

**BEFORE THE
SURFACE TRANSPORTATION BOARD**

ENTERED
Office of Proceedings
August 21, 2018
Part of
Public Record

Finance Docket No. 36168

**OAKLAND GLOBAL RAIL ENTERPRISE
-PETITION FOR DECLARATORY ORDER**

**PETITIONER'S RESPONSE TO THE
SURFACE TRANSPORTATION BOARD'S REQUEST
FOR ADDITIONAL INFORMATION**

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Dated: August 21, 2018

Filing Contains Color Images

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Oakland Global Rail Enterprise (“OGRE”) respectfully submits this Response to the Board’s request for additional information contained in its August 1, 2018 Decision.¹

BACKGROUND

Before addressing the specific questions raised by the Board, OGRE would like to provide the Board with additional context. The redevelopment of the former Oakland Army Base (“OAB”), which was the subject of environmental review by the City of Oakland (the “City”) under the California Environmental Quality Act, envisioned from its inception service by rail of shippers and facilities that would locate at OAB. Even as recently as 2012, the Oakland Army Base Project EIR Addendum described the redevelopment project as including an “infrastructure program to support the seaport and the Trade and Logistics Center cargo distribution

¹ *Oakland Global Rail Enterprise—Petition for Declaratory Order*, STB Finance Docket No. 36168 (served August 1, 2018).

facilities, including rail lines, rail yards, roadways, and utilities.”² Indeed, the EIR studied the addition of approximately 133,000 linear feet of rail at the OAB.³ And public monies were used to support the OAB redevelopment for the express purpose of development of rail: the project received a \$250 Million Trade Corridor Infrastructure Fund (TCIF) grant from the State of California Department of Transportation, Division of Rail based on the proposed rail service to the project, and the Port of Oakland (the “Port”) received a \$15 Million Transportation Investment Generating Economic Recovery (TIGER) grant to supplement the Port’s construction of its rail yard at the OAB.⁴

While plans for the OAB redevelopment have been progressing, the City and Oakland Bulk & Oversized Terminal (“OBOT”)⁵ have been at odds concerning

² LSA Associates, Inc., 2012 Oakland Army Base Project Initial Study / Addendum at 46 (May 2012) (available at <http://www2.oaklandnet.com/oakcal/groups/ceda/documents/report/oak035061.pdf>); *see also id.* at 46-47 (“An estimated 23,610 linear feet of track would be dedicated to a near-dock intermodal yard, and approximately 30,770 linear feet of track would be designated a support yard for transloading, manifest, or switching activities to support the intermodal facility, the logistics facility, and the West Gateway marine terminal. . . . [A]dditional rail spurs would be constructed on the site to provide access to the proposed logistics uses, such as storage warehouses and distribution centers.”).

³ *Id.* at 46.

⁴ *See* <https://www.portofoakland.com/press-releases/press-release-273/> (last visited August 20, 2018) (stating that the Port’s Outer Harbor Intermodal Terminal was constructed, in part, to provide “vital rail access for the proposed Oakland Army Base redevelopment. These federal funds, along with additional local and state funding, will support this critical transportation project.”)

⁵ OBOT is an affiliate of California Capital & Investment Group, Inc. (“CCIG”), which is also the majority owner of OGRE. OBOT has a vested right to develop, use, and operate a rail-to-ship bulk commodity terminal at that portion of the OAB commonly known as the West Gateway, consistent with its ground lease. *See* Army Base Gateway Redevelopment Project, Ground Lease for West Gateway, between the City

OBOT's proposed tenant's plans to transport coal through a rail-to-ship bulk commodity terminal facility located on land leased by OBOT from the City at the OAB. Indeed, since June 2016, OBOT and the City have been engaged in a legal dispute involving the City's adoption of an ordinance prohibiting the transportation, storage and handling of coal at bulk good facilities in the City of Oakland.⁶ Because of this dispute, OBOT's efforts to develop the bulk commodity terminal in the West Gateway area have been significantly delayed.⁷

Moreover, other areas of the OAB that were originally intended to be rail-served have been leased to tenants not requiring rail service, and the City and Port have not yet executed the planned rail access agreement⁸ allowing additional Port customers to be served from the OAB rail network. Thus, plans for certain originally proposed rail spurs or other industrial track are uncertain.

of Oakland and Oakland Bulk and Oversized Terminal, LLC (Feb. 16, 2016) ("OBOT Ground Lease").

⁶ Oakland City Council, Ordinance No. 13385 (Jul. 19, 2016) and Resolution No. 86234 (Jun. 27, 2016).

⁷ On May 15, 2018, the United States District Court for the Northern District of California found that application of the City's coal ban to Oakland Bulk & Oversized Terminal ("OBOT") in the West Gateway area was a breach of the development agreement between the City and OBOT. *See Oakland Bulk & Oversized Terminal, LLC v. City of Oakland*, Case No. 16-cv-07014-VC (N.D. Cal. May 15, 2018). The City recently appealed that decision to the Ninth Circuit Court of Appeals.

⁸ The City and Port entered into an Amended and Restated Cost Sharing Agreement ("CSA"), dated June 19, 2012. Section 11 of the CSA sets forth the framework for the City and the Port to enter into a "Rail Access Agreement," describing the fundamental provisions of that agreement and requiring the City and the Port to negotiate in good faith for use of the "Port Rail Terminal to serve the City's rail needs"

The differences between OGRE’s previous STB filings and its current Petition for Declaratory Order (the “Petition”) reflect the evolution of the OAB plans. As explained in more detail below, OGRE’s current Petition describes the project as presently envisioned.

STB QUESTION NO. 1:

In previous proceedings before the Board, OGRE indicated that it or other parties planned to construct a rail line on property in the Port area for which Board authority may be required. Oakland Glob. Rail Enter., FD 35807, slip op. at 1; Oakland Glob. Rail Enter., FD 35953, slip op. at 1. Explain whether and, if so how, OGRE’s previous statements to the Board indicating that OGRE or other parties planned to construct a rail line within the Port area are consistent with OGRE’s pending petition, which states that no new rail line construction will occur and that the planned work involves only rehabilitation of existing line.

RESPONSE TO STB QUESTION NO. 1:

In *Oakland Global Rail Enterprise, LLC—Acquisition and Operating Exemption—In the Port of Oakland, Cal.*, FD 35807, OGRE indicated that it would “construct rail tracks within the Port on property owned by the City”⁹ And in *Oakland Global Rail Enterprise, LLC—Operation Exemption—Lines of Railroad Owned by the Port of Oakland, Cal., and the City of Oakland, Cal.*, FD 35953, OGRE stated that it would operate over track that “the Port and City either currently own

⁹ See Notice of Exemption, *Oakland Global Rail Enterprise, LLC—Acquisition and Operating Exemption—In the Port of Oakland, Cal.*, STB Finance Docket No. 35807 at 2 (Feb. 7, 2014).

or will construct within the port of Oakland, California.”¹⁰ Although OGRE ultimately withdrew its filings in FD 35807 and FD 35953, the Board made statements in both matters regarding its jurisdiction over the City’s, the Port’s, and/or OGRE’s planned rail construction activities referenced in those filings.¹¹ The Board noted also that OGRE should contact the Board’s Office of Public Assistance, Government Affairs, and Compliance (“OPAGAC”) as to whether construction authority would be required.¹²

As an initial point of clarification, the track work at issue in both FD 35807 and OGRE’s pending Petition is located on City property, adjacent to, but separate

¹⁰ See Notice of Exemption, Oakland Global Rail Enterprise, LLC—Operation Exemption—Lines of Railroad Owned by the Port of Oakland, Cal., and the City of Oakland, Cal., STB Finance Docket No. 35953 at 2 (Aug. 12, 2015).

¹¹ Specifically, in FD 35807, the Board noted that “the track construction activity that OGRE states is planned by the Port and the City may involve construction of a line of railroad, which would require Board authorization under 49 U.S.C. § 10901.” *Oakland Global Rail Enterprise, LLC—Acquisition and Operating Exemption—In the Port of Oakland, Cal.*, STB Finance Docket No. 35807 at 1 n.1 (served Apr. 30, 2014). In FD 35953, the Board stated that “based on OGRE’s intent to provide common carrier service over the [] trackage, the construction to which OGRE refers in its notice appears to involve construction of a line of railroad, in which case prior approval for the construction under 49 U.S.C. § 10901...would be required.” *Oakland Global Rail Enterprise, LLC—Operation Exemption—Lines of Railroad Owned by the Port of Oakland, Cal., and the City of Oakland, Cal.*, STB Finance Docket No. 35953 at 2 (served Sept. 25, 2015).

¹² *Oakland Global Rail Enterprise, LLC—Acquisition and Operating Exemption—In the Port of Oakland, Cal.*, STB Finance Docket No. 35807 at 2 n. 1; *Oakland Global Rail Enterprise, LLC—Operation Exemption—Lines of Railroad Owned by the Port of Oakland, Cal., and the City of Oakland, Cal.*, STB Finance Docket No. 35953 at 2. As noted below, OGRE did consult with OPAGAC in advance of filing the current Petition.

from Port property.¹³ The construction of the Port’s rail yard and associated track on Port land was handled by the Port separately and wholly apart from the project in OGRE’s pending Petition. This is shown in the rail plans originally prepared for the City, attached hereto as Exhibit 1. Specifically, drawing RR-10 shows the division between Port and City land, with OGRE’s work only occurring on the City’s side.

As further described below, the track on City property referenced in FD 35953 encompasses: (i) track that was installed by the City over the past three (3) years as part of its horizontal improvement project at certain crossings; and ii) track that OGRE intends to rehabilitate.

In 2017, subsequent to OGRE’s withdrawal of its Notices of Exemption in FD 35807 and FD 35953, the Board issued a decision in *Jersey Marine Rail, LLC—Petition for Declaratory Order*, FD 36063. As noted in that decision, *Jersey Marine* presented a “novel issue” regarding the rehabilitation of Board jurisdictional track by a non-carrier.¹⁴ Ultimately, in *Jersey Marine*, the Board confirmed for the first time that prior Board precedent holding that rehabilitation of jurisdictional track is not subject to Board approval is applicable to both carriers and non-carriers, like OGRE.¹⁵

In or around February 2018, OGRE contacted OPAGAC, as per the Board’s previous suggestion, to discuss its planned track work, its plans for operations, and

¹³ A segment of West Gateway Lead No. 2 is located on land owned by the Port but on which the City has a rail easement.

¹⁴ *Jersey Marine Rail, LLC—Petition for Declaratory Order*, STB Finance Docket No. 36063 at 4 (served Jan. 31, 2017).

¹⁵ *Id.* at 5.

its intention to seek Board authority for these activities and environmental review. During these discussions, the applicability of the recent *Jersey Marine* decision to OGRE's planned track work came up.

Based on its understanding of the complex history of rail operations at OAB, OGRE believed that a Petition for Declaratory Order would allow the STB to determine if the term "rehabilitation," rather than "construction," more accurately reflects the work that OGRE is planning to undertake. The work described in OGRE's pending petition, as well as in the attached rail drawings, is limited to regrading, installation of ballast rock, and the repair or replacement of existing track within the rail corridor at the OAB. This work fits within the term "rehabilitation" as detailed in *Jersey Marine*:

[R]emoving all rails and ties. The existing ballast will be removed and cleaned. Fill and ballast will then be added Once that is in place the cleaned and new ballast will be reinstalled for each track. New ties will be installed, but existing rails, to the extent possible will be used. Unusable rail will be replaced. Each track will retain the same location as the tracks existing as of the date of this Petition.¹⁶

STB QUESTION NO. 2:

OGRE's petition includes a verified statement from Mark McClure, President of OGRE, stating that "[n]o new line of rail will be constructed outside of the existing right of way as part of the Project." (OGRE Pet., Ex. 1, V.S. McClure at 2; but see City Reply.) Explain the basis for this representation that the track work described in the

¹⁶ Petition for Declaratory Order, *Jersey Marine Rail, LLC—Petition for Declaratory Order*, STB Finance Docket No. 36063 at 6 (Aug. 31, 2016).

petition and in the map attached to the petition will take place entirely within an existing rail line right of way and provide any supporting documentation.

RESPONSE TO STB QUESTION NO. 2:

The rail plans in Exhibit 1 (attached hereto) show the planned track rehabilitation occurring within the existing rail right of way, denoted on the rail plans as “R/W”.

STB QUESTION NO. 3:

OGRE’s reply states that “nearly all of the track OGRE intends to rehabilitate is track for which the ICC previously exercised jurisdiction” pursuant to the 1943 proceeding in which OTR was issued acquisition authority. (OGRE Reply 5.) OGRE argues that any track not covered by the 1943 acquisition authority is nonetheless also subject to agency jurisdiction. (OGRE Reply 5-7.). Illustrate on the maps provided in OTR’s application where all of the track that OGRE plans to rehabilitate is located. In doing so, identify on those maps, and distinguish between, the track that OGRE plans to rehabilitate that OGRE believes: (1) is subject to agency jurisdiction as a result of the 1943 proceeding and (2) was not covered by the 1943 acquisition authority but nevertheless is subject to agency jurisdiction, including any track that was not depicted in any form in the original OTR maps. For all track not subject to the 1943 proceeding, explain in detail why OGRE believes that such track is nonetheless subject to Board jurisdiction.

RESPONSE TO STB QUESTION NO. 3:

Attached as Exhibit 2 is a map provided in the Oakland Terminal Railway (“OTR”) 1943 application to the Interstate Commerce Commission (“ICC”). OGRE has labeled on this exhibit (1) the track in the West Gateway subject to Board jurisdiction by virtue of the 1943 acquisition proceeding and (2) the location of track that is not shown in the 1943 map, but nevertheless subject to Board jurisdiction as industrial track.

Although the 1943 map does not show track extending the *entire* length of the rail right of way in the West Gateway, details in the OTR application suggest the rail extended to dock at the end of the rail right of way. As described in OGRE’s July 16, 2018 Response, the OTR application states that the City “constructed certain docks and track along the waterfront” and that OTR “constructed tracks connecting its lines along the northerly side of the [Outer Harbor District]” over which OTR operated;¹⁷ in other words, industrial track on the West Gateway. The OTR application also indicates that export and import business occurred in this area.¹⁸ Further, as noted in OGRE’s Response, the Port leased this property from the Army in 1999 to conduct its shipping activities.¹⁹ Thus, given the historic use of this rail by a common carrier

¹⁷ Petitioner’s Response to Reply to Petition for Declaratory Order, Oakland Global Rail Enterprise—Petition for Declaratory Order, STB Finance Docket No. 36168 at 5 (July 16, 2018) (“OGRE Response”).

¹⁸ See City of Oakland Reply, Oakland Global Rail Enterprise—Petition for Declaratory Order, STB Finance Docket No. 36168 at Exhibit 1, p. 4 (June 29, 2018); see also OGRE Response at 6.

¹⁹ See OGRE Response at 6-7.

to provide rail services to third parties, OGRE believes that the rail not depicted in the 1943 map was historically industrial track subject to Board jurisdiction.

STB QUESTION NO. 4:

OGRE's petition states that OGRE plans to rehabilitate 22,202 feet of track on property owned by the City. (OGRE Pet. 1.) In contrast, in 2014, OGRE indicated that the City and OGRE would construct a total of 32,960 feet of track on City property, with OGRE constructing 15,000 feet of that total. Oakland Glob. Rail Enter., FD 35807, slip op. at 2. In that same proceeding, OGRE indicated that it would operate over 60,670 feet of track that would be owned by the Port. Id. at 1. In 2015, OGRE stated that it planned to operate over approximately 32,690 feet of track owned and/or being constructed by the City. Oakland Glob. Rail Enter., FD 35953, slip op. at 1. In that proceeding, OGRE also initially indicated that it would operate over 60,670 feet of existing track owned by the Port before amending its notice of exemption to seek authority only to operate over the 32,690 feet of track owned and/or being constructed by the City. Id. Explain how the length of track on City property (32,690 or 32,960 feet) cited in OGRE's previous notices of exemption and the length of track on Port property (60,760 feet) cited in the previous notices of exemption relate to the 22,202 feet of track identified in the pending petition as track to be rehabilitated. Provide a map or maps clearly showing and identifying all the lines referenced in Docket Nos. FD 35807 and FD 35953 in relation to the 22,202 feet of track to be rehabilitated under OGRE's current plan.

RESPONSE TO STB QUESTION NO. 4:

OGRE's 2014 submission in FD 35807 included plans for the City to construct and/or rehabilitate a significantly larger portion of track than that currently proposed by OGRE in its Petition. In FD 35953, OGRE indicated that the tracks owned and/or being built by the City would be approximately 32,690 feet. This is because, at one point in time, the City was responsible for a majority of the rail improvements. However, due to a funding shortfall, the City was only able to complete a small portion of that work. As such, the responsibility to complete the rail rehabilitation has shifted to OGRE—by virtue of OBOT's ground lease with the City and OGRE's contract with OBOT—which is the work described in OGRE's pending Petition.

The map included as Attachment A to OGRE's Motion to Withdraw in Docket No. 35807 shows the rail segment identified as track to be constructed by the City.²⁰ As noted above, the rail crossings at Wake Avenue and West Burma Road were built by the City as a part of its horizontal infrastructure project. In addition, 4,525 feet of on dock track previously included in FD 35807 and FD 35953 are not planned at this time. Now, as contemplated in OGRE's pending Petition, OGRE plans to rehabilitate the following track as further identified on the Exhibit 1 rail drawings: WGL No. 1, WGL No. 2, WGL No. 3, WGL No. 4, Ind. Drill No. 1, Ind. No. 1, Ind. No. 8, and Ind. No. 9A. The lengths of these segments can be found on rail drawings RR-06 and RR-07 respectfully and total approximately 19,400 lineal feet of track. OGRE

²⁰ Motion to Withdraw, Oakland Global Rail Enterprise, LLC—Acquisition and Operating Exemption—Lines of Railroad Within the Port of Oakland, California, STB Finance Docket No. 35807 (Mar. 24, 2014).

also will rehabilitate the repair inspect paint (RIP) track as shown on RR-20 of the rail drawings. These changes account for why OGRE now plans to rehabilitate only approximately 22,200 feet of track.²¹

In total, after the needed approvals, OGRE plans to operate over 95,950 feet of track, including both track on property owned by the City and track owned by the Port, as well as small portions of track owned by Union Pacific and Burlington Northern Santa Fe. This includes the 60,760 feet of track on Port property referenced in FD 35807 and FD 35953. OGRE will not seek construction authority for this track, as it was constructed by the Port during its rail yard project. The approximately 22,200 feet of track that OGRE proposes to rehabilitate is located on property owned by the City.²²

STB QUESTION NO. 5:

The petition states that OGRE's affiliate, OBOT, has leased the existing right of way from the City and OGRE has subleased it from OBOT. (OGRE Pet. 2-3.) Explain why OGRE believes that it and OBOT were not required to seek Board approval to enter into these leases and thereby acquire an existing rail line.

²¹ The attached Exhibit 4 shows the portion of track to be rehabilitated by OGRE as an overlay on the map submitted by OGRE in FD 35953.

²² As noted above, the other approximately 13,000 feet of track over which OGRE intends to operate include the City constructed rail crossings at West Burma Road and Wake Avenue and track owned by Union Pacific and Burlington Northern Santa Fe.

RESPONSE TO STB QUESTION NO. 5:

In August 2006, approximately 170 acres of the former OAB, including the West Gateway, were conveyed to the Oakland Redevelopment Agency and another 200 acres were transferred to the Port. The City subsequently acquired the Redevelopment Agency's interest in the former OAB and solicited proposals from master developers for the City-owned site. In 2009, the joint venture between Prologis²³ and CCIG²⁴ was selected as the master developer. The City and OBOT executed a ground lease in February 2016 for the West Gateway area of the OAB, including the rail right of way. OBOT subsequently contracted with OGRE to conduct the necessary rail rehabilitation and to ultimately operate over the rail line.

To the best of OGRE's knowledge, no entity filed for acquisition authority with the Board prior to any of these transactions, perhaps due to questions around the jurisdictional status of the track in question. OGRE is now petitioning the Board to clarify whether the rail falls under the Board's jurisdiction and is subject to the rehabilitation exemption identified in *Jersey Marine*. OGRE is ready to take all necessary steps consistent with the STB's ruling in this matter.

²³ Prologis is the world's leading industrial real estate company, owning more than 685 million square feet around the world. See <https://www.prologis.com/about> (last visited 8/16/18). Today, Prologis has leased from the City and is developing those parts of the OAB commonly known as CE-1, CE-2, and CC-1.

²⁴ See *supra* note 5.

STB QUESTION NO. 6:

Clarify whether OGRE is currently conducting rail operations and whether it has entered into any agreements to provide rail transportation and, if so, provide details regarding those operations and agreements.

RESPONSE TO STB QUESTION NO. 6:

OGRE is currently not conducting any rail operations. OGRE has not yet entered into any agreements to provide rail transportation; however OBOT, OGRE's affiliate, is obligated by the City through its ground lease to rehabilitate the rail improvements as further set forth above.²⁵

Respectfully submitted,



Kathryn Kusske Floyd
Margaret K. Fawal

Counsel to Oakland Global Rail
Enterprise

Dated: August 21, 2018

²⁵ OBOT Ground Lease, Sections 1.7 and 6.1(b) (assigning OBOT the obligation to undertake the City's rail improvements).

CERTIFICATE OF SERVICE

I HEREBY CERTIFY that on this 21st day of August, 2018, I caused a copy of the foregoing Petitioner's Response to the Surface Transportation Board's Request for Additional Information to be served on all parties of record electronically, by courier, or by first class mail, postage prepaid.



Margaret K. Fawal

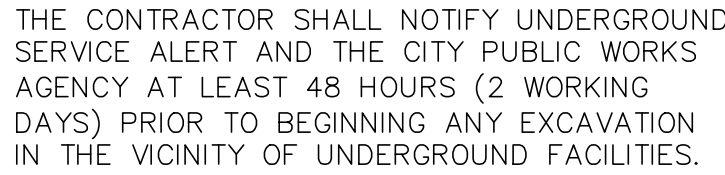
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EXHIBIT 1



SUBMITTAL: AUGUST 28, 2017

DWG NO.	PLAN & TITLE
RR-01	TITLE SHEET & INDEX
RR-02	GENERAL NOTES
RR-03	LEGEND AND ABBREVIATIONS
RR-04	GEOMETRY
RR-05	KEY MAP
RR-06	HORIZONTAL ALIGNMENT DATA
RR-07	HORIZONTAL ALIGNMENT DATA
RR-10	TRACK PLAN AND PROFILE
RR-11	TRACK PLAN AND PROFILE
RR-12	TRACK PLAN AND PROFILE
RR-13	TRACK PLAN AND PROFILE
RR-14	TRACK PLAN AND PROFILE
RR-15	TRACK PLAN AND PROFILE
RR-16	TRACK PLAN AND PROFILE
RR-17	TRACK PLAN AND PROFILE
RR-18	TRACK PLAN AND PROFILE
RR-19	TRACK PLAN AND PROFILE
RR-20	TRACK PLAN AND PROFILE
RR-30	TYPICAL SECTIONS
RR-31	TYPICAL SECTIONS
RR-32	TYPICAL SECTIONS
RR-33	TYPICAL SECTIONS
RR-33A	TYPICAL SECTIONS
RR-34	W. BURMA ROAD CROSSING LAYOUT
RR-35	WAKE AVENUE CROSSING LAYOUT
RR-36	E. BURMA ROAD CROSSING LAYOUT
RR-37	TYPICAL CROSSING DETAILS
RR-38	TYPICAL CROSSING DETAILS
RR-39	WARNING DEVICE FOR AT-GRADE CROSSING
RR-40	DOUBLE INSIDE GUARD RAIL - PART 1
RR-41	DOUBLE INSIDE GUARD RAIL - PART 2
RR-58	RAILROAD SIGNAL GENERAL NOTES - SH 1 OF 2
RR-59	RAILROAD SIGNAL GENERAL NOTES - SH 2 OF 2
RR-60	TRACK AND LOCATION PLAN - SH. 1 OF 26
RR-61	TRACK CIRCUIT PLAN - SH. 2 OF 26
RR-62	HXP CIRCUIT PLAN - SH. 3 OF 26
RR-63	HOUSE A SOLID STATE CONTROLLER PLAN - SH. 4 OF 26
RR-64	HOUSE B SOLID STATE CONTROLLER PLAN - SH. 5 OF 26
RR-65	GATE CIRCUIT PLAN - SH. 6 OF 26
RR-66	GATE CIRCUIT PLAN - SH. 7 OF 26
RR-67	HOUSE A DATA RECORDER PLAN - SH. 8 OF 26
RR-68	HOUSE B DATA RECORDER PLAN - SH. 9 OF 26
RR-69	HOUSE A POWER DISTRIBUTION PLAN - SH. 10 OF 26
RR-70	HOUSE B POWER DISTRIBUTION PLAN - SH. 11 OF 26
RR-71	HOUSE A RACK LAYOUT - SH. 12 OF 26
RR-72	HOUSE A SIDE A LAYOUT - SH. 13 OF 26
RR-73	HOUSE A TERMINAL BOARD - FRONT - SH. 14 OF 26
RR-74	HOUSE A TERMINAL BOARD - REAR - SH. 15 OF 26
RR-75	HOUSE A SIDE C LAYOUT - SH. 16 OF 26
RR-76	HOUSE A SIDE D LAYOUT - SH. 17 OF 26
RR-77	HOUSE A FLOOR PLAN - SH. 18 OF 26

DWG NO.	PLAN & TITLE
RR-78	HOUSE B RACK LAYOUT - SH. 19 OF 26
RR-79	HOUSE B SIDE A LAYOUT - SH. 20 OF 26
RR-80	HOUSE B TERMINAL BOARD - FRONT - SH. 21 OF 26
RR-81	HOUSE B TERMINAL BOARD - REAR - SH. 22 OF 26
RR-82	HOUSE B SIDE C LAYOUT - SH. 23 OF 26
RR-83	HOUSE B SIDE D LAYOUT - SH. 24 OF 26
RR-84	HOUSE B FLOOR PLAN - SH. 25 OF 26
RR-85	CABLE PLAN - SH. 26 OF 26
RR-86	TRACK AND LOCATION PLAN - SH. 1 OF 15
RR-87	HXP CIRCUIT PLAN - SH. 2 OF 15
RR-88	SOLID STATE CONTROLLER PLAN - SH. 3 OF 15
RR-89	GATE CIRCUIT PLAN - SH. 4 OF 15
RR-90	GATE CIRCUIT PLAN - SH. 5 OF 15
RR-91	DATA RECORDER PLAN - SH. 6 OF 15
RR-92	POWER DISTRIBUTION PLAN - SH. 7 OF 15
RR-93	RACK LAYOUT - SH. 8 OF 15
RR-94	HOUSE SIDE A LAYOUT - SH. 9 OF 15
RR-95	TERMINAL BOARD - FRONT - SH. 10 OF 15
RR-96	TERMINAL BOARD - REAR - SH. 11 OF 15
RR-97	HOUSE SIDE C LAYOUT - SH. 12 OF 15
RR-98	HOUSE SIDE D LAYOUT - SH. 13 OF 15
RR-99	HOUSE FLOOR PLAN - SH. 14 OF 15
RR-100	CABLE PLAN - SH. 15 OF 15
RR-101	TRACK AND LOCATION PLAN - SH. 1 OF 14
RR-102	TRACK CIRCUIT PLAN - SH. 2 OF 14
RR-103	SOLID STATE CONTROLLER PLAN - SH. 3 OF 14
RR-104	GATE CIRCUIT PLAN - SH. 4 OF 14
RR-105	DATA RECORDER PLAN - SH. 5 OF 14
RR-106	POWER DISTRIBUTION PLAN - SH. 6 OF 14
RR-107	RACK LAYOUT - SH. 7 OF 14
RR-108	HOUSE SIDE A LAYOUT - SH. 8 OF 14
RR-109	TERMINAL BOARD - FRONT - SH. 9 OF 14
RR-110	TERMINAL BOARD - REAR - SH. 10 OF 14
RR-111	HOUSE SIDE C LAYOUT - SH. 11 OF 14
RR-112	HOUSE SIDE D LAYOUT - SH. 12 OF 14
RR-113	HOUSE FLOOR PLAN - SH. 13 OF 14
RR-114	CABLE PLAN - SH. 14 OF 14

PROJECT SITE
LIMIT OF WORK

BURMA ROAD

MARITIME STREET

7TH STREET

N

LIMIT OF WORK

Map of the San Francisco Bay Area showing the project location. The map includes labels for Berkeley, San Francisco Bay, Bay Bridge, Alameda, Piedmont, and San Leandro. A north arrow is in the top right. A black arrow points from the text 'PROJECT LOCATION' to a specific area in the East Bay.

PROJECT LOCATION

						DRAWING NUMBER RR-01 SHEET <u>1</u> OF <u>85</u>
	10/14/2015	FRC #57 - RAIL MODIFICATION DUE TO TLS PROJECT	MRS			
	09/24/2014	CONSTRUCTION SET	MRS	FK	SCALE: NO SCALE	
REV	DATE	COMMENT	CHECKED BY	C.O.O.	DATE: 08/28/2017	

Aug 29, 2017 - 10:40am, Plotted By: BKELLY
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TRACK GENERAL NOTES

1.

Contractors shall notify Service Alert, (800) 227-2600 48 hours prior to any excavation. The USA Authorization Numbers shall be kept at the job site.
2.

No work whatsoever shall be commenced without first notifying the Engineer.
3.

The Contractor shall comply with all Federal, State, County, and City Laws and Ordinances and Regulations of the Department of Industrial Relations, OSHA, NPDES and Industrial Accident Commission related to the safety and character of the work, equipment and labor personnel.
4.

Contractor shall be responsible for coordinating with all Utility agencies.
5.

Contractor shall protect in place (by any means necessary) all existing utilities to remain unless otherwise specified herein. Contractor shall be responsible for the complete repair at his expense, for any damage to existing utilities, structures, or other site features, as a result of his work.
6.

Prior to placing curbs, pavements, base, subbase, track, etc., all underground utilities shall be installed, backfill completed, and the Engineer notified by each of the utility companies having facilities within the work area, that the utility installation has satisfactorily passed acceptance tests.
7.

All existing underground utilities, that are not to be re-used shall be abandoned in place in accordance with the technical specifications.
8.

Contractor shall verify locations and elevations of existing utilities whether known or unknown prior to beginning construction.
9.

Any underground structures such as cesspools, cisterns, mining shafts, tunnels, septic tanks, wells, and pipelines not located prior to construction shall be brought to the attention of the Engineer for determination of appropriate action such as removal or treatment in a manner judged suitable to the Engineer.
10.

Contractor shall coordinate location of all proposed utilities with Engineer to assure accuracy of utility connections and compliance with local codes.
11.

Any existing conditions found to be a variance with these drawings must be immediately reported to the Engineer.
12.

Contractor shall maintain and clean to the satisfaction of the Engineer, all access and service roads used during construction.
13.

Contractor shall perform all construction in such a manner as to protect adjacent existing buildings, and other site elements which are to remain in service.
14.

Contractor shall provide As-built Drawings for all improvements.
15.

No field changes will be permitted without direct written authorization from the Engineer or his representative.
16.

Contractor shall coordinate work which affects adjacent property owners. Any questions or agreements between adjacent property owners and contractor shall be made in writing. A copy of such agreement shall be provided to the Owner or his representative.
17.

The Contractor is responsible for preparing a Stormwater Pollution Prevention Plan (SWPPP) to comply with CA regulations. General specifications and typical erosion control details are included in the plan set.
18.

Match lines for sheets are based on the existing WGL No. 2 stationing unless otherwise specified.
19.

Track laying, ballasting, and installation of road crossing panels will be done by Contractor unless otherwise stated.
20.

Where existing culverts are to be extended, the Contractor shall expose existing drainage structures and field verify size and type before ordering.
21.

The contractor is responsible for the removal of all pavement markings that will be in conflict with the proposed work.
22.

Contractor shall comply with all Caltrans and City of Oakland standard specifications for construction of public improvements requirements. City of Oakland standard specifications shall prevail.
23.

Contractor shall maintain at least one access to all affected business. If necessary, multiphase construction shall be utilized.
24.

Signal contractor shall use PVC signal conduit per AREMA, UPRR, and industry standards.

DESIGN CRITERIA

1.
- UPRR standard plans and trackworks

2.

City of Oakland Public Works Engineering Division

3.

California Department of Transportation Roadway and Structure Standards

TRAFFIC NOTES

1.
- See drawing number TH-1 to TH-17 for traffic control notes.

SURVEY NOTES

1.
- Railroad stationing for project profiles and alignments is based on stations established for chord definition curves at the centerline of the WGL No. 2 Track unless otherwise noted.

2.

The Contractor is responsible for the preservation of all survey control monuments. In the event monuments are damaged or destroyed by the Contractor, the Contractor will replace the monument solely at the Contractor's expense.

PHONE NUMBER

GENERAL

(800) 227-2600	CALL BEFORE YOU DIG (UNDERGROUND SERVICE ALERT)
(800) 336-9193	UPRR CALL BEFORE YOU DIG
(888) 877-7267	UPRR Response Management Communications Center (RMCC)

OAKLAND GLOBAL



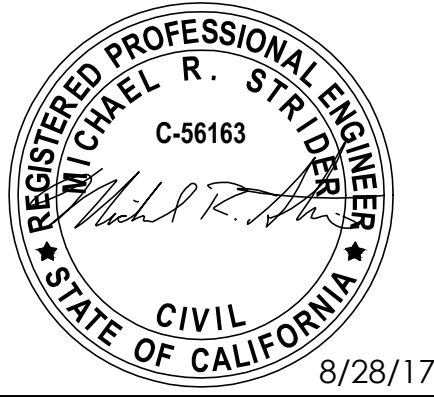




“one vision, one team, one project”

HDR ENGINEERING, INC.
925-974-2500
2121 N. CALIFORNIA BLVD, SUITE 475
WALNUT CREEK, CA 94596

JOB NO.	190328
DRAWN BY:	BPK
CHECKED BY:	MRS



PROJECT INFO.

RAIL PLAN
GENERAL NOTES
CITY OF OAKLAND, ALAMEDA COUNTY, CALIFORNIA

					DRAWING NO.	
					RR-02	
					SHEET 2 OF 85	
		CONSTRUCTION SET	MRS		SCALE:	NONE
REV	DATE	COMMENT	CHECKED BY	C.O.O.	DATE:	08/28/2017

Aug 29, 2017 - 9:59am, Plotted By: BKELLY
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PORT OF OAKLAND
CITY OF OAKLAND

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2121 N. CALIFORNIA BLVD, SUITE 475	
WALNUT CREEK, CA 94596	
JOB NO.	190328
DRAWN BY:	BPK
CHECKED BY:	MRS



PROJECT INFO.					DRAWING NO.	
RAIL PLAN LEGEND AND ABBREVIATIONS CITY OF OAKLAND, ALAMEDA COUNTY, CALIFORNIA					RR-03	
					SHEET 3 OF 85	
CONSTRUCTION SET		MRS		SCALE:	NONE	
REV	DATE	COMMENT	CHECKED BY	C.O.O.	DATE:	08/28/2017

ABBREVIATIONS

MISCELLANEOUS

AB	Aggregate Base
AC	Asphalt Concrete
AVE	Avenue
BLVD	Boulevard
BLDG	Building
CITY	City of Oakland
CY	Cubic Yards
Conc.	Concrete
°	Degree (s)
Δ	Central Angle of the Circular Curve
DIA	Diameter
DR	Drive
DWG	Drawing
E	East
EL	Elevation
EXIST	Existing
'	Foot, Feet or Minute (s)
FG	Finished Grade
HORIZ	Horizontal
"	Inch, Inches or Second (s)
I	Total Intersection Angle
INV	Invert
LT	Left
L	Length
Ls	Length of Spiral
LF	Lineal Feet
MAX	Maximum
MIN	Minimum
N	North
NIC	Not in Contract
NTS	Not to Scale
NO.	Number
OH	Overhead
PCC	Portland Cement Concrete
#	Pound
PROP	Proposed
RR	Railroad
Rwy	Railway
R/W	Right of Way
RT	Right
S	South
SF	Square Feet
SHT	Sheet
STA	Station
STD	Standard
ST	Street
Twp.	Township
TYP	Typical
UG	Underground
UPRR	Union Pacific Railroad
V	Velocity
VERT	Vertical
Wt.	Weight
W	West
X-ING	Crossing

SIGNAL

ABS	Automatic Block Signal
ATC	Automatic Train Control
CTC	Centralized Traffic Control
DED	Dragging Equipment Detector
DTC	Direct Traffic Control
ELTO	Electric Lock Turnout
HBD	Hot Box Detector
HTTO	Hand Throw Turnout
HWD	High Wide Dectector
POTO	Power Operated Turnout
TWC	Track Warrant Control
WILD	Wheel Impact Load Dectector

STRUCTURES

Bldg.	Building
Br.	Bridge
CB	Catch Basin
CPT	Concrete Pile Trestle - Ballast Deck
CIP	Cast Iron Pipe
CMP	Corrugated Metal Pipe
CMPA	Corrugated Metal Pipe Arch
CSP	Corrugated Steel Pipe
Culv.	Culvert
DI	Drop Inlet
DPGBD	Deck Plate Girder - Ballast Deck
DPGOD	Deck Plate Girder - Open Deck
EBW	East Backwall
F.L.	Flowline
F.F.	Finished Floor
GIP	Galvanized Iron Pipe
Hdwl	Headwall
NBW	North Backwall
PSCT	Prestressed Concrete Trestle
RCA	Reinforced Concrete Arch
RCB	Reinforced Concrete Box
RCP	Reinforced Concrete Pipe
SBW	South Backwall
SSP	Smooth Steel Pipe
SPTBD	Steel Pile Trestle - Ballast Deck
SPTOD	Steel Pile Trestle - Open Deck
SPP	Structural Plate Pipe
TPGBD	Through Plate Girder - Ballast Deck
TPGOD	Through Plate Girder - Open Deck
TPTBD	Timber Pile Trestle - Ballast Deck
TPTOD	Timber Pile Trestle - Open Deck
TTBD	Through Truss - Ballast Deck
TTOD	Through Truss - Open Deck
TWB	Treated Wood Box
Viad.	Viaduct
WBW	West Backwall

TRACK

ATR	Above Top of Rail
Align.	Alignment
BBR	Below Base of Rail
℄	Centerline
Cntrs.	Centers
CL PT	Clear Point
CWR	Continuous Welded Rail
EOT	End of Track
HH	Head Hardened
HTTO	Hand Throw Turnout
IJ	Insulated Joints
Jtd.	Jointed Rail
LH	Left Hand
ML	Main Line
MT	Main Track
MM	Mile Marker
MP	Mile Post
OC	On Center
OTM	Other Track Material
POB	Point of Beginning
PCC	Point of Compound Curve
PC	Point of Curve
PCS	Point of Curve to Spiral
POC	Point on Curve
PF	1/2" Point of Frog
PI	Point of Intersection
PITO	Point of Intersection of Turnout
POTO	Power Operated Turnout
PS	Point of Spiral
PSC	Point of Spiral to Curve
POS	Point on Spiral
PT	Point of Tangent
POT	Point on Tangent
PT SW	Point of Switch
PVC	Point of Vertical Curve
PVI	Point of Vertical Intersection
PVT	Point of Vertical Tangent
RH	Right Hand
TC	Track Centers
TF	Track Feet
TO	Turnout
T/R	Top of Rail
TRK	Track
UXO	Universal Cross-Over
V/L	Average change in gradient per 100'
X-Over	Cross-Over

UTILITIES

— F/O —	Fiber Optic Cable
— o —	Petroleum Pipeline
— — —	Overhead Power Line
— SS —	Sanitary Sewer
— — —	Overhead Signal Line
— SS —	Storm Sewer
— T —	Telephone
— W —	Water Main
✕	Valve
○	Manhole
≡	Catch Basin
▼	Fire Hydrant

TRACK

—————	Existing Main Track
—————	Existing Siding or Spur
—————	Proposed Track
-----	Remove Track
-----	Remove Track (NIC)
-----	Shift Track
-----	Future Track
—+—+—+—	Proposed Port of Oakland Track
—+—+—+—	POTO Turnout
—+—+—+—	HTTO Turnout
—+—+—+—	Switch Point Derail or Double Switch Point Derail
—+—+—+—	Bumping Post
—+—+—+—	Earthen Bumper
—+—+—+—	Typical CPUC Walkways At Grade Crossings
-----	Future Sidewalk (NIC)

PROPERTY

— — — — —	Right of Way
— — — — —	Foreign Right of Way
-----	Property Line

SYMBOLS

ROAD CROSSING WARNING DEVICES

⚡	Flashing Light Warning Device
⚡	Flashing Light Warning Device with Gate
⚡	Cantilever Flashing Light Warning Device
⚡	Cantilever Flashing Light Signal with Gate

SIGNS

⊘	Stop
Y	Yard Limit
1	1 Mile to Yard Limit
W	Whistle Post
fl	Flanger
St	Station
↓	Reduce Speed
↑	Resume Speed
⊘	General Purpose

FENCES

— x — x — x — x — x —	Chain Link
No.	Fence Callout (SEE DWG RR-07 FOR DATA)

ROADS

=====	Paved Road
==	Unimproved Road
80	Interstate Highway
20	Federal Highway
58	State Highway
C3	County Highway

OTHER

W	Wetlands
— — —	River or Lake
—+—+—+—	Embankment
— — —	Flow Line
—+—+—+—	Milepost
MM — ● —	Milemarker
15	Control Point
1	Revision Number
☁	Revision Cloud

CONSTRUCTION

◇	Cut Lines
◆	Fill Lines

TEXT

PROPOSED TEXT
EXISTING TEXT

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PORT OF OAKLAND


OAKLAND GLOBAL


CITY OF OAKLAND

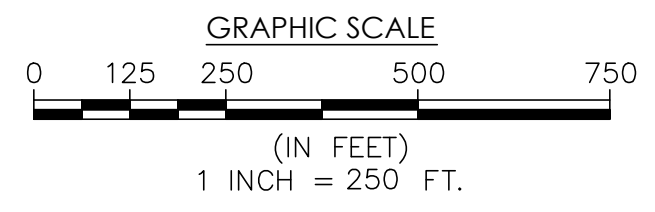
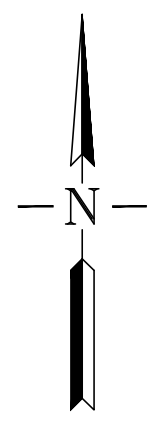
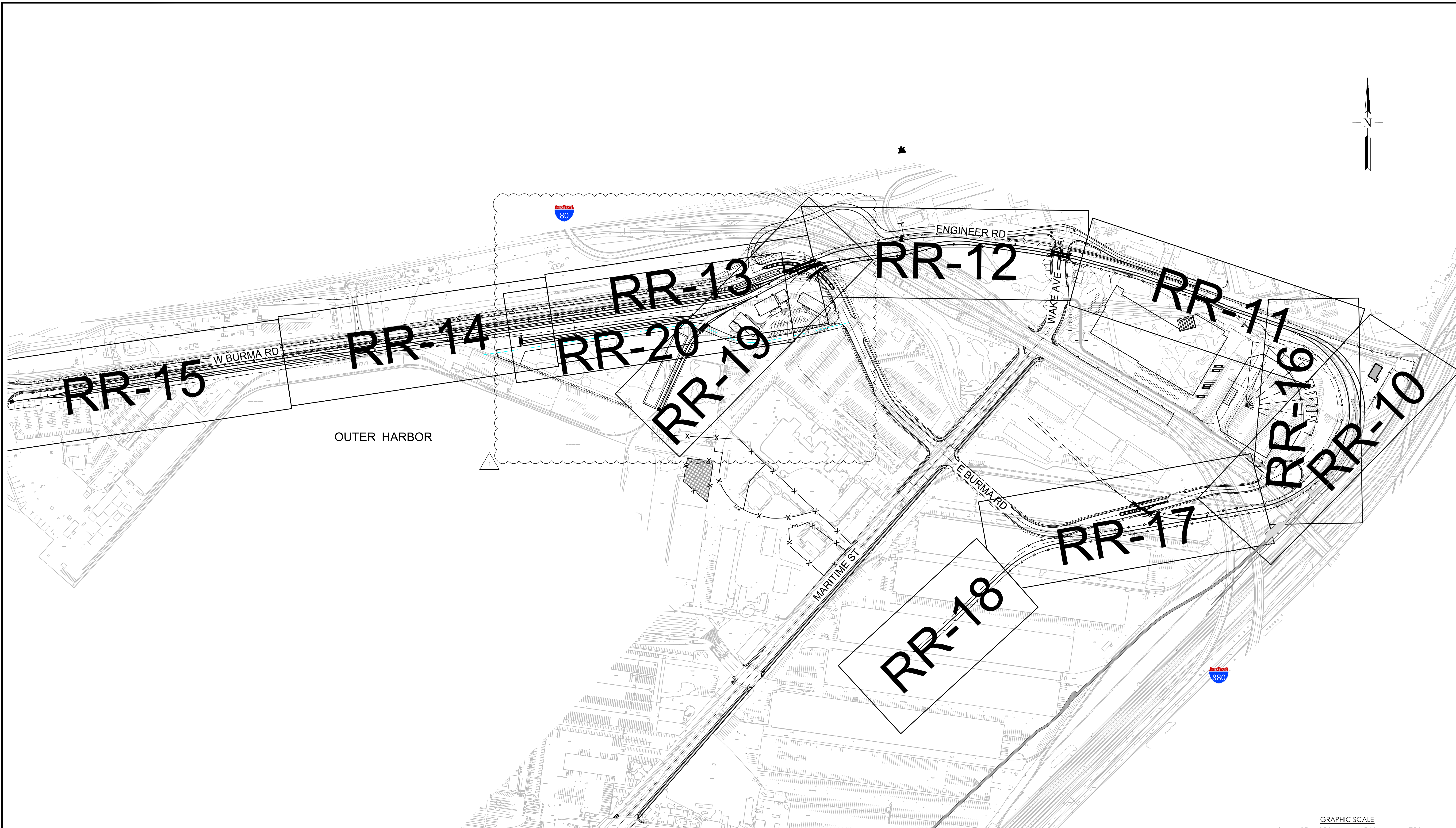
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HDR ENGINEERING, INC.
925-974-2500
2121 N. CALIFORNIA BLVD, SUITE 475
WALNUT CREEK, CA 94596

JOB NO.	190328
DRAWN BY:	BPK
CHECKED BY:	MRS



PROJECT INFO.					DRAWING NO.	
RAIL PLAN GEOMETRY CITY OF OAKLAND, ALAMEDA COUNTY, CALIFORNIA					RR-04	
					SHEET 4 OF 85	
					SCALE:	NONE
					CHECKED BY	C.O.O.
					DATE:	08/28/2017
REV	DATE	COMMENT	CONSTRUCTION SET	MRS		



OAKLAND GLOBAL

PORT OF OAKLAND
CITY OF OAKLAND

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925-974-2500
2121 N. CALIFORNIA BLVD, SUITE 475
WALNUT CREEK, CA 94596

JOB NO.	190328
DRAWN BY:	BPK
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PROJECT INFO.

RAIL PLAN
KEY MAP
CITY OF OAKLAND, ALAMEDA COUNTY, CALIFORNIA

						DRAWING NO.
						RR-05
						SHEET 5 OF 85
10/14/2015	FRC 57 - RAIL MODIFICATION DUE TO TLS PROJECT	MRS				SCALE: 1"=250'
09/24/2014	CONSTRUCTION SET	MRS	FK			DATE: 08/28/2017
REV	DATE	COMMENT	CHECKED BY	C.O.O.	DATE	

Aug 29, 2017 - 10:36am, Plotted By: BKELLY
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TRACK	DESCRIPTION	STATION	DISTANCE	BEARING	NORTHING	EASTING	Dc (CHORD)			R	Δ	Lc
WGL No. 1												
	POB/PC	4+00.87			2126647.420	6043490.414						
	PI	7+40.08			2126986.515	6043499.893	12°	30'	00"	459.28	72°53'50.5"	583.18
	PT	9+84.05			2127095.292	6043178.593						
			446.22	N 71°17'46.5" W								
	PC	14+30.27			2127238.383	6042755.939						
	PI	14+50.06			2127244.732	6042737.186	9°	30'	00"	603.80	3°45'21.8"	39.53
	PT	14+69.80			2127252.296	6042718.889						
			152.18	N 67°32'24.7" W								
	PC	16+21.98			2127310.431	6042578.259						
	PI	16+53.78			2127322.583	6042548.863	5°	54'	26"	970.37	3°45'18.0"	63.56
	PT	16+85.54			2127332.784	6042518.734						
			258.14	N 71°17'42.6" W								
	PC	19+43.68			2127415.568	6042274.228						
	PI	19+79.02			2127426.901	6042240.755	4°	56'	07"	1161.28	3°29'10.1"	70.64
	PT	20+14.32			2127436.178	6042206.655						
			261.57	N 74°46'52.8" W								
	PC	22+75.89			2127504.841	6041954.257						
	PI	24+57.85			2127552.605	6041778.682	1°	59'	22"	2879.93	7°13'49.4"	363.41
	PT	26+39.30			2127577.892	6041598.490						
			310.09	N 82°00'42.2" W								
	PC	29+49.39			2127620.986	6041291.406						
	PI	31+23.33			2127645.158	6041119.157	5°	00'	00"	1146.28	17°15'23.4"	345.13
	PT/STA EQN											
	BK	32+94.52			2127617.145	6040947.491						
	AHD	32+95.83										
			320.56	S 80°43'54.4" W								
	PC	36+16.39			2127565.516	6040631.113						
	PI	36+77.82			2127555.622	6040570.487	10°	00'	00"	573.69	12°13'24.4"	122.24
	PT	37+38.63			2127533.117	6040513.330						
			511.78	S 68°30'30.1" W								
	PITO	42+50.41			2127345.620	6040037.136						
	PT SW	42+80.58			2127337.742	6040008.013						
			13.06	S 74°51'50.9" W								
	PC	42+93.64			2127334.332	6039995.407						
	PI	43+27.44			2127325.507	6039962.781	10°	00'	00"	573.69	6°44'35"	67.43
	PT	43+61.07			2127320.574	6039929.346						
			1409.48	S 81°36'26.3" W								
	PC	57+70.55			2127114.852	6038534.964						
	PI	57+85.04			2127112.736	6038520.625	5°	00'	00"	1146.28	1°26'56"	28.97
	PT	57+99.52			2127110.259	6038506.344						
			60.00	S 80°09'30.5" W								
	PC	58+59.52			2127100.003	6038447.227						
	PI	58+74.02			2127097.526	6038432.947	5°	00'	00"	1146.28	1°26'56"	28.98
	PT	58+88.50			2127095.411	6038418.608						
			102.21	S 81°36'26.3" W								
	PITO	59+90.71			2127080.492	6038317.493						
	PT SW	60+20.88			2127076.089	6038287.646						
			649.49	S 81°36'26.3" W								
	PITO	66+70.37			2126981.292	6037645.116						
	PT SW	67+00.54			2126976.888	6037615.269						
			1227.68	S 81°36'26.3" W								
	PC	79+28.22			2126797.700	6036400.734						
	PI	79+60.07			2126793.051	6036369.223	10°	00'	00"	573.69	6°21'21"	63.56
	PT	79+91.78			2126784.942	6036338.420						
			130.74	S 75°15'05.4" W								
	PITO	81+22.52			2126751.657	6036211.982						
	PT SW/EOT	81+52.69			2126747.253	6036182.135						
				S 81°36'26.3" W								
WGL No. 2												
	POB/PC	4+72.98			2126599.130	6043461.420						
	PI	8+41.73			2126965.062	6043503.017	12°	30'	00"	459.28	77°26'46.7"	619.57
	PT	10+92.55			2127085.175	6043154.901						
			435.80	N 70°57'48.8" W								
	PC	15+28.35			2127227.322	6042742.927						
	PI	15+46.84			2127233.354	6042725.447	9°	16'	09"	618.80	3°25'24.1"	36.93
	PT	15+65.28			2127240.418	6042708.358						
			146.98	N 67°32'24.7" W								

BASIS OF BEARINGS

THE BEARING, NORTH 41°00'50" EAST, BETWEEN CITY OF OAKLAND MONUMENT "75E13R", KNOWN AS "H006", BEING A PIN SET IN CONCRETE IN A STANDARD MONUMENT WELL MARKING THE CENTERLINE OF MARITIME STREET, HAVING PORT OF OAKLAND HORIZONTAL DATUM COORDINATES OF NORTH 2,123,462.01 AND EAST 6,038,565.73 (U.S. SURVEY FEET), AND THE CITY OF OAKLAND MONUMENT "7NE2", KNOWN AS "H024", A PIN SET IN CONCRETE IN A STANDARD MONUMENT WELL MARKING SAID CENTERLINE OF MARITIME STREET, HAVING PORT OF OAKLAND HORIZONTAL DATUM COORDINATES OF NORTH 2,125,886.07 AND EAST 6,040,673.96, AS SAID MONUMENTS ARE SHOWN ON RECORD OF SURVEY NO. 990, FILED JULY 19, 1994 IN BOOK 18 OF RECORDS OF SURVEY AT PAGES 50 THROUGH 60, IN THE OFFICIAL RECORDS OF ALAMEDA COUNTY, IS TAKEN AS THE BASIS OF BEARINGS FOR THESE PLANS.



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HDR ENGINEERING, INC.
925-974-2500
2121 N. CALIFORNIA BLVD, SUITE 475
WALNUT CREEK, CA 94596

JOB NO.	190328
DRAWN BY:	BPK
CHECKED BY:	MRS



PROJECT INFO.

RAIL PLAN
HORIZONTAL ALIGNMENT DATA - 1 OF 2
CITY OF OAKLAND, ALAMEDA COUNTY, CALIFORNIA

TRACK	DESCRIPTION	STATION	DISTANCE	BEARING	NORTHING	EASTING	Dc (CHORD)			R	Δ	Lc
WGL No. 2	PC	17+12.26			2127296.569	6042572.529						
CONTINUED	PI	17+43.58			2127308.533	6042543.587	6°	00'	00"	955.37	3°45'18.0"	62.58
	PT	17+74.84			2127318.576	6042513.924						
			258.14	N 71°17'42.6° W								
	PC	20+32.98			2127401.360	6042269.418						
	PI	20+67.86			2127412.547	6042236.377	5°	00'	00"	1146.28	3°29'10.1"	69.72
	PT	21+02.70			2127421.704	6042202.717						
			261.57	N 74°46'52.8° W								
	PC	23+64.27			2127490.367	6041950.320						
	PI	25+45.28			2127537.883	6041775.658	2°	00'	00"	2864.93	7°13'49.4"	361.52
	PT	27+25.79			2127563.038	6041596.406						
			291.19	N 82°00'42.2° W								
	PC	30+16.98			2127603.504	6041308.042						
	PI	31+38.69			2127620.418	6041187.515	10°	00'	00"	573.69	23°57'20.4"	239.56
	PT/STA EQN											
	BK	32+56.54			2127586.938	6041070.502						
	AHD	32+58.07										
			69.99	S 74°01'57.5° W								
	PC	33+28.06			2127567.684	6041003.212						
	PI	33+68.48			2127556.566	6040964.357	10°	00'	00"	573.69	8°03'33.5"	80.59
	PT	34+08.65			2127551.006	6040924.327						
			438.06	S 82°05'31.0° W								
	PC	38+46.71			2127490.737	6040490.437						
	PI	39+15.03			2127481.336	6040422.762	10°	00'	00"	573.69	13°35'00.9"	135.84
	PT	39+82.55			2127456.304	6040359.188						
			175.37	S 68°30'30.1° W								
	PT SW	41+57.92			2127392.053	6040196.007						
	PITO	41+88.09			2127381.000	6040167.934						
			110.43	S 68°30'30.1° W								
	PC	42+98.52			2127340.542	6040065.182						
	PI	43+64.39			2127316.411	6040003.896	10°	00'	00"	573.69	13°05'56"	130.99
	PT	44+29.51			2127306.797	6039938.736						
			1295.16	S 81°36'26.3° W								
	PC	57+24.67			2127117.759	6038657.443						
	PI	57+40.96			2127115.383	6038641.335	10°	00'	00"	573.69	3°15'05°	32.52
	PT	57+57.19			2127112.097	6038625.388						
			60.00	S 78°21'21.2° W								
	PC	58+17.19			2127099.987	6038566.623						
	PI	58+33.47			2127096.700	6038550.676	10°	00'	00"	573.69	3°15'05°	32.51
	PT	58+49.70			2127094.324	6038534.568						
			25.00	S 81°36'26.3° W								
	PT SW	58+74.70			2127090.675	6038509.836						
	PITO	59+04.87			2127086.272	6038479.989						
			233.60	S 81°36'26.3° W								
	PITO	61+38.47			2127052.176	6038248.890						
	PT SW	61+68.64			2127047.772	6038219.043						
			415.89	S 81°36'26.3° W								
	DOUBLE SLIP SWITCH PI	65+84.53			2126987.071	6037807.612						
			1851.45	S 81°36'26.3° W								
	EOT	84+35.98			2126716.839	6035975.986						
				S 81°36'26.3° W								
WGL No. 3				S 62°09'09.2° W								
	PT SW	0+00.00			2127375.359	6040182.704						
	PITO	0+30.17			2127361.266	6040156.028						
			92.12	S 68°30'30.1° W								
	PC	1+22.29			2127327.515	6040070.312						
	PI	1+89.76			2127302.796	6040007.530	10°	00'	00"	587.69	13°05'56"	134.20
	PT	2+56.49			2127292.947	6039940.780						
			1261.79	S 81°36'26.3° W								
	PC	15+18.28			2127108.780	6038692.502						
	PI	15+50.13			2127104.131	6038660.991	10°	00'	00"	573.69	6°21'21"	63.56
	PT	15+81.84			2127096.022	6038630.188						
			94.61	S 75°15'05.4° W								
	PITO	16+76.45			2127071.936	6038538.692						
	PT SW/EOT	17+06.62			2127067.533	6038508.845						
				S 81°36'26.3° W								
WGL No. 4				S 68°30'30.1° W								
	PT SW	0+00.00			2127431.393	6040295.921						
	PITO	0+30.17			2127420.340	6040267.848						
			96.30	S 68°30'30.1° W								
	PT SW	1+26.47			2127375.359	6040182.704						
	PITO	1+56.64			2127361.266	6040156.028						

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RAIL PLAN
HORIZONTAL ALIGNMENT DATA - 2 OF 2
CITY OF OAKLAND, ALAMEDA COUNTY, CALIFORNIA

#	NORTHING	EASTING	RADIUS	LENGTH*	BEARING
33	2126093.566	6042265.845			
34	2126109.928	6042332.107			
35	2126220.801	6043088.662	STRAIGHT	87.63	N 49°48'17.7" E
36	2126277.359	6043155.601	STRAIGHT	49.03	N 40°33'21.7" E
37	2126314.611	6043187.480	STRAIGHT	99.92	N 37°08'58.7" E
38	2126394.253	6043247.822	STRAIGHT	148.96	N 30°42'23.7" E
39	2126522.328	6043323.887	STRAIGHT	74.75	N 27°43'41.0" E
40	2126588.491	6043358.665	R = 418.78	124.38	N 10°14'19.1" E
41	2126712.357	6043362.406	R = 418.78	285.12	N 6°46'42.8" W
42	2126963.092	6043238.577	R = 418.78	100.32	N 45°47'16.2" W
43	2127023.810	6043159.014	STRAIGHT	32.36	N 59°30'50.2" W
44	2127034.116	6043128.341			N 71°25'40.3" W
45	NOT USED	NOT USED	STRAIGHT	103.17	N 74°35'56.3" W
46	2127061.515	6043028.876	STRAIGHT	32.44	N 71°46'24.3" W
47	2127071.662	6042998.064	STRAIGHT	42.05	N 70°14'16.3" W
48	2127085.880	6042958.489	R = -599.96	77.27	
49	2127147.735	6042912.272			
50	2127499.978	6041844.957			
51	2127520.080	6041751.611			
52	2127453.361	6040520.804			
*CURVE LENGTHS ARE ARC DEFINITION					

BASIS OF BEARINGS

THE BEARING, NORTH 41°00'50" EAST, BETWEEN CITY OF OAKLAND MONUMENT "75E13R", KNOWN AS "H006", BEING A PIN SET IN CONCRETE IN A STANDARD MONUMENT WELL MARKING THE CENTERLINE OF MARITIME STREET, HAVING PORT OF OAKLAND HORIZONTAL DATUM COORDINATES OF NORTH 2,123,462.01 AND EAST 6,038,565.73 (U.S. SURVEY FEET), AND THE CITY OF OAKLAND MONUMENT "79E2" KNOWN AS "H024", BEING A PIN SET IN CONCRETE IN A STANDARD MONUMENT WELL MARKING SAID CENTERLINE OF MARITIME STREET, HAVING PORT OF OAKLAND HORIZONTAL DATUM COORDINATES OF NORTH 2,125,886.07 AND EAST 6,040,673.96, AS SAID MONUMENTS ARE SHOWN ON RECORD OF SURVEY NO. 990, FILED JULY 19, 1994 IN BOOK 18 OF RECORDS OF SURVEY AT PAGES 50 THROUGH 60, IN THE OFFICIAL RECORDS OF ALAMEDA COUNTY, IS TAKEN AS THE BASIS OF BEARINGS FOR THESE PLANS.

						DRAWING NO.	
						RR-07	
						SHEET 7 OF 85	
	09/04/2015	FRC #57 - RAIL MOD DUE TO TLS PROJECT	MRS			SCALE:	NO SCALE
	4/29/2015	FRC #46 - PLAN CHANGES DUE TO UPDATED RAIL	MRS			DATE:	08/28/2017
		CONSTRUCTION SET	MRS				
REV	DATE	COMMENT	CHECKED BY	C.O.O.			

Aug 29, 2017 - 10:02am, Plotted By: BKELLY
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OAKLAND GLOBAL



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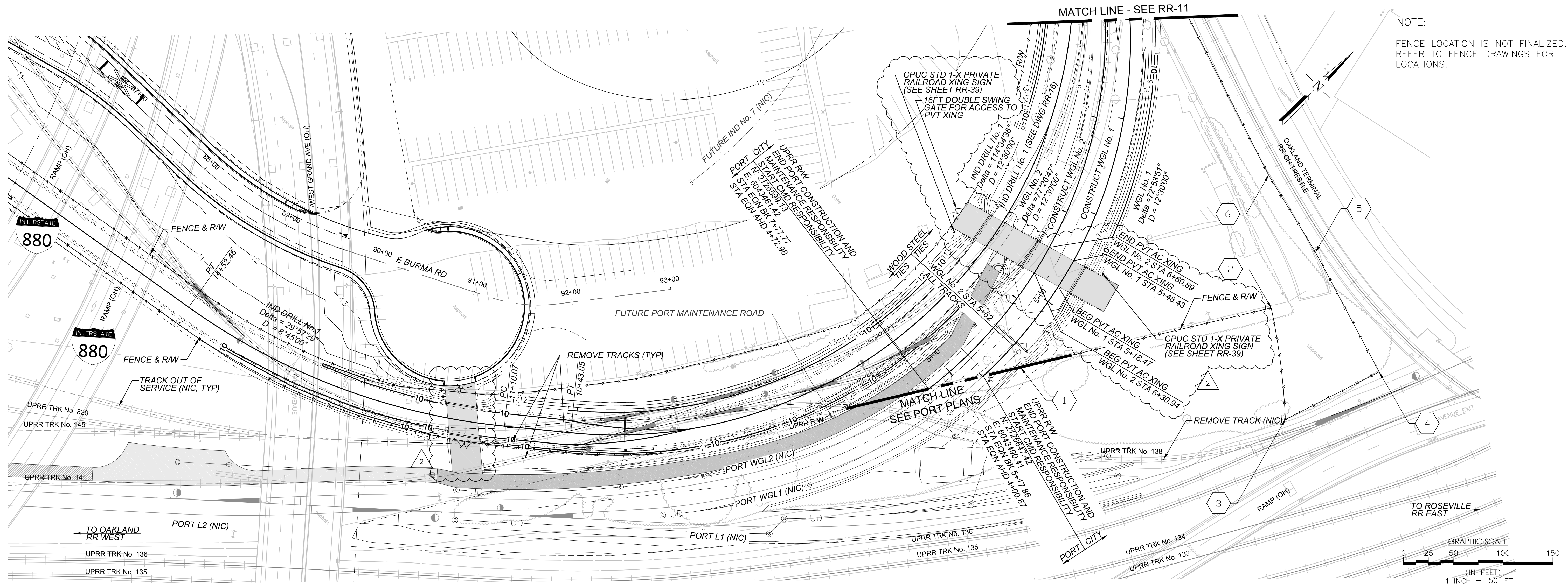
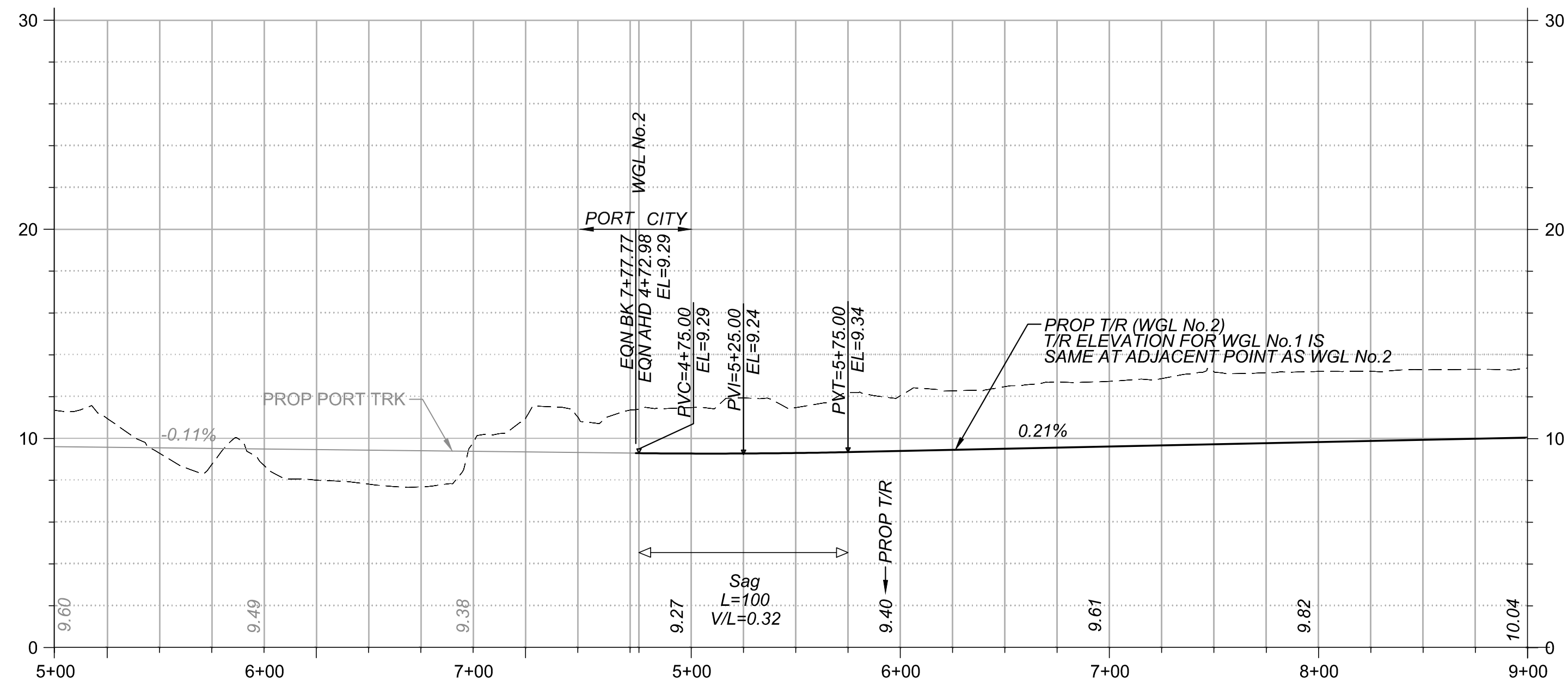
HDR ENGINEERING, INC.
925-974-2500
2121 N. CALIFORNIA BLVD, SUITE 475
WALNUT CREEK, CA 94596

JOB NO. 190328
DRAWN BY: BPK
CHECKED BY: MRS

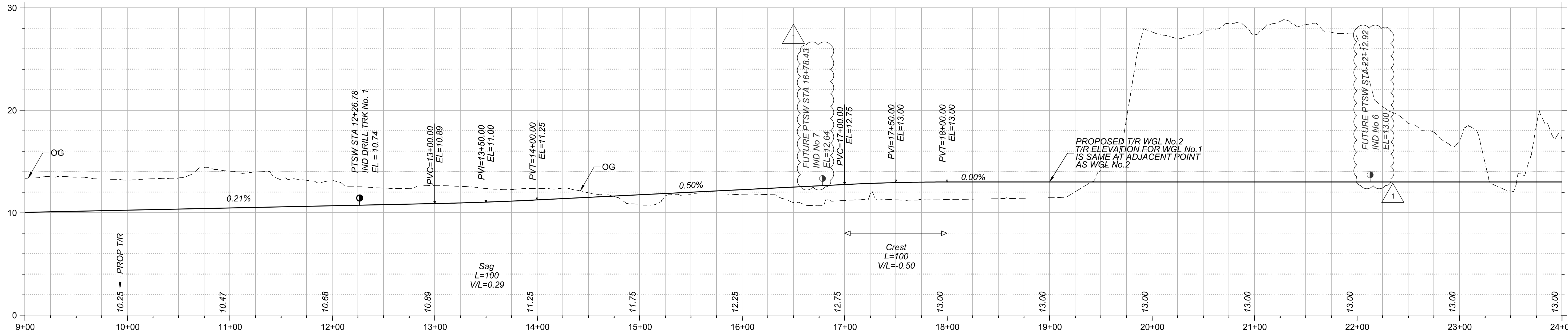


PROJECT INFO.

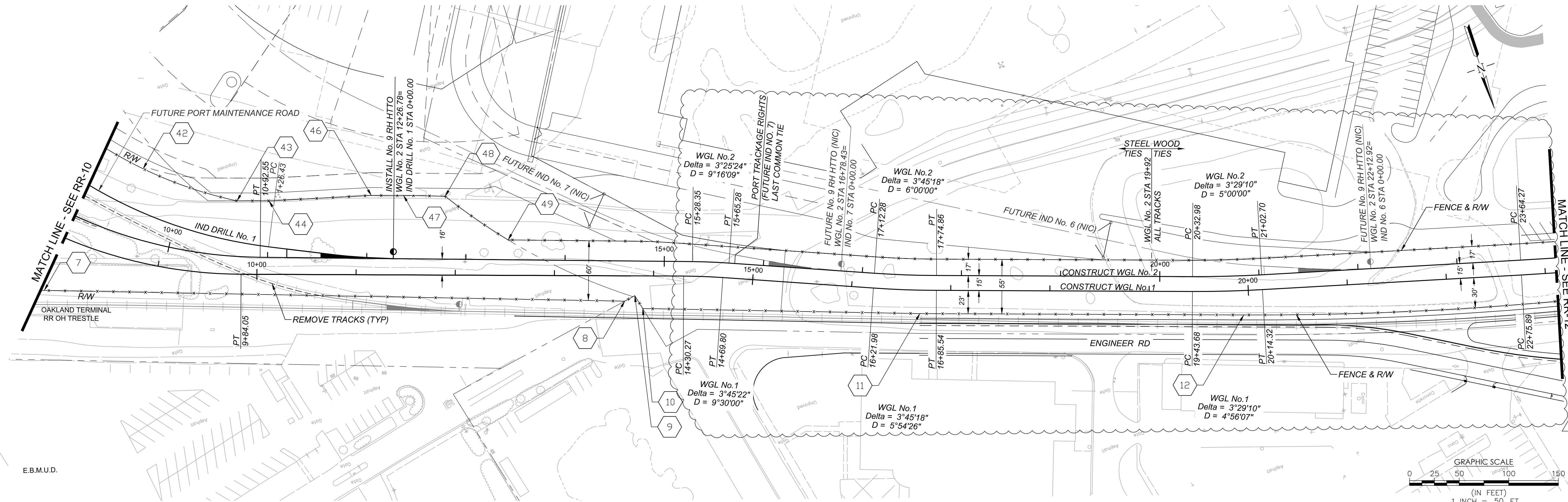
RAIL PLAN
TRACK PLAN AND PROFILE
CITY OF OAKLAND, ALAMEDA COUNTY, CALIFORNIA



DRAWING NO.				
RR-10				
SHEET 8 OF 85				
SCALE: 1" = 50'				
DATE: 08/28/2017				
REV	DATE	COMMENT	CHECKED BY	C.O.O.
1	10/14/2015	FRC #67 - BLDG-991 AND RAIL RELATED REV.	MRS	FK
2	04/29/2015	FRC #46 - PLAN CHANGES DUE TO UPDATED RAIL	MRS	FK
3	09/24/2014	CONSTRUCTION SET	MRS	FK



NOTE:
FENCE LOCATION IS NOT FINALIZED. REFER TO FENCE DRAWINGS FOR LOCATIONS.



OAKLAND GLOBAL

PORT OF OAKLAND
CITY OF OAKLAND

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HDR ENGINEERING, INC.
925-974-2500
2121 N. CALIFORNIA BLVD, SUITE 475
WALNUT CREEK, CA 94596

JOB NO. 190328
DRAWN BY: BPK
CHECKED BY: MRS

REGISTERED PROFESSIONAL ENGINEER
MICHAEL R. STRIDER
C-56163
CIVIL
STATE OF CALIFORNIA
8/28/17

PROJECT INFO.

RAIL PLAN
TRACK PLAN AND PROFILE
CITY OF OAKLAND, ALAMEDA COUNTY, CALIFORNIA

DRAWING NO.			
RR-11			
SHEET 2 OF 85			
SCALE: 1" = 50'			
DATE: 08/28/2017			
REV	DATE	COMMENT	CHECKED BY
1	04/29/2015	FRC #46 - PLAN CHANGES DUE TO UPDATED RAIL	MRS
2		CONSTRUCTION SET	MRS

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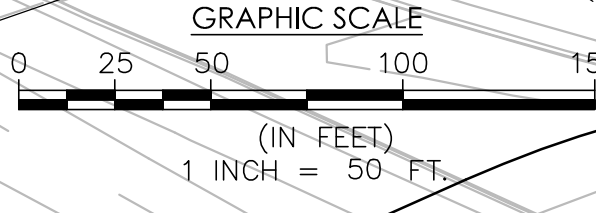
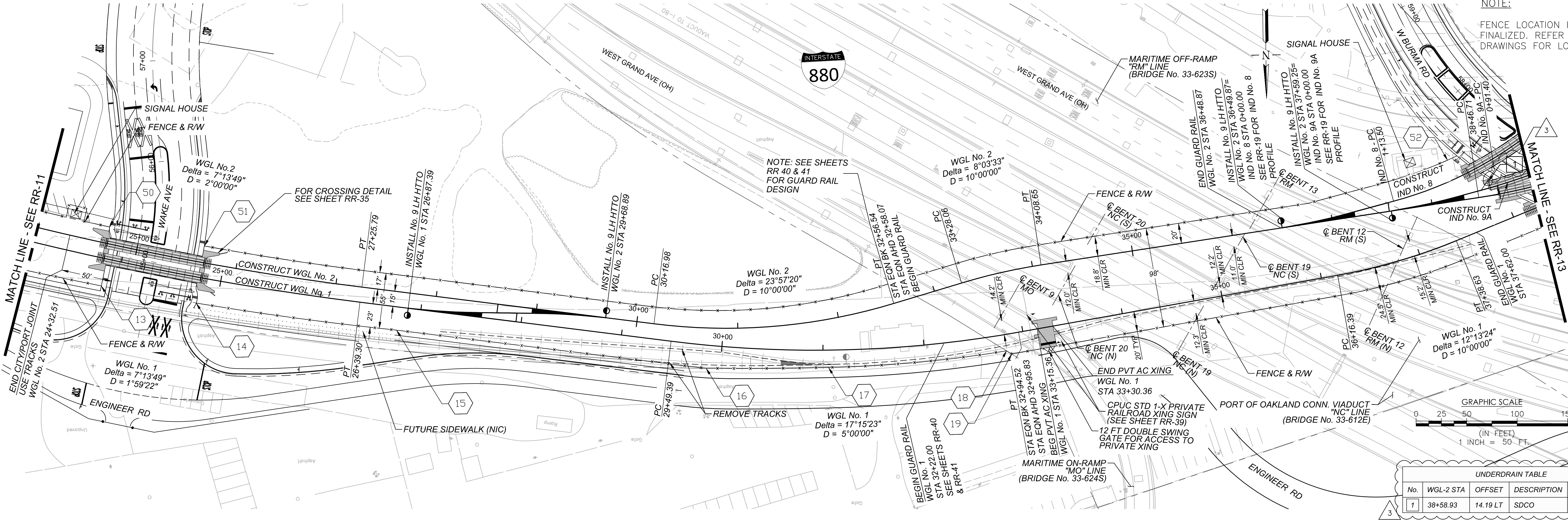
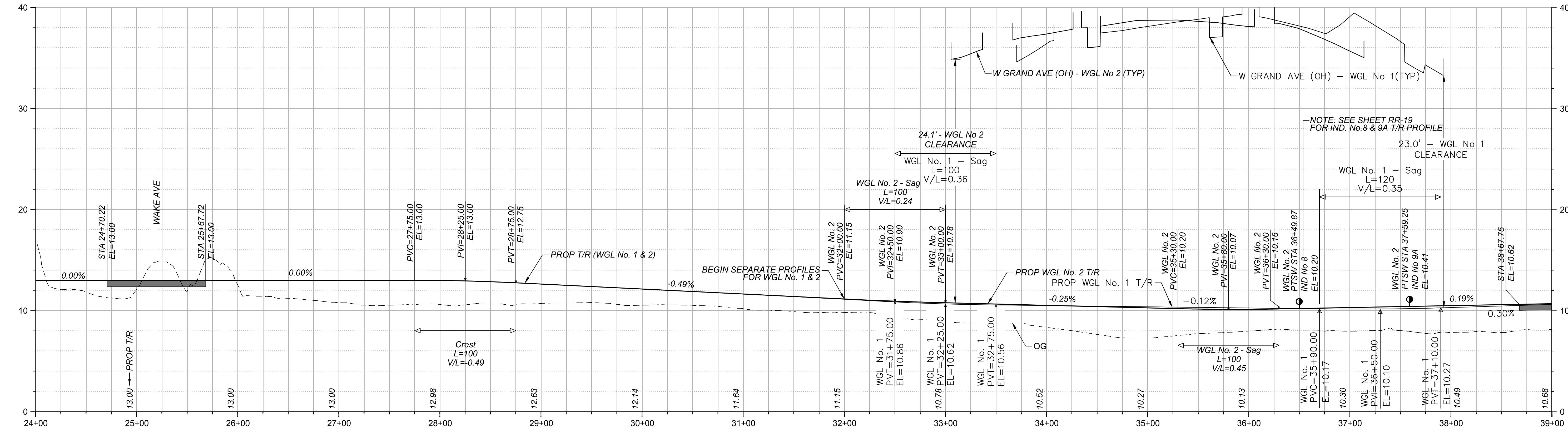
JOB NO. 190328
DRAWN BY: BPK
CHECKED BY: MRS



PROJECT INFO.

RAIL PLAN
TRACK PLAN AND PROFILE
CITY OF OAKLAND, ALAMEDA COUNTY, CALIFORNIA

DRAWING NO.			
RR-12			
SHEET 10 OF 85			
SCALE: 1" = 50'			
DATE: 08/28/2017			
REV	DATE	COMMENT	CHECKED BY
1	06/14/2017	FRC#93 - WGW RAIL LWCC REVISION	MRS
2	10/14/2015	FRC #57 - RAIL MODIFICATION DUE TO TLS PROJECT	MRS
3	04/29/2015	FRC #46 - PLAN CHANGES DUE TO UPDATED RAIL	MRS
4	09/24/2014	CONSTRUCTION SET	MRS



UNDERDRAIN TABLE				
No.	WGL-2 STA	OFFSET	DESCRIPTION	TG
1	38+58.93	14.19 LT	SDCO	10.60

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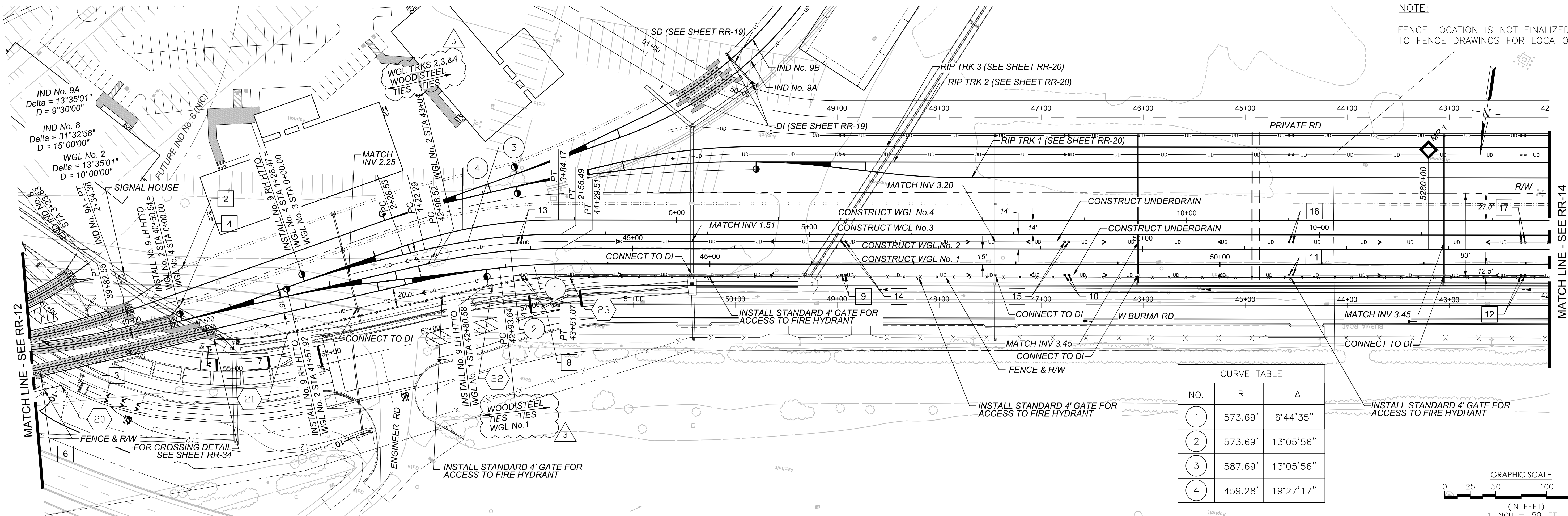
JOB NO. 190328
DRAWN BY: BPK
CHECKED BY: MRS



PROJECT INFO.

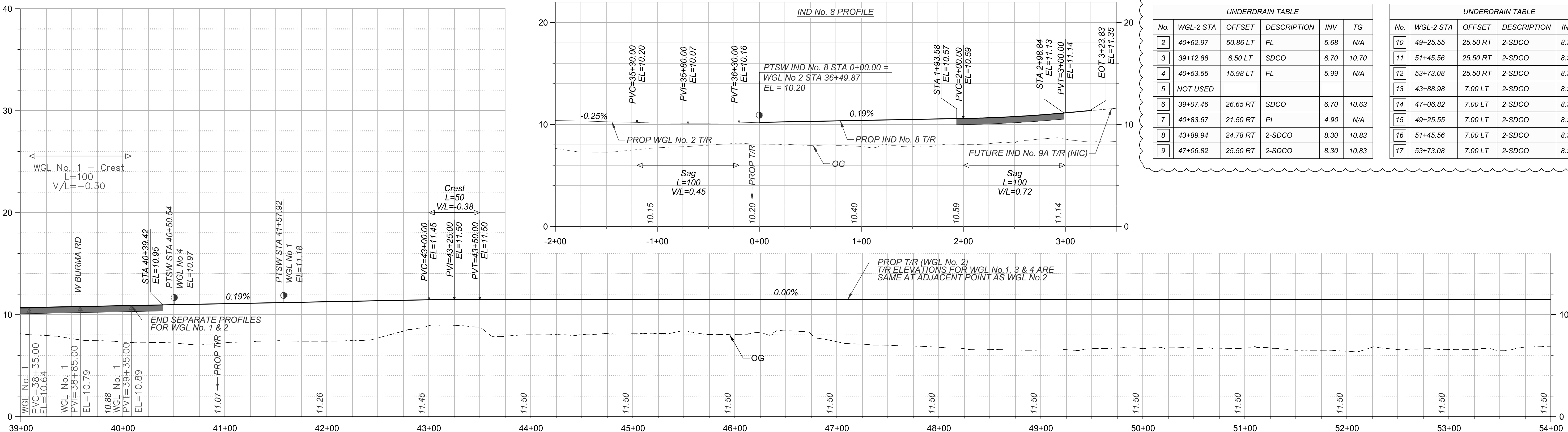
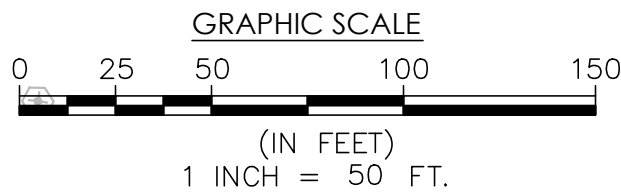
RAIL PLAN
TRACK PLAN AND PROFILE
CITY OF OAKLAND, ALAMEDA COUNTY, CALIFORNIA

				DRAWING NO.
				RR-13
				SHEET 11 OF 85
				SCALE: 1" = 50'
				DATE: 08/28/2017
REV	DATE	COMMENT	CHECKED BY	C.O.O.
△	06/14/2017	FRC#93 - WGW RAIL LWCC REVISION	MRS	
△	10/14/2015	FRC #57 - RAIL MODIFICATION DUE TO TLS PROJECT	MRS	FK
△	04/29/2015	FRC #46 - PLAN CHANGES DUE TO UPDATED RAIL	MRS	FK
△	09/24/2014	CONSTRUCTION SET	MRS	FK



NOTE:
FENCE LOCATION IS NOT FINALIZED. REFER TO FENCE DRAWINGS FOR LOCATIONS.

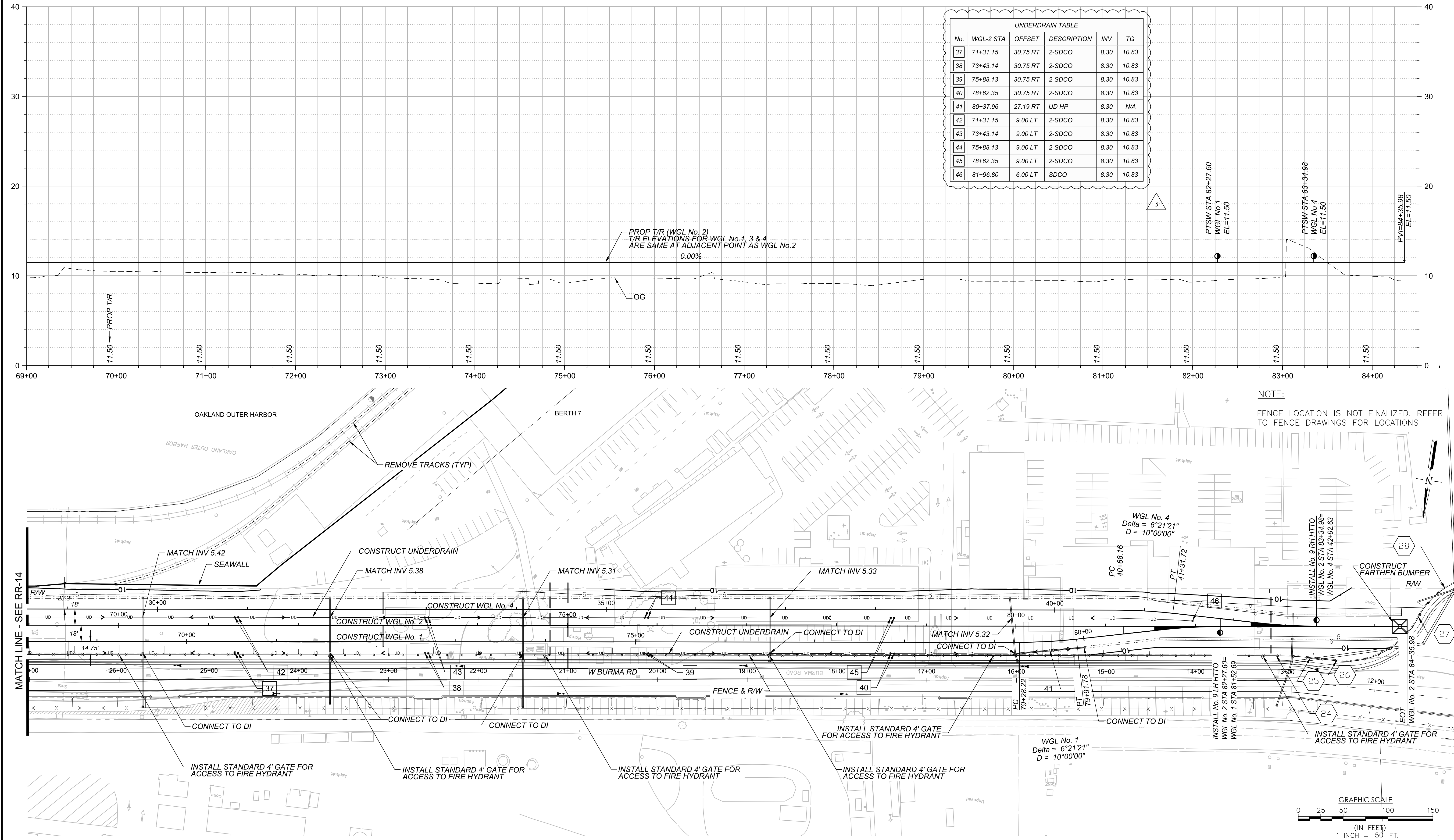
CURVE TABLE		
NO.	R	Δ
1	573.69'	6°44'35"
2	573.69'	13°05'56"
3	587.69'	13°05'56"
4	459.28'	19°27'17"



UNDERDRAIN TABLE				
No.	WGL-2 STA	OFFSET	DESCRIPTION	INV
2	40+62.97	50.86 LT	FL	5.68
3	39+12.88	6.50 LT	SDCO	6.70
4	40+53.55	15.98 LT	FL	5.99
5	NOT USED			
6	39+07.46	26.65 RT	SDCO	6.70
7	40+83.67	21.50 RT	PI	4.90
8	43+89.94	24.78 RT	2-SDCO	8.30
9	47+06.82	25.50 RT	2-SDCO	8.30

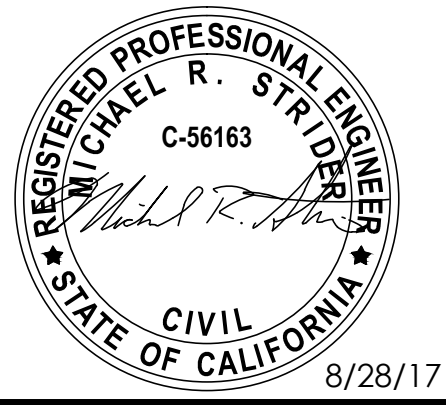
UNDERDRAIN TABLE				
No.	WGL-2 STA	OFFSET	DESCRIPTION	INV
10	49+25.55	25.50 RT	2-SDCO	8.30
11	51+45.56	25.50 RT	2-SDCO	8.30
12	53+73.08	25.50 RT	2-SDCO	8.30
13	43+88.98	7.00 LT	2-SDCO	8.30
14	47+06.82	7.00 LT	2-SDCO	8.30
15	49+25.55	7.00 LT	2-SDCO	8.30
16	51+45.56	7.00 LT	2-SDCO	8.30
17	53+73.08	7.00 LT	2-SDCO	8.30

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2121 N. CALIFORNIA BLVD, SUITE 475
WALNUT CREEK, CA 94596

JOB NO. 190328
DRAWN BY: BPK
CHECKED BY: MRS



PROJECT INFO.

RAIL PLAN
TRACK PLAN AND PROFILE
CITY OF OAKLAND, ALAMEDA COUNTY, CALIFORNIA

DRAWING NO.			
RR-15			
SHEET 13 OF 85			
SCALE: 1" = 50'			
DATE: 08/28/2017			
REV	DATE	COMMENT	CHECKED BY
△	06/14/2017	FRC#93 - WGW RAIL LWCC REVISION	MRS
△	10/14/2015	FRC #57 - RAIL MODIFICATION DUE TO TLS PROJECT	MRS
△	04/29/2015	FRC #46 - PLAN CHANGES DUE TO UPDATED RAIL	MRS
△	09/24/2014	CONSTRUCTION SET	MRS

Aug 29, 2017 - 10:12am, Plotted By: BKELLY
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OAKLAND GLOBAL



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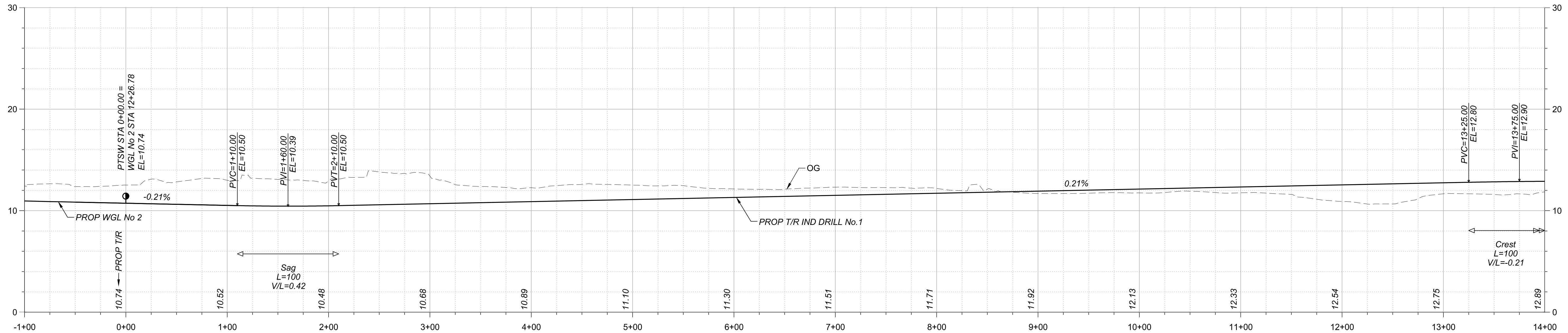
HDR ENGINEERING, INC.
925-974-2500
2121 N. CALIFORNIA BLVD, SUITE 475
WALNUT CREEK, CA 94596

JOB NO. 190328
DRAWN BY: BPK
CHECKED BY: MRS

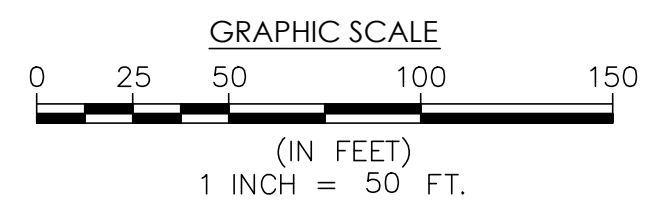
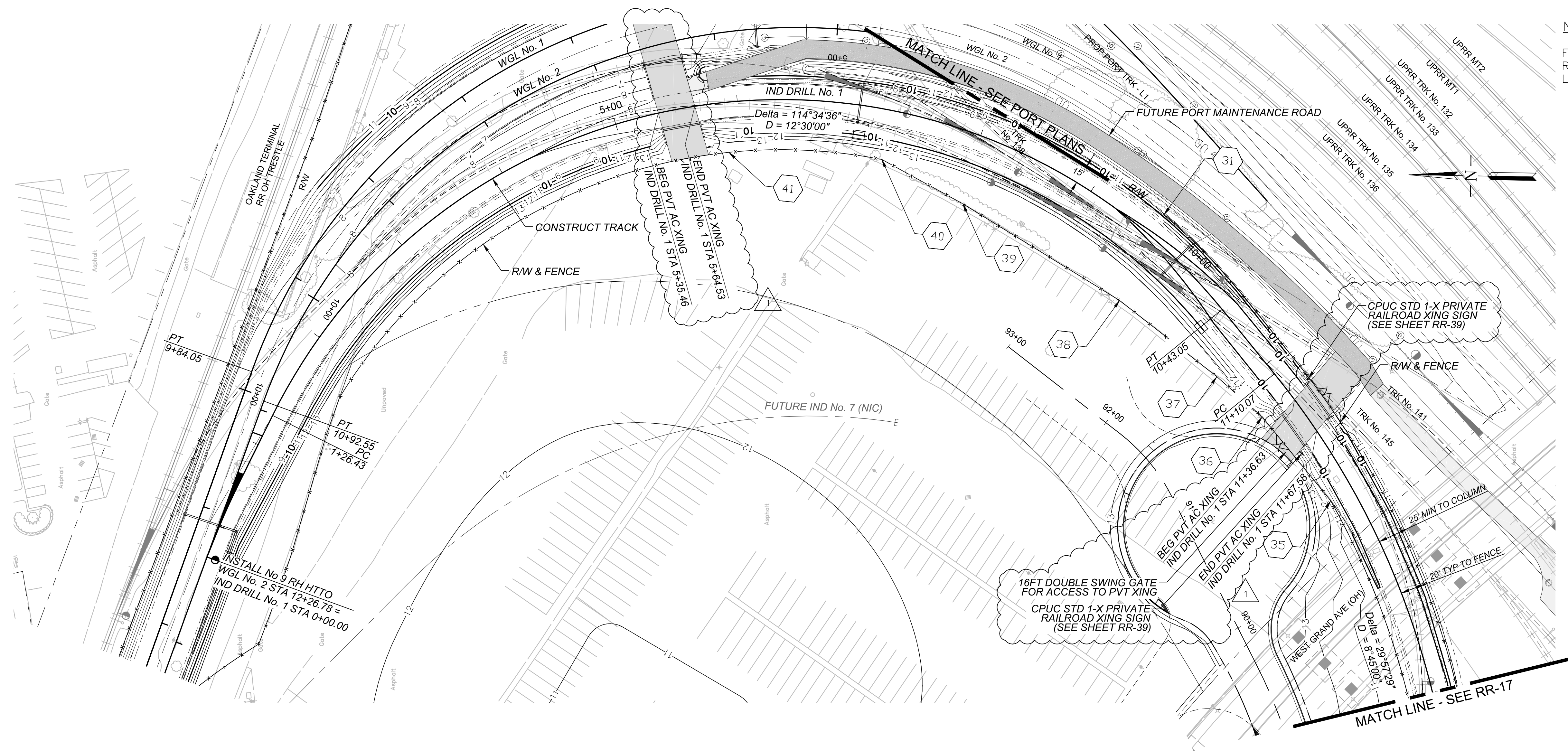


PROJECT INFO.

RAIL PLAN
TRACK PLAN AND PROFILE - INDUSTRY DRILL TRACK No. 1
CITY OF OAKLAND, ALAMEDA COUNTY, CALIFORNIA

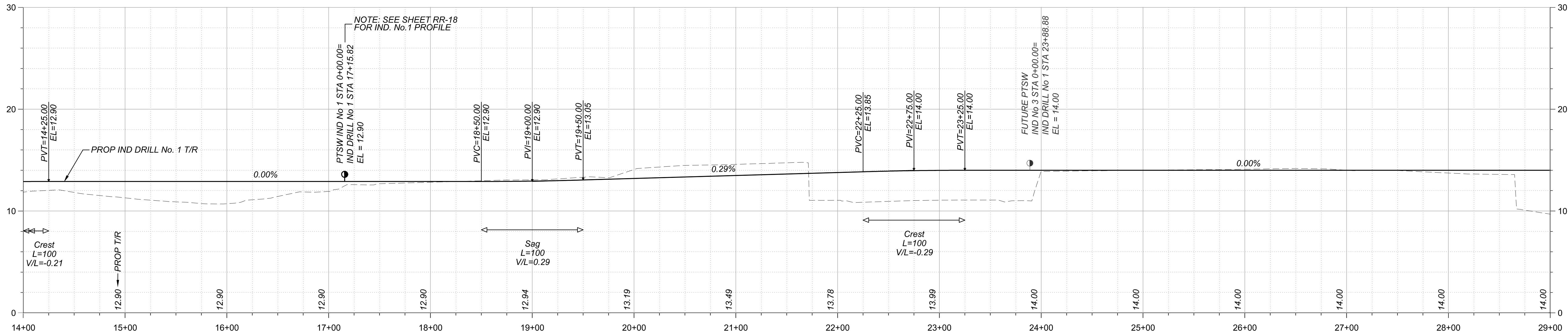


NOTE:
FENCE LOCATION IS NOT FINALIZED.
REFER TO FENCE DRAWINGS FOR
LOCATIONS.

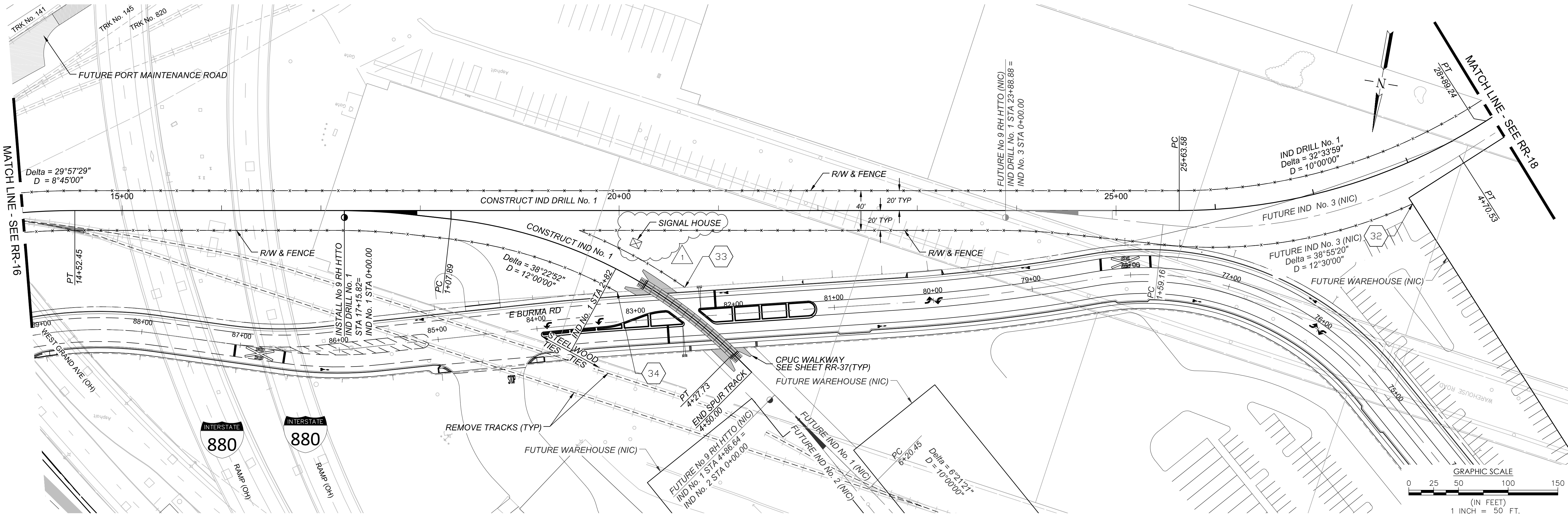


DRAWING NO.
RR-16
SHEET 14 OF 85
SCALE: 1" = 50'
DATE: 08/28/2017

REV	DATE	COMMENT	CHECKED BY	C.O.O.	DATE
1	10/14/2015	FRC #67 - BLDG-991 AND RAIL RELATED REV.	MRS		
2	09/24/2014	CONSTRUCTION SET	MRS	FK	



NOTE:
FENCE LOCATION IS NOT FINALIZED. REFER TO FENCE DRAWINGS FOR LOCATIONS.



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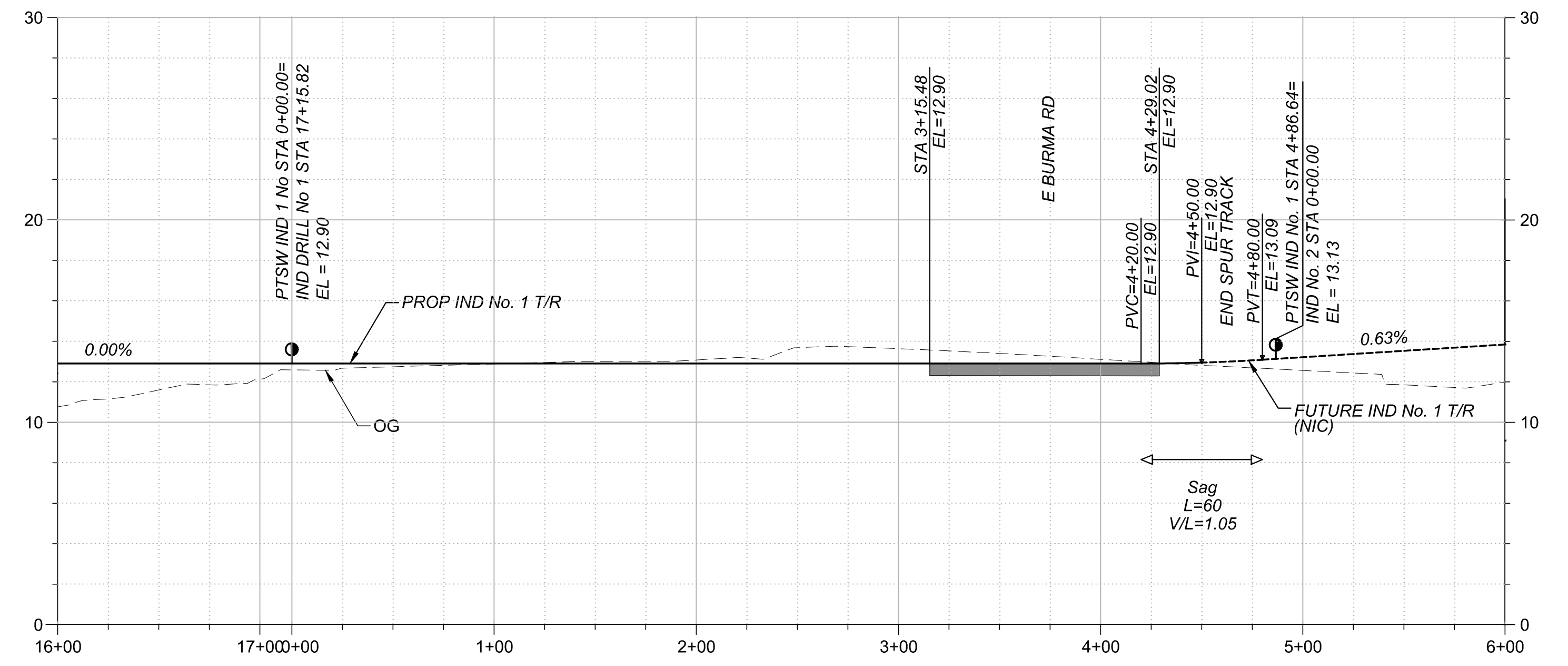
JOB NO. 190328
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CHECKED BY: MRS



PROJECT INFO.

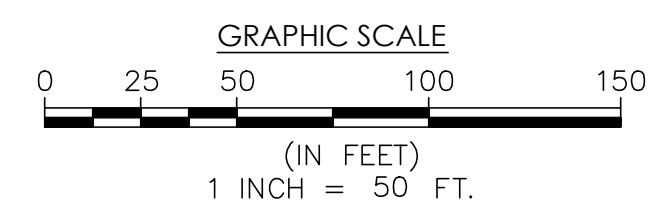
RAIL PLAN
TRACK PLAN AND PROFILE - INDUSTRY DRILL TRACK No. 1
CITY OF OAKLAND, ALAMEDA COUNTY, CALIFORNIA

					DRAWING NO.
					RR-17
					SHEET 15 OF 85
					SCALE: 1" = 50'
					DATE: 08/28/2017
REV	DATE	COMMENT	CHECKED BY	C.O.O.	
06/22/2015		FRC #55 - EAST BURMA SIGNAL HOUSE MOD	MRS		
09/24/2014		CONSTRUCTION SET	MRS		



NOTE:

FENCE LOCATION IS NOT FINALIZED. REFER TO FENCE DRAWINGS FOR LOCATIONS.



						DRAWING NO. RR-18 SHEET <u>16</u> OF <u>85</u>	
		CONSTRUCTION SET	MRS			SCALE: 1" = 50'	
REV	DATE	COMMENT	CHECKED BY	C.O.O.	DATE:	08/28/2017	

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2121 N. CALIFORNIA BLVD, SUITE 475
WALNUT CREEK, CA 94596

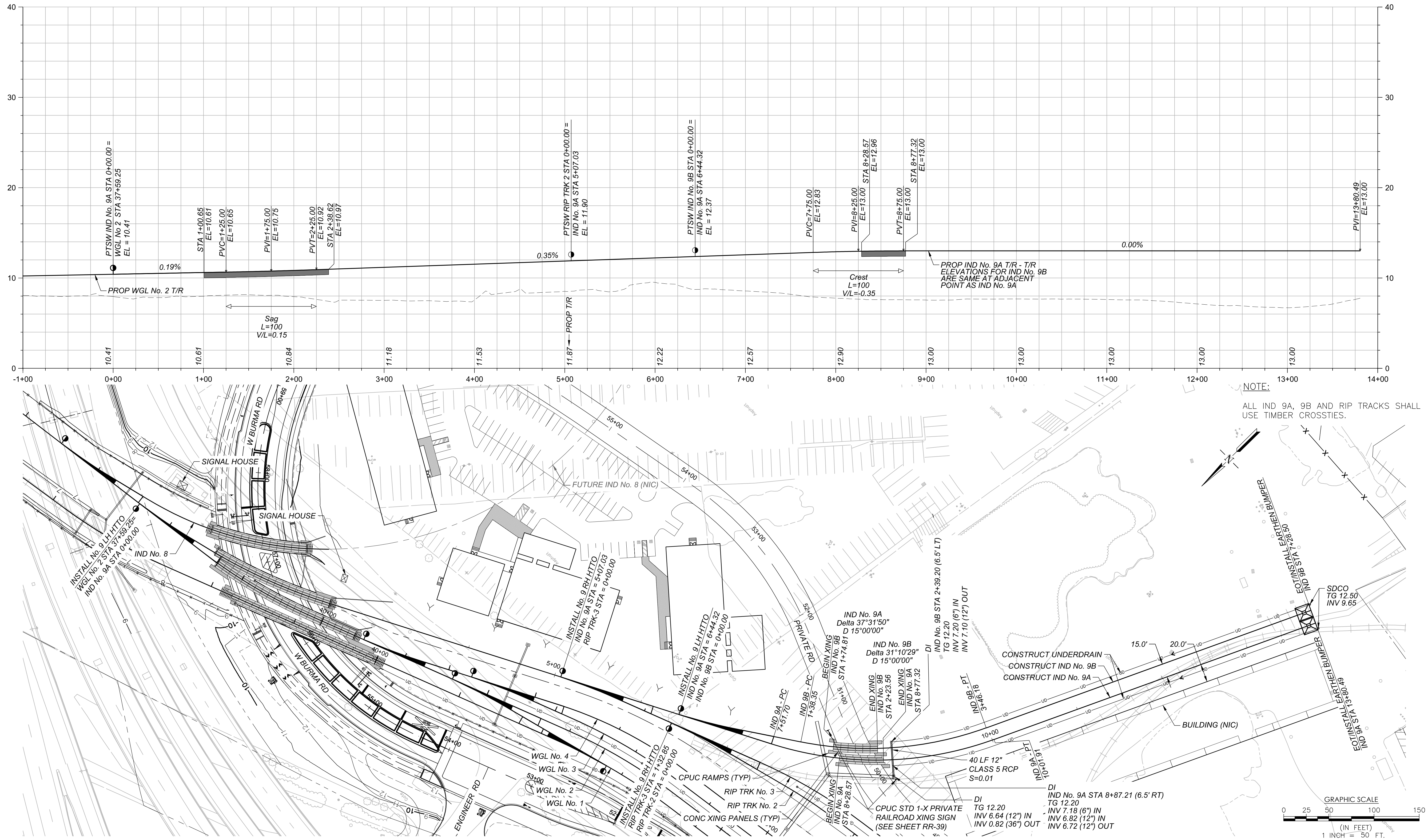
JOB NO. 190328
DRAWN BY: BPK
CHECKED BY: MRS



PROJECT INFO.

RAIL PLAN
INDUSTRY TRACK No. 9 - PLAN AND PROFILE
CITY OF OAKLAND, ALAMEDA COUNTY, CALIFORNIA

					DRAWING NO. NEW SHEET
					RR-19
					SHEET 17 OF 85
					SCALE: 1" = 50'
REV	DATE	COMMENT	CHECKED BY	C.O.O.	DATE
	10/14/2015	FRC #57 - RAIL MODIFICATION DUE TO TLS PROJECT	MRS		08/28/2017



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WALNUT CREEK, CA 94596

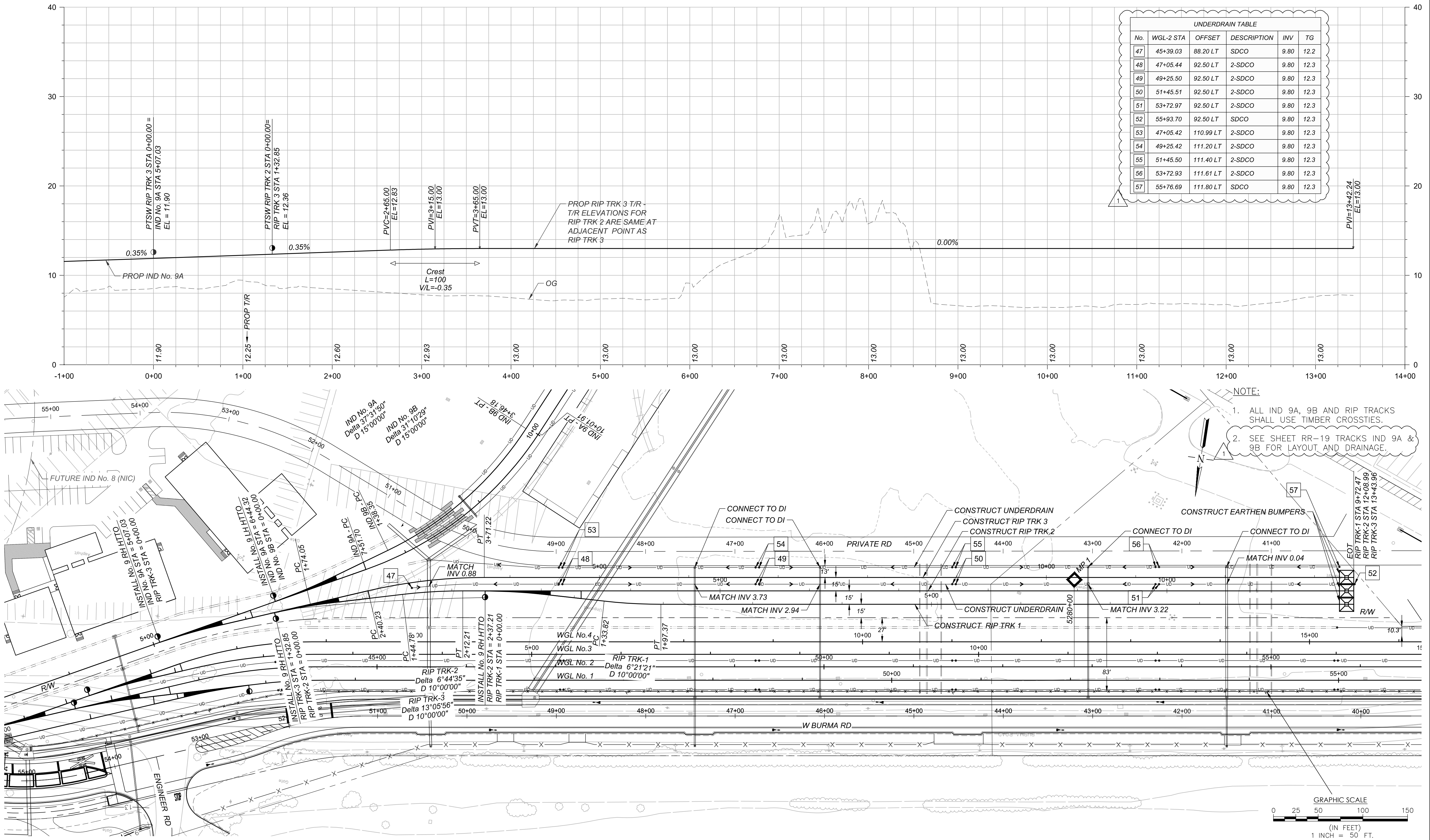
JOB NO. 190328
DRAWN BY: BPK
CHECKED BY: MRS



PROJECT INFO.

RAIL PLAN
RIP TRACK No. 2 - PLAN AND PROFILE
CITY OF OAKLAND, ALAMEDA COUNTY, CALIFORNIA

					DRAWING NO.
					RR-20
					SHEET 18 OF 85
06/14/2017	FRC#93 - WGW RAIL LWCC REVISION	MRS			SCALE: 1" = 50'
10/14/2015	FRC #57 - RAIL MODIFICATION DUE TO TLS PROJECT	MRS	FK		DATE: 08/28/2017
REV	DATE	COMMENT	CHECKED BY	C.O.O.	DATE



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925-974-2500
2121 N. CALIFORNIA BLVD, SUITE 475
WALNUT CREEK, CA 94596

JOB NO.	190328
DRAWN BY:	BPK
CHECKED BY:	MRS



PROJECT INFO.

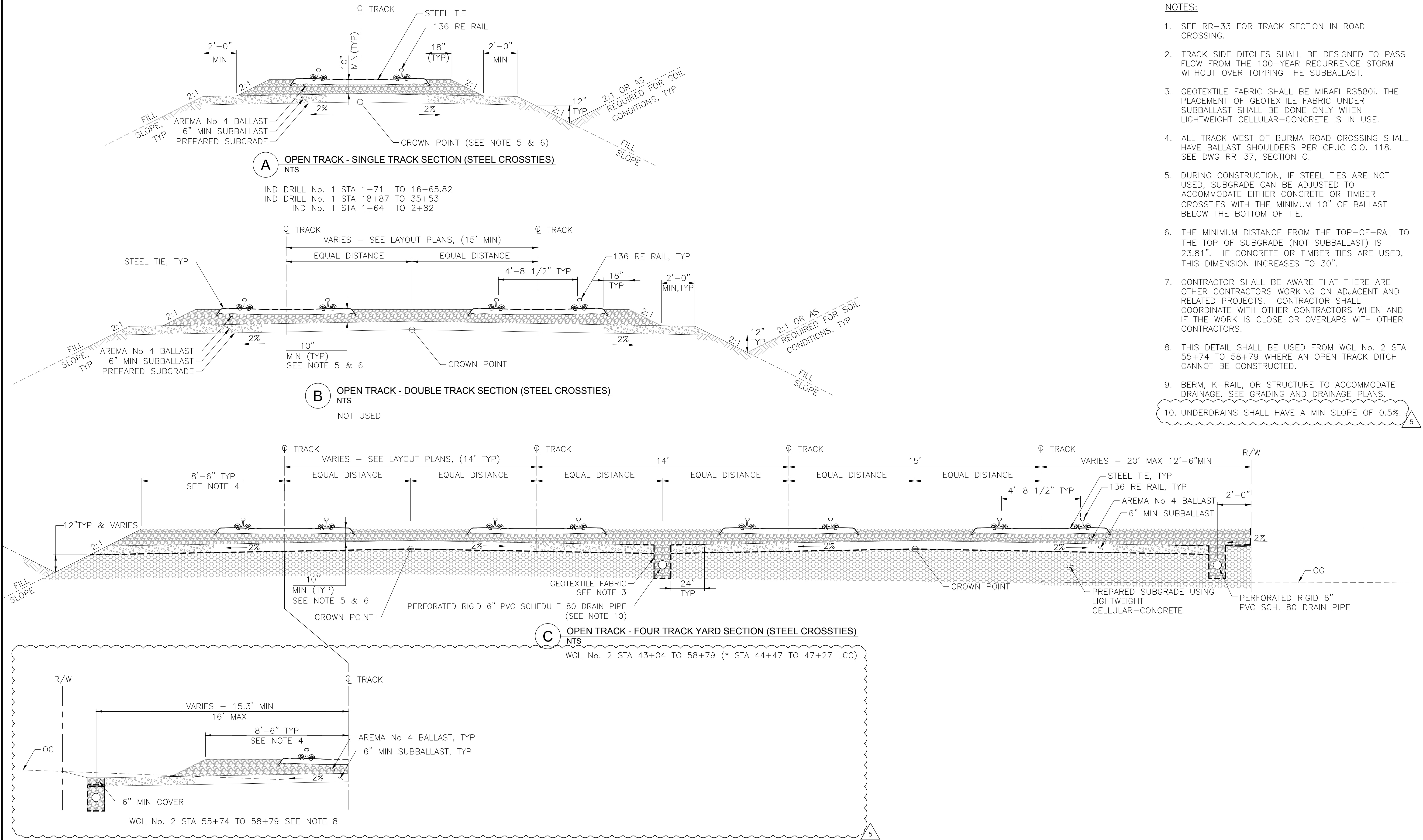
RAIL PLAN
TYPICAL SECTIONS - 1 OF 4
CITY OF OAKLAND, ALAMEDA COUNTY, CALIFORNIA

REV	DATE	COMMENT	CHECKED BY	C.O.O.	DATE
△	6/14/2017	FRC #93 - WGW RAIL LWCC REVISION	MRS		
△	10/14/2015	FRC #57 - RAIL MODIFICATION DUE TO TLS PROJECT	MRS	FK	
△	8/07/2015	FRC #63 - UPDATED TRACK SECTION	MRS	FK	
△	7/08/2015	FRC #58 RAIL CROSS SECTION MOD	MRS	FK	
△	4/29/2015	FRC #46 - PLAN CHANGES DUE TO UPDATED RAIL	MRS	FK	
△	9/24/2014	CONSTRUCTION SET	MRS	FK	

DRAWING NO.		RR-30	
		SHEET 17 OF 85	
SCALE:	AS NOTED	DATE:	08/28/2017

NOTES:

- SEE RR-33 FOR TRACK SECTION IN ROAD CROSSING.
- TRACK SIDE DITCHES SHALL BE DESIGNED TO PASS FLOW FROM THE 100-YEAR RECURRENCE STORM WITHOUT OVER TOPPING THE SUBBALLAST.
- GEOTEXTILE FABRIC SHALL BE MIRAFI RS580i. THE PLACEMENT OF GEOTEXTILE FABRIC UNDER SUBBALLAST SHALL BE DONE ONLY WHEN LIGHTWEIGHT CELLULAR-CONCRETE IS IN USE.
- ALL TRACK WEST OF BURMA ROAD CROSSING SHALL HAVE BALLAST SHOULDERS PER CPUC G.O. 118. SEE DWG RR-37, SECTION C.
- DURING CONSTRUCTION, IF STEEL TIES ARE NOT USED, SUBGRADE CAN BE ADJUSTED TO ACCOMMODATE EITHER CONCRETE OR TIMBER CROSSTIES WITH THE MINIMUM 10" OF BALLAST BELOW THE BOTTOM OF TIE.
- THE MINIMUM DISTANCE FROM THE TOP-OF-RAIL TO THE TOP OF SUBGRADE (NOT SUBBALLAST) IS 23.81". IF CONCRETE OR TIMBER TIES ARE USED, THIS DIMENSION INCREASES TO 30".
- CONTRACTOR SHALL BE AWARE THAT THERE ARE OTHER CONTRACTORS WORKING ON ADJACENT AND RELATED PROJECTS. CONTRACTOR SHALL COORDINATE WITH OTHER CONTRACTORS WHEN AND IF THE WORK IS CLOSE OR OVERLAPS WITH OTHER CONTRACTORS.
- THIS DETAIL SHALL BE USED FROM WGL No. 2 STA 55+74 TO 58+79 WHERE AN OPEN TRACK DITCH CANNOT BE CONSTRUCTED.
- BERM, K-RAIL, OR STRUCTURE TO ACCOMMODATE DRAINAGE. SEE GRADING AND DRAINAGE PLANS.
- UNDERDRAINS SHALL HAVE A MIN SLOPE OF 0.5%.



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2121 N. CALIFORNIA BLVD, SUITE 475
WALNUT CREEK, CA 94596

JOB NO.	190328
DRAWN BY:	BPK
CHECKED BY:	MRS



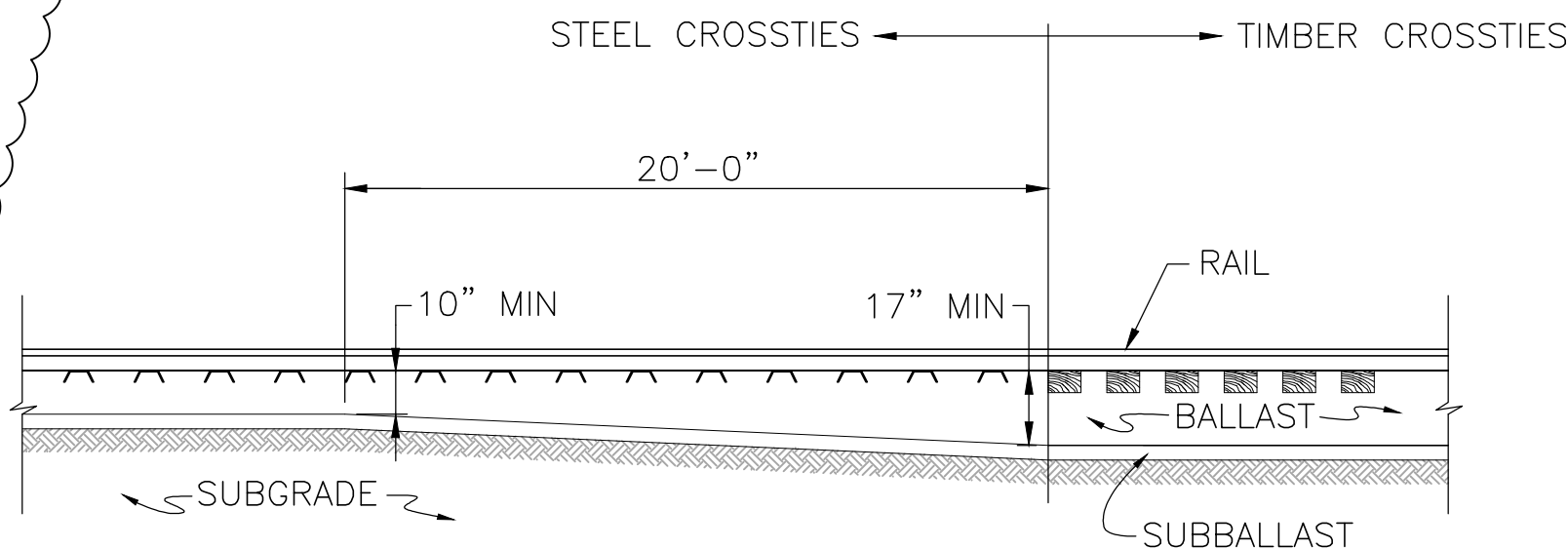
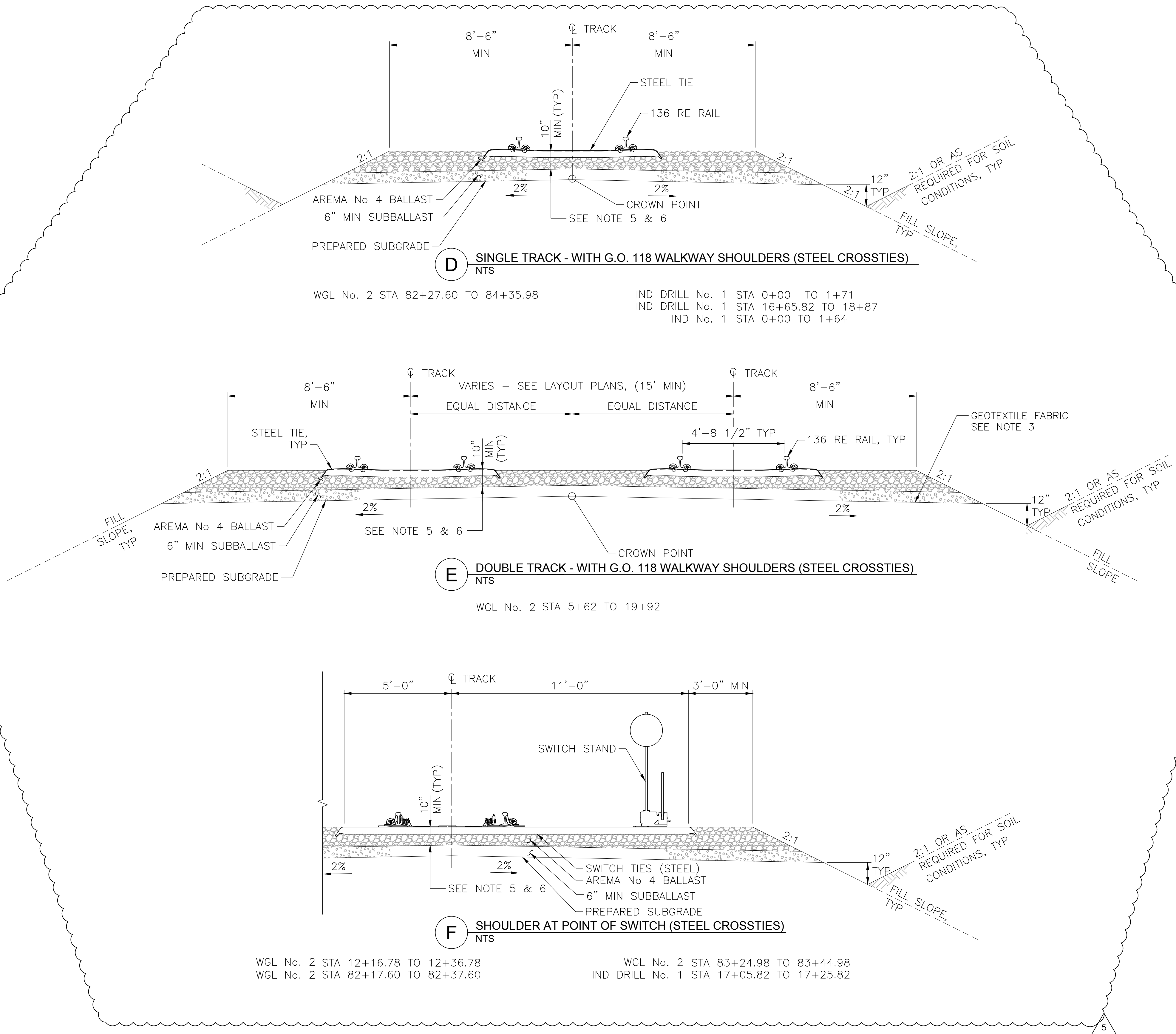
PROJECT INFO.

RAIL PLAN
TYPICAL SECTIONS - 2 OF 4
CITY OF OAKLAND, ALAMEDA COUNTY, CALIFORNIA

DRAWING NO.				
RR-31				
SHEET 18 OF 85				
REV	DATE	COMMENT	CHECKED BY	C.O.O.
1	06/14/2017	FRC #93 - WGW RAIL LWCC REVISION	MRS	
2	10/14/2015	FRC #57 - RAIL MODIFICATION DUE TO TLS PROJECT	MRS	FK
3	8/07/2015	FRC #63 - UPDATED TRACK SECTION	MRS	FK
4	7/08/2015	FRC #58 - RAIL CROSS SECTION MOD	MRS	FK
5	4/29/2015	FRC #46 - PLAN CHANGES DUE TO UPDATED RAIL	MRS	FK
6	9/24/2014	CONSTRUCTION SET	MRS	FK
SCALE: AS NOTED				
DATE: 08/28/2017				

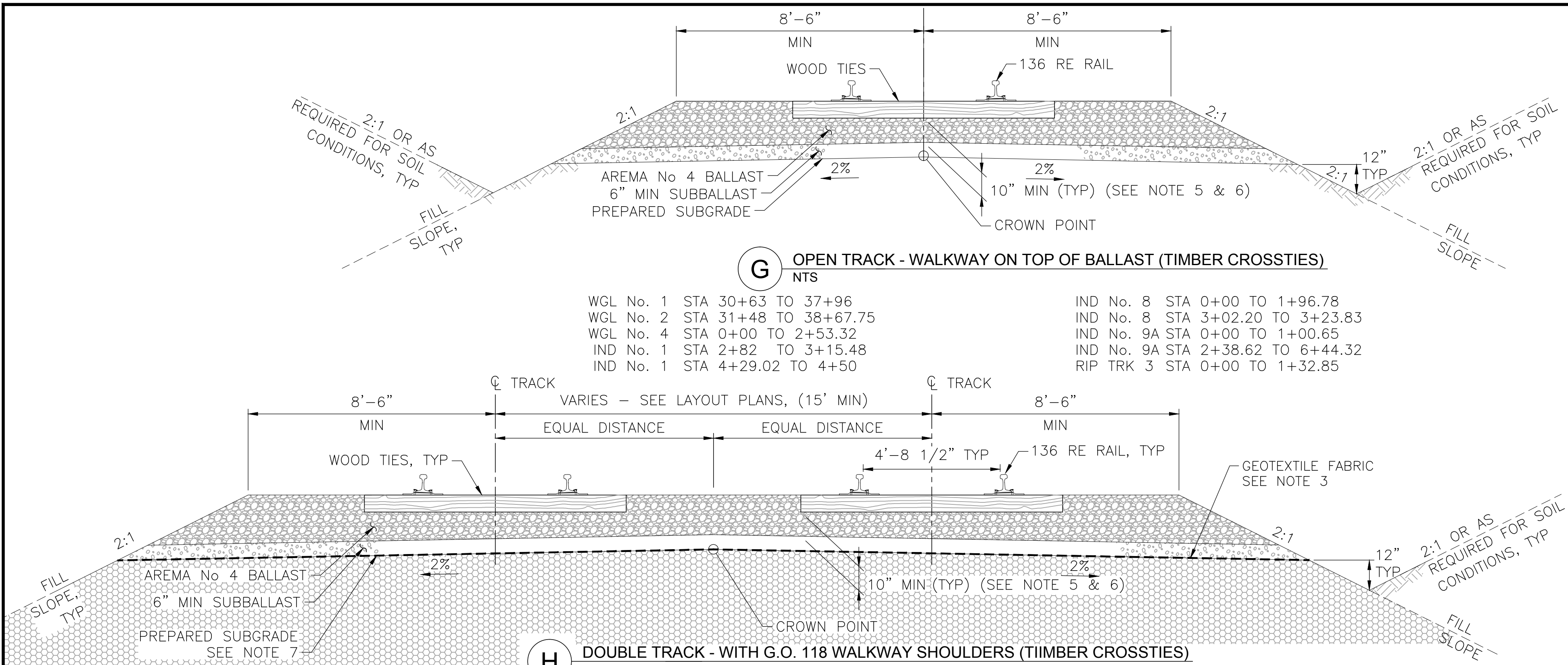
NOTES:

- SEE RR-33 FOR TRACK SECTION IN ROAD CROSSING.
- TRACK SIDE DITCHES SHALL BE DESIGNED TO PASS FLOW FROM THE 100-YEAR RECURRENCE STORM WITHOUT OVER TOPPING THE SUBBALLAST.
- GEOTEXTILE FABRIC SHALL BE MIRAFI RS580i. THE PLACEMENT OF GEOTEXTILE FABRIC UNDER SUBBALLAST SHALL BE DONE ONLY WHEN LIGHTWEIGHT CELLULAR-CONCRETE IS IN USE.
- ALL TRACK WEST OF BURMA ROAD CROSSING SHALL HAVE BALLAST SHOULDERS PER CPUC G.O. 118. SEE DWG RR-37, SECTION C.
- DURING CONSTRUCTION, IF STEEL TIES ARE NOT USED, SUBGRADE CAN BE ADJUSTED TO ACCOMMODATE EITHER CONCRETE OR TIMBER CROSSTIES WITH THE MINIMUM 10" OF BALLAST BELOW THE BOTTOM OF TIE.
- THE MINIMUM DISTANCE FROM THE TOP-OF-RAIL TO THE TOP OF SUBGRADE (NOT SUBBALLAST) IS 23.81". IF CONCRETE OR TIMBER TIES ARE USED, THIS DIMENSION INCREASES TO 30".
- LIGHTWEIGHT CELLULAR-CONCRETE (LCC) SHALL BE USED WITHIN THE LIMITS SHOWN WITH LCC ONLY.



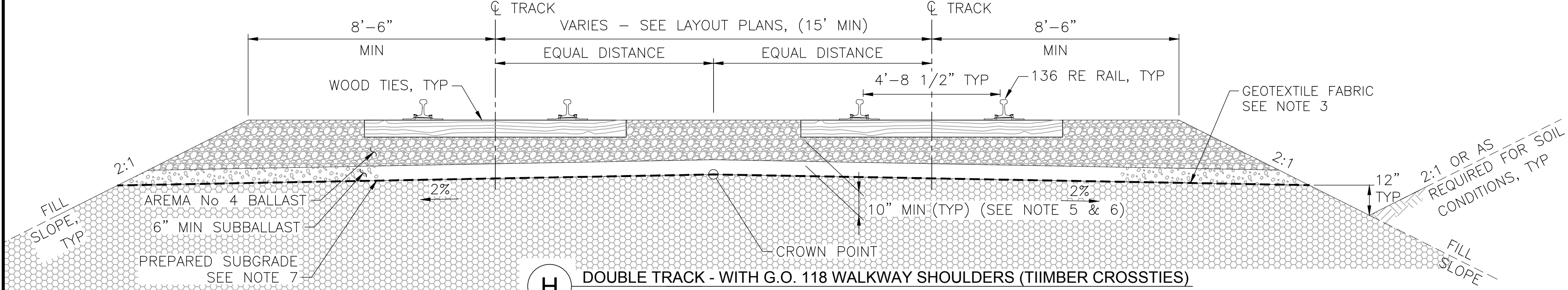
1 SUBGRADE TRANSITION
NTS

- WGL No. 2 STA 5+62 (ALL TRACKS)
WGL No. 2 STA 19+92 (ALL TRACKS)
WGL No. 2 STA 43+04 (WGL TRACKS 2, 3, & 4)
WGL No. 1 STA 42+94
WGL No. 2 STA 63+76
WGL No. 2 STA 67+84
IND No. 1 STA 2+82



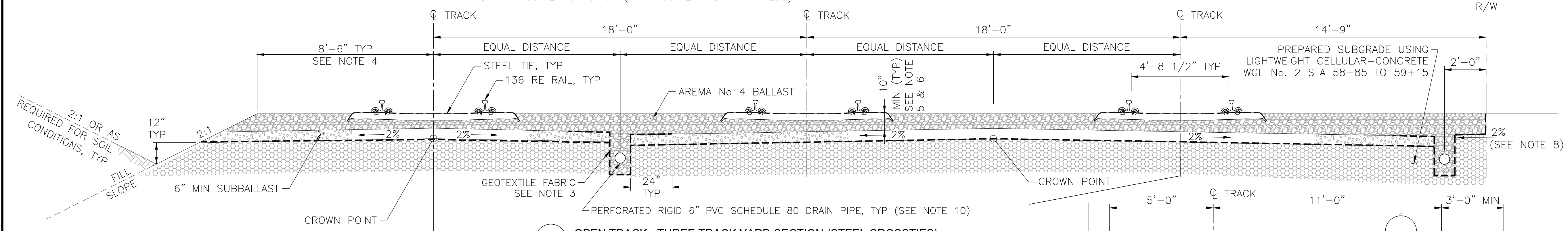
G OPEN TRACK - WALKWAY ON TOP OF BALLAST (TIMBER CROSSTIES)
NTS

WGL No. 1 STA 30+63 TO 37+96
WGL No. 2 STA 31+48 TO 38+67.75
WGL No. 4 STA 0+00 TO 2+53.32
IND No. 1 STA 2+82 TO 3+15.48
IND No. 1 STA 4+29.02 TO 4+50
IND No. 8 STA 0+00 TO 1+96.78
IND No. 8 STA 3+02.20 TO 3+23.83
IND No. 9A STA 0+00 TO 1+00.65
IND No. 9A STA 2+38.62 TO 6+44.32
RIP TRK 3 STA 0+00 TO 1+32.85



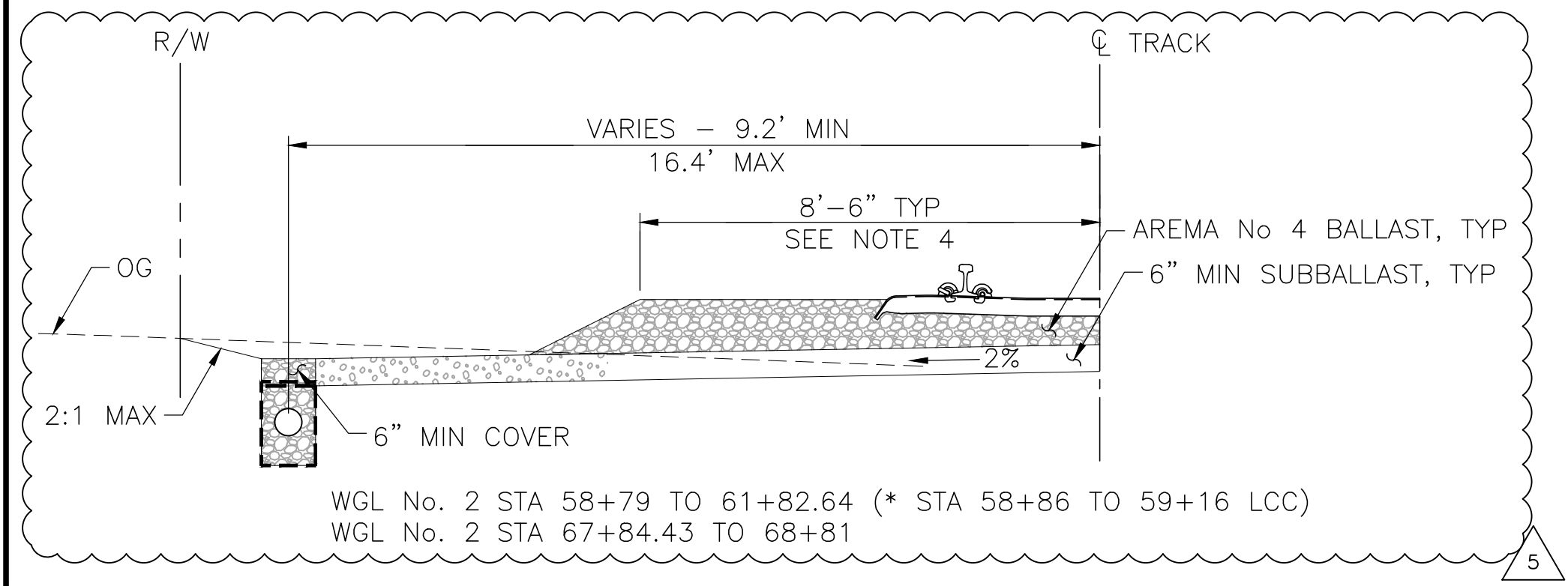
H DOUBLE TRACK - WITH G.O. 118 WALKWAY SHOULDERS (TIMBER CROSSTIES)
NTS

WGL No. 2 STA 4+72.98 TO 5+62
WGL No. 2 STA 19+92 TO 24+70.75
WGL No. 2 STA 25+68.24 TO 31+48
WGL No. 2 STA 40+39.42 TO 43+04 (* 40+39.42± TO 41+16 LCC)
IND No. 9A STA 6+44.32 TO 8+28.57
RIP TRK 3 STA 1+32.85 TO 3+75.18



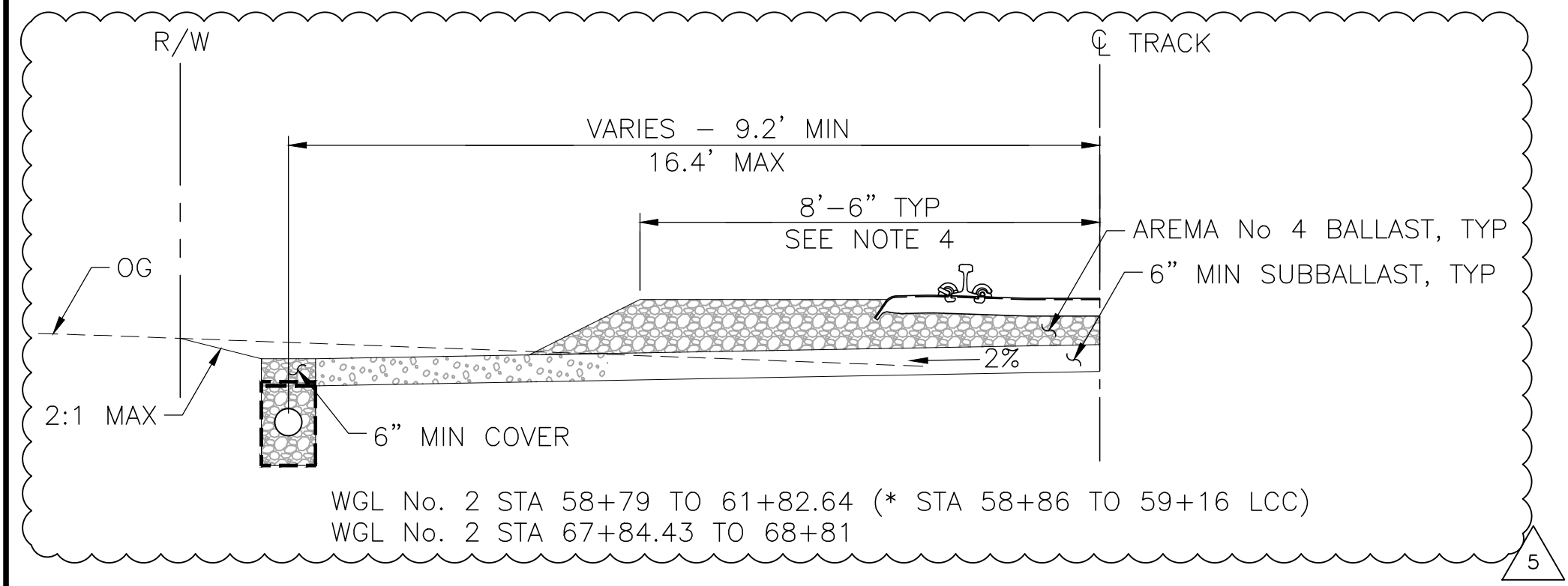
I OPEN TRACK - THREE TRACK YARD SECTION (STEEL CROSSTIES)
NTS

WGL No. 2 STA 58+79.06 TO 61+82.64 (WGL No. 1 STA 61+78.87) (* STA 58+86 TO 59+16 LCC)
WGL No. 2 STA 67+84.43 TO 82+27.60



J OPEN TRACK - THREE TRACK YARD SECTION (STEEL CROSSTIES)
NTS

WGL No. 2 STA 58+79.06 TO 61+82.64 (WGL No. 1 STA 61+78.87) (* STA 58+86 TO 59+16 LCC)
WGL No. 2 STA 67+84.43 TO 82+27.60



K SHOULDER AT POINT OF SWITCH (TIMBER CROSSTIES)
NTS

WGL No. 1 STA 26+77.39 TO 26+97.39
WGL No. 2 STA 29+58.89 TO 29+78.89
WGL No. 2 STA 36+39.87 TO 36+59.87
WGL No. 2 STA 37+49.25 TO 37+69.25
WGL No. 1 STA 42+70.58 TO 42+90.58 (LCC)
WGL No. 2 STA 40+40.54 TO 40+60.54 (LCC)
WGL No. 4 STA 1+16.47 TO 1+36.47
WGL No. 2 STA 41+47.92 TO 41+67.92
WGL No. 2 STA 42+70.58 TO 42+90.58
IND No. 9A STA 4+97.03 TO 5+17.03
IND No. 9A STA 6+34.32 TO 6+54.32
RIP TRK 3 STA 1+22.85 TO 1+42.85

NOTES:

- SEE RR-33 FOR TRACK SECTION IN ROAD CROSSING.
- TRACK SIDE DITCHES SHALL BE DESIGNED TO PASS FLOW FROM THE 100-YEAR RECURRENT STORM WITHOUT OVER TOPPING THE SUBBALLAST.
- GEOTEXTILE FABRIC SHALL BE MIRAFI RS580I. THE PLACEMENT OF GEOTEXTILE FABRIC UNDER SUBBALLAST SHALL BE DONE ONLY WHEN LIGHTWEIGHT CELLULAR-CONCRETE IS IN USE.
- ALL TRACK WEST OF BURMA ROAD CROSSING SHALL HAVE BALLAST SHOULDERS PER CPUC G.O. 118. SEE DWG RR-37, SECTION C.
- DURING CONSTRUCTION, IF STEEL TIES ARE NOT USED, SUBGRADE CAN BE ADJUSTED TO ACCOMMODATE EITHER CONCRETE OR TIMBER CROSSTIES WITH THE MINIMUM 10" OF BALLAST BELOW THE BOTTOM OF TIE.
- THE MINIMUM DISTANCE FROM THE TOP-OF-RAIL TO THE TOP OF SUBGRADE (NOT SUBBALLAST) IS 23.81". IF CONCRETE OR TIMBER TIES ARE USED, THIS DIMENSION INCREASES TO 30".
- LIGHTWEIGHT CELLULAR-CONCRETE (LCC) SHALL BE USED WITHIN THE LIMITS SHOWN WITH LCC ONLY.
- THIS DETAIL SHALL BE USED FROM WGL No. 2 STA 58+79.06 TO 82+27.60 WHERE AN OPEN TRACK DITCH CANNOT BE CONSTRUCTED.
- BERM, K-RAIL, OR OTHER APPROVED BARRIER TO ACCOMMODATE DRAINAGE. SEE GRADING AND DRAINAGE PLANS.
- UNDERDRAINS SHALL HAVE A MIN SLOPE OF 0.5%.

OAKLAND GLOBAL
PORT OF OAKLAND
CITY OF OAKLAND
"one vision, one team, one project"

HDR ENGINEERING, INC.
925-974-2500
2121 N. CALIFORNIA BLVD, SUITE 475
WALNUT CREEK, CA 94596
JOB NO. 190328
DRAWN BY: BPK
CHECKED BY: MRS

REGISTERED PROFESSIONAL ENGINEER
MICHAEL R. STRICKLAND
C-56163
CIVIL
STATE OF CALIFORNIA
8/28/17

PROJECT INFO.
RAIL PLAN
TYPICAL SECTIONS - 3 OF 4
CITY OF OAKLAND, ALAMEDA COUNTY, CALIFORNIA

REV	DATE	COMMENT	CHECKED BY	C.O.O.	DATE
1	6/14/2017	FRC #93 - WGW RAIL LWCC REVISION	MRS		
2	10/14/2015	FRC #57 - RAIL MODIFICATION DUE TO TLS PROJECT	MRS	FK	
3	8/07/2015	FRC #63 - UPDATED TRACK SECTION	MRS	FK	
4	7/08/2015	FRC #58 - RAIL CROSS SECTION MOD	MRS	FK	
5	4/29/2015	FRC #46 - PLAN CHANGES DUE TO UPDATED RAIL CONSTRUCTION SET	MRS	FK	
6	9/24/2014				

DRAWING NO. **RR-32**
SHEET 12 OF 85
SCALE: AS NOTED
DATE: 08/28/2017



IND No. 1 STA 3+15.48 TO 4+29.02
*IND No. 8 STA 1+96.78 TO 3+02.20 (LCC)



WGL No. 2 STA 24+70.75 TO 25+68.24
 * WGL No. 2 STA 38+67.75 TO 40+39.42 (LCC)
 IND No. 9A STA 8+28.57 TO 8+77.32



WGL No. 2 STA 6+30.94 TO 6+60.89
WGL No. 2 STA 33+15.36 TO 33+30.36
IND DRILL No. 1 STA 11+36.63 TO 11+67.58



7. SUBBALLAST SHALL BE USED ONLY WHEN SUBGRADE IS LCC.



*IND No. 9A STA 1+00.65 TO 2+38.62 (LCC)

RAIL PLAN
TYPICAL SECTIONS - 4 OF 4
CITY OF OAKLAND, ALAMEDA COUNTY, CALIFORNIA

						DRAWING NO. RR-33 SHEET <u>20</u> OF <u>85</u>
	10/14/2015	FRC #67 - BLDG 991 & RELATED REVISIONS	MRS			
	10/14/2015	FRC #57 - RAIL MODIFICATION DUE TO TLS PROJECT	MRS			
	11/05/2014	FRC #28 - RAILROAD SECTION REVISION	MRS	FK		
o	09/24/2014	CONSTRUCTION SET	MRS	FK	SCALE:	AS NOTED
REV	DATE	COMMENT	CHECKED BY	C.O.O.	DATE:	08/28/2017

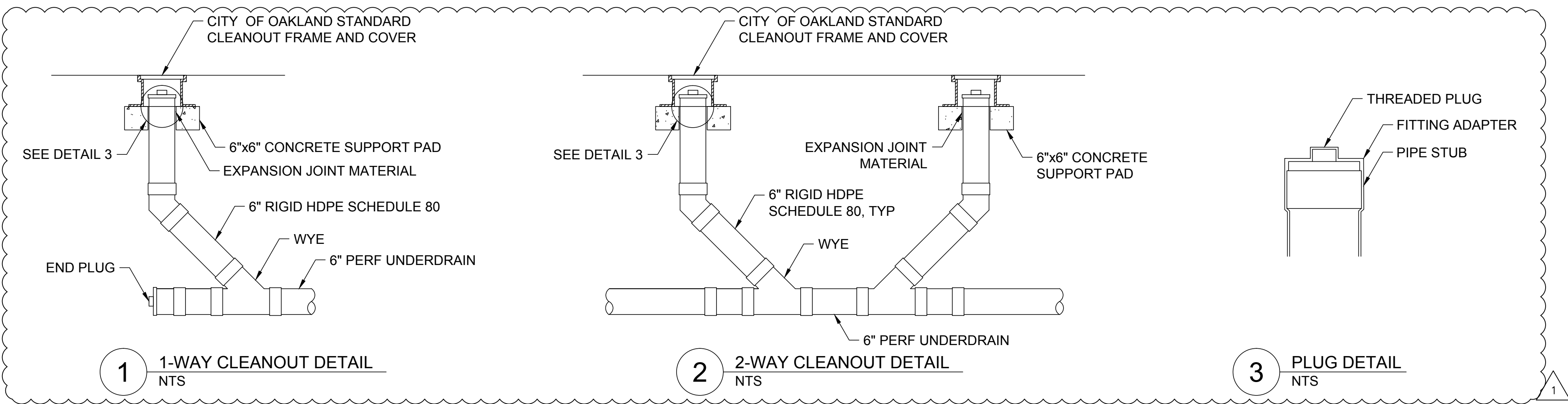
DRAWING NO.

RR-33

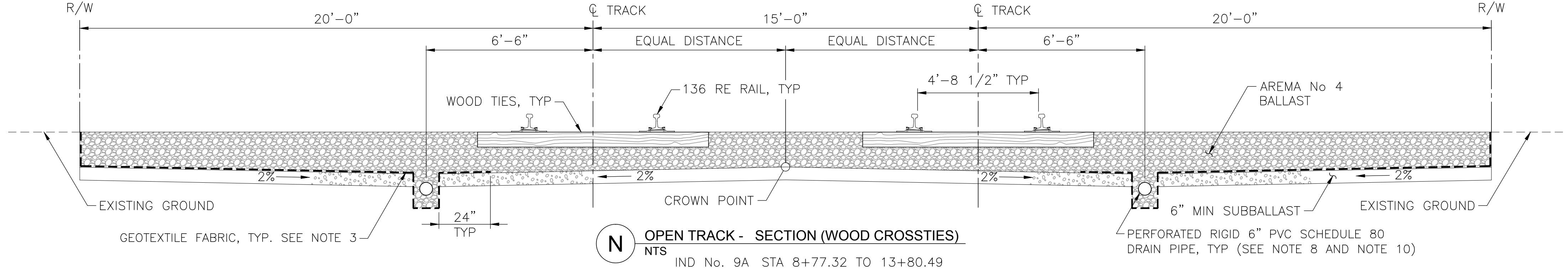
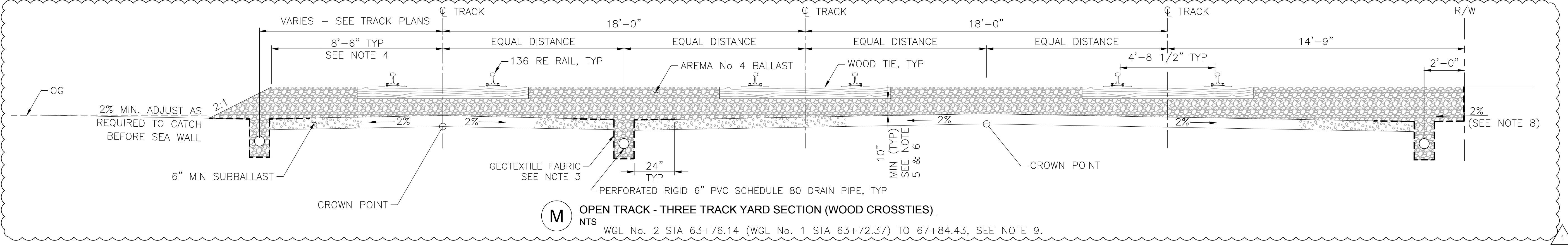
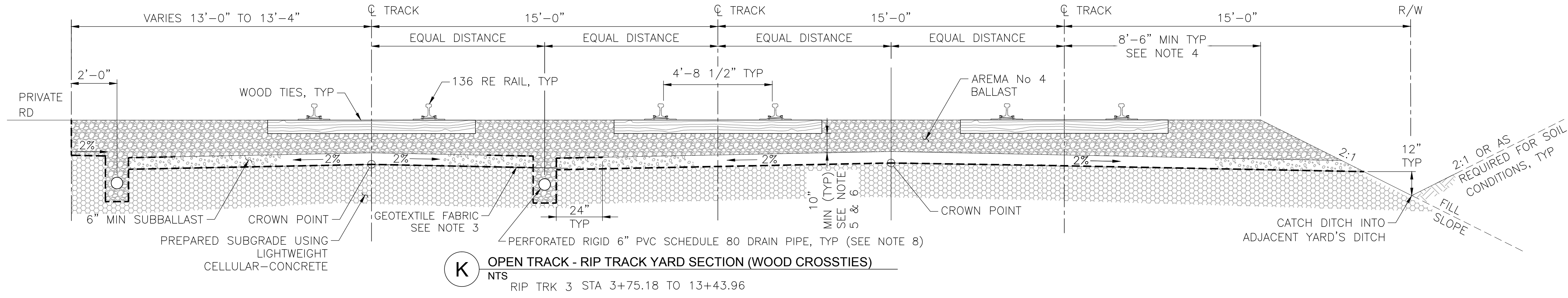
SHEET 20 OF 85

SCALE:	AS NOTED
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DATE:	08/28/2017
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- NOTES:
- SEE RR-33 FOR TRACK SECTION IN ROAD CROSSING.
 - TRACK SIDE DITCHES SHALL BE DESIGNED TO PASS FLOW FROM THE 100-YEAR RECURRENT STORM WITHOUT OVER TOPPING THE SUBBALLAST.
 - GEOTEXTILE FABRIC SHALL BE MIRAFI RS580I. THE PLACEMENT OF GEOTEXTILE FABRIC UNDER SUBBALLAST SHALL BE DONE ONLY WHEN LIGHTWEIGHT CELLULAR-CONCRETE IS IN USE.
 - ALL TRACK WEST OF BURMA ROAD CROSSING SHALL HAVE BALLAST SHOULDERS PER CPUC G.O. 118. SEE DWG RR-37, SECTION C.
 - DURING CONSTRUCTION, IF STEEL TIES ARE NOT USED, SUBGRADE CAN BE ADJUSTED TO ACCOMMODATE EITHER CONCRETE OR TIMBER CROSSTIES WITH THE MINIMUM 10" OF BALLAST BELOW THE BOTTOM OF TIE.
 - THE MINIMUM DISTANCE FROM THE TOP-OF-RAIL TO THE TOP OF SUBGRADE (NOT SUBBALLAST) IS 23.81". IF CONCRETE OR TIMBER TIES ARE USED, THIS DIMENSION INCREASES TO 30".
 - LIGHTWEIGHT CELLULAR-CONCRETE (LCC) SHALL BE USED WITHIN THE LIMITS SHOWN WITH LCC ONLY.
 - SEE GRADING AND DRAINAGE SHEETS FOR TIE-IN TO LATERALS.
 - THIS SECTION SPECIFICALLY DESIGNED WITH TIMBER CROSSTIES AND SWITCHTIES TO ACCOMMODATE THE SLIP SWITCH AND CONNECTING TURNOUTS ON TRACKS WGL-1 AND WGL-3. AT LEAST FIVE (5) TIMBER CROSSTIES SHALL BE INSTALLED BEYOND THE SWITCHPOINTS IN THIS SECTION ON WGL-1 AND WGL-3.
 - UNDERDRAINS SHALL HAVE A MIN SLOPE OF 0.5%.



OAKLAND GLOBAL

“one vision, one team, one project”

HDR ENGINEERING, INC.

925-974-2500

2121 N. CALIFORNIA BLVD, SUITE 475

WALNUT CREEK, CA 94596

JOB NO.

190328

DRAWN BY:

BPK

CHECKED BY:

MRS

REGISTERED PROFESSIONAL ENGINEER

MICHAEL R. STRICKER

C-56163

CIVIL

STATE OF CALIFORNIA

8/28/17

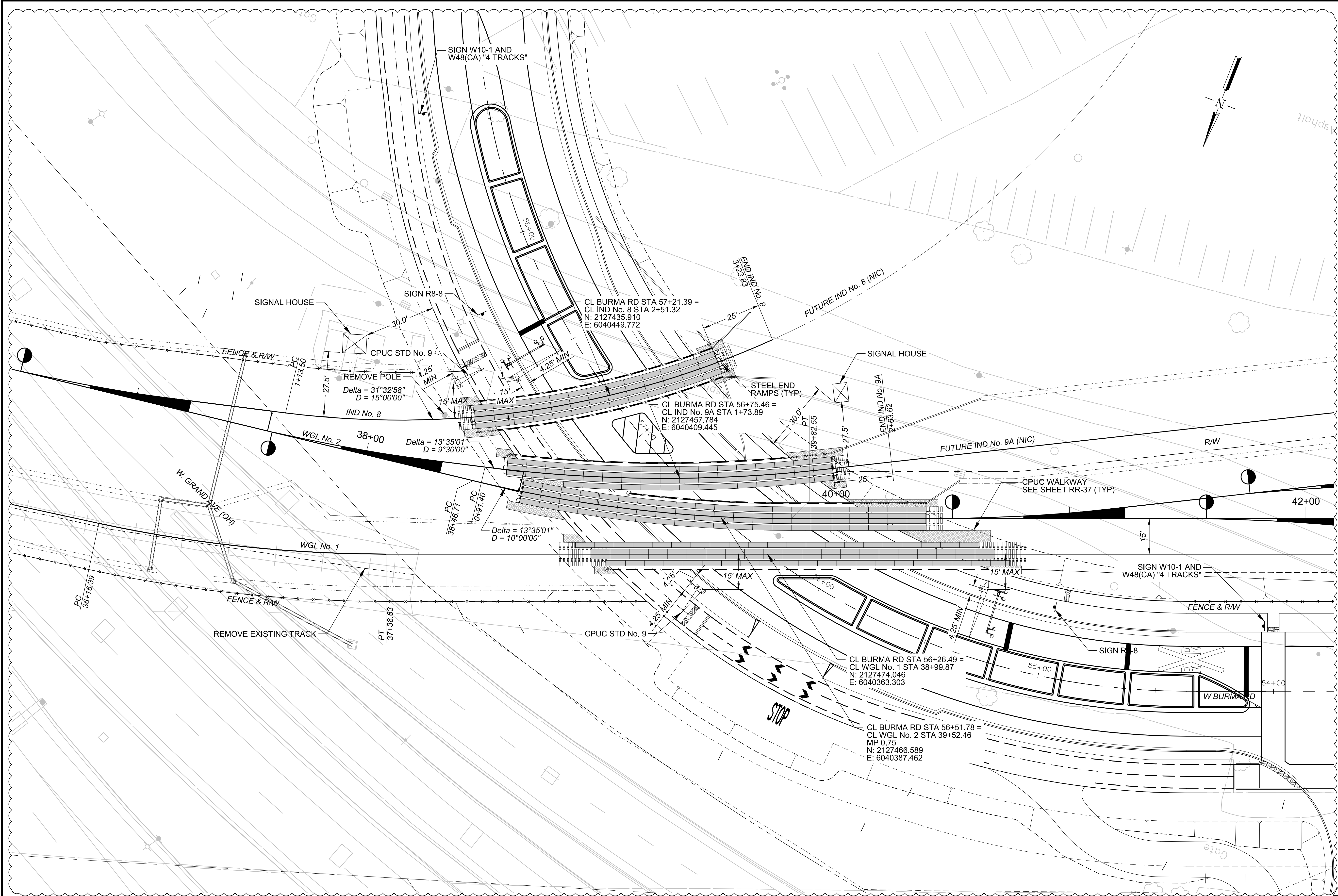
PROJECT INFO.

RAIL PLAN

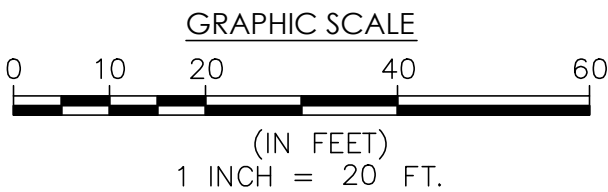
TYPICAL SECTIONS - 5 OF 5

CITY OF OAKLAND, ALAMEDA COUNTY, CALIFORNIA

					DRAWING NO.
					RR-33A
					SHEET 20A OF 85
6/14/2017	FRC #93 - WGW RAIL LWCC REVISION	MRS			
10/14/2015	FRC #57 - RAIL MODIFICATION DUE TO TLS PROJECT	MRS	FK	SCALE:	AS NOTED
REV	DATE	COMMENT	CHECKED BY	C.O.O.	DATE
					08/28/2017



NOTE:
FENCE LOCATION IS NOT FINALIZED.
REFER TO FENCE DRAWINGS FOR
LOCATIONS.



OAKLAND GLOBAL

PORT OF OAKLAND

CITY OF OAKLAND

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HDR ENGINEERING, INC.
925-974-2500
2121 N. CALIFORNIA BLVD, SUITE 475
WALNUT CREEK, CA 94596

JOB NO.	190328
DRAWN BY:	BPK
CHECKED BY:	MRS

REGISTERED PROFESSIONAL ENGINEER
MICHAEL R. STRICKLAND
C-56163
CIVIL
STATE OF CALIFORNIA
8/28/17

PROJECT INFO.

RAIL PLAN
W. BURMA RD. CROSSING LAYOUT
CITY OF OAKLAND, ALAMEDA COUNTY, CALIFORNIA

REV	DATE	COMMENT	CHECKED BY	C.O.O.	DATE
Δ	06/14/2017	FRC #93 - WGW RAIL LWCC REVISION	MRS		
Δ	04/29/2015	FRC #46 - PLAN CHANGES DUE TO UPDATED RAIL	MRS	FK	
Δ	09/24/2014	CONSTRUCTION SET	MRS	FK	

DRAWING NO.

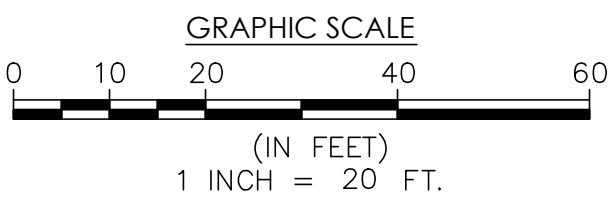
RR-34

SHEET 21 OF 85

SCALE: 1" = 20'

DATE: 08/28/2017

FENCE LOCATION IS NOT FINALIZED.
REFER TO FENCE DRAWINGS FOR
LOCATIONS.



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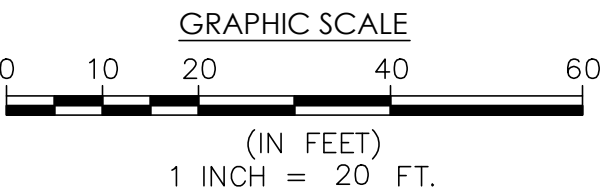
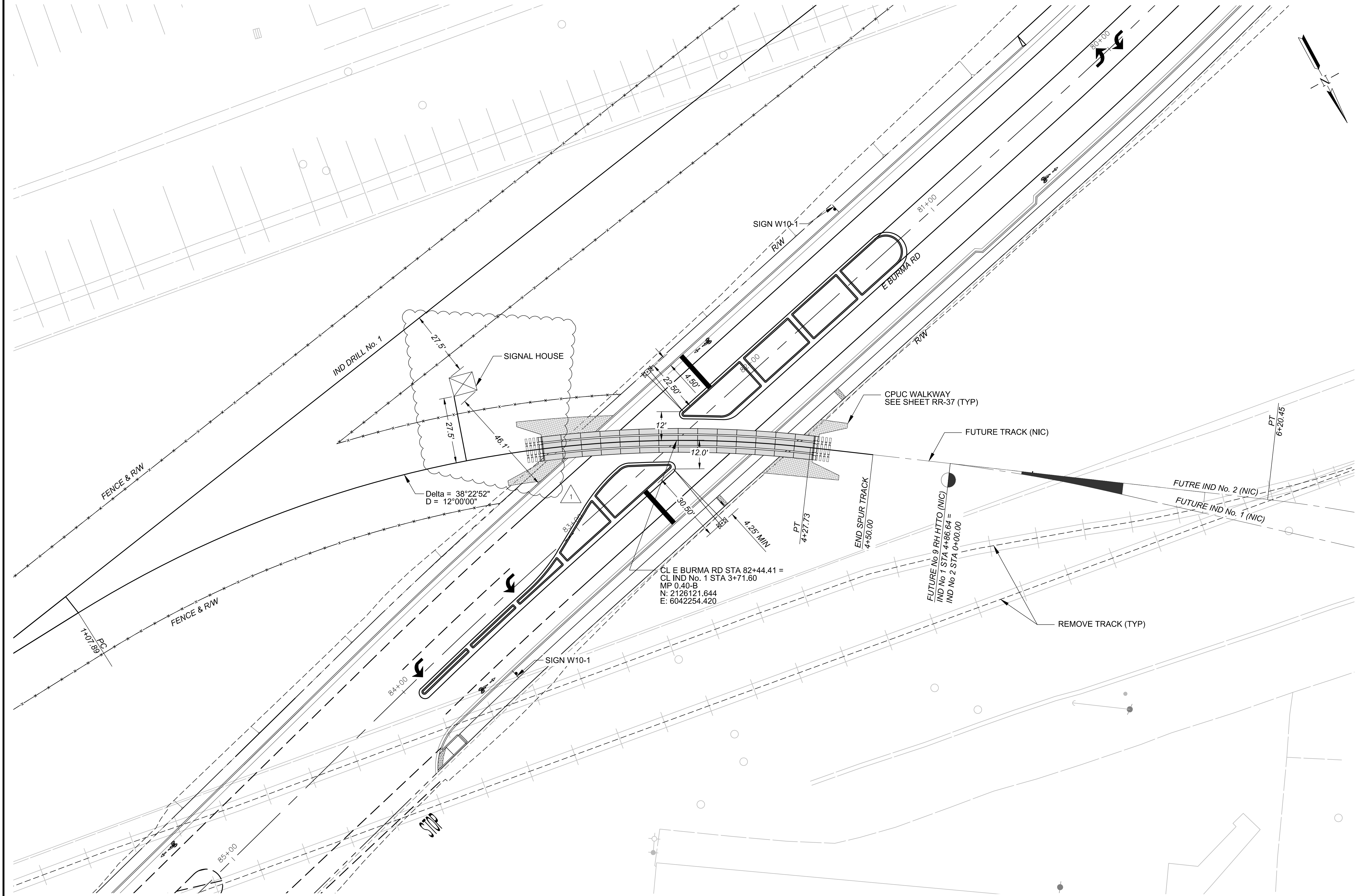
JOB NO.	190328
DRAWN BY:	BPK
CHECKED BY:	MRS



						DRAWING NO. RR-35 SHEET 22 OF 85
	04/29/2015	FRC #46 - PLAN CHANGES DUE TO UPDATED RAIL	MRS			
		CONSTRUCTION SET	MRS			1" = 20'
REV	DATE	COMMENT	CHECKED BY	C.O.O.	DATE:	08/28/2017

Aug 29, 2017 - 10:20am, Plotted By: BKELLY
C:\Users\BKELLY\Desktop\Plots\OAB\20170828\OAB-RR-035.dwg

NOTE:
FENCE LOCATION IS NOT FINALIZED.
REFER TO FENCE DRAWINGS FOR
LOCATIONS.



OAKLAND GLOBAL

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HDR ENGINEERING, INC.
925-974-2500
2121 N. CALIFORNIA BLVD, SUITE 475
WALNUT CREEK, CA 94596

JOB NO.	190328
DRAWN BY:	BPK
CHECKED BY:	MRS

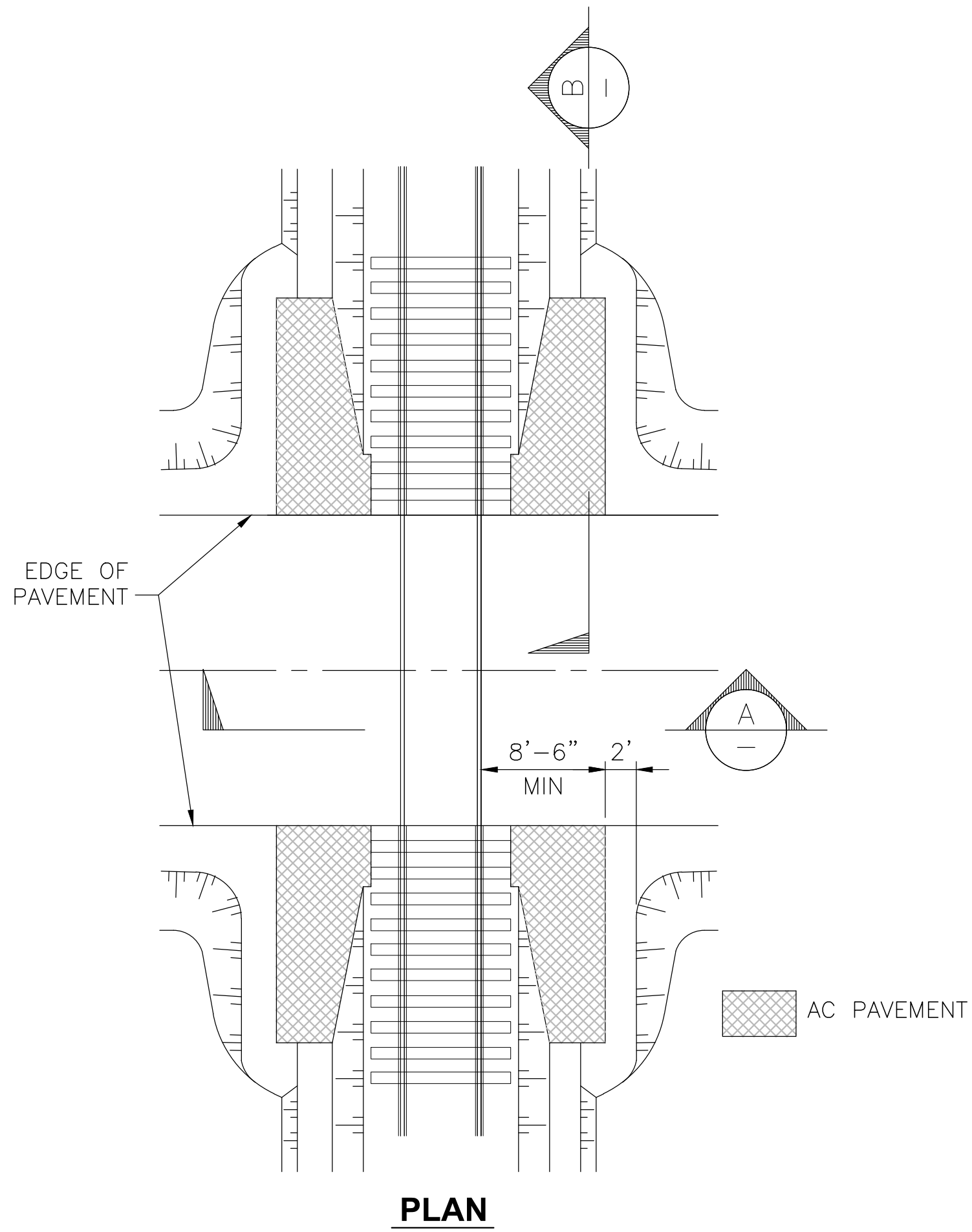


PROJECT INFO.

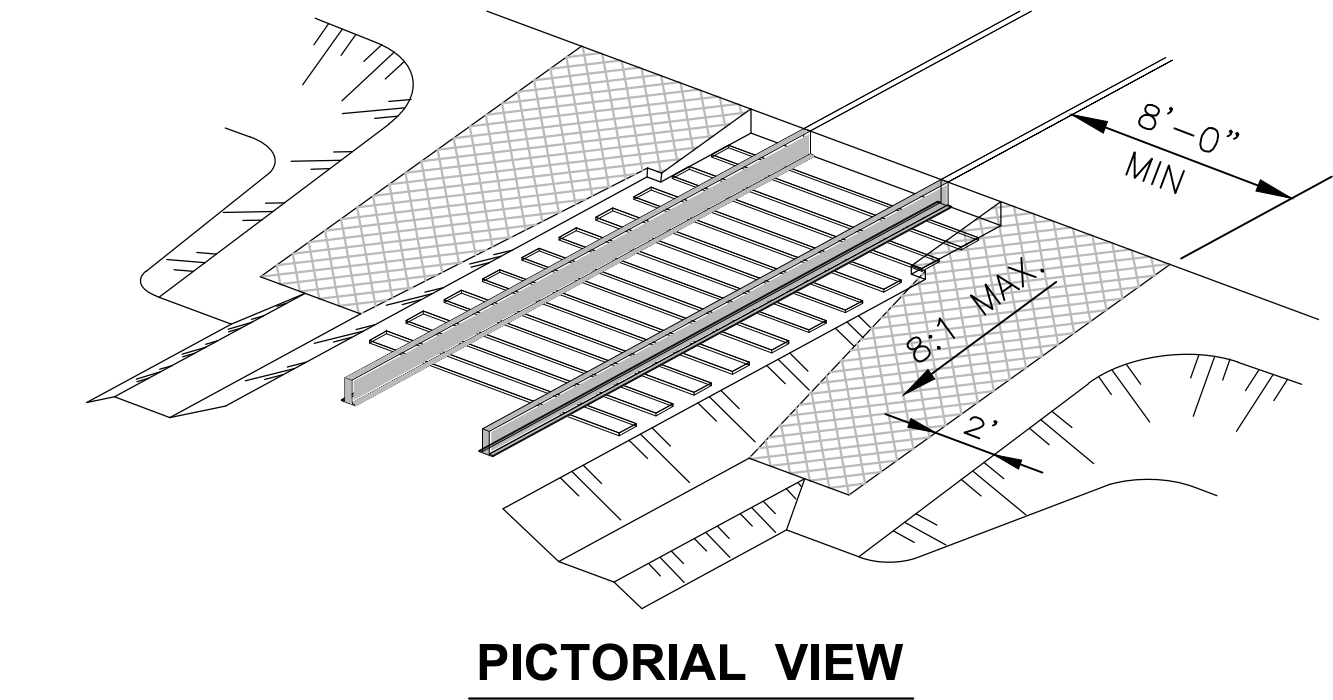
RAIL PLAN
E. BURMA RD. CROSSING LAYOUT
CITY OF OAKLAND, ALAMEDA COUNTY, CALIFORNIA

					DRAWING NO.
					RR-36
					SHEET 23 OF 85
					SCALE: 1" = 20'
REV	DATE	COMMENT	CHECKED BY	C.O.O.	DATE: 08/28/2017
	06/22/2015	FRC #55 - EAST BURMA SIGNAL HOUSE MOD	MRS		
	09/24/2014	CONSTRUCTION SET	MRS		

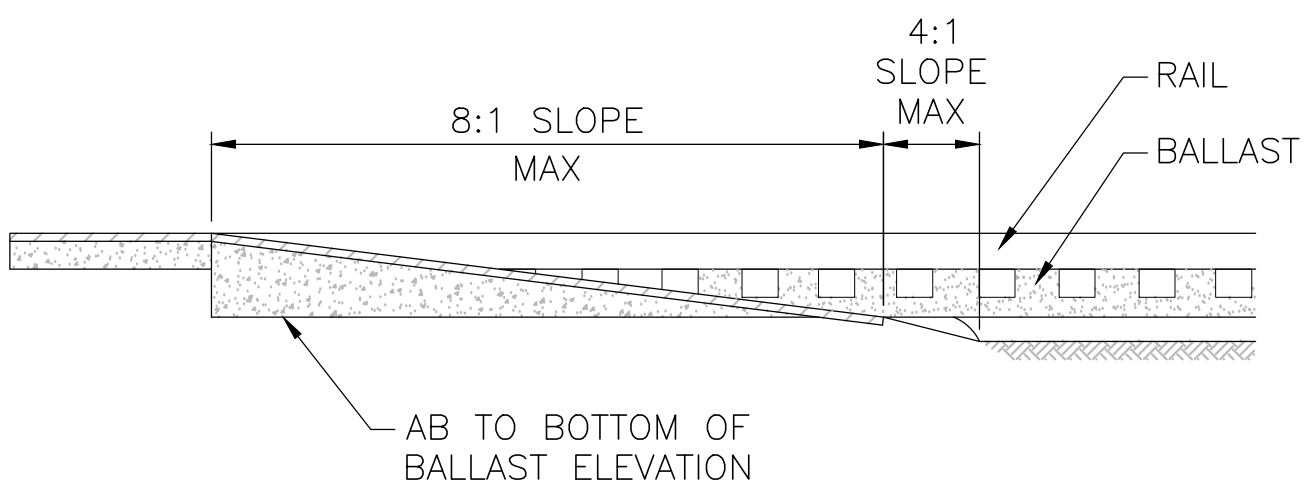
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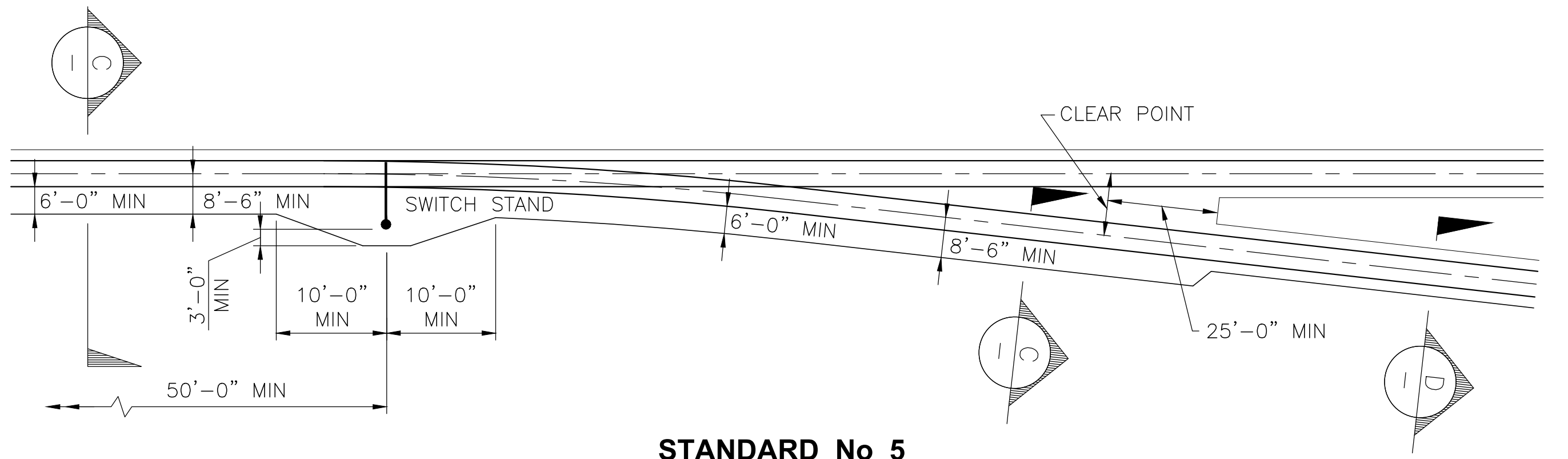
A SECTION
NTS



PICTORIAL VIEW

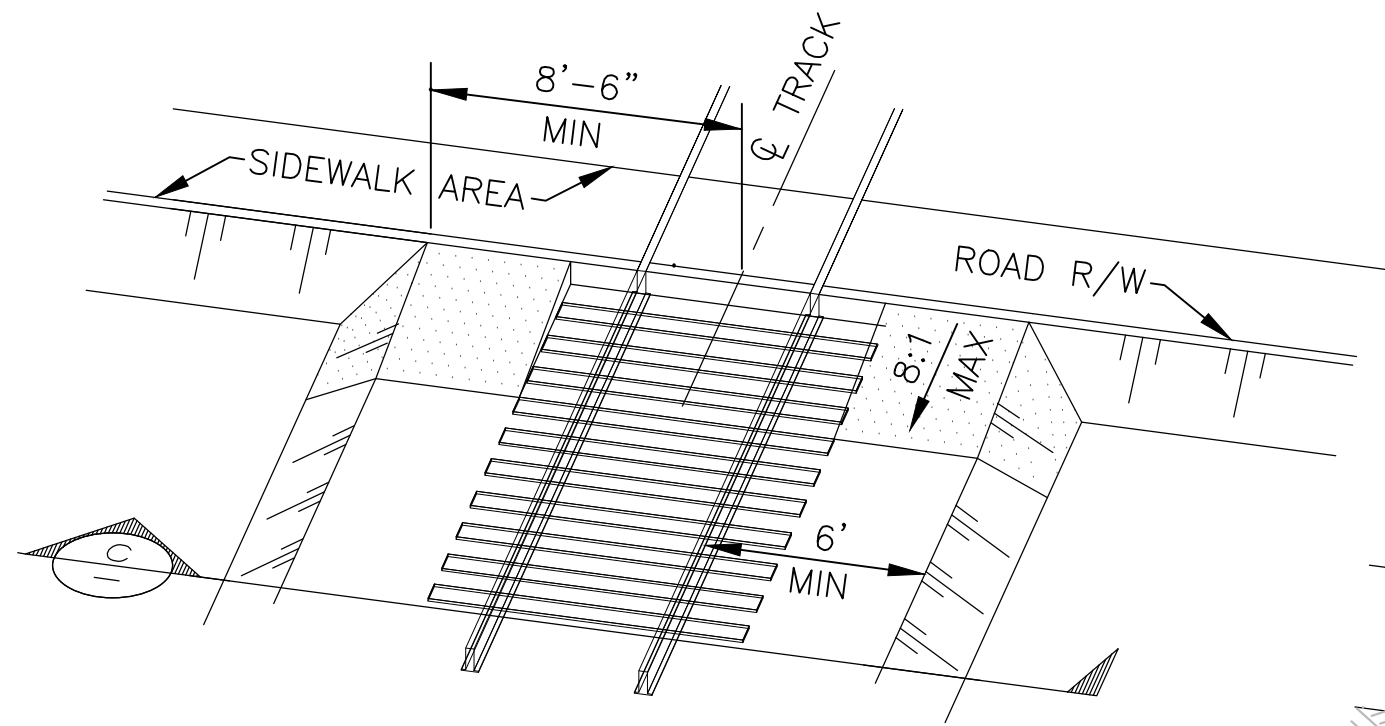


B SECTION
NTS

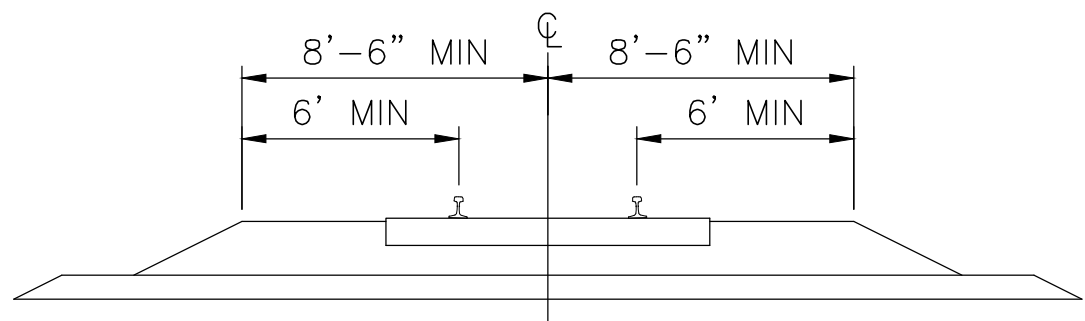


STANDARD No 5

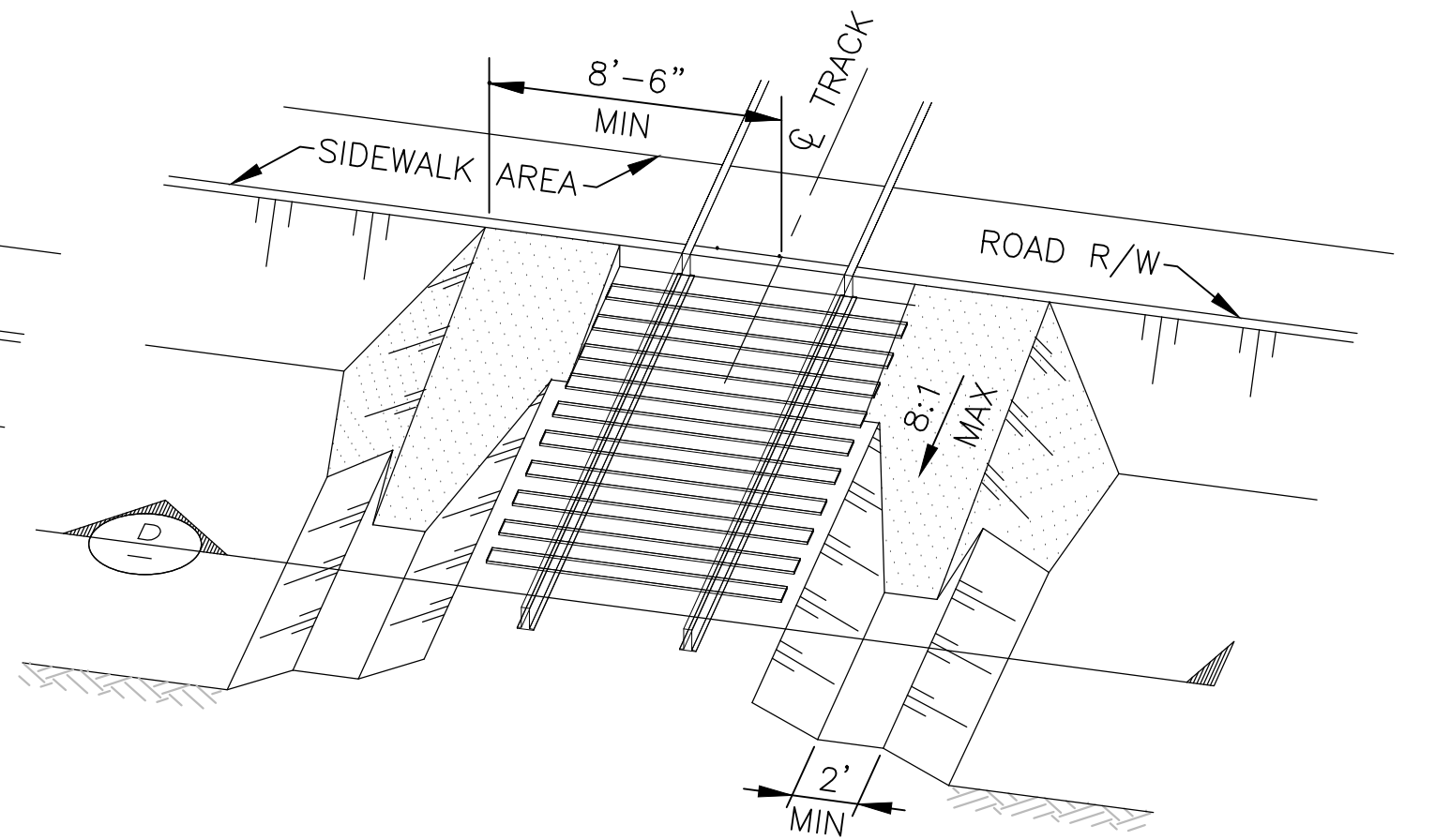
WALKWAYS AT SHORT LINE AND BRANCH LINE SWITCHES,
AND LOCATIONS WHERE SWITCHES ARE POWER OPERATED



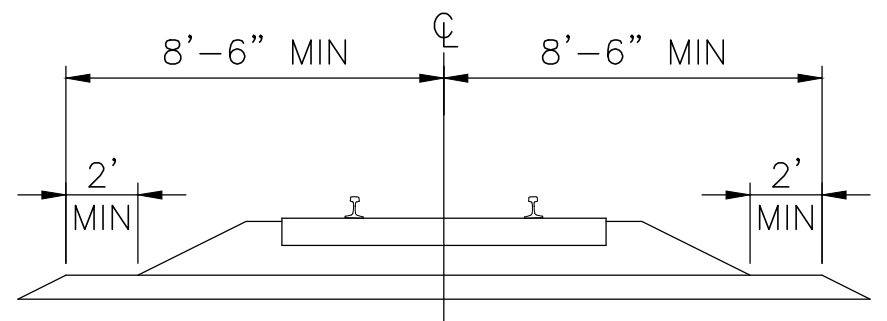
**VIEW WITH WALKWAY AT TOP-OF-TIE ELEVATION
(STANDARD No 6)**



C SECTION (STANDARD No 6)
NTS

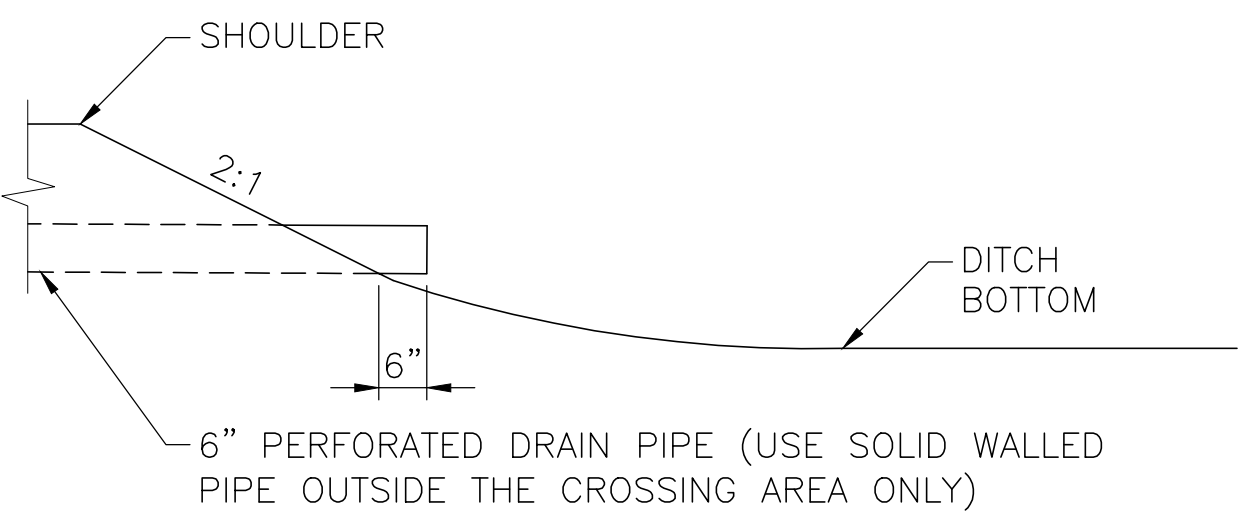


**VIEW WITH WALKWAY AT SUBGRADE ELEVATION
(STANDARD No 1)**

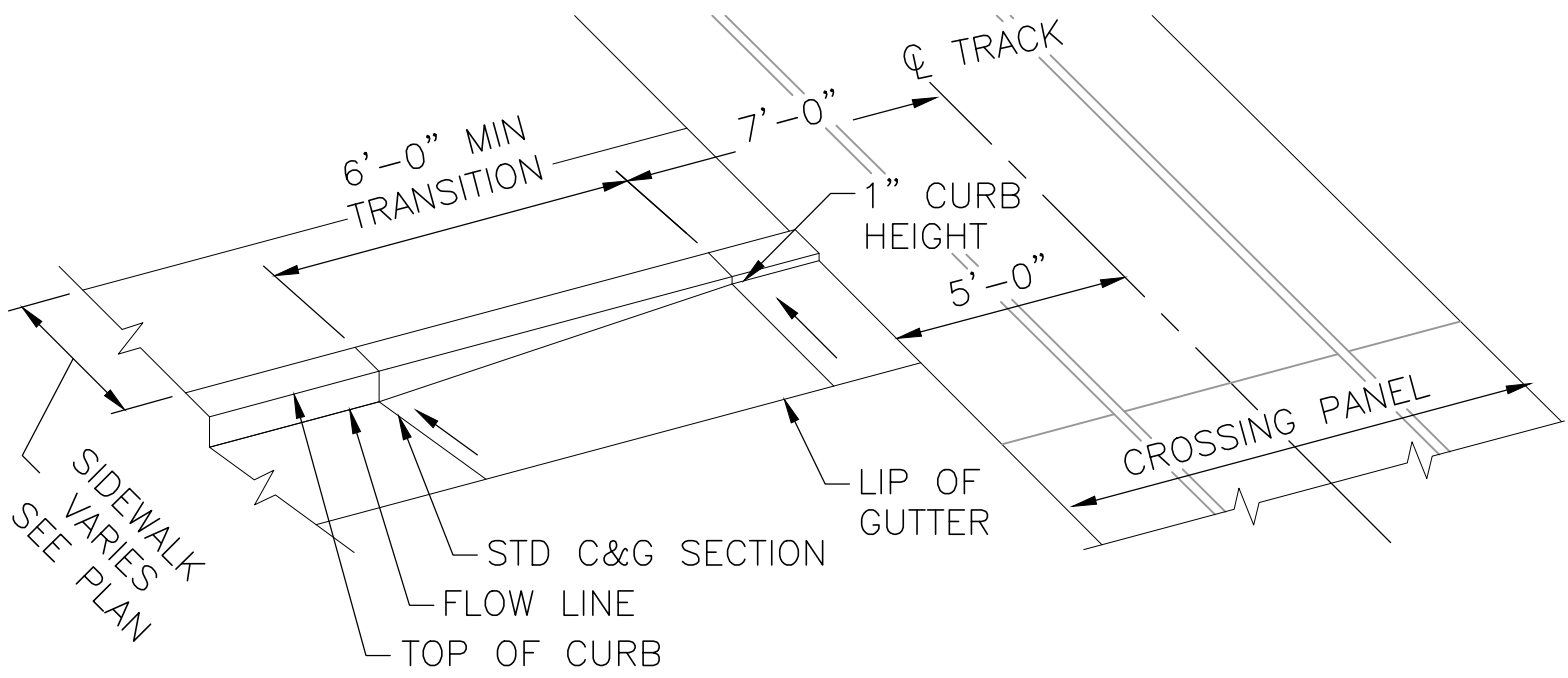


D SECTION (STANDARD No 1)
NTS

CPUC WALKWAY DETAILS (PER G.O. 118)
NOT TO SCALE



1 TYPICAL PVC PIPE OUTFALL DETAIL
NTS



2 TYPICAL CURB TRANSITION DETAIL
NTS

OAKLAND GLOBAL



"one vision, one team, one project"

HDR ENGINEERING, INC.
925-974-2500
2121 N. CALIFORNIA BLVD, SUITE 475
WALNUT CREEK, CA 94596

JOB NO. 190328
DRAWN BY: INITIALS
CHECKED BY: INITIALS

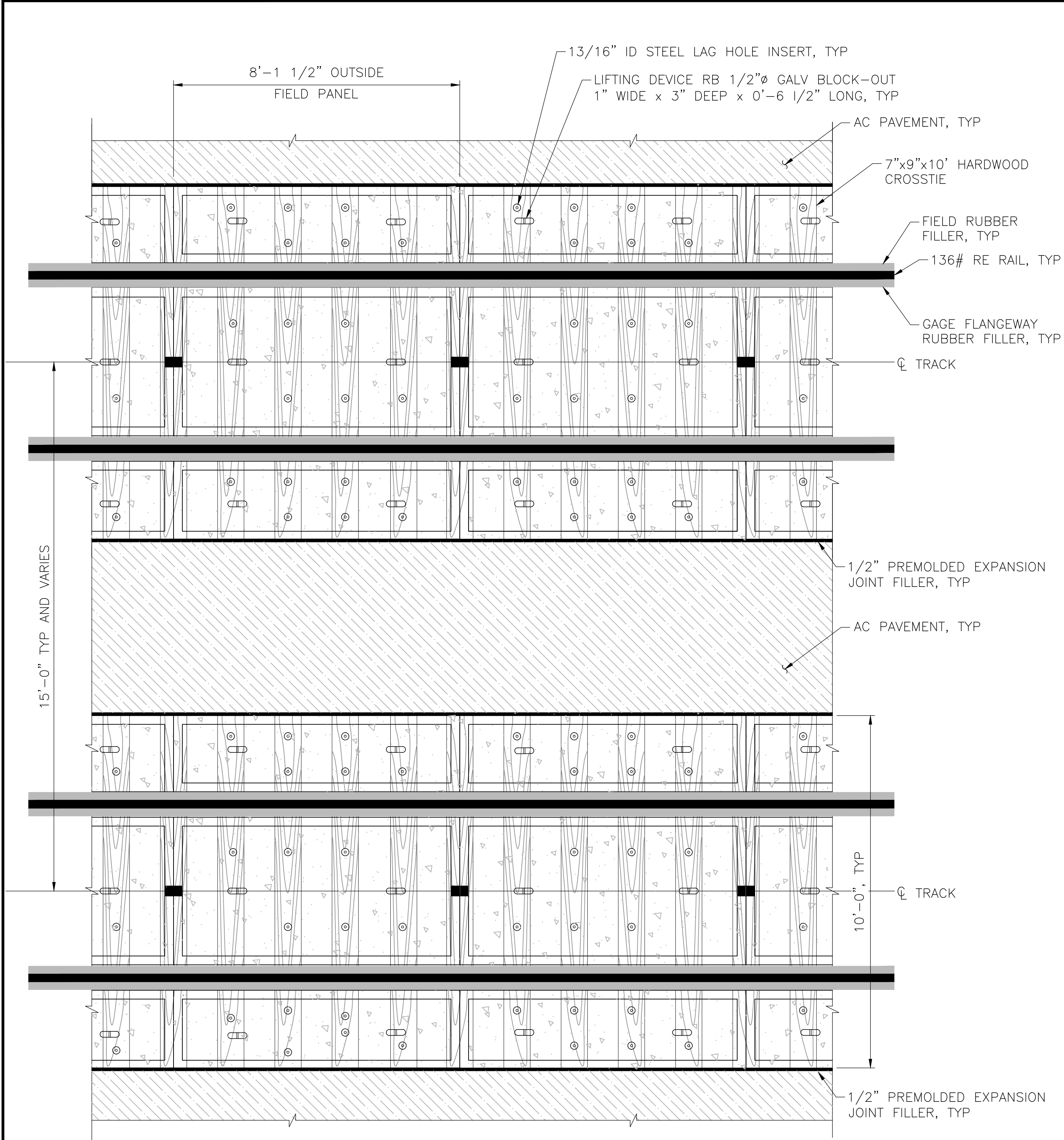


PROJECT INFO.

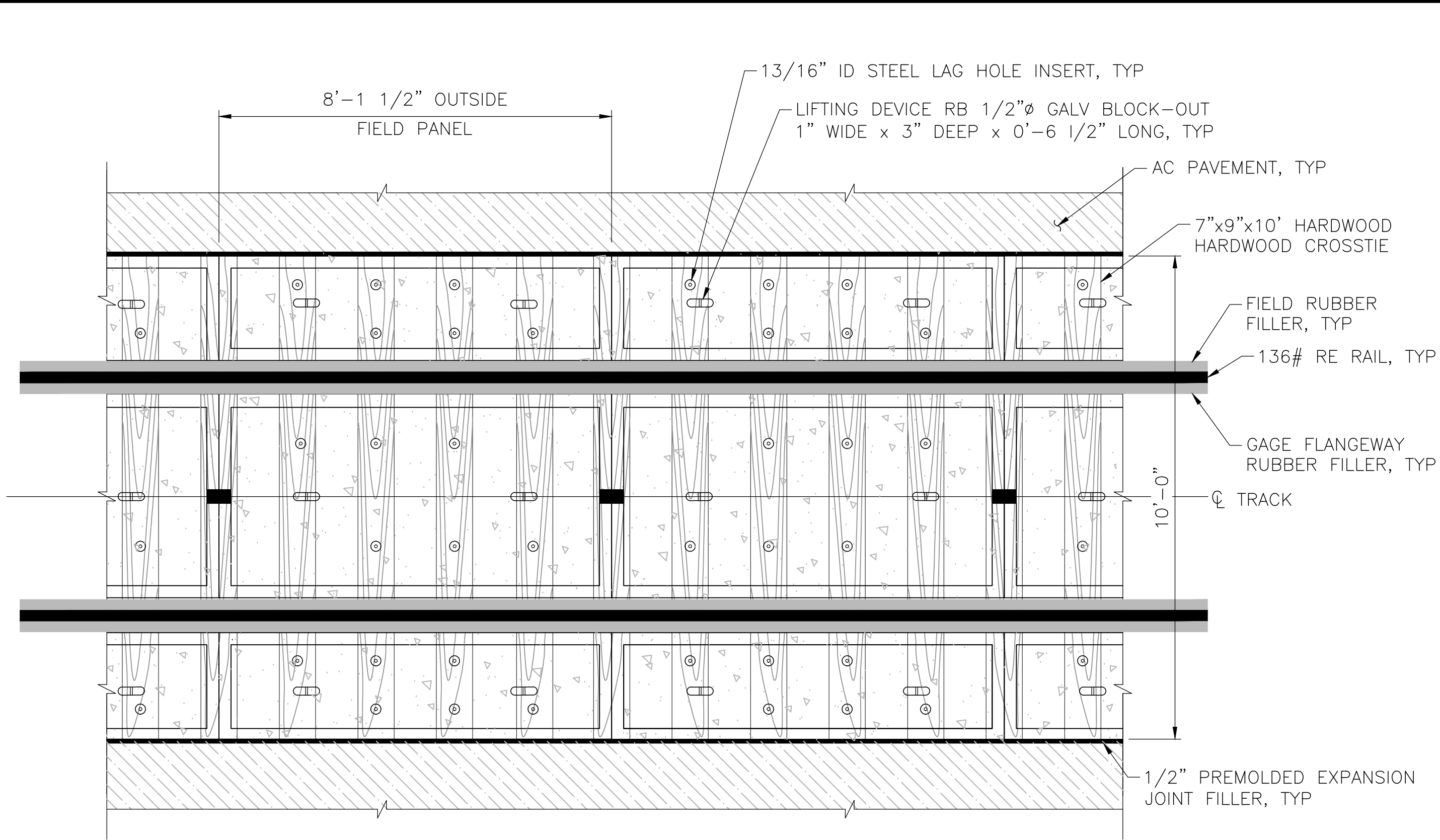
RAIL PLAN
TYPICAL CROSSING DETAILS - 1 OF 2
CITY OF OAKLAND, ALAMEDA COUNTY, CALIFORNIA

DRAWING NO.			
RR-37			
SHEET 24 OF 85			
CONSTRUCTION SET	MRS	SCALE: AS NOTED	
REV	DATE	COMMENT	CHECKED BY C.O.O. DATE: 08/28/2017

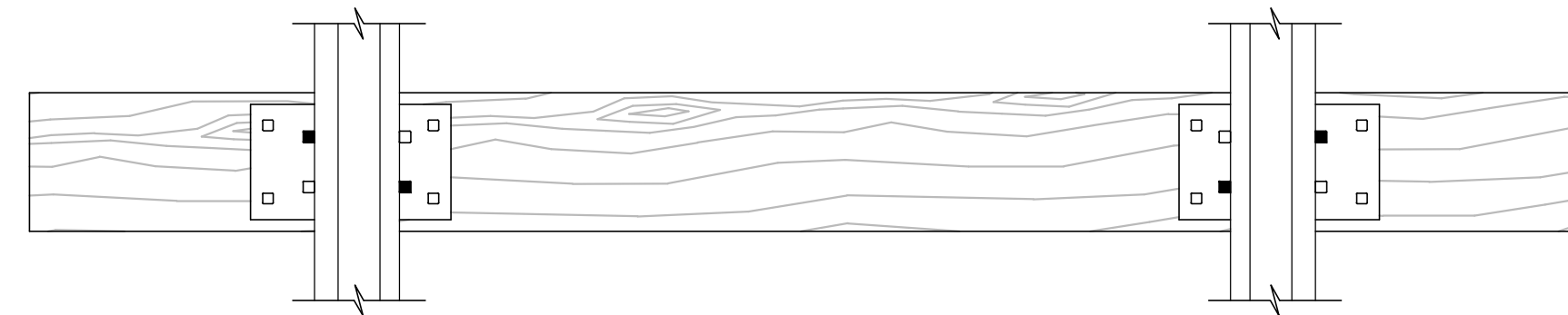
Aug 29, 2017 - 10:21am, Plotted By: BKELLY
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1 DOUBLE TRACK CONCRETE PANELS
NTS

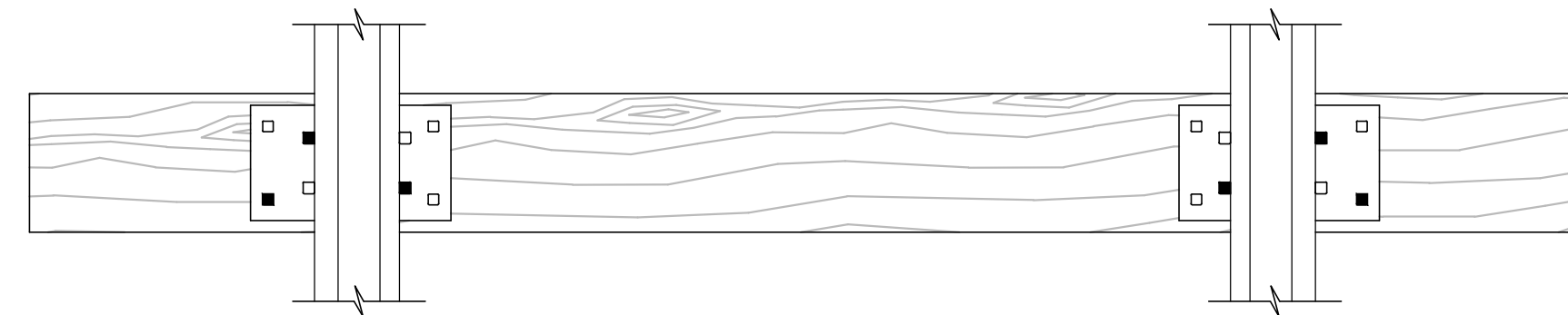


2 SINGLE TRACK CONCRETE PANELS
NTS



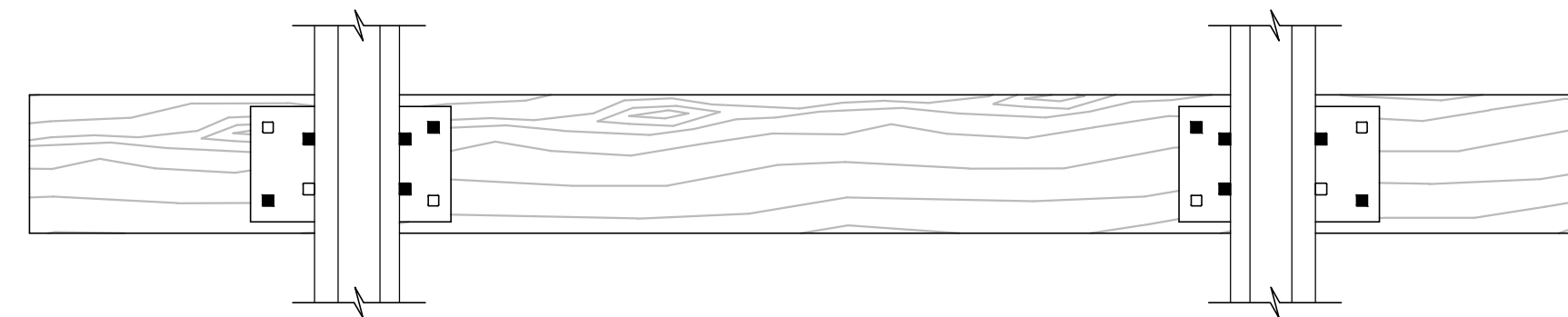
TANGENT TRACK AND CURVED TRACK
(LESS THAN 4 DEGREES)

3 SPIKING PATTERN ON WOOD CROSS TIES
NTS



CURVED TRACK
(4 DEGREES TO 8 DEGREES)

4 SPIKING PATTERN ON WOOD CROSS TIES
NTS



CURVED TRACK
(8 DEGREES OR MORE)

5 SPIKING PATTERN ON WOOD CROSS TIES
NTS

NOTES:

1. THE CONTRACTOR SHALL PROTECT ALL FOUNDATIONS AND EXISTING UNDERGROUND UTILITIES FROM DAMAGE BY EXCAVATION ACTIVITIES.
2. CONTRACTOR SHALL NOTIFY THE ENGINEER FOR INSPECTION OF CROSSING SUBGRADE. CONTRACTOR SHALL NOT COVER UP THE SUBGRADE UNTIL AFTER INSPECTION AND APPROVAL BY ENGINEER.
3. IF ALL OR PART OF THE SUBGRADE CANNOT ATTAIN SUITABLE COMPACTION, CONTRACTOR SHALL OVER EXCAVATE AND PLACE AND COMPACT SUITABLE ORDINARY BACKFILL MATERIAL AS DIRECTED BY THE ENGINEER. REMOVED EXISTING BALLAST MAY BE USED AS ORDINARY BACKFILL UNLESS DETERMINED BY THE ENGINEER TO BE UNSUITABLE.
4. REFER TO SPECIFICATIONS FOR LIMITS OF SUBGRADE CONSTRUCTION AND GEOTEXILES INSTALLATION.

OAKLAND GLOBAL



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HDR ENGINEERING, INC.
925-974-2500
2121 N. CALIFORNIA BLVD, SUITE 475
WALNUT CREEK, CA 94596

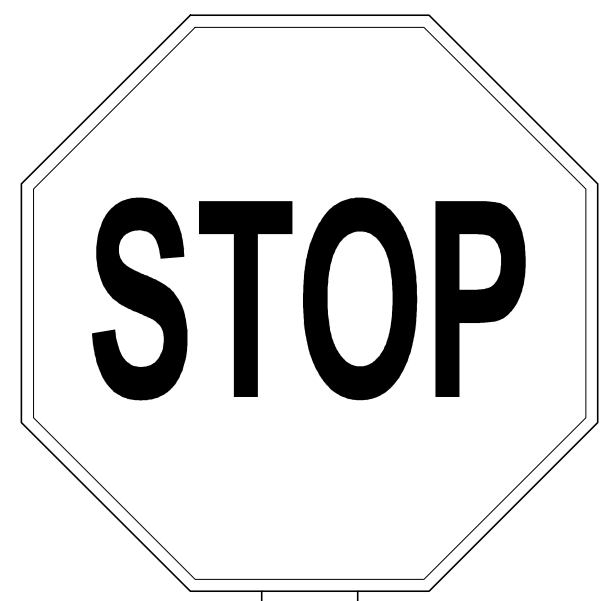
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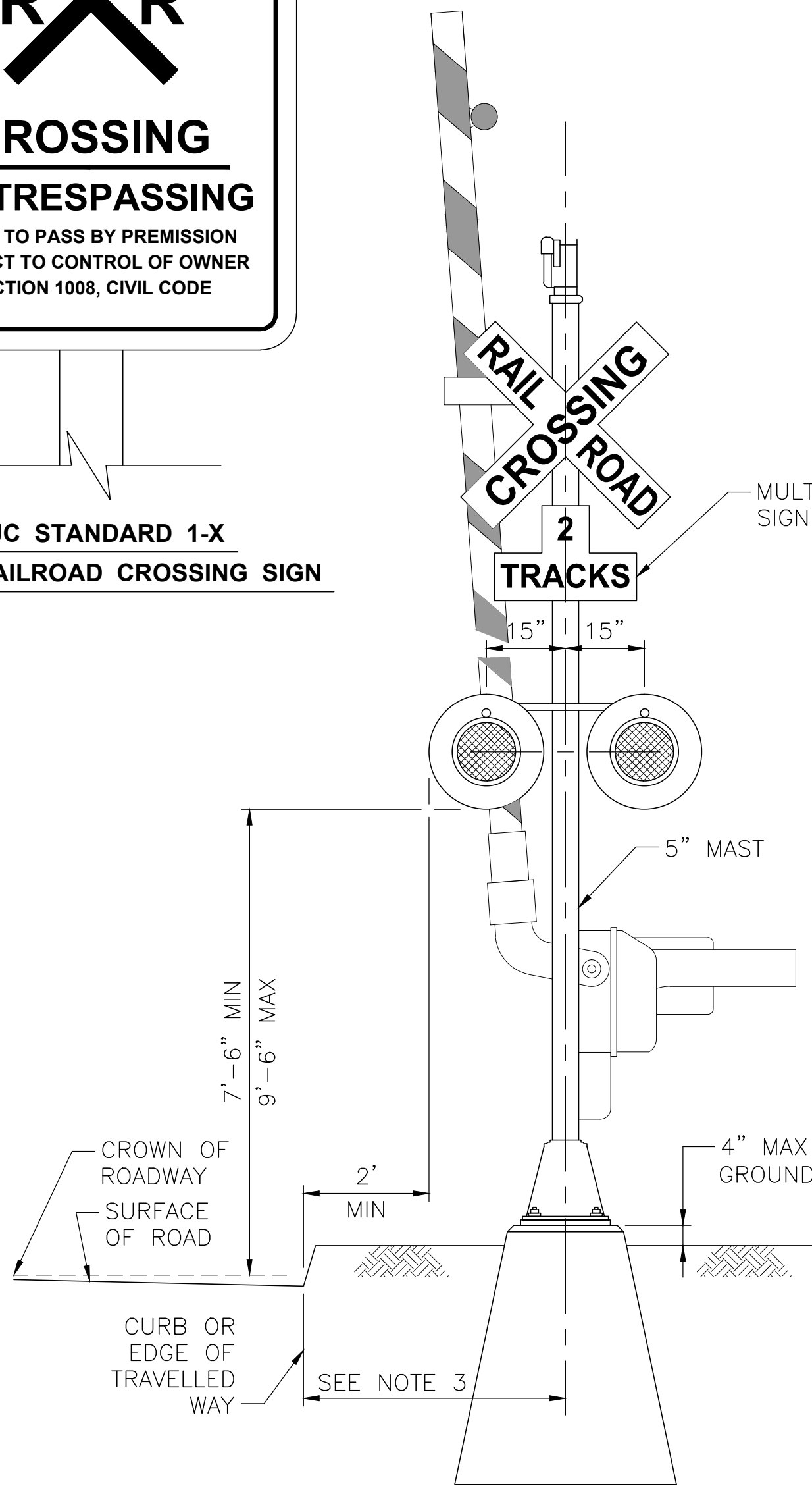
PROJECT INFO.

RAIL PLAN
TYPICAL CROSSING DETAILS - 2OF 2
CITY OF OAKLAND, ALAMEDA COUNTY, CALIFORNIA

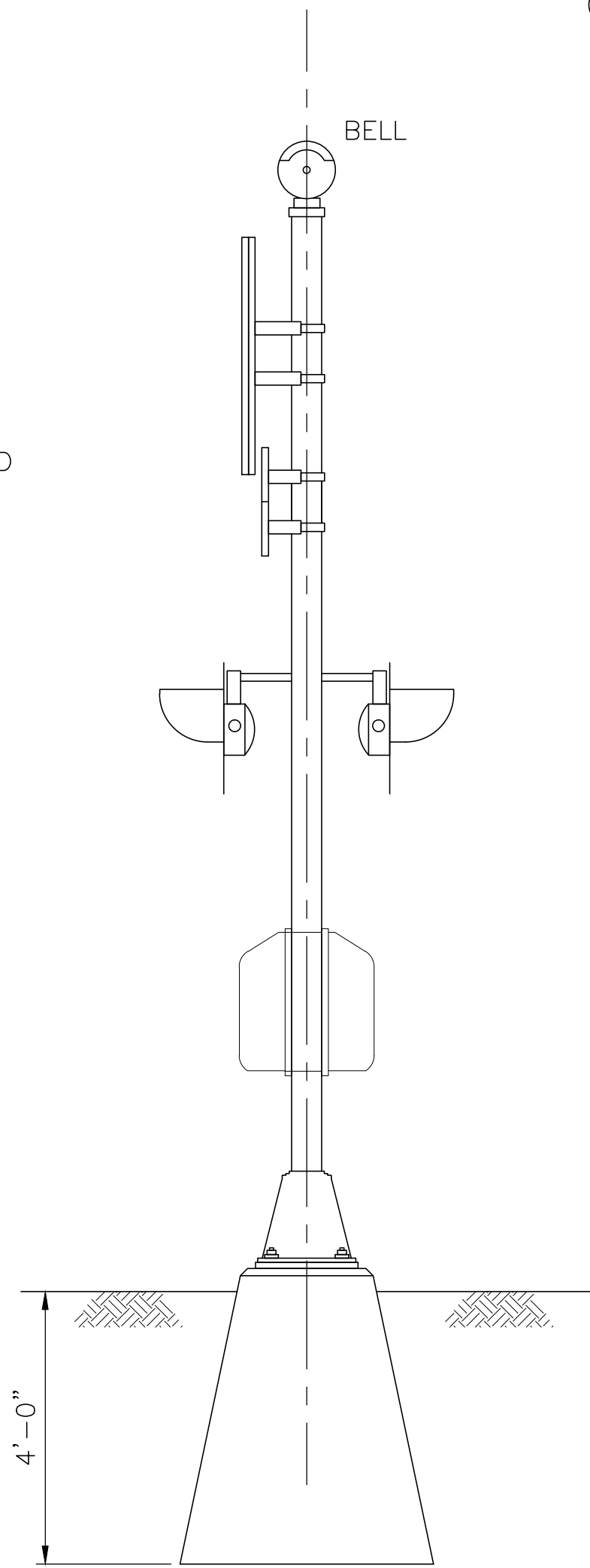
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RR-38				
SHEET 25 OF 85				
△	CONSTRUCTION SET	MRS	SCALE:	AS NOTED
REV	DATE	COMMENT	CHECKED BY	C.O.O. DATE: 08/28/2017



CPUC STANDARD 1-X
PRIVATE RAILROAD CROSSING SIGN

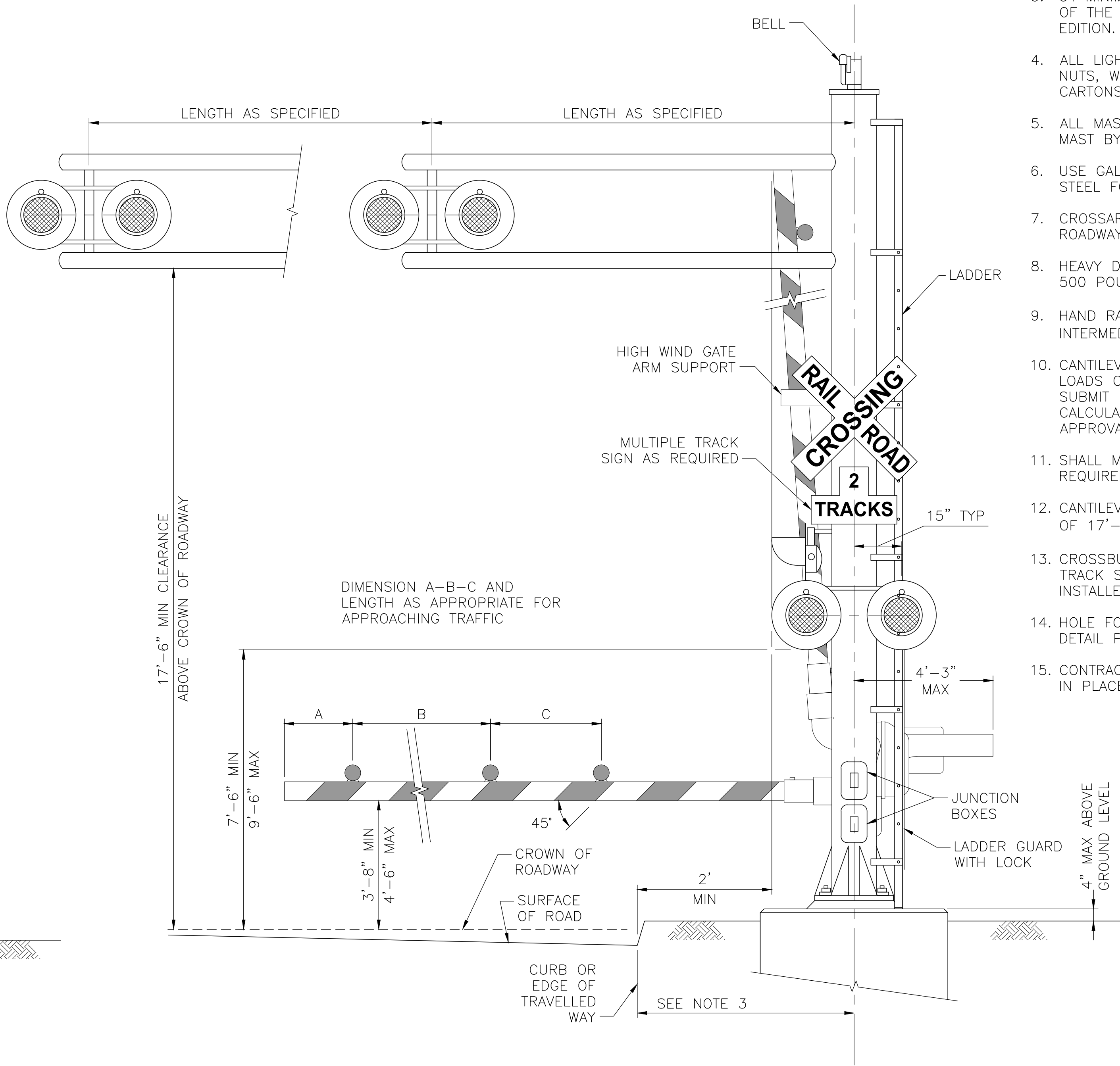


ROADWAY VIEW



SIDE VIEW

CPUC STANDARD 9
FLASHING LIGHT SIGNAL AND GATE ARM



ROADWAY VIEW

CPUC STANDARD 9-A - FLASHING LIGHT SIGNAL WITH AUTOMATIC GATE ARM AND
ADDITIONAL FLASHING LIGHT SIGNALS OVER ROADWAY ON A CANTILEVERED ARM

NOTES:

1. ALL LIGHT UNITS SHALL BE LED TYPE, 12" IN DIAMETER.
2. DIMENSIONS ARE APPROXIMATE. ACTUAL MEASUREMENTS ARE GOVERNED BY LAYOUT PLANS, MUTCD AND OTHER APPLICABLE CODES.
3. 51" MINIMUM FROM FACE OF THE CURB TO CENTERLINE OF THE WARNING DEVICE, PER CA MUTCD, 2012 EDITION.
4. ALL LIGHT ASSEMBLY MOUNTING HARDWARE, TERMINAL NUTS, WASHERS, ETC TO BE PACKAGED IN LIGHT CARTONS.
5. ALL MAST LIGHTS AND SIGNS SHALL BE MOUNTED TO MAST BY CLAMPS.
6. USE GALVANIZED A325 BOLTS FOR MOUNTING MAST TO STEEL FOUNDATION.
7. CROSSARM JUNCTION BOX SHALL FACE AWAY FROM ROADWAY.
8. HEAVY DUTY WALKWAY ON CANTILEVER SHALL SUPPORT 500 POUNDS LIVE LOAD AT END OF ARM.
9. HAND RAIL SHALL BE MINIMUM 30" HIGH WITH INTERMEDIATE HANDRAIL SET AT 18".
10. CANTILEVER AND MAST SHALL BE DESIGNED FOR WIND LOADS OF 100 MPH WITH 30% GUST. CONTRACTOR TO SUBMIT FOUNDATION DESIGN AND DESIGN CALCULATIONS TO ENGINEER FOR REVIEW AND APPROVAL PRIOR TO ORDERING ANY MATERIALS.
11. SHALL MEET OR EXCEED AAR AND AASHTO REQUIREMENTS.
12. CANTILEVER SHALL HAVE MINIMUM ROAD CLEARANCE OF 17'-6".
13. CROSSBUCK SIGNS AND (WHERE REQUIRED) MULTIPLE TRACK SIGNS SHALL HAVE EXTENSION BRACKETS INSTALLED.
14. HOLE FOR ADDITIONAL LIGHTS, AS REQUIRED, BY DETAIL PLAN SHALL BE DRILLED IN THE FIELD.
15. CONTRACTOR MAY ELECT TO SUBMIT PLANS FOR CAST IN PLACE FOUNDATION IN LIEU OF PRECAST.

LADDER GUARD
INCLUDES LOCK BRACKET

OAKLAND GLOBAL



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HDR ENGINEERING, INC.
925-974-2500
2121 N. CALIFORNIA BLVD, SUITE 475
WALNUT CREEK, CA 94596

JOB NO. 190328
DRAWN BY: BPK
CHECKED BY: MRS



PROJECT INFO.

RAIL PLAN
WARNING DEVICES FOR AT-GRADE RAIL CROSSINGS - CPUC STANDARD 9 & 9-A
CITY OF OAKLAND, ALAMEDA COUNTY, CALIFORNIA

					DRAWING NO.
					RR-39
					SHEET 26 OF 85
					SCALE: 1" = 50'
					DATE: 08/28/2017
REV	DATE	CONSTRUCTION SET	MRS	CHECKED BY	C.O.O.
		COMMENT			

Aug 29, 2017 - 10:22am, Plotted By: BKELLY
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WALNUT CREEK, CA 94596

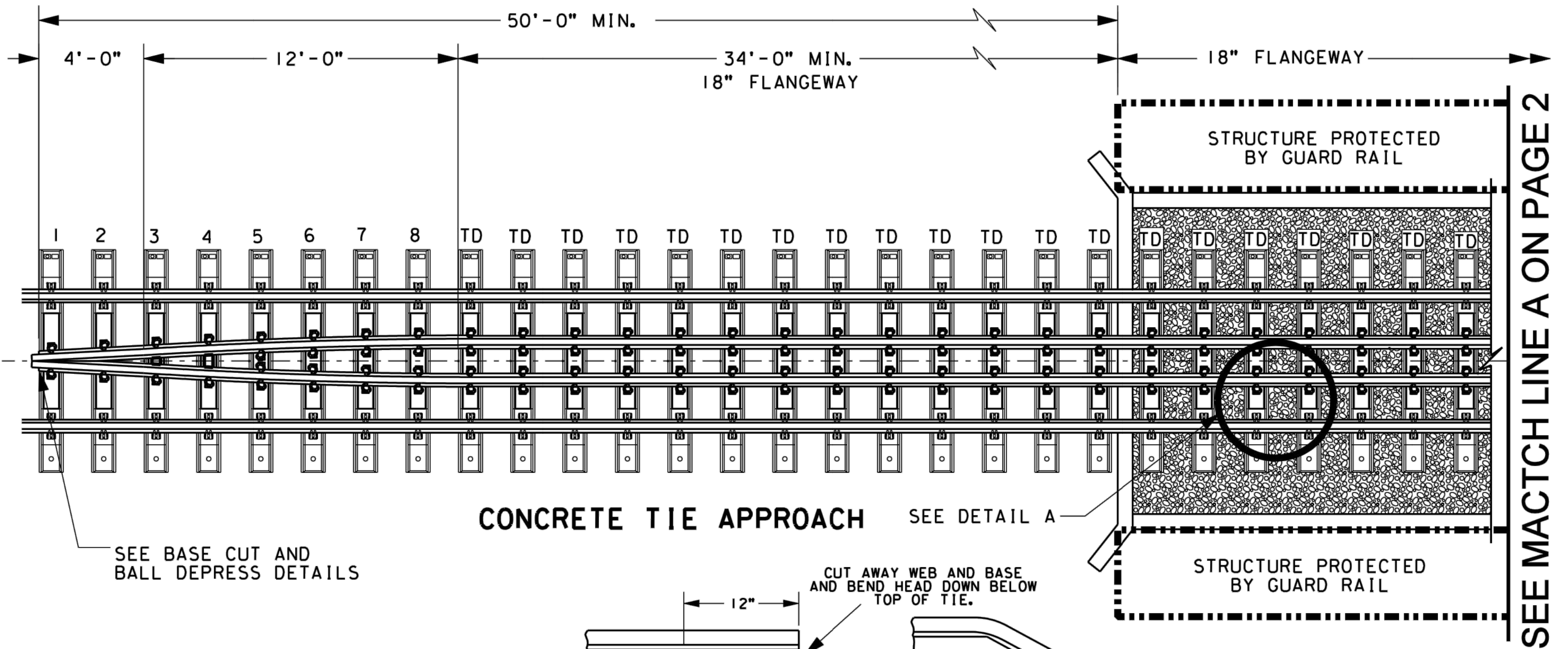
JOB NO.	190328
DRAWN BY:	BPK
CHECKED BY:	MRS



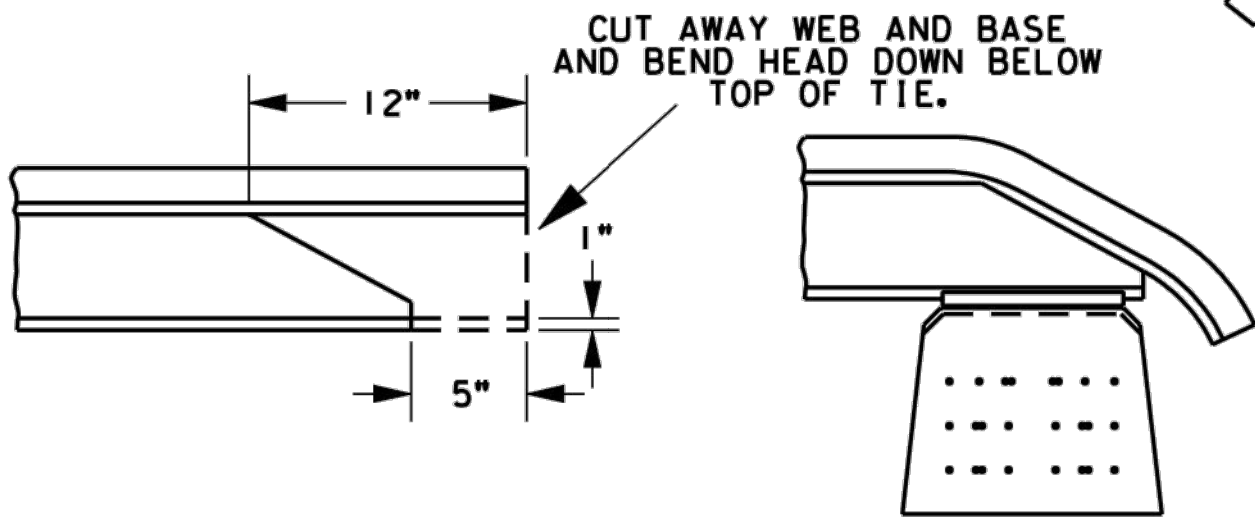
PROJECT INFO.

RAIL PLAN
GUARD RAIL - 1 OF 2
CITY OF OAKLAND, ALAMEDA COUNTY, CALIFORNIA

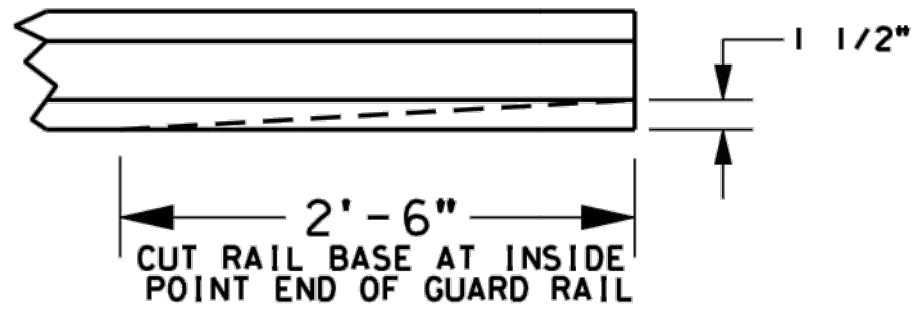
DRAWING NO.			
RR-40			
SHEET 22 OF 85			
△	CONSTRUCTION SET	MRS	SCALE: AS NOTED
REV	DATE	COMMENT	CHECKED BY: C.O.O. DATE: 08/28/2017



- NOTES:**
1. INSIDE GUARD RAILS ARE NOT REQUIRED ON BRIDGES UNTIL BRIDGE OR BRIDGE DECK IS REPLACED OR RUNNING RAIL IS RELAYED ACROSS BRIDGE.
 2. INSIDE GUARD RAILS SHALL BE MADE FROM SECOND HAND RAIL NOT LESS THAN 20 LBS. LIGHTER OR NO LARGER THAN THE RUNNING RAILS. ON CONCRETE TIES, 6" BASE RAIL MUST BE USED.
 3. SECOND HAND FROG POINTS (#10 AND #14) SHOULD BE USED AT END OF GUARD RAILS IF AVAILABLE.
 4. ON CONCRETE TIES, GUARD RAILS SHALL BE FASTENED TO EACH TIE. ON WOOD TIES, GUARD RAILS SHALL BE FULLY PLATED AND SPIKED.
 5. GUARD RAIL JOINT SHALL BE FULLY BOLTED USING SECOND HAND JOINT BARS WHEN AVAILABLE.
 6. ON TANGENT TRACK, SPIKE THE INSIDE GUARD RAIL WITH TWO SPIKES PER PLATE ON EACH RAIL OF THE TANGENT PORTION AND FOUR SPIKES ON EACH RAIL OF THE CURVED PORTION. ON CURVED TRACK, SPIKE THE ENTIRE GUARD RAIL WITH FOUR SPIKES PER PLATE ON EACH RAIL.



DEPRESSED RAIL HEAD DETAIL



RAIL BASE CUT DETAIL

NOTES (CONTINUED):

7. ON WOOD TIES, BOX ANCHOR TWO TIES NEAR THE CENTER OF BRIDGE TO RESTRICT LONGITUDINAL MOVEMENT OF GUARD RAIL.
8. THE QUANTITY OF TD PLATES ON CONCRETE TIES WILL VARY DEPENDING ON NUMBER OF TIES. THEY ARE TO BE ORDERED AS NEEDED. PLATES 1 THROUGH 8 COME AS TWO SETS AND ARE TO BE ROTATED 180° ON OPPOSITE ENDS.

REFERENCE DRAWINGS:
FOR PLATES (ON CONCRETE), SEE STD DWG 4016
FOR CONCRETE TIE, SEE STD DWG 0202
FOR SCREW AND WASHER, SEE STD DWG 0420

NOTE: SEE PAGE 2 FOR THE REST OF THE DWG.

**UNION PACIFIC RAILROAD
ENGINEERING STANDARDS**

**DOUBLE INSIDE GUARD
RAIL FOR BALLAST DECK
BRIDGES**

ADOPTED: DEC. 31, 1996
REVISED: MAY 24, 2004
FILE NO.: 4015E

STD DWG
4015E
PAGE 1 OF 2

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NOTES:

GUARD RAIL TO BE CONSTRUCTED WITH
TIMBER CROSSTIES

Aug 29, 2017 - 10:22am, Plotted By: BKELLY
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OAKLAND GLOBAL



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2121 N. CALIFORNIA BLVD, SUITE 475
WALNUT CREEK, CA 94596

JOB NO.	190328
DRAWN BY:	BPK
CHECKED BY:	MRS



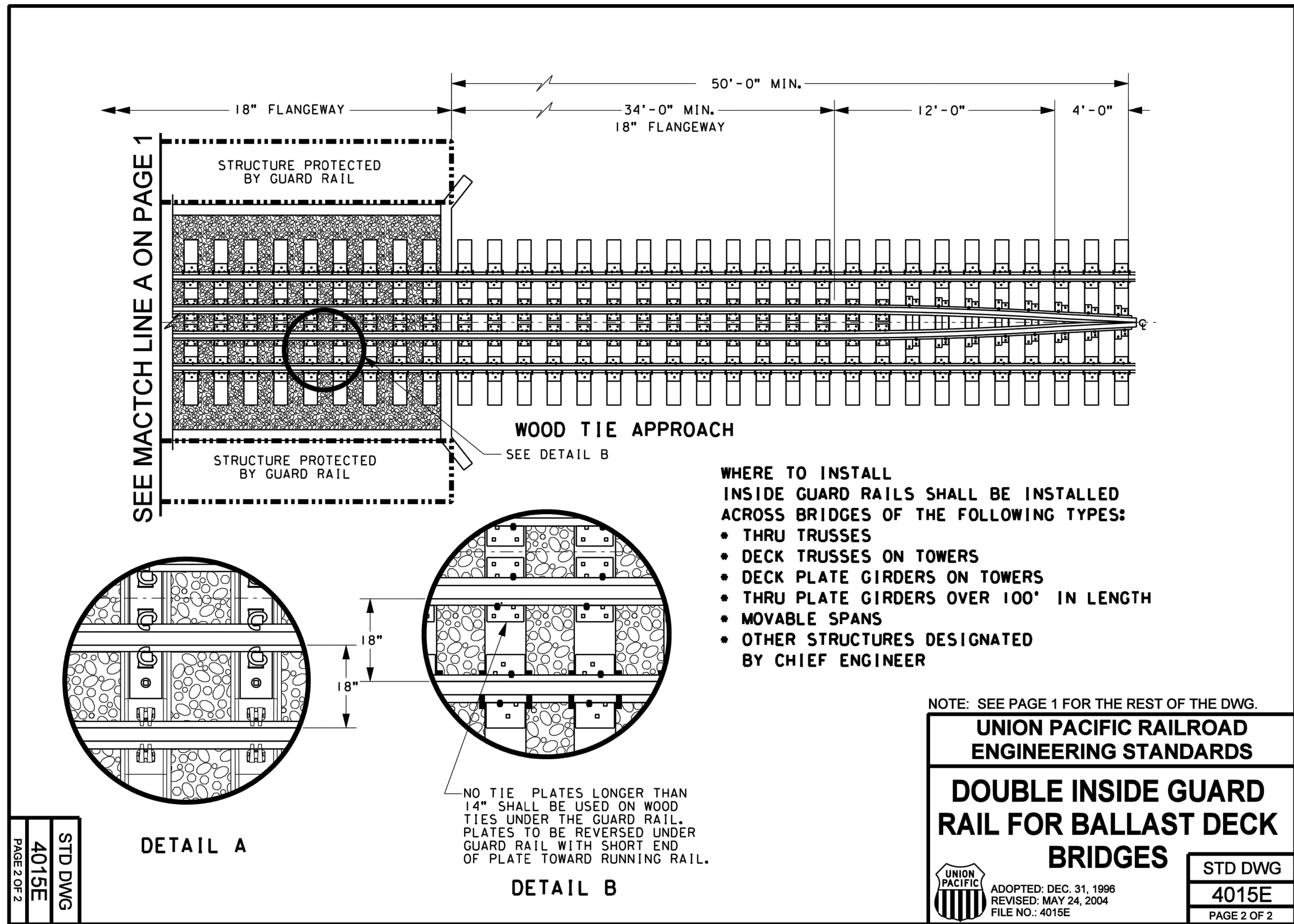
PROJECT INFO.

RAIL PLAN
GUARD RAIL - 2 OF 2
CITY OF OAKLAND, ALAMEDA COUNTY, CALIFORNIA

DRAWING NO.			
RR-41			
SHEET 28 OF 85			
△	CONSTRUCTION SET	MRS	SCALE: AS NOTED
REV	DATE	COMMENT	CHECKED BY C.O.O. DATE: 08/28/2017

NOTES:

GUARD RAIL TO BE CONSTRUCTED WITH
TIMBER CROSSIES



STD DWG
4015E
PAGE 2 OF 2

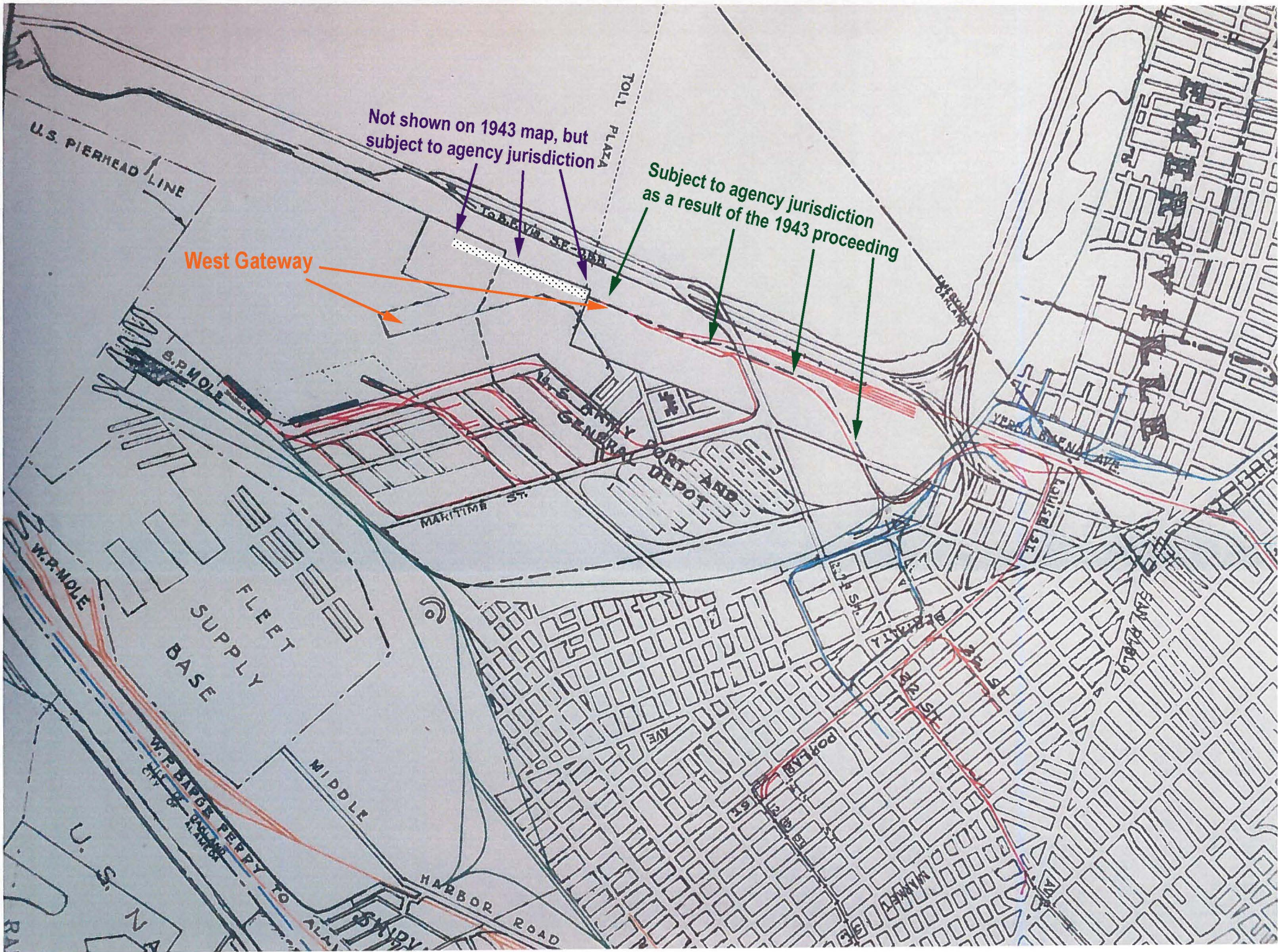
**BEFORE THE
SURFACE TRANSPORTATION BOARD**

Finance Docket No. 36168

**OAKLAND GLOBAL RAIL ENTERPRISE
-PETITION FOR DECLARATORY ORDER**

**PETITIONER'S RESPONSE TO THE
SURFACE TRANSPORTATION BOARD'S REQUEST
FOR ADDITIONAL INFORMATION**

EXHIBIT 2



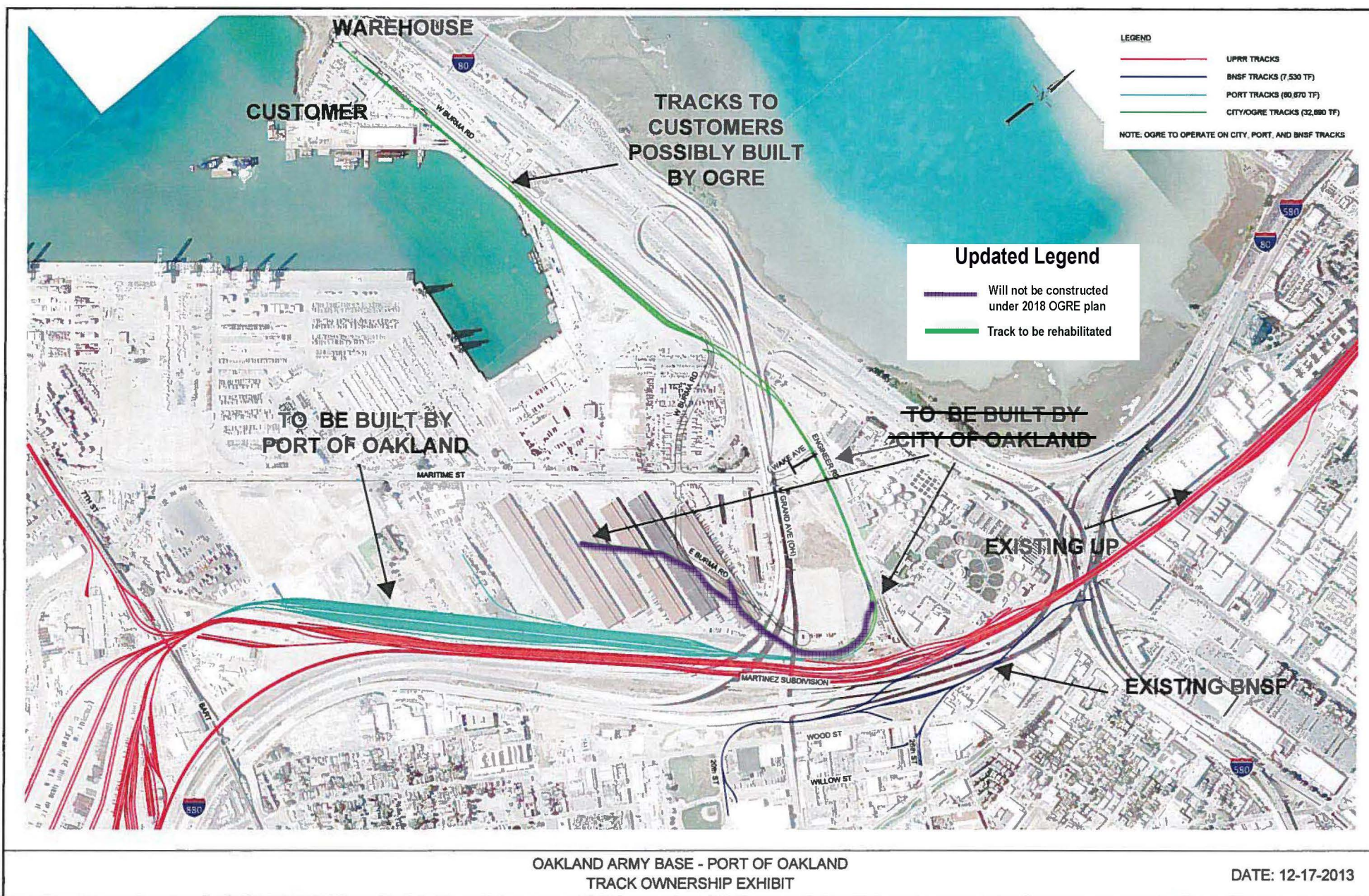
**BEFORE THE
SURFACE TRANSPORTATION BOARD**

Finance Docket No. 36168

**OAKLAND GLOBAL RAIL ENTERPRISE
-PETITION FOR DECLARATORY ORDER**

**PETITIONER'S RESPONSE TO THE
SURFACE TRANSPORTATION BOARD'S REQUEST
FOR ADDITIONAL INFORMATION**

EXHIBIT 3



**BEFORE THE
SURFACE TRANSPORTATION BOARD**

Finance Docket No. 36168

**OAKLAND GLOBAL RAIL ENTERPRISE
-PETITION FOR DECLARATORY ORDER**

**PETITIONER'S RESPONSE TO THE
SURFACE TRANSPORTATION BOARD'S REQUEST
FOR ADDITIONAL INFORMATION**

EXHIBIT 4



DETAIL 1



LEGEND

- UPRR TRACKS
- PORT TRACKS
- CITY OF OAKLAND TRACKS
- BNSF TRACK ON BNSF EASEMENT
- OGRE 2018 Proposed Project**

OGRE OPERATED TRACK FOOTAGE

TRACK OWNER	TRACK FOOTAGE
UPRR TRACK	0
PORT TRACK	60,670
CITY OF OAKLAND TRACK	32,690
BNSF TRACK	0

Jul 14, 2015 - 10:23am, Plotted By Jacqueline G. Local File (Oakland) ARCHITECTURAL DIMENSIONS X-1729.dwg



ARCHITECTURAL DIMENSIONS
 JAMES HEILBRONER
 510-463-6300
 300 FRANK N. OGAWA PLAZA, SUITE 375
 OAKLAND, CA 94612

PROJECT INFO.
 OGRE RAIL OPERATIONS AND OWNERSHIP
 CITY OF OAKLAND, ALAMEDA COUNTY, CALIFORNIA

CAT. NO.	AD-0656.03
INV. NO.	33413

REV	DATE	COMMENT

JOB NO.	OAB02
SCALE:	1" = 400'
DATE:	7/10/2015
DRAWN BY:	J. ARMADA
CHECKED BY:	J. ARMADA

DRAWING NO.
 X-1729
 SHEET 1 OF 1