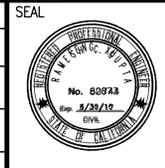


IRVINE RANCH WATER DISTRICT
APPROVAL OF DOMESTIC WATER FACILITIES CODE 6461,
PROJECT #3991 AND #3990

APPROVED BY _____ DATE _____
SUPERVISED BY _____ DATE _____
REVIEWED BY _____ DATE _____



PLANS PREPARED BY:
Stantec
38 TECHNOLOGY DRIVE, SUITE 100
IRVINE CA 92618
949.923.6000 stantec.com

UNDER THE SUPERVISION OF:
RAMESH C. GUPTA R.C.E. 62873 DATE _____

| | |
|-----------------|----------------|
| PROJ MGR: RCG | DATE: 11/30/15 |
| DESIGNER: SER | DATE: 11/30/15 |
| DRAFTER: AEC | DATE: 11/30/15 |
| CHECKED BY: RCG | DATE: 11/30/15 |

| DATE | BY | DESCRIPTION | APPV |
|----------|----|--------------|------|
| 11/30/15 | | REVISE RAMPS | |

APPROVED FOR CONSTRUCTION
IN PUBLIC RIGHT-OF-WAY ONLY

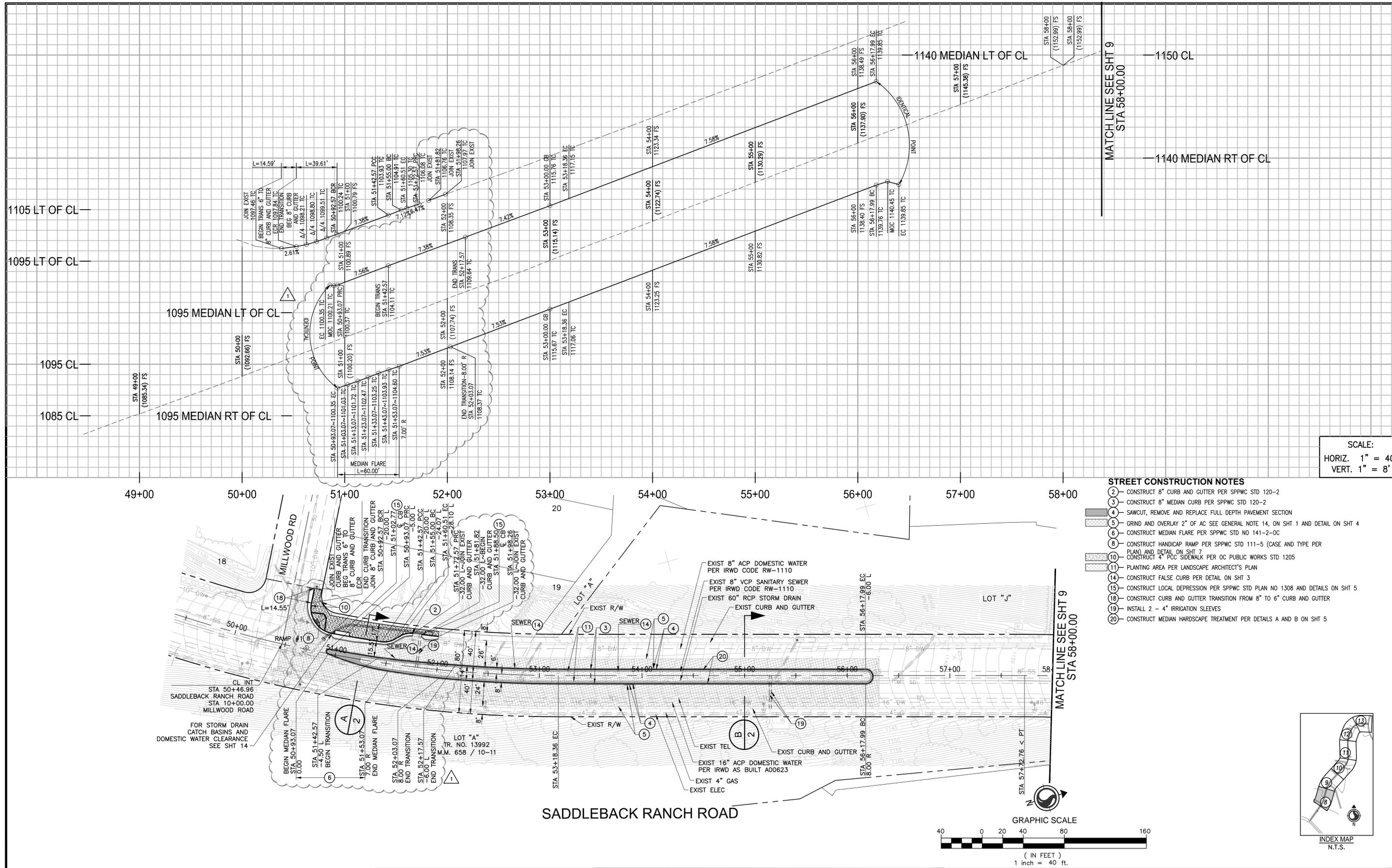
DATE: _____

THOMAS WHEELER, P.E.
PUBLIC WORKS DIRECTOR /
CITY ENGINEER

**SADDLEBACK RANCH ROAD
STREET IMPROVEMENT PROJECT**
CURB RAMP DETAILS

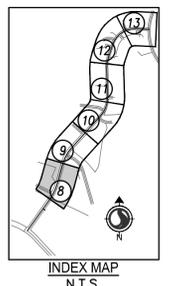
CITY OF LAKE FOREST SCALE: 1" = 40'
PUBLIC WORKS DEPARTMENT SHEET 7 OF 30

DRAWING: v:\2013\active\2013007300\drawing\sheet_files\007300c-2010std.dwg PLOTTED: 12/4/2015 9:58 AM BY: Reid, Susan



SCALE:
 HORIZ. 1" = 40'
 VERT. 1" = 8'

- STREET CONSTRUCTION NOTES**
- 2 CONSTRUCT 8" CURB AND GUTTER PER SPPWC STD 120-2
 - 3 CONSTRUCT 8" MEDIAN CURB PER SPPWC STD 120-2
 - 4 SAWCUT, REMOVE AND REPLACE FULL DEPTH PAVEMENT SECTION
 - 5 GRIND AND OVERLAY 2" OF AC SEE GENERAL NOTE 14, ON SHT 1 AND DETAIL ON SHT 4
 - 6 CONSTRUCT MEDIAN FLARE PER SPPWC STD NO 141-2-0C
 - 8 CONSTRUCT HANDICAP RAMP PER SPPWC STD 111-5 (CASE AND TYPE PER PLAN) AND DETAIL ON SHT 7
 - 10 CONSTRUCT 4" PCC SIDEWALK PER OC PUBLIC WORKS STD 1205
 - 11 PLANTING AREA PER LANDSCAPE ARCHITECT'S PLAN
 - 14 CONSTRUCT FALSE CURB PER DETAIL ON SHT 3
 - 15 CONSTRUCT LOCAL DEPRESSION PER SPPWC STD PLAN NO 1308 AND DETAILS ON SHT 5
 - 18 CONSTRUCT CURB AND GUTTER TRANSITION FROM 8" TO 6" CURB AND GUTTER
 - 19 INSTALL 2 - 4" IRRIGATION SLEEVES
 - 20 CONSTRUCT MEDIAN HARDSCAPE TREATMENT PER DETAILS A AND B ON SHT 5



| | |
|--|------------|
| IRVINE RANCH WATER DISTRICT | |
| APPROVAL OF DOMESTIC WATER FACILITIES CODE 6461, PROJECT #3991 AND #3990 | |
| APPROVED BY _____ | DATE _____ |
| SUPERVISED BY _____ | DATE _____ |
| REVIEWED BY _____ | DATE _____ |



PLANS PREPARED BY:
Stantec
 38 TECHNOLOGY DRIVE, SUITE 100
 IRVINE, CA 92618
 949.923.6000 stantec.com

UNDER THE SUPERVISION OF:
RAMESH C. GUPTA R.C.E. 62873 DATE _____

| | |
|-----------------|----------------|
| PROJ MGR: RCG | DATE: 11/30/15 |
| DESIGNER: SER | DATE: 11/30/15 |
| DRAFTER: AEC | DATE: 11/30/15 |
| CHECKED BY: RCG | DATE: 11/30/15 |

| DATE | BY | DESCRIPTION | APPV |
|-----------|----|---------------------------------|------|
| 11/30/15 | | 1 MEDIAN, SIDEWALK, STORM DRAIN | |
| REVISIONS | | | |

APPROVED FOR CONSTRUCTION IN PUBLIC RIGHT-OF-WAY

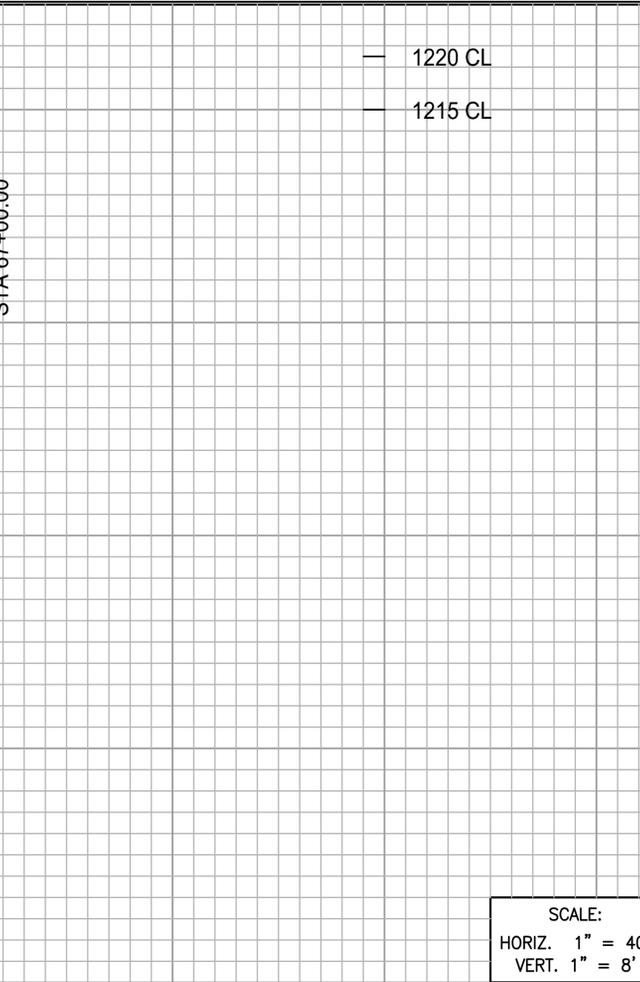
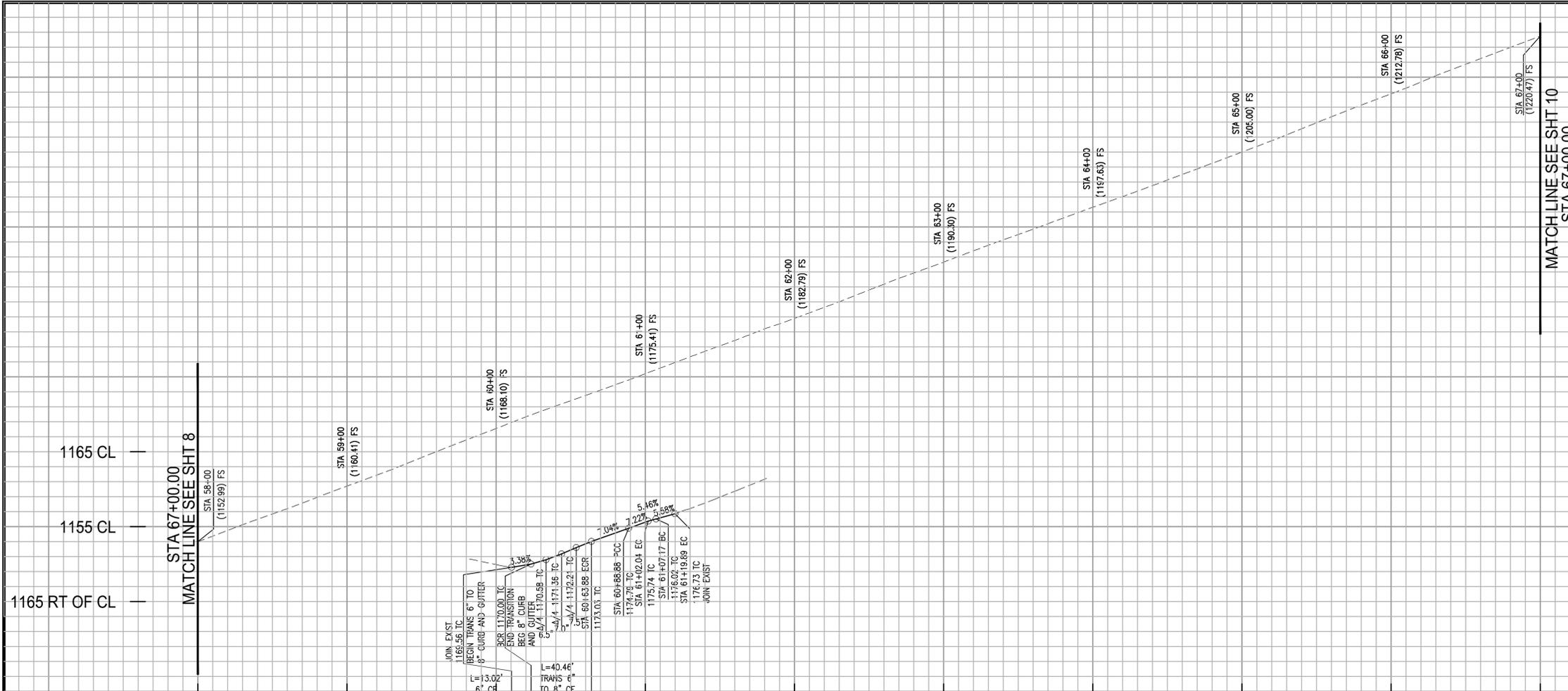
DATE _____

THOMAS WHEELER, P.E.
 PUBLIC WORKS DIRECTOR /
 CITY ENGINEER

SADDLEBACK RANCH ROAD STREET IMPROVEMENT PROJECT
 STA 49+00.00 TO STA 58+00.00

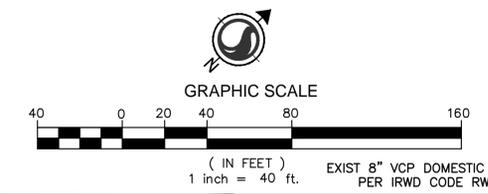
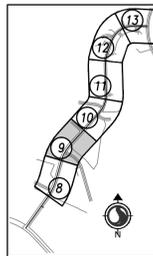
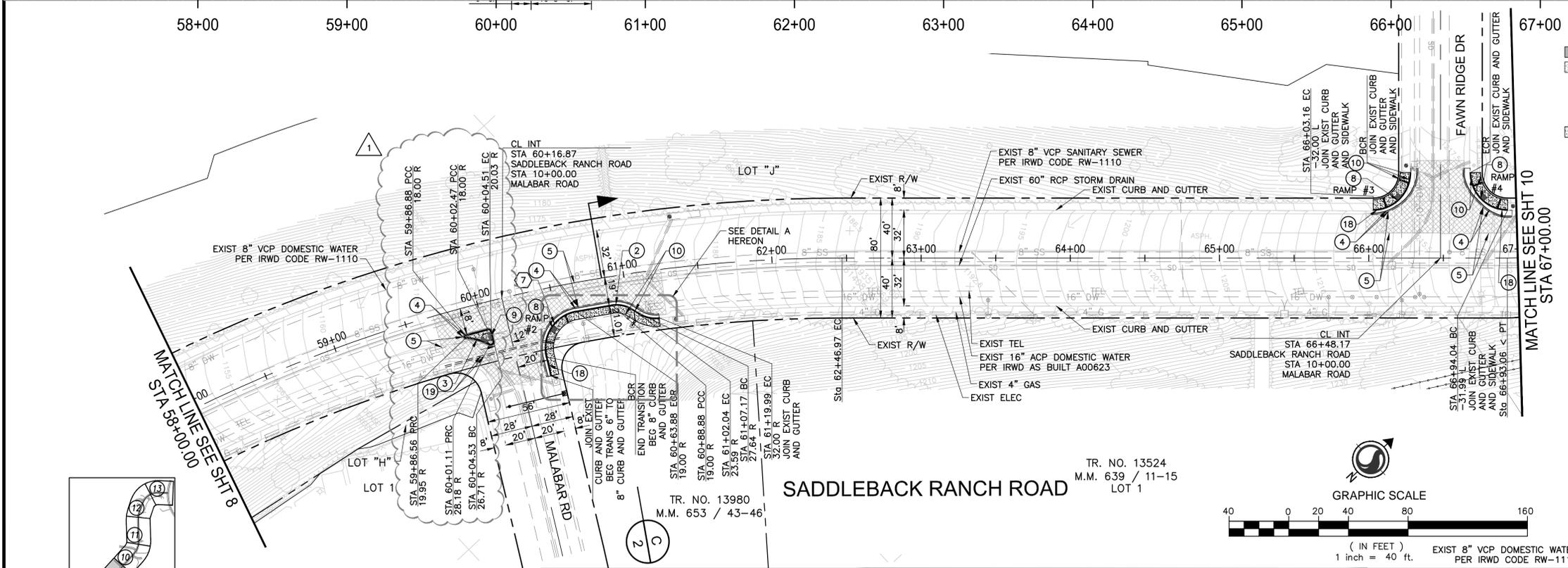
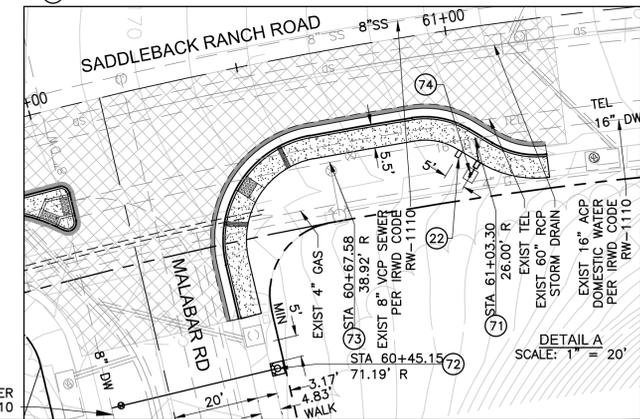
CITY OF LAKE FOREST SCALE: 1" = 40'
 PUBLIC WORKS DEPARTMENT SHEET 8 OF 30

DRAWING: v:\2013\active\2013007300\drawing\sheet_files\007300c-2001st.dwg PLOTTED: 12/4/2015 9:40 AM BY: Reid, Susan



SCALE:
 HORIZ. 1" = 40'
 VERT. 1" = 8'

- STREET CONSTRUCTION NOTES**
- 2) CONSTRUCT 8" CURB AND GUTTER PER SPPWC STD 120-2
 - 3) CONSTRUCT 8" MEDIAN CURB PER SPPWC STD 120-2
 - 4) SAWCUT, REMOVE AND REPLACE FULL DEPTH PAVEMENT SECTION
 - 5) GRIND AND OVERLAY 2" OF AC SEE GENERAL NOTE 14, ON SHT 1 AND DETAIL ON SHT 4
 - 8) CONSTRUCT HANDICAP RAMP PER SPPWC STD 111-5 (CASE AND TYPE PER PLAN) AND DETAIL ON SHT 7
 - 9) CONSTRUCT CURB RAMP AND ISLAND PASSAGEWAY PER CALTRANS STD PLAN RSP A888 AND DETAIL ON SHT 7
 - 10) CONSTRUCT 4" PCC SIDEWALK PER OC PUBLIC WORKS STD 1205
 - 18) CONSTRUCT CURB AND GUTTER TRANSITION FROM 8" TO 6" CURB AND GUTTER
 - 19) INSTALL 2 - 4" IRRIGATION SLEEVES
 - 22) INSTALL ELECTRICAL PEDESTAL
- IRWD CONSTRUCTION NOTES**
- 71) INSTALL 1" WATER METER WITH 1" SERVICE LINE CONNECTION PER IRWD W-1 (METER TO BE APPLIED FOR SEPARATION 6 WEEKS IN ADVANCE)
 - 72) FURNISH AND INSTALL FIRE HYDRANT PER IRWD STD PLAN W-8 WITH CUT-IN TEE (16"x16"x6" FLG'D) PER W-19
 - 73) REMOVE EXIST FIRE HYDRANT, VALVE, LATERAL AND INSTALL BLIND FLANGE TEE
 - 74) FURNISH AND INSTALL REDUCED PRESSURE PRINCIPLE BACKFLOW ASSEMBLY PER IRWD W-7



| IRVINE RANCH WATER DISTRICT | |
|--|------|
| APPROVAL OF DOMESTIC WATER FACILITIES CODE 6461, PROJECT #3991 AND #3990 | |
| APPROVED BY | DATE |
| SUPERVISED BY | DATE |
| REVIEWED BY | DATE |



PLANS PREPARED BY:
Stantec
 38 TECHNOLOGY DRIVE, SUITE 100
 IRVINE, CA 92618
 949.923.6000 stantec.com

UNDER THE SUPERVISION OF:
 RAMESH C. GUPTA R.C.E. 62873 DATE

| | |
|-----------------|----------------|
| PROJ MGR: RCG | DATE: 11/30/15 |
| DESIGNER: SER | DATE: 11/30/15 |
| DRAFTER: AEC | DATE: 11/30/15 |
| CHECKED BY: RCG | DATE: 11/30/15 |

| DATE | BY | DESCRIPTION | APPV |
|-----------|----|-------------------------|------|
| 11/30/15 | | 1 REVISE TRAFFIC ISLAND | |
| REVISIONS | | | |

APPROVED FOR CONSTRUCTION IN PUBLIC RIGHT-OF-WAY ONLY

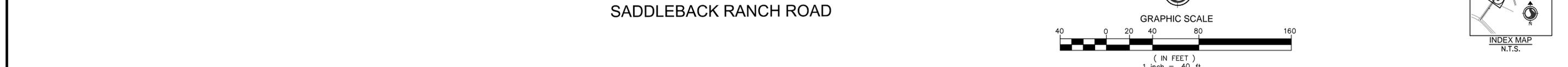
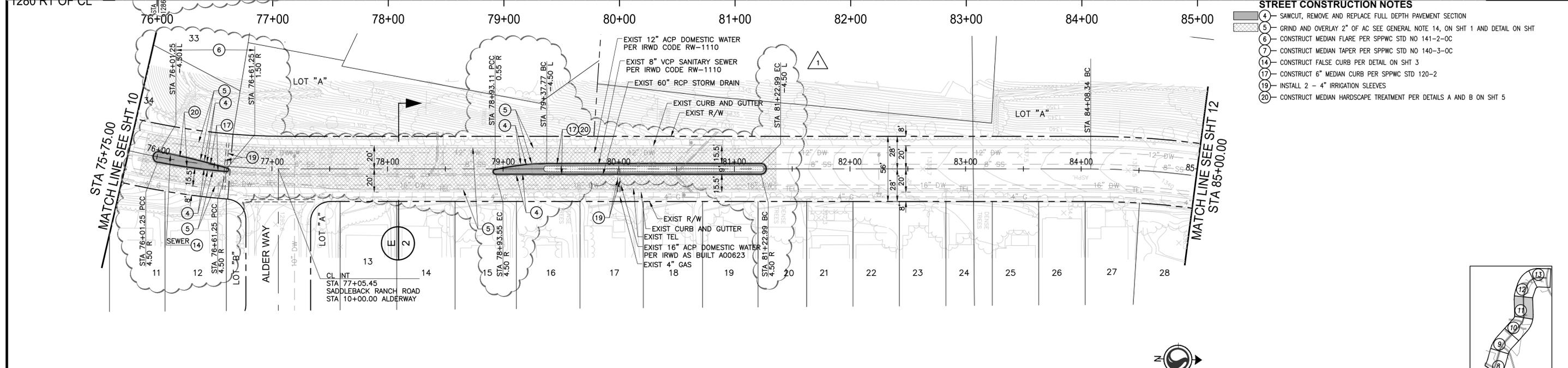
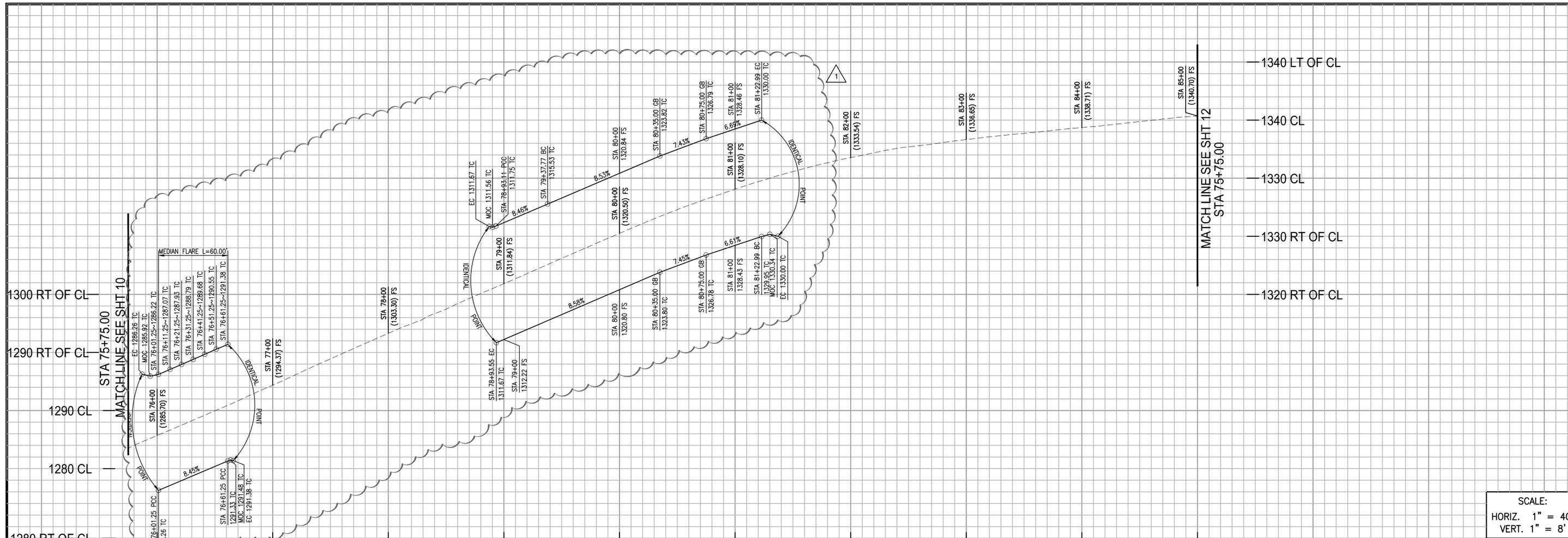
THOMAS WHEELER, P.E.
 PUBLIC WORKS DIRECTOR / CITY ENGINEER

SADDLEBACK RANCH ROAD STREET IMPROVEMENT PROJECT
 STA 58+00.00 TO STA 67+00.00

CITY OF LAKE FOREST PUBLIC WORKS DEPARTMENT

SCALE: 1" = 40'
 SHEET 9 OF 30

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SADDLEBACK RANCH ROAD

IRVINE RANCH WATER DISTRICT
APPROVAL OF DOMESTIC WATER FACILITIES CODE 6461,
PROJECT #3991 AND #3990

APPROVED BY _____ DATE _____

SUPERVISED BY _____ DATE _____

REVIEWED BY _____ DATE _____

SEAL

PLANS PREPARED BY:

Stantec
38 TECHNOLOGY DRIVE, SUITE 100
IRVINE, CA 92618
949.923.6000 stantec.com

UNDER THE SUPERVISION OF:

RAMESH C. GUPTA R.C.E. 62873 DATE _____

| PROJ MGR: | RCG | DATE | 11/30/15 |
|-------------|-----|------|----------|
| DESIGNER: | SER | DATE | 11/30/15 |
| DRAFTER: | AEC | DATE | 11/30/15 |
| CHECKED BY: | RCG | DATE | 11/30/15 |

APPROVED FOR CONSTRUCTION
IN PUBLIC RIGHT-OF-WAY ONLY

DATE _____

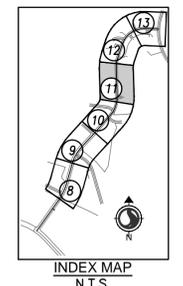
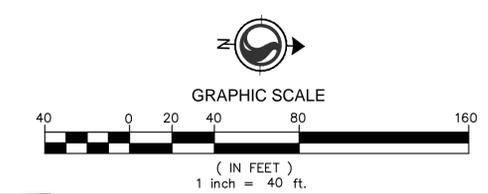
THOMAS WHEELER, P.E.
PUBLIC WORKS DIRECTOR /
CITY ENGINEER

SADDLEBACK RANCH ROAD STREET IMPROVEMENT PROJECT
STA 76+00.00 TO STA 85+00.00

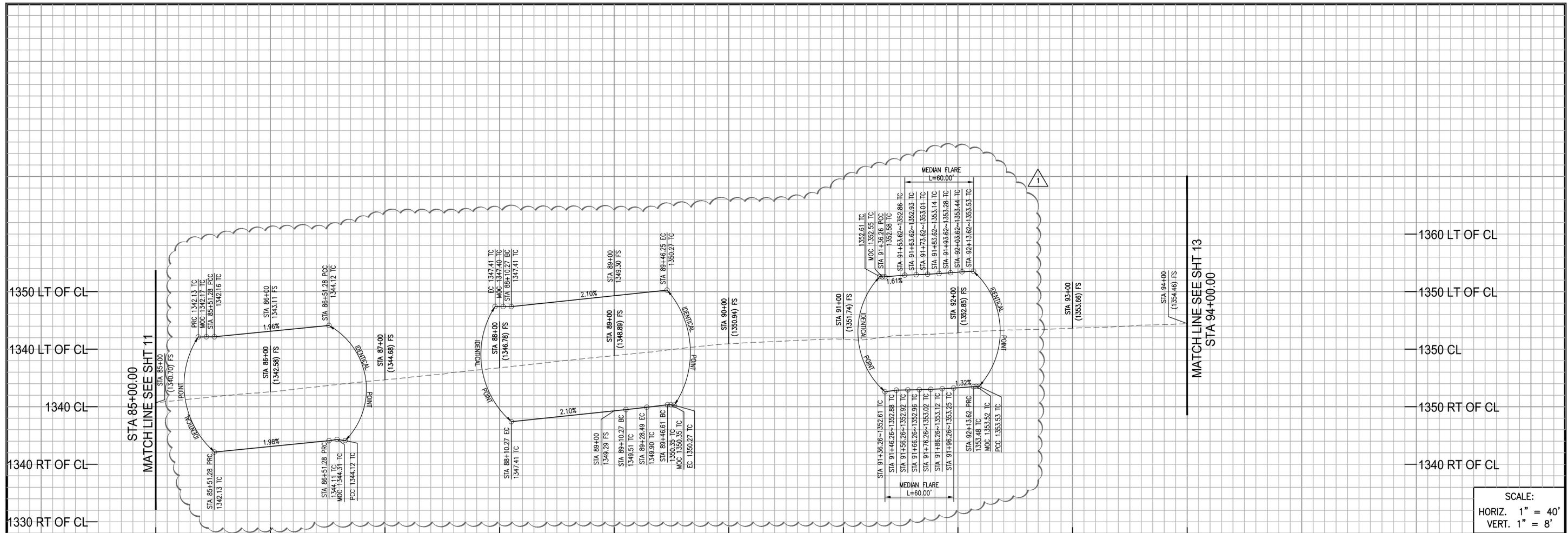
CITY OF LAKE FOREST SCALE: 1" = 40'
PUBLIC WORKS DEPARTMENT SHEET 11 OF 30

- STREET CONSTRUCTION NOTES**
- 4 SAWCUT, REMOVE AND REPLACE FULL DEPTH PAVEMENT SECTION
 - 5 GRIND AND OVERLAY 2" OF AC SEE GENERAL NOTE 14, ON SHT 1 AND DETAIL ON SHT
 - 6 CONSTRUCT MEDIAN FLARE PER SPPWC STD NO 141-2-0C
 - 7 CONSTRUCT MEDIAN TAPER PER SPPWC STD NO 140-3-0C
 - 14 CONSTRUCT FALSE CURB PER DETAIL ON SHT 3
 - 17 CONSTRUCT 6" MEDIAN CURB PER SPPWC STD 120-2
 - 19 INSTALL 2 - 4" IRRIGATION SLEEVES
 - 20 CONSTRUCT MEDIAN HARDSCAPE TREATMENT PER DETAILS A AND B ON SHT 5

SCALE:
HORIZ. 1" = 40'
VERT. 1" = 8'

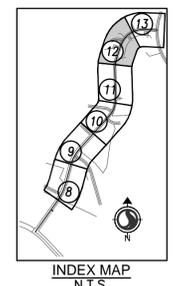
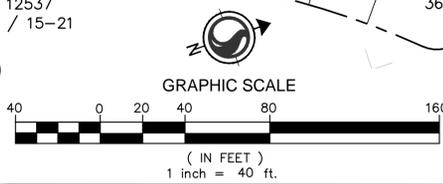
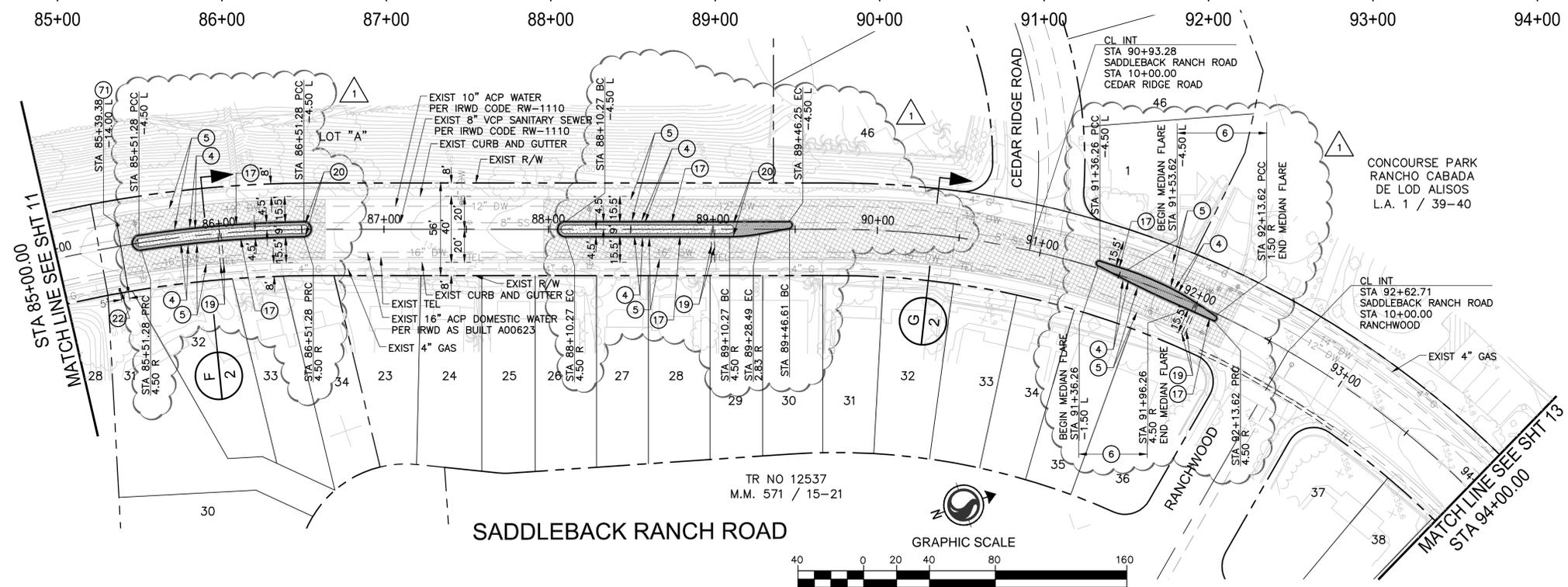


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SCALE:
 HORIZ. 1" = 40'
 VERT. 1" = 8'

- STREET CONSTRUCTION NOTES**
- 4 - SAWCUT, REMOVE AND REPLACE FULL DEPTH PAVEMENT SECTION
 - 5 - GRIND AND OVERLAY 2" OF AC SEE GENERAL NOTE 14, ON SHT 1 AND DETAIL ON SHT 4
 - 6 - CONSTRUCT MEDIAN FLARE PER SPPWC STD NO 141-2-0C
 - 7 - CONSTRUCT MEDIAN TAPER PER SPPWC STD NO 140-3-0C
 - 17 - CONSTRUCT 6" MEDIAN CURB PER SPPWC STD 120-2
 - 18 - CONSTRUCT CURB AND GUTTER TRANSITION FROM 8" TO 6" CURB AND GUTTER
 - 19 - INSTALL 2 - 4" IRRIGATION SLEEVES
 - 20 - CONSTRUCT MEDIAN HARDSCAPE TREATMENT PER DETAILS A AND B ON SHT 5
 - 22 - INSTALL ELECTRICAL PEDESTAL
- IRWD CONSTRUCTION NOTES**
- 7 - INSTALL 1" WATER METER WITH 1" SERVICE LINE CONNECTION PER IRWD W-1 (METER TO BE APPLIED FOR SEPARATION 6 WEEKS IN ADVANCE)



IRVINE RANCH WATER DISTRICT
 APPROVAL OF DOMESTIC WATER FACILITIES CODE 6461,
 PROJECT #3991 AND #3990

APPROVED BY _____ DATE _____
 SUPERVISED BY _____ DATE _____
 REVIEWED BY _____ DATE _____



PLANS PREPARED BY:
Stantec
 38 TECHNOLOGY DRIVE, SUITE 100
 IRVINE, CA 92618
 949.923.6000 stantec.com

UNDER THE SUPERVISION OF:
 RAMESH C. GUPTA R.C.E. 62873 DATE _____

| | |
|-----------------|----------------|
| PROJ MGR: RCG | DATE: 11/30/15 |
| DESIGNER: SER | DATE: 11/30/15 |
| DRAFTER: AEC | DATE: 11/30/15 |
| CHECKED BY: RCG | DATE: 11/30/15 |

APPROVED FOR CONSTRUCTION
 IN PUBLIC RIGHT-OF-WAY ONLY

DATE _____

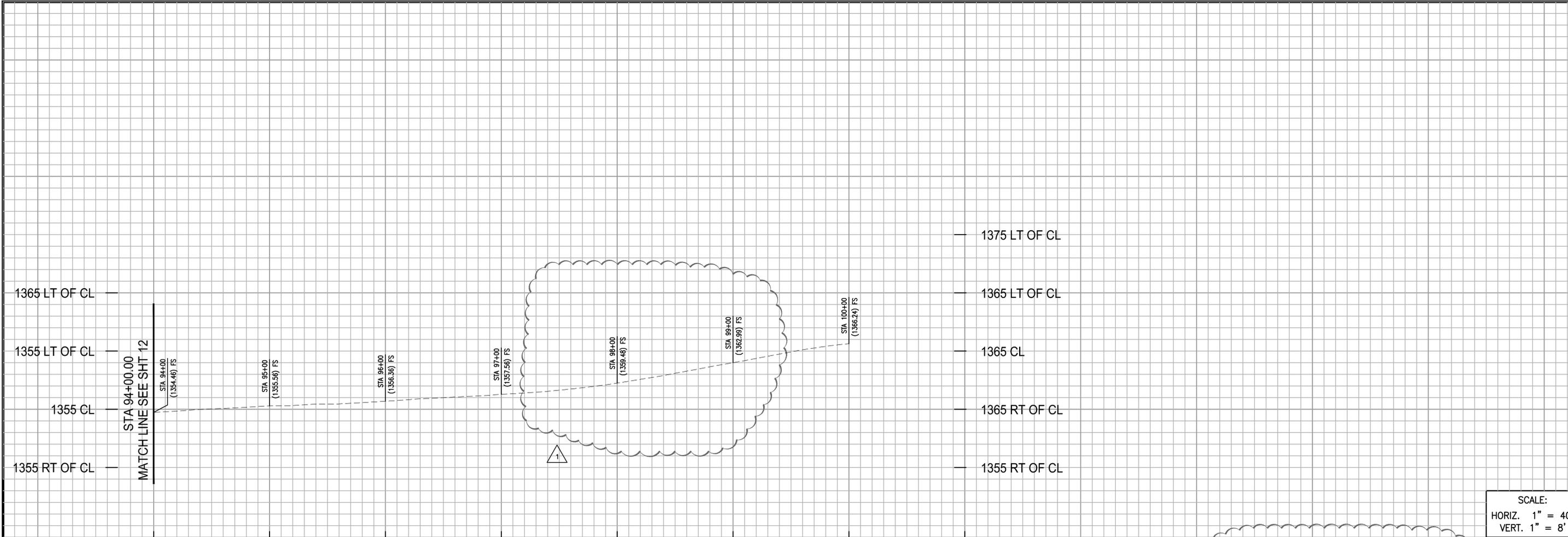
THOMAS WHEELER, P.E.
 PUBLIC WORKS DIRECTOR /
 CITY ENGINEER

**SADDLEBACK RANCH ROAD
 STREET IMPROVEMENT PROJECT**
 STA 85+00.00 TO STA 94+00.00

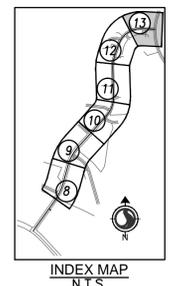
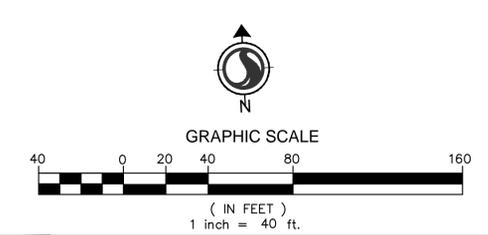
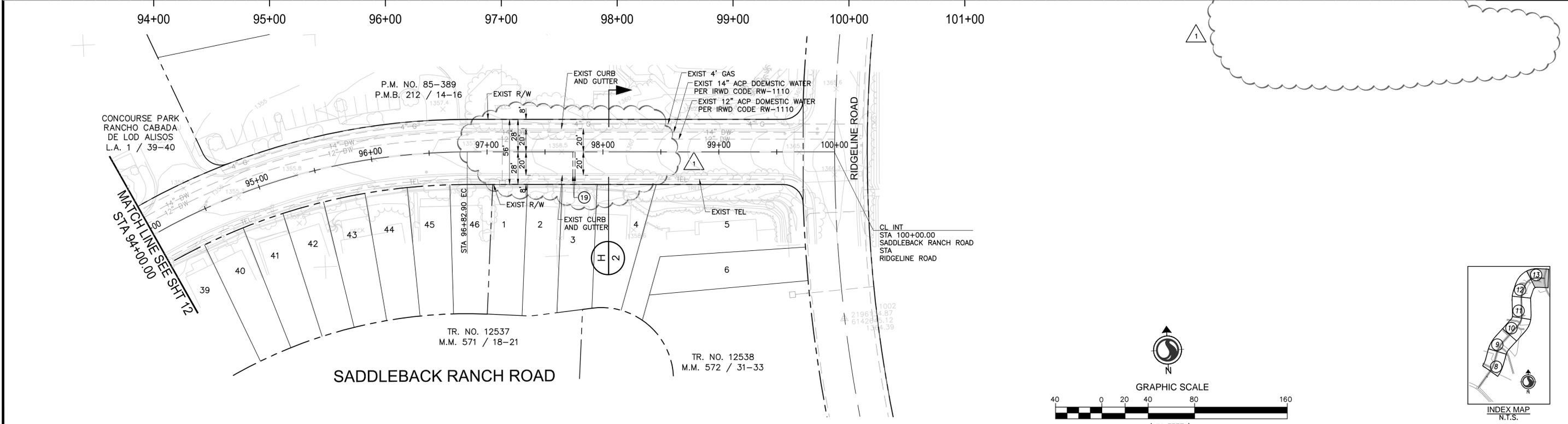
CITY OF LAKE FOREST
 PUBLIC WORKS DEPARTMENT

SCALE: 1" = 40'
 SHEET 12 OF 30

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SCALE:
 HORIZ. 1" = 40'
 VERT. 1" = 8'



| IRVINE RANCH WATER DISTRICT | |
|--|------|
| APPROVAL OF DOMESTIC WATER FACILITIES CODE 6461, PROJECT #3991 AND #3990 | |
| APPROVED BY | DATE |
| SUPERVISED BY | DATE |
| REVIEWED BY | DATE |



PLANS PREPARED BY:
Stantec
 38 TECHNOLOGY DRIVE, SUITE 100
 IRVINE, CA 92618
 949.923.6000 stantec.com

UNDER THE SUPERVISION OF:
 RAMESH C. GUPTA R.C.E. 62873 DATE

| | | | |
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| PROJ MGR: | RCG | DATE | 11/30/15 |
| DESIGNER: | SER | DATE | 11/30/15 |
| DRAFTER: | AEC | DATE | 11/30/15 |
| CHECKED BY: | RCG | DATE | 11/30/15 |

| DATE | BY | DESCRIPTION | APPV |
|-----------|----|-------------------------|------|
| 11/30/15 | | 1 REMOVED MEDIAN ISLAND | |
| REVISIONS | | | |

APPROVED FOR CONSTRUCTION IN PUBLIC RIGHT-OF-WAY ONLY

DATE

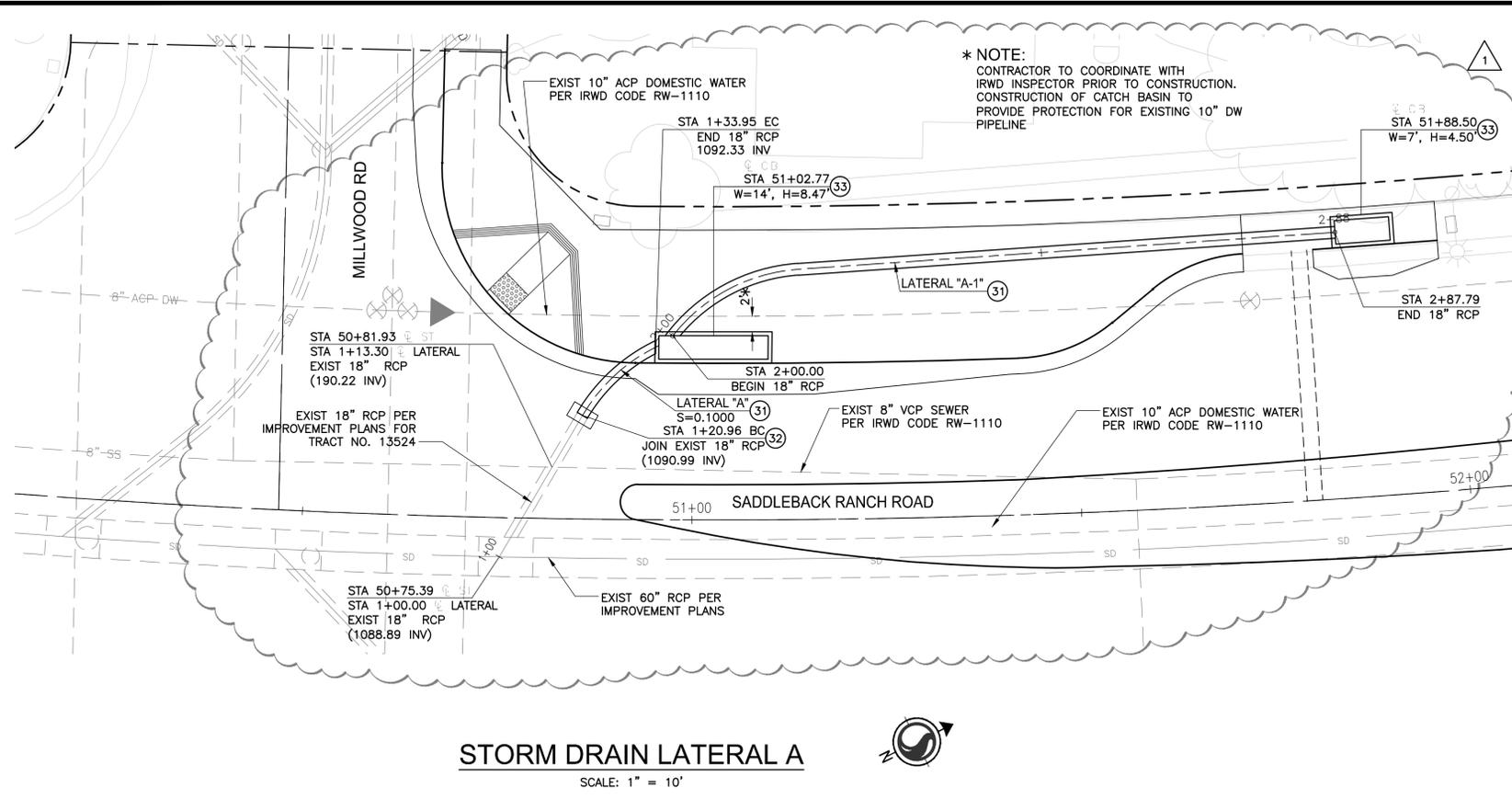
THOMAS WHEELER, P.E.
 PUBLIC WORKS DIRECTOR /
 CITY ENGINEER

SADDLEBACK RANCH ROAD
 STREET IMPROVEMENT PROJECT
 STA 94+00.00 TO STA 100+00.00

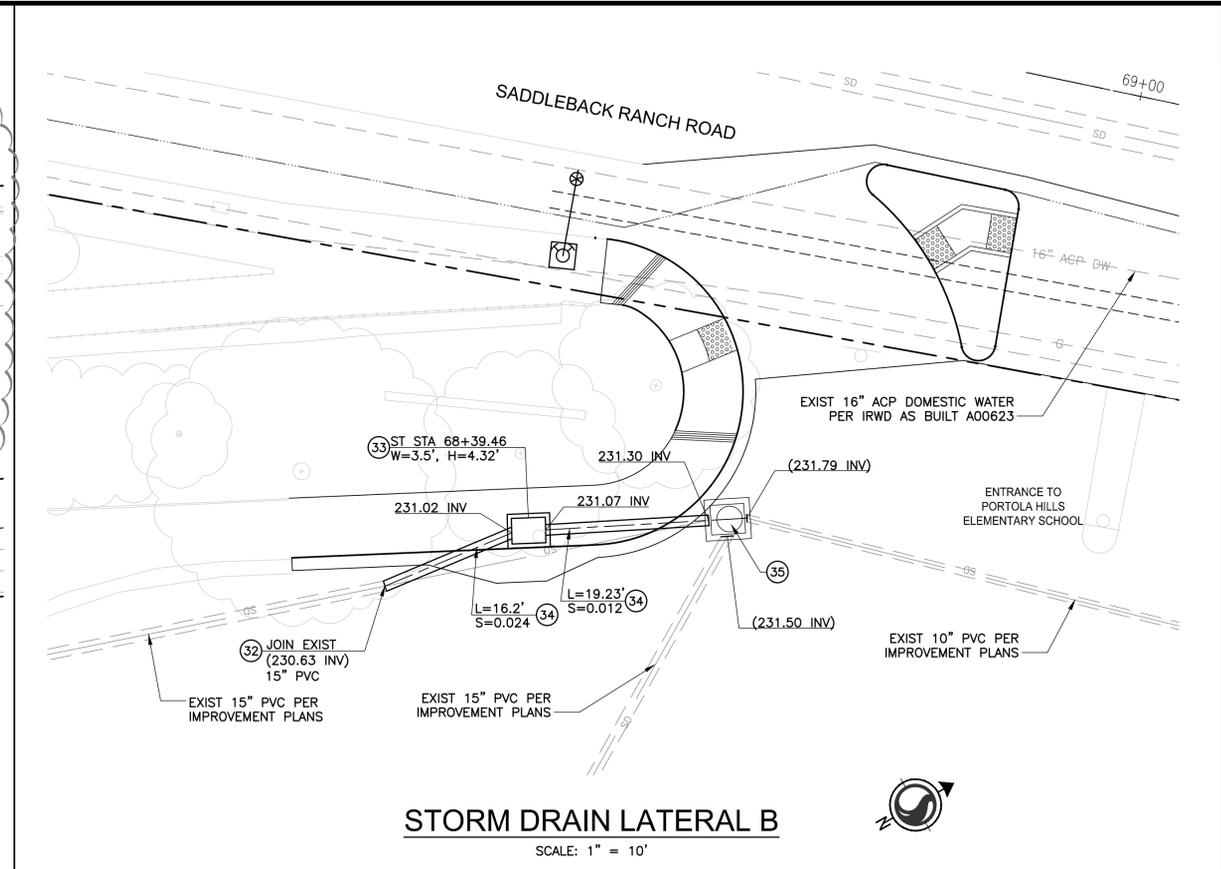
CITY OF LAKE FOREST
 PUBLIC WORKS DEPARTMENT

SCALE: 1" = 40'
 SHEET 13 OF 30

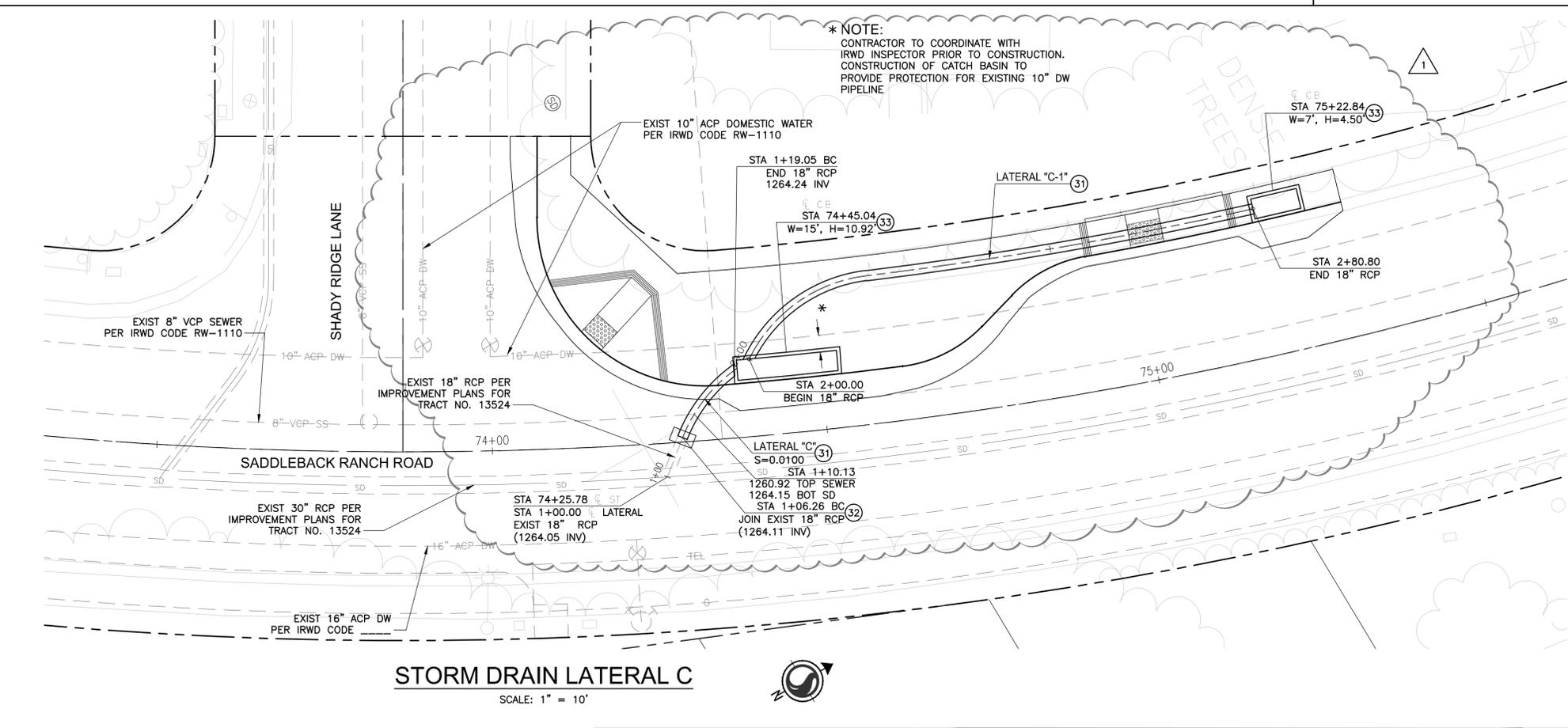
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STORM DRAIN LATERAL A
SCALE: 1" = 10'

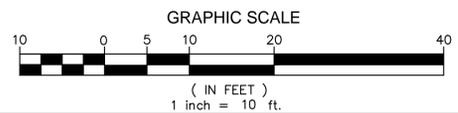


STORM DRAIN LATERAL B
SCALE: 1" = 10'



STORM DRAIN LATERAL C
SCALE: 1" = 10'

- STORM DRAIN CONSTRUCTION NOTES**
- (31) - INSTALL 18" RCP BEDDING AND BACKFILL PER SPPWC STD NO 1319
 - (32) - CONSTRUCT CONCRETE COLLAR FOR RCB PER SPPWC STD PLAN NO 380-4 OC
 - (33) - CONSTRUCT INLET TYPE II PER SPPWC STD PLAN NO 1302
 - (34) - INSTALL 15" RCP
 - (35) - CONSTRUCT JUNCTION STRUCTURE TYPE VI PER SPPWC 332-2-0C



| IRVINE RANCH WATER DISTRICT | |
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| APPROVAL OF DOMESTIC WATER FACILITIES CODE 6461, PROJECT #3991 AND #3990 | |
| APPROVED BY | DATE |
| SUPERVISED BY | DATE |
| REVIEWED BY | DATE |



PLANS PREPARED BY:
Stantec
38 TECHNOLOGY DRIVE, SUITE 100
IRVINE, CA 92618
949.923.6000 stantec.com

UNDER THE SUPERVISION OF:
RAMESH C. GUPTA R.C.E. 62873 DATE

| | | | |
|-------------|-----|------|----------|
| PROJ MGR: | RCG | DATE | 11/30/15 |
| DESIGNER: | SER | DATE | 11/30/15 |
| DRAFTER: | AEC | DATE | 11/30/15 |
| CHECKED BY: | RCG | DATE | 11/30/15 |

| DATE | BY | DESCRIPTION | APPV |
|-----------|----|------------------------------|------|
| 11/30/15 | | REVISE SIDEWALK, STORM DRAIN | |
| REVISIONS | | | |

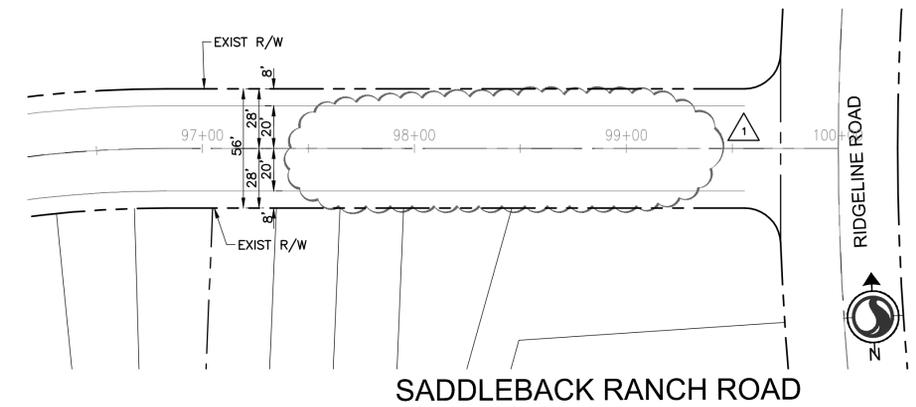
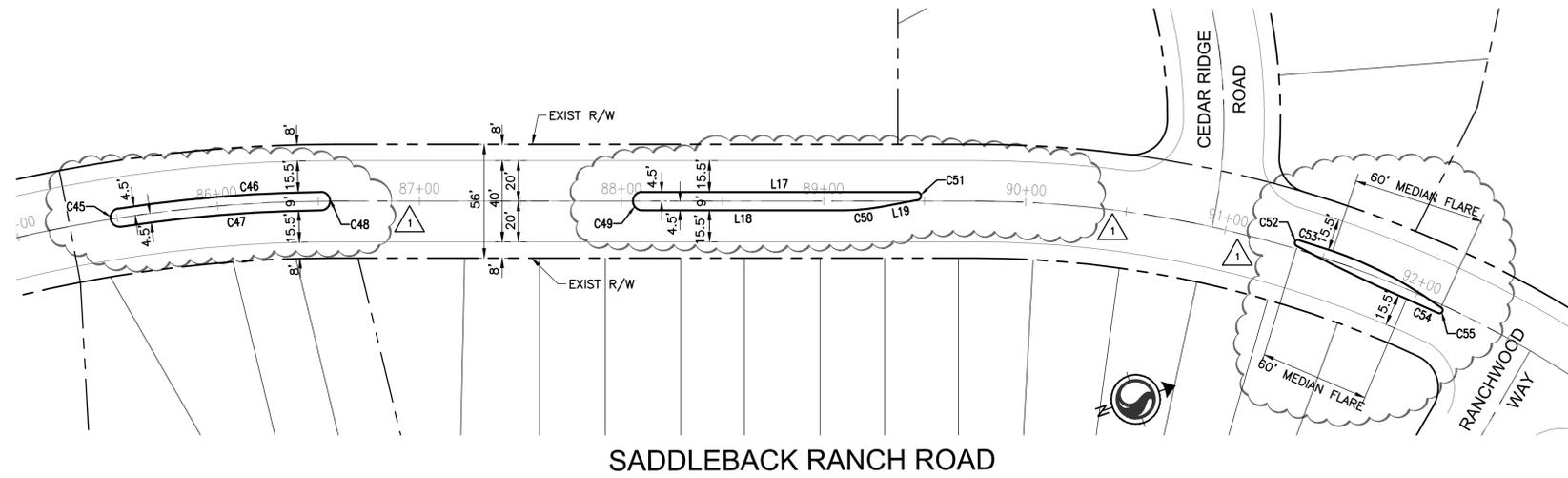
APPROVED FOR CONSTRUCTION IN PUBLIC RIGHT-OF-WAY ONLY

DATE

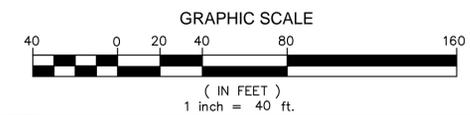
THOMAS WHEELER, P.E.
PUBLIC WORKS DIRECTOR / CITY ENGINEER

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| SADDLEBACK RANCH ROAD STREET IMPROVEMENT PROJECT | |
| STORM DRAIN PLAN | |
| CITY OF LAKE FOREST PUBLIC WORKS DEPARTMENT | SCALE: 1" = 40' SHEET 14 OF 30 |

DRAWING: v:\2013\active\2073007300\drawing\sheet_files\007300c-2011st.dwg PLOTTED: 12/4/2015 10:02 AM BY: Reid, Susan



| Line Table | | | Curve Table | | | |
|------------|---------------|---------|-------------|---------|---------|----------|
| Line # | Direction | Length | Curve # | Length | Radius | Delta |
| L17 | N18° 52' 18"E | 135.98' | C45 | 14.137 | 4.500 | 180.0000 |
| L18 | S18° 52' 18"W | 100.00' | C46 | 100.643 | 704.500 | 008.1851 |
| L19 | N08° 22' 14"E | 18.43' | C47 | 99.357 | 695.500 | 008.1851 |
| | | | C48 | 14.137 | 4.500 | 180.0000 |
| | | | C49 | 14.137 | 4.500 | 180.0000 |
| | | | C50 | 18.328 | 100.000 | 010.5010 |
| | | | C51 | 5.917 | 2.000 | 169.4990 |
| | | | C52 | 4.432 | 1.500 | 169.2738 |
| | | | C53 | 17.505 | 554.500 | 001.8088 |
| | | | C54 | 17.221 | 545.497 | 001.8088 |
| | | | C55 | 4.457 | 1.500 | 170.2627 |



| | | | | | | | |
|--|--|---|--|---|--|--|-----------------------------------|
| | PLANS PREPARED BY: 38 TECHNOLOGY DRIVE, SUITE 100 IRVINE, CA 92618 949.923.6000 stantec.com | PROJ MGR: RCG. DATE 11/30/15 DESIGNER: SER. DATE 11/30/15 DRAFTER: AEC. DATE 11/30/15 CHECKED BY: RCG. DATE 11/30/15 | UNDER THE SUPERVISION OF: RAMESH C. GUPTA R.C.E. 62873 DATE | 11/30/15 GEOMETRIC UPDATES DATE BY DESCRIPTION APPV | APPROVED FOR CONSTRUCTION IN PUBLIC RIGHT-OF-WAY ONLY _____ DATE THOMAS WHEELER, P.E. PUBLIC WORKS DIRECTOR / CITY ENGINEER | SADDLEBACK RANCH ROAD STREET IMPROVEMENT PROJECT HORIZONTAL CONTROL PLAN CITY OF LAKE FOREST PUBLIC WORKS DEPARTMENT | SCALE: 1" = 40' SHEET 16 OF 30 |
| | SEAL | | REVISIONS | | SHEET 16 OF 30 | | |

DRAWING: v:\2073\active\2073007300\drawing\sheet_files\007300c-2009st.dwg PLOTTED: 12/4/2015 9:44 AM By: Reid, Susan