

P0728-C700-14-2110

September 12, 2014

Via Electronic and Next-Day Delivery

Stephen Artus  
Rail Transit Safety Section Program & Project Supervisor  
California Public Utilities Commission  
505 Van Ness Avenue, Second Floor  
San Francisco, CA 94102

**Subject: SVBX Design Build Contract DB11002F  
Silicon Valley Berryessa Extension Project C700  
General Order 95 Fencing Variance Request**

Dear Mr. Artus,

The Santa Clara Valley Transportation Authority (VTA) hereby requests a variance to CPUC General Order (GO) 95, Section No. 79.4 B, fencing requirements for the BART Silicon Valley Berryessa Extension SVBX Project to accommodate a City of Milpitas request to provide fencing that better matches the aesthetics of the planned surrounding environment. Specifically, VTA requests approval for the option to install alternative ornamental fencing adjacent to the BART guideway in the Piper Drive area as an "equal" protection to that specified in GO-95.

GO-95, Overhead Electric Line Construction, Section 79.4 Fencing states:

***A. At Ground Level***

*Third rail construction or reconstruction shall not be permitted at ground level unless the rights-of-way, easement or other property upon which the same is located is entirely fenced. Fence construction shall be designed, installed and maintained in such manner as to deny access over, under or through the fencing to all but authorized persons.*

***B. Material and Height***

*Fencing material shall be of galvanized steel, woven mesh or links (commonly known as chain-link or cyclone fencing), extending from ground level to a minimum height of seven feet. Above said 7 foot height, there shall be installed an inclined extension of not less than 12 inches, to which shall be attached no fewer than three strands of barbed wire, with said extension being inclined 45° away from the fenced facilities wherever possible.*

BART operates within a dedicated right-of-way and does not share street crossings with automobiles or other transit systems. Therefore, the BART system is grade separated with BART operating in an underpass or overpass configuration to city streets. At these grade separated street crossings, VTA intends to install a 9 foot high fence from walking surface made up of painted or galvanized woven mesh (see sheet S-273). Please note this fence configuration will not have "three strands of barbed wire, with said extension being inclined 45° away from the fenced facilities...".

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On the east side of the BART corridor along Piper Dr., VTA intends to install an alternative ornamental picket fence (see attached FSK02) with the features listed below. The limits of the ornamental picket fence are shown on attached sheets C107, C108 and C101.

Ornamental Picket Fence Features:

- Painted steel square post with pointed top spaced at approximately eight feet.
- Painted steel pickets that will extend from walking surface to achieve a total fence height (with or without concrete barrier) of nine feet above walking surface.
- The top 19 inches of the pickets will be inclined away from BART corridor projecting 10 inches horizontally at approximately 27 degrees from vertical. Top end of the pickets will be pointed as shown on FSK-02.
- A coated steel wire fabric with openings approximately one inch by one inch will be fastened to the fence.

I have enclosed for your review the VTA's SVBX Contract C700 Line, Track, Stations, and Systems (LTSS) Location Map and Drawings showing the details and locations where these types of fences will be installed.

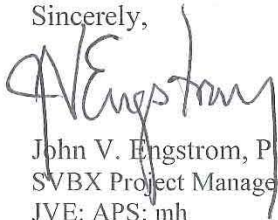
These fence configurations were reviewed with CPUC, BART System Safety, and BART Police representatives at the Project Fire/Life/Safety & Security Committee (FLSSC) meeting held on September 12, 2013 at the project office in Milpitas, CA. The fence configurations shown in the attachments incorporate all comments voiced at the FLSSC meeting and it was determined that these configurations will achieve the following:

- Provide an "or equal" security for the BART guideway as required by GO-95, Section 79.4B.
- Aesthetic treatments requested by the cities.

The CPUC requested at the same FLSSC meeting for the VTA to submit a variance to the General Order GO-95, Overhead Electric Line Construction, Section 79.4.B, which describes the minimum security for guideway using third rail electric power. We believe the proposed fence configurations achieve the CPUC goal "to deny access over, under or through the fencing to unauthorized persons." VTA hereby requests a variance from Section 79.4.B, allowing VTA to use an "or equal" fence configurations as described above.

If you have any questions regarding this matter, please contact me at (408) 942-6198.

Sincerely,



John V. Engstrom, P.E.  
SVBX Project Manager  
JVE: APS: mh

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Attachments:

- SVBX LTSS Location Map, Dwg LS FSK01
- SVBX LTSS Design Unit 012 Piper Drive Layout Plan Dwg LM C107
- SVBX LTSS Design Unit 012 Piper Drive Layout Plan Dwg LM C108
- SVBX LTSS Design Unit 012 Montague Expressway Layout Plan Dwg LM C101
- SVBX Panel Fence Details Dwg L3 S273
- SVBX LTSS Industrial Strength Steel AEGIS II Invincible 2-Rail Dwg EXH FSK02

**Electronic Distribution:**

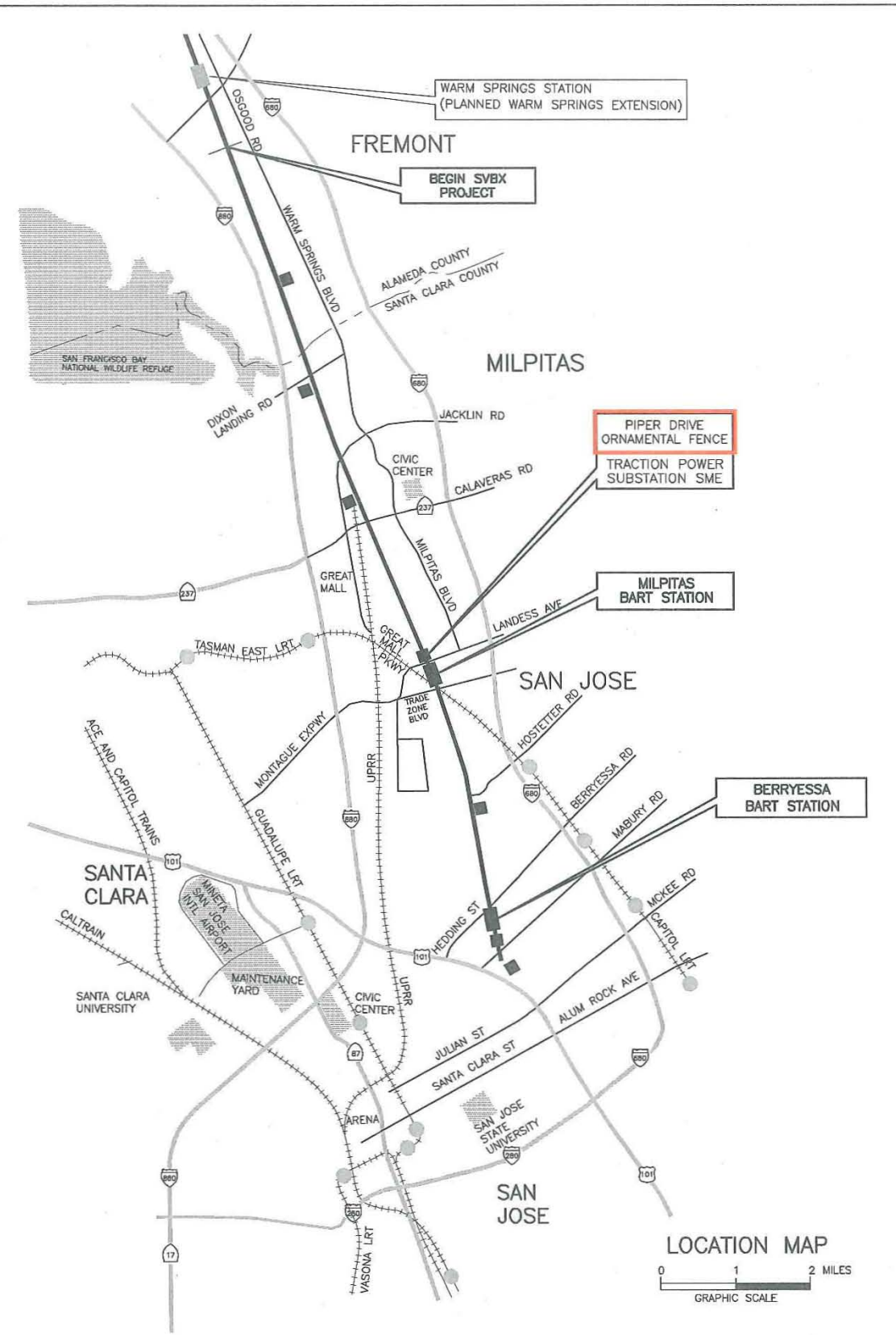
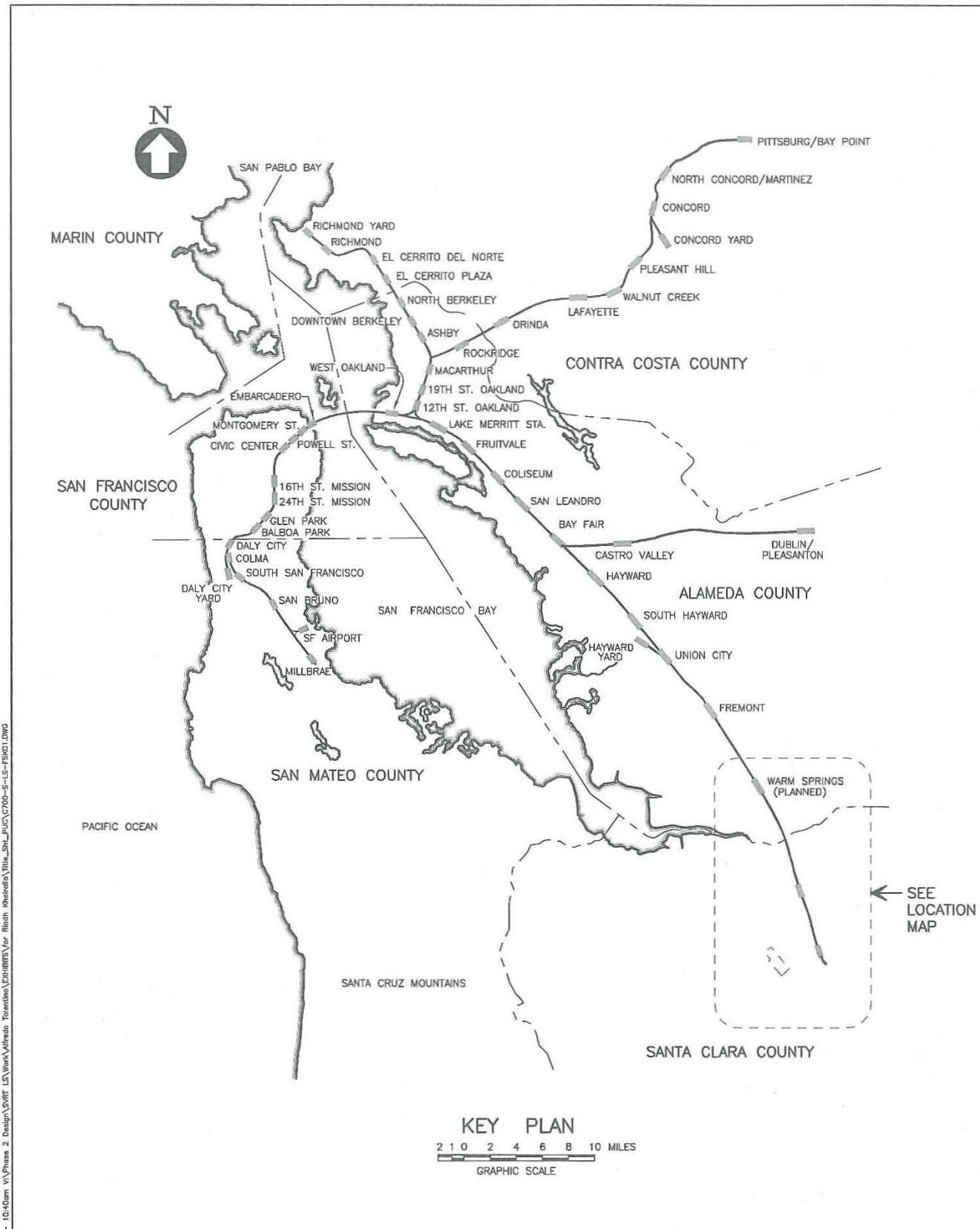
Paul King (via email only)                      Steven Espinal (via email only)

Daren Gilbert (via email only)                Rupa Shitole (via email only)

Steven Keller (via email only)                Garry Stanislaw (via email only)

SVBX Project Document Control Center (PDCC)





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REV	DATE	BY	SUB	APP	DESCRIPTION

DESIGNED BY	
DRAWN BY	
CHECKED BY	
IN CHARGE	
DATE	

SUBMITTED	
APPROVED	

**NOT FOR CONSTRUCTION**



LINE, TRACK, STATIONS, AND SYSTEMS  
**LOCATION MAP**

CADD FILENAME C700-S-LS-FSK01.DWG	
SIZE	SCALE AS SHOWN
CONTRACT NO.	REV.
C700	
AREA CODE	SHEET NO.
LS	FSK01
	PAGE NO.



P0728-C700-DU-012.FD.R3

CURVE DATA						
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1	300.00	30.01	15.02	05°43'55"	1976194.042	6156845.862
2	300.00	30.01	15.02	05°43'55"	1976372.283	6157418.776
3	300.00	30.01	15.02	05°43'55"	1976224.565	6157481.520
4	300.00	30.01	15.02	05°43'55"	1975936.012	6156955.462
5	24.00	32.62	19.39	77°52'39"	1976301.229	6157166.474
6	30.00	42.53	25.72	81°12'19"	1976230.069	6157198.873
7	5.00	5.75	3.24	65°55'01"	1976229.154	6157173.889
8	5.00	4.70	2.54	53°50'41"	1976148.275	6157206.699
9	24.00	28.92	16.51	69°01'58"	1976158.304	6157222.836
10	28.00	40.76	24.95	83°24'24"	1976090.186	6157260.462
11	30.00	40.78	24.24	77°52'41"	1976074.569	6157269.268
12	30.00	53.48	37.14	102°08'04"	1975998.196	6157316.918

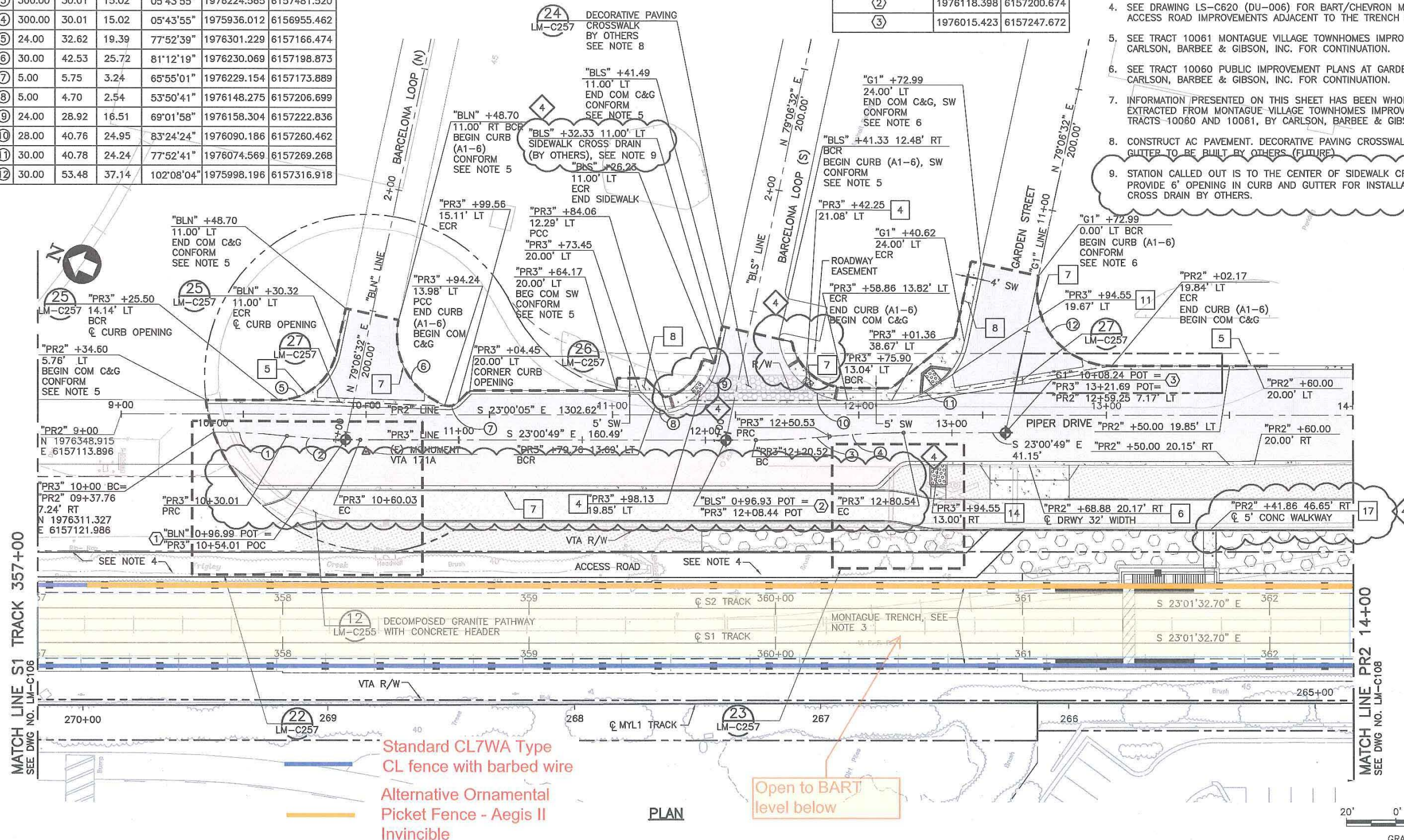
COORDINATES

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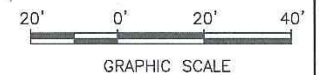
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	NORTHING	EASTING
1	1976260.561	6157140.355
2	1976118.398	6157200.674
3	1976015.423	6157247.672

NOTES:

- FOR CONSTRUCTION NOTES AND LEGEND, SEE DWG NO. LM-C100.
- STATION/OFFSET REFERS TO THE "PR2", "PR3", "BLN", "BLS" AND "G1" LINES AS NOTED.
- SEE MONTAGUE TRENCH PLANS FOR TRENCH DETAILS NOT SHOWN.
- SEE DRAWING LS-C620 (DU-006) FOR BART/CHEVRON MAINTENANCE ACCESS ROAD IMPROVEMENTS ADJACENT TO THE TRENCH STRUCTURE.
- SEE TRACT 10061 MONTAGUE VILLAGE TOWNHOMES IMPROVEMENT PLANS BY CARLSON, BARBEE & GIBSON, INC. FOR CONTINUATION.
- SEE TRACT 10060 PUBLIC IMPROVEMENT PLANS AT GARDEN STREET BY CARLSON, BARBEE & GIBSON, INC. FOR CONTINUATION.
- INFORMATION PRESENTED ON THIS SHEET HAS BEEN WHOLLY OR IN PART EXTRACTED FROM MONTAGUE VILLAGE TOWNHOMES IMPROVEMENT PLANS, TRACTS 10060 AND 10061, BY CARLSON, BARBEE & GIBSON, INC.
- CONSTRUCT AC PAVEMENT. DECORATIVE PAVING CROSSWALK & CONCRETE GUTTER TO BE BUILT BY OTHERS (FUTURE).
- STATION CALLED OUT IS TO THE CENTER OF SIDEWALK CROSS DRAIN. PROVIDE 6" OPENING IN CURB AND GUTTER FOR INSTALLATION OF SIDEWALK CROSS DRAIN BY OTHERS.



PLAN



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REV	DATE	BY	SUB	APP	DESCRIPTION	DATE
						20140224



LINE, TRACK, STATIONS AND SYSTEMS  
 DESIGN UNIT 012  
 PIPER DRIVE  
 LAYOUT PLAN  
 PR2 9+00 TO PR2 14+00

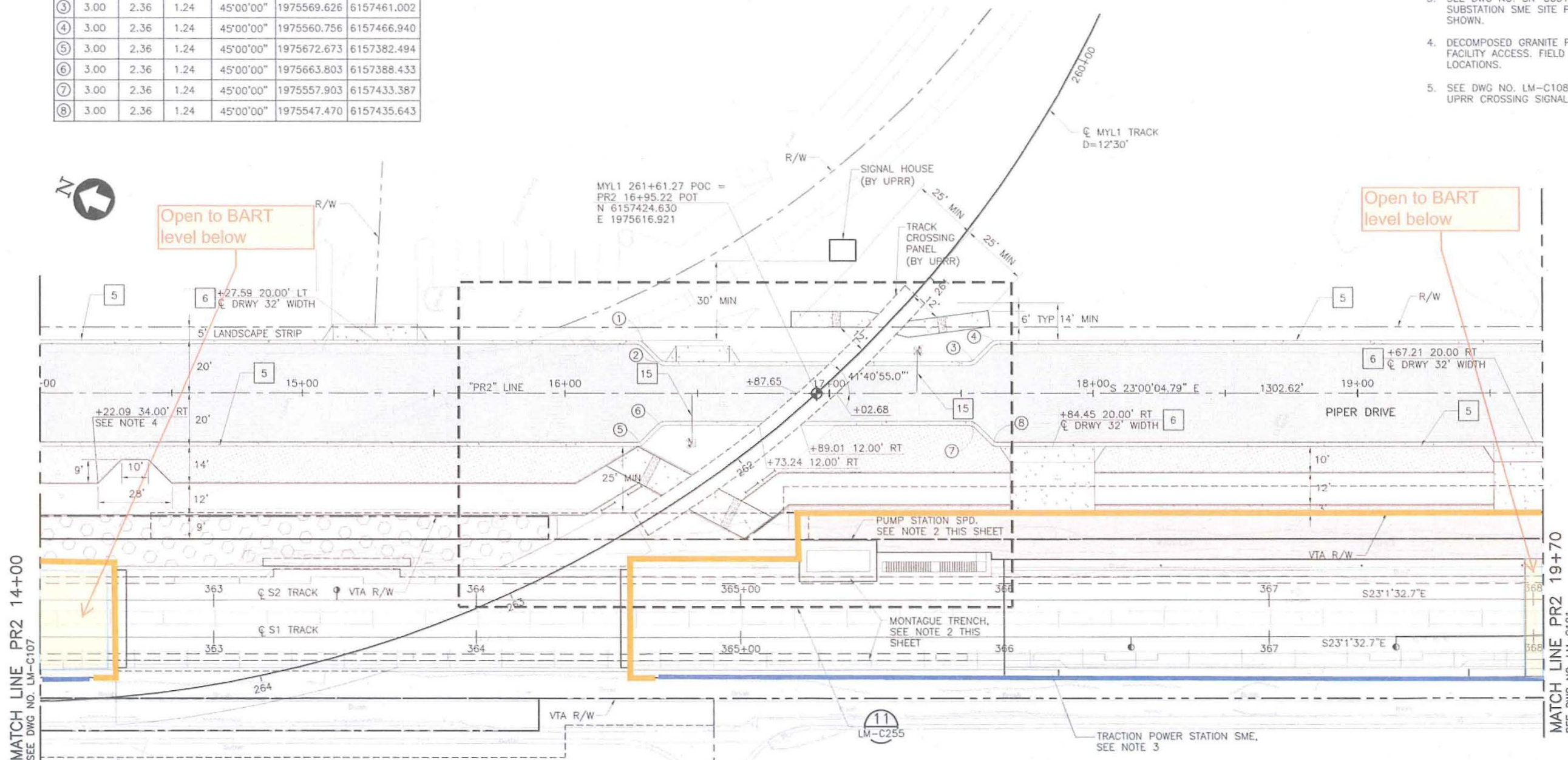
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AREA CODE LM	SHEET NO. C107
PAGE NO. 0016	



CURVE DATA						
No	RADIUS	LENGTH	TANGENT	DELTA	NORTHING	EASTING
①	3.00	2.36	1.24	45°00'00"	1975685.959	6157413.791
②	3.00	2.36	1.24	45°00'00"	1975675.525	6157416.047
③	3.00	2.36	1.24	45°00'00"	1975569.626	6157461.002
④	3.00	2.36	1.24	45°00'00"	1975560.756	6157466.940
⑤	3.00	2.36	1.24	45°00'00"	1975672.673	6157382.494
⑥	3.00	2.36	1.24	45°00'00"	1975663.803	6157388.433
⑦	3.00	2.36	1.24	45°00'00"	1975557.903	6157433.387
⑧	3.00	2.36	1.24	45°00'00"	1975547.470	6157435.643

NOTES:

1. STATION/OFFSET REFERS TO THE "PR2" LINE UNLESS NOTED OTHERWISE.
2. SEE MONTAGUE TRENCH PLANS (DU-021) FOR TRENCH LAYOUT AND DETAILS NOT SHOWN.
3. SEE DWG NO. SN-C051 FOR TRACTION POWER SUBSTATION SME SITE PLAN DETAILS NOT SHOWN.
4. DECOMPOSED GRANITE PAD FOR SCVWD FACILITY ACCESS. FIELD VERIFY FOR ACTUAL LOCATIONS.
5. SEE DWG NO. LM-C108A (DU-018) FOR UPRR CROSSING SIGNAL CONDUIT LOCATIONS.



Open to BART level below

Open to BART level below

— Standard CL7WA Type CL fence with barbed wire  
— Alternative Ornamental Picket Fence - Aegis II Invincible

PLAN



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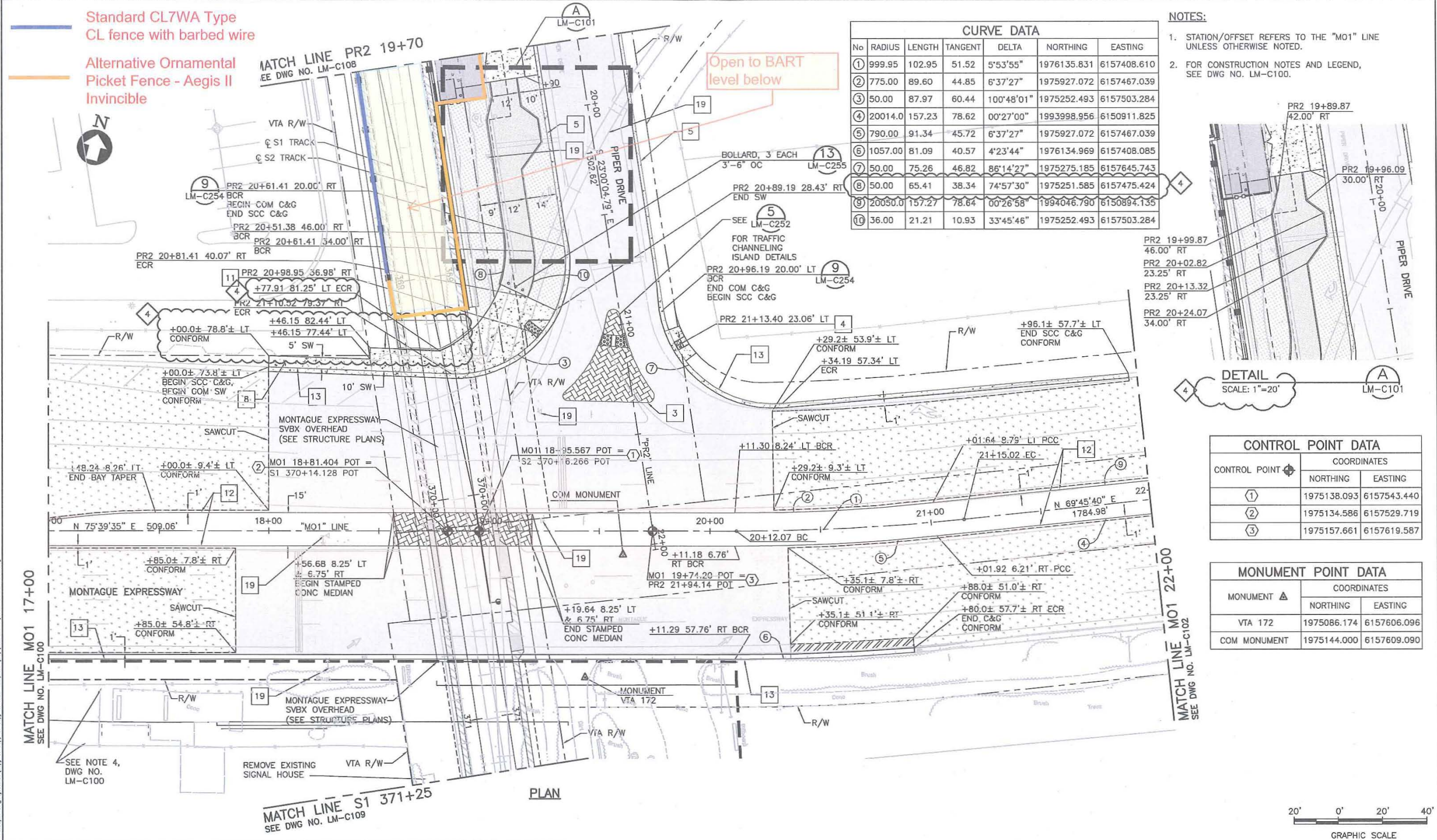


LINE, TRACK, STATIONS AND SYSTEMS  
 DESIGN UNIT 012  
 PIPER DRIVE  
 LAYOUT PLAN  
 PR2 14+00 TO PR2 19+70

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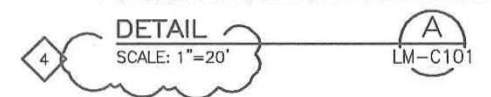


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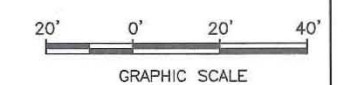
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②	775.00	89.60	44.85	6°37'27"	1975927.072	6157467.039
③	50.00	87.97	60.44	100°48'01"	1975252.493	6157503.284
④	20014.0	157.23	78.62	00°27'00"	1993998.956	6150911.825
⑤	790.00	91.34	45.72	6°37'27"	1975927.072	6157467.039
⑥	1057.00	81.09	40.57	4°23'44"	1976134.969	6157408.085
⑦	50.00	75.26	46.82	86°14'27"	1975275.185	6157645.743
⑧	50.00	65.41	38.34	74°57'30"	1975251.585	6157475.424
⑨	20050.0	157.27	78.64	00°26'58"	1994046.790	6150894.135
⑩	36.00	21.21	10.93	33°45'46"	1975252.493	6157503.284

- NOTES:
1. STATION/OFFSET REFERS TO THE "MO1" LINE UNLESS OTHERWISE NOTED.
  2. FOR CONSTRUCTION NOTES AND LEGEND, SEE DWG NO. LM-C100.



CONTROL POINT DATA		
CONTROL POINT	COORDINATES	
	NORTHING	EASTING
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②	1975134.586	6157529.719
③	1975157.661	6157619.587

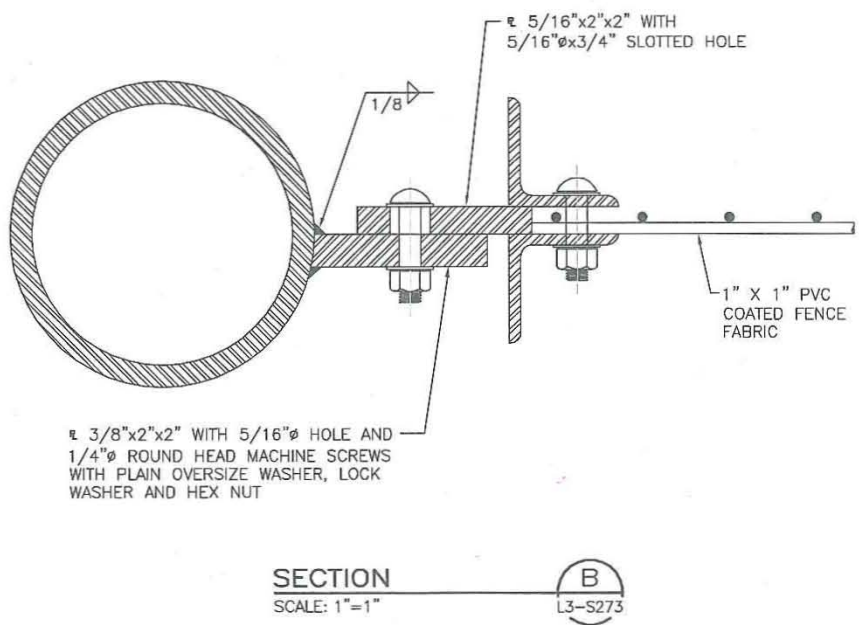
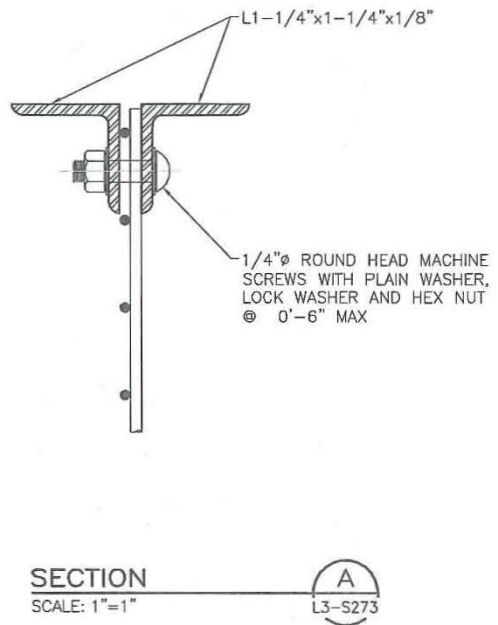
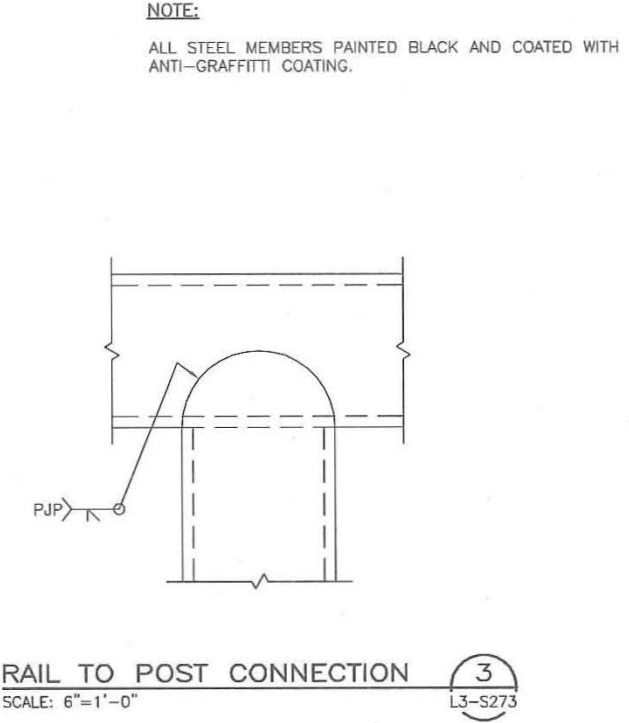
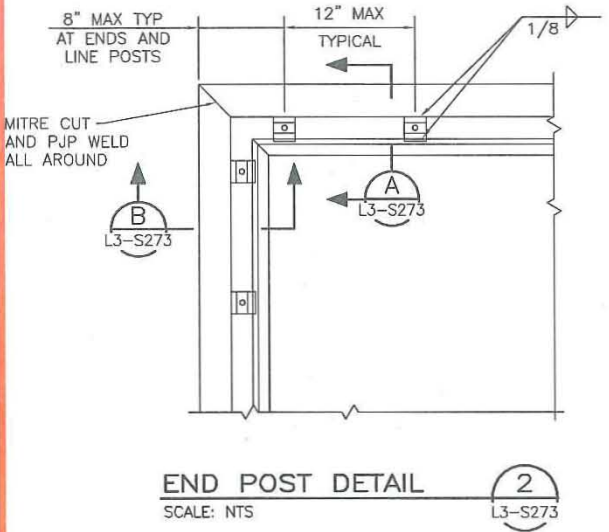
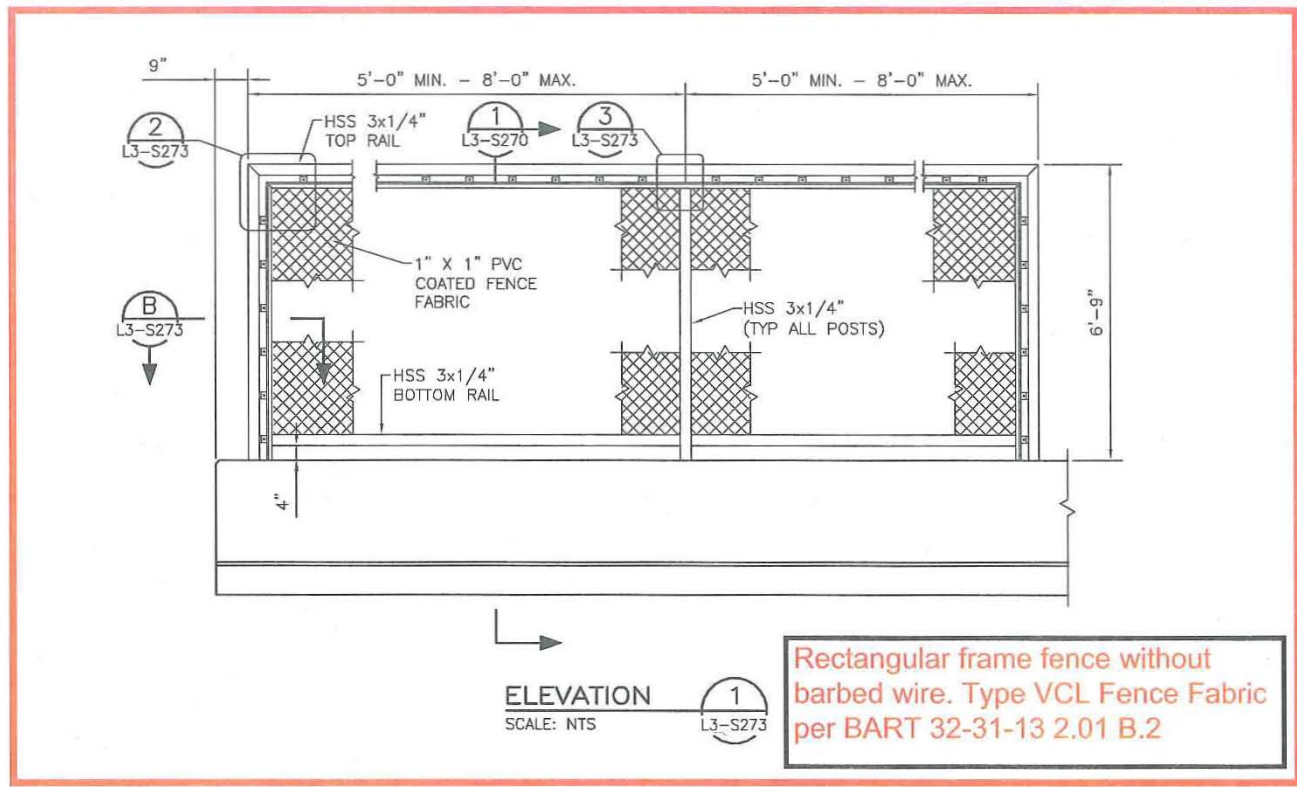
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	NORTHING	EASTING
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COM MONUMENT	1975144.000	6157609.090



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NOT FOR CONSTRUCTION**

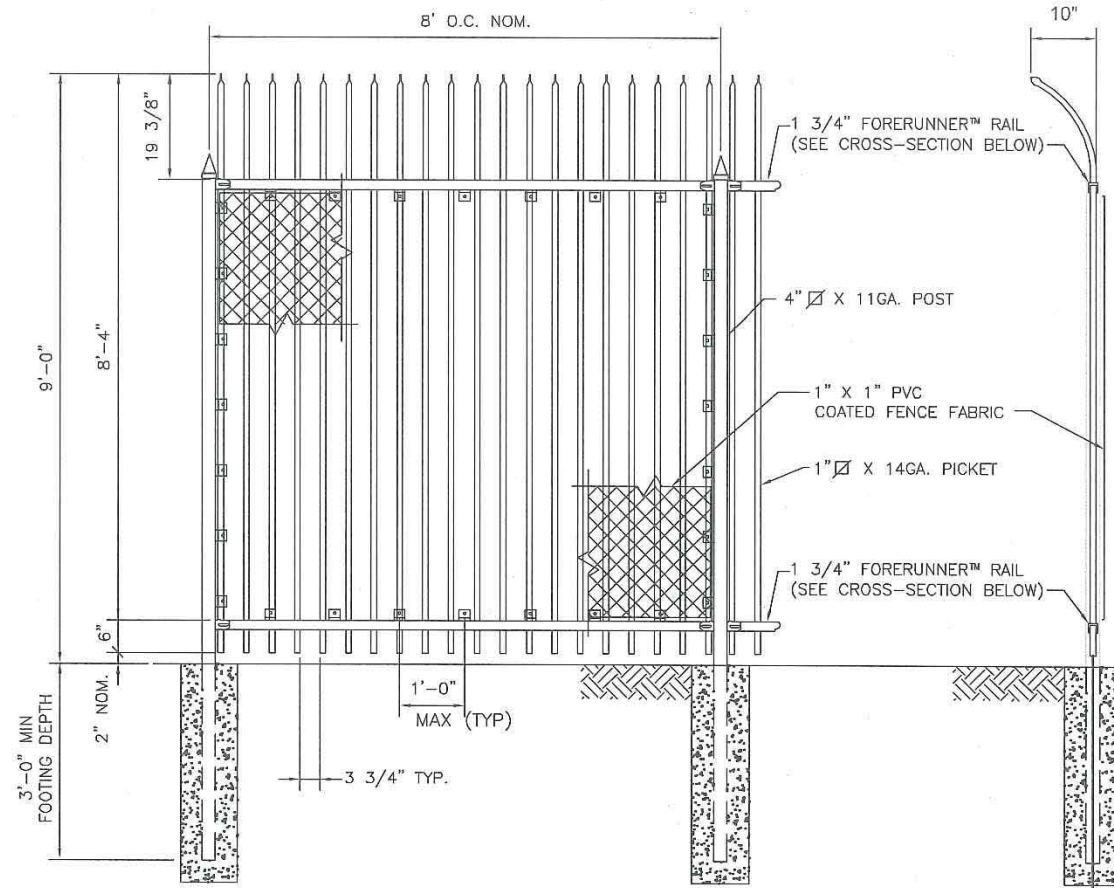


Panel Fence  
Details

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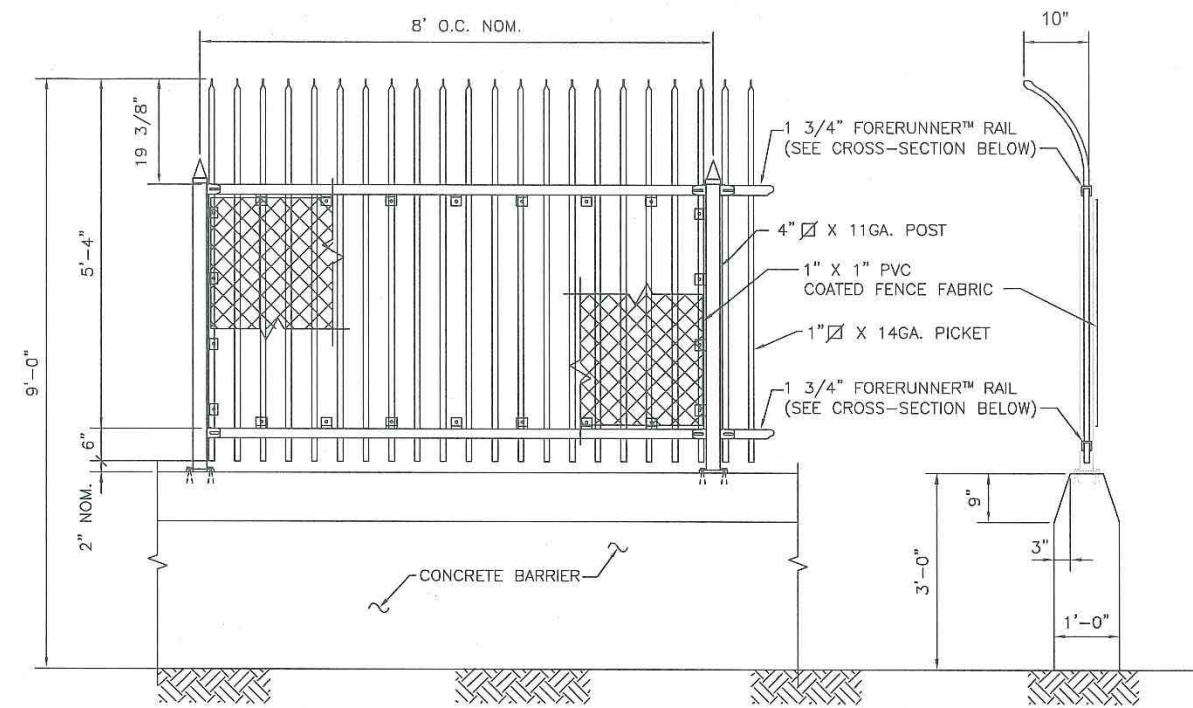
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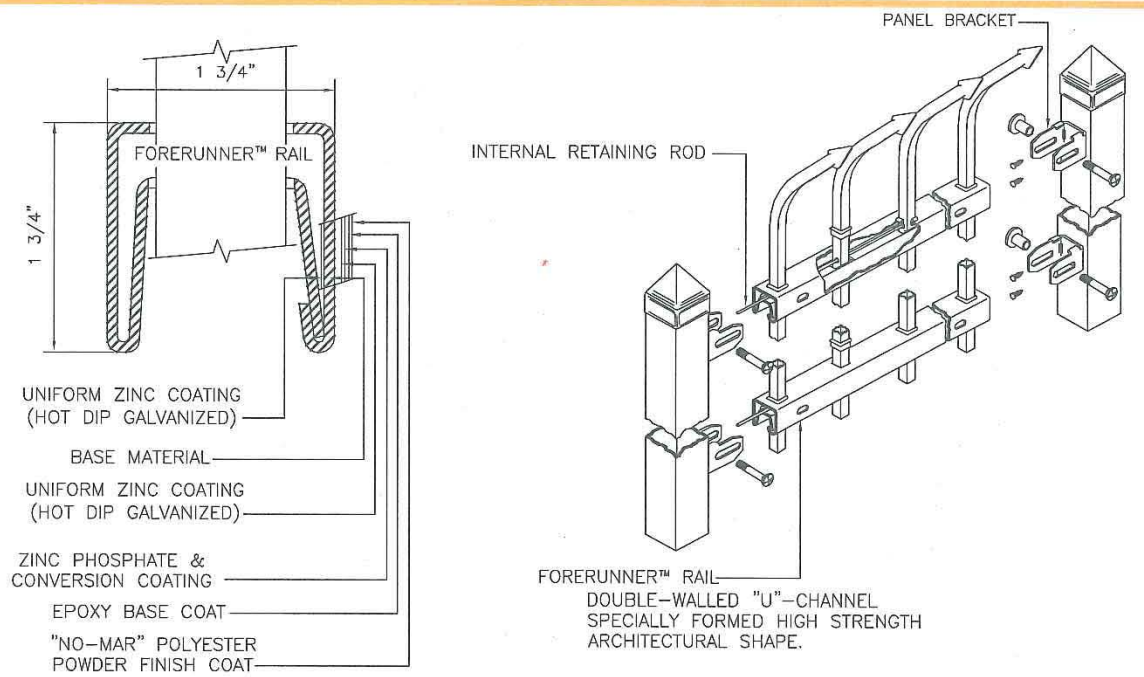


**FENCE ON GROUND**  
SCALE: NTS

Alternative Ornamental Picket Fence - Aegis II Invincible ~ 1,200 LF Total



**FENCE ON CONCRETE BARRIER**  
SCALE: NTS



VALUES SHOWN ARE NOMINAL AND NOT TO BE USED FOR INSTALLATION PURPOSES. SEE PRODUCT SPECIFICATION FOR INSTALLATION REQUIREMENTS.

**FOR EXHIBIT ONLY  
NOT FOR CONSTRUCTION**

<p>HNTB Corporation Engineers Architects Planners 1725 Technology Drive, Suite 650 San Jose, CA 95110-1005 Tel (408) 451-7500 Fax (408) 451-0942</p>	<p>BART SILICON VALLEY BERRYESSA EXTENSION</p>	<p>SILICON VALLEY RAPID TRANSIT PROJECT LINE, TRACK, STATIONS AND SYSTEMS INDUSTRIAL STRENGTH STEEL AEGIS II INVINCIBLE 2-RAIL</p>		<p>CADD FILENAME C700-EXHB-2II-FSK-02</p>	
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		<p>AREA CODE EXH</p>	<p>SHEET NO. FSK02</p>	<p>PAGE NO.</p>	

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