



The Honorable
LOURDES A. LEON GUERRERO
Maga'Håga · Governor

The Honorable
JOSHUA F. TENORIO
Sigundo Maga' Låhi · Lieutenant Governor

21-8096



public works
DIPATTAMENTON CHE'CHO' PUPBLEKO
VINCENT P. ARRIOLA
Director
JESSE G. GARCIA
Deputy Director

RCVD AT CENTRAL FILES
JAN 25 '21 PM 1:47

Jessica Cruz

22 JAN 2021

Mr. Tyrone J. Taitano
Director
Bureau of Statistics & Plans
PO Box 2950
Hagatna, Guam 96932

Attn: Administrator, Guam Coastal Management Program

Subject: Route 10 Safety Improvements
Project No. GU-THS-0010(002) and GU-THS-0010 (003)
GUAM COASTAL MANAGEMENT PROGRAM CONSISTENCY
DETERMINATION

Dear Mr. Taitano:

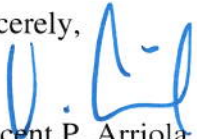
The U.S. Federal Highway Administration and the Government of Guam Department of Public Works proposes to do safety improvements on Route 10 starting from its Route 8/Route 16 intersection to its intersection with Route 4.

We have enclosed for your review a draft CZM Program Assessment for the subject project pursuant to Coastal Zone Management Act, Section 307(d)(16 USC § 1456) and 15 CFR part 930, subpart D. The Project would receive federal funding from the U.S. Department of Transportation, Federal Highway Administration authorized Moving Ahead for Progress in the 21st Century Act (MAP-21).

The subject project will comply with the enforceable policies of the Government of Guam's approved management program and will be conducted in a manner consistent with such programs.

If you have any questions or require additional information, please contact Lynden Kobayashi (Lynden.Kobayashi@wsp.com) at 646-2927 or Lynn Cruz (Linda.Cruz@wsp.com) at 922-6880.

Sincerely,


Vincent P. Arriola
Director

Enclosure: Draft CZM Program Assessment

RECEIVED
 JAN 27 2021 3:27 PM
BUREAU OF
STATISTICS AND PLANS

GUAM COASTAL MANAGEMENT PROGRAM ASSESSMENT FORMAT

DATE OF APPLICATION: _____

NAME OF APPLICANT: Department of Public Works, Government of Guam

ADDRESS: 542 North Marine Corps Dr., Tamuning, Guam 96913

TELEPHONE NUMBER: (671) 646-3131

FAX NUMBER: (671) 649-6178

E-MAIL ADDRESS: _____

TITLE OF PROPOSED PROJECT: Route 10 Safety Improvements, Guam Project Nos. (GU-THS-0010 (002) and GU-THS-0010 (003)), [Federal Catalog No. 20.205]

COMPLETE FOLLOWING PAGES

FOR BUREAU OF STATISTICS AND PLANS ONLY:

DATE APPLICATION RECEIVED: _____

ORCM NOTIFIED: _____ LIC. AGENCY NOTIFIED: _____

APPLICANT NOTIFIED: _____ PUBLIC NOTICE GIVEN: _____

OTHER AGENCY REVIEW REQUESTED: _____

DETERMINATION:

☐ CONSISTENT ☐ NON-CONSISTENT ☐ FURTHER INFORMATION REQUESTED

ORCM NOTIFIED: LIC. AGENCY NOTIFIED:

APPLICANT NOTIFIED:

ACTION LOG: 1. _____
2. _____
3. _____
4. _____
5. _____
6. _____

DATE REVIEW COMPLETED: _____

Project Description

The U.S Department of Transportation Federal Highway Administration (FHWA), in conjunction with the Guam Department of Public Works (DPW), is planning the subject project. WSP has been contracted by DPW to provide design, and environmental and program management services in support of the proposed project.

The project involves pavement repairs, traffic signalization, modifications of existing traffic signals, school flashing beacons, installation of raised median for access control and pedestrian safety enhancements, signing, and striping. New traffic signals at Jesus Mariano road will improve traffic safety and signal upgrades are required to improve signal visibility and conformance with current standards to improve traffic safety. Existing equipment at traffic signals including traffic signal controllers, span poles and traffic detectors will be reused as much as practical but could be replaced if required. Work at specific locations along route 10 is described in the table below:

Locations	Description
Route 4	- Pavement repairs and replace westbound Route 10 left-turn loop. - Upgrade mast arm signal to box span signal
Father Duenes School Flashing Beacons.	Installation of two Type B poles with flashing beacons to indicate lower speed limit during peak school traffic periods.
Pavement Repairs - s/o Jesus Mariano Road to Leyang Road.	Various locations of partial depth (asphalt patch), full depth repairs (asphalt/sub-base) and concrete paving replacement.
Raised Median - s/o Jesus Mariano Road to n/o Corten Torres Street.	Installation of concrete median within existing paved surface.
Jesus Mariano Road	Install new traffic signal.
Chalan Kareta	In addition to raised medians, concrete landing areas for safer pedestrian crossing.
Route 32	Upgrade diagonal span to box span, includes a concrete island in southwest corner of intersection.
Manha Lane	Installation of infiltration trench, catch basin, pipe, and outlet structure.
Corten Torres Street	Upgrade diagonal span to box span.
Mangilao Pedestrian Crossing	Upgrade existing signal.
Route 15	Upgrade existing signal. Install curb, gutter, and sidewalk on Route 15 from Spanish Lane to Route 15, and on northeast corner of Route 10, from Route 15 to Old Price Road.
Roberto Street	Raised median, curb ramps and sidewalk for pedestrian crossing.
Signs - Tao Road to Leyang Street	Upgrade and replacement of signs, only new sign foundations require disturbance. Number of proposed foundations is approximate.

Pavement Repairs - Route 4 to s/o Jesus Mariano Road.	Various locations of partial depth (asphalt patch), and full depth repairs (asphalt/sub-base).
Chalan Chirik	Installation of ditch or curb/gutter section to collect run-off, two catch basins, pipe, and outlet structure.
Pavement Repairs and Drainage Improvements - Leyang Road to Lizama Street	Various locations of partial depth (asphalt patch), and full depth repairs (asphalt/sub-base), cleaning and maintenance of culverts, installation of catch basins and culverts with headwall/wingwall.
Raised Median - Perez Loop to Lizama Street.	Installation of concrete median within existing paved surface.
Sidewalks and curb ramps, various locations Perez Loop to Lizama Street.	Reconstruction of sidewalk to improve ADA clearance and curb ramp requirements. New sidewalk on east side from Untalan Middle School to Perez Loop.
Lalo Street	Install driveway and curb ramps to improve drainage.
Perez Loop	In addition to raised median and sidewalk, concrete landing pad on west side of street.
Untalan Middle School Ped Crossing	Upgrade existing signal.
Signs - Route 4 to Tri Intersection	Upgrade and replacement of signs, only new sign foundations require disturbance.
Signs - Leyang Road to Lizama Street	Upgrade and replacement of signs, only new sign foundations require disturbance.

Table 1 Route 10 Work

The project action area covers Route 10 from Tri Intersection (Route 8/Route 16/Route 10) to Route 4 (Attachment 1) intersection and will also include multiple locations along Route 10 as listed in Table 1 above. All work will be performed within the rights-of-way which is generally 100 feet wide. The project action area are active roadways; all the work will be contained to within the right of way. Vegetation along the route is highly disturbed and dominated by typical roadside grasses. Roadside grasses will be disturbed in the areas where excavation to install sign foundation is required. Minor maintenance of vegetation may be required such as trimming low hanging tree branches in the action area to assure good visibility of existing and proposed signs

GUAM COASTAL MANAGEMENT PROGRAM ASSESSMENT FORMAT

DEVELOPMENT POLICIES (DP):

DP1. Shore Area Development

Intent: To ensure environmental and aesthetic compatibility of shore area land uses.

Policy: Only those uses shall be located within the Seashore Reserve which:

- enhance, are compatible with or do not generally detract from the surrounding coastal area's aesthetic and environmental quality and beach accessibility; or
- can demonstrate dependence on such a location and the lack of feasible alternative sites.

Discussion: Not Applicable. The project footprint is not within the seashore reserve. The action area for this project will be located within the operational existing rights-of-way.

DP2. Urban Development

Intent: To cluster high impact uses such that coherent community design, function, infrastructure support and environmental compatibility are assured.

Policy: Commercial, multi-family, industrial and resort-hotel zone uses and uses requiring high levels of support facilities shall be concentrated within urban districts as outlined on the Guam Zoning Code.

Discussion: Not applicable. The proposed project will involve pavement repairs, traffic signalization, modifications to existing traffic signals, installation of raised medians, pedestrian safety enhancements, signing and striping that will occur within the existing operational right-of-way and will not constitute new urban development or undermine efforts to encourage this policy.

DP3. Rural Development

Intent: To provide a development pattern compatible with environmental and infrastructure support suitability and which can permit traditional lifestyle patterns to continue to the extent practicable.

Policy: Rural districts shall be designated in which only low-density residential and agricultural uses will be acceptable. Minimum lot size for these uses should be one-half acre until adequate infrastructure including functional sewer is provided.

Discussion: Not Applicable. The proposed project will involve pavement repairs, traffic signalization, modifications to existing traffic signals, installation of raised medians, pedestrian safety enhancements, signing and striping that will occur within the existing operational right-of-way and in already previously disturbed areas and will not affect development patterns or lifestyles.

DP4. Major Facility Siting

Intent: To include the national interest in analyzing the siting proposals for major utilities, fuel and transport facilities.

Policy: In evaluating the consistency of proposed major facilities with the goals, policies, and standards of the Comprehensive Development and Coastal Management Plans, Guam shall recognize the national interest in the siting of such facilities, including those associated with electric power production and transmission, petroleum refining and transmission, port and air installations, solid waste disposal, sewage treatment, and major reservoir sites.

Discussion: Not Applicable. The proposed project is not a new major facility siting effort. The proposed project will involve pavement repairs, traffic signalization, modifications to

existing traffic signals, installation of raised medians, pedestrian safety enhancements, signing and striping that will occur within the existing operational right-of-way.

DP5. Hazardous Areas

- Intent:** Development in hazardous areas will be governed by the degree of hazard and the land use regulations.
- Policy:** Identified hazardous lands, including flood plains, erosion-prone areas, air installations' crash and sound zones and major fault lines shall be developed only to the extent that such development does not pose unreasonable risks to the health, safety or welfare of the people of Guam, and complies with the land use regulations.
- Discussion:** Not Applicable. The project does not include new structures which would require compliance with the flood hazard regulation or pose unknown risks to the health, safety and welfare of the public. According to FEMA's flood map, the project locations are designated as Zone X, which indicates areas outside the base floodplain area of minimal flood hazard.

DP6. Housing

- Intent:** To promote efficient community design placed where the resources can support it.
- Policy:** The government shall encourage efficient design of residential areas, restrict such development in areas highly susceptible to natural and man-made hazards, and recognize the limitations of the island's resources to support historical patterns of residential development.
- Discussion:** Not Applicable. The project does not include a housing component and will not negatively impact the implementation of policies to promote efficient community design.

DP7. Transportation

- Intent:** To provide transportation systems while protecting potentially impacted resources.
- Policy:** Guam shall develop an efficient and safe transportation system, while limiting adverse environmental impacts on primary aquifers, beaches, estuaries and other coastal resources.
- Discussion:** Work will have temporary to minor impacts at the location. The proposed project will involve pavement repairs, traffic signalization, modifications to existing traffic signals, installation of raised medians, pedestrian safety enhancements, signing and striping that will occur within the existing right of way that is previously disturbed, there will be no impacts to aquifers, beaches, estuaries or other coastal resources.

DP8. Erosion and Siltation

- Intent:** To control development where erosion and siltation damage is likely to occur.
- Policy:** Development shall be limited in areas of 15% or greater slope by requiring strict compliance with erosion, sedimentation, and land use districting guidelines, as well as other related land use standards for such areas.
- Discussion:** Temporary and minor earthwork will occur for this project where signs will be repaired or replaced, medians and sidewalks installed, and maintenance of culverts. Clearing and grubbing where obstructed culverts are identified and trimming of vegetation that obstructs any signs along the project footprint may occur if necessary. The contractor will be required to employ best management practices (BMPs) to prevent sedimentation and any other construction-related pollutants from being discharged.

RESOURCE POLICIES (RP)

RP1. Air Quality

- Intent:** To control activities to ensure good air quality.
- Policy:** All activities and uses shall comply with all local air pollution regulations and all appropriate Federal air quality standards in order to ensure the maintenance of Guam's relatively high air quality.
- Discussion:** The project will not generate significant air pollutant emissions; the emissions will be temporary and will not be expected to generate any effects outside of the project footprint. Any emissions generated from the proposed project will be minimal and temporary and would not contribute to or affect the local or regional attainment status with the National Ambient Air Quality Standards (NAAQS). The proposed project will not have any significant effects on air quality.

R2. Water Quality

- Intent:** To control activities that may degrade Guam's drinking, recreational, and ecologically sensitive waters.
- Policy:** Safe drinking water shall be assured and aquatic recreation sites shall be protected through the regulation of uses and discharges that pose a pollution threat to Guam's waters, particularly in estuarine, reef and aquifer areas.
- Discussion:** Not Applicable. The proposed project locations are not located near surface waters. All work will occur within the operational right of way, stormwater will be controlled through best management practices to prevent runoff during construction of the project.

RP3. Fragile Areas

- Intent:** To protect significant cultural areas, and natural marine and terrestrial wildlife and plant habitats.
- Policy:** Development in the following types of fragile areas shall be regulated to protect their unique character.
- historical and archaeological sites
 - wildlife habitats
 - pristine marine and terrestrial communities
 - limestone forests
 - ravine forests
 - mangrove stands and other wetlands
 - coral reefs
- Discussion:** The proposed project will involve pavement repairs, traffic signalization, modifications to existing traffic signals, installation of raised medians, pedestrian safety enhancements, signing and striping that will occur within the existing the right of way that is previously disturbed, the project locations are not within the fragile areas identified above. The construction areas will be limited to existing operational rights-of-way.
- A determination of “no historic properties affected” was requested and will be maintained with the NEPA document pursuant to 36 Code of Federal Regulation, Part 800 Subpart B the Section 106 Process.

RP4. Living Marine Resources

- Intent:** To protect marine resources in Guam’s waters.
- Policy:** All living resources within the territorial waters of Guam, particularly corals and fish, shall be protected from overharvesting and, in the case of marine mammals, from any taking whatsoever.
- Discussion:** Not Applicable. The proposed project locations will occur within operational rights-of-way of Route 10 from its Route 8/Route 16 intersection all the way to its Route 4 intersection, there will be no impact the territorial waters of Guam.

RP5. Visual Quality

- Intent:** To protect the quality of Guam’s natural scenic beauty.
- Policy:** Preservation and enhancement of, and respect for the island’s scenic resources shall be encouraged through increased enforcement of and compliance with sign, litter, zoning, subdivision, building and related land-use laws. Visually objectionable uses shall be located to the maximum extent practicable so as not to degrade significant views from scenic overlooks, highways and trails.

Discussion: There will be minor and temporary impacts to visual quality during construction of this project. The proposed project will involve pavement repairs, traffic signalization, modifications to existing traffic signals, installation of raised medians, pedestrian safety enhancements, signing and striping along the route and within the existing operational right-of-way.

RP6. Recreational Areas

Intent: To encourage environmentally compatible development.

Policy: The Government of Guam shall encourage development of varied types of recreational facilities located and maintained so as to be compatible with the surrounding environment and land uses, adequately serve community centers and urban areas and protect beaches and such passive recreational areas as wildlife and marine conservation areas, scenic overlooks, parks and historical sites.

Discussion: The project location will not impact any recreational areas

RP7. Public Access

Intent: To ensure the right of public access.

Policy: The public's right of unrestricted access shall be ensured to all non-federally owned beach areas and all Guam recreation areas, parks, scenic overlooks, designated conservation areas and their public lands. Agreements shall be encouraged with the owners of private and federal property for the provision of releasable access to and use of resources of public nature located on such land.

Discussion: Access to all adjacent land uses will be maintained during the project.

RP8. Agricultural Lands

Intent: To stop urban types of development on agricultural land.

Policy: Critical agricultural land shall be preserved and maintained for agricultural use.

Discussion: Not Applicable. There will be no impacts to agricultural lands from the project.

**FEDERAL CONSISTENCY
SUPPLEMENTAL INFORMATION FORM**
Date: January XX, 2021

Project/Activity Title or Description: Route 10 Safety Improvements, Guam Project Nos. (GU-THS-0010 (002) and GU-THS-0010 (003))

Location: See Enclosure 1

Other applicable area(s) affected, if appropriate: None

Est. Start Date: _____ Est. Duration: Twelve (12) Months

APPLICANT

Name & Title: Vincent P. Arriola, Director

Agency/Organization: Department of Public Works, Government of Guam

Address/Zip Code: 542 North Marine Corps Drive, Tamuning, Guam 96910

Telephone during business hours: (671) 646-3131

Facsimile: (671) 649-6178

E-Mail Address: Vince.arriola@dpw.guam.gov

AGENT

Name & Title: Linda R Cruz/ Environmental Lead

Agency/Organization: WSP USA INC

Address/Zip Code: 590 South Marine Corps Drive, Ste 421 Tamuning, GU 96913

Telephone during business hours: 922-6880

Facsimile: _____

E-Mail Address: Linda.Cruz@wsp.com

CATEGORY OF APPLICATION (check one only)

- ☐ I. Federal Activity
☒ II. Permit or License
☐ III. Grants & Assistance

TYPE OF STATEMENT (check one only)

- ☒ Consistency
☐ General Consistency (Category I only)
☐ Negative Determination (Category I only)
☐ Non-consistency (Category I only)

APPROVING FEDERAL AGENCY (Categories II and III only)

Agency: U.S. Dept. of Transportation, Federal Highway Administration
Contact Person: Richelle Takara
Telephone during business hours: (808) 541-2700 (ext. 311)
E-mail: Richelle.Takara@fhwa.dot.gov

FEDERAL AUTHORITY FOR ACTIVITY

Title of Law: Safe Accountable Flexible Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU)

Section: _____

OTHER GUAM APPROVALS REQUIRED

<u>Agency</u>	<u>Type Of Approval</u>	<u>Date of Application</u>	<u>Status</u>
Guam Historic Records Division	Section 106	December 22, 2020	Pending Concurrence
_____	_____	_____	_____
_____	_____	_____	_____

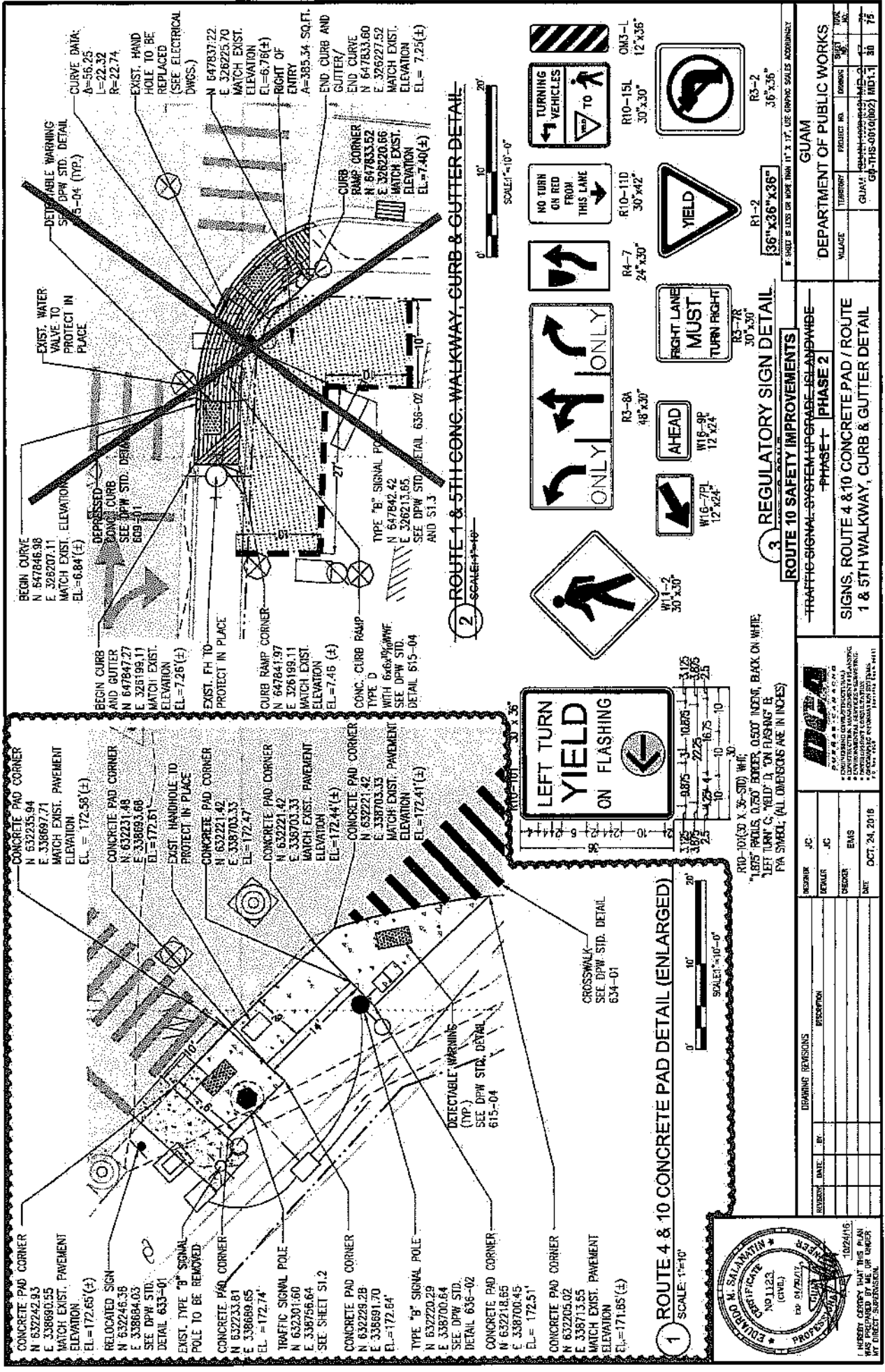
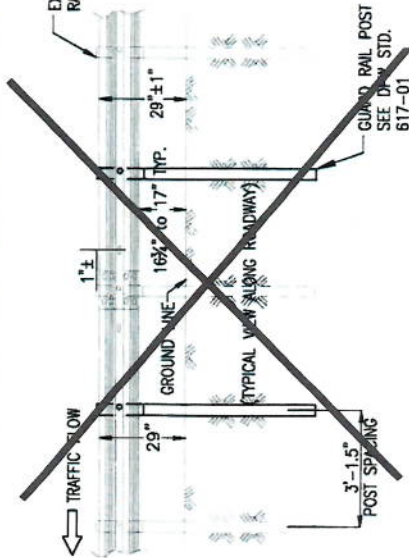


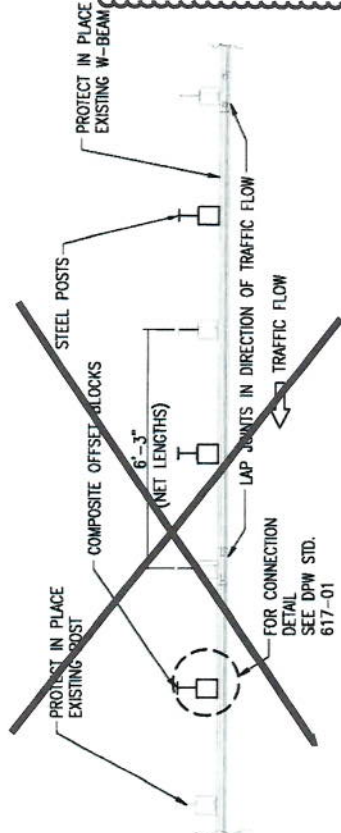
EXHIBIT 1A: ROUTE 4/ROUTE 10 SIGNAL MODIFICATION PLAN - DETAILS

GENERAL NOTES:

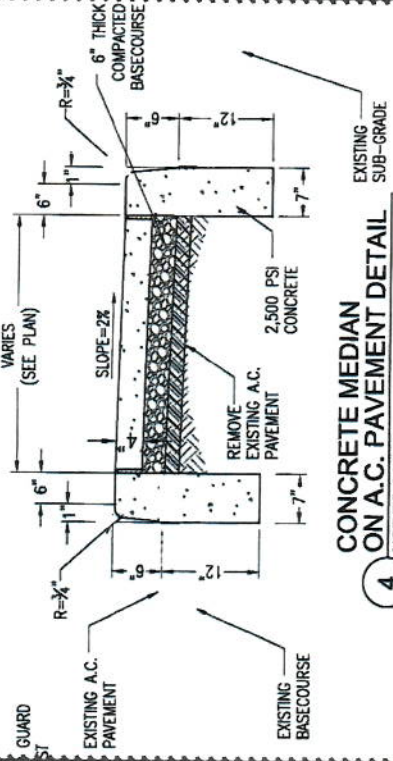
1. FOR GUARDRAIL POST INSTALLATION AT FRONT OF FIXED OBJECTS, SEE DPW STD. 617-01.



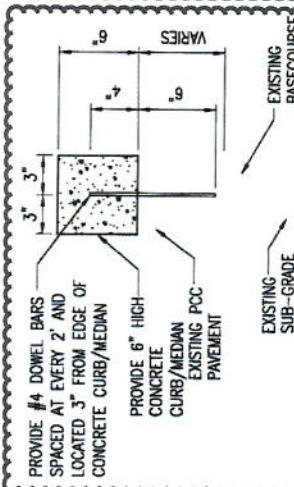
2 ELEVATION
NOT TO SCALE



1 PLAN
NOT TO SCALE



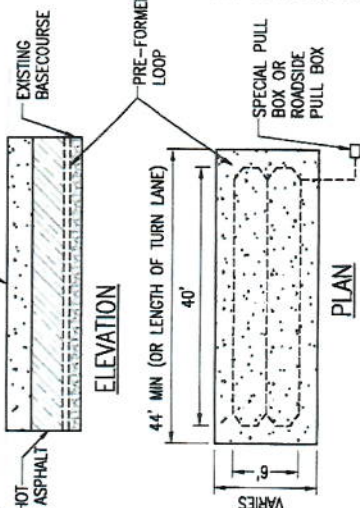
4 CONCRETE MEDIAN
ON A.C. PAVEMENT DETAIL
NOT TO SCALE



3 CONCRETE CURB
ON PCC PAVEMENT DETAIL
NOT TO SCALE

*CONCRETE PAD SHALL BE MEASURED AND PAID FOR UNDER PAY ITEM 61501-0100.

1. MILL PATCH AREA CENTERED IN LANE TO A DEPTH OF 5". (COVERS LOOP AREA, EXTEND AS NEEDED TO REPLACE DAMAGED ASPHALT FOR A SPECIFIC LANE.) SEE PLAN FOR SPECIFIC DIMENSIONS OF AC PAVEMENT AREA TO BE MILLED.
2. PLACE PREFORMED LOOP ON MILLED SURFACE, SAW CUT SLOT IN EXISTING ASPHALT TO SPECIAL PULL BOX OR ROADSIDE PULLBOX FOR LOOP TAIL.
3. PLACE 3-INCHES HOT MIX ASPHALT OVER THE PRE-FORMED LOOP.
4. PLACE 2-INCHES OF SEMI-FLEXIBLE/SEMI-RIGID PAVEMENT OVER THE 3 INCHES OF HMA.
5. INSTALL PAVEMENT MARKINGS (ARROWS, STOP BARS) AS NECESSARY.



5 ASPHALT REPAIR/
LOOP REPLACEMENT DETAIL
NOT TO SCALE



ROUTE 10 SAFETY IMPROVEMENTS TRAFFIC SIGNAL-SYSTEM-UPGRADE-ISLANDWIDE, —PHASE 2—			
PHASE 1			
MISCELLANEOUS DETAILS			
REVISION	DATE	BY	DESCRIPTION
DESIGNED		JCI/ELP	
DRAWN		GP	
CHECKED		ELAS/JC	
DATE	09-07-2018		

GUAM DEPARTMENT OF PUBLIC WORKS			
VALUATION	PROJECT NO.	DRAWING NO.	SHEET NO.
GUAM	GU-THS-001(022)	MD1.1	35
GU-THS-001(022)	MD1.1	35	104

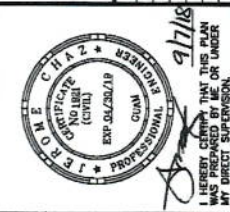
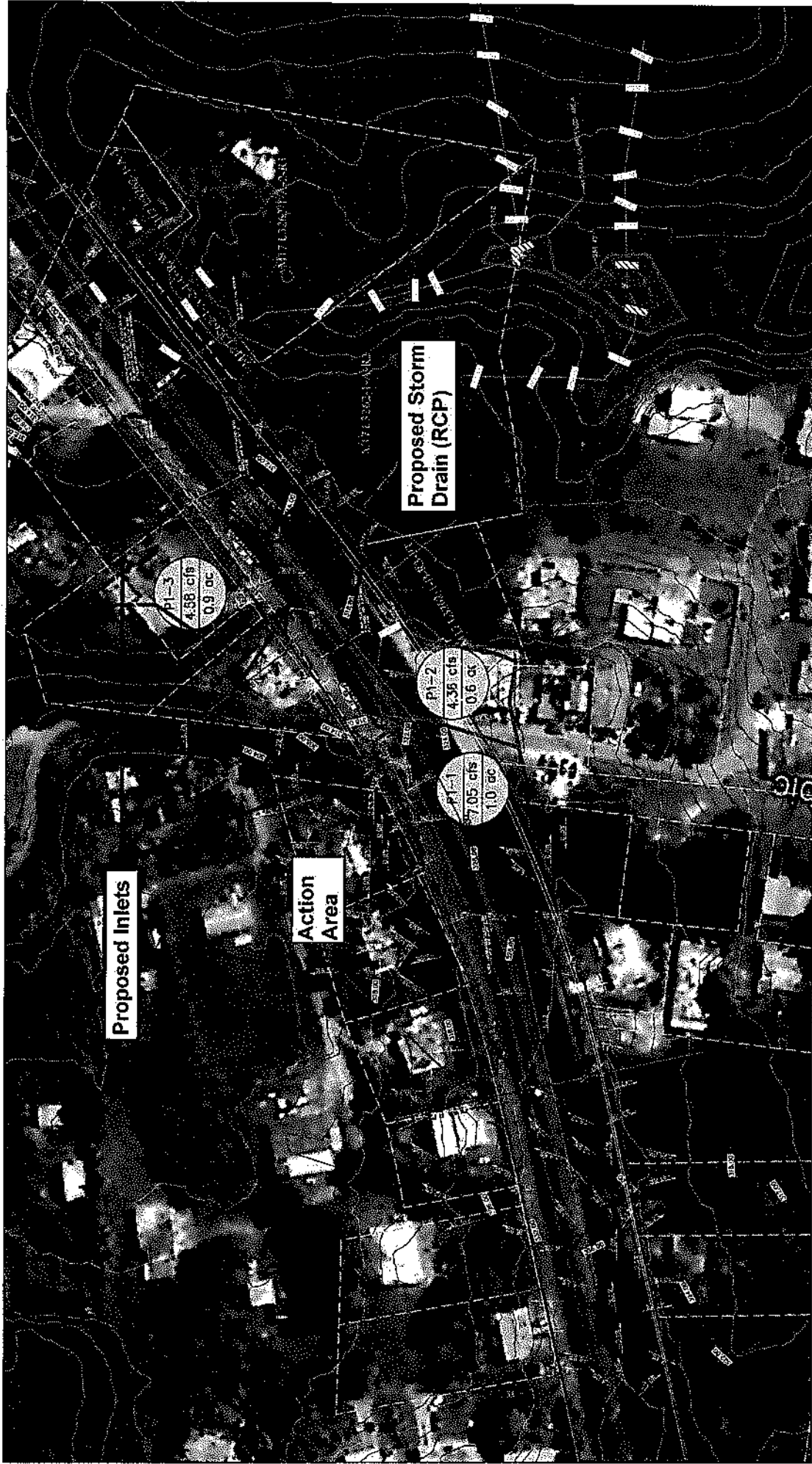
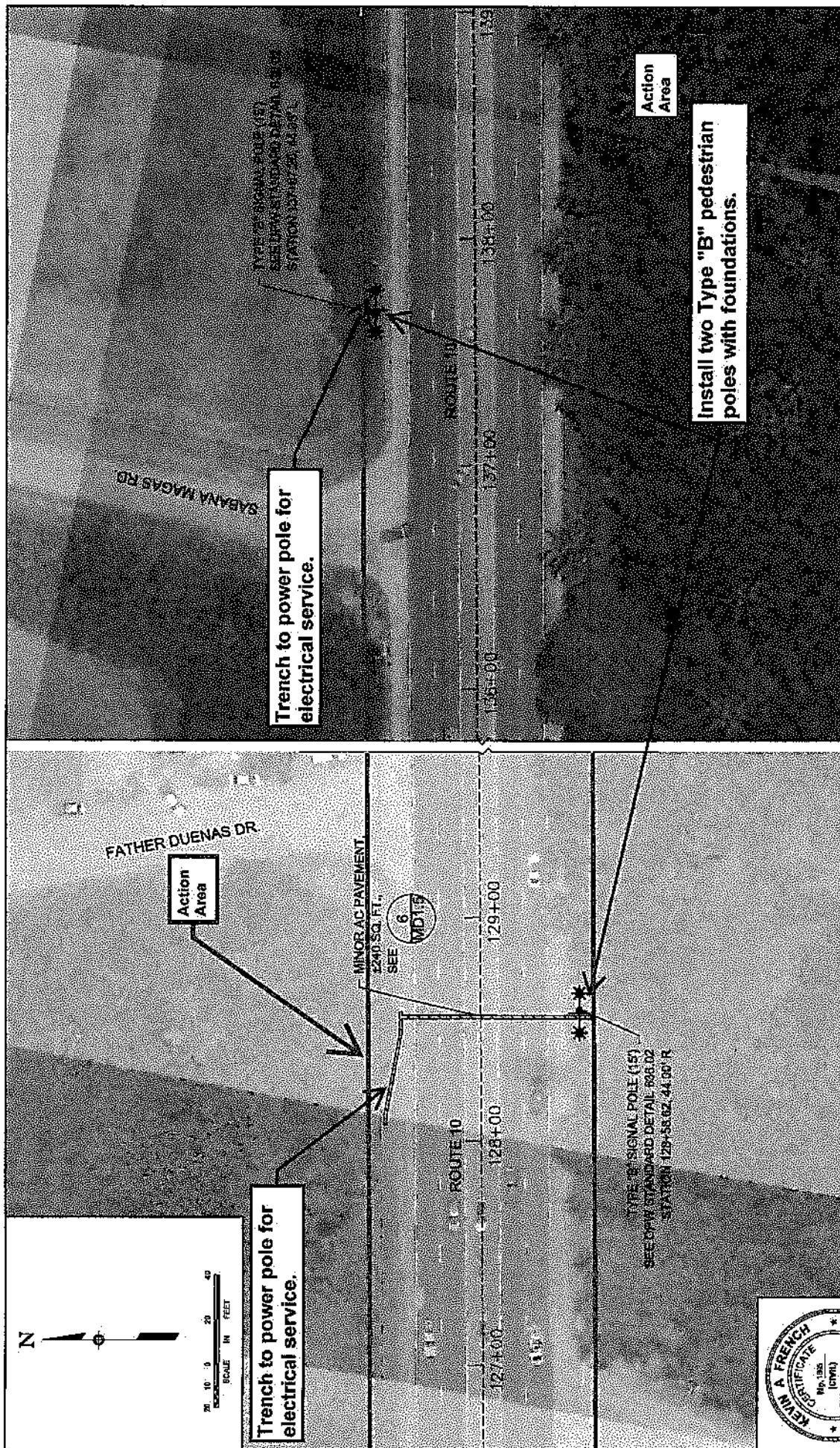


EXHIBIT 1B: ROUTE 4/ROUTE 10 LOOP REPLACEMENT PLAN - DETAIL

ROUTE 10 / CHALAN CHIRIK

SCALE: 1"=40'





Trench to power pole for electrical service.

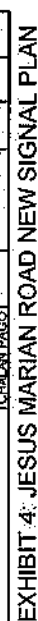
Trench to power pole for electrical service.

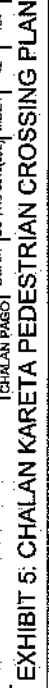
Install two Type "B" pedestrian poles with foundations.

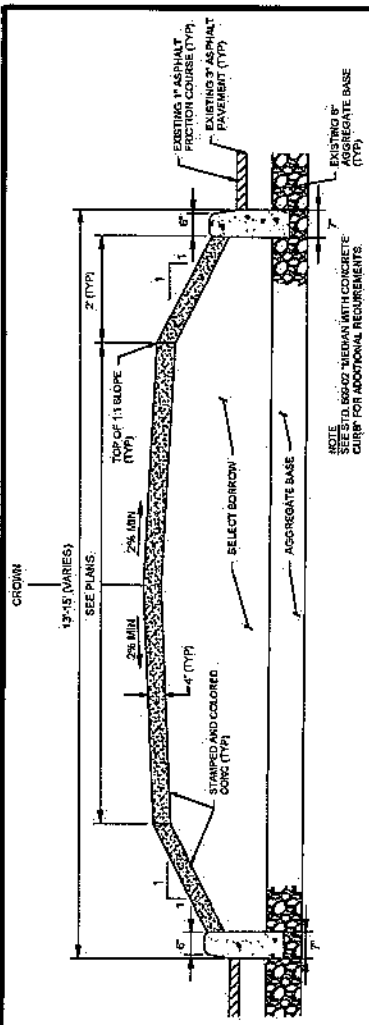
Action Area

	GUAM DEPARTMENT OF PUBLIC WORKS	
	ROUTE 10 SAFETY IMPROVEMENTS PHASE I	
CHANGING REVISIONS		PROJECT FATHER DUENAS SCHOOL FLASHING BEACONS REMOVAL & SITE IMPROVEMENT PLANS
REVISION DATE BY	DESCRIPTION	VALUZE MANGILAO CHALAN PAGO
		TERRITORY GUAM
		PROJECT 6U-RTS-600(002)
		DRAWING NO. C22
		SHEET NO. 14
		TOTAL SHEETS 104
DATE: _____ DRAWN BY: _____ CHECKED BY: _____ DESIGNED BY: _____ IN CHARGE: _____		

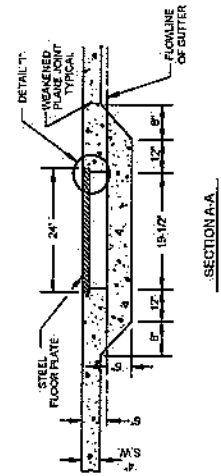
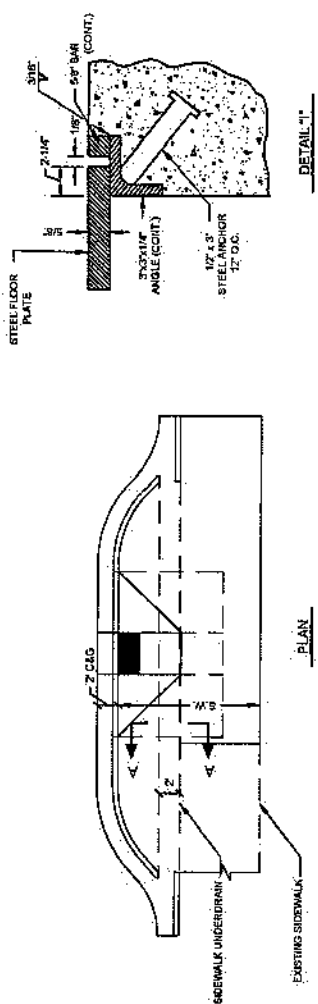
EXHIBIT 3: FATHER DUENAS SCHOOL BEACONS



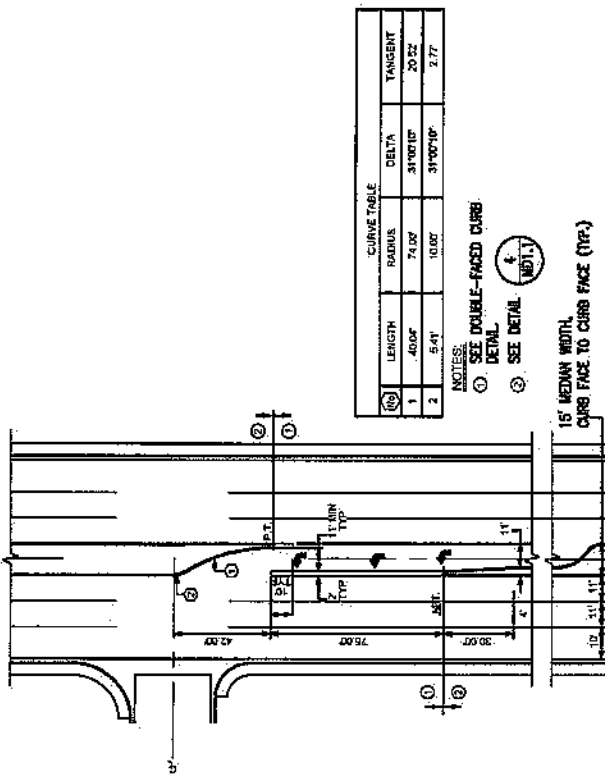




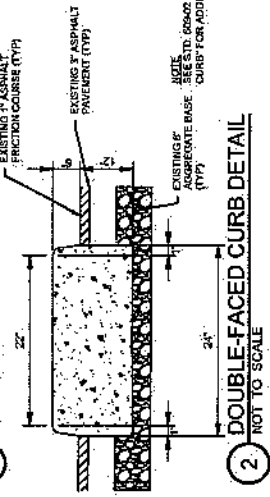
3 PEDESTRIAN REFUGE MEDIAN TYPICAL SECTION
NOT TO SCALE



4 SIDEWALK UNDERDRAIN DETAIL
NOT TO SCALE



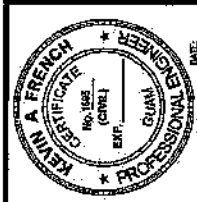
1 RAISED ISLAND/CHANNELIZED MEDIAN DETAIL
NOT TO SCALE



2 DOUBLE-FACED CURB DETAIL
NOT TO SCALE

CURVE TABLE			
NO.	LENGTH	RADIUS	DELTA
1	40.00'	74.00'	20.22°
2	5.41'	10.00'	31.90°
3	2.77'	2.77'	2.77°

NOTES:
1 SEE DOUBLE-FACED CURB DETAIL
2 SEE DETAIL 1



THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISORIAL CONTROL.

DRAWING REVISIONS		DESIGNER	KAF	DATE	01/10/2019
REVISION	DATE	BY	REASON	DATE	BY
1	01/10/2019	KAF	ISSUED FOR CONSTRUCTION	01/10/2019	KAF
DRAWING REVISIONS		CHECKER	RHN	DATE	01/10/2019
DRAWING REVISIONS		APPROVER	KAF	DATE	01/10/2019
DRAWING REVISIONS		DATE	01/10/2019		

GUAM			
DEPARTMENT OF PUBLIC WORKS			
VILLAGE	TERRITORY	PROJECT NO.	DATE
MANUEL L. GARCIA	GUAM	GU-7HS-0010 (002) MD20	4.1
CHALAN PASO			104



P2: ROUTE 10 / MANHA LANE

SCALE: 1"=200'

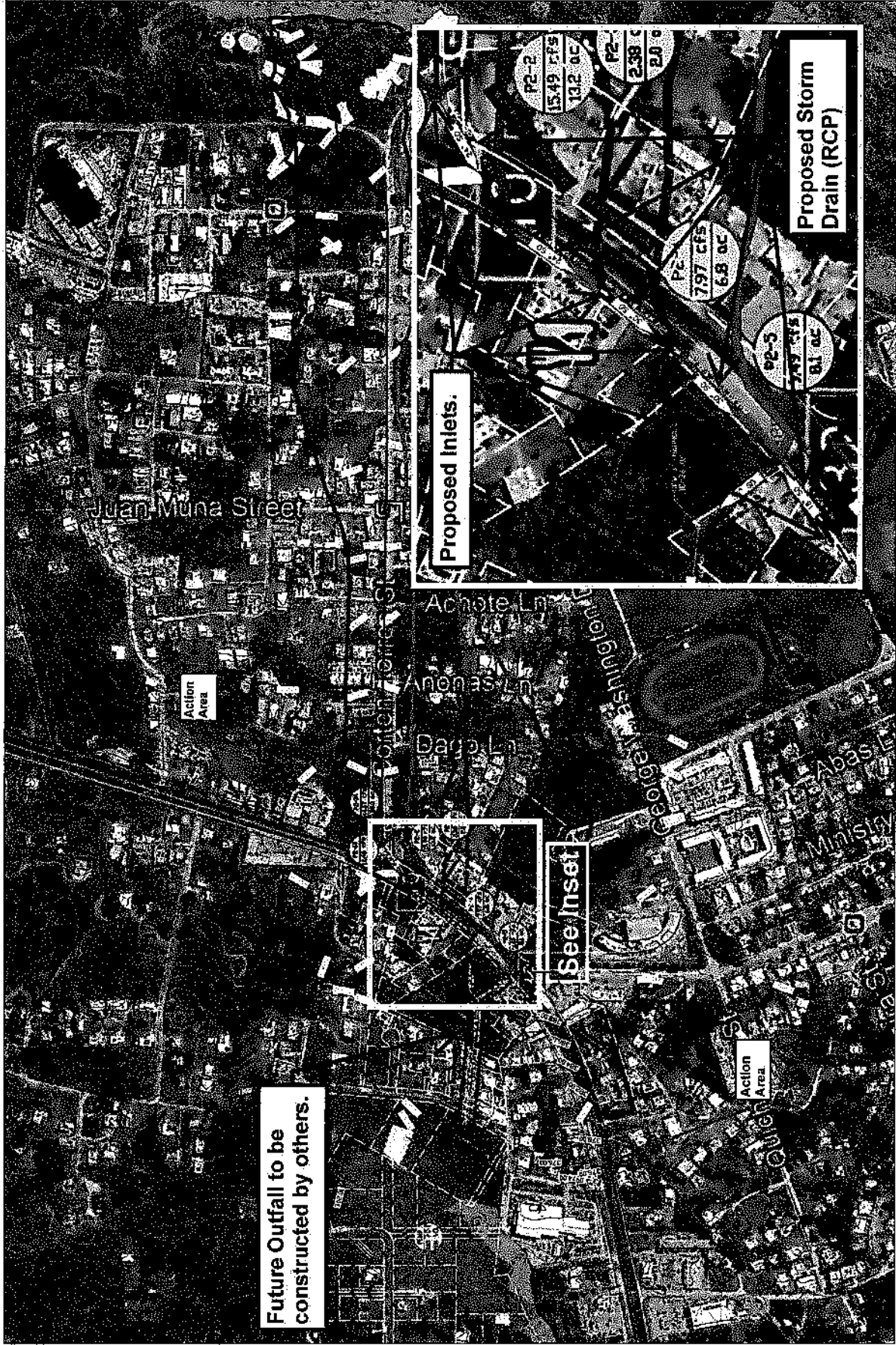
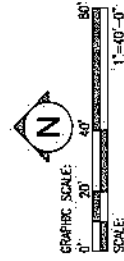


EXHIBIT 8: CORTEN TORRES STREET SIGNAL MODIFICATION PLAN

- ① LIGHT LINES INDICATE EXISTING, HEAVY SOLID LINES INDICATE NEW.
- ② OVERHEAD TRAFFIC SIGNAL HEADS SHALL BE CENTERED ON THRU AND TURN LANES.
- ③ CABLE SPAN WIRE SIGNAL SYSTEM, SEE $\textcircled{1}$ FOR DETAIL.
- ④ DOCKNO, PACIFIC HAS EXISTING AERIAL CABLE WITHIN PROJECT AREA. COORDINATE WITH DOCKNO, PACIFIC ENGINEERING FOR CABLE CLEARANCES PRIOR TO STARTING WORK. CONTACT AL FRANCIS BITUIN TEL# 965-4628 EXT. 1080.

[illegible]

Remove and replace signal and pedestrian indications utilizing existing traffic signal span poles.



DRAWING REVISIONS			Q34393	KAE
REVISION	DATE	BY	REASON	DESCRIPTION
				REVISION
				LS
				000000
				DATE
				NOVEMBER 2015

The figure consists of five sub-diagrams labeled (a) through (e), each showing a different conformation of a polymer chain segment. (a) shows a random coil with labels for l , V , and l_0 . (b) shows a Gaussian coil with labels for l , V , and l_0 . (c) shows an S-shaped chain with labels for l , V , and l_0 . (d) shows a zig-zag chain with labels for l , V , and l_0 . (e) shows a straight chain with labels for l , V , and l_0 .

Quinn International Trade Center
660 South Main Street Dr. Suite 417
Tasmanwy, Guam 96819
(671) 645-6472 Tel
(671) 645-6473 Fax

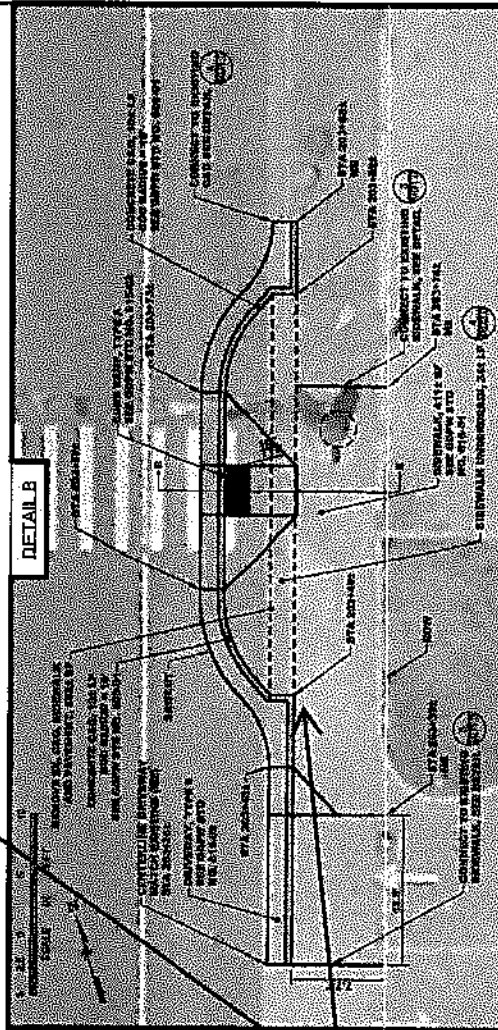
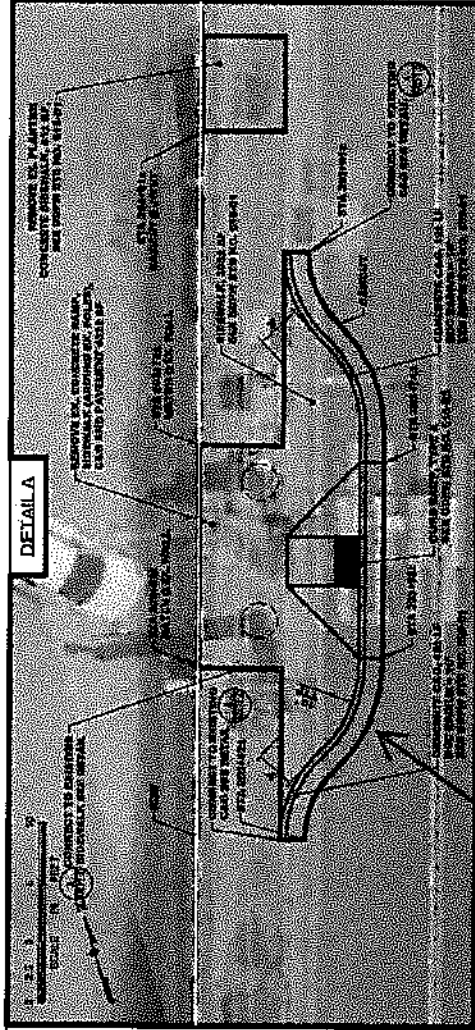
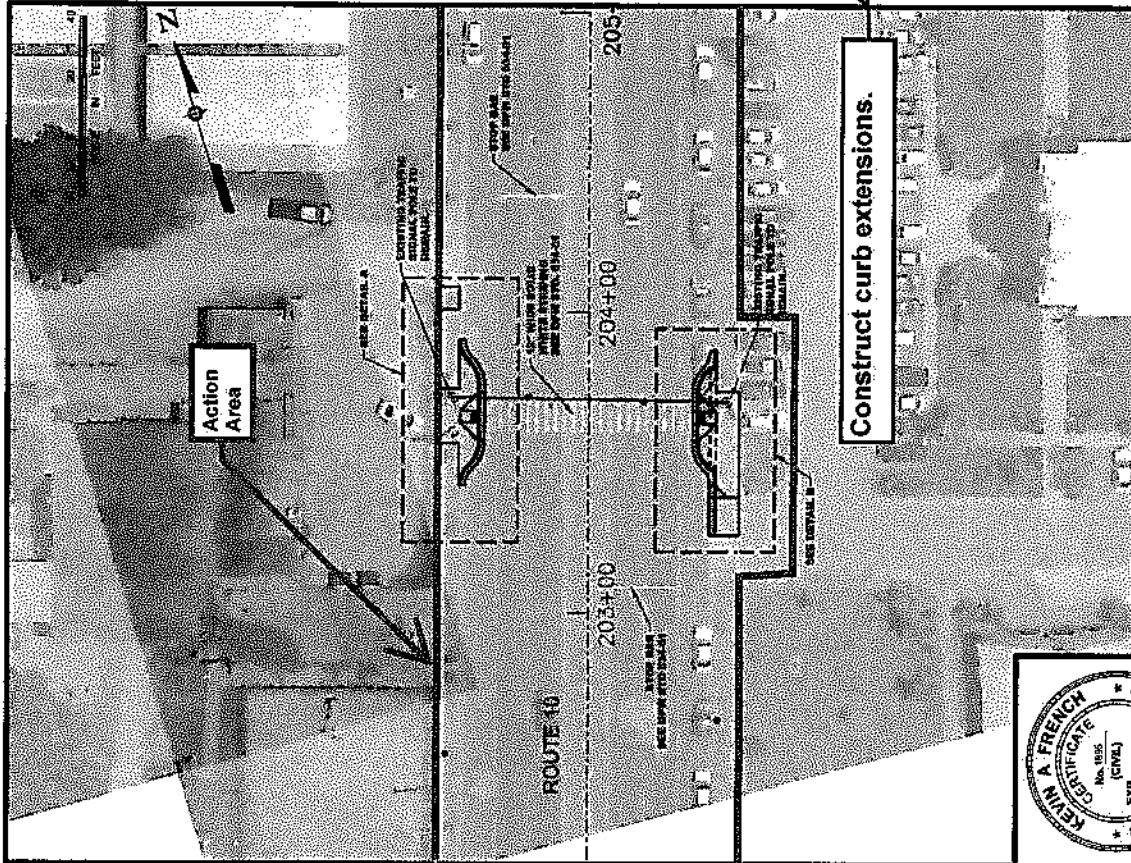
ROUTE 10 / SAFETY IMPROVEMENTS
PHASE I

GUAM.

DEPARTMENT OF PUBLIC WORKS

VILLAGE	TIMBERY	PROJECT	DRAWING NO.	SHEET NO.	TOTAL SHEETS
MANGILAO CHAI AN BAGO	GUAM	CU-THS-0010(0002)	E7.3	87	104

EXHIBIT 9A: MANGILAO PEDESTRIAN SIGNAL MODIFICATION PLAN



DRAWING REVISIONS		REVISION	DATE
1	IF	IFAP	
2	IF	DOTAR	
3	IF	NURS	
4	IF	OCUP	
5	IF	KAF	
6	IF	MT	

WSP

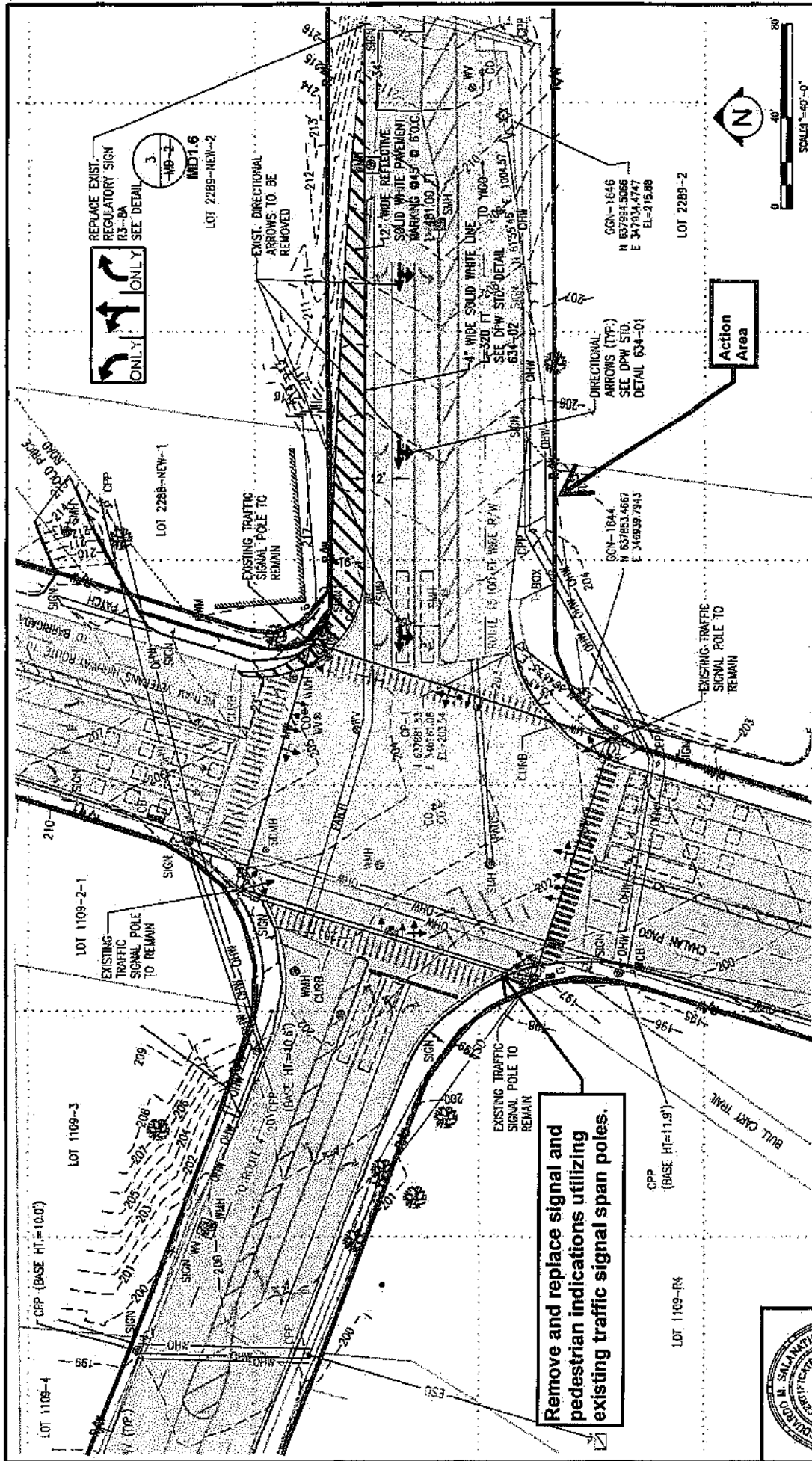
Guam Highway Plan Group
American Samoa Corp. & Son, Inc.
P.O. Box 1000
Hagatna, Guam 96910

ROUTE 10 SAFETY IMPROVEMENTS
PHASE I
MISCELLANEOUS DETAILS
MANGILAO PEDESTRIAN SIGNAL
REMOVAL & SITE IMPROVEMENT PLANS

SECTION B.B

GUAM DEPARTMENT OF PUBLIC WORKS			
VALUE	TERMINAL	PROJECT	DATE
MANGILAO	GUAM	GU-15-010002	03.0
CHALAN PAGO			32
			104

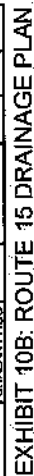
EXHIBIT 9B. MANGILAO PEDESTRIAN CROSSING CURB EXTENSIONS PLAN

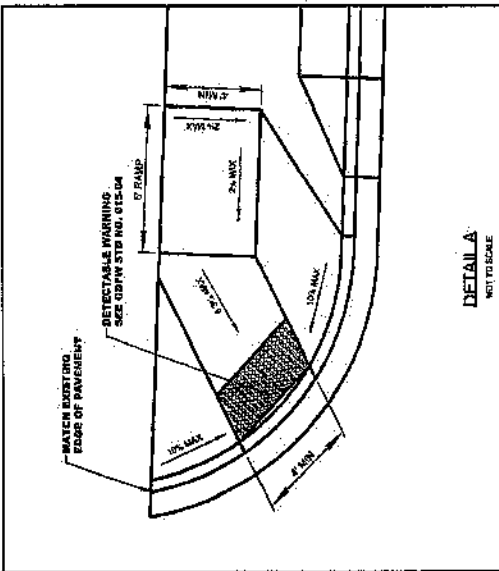


1 ROUTE 10 - ROUTE 15 REMOVAL & SITE IMPROVEMENTS PLAN

ROUTE 10 SAFETY IMPROVEMENTS TRAFFIC SIGNAL SYSTEM UPGRADE - STANDARD WIDE - PHASE 1		GUAM DEPARTMENT OF PUBLIC WORKS	
DESIGNER: JC CHECKER: JC DATE: 10/24/16	PROJECT NO.: 604-15-010 SHEET NO.: 33 OF 33	SCALE: 1" = 40'-0" NORTH ARROW	
ROUTE 10 - ROUTE 15 REMOVAL & SITE IMPROVEMENTS PLAN		PROJECT NO.: 604-15-010 SHEET NO.: 33 OF 33	

EXHIBIT 10A: ROUTE 15 SIGNAL MODIFICATION PLAN





Construct raised median, sidewalk/ADA ramps, driveway, and concrete landing pad for pedestrian crossing.



DRAWING REVISIONS			
REVISION	DATE	BY	DESCRIPTION

DATE _____

INTERNATIONAL TRADE CENTER
60 SOUTH MAIN STREET
MIDLAND, CALIF. 94701
714 846-5872 Tel.
714 846-6873 Fax

ROUTE 10 SAFETY IMPROVEMENTS PHASE I

CROSSWALK DETAIL
ROBERTO STREET PEDESTRIAN CROSSING

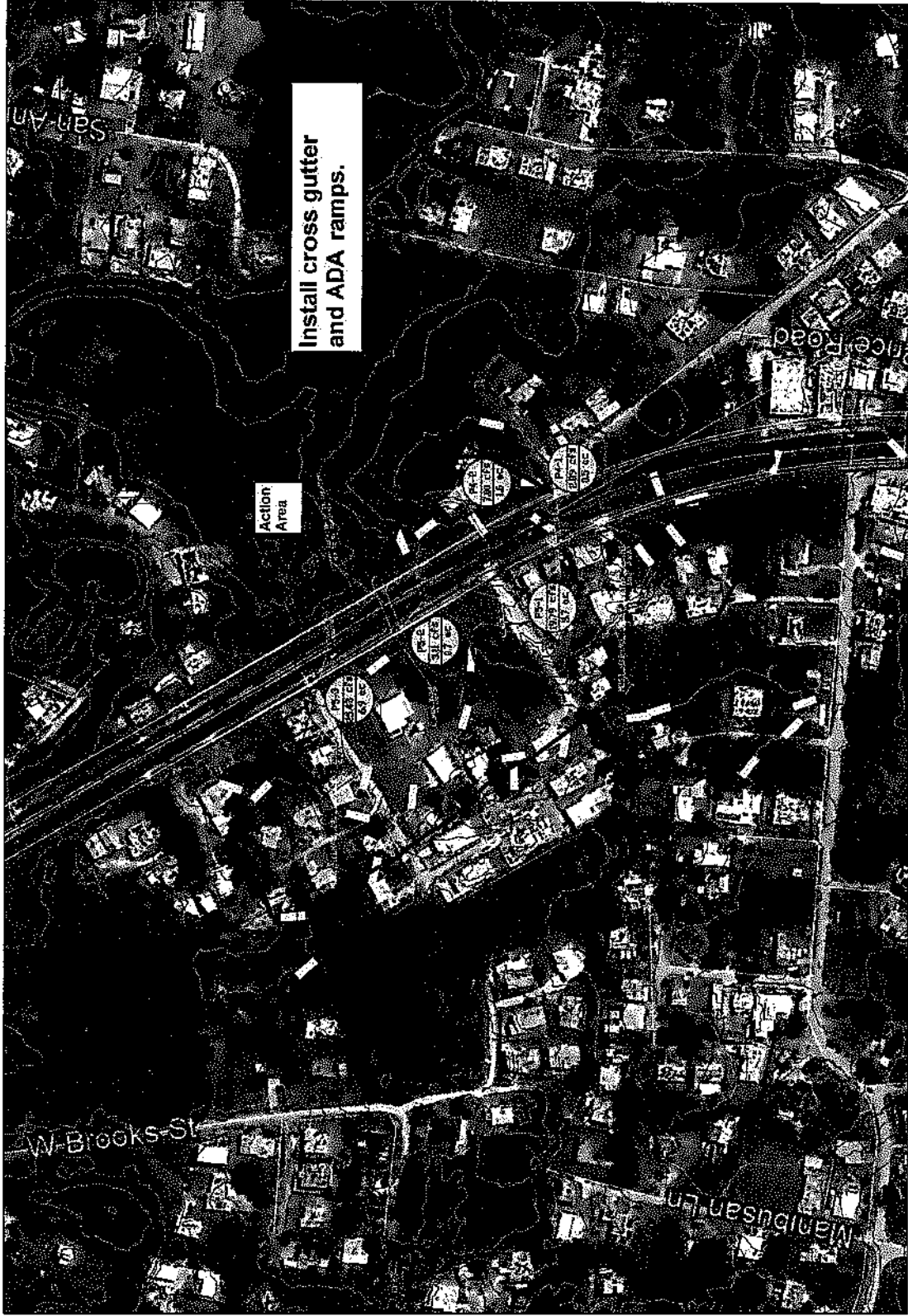
GUAM
DEPARTMENT OF PUBLIC WORKS

INVOICE	TIER/ORD	PROJECT	QUANTITY REQD	SHEET NO	TOTAL SHEETS
MANGILAO	GUAM	GU-THS-004(0002)	402.2	43	104
CHALAN PAGO					

EXHIBIT 11: ROBERTO STREET PEDESTRIAN CROSSING PLAN

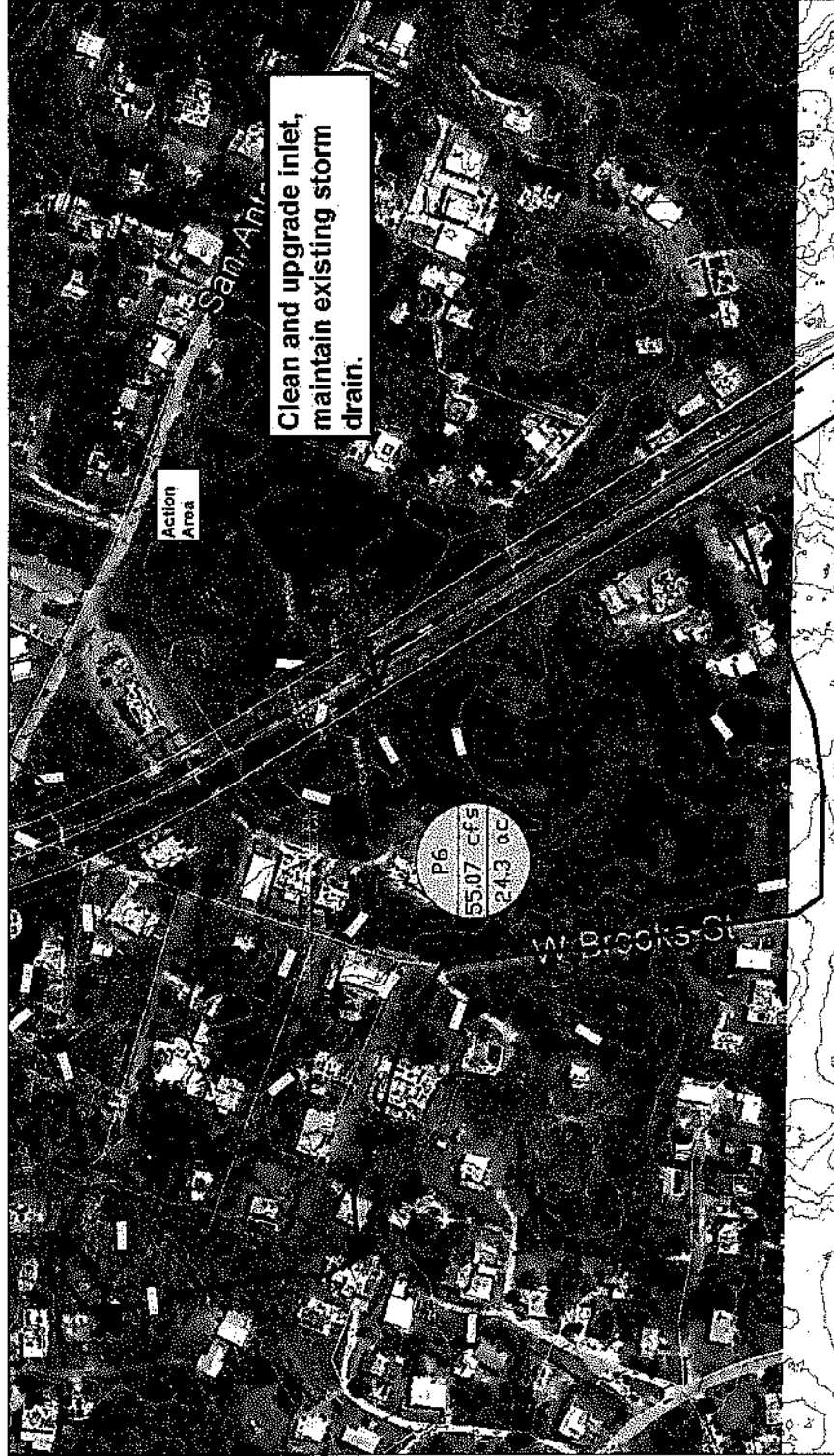
P4&5: ROUTE 10 / LALO ROAD

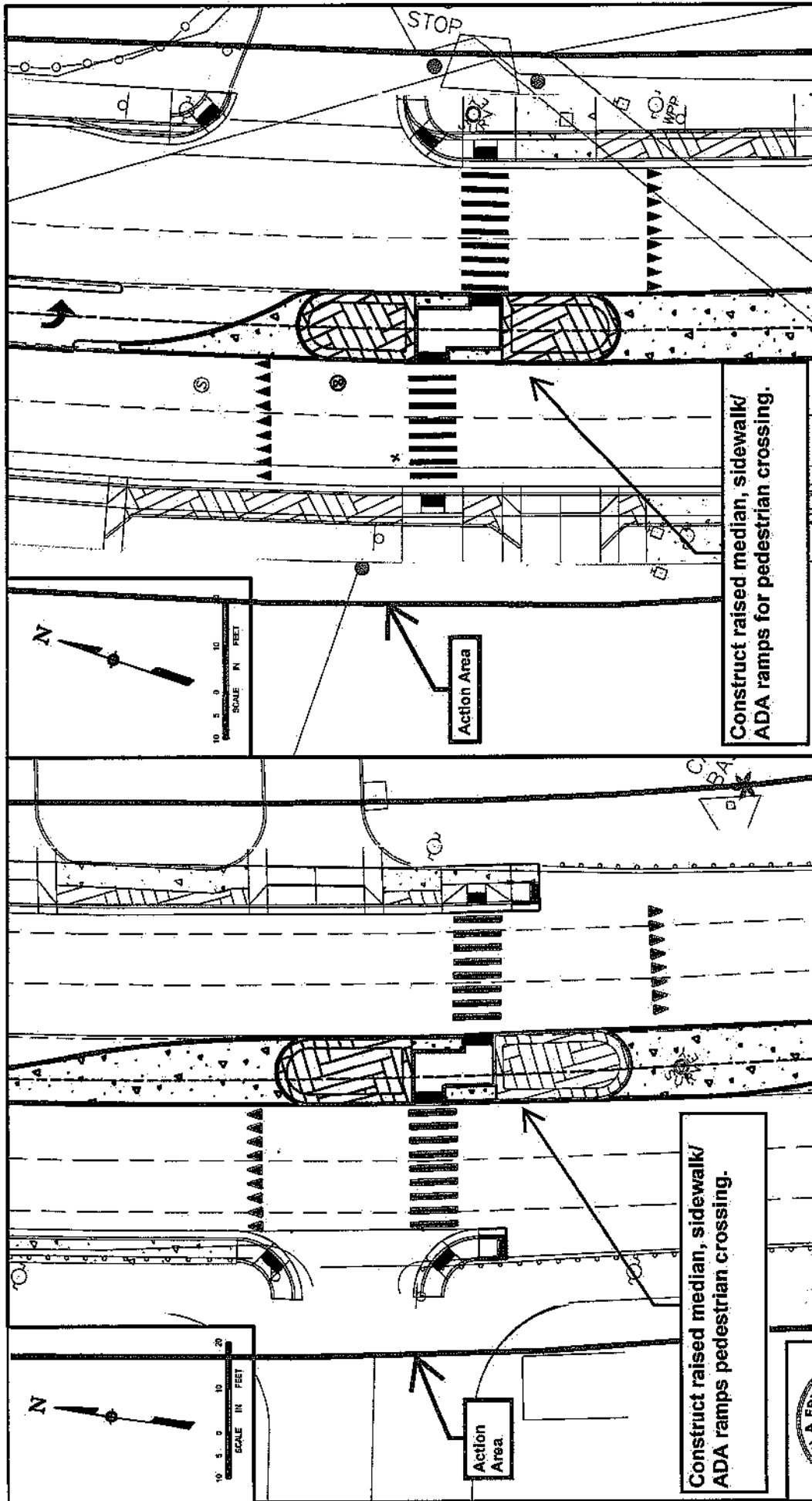
SCALE: 1"=100'



P6: ROUTE 10 / W
BROOKS/WENDY'S

SCALE: 1"=100'





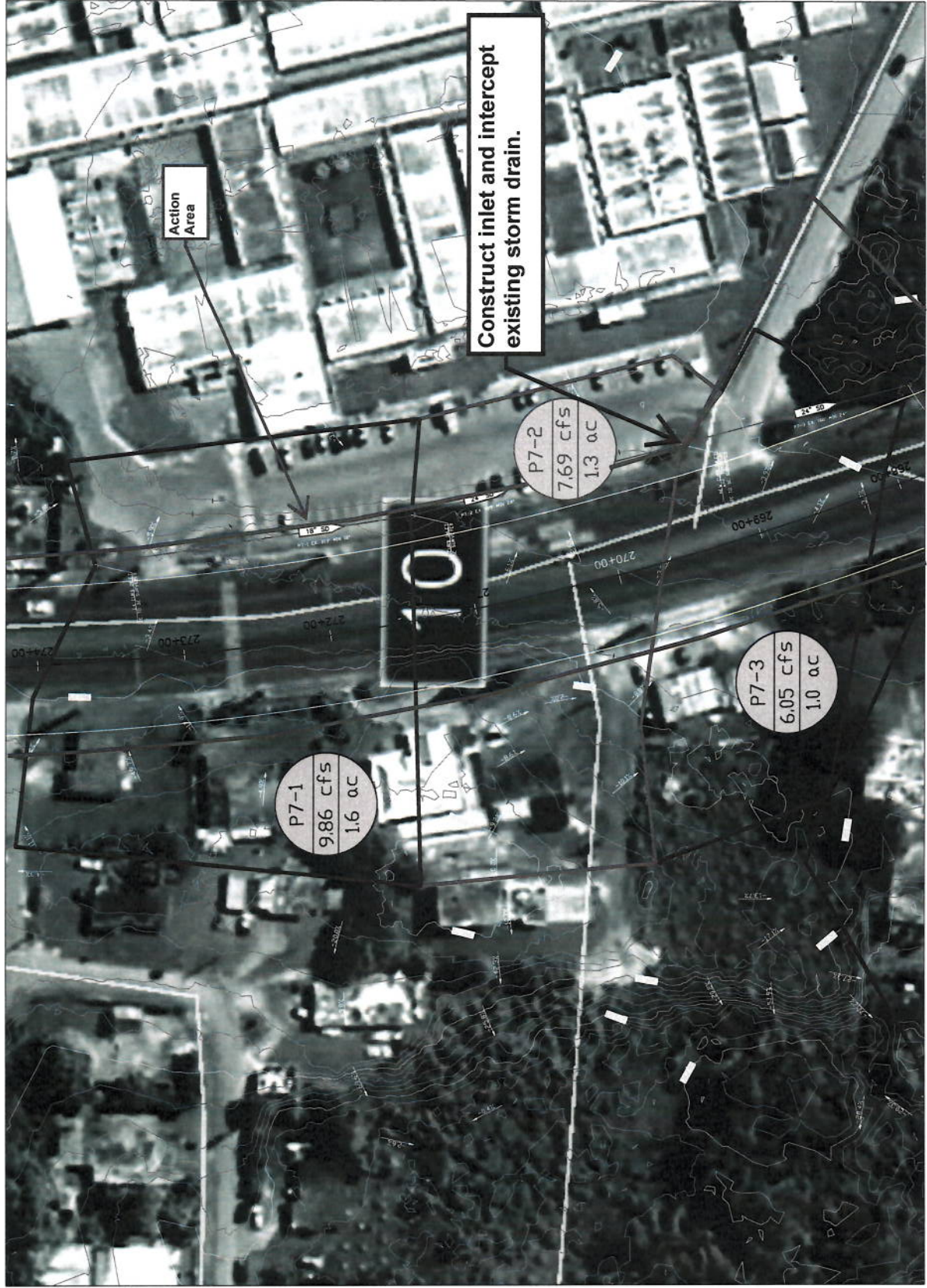
① PEREZ LOOP PEDESTRIAN CROSSING

② SAN ANTONIO ST. PEDESTRIAN CROSSING

				GUAM DEPARTMENT OF PUBLIC WORKS			
ROUTE 10 SAFETY IMPROVEMENTS PHASE 2				MISCELLANEOUS DETAILS PEREZ LOOP AND SAN ANTONIO STREET			
Guam Highway Trust Corp. 200 Road Maintenance Division 1000 G Street, Suite 401 San Antonio, Guam 96913 671-744-0072 Fax				VALUE CLASSIFICATION CHALAN PAGO			
DESIGNER T.A.F.				TOWER GUAM			
DRAWING REVISIONS				SHEET NO. 33			
DATE JULY 2020				TOTAL SHEETS 75			

EXHIBIT 14: PEREZ LOOP AND SAN ANTONIO STREET PEDESTRIAN CROSSING PLANS

P7: ROUTE 10 / SAN ANTONIO STREET



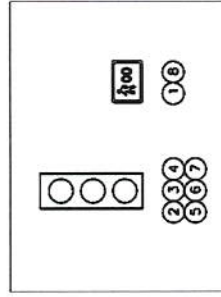


③ UNTAN PEDESTRIAN CROSSING

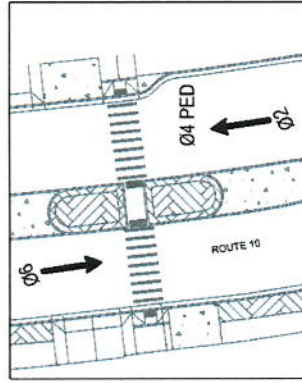
EXHIBIT 16: UNTALAN PED AND SAN ROUQUE DRIVE PEDESTRIAN CROSSING PLANS

NOTES:

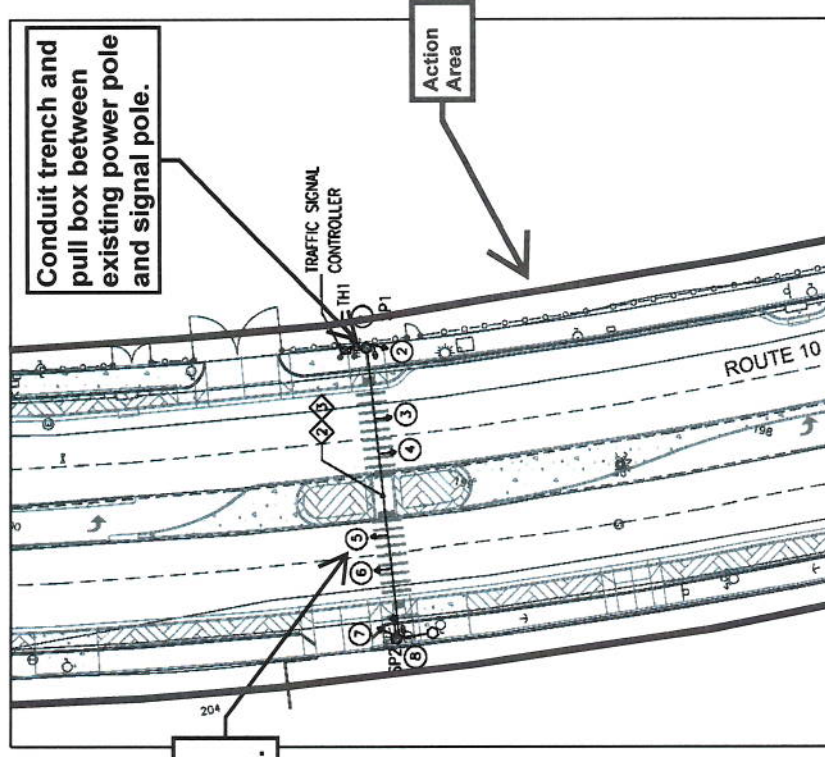
- 1> LIGHT LINES INDICATE EXISTING, HEAVY SOLID LINES INDICATE NEW.
- 2> OVERHEAD TRAFFIC SIGNAL HEADS SHALL BE CENTERED ON THRU LANES.
- 3> CABLE SPAN WIRE SIGNAL SYSTEM, SEE 1 FOR DETAIL.
- 4> DDCOMO PACIFIC HAS EXISTING AERIAL CABLE WITHIN PROJECT AREA. COORDINATE WITH DDCOMO PACIFIC ENGINEERING FOR CABLE CLEARANCES PRIOR TO STARTING WORK. CONTACT AL FRANCIS BITUIN TEL# 969-4628 EXT. 1080.



SIGNAL HEAD SCHEDULE



PHASING DIAGRAM



1 ROUTE 10 / UNTALAN (PED) ELECTRICAL NEW PLAN

SCALE: 1"=40'-0"



Guam International Trade Center
1000 Soledad Avenue, Suite 200, San Jose, CA 95128
(408) 444-8822 Fax
(408) 444-8823 Fax

DRAWING REVISIONS		DESIGNER	CHECKER	DATE
REVISION	DATE	BY	DESCRIPTION	
1		CVY	CVY	
2		CVY	CVY	
3		CVY	CVY	
4		CVY	CVY	
5		CVY	CVY	
6		CVY	CVY	
7		CVY	CVY	
8		CVY	CVY	
9		CVY	CVY	
10		CVY	CVY	
11		CVY	CVY	
12		CVY	CVY	
13		CVY	CVY	
14		CVY	CVY	
15		CVY	CVY	
16		CVY	CVY	
17		CVY	CVY	
18		CVY	CVY	
19		CVY	CVY	
20		CVY	CVY	
21		CVY	CVY	
22		CVY	CVY	
23		CVY	CVY	
24		CVY	CVY	
25		CVY	CVY	
26		CVY	CVY	
27		CVY	CVY	
28		CVY	CVY	
29		CVY	CVY	
30		CVY	CVY	
31		CVY	CVY	
32		CVY	CVY	
33		CVY	CVY	
34		CVY	CVY	
35		CVY	CVY	
36		CVY	CVY	
37		CVY	CVY	
38		CVY	CVY	
39		CVY	CVY	
40		CVY	CVY	
41		CVY	CVY	
42		CVY	CVY	
43		CVY	CVY	
44		CVY	CVY	
45		CVY	CVY	
46		CVY	CVY	
47		CVY	CVY	
48		CVY	CVY	
49		CVY	CVY	
50		CVY	CVY	
51		CVY	CVY	
52		CVY	CVY	
53		CVY	CVY	
54		CVY	CVY	
55		CVY	CVY	
56		CVY	CVY	
57		CVY	CVY	
58		CVY	CVY	
59		CVY	CVY	
60		CVY	CVY	
61		CVY	CVY	
62		CVY	CVY	
63		CVY	CVY	
64		CVY	CVY	
65		CVY	CVY	
66		CVY	CVY	
67		CVY	CVY	
68		CVY	CVY	
69		CVY	CVY	
70		CVY	CVY	
71		CVY	CVY	
72		CVY	CVY	
73		CVY	CVY	
74		CVY	CVY	
75		CVY	CVY	
76		CVY	CVY	
77		CVY	CVY	
78		CVY	CVY	
79		CVY	CVY	
80		CVY	CVY	
81		CVY	CVY	
82		CVY	CVY	
83		CVY	CVY	
84		CVY	CVY	
85		CVY	CVY	
86		CVY	CVY	
87		CVY	CVY	
88		CVY	CVY	
89		CVY	CVY	
90		CVY	CVY	
91		CVY	CVY	
92		CVY	CVY	
93		CVY	CVY	
94		CVY	CVY	
95		CVY	CVY	
96		CVY	CVY	
97		CVY	CVY	
98		CVY	CVY	
99		CVY	CVY	
100		CVY	CVY	

DATE: 7/1/2020
THIS DRAWING IS THE PROPERTY OF WSP AND IS NOT TO BE REPRODUCED OR COPIED WITHOUT THE WRITTEN CONSENT OF WSP.

GUAM			
DEPARTMENT OF PUBLIC WORKS			
PROJECT	TERMINAL	PROJECT	PROJECT
ROUTE 10 / UNTALAN (PED) ELECTRICAL NEW PLAN	ROUTE 10 / UNTALAN (PED) ELECTRICAL NEW PLAN	ROUTE 10 / UNTALAN (PED) ELECTRICAL NEW PLAN	ROUTE 10 / UNTALAN (PED) ELECTRICAL NEW PLAN
DATE	DATE	DATE	DATE
7/1/2020	7/1/2020	7/1/2020	7/1/2020
75	64	E3.3	75

EXHIBIT 17: UNTALAN PEDESTRIAN SIGNAL MODIFICATION PLAN