## Specifications

### Materials

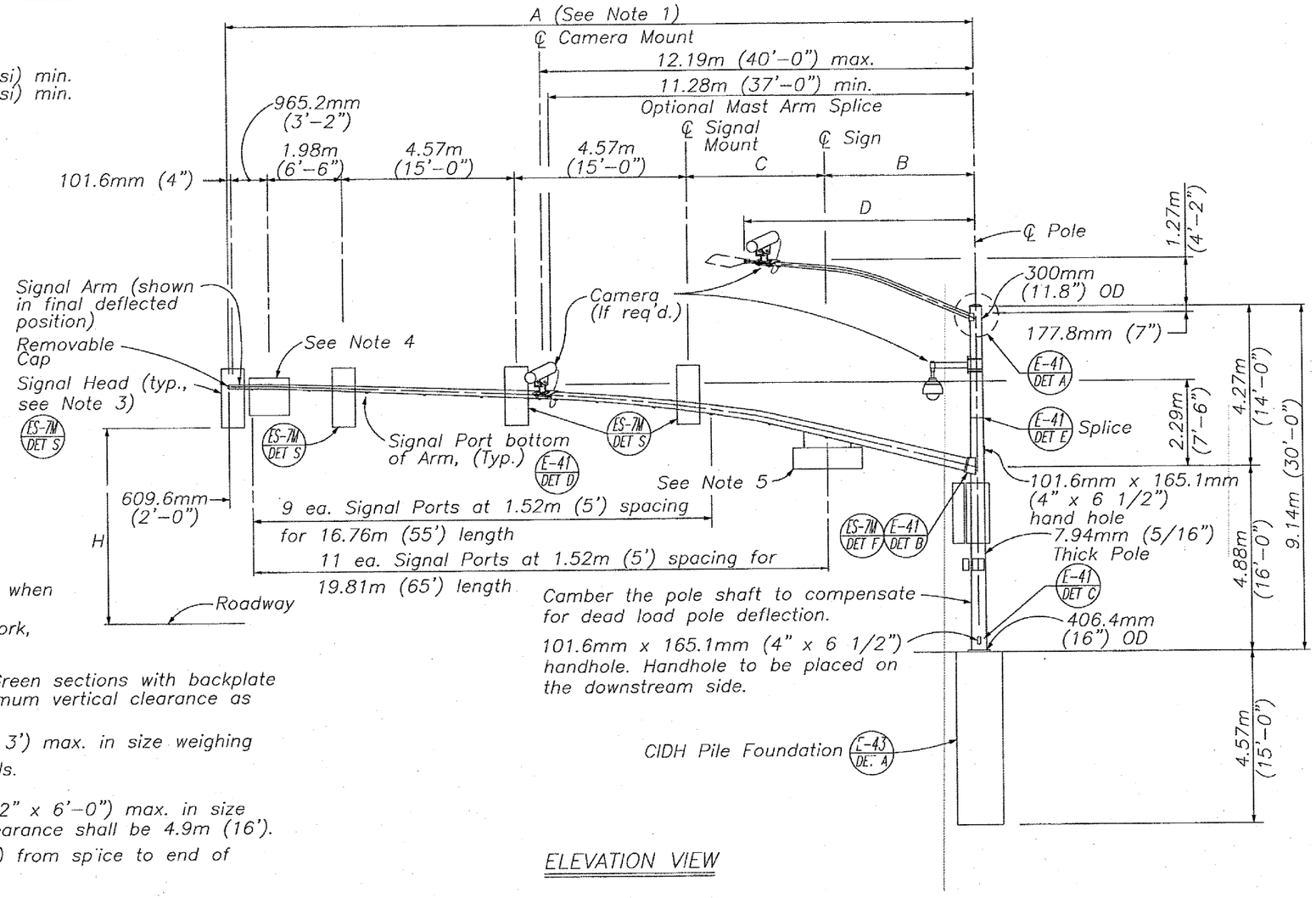
| | |
|---|---|
| Mast Arm & Pole: | Allowable Yield Fy = 380 MPa (55 ksi) min. |
| Lumiaire Arm: | Allowable Yield Fy = 331 MPa (48 ksi) min. |
| Baseplate & Structural Steel: | ASTM A36 steel 248 MPa (36 ksi) |
| Pipe: | ASTM A53 GR "B" steel |
| Castings: | ASTM A27 GR 65 35 steel |
| Anchor bolt: | ASTM A307 |
| Cap Screws: | High strength Bolt ASTM 325N or ASTM 325X |
| Welds: | All butt weld to be ground flush with base metal. Longitudinal – Butt weld by the submerged arc process. Circumferential – Butt weld with permanent back-up ring. |
| Reinforced Concrete: | f'c = 20.7 MPa (3000 psi) fy = 413 MPa (60 ksi) |

### Finish

| | |
|---|---|
| Pole: | Galvanized per ASTM A123 |
| Hardware: | Galvanized per ASTM A153 |

### Loading

| | |
|---|---|
| Wind Velocity: | 160 km/h (100mph) |




ELEVATION VIEW

## Notes

1 – Mast arm shall not deflect below horizontal plane when fully loaded and plumbed vertically.

2 – For connection details, signal mounting & framework, and pole foundation details, see County Standard Details E/41, E/42 & E/43.

3 – Signal head shall be 305mm (12") Red, Yellow, Green sections with backplate and visor, weighing 29kg (65 lbs) maximum. Minimum vertical clearance as specified in table shall be met.

4 – Regulatory sign shall be 914mm x 914mm (3' x 3') max. in size weighing 11kg (25 lbs) max. See ES-7M DET U for connection details.

5 – Street name sign shall be 560mm x 1830mm (22" x 6'–0") max. in size weighing 29kg (65 lbs) max. Minimum vertical clearance shall be 4.9m (16').

6 – Optional reduction in thickness to 6.07mm (3 Ga) from splice to end of mast arm for the 19.81m (65') mast arm.

## Legend

ES- — 2006 Caltrans Standard Plan Sheet No.
— Detail No.

E-41 DET — County Standard Plan Sheet No.
— Detail No.

| Pole Type | SIGNAL ARM DATA | | | | | | LUMINAIRE ARM DATA | | | SIGNAL HEAD CLEARANCE |
|---|---|---|---|---|---|---|---|---|---|---|
| | A | B | C | Min. OD at Pole | Min. OD at End of Arm | Thickness | D | Min. OD at Pole | Thickness | H |
| SCC 26-6-160 (26-6-100) | 16.76m (55'–0") | 3.2m (10'–6") | 1.37m (4'–6") | 317mm (12.5") | 112mm (4.4") | 6.07mm (3 Ga) | 4.57m (15'–0") | 117mm (4.61") | 3.04mm (11 Ga) | 5.20m min. (17'–0") |
| SCC 29-6-160 (29-6-100) | 19.81m (65'–0") | 3.96m (13'–0") | 3.66m (12'–0") | 343mm (13.5") | 112mm (4.4") | 7.94mm (5/16") (See Note 6) | 6.10m (20'–0") | 133mm (5.24") | 3.04mm (11 Ga) | 5.50m min. (18'–0") |

REGISTERED PROFESSIONAL ENGINEER RONALD R. PEOPLES C 29588 Exp. 3-31-13 CIVIL & STRUCTURAL STATE OF CALIFORNIA

METRIC (& ENGLISH) UNITS

| NO. | REVISIONS | BY | DATE | APP'D |
|---|---|---|---|---|

SANTA CLARA COUNTY ROADS AND AIRPORTS DEPARTMENT

| | | | |
|---|---|---|---|
| MDW | 09/14/11 | DESIGNED / DATE | WORK ORDER |
| YTD | 09/14/11 | DRAWN / DATE | LEVEL BOOK |
| DRP | 09/14/11 | CHECKED / DATE | TRANSIT BOOK |

SUBMITTED: William K. Yeung — REGISTERED PROFESSIONAL ENGINEER WILLIAM K. YEUNG No C38982 Exp. 3-31-13 CIVIL STATE OF CALIFORNIA

APPROVAL: Dan Coller 10-28-11 — REGISTERED PROFESSIONAL ENGINEER DAN COLLER No C36010 Exp. 3-31-13 CIVIL STATE OF CALIFORNIA

STANDARD DETAILS
SIGNAL STANDARD
TYPE SCC 29-6-160 (29-6-100) AND
TYPE SCC 26-6-160 (26-6-100)

PROJECT NO. | CONTRACT NO. | FILE NO.

DRAWING NO. E / 40
SHT NO. 1 OF 1