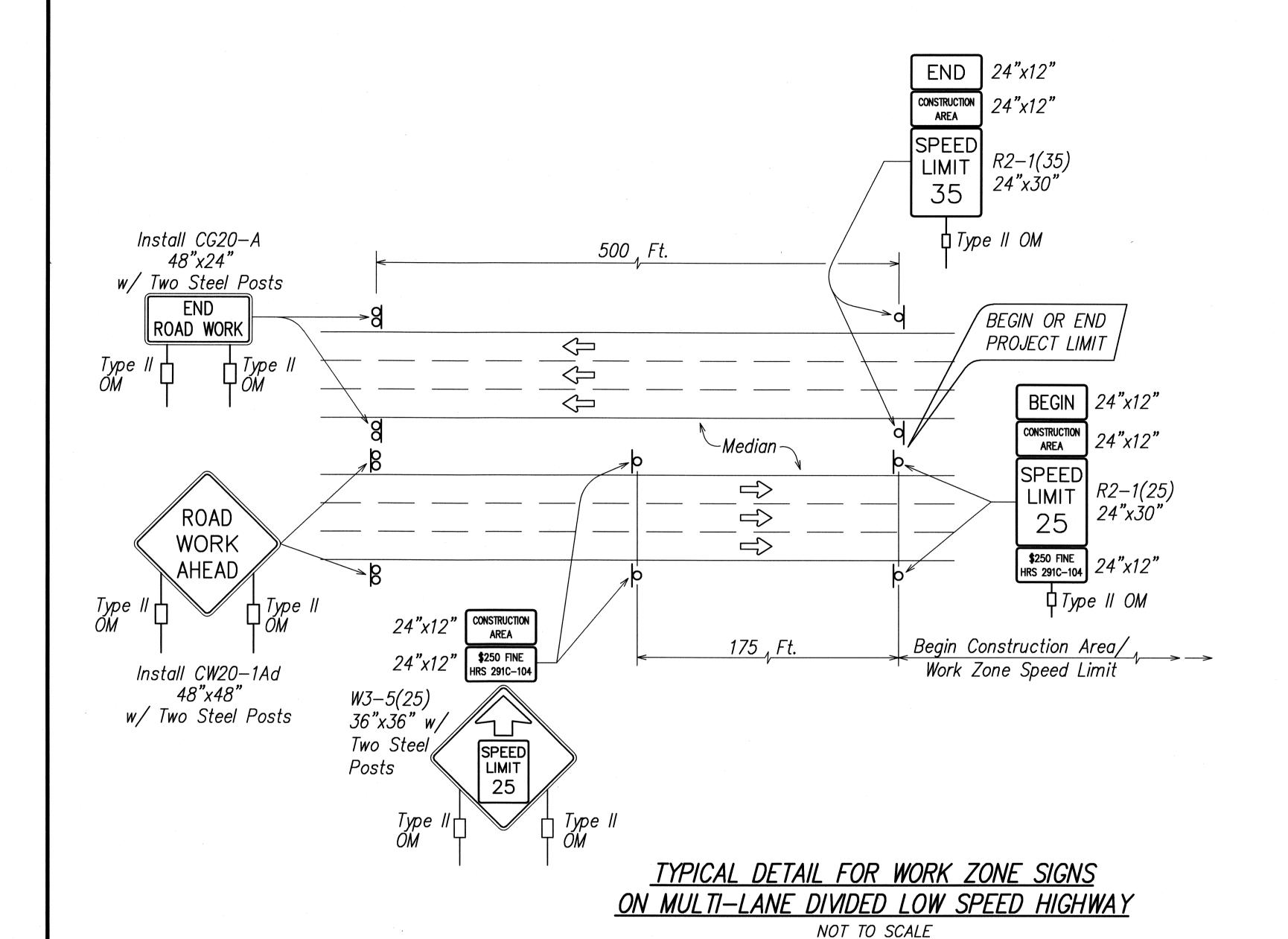
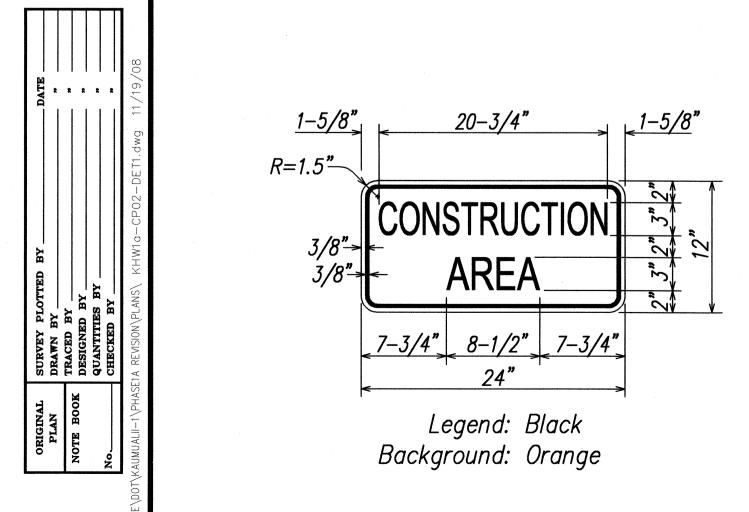


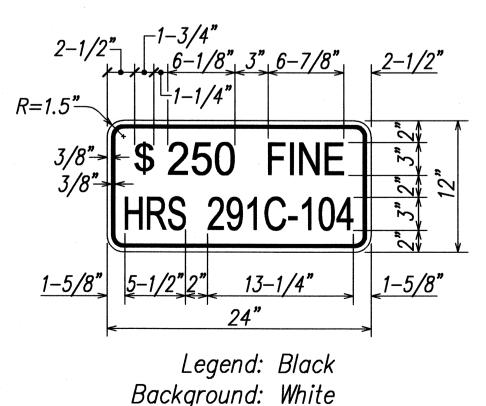
FED. ROAD STATE FISCAL SHEET TOTAL YEAR NO. SHEETS FED. AID PROJ. NO. 2009 274 452 NH-050-1(31) HAW.

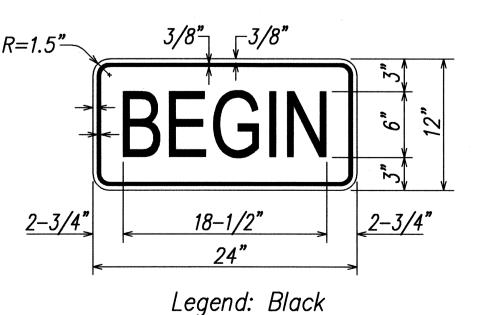


Work Zone Notes:

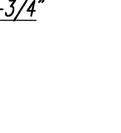
- 1. This Work Zone Sign Plan is intended for use on long-term stationary work zones/construction phases (3 days or more). All work zones or construction phases less than 3 days duration will use Traffic Control Plans shown in Section 645 of the Special Provisions.
- 2. All existing regulatory speed limit signs with posts within the work zone/ project limits shall be removed and replaced with work zone speed limit sign assemblies (R2-1(25) and R2-5b(25) with "CONSTRUCTION AREA" and "\$250 FINE HRS 291C-104" Supplemental Signs).
- 3. Work zone sign assemblies shall be installed on both the approaching and trailing ends of each work zone as shown on this plan. The cost for and installation of each work zone sign assembly shall be considered incidental to Item No. 645.1000 - Traffic Control.
- 4. Each work zone warning sign shall have a minimum of four (4) Type II Object Markers (OM), 2 facing each direction of traffic. Each work zone speed limit assembly shall have a minimum of two (2) Type II OM, 1 facing each direction of traffic. The cost for and installation of each Type II OM shall be considered incidental to Item No. 645.1000 — Traffic Control.
- 5. Upon the completion of all physical work or as directed by the Engineer, all work zone warning signs and work zone speed limit assemblies shall be removed. All speed limit signs that were existing at the start of the project within the work zone/project limits and that are to remain shall be reinstalled with new post(s) at their original locations and configurations.
- 6. Placement of work zone signs shall not obstruct the path of pedestrians and bicyclists.
- 7. The removal and restoration of existing signs that are to remain, along with the installation, maintenance and removal of work zone speed limit sign assemblies shall be considered incidental to Item No. 645.1000 - Traffic Control.

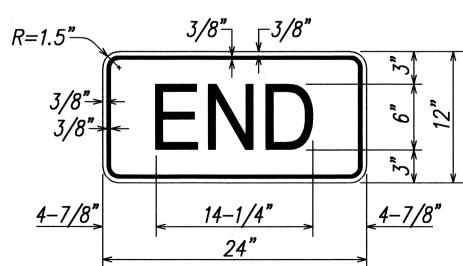




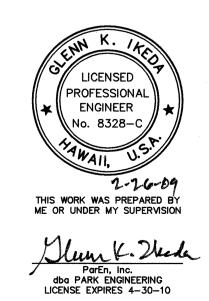


Background: Orange





Legend: Black Background: Orange



STATE OF HAWAII DEPARTMENT OF TRANSPORTATION HIGHWAYS DIVISION

> **WORK ZONE SIGNING** NOTES & DETAILS

KAUMUALII HIGHWAY WIDENING Vicinity of Anonui Street to Vicinity of Lihue Mill Bridge FEDERAL-AID PROJECT NO. NH-050-1(31)

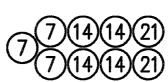
Scale: None Date: FEB. 2009

SHEET No. CP2 OF CP32 SHEETS

ED. ROAD DIST. NO.		FED. AID PROJ. NO.			TOTAL SHEETS
HAWAII	HAW.	NH-050-1(31)	2009	ADD.275	452

CONSTRUCTION PHASING NOTES:

- 1. In general, it is intended that the work proceed according to the phase sequence order indicated in the Construction Phasing and Detour Plans, i.e. Phase 1, then to Phase 2, then to Phase 3, ... to completion.
 - 2. Depending on the scope of work required for each phase, the work shall start and continue without interruption, until all the work in the phase is completed or substantially completed.
- 1 3. Depending on the scope of work required for each phase, portions of work in adjacent construction phases might need to be done to enable the work in the current phase to be finished (e.g. construction of temporary or permanent facilities prior to demolition of existing facilities, allowing for settlement waiting period prior to work on embankments, etc.) If such work in adjacent phases ("out of sequence work") is needed to facilitate or expedite work, it will be allowed by the Engineer, but only after the Engineer accepts the Contractor's Traffic Control Plan (TCP) covering such "out of sequence work". See Section 645.03 of the H.S.S. for TCP requirements.
 - 4. The Contractor shall notify the Engineer prior to beginning work in any phase and get authorization from the Engineer to begin the work in each phase.
 - 5. Install Type II barricades with steady burn amber lamps as shown in the MUTCD.
- 1 6. Work at some locations throughout the project area (e.g. at intersections, at interface of adjacent phases, at median areas, etc.) may not be shown as being included in any one specific construction phase. Such "nonphased" work shall be considered as being included in either 1) any of the phases adjacent to the "non-phased" work; 2) as a separate phase of work to be completed between adjacent phases of work; or 3) as a separate phase of work to be completed at sometime during the course of the project, whichever is most convenient for the contractor and accepted by the Engineer.
- $\uparrow \uparrow \uparrow$ 7. The contractor shall consider "non-phased" work (as described in Note 7, above) in completion of his work. Such "non-phased" work is subject to the same TCP and submittal requirements and Engineer acceptance as other phases of work. The cost of traffic control for "non-phased" work shall be included in the cost for Item No. 645.1000 - Traffic Control.
- 1 8. The Contractor may modify the Construction Phasing and Detour Plans by submitting in writing, to the Engineer for his review and acceptance, an alternate Construction and Phasing Plan. Any contractor initiated alternate Construction Phasing and Detour Plan shall include all pertinent information in accordance with Section 645 of the H.S.S. Any contractor initiated alternate Construction Phasing and Detour Plan shall be done at no increase in contract time or contract price.

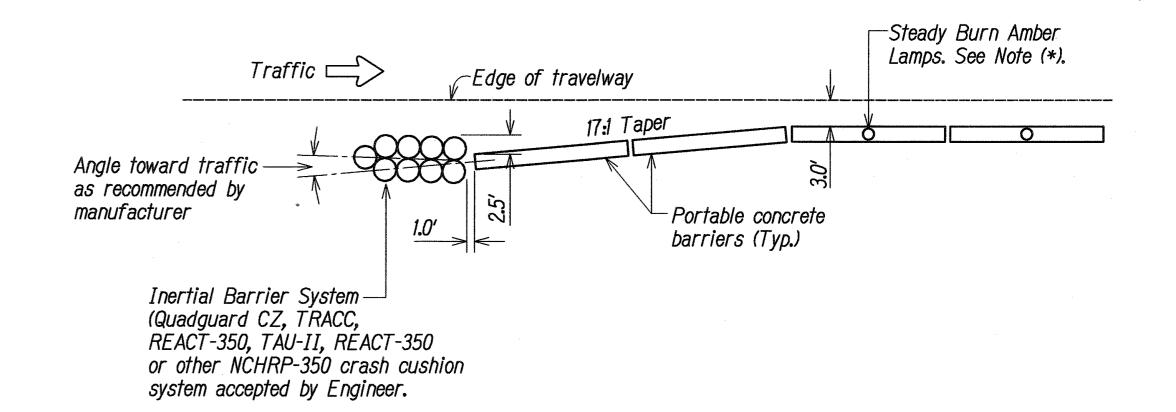


Number indicates module weight in hundreds of pounds.

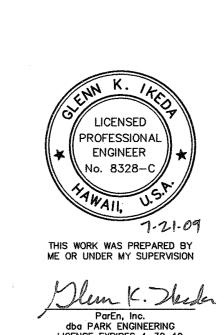
INTERTIAL BARRIER SIZES

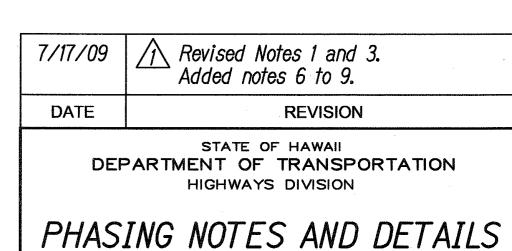
(*) Notes:

- . Install steady burn amber lamp on PCB (1 per panel. Installation, maintenance and removal of the lamps shall be considered incidental to Item 615.1000 - Portable Concrete Barrier.
- 2. Inertial Barrier System shall be considered incidental to Item 615.1000 - Portable Concrete Barrier.







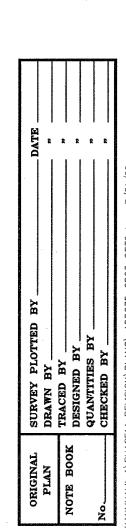


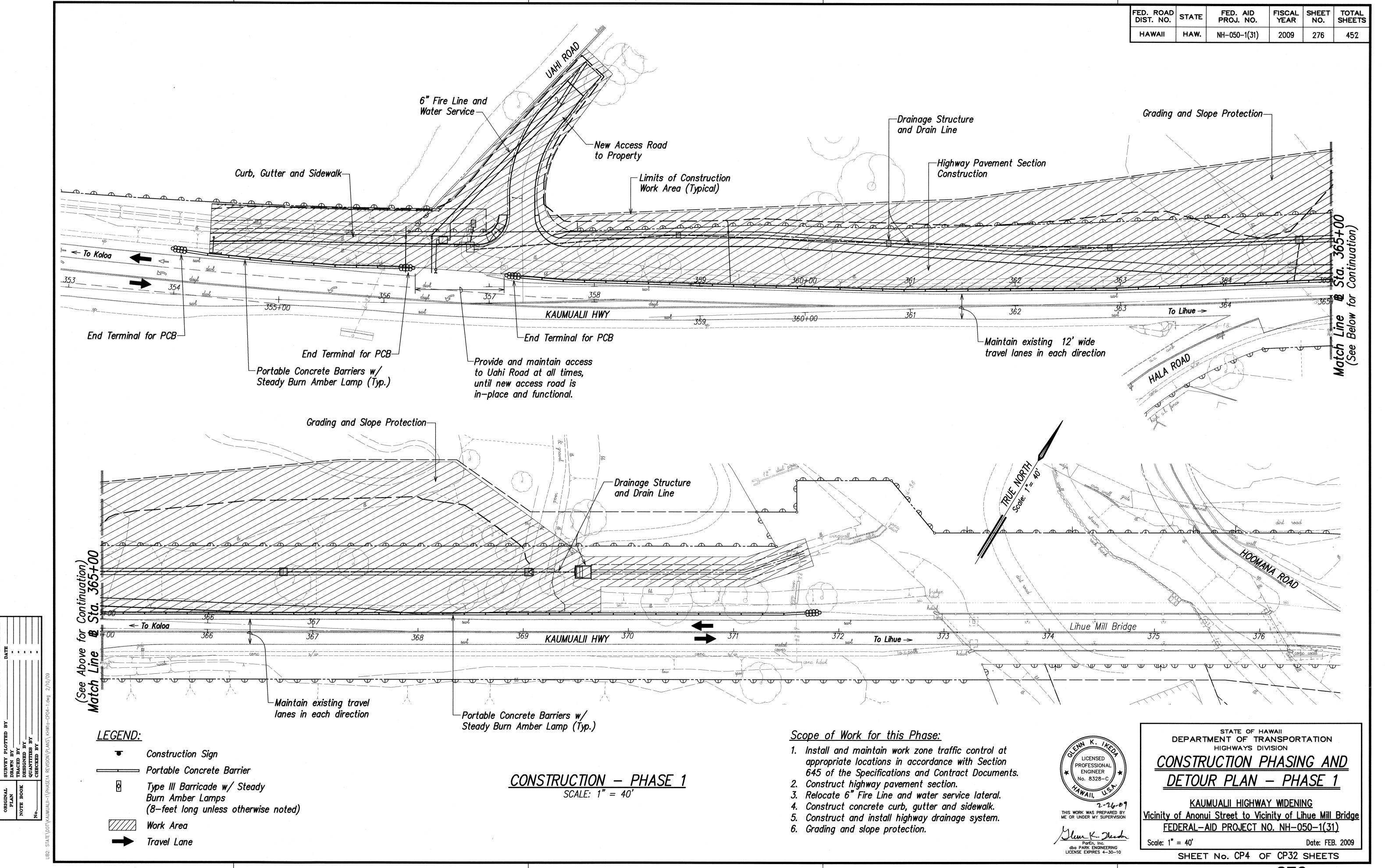
KAUMUALII HIGHWAY WIDENING

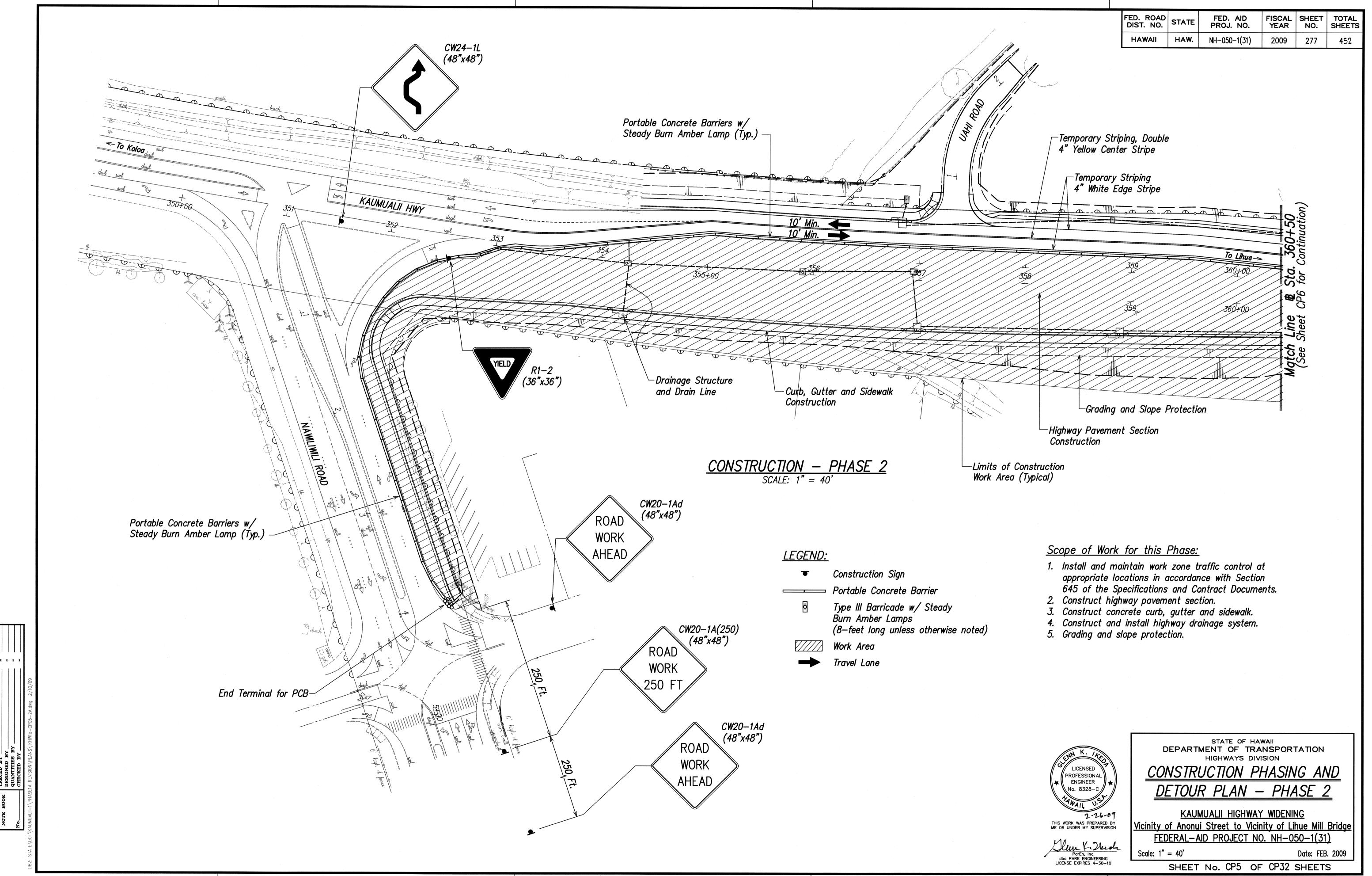
Vicinity of Anonui Street to Vicinity of Lihue Mill Bridge FEDERAL-AID PROJECT NO. NH-050-1(31) Scale: As Noted Date: JULY 2009

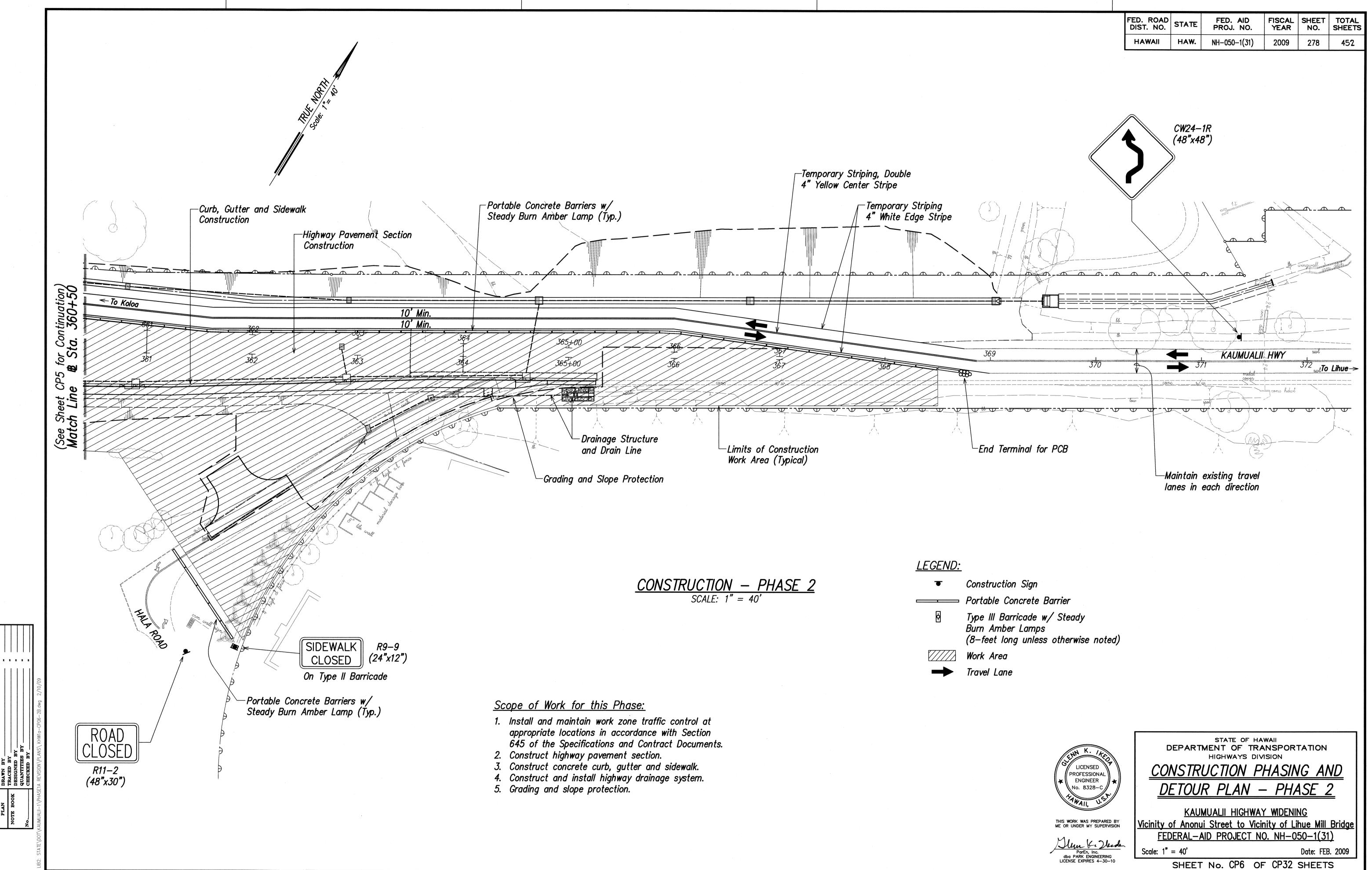
SHEET No. CP3 OF CP32 SHEETS

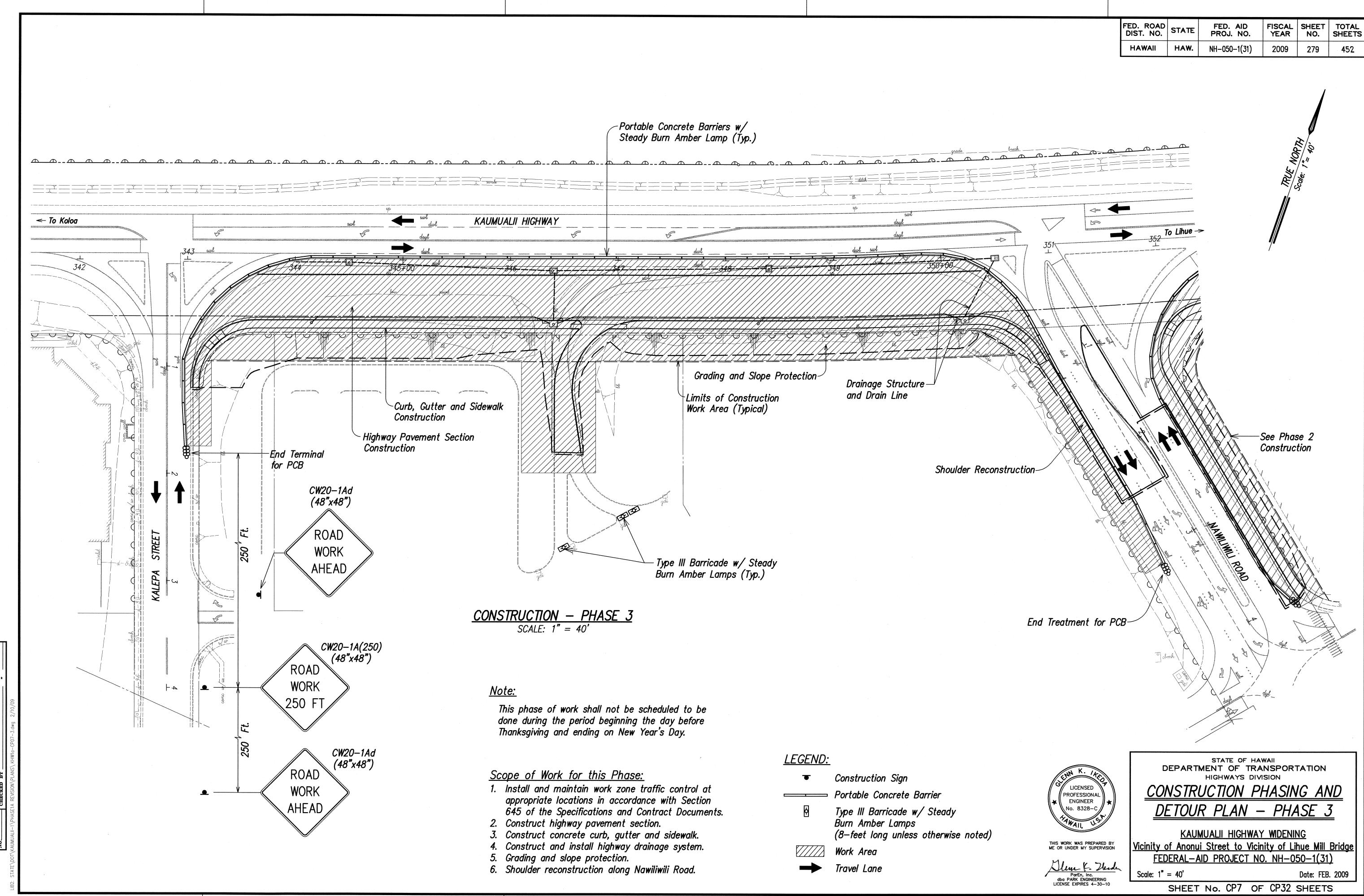
ADD. 275



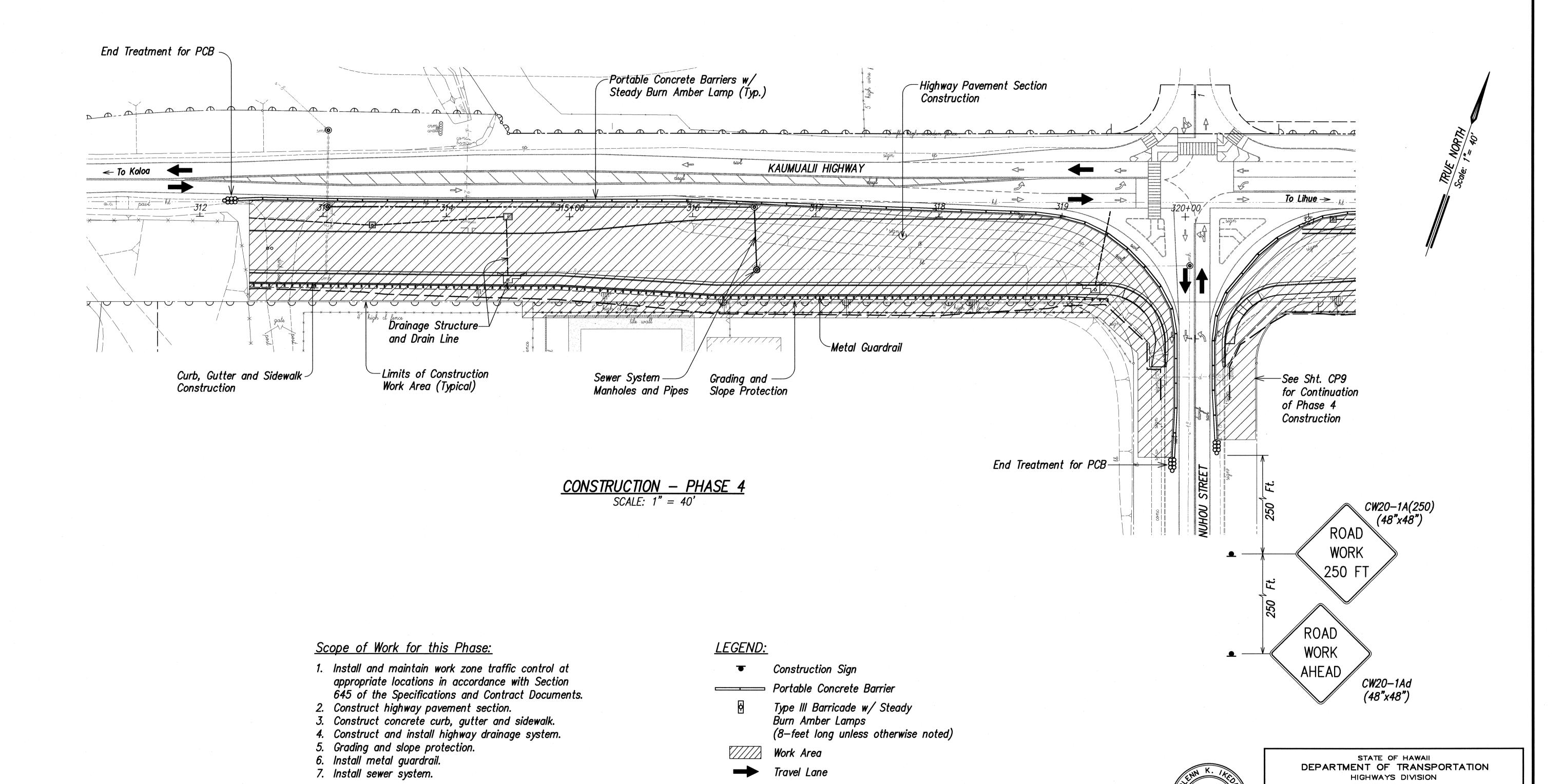








	FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR		TOTAL SHEETS
*	HAWAII	HAW.	NH-050-1(31)	2009	280	452



SURVEY PLOTTED
DRAWN BY
TRACED BY
DESIGNED BY
QUANTITIES BY
CHECKED BY

SHEET No. CP8 OF CP32 SHEETS

Scale: 1" = 40'

CONSTRUCTION PHASING AND

<u>DETOUR PLAN - PHASE 4</u>

KAUMUALII HIGHWAY WIDENING

Vicinity of Anonui Street to Vicinity of Lihue Mill Bridge

FEDERAL-AID PROJECT NO. NH-050-1(31)

PROFESSIONAL ENGINEER No. 8328-C

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION

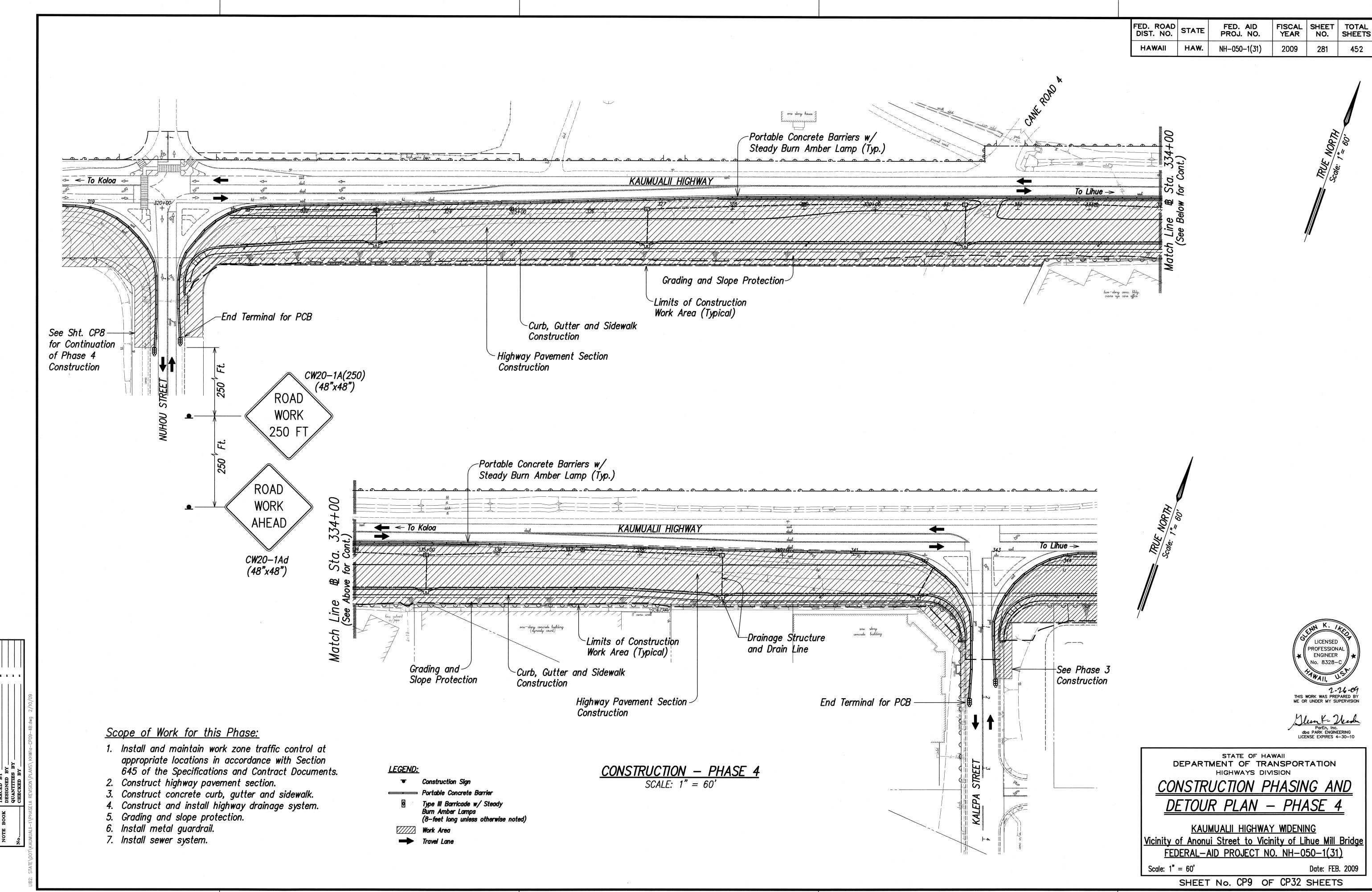
ParEn, Inc.

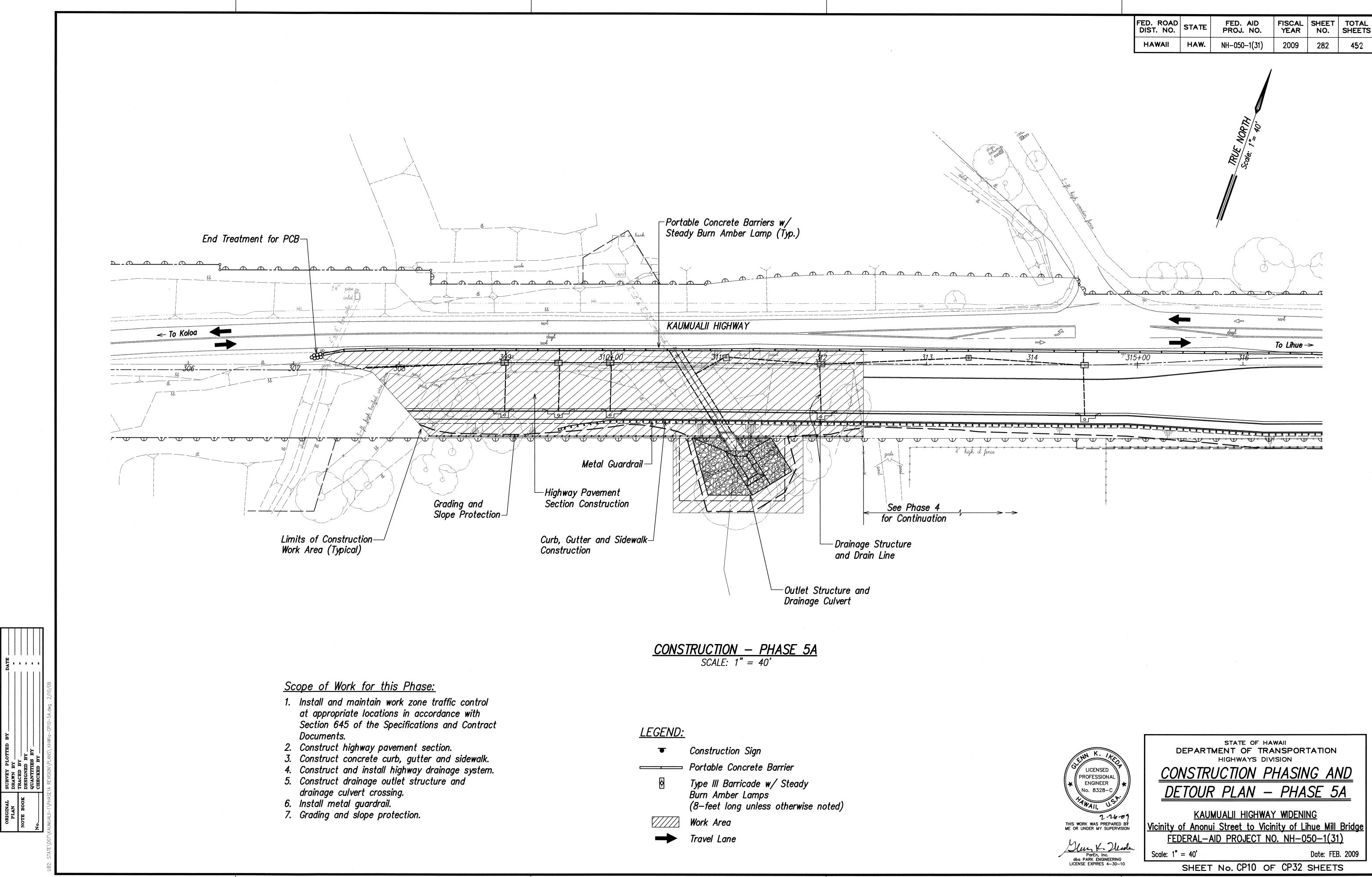
dba PARK ENGINEERING

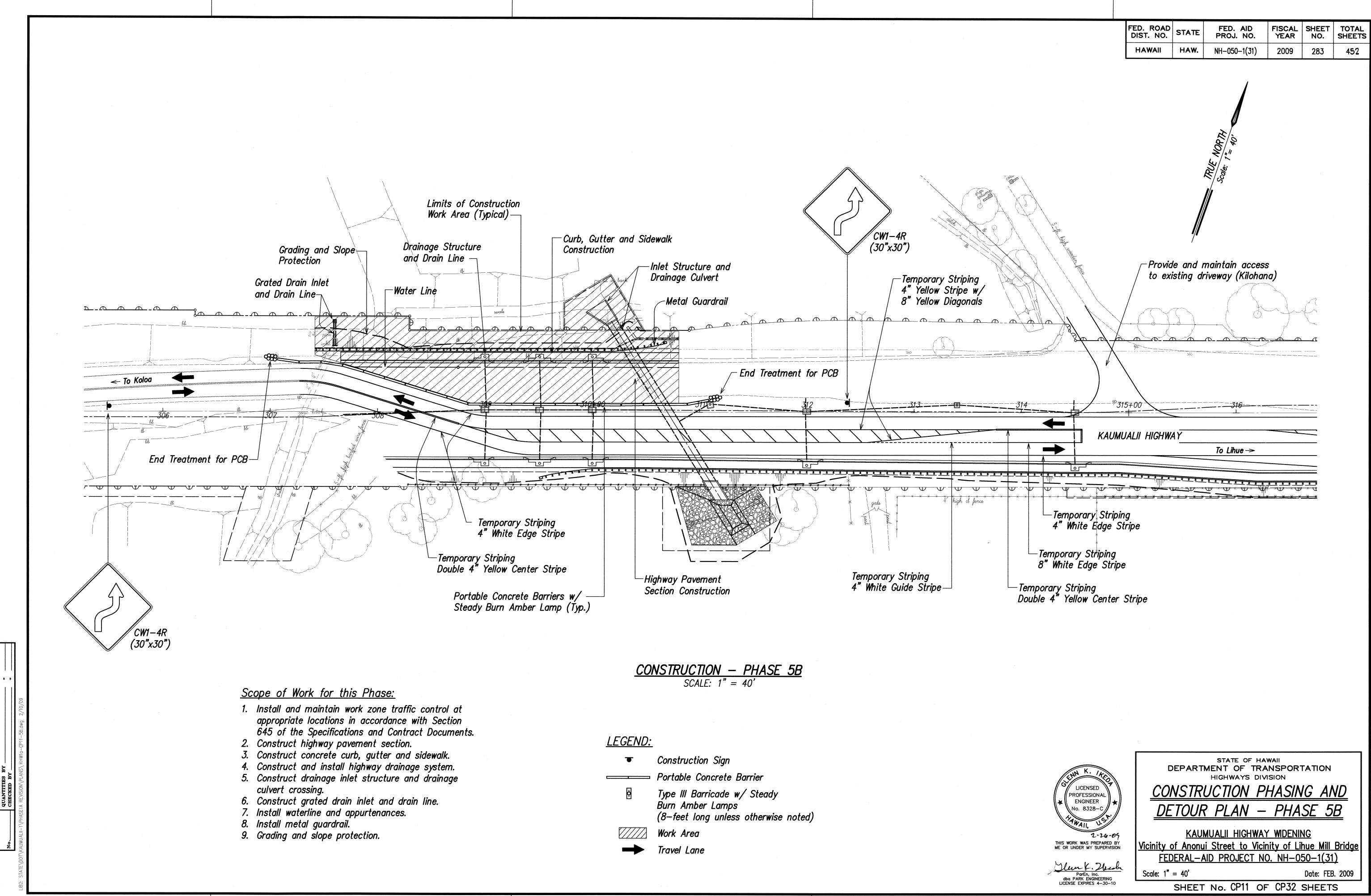
LICENSE EXPIRES 4-30-10

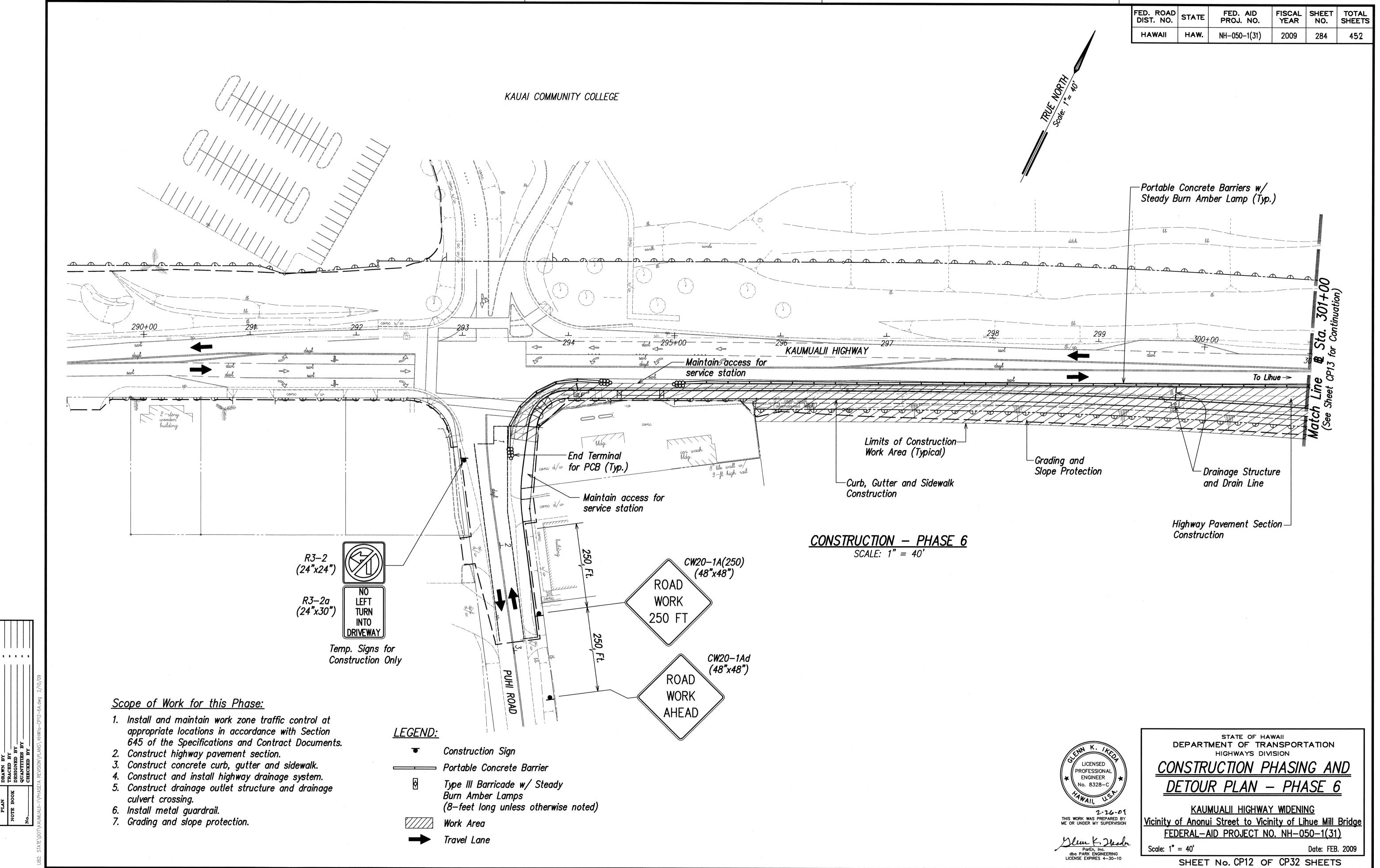
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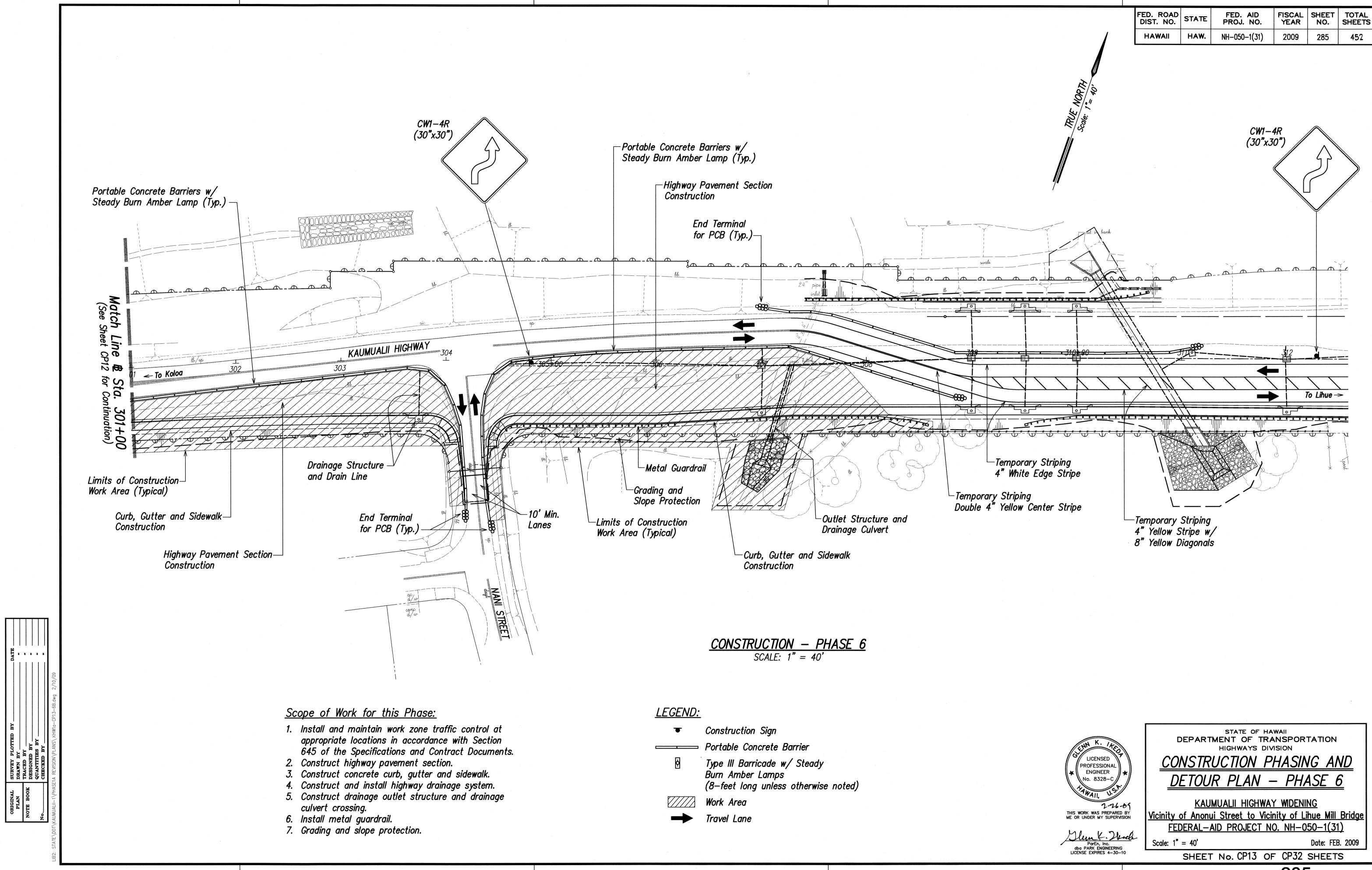
Date: FEB. 2009



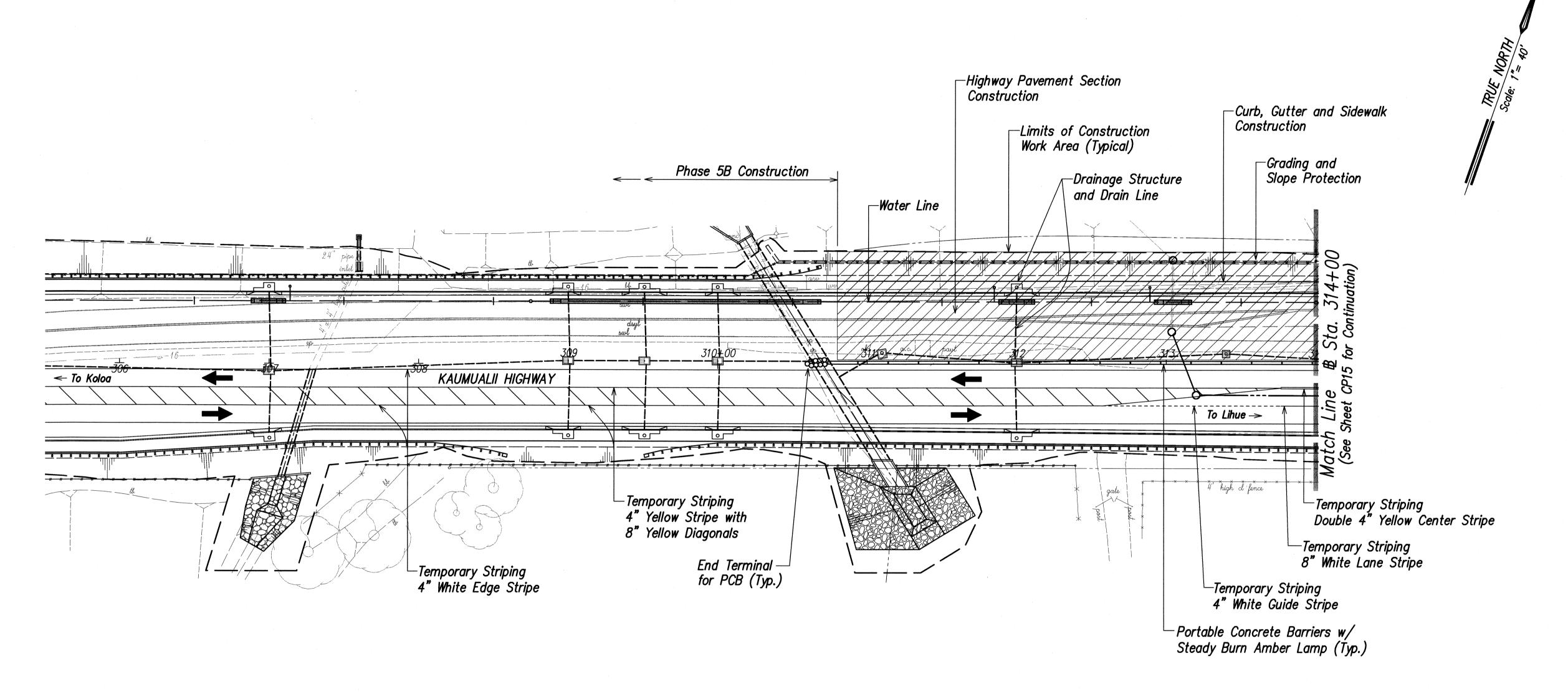








FED. ROAD DIST. NO. STATE FISCAL SHEET TOTAL YEAR NO. SHEETS FED. AID PROJ. NO. NH-050-1(31) 2009 286 HAWAII HAW.



CONSTRUCTION - PHASE 7

SCALE: 1" = 40'

Scope of Work for this Phase:

- 1. Install and maintain work zone traffic control at appropriate locations in accordance with Section 645 of the Specifications and Contract Documents.
- 2. Construct highway pavement section.
- 3. Construct concrete curb, gutter and sidewalk.
- 4. Construct and install highway drainage system.5. Grading and slope protection.
- 6. Install waterline and appurtenances.

LEGEND:

Construction Sign

——— Portable Concrete Barrier

Type III Barricade w/ Steady Burn Amber Lamps (8-feet long unless otherwise noted)

Work Area

Travel Lane



STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

CONSTRUCTION PHASING AND <u>DETOUR PLAN - PHASE 7</u>

KAUMUALII HIGHWAY WIDENING Vicinity of Anonui Street to Vicinity of Lihue Mill Bridge

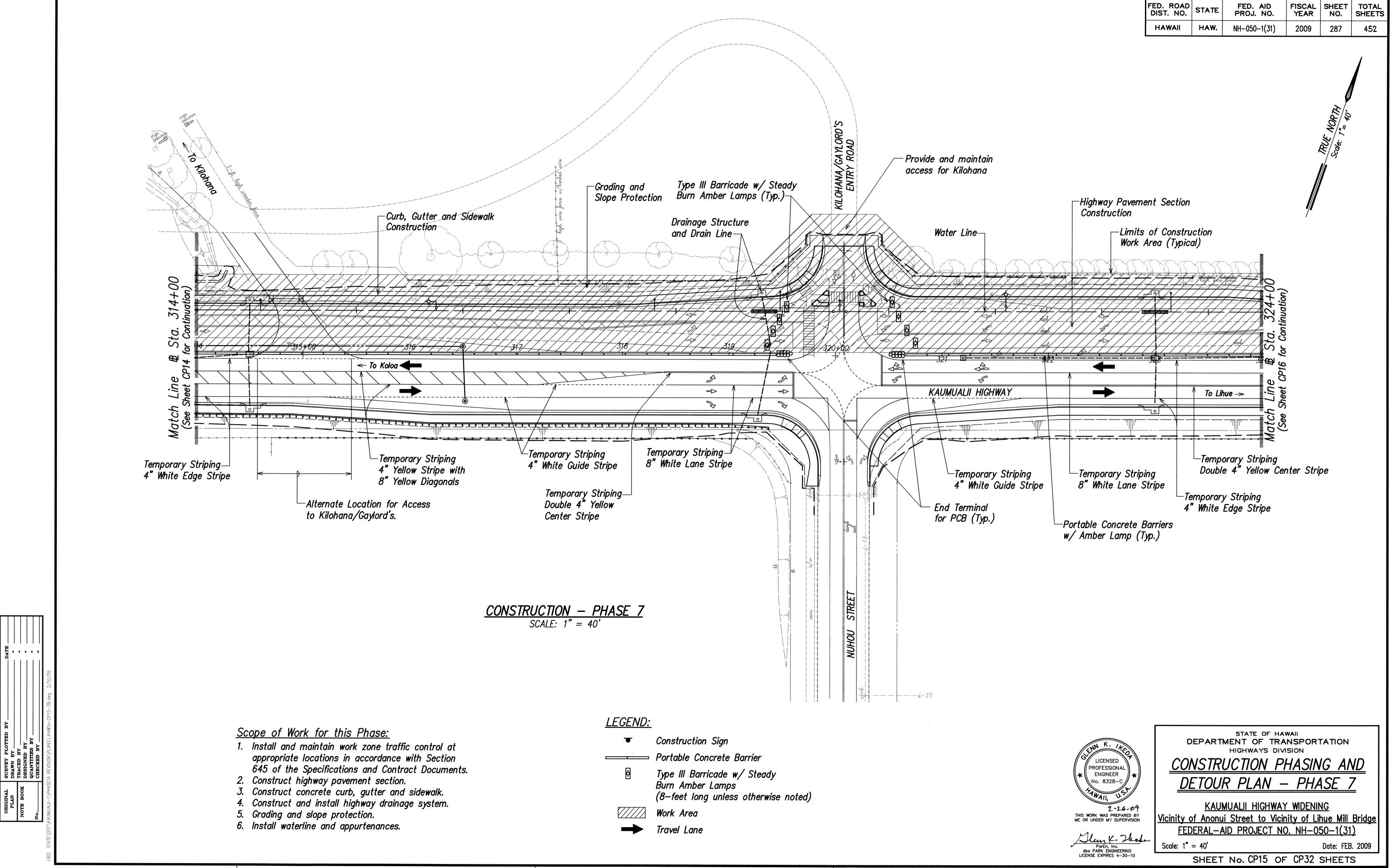
FEDERAL-AID PROJECT NO. NH-050-1(31) Scale: 1" = 40' Date: FEB. 2009

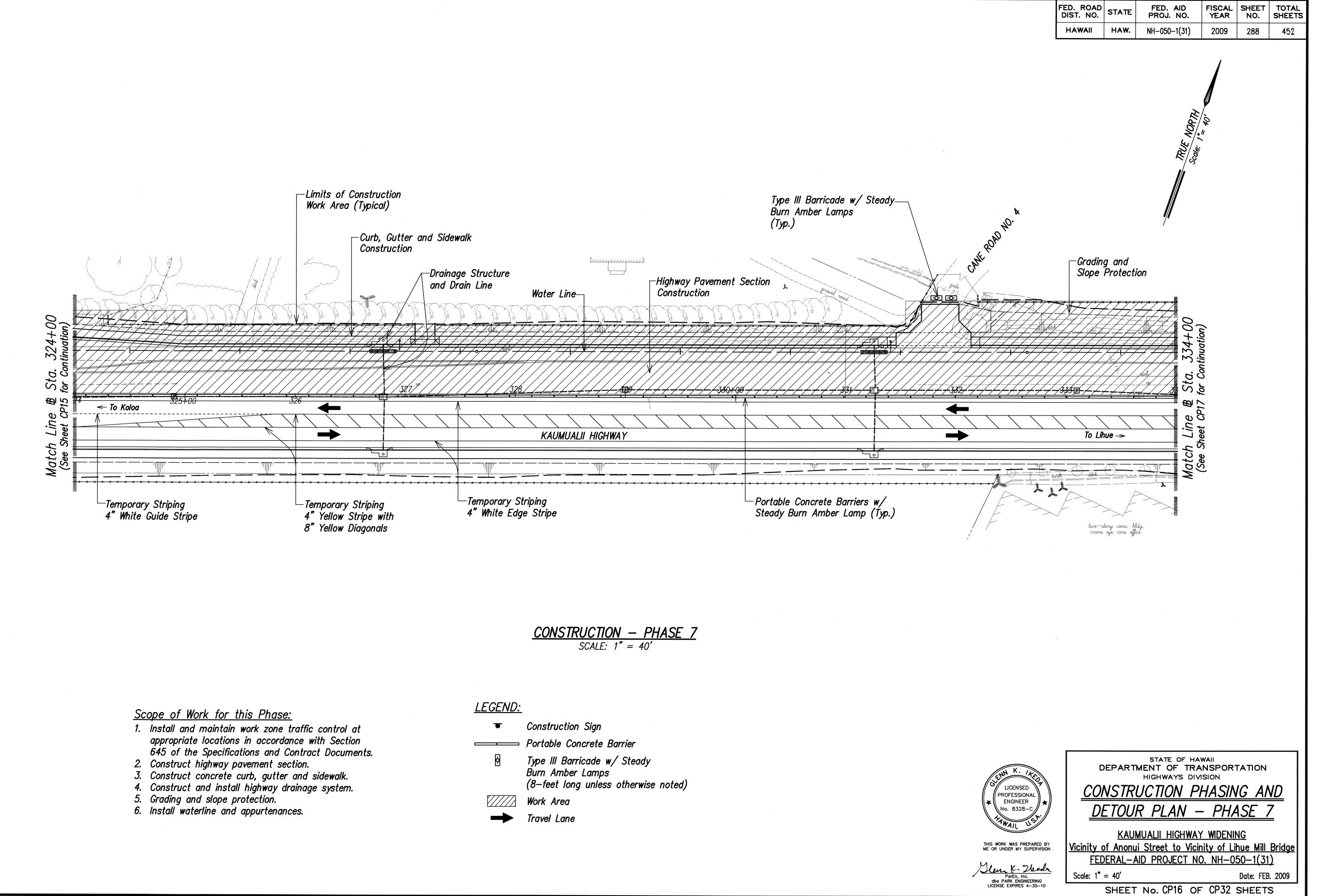
SHEET No. CP14 OF CP32 SHEETS

ParEn, Inc.

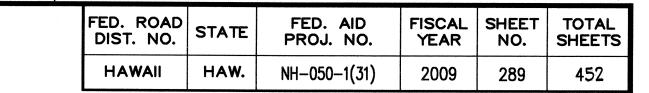
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LICENSE EXPIRES 4-30-10

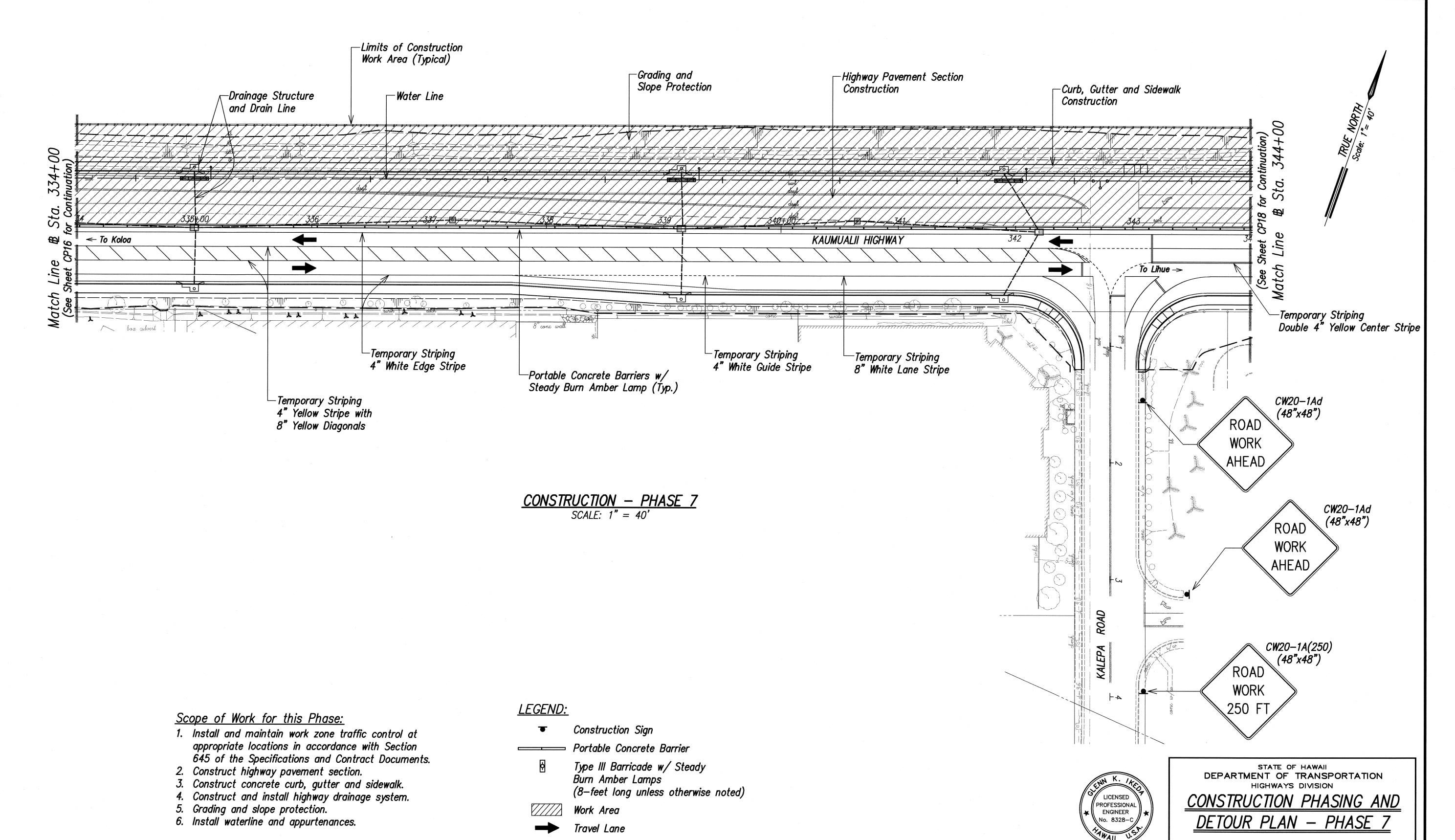
SURVEY PLOTTED DRAWN BY
TRACED BY
DESIGNED BY
QUANTITIES BY
CHECKED BY





SURVEY PLOTTED DRAWN BY
TRACED BY
DESIGNED BY
QUANTITIES BY
CHECKED BY





SURVEY PLOTTE
DRAWN BY
TRACED BY
DESIGNED BY
QUANTITIES BY

Date: FEB. 2009

289

KAUMUALII HIGHWAY WIDENING

Vicinity of Anonui Street to Vicinity of Lihue Mill Bridge FEDERAL-AID PROJECT NO. NH-050-1(31)

SHEET No. CP17 OF CP32 SHEETS

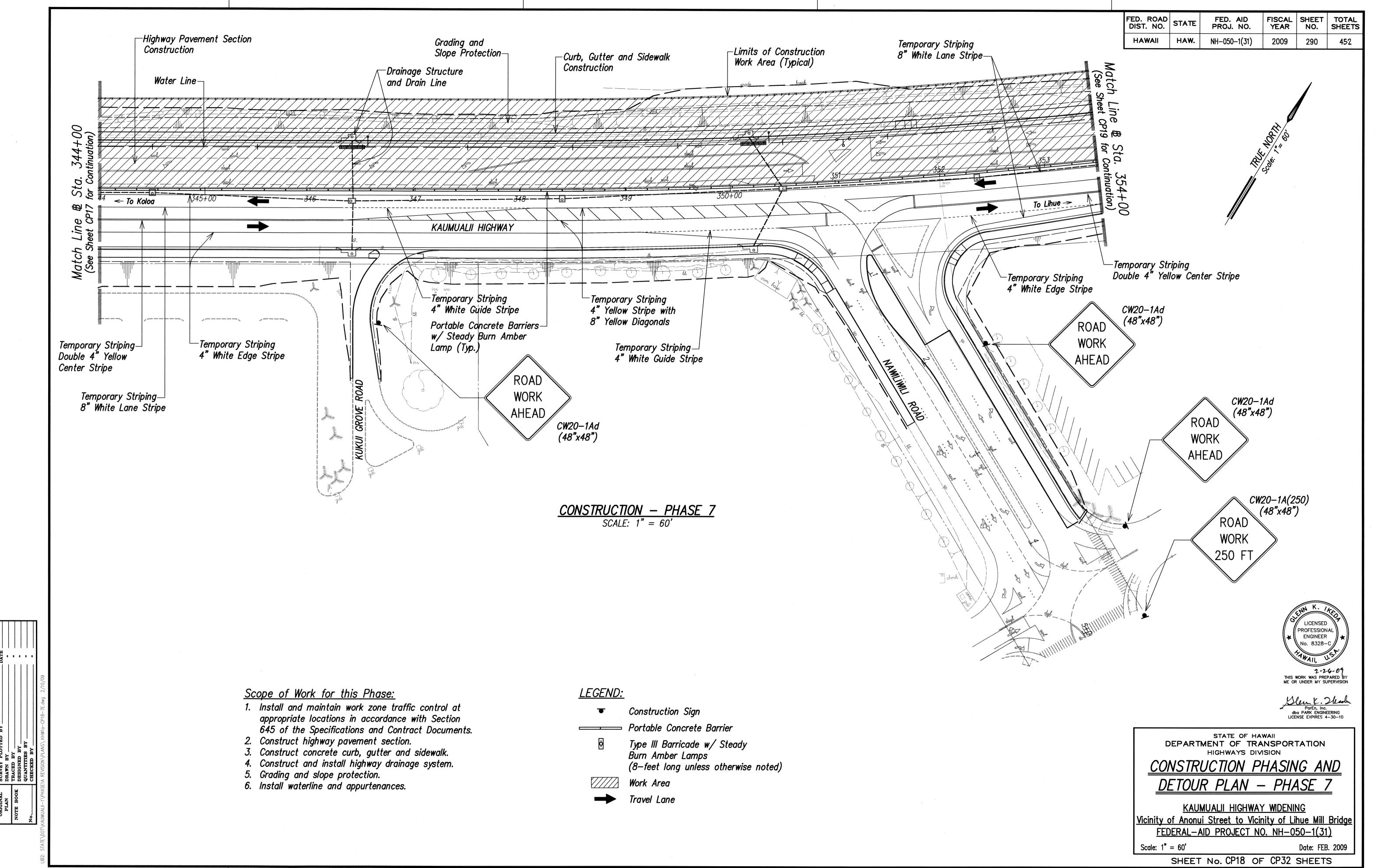
THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION

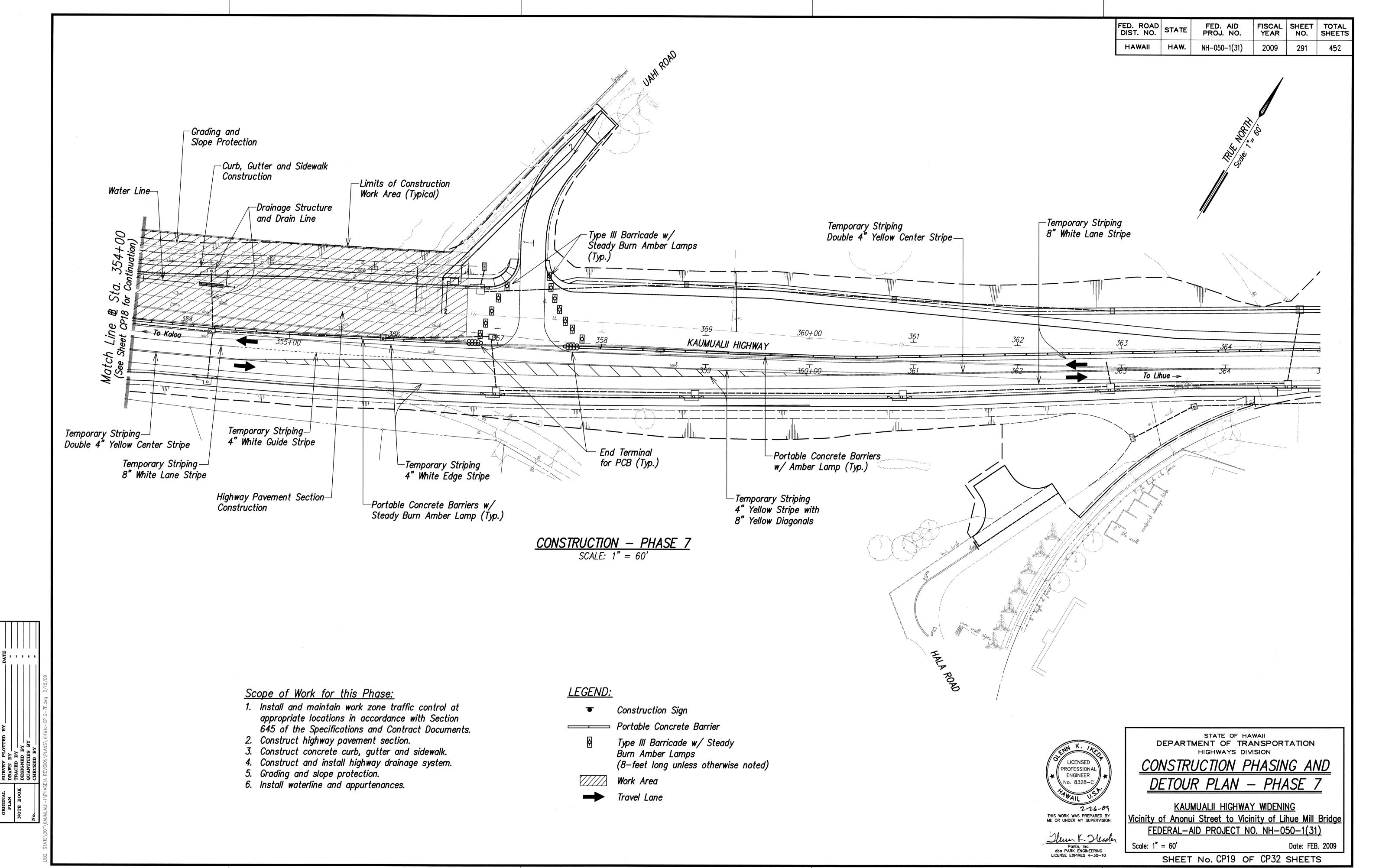
ParEn, Inc.

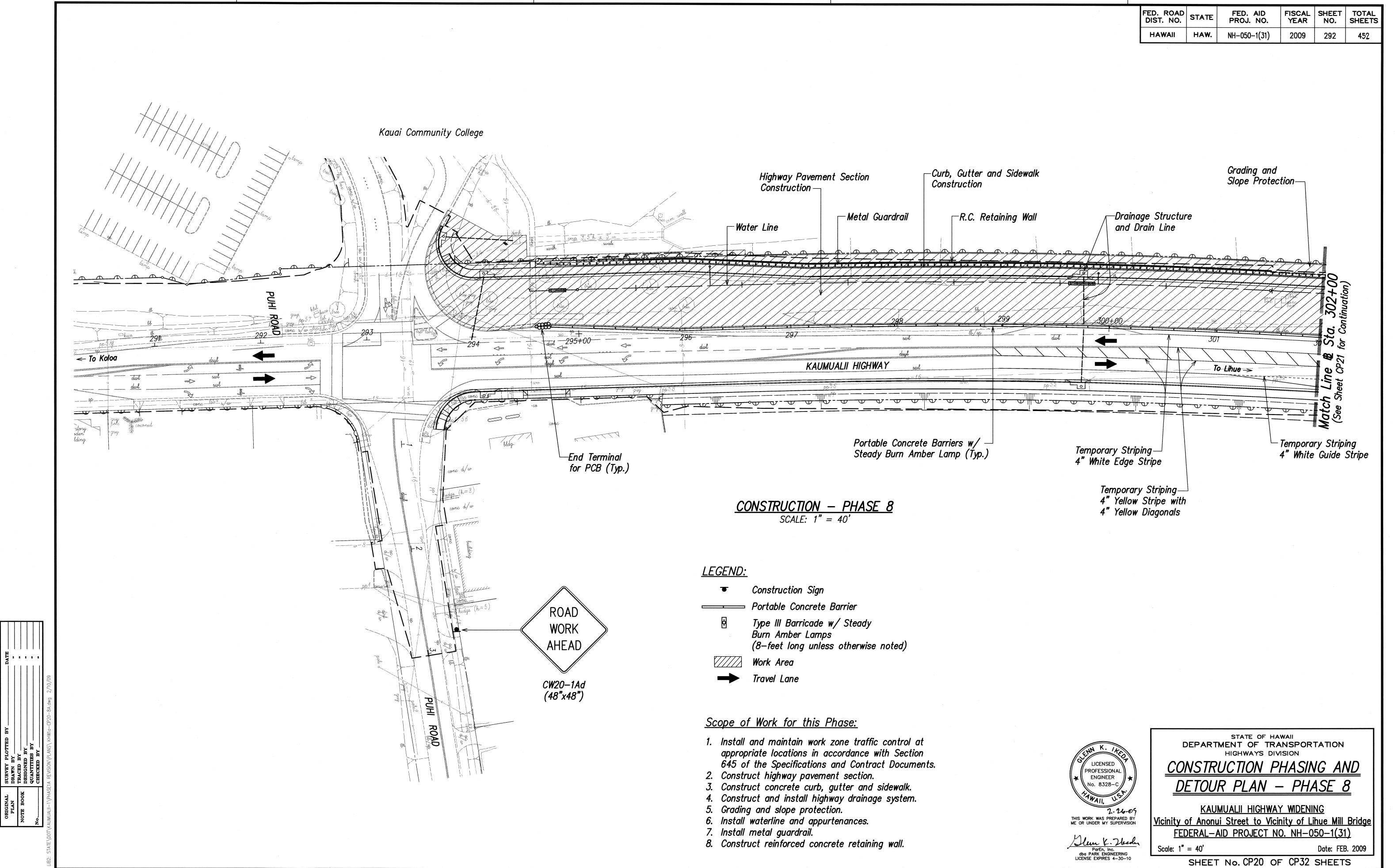
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LICENSE EXPIRES 4-30-10

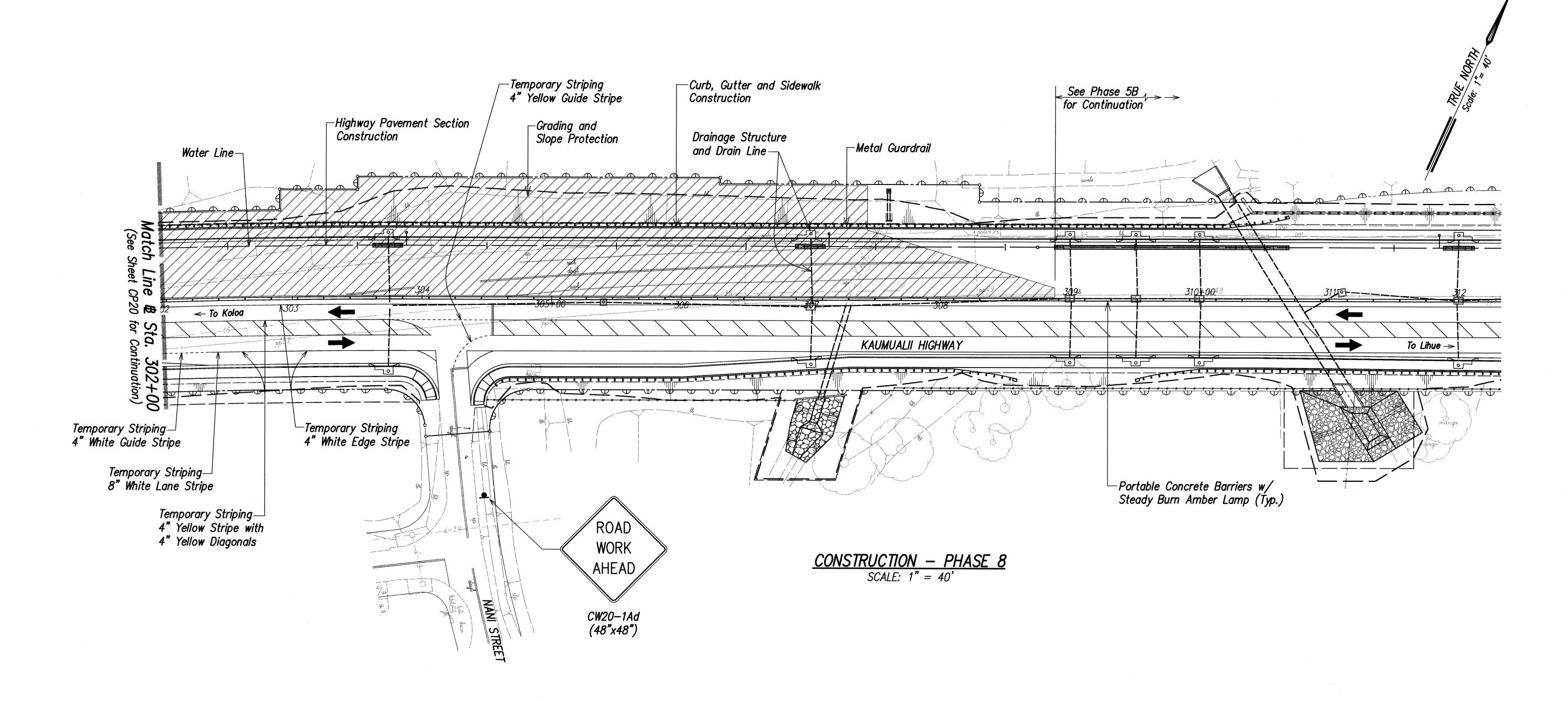
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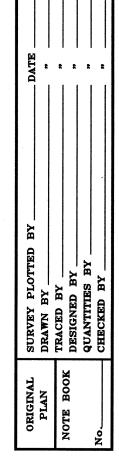






FED. ROAD DIST. NO. FISCAL SHEET TOTAL YEAR NO. SHEETS FED. AID PROJ. NO. STATE NH-050-1(31) 2009 HAWAII HAW. 293





Scope of Work for this Phase:

Burn Amber Lamps

Work Area

Travel Lane

(8-feet long unless otherwise noted)

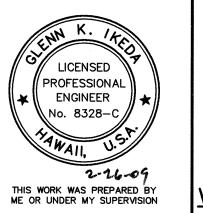
LEGEND: 1. Install and maintain work zone traffic control at Construction Sign appropriate locations in accordance with Section Portable Concrete Barrier 645 of the Specifications and Contract Documents.

2. Construct highway pavement section. Type III Barricade w/ Steady

3. Construct concrete curb, gutter and sidewalk. Construct and install highway drainage system.

5. Grading and slope protection.

6. Install waterline and appurtenances.
7. Install metal guardrail.
8. Construct reinforced concrete retaining wall.



ParEn, Inc.
dba PARK ENGINEERING
LICENSE EXPIRES 4-30-10

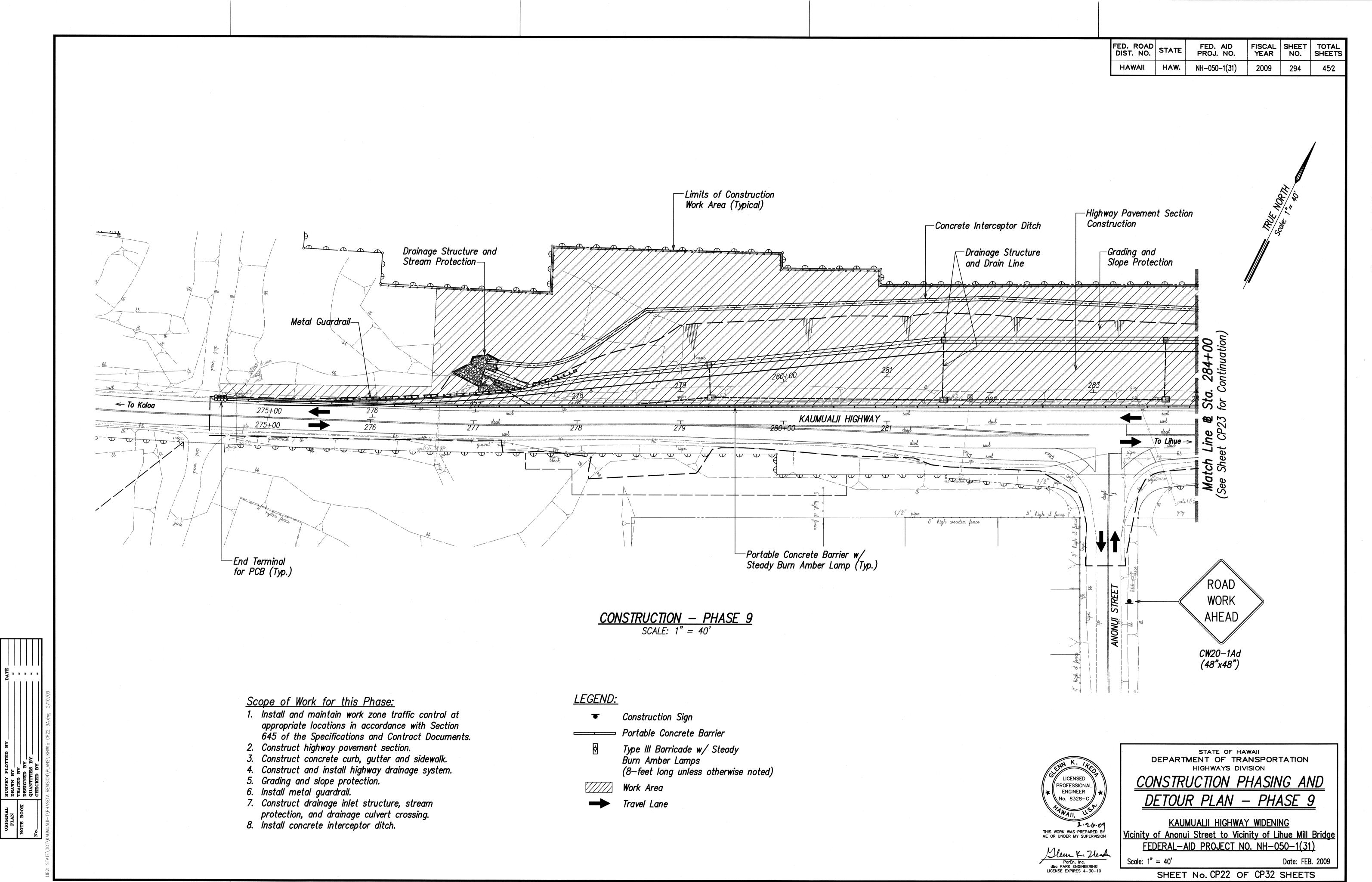
STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

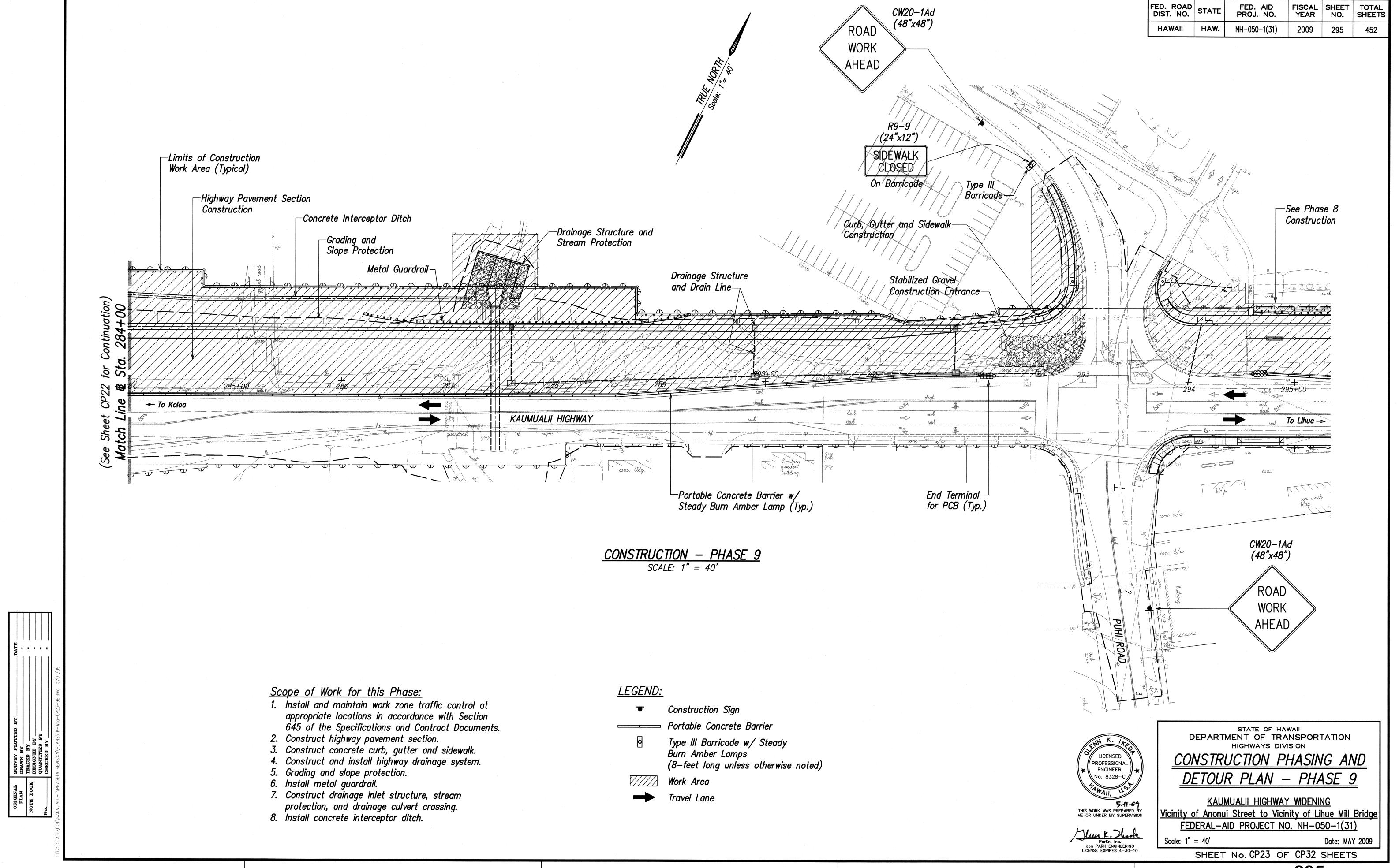
CONSTRUCTION PHASING AND <u>DETOUR PLAN - PHASE 8</u>

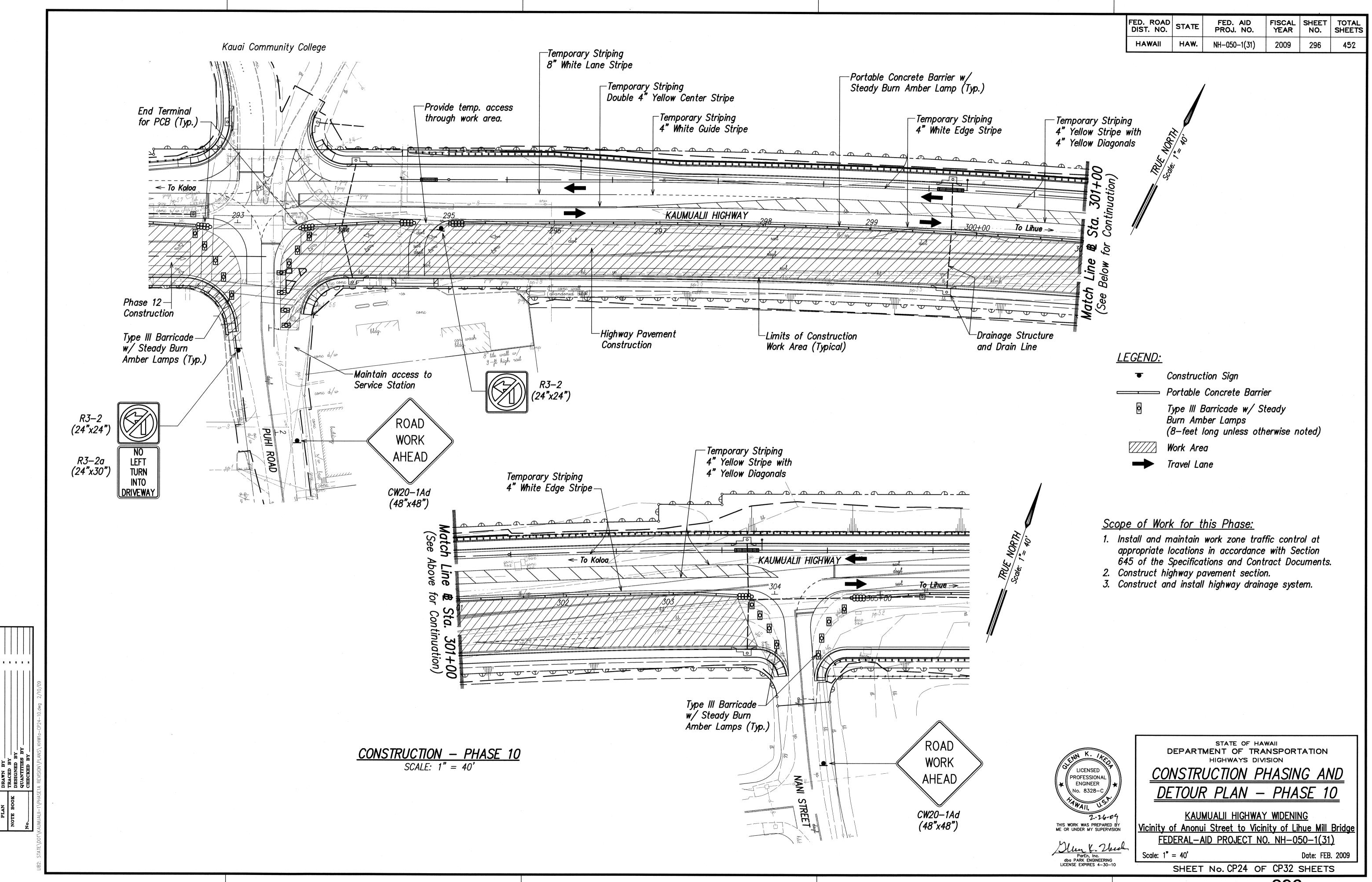
KAUMUALII HIGHWAY WIDENING Vicinity of Anonui Street to Vicinity of Lihue Mill Bridge

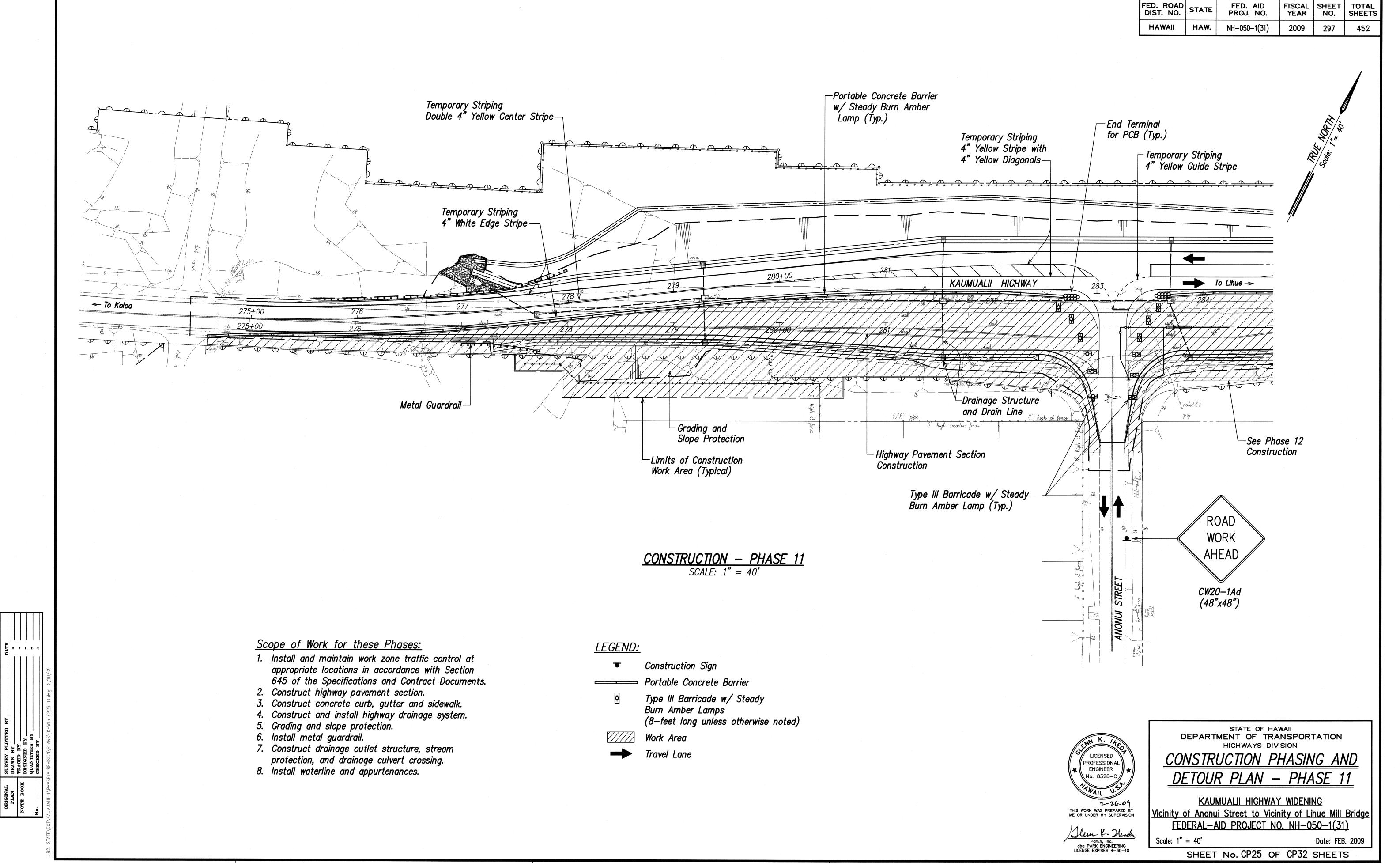
FEDERAL-AID PROJECT NO. NH-050-1(31) Scale: 1" = 40' Date: FEB. 2009

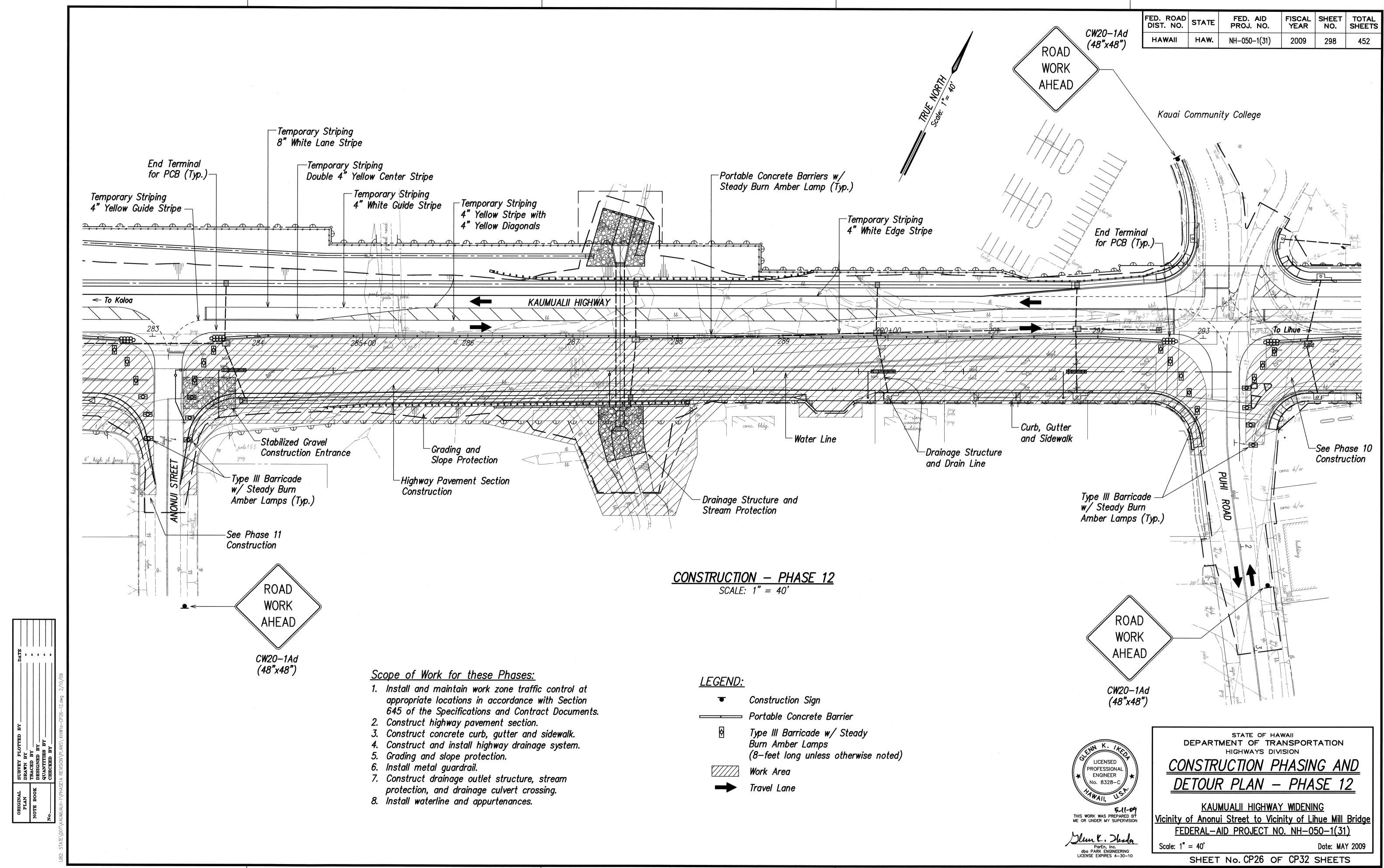
SHEET No. CP21 OF CP32 SHEETS

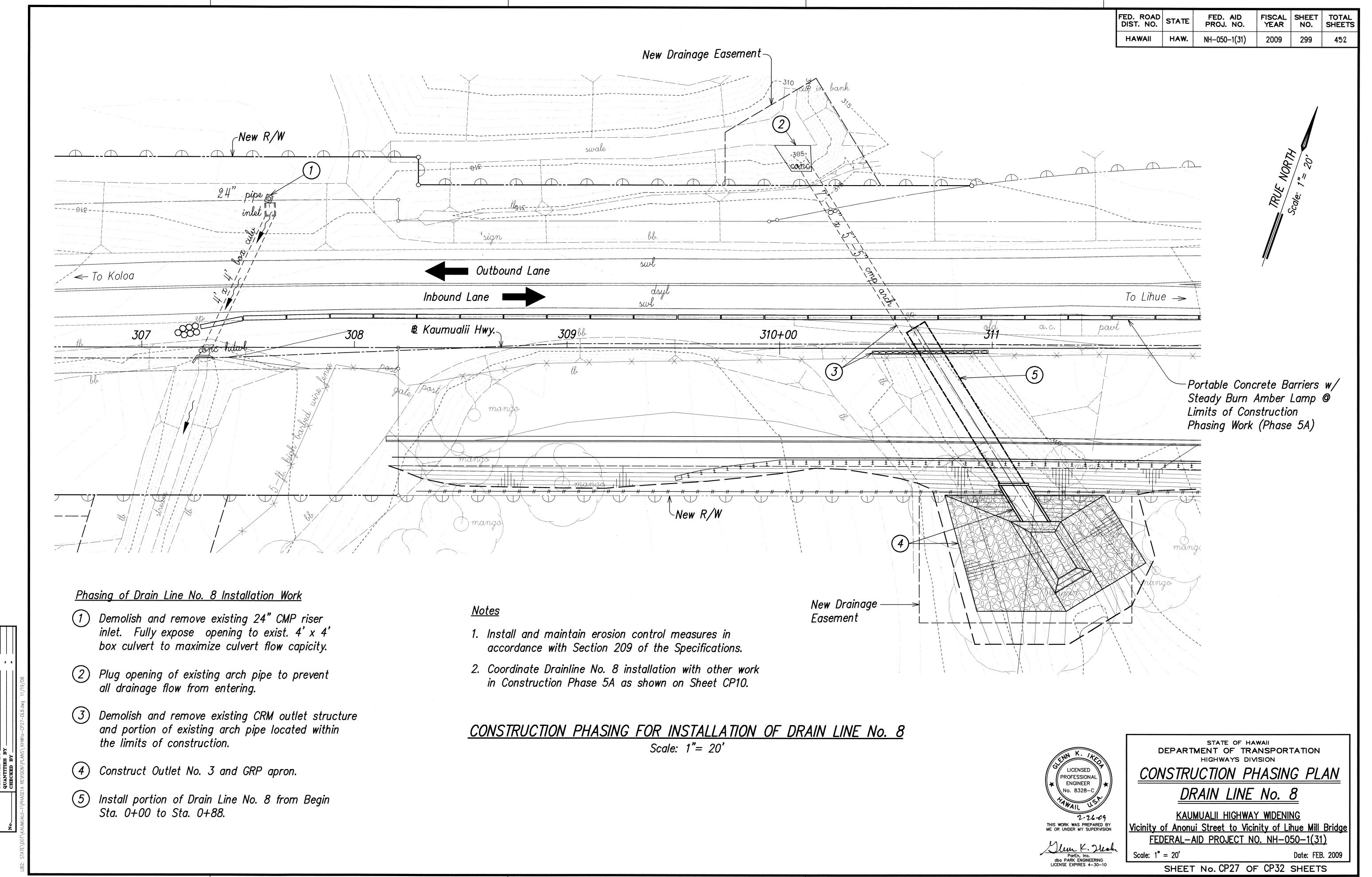


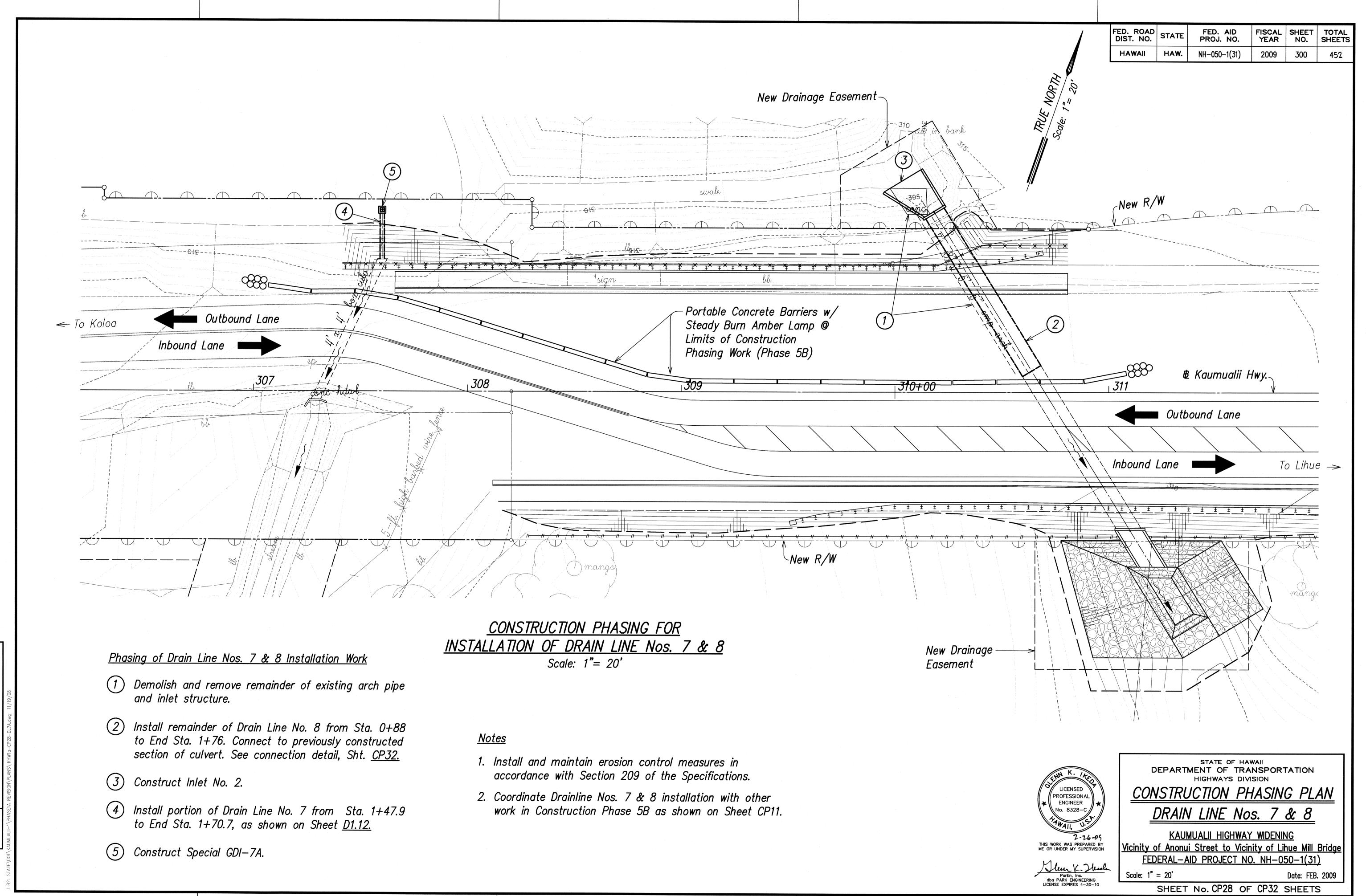


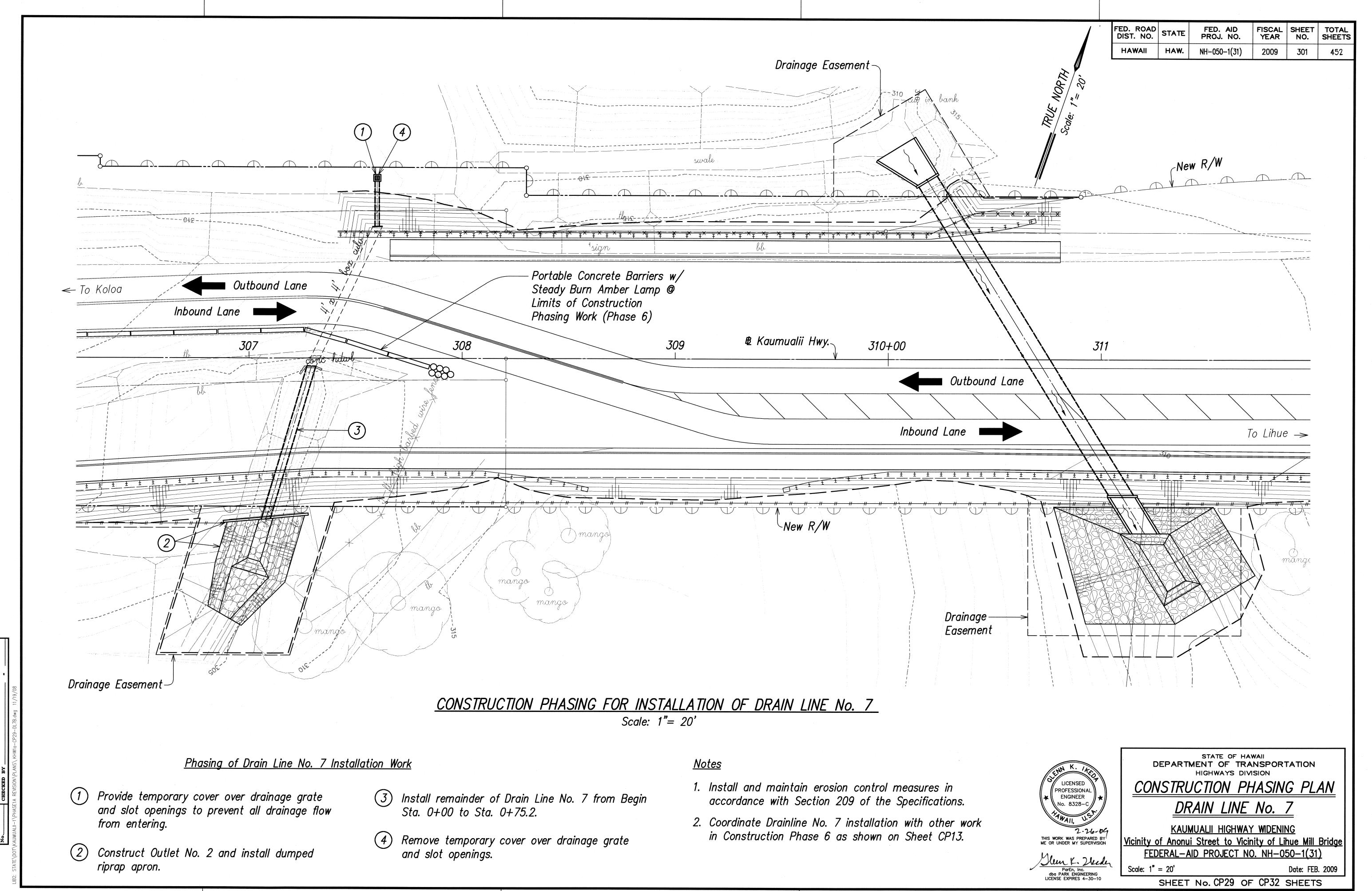












FED. ROAD STATE FISCAL SHEET TOTAL YEAR NO. SHEETS FED. AID PROJ. NO. NH-050-1(31) 2009 HAW. 302 HAWAII General Notes 1. Install and maintain erosion control measures in Phasing of Drain Line No. 5 Installation Work accordance with Section 209 of the Specifications. (1) Install Silt Fences 2. Coordinate Drainline No. 5 installation with other (2) Construct truck access routes to work area. work in Construction Phase 9 as shown on Sheet CP23. 3 Install sheet piles as follows: Install west-side, completely as shown; Install east-side of diversion, stopping short of blocking stream. 3. The cost for temporary stream diversion shall be paid for under Item No. 209.0100 - Installation, 4) Excavate soil from within sheet pile diversion, without cutting bank Maintenance, Monitoring and Removal of BMP. of stream. 5 Install temporary 48" pipe to the extent possible. 6 Install sediment filter device around inlet of temporary 48" pipe. 7) Cut downstream bank. 8 Install remaining segment of temporary 48" pipe. Extend downstream end of pipe partially into existing culvert. 9 Cut upstream bank. This will initiate stream flow through diversion 2 10) Install remaining segment of sheet piles on upstream, east-side of diversion channel. :---<u>-----</u> 11) Secure connection of temporary 48" pipe to existing culvert by building collar around 48" pipe, at the connection point, with sand--Stockpile Area filled bags or similar method accepted by the Engineer. with Silt Fence (12) Install portion of Drain Line No. 5, from Station 0+60 to 1+37.6. (13) Construct Inlet No. 1 and GRP Apron. Silt Fence (1) 3 -Silt Fence (1) Portable Concrete Barriers w/ Steady Burn Amber Lamp @ Limits of Construction STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION Phasing Work (Phase 9) HIGHWAYS DIVISION LICENSED PROFESSIONAL CONSTRUCTION PHASING PLAN ENGINEER DRAIN LINE No. 5 KAUMUALII HIGHWAY WIDENING THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION Vicinity of Anonui Street to Vicinity of Lihue Mill Bridge CONSTRUCTION PHASING FOR INSTALLATION OF DRAIN LINE No. 5

Scale: 1"= 20'

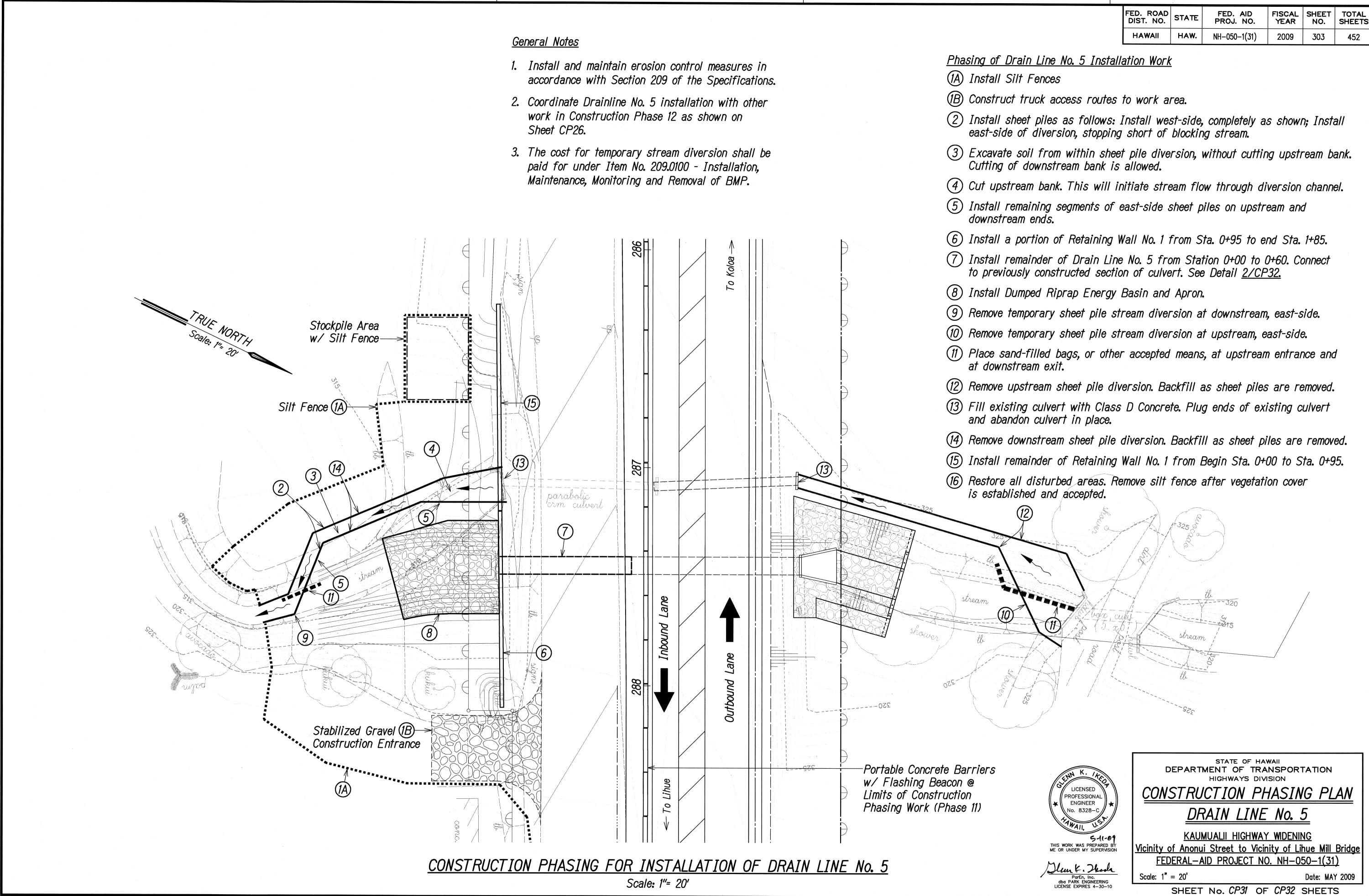
Date: MAY 2009

FEDERAL-AID PROJECT NO. NH-050-1(31)

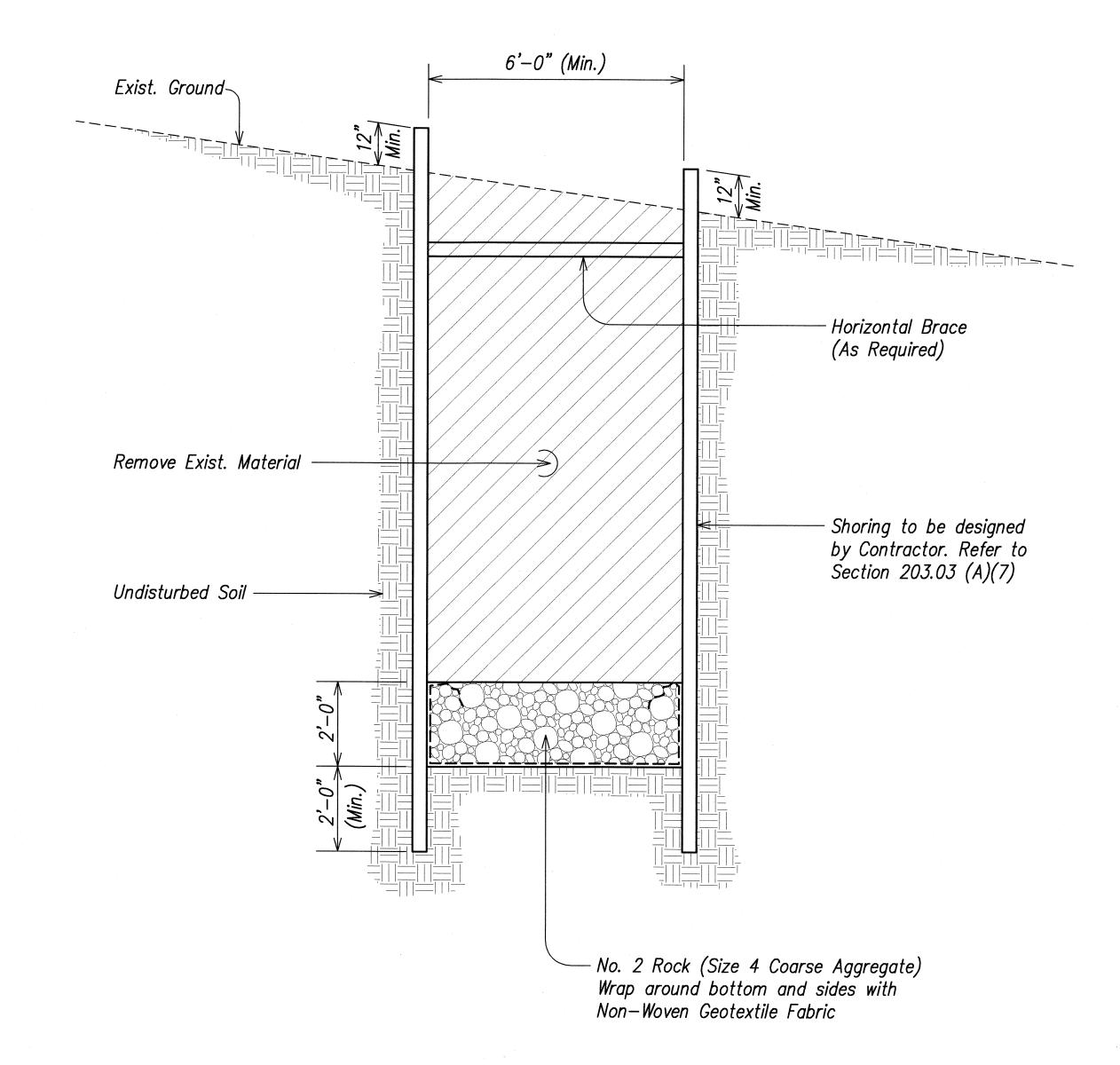
ParEn, Inc.

dba PARK ENGINEERING
LICENSE EXPIRES 4-30-10

Scale: 1" = 20'

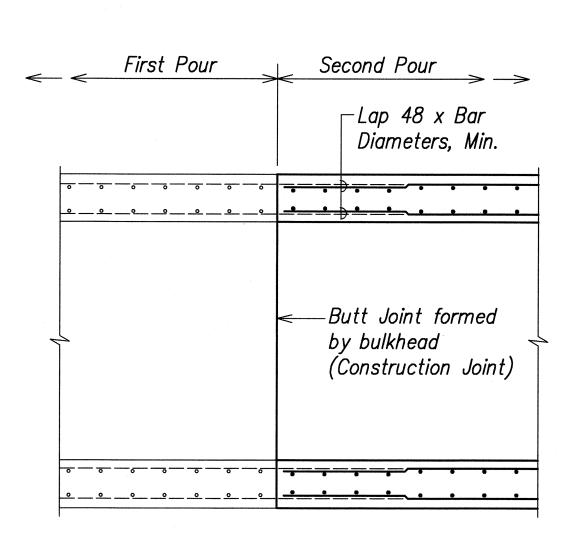


FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR		TOTAL SHEETS
HAWAII	HAW.	NH-050-1(31)	2009	304	452



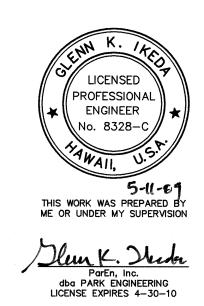
TEMPORARY SHEET PILE STREAM DIVERSION

Scale: 1/2 "=1'-0" CP30, CP31



ELEVATION

BOX CULVERT CONNECTION DETAIL Scale: 1/2 "=1'-0" CP28, CP31



STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

CONSTRUCTION PHASING PLAN DRAIN LINE No. 5 DETAILS

KAUMUALII HIGHWAY WIDENING
Vicinity of Anonui Street to Vicinity of Lihue Mill Bridge
FEDERAL—AID PROJECT NO. NH—050—1(31)

Scale: 1/2" = 1'-0"

Date: MAY 2009 SHEET No. CP32 OF CP32 SHEETS