLS	63
SCALE: 1" = 20' W.O. #EF19401S	FILE #1920PW-IN0009	
FILE: HUNTINGTON BEACH CHANNEL PHASE 3_TOPO_2020.DWG		


LEGEND
SYMBOL PATTERN KEY
Double Gate
Electric Pullbox
Electric Vault
Grate Inlet
Monitoring Well
Palm Tree
Pipe Inlet / Pipe Outlet
Pipe Vent
Post
Sewer Manhole
Single Gate
Steel Sign
Storm Drain Manhole
Telephone Vault
Traffic Vault
Tree
Undefined Control Box
Undefined Manhole
Undefined Vault
Valve
Water Appurtenance-Air Release
Wood Utility Pole
Wood Utility Pole w/ Light
LINE PATTERN KEY
Building
Concrete/Block Wall
Concrete Headwall
Chain Link Fence
Channel Hinge Point
Edge of Asphalt Pavement
Edge of Concrete
Exposed Pipe
Flowline
Plastic Fence
Pole and Cable Fence
Post and Wire Fence
Retaining Wall
Rip Rap Grade Line
Steel Guard Rail
Wrought Iron Fence
AREA PATTERN KEY
Concrete
Dirt
Grate
Rip Rap/Gravel
LOW DENSITY RESIDENTIAL
SEE SHEET 54
SEE SHEET 52
TOP EL. = 15.29'
BOT EL. = 3.29'
CONC. V-DITCH
STAIRS
3" PLASTIC PIPE OUTLET
INV. EL. = 6.40'
42" PIPE OUTLET
INV. EL. = 6.43'
42" PIPE OUTLET
INV. EL. = 6.92'
42" PIPE OUTLET
INV. EL. = 6.82'
42" PIPE OUTLET
INV. EL. = 6.84'
UNDEFINED MONITORING WELL
WITH 12" STEEL TRIANGULAR LID
DWY
R/W
PI
STA 143+49.88
INDIANAPOLIS AVENUE
WATER MANHOLE
RIM EL. = 13.55'
FIBERGLASS WALL
TOP EL. = 15.86'
BOT EL. = 3.91'
TOP EL. = 15.85'
BOT EL. = 3.42'
27" STORM DRAIN MANHOLE
RIM EL. = 13.98'
UNDEFINED MONITORING WELL
WITH 12" STEEL TRIANGULAR LID
TOP EL. = 14.80'
BOT EL. = 3.71'
LEVEE ROAD
8.5" PLASTIC PIPE INLET
INV. EL. = 9.43'
TOP EL. = 14.76'
BOT EL. = 3.58'
TOP EL. = 14.76'
BOT EL. = 3.59'
7.5" PLASTIC PIPE INLET
INV. EL. = 9.54'
LEVEE ROAD (GRAVEL)
CONC. V-DITCH
8.5" PLASTIC PIPE INLET
INV. EL. = 9.41'
7.5" PLASTIC PIPE INLET
INV. EL. = 9.49'
TOP EL. = 14.71'
BOT EL. = 3.13'
TOP EL. = 14.76'
BOT EL. = 3.58'
TALBERT CHANNEL (D02)
UNDEFINED MONITORING WELL
WITH 12" STEEL TRIANGULAR LID
TOP EL. = 14.70'
BOT EL. = 3.50'
TOP EL. = 14.74'
BOT EL. = 3.47'
8.5" PLASTIC PIPE INLET
INV. EL. = 9.33'
145+00
144+00
143+00
142+00
141+00
140+00
139+00
150'
75'
40'
20'
0' 10' 20' 40' 60'
SCALE: 1" = 20'
CONTOUR INTERVAL: 1'
U.S. Survey Foot
OC Public Works
OC Survey/Field Services
Boundary Analysis & Mapping
COUNTY OF ORANGE
OC PUBLIC WORKS/ENGINEERING SERVICES
OC SURVEY/FIELD SERVICES/BOUNDARY ANALYSIS & MAPPING
H.B. & TALBERT CHANNEL
CHANNEL MAINTENANCE
TOPOGRAPHIC MAP
PROJECT LIMITS: H.B. CHANNEL (D01) FROM BROOKHURST ST. TO ADAMS AVE.
TALBERT CHANNEL (D02) FROM BROOKHURST ST. TO YORKTOWN AVE.
DATE OF SURVEY: 12/11/2019
BY: R.MACIAS, PLS & CREW
MAPPING
BY: A.VU
OFFICE CHECK
BY: E. MEDINA, PLS
FIELD CHECK
BY: R.MACIAS, PLS
SCALE: 1" = 20'
W.O. #EF19401S
FILE #1920PW-IN0009
FILE: HUNTINGTON BEACH CHANNEL PHASE 3_TOPO_2020.DWG
MARK
DATE
ITEM
REVISIONS
SHEET NO.
53
of
63



LEGEND

SYMBOL PATTERN KEY

- Double Gate
- Electric Pullbox
- Electric Vault
- Grate Inlet
- Monitoring Well
- Palm Tree
- Pipe Inlet / Pipe Outlet
- Pipe Vent
- Post
- Sewer Manhole
- Single Gate
- Steel Sign
- Storm Drain Manhole
- Telephone Vault
- Traffic Vault
- Tree
- Undefined Control Box
- Undefined Manhole
- Undefined Vault
- Valve
- Water Appurtenance-Air Release
- Wood Utility Pole
- Wood Utility Pole w/ Light

LINE PATTERN KEY

- Building
- Concrete/Block Wall
- Concrete Headwall
- Chain Link Fence
- Channel Hinge Point
- Edge of Asphalt Pavement
- Edge of Concrete
- Exposed Pipe
- Flowline
- Plastic Fence
- Pole and Cable Fence
- Post and Wire Fence
- Retaining Wall
- Rip Rap Grade Line
- Steel Guard Rail
- Wrought Iron Fence

AREA PATTERN KEY

- Concrete
- Dirt
- Grate
- Rip Rap/Gravel

MARK	DATE	ITEM
REVISIONS		

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

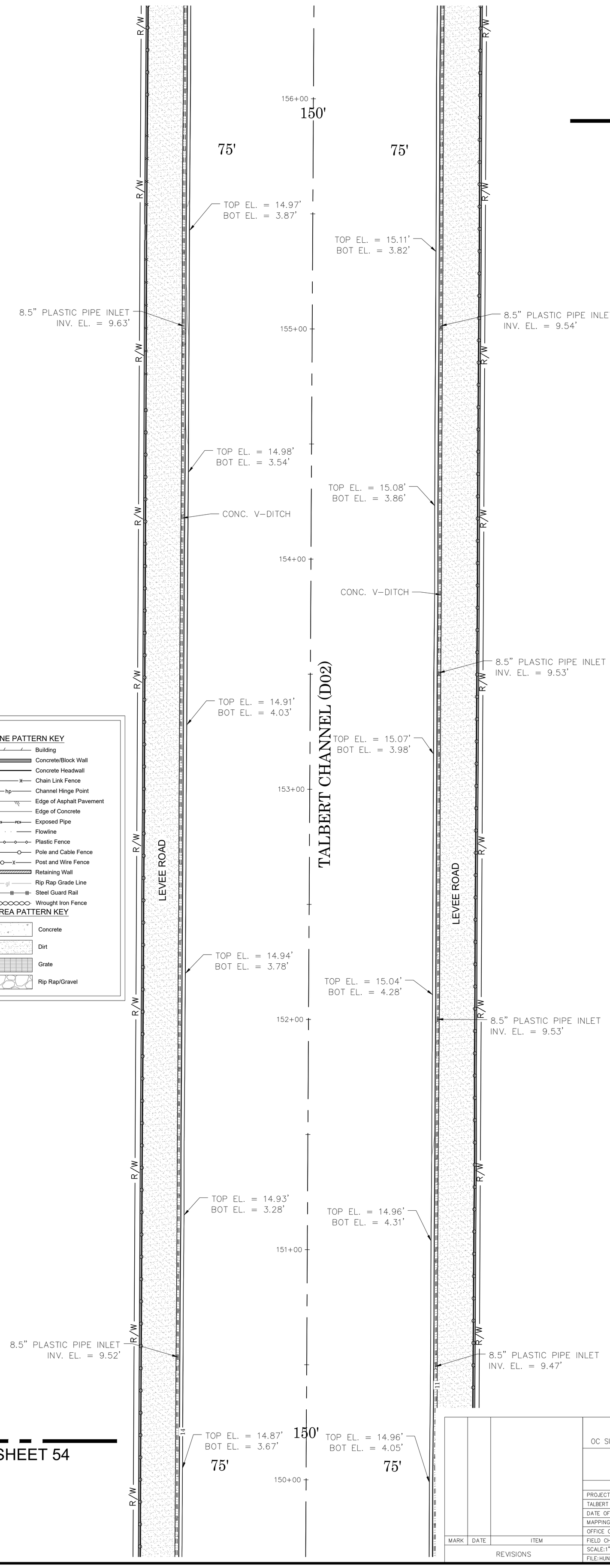
H.B. & TALBERT CHANNEL
CHANNEL MAINTENANCE

TOPOGRAPHIC MAP

PROJECT LIMITS: H.B. CHANNEL (D01) FROM BROOKHURST ST. TO ADAMS AVE.
TALBERT CHANNEL (D02) FROM BROOKHURST ST. TO YORKTOWN AVE.

DATE OF SURVEY: 12/11/2019		BY: R.MACIAS, PLS & CREW
MAPPING		BY: A.VU
OFFICE CHECK		BY: E. MEDINA, PLS
FIELD CHECK		BY: R.MACIAS, PLS
SCALE: 1" = 20'	W.O. #EF19401S	FILE #1920PW-IN0009
FILE: HUNTINGTON BEACH CHANNEL PHASE 3_TOPO_2020.DWG		

SHEET NO. 54 of 63



LEGEND

SYMBOL PATTERN KEY

- Double Gate
- Electric Pullbox
- Electric Vault
- Grate Inlet
- Monitoring Well
- Palm Tree
- Pipe Inlet / Pipe Outlet
- Pipe Vent
- Post
- Sewer Manhole
- Single Gate
- Steel Sign
- Storm Drain Manhole
- Telephone Vault
- Traffic Vault
- Tree
- Undefined Control Box
- Undefined Manhole
- Undefined Vault
- Valve
- Water Appurtenance-Air Release
- Wood Utility Pole
- Wood Utility Pole w/ Light

LINE PATTERN KEY

- Building
- Concrete/Block Wall
- Concrete Headwall
- Chain Link Fence
- Channel Hinge Point
- Edge of Asphalt Pavement
- Edge of Concrete
- Exposed Pipe
- Flowline
- Plastic Fence
- Pole and Cable Fence
- Post and Wire Fence
- Retaining Wall
- Rip Rap Grade Line
- Steel Guard Rail
- Wrought Iron Fence

AREA PATTERN KEY

- Concrete
- Dirt
- Grate
- Rip Rap/Gravel

MARK	DATE	ITEM
REVISIONS		

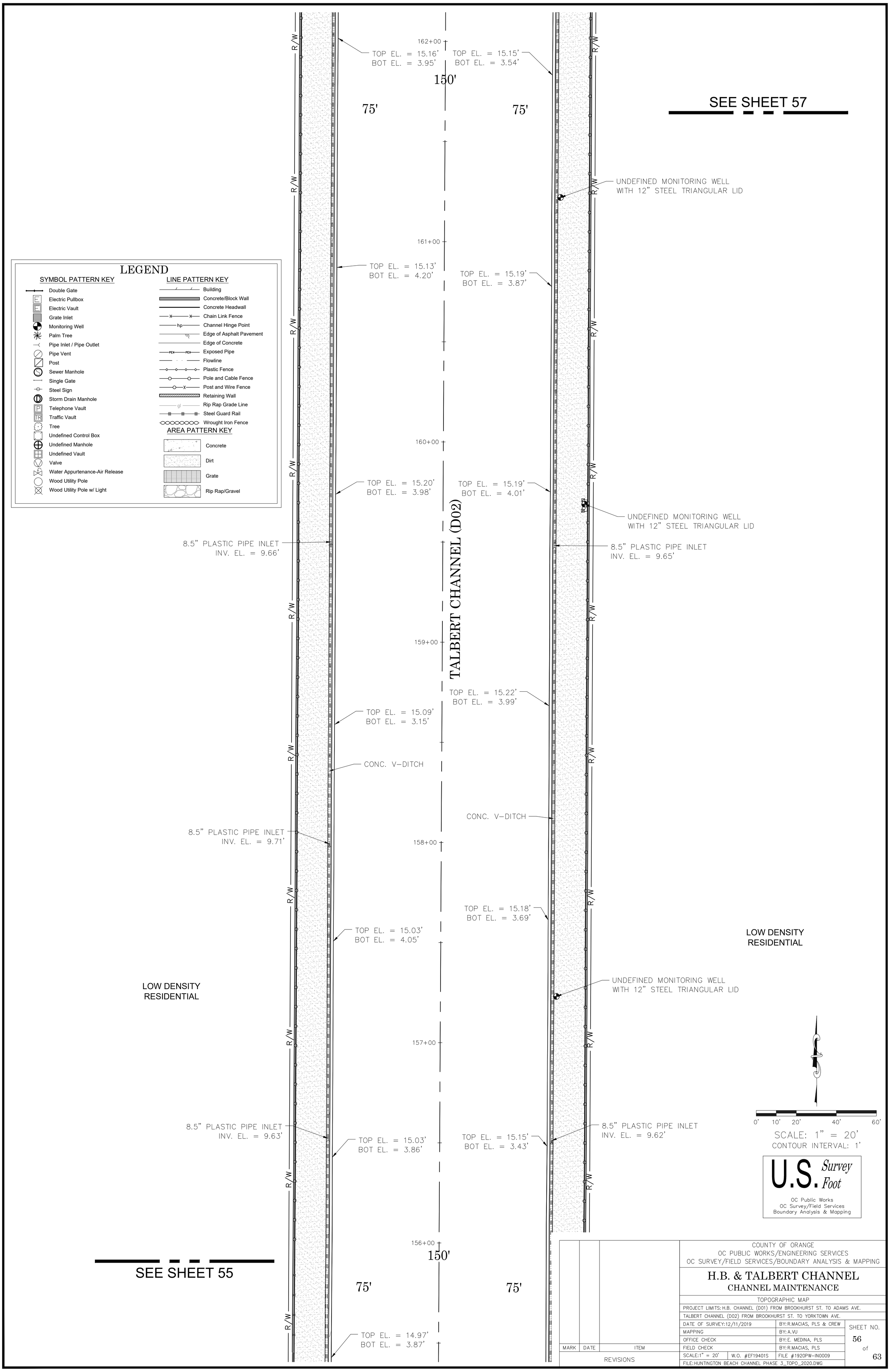
COUNTY OF ORANGE
OC PUBLIC WORKS/ENGINEERING SERVICES
OC SURVEY/FIELD SERVICES/BOUNDARY ANALYSIS & MAPPING

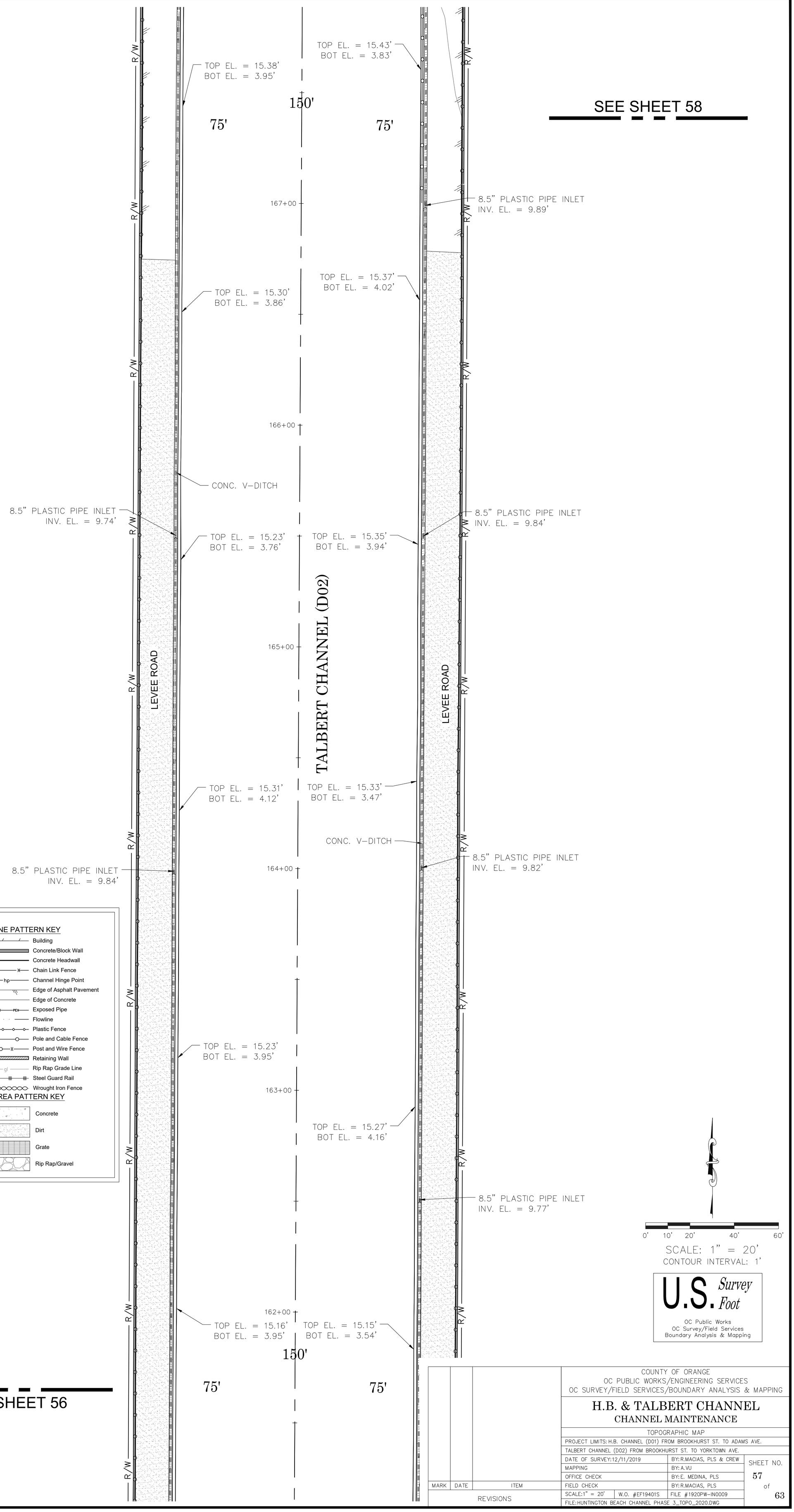
H.B. & TALBERT CHANNEL
CHANNEL MAINTENANCE

TOPOGRAPHIC MAP

PROJECT LIMITS: H.B. CHANNEL (D01) FROM BROOKHURST ST. TO ADAMS AVE.
TALBERT CHANNEL (D02) FROM BROOKHURST ST. TO YORKTOWN AVE.

DATE OF SURVEY: 12/11/2019	BY: R.MACIAS, PLS & CREW	SHEET NO.
MAPPING	BY: A.VU	55
OFFICE CHECK	BY: E. MEDINA, PLS	of
FIELD CHECK	BY: R.MACIAS, PLS	63
SCALE: 1" = 20' W.O. #EF19401S	FILE #1920PW-IN0009	
FILE: HUNTINGTON BEACH CHANNEL PHASE 3_TOPO_2020.DWG		


SEE SHEET 57
SEE SHEET 55
LEGEND
SYMBOL PATTERN KEY
Double Gate
Electric Pullbox
Electric Vault
Grate Inlet
Monitoring Well
Palm Tree
Pipe Inlet / Pipe Outlet
Pipe Vent
Post
Sewer Manhole
Single Gate
Steel Sign
Storm Drain Manhole
Telephone Vault
Traffic Vault
Tree
Undefined Control Box
Undefined Manhole
Undefined Vault
Valve
Water Appurtenance-Air Release
Wood Utility Pole
Wood Utility Pole w/ Light
LINE PATTERN KEY
Building
Concrete/Block Wall
Concrete Headwall
Chain Link Fence
Channel Hinge Point
Edge of Asphalt Pavement
Edge of Concrete
Exposed Pipe
Flowline
Plastic Fence
Pole and Cable Fence
Post and Wire Fence
Retaining Wall
Rip Rap Grade Line
Steel Guard Rail
Wrought Iron Fence
AREA PATTERN KEY
Concrete
Dirt
Grate
Rip Rap/Gravel
R/W
162+00
161+00
160+00
159+00
158+00
157+00
156+00
150'
75'
TOP EL. = 15.16'
BOT EL. = 3.95'
TOP EL. = 15.15'
BOT EL. = 3.54'
UNDEFINED MONITORING WELL
WITH 12" STEEL TRIANGULAR LID
TOP EL. = 15.13'
BOT EL. = 4.20'
TOP EL. = 15.19'
BOT EL. = 3.87'
TOP EL. = 15.20'
BOT EL. = 3.98'
TOP EL. = 15.19'
BOT EL. = 4.01'
8.5" PLASTIC PIPE INLET
INV. EL. = 9.66'
8.5" PLASTIC PIPE INLET
INV. EL. = 9.65'
TALBERT CHANNEL (D02)
TOP EL. = 15.22'
BOT EL. = 3.99'
TOP EL. = 15.09'
BOT EL. = 3.15'
CONC. V-DITCH
CONC. V-DITCH
8.5" PLASTIC PIPE INLET
INV. EL. = 9.71'
TOP EL. = 15.18'
BOT EL. = 3.69'
TOP EL. = 15.03'
BOT EL. = 4.05'
LOW DENSITY
RESIDENTIAL
LOW DENSITY
RESIDENTIAL
UNDEFINED MONITORING WELL
WITH 12" STEEL TRIANGULAR LID
8.5" PLASTIC PIPE INLET
INV. EL. = 9.63'
TOP EL. = 15.03'
BOT EL. = 3.86'
TOP EL. = 15.15'
BOT EL. = 3.43'
8.5" PLASTIC PIPE INLET
INV. EL. = 9.62'
TOP EL. = 14.97'
BOT EL. = 3.87'
0' 10' 20' 40' 60'
SCALE: 1" = 20'
CONTOUR INTERVAL: 1'
U.S. Survey Foot
OC Public Works
OC Survey/Field Services
Boundary Analysis & Mapping
COUNTY OF ORANGE
OC PUBLIC WORKS/ENGINEERING SERVICES
OC SURVEY/FIELD SERVICES/BOUNDARY ANALYSIS & MAPPING
H.B. & TALBERT CHANNEL
CHANNEL MAINTENANCE
TOPOGRAPHIC MAP
PROJECT LIMITS: H.B. CHANNEL (D01) FROM BROOKHURST ST. TO ADAMS AVE.
TALBERT CHANNEL (D02) FROM BROOKHURST ST. TO YORKTOWN AVE.
DATE OF SURVEY: 12/11/2019
BY: R.MACIAS, PLS & CREW
MAPPING
BY: A.VU
OFFICE CHECK
BY: E. MEDINA, PLS
FIELD CHECK
BY: R.MACIAS, PLS
SCALE: 1" = 20'
W.O. #EF19401S
FILE #1920PW-IN0009
FILE: HUNTINGTON BEACH CHANNEL PHASE 3_TOPO_2020.DWG
MARK
DATE
ITEM
REVISIONS
SHEET NO.
56
of
63



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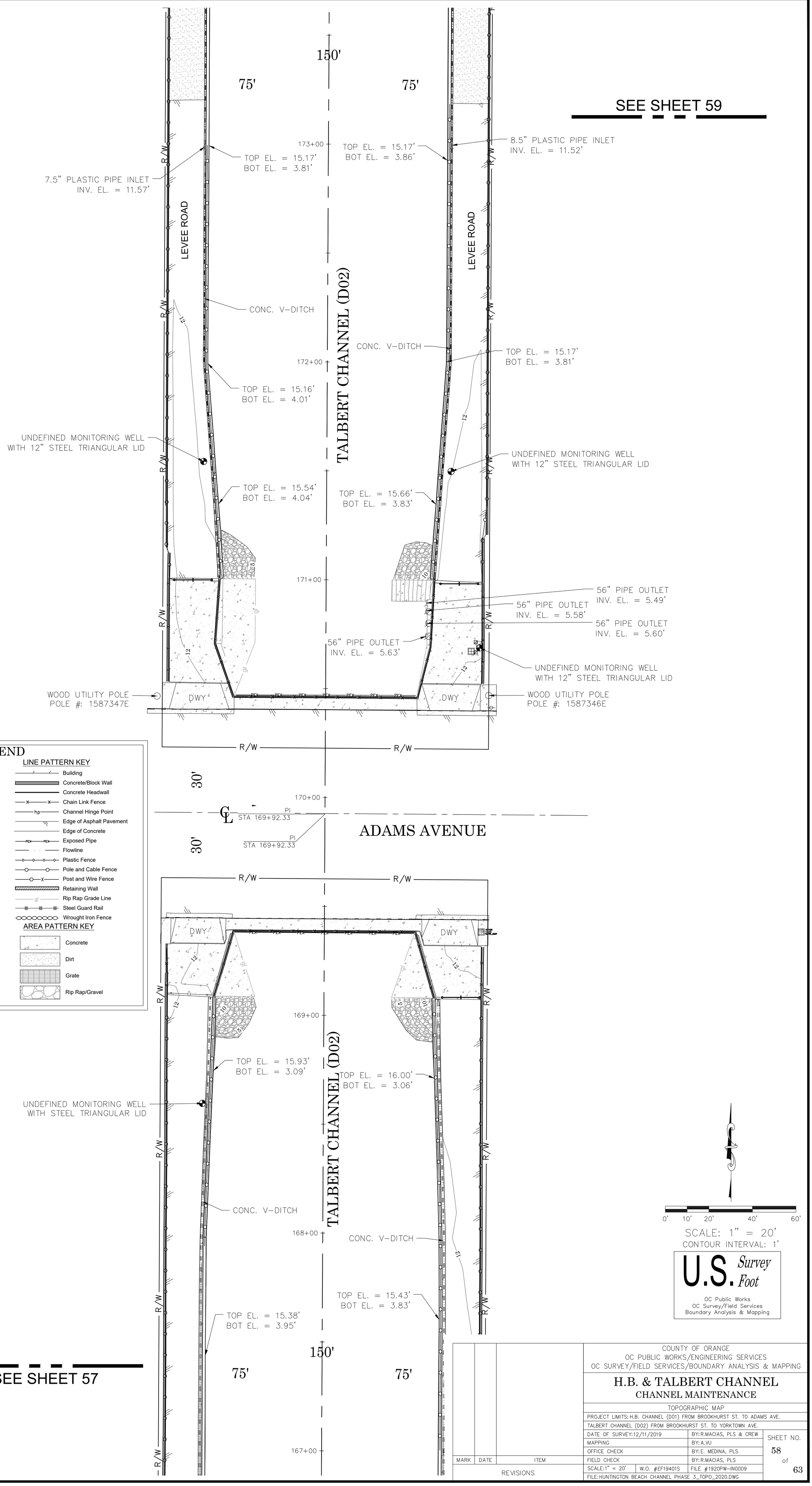
COUNTY OF ORANGE
OC PUBLIC WORKS/ENGINEERING SERVICES
OC SURVEY/FIELD SERVICES/BOUNDARY ANALYSIS & MAPPING

H.B. & TALBERT CHANNEL
CHANNEL MAINTENANCE

TOPOGRAPHIC MAP

PROJECT LIMITS: H.B. CHANNEL (D01) FROM BROOKHURST ST. TO ADAMS AVE.
TALBERT CHANNEL (D02) FROM BROOKHURST ST. TO YORKTOWN AVE.

DATE OF SURVEY: 12/11/2019	BY: R.MACIAS, PLS & CREW	SHEET NO.
MAPPING	BY: A.VU	57
OFFICE CHECK	BY: E. MEDINA, PLS	of
FIELD CHECK	BY: R.MACIAS, PLS	63
SCALE: 1" = 20' W.O. #EF19401S	FILE #1920PW-IN0009	
FILE: HUNTINGTON BEACH CHANNEL PHASE 3_TOPO_2020.DWG		



LEGEND

SYMBOL PATTERN KEY

- Double Gate
- Electric Pullbox
- Electric Vault
- Grate Inlet
- Monitoring Well
- Palm Tree
- Pipe Inlet / Pipe Outlet
- Pipe Vent
- Post
- Sewer Manhole
- Single Gate
- Steel Sign
- Storm Drain Manhole
- Telephone Vault
- Traffic Vault
- Tree
- Undefined Control Box
- Undefined Manhole
- Undefined Vault
- Valve
- Water Appurtenance-Air Release
- Wood Utility Pole
- Wood Utility Pole w/ Light

LINE PATTERN KEY

- Building
- Concrete/Block Wall
- Concrete Headwall
- Chain Link Fence
- Channel Hinge Point
- Edge of Asphalt Pavement
- Edge of Concrete
- Exposed Pipe
- Flowline
- Plastic Fence
- Pole and Cable Fence
- Post and Wire Fence
- Retaining Wall
- Rip Rap Grade Line
- Steel Guard Rail
- Wrought Iron Fence

AREA PATTERN KEY

- Concrete
- Dirt
- Grate
- Rip Rap/Gravel

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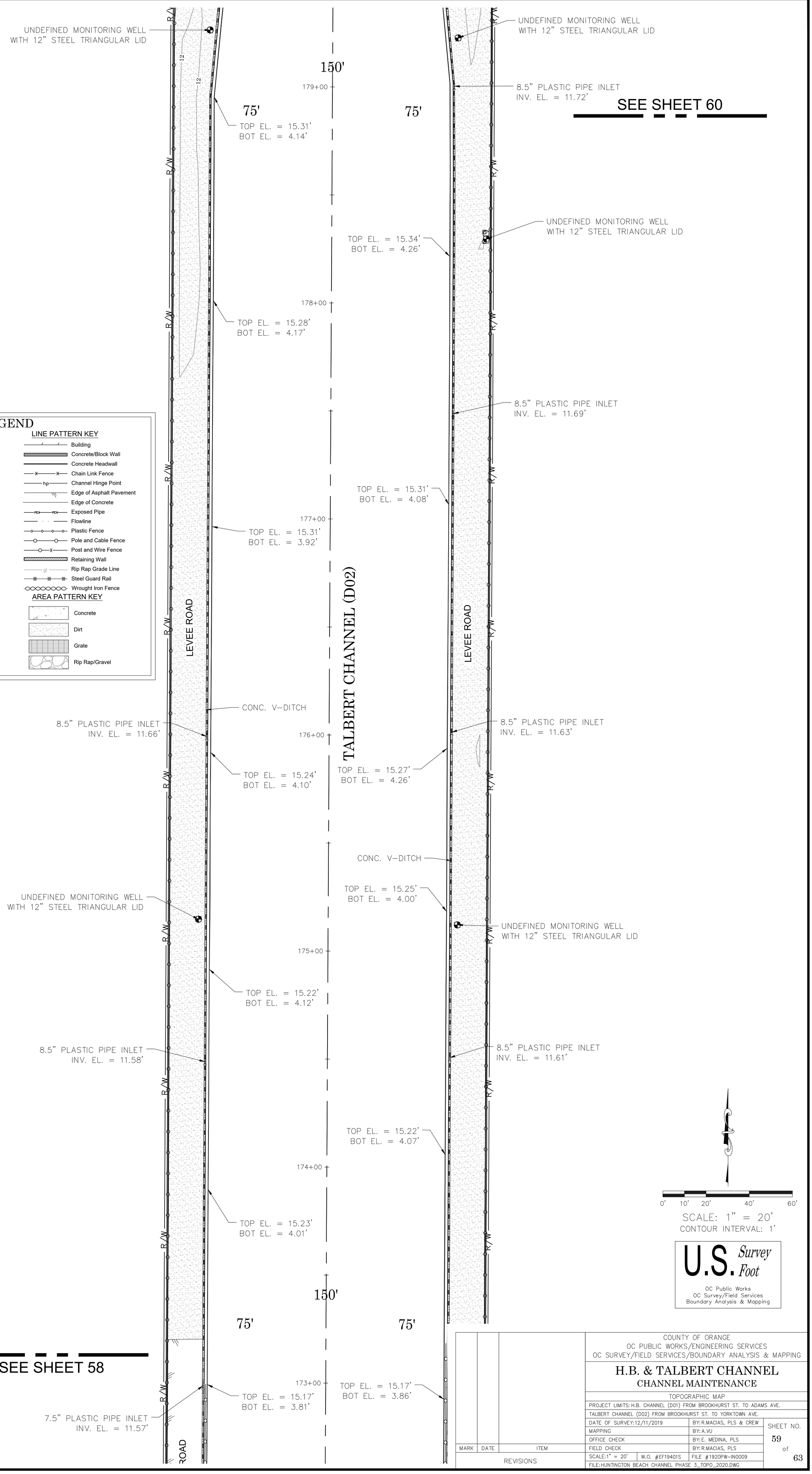
H.B. & TALBERT CHANNEL
CHANNEL MAINTENANCE

TOPOGRAPHIC MAP

PROJECT LIMITS: H.B. CHANNEL (D01) FROM BROOKHURST ST. TO ADAMS AVE.
TALBERT CHANNEL (D02) FROM BROOKHURST ST. TO YORKTOWN AVE.

DATE OF SURVEY:12/11/2019	BY: R.MACIAS, PLS & CREW	SHEET NO.
MAPPING	BY: A.VU	58
OFFICE CHECK	BY: E. MEDINA, PLS	of
FIELD CHECK	BY: R.MACIAS, PLS	63
SCALE: 1" = 20' W.O. #EF19401S	FILE #1920PW-IN0009	
FILE: HUNTINGTON BEACH CHANNEL PHASE 3_TOPO_2020.DWG		



LEGEND

SYMBOL PATTERN KEY

- Double Gate
- Electric Pullbox
- Electric Vault
- Grate Inlet
- Monitoring Well
- Palm Tree
- Pipe Inlet / Pipe Outlet
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- Dirt
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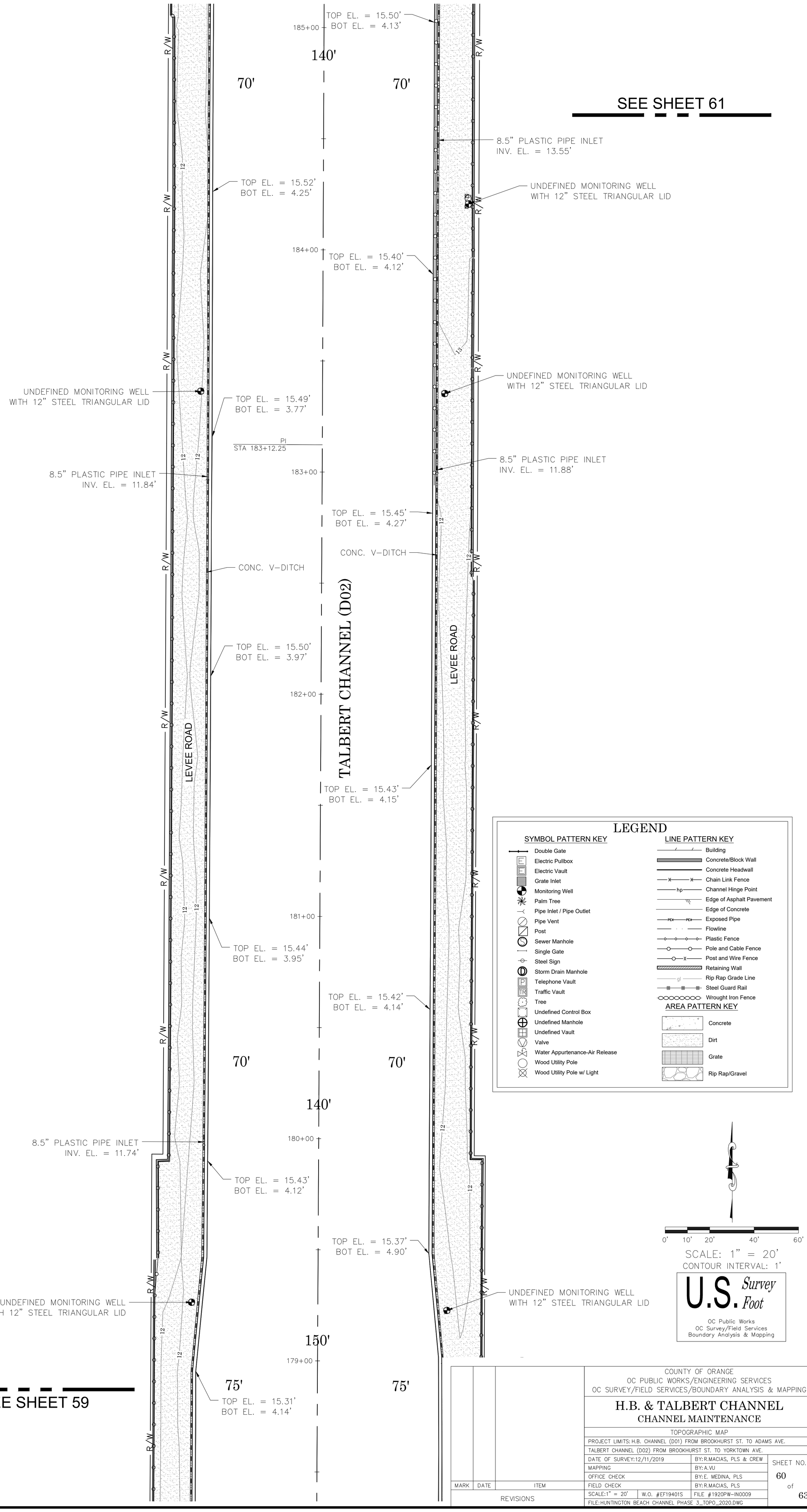
PROJECT LIMITS: H.B. CHANNEL (D01) FROM BROOKHURST ST. TO ADAMS AVE.
TALBERT CHANNEL (D02) FROM BROOKHURST ST. TO YORKTOWN AVE.

DATE OF SURVEY: 12/11/2019	BY: R.MACIAS, PLS & CREW	SHEET NO.
MAPPING	BY: A.VU	59
OFFICE CHECK	BY: E. MEDINA, PLS	of
FIELD CHECK	BY: R.MACIAS, PLS	63
SCALE: 1" = 20' W.O. #EF19401S	FILE #1920PW-IN0009	
FILE: HUNTINGTON BEACH CHANNEL PHASE 3_TOPO_2020.DWG		



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MAPPING		BY: A.VU
OFFICE CHECK		BY: E. MEDINA, PLS
FIELD CHECK		BY: R.MACIAS, PLS
SCALE: 1" = 20'	W.O. #EF19401S	FILE #1920PW-IN0009
FILE: HUNTINGTON BEACH CHANNEL PHASE 3_TOPO_2020.DWG		

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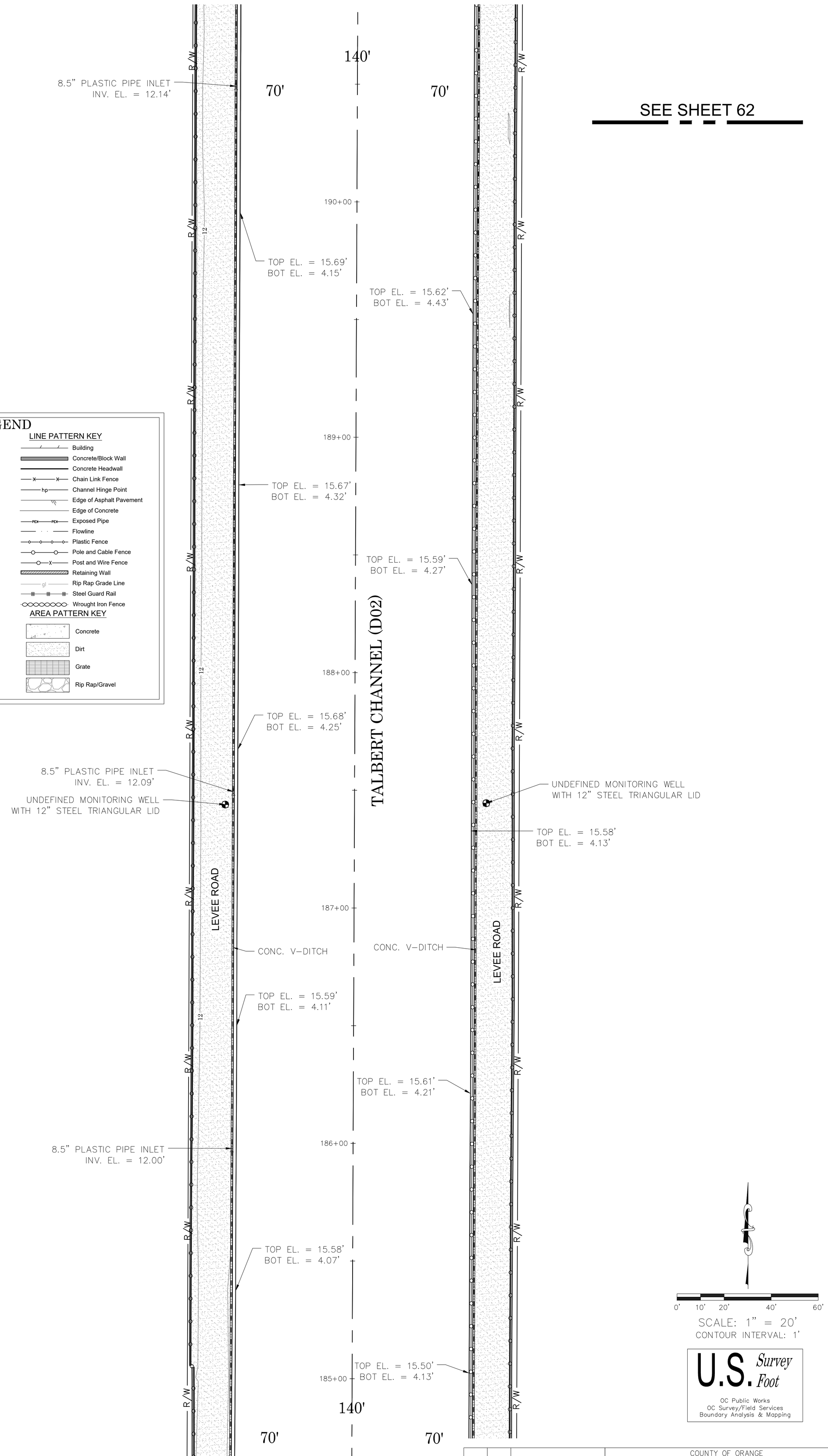

LEGEND

SYMBOL PATTERN KEY

- Double Gate
- Electric Pullbox
- Electric Vault
- Grate Inlet
- Monitoring Well
- Palm Tree
- Pipe Inlet / Pipe Outlet
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DATE OF SURVEY: 12/11/2019		BY: R.MACIAS, PLS & CREW
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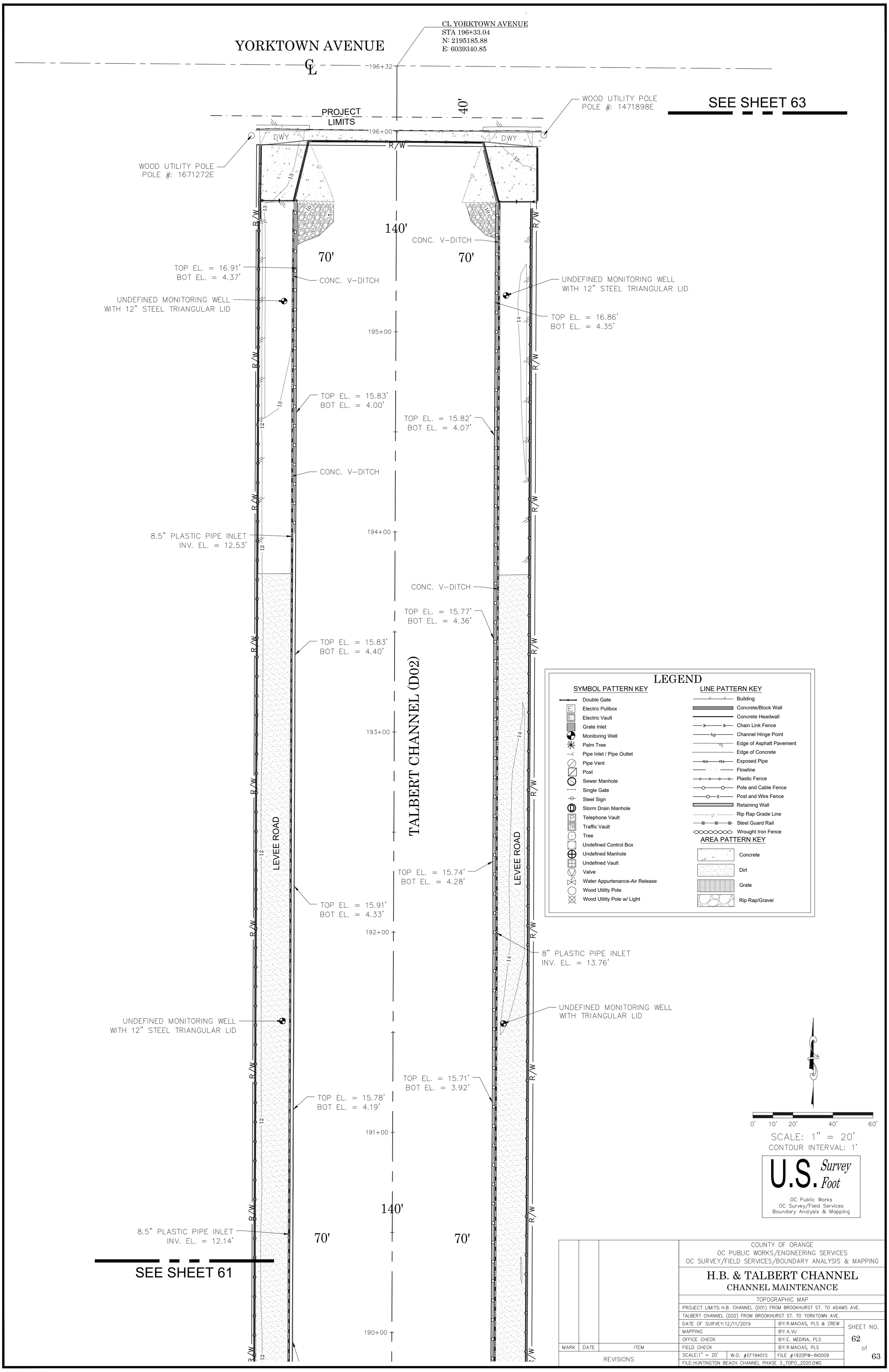
OFFICE CHECK		BY: E. MEDINA, PLS
FIELD CHECK		BY: R.MACIAS, PLS
SCALE: 1" = 20'	W.O. #EF19401S	FILE #1920PW-IN0009

FILE: HUNTINGTON BEACH CHANNEL PHASE 3_TOPO_2020.DWG

SHEET NO. 61 of 63



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SCALE:1" = 20'	W.O. #EF19401S	FILE #1920PW-IN0009
FILE:HUNTINGTON BEACH CHANNEL PHASE 3_TOPO_2020.DWG		

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LEGEND

SYMBOL PATTERN KEY

- Double Gate
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- Electric Vault
- Grate Inlet
- Monitoring Well
- Palm Tree
- Pipe Inlet / Pipe Outlet
- Pipe Vent
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AREA PATTERN KEY

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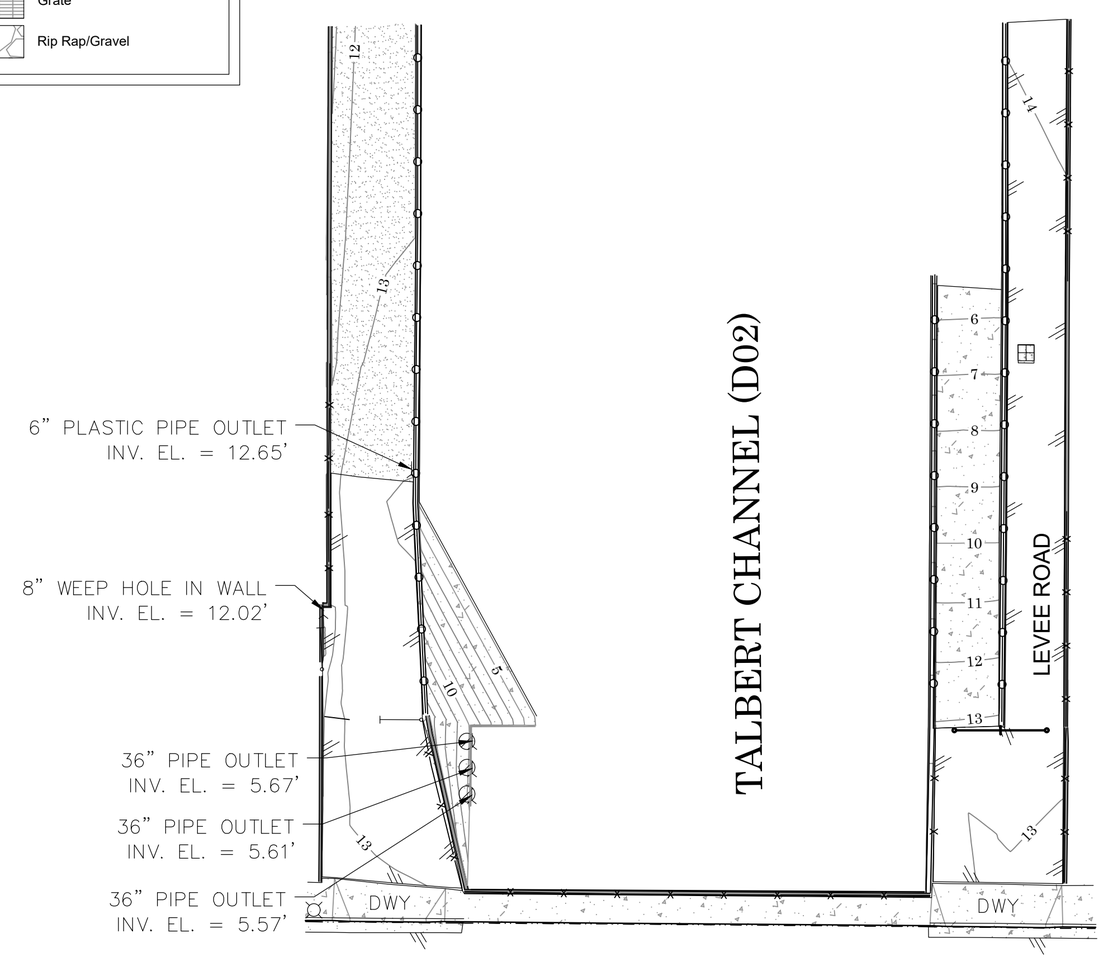

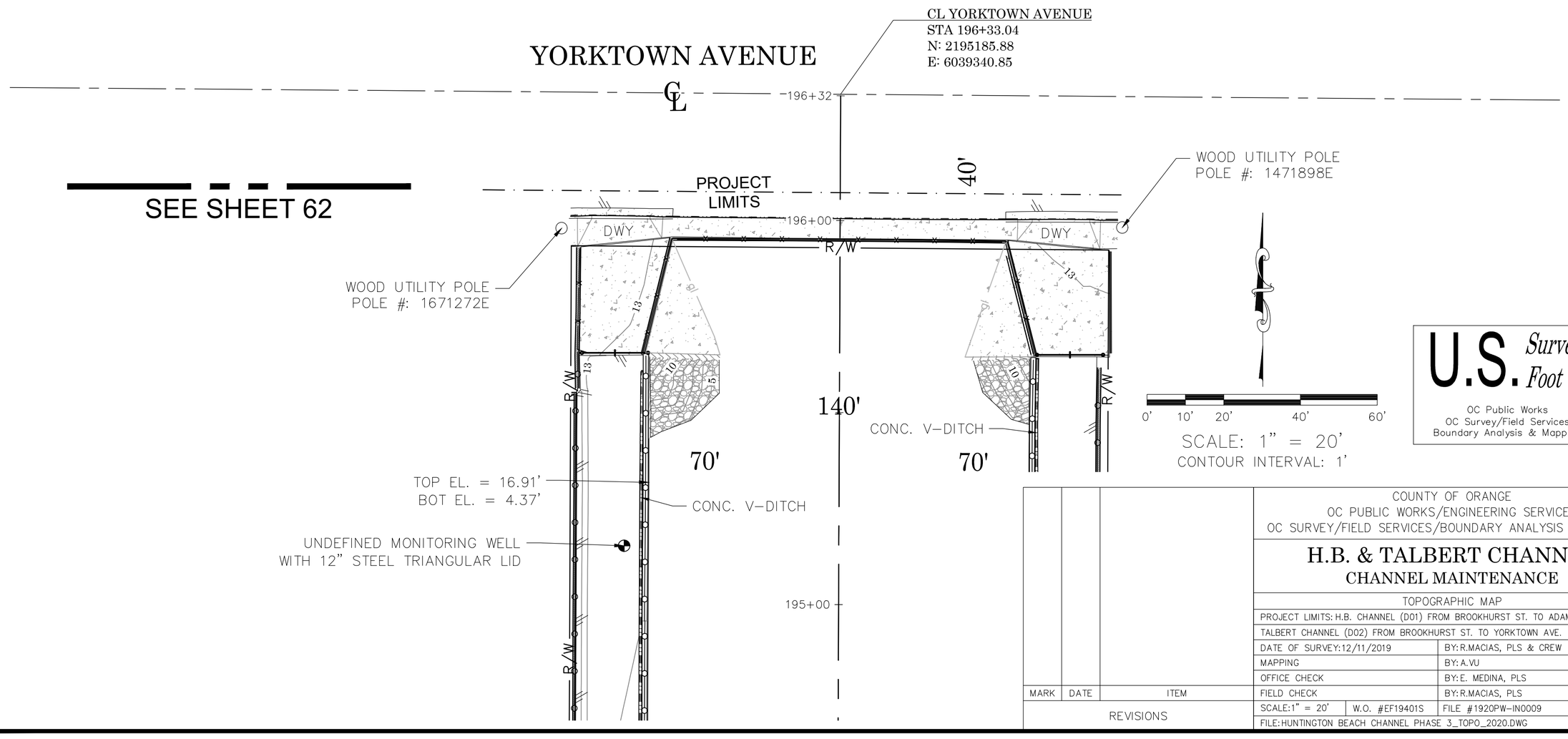

U.S. Survey Foot

OC Public Works
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DATE OF SURVEY: 12/11/2019	BY: R.MACIAS, PLS & CREW	SHEET NO.
MAPPING	BY: A.VU	63
OFFICE CHECK	BY: E. MEDINA, PLS	of
FIELD CHECK	BY: R.MACIAS, PLS	63
SCALE: 1" = 20' W.O. #EF19401S	FILE #1920PW-IN0009	
FILE: HUNTINGTON BEACH CHANNEL PHASE 3_TOPO_2020.DWG		