

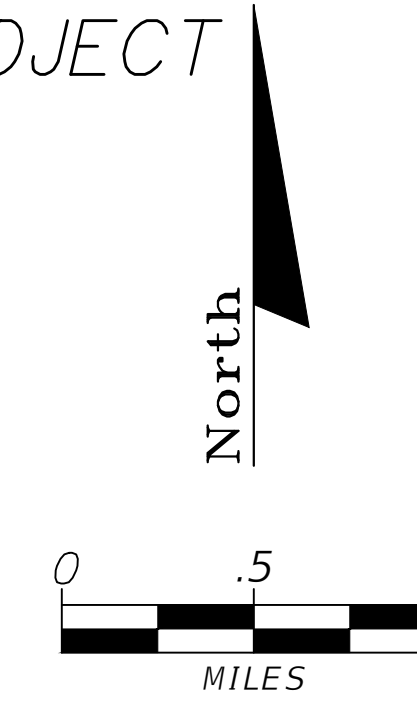
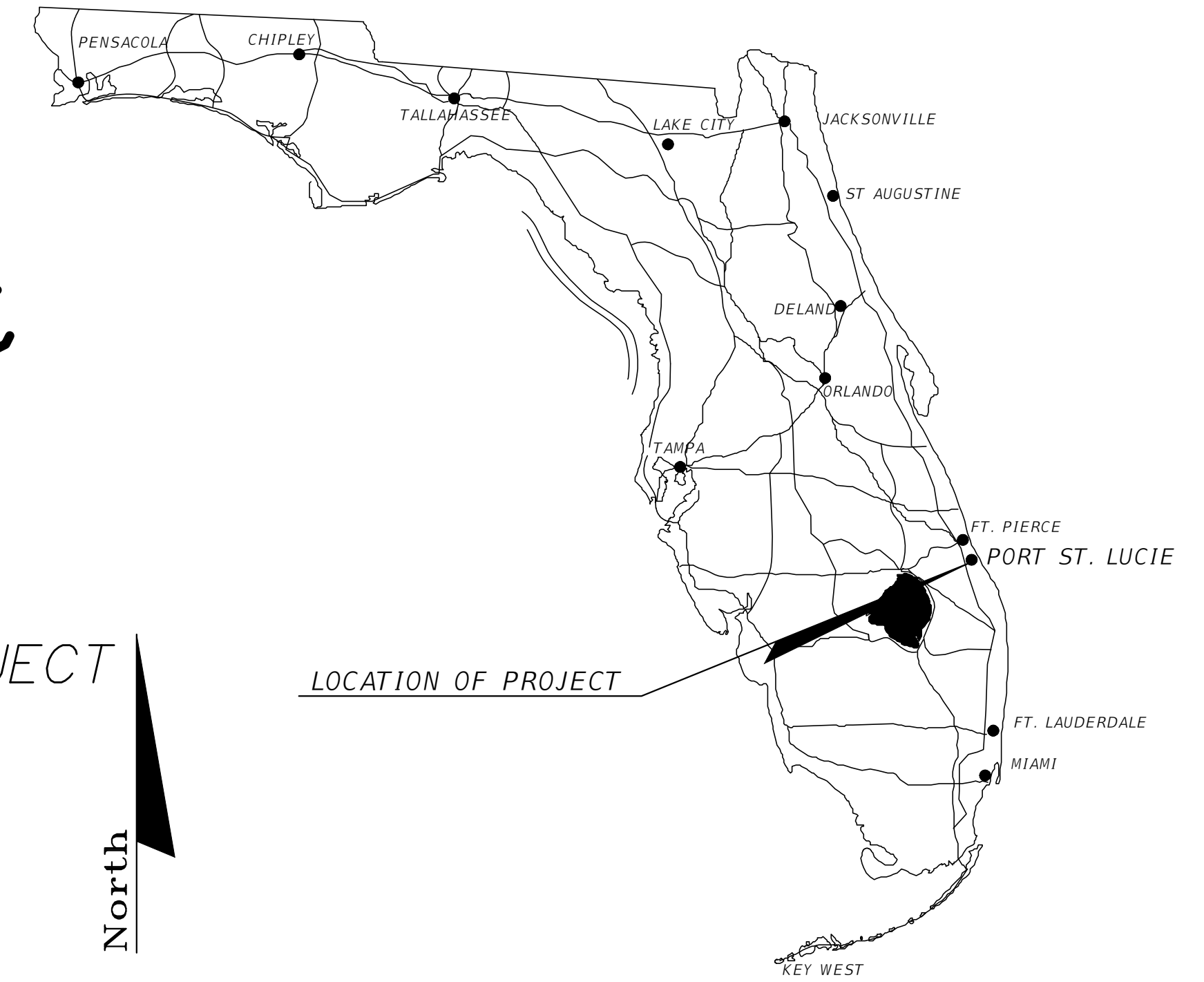
PLANS PREPARED FOR

City of Port Saint Lucie Public Works Department

CONTRACT PLANS

COMPONENTS OF CONTRACT PLANS SET
* ROADWAY CONSTRUCTION PLANS

TULIP BLVD / COLLEGE PARK RD. INTERSECTION IMPROVEMENTS PROJECT
CITY OF PORT ST. LUCIE



INDEX OF PLANS

SHEET NO.	SHEET DESCRIPTION
1	KEYSHEET
2	SUMMARY OF PAY ITEMS & GENERAL NOTES
3	TYPICAL SECTIONS
4	DETAILS
5	ROADWAY PLAN & PROFILE SHEET
6	ROADWAY CROSS SECTIONS
7-8	STORMWATER POLLUTION PREVENTION PLANS & NOTES
9	TEMPORARY TRAFFIC CONTROL DETAILS
10-11	SIGNING AND PAVEMENT MARKING PLANS
12	SIGNAL MODIFICATION PLAN

GOVERNING STANDARD PLANS:
Florida Department of Transportation, FY2022-23 Standard plans for Road and Bridge Construction and applicable Interim Revisions (IRs).

Standard Plans for Road Construction and associated IRs are available at the following website:
<http://www.fdot.gov/design/Standardplans.shtm>

APPLICABLE IRs:

Standard Plans for Bridge Construction are included in the Structures Plans Component.

GOVERNING STANDARD SPECIFICATIONS:
Florida Department of Transportation, July 2022 Standard Specifications for Road and Bridge Construction at the following website:
<http://www.fdot.gov/programmanagement/Implemented/SpecBooks>

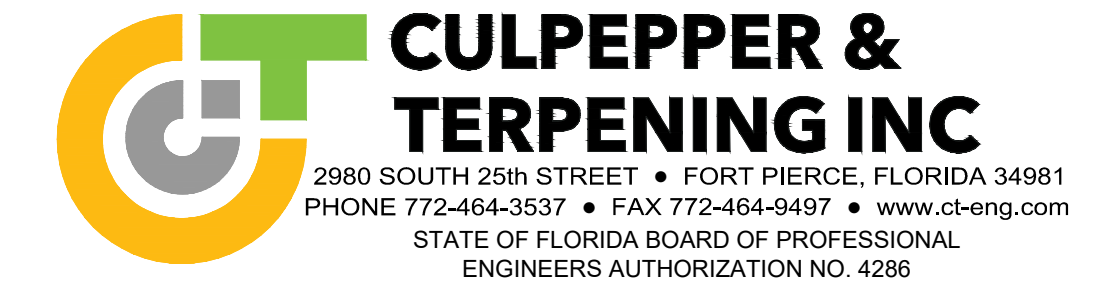
City of Port St Lucie Engineering Standards for Land Development, Commercial, Residential Subdivisions and Capital Improvement Projects



CONSTRUCTION SHOP DRAWINGS TO BE SUBMITTED TO:

STEFAN K. MATTHES, PE
CULPEPPER & TERPENING, INC.
2980 SOUTH 25TH STREET
FORT PIERCE, FLORIDA 34981

PLANS PREPARED BY:



NOTE: THE SCALE OF THESE PLANS MAY HAVE CHANGED DUE TO REPRODUCTION.

LENGTH OF PROJECT		
	LIN. FT.	MILES
UTILITY	0 LF	0.000
ROADWAY	646.65 LF	0.122
BRIDGES	0 LF	0.000
EXCEPTIONS		
GROSS LENGTH OF PROJ.	646.65 LF	0.122

KEY SHEET REVISIONS		
DATE	BY	DESCRIPTION

ROADWAY PLANS
ENGINEER OF RECORD: STEFAN K. MATTHES, P.E.
P.E. NO. : 38723

BID SET PLANS
JULY 17, 2023

PSLUSD PROJECT NO. _____
CITY OF PSL PROJECT NO. P22-_____

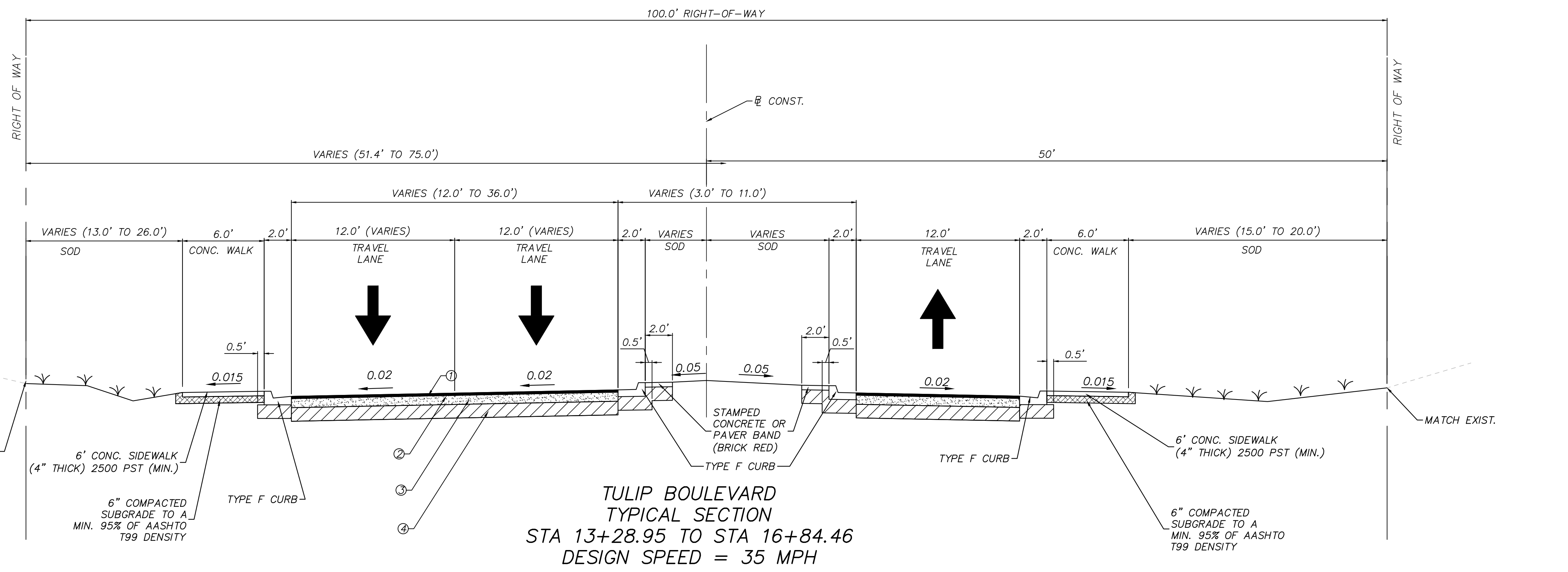
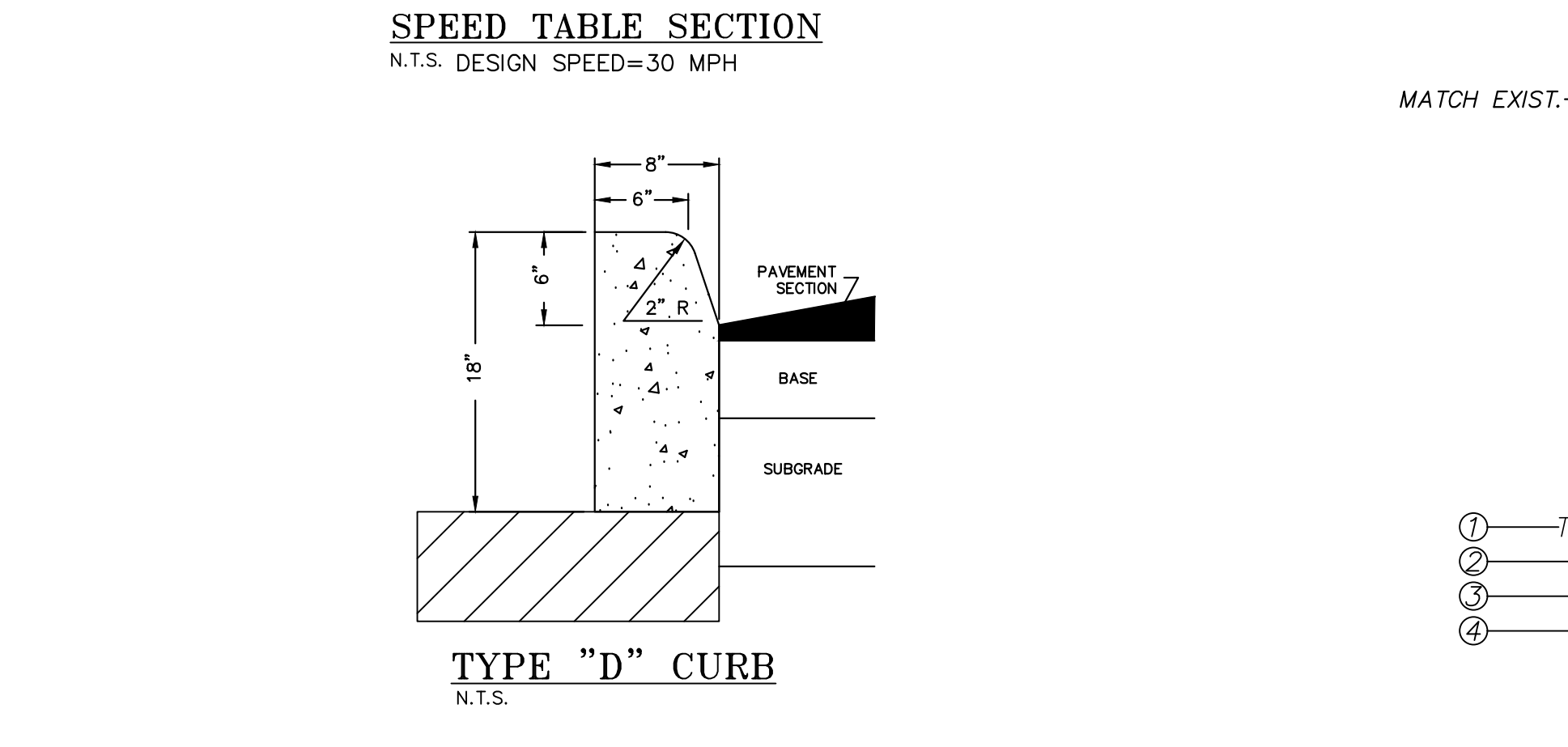
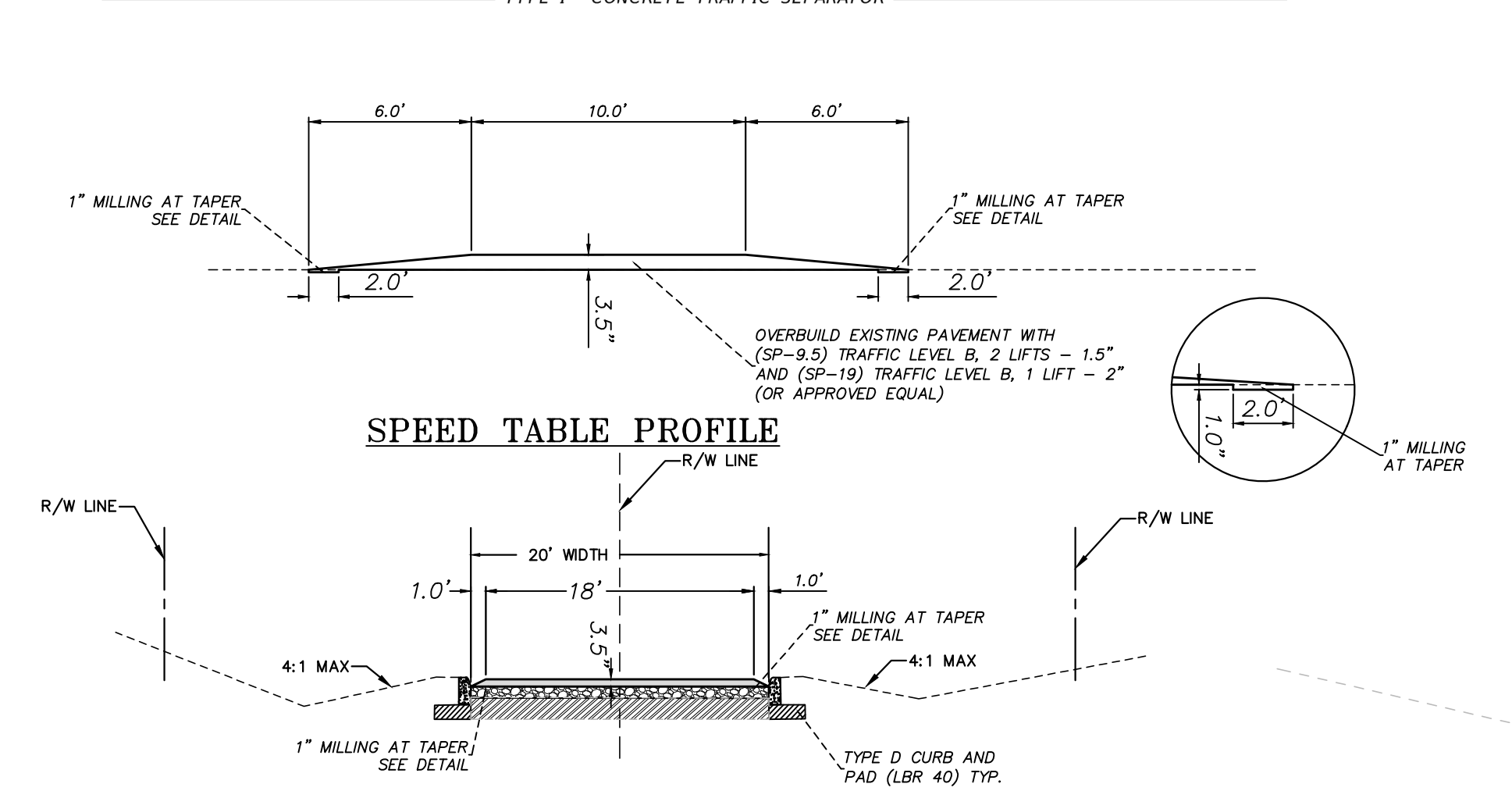
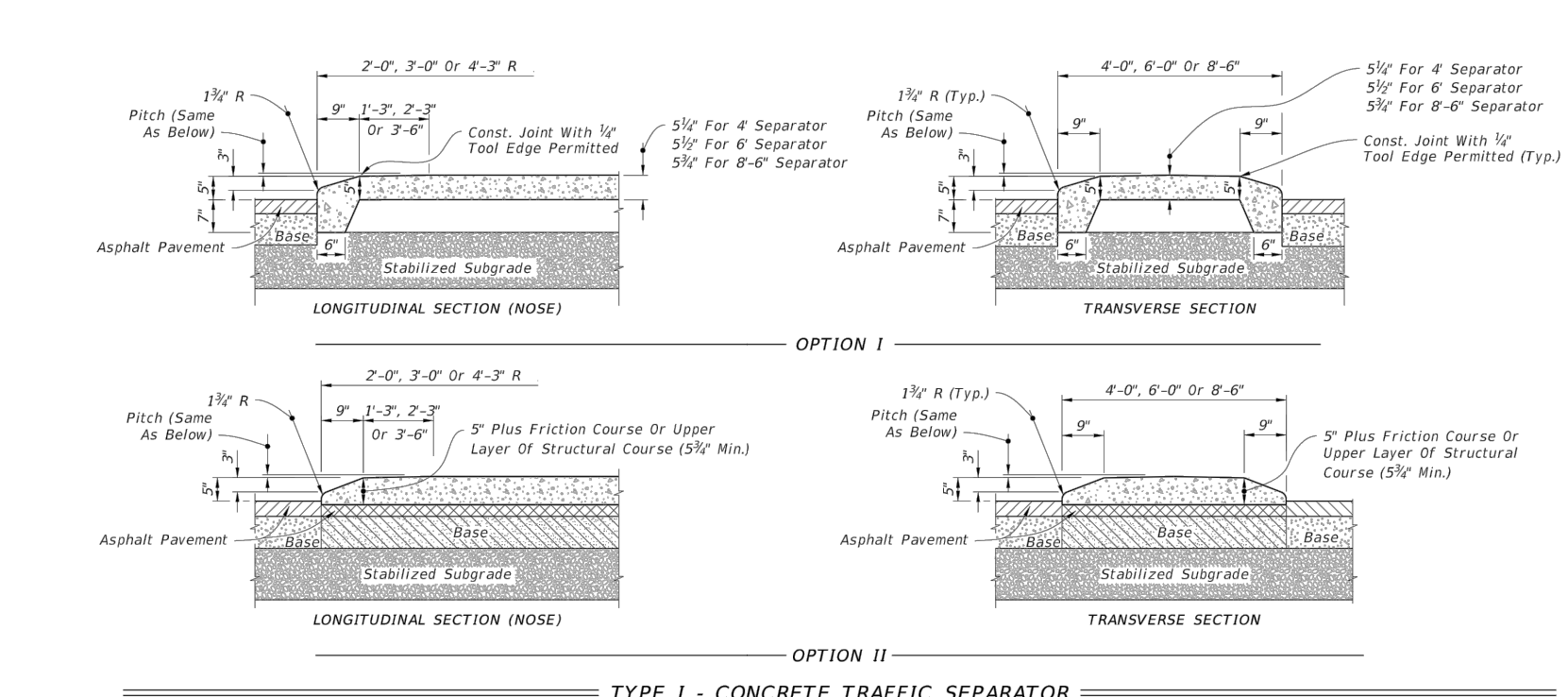
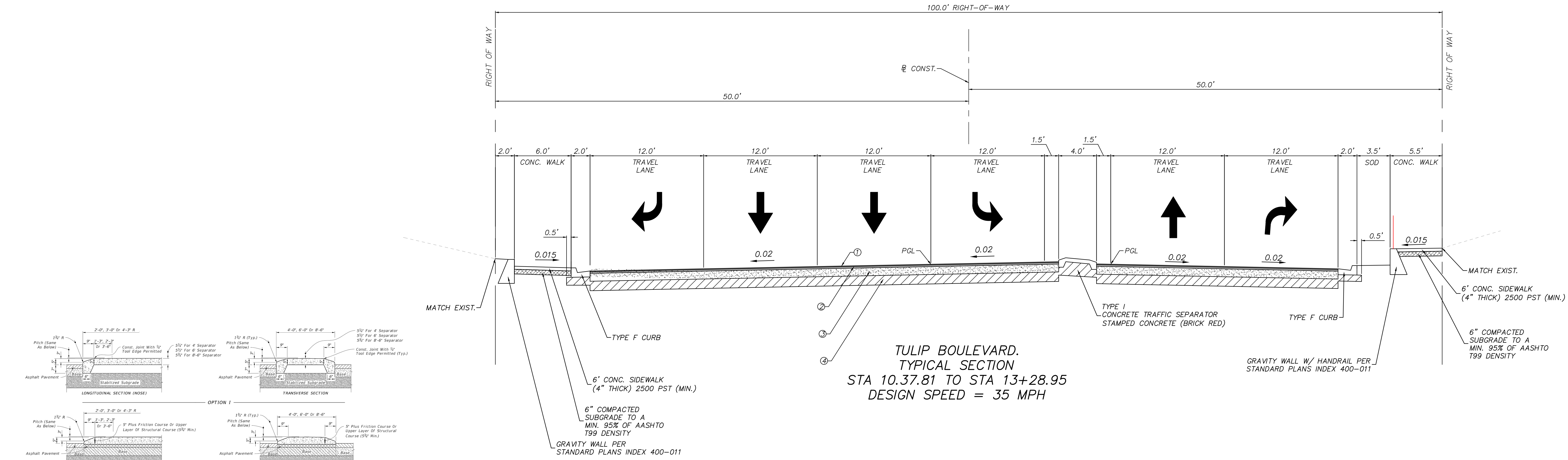
C&T JOB NO.: 20-247.002

FISCAL YEAR	SHEET NO.
23	1

REVISIONS

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- ASPHALT PAVEMENT (SN=4.08)**
- ① TYPE SP-9.5 FRICTION COURSE (TRAFFIC LEVEL C) (1.0") (SN=0.44)
 - ② TYPE SP-12.5 STRUCTURAL COURSE (2" THICK) (SN=0.88)
 - ③ OPTIONAL BASE GROUP 9 (SN=1.8)
 - ④ 12" TYPE 'B' STABILIZATION (SN=0.96)

- NOTES:**
1. SEE PLAN AND/OR CROSS SECTION SHEETS FOR DIMENSIONS, ELEVATIONS AND SLOPES INDICATED AS "VARIES."
 2. ALL DISTURBED AREAS WITHIN THE RIGHT OF WAY SHALL BE SODDED USING COMMON BAHIA SOD EXCEPT WHEN MATCHING EXISTING OR INDICATED AS ST. AUGUSTINE SOD.
 3. MAXIMUM SIDEWALK SLOPE IS 2.0%.
 4. PLACE STREET TREES ON 40' CENTERS.
 5. ROOT BARRIERS SHALL BE INSTALLED ADJACENT TO SIDEWALKS WHERE TREES ARE PLANTED WITHIN 5' OF THE SIDEWALK.

PSLUSD PROJECT NO. _____ CITY OF PSL PROJECT NO. P22-_____ STEFAN K. MATTHEWS, P.E. FL. REG. NO. 38723



NOTES:
1) ALL ELEVATIONS AND BENCHMARKS SHOWN HEREON ARE RELATIVE TO THE NORTH AMERICAN VERTICAL DATUM (N.A.V.D.) OF 1988.

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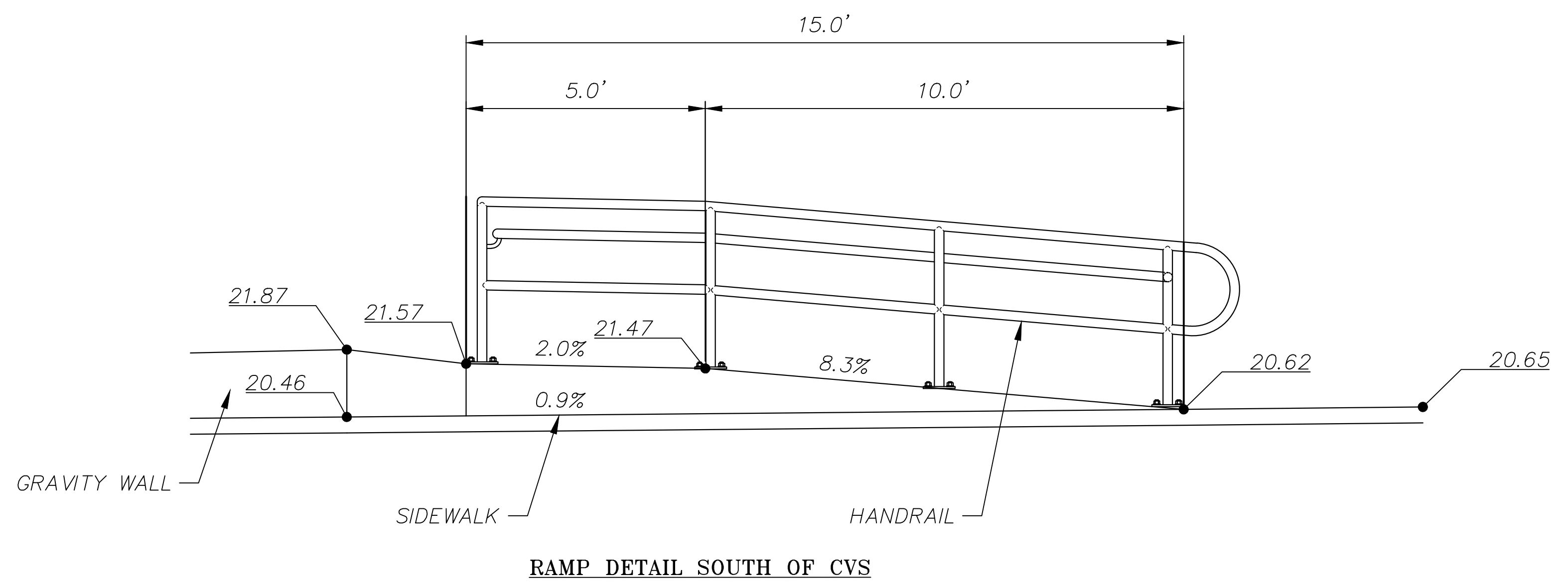
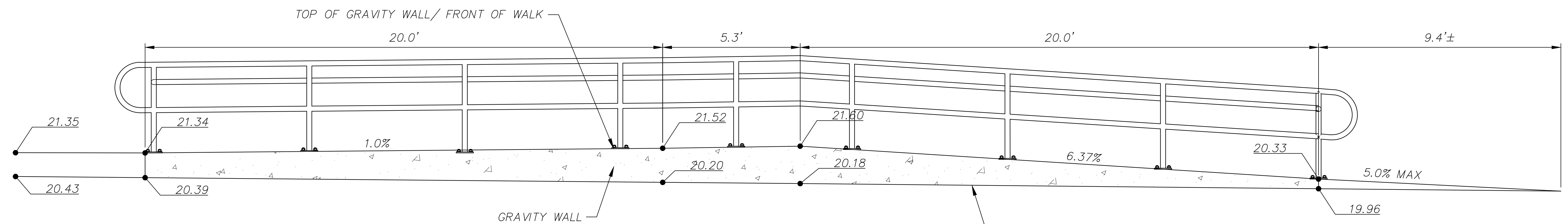
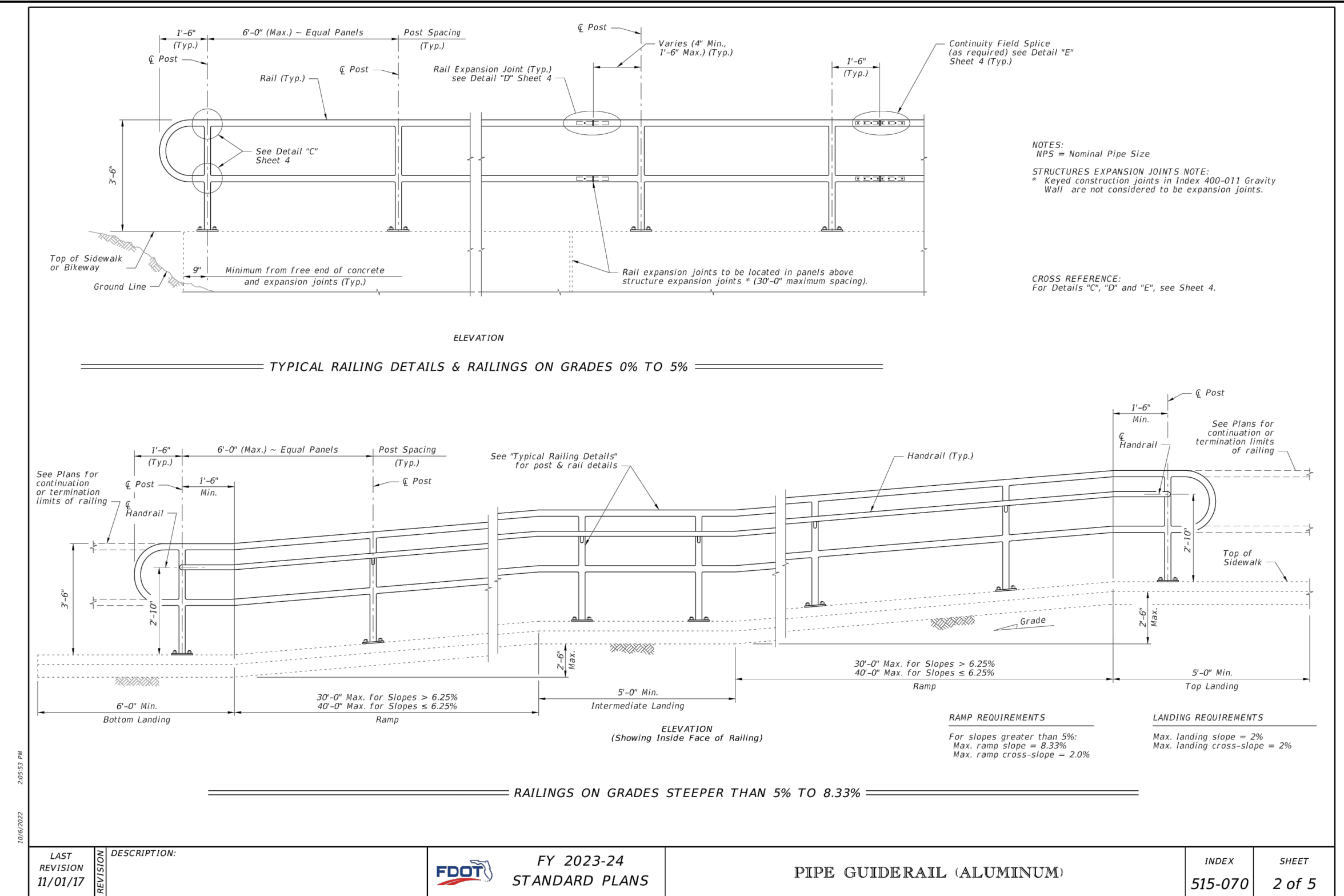
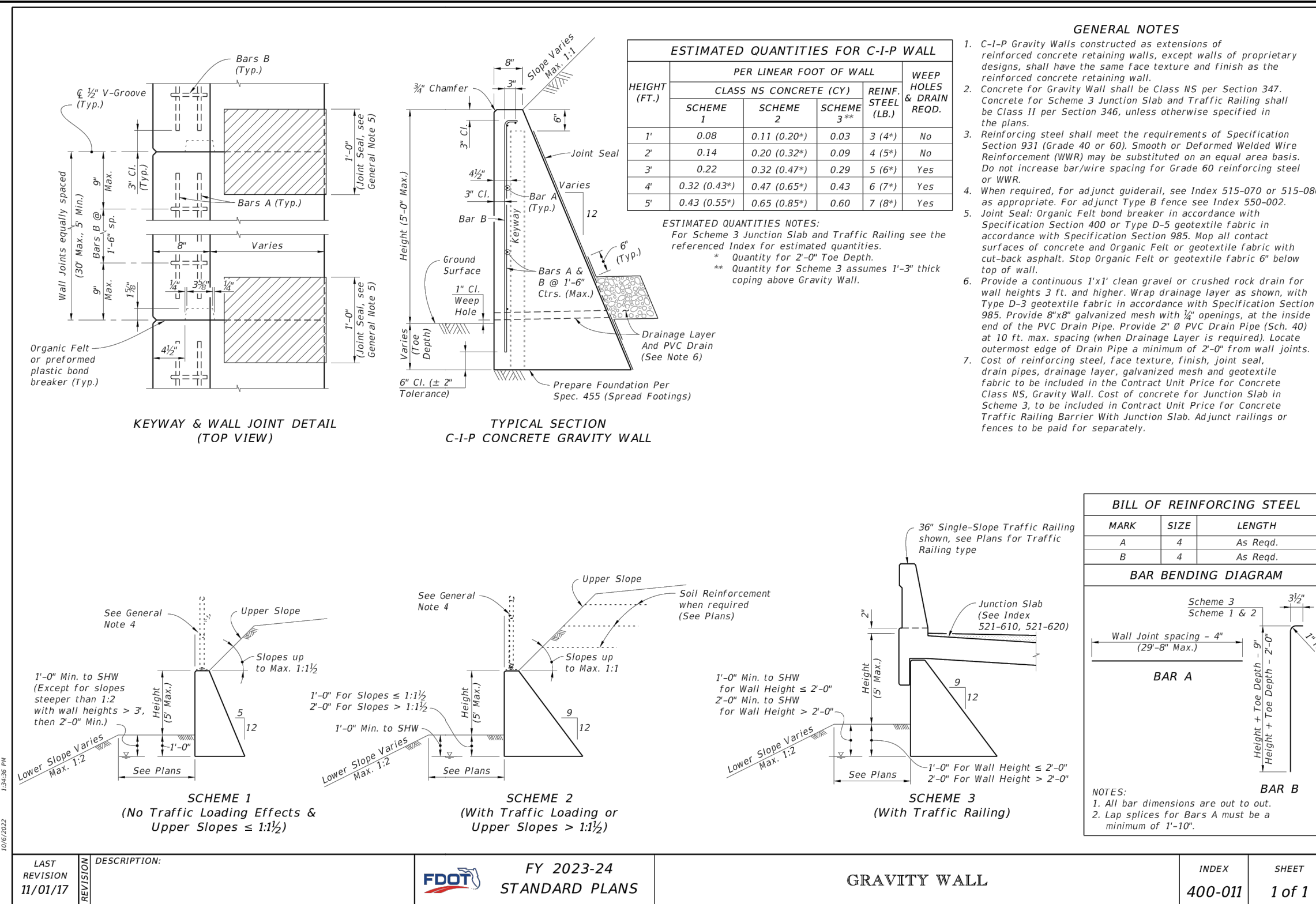
CULPEPPER & TERPENING INC
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PHONE 772-464-3537 • FAX 772-466-9487 • www.ct-eng.com
STATE OF FLORIDA BOARD OF PROFESSIONAL ENGINEERS AUTHORIZATION NO. 4286

- REVISIONS -		BY	DATE

	BY	DATE
DESIGNED		
CALCS.		
DRAWN	DRP	03/10/23
DETAILED		
CHECKED		
APPROVED	SKM	

TULIP BLVD / COLLEGE PARK RD. INTERSECTION IMPROVEMENTS PROJECT
TYPICAL SECTIONS

DATE: 06/26/2023
HORIZ. SCALE: SCALE
VERT. SCALE: SCALE
JOB NO. 20-247.002
SHEET 3 of 12



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PSLUSD PROJECT NO. _____
 CITY OF PSL PROJECT NO. P22-_____

STEFAN K. MATTHEWS, P.E.
 FL. REG. NO. 38723



NOTES:
 1) ALL ELEVATIONS AND BENCHMARKS SHOWN HEREON ARE RELATIVE TO THE NORTH AMERICAN VERTICAL DATUM (N.A.V.D.) OF 1988.

COMPUTER FILE REF.	FIELD BK./PG.

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- REVISIONS -

NO.	DESCRIPTION	BY	DATE

DESIGNED	BY	DATE

TULIP BLVD / COLLEGE PARK RD. INTERSECTION IMPROVEMENTS PROJECT

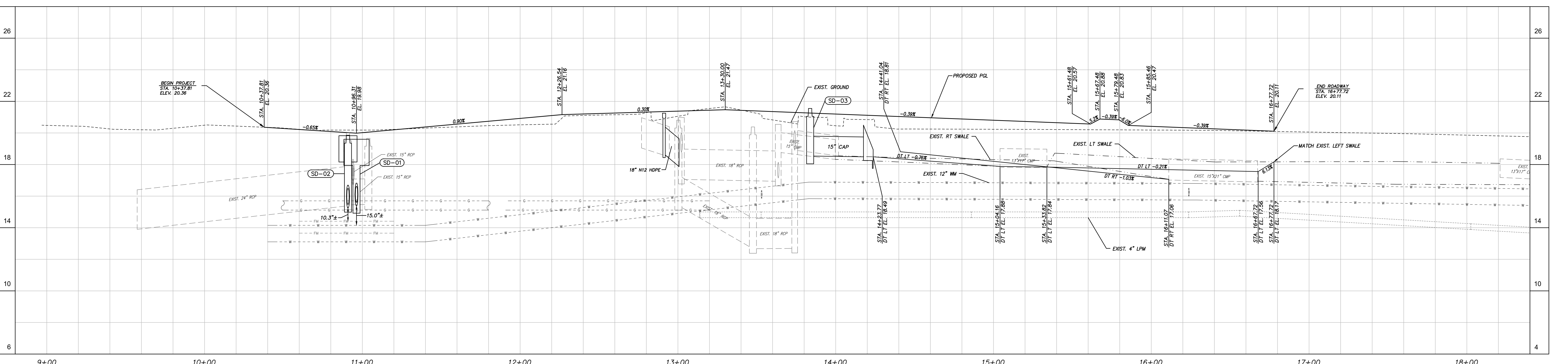
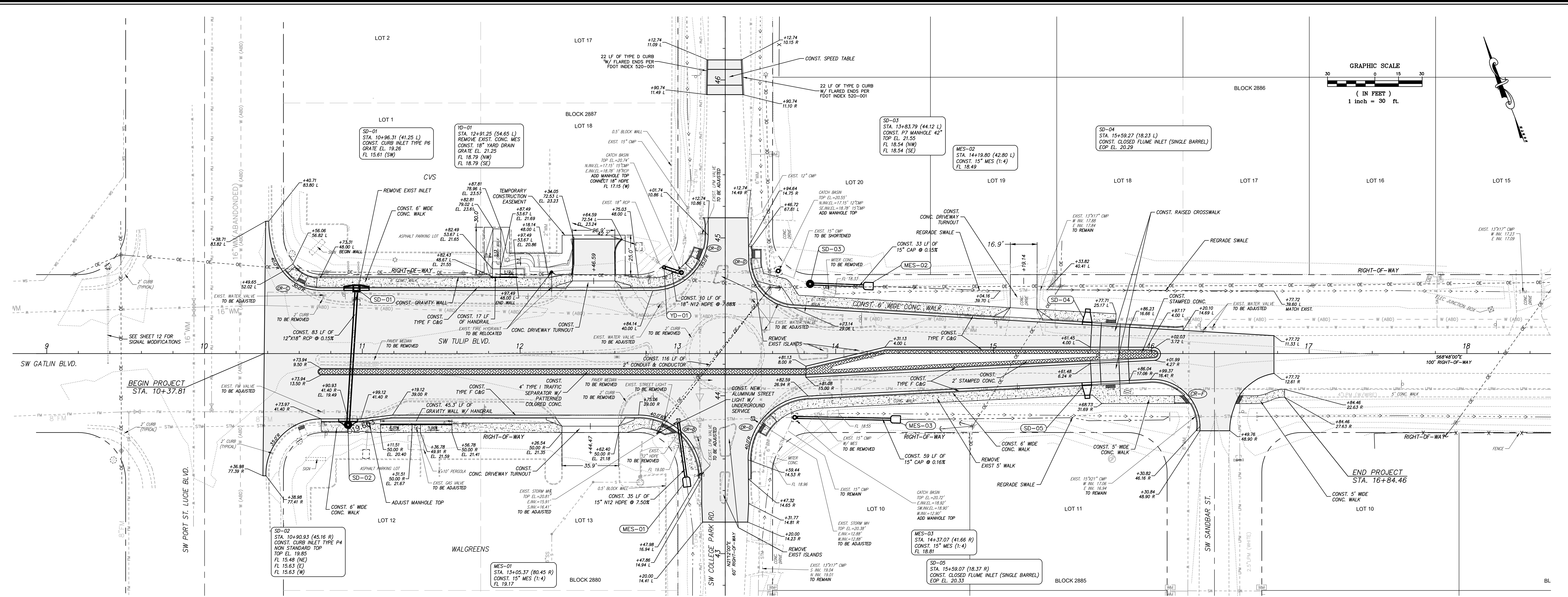
DETAILS

DESIGNED: _____
 BY: _____
 DATE: 03/10/23

CHECKED: SKM
 APPROVED: SKM

DATE: 06/26/2023
 HORIZ. SCALE: 1"=5'
 VERT. SCALE: 1"=5'
 JOB NO. 20-247.002
 SHEET 4 of 12

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PLUSD PROJECT NO. _____ CITY OF PSL PROJECT NO. P22-_____ STEFAN K. MATTHEWS, P.E. FL. REG. NO. 38723



NOTES:
1) ALL ELEVATIONS AND BENCHMARKS SHOWN HEREON ARE RELATIVE TO THE NORTH AMERICAN VERTICAL DATUM (N.A.V.D.) OF 1988.

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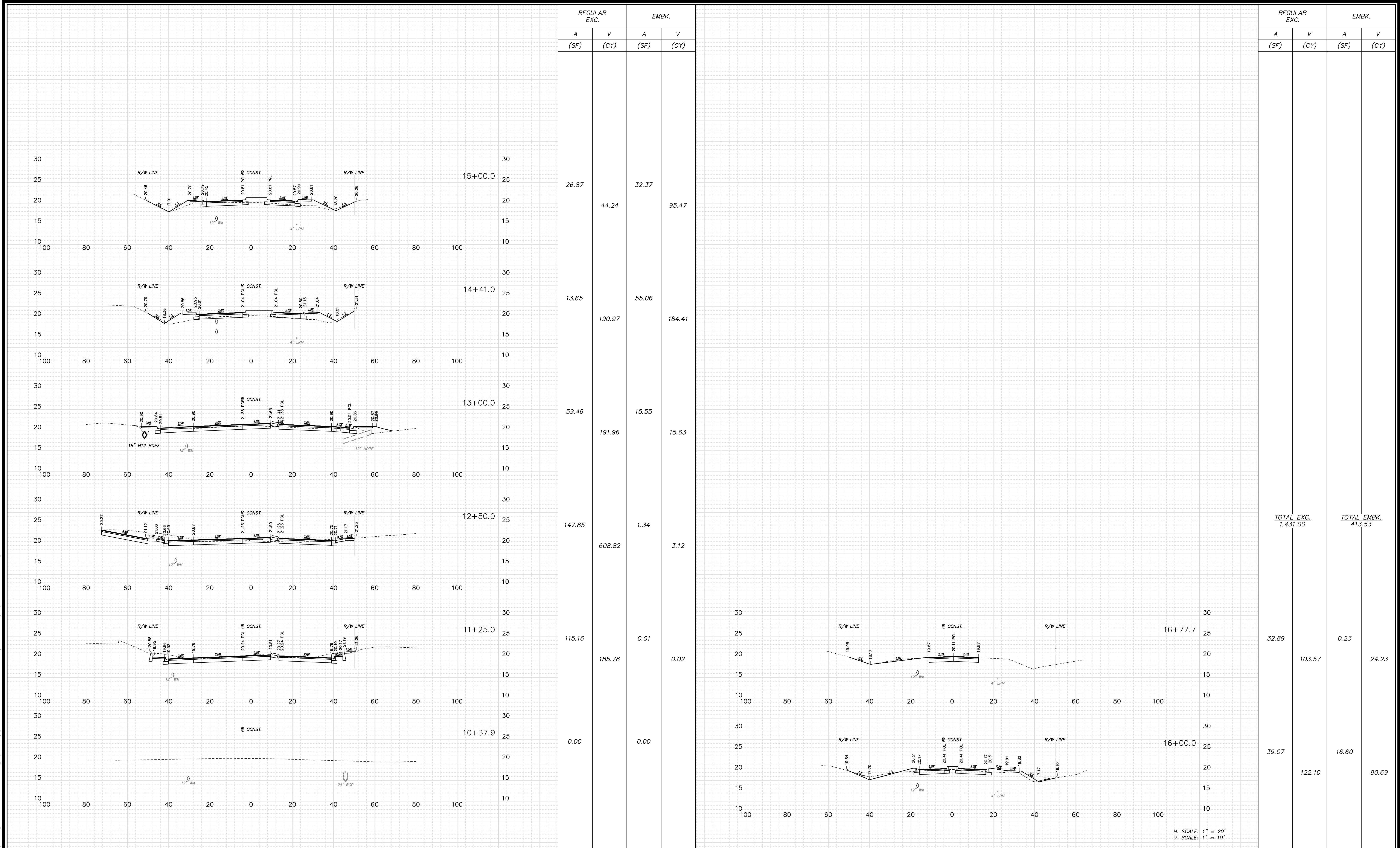
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- REVISIONS -		BY	DATE

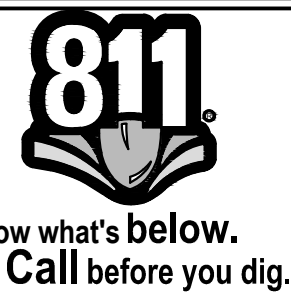
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CALCS.		
DRAWN	DRP	03/10/23
DETAILED		
CHECKED		
APPROVED	SKM	

TULIP BLVD / COLLEGE PARK RD. INTERSECTION IMPROVEMENTS PROJECT
ROADWAY PLAN & PROFILE SHEET

DATE: 06/26/2023
 HORIZ. SCALE: 1"=30'
 VERT. SCALE: 1"=3'
 JOB NO. 20-247.002
 SHEET 5 of 12



H. SCALE: 1" = 20'
V. SCALE: 1" = 10'



NOTES:
1) ALL ELEVATIONS AND BENCHMARKS SHOWN HEREON ARE RELATIVE TO THE NORTH AMERICAN VERTICAL DATUM (N.A.V.D.) OF 1988.

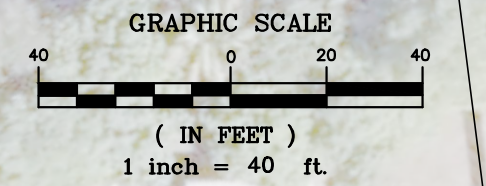
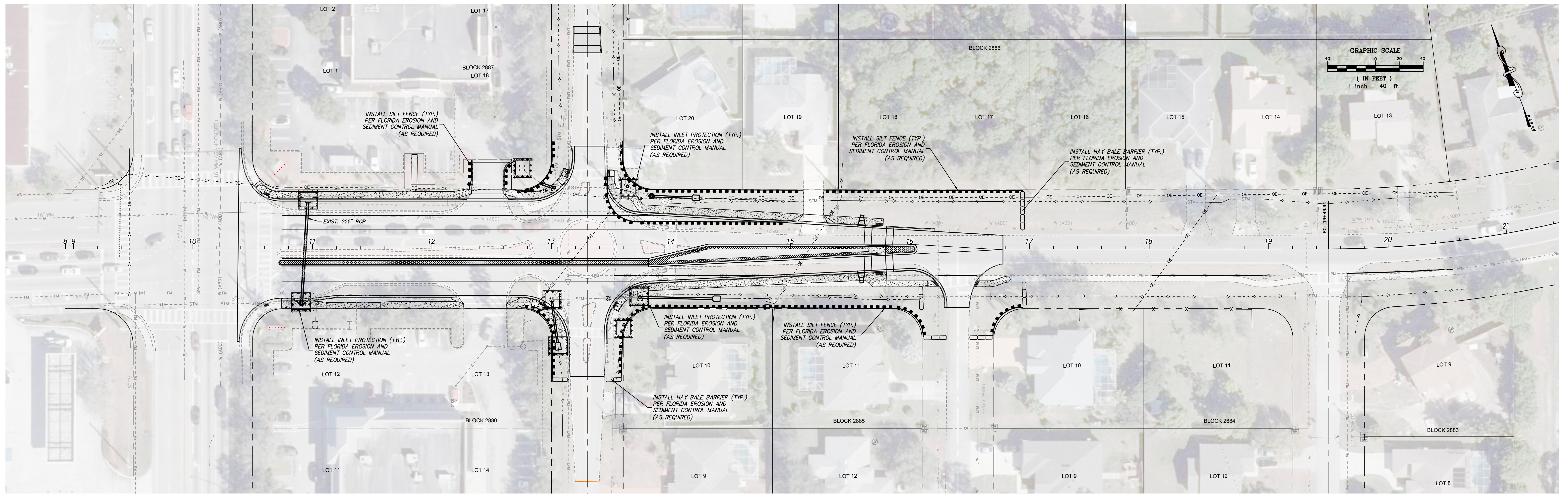
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DESIGNED	BY	DATE
CALCS.		
DRAWN	DRP	03/10/23
DETAILED		
CHECKED		
APPROVED	SKM	

TULIP BLVD / COLLEGE PARK RD. INTERSECTION IMPROVEMENTS PROJECT
ROADWAY CROSS SECTIONS



LEGEND

- DENOTES INLET PROTECTION PER FLORIDA EROSION AND SEDIMENT CONTROL MANUAL
- DENOTES STAKED SILT FENCE PER FLORIDA EROSION AND SEDIMENT CONTROL MANUAL
- DENOTES FLOATING TURBIDITY BARRIER PER FLORIDA EROSION AND SEDIMENT CONTROL MANUAL
- DENOTES HAY BALE BARRIER PER FLORIDA EROSION AND SEDIMENT CONTROL MANUAL

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PSLUSD PROJECT NO. _____
 CITY OF PSL PROJECT NO. P22-_____

STEFAN K. MATTHEWS, P.E.
 FL. REG. NO. 38723



NOTES:
 1) ALL ELEVATIONS AND BENCHMARKS SHOWN HEREON ARE RELATIVE TO THE NORTH AMERICAN VERTICAL DATUM (N.A.V.D.) OF 1988.

COMPUTER FILE REF.	FIELD BK./PG.

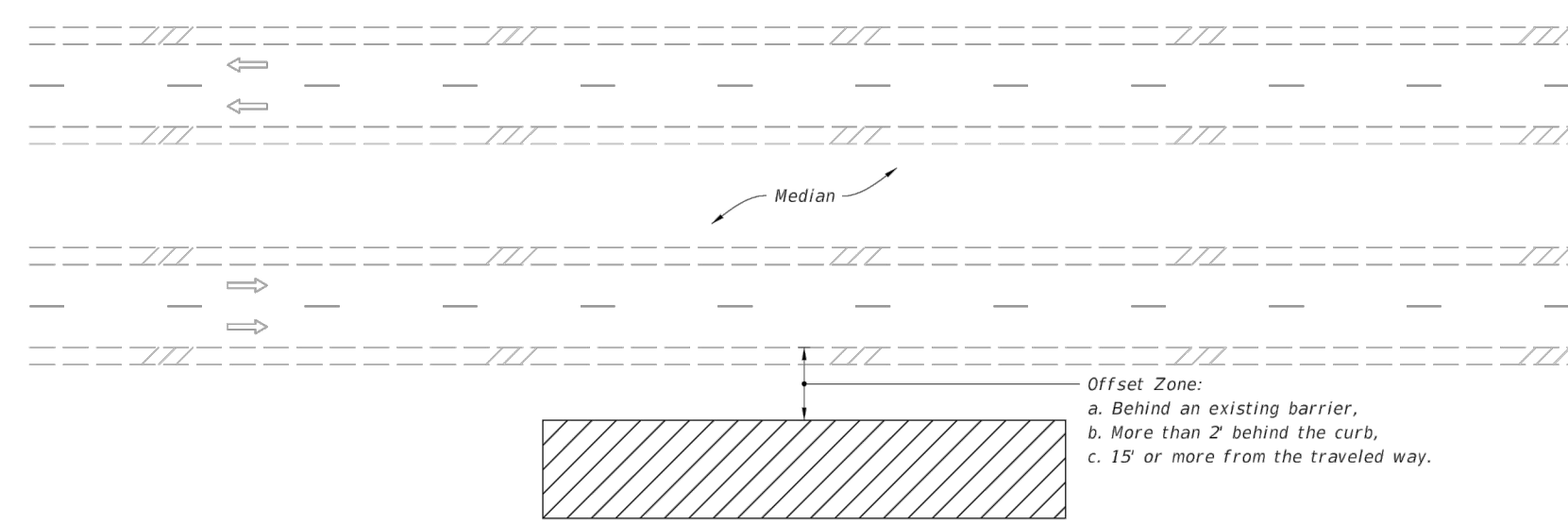
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APPROVED	SKM	

**TULIP BLVD / COLLEGE PARK RD.
 INTERSECTION IMPROVEMENTS PROJECT
 STORMWATER POLLUTION PREVENTION
 PLAN**

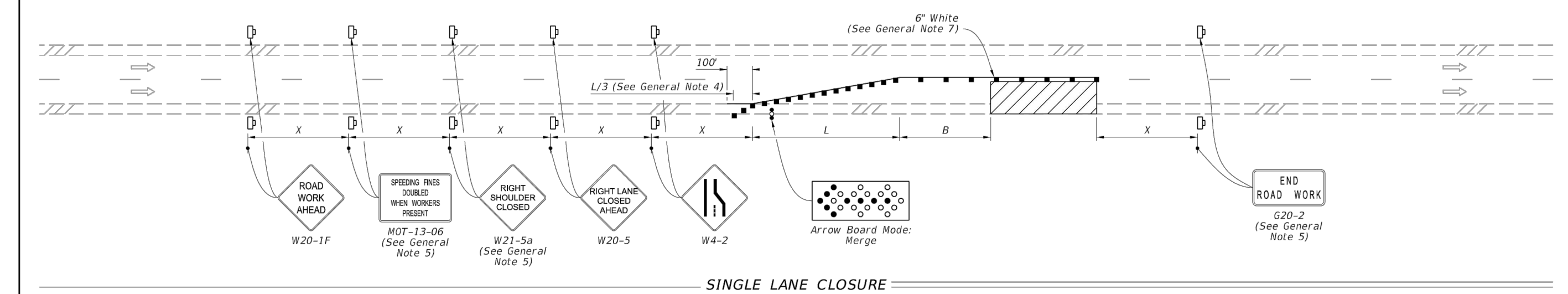
DATE: 06/26/2023
 HORIZ. SCALE: SCALE
 VERT. SCALE: SCALE
 JOB No. 20-247.002
 SHEET **7** of 12



MULTILANE ROADWAY SHOWN, TWO-LANE ROADWAY SIMILAR

- NOTES:**
- This Index applies to Two-Lane, Two-Way and Multilane Roadways, including Medians of divided roadways, with work beyond the shoulder.
 - Use Index 102-602 when the work operation (excluding establishing and terminating the work area) requires that two or more work vehicles cross the Offset Zone in any one hour period.
 - Use Index 102-660 when Work Area encroaches a Sidewalk.
- SYMBOLS:**
- Work Area
 - Lane Identification and Direction of Traffic

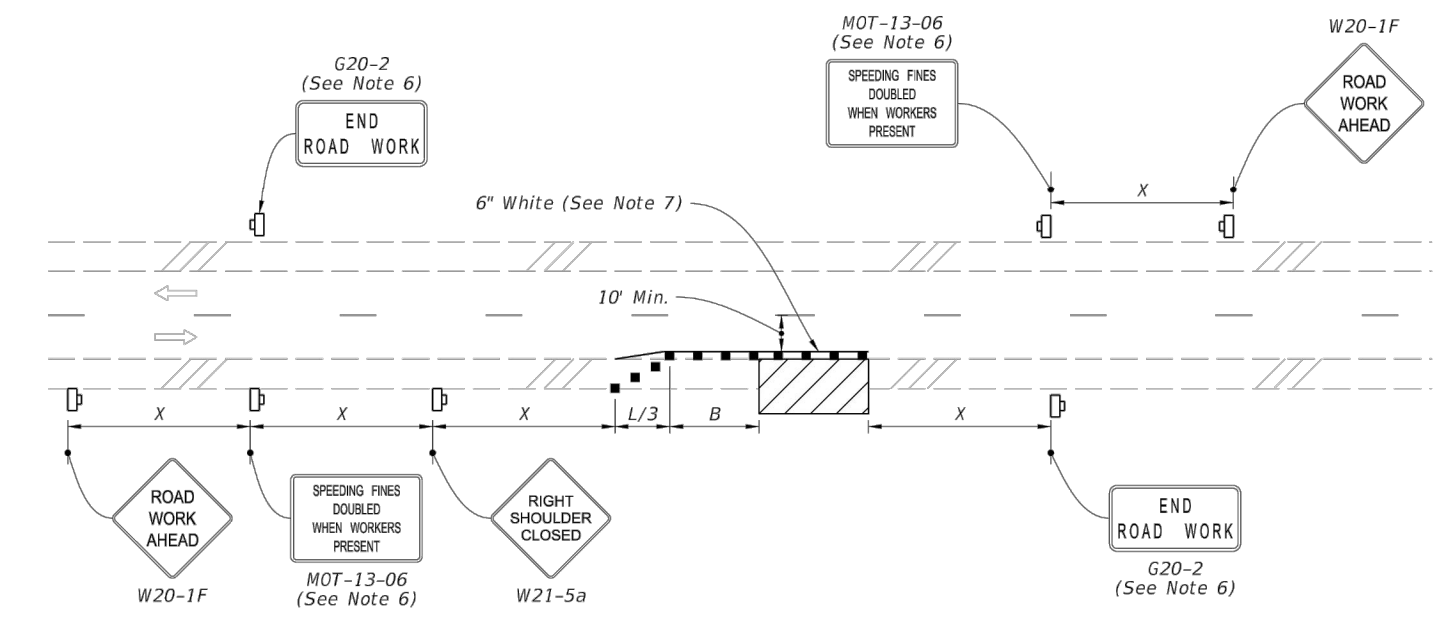
LAST REVISION 11/01/20	DESCRIPTION:	FY 2023-24 STANDARD PLANS	TWO-LANE AND MULTILANE ROADWAY, WORK BEYOND THE SHOULDER	INDEX 102-601	SHEET 1 of 1
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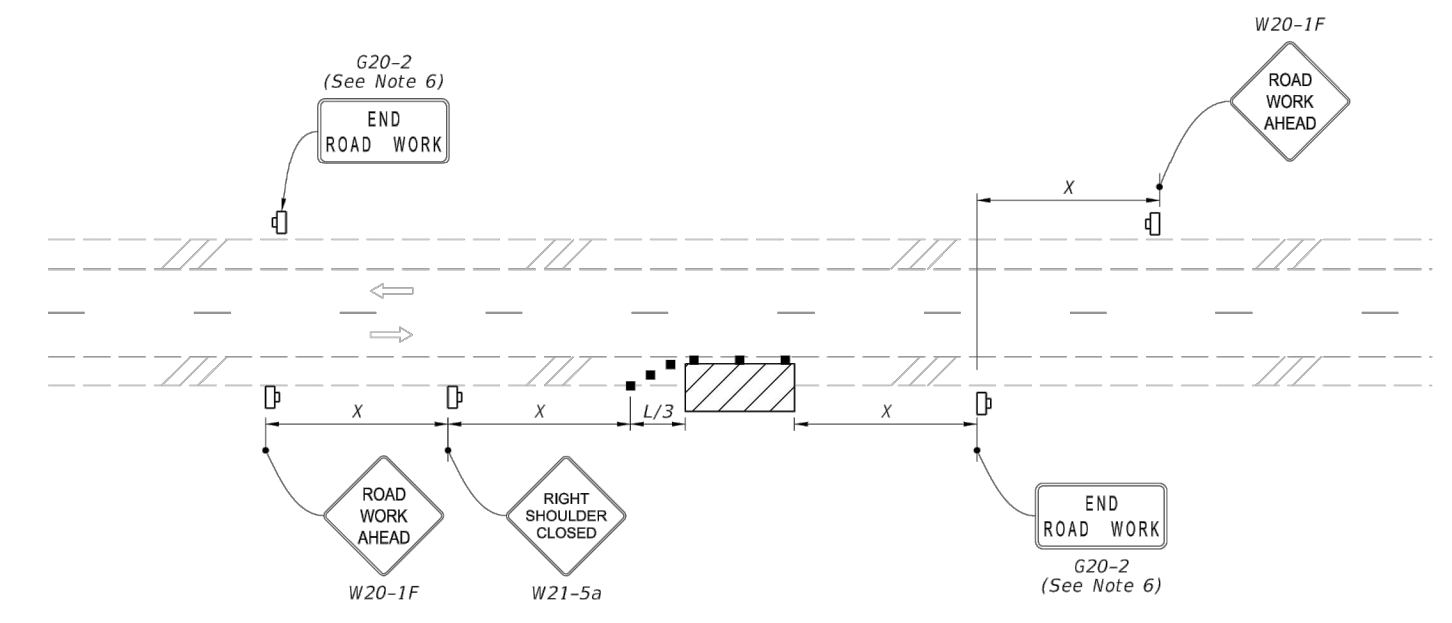
- SYMBOLS:**
- Work Area
 - Channelizing Device (See Index 102-600)
 - Work Zone Sign
 - Arrow Board
 - Lane Identification and Direction of Traffic
- GENERAL NOTE:**
- L = Taper Length
B = Buffer Length
X = Work Zone Sign Distance
See Index 102-600 for "L", "B", "X", and channelizing device spacing values.
 - On undivided highways the median signs as shown are to be omitted.
 - On limited access facilities, omit "Right Shoulder Closed" signs (W21-5a) and associated work zone sign spacing distances.
 - If the paved shoulder is less than 4' in width, omit the taper and channelizing devices from the paved shoulder.
 - The "Speeding Fines Doubled When Workers Present" signs (MOT-13-06) and "End Road Work" signs (G20-2) and "Right Shoulder Closed" (W21-5a), along with associated work zone sign spacing distances, may be omitted when the work operation will be in place for 24 hours or less. For Single Lane Closures, arrow boards and buffer (B) may also be omitted when the work operation will be in place for 60 minutes or less and the speed limit is 45 mph or less.
 - Use inverted plan of the illustrations for work on left side of roadways.
 - Temporary pavement markings may be omitted when the work operation is in place for 3 days or less.

LAST REVISION 11/01/21	DESCRIPTION:	FY 2023-24 STANDARD PLANS	MULTILANE ROADWAY, LANE CLOSURES	INDEX 102-613	SHEET 1 of 5
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- NOTE:**
- This Index applies to Two-Lane, Two-Way and Multilane Roadways, including Medians of divided roadways, with work on the shoulder.
 - L = Taper Length
X = Work Zone Sign Spacing
B = Buffer Length
See Index 102-600 for "L", "B", "X", and channelizing device spacing values.
 - Where work activities are between 2' and 15' from the edge of traveled way, the Engineer may omit signs and channelizing devices for work operations 60 minutes or less.
 - When four or more work vehicles enter the through traffic lanes in a one hour period (excluding establishing and terminating the work area), use a flagger or lane closure to accommodate work vehicle ingress and egress.
 - For work less than 2' from the traveled way and work zone speed is greater than 45 MPH, use a lane closure.
 - The "Speeding Fines Doubled When Workers Present" signs (MOT-13-06) and "End Road Work" signs (G20-2) along with the associated work zone sign spacing distances may be omitted when the work operation is in place for 24 hours or less.
 - Temporary pavement markings may be omitted when the work operation is in place for 3 days or less.
 - Omit "Shoulder Closed" signs (W21-5a) along with associated work zone sign spacing distances for work on the median.
 - When there is no paved shoulder, the "Worker" sign (W21-1) may be used instead of the "Shoulder Closed" sign (W21-5a).



TWO-LANE ROADWAY
SHOULDER WORK LESS THAN 2' FROM THE TRAVELED WAY
WITH WORK ZONE SPEED OF 45 MPH OR LESS

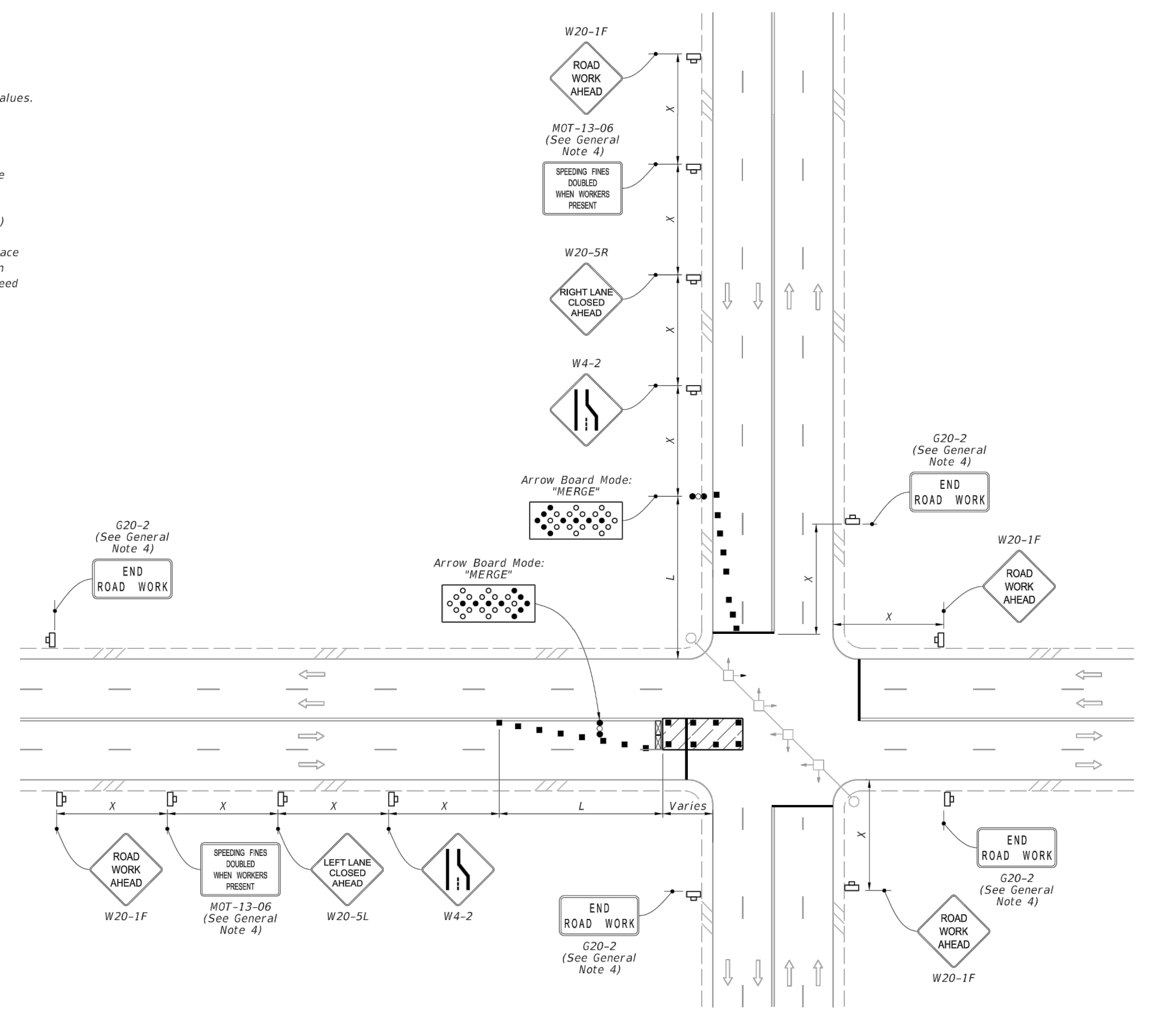


TWO-LANE ROADWAY
SHOULDER WORK BETWEEN 2' AND 15' FROM THE TRAVELED WAY

- SYMBOLS:**
- Work Area
 - Channelizing Device (See Index 102-600)
 - Work Zone Sign
 - Lane Identification and Direction of Traffic

LAST REVISION 11/01/21	DESCRIPTION:	FY 2023-24 STANDARD PLANS	TWO-LANE AND MULTILANE, WORK ON SHOULDER	INDEX 102-602	SHEET 1 of 2
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- GENERAL NOTES:**
- L = Taper Length
B = Buffer Length
X = Work Zone Sign Distance
See Index 102-600 for "L", "B", "X", and channelizing device spacing values.
 - If vehicles in a parking zone block the line of sight to TCZ signs, locate and post mount signs in accordance with Index 700-101.
 - Use temporary "STOP" sign (R1-1) where the existing stop bar is more than 30' from the taper, remove or cover existing sign.
 - The "Speeding Fines Doubled When Workers Present" sign (MOT-13-06) and "End Road Work" Sign (G20-2), along with associated Work Zone Sign Distances, may be omitted when the work operation will be in place for 24 hours or less. Additionally, arrow boards may be omitted when the work operation will be in place for 60 minutes or less and the speed limit is 45 mph or less.
 - If the work area extends across a crosswalk, close the crosswalk in accordance with Index 102-660.
 - Dual signs are required for divided roadways.



WORK IN INTERSECTION OF MULTILANE ROADWAY

- SYMBOLS:**
- Work Area
 - Channelizing Device (See Index 102-600)
 - Work Zone Sign
 - Type IIII Barricade
 - Arrow Board
 - Stop Bar
 - Lane Identification and Direction of Traffic

LAST REVISION 11/01/22	DESCRIPTION:	FY 2023-24 STANDARD PLANS	MULTILANE ROADWAY, INTERSECTION WORK	INDEX 102-615	SHEET 1 of 5
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PLUSD PROJECT NO. _____
CITY OF PSL PROJECT NO. P22-_____



NOTES:
1) ALL ELEVATIONS AND BENCHMARKS SHOWN HEREON ARE RELATIVE TO THE NORTH AMERICAN VERTICAL DATUM (N.A.V.D.) OF 1988.

COMPUTER FILE REF.	FIELD BK./PG.

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- REVISIONS -		BY	DATE

DESIGNED	BY	DATE
CALCS.		
DRAWN	DRP	03/10/23
CHECKED		
APPROVED	SKM	

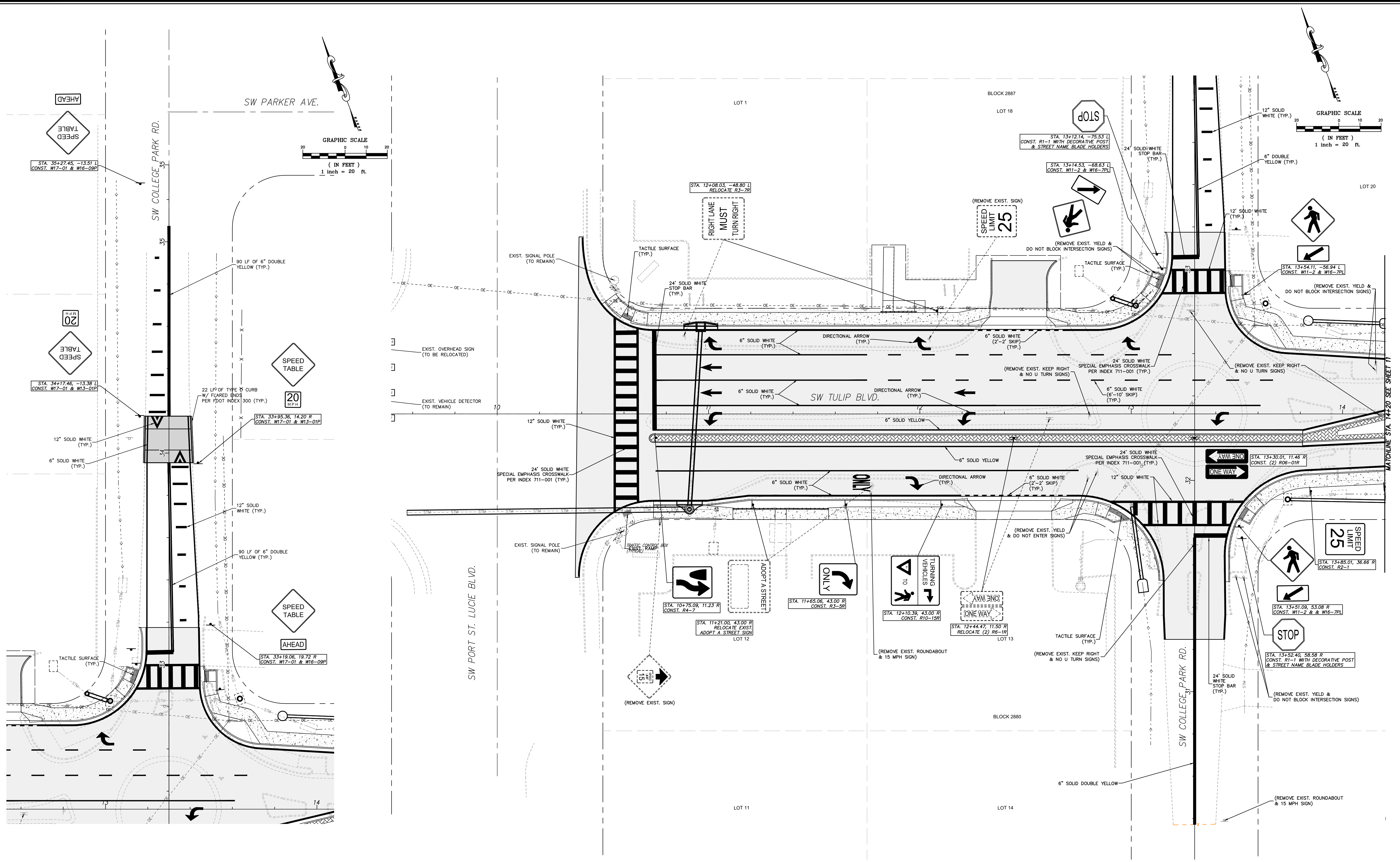
**TULIP BLVD / COLLEGE PARK RD.
INTERSECTION IMPROVEMENTS PROJECT**

TEMPORARY TRAFFIC CONTROL DETAILS

DATE: 06/26/2023
HORIZ. SCALE: N/A
VERT. SCALE: N/A
JOB NO. 20-247.002
SHEET 9 of 12

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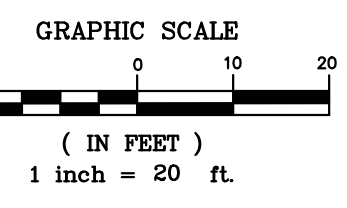
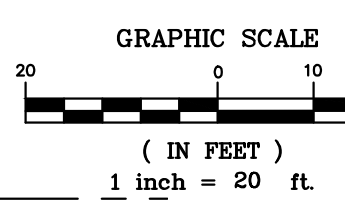
SW PARKER AVE.

SW COLLEGE PARK RD.

SW TULIP BLVD.

SW PORT ST. LUCIE BLVD.

SW COLLEGE PARK RD.



NOTES:
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COMPUTER FILE REF.	FIELD BK./PG.

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- REVISIONS -		BY	DATE

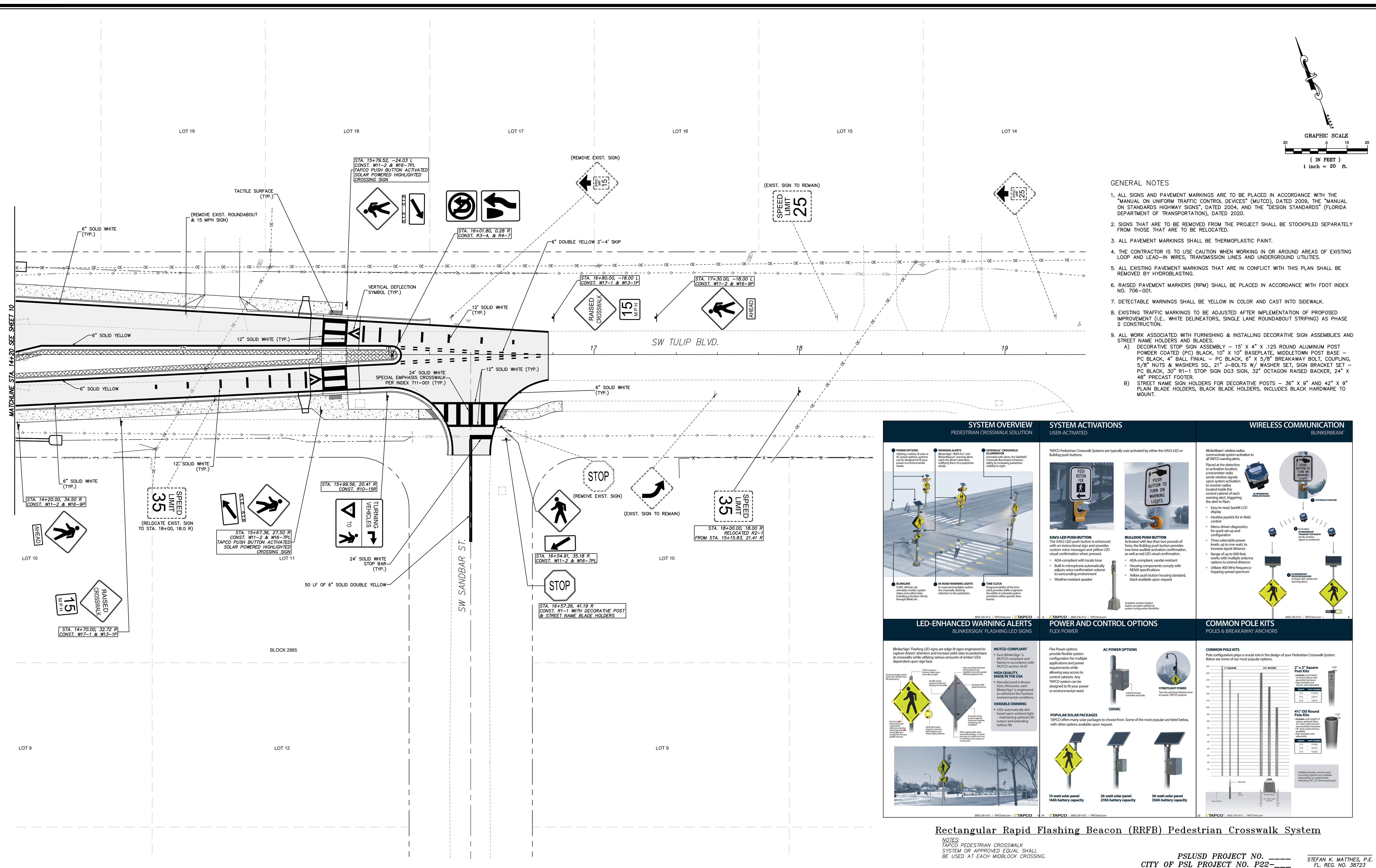
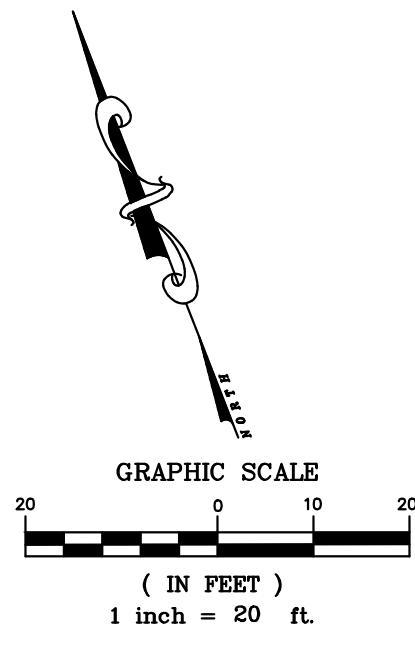
DESIGNED	BY	DATE

TULIP BLVD / COLLEGE PARK RD. INTERSECTION IMPROVEMENTS PROJECT
SIGNING AND PAVEMENT MARKING PLAN

DATE: 06/26/2023
HORIZ. SCALE: SCALE
VERT. SCALE: SCALE
JOB NO. 20-247.002
SHEET 10 of 12

PSLUSD PROJECT NO. _____ CITY OF PSL PROJECT NO. P22-_____ STEFAN K. MATTHEWS, P.E. FL. REG. NO. 38723





- GENERAL NOTES**
- ALL SIGNS AND PAVEMENT MARKINGS ARE TO BE PLACED IN ACCORDANCE WITH THE "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES" (MUTCD), DATED 2009, THE "MANUAL ON STANDARDS HIGHWAY SIGNS", DATED 2004, AND THE "DESIGN STANDARDS" (FLORIDA DEPARTMENT OF TRANSPORTATION), DATED 2020.
 - SIGNS THAT ARE TO BE REMOVED FROM THE PROJECT SHALL BE STOCKPILED SEPARATELY FROM THOSE THAT ARE TO BE RELOCATED.
 - ALL PAVEMENT MARKINGS SHALL BE THERMOPLASTIC PAINT.
 - THE CONTRACTOR IS TO USE CAUTION WHEN WORKING IN OR AROUND AREAS OF EXISTING LOOP AND LEAD-IN WIRES, TRANSMISSION LINES AND UNDERGROUND UTILITIES.
 - ALL EXISTING PAVEMENT MARKINGS THAT ARE IN CONFLICT WITH THIS PLAN SHALL BE REMOVED BY HYDROBLASTING.
 - RAISED PAVEMENT MARKERS (RPM) SHALL BE PLACED IN ACCORDANCE WITH FDOT INDEX NO. 706-001.
 - DETECTABLE WARNINGS SHALL BE YELLOW IN COLOR AND CAST INTO SIDEWALK.
 - EXISTING TRAFFIC MARKINGS TO BE ADJUSTED AFTER IMPLEMENTATION OF PROPOSED IMPROVEMENT (I.E. WHITE DELINEATORS, SINGLE LANE ROUNDABOUT STRIPING) AS PHASE 2 CONSTRUCTION.
 - ALL WORK ASSOCIATED WITH FURNISHING & INSTALLING DECORATIVE SIGN ASSEMBLIES AND STREET NAME HOLDERS AND BLADES.
 - DECORATIVE STOP SIGN ASSEMBLY - 15" X 4" X .125 ROUND ALUMINUM POST POWDER COATED (PC) BLACK, 10" X 10" BASEPLATE, MIDDLETOWN POST BASE - PC BLACK, 4" BALL FINAL - PC BLACK, 8" X 5/8" BREAKAWAY BOLT, COUPLING, 5/8" NUTS & WASHERS SQ., 21" U-BOLTS W/ WASHER SET, SIGN BRACKET SET - PC BLACK, 30" R1-1 STOP SIGN D63 SIGN, 32" OCTAGON RAISED BACKER, 24" X 48" PRECAST FOOTER.
 - STREET NAME SIGN HOLDERS FOR DECORATIVE POSTS - 36" X 9" AND 42" X 9" PLAIN BLADE HOLDERS, BLACK BLADE HOLDERS, INCLUDES BLACK HARDWARE TO MOUNT.

SYSTEM OVERVIEW

PEDESTRIAN CROSSWALK SOLUTION

- POWER OPTIONS** - Utilizing a variety of solar or AC power options, systems can be designed to fit your power or environmental needs.
- WARNING ALERTS** - BlinkerSign's RFB's LED and Buzzer/Warning Alerts can be designed to fit your power or environmental needs.
- SAFETY/LED CROSSWALK ILLUMINATION** - Activated with LEDs, the "SoftWalk" Crosswalk Illuminator enhances visibility at night.
- BLINKER** - Traffic officials can receive real-time data, including vehicle counts, through BLE/LiFi.
- IN-ROAD WARNING LIGHTS** - To increase driver attention to the pedestrian, the system can be designed to include in-road warning lights.
- TIME CLOCK** - Program the timing of the time clock to activate the system when needed.

SYSTEM ACTIVATIONS

USER-ACTIVATED

- TAPCO Pedestrian Crosswalk Systems** are typically user-activated by either the XAVZ LED or Bulldog push buttons.
- XAVZ-LED PUSH BUTTON** - The XAVZ LED push button is enhanced with an instructional sign and provides custom voice message and yellow LED visual confirmation when pressed.
 - ADA compliant with tactile tone
 - Built-in microphone automatically adjusts voice confirmation volume to surrounding environment
 - Weather-resistant speaker
- BULLDOG PUSH BUTTON** - Activated with less than two pounds of force, the Bulldog push button provides one-tone audible activation confirmation, as well as red LED visual confirmation.
 - ADA compliant, vandal resistant
 - Housing components comply with NEMA specifications
 - Yellow push button housing standard, black available upon request

WIRELESS COMMUNICATION

BLINKERBEAM

BlinkerBeam's wireless radios communicate system activation to all TAPCO warning alerts.

Placed at the detection or activation location, a transmitter radio sends wireless signals upon system activation to receiver radios located inside the control cabinet of each warning alert, triggering the alert to flash.

- Easy to read, backlit LED display
- Intuitive joystick for in-field control
- Menu-driven diagnostics for quick set-up and configuration
- Three selectable power levels, up to one-watt to increase signal distance
- Range of up to 900 feet, works with multiple antenna options to extend distance
- Utilizes 900 MHz frequency-hopping spread spectrum

LED-ENHANCED WARNING ALERTS

BLINKER'S FLASHING LED SIGNS

BlinkerSign's Flashing LED signs are edge-lit signs engineered to capture driver attention and increase yield rates to pedestrians at crosswalks while utilizing various amounts of amber LEDs.

- Each BlinkerSign's MUTCD compliant and flashes in accordance with MUTCD section 2A.07
- HIGH QUALITY, MADE IN THE USA** - Manufactured in Brown Deer, Wisconsin, each BlinkerSign is engineered to withstand the harshest environmental conditions.
- VARIABLE DIMMING** - LEDs automatically dim based upon ambient light, maintaining optimal LED output and extending battery life.

POWER AND CONTROL OPTIONS

FLEX POWER

Flex Power options provide flexible system configuration for multiple applications and power requirements while allowing easy access to control cabinets.

TAPCO system can be designed to fit your power or environmental need.

- AC POWER OPTIONS** - Cabinet houses standard AC power.
- STREETLIGHT POWER** - Tapco integrates with streetlights to power TAPCO systems.
- 120VAC** - Cabinet houses standard AC power.
- POPULAR SOLAR PACKAGES** - TAPCO offers many solar packages to choose from. Some of the most popular are listed below, with other options available upon request.
 - 13-watt solar panel, 14Ah battery capacity
 - 26-watt solar panel, 27Ah battery capacity
 - 30-watt solar panel, 35Ah battery capacity

COMMON POLE KITS

POLES & BREAKAWAY ANCHORS

Common Pole Kits Pole configuration plays a crucial role in the design of your Pedestrian Crosswalk System. Below are some of our most popular options.

- 2" Pole Kit** - 2" pole kit with 4' height, 1" diameter, 100 lb breakaway anchor.
- 4" Pole Kit** - 4" pole kit with 4' height, 1.5" diameter, 150 lb breakaway anchor.
- 4" Pole Kit** - 4" pole kit with 6' height, 1.5" diameter, 150 lb breakaway anchor.
- 4" Pole Kit** - 4" pole kit with 8' height, 1.5" diameter, 150 lb breakaway anchor.
- 4" Pole Kit** - 4" pole kit with 10' height, 1.5" diameter, 150 lb breakaway anchor.

Rectangular Rapid Flashing Beacon (RRFB) Pedestrian Crosswalk System

NOTES:
TAPCO PEDESTRIAN CROSSWALK SYSTEM OR APPROVED EQUAL SHALL BE USED AT EACH MIDDLEBLOCK CROSSING.

PLUSD PROJECT NO. _____
CITY OF PSL PROJECT NO. P22-_____

STEFAN K. MATTHEWS, P.E.
FL. REG. NO. 38723



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COMPUTER FILE REF.	FIELD BK./PG.

CULPEPPER & TERPENING INC
2980 SOUTH 25th STREET • FORT PIERCE, FLORIDA 34981
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STATE OF FLORIDA BOARD OF PROFESSIONAL ENGINEERS AUTHORIZATION NO. 4286

- REVISIONS -		BY	DATE

DESIGNED	BY	DATE
CALCS.		
DRAWN	DRP	03/10/23
DETAILED		
CHECKED		
APPROVED	SKM	

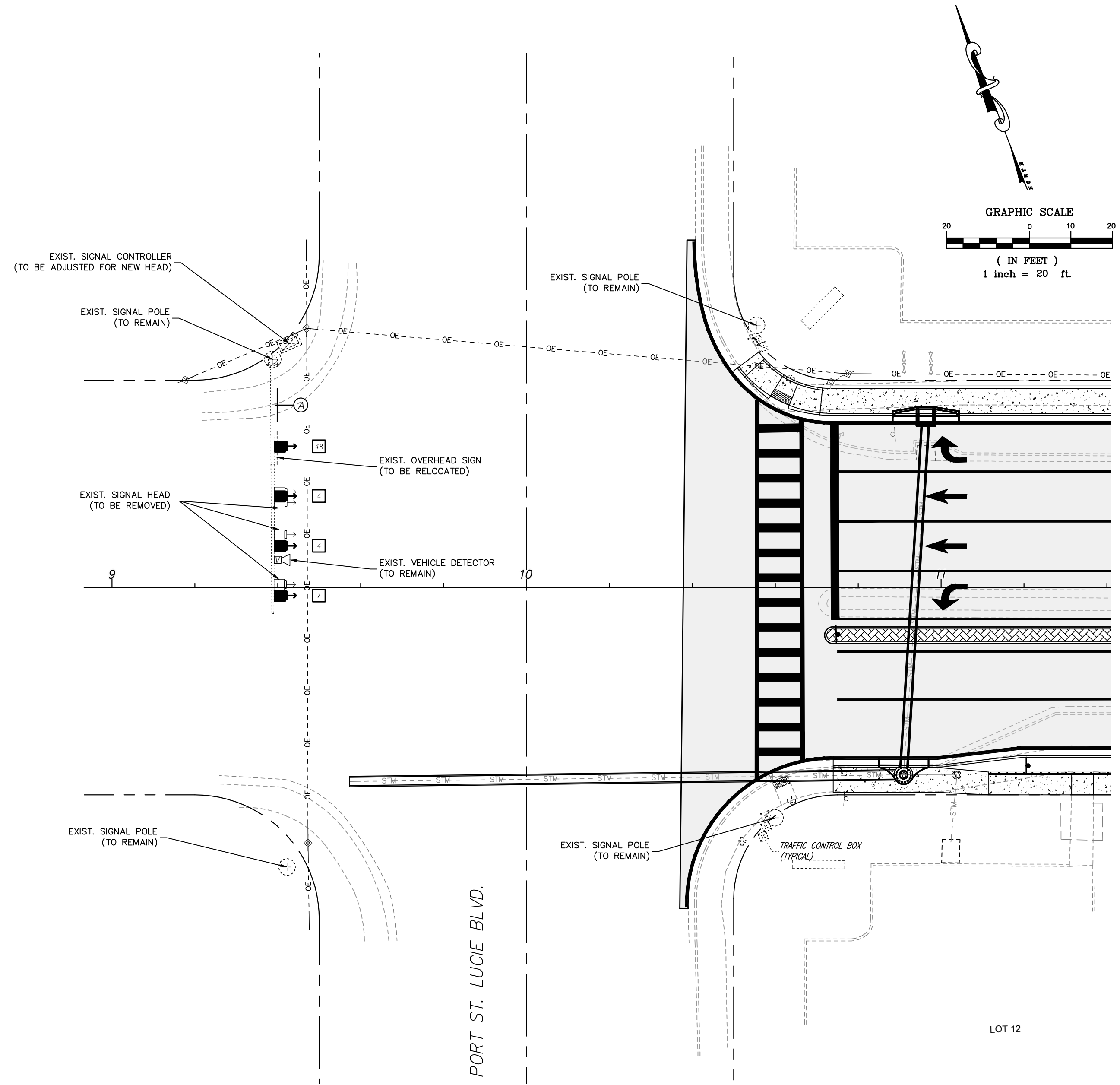
TULIP BLVD / COLLEGE PARK RD. INTERSECTION IMPROVEMENTS PROJECT

SIGNING AND PAVEMENT MARKING PLAN

DATE: 06/26/2023
HORIZ. SCALE: SCALE
VERT. SCALE: SCALE
JOB NO. 20-247.002
SHEET 11 of 12

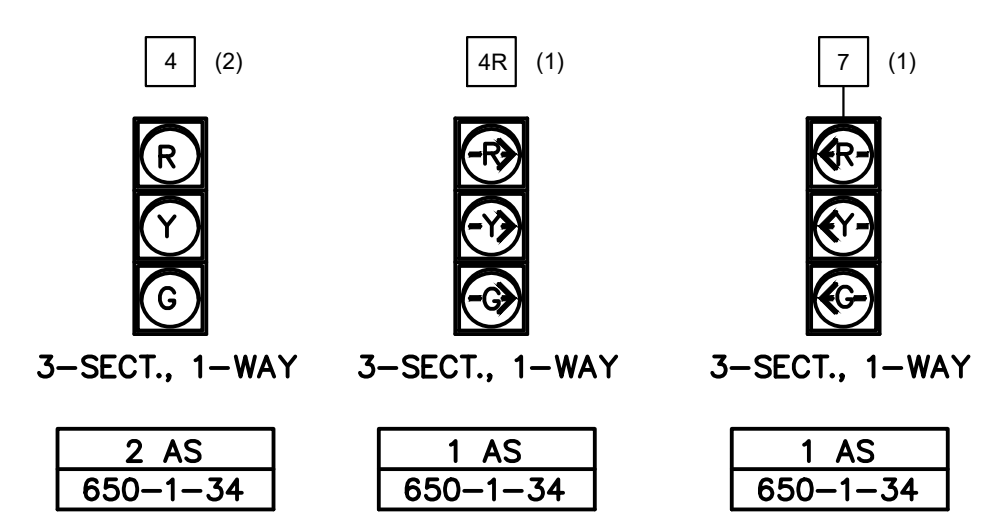
SIGNAL OPERATION AND GENERAL NOTES

- MAJOR STREET IS PORT ST. LUCIE BLVD. (MOVEMENTS 2 AND 6), AND MINOR STREETS ARE GATLIN BLVD. AND TULIP BLVD. (MOVEMENTS 4 AND 8).
- DURING EMERGENCY OPERATION PHASES 2 AND 6 ARE TO FLASH YELLOW AND PHASES 4 AND 8 ARE TO FLASH RED.
- THE CONTRACTOR SHALL NOTIFY THE CITY OF PORT ST. LUCIE PUBLIC WORKS DEPT. NO LATER THAN TWO (2) FULL BUSINESS DAYS IN ADVANCE OF ANY WORK TO BE CARRIED OUT AT ANY SIGNAL. 772-871-5177.
- IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO OBTAIN A #8 KEY FROM THE TRAFFIC OPERATIONS COMPOUND AT 821 DWYER AVE TO ACCESS ANY OPERATIONAL TRAFFIC CABINET.
- THE CONTRACTOR IS TO USE CAUTION WHEN WORKING IN OR AROUND ALL EXISTING UTILITIES, INCLUDING OVERHEAD POWER LINES.
- FOR PROGRAMED FLASH OPERATION, THE MAJOR STREET IS TO FLASH YELLOW AND THE MINOR STREET IS TO FLASH RED.
- THE APPROPRIATE UTILITY COMPANY SHALL BE NOTIFIED BY THE CONTRACTOR FORTY-EIGHT (48) HOURS IN ADVANCE OF ANY EXCAVATION INVOLVING ITS UTILITIES SO THAT A COMPANY REPRESENTATIVE CAN BE PRESENT.
- LOCATIONS OF UTILITIES SHOWN ON THE PLANS ARE APPROXIMATE ONLY. THE EXACT LOCATION SHALL BE DETERMINED BY THE CONTRACTOR PRIOR TO EXCAVATION.
- CONTACT SUNSHINE ONE CALL OF FLORIDA AT 811 OR SUNSHINEB11.COM AT LEAST TWO (2) FULL BUSINESS DAYS BEFORE DIGGING.
- THE CONTROLLER SHALL OPERATE AN APPROVED FLORIDA D.O.T. SIGNAL OPERATING PLAN.
- ALL SIGNALS SHALL BE EQUIPPED WITH AN UNINTERRUPTABLE POWER SUPPLY (UPS), AN ALPHA NOVUS PSM 2000 IN A NOVUS FORTEX FX 200 CABINET MOUNTED ON A CONCRETE PAD ALONGSIDE THE CONTROLLER FOUNDATION AND HAVE A NETWORK INTERFACE CARD INSTALLED AND CONFIGURED.
- ALL PATCH CABLES, SPLITTERS AND MISC. MATERIALS REQUIRED FOR THE INSTALLATION OF TRAFFIC MONITORING EQUIPMENT SHALL BE FURNISHED AND INSTALLED BY THE CONTRACTOR. INSTALLED PATCH CABLE SHALL MATCH EXISTING PATCH CABLE DIMENSIONS AND TYPE. ANY DEVIATIONS SHALL BE APPROVED BY TRAFFIC DIVISION.
- ALL SIGNAL HEADS SHALL HAVE BACK PLATES INSTALLED USING ALL NECESSARY HARDWARE ACCORDING TO LATEST FOOT STANDARDS.
- CONTRACTOR SHALL NOT USE WIRE NUTS ANYWHERE WITHIN THE CONTROLLER CABINET, STREET LIGHT CIRCUIT OR SIGNAL CIRCUIT. APPROVED CONNECTIONS ARE TERMINAL STRIPS, WATER TIGHT BUTT SPLICES (RUBBER TAPE ELECTRICAL TAPE, SCOTCH COTE) AND SPLIT BOLTS.
- ALL GROUND WIRING WITHIN PULL BOXES REQUIRING TERMINATION TO GROUND ROD SHALL BE ATTACHED USING CAD WELD IGNITORS.
- SIGNAL CONDUCTOR WITHIN CONTROLLER CABINET SHALL COMPLETELY ENCIRCLE INSIDE OF CABINET BEFORE TERMINATION TO ALLOW SLACK FOR KNOCK DOWNS.
- ALL SPARE SIGNAL CONDUCTOR WITHIN CONTROLLER CABINET SHALL BE TERMINATED DIRECTLY TO GROUND/NEUTRAL BARS.
- ANTI SEIZE SHALL BE USED ON ALL MOUNTING HARDWARE FOR SIGNAL/CAMERA BRACKETS.
- IN ADDITION TO THE ABOVE GENERAL NOTES, IT SHALL BE THE RESPONSIBILITY OF THE DESIGN ENGINEER TO ENSURE ADDITIONAL GENERAL NOTES AND PAY ITEM FOOT NOTES SPECIFIC TO THE PROJECT ARE INCLUDED IN THE CONSTRUCTION PLANS AND SUBMITTED FOR CITY APPROVAL.
- SIGNAL CONDUCTOR SHALL PASS THROUGH HOLE IN PELCO/ASTRO MOUNTING BRACKET INTO SIGNAL MOUNTING PIPE AND INTO SIGNAL SO CABLE IS NOT EXPOSED TO THE ELEMENTS.
- ALL SIGNAL CONDUCTOR WITHIN THE UPRIGHT HAND HOLE AND CONTROLLER CABINET SHALL BE PROPERLY LABELED USING FLAG TIE WRAPS.
- ALL SIGNAL UPRIGHT HAND HOLES SHALL HAVE TERMINAL STRIPS INSTALLED FOR THE TERMINATION OF SIGNAL CONDUCTOR FROM THE CONTROLLER CABINET TO THE SIGNAL HEADS/PEDESTRIAN SIGNALS.

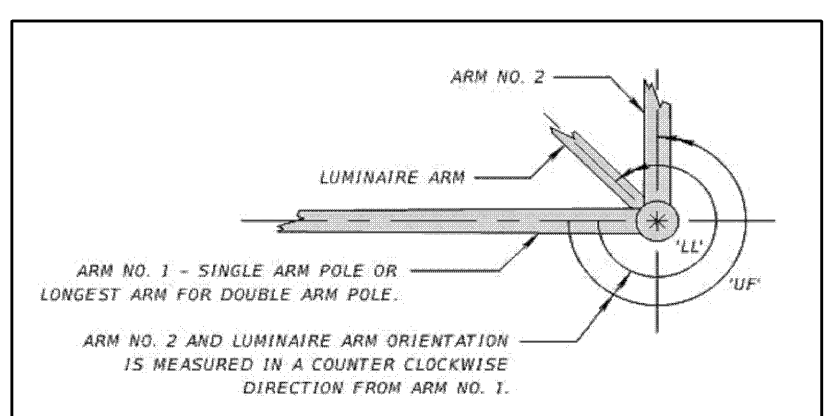
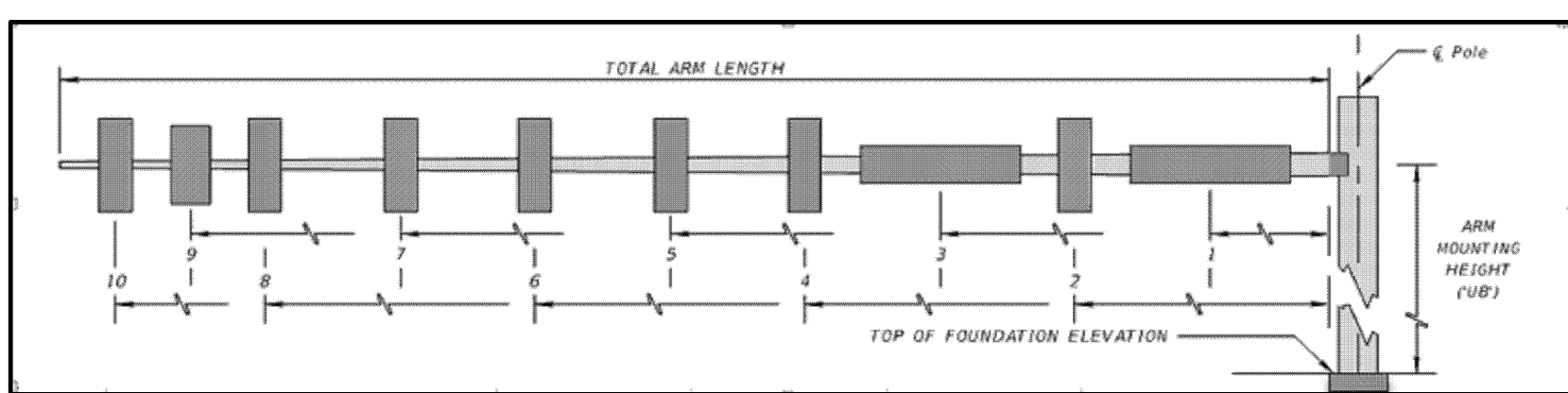


SIGNS SHALL BE SINGLE SIDED RIGID MOUNTED INTERNALLY ILLUMINATED WITH WHITE LEGEND AND GREEN BACKGROUND. ALL ILLUMINATED SIGNS SHALL BE CONTROLLED BY ONE PHOTO CELL LOCATED ON POLE #1.

MAST ARM MOUNTED



Mast Arm Assembly General Information										Signal/Sign Location (Distance from CL of Pole) and Size (# Heads or Sign Width x Height)										Mast Arm Assembly Designation & Dimensions (17743 & 5)								
ID No.	Sheet No.	Station	Top of Shaft Elev.	Rdwy Crown Elev.	Paint Color	Req. Signal Yes/No	Signal Vert/ Horiz	Back-plates Yes/No	Luminaire Yes/No	Terminal Compartment Yes/No	Roadway Arm #	Total Arm Length	Signal/Sign 10	Signal/Sign 9	Signal/Sign 8	Signal/Sign 7	Signal/Sign 6	Signal/Sign 5	Signal/Sign 4	Signal/Sign 3	Signal/Sign 2	Signal/Sign 1	Standard Mast Arm Assembly Designation	Arm Mounting Ht. (ft)	2 Arm Angle (deg)	Lum. Angle (deg)	LL (deg)	
							Vert. 6 in	No			1	60						Dist=55.68' Signal: 3 Head	Dist=43.68' Signal: 3 Head	Dist=31.68' Signal: 3 Head		Dist=19.68' Signal: 3 Head	Dist=8' Sign: 96"x20"					
											1																	
											2																	



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BY	DATE	DESCRIPTION

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TULIP BLVD / COLLEGE PARK RD. INTERSECTION IMPROVEMENTS PROJECT
SIGNAL MODIFICATION PLAN

DATE: 06/26/2023
 HORIZ. SCALE: 1"=20'
 VERT. SCALE: N/A
 JOB NO. 20-247.002
 SHEET 12 of 12

PSLUSD PROJECT NO. _____
 CITY OF PSL PROJECT NO. P22-_____
 STEFAN K. MATTHES, P.E.
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