PUBLIC WORKS DEPARTMENT
(650) 558-7230

CORPORATION YARD
(650) 558-7670

The City of Burlingame

CITY HALL - 501 PRIMROSE ROAD
BURLINGAME, CALIFORNIA 94010-3997

CALIFORNIA DRIVE ROUNDABOUT IMPROVEMENTS – CITY PROJECT NO. 83920

ADDENDUM NO. 1

February 5, 2018

NOTICE TO ALL PLAN HOLDERS/BIDDERS

BID OPENING DATE: FEBRUARY 13, 2018

This addendum and its attachments shall become a part of the plans and specifications and shall apply to the bid proposals for the above-named project. The bidder(s) shall notify all affected subcontractors, material suppliers, and others to incorporate necessary cost updates, to the bid proposal and the work changes affected by this Addendum.

In the event of conflict between plans and specifications and this addendum, the addendum shall take precedence. Any modifications necessary to incorporate the revisions shall be included in the appropriate bid prices. The bid documents are hereby corrected, modified, and/or amended in the following manner:

Notice is hereby given that the following revisions are made a part of the above Contract Documents:

PROPOSAL

1. **Replace** BID SHEET, Proposal pages 11-13 with the attached pages.

TECHNICAL SPECIFICATIONS

2. **Replace** the first paragraph of SECTION 10-3 with:

> Furnish a field office (modular building) conforming to these Special Provisions for use by the City. The field office shall be well constructed, properly ventilated, lighted, heated, and air conditioned.
>
> A potential designated location for placement of field office is in City Parking Lot O, east of the project location. This area is within San Francisco Public Utilities Commission (SFPUC) right of way, which may require permits from SFPUC. The

Contractor shall be responsible for obtaining any and all required permits for use of the parking lot and be responsible for all costs and conditions as part of their permits.

3. **Replace** SECTION 19-1.03B UNSUITABLE MATERIAL with attached new section.

4. **Replace** SECTION 20-3 PLANTING with attached new section.

5. **Insert** into SECTION 38-1.01:

   Asphalt concrete pavement removed during pavement failure repair may contain pavement fabric, engineered paving mat, or other hazardous materials. Remove and dispose of these materials.

6. **Insert** into SECTION 38-1.04:

   Payment for removal, handling, and disposal of pavement fabric, engineered paving mat, or other hazardous material within the limits of pavement failure repair is included in the payment for Pavement Failure Repair.

7. **Insert** into SECTION 73-1.03A:

   SamTrans standard detail "Standard Bus Stop Bus Pad Section" is included in the Appendix to these technical specifications. Construct bus pads in accordance with this detail.

8. **Remove** the following sentence from SECTION 73-3.03:

   At corner curb ramps place 6 inch depth of concrete within the curb radius including sidewalk areas

9. **Insert** into SECTION 73-3.03:

   Within the limits of each curb ramp, excluding the top landing, place 6 inch depth of concrete.

   Within the limits of each bike ramp, place 6 inch depth of concrete.

   Construct driveway thickness in accordance with City Std. Plan SW-1 for entire length of driveway.

10. **Insert** into SECTION 73-3.04:

    Bike ramps will be paid for as Minor Concrete (Sidewalk).

    Payment for additional concrete thickness of sidewalks within bike ramp is included in the payment for minor concrete (sidewalk).

11. **Replace** SECTION 86-1.02X RECTANGULAR RAPID FLASHING BEACON ASSEMBLY in TECHNICAL SPECIFICATIONS with attached new section.

12. **Insert** attached APPENDIX TO THE TECHNICAL SPECIFICATIONS at the end of the Technical Specifications.

BID DRAWING PLAN SET

13. **Replace** SHEET 1 (CV-01) with attached revised SHEET 1.

14. **Replace** SHEET 11 through SHEET 15 (CD-01 through CD-05) with attached revised SHEET 11 through SHEET 15.

15. **Replace** SHEET 45 and 46 (EL-03 and EL-04) with attached revised SHEET 45 and SHEET 46.

16. **Replace** SHEET 60 and SHEET 61 (HS-01 and HS-02) with attached revised SHEET 60 and SHEET 61.

17. **Insert** attached SHEET 62 (HS-03) as the last page in the plans.

This Addendum consists of 33 pages.

All bidders shall acknowledge receipt and acceptance of Addendum No. 1 by signing in the space provided at the end of this Addendum and submitting the signed Addendum with their proposal. Failure to do so may constitute grounds for rejection of the bid.

Very truly yours,

Donald Chang, P.E.
Senior Civil Engineer

_____ _____

CONTRACTOR SIGNATURE DATE

_____

COMPANY NAME

CALIFORNIA DRIVE ROUNDABOUT PROJECT
CITY PROJECT NO. 83920
BID SHEET
(AS MODIFIED BY ADDENDUM 1)

BID SCHEDULE:

ITEM NO.	ITEM DESCRIPTION	ESTIMATED QUANTITY	UNIT	UNIT PRICE	ITEM TOTAL
1	MOBILIZATION	1	LS		
2	LEAD COMPLIANCE PLAN	1	LS		
3	SOIL TESTING	1	LS		
4	PROGRESS SCHEDULE (CRITICAL PATH METHOD)	1	LS		
5	PREPARE STORM WATER POLLUTION PREVENTION PLAN	1	LS		
6	STORM WATER ANNUAL REPORT	1	EA	$2,000.00	$2,000.00
7	STORM WATER SAMPLING AND ANALYSIS DAY	9	EA		
8	RAIN EVENT ACTION PLAN	15	EA	$500.00	$7,500.00
9	CONSTRUCTION AREA SIGNS	1	LS		
10	CONSTRUCTION PROJECT FUNDING SIGN	2	EA		
11	UTILITY POTHOLING	10	EA		
12	CONSTRUCTION STAKING (CONTRACTOR PROVIDED)	1	LS		
13	RECORD OF SURVEY	1	LS		
14	SURVEY MONUMENT	1	EA		
15	RESIDENT ENGINEER'S FIELD OFFICE	1	LS		
16	CLEARING AND GRUBBING	1	LS		
17	TRAFFIC CONTROL SYSTEM	1	LS		
18	PORTABLE CHANGEABLE MESSAGE SIGN (EA)	2	EA		
19	CHANNELIZER (SURFACE MOUNTED)	126	EA		
20	TEMPORARY RAILING (TYPE K)	940	LF		
21	CRASH CUSHION (IN-LINE)	5	EA		
22	TEMPORARY SAFETY LIGHTIING	1	LS		
23	ROADWAY EXCAVATION (F)	2,300	CY		
24	CLASS I DISPOSAL	100	CY		
25	CLASS II DISPOSAL	100	CY		
26	FURNISH AND INSTALL IRRIGATION SYSTEM	1	LS		
27	FURNISH AND INSTALL LANDSCAPING AND BIOFILTRATION AREAS	1	LS		
28	PLANT ESTABLISHMENT WORK (TYPE 2, 365 DAYS)	1	LS		
29	REMOVE CONCRETE (CURB AND GUTTER)	1,365	LF		
30	REMOVE CONCRETE (SIDEWALK)	6,725	SQFT		
31	REMOVE CONCRETE (MEDIAN CURB AND PAVING)	235	SQFT		
32	REMOVE INLET	2	EA		
33	REMOVE PIPE (LF)	6	LF		
34	MODIFY INLET TO MANHOLE	1	EA		

35	MODIFY INLET (CAP)	2	EA		
36	ADJUST MANHOLE TO GRADE (STORM DRAIN)	4	EA		
37	ADJUST MANHOLE TO GRADE (SEWER)	5	EA		
38	ADJUST FIRE HYDRANT TO GRADE	2	EA		
39	FURNISH AND INSTALL UTILITY BOX (CITY-OWNED)	6	EA		
40	SALVAGE PARKING METER	12	EA		
41	SALVAGE STREET LIGHT	5	EA		
42	RELOCATE DECORATIVE STREET LIGHT	1	EA		
43	SALVAGE RRFB SYSTEM	2	EA		
44	SALVAGE ROADSIDE SIGN	24	EA		
45	ADJUST WATER VALVE BOX TO GRADE	8	EA		
46	REPLACE ROADSIDE SIGN PANEL ON EXISTING POST	3	EA		
47	COLD PLANE ASPHALT CONCRETE PAVEMENT	7,220	SQYD		
48	LOWER AND RAISE MANHOLE	10	EA		
49	LOWER AND RAISE UTILITY COVER	9	EA		
50	AGGREGATE BASE (CLASS 2)	1,325	TON		
51	PAVEMENT FAILURE REPAIR	500	TON		
52	HOT MIX ASPHALT (TYPE A)	1,900	TON		
53	12" PVC C900 PIPE	500	LF		
54	CHANNEL DRAIN	16	LF		
55	DRAINAGE INLET (TYPE I)	8	EA		
56	DRAINAGE INLET (TYPE GO)	5	EA		
57	STORM DRAIN MANHOLE	2	EA		
58	MINOR CONCRETE (MOUNTABLE CURB)	10	CY		
59	MINOR CONCRETE (CURB AND GUTTER)	580	LF		
60	MINOR CONCRETE (MEDIAN CURB ON PCC SLAB, TYPE A1-6)	22	CY		
61	MINOR CONCRETE (MEDIAN CURB, TYPE A1-6)	695	LF		
62	MINOR CONCRETE (SIDEWALK)	11,960	SQFT		
63	MINOR CONCRETE (TRUCK APRON)	2,070	SQFT		
64	MINOR CONCRETE (BUS PAD)	2,525	SQFT		
65	MINOR CONCRETE (CUT-OFF WALL)	590	LF		
66	MINOR CONCRETE (PLANTER WALL)	25	LF		
67	MINOR CONCRETE (DEEPENED CURB AND GUTTER)	416	LF		
68	MINOR CONCRETE (STAMPED CONCRETE)	1,175	SQFT		
69	PEDESTRIAN RAILING	85	LF		
70	ROADSIDE SIGN - ONE POST (METAL)	50	EA		
71	THERMOPLASTIC TRAFFIC STRIPE (DETAIL 9)	2,915	LF		
72	THERMOPLASTIC TRAFFIC STRIPE (DETAIL 22)	360	LF		
73	THERMOPLASTIC TRAFFIC STRIPE (DETAIL 25)	750	LF		
74	THERMOPLASTIC TRAFFIC STRIPE (DETAIL 27B)	1,005	LF		
75	THERMOPLASTIC TRAFFIC STRIPE (DETAIL 29)	560	LF		

76	THERMOPLASTIC TRAFFIC STRIPE (DETAIL 32)	560	LF		
77	THERMOPLASTIC TRAFFIC STRIPE (DETAIL 38)	290	LF		
78	THERMOPLASTIC TRAFFIC STRIPE(DETAIL 38A)	1,095	LF		
79	THERMOPLASTIC TRAFFIC STRIPE (DETAIL 39A)	615	LF		
80	THERMOPLASTIC TRAFFIC STRIPE (DETAIL 40)	50	LF		
81	THERMOPLASTIC PAVEMENT MARKING (WHITE)	1,755	SQFT		
82	PAINT CURB (RED)	190	LF		
83	PAINT CURB (YELLOW)	85	LF		
84	OBJECT MARKER (TYPE P)	11	EA		
85	TRAFFIC SIGNAL LOOP DETECTORS	16	EA		
86	LIGHTING AND ELECTRICAL SYSTEM	1	LS		
87	PEDESTRIAN CROSSING ASSEMBLY	1	LS		
				TOTAL BID	

The successful lowest responsible bidder will be determined on the basis of the lowest Total Bid amount.

BIDDING CONTRACTOR'S SIGNATURE: _____

BIDDING CONTRACTOR'S NAME: _____

_____ _____
CONTRACTOR'S LICENSE NUMBER EXPIRATION DATE

_____
CONTRACTOR'S ADDRESS

_____
CONTRACTOR'S TELEPHONE NO.

_____
DATE

Construction Staking

You are responsible for providing all construction staking necessary to complete the work. See 1-5.10. This work is paid for as Construction Staking (Contractor Provided).

Record of Survey

The project includes the installation of a survey monument. Provide a Registered California Land Surveyor to perform, have reviewed, and record a record of survey for the new monument with the County. This work is paid for as Record of Survey.

Add to section 10-3

10-3 RESIDENT ENGINEER'S FIELD OFFICE

Furnish a field office (modular building) conforming to these Special Provisions for use by the City. The field office shall be well constructed, properly ventilated, lighted, heated, and air conditioned.

A potential designated location for placement of field office is in City Parking Lot O, east of the project location. This area is within San Francisco Public Utilities Commission (SFPUC) right of way, which may require permits from SFPUC. The Contractor shall be responsible for obtaining any and all required permits for use of the parking lot and be responsible for all costs and conditions as part of their permits.

The overall size of the field office shall be 500 square feet minimum, and shall be furnished with doors and windows capable of being locked. The field office shall be partitioned to provide one private office of not less than 120 square feet and a conference area of not less than 300 square feet. The doors shall have new galvanized or zinc coated stairs with landings as required. The Contractor is to provide to the Engineer a floor plan for review and approval prior to commencement of work.

Provide (2) keys for the main door to the Engineer. You retain title to the trailer and provided contents.

Perform any preparatory work necessary at the office site, including any site grading necessary. Provide parking spaces for a minimum of four vehicles on an all-weather surface.

The field office shall be furnished with 2 desks capable of being locked; 3-foot by 6-foot conference table; 8 standard chairs; 2 desk chairs with arms; one (1) dry plain paper copying machine with automatic feed and collator similar to Xerox 1012 or Sharp 815 capable of making letter size (8-1/2 x 11), legal size (8-1/2 x 14), and ledger size (11 x 17) copies; 2 x four drawer legal size filing cabinets; a fire extinguisher and a safety kit (bandages, gauze, etc.).

The private office shall be provided with a lockable closet and at least 25 feet of 12-inch wide shelving located as directed and two (2) portable book cases, each with a minimum of three four-foot long shelves.

Provide garbage collection service at least once per week.

The modular building shall be new or in like-new condition, and be less than 5 years old. You are responsible for all aspects of site preparation, delivery, set up, electrical plan and wiring, fire alarm system, and including all code compliance, applications, permitting and fees.

Provide all labor, materials and equipment required to provide adequate power to the office.

Provide toilet and wash station facilities that are at a minimum equivalent to the facilities that they provide for themselves at the project site and in accordance with State and local requirements. The toilet facilities may be portable facilities and shall be separate from the Contractor's facilities. The Contractor shall provide for the maintenance of any portable toilet and wash station facilities throughout the term of the project.

Fire extinguishers shall be provided and mounted as required by the Fire Marshall.

The office shall be provided with necessary electrical service to accommodate, at a minimum, the following items: 1 copier, and other standard office equipment. All electrical outlets to contain receptacles shall be wired and ready for use, and be installed not less than 6 feet apart.

Office shall have a functioning HVAC system. Provide all repairs and maintenance, including replacement of HVAC filters every 90 days, replacement of ballasts, and replacement of fluorescent light bulbs. Any maintenance requests are to be addressed within 48 hours.

You are responsible for meeting all State and local codes, including applicable building code requirements in accordance with Title 24 of the California Code of Regulations, Department of Housing and Community Development (DOH), Division of the State Architect (DSA), and Department of Motor Vehicles (DMV).

Equipment furnished shall be of standard quality and new, or like new in appearance and function. The office shall be installed, prepared, and ready for occupancy no later than twenty (20) calendar days after award of contract. For each day thereafter that the office is not ready for occupancy, you will be assessed damages in the amount of $500.00 per calendar day.

The office and all furnished equipment shall remain for use by the City and shall continue to be maintained until notified in writing by the Resident Engineer that all required final paperwork for project closeout, except paperwork related to progress payments, has been submitted and accepted by the Resident Engineer.

Post your contact information on a large sign outside the trailer, at a location easily visible to the public. Include the foreman's name and phone number and the Engineer's name and phone number.

Payment shall be made at the lump sum price bid for Resident Engineer's Field Office and shall include full compensation for furnishing, installing, maintaining, and removing the office, furnishings, office equipment, furnishing and maintaining the toilet and wash station facilities, electrical service, garbage service, general maintenance, any preparatory work, and restoring the area to its original state as specified in these Special Provisions and as directed by the Engineer.

Payment for Resident Engineer’s field office will be made in increments of the contract lump sum price for this item of work in the following manner:

Initial Increment:	25 percent of the lump sum price upon satisfactory completion of installation and setup (ready to occupy).
Progress Payment:	50 percent of the lump sum price upon satisfactory completion of fifty percent of the contract work.
Final Increment:	Balance of the lump sum price when contract work is completed and accepted.

^^

DIVISION III GRADING

16 CLEARING AND GRUBBING

Add to section 16-1.03A:

Do not remove trees and shrubs unless they are shown and noted on the plans to be removed or conflict with the proposed improvements. Remove or trim all trees and shrubs conflicting with grading, utilities or other improvements, or overhanging the sidewalk or pavement so as to form a nuisance or hazard to the public. Removal of trees and shrubs not shown and noted on the plans to be removed must be approved by the Engineer prior to removal.

Replace the 4th paragraph in section 16-1.03A with:

Clear and grub vegetation only within the excavation and embankment slope lines.

Replace 1st sentence of the 2nd paragraph of section 16-1.03B with:

Trim tree branches that extend and hang over the road right of way to provide clearance for your equipment to operate, and provide a minimum of 8’ of vertical clearance over all new sidewalk areas. Undercut limbs to prevent breaks or tearing of bark and flush with parent branch or trunk leaving a callus ring. Treat fresh cuts over 1.5-inches in diameter with commercial type tree sealer.

Add to section 16-1.03C:

Cut roots exposed in trench and roadway excavation at the excavation line in accordance with recognized standards of good arboricultural practices

^^

19 EARTHWORK

Add to section 19-1.01A:

Earthwork activities also include sawcutting asphalt concrete, removing asphalt concrete, excavating for bioretention areas and all other earthwork excavation, developing a water supply and finishing the roadway. Comply with sections 15-3, 17-2, and 22.

Add to section 19-1.03B:

Excavate and dispose of unsuitable material encountered below the natural ground surface in embankment areas or below the grading plane in excavation areas as ordered.

Notify the Engineer before removing unsuitable material if:

1. Remove is not otherwise described
2. You request payment for removal as change order work

Backfill the space resulting from excavating unsuitable material with material suitable for the planned use. Place and compact suitable material under section 19-5.

The soil to be removed from the median island park area at the intersection of Bellevue Avenue, Lorton Avenue, and California Drive requires testing prior to handling. Sequence your work and provide for the testing of this

material to determine handling and disposal requirements. Testing to include for herbicides, pesticides, hydrocarbons, and ADL.

The excavation of unsuitable material is paid for as Roadway Excavation.

If testing classifies material as either class I or class II, additional payment will be made for the handling, off-haul, and disposal of that material. The handling, off-haul, and disposal of material classified as class I will be paid for as Class I Disposal. The handling, off-haul, and disposal of material classified as class II will be paid for as Class II Disposal.

If material does not require special handling or disposal, its handling, off-haul, and disposal is included in payment for Roadway Excavation.

Class I Disposal and Class II Disposal are revocable bid items and are not subject to the increase or decrease payment adjustment requirements of section 9-1.06.

Replace the 2nd, 3rd, and 4th paragraphs of section 19-2.03B with:

Dispose of surplus material. Ensure enough clean earthy material is available to complete the embankments before disposing of it.

Add to section 19-2.04:

Removing asphalt concrete, PCC slab, aggregate base, and soil is paid for as roadway excavation.

Excavating bioretention areas are paid for as roadway excavation.

Payment for sawcutting asphalt concrete is included in payment for roadway excavation.

The asphalt concrete pavement removed during roadway excavation may contain pavement fabric, engineered paving mat or other hazardous materials. Remove and dispose of these materials. Payment for the removal and disposal of these materials is included in the price paid for Roadway Excavation.

Roadway excavation is a final pay item.

Replace Section 19-10 of the RSS for section 19 with:

19-10 BIORETENTION SOIL

Soils for bioretention areas must meet two objectives:

1. Be sufficiently permeable to infiltrate runoff at a minimum rate of 5" per hour during the life of the facility, and

2. Have sufficient moisture retention to support healthy vegetation.

Achieving both objectives with an engineered soil mix requires careful specification of soil gradations and a substantial component of organic material (typically compost).

Local soil products suppliers have expressed interest in developing ‘brand-name’ mixes that meet these specifications. At their sole discretion, municipal construction inspectors may choose to accept test results and certification for a ‘brand-name’ mix from a soil supplier.

Tests must be conducted within one-hundred and twenty (120) days prior to the delivery date of the bioretention soil to the project site.

Batch-specific test results and certification will be required for projects installing more than one-hundred (100) cubic yards of bioretention soil.

boxes, all piping and sleeves, electrical conduits, irrigation heads, drip emitters, bubblers, drip irrigation equipment, connection from electrical service to irrigation electrical meter, connection from meter to irrigation controller(s), installation of controller enclosure, concrete pads, preparation, correction, reproduction and lamination of “as-built” drawings, controller charts, assembly and submittal of the check list and operation and maintenance manuals and all appurtenances to the aforementioned items, as well as, and project guarantees.

Provide a schedule of values for Furnish and Install Irrigation System within 10 days of notification of award of bid.

At a minimum, the schedule of values must include:

- Irrigation Meter
- Irrigation Backflow
- Irrigation Controller
- Drip Irrigation

20-3 PLANTING

Furnish and Install Landscaping and Bioretention Areas will be measured per Lump Sum.

Landscaping includes all preparation of landscaping areas including bioretention areas.

Excavation of landscape areas is measured and paid for as Roadway Excavation.

Cost for furnishing and installing Bioretention improvements within landscape areas, including 4” perforated drain pipe and drain rock wrapped in filter fabric is considered as included in the lump sum price paid for Furnish and Install Landscaping and Bioretention Areas and no separate payment will be made therefor.

Furnish and Install Landscaping and Bioretention Areas includes furnishing and installing all plants, including those in the bioretention area and not within the bioretention areas.

Areas to receive bioretention soil are shown on sheet D-01. All other planting areas to receive imported landscape backfill.

The Contract lump sum price paid for Furnish and Install Landscaping and Bioretention Areas shall include full compensation for furnishing all labor, materials, tools, equipment, and incidentals, and for performing all work necessary to furnish and install landscaping and bioretention areas, complete in place, including preparing planting areas, furnishing and installing bioretention soil and landscape backfill, furnishing and installing plants, river rock cobble, streambed cobbles, and boulders, PVC cleanout assembly, perforated polyvinyl chloride pipe, permeable material (class 2), impermeable liner, and for doing all work to install Furnish and Install Landscaping and Bioretention Areas, as described or specified in the contract documents.

Provide a schedule of values for Furnish and Install Landscaping and Bioretention Areas within 10 days of notification of award of bid.

At a minimum, the schedule of values must include:

- 24" Box Trees (Group K)
- Tree Stakes
- 5 Gallon Shrubs (Group B)
- 1 Gallon Shrubs (Group A)
- Wood Bark Mulch at 3" Depth
- River Rock Cobble 8"-12" dia.
- River Rock Cobble 4"-6" dia.
- Boulders 2'-4' dia.
- Imported Landscape Backfill @ 2' depth (All Landscape areas except for bioretention areas)
- Bioretention Soil
- 4" Perforated Polyvinyl Chloride Pipe (SDR 35)
- PVC Cleanout Assembly

- Permeable Material (Class 2)
- Impermeable Liner
- Streambed Cobbles

20-4 PLANT ESTABLISHMENT WORK

20-4.01 GENERAL

20-4.01A Summary

Section 20-4 includes specifications for performing plant establishment work.

This project has a Type 2 plant establishment period.

Plant establishment consists of caring for the plants, including watering, fertilizing, pruning, replacing damaged plants, pest control, and operating and repairing of all existing irrigation facilities used and irrigation facilities installed as part of the new irrigation system.

Working days on which no work is required, as determined by the Engineer, will be credited as a plant establishment working day, regardless of whether or not you perform plant establishment work.

Working days whenever you fail to adequately perform plant establishment work will not be credited toward the plant establishment working days.

20-4.01B Definitions

Type 1 plant establishment: Plant establishment period with the number of working days specified for plant establishment beginning after all work has been completed except for plant establishment work and other bid items specified to be performed until Contract acceptance.

Type 2 plant establishment: Plant establishment period with the number of working days specified for plant establishment beginning after all planting work has been completed except for plant establishment work and other bid items specified to be performed until Contract acceptance, provided that the Contract must not be accepted unless the plant establishment work has been satisfactorily performed for at least the number of working days specified for plant establishment.

If maintenance and protection relief is granted for a completed portion of the work under section 5-1.38, Type 2 plant establishment period for the completed portion of the work is the time between completion of all planting work except for plant establishment work, and the granting of maintenance and protection relief, provided that the relief must not be granted unless the plant establishment work in the completed portion of the work has been satisfactorily performed for at least the number of working days specified for the plant establishment period.

20-4.01C Submittals

20-4.01C(1) General

Submit seasonal watering schedules for use during the plant establishment period within 10 days after the start of the plant establishment period. Remote irrigation control system watering schedule must utilize the remote irrigation control system software program.

Submit updated watering schedules within 5 business days after any changes have been made to the authorized schedules.

Submit a revised watering schedule for each irrigation controller not less than 30 days before completion of the plant establishment period.

20-4.01C(2) Notification

The Engineer will notify you in writing when the plant establishment period begins and will furnish statements regarding the number of working days credited to the plant establishment period after the notification.

Notify the Engineer at least 5 business days before applying each application of fertilizer.

22 FINISHING ROADWAY

Replace "Not Used" in section 22-1.04 with:

Payment for finishing roadway is included in payment for hot mix asphalt.

^^

DIVISION IV SUBBASES AND BASES

^^

26 AGGREGATE BASES

Add to Section 26-1.02A :

Aggregate Base must be Class 2.

Replace the 2nd paragraph of Section 26-1.02A General with:

Use 3/4 inch aggregate grading. Do not change selected aggregate grading without authorization.

^^

DIVISION V SURFACINGS AND PAVEMENTS

^^

38 PAVEMENT FAILURE REPAIR

Replace section 38 with:

38-1.01 GENERAL

Pavement Failure Repair shall consist of removal of existing asphalt concrete to a depth shown on the plans and replacement with hot mix asphalt concrete. Removal of asphalt concrete shall be by cold planning or sawcut and removal. Hot mix asphalt concrete must be placed with a maximum lift of three (3) inches. The final layer must not be less than one and one-half (1-1/2) inches in compacted thickness and no greater than three (3) inches. Each lift must be compacted to 95 percent relative compaction. Areas to be repaired must be marked by the Engineer.

Cold planning must comply with 15-2.02B(3) .

The Engineer marks out areas to be repaired in the field.

Surfacing and base must be removed without damage to surfacing that is to remain in place. Damage to pavement, which is to remain in place, must be repaired to a condition satisfactory to the Engineer. The damaged pavement must be removed and replaced with new asphalt concrete if ordered by the Engineer. Repairing or removing and

replacing pavement damaged outside the limits of pavement to be replaced, must be at the Contractor's expense and will not be measured nor paid for.

The accumulation of water in excavated areas must be prevented by means of pumping or other approved methods. At no time will ground water or storm water be allowed to flow down sanitary sewer lines.

Excavation shall be carried to the exact depth indicated on the drawing or as specified. Should you through your negligence or other fault, excavate below the designated lines, you must replace such excavations with approved materials at your own expense.

No pavement failure repair shall take place until all material has been removed and the area prepped or until directed by Engineer. A tack coat must be applied to all surfaces prior to placement of new hot mix asphalt.

If significant cracking and deformation is observed that indicates base failure after the pavement is cold planed; such areas shall be marked by the Engineer and repaired as directed.

It is your responsibilities to field verify locations, elevations, etc. of existing underground utilities and to immediately notify the Engineer of any field conflicts.

All grindings and other waste material must be disposed of outside the highway right of way in conformance with specifications. Removal operations of cold planed material must be concurrent with planning operations.

Asphalt concrete pavement removed during pavement failure repair may contain pavement fabric, engineered paving mat, or other hazardous materials. Remove and dispose of these materials.

38-1.02 MATERIALS

An asphaltic emulsion tack coat (paint binder) must be used consisting of emulsified asphalt, Type **SS1h** conforming to the requirements of Section 94.

Aggregate for asphaltic concrete for base and pavement repair must conform to the requirements of Section 39 and must be one-half (1/2) inch HMA-Type A grading.

Apply tack coat to all existing pavement or concrete surfaces prior to placing HMA for both base and pavement failure.

38-1.03 SUBMITTALS

Submit HMA design mix to the City.

Submit certificates from suppliers stating compliance of materials with the specifications.

38-1.04 PAYMENT

The contract price paid per ton for **Pavement Failure Repair** shall include full compensation for all labor, materials, tools, equipment, and incidentals and for doing all work involved in constructing pavement failure repair, including cold planing, sawcutting, removal of asphalt concrete, and off-site disposal, compaction, tack coat, and hot mix asphalt concrete, as shown on the plans, as specified in the Standard Specifications and in these special provisions, and as directed by the Engineer.

Payment for removal, handling, and disposal of pavement fabric, engineered paving mat, or other hazardous material within the limits of pavement failure repair is included in the payment for **Pavement Failure Repair**.

68 SUBSURFACE DRAINS

Replace section 68-5 with:

68-5 PERMEABLE MATERIAL

68-5.01 GENERAL

Section 68-5 includes specifications for installing permeable material, impermeable liner and plastic pipe underdrain system at storm water basins.

68-5.02 MATERIALS

Permeable material for bioretention area must be Class 2 and must comply with section 68-2 except for payment.

Perforated and solid plastic pipe must be smooth wall PVC pipe conforming to section 68-2.02D.

Impermeable liner must conform to section 78-2.

68-5.03 CONSTRUCTION

Specified curves or any change of underdrain pipe and cleanout risers must be accomplished by a series of prefabricated elbows with tangent sections of pipe to duplicate the centerline radius of each pipe. Elbows shall be 22.5 degrees maximum and pipe ends must be manufactured at the plant with no field cutting allowed.

68-5.04 PAYMENT

Payment for permeable material, impermeable liner, plastic pipe underdrain is included in Furnish and Install Landscaping and Bioretention Areas.

^^

DIVISION VIII MISCELLANEOUS CONSTRUCTION

72 SLOPE PROTECTION

Replace section 72-12 with;

72-12 STREAMBED COBBLES

72-12.01 General

Section72-12 includes specifications for constructing rock slope protection dissipatorpads at curb inlets into the storm water planters. The rock pads consist of small diameter rock placed over RSP filter fabric as shown.

The rock must comply with section 13-7.02B for Type A rock and have a smooth (river run). Surface.

RSP fabric must comply with Section 72-2.02B for Class 8 fabric.

Payment for RSP fabric and streambed cobbles is included in Furnish and Install Landscaping and Bioretention Areas.

^^

73 CONCRETE CURBS AND SIDEWALKS

Add “truck aprons and median island walkways” after “including” in the first paragraph in section 73-1.01A of the RSS:

Replace 1st paragraph of section 73-1.02A with:

Comply with section 90-2 "Minor Concrete" except as follows:

1. For all miscellaneous concrete work except valley gutters, mountable curbs and truck aprons, cementitious material content of concrete must be at least 505 lb/cu yd.
2. For valley gutters mountable curbs and truck aprons, cementitious material content of concrete must be at least 590 lb/cu yd.
3. The maximum size of aggregate used for miscellaneous concrete construction shall be 1 inch.

Add to section 73-1.02A:

Class 2 Aggregate base must comply with section 26.

Add to section 73-1.02B:

Install prefabricated detectable warning surface under the requirements of the Department of General Services, Division of State Architect. The finished surfaces of the detectable warning surface shall be free from blemishes.

The manufacturer shall provide a written 5-year warranty for prefabricated detectable warning surfaces, guaranteeing replacement when there is defect in the dome shape, color fastness, sound-on-cane acoustic quality, resilience, or attachment. The warranty period shall begin upon acceptance of the contract.

Add to section 73-1.03A:

Construct sidewalk and curb monolithically. Construct sidewalk and retaining curbs monolithically.

Driveway construction at driveways that provide the sole access to businesses or multiple housing units must be constructed in two phases. Vehicular access must be maintained at all times to these properties. #4 reinforcing bars dowels on 18" c-c must be installed at the cold joint where driveways are constructed in two phases.

Install expansion joints in curbs and sidewalks at all curb returns unless directed by the Engineer. Extend expansion joints and weakened plane joints through adjoining curb and gutter and retaining curbs.

Do not deviate the shape and design of curb ramps and driveways with sidewalk from the standard plans unless noted on the project plans or approved by the Engineer. Do not free form these facilities.

Clean all sawcuts by abrasive blasting or other methods approved by the Engineer.

If new curb, sidewalk or driveway is constructed adjacent to existing curb, sidewalk or driveway, dowel the existing concrete to the new concrete with #4 reinforcing bars as shown.

For new curb ramps, detectable warning surfaces shall be prefabricated tiles set directly in newly poured concrete; surface applied tiles or stamped into surface detectable warning surfaces will not be allowed.

Remove and dispose of existing water meter boxes located within the limits of sidewalk removal. Furnish and install new water meter boxes as part of installing new sidewalk.

SamTrans standard detail "Standard Bus Stop Bus Pad Section" is included in the Appendix to these technical specifications. Construct bus pads in accordance with this detail.

Replace 1st paragraph of section 73-1.03B with:

Prepare subgrade to required grade and cross section. Remove native material 6 inches below subgrade elevation for valley gutters and, unless shown otherwise, 3 inches below subgrade elevation for sidewalks curbs, gutter depressions, island paving, driveways and curb ramps. Backfill and compact with Class 2 aggregate base material to produce a stable foundation.

Add to section 73-1.04 with:

Payment for reinforcement in sidewalk, truck aprons, bus pad, and deepened curb and gutter as shown is included in payment for minor concrete (sidewalk),minor concrete (truck apron), minor concrete (bus pad), and minor concrete (deepened curb and gutter).

Payment for aggregate base placed under bus pad is included in payment for minor concrete (bus pad).

Add to section 73-2.03A:

Prior to final acceptance, as directed by the Engineer, water test curbs with gutters on slopes of 0.75% or flatter and paved surfaces to verify proper drainage. Any ponding of water greater than 0.25 inch depth will be considered as evidence of poor work techniques and shall be corrected by removing and replacing those portions of curb and gutter as necessary to comply with the requirements of this special provision, at no additional expense to the Agency.

Add to section 73-2.04:

Lengths of curbs and/or gutters at drainage structures, designated as aprons and transitions on the plans, will not be measured. Full compensation for constructing aprons and transitions is included in the payment of the minor concrete (minor structure).

Curbs and/or gutters measurements shall include curb transitions and depressions along driveways and curb ramps.

Curb inlets into bioretention areas are measured and paid as minor concrete of the type adjoining the curb type.

Retaining curb located adjacent to sidewalk shall be measured and paid for as minor concrete (sidewalk).

Add before the 1st paragraph in section 73-3.03:

Before placing concrete, verify that forms and site constraints allow the required dimensioning and slopes shown for sidewalks and curb ramps. Immediately notify the Engineer if you encounter site conditions that will not accommodate the design details. Modifications ordered by the Engineer are change order work.

Add to section 73-3.03:

At all median island walkways, place 6 inch depth of concrete.

Within the limits of each curb ramp, excluding the top landing, place 6 inch depth of concrete.

Within the limits of each bike ramp, place 6 inch depth of concrete.

Construct driveway thickness in accordance with City Std. Plan SW-1 for entire length of driveway.

Add to section 73-3.04:

Driveways, median island walkways/passageways, and curb ramps will be paid for as Minor Concrete (Sidewalk).

Driveways, island paving, curb ramps, and sidewalks which are contiguous with curb will be measured from a point 6 inches behind the face of curb.

Sidewalk and median island walkways with retaining curb shall be measured transverse from a point 6 inches behind the face of curb to the back of the retaining curb. No separate payment is made for retaining curb.

No deduction in quantities of minor concrete (sidewalk) will be made for utility covers and portions of inlets behind the projected back of curb line.

Payment for additional concrete thickness of sidewalks within curb return areas, driveways and median island walkways is included in the payment for minor concrete (sidewalk).

Payment for detectable warning surface is considered as included in the price paid for minor concrete (sidewalk).

Bike ramps will be paid for as Minor Concrete (Sidewalk).

Payment for additional concrete thickness of sidewalks within bike ramp is included in the payment for minor concrete (sidewalk).

^^

78 INCIDENTAL CONSTRUCTION

Replace 78-2 of the RSS with:

Impermeable liner must be recyclable black high density polyethylene (HDPE) sheet material and have a 30 mil thickness.

The properties of impermeable liner must be:

High Density Polyethylene (HDPE) Geomembrane Properties:		
Parameters	ASTM Test Method	Mean Value
MD Break Strength (psi)	D 638	2533 psi
TD Break Strength (psi)	D 638	3594 psi
MD Break Elongation (%)	D 638	211 %
TD Break Elongation (%)	D 638	328 %
Puncture Strength (lbs)	D 4833	93 lbs.
MD Tear Strength (lbs)	D 1004	29 lbs
TD Tear Strength (lbs)	D 1004	36 lbs
Hydrostatic Resistance (psi)	D 751, Procedure A	328 psi
Multi-Axial Tensile Properties		
Maximum Stress (psi)	D 5617. Test Method A: Centerpoint Deflection Versus Pressure	2361 psi
% Elongation @ Rupture	D 5617. Test Method A: Centerpoint Deflection Versus Pressure	20.8 %

Excavation and preparation must conform to the drawings.

Install the impermeable liner with appropriate length and depth, according to the manufacture's specifications and in the manner shown on the drawings.

Payment for impermeable liner is included in Furnish and Install Landscaping and Bioretention Areas.

^^

80 FENCES

Add to 80-3.01A:

1369 North Carolan Avenue
Burlingame, CA 94010

Allow 10 business days for testing. The City notifies you when testing is complete.

If the City accepts the material or equipment, you must pick it up from the test site and deliver it to the job site.

If the City rejects material or equipment, remove it within 5 business days after you are notified it is rejected. If it is not removed within that period, the City may remove it and ship it to you and deduct the costs of labor, material and shipping.

Resubmit a new sample and allow 10 business days for retesting. The retesting period starts when the replacement material or equipment is delivered to the City.

Replace 86-1.02K(1) of the RSS for section 86 with:

Luminaire must be LED. The luminaire shall be:

1. Leotek Model EC3 -10M2-MV-NW-3-GY-700 with 87 Watt LED assembly or approved equal.
2. Leotek Model EC3 -12M2-MV-NW-3-GY-700 with 107 Watt LED assembly or approved equal.

Replace first sentence of 86-1.02K(2) of the RSS for section 86 with:

Luminaire must be LED type.

Replace section 86-1.02X of the RSS for section 86 with:

86-1.02X Pedestrian Crossing Assembly

86-1.02X(1) General

The Pedestrian Crossing Assembly shall consist of W11-2 sign with eight (8) embedded LED lights, W16-7P sign, pedestrian push button, and 1-B pole and foundation. The assembly shall be pedestrian push button activated.

86-1.02X(2) LED Enhanced Pedestrian Crossing Warning Signs

Contractor to submit devices that meet the following criteria and obtain City approval prior to purchasing and furnishing.

The Light Emitting Diode (LED) enhanced pedestrian crossing warning signs shall conform with the latest version of CA MUTCD Section 2A.07. The LEDs shall be yellow, have a minimum diameter of 1/4-inch, and shall be placed within the border of the warning signs. The signs shall be made of retroreflective Yellow-Green sheeting.

All LED units shall flash simultaneously at a rate of more than 50 and less than 60 times per minute.

The uniformity of the sign design shall be maintained without any decrease in visibility, legibility, or driver comprehension during daytime or nighttime conditions.

86-1.02X(3) Enclosure

The controller enclosure shall be a NEMA 3R enclosure with a dead front panel and a hasp with a 7/16-inch hole for a padlock. The enclosure shall be powder coated, hot-dip galvanized, or factory-applied rust resistant prime coat and finish coat.

86-1.02X(4) Push Buttons

Push buttons for RRFB assembly shall be accessible pedestrian signals.

Replace 86-1.04 with:

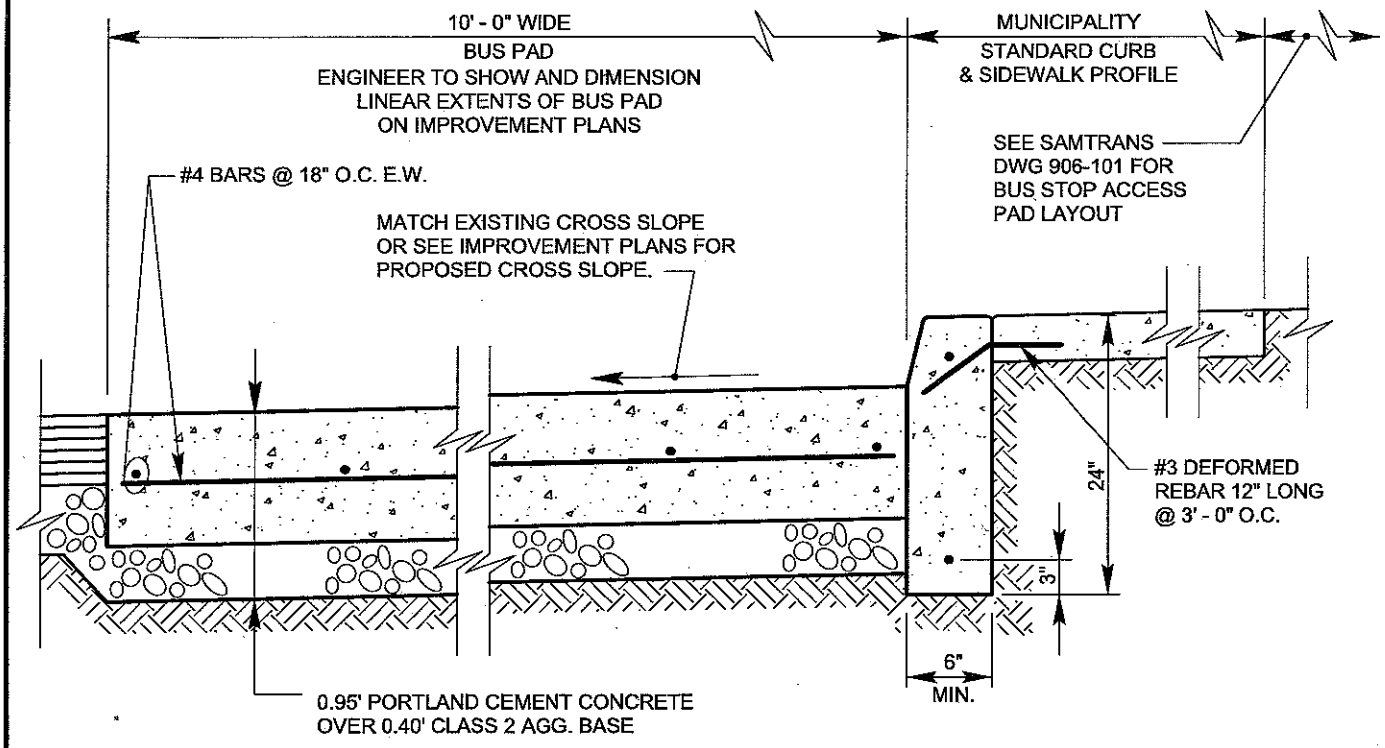
All work associated with LED enhanced pedestrian crossing warning signs is paid for as Pedestrian Crossing Assemblies. This includes all conduit, conductors, controllers, enclosures, poles, foundations, and all other items to install a complete working system. All other lighting and electrical work, including street lights and foundations, is paid for as Lighting and Electrical System.

Provide a schedule of values for the Lighting and Electrical System and Pedestrian Crossing Assemblies within 10 days of notification of award of bid.

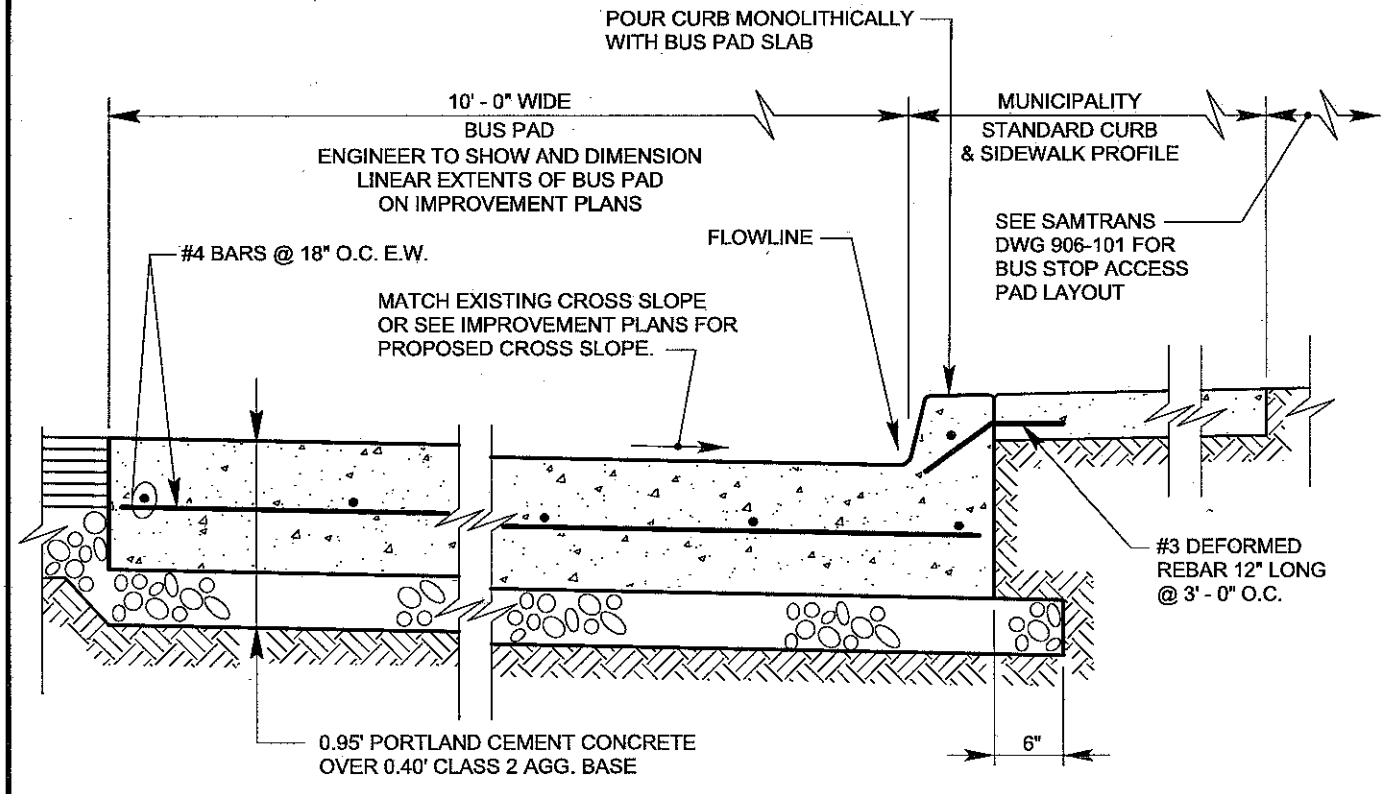
Appendix to the Technical Specifications

California Drive Roundabout Improvements

City Project No. 83920



VERTICAL CURB



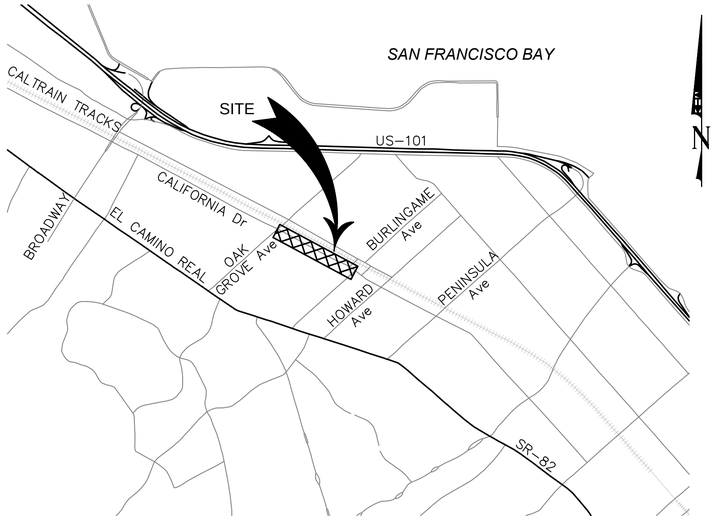
CURB AND GUTTER

SUPERSEDES SAMTRANS DWG BP-1

samTrans / San Mateo County TRANSIT DISTRICT	DESIGN -	STANDARD BUS STOP BUS PAD SECTION			
	DRAWN O'DONNELL				
	CHECK -				
	APPRD. WEIR	SCALE: 3/4" = 1' - 0"	DATE: 11/08/05	DWG. NO. N:\FACILITIES\906-101	REV. -

CALIFORNIA DRIVE
ROUNDABOUT ROADWAY PROJECT
BURLINGAME, CALIFORNIA
SAN MATEO COUNTY
PROJECT #83920

TO BE SUPPLEMENTED BY THE CALTRANS STANDARD PLANS 2010
AND CALIFORNIA MUTCD DATED JANUARY 2014



VICINITY MAP
NTS

INDEX OF PLANS

SHEET No.	SHEET NAME	SHEET DESCRIPTION
1	CV-01	TITLE SHEET
2	GN-01	GENERAL NOTES
3-5	TX-01 THRU TX-03	TYPICAL SECTIONS
6-9	HC-01 THRU HC-04	HORIZONTAL CONTROL
10	DM-01	DEMOLITION PLAN
11-19	CD-01 THRU CD-09	CONSTRUCTION DETAILS
20-23	PR-01 THRU PR-04	ROADWAY AND CURB PROFILES
24-25	GR-01 THRU GR-02	CONTOUR GRADING
26	U-01	UTILITY PLANS
27	D-01	DRAINAGE PLANS
28-29	DP-01 THRU DP-02	DRAINAGE PROFILES
30-31	DD-01 THRU DD-02	DRAINAGE DETAILS
32-35	TH-01 THRU TH-04	TRAFFIC HANDLING AND STAGE CONSTRUCTION PLANS
36-37	DE-01 THRU DE-02	DETOUR PLAN
38-39	PV-01 THRU PV-02	PAVEMENT REHABILITATION PLANS
40-42	SS-01 THRU SS-03	STRIPING AND SIGNING PLANS
43-46	EL-01 THRU EL-04	LIGHTING AND ELECTRICAL PLANS
47-53	LS-01 THRU LS-07	LANDSCAPE PLANS AND SPECIFICATIONS
54-59	IR-01 THRU IR-06	IRRIGATION PLANS AND SPECIFICATIONS
60-62	HS-01 THRU HS-03	HARDSCAPE PLANS AND SPECIFICATIONS

1

LOCATION MAP
NTS

PROJECT DESCRIPTION

THIS ROADWAY PROJECT MODIFIES CALIFORNIA DRIVE, BELLEVUE AVENUE, AND LORTON AVENUE IN THE CITY OF BURLINGAME, CA. THE IMPROVEMENTS INCLUDE:

- CONVERTING EXISTING THREE-WAY INTERSECTION INTO MODERN ROUNDABOUT
- RELOCATING EXISTING BUS STOPS AND PEDESTRIAN CROSSINGS
- BULB-OUTS WITH LANDSCAPING AND STORM WATER TREATMENT FACILITIES
- INSTALLATION OF PEDESTRIAN LIGHTING AT THE ROUNDABOUT INTERSECTION
- SIGNING AND STRIPING IMPROVEMENTS TO INCLUDE HIGH VISIBILITY PEDESTRIAN CROSSINGS AND BICYCLE FACILITIES
- PEDESTRIAN CURB RAMP, SIDEWALK, AND DRIVEWAY IMPROVEMENTS
- REHABILITATING PAVEMENT (COLD PLANE & OVERLAY) FROM OAK GROVE AVENUE TO BURLINGAME AVENUE

CA: 1-800-227-2600
CALL BEFORE YOU DIG
UNDERGROUND SERVICE ALERT
CA: 1-800-227-2600
CALL TWO WORKING DAYS BEFORE YOU DIG

No.	REVISIONS	DATE	BY
1	ADDENDUM No. 1	1/31/18	DCC

Kimley»Horn

4637 CHABOT DRIVE, SUITE 300, PLEASANTON, CA 94588
PHONE: 925-398-4840
WWW.KIMLEY-HORN.COM

KHA PROJECT	097515003
DATE	12/27/2017
SCALE	AS SHOWN
DESIGNED BY	DW
DRAWN BY	DW
CHECKED BY	DC

CALIFORNIA DRIVE ROUNDABOUT
PREPARED FOR
CITY OF BURLINGAME
SAN MATEO COUNTY CA

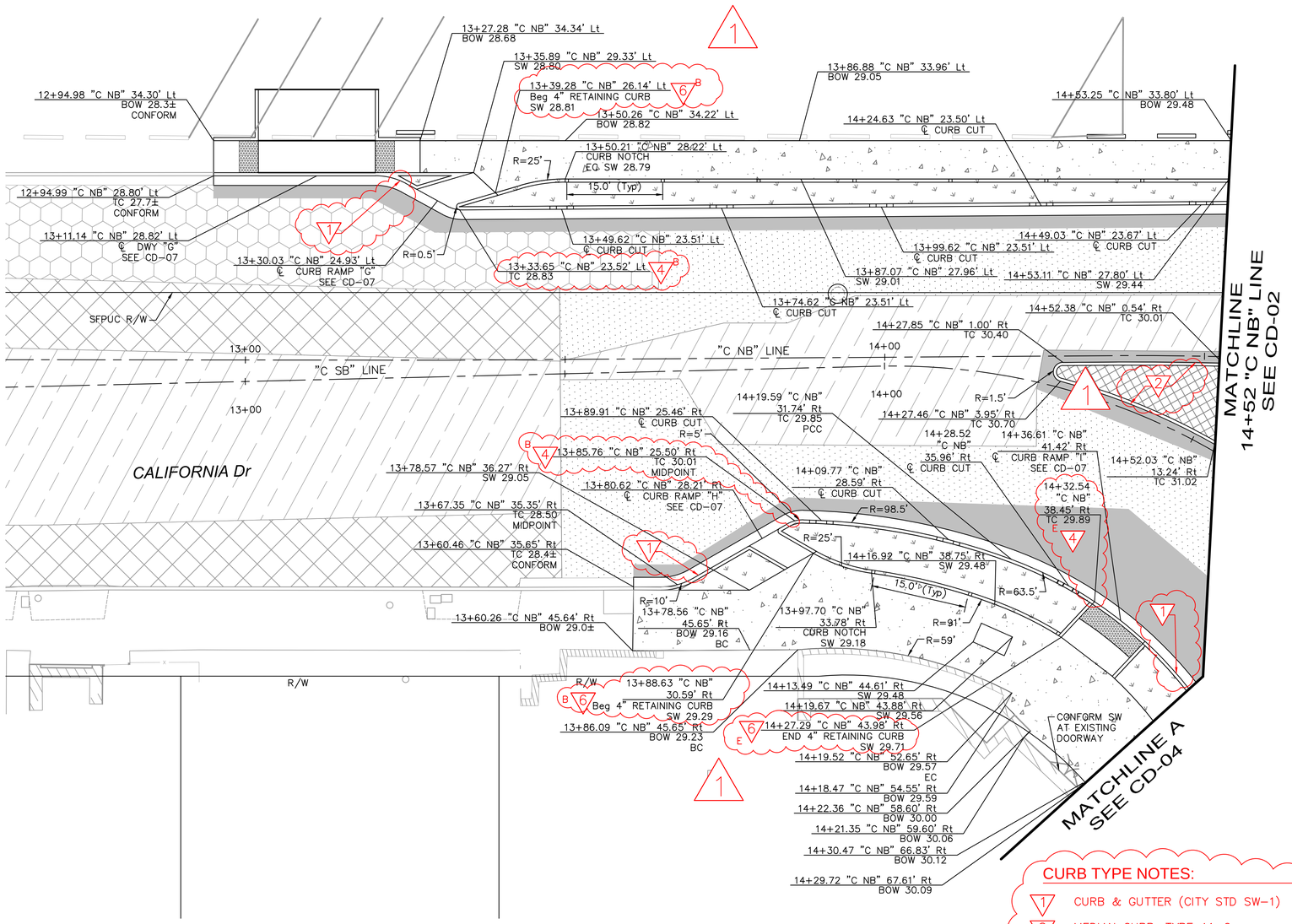
REGISTERED PROFESSIONAL ENGINEER
DANIEL C. CARLEY
No. C76304
CIVIL
STATE OF CALIFORNIA

TITLE SHEET

SHEET NO. 01
OF 61 SHEETS

CV-01

Plotted By: Carley, Daniel Layout: 01 CV-01 January 30, 2018 12:28:09pm K:\BAY_RDWY\097515003-California Dr Roundabout-JP\08 CADD\PlanSheets\01 CV-01.dwg



LEGEND:

- 1 HMA PAVEMENT (SEE TX-02 FOR SECTION DETAILS)
- 2 TRUCK APRON (SEE SHEET CD-09)
- 3 CONCRETE SW/DRIVEWAY
- 4 COLD PLANE & HMA OVERLAY (SEE TX-02 FOR DETAILS)
- 5 COLD PLANE & HMA OVERLAY (SEE TX-02 FOR DETAILS)
- 6 BUS PAD (SEE TX-02 FOR DETAILS)
- 7 HMA OVERLAY (SEE TX-03 FOR DETAILS)
- WEDGE COLD PLANE & HMA OVERLAY (SEE TX-03 FOR DETAILS)
- LANDSCAPING/BIORETENTION AREAS (SEE D-SHEETS AND LS-SHEETS)
- HARDSCAPE (SEE HS-SHEETS)
- DETECTABLE WARNING SURFACE
- ROADSIDE SIGN (SEE SS-SHEETS)
- # PAVEMENT STRUCTURAL SECTION No. (SEE TX-01 FOR DETAILS)

GENERAL NOTES:

1. ALL EXISTING SIGNS SHALL BE PROTECTED IN PLACE UNLESS SPECIFIED FOR REMOVAL OR RELOCATION.
2. ALL SIGN LOCATIONS ARE APPROXIMATE. FINAL SIGN LOCATIONS SHALL BE APPROVED BY ENGINEER PRIOR TO INSTALLATION.
3. ALL EXISTING STRIPING CONFLICTING WITH PROPOSED STRIPING SHALL BE REMOVED BY GRINDING PRIOR TO NEW STRIPING INSTALLATION.
4. ALL PEDESTRIAN PATHWAYS WITHIN SPLITTER ISLANDS ARE TO BE 0.35' PCC OVER 0.50' CLASS 2 AB.
5. SEE EL-SHEETS FOR STREET LIGHTING DETAILS.
6. SEE D-SHEETS FOR DRAINAGE IMPROVEMENTS.

CURB TYPE NOTES:

- 1 CURB & GUTTER (CITY STD SW-1)
- 2 MEDIAN CURB, TYPE A1-6
- 3 MEDIAN CURB ON PCC SLAB, TYPE A1-6
- 4 DEEPENED CURB & GUTTER
- 5 MOUNTABLE CURB
- 6 CUT OFF WALL
- 7 PLANTER WALL
- B BEGIN CURB TYPE
- E END CURB TYPE

GRAPHIC SCALE
10 0 5 10 20
(IN FEET)
1 inch = 10 ft.

CA: 1-800-227-2600
CALL BEFORE YOU DIG
USA
UNDERGROUND SERVICE ALERT
CA: 1-800-227-2600
CALL TWO WORKING DAYS BEFORE YOU DIG

No.	REVISIONS	DATE	BY
1	ADDENDUM No. 1	1/31/18	DCC

Kimley»Horn

4637 CHABOT DRIVE, SUITE 300, PLEASANTON, CA 94588
PHONE: 925-398-4840
WWW.KIMLEY-HORN.COM

KHA PROJECT	097515003
DATE	12/27/2017
SCALE	AS SHOWN
DESIGNED BY	DW
DRAWN BY	DW
CHECKED BY	DC

CALIFORNIA DRIVE ROUNDABOUT

PREPARED FOR

CITY OF BURLINGAME

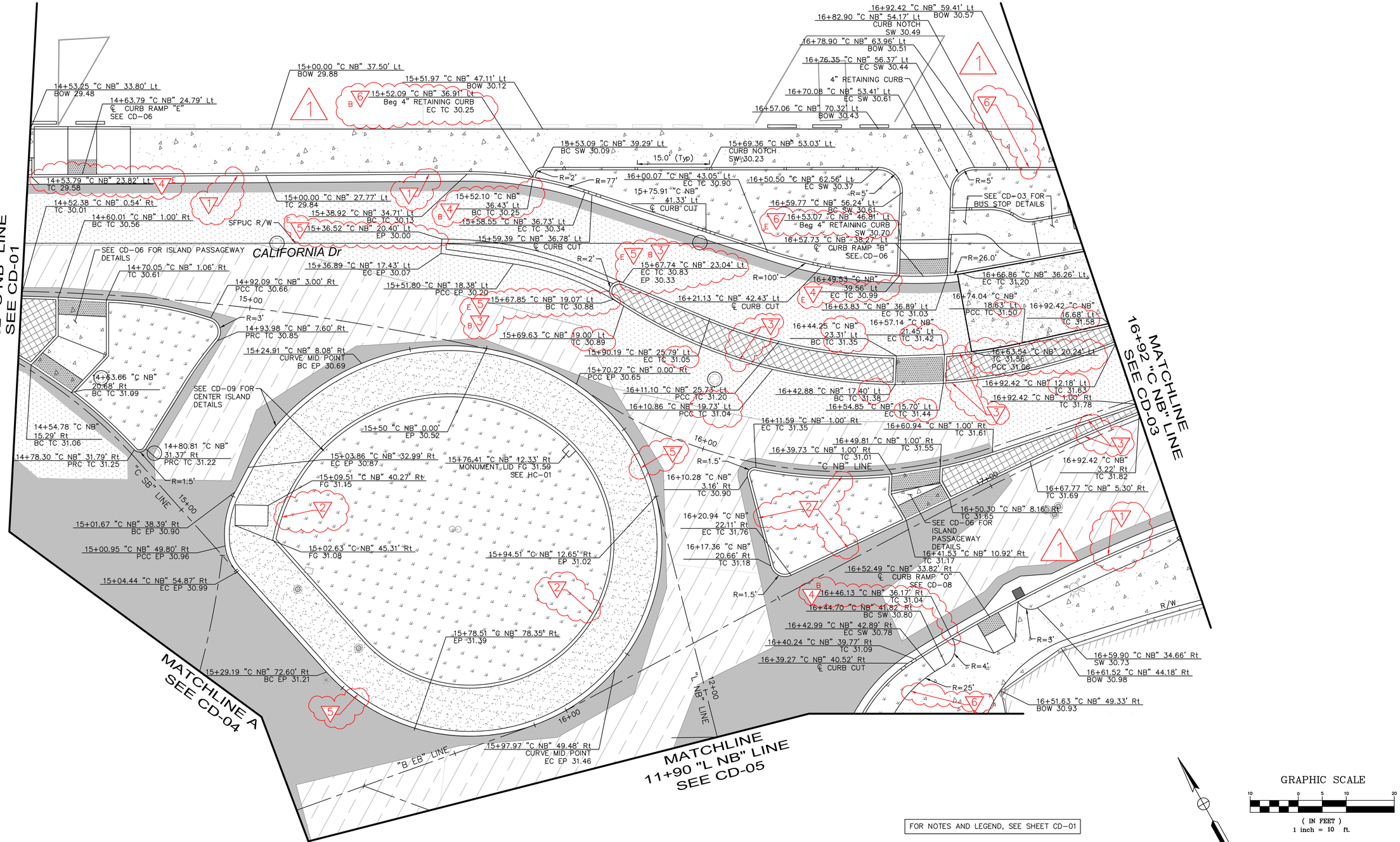
SAN MATEO COUNTY CA

REGISTERED PROFESSIONAL ENGINEER
DANIEL C. CARLEY
No. C76304
CIVIL
STATE OF CALIFORNIA

CONSTRUCTION DETAILS

SHEET NO. 11
OF 61 SHEETS

CD-01



CA: 1-800-227-2600
CALL BEFORE YOU DIG
UNDERGROUND SERVICE ALERT
CA: 1-800-227-2600
CALL TWO WORKING DAYS BEFORE YOU DIG

GRAPHIC SCALE
10 0 5 10 20
(IN FEET)
1 inch = 10 ft.

FOR NOTES AND LEGEND, SEE SHEET CD-01

No.	REVISIONS	DATE	BY
1	ADDENDUM No. 1	1/31/18	DCC

Kimley»Horn
© 2015 KIMLEY-HORN AND ASSOCIATES, INC.
4637 CHABOT DRIVE, SUITE 300, PLEASANTON, CA 94588
PHONE: 925-398-4840
WWW.KIMLEY-HORN.COM

KHA PROJECT	097515003
DATE	12/27/2017
SCALE	AS SHOWN
DESIGNED BY	DW
DRAWN BY	DW
CHECKED BY	DC

CALIFORNIA DRIVE ROUNDABOUT

PREPARED FOR

CITY OF BURLINGAME

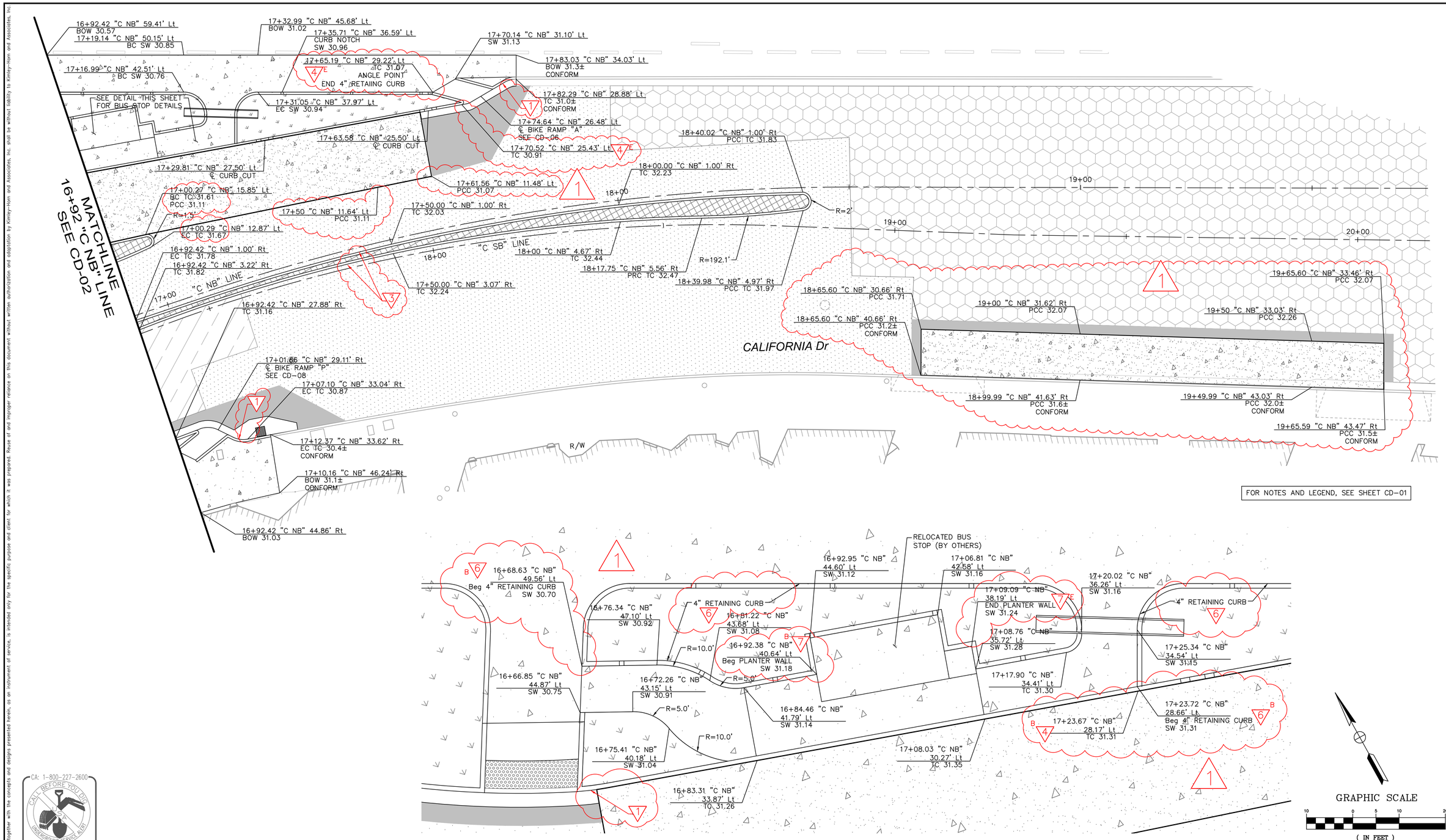
SAN MATEO COUNTY CA

REGISTERED PROFESSIONAL ENGINEER
DANIEL C. CARLEY
No. C76304
CIVIL
STATE OF CALIFORNIA

CONSTRUCTION DETAILS

SHEET NO. 12 OF 61 SHEETS

CD-02



BUS STOP GRADING DETAIL
SCALE: 1"=5'

GRAPHIC SCALE
10 0 5 10 20
(IN FEET)
1 inch = 10 ft.

CA: 1-800-227-2600
CALL BEFORE YOU DIG
USA
UNDERGROUND SERVICE ALERT
CA: 1-800-227-2600
CALL TWO WORKING DAYS BEFORE YOU DIG

No.	REVISIONS	DATE	BY
1	ADDENDUM No. 1	1/31/18	DCC

Kimley»Horn
© 2015 KIMLEY-HORN AND ASSOCIATES, INC.
4637 CHABOT DRIVE, SUITE 300, PLEASANTON, CA 94588
PHONE: 925-398-4840
WWW.KIMLEY-HORN.COM

KHA PROJECT 097515003
DATE 12/27/2017
SCALE AS SHOWN
DESIGNED BY DW
DRAWN BY DW
CHECKED BY DC

CALIFORNIA DRIVE ROUNDABOUT

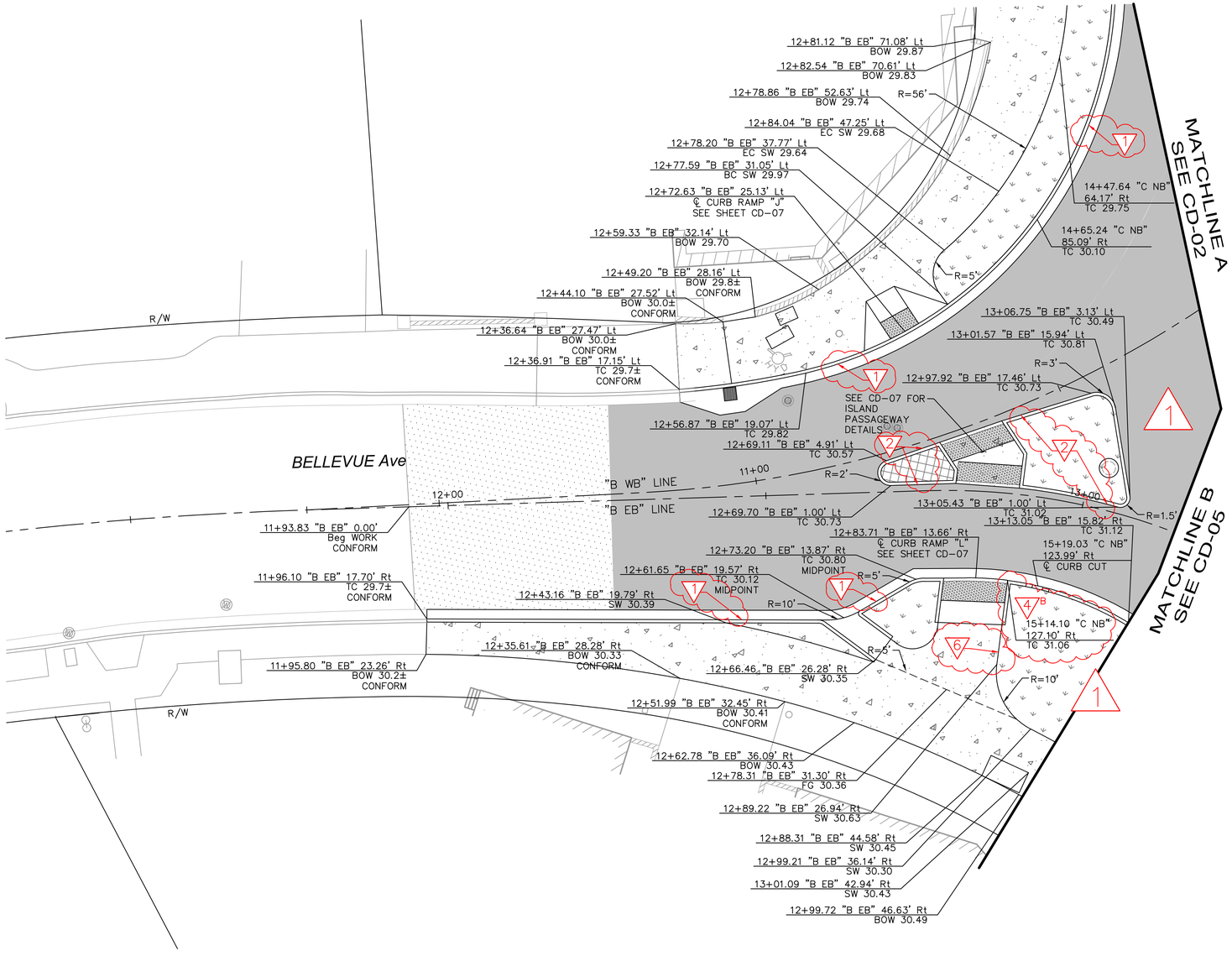
PREPARED FOR
CITY OF BURLINGAME
SAN MATEO COUNTY CA

REGISTERED PROFESSIONAL ENGINEER
DANIEL C. CARLEY
No. C76304
CIVIL
STATE OF CALIFORNIA

CONSTRUCTION DETAILS

SHEET NO. 13 OF 61 SHEETS

CD-03



CA: 1-800-227-2600
CALL BEFORE YOU DIG
811
UNDERGROUND SERVICE ALERT
CA: 1-800-227-2600
CALL TWO WORKING DAYS BEFORE YOU DIG

FOR NOTES AND LEGEND, SEE SHEET CD-01

GRAPHIC SCALE
10 0 5 10 20
(IN FEET)
1 inch = 10 ft.

No.	REVISIONS	DATE	BY
1	ADDENDUM No. 1	1/31/18	DCC

Kimley»Horn
© 2015 KIMLEY-HORN AND ASSOCIATES, INC.
4637 CHABOT DRIVE, SUITE 300, PLEASANTON, CA 94588
PHONE: 925-398-4840
WWW.KIMLEY-HORN.COM

KHA PROJECT 097515003
DATE 12/27/2017
SCALE AS SHOWN
DESIGNED BY DW
DRAWN BY DW
CHECKED BY DC

CALIFORNIA DRIVE ROUNDABOUT

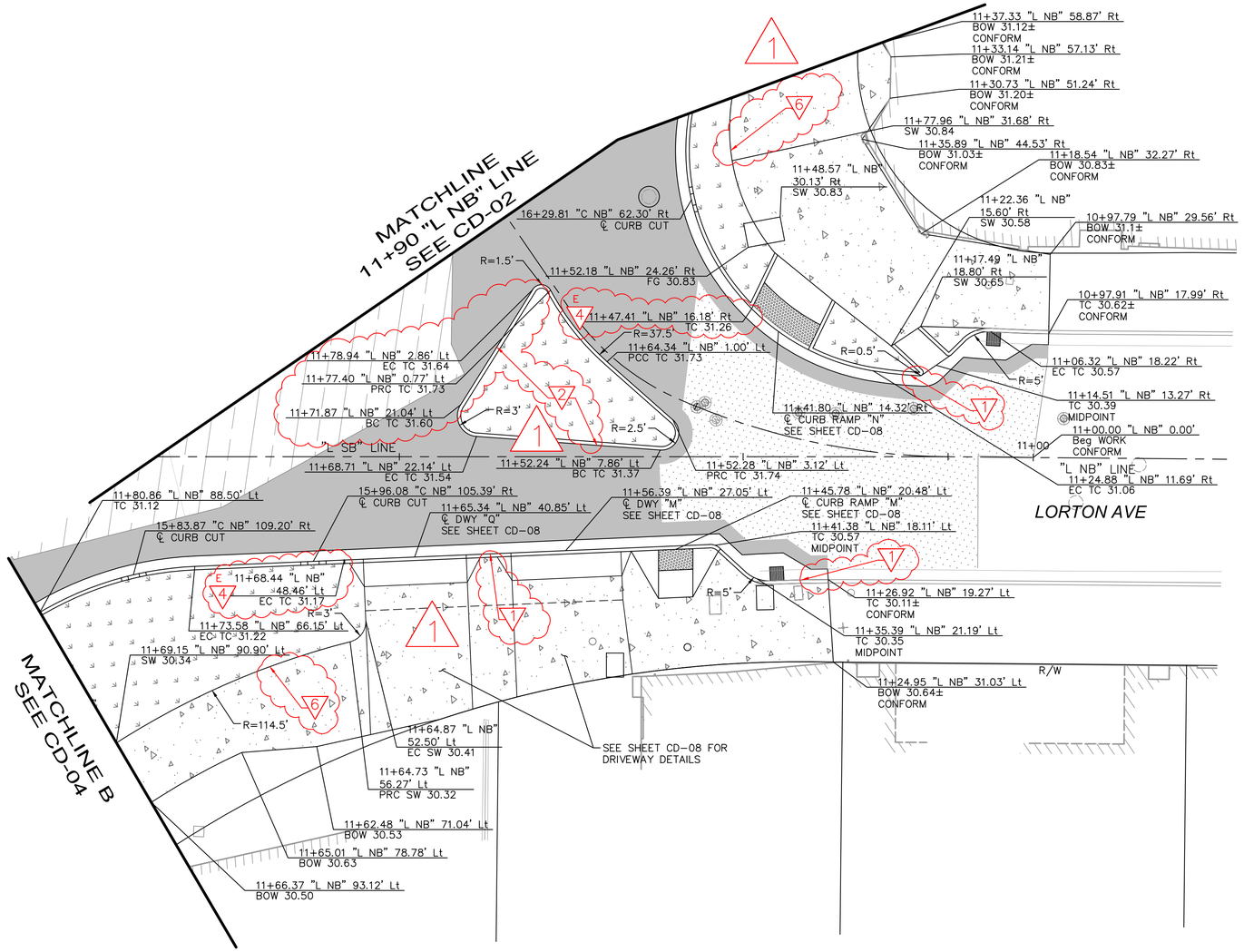
PREPARED FOR
CITY OF BURLINGAME
SAN MATEO COUNTY CA

REGISTERED PROFESSIONAL ENGINEER
DANIEL C. CARLEY
No. C76304
CIVIL
STATE OF CALIFORNIA

CONSTRUCTION DETAILS

SHEET NO. 14
OF 61 SHEETS

CD-04



CA: 1-800-227-2600
CALL BEFORE YOU DIG
811
UNDERGROUND SERVICE ALERT
CA: 1-800-227-2600
CALL TWO WORKING DAYS BEFORE YOU DIG

FOR NOTES AND LEGEND, SEE SHEET CD-01

GRAPHIC SCALE
10 0 5 10 20
(IN FEET)
1 inch = 10 ft.

No.	REVISIONS	DATE	BY
1	ADDENDUM No. 1	1/31/18	DCC

Kimley»Horn
© 2015 KIMLEY-HORN AND ASSOCIATES, INC.
4637 CHABOT DRIVE, SUITE 300, PLEASANTON, CA 94588
PHONE: 925-398-4840
WWW.KIMLEY-HORN.COM

KHA PROJECT 097515003
DATE 12/27/2017
SCALE AS SHOWN
DESIGNED BY DW
DRAWN BY DW
CHECKED BY DC

CALIFORNIA DRIVE ROUNDABOUT

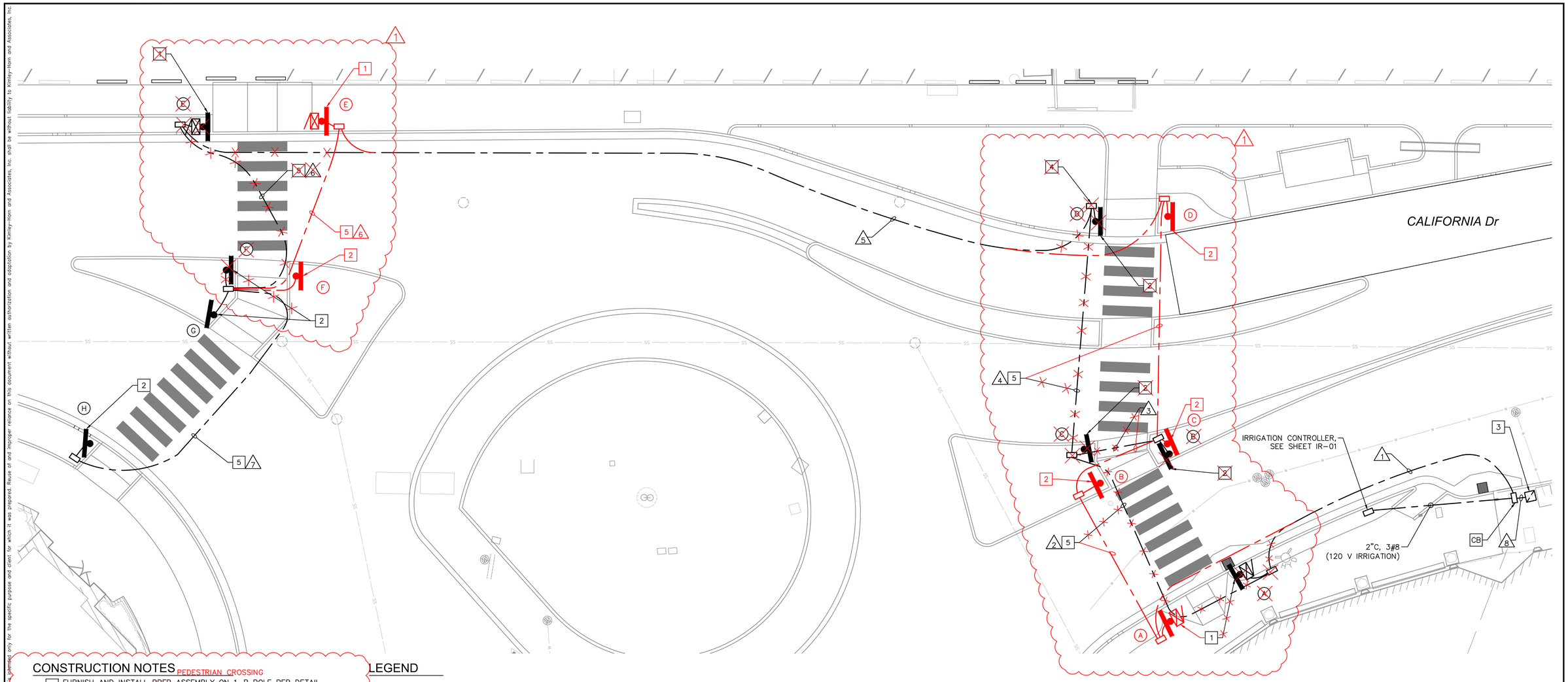
PREPARED FOR
CITY OF BURLINGAME
SAN MATEO COUNTY CA

REGISTERED PROFESSIONAL ENGINEER
DANIEL C. CARLEY
No. C76304
CIVIL
STATE OF CALIFORNIA

CONSTRUCTION DETAILS

SHEET NO. 15
OF 61 SHEETS

CD-05



CONSTRUCTION NOTES

1. FURNISH AND INSTALL ~~RRFB~~ ASSEMBLY ON 1-B POLE PER DETAIL A, SHEET EL-04. FURNISH AND INSTALL POLE MOUNTED ~~RRFB~~ CONTROL ENCLOSURE PER ~~RRFB~~ MANUFACTURER RECOMMENDATION. PEDESTRIAN CROSSING
2. FURNISH AND INSTALL ~~RRFB~~ ASSEMBLY ON 1B POLE PER DETAIL A, SHEET EL-04. PEDESTRIAN CROSSING
3. FURNISH AND INSTALL TWO CIRCUIT BREAKERS (15A,120V,1P) FOR ~~RRFB~~, AND ONE CIRCUIT BREAKER (20A,120V,1P) FOR IRRIGATION IN EXISTING SERVICE ENCLOSURE. PEDESTRIAN CROSSING ASSEMBLY
4. INSTALL 1-B FOUNDATION, PULL BOX, AND CONCRETE COLLAR PER DETAIL C, ON EL-04. ELEVATION OF TOP OF FOUNDATION, PULL BOX, AND COLLAR SHALL BE 6" ABOVE ELEVATION OF BIORETENTION AREA.
5. INSTALL IN JOINT TRENCH. SEE SHEETS IR-01 AND IR-02 FOR FURTHER INFORMATION AND DETAILS.

LEGEND

- EXISTING SERVICE ENCLOSURE
- ~~RRFB~~ CONTROL ENCLOSURE
- ~~RRFB~~ ASSEMBLY PEDESTRIAN CROSSING ASSEMBLY

CA: 1-800-227-2600 CALL BEFORE YOU DIG UNDERGROUND SERVICE ALERT CA: 1-800-227-2600 CALL TWO WORKING DAYS BEFORE YOU DIG

GRAPHIC SCALE

10 0 5 10 20

(IN FEET)
1 inch = 10 ft.

CONDUCTOR SCHEDULE

AWG OR CABLE	CIRCUIT	CONDUIT RUNS 1	2	3	4	5	6	7	8
	PEDESTRIAN CROSSING ASSEMBLY								
4C#18	~~RRFB~~ LIGHT BAR		2	1	1		2	1	
#14	PPB PEDESTRIAN CROSSING ASSEMBLY		4	2	2		4	2	
#8	~~RRFB~~ CONTROL ENCLOSURE POWER	4	2	2	2	2			4
#8	~~IRRIGATION CONTROL POWER~~								2
#8	GROUND	1	1	1	1	1	1	1	1
	CONDUIT SIZE (IN)	2"	2"	2"	2"	2"	2"	2"	2" E
	CONDUIT FILL %	9%	17%	11%	11%	5%	13%	8%	13%

ALL CONDUIT AND CONDUCTORS ARE NEW UNLESS NOTED OTHERWISE
E - EXISTING

GENERAL NOTES

1. ALL NEW PULL BOXES SHALL BE NO. 5 UNLESS OTHERWISE NOTED ON PLAN.

POLE AND EQUIPMENT SCHEDULE

INSTALLATION NUMBER	STANDARD TYPE	STANDARD HEIGHT	PPB	FRONT SIDE SIGNS	~~RRFB~~ PEDESTRIAN CROSSING ASSEMBLY	ADDITIONAL EQUIPMENT
A	1-B	10'		W11-2 W16-7P(LEFT)	1	~~RRFB~~ CONTROLLER AND CABINET ENCLOSURE
B	1-B	10'		W11-2 W16-7P(RIGHT)	1	
C	1-B	10'		W11-2 W16-7P(RIGHT)	1	
D	1-B	10'		W11-2 W16-7P(LEFT)	1	
E	1-B	10'		W11-2 W16-7P(LEFT)	1	~~RRFB~~ CONTROLLER AND CABINET ENCLOSURE
F	1-B	10'		W11-2 W16-7P(RIGHT))	1	
G	1-B	10'		W11-2 W16-7P(RIGHT)	1	
H	1-B	10'		W11-2 W16-7P(LEFT)	1	

* ALL EQUIPMENT IS NEW UNLESS NOTED OTHERWISE

No.	REVISIONS	DATE	BY
1	ADDENDUM No. 1	1/31/18	RJD

Kimley»Horn
© 2015 KIMLEY-HORN AND ASSOCIATES, INC.
4637 CHABOT DRIVE, SUITE 300, PLEASANTON, CA 94588
PHONE: 925-398-4840
WWW.KIMLEY-HORN.COM

KHA PROJECT 097515003
DATE 12/27/2017
SCALE AS SHOWN
DESIGNED BY RJD
DRAWN BY BDP
CHECKED BY KGA

CALIFORNIA DRIVE ROUNDABOUT

PREPARED FOR
CITY OF BURLINGAME
SAN MATEO COUNTY CA

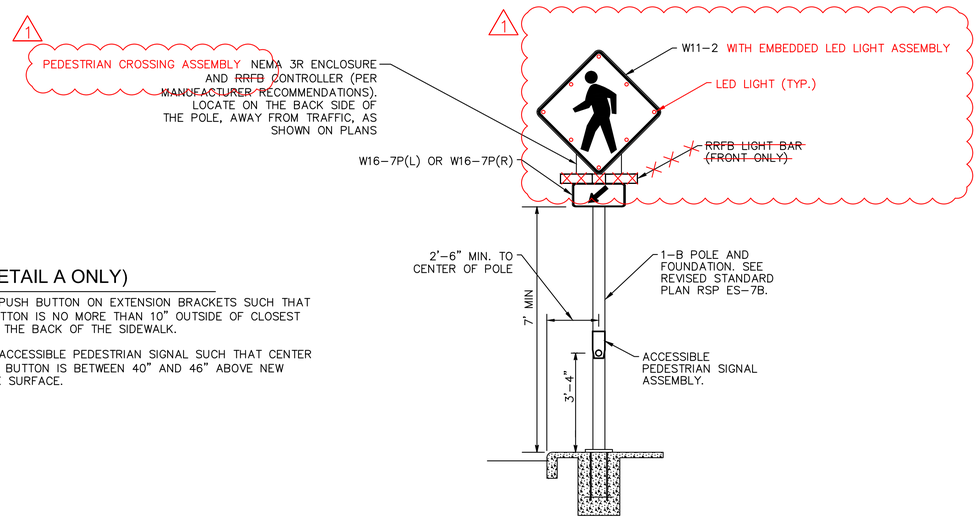
REGISTERED PROFESSIONAL ENGINEER KEVIN G. AGUIGUI No. 19880 3/31/18 ELECTRICAL STATE OF CALIFORNIA

PEDESTRIAN CROSSING ASSEMBLY

~~RECTANGULAR RAPID FLASHING BEACON~~ PLAN

SHEET NO. 45 OF 61 SHEETS

EL-03



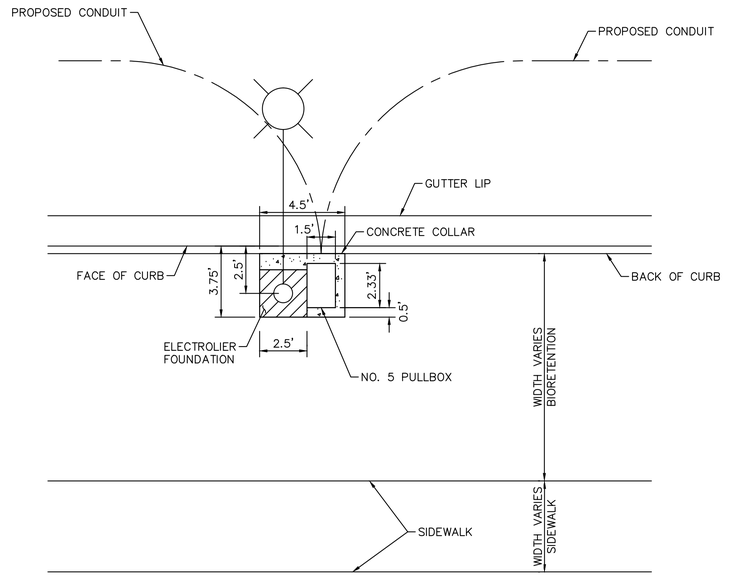
NOTES (DETAIL A ONLY)

1. INSTALL PUSH BUTTON ON EXTENSION BRACKETS SUCH THAT PUSH BUTTON IS NO MORE THAN 10" OUTSIDE OF CLOSEST EDGE OF THE BACK OF THE SIDEWALK.
2. INSTALL ACCESSIBLE PEDESTRIAN SIGNAL SUCH THAT CENTER OF PUSH BUTTON IS BETWEEN 40" AND 46" ABOVE NEW SIDEWALK SURFACE.

DETAIL A
RRFB ASSEMBLY ON 1-B POLE

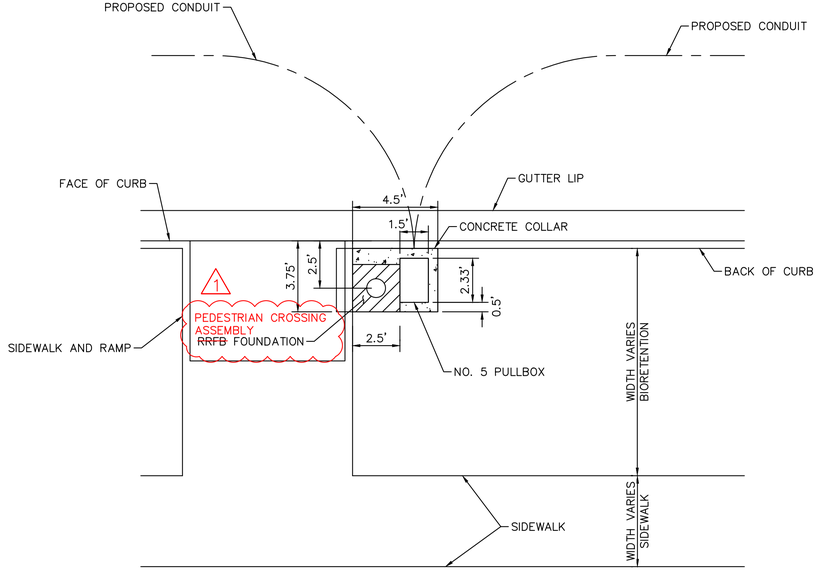
N.T.S.

1 PEDESTRIAN CROSSING



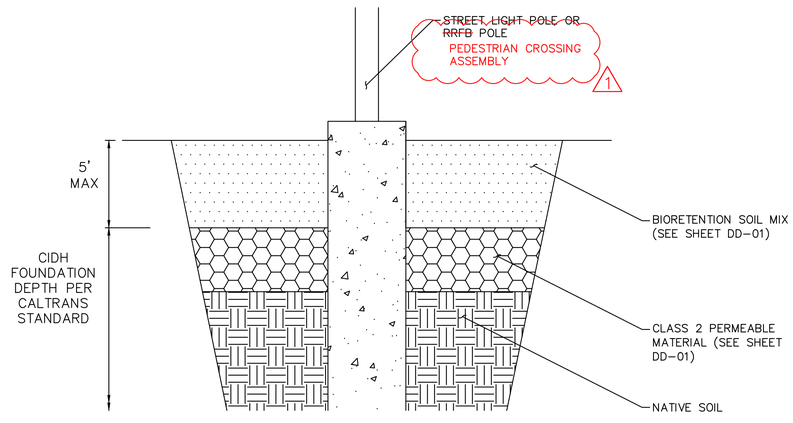
DETAIL B
LED STREET LIGHT AND PULL BOX IN BIORETENTION AREA INSTALLATION DETAIL

N.T.S.



DETAIL C
1-B POLE AND PULL BOX IN BIORETENTION AREA INSTALLATION DETAIL

N.T.S.



DETAIL D
POLE FOUNDATION IN BIORETENTION AREA

N.T.S.

CA: 1-800-227-2600 CALL BEFORE YOU DIG USA UNDERGROUND SERVICE ALERT
CA: 1-800-227-2600
CALL TWO WORKING DAYS BEFORE YOU DIG

No.	REVISIONS	DATE	BY
1	ADDENDUM No. 1	1/31/18	RJD

Kimley»Horn

4637 CHABOT DRIVE, SUITE 300, PLEASANTON, CA 94588
PHONE: 925-398-4840
WWW.KIMLEY-HORN.COM

KHA PROJECT	097515003
DATE	12/27/2017
SCALE	AS SHOWN
DESIGNED BY	RJD
DRAWN BY	BDP
CHECKED BY	KGA

CALIFORNIA DRIVE ROUNDABOUT

PREPARED FOR

CITY OF BURLINGAME

SAN MATEO COUNTY CA

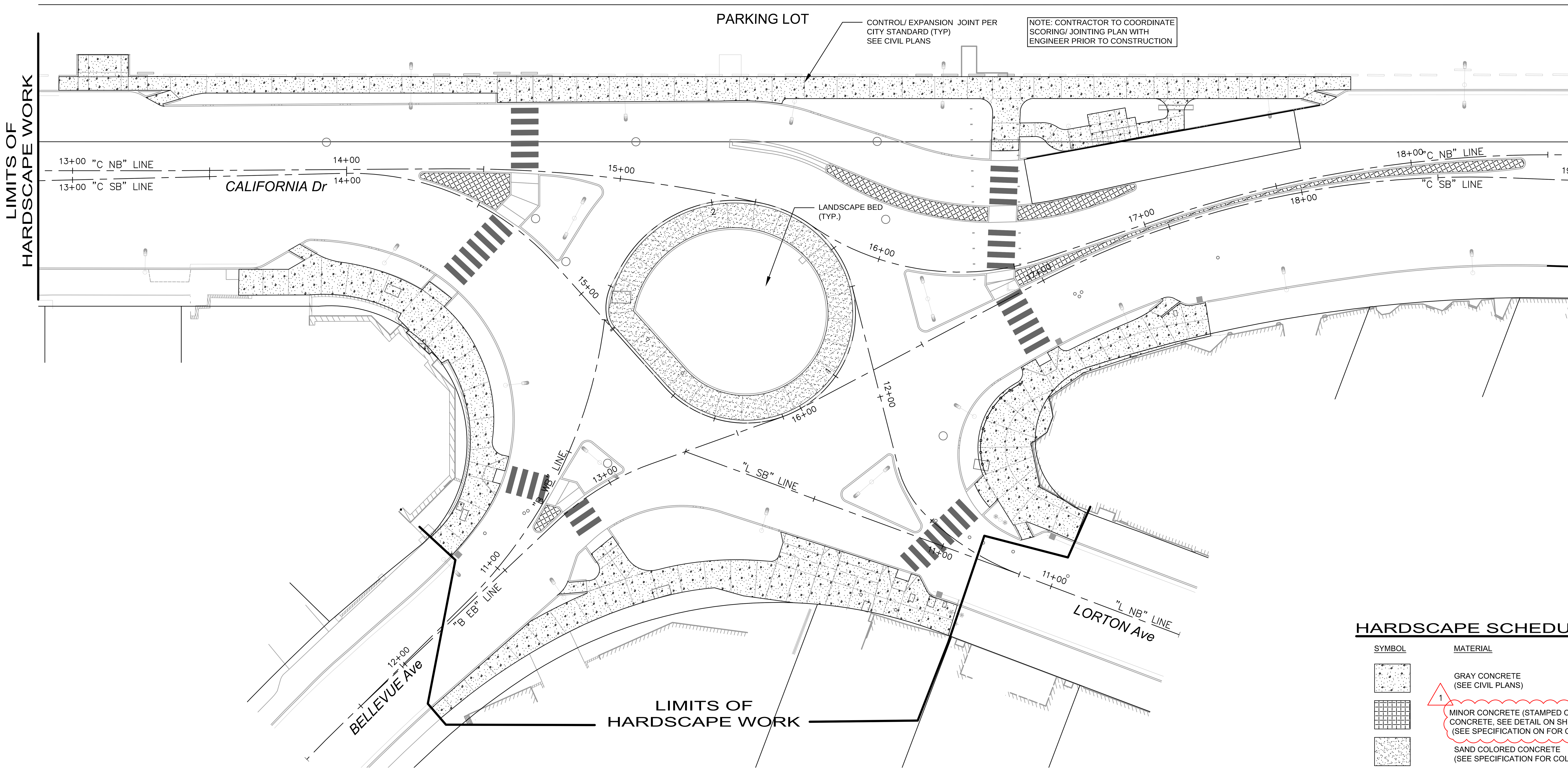
REGISTERED PROFESSIONAL ENGINEER KEVIN G. AGUILAR No. 19880 3/31/18 ELECTRICAL STATE OF CALIFORNIA

ELECTRICAL DETAILS

SHEET NO. 46 OF 61 SHEETS

EL-04

Plotted By: Pittman, Brendan Layout: 45 EL-04 February 05, 2018 11:27:36am K:\BAY_RDWY\097515003-California Dr Roundabout-JP\08 CADD\PlanSheets\45 EL-01.dwg



HARDSCAPE SCHEDULE

SYMBOL	MATERIAL
	GRAY CONCRETE (SEE CIVIL PLANS)
	MINOR CONCRETE (STAMPED CONCRETE) - SAND COLORED CONCRETE, SEE DETAIL ON SHEET HS-02 (SEE SPECIFICATION ON FOR COLOR AND FINISH)
	SAND COLORED CONCRETE (SEE SPECIFICATION FOR COLOR AND FINISH)
	PEDESTRIAN RAILING (SEE DETAIL A ON SHEET HS-02)
	LIGHT POLES (SEE ELECTRICAL PLANS)

CA: 1-800-227-2600
CALL BEFORE YOU DIG
UNDERGROUND SERVICE ALERT
CA: 1-800-227-2600
CALL TWO WORKING DAYS BEFORE YOU DIG

GRAPHIC SCALE
20 0 10 20 40
(IN FEET)
1 inch = 20 ft.

No.	REVISIONS	DATE	BY
1	ADDENDUM NO. 1 HARDSCAPE MATERIAL REVISION	1/31/2018	JGC

Kimley»Horn
© 2015 KIMLEY-HORN AND ASSOCIATES, INC.
4637 CHABOT DRIVE, SUITE 300, PLEASANTON, CA 94588
PHONE: 925-398-4840
WWW.KIMLEY-HORN.COM

KHA PROJECT 097515003
DATE 12/27/2017
SCALE AS SHOWN
DESIGNED BY DW
DRAWN BY DW
CHECKED BY DC

CALIFORNIA DRIVE ROUNDABOUT

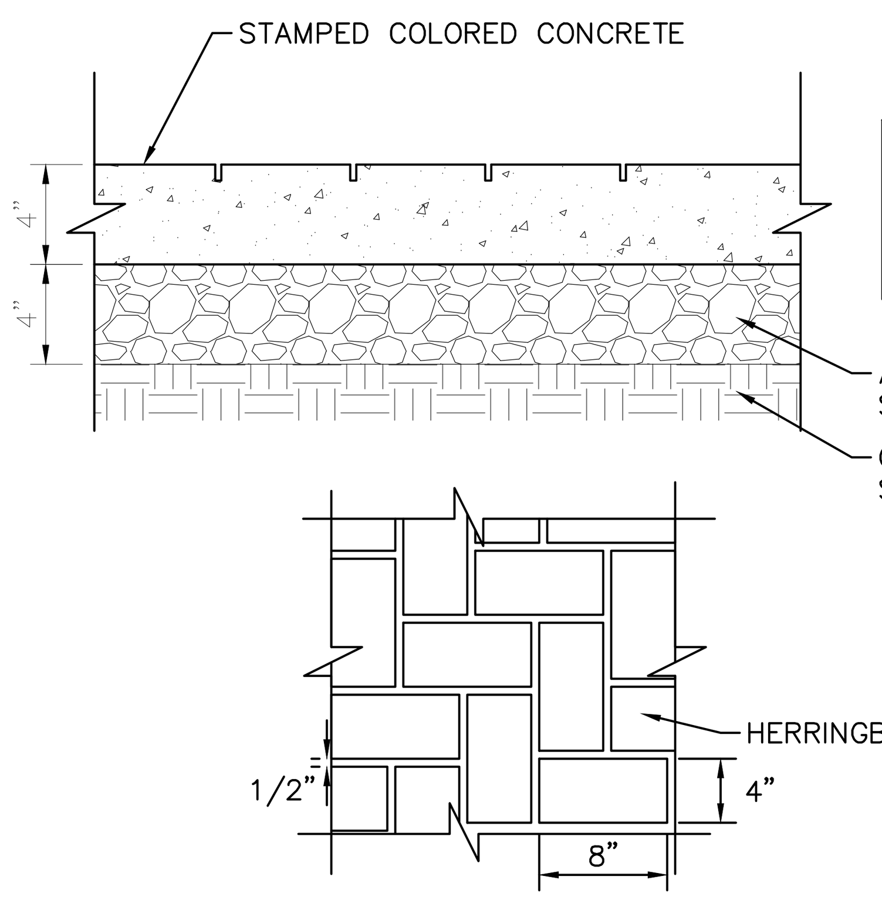
PREPARED FOR
CITY OF BURLINGAME
SAN MATEO COUNTY CA

LICENSED LANDSCAPE ARCHITECT — Michael P. Madsen — 8/31/2019 — 12/27/2017 — STATE OF CALIFORNIA

HARDSCAPE PLAN

SHEET NO. 60 OF 62 SHEETS
HS-01

Plotted By: Cogswell, Joe Layout: HS-01 January 29, 2018 02:09:58pm K:\SND_TRANS\097515003-California Dr Roundabout-JP\08 CADD\PlanSheets\HS-01 Hardscape Plan_515003.dwg



FOR INFORMATION ONLY
CONTRACTOR SHALL SUBMIT SHOP DRAWINGS FOR REVIEW AND APPROVAL BY ENGINEER PRIOR TO CONSTRUCTION.

PLAN
STAMPED CONCRETE PATTERN
(IMPRESSION DEPTH ½")

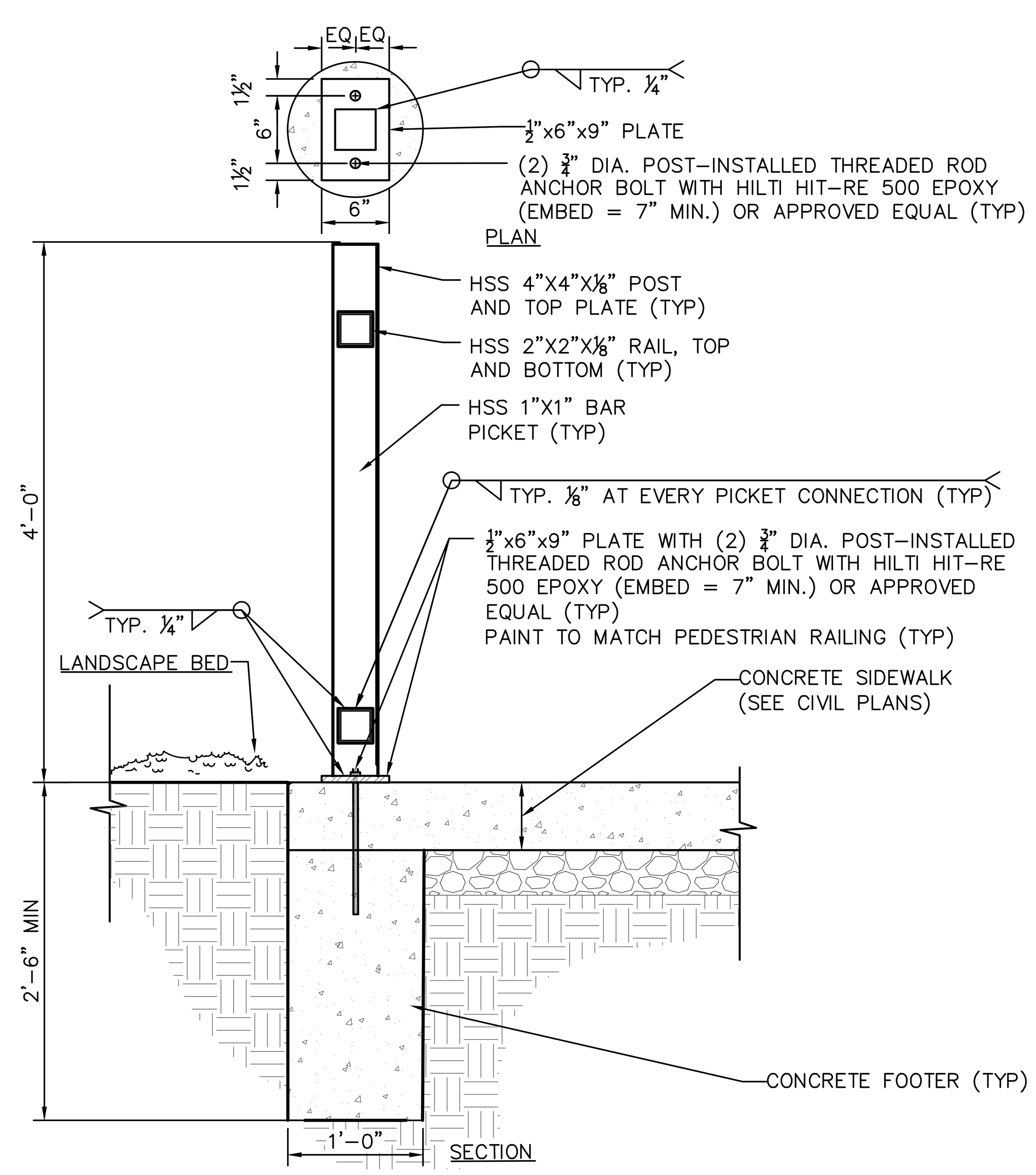
NOTE: COLORED CONC PAVING SHALL NOT EXCEED 200 SF WITHOUT EXPANSION JOINTS. PROVIDE EXPANSION JOINT AT ALL LOCATIONS WHERE COLORED CONCRETE ABUTS AN ADJACENT CONCRETE CURB.

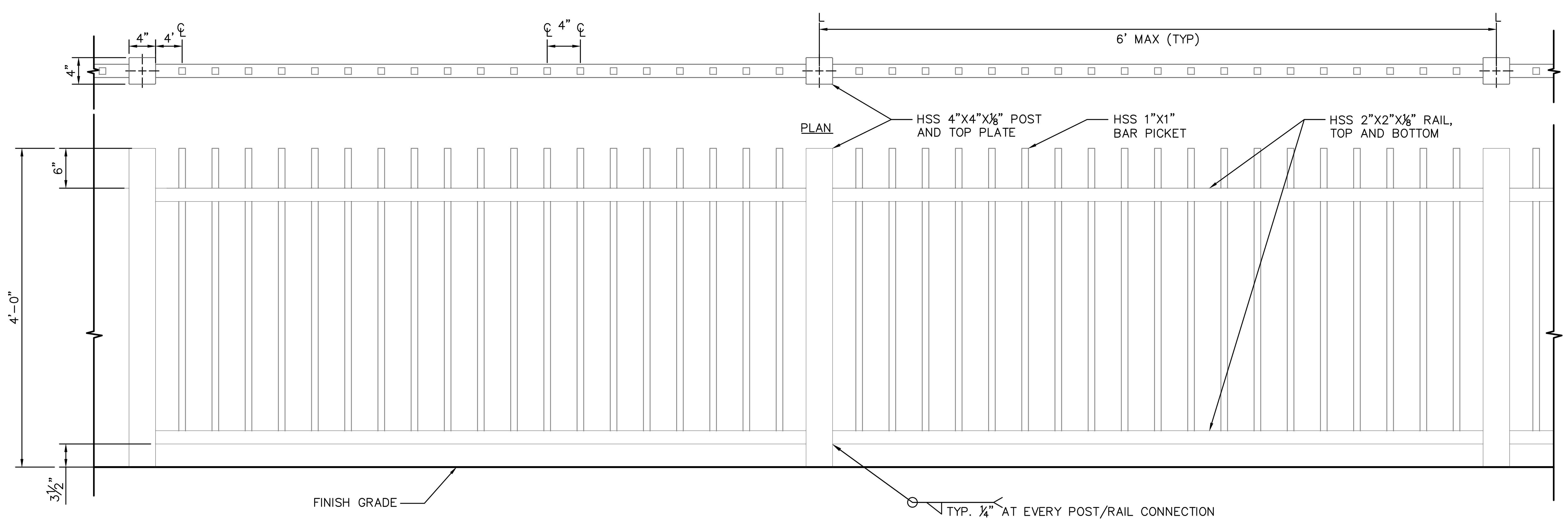
B MINOR CONCRETE (STAMPED CONCRETE)

SCALE: N.T.S.

RAILING FABRICATION NOTES:

1. ALL PEDESTRIAN RAILING AND COMPONENTS FABRICATED FROM STEEL
2. POST SPACING TO VARY WHEN TOTAL RAILING LENGTH REQUIRES (CONTRACTOR TO FIELD VERIFY POTENTIAL UTILITY CONFLICTS TO DETERMINE FENCE, POST AND FOOTING LOCATION MODIFICATIONS REQUIRED).
3. ASSEMBLY COLOR: DARK BRONZE
4. CAP ENDS OF POSTS. GRIND ALL WELDS FLUSH TO SURFACE. SEE SPECIFICATIONS FOR ADDITIONAL WELDING NOTES.
5. ALL FENCE GATE ELEMENTS TO BE HOT-DIP GALVANIZED PER ASTM A123 AT A RATE OF 2 OZ. / SQUARE FOOT.
6. ALL STEEL SHALL CONFORM TO ASTM A529, GRADE 50 OR ASTM A36 UNLESS NOTED OTHERWISE.
7. DESIGN, FABRICATION, AND ERECTION OF STEEL PEDESTRIAN RAILING SHALL CONFORM TO THE LATEST AISC CODE AND SPECIFICATIONS. INCLUDING THE AISC CODE OF STANDARD PRACTICE FOR STEEL BUILDINGS.
8. WELDING SHALL COMPLY WITH THE REQUIREMENTS OF THE SPECIAL PROVISIONS. ALL WELD SIZES NOT INDICATED ON PLANS SHALL COMPLY WITH THE LATEST AWS D1.1 UNLESS OTHERWISE NOTED. ALL WELDS SHALL BE CONTINUOUS.
9. FINISHES:
   - A. ALL RAILING COMPONENTS SHALL RECEIVE ONE COAT OF JASSCO PREP AND PRIMER AFTER GALVANIZATION AND PRIOR TO APPLICATION OF PRIMER.
   - B. PRIMER COATING FOR FENCE COMPONENTS SHALL CONSIST OF VISTA POINT METAL PRO COATING PRIMER / FINISH. SURFACES IN DIRECT CONTACT WITH CONCRETE OR MORTAR SHALL NOT RECEIVE PRIMER COATING.
   - C. ALL RAILING COMPONENTS TO BE FINISHED WITH TWO COATS OF SHERWIN-WILLIAMS CO. SEMI-GLOSS PRO-INDUSTRIAL (HIGH PERFORMANCE) PAINT OR APPROVED EQUAL. COLOR TO BE MATTE BLACK. SUBMIT METAL COLOR SAMPLES PRIOR TO FABRICATION FOR APPROVAL BY ENGINEER.
   - J. CONCRETE SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 3,600 PSI AT 28 DAYS.





FOR INFORMATION ONLY
CONTRACTOR SHALL SUBMIT SHOP DRAWINGS AND STRUCTURAL CERTIFICATION FOR REVIEW AND APPROVAL BY ENGINEER PRIOR TO FABRICATION AND INSTALLATION.

CA: 1-800-227-2600
CALL BEFORE YOU DIG
UNDERGROUND SERVICE ALERT
CA: 1-800-227-2600
CALL TWO WORKING DAYS BEFORE YOU DIG

A PEDESTRIAN RAILING

SCALE: N.T.S.

No.	REVISIONS	DATE	BY
1	ADDENDUM NO. 1 HARDSCAPE MATERIAL REVISION	1/31/2018	JGC

Kimley»Horn

4637 CHABOT DRIVE, SUITE 300, PLEASANTON, CA 94588
PHONE: 925-398-4840
WWW.KIMLEY-HORN.COM

KHA PROJECT 097515003
DATE 12/27/2017
SCALE AS SHOWN
DESIGNED BY DW
DRAWN BY DW
CHECKED BY DC

CALIFORNIA DRIVE ROUNDABOUT

PREPARED FOR
CITY OF BURLINGAME
SAN MATEO COUNTY CA

LICENSED LANDSCAPE ARCHITECT — Michael P. Madden — 8/31/2019 — 12/27/2017 — STATE OF CALIFORNIA

HARDSCAPE DETAILS

SHEET NO. 61 OF 62 SHEETS
HS-02

SECTION: HARDSCAPE ELEMENTS

PART 1 GENERAL

1.1 SUMMARY

A. THE SCOPE OF WORK INCLUDES ALL LABOR, MATERIALS, TOOLS, SUPPLIES, EQUIPMENT, FACILITIES, TRANSPORTATION AND SERVICES NECESSARY FOR, AND INCIDENTAL TO PERFORMING ALL OPERATIONS IN CONNECTION WITH FURNISHING, DELIVERY, AND CONSTRUCTING PEDESTRIAN RAILING, CONSTRUCTING COLORED CONCRETE, AND CONSTRUCTING MINOR CONCRETE (STAMPED CONCRETE), COMPLETE AS SHOWN ON THE DRAWINGS AND AS SPECIFIED HEREIN.

PART 2 48" PEDESTRIAN RAILING

A. WORK UNDER THIS SECTION INCLUDES THE INSTALLATION OF PEDESTRIAN RAILINGS, OF THE TYPE AND HEIGHT INDICATED, AT LOCATIONS AS SHOWN ON THE PLANS. FABRICATION, INSTALLATION AND PAINTING OF STEEL POST, RAILINGS AND PICKETS SHALL CONFORM TO SECTIONS 206, "MISCELLANEOUS METAL ITEMS" AND 304, "METAL FABRICATION AND CONSTRUCTION" OF THE 2015 GREEN BOOK STANDARD SPECIFICATIONS. THIS PROJECT INCLUDES THE FOLLOWING PEDESTRIAN RAILING DESIGN, AS SHOWN ON THE PLANS.

2.2 PAINTING AND COATING OF PEDESTRIAN RAILINGS

A. DESCRIPTION OF WORK
1. PAINT AND COATING WORK CONSISTS OF FURNISHING AND APPLYING HIGH PERFORMANCE COATING SYSTEMS (PAINTS) AND OTHER COATINGS WHERE SHOWN ON THE PLANS OR REQUIRED BY THE SPECIFICATIONS.
2. PAINT AND COATING WORK INCLUDING CLEANING, SURFACE PREPARATION, AND PRE-TREATMENT SHALL BE IN ACCORDANCE WITH THE PROVISIONS OF 2010 CALTRANS SECTION 59, "PAINTING," OF THE STANDARD SPECIFICATIONS AS MODIFIED BY THESE SPECIAL PROVISIONS.
3. PAINTING AND COATING PRODUCTS SHALL CONFORM ALL APPLICABLE LOCAL AND STATE REGULATIONS AND SHALL NOT CONTAIN MORE THAN 420 GRAMS PER LITER OR 3.50 POUNDS OF VOLATILE ORGANIC MATERIAL PER GALLON OF COATING PRODUCT AS APPLIED.

2.2 SUBMITTALS

A. SUBMITTALS SHALL BE MADE IN ACCORDANCE WITH SECTION 5-1.02.2, "SUBMITTALS," OF THE SPECIAL PROVISIONS.

B. SUBMIT PAINT AND COATING MANUFACTURERS' TECHNICAL AND MATERIAL SAFETY DATA SHEETS FOR THE PRODUCTS TO BE APPLIED. DATA SHEETS SHALL SHOW THE FOLLOWING INFORMATION: PERCENT SOLIDS BY VOLUME.
1. MINIMUM AND MAXIMUM RECOMMENDED DRY-FILM THICKNESS PER COAT PER PRIME, INTERMEDIATE, AND FINISH COATS.
2. RECOMMENDED SURFACE PREPARATION.
3. RECOMMENDED THINNERS.
4. STATEMENT VERIFYING THAT THE SPECIFIED PRIME COAT IS RECOMMENDED BY THE MANUFACTURER FOR USE WITH THE SPECIFIED INTERMEDIATE AND FINISH COATS.
5. APPLICATION INSTRUCTIONS INCLUDING RECOMMENDED EQUIPMENT AND TEMPERATURE LIMITATIONS.
6. CURING REQUIREMENTS AND INSTRUCTIONS.
7. SAMPLES FOR VERIFICATION: SUBMIT TWO (2) SAMPLES OF EACH COLOR INDICATED IN DRAWINGS FOR ENGINEER APPROVAL.
8. FURNISH EXTRA MATERIALS, FROM THE SAME PRODUCT RUN, THAT MATCH PRODUCTS INSTALLED AND THAT ARE PACKAGED WITH PROTECTIVE COVERING FOR STORAGE AND IDENTIFIED WITH LABELS DESCRIBING CONTENTS. FURNISH FIVE (5) PERCENT, BUT NOT LESS THAN 1 GAL. (3.8L) OF EACH MATERIAL AND COLOR APPLIED.

2.3 MOCKUPS

A. PAINTING MOCKUPS – INITIAL APPLICATIONS: AFTER ARCHITECTURALLY EXPOSED STRUCTURAL STEEL FRAMING HAS BEEN SET AND PRIOR TO STARTING PAINTING WORK AT ALL STATION SITES, APPLY MOCKUPS OF EACH COATING SYSTEM INDICATED TO VERIFY PRELIMINARY SELECTIONS MADE UNDER SAMPLE SUBMITTALS AND TO DEMONSTRATE AESTHETIC EFFECTS AND SET QUALITY STANDARDS FOR MATERIALS AND EXECUTION.
1. ENGINEER WILL SELECT ONE SURFACE TO REPRESENT SURFACES AND CONDITIONS FOR APPLICATION OF EACH COATING SYSTEM SPECIFIED IN PART 3.
2. INSTALL ONE MOCKUP AT EACH STATION SITE LOCATION; SIZE AND LOCATION OF MOCKUP AS DETERMINED BY ENGINEER.
3. FINAL REVIEW AND ACCEPTANCE OF COLOR SELECTIONS WILL BE BASED ON MOCKUPS.
4. IF PRELIMINARY COLOR SELECTIONS AND LUSTER OF FINISH ARE NOT ACCEPTED, APPLY ADDITIONAL MOCKUPS OF ADDITIONAL COLORS SELECTED BY ENGINEER AT NO ADDED COST.
5. ACCEPTANCE OF MOCKUPS DOES NOT CONSTITUTE APPROVAL OF DEVIATIONS FROM THE CONTRACT DOCUMENTS.
6. SUBJECT TO COMPLIANCE WITH REQUIREMENTS, APPROVED MOCKUPS MAY BECOME PART OF THE COMPLETED WORK IF UNDISTURBED AT TIME OF SUBSTANTIAL COMPLETION.

B. PAINTING MOCKUPS – TOUCHUP APPLICATION: AFTER ARCHITECTURALLY EXPOSED STRUCTURAL STEEL FRAMING HAS BEEN SET AND PRIOR TO STARTING PAINTING WORK AT ALL STATION SITES, DAMAGE ONE MOCKUP AT A STATION SITE DETERMINED BY ENGINEER. DEMONSTRATE AESTHETIC EFFECTS, PROCEDURES AND STANDARDS FOR MATERIALS AND EXECUTION IN TOUCH UP WORK BY REPAIRING THE DAMAGED SAMPLE
1. FINAL REVIEW AND ACCEPTANCE OF COLOR SELECTIONS WILL BE BASED ON MOCKUPS AT EACH STATION SITE.
2. SIZE OF MOCKUP FOR COLOR VERIFICATION AND LOCATION OF MOCKUP SHALL BE AS DETERMINED BY ENGINEER.
3. IF COLOR AND LUSTER OF FINISH ARE NOT ACCEPTED, APPLY ADDITIONAL MOCKUPS OF ADDITIONAL COLORS SELECTED BY ENGINEER AT NO ADDED COST.
4. ACCEPTANCE OF MOCKUPS DOES NOT CONSTITUTE APPROVAL OF DEVIATIONS FROM THE CONTRACT DOCUMENTS.
5. SUBJECT TO COMPLIANCE WITH REQUIREMENTS, APPROVED MOCKUPS MAY BECOME PART OF THE COMPLETED WORK IF UNDISTURBED AT TIME OF SUBSTANTIAL COMPLETION.

2.4 PAINTING, GENERAL

A. BASIS OF DESIGN.
1. PRODUCTS LISTED ARE BASED ON PRODUCTS AND SYSTEMS BY: TNEMEC COMPANY INC.
2. MANUFACTURERS: SUBJECT TO COMPLIANCE WITH REQUIREMENTS, PROVIDE PRODUCTS BY ONE OF THE FOLLOWING:
   a. ICI PAINTS.
   b. PPG ARCHITECTURAL FINISHES, INC.
   c. SHERWIN-WILLIAMS COMPANY (THE).
   d. TNEMEC COMPANY INC.
3. MATERIAL COMPATIBILITY:
   a. PROVIDE MATERIALS FOR USE WITHIN EACH COATING SYSTEM THAT ARE COMPATIBLE WITH ONE ANOTHER AND SUBSTRATES INDICATED, UNDER CONDITIONS OF SERVICE AND APPLICATION AS DEMONSTRATED BY MANUFACTURER, BASED ON TESTING AND FIELD EXPERIENCE.
   b. FOR EACH COAT IN A COATING SYSTEM, PROVIDE PRODUCTS RECOMMENDED IN WRITING BY
   c. MANUFACTURERS OF TOPCOAT FOR USE IN COATING SYSTEM AND ON SUBSTRATE INDICATED.
   d. PROVIDE PRODUCTS OF SAME MANUFACTURER FOR EACH COAT IN A COATING SYSTEM.
4. VOC CONTENT: PRODUCTS SHALL COMPLY WITH VOC LIMITS OF AUTHORITIES HAVING JURISDICTION.
   a. FLAT PAINTS AND COATINGS: 50 G/L.
   b. NONFLAT PAINTS AND COATINGS: 150 G/L.
   c. PRIMERS, SEALERS, AND UNDERCOATERS: 200 G/L.
   d. ANTI-CORROSIVE AND ANTI-RUST PAINTS APPLIED TO FERROUS METALS: 250 G/L.
   e. ZINC-RICH INDUSTRIAL MAINTENANCE PRIMERS: 340 G/L.
   f. PRE-TREATMENT WASH PRIMERS: 420 G/L.
   g. FLOOR COATINGS: 100 G/L.
   h. SHELLACS, CLEAR: 730 G/L.
   i. SHELLACS, PIGMENTED: 550 G/L.
5. COLORS: AS INDICATED ON DRAWINGS.

2.5 PAINTING, FERROUS METALS

1. FIRST COAT: AROMATIC URETHANE, ZINC RICH PRIMER
   a. SERIES 90-97 TNEME-ZINC
   b. DRY FILM THICKNESS: 2.5 – 3.5 MILS
   c. SHOP APPLIED. COORDINATE WITH DIVISION 05
2. SECOND COAT: POLYAMIDOAMINE EPOXY
   a. SERIES N69 EPOXOLINE
   b. DRY FILM THICKNESS: 2.0-3.0 MILS
   c. SHOP APPLIED. COORDINATE WITH DIVISION 05
3. THIRD COAT: ALIPHATIC ACRYLIC POLYURETHANE
   a. SERIES 73 ENDURA-SHIELD
   b. DRY FILM THICKNESS: 2.0-3.0 MILS
   c. APPLY BY ROLLER USING HIGH QUALITY, SHED RESISTANT, SYNTHETIC WOVEN NAP ROLLER COVERS
4. FOURTH COAT: HIGH SOLIDS FLUOROPOLYMER
   a. SERIES 1072 TNEMEC FLUORONAR
   b. DRY FILM THICKNESS: 2.0-3.0 MILS
   c. SEMI-GLOSS FINISH
   d. APPLY BY ROLLER USING HIGH QUALITY, SHED RESISTANT, SYNTHETIC WOVEN NAP COVERS
5. FINISH TOUCH-UP: HIGH SOLIDS FLUOROPOLYMER
   a. SERIES 1072 TNEMEC FLYORONAR
   b. DRY FILM THICKNESS: 2.0-3.0 MILS
   c. SEMI-GLOSS FINISH
   d. COLOR: WITHIN 0.25 DED CMC COLOR UNITS OF ORIGINAL

2.6 PAINTING, NON-FERROUS METALS (GALVANIZED STEEL, STAINLESS STEEL, EPOXY COATED BOLTS AND WASHERS)

1. FIRST COAT: MODIFIED POLYAMIDOAMINE EPOXY
   a. SERIES 135 CHEMBUILD – DRY FILM THICKNESS: 2.0-3.0 MILS
2. SECOND COAT: HIGH SOLIDS FLUOROPOLYMER
   a. SERIES 1072 TNEMEC FLUORONAR
   b. DRY FILM THICKNESS: 2.0-3.0 MILS

2.7 PAINTING, FINISH

1. SEMI-GLOSS FINISH

2.8 CLEANING

1. EXPOSED NEW METAL SURFACES SHALL BE DRY BLAST CLEANED IN ACCORDANCE WITH THE REQUIREMENTS FOR NEAR-WHITE BLAST CLEANING IN ACCORDANCE WITH SSPC SP-10, SO THAT WHEN VIEWED WITHOUT MAGNIFICATION, THE SURFACES ARE FREE OF VISIBLE OIL, GREASE, DIRT, DUST, MILL SCALE, RUST, PAINT, OXIDES, CORROSION PRODUCTS, AND OTHER FOREIGN MATTER. STAINING SHALL BE LIMITED TO NO MORE THAN 5 PERCENT OF EACH SQUARE INCH OF SURFACE AREA AND MAY CONSIST OF LIGHT SHADOWS, SLIGHT STREAKS, OR MINOR DISCOLORATIONS CAUSED BY STAINS OF RUST, MILL SCALE, OR PREVIOUSLY APPLIED PAINT. BLAST CLEANING SHALL LEAVE SURFACES WITH A DENSE, UNIFORM, ANGULAR, ANCHOR PATTERN OF NO LESS THAN 1-1/2 MILS DEEP.

2.9 MEASUREMENT AND PAYMENT

A. "FURNISH AND INSTALL 48" PEDESTRIAN RAILING PER DETAIL ON PLANS SHALL BE MEASURED FOR PAYMENT BY THE LINEAR FOOT, ACCORDING TO THE ACTUAL LINEAR FOOT LENGTH INSTALLED AS SHOWN ON THE PLANS AND AS DIRECTED BY THE ENGINEER.

B. THE CONTRACT UNIT PRICE PAID FOR "FURNISH AND INSTALL 48" PEDESTRIAN RAILING PER DETAIL ON PLANS", SHALL INCLUDE FULL COMPENSATION FOR FURNISHING ALL LABOR, MATERIALS, TOOLS, EQUIPMENT, AND INCIDENTALS AND FOR DOING ALL THE WORK INVOLVED IN FURNISHING AND INSTALLING THE RAILING COMPLETE IN PLACE, INCLUDING PAINTING, HARDWARE, CONNECTIONS, FOOTINGS, AND FOOTING EXCAVATION AS SHOWN ON THE PLANS, AS SPECIFIED IN THE STANDARD SPECIFICATIONS AND THESE SPECIAL PROVISIONS, AND AS DIRECTED BY THE ENGINEER.

PART 3 COLORED CONCRETE

3.1 GENERAL

A. THE CONTRACTOR SHALL SUBMIT TECHNICAL DATA AND MANUFACTURER'S SPECIFICATIONS FOR COLORED CONCRETE COMPONENTS AND A PROPOSED PLAN FOR MIXING, DELIVERY, PLACEMENT, FINISHING, AND CURING OF THE COLORED CONCRETE. THIS PLAN SHALL BE SUBMITTED TO THE ENGINEER FOR ACCEPTANCE AT LEAST 20 DAYS PRIOR TO CONSTRUCTING THE ARCHITECTURAL TEXTURE TEST PANEL.

B. THE CONTRACTOR SHALL MONITOR THE WATER CONTENT, WEIGHT OF CEMENTITIOUS MATERIALS, AND SIZE, WEIGHT, AND COLOR OF AGGREGATE TO MAINTAIN CONSISTENCY AND ACCURACY OF THE MIXED COLORED CONCRETE. THE CONTRACTOR SHALL SCHEDULE DELIVERY OF CONCRETE TO PROVIDE CONSISTENT MIX TIMES FROM BATCHING UNTIL DISCHARGE. NO WATER SHALL BE ADDED AFTER A PORTION OF THE BATCH HAS BEEN DISCHARGED.

C. WHEN MORE THAN ONE CONCRETE PUMP IS USED TO PLACE CONCRETE, THE CONTRACTOR SHALL DESIGNATE THE PUMPS TO RECEIVE COLORED CONCRETE. THE DESIGNATED PUMPS SHALL RECEIVE ONLY COLORED CONCRETE THROUGHOUT THE CONCRETE PLACEMENT OPERATION.

D. CONSISTENT FINISHING PRACTICES SHALL BE USED TO ENSURE UNIFORMITY OF TEXTURE AND COLOR.

E. INTEGRALLY COLORED CONCRETE SHALL BE CURED WITH AN APPROVED PRODUCT AND IN ACCORDANCE WITH MANUFACTURER'S REQUIREMENTS. IF A CURING COMPOUND IS USED THE COMPOUND'S COLOR SHALL MATCH TO THE CONCRETE. THE CONTRACTOR SHALL PROVIDE SAMPLE PANELS OF ALL COLORS TO BE USED IN THE INSTALLATION ON IDENTICAL SURFACES FOR ACCEPTANCE OF THE ENGINEER PRIOR TO CONSTRUCTION. CURING COMPOUNDS CONTAINING CALCIUM CHLORIDE SHALL NOT BE USED. THE TIME BETWEEN COMPLETING SURFACE FINISHING AND APPLYING CURING COMPOUND SHALL BE THE SAME FOR EACH COLORED CONCRETE COMPONENT.

3.2 MOCKUPS

A. A TEST PANEL AT LEAST 4' X 4', WITH A MINIMUM DEPTH OF 5 INCHES, OF EACH SPECIFIED COLORED CONCRETE FINISH SHALL BE SUCCESSFULLY COMPLETED AT A LOCATION ACCEPTED BY THE ENGINEER AT LEAST 20 DAYS BEFORE PLACING OF COLORED CONCRETE. THE TEST PANEL SHALL BE CONSTRUCTED, FINISHED, AND CURED WITH THE SAME MATERIALS, TOOLS, EQUIPMENT, AND METHODS THAT WILL BE USED IN PLACING THE COLORED CONCRETE. EACH TEST PANEL SHALL ALSO DISPLAY ALL PERTINENT TYPES OF JOINTS (AND JOINT SEALANT) APPLICABLE TO THE TYPE OF CONSTRUCTION DEMONSTRATED BY THE TEST PANEL. AT THE COMPLETION OF THE CURING PERIOD, THE TEST PANEL SHALL EXHIBIT A COLOR THAT CLOSELY MATCHES THE SPECIFIED COLOR AND FINISH. IF ORDERED BY THE ENGINEER, ADDITIONAL TEST PANELS SHALL BE CONSTRUCTED, FINISHED, AND CURED UNTIL THE SPECIFIED COLOR IS OBTAINED.

B. THE ACCEPTED TEST PANELS SHALL BE THE STANDARD OF COMPARISON IN DETERMINING THE ACCEPTABILITY OF COLORED CONCRETE. UPON SUCCESSFUL COMPLETION OF ALL COLORED CONCRETE, THE TEST PANEL MAY BE INCORPORATED INTO THE FINAL PRODUCT IF ACCEPTED BY THE ENGINEER. AT THE COMPLETION OF THE CURING PERIOD THE TEST PANEL SHALL EXHIBIT A COLOR THAT CLOSELY MATCHES THE SPECIFIED COLOR AND FINISH.

C. SURROUNDING EXPOSED SURFACES SHALL BE PROTECTED DURING PLACEMENT, FINISHING, AND CURING OPERATIONS OF COLORED CONCRETE.

3.3 CONSTRUCTION

A. CONSTRUCTION OF COLORED CONCRETE HARDSCAPE AS SHOWN ON THE PLANS SHALL INCORPORATE INTEGRALLY COLORED ADMIXTURE, COLOR AS IDENTIFIED IN THE PLANS AND SHALL BE THE FOLLOWING (OR EQUAL, AS ACCEPTED BY THE ENGINEER):
   a. MANUFACTURER: SOLOMON COLORS, INCORPORATED
   b. SERIES: COLORFLO CLASSIC INTEGRAL COLOR
   c. ADMIXTURECOLOR: COLOR(S) AS IDENTIFIED IN THE PLANS
   d. CURING: SOLOMON BRICKFORM COLOR WAX

B. INTEGRAL COLOR SHALL CONSIST OF COLORED ADMIXTURES DEVELOPED FOR USE IN READY MIXED CONCRETE.

C. INTEGRAL COLOR PIGMENTS SHALL MEET OR EXCEED ASTM-C-979. THE DOSAGE SHALL NOT EXCEED 10 PERCENT BY WEIGHT OF CEMENTITIOUS MATERIAL IN THE CONCRETE MIX DESIGN. THE COLORING METHOD SHALL BE DESIGNED FOR CONCRETE FLATWORK APPLICATIONS (BROOM FINISHED, SANDBLAST FINISHES, SMOOTH FINISHED), AS WELL AS VERTICAL SURFACES, AND OTHER TYPES OF ARCHITECTURAL CONCRETE. PIGMENT SHALL BE A PERMANENT COLORATION, UNIFORM THROUGHOUT THE CONCRETE SURFACE AND INTERIOR, AND SHALL BE UV AND FADE RESISTANT. THE APPEARANCE OF THE FINISHED COLORED SURFACE SHALL BE UNIFORM, CONSISTENT AND FREE OF COLOR VARIATIONS.

D. COLORED ADMIXTURE SHALL BE AIR-ENTRAINING AND WATER-REDUCING, MEETING THE REQUIREMENTS OF ASTM C494, AASHTO M 194, AND CRD C87.

E. INTEGRALLY COLORED CONCRETE SHALL BE CURED WITH SOLOMON BRICKFORM COLOR WAX, OR APPROVED EQUAL, COLOR SHALL MATCH TO THE CONCRETE.

3.4 MEASUREMENT AND PAYMENT

A. COLORED CONCRETE SHALL BE MEASURED THE SQUARE FOOT OF FINISHED SURFACE.

B. FULL COMPENSATION FOR CONFORMANCE WITH THE REQUIREMENTS OF THIS SECTION SHALL BE CONSIDERED INCLUDED IN THE CONTRACT UNIT PRICES PAID FOR "CONSTRUCT MINOR (STAMPED CONCRETE) COLORED CONCRETE WITH CRUSHED AGGREGATE BASE PER PLANS" SHALL INCLUDE FULL COMPENSATION FOR FURNISHING ALL LABOR, MATERIALS, TOOLS, EQUIPMENT, TRANSPORTATION, TESTING, CONCRETE, UNTREATED AGGREGATE BASE, REINFORCEMENT, JOINTS, JOINT SEALANT, EXCAVATION, BACKFILL, FORMS, SAWCUTTING, FINISHING, CURING, COLORING, TEST PANELS, AND INCIDENTALS NECESSARY FOR A COMPLETE INSTALLATION, AND NO ADDITIONAL COMPENSATION WILL BE ALLOWED THEREFOR.

PART 4 CURING COMPOUNDS

4.1 GENERAL

A. A CURING COMPOUND SHALL BE APPLIED TO ALL FRESHLY PLACED AND FINISHED CONCRETE SURFACES IN ACCORDANCE WITH THE REQUIREMENTS OF SECTION 90-1 OF THE CALTRANS 2010 STANDARD SPECIFICATIONS. CURING OF COLORED CONCRETE SHALL BE IN ACCORDANCE WITH THE SECTION 3.3 OF THESE SPECIAL PROVISIONS.

4.2 MEASUREMENT AND PAYMENT

A. NO SEPARATE MEASUREMENT SHALL BE MADE FOR COMPLYING WITH THE REQUIREMENTS OF THIS SECTION.

B. FULL COMPENSATION FOR FURNISHING AND APPLYING CURING COMPOUNDS SHALL BE CONSIDERED AS INCLUDED IN THE CONTRACT UNIT PRICE PAID FOR THE VARIOUS ITEMS OF WORK REQUIRING CURING COMPOUNDS, AND NO SEPARATE PAYMENT WILL BE MADE THEREFOR.

PART 5 EXPANSION JOINT FILLER AND JOINT SEALANT FOR SIDEWALKS

5.1 GENERAL

A. EXPANSION JOINT FILLER AND JOINT SEALANTS SHALL COMPLY WITH SECTION 73-1.02A OF THE STANDARD SPECIFICATIONS AND THESE SPECIAL PROVISIONS.

B. ALL FINISHED CONCRETE SURFACES SHALL HAVE A 1/2" CONTINUOUS EXPANSION JOINT AT LOCATIONS INDICATED ON THE PLANS OR AS SPECIFIED IN THE REGIONAL STANDARD DRAWINGS IF NOT SO-INDICATED ON THE PLANS. WHEN NOT OTHERWISE INDICATED ALL EXPANSION JOINTS LOCATED IN OR ADJACENT TO SIDEWALK CONCRETE SHALL BE SEALANT TYPE "A" PER SECTION 201-3 OF THE 2015 GREENBOOK AND COLORED TO MATCH THE COLOR OF THE CONCRETE SURFACE.

C. CONTRACTOR SHALL PROVIDE JOINT SEALANTS THAT HAVE BEEN PRODUCED AND INSTALLED TO ESTABLISH AND TO MAINTAIN WATERTIGHT AND AIRTIGHT CONTINUOUS SEALS WITHOUT CAUSING STAINING OR DETERIORATION OF JOINT SUBSTRATES.

D. CONTRACTOR SHALL SUBMIT PRODUCT DATA FROM THE MANUFACTURER OF EACH JOINT SEALANT PRODUCT REQUIRED, INCLUDING INSTRUCTIONS FOR JOINT PREPARATION AND JOINT SEALER APPLICATION. CONTRACTOR SHALL ALSO SUBMIT SAMPLES FOR INITIAL SELECTION PURPOSES IN FORM OF MANUFACTURER'S STANDARD BEAD SAMPLES, CONSISTING OF STRIPS OF ACTUAL PRODUCTS SHOWING FULL RANGE OF COLORS AVAILABLE, FOR EACH PRODUCT EXPOSED TO VIEW. SAMPLES SHALL BE SUBMITTED TO ENGINEER. SUBMIT COMPLETE SCHEDULE OF TYPE (AND LOCATION WHERE TYPE IS TO BE USED) OF EACH SEALANT.

E. PROVIDE JOINT SEALANTS, JOINT FILLERS, AND OTHER RELATED MATERIALS THAT ARE COMPATIBLE WITH ONE ANOTHER AND WITH JOINT SUBSTRATES UNDER CONDITIONS OF SERVICE AND APPLICATION, AS DEMONSTRATED BY SEALANT MANUFACTURER BASED ON TESTING AND FIELD EXPERIENCE.

5.2 MEASUREMENT AND PAYMENT

A. NO SEPARATE MEASUREMENT SHALL BE MADE FOR COMPLYING WITH THE REQUIREMENTS OF THIS SECTION.

B. FULL COMPENSATION FOR EXPANSION JOINTS, FILLER AND SEALANTS SHALL BE CONSIDERED AS INCLUDED IN THE CONTRACT UNIT PRICE PAID FOR THE VARIOUS ITEMS OF WORK REQUIRING EXPANSION JOINTS, FILLER AND SEALANTS, AND NO SEPARATE PAYMENT WILL BE MADE THEREFOR

CA: 1-800-227-2600
CALL BEFORE YOU DIG
UNDERGROUND SERVICE ALERT
CA: 1-800-227-2600
CALL TWO WORKING DAYS BEFORE YOU DIG

No.	REVISIONS	DATE	BY
1	NEW SHEET ISSUED	1/31/2018	JGC

Kimley»Horn

4637 CHABOT DRIVE, SUITE 300, PLEASANTON, CA 94588
PHONE: 925-398-4840
WWW.KIMLEY-HORN.COM

KHA PROJECT 097515003
DATE 12/27/2017
SCALE AS SHOWN
DESIGNED BY DW
DRAWN BY DW
CHECKED BY DC

CALIFORNIA DRIVE ROUNDABOUT
PREPARED FOR
CITY OF BURLINGAME
SAN MATEO COUNTY CA

LICENSED LANDSCAPE ARCHITECT — Michael Madden — 8/31/2019 — 12/27/2017 — STATE OF CALIFORNIA

HARDSCAPE SPECIFICATIONS

SHEET NO. 62 OF 62 SHEETS

HS-03

Plotted By: Cogswell, Joe Layout: HS-03 January 29, 2018 02:10:00pm K:\SND_TRANS\097515003-California Dr Roundabout-JP\08 CADD\PlanSheets\HS-01 Hardscape Plan_515003.dwg