DRIVEWAY CONNECTION PERMIT FOR ALL CATEGORIES

PART 1: PERMIT INFORMATION

APPLICATION NUMBER: 2024-A-391-00044

Permit Category: J - Government Entity Access Classification: 3

Project: Camp Helen

Permittee: David Matson

Section/Mile Post: 46010 / .206 - .425 State Road: 30

Section/Mile Post: / State Road:

PART 2: PERMITTEE INFORMATION

Permittee Name: David Matson

Permittee Mailing Address: 3900 Commonwealth Blvd.

City, State, Zip: Tallahassee, Florida 32399

Telephone: (850) 245-2594 ext. _____

Engineer/Consultant/or Project Manager:

Engineer responsible for construction inspection:

NAME P.E. #

Mailing Address:

City, State, Zip:

Telephone: FAX, Mobile Phone, etc. Fax: / Mobile:

PART 3: PERMIT APPROVAL

The above application has been reviewed and is hereby approved subject to all Provisions as attached.

Permit Number: 2024-A-391-00044
Department of Transportation

Signature: Lisa Ward Title: MAINTENANCE MANAGER/PERMITS

Department Representative's Printed Name Lisa Ward

Temporary Permit ☐ YES ☑ NO (If temporary, this permit is only valid for 6 months)

Special provisions attached ☐ YES ☑ NO

Date of Issuance: 1/30/2025

If this is a normal (non-temporary) permit it authorizes construction for one year from the date of issuance. This can only be extended by the Department as specified in 14-96.007(6).

Approved
2024-A-391-00044
Lisa Ward
1/30/2025

See following pages for General and Special Provisions

PART 4: GENERAL PROVISIONS

1. Notify the Department of Transportation Maintenance Office at least 48 hours in advance of starting proposed work.
   Phone: 8507674914 , Attention: Lisa Ward
2. A copy of the approved permit must be displayed in a prominent location in the immediate vicinity of the connection construction.
3. Comply with Rule 14-96.008(1), F.A.C., Disruption of Traffic.
4. Comply with Rule 14-96.008(7), F.A.C., on Utility Notification Requirements.
5. All work performed in the Department's right of way shall be done in accordance with the most current Department standards, specifications and the permit provisions.
6. The permittee shall not commence use of the connection prior to a final inspection and acceptance by the Department.
7. Comply with Rule 14-96.003(3)(a), F.A.C., Cost of Construction.
8. If a Significant Change of the permittee's land use, as defined in Section 335.182, Florida Statutes, occurs, the Permittee must contact the Department.
9. Medians may be added and median openings may be changed by the Department as part of a Construction Project or Safety Project. The provision for a median might change the operation of the connection to be for right turns only.
10. All conditions in NOTICE OF INTENT WILL APPLY unless specifically changed by the Department.
11. All approved connection(s) and turning movements are subject to the Department's continuing authority to modify such connection(s) or turning movements in order to protect safety and traffic operations on the state highway or State Highway System.
12. **Transportation Control Features and Devices in the State Right of Way.** Transportation control features and devices in the Department's right of way, including, but not limited to, traffic signals, medians, median openings, or any other transportation control features or devices in the state right of way, are operational and safety characteristics of the State Highway and are not means of access. The Department may install, remove or modify any present or future transportation control feature or device in the state right of way to make changes to promote safety in the right of way or efficient traffic operations on the highway.
13. The Permittee for him/herself, his/her heirs, his/her assigns and successors in interest, binds and is bound and obligated to save and hold the State of Florida, and the Department, its agents and employees harmless from any and all damages, claims, expense, or injuries arising out of any act, neglect, or omission by the applicant, his/her heirs, assigns and successors in interest that may occur by reason of this facility design, construction, maintenance, or continuing existence of the connection facility,except that the applicant shall not be liable under this provision for damages arising from the sole negligence of the Department.
14. The Permittee shall be responsible for determining and notify all other users of the right of way.
15. Starting work on the State Right of Way means that I am accepting all conditions on the Permit.

PART 5: SPECIAL PROVISIONS

NON-CONFORMING CONNECTIONS: ☐ YES ☑ NO

If this is a non-conforming connection permit, as defined in Rule Chapters 14-96 and 14-97, then the following shall be a part of this permit.

1. The non-conforming connection(s) described in this permit is (are) not permitted for traffic volumes exceeding the Permit Category on page 1 of this permit, or as specified in "Other Special Provisions" below.

2. All non-conforming connections will be subject to closure or relocation when reasonable access becomes available in the future.

OTHER SPECIAL PROVISIONS:

The approval of this permit is not approval for a lane closure. Please contact your local FDOT Office (850-767-4914) to obtain approval to close a lane of traffic on a state road.

PART 6: APPEAL PROCEDURES

You may petition for an administrative hearing pursuant to sections 120.569 and 120.57, Florida Statutes. If you dispute the facts stated in the foregoing Notice of Intended Department Action (hereinafter Notice), you may petition for a formal administrative hearing pursuant to section 120.57 (1), Florida Statutes. If you agree with the facts stated in the Notice, you may petition for an informal administrative hearing pursuant to section 120.57(2), Florida Statutes. You must file the petition with:

Clerk of Agency Proceedings
Department of Transportation
Haydon Burns Building
605 Suwannee Street, M.S. 58
Tallahassee, Florida 32399-0458

The petition for an administrative hearing must conform to the requirements of Rule 28-106.201(2) or Rule 28-106.301(2), Florida Administrative Code, and be filed with the Clerk of Agency Proceedings by 5:00 p.m. no later than 21 days after you received the Notice. The petition must include a copy of the Notice, be legible, on 8 1/2 by 11 inch white paper, and contain:

1. Your name, address, telephone number, any Department of Transportation identifying number on the Notice, if known, the name and identification number of each agency affected, if known, and the name, address, and telephone number of your representative, if any, which shall be the address for service purposes during the course of the proceeding.
2. An explanation of how your substantial interests will be affected by the action described in the Notice;
3. A statement of when and how you received the Notice;
4. A statement of all disputed issues of material fact. If there are none, you must so indicate;
5. A concise statement of the ultimate facts alleged, including the specific facts you contend warrant reversal or modification of the agency's proposed action, as well as an explanation of how the alleged facts relate to the specific rules and statutes you contend require reversal or modification of the agency's proposed action;
6. A statement of the relief sought, stating precisely the desired action you wish the agency to take in respect to the agency's proposed action.

If there are disputed issues of material fact a formal hearing will be held, where you may present evidence and argument on all issues involved and conduct cross-examination. If there are no disputed issues of material fact an informal hearing will be held, where you may present evidence or a written statement for consideration by the Department.

Mediation, pursuant to section 120.573, Florida Statutes, may be available if agreed to by all parties, and on such terms as may be agreed upon by all parties. The right to an adminstrative hearing is not affected when mediation does not result in a settlement.

Your petition for an administrative hearing shall be dismissed if it is not in substantial compliance with the above requirements of Rule 28-106.201(2) or Rule 28-106.301(2), Florida Administrative Code. If you fail to timely file your petition in accordance with the above requirements, you will have waived your right to have the intended action reviewed pursuant to chapter 120, Florida Statutes, and the action set forth in the Notice shall be conclusive and final.

Rule 14-96, F.A.C.

STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION

850-040-17
SYSTEMS PLANNING
09/02

RECORD OF WAIVED REQUIREMENTS FOR ALL CATEGORIES

THIS FORM SHALL BE KEPT WITH THE APPLICATION FILE

PART 1: IDENTIFICATION

Project Name: Camp Helen

Application Number: 2024-A-391-00044

Applicant: David Matson

Telephone: (850) 245-2594 ext. _____

PART 2: STAFF INFORMATION

Staff Person: Lisa Ward

Date of Contact: 9/18/2024

Type of Contact:

- ☐ Telephone
- ☐ Visit
- ☐ E-mail
- ☑ Written Request

PART 3: REQUIREMENT WAIVED

Permit Fee

PART 4: JUSTIFICATION

This Justification will be based on principles found in existing Florida Statutes or Department Administrative Rules

Other Government Entity

Signature of Staff Person: Lisa Ward

Title: MAINTENANCE MANAGER/PERMITS

Date: 1/13/2025

Approved
2024-A-391-00044
Lisa Ward
1/30/2025

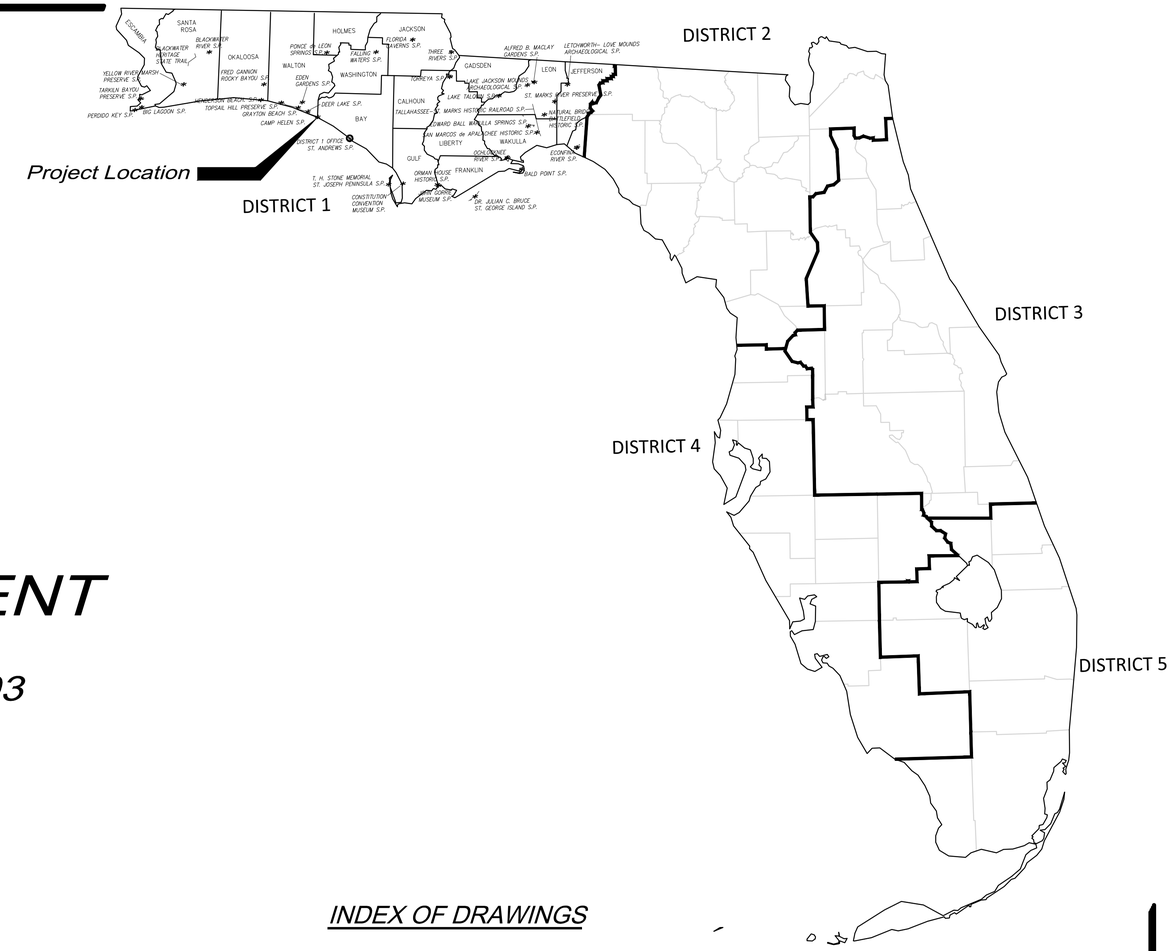
CAMP HELEN STATE PARK

DISTRICT 1

BAY COUNTY

PARK IMPROVEMENT

PROJECT # 61307C - N3803



ABBREVIATIONS

A.F.F.	ABOVE FINISHED FLOOR
A.H.U.	AIR HANDLING UNIT
ALUM.	ALUMINUM
ALT.	ALTERNATE
APPROX.	APPROXIMATE
BD.	BOARD
BLDG.	BUILDING
BLK.	BLOCK
BLKG.	BLOCKING
BLT.	BUILT
BRK.	BRICK
BRKR.	BREAKER
BSMT	BASEMENT
C.J.	CONTROL JOINT
CLG.	CEILING
CLR.	CLEAR
CMU	CONCRETE MASONRY UNIT
C.O.	CLEAN OUT
CONC.	CONCRETE
CU	COPPER
CU. FT.	CUBIC FOOT
CU. IN.	CUBIC INCH
CU. YD.	CUBIC YARD
DIA./ø	DIAMETER
DBL.	DOUBLE
DBT	DRY–BULB TEMPERATURE
DEG.	DEGREE
DEPT.	DEPARTMENT
DF	DRINKING FOUNTAIN
DISC.	DISCONNECT
DL	DEAD LOAD
DN.	DOWN
D.S.	DOWN SPOUT
DWG	DRAWING
E.F.	EXHAUST FAN
EXH	EXHAUST
EXP. JT.	EXPANSION JOINT
EXT.	EXTERIOR
FIN	FINISH
FL.	FLOOR
FLUOR.	FLUORESCENT
FP	FIREPLACE
FR	FIRE RATING
FT.	FOOT/FEET
FTG.	FOOTING
GALV.	GALVANIZED
GFI	GROUND FAULT CIRCUIT INTERRUPT
GOV'T.	GOVERNMENT
GR.FL.	GROUND FLOOR
GYP.	GYPSUM
H.C.	HOLLOW CORE
H.D.G.	HOT DIPPED GALVANIZED
HDR	HEADER
HDWR.	HARDWARE
H.P.	HORSEPOWER
HT.	HEIGHT
HTR	HEATER
HV.	HIGH VOLTAGE
HVAC.	HEATING, VENTILATING AND AIR CONDITIONING
HWY.	HIGHWAY
ID	INSIDE DIAMETER
IN	INCH
INCAND.	INCANDESCENT
INCL	INCLUDED
INSUL	INSULATION
INT.	INTERIOR
INV. EL.	INVERT ELEVATION
JST.	JOIST
KD	KILN DRIED
KW	KILOWATT
KWH	KILOWATT HOUR
LAM.	LAMINATED
LAV.	LAVATORY
LB.	POUND
LTG.	LIGHTING
LGTH.	LENGTH
LIN.	LINEAR
LL	LIVE LOAD
MANUF.	MANUFACTURE
MAX.	MAXIMUM
MF.	MILL FINISH
MIN.	MINIMUM
MLDG.	MOLDING
MHW	MEAN HIGH WATER
MHHW	MEAN HIGHER HIGH WATER
MLW	MEAN LOW WATER
MLLW	MEAN LOWER LOW WATER
MSL	MEAN SEA LEVEL
MOD.	MODIFICATION
NTS	NOT TO SCALE
NO./#	NUMBER
OA	OVERALL
O.C.	ON CENTER
O.D.	OUTSIDE DIAMETER
OFC.	OFFICE
O/H	OVER HEAD
OPP.	OPPOSITE
PARTN.	PARTITION
PC	PORTLAND CEMENT
PCF	POUNDS PER CUBIC FOOT
P.E.	PROFESSIONAL ENGINEER
PERF.	PERFORATE
PERP.	PERPENDICULAR
PL.	PLATE
PLG.	PILING
PLYWD.	PLYWOOD
PNL	PANEL
PREFAB.	PREFABRICATED
PRELIM.	PRELIMINARY
PSF	POUNDS PER SQUARE FOOT
PSI	POUNDS PER SQUARE INCH
P.T.	PRESSURE TREATED
QS	QUARTER SAWN
R	RADIUS
RCPT.	RECEPTACLE
REBAR	REINFORCING BAR
REFRIG.	REFRIGERATION
REINF.	REINFORCING
RFG	ROOFING
RGH	ROUGH
RM	ROOM
R.O.	ROUGH OPENING
RS	ROUGH SAWN
S.C.	SOLID CORE
SCH	SCHEDULE
SDG	SIDING
SECT.	SECTION
SFTWD	SOFTWOOD
SGD	SLIDING GLASS DOOR
SH	SHINGLES
SPEC	SPECIFICATION
SPR	SPRUCE
SQ.	SQUARE
SQ. FT.	SQUARE FOOT
SQ. IN.	SQUARE INCH
SQ. YD.	SQUARE YARD
SS	STAINLESS STEEL
STL.	STEEL
SUB. FL.	SUBFLOOR
SUP.	SUPPLY
SW.	SWITCH
SYM.	SYMMETRICAL
S.Y.P.	SOUTHERN YELLOW PINE
SYS.	SYSTEM
S4S	SURFACED FOUR SIDES
TEL.	TELEPHONE
T&G	TONGUE–AND–GROOVE
TYP.	TYPICAL
U.E.	UNDERGROUND ELECTRIC
U.G.	UNDER GROUND
UL	UNDERWRITERS LABORATORIES, INC.
V	VOLT
VENT.	VENTILATOR
VERT.	VERTICAL
VIF	VERIFY IN FIELD
VOL.	VOLUME
VP	VENT PIPE
VTR	VENT THRU ROOF
W	WATER
WBT	WET BULB TEMPERATURE
WC	WATER CLOSET
WD	WOOD
WP	WATERPROOF
WWF	WELDED WIRE FABRIC
YD	YARD

REFERENCE LEGEND

G8 / A502 — SECTION IDENTIFICATION / SHEET NUMBER

G8 / A502 — DETAIL IDENTIFICATION / SHEET NUMBER

APPLICABLE CODES AND DESIGN DATA

CODE LIST

FLORIDA BUILDING CODE, BUILDING (FBC–B)	2023 Edition
FLORIDA BUILDING CODE, FUEL GAS (FBC–FG)	2023 Edition
FLORIDA BUILDING CODE, MECHANICAL (FBC–M)	2023 Edition
FLORIDA BUILDING CODE, PLUMBING (FBC–P)	2023 Edition
FLORIDA BUILDING CODE, EXISTING BUILDING (FBC–EB)	2023 Edition
FLORIDA BUILDING CODE, RESIDENTIAL (FBC–R)	2023 Edition
FLORIDA FIRE PREVENTION CODE (FFPC)	Latest Edition
NATIONAL ELECTRICAL CODE NFPA–70	Latest Edition
FDOT STANDARD SPECIFICATIONS FOR ROAD & BRIDGE CONST.	Latest Edition
FDOT STANDARD PLANS FOR ROAD CONST.	Latest Edition
FLORIDA ACCESSIBILITY CODE	2023 Edition

SEE LS001 FOR DESIGN DATA

PRELIMINARY NOT FOR CONSTRUCTION

SCOPE OF PROJECT

CONTRACTOR SHALL PROVIDE ALL LABOR, MATERIALS, EQUIPMENT, SUPERVISION, AND PERMITTING TO SUCCESSFULLY CONSTRUCT ROADWAY ALTERATIONS, NEW DRIVEWAY, ENTERANCE PARKING AREA, RESTROOM, PAVILIONS, ADA ACCESSIBLE WALKWAYS, RAMPS, STAIRWAY, ADA ACCESSIBLE CANOE/KAYAK LAUNCH, AND ANY OTHER SITE WORK PER THE CONTRACT DOCUMENTS.

THE CONSTRUCTION OF A DAY–USE RESTROOM FACILITY CONSISTING OF 650 GSF OF ENCLOSED AREA INCLUDING A MEN'S RESTROOM, WOMEN'S RESTROOM, UNISEX RESTROOM AND CHASE AREA. THESE AREAS ARE NATURALLY VENTILATED. AN OPEN BREEZEWAY SHELTERS A VENDING AREA, THE ENTRANCES INTO THE RESTROOMS, AND A HIGH–LOW WATER FOUNTAIN. ALL WORK MUST BE PERFORMED PER CODE. ADA COMPLIANCE MUST BE MAINTAINED.

JAMES H. PETERSON IV, P.E.
DESIGNER

CN539–TA01
CONSULTANT CONTRACT No.

NOVEMBER 11TH 2024 100% PLANS
INITIAL ISSUE DATE

INDEX OF DRAWINGS

CAMP HELEN STATE PARK
PARK IMPROVEMENT

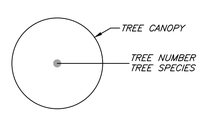
Approved
2024-A-3[illegible]0044
[illegible] Board
4/30/2025

Division of Recreation and Parks Bureau of Design and Construction

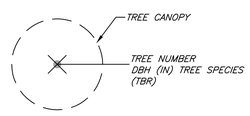
GENERAL NOTES

A	Area or Amperes
AAA	American Automobile Association
ABC	Asphalt Base Course
Abd.	Abandoned
ABS	Acrylonitrite–Butadiene–Styrene Pipe
AC, Ac.	Acre
Asph. Conc.	Asphaltic Concrete
Accel.	Acceleration
Act.	Actuated
ADA	The Americans With Disabilities Act
Adh.	Adhesive
Adj.	Adjust
ADT	Average Daily Traffic
AADT	Annual Average Daily Traffic
Agg.	Aggregate
AISC	American Institute Of Steel Construction
Alt.	Alternate
Al.	Aluminum
ANSI	American National Standards Institute
AOS	Apparent Opening Size
Appl.	Applied, Application
Approx.	Approximate
Artf.	Artificial
Asph.	Asphalt
Assem.	Assembly
Assn.	Association
Assoc.	Associate, Association
ASTM	American Society For Testing Materials
ATPB	Asphalt Treated Permeable Base
Attn.	Attention
Attnuatr.	Attenuator
Aux.	Auxiliary
Ave.	Avenue
AWG	American Wire Gauge
AWS	American Welding Society
Az.	Azimuth
B to B	Back to Back
Bd. or Bnd.	Bond or Bonded
BE	Buried Electric
Beg.	Begin
Bit.	Bituminous
Bk.	Back
BL, BLC	Base Line, Base Line Control
Bldg.	Building
Blkhd.	Bulkhead
Blvd.	Boulevard
BM	Bench Mark
Bndry.	Boundary
Bdr.	Border
Bot.	Bottom
BO	Basin Outlet
BOS	Beginning Of Survey
Br.	Bridge
Brg.	Bearing
Brkwy.	Breakaway
BT	Buried Telephone Cable or Duct
BW	Barbed Wire, Bottom Width or Both Ways
C/G	Curb And Gutter
CA	Coarse Aggregate
Cap.	Capacity
CAP	Corrugated Aluminum Pipe
Caps.	Capital Letters
CASP	Corrugated Aluminized Steel Pipe
CATV	Cable Television
CB	Catch Basin
CBC	Concrete Box Culvert
CBS	Concrete Box Structure
CC, C/C,	Center to Center, Crash Cushion
CCEW	Center to Center Each Way
CD	Cross Drain, Cross Direction (Geotextiles)
Cem.	Cemetery
CFS	Cubic Feet Per Second
CI	Cast Iron
CIP	Cast Iron Pipe
CIPL	Cast In Place
cir. or circ.	Circle or Circular
circ.	Circumference
Cl. or Clear	Clearance
CL,	Center Line
CM	Concrete Monument
CMB	Concrete Median Barrier
CMP	Corrugated Metal Pipe
CMPA	Corrugated Metal Pipe Arch
CO	Clean Out
Col.	Column
Conc.	Concrete
Const.	Construct or Construction
Cont.	Continuation
Contr.	Contractor
Coord.	Coordinate
Corr.	Corrugated
CP	Concrete Pipe
CPE	Corrugated Polyethylene Pipe
Crs. or Cse.	Course
CS	Curve To Spiral
CSP	Corrugated Steel Pipe
CT	Clear Trunk
CTPB	Cement Treated Permeable Base
Ctr.	Center
Culv.	Culvert
CY	Cubic Yard
D	Degree Of Curvature, Depth, Density, Distance, Diameter or Directional Distribution
DA	Deflection Angle
DBH	Diameter At Breast Height
Dbl.	Double
DCS	Degree Of Curvature (Spiral)
DD	Dry Density / Design Document
Deg.	Degree
Dept.	Department
Det.	Detour, Detection, Detectable
DGN or Dgn.	Design
DHV	Design Hourly Volume
DHW	Design High Water
Dia. or D	Diameter
Dim.	Dimension
Dist.	Distance
Disp.	Disposal
DOT	Department Of Transportation
DR	Design Review
Driv.	Driven
Drwy.	Driveway
DS	Design Speed
DSL	Design Service Life
Dwg.	Drawing
E	East or External Distance
e	Rate Of Superelevation
E to E	End to End
EA or Ea.	Each
EB	Eastbound
El. or Elev.	Elevation
Elec.	Electric
Ellip.	Elliptical
Engr.	Engineer
EOS	End Of Survey or Equivalent Opening Size
EOP	Edge Of Pavement
Eq.	Equation or Equal
Equip.	Equipment
Esmt.	Easement
Exist.	Existing
Exp.	Expansion
F or Final	Final Quantity
F & I	Furnish & Install
F to F	Face to Face
FA	Federal Aid or Fine Aggregate
FAC	Florida Administrative Code
FAP	Federal Aid Project
FC	Friction Course
FD	French Drain
Fdn.	Foundation
FFE	Finish Floor Elevation
Fed.	Federal
Fert.	Fertilizer
FES	Flared End Section
FETS	Flared End Terminal Section
FH	Fire Hydrant
FHWA	Federal Highway Administration
Fig.	Figure
Fin.	Finish
FIR	Found Iron Rod
FIP	Found Iron Pipe
Flex.	Flexible
FNC	Found Nail & Cap
FNL	Found Nail
FOC	Fiber Optics Cable
FPM or fpm	Feet Per Minute
FRP	Fiber Reinforced Pipe
FPS or fps	Feet Per Second
FR or Fr.	Frame
Frang.	Frangible
Freq.	Frequency
FS, F.S.	Far Side, Florida Statutes
Ft.	Foot or Feet
FTB	Floating Turbidity Barrier
Fut.	Future
Galv.	Galvanized
Ga.	Gauge or Gage
Ga. / Gal.	Gallon
GD	Gutter Drain
GIP	Galvanized Iron Pipe
GM	Gas Main
GP	Grade Point
Gr.	Grade, Guardrail or Grate
Gr. or Gro.	Gross
GRC	Galvanized Rigid Steel Conduit
Grd.	Ground
gross km	Gross Kilometer
Gr. Wt.	Gross Weight
Gttr.	Gutter
Gy	Gray
HAR	Highway Advisory Radio
HB	Hay Bales
HC	Horizontal Clearance
HD	High Density or Heavy Duty
HD or Hd.	Head
Hdwl.	Headwall
Hndrl	Handrail
Horiz.	Horizontal
HP	High Pressure or Horsepower
Hr.	Hour
HS	High Strength
HSHV	High Strength Horizontal Vertical
Ht.	Height
HW or H.W.	High Water or Hot Water
Hwy.	Highway
Hyd.	Hydrant or Hydraulic
ID	Inside Diameter or Identification
IMC	Intermediate Metal Conduit
Inc.	Incorporated or Including
Incl. or Inc.	Included
Ind.	Industry or Industrial
INV. or Inv.	Invert
IP	Iron Pipe
Install.	Installed
Isect.	Intersection
Isl.	Island
IR	Iron Rod
ITE	Institute Of Transportation Engineers
J	Joule
JB	Junction Box
Jct.	Junction
Jt.	Joint
K	Design Hour Factor or Kelvin
kg/m	Kilogram Per Meter
kg/m2	Kilogram Per Square Meter
kg/m3	Kilogram Per Cubic Meter
Kilo	One Thousand
Kip	1000 Pounds
kn	Knot
L	Length, Length Of Curve, Liter, Left
Lat.	Lateral or Latitude
Lb.	Pound
lb/sy	Pounds Per Square Yard
LBR	Limerock Bearing Ratio
LC	Long Chord
Lin.	Linear
lm	Lumen
Lmrk.	Limerock
LOS	Limit Of Clear Sight
Loc., LO	Location
Long.	Longitude
LS	Length Of Spiral
LT	Left Turn
Lt.	Left
Ltd.	Lighted or Limited
Lum.	Luminaire
L/W	Lightweight
Maint.	Maintenance
Matl.	Material
Max.	Maximum
Med.	Median
MES	Mitered End Section
Mfg.	Manufactured or Manufacturer
MH, M.H.	Manhole, Mounting Height
MHW	Mean High Water
Mi.	Mile
Mid.	Middle
Min.	Minimum or Minute
Misc.	Miscellaneous
MLW	Mean Low Water
Mobl.	Mobilization
Mod.	Modify or Modified
Mon.	Monument
MOT	Maintenance Of Traffic
MSL	Mean Sea Level
Mtd.	Mounted
MUTCD	Manual On Uniform Traffic Control Device
MUTS	Manual On Uniform Traffic Studies
N	North or Newton
NA or N/A	Not Available or Not Applicable
NAVD	National American Vertical Datum
NC	National Coarse or Normal Crown
NEMA	National Electrical Manufacturers Association
NGVD	National Geodetic Vertical Datum of 1929
NGS	National Geodetic Survey
NHS	National Highway System
NHW	Normal High Water
NIC	Not In Contract
NTS	Not To Scale
NW	Northwest
Opass	Overpass
O to O,	Out to Out
OA	Overall
O.B.G.	Optional Base Group
OC or O.C.	On Center
OD or O.D.	Outside Diameter
OE	Overhead Electric
OH,	Overhead
Opt.	Option, Optional or Optically
OT	Overhead Telephone
Oz.	Ounce
P	Passenger Car & Light Delivery Truck
Part.	Participation or Partition
Pavt.	Pavement
PC	Point Of Curvature
PE	Professional Engineer
Ped	Pedestrian or Pedestal
Pen.	Penetration
PG	Profile Grade
PGL	Profile Grade Line
pH	Measure Of Acidity or Alkalinity
PI	Point Of Intersection
PL or P L	Property Line or Plate
POB	Point of Beginning
POC	Point Of Commencement
POST	Point On Semi–Tangent
POT	Point On Tangent
PRC	Point Of Reverse Curvature
Prest.	Prestressed
Prob.	Probability
Prod.	Product, Production, Producer or Produced
Prog.	Program or Progression
Proj.	Project or Projection
PS & E	Plans, Specifications And Estimates
PT	Point Of Tangency or Pressure Treated
PVC	Polyvinyl Chloride
PRC	Point Of Reverse Curvature
Prcst.	Precast
Prest.	Prestressed
Proj.	Project or Projection
Q	Peak Discharge or Flow Volume
QPL	Qualified Products List
R	Right
R or Rad.	Radius
R or Rng.	Range
RC	Reverse Crown
RCP	Reinforced Concrete Pipe
RCPA	Reinforced Concrete Pipe Arch
Rd.	Road or Round
Rdsd.	Roadside
Rdwy.	Roadway
Rect.	Reticuline or Rectangular
Ref.	Reference
Reg.	Region, Regular, Registered or Regulation
Reinf.	Reinforced or Reinforcing
Reloc.	Relocated
Req.	Required
RPM	Raised Reflective Pavement Markers
r/s	Revolution Per Second
RR	Railroad
Rt.	Right
R/W, ROW	Right Of Way
S or s	Speed, South, Seimens, Or Second
SAN or San.	Sanitary
Sch.	Schedule
SCST	Sand–Clay Surface Treatment
SD	Side Drain, Storm Drain
SE	Southeast
Seq.	Sequential
Serv.	Service
SF	Silt Fence
Sht.	Sheet
Shldr.	Shoulder
SHW	Seasonal High Water
Spec.	Specification
Sq. Ft.,/S.F.	Square Foot
Sq. In.	Square Inch
Sq. Yd.,/S.Y.	Square Yard
SR or S.R.	State Road
SRD	State Road Department
SS	Sanitary Sewer
St. or ST.	Street
Sta.	Station
Std.	Standard
Stl.	Steel
Sub. or Subst.	Substitute
Subgr.	Subgrade
SUR or Sur.	Survey
Surf.	Surface
T	Tangent, Length Of Curve,
TBM	Temporary Bench Mark
TC	Tangent To Curve
TCB	Temporary Concrete Barrier
TCE	Temporary Construction Easement
TCP	Terra Cotta Pipe
TCZ	Traffic Control Zone
TDLC	Transportation Design For Livable Communities
Tel.	Telephone
Temp.	Temperature or Temporary
Thick.	Thickness
Tn.	Ton
Trans.	Transition, Transverse,
TS	Tangent To Spiral
TSC	Length Of Tangent (Spiral Curve)
TTC	Temporary Traffic Control
Typ.	Typical
UAO	Utility Agent/Owner
Upass.	Underpass
UG	Underground
UL	Underwriters Laboratories
Ultd.	Unlimited
Unddr.	Underdrains
Undrdwy.	Underroadway
USC & GS	US Coast and Geodetic Survey
USGS	US Geological Survey
USPS	United States Postal Service
Util.	Utilities
V	Volt, Velocity, Volume or Hourly Volume
Var.	Varies, Variable or Variance
VC	Vertical Curve
VCP	Vitrified Clay Pipe
Vert.	Vertical
Vh	Verified Horizontal Location
Vol.	Volume
VP	Vertical Panel
VPD or Vpd.	Vehicles Per Day
VPH or Vph.	Vehicles Per Hour
VPHPL or Vphpl.	Vehicles Per Hour Per Lane
VRMS	Volts Root Mean Square
Vv	Verified Vertical Elevation
VW	Variable Width
W	Width, Wide, West or Watt
WB	Westbound
Wb.	Weber
WB40	Intermediate Semi Trailer
WB50	Large Semi Trailer
WB60	Tandem Semi Trailer
WM	Water Main
WT	Water Table Or Weight
WWF	Welded Wire Fabric
X	Coordinate Value (East–West Direction) or Extra
X Rd.	Cross Road
Xing.	Crossing
Xsec.	Cross Section
Y	Coordinate Value (North–South Direction)

TREE LEGEND



EXISTING TREE TO REMAIN



EXISTING TREE TO BE REMOVED

CIVIL GENERAL NOTES:

1. ALL WORK SHALL BE PERFORMED IN A SAFE MANNER. ALL SAFETY RULES AND GUIDELINES OF O.S.H.A. SHALL BE PERFORMED. THE CONTRACTOR SHALL BE WHOLLY RESPONSIBLE FOR ANY INJURIES OF HIS EMPLOYEES, AND ANY DAMAGE TO PRIVATE PROPERTY OR PERSONS DURING THE COURSE OF THIS PROJECT. ALL COSTS ASSOCIATED WITH COMPLYING WITH O.S.H.A. REGULATIONS AND THE FLORIDA TRENCH SAFETY ACT (SEE NOTE 16) MUST BE INCLUDED IN THE CONTRACTOR'S PRICE FOR PERFORMING THE WORK.

2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR VISITING THE JOB SITE PRIOR TO PREPARING THE BID FOR THE PURPOSE OF FAMILIARIZING HIMSELF WITH WITH THE NATURE AND THE EXTENT OF THE WORK AND LOCAL CONDITIONS, EITHER SURFACE OR SUBSURFACE, WHICH MAY AFFECT THE WORK TO BE PERFORMED, AND THE EQUIPMENT, LABOR AND MATERIALS REQUIRED. FAILURE TO DO SO WILL NOT RELIEVE THE CONTRACTOR OF COMPLETE PERFORMANCE UNDER THIS CONTRACT. THE CONTRACTOR IS URGED TO TAKE COLOR PHOTOGRAPHS ALONG THE ROUTE OF THIS PROJECT TO RECORD EXISTING CONDITIONS PRIOR TO CONSTRUCTION, AND TO AID IN RESOLVING POSSIBLE FUTURE COMPLAINTS THAT MAY OCCUR DUE TO CONSTRUCTION OF THE PROJECT.

3. ALL IMPROVEMENTS SHOWN ARE TO BE WARRANTED BY THE CONTRACTOR TO THE OWNER FOR A PERIOD OF ONE YEAR FROM DATE OF SUBSTANTIAL COMPLETION.

4. THE CONTRACTOR SHALL COORDINATE THEIR CONSTRUCTION WITH ALL OTHER CONTRACTORS. IN THE EVENT OF ANY CONFLICT WHATSOEVER, THE CONTRACTOR SHALL NOTIFY THE ENGINEER AND OWNER PRIOR TO PROCEEDING WITH CONSTRUCTION.

5. "AS–BUILT" DRAWINGS – AS–BUILT DRAWINGS ARE REQUIRED TO BE PROVIDED AND SIGNED AND SEALED BY A FLORIDA REGISTERED LAND SURVEYOR. THEREFORE, IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO CONTRACT WITH A LAND SURVEYOR REGISTERED IN THE STATE OF FLORIDA FOR THE PREPARATION, FIELD LOCATIONS, CERTIFICATION, AND SUBMITTAL OF "AS–BUILT" DRAWINGS.

6. "AS–BUILT" RECORD DATA AND INFORMATION SHALL BE MAINTAINED BY THE CONTRACTOR. RECORD DRAWINGS SHALL BE SUPPLIED TO THE BDC, DODSTONE ARCHITECTS, AND GEORGE & ASSOCIATES CONSULTING ENGINEERS, INC.

7. THE CONTRACTOR IS RESPONSIBLE FOR PROTECTION OF ALL SURVEY AND PROPERTY MONUMENTS. IF A MONUMENT IS DISTURBED, THE CONTRACTOR SHALL CONTRACT WITH THE SURVEYOR OF RECORD FOR REINSTALLATION OF THE MONUMENT.

8. ALL DEBRIS RESULTING FROM ALL ACTIVITIES SHALL BE DISPOSED OF OFF–SITE BY CONTRACTOR ON A WEEKLY BASIS.

9. ALL EXCESS UNSUITABLE MATERIAL SHALL BE REMOVED FROM THE SITE BY THE CONTRACTOR UNLESS DIRECTED OTHERWISE.

10. ALL EXISTING TREES TO REMAIN SHALL BE PRESERVED AND PROTECTED, EXCEPT FOR REMOVAL AS REQUIRED FOR CONSTRUCTION.

11. THE LOCATION OF ALL EXISTING UTILITIES, STRUCTURES, AND IMPROVEMENTS SHOWN ON THE DRAWINGS IS BASED ON LIMITED INFORMATION AND MAY NOT HAVE BEEN FIELD VERIFIED. THE LOCATIONS ARE APPROXIMATE. THE CONTRACTOR SHALL NOTIFY RESPECTIVE UTILITY OWNERS AND FIELD VERIFY LOCATIONS OF EXISTING UTILITIES AND OTHER IMPROVEMENTS PRIOR TO COMMENCING ANY CONSTRUCTION. IF THE LOCATIONS SHOWN ARE CONTRARY TO THE ACTUAL FIELD LOCATIONS, THE CONTRACTOR SHALL NOTIFY THE OWNER AND ENGINEER OF THE DISCREPANCY. THE DISCREPANCY SHOULD BE RESOLVED PRIOR TO COMMENCING CONSTRUCTION. THE CONTRACTOR SHALL EXERCISE EXTREME CAUTION WHEN WORKING IN AREAS NEAR EXISTING UTILITIES AND IMPROVEMENTS AND SHALL BE RESPONSIBLE FOR AND SHALL REPAIR OR PAY FOR ALL DAMAGE MADE TO EXISTING UTILITIES OR OTHER IMPROVEMENTS. PRIOR TO COMMENCEMENT OF ANY CONSTRUCTION, THE CONTRACTOR SHALL VERIFY ALL GRADES, INVERTS, AND TYPE OF MATERIAL OF EXISTING UTILITIES TO WHICH HE SHALL CONNECT.

12. THE CONTRACTOR SHALL SUBMIT SHOP DRAWINGS ON ALL MATERIALS, FOR REVIEW AND APPROVAL, PRIOR TO PURCHASE OR CONSTRUCTION OF ANY UTILITY PIPE OR STRUCTURE.

13. UNSUITABLE MATERIALS BENEATH WATER AND SEWER PIPE AND/OR STRUCTURES SHALL BE REMOVED AND REPLACED WITH SELECTED BACK FILL PROPERLY COMPACTED IN ACCORDANCE WITH SPECIFICATIONS.

14. ALL WATER & SEWER CONSTRUCTION SHALL BE ACCOMPLISHED BY AN UNDERGROUND UTILITY CONTRACTOR LICENSED UNDER THE PROVISIONS OF CHAPTER 489 FLORIDA STATUTES.

15. CONTRACTOR SHALL PROVIDE SEDIMENT AND EROSION CONTROL DURING THE ENTIRE DURATION OF THE PROJECT. ALL JURISDICTIONAL WETLANDS SHALL BE PROTECTED FROM SEDIMENTATION AND EROSION AS WELL AS ENCROACHMENT OF ANY KIND. ANY WETLAND JURISDICTIONAL LINES ARE SHOWN ON THE PLANS FOR REFERENCE. CONTRACTOR SHALL MEET THE REQUIREMENTS SET FORTH BY THE FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION AND THE U.S. ARMY CORPS OF ENGINEERS AS RELATED TO JURISDICTIONAL WETLANDS.

16. CONTRACTOR SHALL COMPLY WITH THE CURRENT FLORIDA TRENCH SAFETY ACT (F.S. 553.60–553.64) AND THE OSHA EXCAVATION SAFETY STANDARDS 29, CFR PART 1926.650 SUBPART P. WHERE TRENCH EXCAVATION EXCEEDS 5 FT IN DEPTH, SEE FLORIDA STATUTE 553.60–553.64.

17. CONTRACTOR SHALL COMPLY WITH STORM WATER POLLUTION PREVENTION PLAN. A COPY OF THIS PLAN AND FORMS ARE INCLUDED IN THE SPECIFICATIONS.

AS BUILT / RECORD DRAWINGS:

1. CONTRACTOR SHALL PROVIDE GEORGE & ASSOCIATES CONSULTING ENGINEERS TWO SIGNED AND SEALED COPIES OF AS–BUILT DRAWINGS OF ALL FINISHED IMPROVEMENTS.

2. CONTRACTOR SHALL PROVIDE THE BDC, DODSTONE ARCHITECTS, AND GEORGE & ASSOCIATES CONSULTING ENGINEERS AS–BUILT DRAWINGS OF ALL FINISHED IMPROVEMENTS IN PDF AND DWG FORMAT.

3. AS–BUILT DRAWINGS TO BE PERFORMED AND CERTIFIED BY A FLORIDA LICENSED PROFESSIONAL LAND SURVEYOR.

4. AS–BUILT DRAWINGS SHALL BE SUBMITTED AFTER COMPLETION OF ALL IMPROVEMENTS AND PRIOR TO FINAL INSPECTION.

5. AS BUILT DRAWINGS SHALL INCLUDE, BUT NOT BE LIMITED TO:

A. FINISHED FLOOR ELEVATIONS FOR ALL BUILDINGS.

B. SHOW ENTIRE SANITARY SEWER CONVEYANCE SYSTEM INCLUDING THE SIZE TYPE AND INVERT OF ALL PIPES AND MANHOLES. MANHOLES SHALL INCLUDE "X" AND "Y" COORDINATES.

C. SHOW ENTIRE POTABLE WATER SYSTEM INCLUDING THE SIZE AND TYPE OF ALL PIPES AND LOCATIONS OF APPURTENANCES.

D. SHOW ENTIRE FIRE WATER SYSTEM INCLUDING THE SIZE AND TYPE OF ALL PIPES AND LOCATIONS OF APPURTENANCES.

E. SHOW ENTIRE STORM WATER CONVEYANCE SYSTEM INCLUDING THE SIZE TYPE AND INVERT OF ALL PIPES, CHANNELS, ROOF DRAIN SYSTEMS, STRUCTURES, CURBING AND SPOT SHOT ELEVATIONS IN VEHICLE USE AREAS. DRAINAGE STRUCTURES SHALL INCLUDE "X" AND "Y" COORDINATES.

F. SHOW ALL SIDEWALK AND VEHICLE USE AREAS. PROVIDE ADEQUATE SPOT ELEVATIONS TO VERIFY ADA COMPLIANCE FOR REVIEW BY ENGINEER AND ADA COMPLIANCE REPORT.

G. SHOW ALL TRAFFIC CONTROL DEVICES INCLUDING SIGNS, SIGNALS, PARKING STRIPPING AND PAVEMENT MARKINGS.

H. SITE DATA TABLE TO INCLUDE IMPERVIOUS AREAS, URBAN FOREST AREAS, GREEN SPACE AREAS, AND NUMBER OF PARKING SPACES.

I. POST CONSTRUCTION TREE SURVEY INCLUDING LOCATION, SIZE AND SPECIES OF ALL EXISTING AND NEW TREES INCLUDING URBAN FOREST AND REPLANTED TREES AND IRRIGATION SYSTEMS.

J. DELINEATE CONSERVATION AND DRAINAGE EASEMENT BOUNDARIES AND LABEL WITH THE "OR" BOOK AND PAGE NUMBER.

K. POST DEVELOPMENT SITE DATA TABLE INCLUDING IMPERVIOUS AREA, URBAN FOREST AREA, GREEN SPACE AREA, NUMBER OF STANDARD PARKING STALLS, NUMBER ADA PARKING STALLS PROVIDED.

L. DELINEATE ALL UTILITIES CAPPED WITH "X" "Y" "Z" COORDINATES.

M. ANY ADDITIONAL ITEMS REQUIRED BY PERMITTING JURISDICTION.

DESIGN STANDARDS:

1. THE FLORIDA DEPARTMENT OF TRANSPORTATION STANDARD PLANS FOR ROAD AND BRIDGE CONSTRUCTION, LATEST EDITION, UNLESS OTHERWISE NOTED.

2. THE FLORIDA DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, LATEST EDITION.

3. 2023 FLORIDA BUILDING CODES, 8TH EDITION.

4. FLORIDA STORMWATER EROSION AND SEDIMENTATION CONTROL INSPECTORS MANUAL, LATEST EDITION.

5. INLET BEACH WATER SYSTEM STANDARD DESIGN AND CONSTRUCTION SPECIFICATIONS, LATEST EDITION.

CONSTRUCTION SEQUENCE:

1. CONSTRUCT EROSION AND SEDIMENT CONTROL PRACTICES AS DESCRIBED IN THE APPROVED EROSION CONTROL PLAN.

2. ESTABLISH MAINTENANCE OF TRAFFIC PLAN WITH PARK MANAGER.

3. CONTRACTOR SHALL PROVIDE CONSTRUCTION SEQUENCE TO FDEP, PARK MANAGER, ENGINEER AND ARCHITECT.

4. DESIGNATE EMPLOYEE PARKING AREAS, MATERIALS STORAGE AREAS, AND TOPSOIL STORAGE AREAS.

5. CONSTRUCT ALL IMPROVEMENTS AS INDICATED IN THE PLANS AND SPECIFICATIONS.

6. REMOVE ALL STOCKPILE FROM SITE, INSTALL LANDSCAPING. SOD ALL DISTURBED AREAS.

7. PRIOR TO FINAL CLOSE–OUT, THE CONTRACTOR SHALL FURNISH THE ARCHITECT, ENGINEER AND THE OWNER'S PROJECT MANAGER WITH SIGNED AND SEALED COPIES OF THE AS–BUILT SURVEY AND A COMPLETE SET OF RECORD DOCUMENTS.

8. FIELD INSPECTION AND CLEAN UP.

ADA COMPLIANCE NOTES:

THE CONTRACTOR WILL BE HELD ACCOUNTABLE DURING CONSTRUCTION FOR ALL SITE IMPROVEMENTS. COMPLIANCE WITH FLORIDA STATUTES 553.5041 (F.S.), AND THE 2023 FLORIDA BUILDING CODE, ACCESSIBILITY, 8TH EDITION (FBC–A), IS MANDATORY. IF NON–COMPLIANT AT FINAL INSPECTION, CONTRACTOR WILL BE REQUIRED TO MODIFY CONSTRUCTION TO COMPLY WITH F.S. AND FBC–A. THE FOLLOWING ITEMS TAKE PRECEDENCE AND SUPERSEDE OTHER SITE DETAILS ON DRAWINGS:

1. ACCESSIBLE PARKING SPACES SHALL BE LOCATED ON AN ACCESSIBLE ROUTE NO LESS THAN 44" WIDE SO THAT USERS WILL NOT BE COMPELLED TO WALK OR WHEEL BEHIND PARKED VEHICLES EXCEPT BEHIND HIS OR HER OWN VEHICLE. §208.1 AND §502.3, FBC–A AND F.S. 553.5041.

2. ACCESSIBLE PARKING SPACES AND ACCESS AISLES SERVING A PARTICULAR BUILDING SHALL BE LOCATED ON THE SHORTEST ACCESSIBLE ROUTE FROM THE ACCESSIBLE (H/C) PARKING TO AN ACCESSIBLE ENTRANCE. §208.3.1 FBC–A AND F.S. 553.5041(5)(B).

3. ACCESSIBLE PARKING SPACES SHALL BE 12' WIDE , AND OUTLINED WITH BLUE PAINT. §502.2 AND §502.6, FBC–A

4. ACCESS AISLES REQUIRED ADJACENT TO PARKING SPACES SHALL BE 5' WIDE WITH DIAGONAL STRIPING. §502., FBC–A

5. ACCESSIBLE PARKING AND ACCESS AISLES SHALL BE LEVEL (NOT TO EXCEED 1:48) ON A STABLE FIRM & SLIP RESISTANT SURFACE. RE: §302.1, §502.3. FBC–A

6. ACCESSIBLE PARKING SIGNS SHALL BE FDOT APPROVED AND SHALL READ 'PARKING BY DISABLED PERMIT ONLY' AND SHALL INDICATE A $250 FINE FOR ILLEGAL USE. INSTALL SIGNS A MINIMUM 60"(INCHES) FROM THE GROUND TO THE BOTTOM OF THE SIGN(S). RE: §502.6 AND F.S 553.5041.

7. CURB RAMPS SHALL NOT EXCEED 1:12 SLOPE, AND CURB RAMP FLARES SHALL NOT EXCEED 1:10 SLOPE. CURB RAMPS AND FLARED SIDES SHALL NOT ENCROACH UPON PARKING SPACES, ACCESS AISLES, OR VEHICULAR TRAFFIC LANES. THE COUNTER SLOPE OF ADJACENT ROAD SURFACES & GUTTERS SHALL NOT EXCEED 1:20. RE: §405.2, §406., FBC–A

8. CURB RAMPS SHALL HAVE A LANDING WITH A MINIMUM CLEAR LENGTH OF 36" SHALL BE LOCATED AT THE TOP SIDE OF EACH CURB RAMP, A CLEAR WIDTH AT LEAST AS WIDE AS THE CURB RAMP (EXCLUDING FLARED SIDES) LEADING TO IT. EXCEPTION: FOR ALTERATIONS, WHERE THERE IS NO LANDING, CURB RAMP FLARES SHALL BE PROVIDED, AND SHALL NOT BE STEEPER THAN 1:12 SLOPE. RE: §406, FBC–A

9. ALL RAMPS WITH A RISE GREATER THAN 6" SHALL PROVIDE EDGE PROTECTION COMPLYING WITH §405.9 FACBC. RAMPS SHALL HAVE 60" MIN LEVEL LANDINGS AT THE TOP & BOTTOM. RE: §405.7. FBC–A.

10. ALL RAMPS WITH A RISE GREATER THAN 6" SHALL PROVIDE EDGE PROTECTION COMPLYING WITH §405.9 FACBC. RAMPS SHALL HAVE 60" MIN LEVEL LANDINGS AT THE TOP & BOTTOM. RE: §405.7. FBC–A.

11. ACCESSIBLE ROUTES TO "MAIN ENTRY" FROM AN ACCESSIBLE PARKING SPACE, AND FROM THE "PUBLIC WAY", SHALL NOT EXCEED 1:20 SLOPE (UNLESS RAMPS, HANDRAILS WITH PROPER EXTENSIONS ARE PROVIDED) WITH CROSS SLOPE NOT IN EXCESS OF 1:48. RE: §206, §402 AND §403., FBC–A.

12. CONNECT BUILDINGS WITHIN THE SAME SITE WITH AN ACCESSIBLE ROUTE WHICH SHALL NOT EXCEED 1:20 SLOPE (UNLESS RAMPS AND HANDRAILS ARE PROVIDED) AND A MAXIMUM CROSS SLOPE OF 1:48. RE: §206 FBC–A.

PROJECT SPECIFIC NOTES:

1. SHOP DRAWINGS FOR THE PICNIC PAVILIONS, ADA FLOATING KAYAK LAUNCH, NEW SIGNS, GRINDER PUMP STATION, PIPES, VALVES, DRAINAGE STRUCTURES AND ANY OTHER ITEMS LISTED IN THE SPECIFICATIONS SHALL BE SUBMITTED TO THE E.O.R. FOR APPROVAL.

2. POWELL LAKE IS AN OUTSTANDING FLORIDA WATER (OFW), ALL DUE CAUTION SHALL BE TAKEN TO PREVENT STORMWATER FROM CARRYING SEDIMENT INTO THE LAKE.

3. IF SHORELINE CONSTRUCTION IS TO OCCUR DURING TURTLE NESTING SEASON (MARCH–OCTOBER), A PRE–CONSTRUCTION SURVEY OF THE SHORELINE SHALL BE DONE TO CONFIRM THAT NO SEA TURTLE NESTS ARE PRESENT IN THE AREA OF IMPACT.

4. IT IS RECOMMENDED THAT SHORELINE CONSTRUCTION AVOID SHOREBIRD NESTING SEASON (MAY–JUNE).

5. BRUSH FINISH ALL CONCRETE SURFACES (UNLESS POROUS CONCRETE IS SPECIFIED).

6. CONTRACTOR TO SUBMIT SHOP DRAWINGS OF THE PICNIC PAVILION(S), UTILITY PARTS AND OTHER PICNIC AREA ACCESSORIES PRIOR TO ORDERING.

7. ALL SEWER AND WATER UTILITY WORK MUST COMPLY WITH INLET BEACH WATER SYSTEM STANDARD DESIGN AND CONSTRUCTION SPECIFICATIONS, UNLESS NOTED OTHERWISE ON THE PLANS.

8. THE DESIGNATED MAINTENANCE OF TRAFFIC (MOT) TECHNICIAN SHALL NOTIFY ENGINEER OF RECORD AND SUBMIT THEIR INFORMATION TO THE FDOT REGULATING OFFICE PRIOR TO COMMENCEMENT OF WORK IN THE RIGHT–OF–WAY:

LISA WARD
FDOT PERMITS MANAGER
MARIANNA/PANAMA CITY OPERATIONS
3633 HWY 390
PANAMA CITY, FL, 32405
(850) 767 4914
LISA.WARD@DOT.STATE.FL.US

SURVEY LEGEND & ABBREVIATIONS:

▷	= BACKFLOW PREVENTER	W	= WATER METER
h	= BENCH	WP	= WIRING PULL BOX
✿	= BUSH	⋈	= UTILITY VALVE
T	= TELEPHONE PEDESTAL	–BFO–	= BURIED FIBER OPTIC LINE
Ⓓ	= DRAINAGE MANHOLE	–BT–	= BURIED TELEPHONE LINE
◇	= FIRE HYDRANT	–G–	= GAS MAIN
⊥	= GUY ANCHOR	–OE–	= OVERHEAD UTILITY LINE
●	= UTILITY POLE	–WM–	= WATER LINE
▬	= NON–TRAFFIC SIGN	–NPW–	= RECLAIM WATER LINE
⊙	= TEST HOLE	⌒⌒⌒	= TREE LINE
▴	= TRAFFIC SIGN	⊖	= UTILITY MARKER

BUREAU OF DESIGN AND CONSTRUCTION GENERAL NOTES:

1. THE CONTRACTOR IS RESPONSIBLE FOR INSPECTING AND ACCEPTING THE EXISTING CONDITIONS OF THE SITE PRIOR TO BIDDING.

2. ALL DISTURBED AREAS WITHIN THE LIMITS OF RESTORATION SHALL BE REVEGETATED AS SPECIFIED BY THE PARK SERVICE BIOLOGIST.

3. EXISTING UNDERGROUND UTILITIES SHOWN ARE BASED ON THE BEST AVAILABLE INFORMATION. THE CONTRACTOR SHALL ENSURE THAT THE UTILITY SYSTEMS DO NOT CONFLICT WITH THE PROPOSED PROJECT. CONFLICTS SHALL BE REPORTED TO THE PROJECT MANAGER IMMEDIATELY.

4. THE CONTRACTOR IS RESPONSIBLE FOR THE PROTECTION OF ALL UTILITIES. REMOVAL AND/OR RELOCATION OF EXISTING UTILITIES IN CONFLICT WITH THE WORK, CONSTRUCTION OF TEMPORARY UTILITIES IN THE EVENT THAT EXISTING UTILITY SERVICE MUST BE INTERRUPTED AND ANY OTHER CONSTRUCTION RELATED ACTIVITIES THAT MAY AFFECT EXISTING OR PROPOSED UTILITIES. THE INFORMATION SHOWN ON THESE DRAWINGS CONCERNING TYPE AND LOCATION OF UNDERGROUND AND OTHER UTILITIES IS BASED ON INFORMATION PROVIDED BY THE UTILITY OWNERS, AVAILABLE RECORDS, AND SURVEYED FIELD INFORMATION. THE INFORMATION MAY NOT REFLECT ACTUAL CONDITIONS, INCLUDE ALL UTILITIES IN THE AREA, EITHER IN SERVICE OR ABANDONED, OR SHOW THE UTILITIES IN THE CORRECT HORIZONTAL OR VERTICAL LOCATIONS. THE CONTRACTOR WILL MAKE IS OWN DETERMINATION AS TO THE TYPE AND LOCATION OF UTILITIES AS NECESSARY TO ESTABLISH THEIR LOCATIONS AND AVOID DAMAGE.

5. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ESTABLISHING ALL GRADE STAKES, LINES AND LEVELS.

6. THE CONTRACTOR SHALL SOLID SOD ALL DISTURBED AREAS UNLESS OTHERWISE SPECIFIED OR SHOWN.

7. NO SEPARATE PAYMENT WILL BE MADE FOR DEWATERING. THE COSTS FOR DEWATERING ARE INCLUDED IN THE UNIT PRICES FOR CONSTRUCTING THIS PROJECT.

8. ALL AREAS, STREETS, DRIVEWAYS, PARKING LOTS, ETC. DISTURBED BY CONSTRUCTION SHALL BE RESTORED BY THE CONTRACTOR TO THEIR ORIGINAL OR BETTER CONDITION.

9. THE CONTRACTOR WILL HAVE ALL REQUIRED PERMITS IN–HAND PRIOR TO BEGINNING CONSTRUCTION, AND WILL PERFORM ALL WORK IN ACCORDANCE WITH THE REQUIREMENTS OF THE PERMITS OBTAINED BY THE OWNER AND THOSE PERMITS OBTAINED BY THE CONTRACTOR.

10. PRIOR TO COMMENCING CONSTRUCTION, THE CONTRACTOR WILL SUBMIT TO THE OWNER'S PROJECT MANAGER A SCHEDULE OF VALUES, A CONSTRUCTION SCHEDULE, AND A SAFETY PLAN.

11. THE CONSTRUCTION SCHEDULE WILL DESCRIBE IN DETAIL HOW THE CONSTRUCTION IS TO BE PHASED, ESTABLISH START AND FINISH DATES FOR ALL SIGNIFICANT CONSTRUCTION ACTIVITIES, AND IDENTIFY ALL CONTROLLING ITEMS OF WORK. THE SCHEDULE IS TO BE APPROVED BY THE OWNER'S PROJECT MANAGER, AND WILL BE UPDATED ON A MONTHLY BASIS TO REFLECT ACTUAL WORK PROGRESS. PAYMENT FOR PREPARING, UPDATING AND SUBMITTING THE SCHEDULE WILL BE INCLUDED IN THE PAY ITEM FOR MOBILIZATION OR OTHER PAY ITEMS AS APPROPRIATE.

12. THE CONTRACTOR SHALL SUBMIT AN EROSION CONTROL PLAN FOR APPROVAL BY THE OWNER'S PROJECT MANAGER AND WILL ADDRESS THE INSTALLATION AND MAINTENANCE OF ALL TEMPORARY AND PERMANENT SEDIMENT AND EROSION CONTROL DEVICES TO BE USED DURING EACH PHASE OF CONSTRUCTION, INCLUDING TREE REMOVAL, CLEARING AND GRUBBING, EXCAVATION, HAULING OF EXCAVATED MATERIALS, AND PLACEMENT OF EMBANKMENT AND BACKFILL. THE PLAN ALSO WILL DETAIL THE EROSION CONTROL MEASURES TO BE EMPLOYED AT ALL STOCKPILE AND CONSTRUCTION STAGING AREAS AND WILL DEFINE THE MAXIMUM LIMITS OF ALL ACTIVE CONSTRUCTION ZONES.

13. ANY NATIONAL GEODETIC SURVEY MONUMENT WITHIN THE LIMITS OF CONSTRUCTION MUST BE PROTECTED. IF IN DANGER OF DAMAGE, THE CONTRACTOR WILL IMMEDIATELY NOTIFY THE PROJECT MANAGER AND:

FDEP, BUREAU OF SURVEY AND MAPPING, MS 105
3900 COMMONWEALTH BLVD.
TALLAHASSEE, FLORIDA 32399
(850) 245–2606 (OFFICE)
(850) 245–2645 (FAX)

14. PRIOR TO ANY SCHEDULED INTERRUPTION OF UTILITY SERVICE, THE CONTRACTOR WILL COORDINATE SUCH INTERRUPTION WITH THE UTILITY PROVIDER AND WILL PROVIDE A MINIMUM 24–HOUR NOTICE TO THE AFFECTED PARTIES. THE CONTRACTOR WILL NOTIFY THE ELECTRIC UTILITY A MINIMUM OF TWO WEEKS PRIOR TO CONSTRUCTION IN THE VICINITY OF THEIR FACILITIES.

15. NO TRENCHES WILL BE ALLOWED TO REMAIN OPEN OVERNIGHT.

16. THE CONTRACTOR IS RESPONSIBLE FOR THE PROTECTION OF VEGETATION ON AND ADJACENT TO THE PROJECT SITE, AND WILL BE SOLELY LIABLE FOR DAMAGE TO VEGETATION ON PROPERTIES ADJACENT TO CONSTRUCTION WORK ZONES. ALL TREES WITHIN THE LIMITS OF CONSTRUCTION ARE TO BE PROTECTED EXCEPT THOSE TREES IDENTIFIED ON THE PLANS TO BE REMOVED. ALL TREES OUTSIDE THE CONSTRUCTION WORK ZONE ARE TO BE PROTECTED TO THE MAXIMUM EXTENT PRACTICABLE. TREE BARRICADES WILL BE INSTALLED AND MAINTAINED AROUND ALL TREES TO BE PROTECTED AS SHOWN ON THE DRAWINGS OR AS DIRECTED BY THE PROJECT MANAGER.

17. THE CONTRACTOR IS RESPONSIBLE TO PLACE AND MAINTAIN ROADSIDE WARNING SIGNS WHEN WORK IS BEING CONDUCTED IN THE PROPERTY RIGHT OF WAY OR WHEN MACHINERY IS ENTERING AND LEAVING THE PROJECT SITE.

18. THE CONTRACTOR IS RESPONSIBLE FOR DISPOSAL OF EXCAVATED MATERIAL OFF–SITE UNLESS OTHERWISE DIRECTED BY THE PROJECT MANAGER.

19. ENSURE THAT ALL EQUIPMENT, PRIOR TO BRINGING ON–SITE, IS WASHED AND FREE OF SOIL, SEED, OR OTHER ORGANIC MATTER. EQUIPMENT MAY BE INSPECTED BY THE OWNER'S REPRESENTATIVE PRIOR TO OFF–LOADING FOR USE. ADDITIONAL CLEANING WILL BE PERFORMED BY THE CONTRACTOR IF THE OWNER'S REPRESENTATIVE DETERMINES IT IS NEEDED.

EROSION CONTROL NOTES:

1. ALL EROSION AND SEDIMENTATION CONTROLS SHALL BE INSTALLED PRIOR TO ANY LAND DISTURBING ACTIVITIES.

2. ALL EROSION AND SEDIMENTATION CONTROLS SHALL BE INSPECTED DAILY AND REPAIRS MADE AS NECESSARY TO ENSURE THE PROPER AND CONTINUED FUNCTION OF THE CONTROL(S).

3. ALL EROSION AND SEDIMENTATION CONTROL SHALL REMAIN IN PLACE UNTIL A PERMANENT VEGETATIVE COVER HAS BEEN ESTABLISHED.

4. UNDER NO CIRCUMSTANCES SHALL SEDIMENTS BE PERMITTED TO EXIT THE PROJECT LIMITS, INCLUDING TRACKING BY VEHICLES ONTO PAVED ROADWAYS. THE CONTRACTOR SHALL MAKE IMMEDIATE REPAIRS OR ENHANCEMENTS TO ANY EROSION CONTROL SYSTEM THAT ALLOWS THE RELEASE OF SEDIMENTS.

PRELIMINARY
NOT FOR
CONSTRUCTION

DATE	REVISION	SYMBOL	DATE	REVISION	SYMBOL

ISSUE DATE: 11/11/2024 100% PLANS
COMP. FILE No.: 21-5436
STATE PROJECT No.: 61307C-N3803

Department of Environmental Protection
Division of Recreation and Parks
Bureau of Design and Construction
3900 Commonwealth Boulevard, Tallahassee, FL 32399 (850) 245-2157

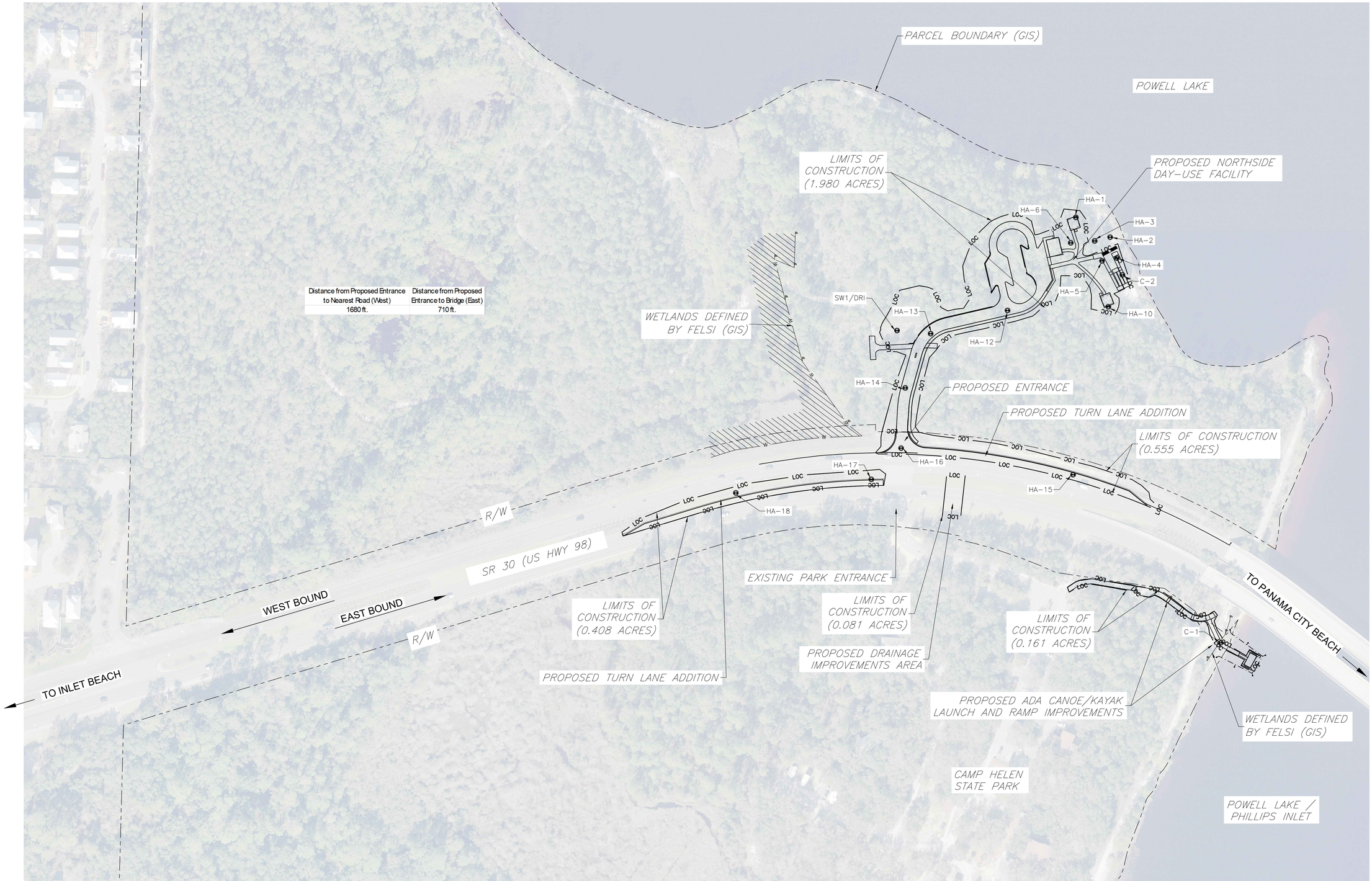
DESIGNER : SMU
DRAWN BY: TJM
REVIEWED BY: JHP

Consultant :
George & Associates
Consulting Engineers, Inc.
CIVIL · ENVIRONMENTAL · TRANSPORTATION · SYSTEMS PLANNING · LAND USE
ENGINEERING BUSINESS NO. 7879
1967 Commonwealth Lane, Suite 200, Tallahassee, FL 32303
PHONE 850.521.0344 - FAX 850.521.0345

PROFESSIONAL REGISTRATION
No 80485
JAMES H. PETERSON IV
State of Florida P.E. # 80485

CAMP HELEN STATE PARK
SHEET TITLE: GENERAL NOTES
PROJECT TITLE: PARK IMPROVEMENT

SHEET NO.
C003



Distance from Proposed Entrance to Nearest Road (West)	Distance from Proposed Entrance to Bridge (East)
1680 ft.	710 ft.

PROJECT LOCATION MAP

SCALE: 1" = 100'

100 0 50 100

1 inch = 100 ft.

LINETYPE LEGEND

W	WETLAND LINE
LOC	LIMITS OF CONSTRUCTION
	GEOTECHNICAL BORINGS

SYMBOL	REVISION	DATE	SYMBOL	REVISION	DATE

ISSUE DATE: 11/11/2024 100% PLANS

COMP. FILE No.: 21-5436

STATE PROJECT No.: 61307C-N3803

DESIGNER: SMU

DRAWN BY: KOP

REVIEWED BY: JHP

Consultant:

George & Associates Consulting Engineers, Inc.

CERTIFICATE OF AUTHORIZATION ENGINEERING BUSINESS NO. 2829

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PROFESSIONAL REGISTRATION

JAMES H. PETERSON III LICENSE No 80485 STATE OF FLORIDA PROFESSIONAL ENGINEER

JAMES H. PETERSON III

State of Florida P.E. # 80485

CAMP HELEN STATE PARK

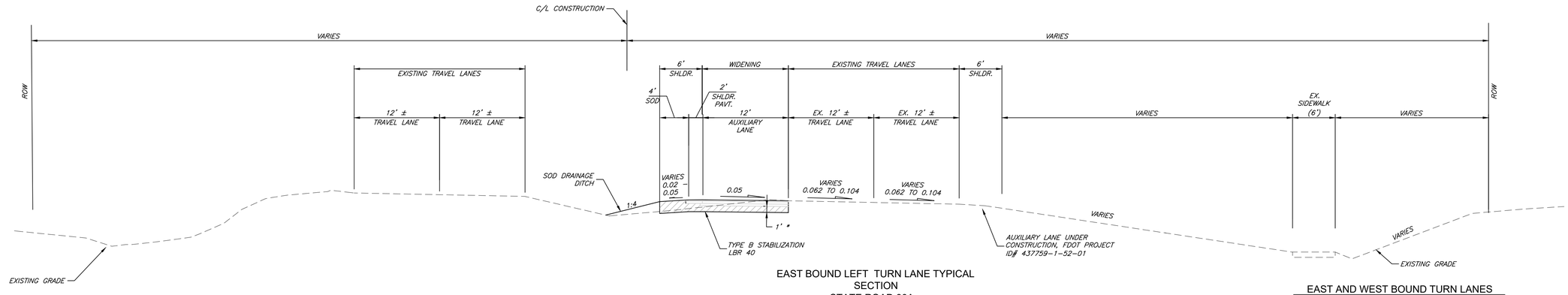
SHEET TITLE: PROJECT LOCATION MAP

PROJECT TITLE: PARK IMPROVEMENT

SHEET NO. C004

Approved
[illegible]-21-491-00044
Lisa Ward
1/30/2025

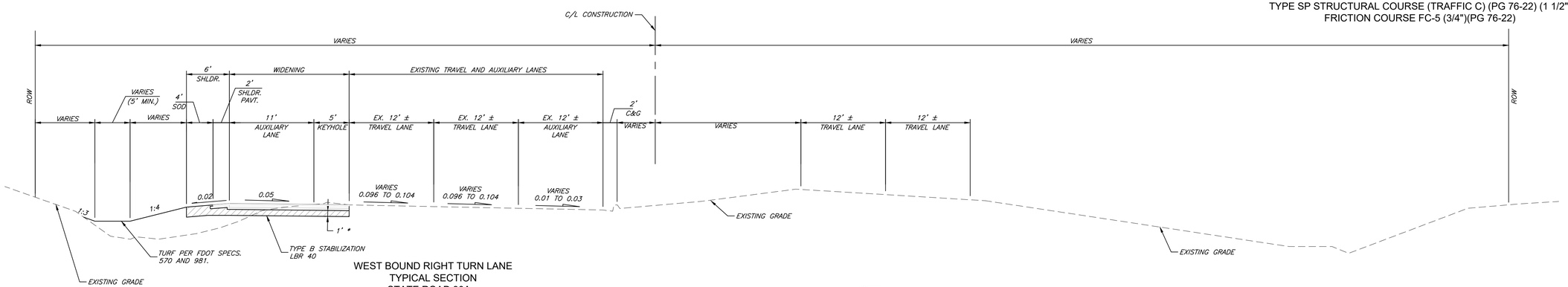
S:\DWN\DCN Dwgs\C004 Project Location Map.dwg



EAST BOUND LEFT TURN LANE TYPICAL SECTION
STATE ROAD 30A
STA. 143+33.78 TO STA. 148+63.00
(LOOKING EAST)

EAST AND WEST BOUND TURN LANES
OPTIONAL BASE GROUP 9
TYPE SP STRUCTURAL COURSE (TRAFFIC C) (PG 76-22) (3")
FRICTION COURSE FC-5 (3/4")(PG 76-22)

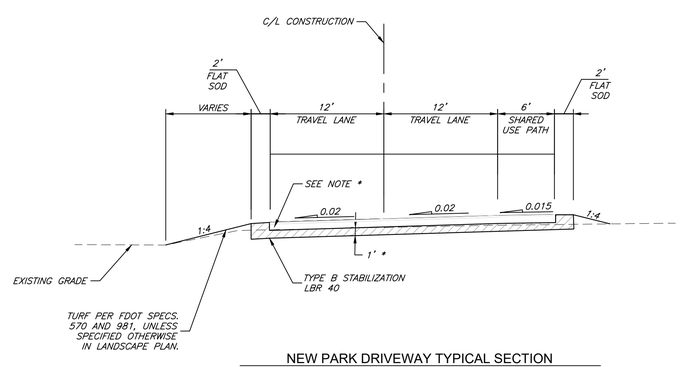
SHOULDER PAVEMENT
OPTIONAL BASE GROUP 1
TYPE SP STRUCTURAL COURSE (TRAFFIC C) (PG 76-22) (1 1/2")
FRICTION COURSE FC-5 (3/4")(PG 76-22)



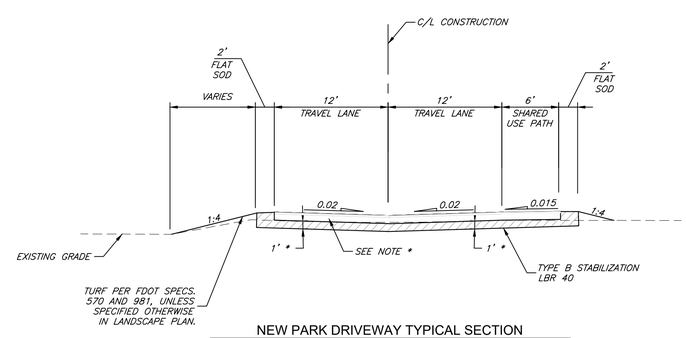
WEST BOUND RIGHT TURN LANE
TYPICAL SECTION
STATE ROAD 30A
STA. 149+12.00 TO STA. 153+93.00
(LOOKING EAST)

NOTE:

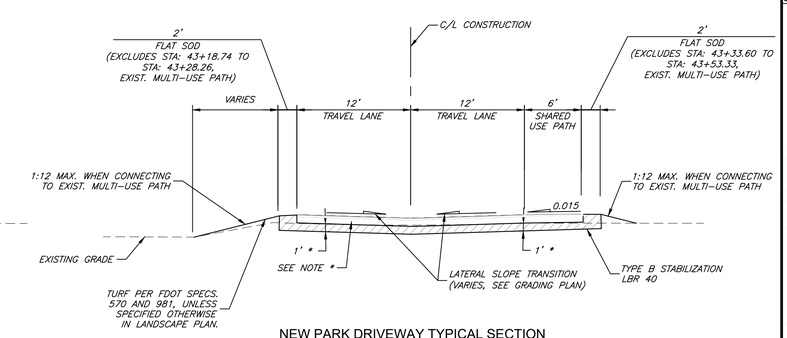
* DRIVEWAY AND PARKING AREA TO HAVE A SP 12.5 ASPHALTIC CONCRETE WEARING SURFACE WITH A MINIMUM THICKNESS OF 2 INCHES. BASE COURSE MATERIAL SHALL BE EITHER LIME ROCK OR GRADED AGGREGATE BASE (GAB) WITH A MINIMUM THICKNESS OF 6 INCHES. THE CONTRACTOR SHALL USE GAB IN LIEU OF LIME ROCK IN ALL AREAS WITHIN 24 INCHES OF WATER TABLE PER FINDINGS OF GEOTECH REPORT.



NEW PARK DRIVEWAY TYPICAL SECTION
OPTIONAL BASE GROUP 4
TYPE SP STRUCTURAL COURSE (TRAFFIC B) (2")
STA. 45+52.00 TO STA. 45+46.00



NEW PARK DRIVEWAY TYPICAL SECTION
OPTIONAL BASE GROUP 4
TYPE SP STRUCTURAL COURSE (TRAFFIC B) (2")
STA. 41+88.34 TO STA. 43+09.05
STA. 43+39.50 TO STA. 43+52.00



NEW PARK DRIVEWAY TYPICAL SECTION
OPTIONAL BASE GROUP 4
TYPE SP STRUCTURAL COURSE (TRAFFIC B) (2")
STA. 43+09.05 TO STA. 43+39.50

TYPICAL SECTIONS

PRELIMINARY NOT FOR CONSTRUCTION

SYMBOL	REVISION	DATE

SYMBOL	REVISION	DATE

ISSUE DATE: 11/11/2024 100% PLANS
COMP. FILE No. 21-5436
STATE PROJECT No. 61307C-N3803

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Division of Recreation and Parks
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REVIEWED BY: JHP
Consultant:

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JAMES H. PETERSON III
State of Florida P.E. # 80485

CAMP HELEN STATE PARK

SHEET TITLE: TYPICAL SECTIONS

PROJECT TITLE: PARK IMPROVEMENT

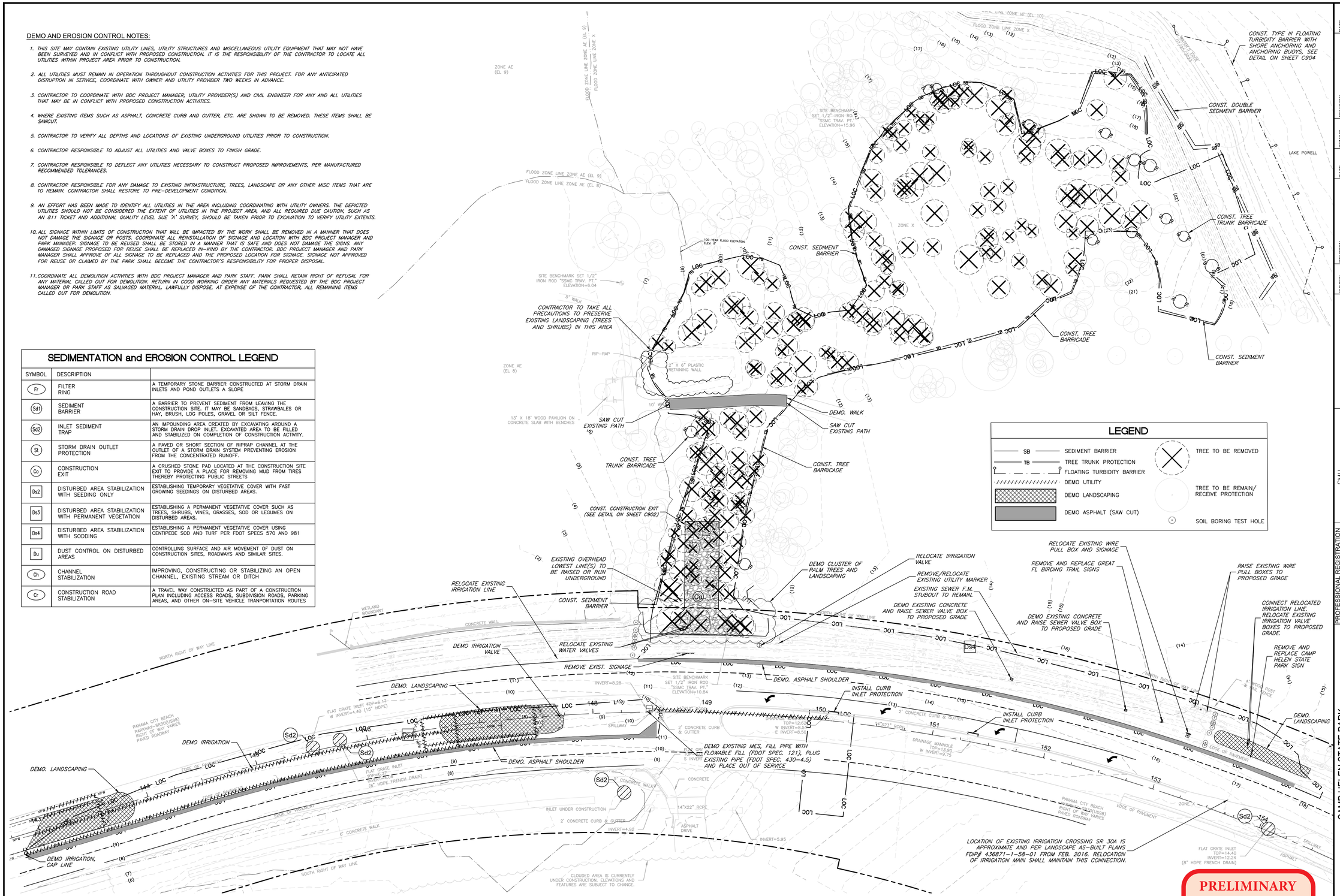
SHEET NO. C005

DEMO AND EROSION CONTROL NOTES:

1. THIS SITE MAY CONTAIN EXISTING UTILITY LINES, UTILITY STRUCTURES AND MISCELLANEOUS UTILITY EQUIPMENT THAT MAY NOT HAVE BEEN SURVEYED AND IN CONFLICT WITH PROPOSED CONSTRUCTION. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO LOCATE ALL UTILITIES WITHIN PROJECT AREA PRIOR TO CONSTRUCTION.
2. ALL UTILITIES MUST REMAIN IN OPERATION THROUGHOUT CONSTRUCTION ACTIVITIES FOR THIS PROJECT. FOR ANY ANTICIPATED DISRUPTION IN SERVICE, COORDINATE WITH OWNER AND UTILITY PROVIDER TWO WEEKS IN ADVANCE.
3. CONTRACTOR TO COORDINATE WITH BDC PROJECT MANAGER, UTILITY PROVIDER(S) AND CIVIL ENGINEER FOR ANY AND ALL UTILITIES THAT MAY BE IN CONFLICT WITH PROPOSED CONSTRUCTION ACTIVITIES.
4. WHERE EXISTING ITEMS SUCH AS ASPHALT, CONCRETE CURB AND GUTTER, ETC. ARE SHOWN TO BE REMOVED. THESE ITEMS SHALL BE SAWCUT.
5. CONTRACTOR TO VERIFY ALL DEPTHS AND LOCATIONS OF EXISTING UNDERGROUND UTILITIES PRIOR TO CONSTRUCTION.
6. CONTRACTOR RESPONSIBLE TO ADJUST ALL UTILITIES AND VALVE BOXES TO FINISH GRADE.
7. CONTRACTOR RESPONSIBLE TO DEFLECT ANY UTILITIES NECESSARY TO CONSTRUCT PROPOSED IMPROVEMENTS, PER MANUFACTURED RECOMMENDED TOLERANCES.
8. CONTRACTOR RESPONSIBLE FOR ANY DAMAGE TO EXISTING INFRASTRUCTURE, TREES, LANDSCAPE OR ANY OTHER MISC ITEMS THAT ARE TO REMAIN. CONTRACTOR SHALL RESTORE TO PRE-DEVELOPMENT CONDITION.
9. AN EFFORT HAS BEEN MADE TO IDENTIFY ALL UTILITIES IN THE AREA INCLUDING COORDINATING WITH UTILITY OWNERS. THE DEPICTED UTILITIES SHOULD NOT BE CONSIDERED THE EXTENT OF UTILITIES IN THE PROJECT AREA, AND ALL REQUIRED DUE CAUTION, SUCH AS AN 811 TICKET AND ADDITIONAL QUALITY LEVEL SUE "A" SURVEY, SHOULD BE TAKEN PRIOR TO EXCAVATION TO VERIFY UTILITY EXTENTS.
10. ALL SIGNAGE WITHIN LIMITS OF CONSTRUCTION THAT WILL BE IMPACTED BY THE WORK SHALL BE REMOVED IN A MANNER THAT DOES NOT DAMAGE THE SIGNAGE OR POSTS. COORDINATE ALL REINSTALLATION OF SIGNAGE AND LOCATION WITH BDC PROJECT MANAGER AND PARK MANAGER. SIGNAGE TO BE REUSED SHALL BE STORED IN A MANNER THAT IS SAFE AND DOES NOT DAMAGE THE SIGNS. ANY DAMAGED SIGNAGE PROPOSED FOR REUSE SHALL BE REPLACED IN-KIND BY THE CONTRACTOR. BDC PROJECT MANAGER AND PARK MANAGER SHALL APPROVE OF ALL SIGNAGE TO BE REPLACED AND THE PROPOSED LOCATION FOR SIGNAGE. SIGNAGE NOT APPROVED FOR REUSE OR CLAIMED BY THE PARK SHALL BECOME THE CONTRACTOR'S RESPONSIBILITY FOR PROPER DISPOSAL.
11. COORDINATE ALL DEMOLITION ACTIVITIES WITH BDC PROJECT MANAGER AND PARK STAFF. PARK SHALL RETAIN RIGHT OF REFUSAL FOR ANY MATERIAL CALLED OUT FOR DEMOLITION. RETURN IN GOOD WORKING ORDER ANY MATERIALS REQUESTED BY THE BDC PROJECT MANAGER OR PARK STAFF AS SALVAGED MATERIAL. LAWFULLY DISPOSE, AT EXPENSE OF THE CONTRACTOR, ALL REMAINING ITEMS CALLED OUT FOR DEMOLITION.

SEDIMENTATION and EROSION CONTROL LEGEND

SYMBOL	DESCRIPTION	
Fr	FILTER RING	A TEMPORARY STONE BARRIER CONSTRUCTED AT STORM DRAIN INLETS AND POND OUTLETS A SLOPE
Sd1	SEDIMENT BARRIER	A BARRIER TO PREVENT SEDIMENT FROM LEAVING THE CONSTRUCTION SITE. IT MAY BE SANDBAGS, STRAWBALES OR HAY, BRUSH, LOG POLES, GRAVEL OR SILT FENCE.
Sd2	INLET SEDIMENT TRAP	AN IMPOUNDING AREA CREATED BY EXCAVATING AROUND A STORM DRAIN DROP INLET. EXCAVATED AREA TO BE FILLED AND STABILIZED ON COMPLETION OF CONSTRUCTION ACTIVITY.
St	STORM DRAIN OUTLET PROTECTION	A PAVED OR SHORT SECTION OF RIPRAP CHANNEL AT THE OUTLET OF A STORM DRAIN SYSTEM PREVENTING EROSION FROM THE CONCENTRATED RUNOFF.
Co	CONSTRUCTION EXIT	A CRUSHED STONE PAD LOCATED AT THE CONSTRUCTION SITE EXIT TO PROVIDE A PLACE FOR REMOVING MUD FROM TIRES THEREBY PROTECTING PUBLIC STREETS
Ds2	DISTURBED AREA STABILIZATION WITH SEEDING ONLY	ESTABLISHING TEMPORARY VEGETATIVE COVER WITH FAST GROWING SEEDINGS ON DISTURBED AREAS.
Ds3	DISTURBED AREA STABILIZATION WITH PERMANENT VEGETATION	ESTABLISHING A PERMANENT VEGETATIVE COVER SUCH AS TREES, SHRUBS, VINES, GRASSES, SOD OR LEGUMES ON DISTURBED AREAS.
Ds4	DISTURBED AREA STABILIZATION WITH SODDING	ESTABLISHING A PERMANENT VEGETATIVE COVER USING CENTIPEDE SOD AND TURF PER FDOT SPECS 570 AND 981
Du	DUST CONTROL ON DISTURBED AREAS	CONTROLLING SURFACE AND AIR MOVEMENT OF DUST ON CONSTRUCTION SITES, ROADWAYS AND SIMILAR SITES.
Ch	CHANNEL STABILIZATION	IMPROVING, CONSTRUCTING OR STABILIZING AN OPEN CHANNEL, EXISTING STREAM OR DITCH
Cr	CONSTRUCTION ROAD STABILIZATION	A TRAVEL WAY CONSTRUCTED AS PART OF A CONSTRUCTION PLAN INCLUDING ACCESS ROADS, SUBDIVISION ROADS, PARKING AREAS, AND OTHER ON-SITE VEHICLE TRANPORTATION ROUTES



DEMOLITION AND EROSION CONTROL PLAN

SCALE:1" = 40'

PRELIMINARY NOT FOR CONSTRUCTION

ISSUE DATE: 11/11/2024 100% PLANS	SYMBOL	REVISION	DATE	SYMBOL	REVISION	DATE
COMP. FILE No. 21-5436						
STATE PROJECT No. 61307C-N3803						

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Bureau of Design and Construction
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JAMES H. PETERSON IV #
State of Florida P.E. # 80465

CAMP HELEN STATE PARK

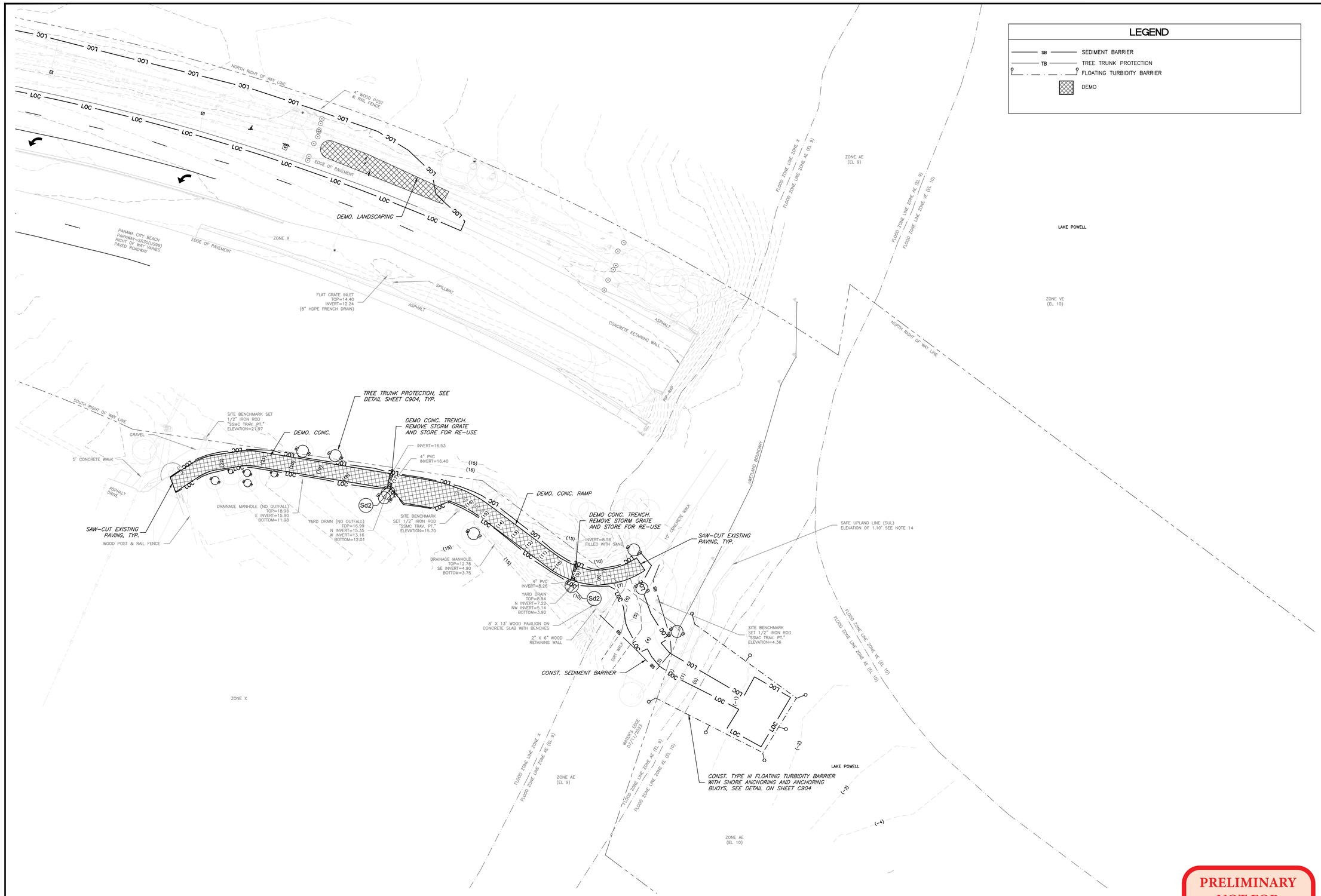
SHEET TITLE: DEMOLITION AND EROSION CONTROL PLAN

PROJECT TITLE: PARK IMPROVEMENT

SHEET NO. C201

Approved
2025-0391-00044
Lee Ward
1/30/2025

SULSAMER January 7, 2025 P:\Projects\21-5436 BDC Camp Helen State Park\Drawings\Civil\03 Existing Conditions, Demo, Tree Removal\C201 Demolition and Erosion Control Plan.dwg



DEMOLITION AND EROSION CONTROL PLAN

SCALE:1" = 30'

PRELIMINARY NOT FOR CONSTRUCTION

ISSUE DATE: 11/11/2024 100% PLANS	SYMBOL	REVISION	DATE	SYMBOL	REVISION	DATE
COMP. FILE No.: 21-5436						
STATE PROJECT No.: 61307C-N3803						

Department of Environmental Protection
Division of Recreation and Parks
Bureau of Design and Construction
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JAMES H. PETERSON IV
State of Florida P.E. # 80485

CAMP HELEN STATE PARK

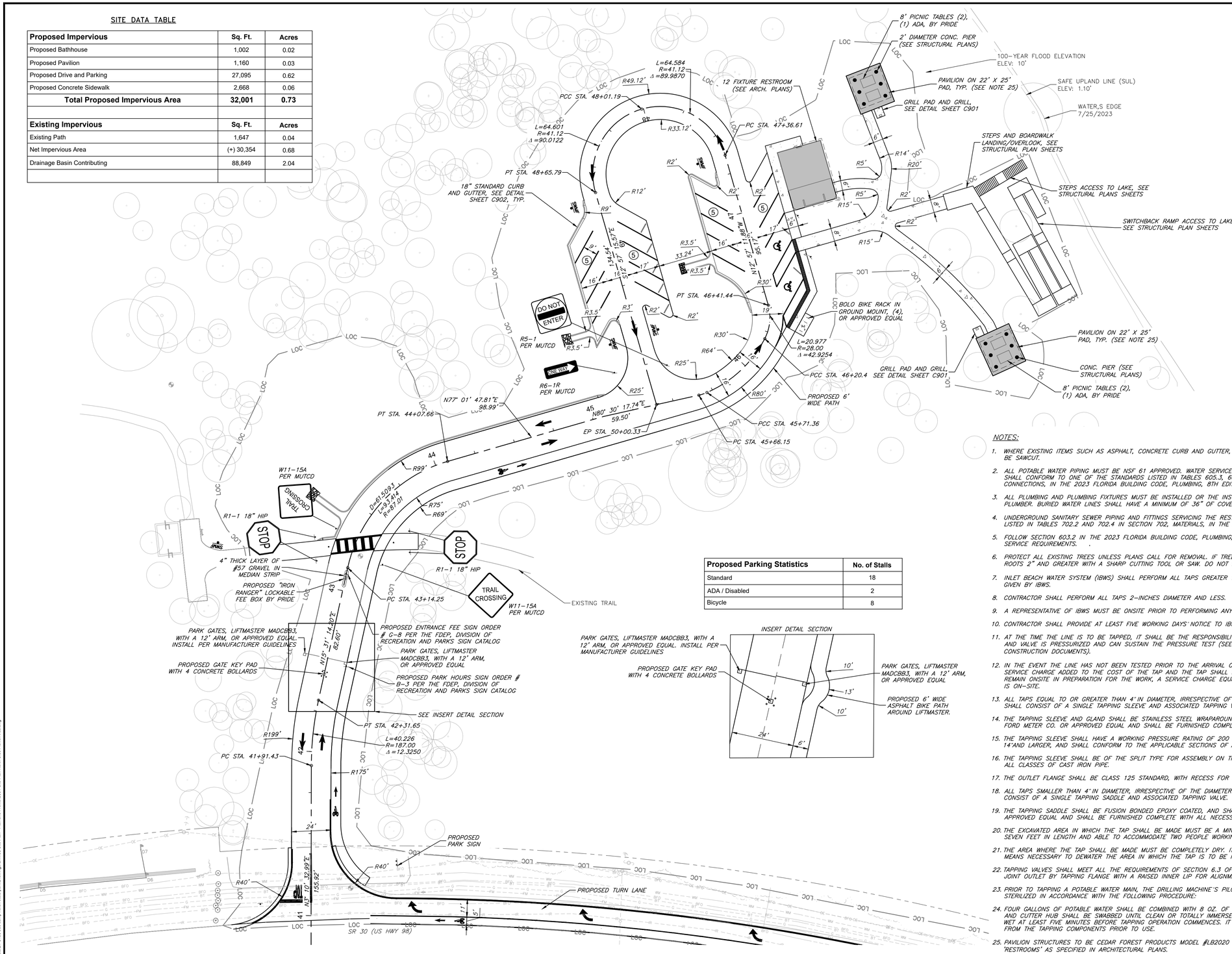
SHEET TITLE: DEMOLITION AND EROSION CONTROL PLAN

PROJECT TITLE: PARK IMPROVEMENT

SHEET NO. C202

SITE DATA TABLE

Proposed Impervious	Sq. Ft.	Acres
Proposed Bathhouse	1,002	0.02
Proposed Pavilion	1,160	0.03
Proposed Drive and Parking	27,095	0.62
Proposed Concrete Sidewalk	2,668	0.06
Total Proposed Impervious Area	**32,001**	**0.73**
Existing Impervious	**Sq. Ft.**	**Acres**
Existing Path	1,647	0.04
Net Impervious Area	(+) 30,354	0.68
Drainage Basin Contributing	88,849	2.04



SITE PLAN NORTH SIDE PICNIC AREA

SCALE:1" = 30'

Proposed Parking Statistics	No. of Stalls
Standard	18
ADA / Disabled	2
Bicycle	8

INSERT DETAIL SECTION

LEGEND

- PROPOSED ASPHALT PAVING
- PROPOSED CONCRETE SIDEWALK
- PROPOSED BUILDING
- SUE TEST HOLE
- YARD HYDRANT
- BACKFLOW PREVENTER
- VALVE
- REDUCER
- WATER METER
- VEHICLE PARKING COUNT
- SIGN
- SWMF SIGN(SEE NOTE 26.)

PRELIMINARY NOT FOR CONSTRUCTION

NOTES:

1. WHERE EXISTING ITEMS SUCH AS ASPHALT, CONCRETE CURB AND GUTTER, ETC. ARE SHOWN TO BE REMOVED. THESE ITEMS SHALL BE SAWCUT.
2. ALL POTABLE WATER PIPING MUST BE NSF 61 APPROVED. WATER SERVICE PIPING, DISTRIBUTION PIPING AND PLUMBING FIXTURES SHALL CONFORM TO ONE OF THE STANDARDS LISTED IN TABLES 605.3, 605.4, 605.5 IN SECTION 605, MATERIALS, JOINTS AND CONNECTIONS, IN THE 2023 FLORIDA BUILDING CODE, PLUMBING, 8TH EDITION.
3. ALL PLUMBING AND PLUMBING FIXTURES MUST BE INSTALLED OR THE INSTALLATION MUST BE SUPERVISED BY A FLORIDA LICENSED PLUMBER. BURIED WATER LINES SHALL HAVE A MINIMUM OF 36" OF COVER.
4. UNDERGROUND SANITARY SEWER PIPING AND FITTINGS SERVICING THE RESTROOM SHALL CONFORM TO ONE OF THE STANDARDS LISTED IN TABLES 702.2 AND 702.4 IN SECTION 702, MATERIALS, IN THE 2023 FLORIDA BUILDING CODE, PLUMBING, 8TH EDITION.
5. FOLLOW SECTION 603.2 IN THE 2023 FLORIDA BUILDING CODE, PLUMBING, 8TH EDITION FOR SEPARATION OF SEWER AND WATER SERVICE REQUIREMENTS. .
6. PROTECT ALL EXISTING TREES UNLESS PLANS CALL FOR REMOVAL. IF TREE ROOTS ARE ENCOUNTERED DURING EXCAVATION CUT ALL ROOTS 2" AND GREATER WITH A SHARP CUTTING TOOL OR SAW. DO NOT DAMAGE THE TREE TRUNK OR BARK.
7. INLET BEACH WATER SYSTEM (IBWS) SHALL PERFORM ALL TAPS GREATER THAN 2" IN DIAMETER, UNLESS WRITTEN PERMISSION IS GIVEN BY IBWS.
8. CONTRACTOR SHALL PERFORM ALL TAPS 2-INCHES DIAMETER AND LESS.
9. A REPRESENTATIVE OF IBWS MUST BE ONSITE PRIOR TO PERFORMING ANY AND ALL TAPS.
10. CONTRACTOR SHALL PROVIDE AT LEAST FIVE WORKING DAYS' NOTICE TO IBWS PRIOR TO PERFORMING THE WORK.
11. AT THE TIME THE LINE IS TO BE TAPPED, IT SHALL BE THE RESPONSIBILITY OF CONTRACTOR TO ENSURE THAT THE TAPPING SLEEVE AND VALVE IS PRESSURIZED AND CAN SUSTAIN THE PRESSURE TEST (SEE SECTION 6.3.7 OF IBWS SPECIFICATION, INCLUDED IN CONSTRUCTION DOCUMENTS).
12. IN THE EVENT THE LINE HAS NOT BEEN TESTED PRIOR TO THE ARRIVAL OF IBWS AT THE JOB SITE, THERE SHALL BE A $50.00 SERVICE CHARGE ADDED TO THE COST OF THE TAP AND THE TAP SHALL BE RESCHEDULED. SHOULD CONTRACTOR PREFER IBWS TO REMAIN ONSITE IN PREPARATION FOR THE WORK, A SERVICE CHARGE EQUAL TO $50.00 AN HOUR SHALL APPLY SO LONG AS IBWS IS ON-SITE.
13. ALL TAPS EQUAL TO OR GREATER THAN 4" IN DIAMETER, IRRESPECTIVE OF THE DIAMETER OF THE LINE TO WHICH YOU ARE TAPPING, SHALL CONSIST OF A SINGLE TAPPING SLEEVE AND ASSOCIATED TAPPING VALVE.
14. THE TAPPING SLEEVE AND GLAND SHALL BE STAINLESS STEEL WRAPAROUND "FAST STYLE", AND SHALL BE AS MANUFACTURED BY FORD METER CO. OR APPROVED EQUAL AND SHALL BE FURNISHED COMPLETE WITH ALL NECESSARY ACCESSORIES.
15. THE TAPPING SLEEVE SHALL HAVE A WORKING PRESSURE RATING OF 200 PSI FOR SIZES 4" THROUGH 12" AND 150 PSI FOR SIZES 14" AND LARGER, AND SHALL CONFORM TO THE APPLICABLE SECTIONS OF AWWA STANDARD C110 OF LATEST REVISION.
16. THE TAPPING SLEEVE SHALL BE OF THE SPLIT TYPE FOR ASSEMBLY ON THE PIPE AND THE SLEEVE SHALL BE SIZED FOR USE WITH ALL CLASSES OF CAST IRON PIPE.
17. THE OUTLET FLANGE SHALL BE CLASS 125 STANDARD, WITH RECESS FOR STANDARD TAPPING VALVES.
18. ALL TAPS SMALLER THAN 4" IN DIAMETER, IRRESPECTIVE OF THE DIAMETER OF THE LINE TO WHICH YOU ARE TAPPING, SHALL CONSIST OF A SINGLE TAPPING SADDLE AND ASSOCIATED TAPPING VALVE.
19. THE TAPPING SADDLE SHALL BE FUSION BONDED EPOXY COATED, AND SHALL BE AS MANUFACTURED BY FORD METER CO. OR APPROVED EQUAL AND SHALL BE FURNISHED COMPLETE WITH ALL NECESSARY ACCESSORIES.
20. THE EXCAVATED AREA IN WHICH THE TAP SHALL BE MADE MUST BE A MINIMUM OF 4' BELOW THE BOTTOM OF THE VALVE, AT LEAST SEVEN FEET IN LENGTH AND ABLE TO ACCOMMODATE TWO PEOPLE WORKING.
21. THE AREA WHERE THE TAP SHALL BE MADE MUST BE COMPLETELY DRY. IT IS THE RESPONSIBILITY OF CONTRACTOR TO PURSUE ALL MEANS NECESSARY TO DEWATER THE AREA IN WHICH THE TAP IS TO BE MADE.
22. TAPPING VALVES SHALL MEET ALL THE REQUIREMENTS OF SECTION 6.3 OF IBWS SPECIFICATIONS AND SHALL BE A MECHANICAL JOINT OUTLET BY TAPPING FLANGE WITH A RAISED INNER LIP FOR ALIGNMENT WITH THE TAPPING SLEEVE.
23. PRIOR TO TAPPING A POTABLE WATER MAIN, THE DRILLING MACHINE'S PILOT DRILL, SHELL CUTTER AND CUTTER HUB SHALL BE STERILIZED IN ACCORDANCE WITH THE FOLLOWING PROCEDURE:
24. FOUR GALLONS OF POTABLE WATER SHALL BE COMBINED WITH 8 OZ. OF SODIUM HYPOCHLORITE; THE PILOT DRILL, SHELL CUTTER AND CUTTER HUB SHALL BE SWABBED UNTIL CLEAN OR TOTALLY IMMERSED IN THE STERILIZING SOLUTION AND ALLOWED TO REMAIN WET AT LEAST FIVE MINUTES BEFORE TAPPING OPERATION COMMENCES. IT IS NOT NECESSARY TO RINSE THE STERILIZING SOLUTION FROM THE TAPPING COMPONENTS PRIOR TO USE.
25. PAVILION STRUCTURES TO BE CEDAR FOREST PRODUCTS MODEL #LB2020 OR APPROVED EQUAL. METAL ROOFING SHALL MATCH "RESTROOMS" AS SPECIFIED IN ARCHITECTURAL PLANS.
26. SWMF SIGNAGE TO SERVE AS NOTICE TO PUBLIC / VISITORS THAT STORM PONDS SHALL NOT BE USED FOR RECREATIONAL PURPOSES. EXACT VERBIAGE AND SIGN SPECIFICATIONS TO BE SELECTED AT OWNER'S OPTION.

30 0 15 30
1 inch = 30 ft.

SYMBOL	REVISION	DATE

ISSUE DATE: 11/11/2024 100% PLANS
COMP. FILE No. 21-5436
STATE PROJECT No. 61307C-N3803

Department of Environmental Protection
Division of Recreation and Parks
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DRAWN BY: SMU
REVIEWED BY: JHP
Consultant:

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JAMES H. PETERSON III
State of Florida P.E. # 80485

CAMP HELEN STATE PARK

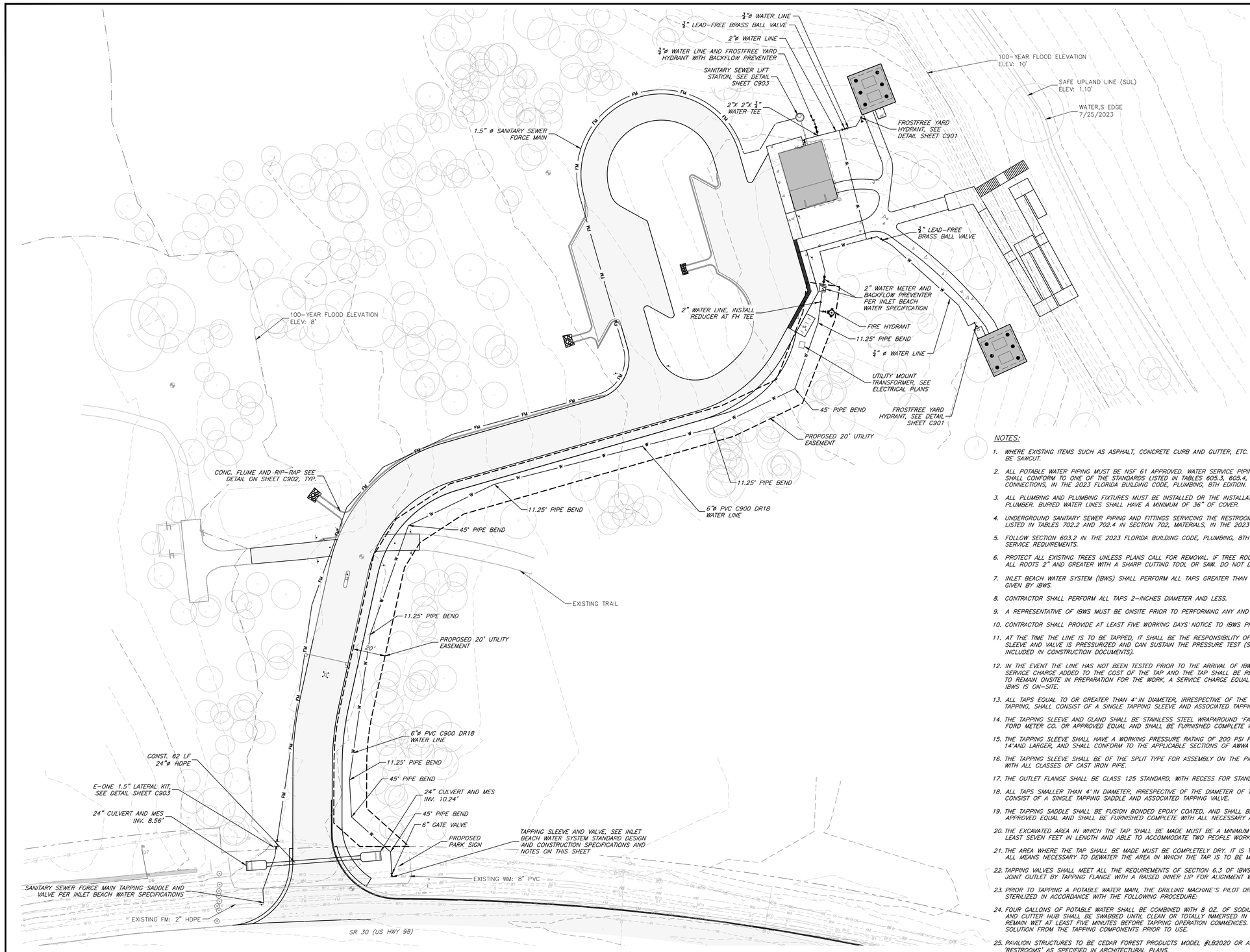
SHEET TITLE: SITE PLAN NORTH SIDE PICNIC AREA

PROJECT TITLE: PARK IMPROVEMENT

SHEET NO. C301

Approved
DocuSign Envelope ID: A391D0044
Lisa Ward
1/30/2025

S:\DWN\SOK January 2, 2025 p:\Projects\21-5436 bbs camp helen state park\Drawings\Civil\02 Site Plan - Plan and Profile\C301 Site Plan - Plan and Profile North Side Picnic Area.dwg



LEGEND

- YARD HYDRANT
- BACKFLOW PREVENTER
- VALVE
- REDUCER
- WATER METER

PRELIMINARY NOT FOR CONSTRUCTION

NOTES:

1. WHERE EXISTING ITEMS SUCH AS ASPHALT, CONCRETE CURB AND GUTTER, ETC. ARE SHOWN TO BE REMOVED. THESE ITEMS SHALL BE SAWCUT.
2. ALL POTABLE WATER PIPING MUST BE NSF 61 APPROVED. WATER SERVICE PIPING, DISTRIBUTION PIPING AND PLUMBING FIXTURES SHALL CONFORM TO ONE OF THE STANDARDS LISTED IN TABLES 605.3, 605.4, 605.5 IN SECTION 605, MATERIALS, JOINTS AND CONNECTIONS, IN THE 2023 FLORIDA BUILDING CODE, PLUMBING, 8TH EDITION.
3. ALL PLUMBING AND PLUMBING FIXTURES MUST BE INSTALLED OR THE INSTALLATION MUST BE SUPERVISED BY A FLORIDA LICENSED PLUMBER. BURIED WATER LINES SHALL HAVE A MINIMUM OF 36" OF COVER.
4. UNDERGROUND SANITARY SEWER PIPING AND FITTINGS SERVICING THE RESTROOM SHALL CONFORM TO ONE OF THE STANDARDS LISTED IN TABLES 702.2 AND 702.4 IN SECTION 702, MATERIALS, IN THE 2023 FLORIDA BUILDING CODE, PLUMBING, 8TH EDITION.
5. FOLLOW SECTION 603.2 IN THE 2023 FLORIDA BUILDING CODE, PLUMBING, 8TH EDITION FOR SEPARATION OF SEWER AND WATER SERVICE REQUIREMENTS.
6. PROTECT ALL EXISTING TREES UNLESS PLANS CALL FOR REMOVAL. IF TREE ROOTS ARE ENCOUNTERED DURING EXCAVATION CUT ALL ROOTS 2" AND GREATER WITH A SHARP CUTTING TOOL OR SAW. DO NOT DAMAGE THE TREE TRUNK OR BARK.
7. INLET BEACH WATER SYSTEM (IBWS) SHALL PERFORM ALL TAPS GREATER THAN 2" IN DIAMETER, UNLESS WRITTEN PERMISSION IS GIVEN BY IBWS.
8. CONTRACTOR SHALL PERFORM ALL TAPS 2-INCHES DIAMETER AND LESS.
9. A REPRESENTATIVE OF IBWS MUST BE ONSITE PRIOR TO PERFORMING ANY AND ALL TAPS.
10. CONTRACTOR SHALL PROVIDE AT LEAST FIVE WORKING DAYS' NOTICE TO IBWS PRIOR TO PERFORMING THE WORK.
11. AT THE TIME THE LINE IS TO BE TAPPED, IT SHALL BE THE RESPONSIBILITY OF CONTRACTOR TO ENSURE THAT THE TAPPING SLEEVE AND VALVE IS PRESSURIZED AND CAN SUSTAIN THE PRESSURE TEST (SEE SECTION 6.3.7 OF IBWS SPECIFICATION, INCLUDED IN CONSTRUCTION DOCUMENTS).
12. IN THE EVENT THE LINE HAS NOT BEEN TESTED PRIOR TO THE ARRIVAL OF IBWS AT THE JOB SITE, THERE SHALL BE A $50.00 SERVICE CHARGE ADDED TO THE COST OF THE TAP AND THE TAP SHALL BE RESCHEDULED. SHOULD CONTRACTOR PREFER IBWS TO REMAIN ONSITE IN PREPARATION FOR THE WORK, A SERVICE CHARGE EQUAL TO $50.00 AN HOUR SHALL APPLY SO LONG AS IBWS IS ON-SITE.
13. ALL TAPS EQUAL TO OR GREATER THAN 4" IN DIAMETER, IRRESPECTIVE OF THE DIAMETER OF THE LINE TO WHICH YOU ARE TAPPING, SHALL CONSIST OF A SINGLE TAPPING SLEEVE AND ASSOCIATED TAPPING VALVE.
14. THE TAPPING SLEEVE AND GLAND SHALL BE STAINLESS STEEL WRAPAROUND "FAST STYLE", AND SHALL BE AS MANUFACTURED BY FORD METER CO. OR APPROVED EQUAL AND SHALL BE FURNISHED COMPLETE WITH ALL NECESSARY ACCESSORIES.
15. THE TAPPING SLEEVE SHALL HAVE A WORKING PRESSURE RATING OF 200 PSI FOR SIZES 4" THROUGH 12" AND 150 PSI FOR SIZES 14" AND LARGER, AND SHALL CONFORM TO THE APPLICABLE SECTIONS OF AWWA STANDARD C110 OF LATEST REVISION.
16. THE TAPPING SLEEVE SHALL BE OF THE SPLIT TYPE FOR ASSEMBLY ON THE PIPE AND THE SLEEVE SHALL BE SIZED FOR USE WITH ALL CLASSES OF CAST IRON PIPE.
17. THE OUTLET FLANGE SHALL BE CLASS 125 STANDARD, WITH RECESS FOR STANDARD TAPPING VALVES.
18. ALL TAPS SMALLER THAN 4" IN DIAMETER, IRRESPECTIVE OF THE DIAMETER OF THE LINE TO WHICH YOU ARE TAPPING, SHALL CONSIST OF A SINGLE TAPPING SADDLE AND ASSOCIATED TAPPING VALVE.
19. THE TAPPING SADDLE SHALL BE FUSION BONDED EPOXY COATED, AND SHALL BE AS MANUFACTURED BY FORD METER CO. OR APPROVED EQUAL AND SHALL BE FURNISHED COMPLETE WITH ALL NECESSARY ACCESSORIES.
20. THE EXCAVATED AREA IN WHICH THE TAP SHALL BE MADE MUST BE A MINIMUM OF 4" BELOW THE BOTTOM OF THE VALVE, AT LEAST SEVEN FEET IN LENGTH AND ABLE TO ACCOMMODATE TWO PEOPLE WORKING.
21. THE AREA WHERE THE TAP SHALL BE MADE MUST BE COMPLETELY DRY. IT IS THE RESPONSIBILITY OF CONTRACTOR TO PURSUE ALL MEANS NECESSARY TO DEWATER THE AREA IN WHICH THE TAP IS TO BE MADE.
22. TAPPING VALVES SHALL MEET ALL THE REQUIREMENTS OF SECTION 6.3 OF IBWS SPECIFICATIONS AND SHALL BE A MECHANICAL JOINT OUTLET BY TAPPING FLANGE WITH A RAISED INNER LIP FOR ALIGNMENT WITH THE TAPPING SLEEVE.
23. PRIOR TO TAPPING A POTABLE WATER MAIN, THE DRILLING MACHINE'S PILOT DRILL, SHELL CUTTER AND CUTTER HUB SHALL BE STERILIZED IN ACCORDANCE WITH THE FOLLOWING PROCEDURE:
24. FOUR GALLONS OF POTABLE WATER SHALL BE COMBINED WITH 8 OZ. OF SODIUM HYPOCHLORITE; THE PILOT DRILL, SHELL CUTTER AND CUTTER HUB SHALL BE SWABBED UNTIL CLEAN OR TOTALLY IMMERSED IN THE STERILIZING SOLUTION AND ALLOWED TO REMAIN WET AT LEAST FIVE MINUTES BEFORE TAPPING OPERATION COMMENCES. IT IS NOT NECESSARY TO RINSE THE STERILIZING SOLUTION FROM THE TAPPING COMPONENTS PRIOR TO USE.
25. PAVILION STRUCTURES TO BE CEDAR FOREST PRODUCTS MODEL #LB2020 OR APPROVED EQUAL. METAL ROOFING SHALL MATCH "RESTROOMS" AS SPECIFIED IN ARCHITECTURAL PLANS.

PROPOSED UTILITY PLAN NORTH SIDE PICNIC AREA

SCALE:1" = 30'

30 0 15 30

1 inch = 30 ft.

ISSUE DATE: 11/11/2024 100% PLANS	SYMBOL	REVISION	DATE	SYMBOL	REVISION	DATE
COMP. FILE No.: 21-5436						
STATE PROJECT No: 61307C-N3803						

DESIGNER: SMU
DRAWN BY: SMU
REVIEWED BY: JHP

Consultant:

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JAMES H. PETERSON III
State of Florida P.E. # 80485

CAMP HELEN STATE PARK

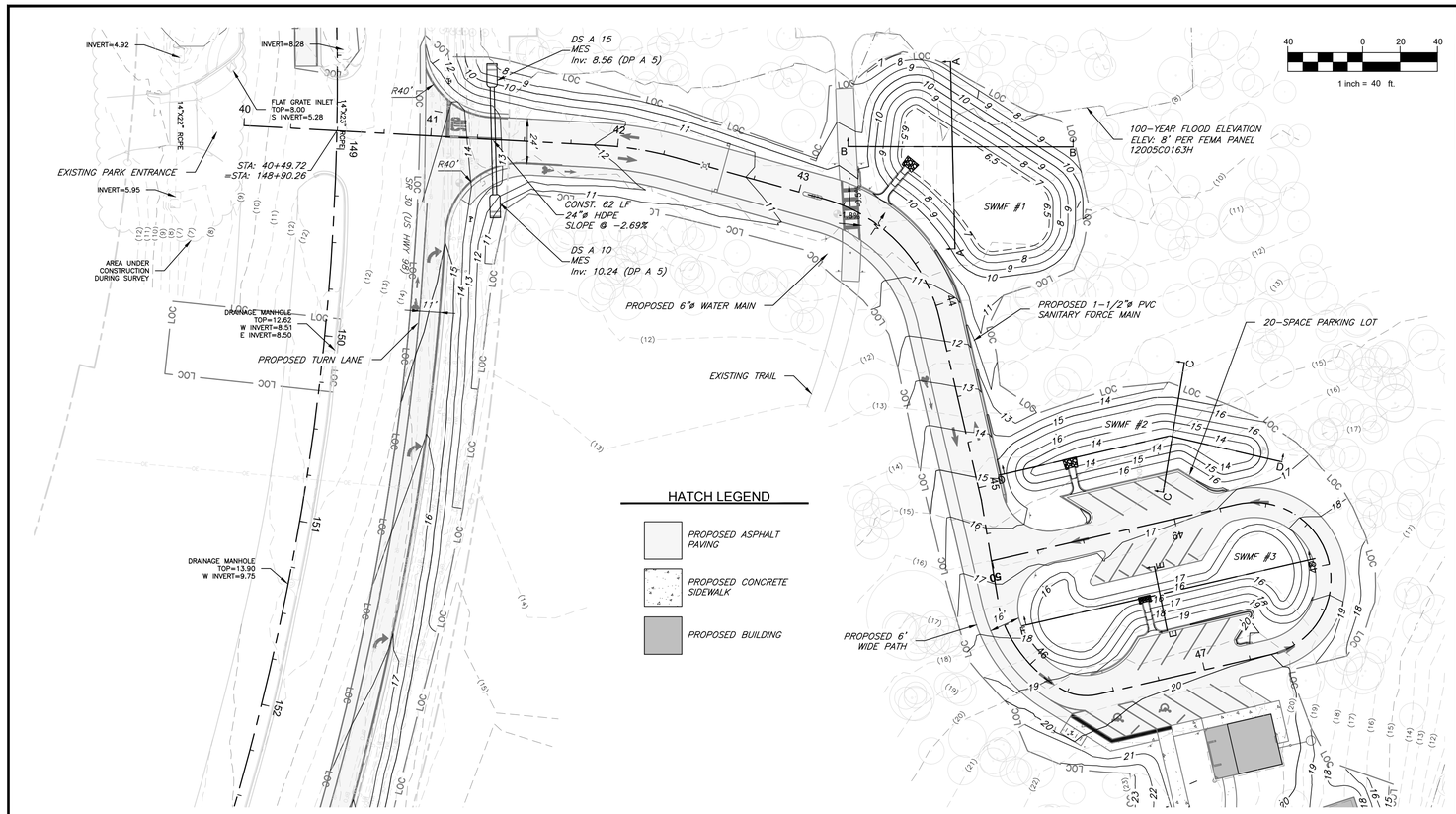
SHEET TITLE: PROPOSED UTILITY PLAN NORTH SIDE PICNIC AREA

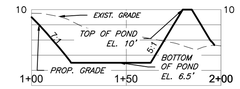
PROJECT TITLE: PARK IMPROVEMENT

SHEET NO. C302

Approved
24-0291-00044
Lee Ward
1/30/2025

SULSAMER, December 17, 2024 p:\Projects\21-5436 bdc camp helen state park\Drawings\Civil\05 Site Plan - Plan and Profile\C302 Proposed Utility Plan North Side Picnic Area.dwg





SWMF #1 SECTION A-A
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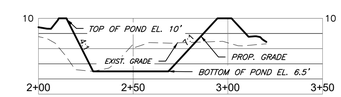

SWMF #1 SECTION B-B
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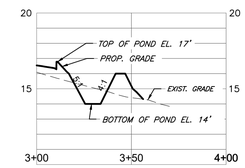

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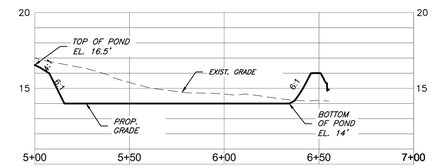

SWMF #2 SECTION D-D
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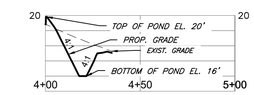

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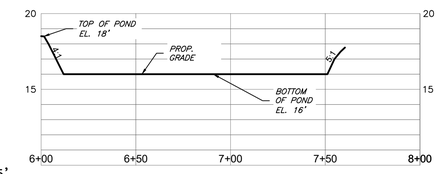
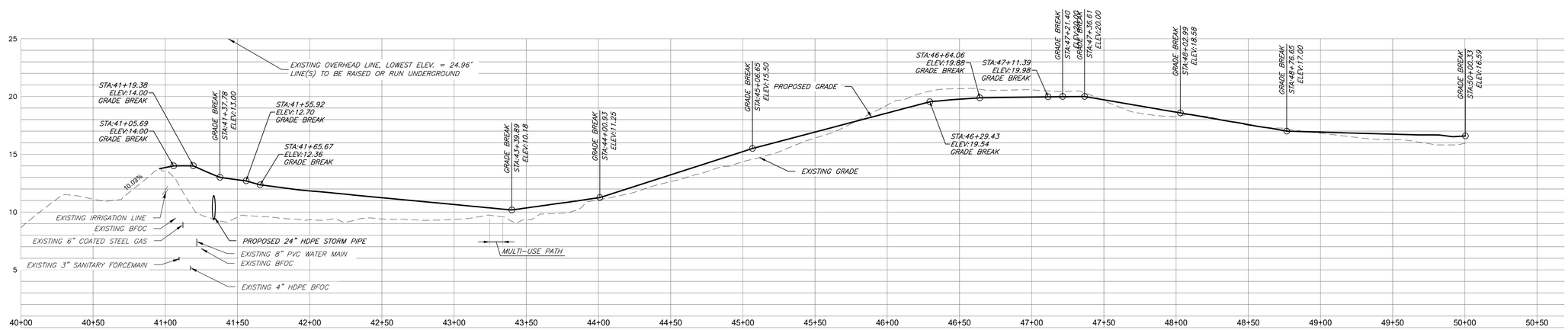


SWMF #3 SECTION F-F
Horiz. Scale: 1"=40' Vert. Scale: 1"=5'

NOTE: POND SIDES TO BE STABILIZED WITH BAHIA SEED AND FLORIDA UPLANDS MEADOW MIX. SEED AND MULCH POND BOTTOMS. DO NOT COMPACT POND BOTTOMS. PLEASE SEE LANDSCAPE PLAN SHEET, C306.



ALIGNMENT - DRIVEWAY
Horiz. Scale: 1"=40' Vert. Scale: 1"=5'

DRIVEWAY PLAN AND PROFILE

SCALE:1" = 40'

PRELIMINARY NOT FOR CONSTRUCTION

SYMBOL	REVISION	DATE

SYMBOL	REVISION	DATE

ISSUE DATE: 11/11/2024 100% PLANS
COMP. FILE No: 21-5436
STATE PROJECT No: 61307C-N3803

DESIGNER: SMU
DRAWN BY: TJM
REVIEWED BY: JHP

Consultant:
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CAMP HELEN STATE PARK

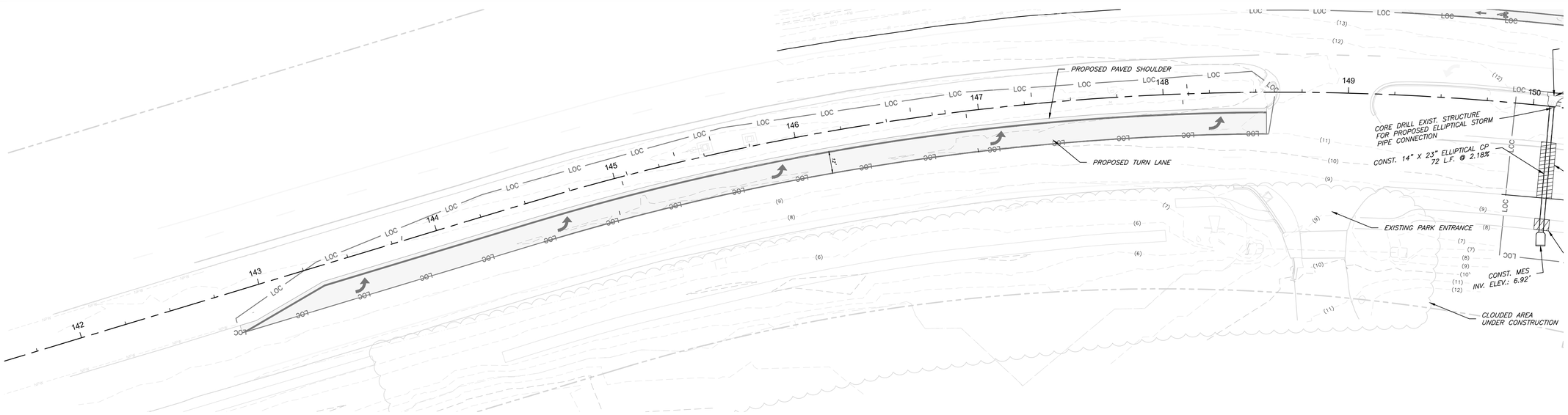
SHEET TITLE: DRIVEWAY PLAN AND PROFILE

PROJECT TITLE: PARK IMPROVEMENT

SHEET NO. C303

Approved
24-0391-00044
Lee Ward
1/30/2025

S:\DPR\SDN, January 2, 2025, p:\Projects21-5436 bdc camp helen state park\Drawings\Civil\05 Site Plan - Plan and Profile\C303 Driveway Plan and Profile.dwg



EAST BOUND LEFT TURN LANE PLAN

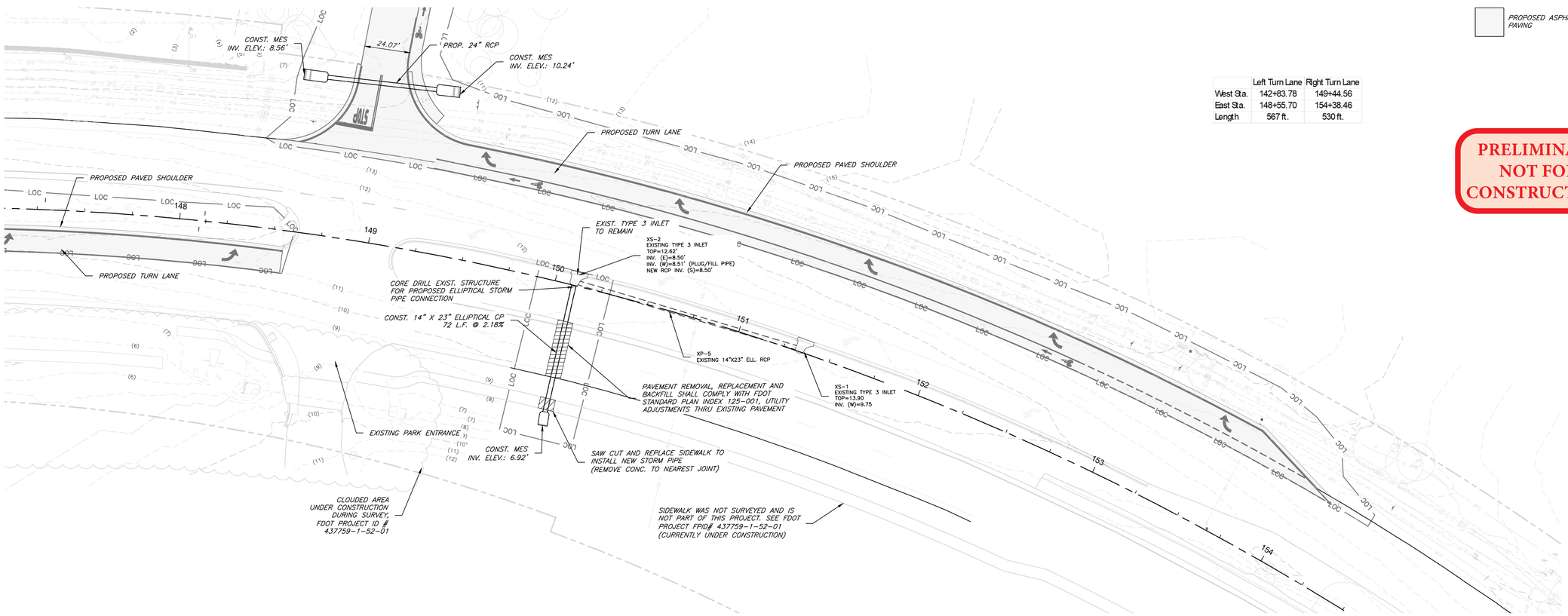
SCALE: 1" = 30'

LEGEND

PROPOSED ASPHALT PAVING

	Left Turn Lane	Right Turn Lane
West Sta.	142+83.78	149+44.56
East Sta.	148+55.70	154+38.46
Length	567 ft.	530 ft.

PRELIMINARY NOT FOR CONSTRUCTION



WEST BOUND RIGHT TURN LANE PLAN

SCALE: 1" = 30'

30 0 15 30

1 inch = 30 ft.

SYMBOL	REVISION	DATE	SYMBOL	REVISION	DATE

ISSUE DATE: 11/11/2024 100% PLANS

COMP. FILE No.: 21-5436

STATE PROJECT No.: 61307C-N3803

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DESIGNER: SMU
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REVIEWED BY: JHP
Consultant:

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PROFESSIONAL ENGINEER

JAMES H. PEERSON IV
State of Florida P.E. # 80485

CAMP HELEN STATE PARK

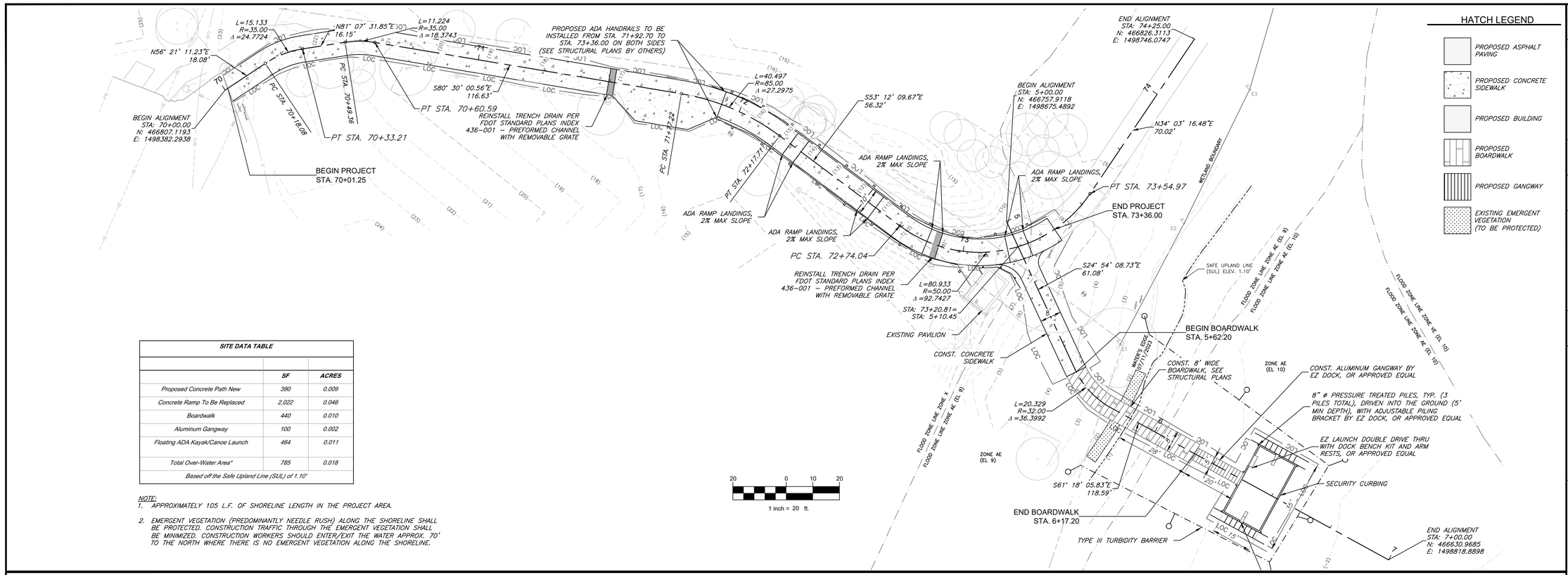
SHEET TITLE: SITE PLAN TURN LANES

PROJECT TITLE: PARK IMPROVEMENT

SHEET NO. C304

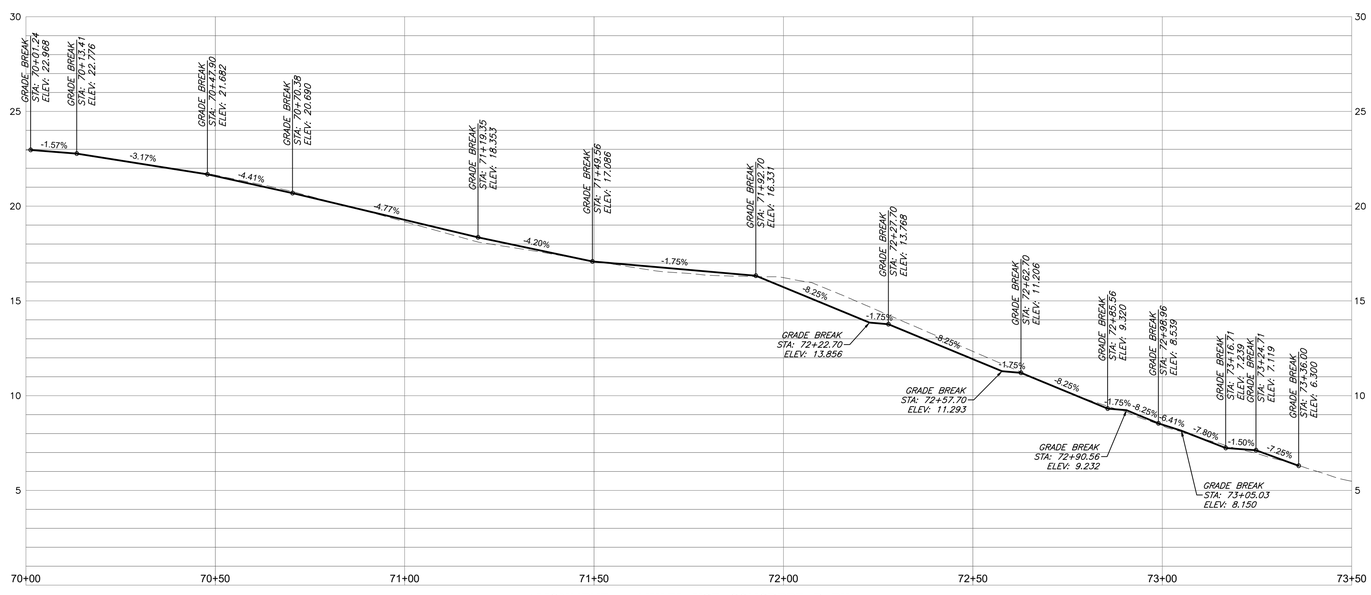
Approved
Approval 241100044
Lisa Ward
1/30/2025

BILLSAMER January 7, 2025 P:\Projects\21-5436 BDC Camp Helen State Park\Drawings\Civil\05 Site Plan - Plan and Profile\C304 Site Plan Turn Lanes.dwg

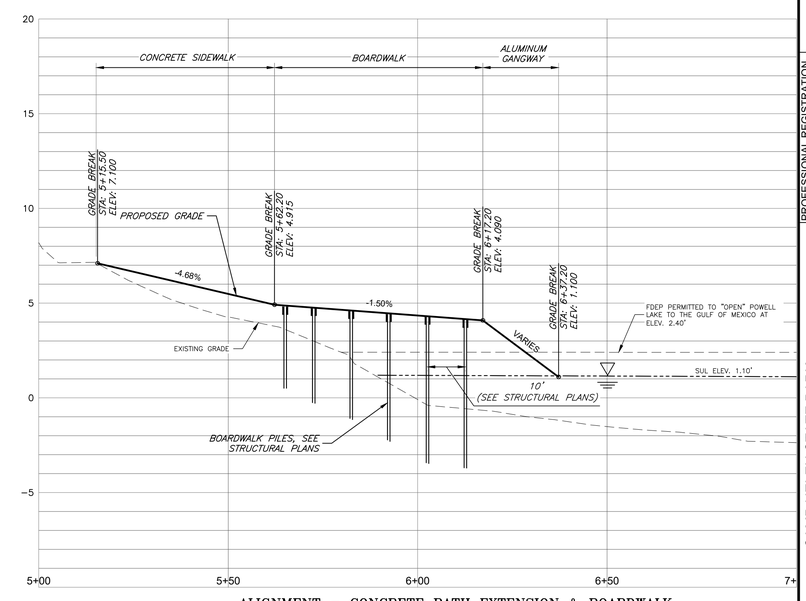


SITE DATA TABLE		
	SF	ACRES
Proposed Concrete Path New	390	0.009
Concrete Ramp To Be Replaced	2,022	0.046
Boardwalk	440	0.010
Aluminum Gangway	100	0.002
Floating ADA Kayak/Canoe Launch	464	0.011
Total Over-Water Area*	785	0.018
Based off the Safe Upland Line (SUL) of 1.10'		

NOTE:
1. APPROXIMATELY 105 L.F. OF SHORELINE LENGTH IN THE PROJECT AREA.
2. EMERGENT VEGETATION (PREDOMINANTLY NEEDLE RUSH) ALONG THE SHORELINE SHALL BE PROTECTED. CONSTRUCTION TRAFFIC THROUGH THE EMERGENT VEGETATION SHALL BE MINIMIZED. CONSTRUCTION WORKERS SHOULD ENTER/EXIT THE WATER APPROX. 70' TO THE NORTH WHERE THERE IS NO EMERGENT VEGETATION ALONG THE SHORELINE.



ALIGNMENT – MULTI-USE CONCRETE PATH
Horiz. Scale: 1"=20' Vert. Scale: 1"=4'



ALIGNMENT – CONCRETE PATH EXTENSION & BOARDWALK
Horiz. Scale: 1"=20' Vert. Scale: 1"=4'

ADA KAYAK LAUNCH PLAN & PROFILE

SCALE:1" = 20'

PRELIMINARY NOT FOR CONSTRUCTION

DESIGNER: SMU
DRAWN BY: TJM
REVIEWED BY: JHP
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PHONE: (850)210-5344 FAX: (850)210-5345
CERTIFICATE OF AUTHORIZATION NUMBER: CA-0 ENGINEERING BUSINESS NO. 7029

DATE	SYMBOL	REVISION

DATE	SYMBOL	REVISION

ISSUE DATE: 11/11/2024 100% PLANS
COMP. FILE No: 21-5436
STATE PROJECT No: 61307C-N3803

Department of Environmental Protection
Division of Recreation and Parks
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JAMES H. PETERSON IV #80465
State of Florida P.E. #

CAMP HELEN STATE PARK

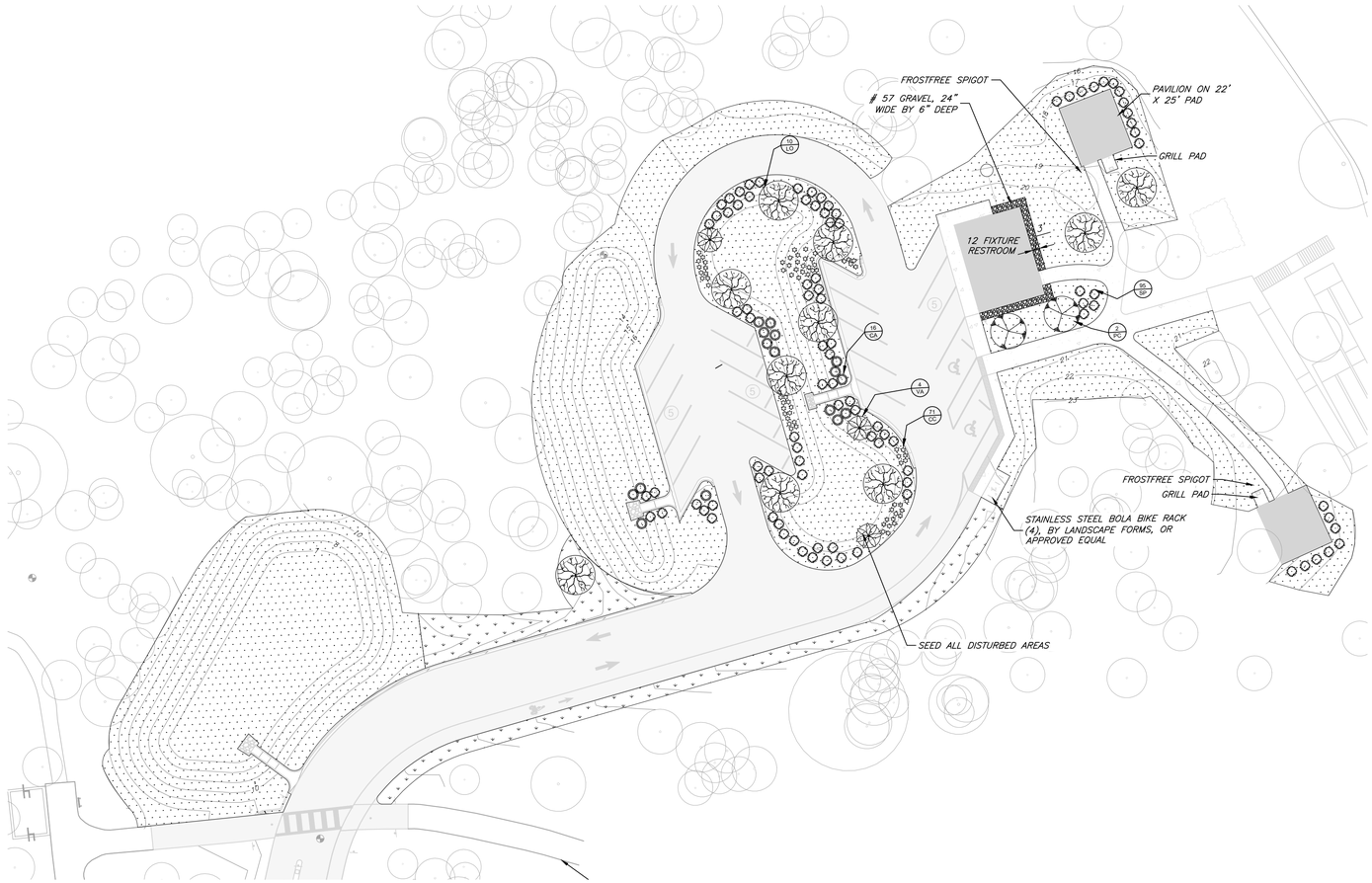
SHEET TITLE: ADA KAYAK LAUNCH PLAN & PROFILE

PROJECT TITLE: PARK IMPROVEMENT

SHEET NO. C305

Approved
21-5491-00044
Lisa Ward
1/30/2025

S:\DIVISION_January 2, 2025 p:\Projects\21-5436 bdc camp helen state park\Drawings\Civil\05 Site Plan - Plan and Profile\C305 ADA Kayak Launch Plan & Profile.dwg



LANDSCAPING NOTES

1. LANDSCAPE CONTRACTOR SHALL VERIFY SIZE, LOCATIONS OF ALL PLANTING AREAS AND APPROPRIATE PLANT QUANTITIES NEEDED PRIOR TO INSTALLATION. NOTIFY ENGINEER OF RECORD OF DETECTED DISCREPANCIES.
2. PERFORM ALL WORK IN STRICT ACCORDANCE WITH SOUND HORTICULTURAL PRACTICES.
3. CLEARANCES OF 7 1/2' SHALL BE MAINTAINED TO THE FRONT AND SIDES AND 4' TO THE REAR OF ALL FIRE APPLIANCES (I.E., HYDRANTS, BACKFLOW PREVENTERS, POST INDICATORS, VALVES, FIRE DEPARTMENT CONNECTIONS).
4. MULCH NON-SEEDED DISTURBED AREAS ADJACENT TO IMPERVIOUS AREAS WITH 3" OF PINE STRAW.
5. STAKE TREES AS NECESSARY.
6. INSTALL TREES AND PLANTS GRADED FLORIDA #1 OR BETTER AS DESCRIBED IN THE MOST RECENT EDITION OF "GRADES AND STANDARDS FOR NURSERY PLANTS", STATE OF FLORIDA.
7. IF SPECIFIED SIZE OR SPECIES IS UNAVAILABLE, SUBMIT PROPOSED REPLACEMENT PLANT(S) TO THE ENGINEER OF RECORD FOR APPROVAL, PRIOR TO PURCHASING.
8. PLANT TREES, SHRUBS AND PERENNIALS IN A NATURAL MANNER. PLANTING IS TO LOOK SIMILAR TO THE SURROUNDING UNDISTURBED AREAS. AVOID EVEN SPACING AND PLANTING IN STRAIGHT LINES.
9. BACKFILL ALL PLANTING WITH A MIXTURE OF ½ ON SITE SOIL AND ½ CLEAN FRIABLE TOPSOIL.
10. PLANTING HOLES SHOULD BE TWICE THE DIAMETER OF THE ROOT BALL AND 2"-4" DEEPER THAN THE ROOT BALL HEIGHT.
11. ONCE PLANTED, PLANTS SHOULD BE AT THE SAME LEVEL IN RELATION TO THE GROUND AS THEY WERE PRIOR TO TRANSPLANTING.
12. RESTORE ALL DISTURBED AREAS WITH SPECIFIED SEED OR 3" OF PINE STRAW. DISTURBED SOIL SHALL NOT BE LEFT EXPOSED AND VULNERABLE TO EROSION FROM STORM WATER.
13. LANDSCAPE IMPROVEMENTS SHALL BE INSTALLED BY THE CONTRACTOR PER FDOT STANDARD SPECIFICATION 580 AND INDEX 544.
14. CONTRACTOR SHALL BE RESPONSIBLE FOR TEMPORARY IRRIGATION.
15. THE WARRANTY SHALL BEGIN AFTER THE INITIAL LANDSCAPE INSPECTION AND ACCEPTANCE, OR AS PER THE CONTRACT DOCUMENTS.
16. INSPECTION SHALL BE MADE BY THE OWNER OR OWNERS REPRESENTATIVE WITHIN 1 WEEK OF WRITTEN NOTIFICATION FROM THE LANDSCAPE CONTRACTOR THAT INSTALLATION IS COMPLETE.
17. TREES AND SHRUBS SHALL HAVE A 1 YEAR WARRANTY.
18. PLANTS ARE GUARANTEED TO BE HEALTHY AND FLOURISHING FOR 1 YEAR FROM INITIAL INSPECTION ACCEPTANCE.
19. REPLACEMENT PLANTS MUST BE THE SAME SIZE AS THE ORIGINAL.
20. THE CONTRACTOR SHALL BE RESPONSIBLE FOR WATERING AND MAINTAINING THE LANDSCAPING FOR THE WARRANTY PERIOD WHICH IS 1 YEAR.
21. CONTRACTOR SHALL NOT COMPACT POND BOTTOMS.
22. MULCH OVER SEEDED POND BOTTOM WITH ½" – ½" THICK LAYER OF SEEDLESS STRAW.

UTILITY NOTES

1. THE LOCATION(S) OF UTILITIES SHOWN ON THE PLANS SHALL BE CONSIDERED APPROXIMATE.
2. CONTRACTOR SHOULD CONTACT THE SUNSHINE STATE 811 ONE CALL SYSTEM 1-800-432-4770 PRIOR TO ANY DIGGING SO THAT UNDERGROUND UTILITIES MAY BE FIELD LOCATED.

Symbol	I.D.	Quantity	Scientific Name	Common Name	Installed Size	Spacing	Remarks
	LO	10	Quercus geminata	Sand Live Oak	30 GAL	Per Plan	1.75"-2" Cal., 8'-9', 6' Min. clearance from paved surfaces and 10' from buildings, measured from the center of the plant.
	PC	2	Pinus clausa	Sand Pine	30 GAL	Per Plan	2"-2.25" Cal., 9'-10', 6' Min. clearance from paved surfaces and 10' from buildings, measured from the center of the plant.
	VA	3	Vaccinium arboreum	Sparkleberry	7 GAL	Per Plan	
	SP	95	Seronoa repens	Saw Palmetto	7 GAL	Per Plan	Plant in natural drifts, 3' Min. clearance from paved surfaces, measured from the center of the plant.
	CC	71	Conradina canescens	False Rosemary	1 GAL	Per Plan	Plant in natural drifts, 1.5' Min. clearance from paved surfaces, measured from the center of the plant.
	CA	16	Callicarpa americana	American beautyberry	7 GAL	Per Plan	Plant in natural drifts, 3' Min. clearance from paved surfaces, measured from the center of the plant.

LEGEND

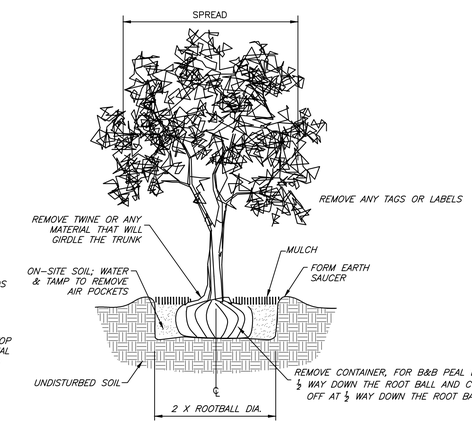
GRASS SEED MIX – OVER 50% PENSACOLA BAHIA SEED

FLORIDA UPLAND MEADOW MIX, ERNST SEEDS ITEM #ERNMX-601, OR APPROVED EQUAL.*

*WILDFLOWER MIX MUST BE COMBINED WITH A COVER CROP OF BROWN TOP MILLET AT A RATE OF 10 LBS PER ACRE FROM APRIL TO SEPT OR ANNUAL RYE AT A RATE OF 30 LBS/ACRE FROM OCT-MARCH. FL UPLAND MIX TO BE APPLIED AT A RATE OF 15 LBS PER ACRE. SEE MANUFACTURERS INSTRUCTIONS FOR MORE DETAILS.

REFERENCE LEGEND

SC — QUANTITY OF PLANTINGS; PLANT I.D.



PLANT SO THAT TOP OF ROOT FLARE IS 1" ABOVE THE FINISHED GRADE

PURSUANT TO A.A.N. STANDARDS CALIPER MEASUREMENTS SHALL BE MADE 6 INCHES ABOVE GROUND LEVEL (ROOTBALL) UP TO AND INCLUDING 4 INCH CALIPER; 12 INCHES ABOVE GROUND LEVEL FOR LARGER SIZES.

TREE PLANTING DETAIL

SCALE: NTS

LANDSCAPE PLAN

SCALE:1" = 30'

PRELIMINARY NOT FOR CONSTRUCTION

30 0 15 30

1 inch = 30 ft.

ISSUE DATE: 11/11/2024 100% PLANS	SYMBOL	REVISION	DATE	SYMBOL	REVISION	DATE
COMP. FILE No: 21-5436						
STATE PROJECT No: 61307C-N3803						

Department of Environmental Protection
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DRAWN BY: SMU
REVIEWED BY: JHP
Consultant:

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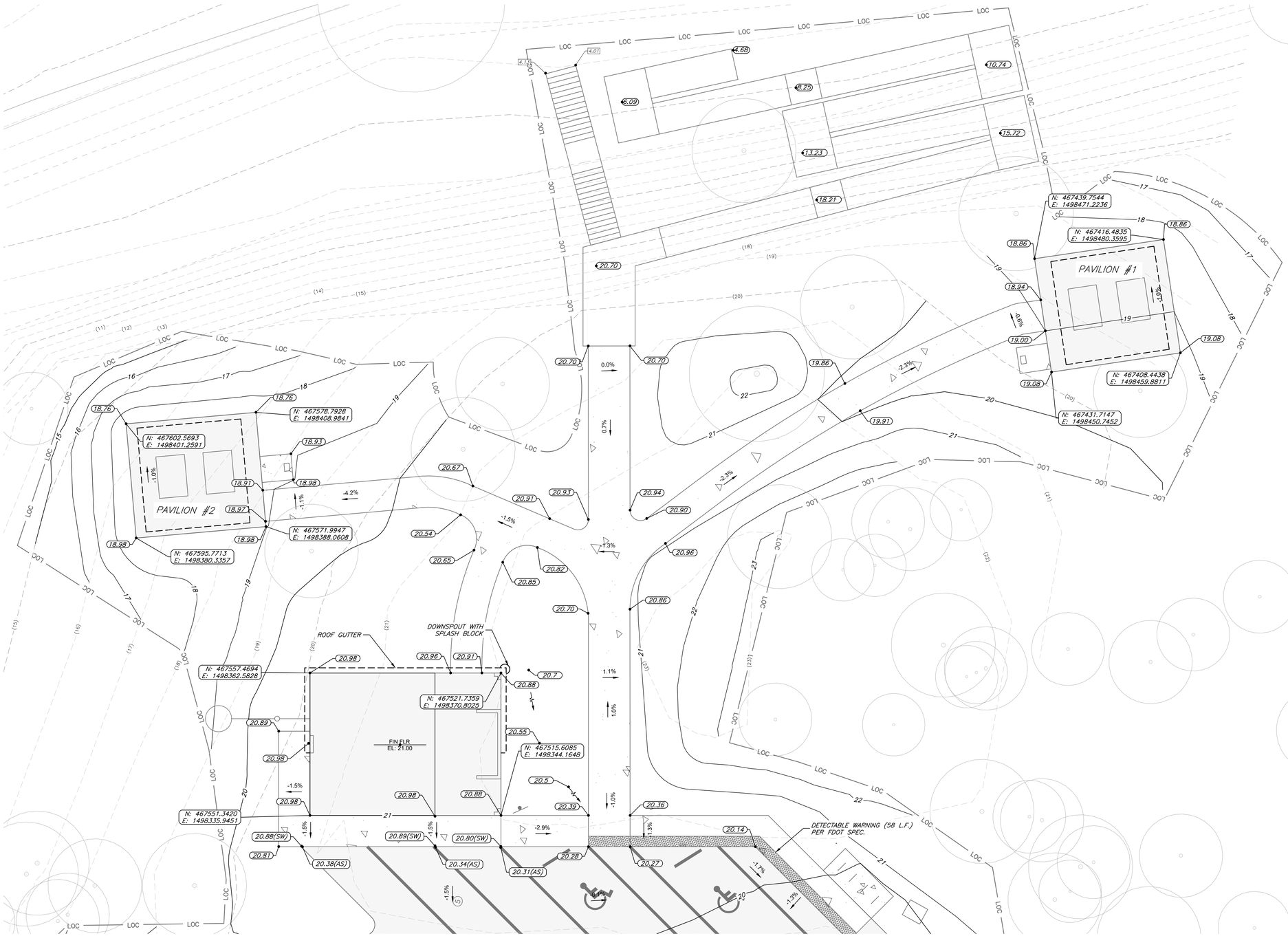
JAMES H. PEDERSON IV
State of Florida P.E. # 80485

CAMP HELEN STATE PARK

SHEET TITLE: LANDSCAPE PLAN

PROJECT TITLE: PARK IMPROVEMENT

SHEET NO. C306



NORTH PICNIC AREA GRADING PLAN

SCALE:1" = 10'

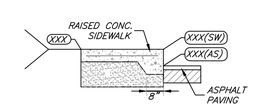
10 0 5 10

1 inch = 10 ft.

PRELIMINARY NOT FOR CONSTRUCTION

SPOT ELEVATION LEGEND

- XXX — EXISTING SPOT ELEVATION
- XXX(AS) — PROPOSED SPOT ELEVATION FOR ASPHALT PAVING WITH RAISED CONC. SIDEWALK
- XXX(SW) — PROPOSED SPOT ELEVATION FOR RAISED CONC. SIDEWALK
- XXX — PROPOSED TYPICAL SPOT ELEVATION



SYMBOL	REVISION	DATE	SYMBOL	REVISION	DATE

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ENGINEERING BUSINESS NO. 2829
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PHONE: (850)210-3344 FAX: (850)210-3345

DESIGNER: SMU
DRAWN BY: TJM
REVIEWED BY: JHP
Consultant:

PROFESSIONAL REGISTRATION

JAMES H. PETERSON IV — LICENSE No. 80485 — STATE OF FLORIDA — PROFESSIONAL ENGINEER

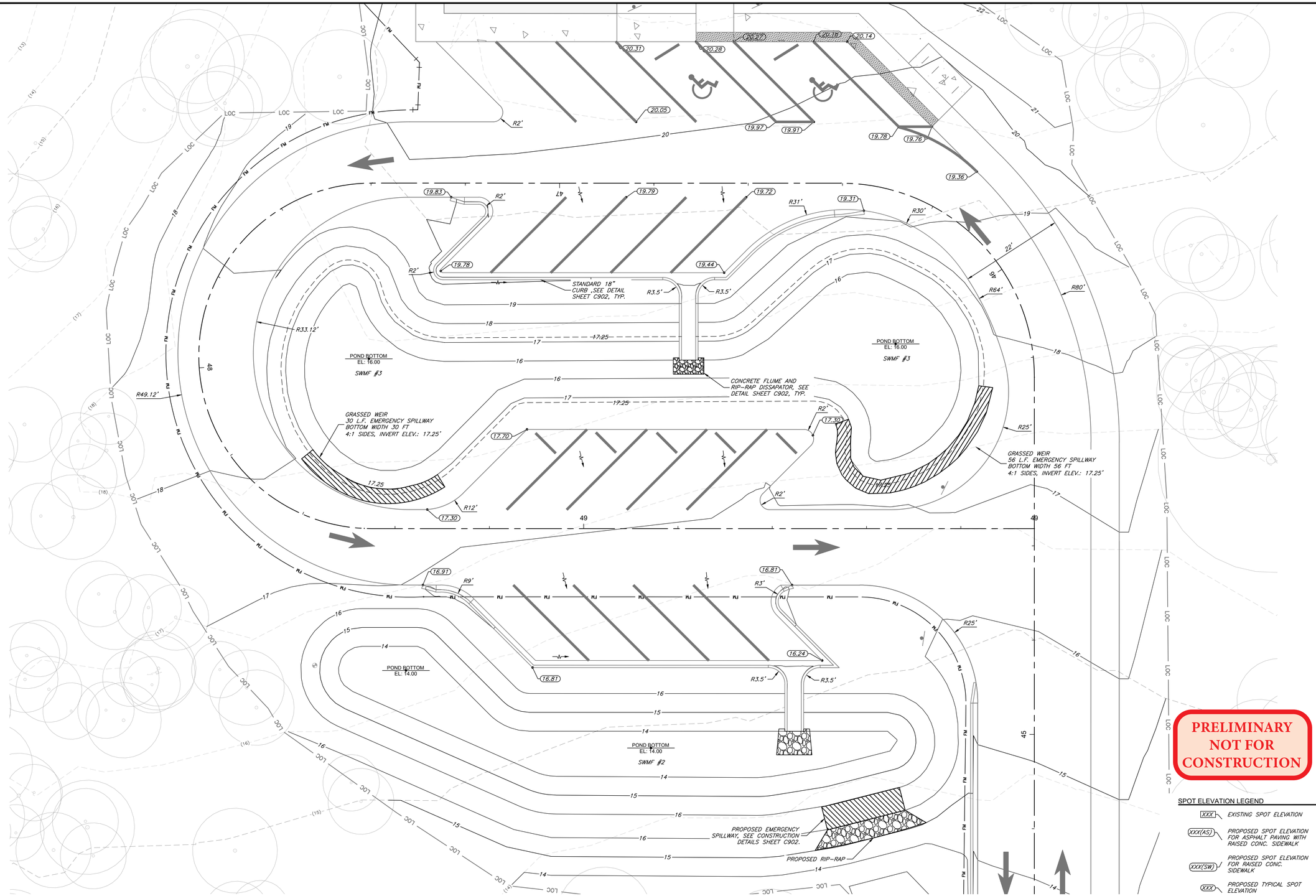
JAMES H. PETERSON IV
State of Florida P.E. # 80485

CAMP HELEN STATE PARK

SHEET TITLE: NORTH PICNIC AREA GRADING PLAN

PROJECT TITLE: PARK IMPROVEMENT

SHEET NO. C401



PRELIMINARY NOT FOR CONSTRUCTION

SPOT ELEVATION LEGEND

- XXX — EXISTING SPOT ELEVATION
- XXX(AS) — PROPOSED SPOT ELEVATION FOR ASPHALT PAVING WITH RAISED CONC. SIDEWALK
- XXX(SW) — PROPOSED SPOT ELEVATION FOR RAISED CONC. SIDEWALK
- XXX — PROPOSED TYPICAL SPOT ELEVATION

RAISED CONC. SIDEWALK — XXX — XXX(SW) — XXX(AS) — ASPHALT PAVING — 8"

NORTH PARKING LOT GRADING PLAN

SCALE:1" = 10'

DESIGNER:	SMU
DRAWN BY:	TJM
REVIEWED BY:	JHP
Consultant:	George & Associates Consulting Engineers, Inc.

1967 Commonwealth Lane, Suite 200, Tallahassee, FL 32303. PHONE: (850)210-3344 FAX: (850)210-3345

ISSUE DATE: 11/11/2024 100% PLANS	SYMBOL	REVISION	DATE
COMP. FILE No.: 21-5436			
STATE PROJECT No.: 61307C-N3803			

Department of Environmental Protection
Division of Recreation and Parks
Bureau of Design and Construction
3900 Commonwealth Boulevard, Tallahassee, FL 32399 (850) 245-2157

PROFESSIONAL REGISTRATION — JAMES H. PETERSON — No 80485 — STATE OF FLORIDA — PROFESSIONAL ENGINEER

JAMES H. PETERSON III
State of Florida P.E. # 80485

CAMP HELEN STATE PARK

SHEET TITLE: NORTH PARKING LOT GRADING PLAN

PROJECT TITLE: PARK IMPROVEMENT

SHEET NO. C402

Approved
PE-2025-00044
Lisa Ward
1/30/2025

TMCCABE, December 26, 2024, p:\Projects\21-5436 bdc camp helen state park\Drawings\Civil\06 Cross Sections\C403 North Driveway Grading Plan.dwg

NORTH DRIVEWAY GRADING PLAN

SCALE:1" = 20'

1 inch = 20 ft.

DESIGNER:	SMU
DRAWN BY:	TJM
REVIEWED BY:	JHP
Consultant:	George & Associates Consulting Engineers, Inc.

CGA
CIVIL ENGINEERING • ENVIRONMENTAL ENGINEERING • LAND USE ENGINEERING BUSINESS NO. 2029
19967 Commonwealth Lane, Suite 200, Tallahassee, FL 32303.
PHONE: (850)210-3344 FAX: (850)210-3345

ISSUE DATE: 11/11/2024 100% PLANS

COMP. FILE No.: 21-5436

STATE PROJECT No.: 61307C-N3803

SYMBOL	REVISION	DATE

SYMBOL	REVISION	DATE

Department of Environmental Protection
Division of Recreation and Parks
Bureau of Design and Construction
3900 Commonwealth Boulevard, Tallahassee, FL 32399 (850) 245-2157

PROFESSIONAL REGISTRATION

JAMES H. PETERSON III
LICENSE
No 80485
STATE OF FLORIDA
PROFESSIONAL ENGINEER

JAMES H. PETERSON III
State of Florida P.E. # 80485

CAMP HELEN STATE PARK

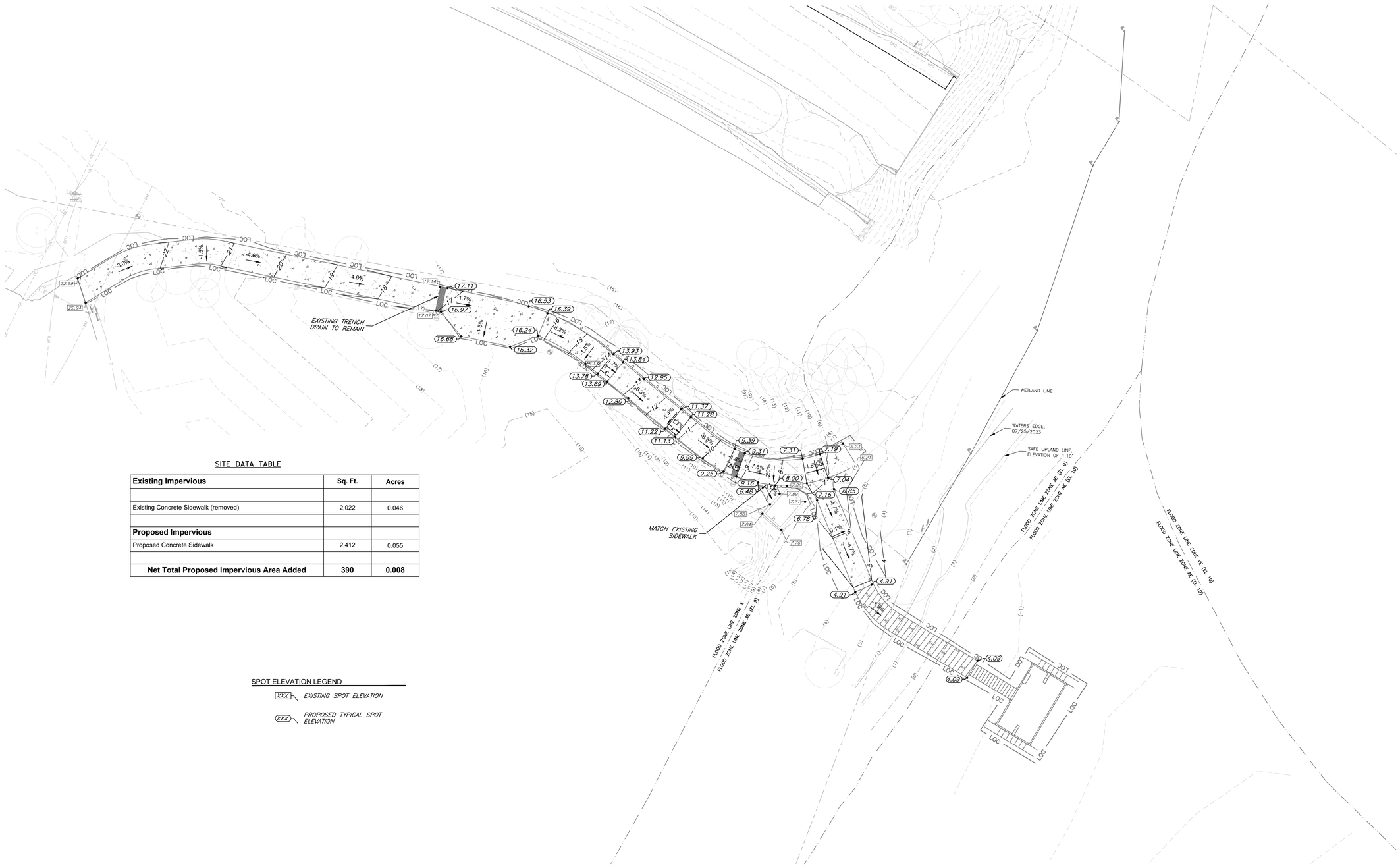
SHEET TITLE: NORTH DRIVEWAY GRADING PLAN

PROJECT TITLE: PARK IMPROVEMENT

SHEET NO.
C403

Approved
4-2025-91100044
Lee Ward
1/30/2025

TMCCAIE July 8, 2023 p:\Projects\21-5436 bob camp helen state park\Drawings\Civil\06 Cross Sections\C403 North Driveway Grading Plan.dwg



SITE DATA TABLE

Existing Impervious	Sq. Ft.	Acres
Existing Concrete Sidewalk (removed)	2,022	0.046
Proposed Impervious		
Proposed Concrete Sidewalk	2,412	0.055
Net Total Proposed Impervious Area Added	**390**	**0.008**

SPOT ELEVATION LEGEND

XXX — EXISTING SPOT ELEVATION

XXX — PROPOSED TYPICAL SPOT ELEVATION

ADA KAYAK LAUNCH GRADING PLAN

SCALE:1" = 20'

20 0 10 20

1 inch = 20 ft.

PRELIMINARY NOT FOR CONSTRUCTION

DESIGNER: SMU
DRAWN BY: TJM
REVIEWED BY: JHP
Consultant:

George & Associates Consulting Engineers, Inc.
CIVIL ENGINEERING • LAND SURVEYING • ENVIRONMENTAL CONSULTING
ENGINEERING BUSINESS NO. 2929
1567 Commonwealth Lane, Suite 200, Tallahassee, FL 32303.
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ISSUE DATE: 11/11/2024 100% PLANS
COMP. FILE No.: 21-5436
STATE PROJECT No.: 61307C-N3803

SYMBOL	REVISION	DATE

SYMBOL	REVISION	DATE

Department of Environmental Protection
Division of Recreation and Parks
Bureau of Design and Construction
3900 Commonwealth Boulevard, Tallahassee, FL 32399 (850) 245-2157

PROFESSIONAL REGISTRATION
JAMES H. PEDERSON IV LICENSE No 86485 STATE OF FLORIDA PROFESSIONAL ENGINEER
JAMES H. PEDERSON IV
State of Florida P.E. # 86485

CAMP HELEN STATE PARK

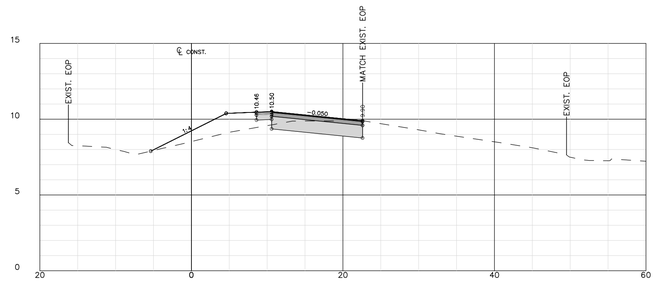
SHEET TITLE: ADA KAYAK LAUNCH GRADING PLAN

PROJECT TITLE: PARK IMPROVEMENT

SHEET NO. C404

Approved
4-00-24-P-1291-00044
Lisa Ward
1/30/2025

BILSAMER October 25, 2024 p:\Projects\21-5436 bsc camp helen state park\Drawings\Civil\06 Cross Sections\C404 ADA Kayak Launch Grading Plan.dwg



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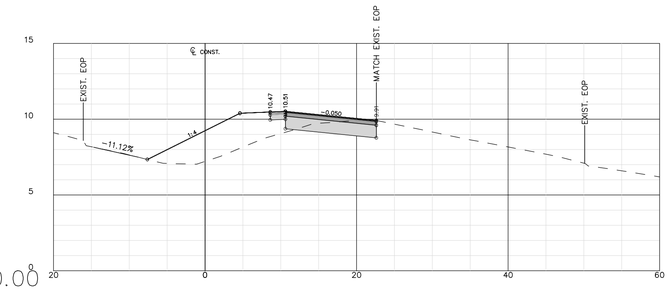

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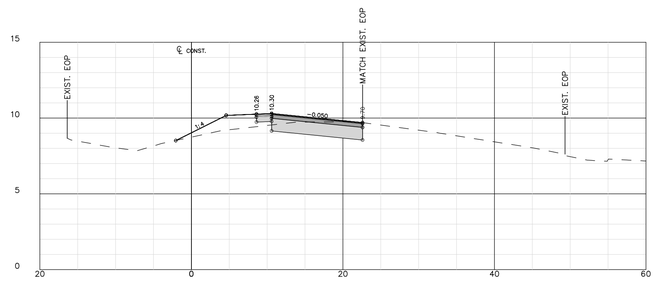

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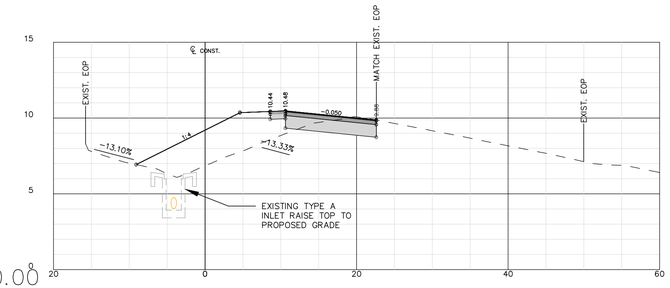

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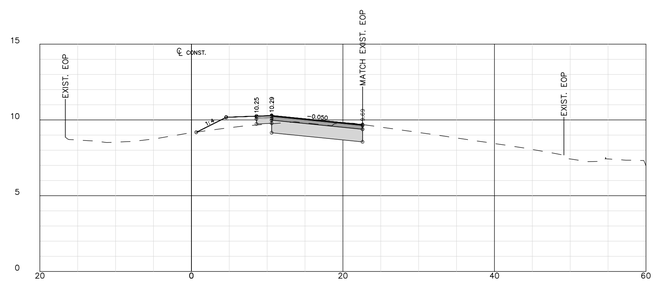

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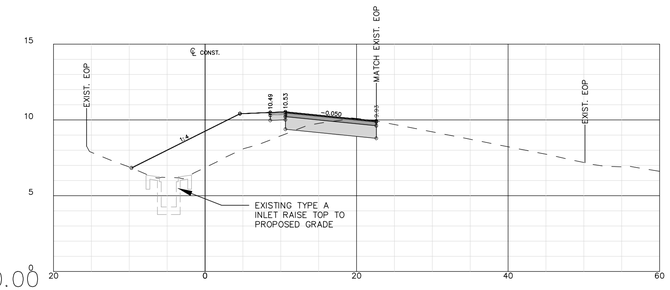

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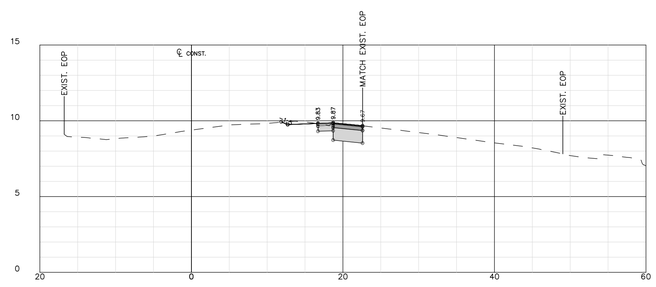

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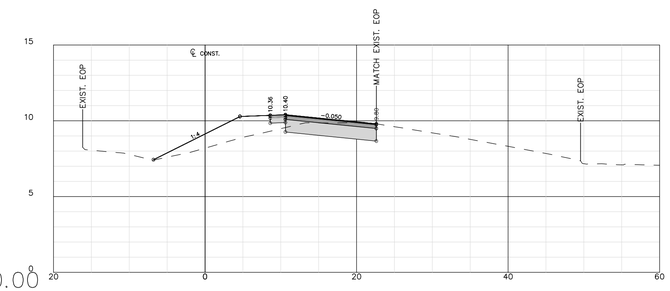


145+00.00

PRELIMINARY
NOT FOR
CONSTRUCTION

EAST BOUND TURN LANE CROSS SECTIONS

HORIZ SCALE: 1" = 10' VERT. SCALE: 1" = 5'

DESIGNER:	SMU
DRAWN BY:	TJM
REVIEWED BY:	JHP
Consultant	

George & Associates
Consulting Engineers, Inc.
GA ENGINEERING BUSINESS NO. 2829 | CERTIFICATE OF AUTHORIZATION ENGINEERING BUSINESS NO. 2829
8567 Commonwealth Blvd. Suite 200, Tallahassee, FL 32303
PHONE (850) 210-3194 | FAX (850) 210-3195

ISSUE DATE: 11/11/2024 100% PLANS
COMP. FILE No.: 21-5436
STATE PROJECT No: 61307C-N3803

SYMBOL	REVISION	DATE

SYMBOL	REVISION	DATE

Department of Environmental Protection
Division of Recreation and Parks
Bureau of Design and Construction
3900 Commonwealth Boulevard, Tallahassee, FL 32399 (850) 245-2157

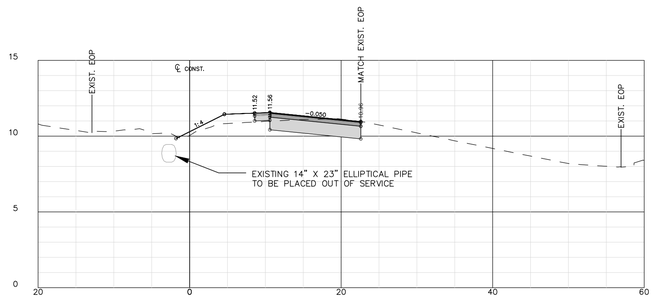
PROFESSIONAL REGISTRATION
JAMES H. PETERSON IV
STATE OF FLORIDA
No. 80485
JAMES H. PETERSON IV
State of Florida P.E. # 80485

CAMP HELEN STATE PARK

SHEET TITLE: EAST BOUND TURN LANE CROSS SECTIONS

PROJECT TITLE: PARK IMPROVEMENT

SHEET NO. C405



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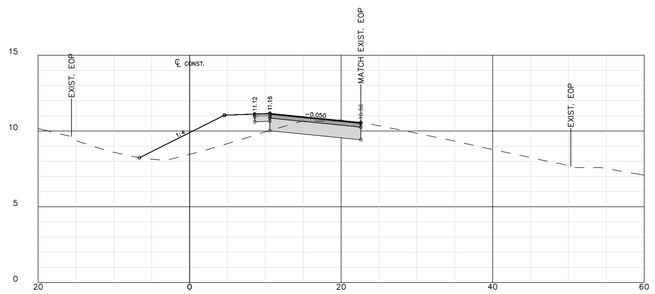

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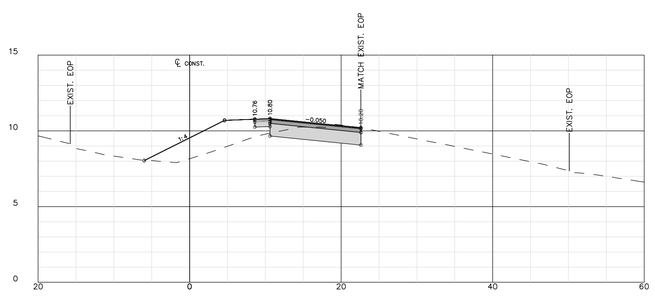

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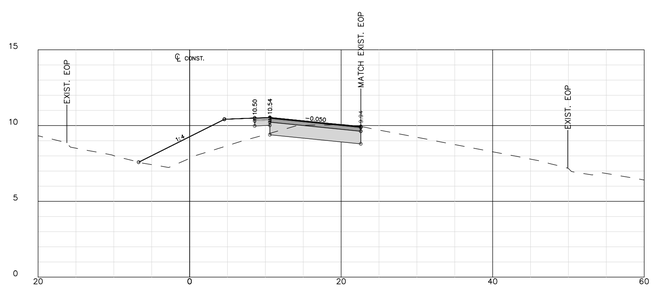


147+00.00

EAST BOUND TURN LANE CROSS SECTIONS

HORIZ SCALE: 1" = 10' VERT. SCALE: 1" = 10'

PRELIMINARY
NOT FOR
CONSTRUCTION

	ISSUE DATE: 11/11/2024 100% PLANS	SYMBOL	REVISION	DATE	SYMBOL	REVISION	DATE
DESIGNER: SMU	COMP. FILE No.: 21-5436						
DRAWN BY: TJM	STATE PROJECT No: 61307C-N3803						
REVIEWED BY: JHP							

Consultant:

George & Associates
Consulting Engineers, Inc.
GAI CONSULTANTS, INC. ENGINEERING BUSINESS No. 2029
1657 Commonwealth Lane, Suite 200, Tallahassee, FL 32303
PHONE: (850) 210-3344 FAX: (850) 210-3345

Department of Environmental Protection
Division of Recreation and Parks
Bureau of Design and Construction
3900 Commonwealth Boulevard, Tallahassee, FL 32399 (850) 245-2157

PROFESSIONAL REGISTRATION

JAMES H. PETERSON IV
LICENSED
No 80485
STATE OF FLORIDA
PROFESSIONAL ENGINEER

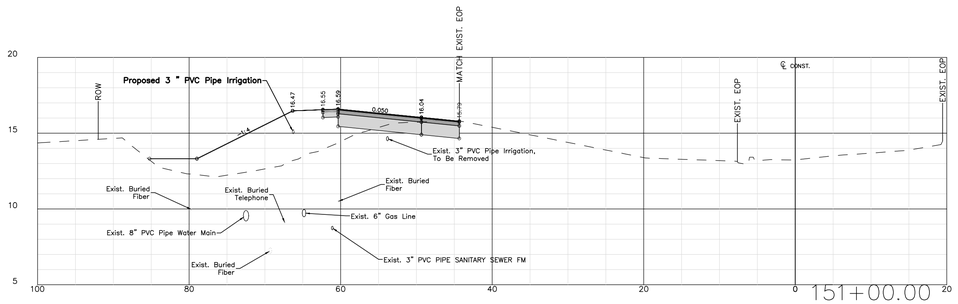
JAMES H. PETERSON IV
State of Florida P.E. # 80485

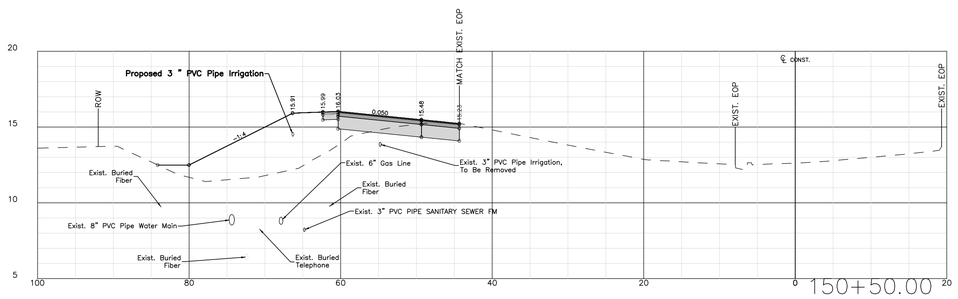
CAMP HELEN STATE PARK

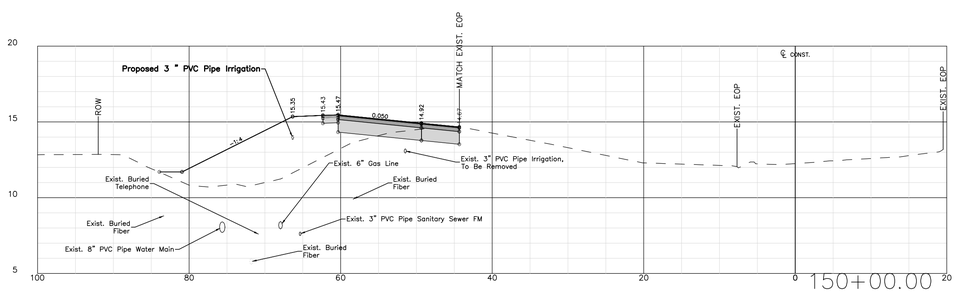
SHEET TITLE: EAST BOUND TURN LANE CROSS SECTIONS

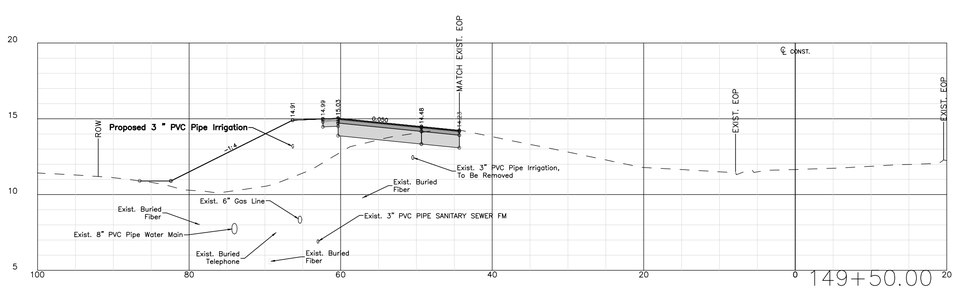
PROJECT TITLE: PARK IMPROVEMENT

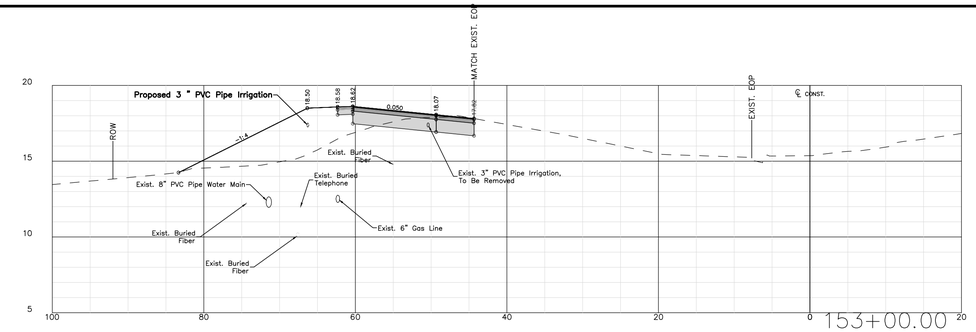
SHEET NO. C406

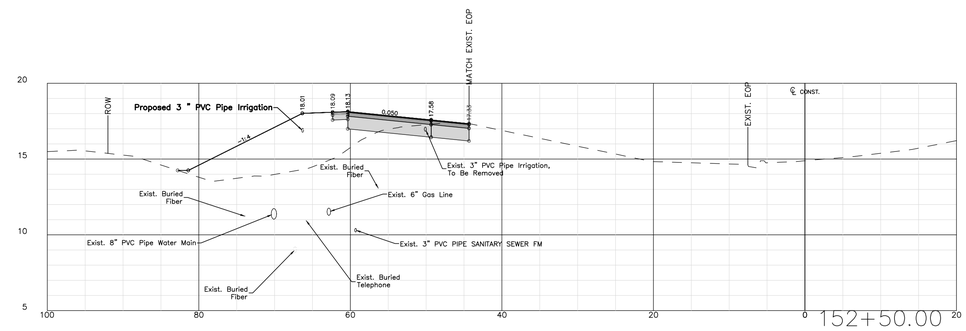


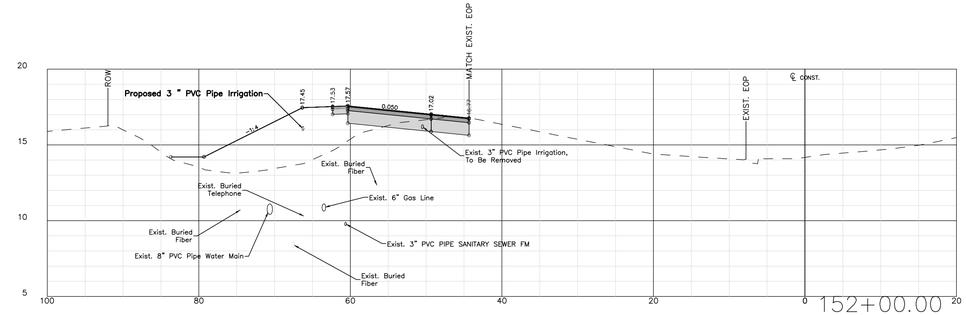


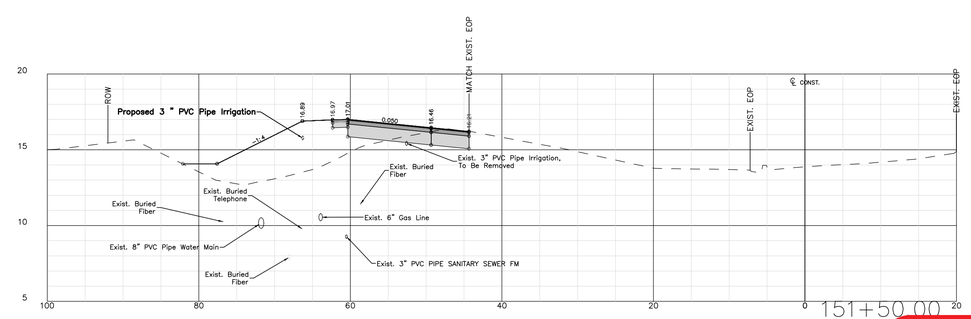












WEST BOUND TURN LANE CROSS SECTIONS

HORIZ SCALE: 1" = 10' VERT. SCALE: 1" = 5'

PRELIMINARY NOT FOR CONSTRUCTION

DATE	SYMBOL	REVISION

DATE	SYMBOL	REVISION

Department of Environmental Protection
Division of Recreation and Parks
Bureau of Design and Construction
3900 Commonwealth Boulevard, Tallahassee, FL 32399 (850) 245-2157

ISSUE DATE: 11/11/2024 100% PLANS
COMP. FILE No.: 21-5436
STATE PROJECT No.: 61307C-N3803

DESIGNER: SMU
DRAWN BY: SMU
REVIEWED BY: JHP

Consultant: George & Associates Consulting Engineers, Inc.
GAI Engineering Business No. 2929
1667 Commonwealth Lane, Suite 200, Tallahassee, FL 32303
PHONE (850)210-3434 FAX (850)210-3435

PROFESSIONAL REGISTRATION
JAMES H. PETERSON IV
No. 80485
STATE OF FLORIDA
PROFESSIONAL ENGINEER
JAMES H. PETERSON IV
State of Florida P.E. # 80485

CAMP HELEN STATE PARK

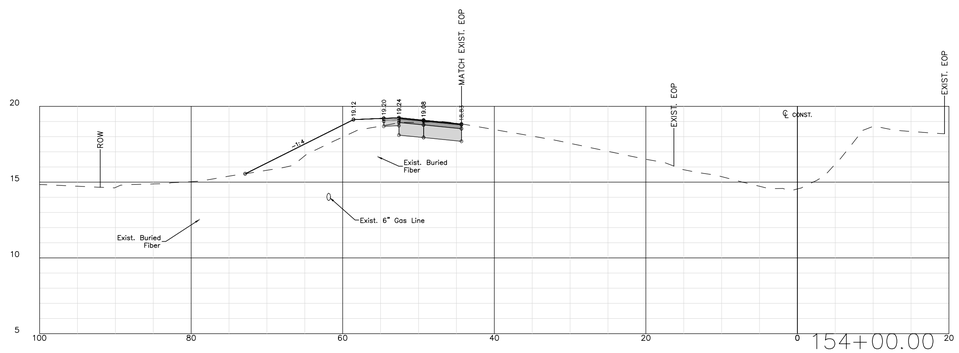
SHEET TITLE: WEST BOUND TURN LANE CROSS SECTIONS

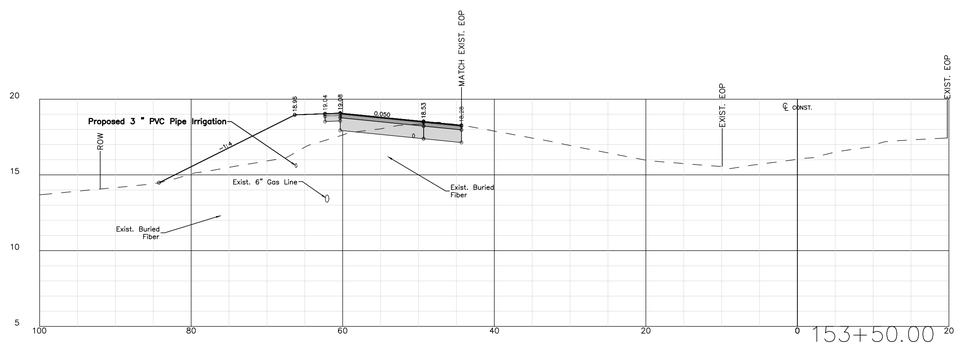
PROJECT TITLE: PARK IMPROVEMENT

SHEET NO. C407

Approved
24-391-00044
Lisa Ward
1/30/2025

JPETERSON November 1, 2024 p:\Projects\21-5436 bds camp helen state park\Drawings\Civil\06 Cross Sections\C406 North Turn Lane Cross Sections.dwg





WEST BOUND TURN LANE CROSS SECTIONS

HORIZ SCALE: 1" = 10' VERT. SCALE: 1" = 5'

PRELIMINARY NOT FOR CONSTRUCTION

DESIGNER : SMU	ISSUE DATE: 11/11/2024 100% PLANS	SYMBOL	REVISION	DATE
DRAWN BY: SMU	COMP. FILE No.: 21-5436			
REVIEWED BY: JHP	STATE PROJECT No: 61307C-N3803			

Consultant: George & Associates Consulting Engineers, Inc.
CERTIFICATE OF AUTHORIZATION ENGINEERING BUSINESS NO. 2929
6567 Commonwealth Lane, Suite 200, Tallahassee, FL 32303
PHONE: (850)210-3344 FAX: (850)210-3345

SYMBOL	REVISION	DATE

Department of Environmental Protection
Division of Recreation and Parks
Bureau of Design and Construction
3900 Commonwealth Boulevard, Tallahassee, FL 32399 (850) 245-2157

PROFESSIONAL REGISTRATION

JAMES H. PETERSON IV LICENSE No 80485 STATE OF FLORIDA PROFESSIONAL ENGINEER

JAMES H. PETERSON IV
State of Florida P.E. # 80485

CAMP HELEN STATE PARK

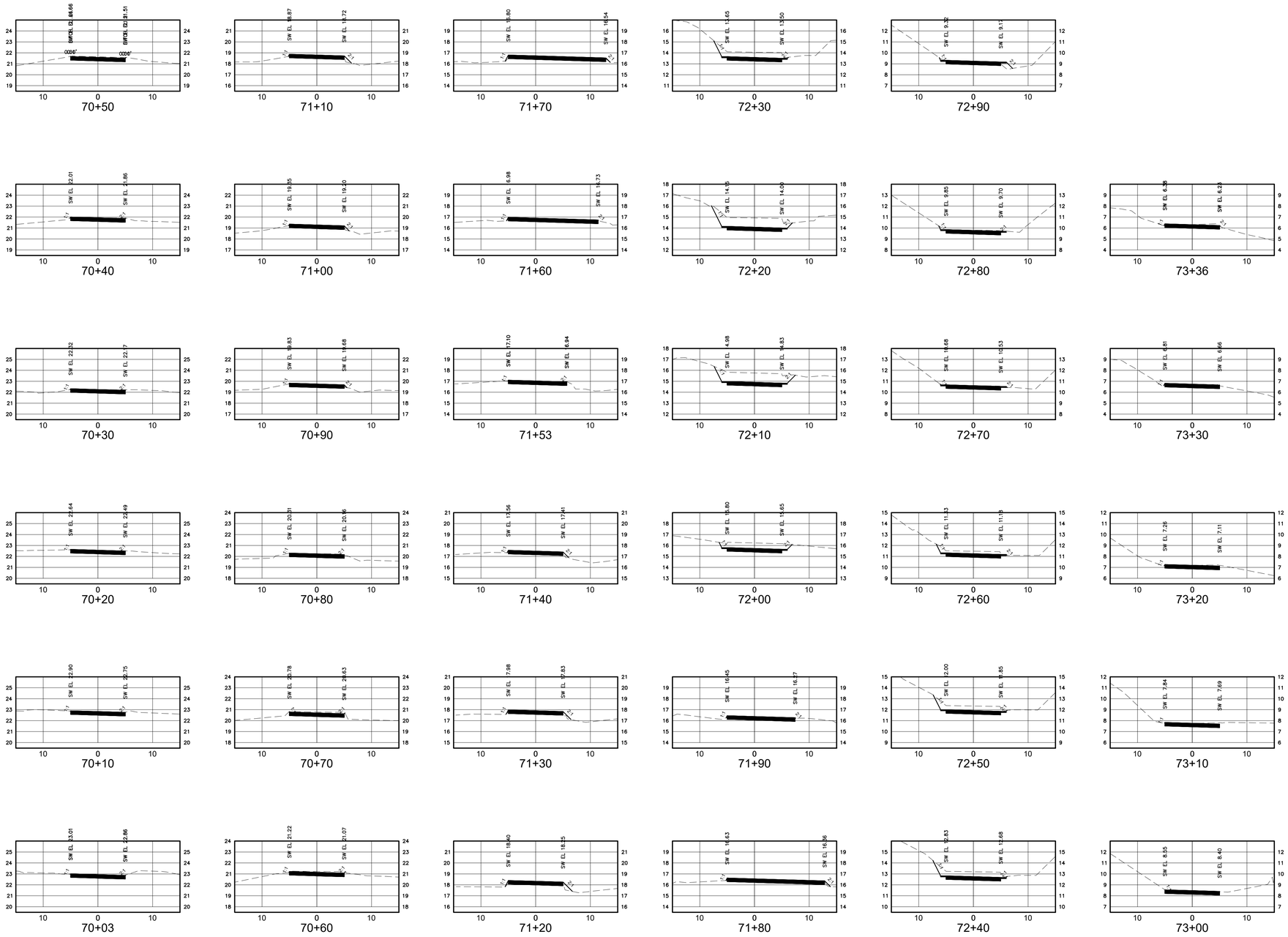
SHEET TITLE: WEST BOUND TURN LANE CROSS SECTIONS

PROJECT TITLE: PARK IMPROVEMENT

SHEET NO. C408

Approved
4-01-2025-00044
Lisa Ward
1/30/2025

JPETERSON November 1, 2024 p:\Projects\21-5436 bdc camp helen state park\Drawings\Civil\06 Cross Sections\C409 North Turn Lane Cross Sections.dwg



MULTI-USE PATH CROSS SECTIONS

HORIZ SCALE: 1" = 10' VERT. SCALE: 1" = 5'

PRELIMINARY
NOT FOR
CONSTRUCTION

ISSUE DATE: 11/11/2024 100% PLANS	SYMBOL	REVISION	DATE	SYMBOL	REVISION	DATE
COMP. FILE No.: 21-5436						
STATE PROJECT No.: 61307C-N3803						

Department of Environmental Protection
Division of Recreation and Parks
Bureau of Design and Construction
3900 Commonwealth Boulevard, Tallahassee, FL 32399 (850) 245-2157

George & Associates Consulting Engineers, Inc.
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ENGINEERING BUSINESS NO. 7879
1967 Commonwealth Lane, Suite 200, Tallahassee, FL 32303.
PH 850.531.0345 FAX 850.531.0345

DESIGNER: SMU
DRAWN BY: SMU
REVIEWED BY: JHP
Consultant:

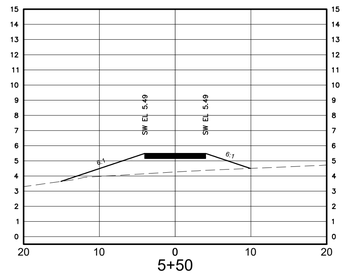
PROFESSIONAL REGISTRATION
JAMES H. PETERSON IV LICENSE No 80485 STATE OF FLORIDA PROFESSIONAL ENGINEER
JAMES H. PETERSON IV
State of Florida P.E. # 80485

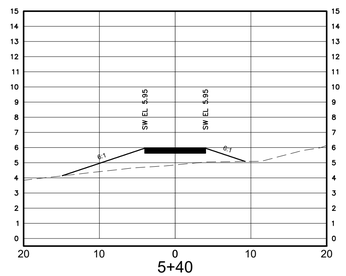
CAMP HELEN STATE PARK

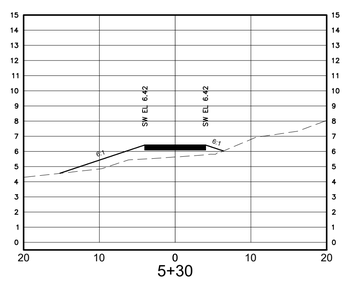
SHEET TITLE: MULTI-USE PATH CROSS SECTIONS

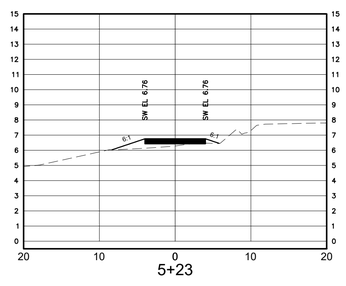
PROJECT TITLE: PARK IMPROVEMENT

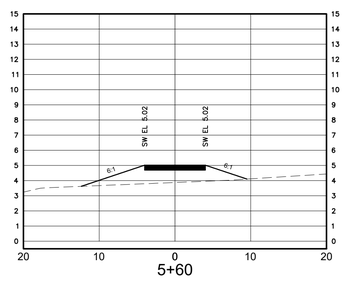
SHEET NO. C409











CONCRETE PATH EXTENSION CROSS SECTIONS

HORIZ SCALE: 1" = 10' VERT. SCALE: 1" = 5'

PRELIMINARY NOT FOR CONSTRUCTION

ISSUE DATE: 11/11/2024 100% PLANS	SYMBOL	REVISION	DATE	SYMBOL	REVISION	DATE
COMP. FILE No.: 21-5436						
STATE PROJECT No.: 61307C-N3803						

DESIGNER: SMU
DRAWN BY: SMU
REVIEWED BY: JHP
Consultant:

George & Associates Consulting Engineers, Inc.
CIVIL ENGINEERING • SURVEYING • ENVIRONMENTAL CONSULTING
ENGINEERING BUSINESS NO. 2029
1957 Commonwealth Lane, Suite 200, Tallahassee, FL 32303.
PHONE: (850) 210-3344 FAX: (850) 210-3345

Department of Environmental Protection
Division of Recreation and Parks
Bureau of Design and Construction
3900 Commonwealth Boulevard, Tallahassee, FL 32399 (850) 245-2157

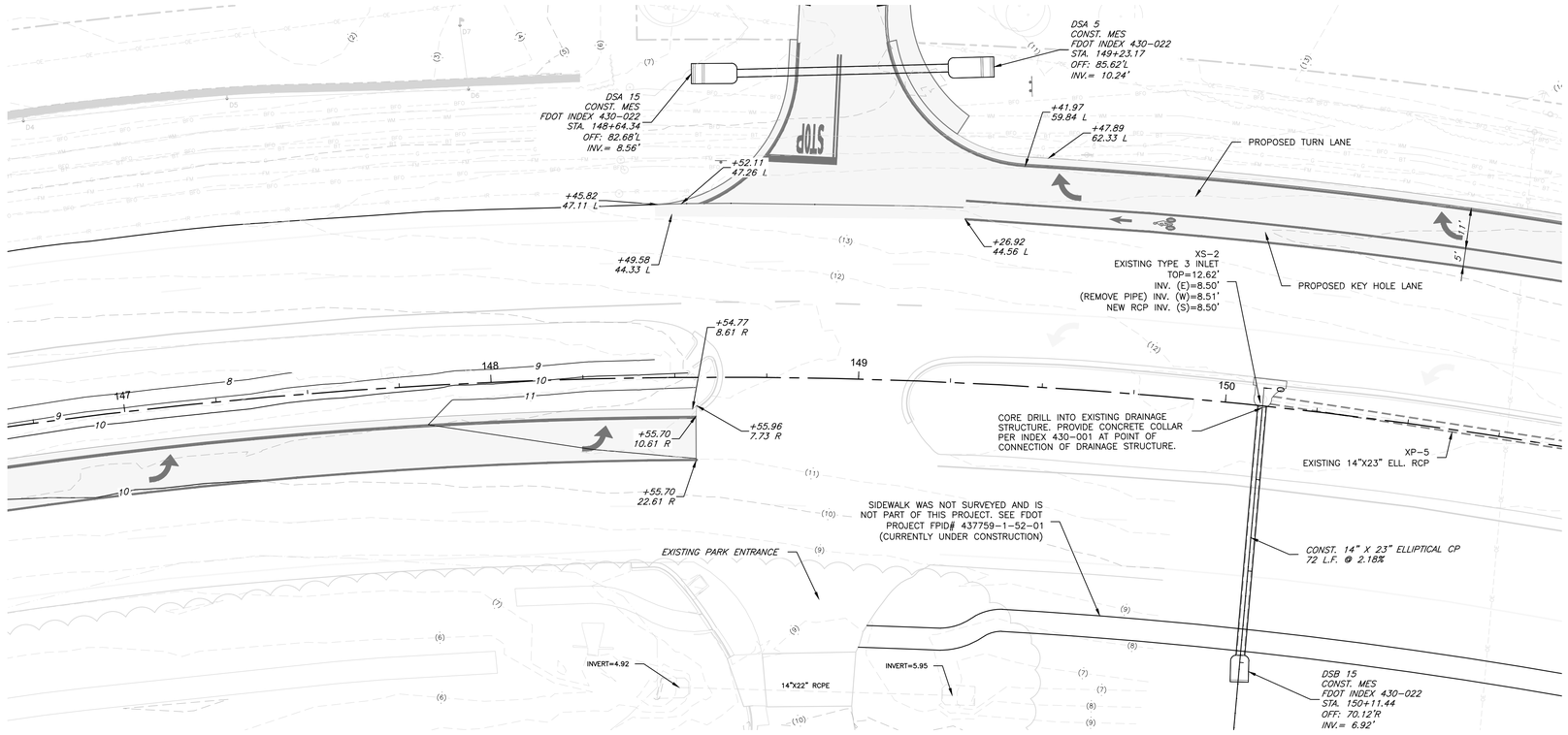
PROFESSIONAL REGISTRATION
JAMES H. PETERSON IV LICENSED No. 80485 STATE OF FLORIDA PROFESSIONAL ENGINEER
JAMES H. PETERSON IV
State of Florida P.E. # 80485

CAMP HELEN STATE PARK

SHEET TITLE
CONCRETE PATH EXTENSION CROSS SECTIONS

PROJECT TITLE
PARK IMPROVEMENT

SHEET NO.
C410



LEGEND

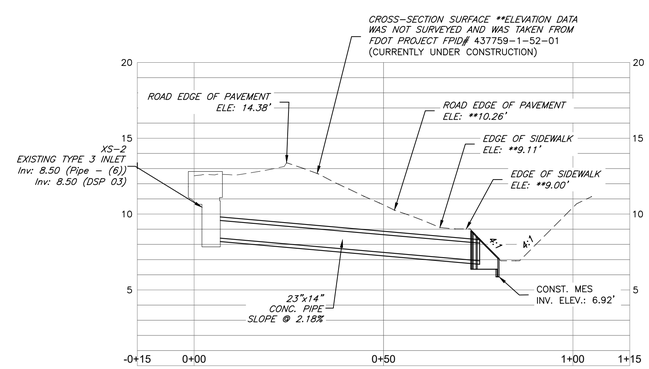
▨ PROPOSED ASPHALT PAVING

20 0 10 20

1 inch = 20 ft.

DRAINAGE PLAN TURN LANE

SCALE: 1" = 20'



DRAINAGE OUTFALL PROFILE

HORIZ. SCALE: 1" = 20' VERT. SCALE: 1" = 5'

PRELIMINARY
NOT FOR
CONSTRUCTION

JPETERSON November 19, 2024 p:\Projects\21-5436 bdc camp helen state park\Drawings\Civil\07 Drainage\C501 Drainage Plan Turn Lanes.dwg

SYMBOL	REVISION	DATE	SYMBOL	REVISION	DATE

Department of Environmental Protection
Division of Recreation and Parks
Bureau of Design and Construction
3900 Commonwealth Boulevard, Tallahassee, FL 32399 (850) 245–2157

ISSUE DATE: 11/11/2024 100% PLANS
COMP. FILE No.: 21-5436
STATE PROJECT No.: 61307C-N3803

DESIGNER: SMU
DRAWN BY: SMU
REVIEWED BY: JHP

Consultant:
George & Associates
Consulting Engineers, Inc.
CIVIL · ENVIRONMENTAL · TRANSPORTATION · SYSTEMS PLANNING · LAND USE
ENGINEERING BUSINESS NO. 7879
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PHONE 850.521.0344 - FAX 850.521.0345

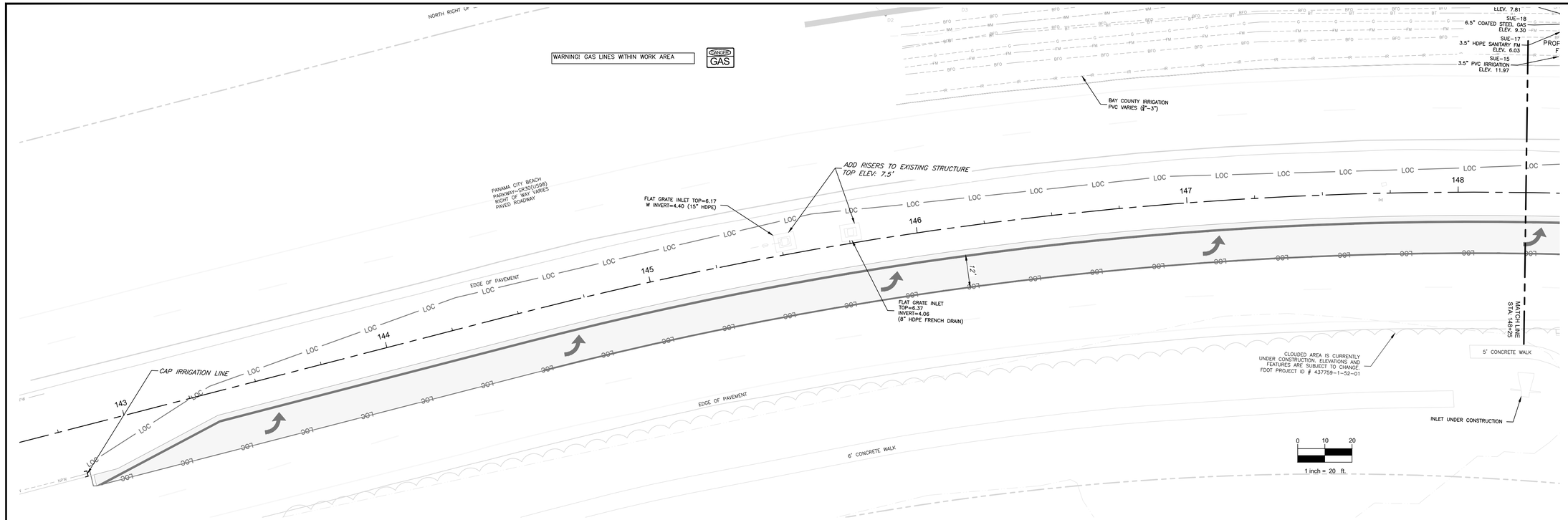
PROFESSIONAL REGISTRATION
No 80485
JAMES H. PETERSON IV
State of Florida P.E. # 80485

CAMP HELEN STATE PARK

SHEET TITLE
DRAINAGE PLAN TURN LANES

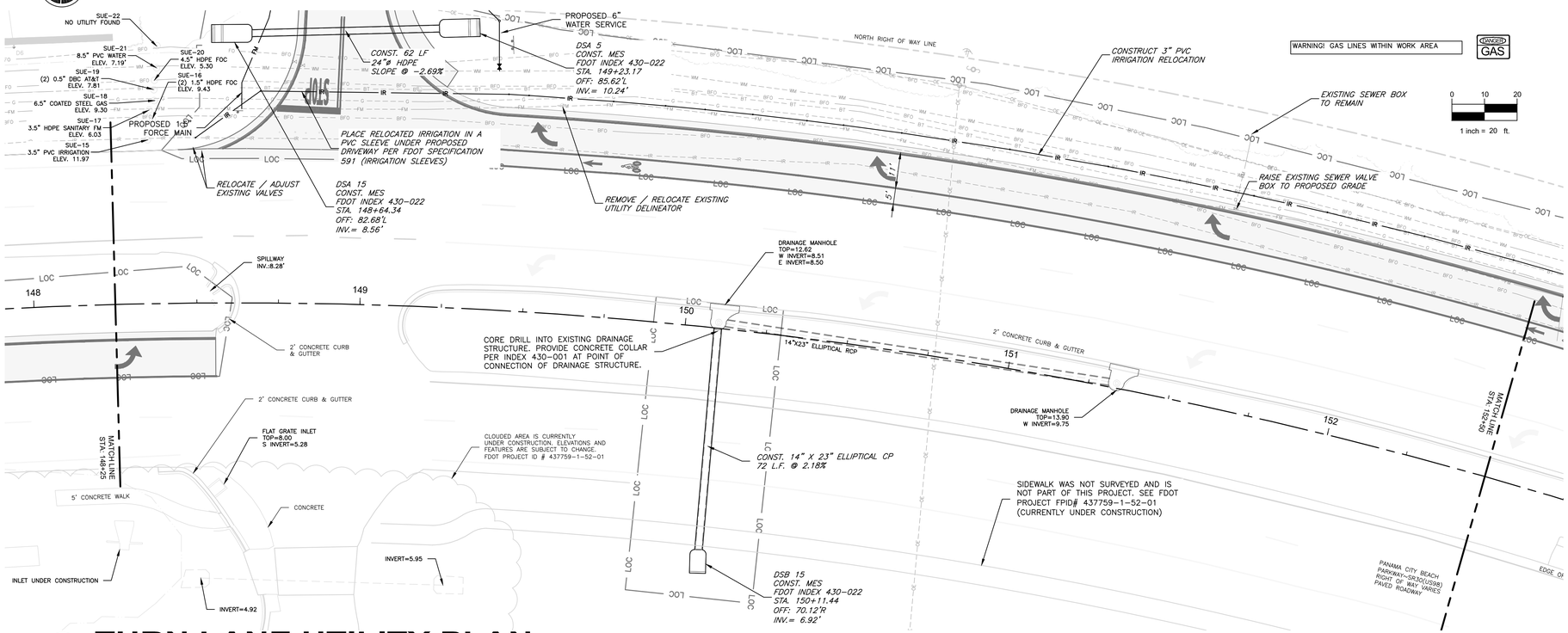
PROJECT TITLE
PARK IMPROVEMENT

SHEET NO.
C501



TURN LANE UTILITY PLAN

SCALE:1" = 20'



TURN LANE UTILITY PLAN

SCALE:1" = 20'

PRELIMINARY
NOT FOR
CONSTRUCTION

DRDWG November 8, 2024 p:\Projects\21-5436 fdc camp helen state park\Drawings\Civil\06 Utility Plans\C601 Turn Lane Utility Plan.dwg

SYMBOL	REVISION	DATE	SYMBOL	REVISION	DATE

ISSUE DATE: 11/11/2024 100% PLANS
COMP. FILE No.: 21-5436
STATE PROJECT No.: 61307C-N3803

Department of Environmental Protection
Division of Recreation and Parks
Bureau of Design and Construction
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DRAWN BY: SMU
REVIEWED BY: JHP
Consultant:

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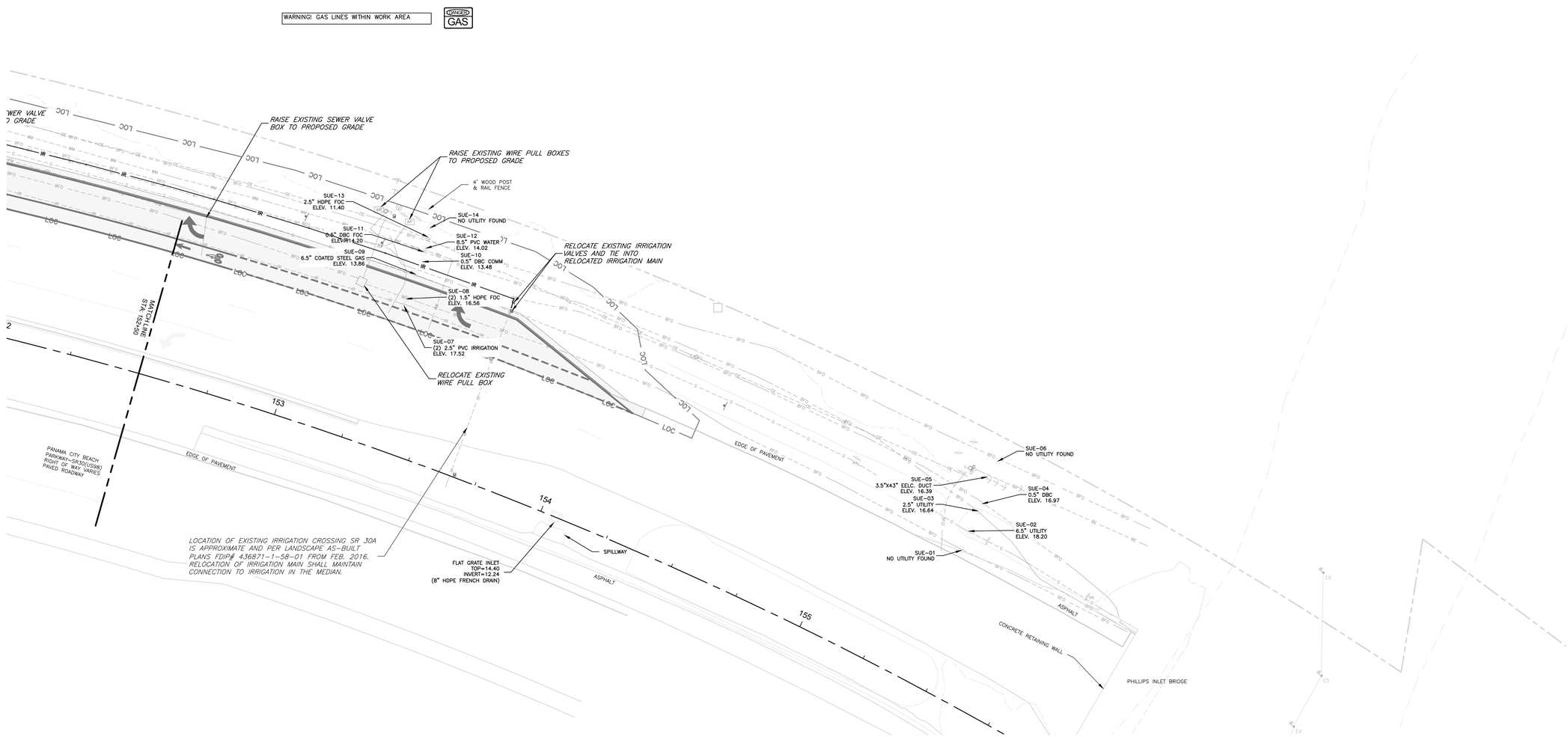
JAMES H. PETERSON IV
State of Florida P.E. # 80485

SHEET TITLE: CAMP HELEN STATE PARK
TURN LANE UTILITY PLAN
PROJECT TITLE: PARK IMPROVEMENT

SHEET NO.
C601

Approved
DOCUSIGN 391100044
Lee Ward
1/30/2025



TURN LANE UTILITY PLAN

SCALE:1" = 20'

PRELIMINARY NOT FOR CONSTRUCTION

SYMBOL	REVISION	DATE

SYMBOL	REVISION	DATE

ISSUE DATE: 11/11/2024 100% PLANS

COMP. FILE No.: 21-5436

STATE PROJECT No.: 61307C-N3803

Department of Environmental Protection
Division of Recreation and Parks
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DRAWN BY: SMU
REVIEWED BY: JHP
Consultant:

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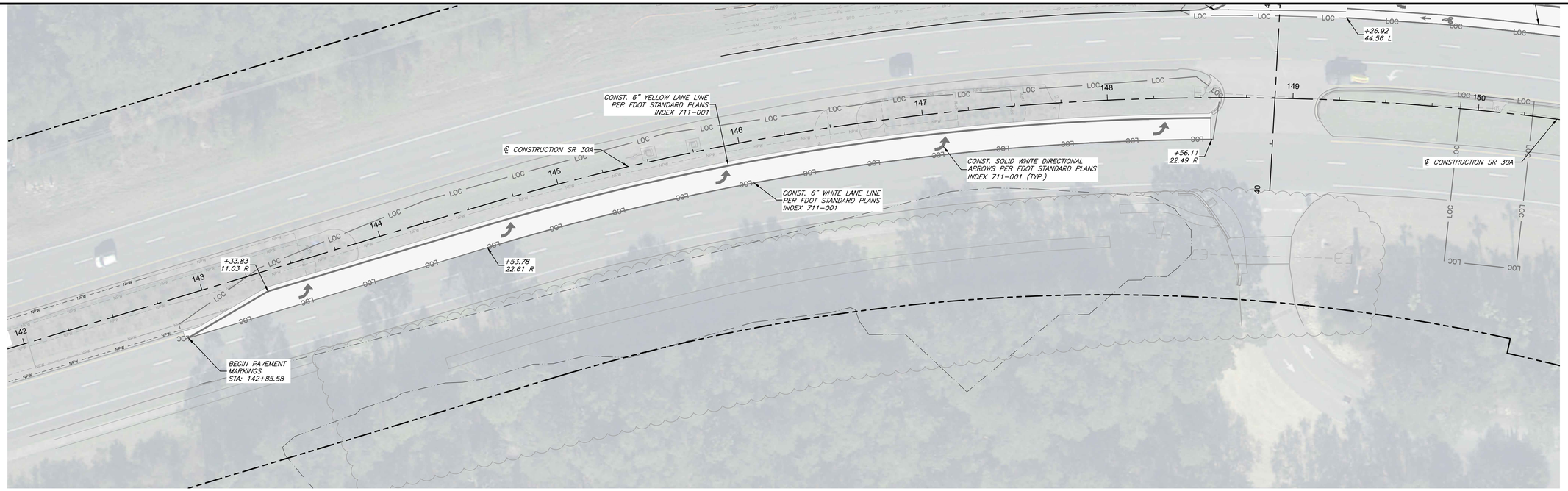
JAMES H. PETERSON IV LICENSED No. 80485 STATE OF FLORIDA PROFESSIONAL ENGINEER
JAMES H. PETERSON IV P.E. # 80485
State of Florida P.E. #

CAMP HELEN STATE PARK

SHEET TITLE: TURN LANE UTILITY PLAN

PROJECT TITLE: PARK IMPROVEMENT

SHEET NO. C602

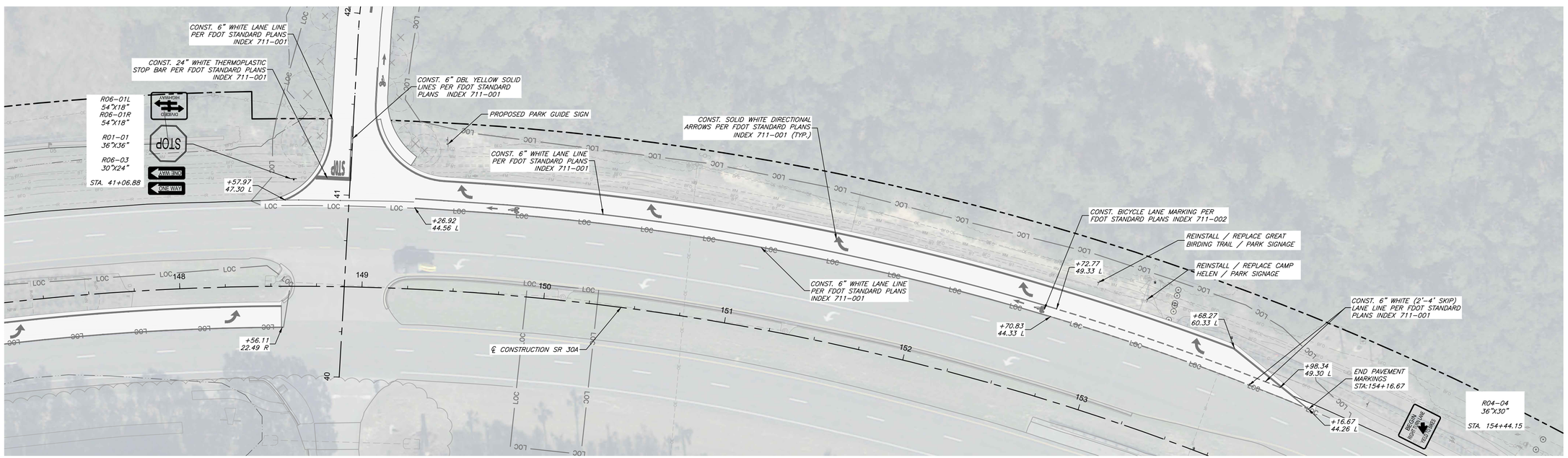


SIGNAGE & PAVEMENT MARKING PLAN

SCALE:1" = 30'

0 15 30

1 inch = 30 ft.



SIGNAGE & PAVEMENT MARKING PLAN

SCALE:1" = 30'

0 15 30

1 inch = 30 ft.

PRELIMINARY NOT FOR CONSTRUCTION

ISSUE DATE: 11/11/2024 100% PLANS	SYMBOL	REVISION	DATE	SYMBOL	REVISION	DATE
COMP. FILE No. 21-5436						
STATE PROJECT No. 61307C-N3803						

Consultant: George & Associates Consulting Engineers, Inc. CIVIL • ENVIRONMENTAL • STRUCTURAL • TRANSPORTATION ENGINEERING BUSINESS NO. 2829 1967 Commonwealth Lane, Suite 200, Tallahassee, FL 32303. PHONE: (850)210-3344 FAX: (850)210-3345

Department of Environmental Protection
Division of Recreation and Parks
Bureau of Design and Construction
3900 Commonwealth Boulevard, Tallahassee, FL 32399 (850) 245-2157

DESIGNER: SMU
DRAWN BY: SMU
REVIEWED BY: JHP

PROFESSIONAL REGISTRATION
JAMES H. PETERSON IV LICENSE No. 80485 STATE OF FLORIDA PROFESSIONAL ENGINEER
JAMES H. PETERSON IV
State of Florida P.E. # 80485

PROJECT TITLE: CAMP HELEN STATE PARK

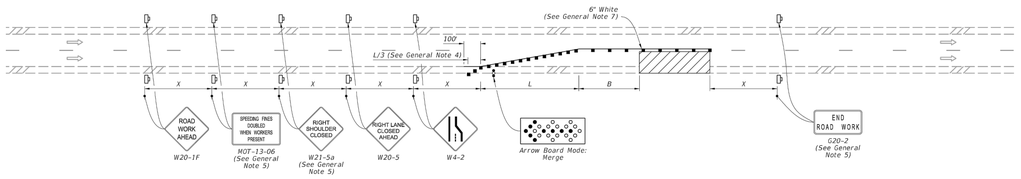
SHEET TITLE: SIGNAGE & PAVEMENT MARKING PLAN

PARK IMPROVEMENT

SHEET NO. C701

Approved
24-0391-00044
Lee Ward
1/30/2025

BLEASMER December 17, 2024 p:\Projects\21-5436 bdc camp helen state park\Drawings\Civil\00 Pavement Marking Signage\C701 Signage & Pavement Marking Plan.dwg



SINGLE LANE CLOSURE

SYMBOLS:

- Work Area
- Channelizing Device (See Index 102-600)
- Work Zone Sign
- Arrow Board
- Lane Identification and Direction of Traffic

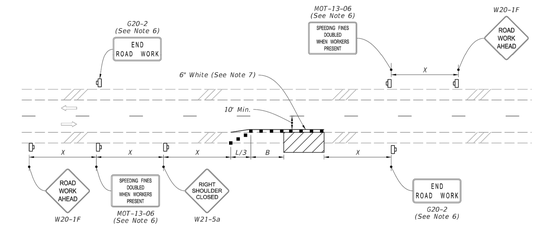
GENERAL NOTE:

1. L = Taper Length
   B = Buffer Length
   X = Work Zone Sign Distance
   See Index 102-600 for "L", "B", "X", and channelizing device spacing values.
2. On undivided highways the median signs as shown are to be omitted.
3. On limited access facilities, omit "Right Shoulder Closed" signs (W21-5a) and associated work zone sign spacing distances.
4. If the paved shoulder is less than 4' in width, omit the taper and channelizing devices from the paved shoulder.
5. The "Speeding Fines Doubled When Workers Present" signs (M0T-13-06) and "End Road Work" signs (G20-2) and "Right Shoulder Closed" (W21-5a), along with associated work zone sign 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.
6. Use inverted plan of the illustrations for work on left side of roadways.
7. Temporary pavement markings may be omitted when the work operation is in place for 3 days or less.

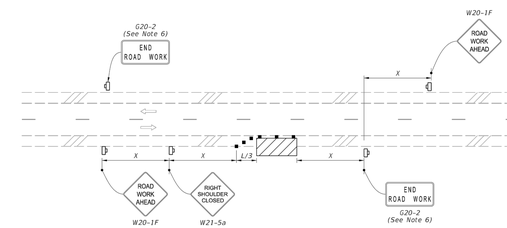
LAST REVISION	REVISION	DESCRIPTION:	FDOT FY 2023-24 STANDARD PLANS	MULTILANE ROADWAY, LANE CLOSURES	INDEX	SHEET
11/01/21					102-613	1 of 5

NOTE:

1. This Index applies to Two-Lane, Two-Way and Multilane Roadways, including Medians of divided roadways, with work on the shoulder.
2. L = Taper Length
   X = Work Zone Sign Spacing
   B = Buffer Length
   See Index 102-600 for "L", "X", "B", and channelizing device spacing values.
3. 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.
4. 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.
5. For work less than 2' from the traveled way and work zone speed is greater than 45 MPH, use a lane closure.
6. The "Speeding Fines Doubled When Workers Present" signs (M0T-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.
7. Temporary pavement markings may be omitted when the work operation is in place for 3 days or less.
8. Omit "Shoulder Closed" signs (W21-5a) along with associated work zone sign spacing distances for work on the median.
9. 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

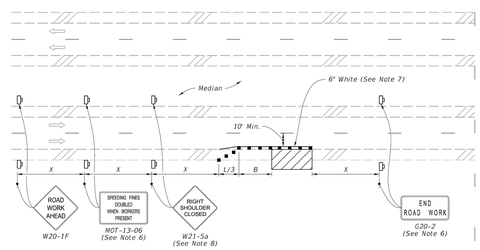


TWO-LANE ROADWAY
SHOULDER WORK BETWEEN 2' AND 15' FROM THE TRAVELED WAY

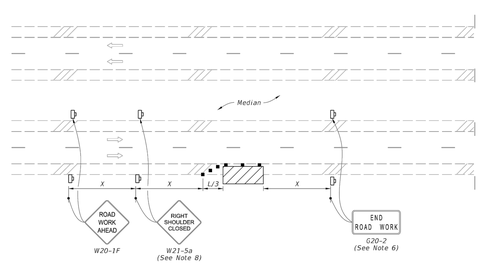
SYMBOLS:

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

LAST REVISION	REVISION	DESCRIPTION:	FDOT FY 2023-24 STANDARD PLANS	TWO-LANE AND MULTILANE, WORK ON SHOULDER	INDEX	SHEET
11/01/21					102-602	1 of 2



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

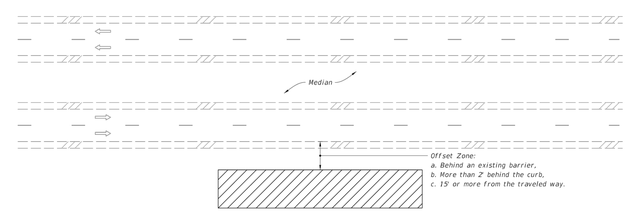


MULTILANE ROADWAY
SHOULDER WORK BETWEEN 2' AND 15' FROM THE TRAVELED WAY

SYMBOLS:

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

LAST REVISION	REVISION	DESCRIPTION:	FDOT FY 2023-24 STANDARD PLANS	TWO-LANE AND MULTILANE, WORK ON SHOULDER	INDEX	SHEET
11/01/20					102-602	2 of 2



MULTILANE ROADWAY SHOWN, TWO-LANE ROADWAY SIMILAR

NOTES:

1. This Index applies to Two-Lane, Two-Way and Multilane Roadways, including Medians of divided roadways, with work beyond the shoulder.
2. 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.
3. Use Index 102-660 when Work Area encroaches a Sidewalk.

SYMBOLS:

- Work Area
- Lane Identification and Direction of Traffic

PRELIMINARY NOT FOR CONSTRUCTION

LAST REVISION	REVISION	DESCRIPTION:	FDOT FY 2023-24 STANDARD PLANS	TWO-LANE AND MULTILANE ROADWAY, WORK BEYOND THE SHOULDER	INDEX	SHEET
11/01/20					102-601	1 of 1

ISSUE DATE: 11/11/2024 100% PLANS	SYMBOL	REVISION	DATE	DATE
COMP. FILE No.: 21-5436				
STATE PROJECT No.: 61307C-N3803				

Department of Environmental Protection
Division of Recreation and Parks
Bureau of Design and Construction
3900 Commonwealth Boulevard, Tallahassee, FL 32399 (850) 245-2157

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DRAWN BY: SMU
REVIEWED BY: JHP

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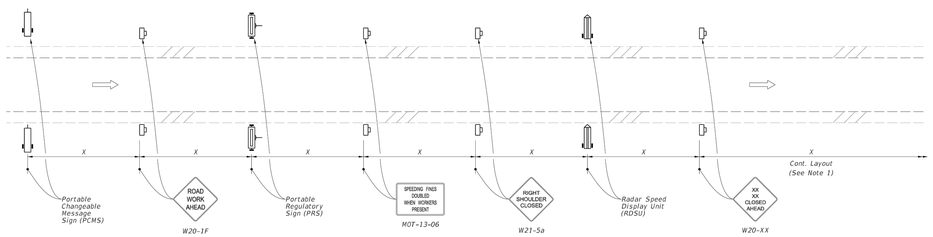
State of Florida P.E. # 80465

CAMP HELEN STATE PARK

SHEET TITLE: TRAFFIC CONTROL PLAN

PROJECT TITLE: PARK IMPROVEMENT

SHEET NO. C801



MOTORIST AWARENESS SYSTEM

SYMBOLS:

- Work Zone Sign
- (1) PCMS= Portable Changeable (Variable) Message Sign
- (2) PRS= Portable Regulatory Sign-Speed Limit When Flashing
- (2) RSDU= Radar Speed Display Unit
- Lane Identification and Direction of Traffic

NOTES:

1. Use the Motorist Awareness System (MAS) for lane closures of at least 5 days (consecutive or not) on multilane divided facilities with a posted speed of 55 or greater when workers are present and not protected by a barrier.
2. Locate the Motorist MAS devices (i.e., PCMS, PRS, and RDSU) within the advance warning signs as shown. Continue with the remainder of the work zone signs and devices in accordance with the Plans or Standard Plans after the appropriate "Lane Closed Ahead" (W20-XX) sign.
3. For a posted speed of 65 mph or greater, display speed with a ten mph reduction. For a posted speed of 60 mph, display a reduced speed of 55 mph. For areas outside of the lane closure, use the posted speed as the work zone speed.
4. Omit the PCMS in the median for roadways with three lanes or less in the same direction of traffic.

TYPICAL PCMS DISPLAY:

With speed reduction:
Message 1: WORKERS PRESENT AHEAD
Message 2: SPEED REDUCED NEXT XXMI

Without speed reduction:
Message 1: WORKERS PRESENT AHEAD
Message 2: NEXT XX MILES

LAST REVISION	REVISION	DESCRIPTION:	FDOT	FY 2023-24 STANDARD PLANS	MULTILANE ROADWAY, LANE CLOSURES	INDEX	SHEET
11/01/21						102-613	5 of 5

7/21/2023 10:10:28 AM

PRELIMINARY NOT FOR CONSTRUCTION

SYMBOL	REVISION	DATE	SYMBOL	REVISION	DATE

ISSUE DATE: 11/11/2024 100% PLANS
COMP. FILE No.: 21-5436
STATE PROJECT No.: 61307C-N3803

Department of Environmental Protection
Division of Recreation and Parks
Bureau of Design and Construction
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DRAWN BY: SMU
REVIEWED BY: JHP
Consultant:

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State of Florida P.E. # 80485

CAMP HELEN STATE PARK

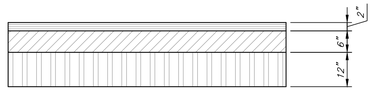
SHEET TITLE: TRAFFIC CONTROL PLAN

PROJECT TITLE: PARK IMPROVEMENT

SHEET NO. C802

Approved
DEP-2391100044
Lisa Ward
1/30/2025

DRDGN: September 11, 2024 p:\Projects\21-5436 bdc camp helen state park\Drawings\Civil\09 Pavement Marking_Signage\C801 Traffic Control Plan.dwg



SURFACE COURSE – TYPE SP ASPHALTIC CONCRETE (NOT TO EXCEED 15% RAP)

BASE COURSE – LIMEROCK (6" COMPACTED THICKNESS) WITH PRIME COAT

SUBGRADE – TYPE B STABILIZATION

TYPE SP ASPHALTIC CONCRETE SURFACE (2" MIN. COMPACTED THICKNESS) SHALL BE PLACED IN TWO LAYERS.

FIRST LAYER SHALL BE TYPE SP-9.5 AND HAVE A MIN. COMPACTED THICKNESS OF 1.00 INCH.

SECOND AND FINAL LAYER SHALL BE TYPE SP-9.5 AND HAVE A MIN. COMPACTED THICKNESS OF 1.00 INCH.

THE FIRST LAYER SHALL BE PLACED IMMEDIATELY AFTER COMPLETION OF THE BASE COURSE.

THE FINAL LAYER SHALL BE PLACED AT THE COMPLETION OF THE PROJECT AND SHALL MEET ALL REQUIREMENTS (INCLUDING MIXING AND PLACING REQUIREMENTS) AS SET FORTH BY F.D.O.T. FOR AN ASPHALTIC CONCRETE SURFACE COURSE TYPE SP.

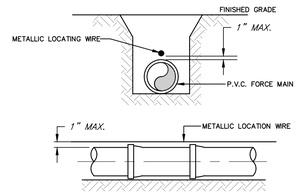
WHERE REFERENCE IS MADE TO A STANDARD SPECIFICATION OR DETAIL, THE FLORIDA DEPARTMENT OF TRANSPORTATION ROADWAY AND TRAFFIC DESIGN STANDARDS, LATEST EDITION, SHALL BE USED AS IF PART OF THIS PLAN. COMPACTION AND DENSITY REQUIREMENTS ARE SUBJECT TO RECOMMENDATIONS OF THE GEOTECH (SOILS) SURVEY.

ALL PAVEMENT, PAVEMENT MARKINGS, SIGNAGE AND MESSAGES ARE TO BE CONSTRUCTED IN ACCORDANCE WITH THE FDOT STANDARD SPECIFICATIONS.

ASPHALT MIX TO CONTAIN MAXIMUM 15% RAP WITH PG 67-22 ASPHALT BINDER GRADE AND MUST MEET FDOT SPECIFICATION 334.

TYPE SP PAVEMENT DETAIL

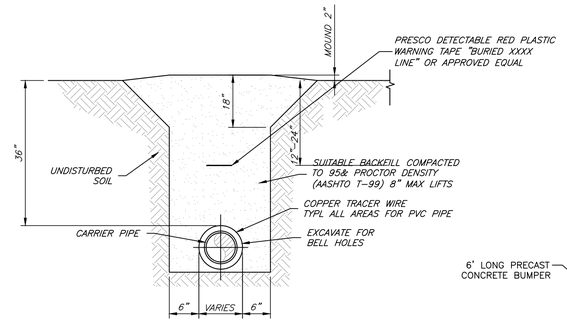
SCALE: NTS



NOTES:
1. PVC PIPE SHALL REQUIRE INSULATED METALLIC LOCATING WIRE (12 GAUGE COPPER) CAPABLE OF DETECTION BY A CABLE LOCATOR AND SHALL BE BURIED DIRECTLY ABOVE THE CENTERLINE OF THE PIPE.
2. LOCATING WIRE SHALL TERMINATE AT THE TOP OF EACH VALVE BOX AND BE CAPABLE OF EXTENDING 12" ABOVE TOP OF BOX IN SUCH A MANNER SO AS NOT TO INTERFERE WITH VALVE OPERATION.
3. USE DUCT TAPE AS NECESSARY TO HOLD WIRE ON THE TOP OF THE PIPE.
4. ALL SPLICES SHALL BE MADE USING A WATER-TIGHT SEALING METHOD APPROVED BY THE CITY.

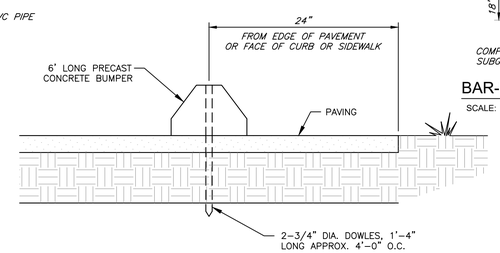
PVC WIRE LOCATING DETAIL

SCALE: NTS



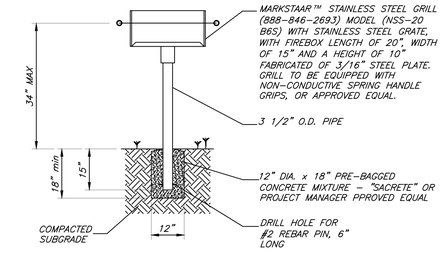
TYPICAL UNPAVED PIPE TRENCH DETAIL

SCALE: NTS



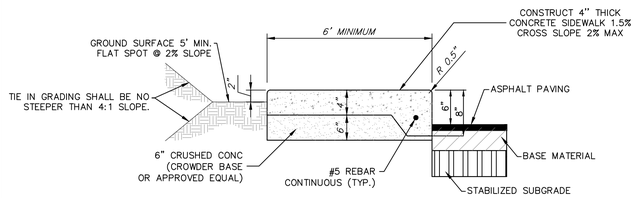
PARKING BUMPER DETAIL

N.T.S.



BAR-B-QUE GRILL DETAIL

SCALE: NTS



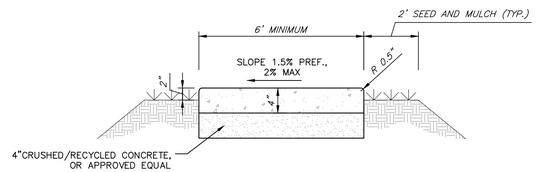
RAISED 4" CONCRETE SIDEWALK

SCALE: NTS

NOTE:
CONSTRUCT 4" THICK CONCRETE SIDEWALK IN ACCORDANCE WITH FDOT INDEX LATEST EDITION

PROVIDE A BROOM FINISH TO CONCRETE SURFACE.

FINISH OUTER EDGES OF THE CONCRETE WITH AN EDGING TOOL HAVING A RADIUS OF 1\2 INCH.



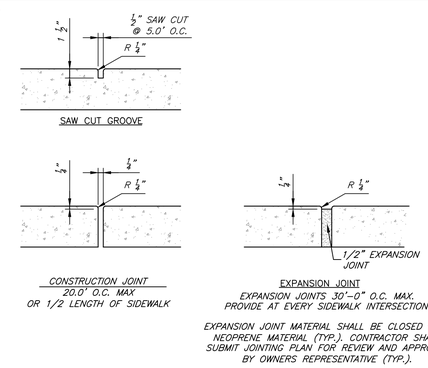
TYPICAL 4" PROPOSED CONCRETE SIDEWALK

SCALE: NTS

NOTE: CONSTRUCT 4" THICK CONCRETE SIDEWALK IN ACCORDANCE WITH FDOT STANDARD PLANS LATEST EDITION. CONTRACTOR SHALL SUBMIT JOINTING PLAN FOR REVIEW AND APPROVAL BY OWNERS REPRESENTATIVE.

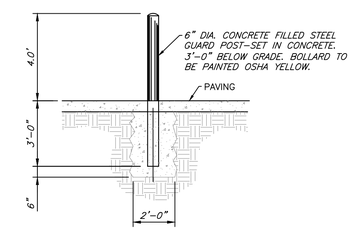
PROVIDE A BROOM FINISH ON CONCRETE SURFACE.

FINISH OUTER EDGES IF THE CONCRETE WITH AN EDGING TOOL HAVING A RADIUS OF ½ INCH.



TYPICAL CONCRETE SIDEWALK JOINT DETAILS

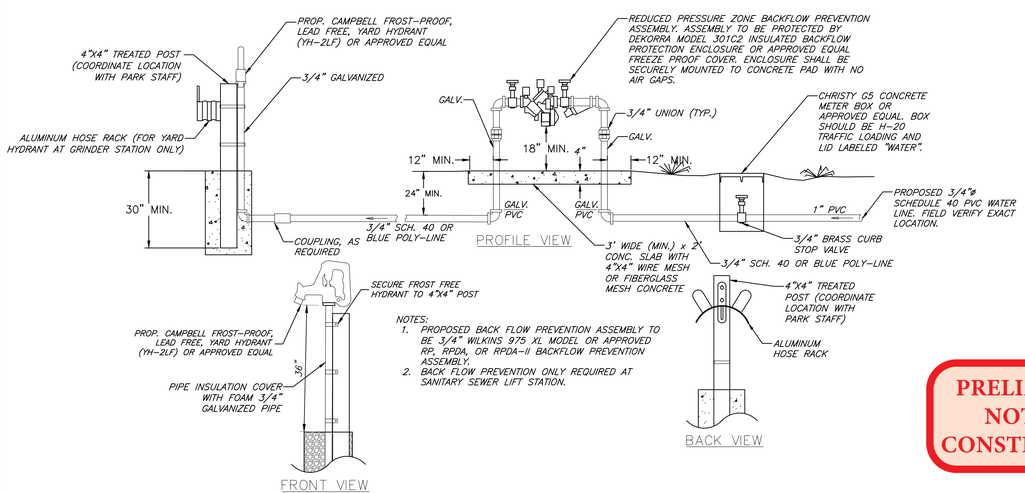
SCALE: NTS



BOLLARD DETAIL

N.T.S.

DETAIL S-002

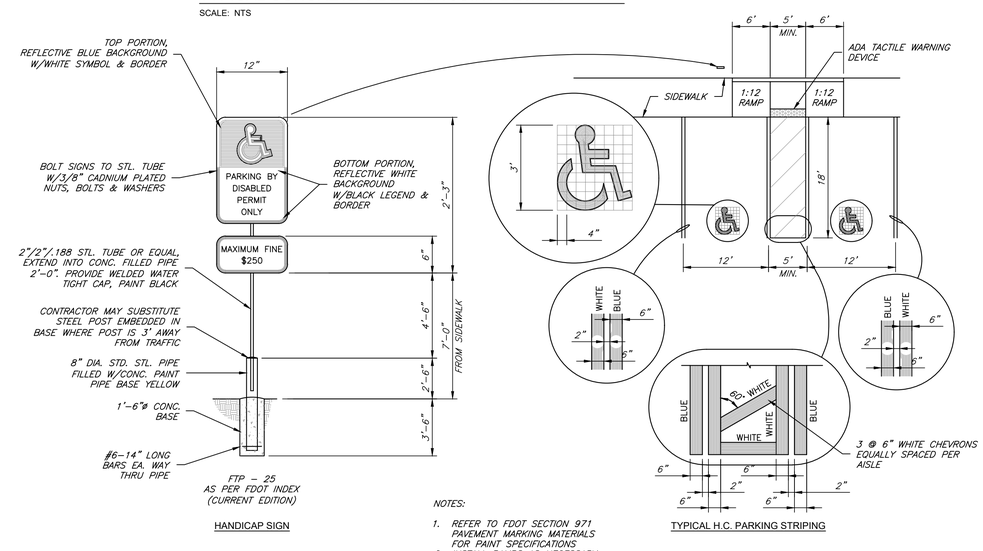


NOTES:
1. PROPOSED BACK FLOW PREVENTION ASSEMBLY TO BE 3/4" WILKINS 975 XL MODEL OR APPROVED RP, RPDA, OR RPDA-II BACKFLOW PREVENTION ASSEMBLY.
2. BACK FLOW PREVENTION ONLY REQUIRED AT SANITARY SEWER LIFT STATION.

FROSTFREE YARD HYDRANT, INCLUDING AT LIFT STATION

SCALE: NTS

PRELIMINARY NOT FOR CONSTRUCTION



NOTES:
1. REFER TO FDOT SECTION 971 PAVEMENT MARKING MATERIALS FOR PAINT SPECIFICATIONS
2. INSTALL RAMPS AS NECESSARY

WHERE S.W. IS ADJACENT TO BUILDING MOUNT SIGNS ON FACE OF BUILDING

HANDICAP PARKING DETAILS

SCALE: NTS

CONSTRUCTION DETAILS

	DATE	SYMBOL	REVISION	DATE	SYMBOL	REVISION	DATE
ISSUE DATE: 11/11/2024 100% PLANS							
COMP. FILE No: 21-5436							
STATE PROJECT No: 61307C-N3803							

Department of Environmental Protection
Division of Recreation and Parks
Bureau of Design and Construction
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DESIGNER: SMU
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JAMES H. PETERSON IV LICENSE No. 80485 STATE OF FLORIDA PROFESSIONAL ENGINEER
JAMES H. PETERSON IV
State of Florida P.E. # 80485

SHEET TITLE: CAMP HELEN STATE PARK
CONSTRUCTION DETAILS
PROJECT TITLE: PARK IMPROVEMENT

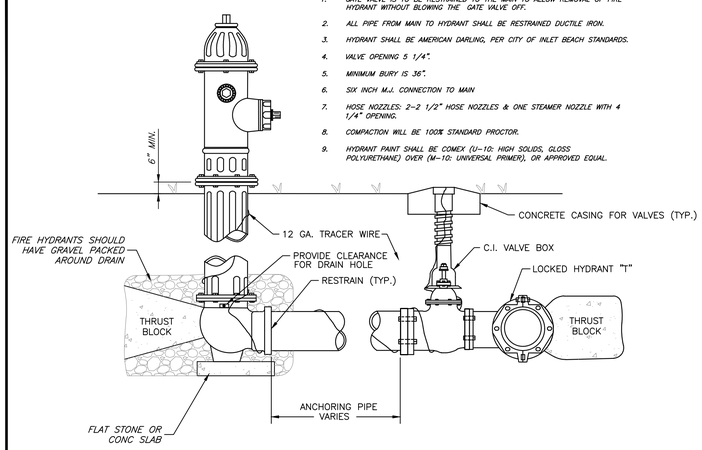
SHEET NO.
C901

Approved
PRA 391-00044
Lisa Ward
1/30/2025

SLA SAVER December 27, 2024 p:\Projects\21-5436 camp helen state park\Drawings\Civil\10 Details\C901 Construction Details.dwg

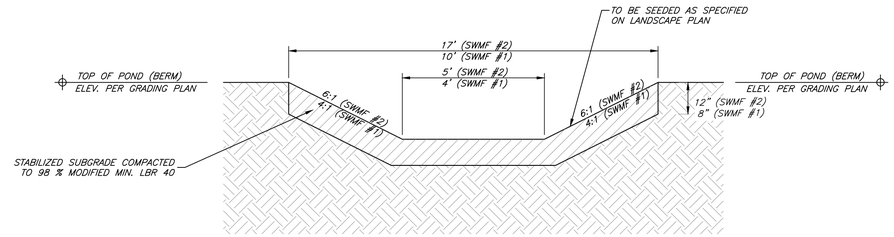
NOTE:

1. GATE VALVE IS TO BE RESTRAINED TO THE MAIN TO ALLOW REMOVAL OF FIRE HYDRANT WITHOUT BLOWING THE GATE VALVE OFF.
2. ALL PIPE FROM MAIN TO HYDRANT SHALL BE RESTRAINED DUCTILE IRON.
3. HYDRANT SHALL BE AMERICAN DARLING, PER CITY OF INLET BEACH STANDARDS.
4. VALVE OPENING 5 1/4".
5. MINIMUM BURY IS 36".
6. SIX INCH M.J. CONNECTION TO MAIN
7. HOSE NOZZLES: 2-2 1/2" HOSE NOZZLES & ONE STEAMER NOZZLE WITH 4 1/4" OPENING.
8. COMPACTION WILL BE 100% STANDARD PROCTOR.
9. HYDRANT PAINT SHALL BE COMEX (U-10: HIGH SOLIDS, GLOSS POLYURETHANE) OVER (M-10: UNIVERSAL PRIMER), OR APPROVED EQUAL.



FIRE HYDRANT ASSEMBLY - AMERICAN-DARLING MODEL B-84-B, OR APPROVED EQUAL

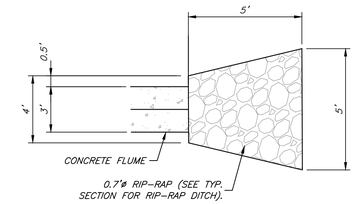
SCALE: NTS



FRONT SECTION

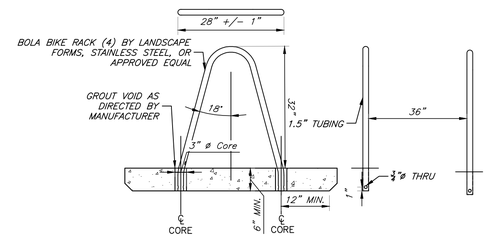
EMERGENCY SPILLWAY - GRASSED WEIR (SWMF #1 AND #2)

SCALE: NTS



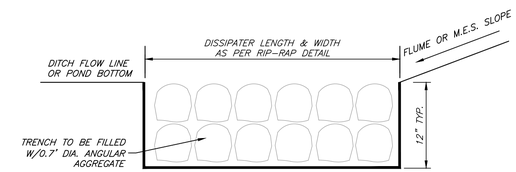
RIP-RAP DETAIL AT END OF CONCRETE FLUME

SCALE: NTS



BIKE RACK

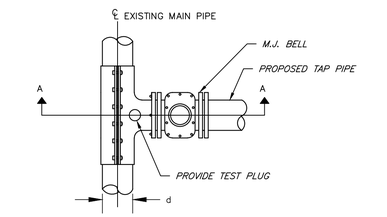
N.T.S.



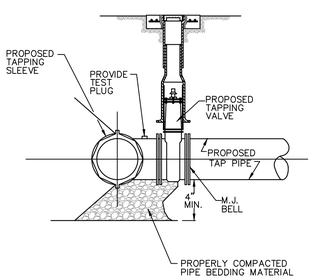
TYPICAL RIP-RAP DETAIL: CROSS SECTION

SCALE: NTS

PRELIMINARY NOT FOR CONSTRUCTION



PLAN



SECTION A-A

NOTES:

1.) NO CUTS SHALL BE MADE BEFORE:
(A) A TEST OF 150 P.S.I. FOR 30 MINUTES IS MADE.

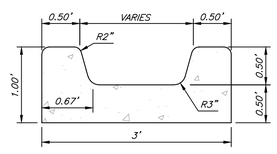
2.) ALL TAPS MUST BE OF A SMALLER SIZE THAN THE MAIN BEING TAPPED & PLACED NO CLOSER THAN 30" OR A DISTANCE EQUAL TO (1) MAIN PIPE DIAMETER PLUS (2) TAP PIPE DIAMETERS (WHICHEVER IS LARGER) FROM A JOINT OR FITTING.

2.) CONTRACTOR SHALL ADHERE TO INLET BEACH WATER SYSTEM SPECIFICATIONS

3.) CONTRACTOR TO SUPPLY A DRY HOLE FOR TAPPING CREW TO WORK AND A BACK-HOE TO LOWER MACHINE INTO HOLE.

TAPPING SLEEVE AND VALVE DETAIL

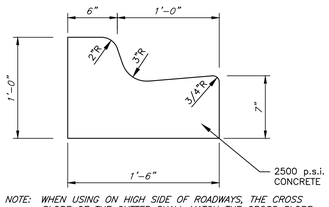
SCALE: NTS



NOTES:
1. CONTRACTOR IS TO PROVIDE 1/8" TO 1/4" CONTRACTION JOINTS AT 10' ON CENTER (MAX). THIS EXPANSION JOINTS SHALL BE LOCATED IN ACCORDANCE WITH SECTION 520 OF THE FDOT STANDARD SPECIFICATIONS.

CONCRETE FLUME

SCALE: NTS

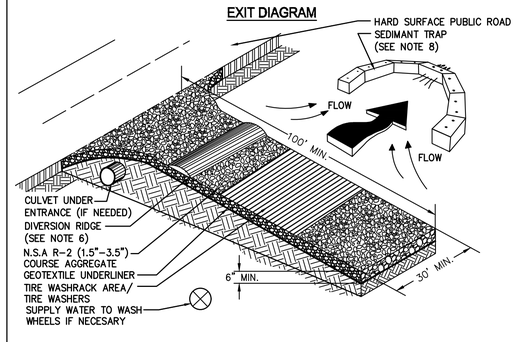


NOTE: WHEN USING ON HIGH SIDE OF ROADWAYS, THE CROSS SLOPE OF THE GUTTER SHALL MATCH THE CROSS SLOPE OF THE ADJACENT PAVEMENT

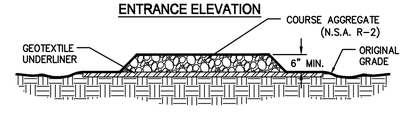
18" STANDARD CURB AND GUTTER

SCALE: NTS

EXIT DIAGRAM



ENTRANCE ELEVATION



MAINTENANCE:
THE EXIT SHALL BE MAINTAINED IN A CONDITION THAT WILL PREVENT TRACKING OR FLOW OF MUD ONTO PUBLIC RIGHT-OF-WAY. THIS MAY REQUIRE PERIODIC TOP DRESSING WITH 1.5-3.5 INCH STONE, AS CONDITIONS DEMAND, AND REPAIR AND/OR CLEANOUT OF ANY STRUCTURES TO TRAP SEDIMENT. ALL MATERIAL SPILLED, DROPPED, WASHED, OR TRACKED FROM VEHICLES OR SITE ONTO ROADWAYS OR INTO STORM DRAINS MUST BE REMOVED IMMEDIATELY.

NOTES:
1. AVOID LOCATING ON STEEP SLOPES OR AT CURVES ON PUBLIC ROADS.
2. REMOVE ALL VEGETATION AND OTHER UNSUITABLE MATERIAL FROM THE FOUNDATION AREA, GRADE, AND CROWN FOR POSITIVE DRAINAGE.
3. AGGREGATE SIZE SHALL BE IN ACCORDANCE WITH NATIONAL STONE ASSOCIATION R-2 (1.5"-3.5" STONE).
4. GRAVEL PAD SHALL HAVE A MINIMUM THICKNESS OF 6".
5. PAD WIDTH SHALL BE EQUAL FULL WIDTH AT ALL POINTS OF VEHICULAR EGRESS, BUT NO LESS THAN 20'.
6. A DIVERSION RIDGE SHOULD BE CONSTRUCTED WHEN GRADE TOWARD PAVED AREA IS GREATER THAN 2%.
7. INSTALL PIPE UNDER THE ENTRANCE IF NEEDED TO MAINTAIN DRAINAGE DITCHES.
8. WHEN WASHING IS REQUIRED, IT SHOULD BE DONE ON AN AREA STABILIZED WITH CRUSHED STONE THAT DRAINS INTO AN APPROVED SEDIMENT TRAP OR SEDIMENT BASIN (DIVERT ALL SURFACE RUNOFF AND DRAINAGE FROM THE ENTRANCE TO A SEDIMENT CONTROL DEVICE).
9. WASHRACKS AND/OR TIRE WASHERS MAY BE REQUIRED DEPENDING ON SCALE AND CIRCUMSTANCE. IF NECESSARY, WASHRACK DESIGN MAY CONSIST OF ANY MATERIAL SUITABLE FOR TRUCK TRAFFIC THAT REMOVE MUD AND DIRT.
10. MAINTAIN AREA IN A WAY THAT PREVENTS TRACKING AND/OR FLOW OF MUD ONTO PUBLIC RIGHTS-OF-WAYS. THIS MAY REQUIRE TOP DRESSING, REPAIR AND/OR CLEANOUT OF ANY MEASURES USED TO TRAP SEDIMENT.
11. THE GEOTEXTILE UNDERLINER MUST BE PLACED THE FULL LENGTH AND WIDTH OF THE ENTRANCE. GEOTEXTILE SELECTION SHALL BE BASED ON AASHTO M288-06 SPECIFICATION:
A. FOR SUBGRADES WITH CBR GREATER THAN OR EQUAL TO 3 OR SHEAR STRENGTH GREATER THAN 90 kPa, GEOTEXTILE MUST MEET REQUIREMENTS OF SECTION AASHTO M288-06 SECTION 7.3, SEPERATION REQUIREMENTS.
B. FOR SUBGRADES WITH CBR BETWEEN 1 AND 3 OR SHEER STRENGTH BETWEEN 30 AND 90 kPa, GEOTEXTILE MUST MEET REQUIREMENTS OF SECTION AASHTO M288-06 SECTION 8, GEOTEXTILE PROPERTY REQUIREMENTS FOR SUBSURFACE DRAINAGE, SEPARATION, STABILIZATION, AND PERMANENT EROSION CONTROL (GEOTEXTILE PROPERTY REQUIREMENTS).

Co CONSTRUCTION EXIT
NOT TO SCALE

CONSTRUCTION DETAILS

SYMBOL	REVISION	DATE	SYMBOL	REVISION	DATE

ISSUE DATE: 11/11/2024 100% PLANS
COMP. FILE No.: 21-5436
STATE PROJECT No.: 61307C-N3803

Department of Environmental Protection
Division of Recreation and Parks
Bureau of Design and Construction
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DESIGNER: SMU
DRAWN BY: SMU
REVIEWED BY: JHP
Consultant:

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JAMES H. PETERSON IV LICENSE No 80485 STATE OF FLORIDA PROFESSIONAL ENGINEER
JAMES H. PETERSON IV
State of Florida P.E. # 80485

CAMP HELEN STATE PARK

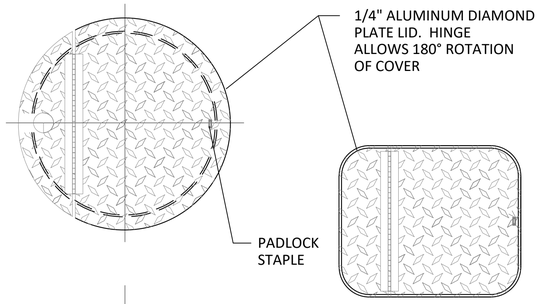
SHEET TITLE: CONSTRUCTION DETAILS

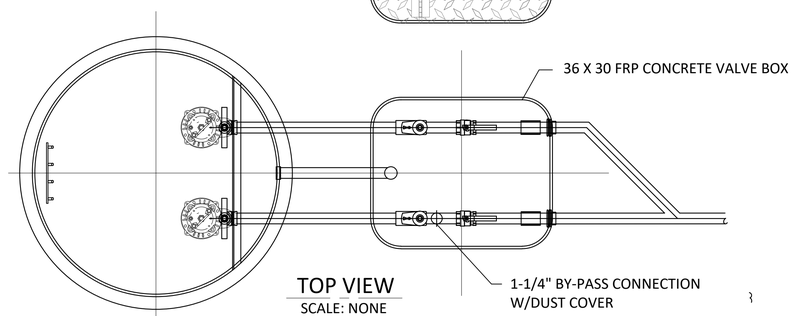
PROJECT TITLE: PARK IMPROVEMENT

SHEET NO. C902

Approved
21-5436-01-01-01-00044
Lisa Ward
1/30/2025

BILLSAMER December 27, 2024 p:\Projects\21-5436 bcc camp helen state park\Drawings\Civil\10 Details\C901 Construction Details.dwg



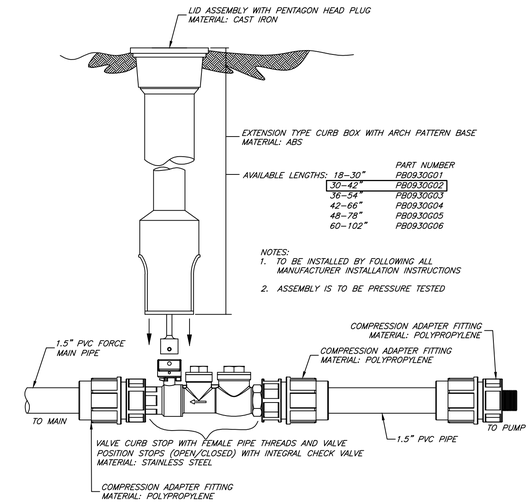


TOP VIEW
SCALE: NONE

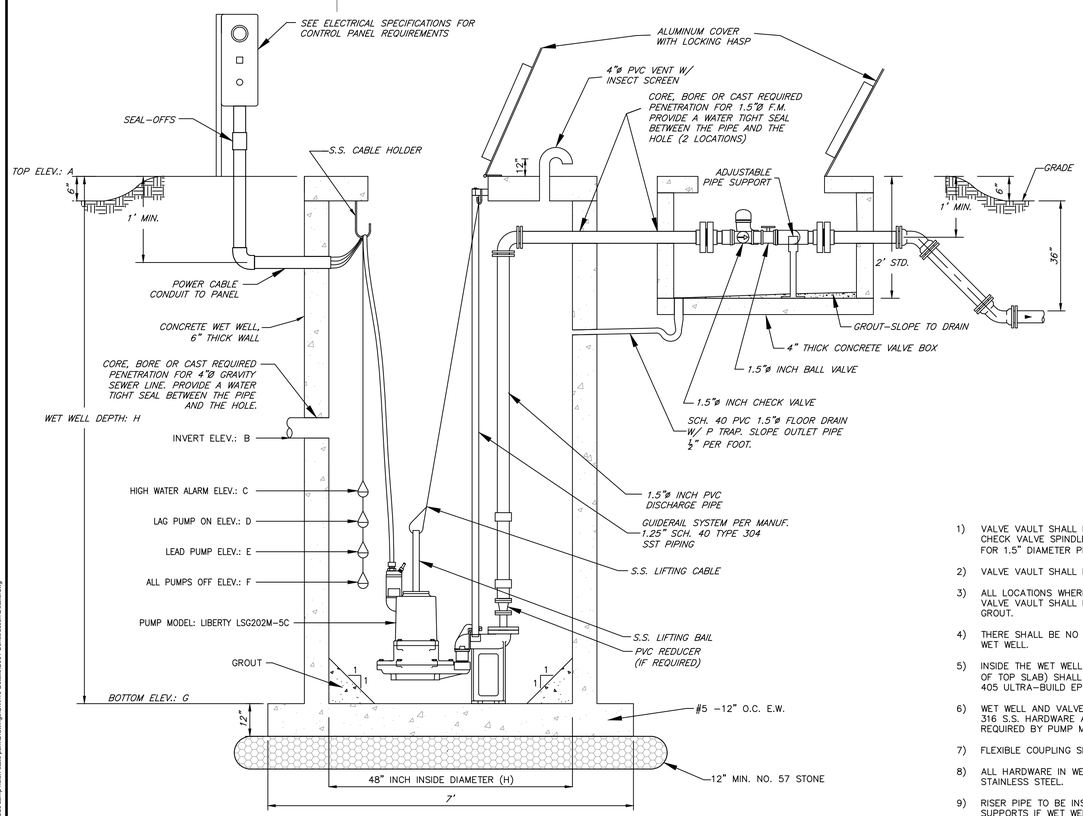
LIFT STATION INFORMATION

DESCRIPTION	REF.	STATION #1
TOP	'A'	19.25'
INFLUENT INVERT	'B'	17.5'
ALARM	'C'	16.5'
TWO PUMPS ON	'D'	17.33'
ONE PUMP ON	'E'	16.83'
PUMPS OFF	'F'	16.33'
BOTTOM	'G'	14.25'
WET WELL DEPTH	'H'	5'
WET WELL DIAMETER	'I'	48"
# OF PUMPS		2
GPM		20
TDH (FT)		85
VOLTAGE / PHASE		230 V / 1 PH
HP		2
PUMP MODEL		Liberty LSG202M-5C *

* OR APPROVED EQUAL



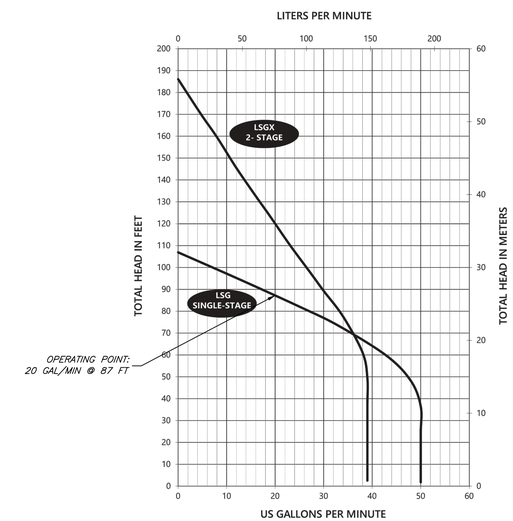
E-ONE LIFT STATION 1.5" STAINLESS STEEL LATERAL KIT
SCALE: NTS



DUPLEX GRINDER PUMP STATION
SCALE: N.T.S.

1) VALVE VAULT SHALL BE SIZED TO PERMIT EASY REMOVAL OF CHECK VALVE SPINDLES WITH MINIMUM CLEARANCES AS SHOWN FOR 1.5" DIAMETER PIPE AND SMALLER.
2) VALVE VAULT SHALL HAVE SEALED FLOOR AND DRAIN.
3) ALL LOCATIONS WHERE PIPES ENTER OR EXIT THE WET WELL OR VALVE VAULT SHALL BE MADE WATERTIGHT WITH NON-SHRINK GROUT.
4) THERE SHALL BE NO VALVES OR ELECTRICAL JUNCTION BOXES IN WET WELL.
5) INSIDE THE WET WELL ALL EXPOSED SURFACES (INCLUDING BOTTOM OF TOP SLAB) SHALL BE LINED WITH PROTECTIVE COATING; RAVEN 405 ULTRA-BUILD EPOXY, OR APPROVED EQUAL.
6) WET WELL AND VALVE VAULT COVERS SHALL BE ALUMINUM WITH 316 S.S. HARDWARE AND LOCK BAR TO ACCEPT PADLOCK. SIZE AS REQUIRED BY PUMP MANUFACTURER AND APPROVED BY ENGINEER.
7) FLEXIBLE COUPLING SHALL BE SLEEVE TYPE.
8) ALL HARDWARE IN WET WELL AND VALVE VAULT SHALL BE 316 STAINLESS STEEL.
9) RISER PIPE TO BE INSTALLED WITH INTERMEDIATE 316 S.S. PIPE SUPPORTS IF WET WELL DEPTH IS GREATER THAN 15 FEET.

DUPLEX GRINDER STATION NOTES



LIBERTY PUMP CURVE
SCALE: N.T.S.

CONSTRUCTION DETAILS

PRELIMINARY NOT FOR CONSTRUCTION

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DESIGNER: SMU
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Consultant:

PROFESSIONAL REGISTRATION
JAMES H. PETERSON IV
LICENSE No. 80485
STATE OF FLORIDA
PROFESSIONAL ENGINEER
State of Florida P.E. # 80485

CAMP HELEN STATE PARK

SHEET TITLE: CONSTRUCTION DETAILS

PROJECT TITLE: PARK IMPROVEMENT

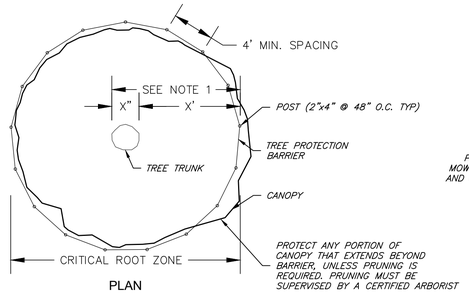
SHEET NO. C903

Approved
24-91-00044
Lee Ward
1/30/2025

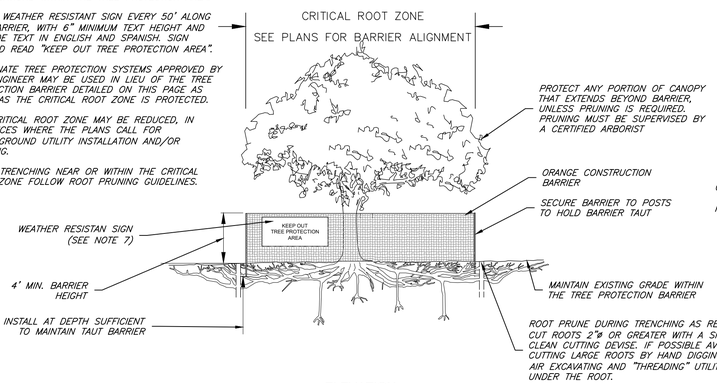
SULSAMER December 27, 2024, p:\Projects\21-5436 bdc camp helen state park\Drawings\Civil\10 Details\C901 Construction Details.dwg

NOTES:

1. CRITICAL ROOT ZONE: EXTENDS IN ALL DIRECTIONS FROM TREE TRUNK TO A DISTANCE EQUAL TO ONE FOOT PER INCH OF TRUNK DIAMETER AT BREAST HEIGHT.
2. STAGING, STORAGE, DUMPING, WASHING AND OPERATION OF EQUIPMENT IS NOT PERMITTED WITHIN THE LIMITS OF THE TREE PROTECTION BARRIER, INCLUDING DURING BARRIER INSTALLATION.
3. INSTALL ALL TREE PROTECTION PRIOR TO COMMENCEMENT OF CONSTRUCTION AND REMOVE WHEN POTENTIALLY DAMAGING CONSTRUCTION ACTIVITIES ARE FINISHED IN THE VICINITY OF THE PROTECTED TREES.
4. FOR CLOSELY SPACED GROUPS OF TREES, PLACE THE TREE PROTECTION BARRIER AROUND THE ENTIRE GROUP.
5. INSPECT TRUNK PROTECTION AND TREE QUARTERLY TO PREVENT GIRDLING. ADJUST BANDS TO ALLOW TREE GROWTH AS NEEDED.
6. SEE PLANS FOR ANY ADDITIONAL REQUIREMENTS OR MODIFICATIONS WITHIN THE TREE PROTECTION AREA.
7. PLACE WEATHER RESISTANT SIGN EVERY 50' ALONG THE BARRIER, WITH 6" MINIMUM TEXT HEIGHT AND PROVIDE TEXT IN ENGLISH AND SPANISH. SIGN SHOULD READ "KEEP OUT TREE PROTECTION AREA".
8. ALTERNATE TREE PROTECTION SYSTEMS APPROVED BY THE ENGINEER MAY BE USED IN LIEU OF THE TREE PROTECTION BARRIER DETAILED ON THIS PAGE AS LONG AS THE CRITICAL ROOT ZONE IS PROTECTED.
9. THE CRITICAL ROOT ZONE MAY BE REDUCED, IN INSTANCES WHERE THE PLANS CALL FOR UNDERGROUND UTILITY INSTALLATION AND/OR GRADING.
10. WHILE TRENCHING NEAR OR WITHIN THE CRITICAL ROOT ZONE FOLLOW ROOT PRUNING GUIDELINES.

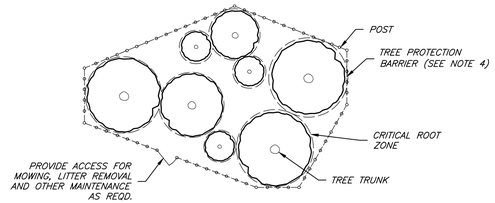


PLAN



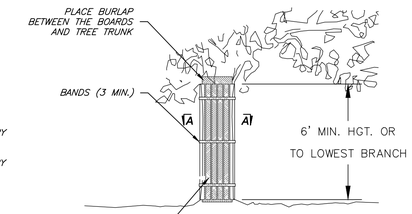
ELEVATION

TREE PROTECTION BARRIER

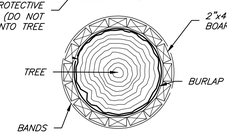


PLAN

PROTECTION FOR TREE GROUPINGS



ELEVATION

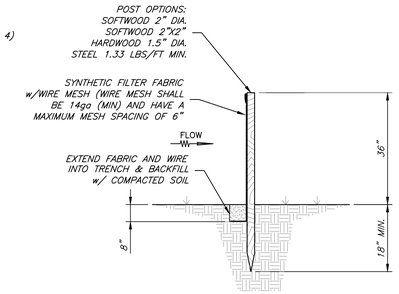


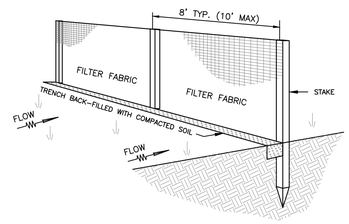
SECTION A-A

NOTES:

1. TRUNK PROTECTION MAY BE USED WHEN TREE PROTECTION BARRIER CAN NOT BE REASONABLY ERECTED.
2. ADJUST BANDS TO ALLOW TREE GROWTH (INSPECT QUARTERLY TO PREVENT GIRDLING).

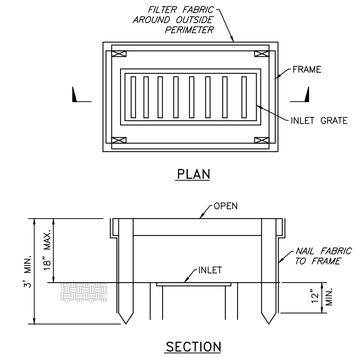
TRUNK PROTECTION





SEDIMENT BARRIER DETAILS

N.T.S. EC-006



INLET PROTECTION

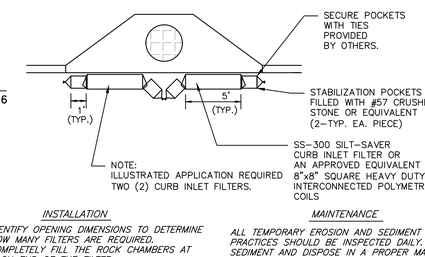
N.T.S. EC-013

DEFINITION

A FILTER DESIGN TO BE PLACED IN FRONT OF A CURB INLET OR OPENING TO PREVENT THE MIGRATION OF SILT INTO THE STORM DRAIN SYSTEM.

PURPOSE

TO REDUCE TURBIDITY OF DOWNSTREAM WATERS BY ELIMINATING SILT BUILD-UP IN STORM DRAIN SYSTEMS THROUGH THE CURB INLETS.



INSTALLATION

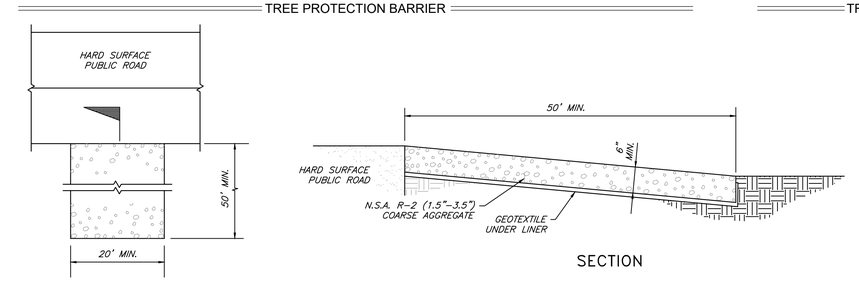
1. IDENTIFY OPENING DIMENSIONS TO DETERMINE HOW MANY FILTERS ARE REQUIRED.
2. COMPLETELY FILL THE ROCK CHAMBERS AT EACH END OF THE FILTER.
3. SECURE THE OPEN ENDS OF THE ROCK CHAMBERS WITH TIE WIRES. FOR LARGER OPENINGS, SIMPLY PLACE FILTERS END TO END.

MAINTENANCE

ALL TEMPORARY EROSION AND SEDIMENT CONTROL PRACTICES SHOULD BE INSPECTED DAILY. REMOVE SEDIMENT AND DISPOSE IN A PROPER MANNER. INSPECT FILTER FOR CUTS, ABRASIONS AND PROPER INSTALLATION, REPLACE OR REPOSITION AS NECESSARY. DISCONTINUE USE IF CURB INLET FILTRATION CREATES TRAFFIC HAZARD.

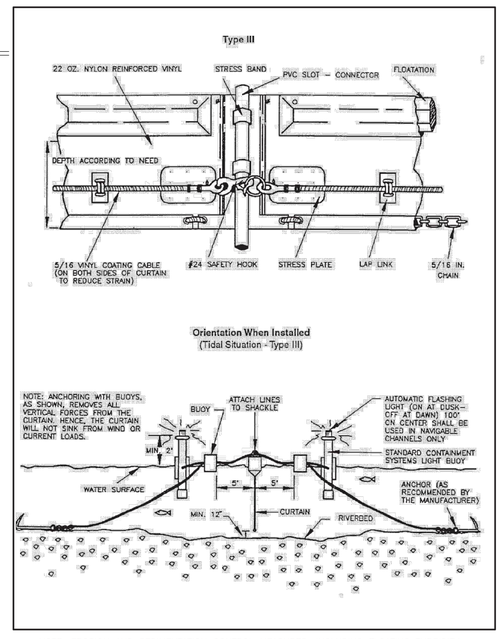
CURB INLET PROTECTION

N.T.S.



CONSTRUCTION ENTRANCE/EXIT

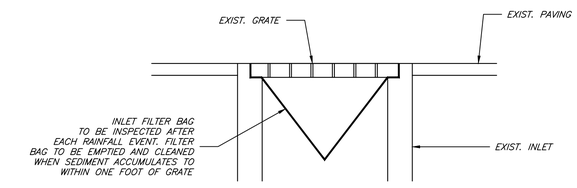
N.T.S. EC-016



NOTE: EROSION AND SEDIMENTATION CONTROL MEASURES, INCLUDING FLOATING TURBIDITY BARRIER, SPECIFICATIONS, REQUIREMENTS, AND INSTALLATION SHALL BE PER THE FDEP FLORIDA STORMWATER EROSION AND SEDIMENTATION CONTROL INSPECTORS MANUAL, LATEST EDITION.

TYPE III FLOATING TURBIDITY BARRIER

N.T.S.



INLET PROTECTION

N.T.S.

PRELIMINARY NOT FOR CONSTRUCTION

EROSION CONTROL DETAILS

SYMBOL	DATE	REVISION	SYMBOL	DATE	REVISION

ISSUE DATE: 11/11/2024 100% PLANS
COMP. FILE No: 21-5436
STATE PROJECT No: 61307C-N3803

DESIGNER: SMU
DRAWN BY: SMU
REVIEWED BY: JHP

Consultant: George & Associates Consulting Engineers, Inc.
CIVIL • ENVIRONMENTAL • GEOTECHNICAL • LAND SURVEYING
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PHONE: (850)210-3544 FAX: (850)210-3545
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Department of Environmental Protection
Division of Recreation and Parks
Bureau of Design and Construction
3900 Commonwealth Boulevard, Tallahassee, FL 32399 (850) 245-2157

PROFESSIONAL REGISTRATION
JAMES H. PETERSON IV
LICENSE No. 80465
STATE OF FLORIDA
PROFESSIONAL ENGINEER
JAMES H. PETERSON IV
State of Florida P.E. # 80465

CAMP HELEN STATE PARK

SHEET TITLE: EROSION CONTROL DETAILS

PROJECT TITLE: PARK IMPROVEMENT

SHEET NO. C904

Approved
P-21-291-00044
Lee Ward
1/30/2025

SOLSAMER December 27, 2024 p:\Projects\21-5436 bdc camp helen state park\Drawings\Civil\10 Details\C901 Construction Details.dwg

TABLE 1
CHANNELIZING DEVICE SPACING

Work Zone Speed (mph)	Maximum Spacing (feet)			
	Cones or Temporary Tubular Markers		Type I Barricades, Type II Barricades, Vertical Panels, or Drums	
	Taper	Tangent	Taper	Tangent
≤ 45	25	50	25	50
≥ 50	25	50	50	100

TABLE 2
TAPER LENGTH

Work Zone Speed (mph)	Minimum Length (Feet)
≤ 40	$L = (WS^2)/60$
≥ 45	$L = WS$

Example "L" Values

S (mph)	W (Width of Offset in Feet)														
	4			5			8			10			12		
	L	L/2	L/3	L	L/2	L/3	L	L/2	L/3	L	L/2	L/3	L	L/2	L/3
25	42	21	14	52	26	17	83	42	28	104	52	35	125	63	42
30	60	30	20	75	38	25	120	60	40	150	75	50	180	90	60
35	82	41	27	102	51	34	163	82	54	204	102	68	245	123	82
40	107	53	36	133	67	44	213	107	71	267	133	89	320	160	107
45	180	90	60	225	113	75	360	180	120	450	225	150	540	270	180
50	200	100	67	250	125	83	400	200	133	500	250	167	600	300	200
55	220	110	73	275	138	92	440	220	147	550	275	183	660	330	220
60	240	120	80	300	150	100	480	240	160	600	300	200	720	360	240
65	260	130	87	325	163	108	520	260	173	650	325	217	780	390	260
70	280	140	93	350	175	117	560	280	187	700	350	233	840	420	280

NOTE: Unless otherwise shown: Use L for merging tapers
Use L/2 for shifting tapers
Use L/3 for shoulder tapers

TABLE 3
WORK ZONE SIGN SPACING "X"

Road Type	Minimum Spacing (feet)
Arterials and Collectors with Work Zone Speed ≤ 40 mph	200
Arterials and Collectors with Work Zone Speed ≥ 45 mph	500
Limited Access Roadways (See Note)	1,500

NOTE:
For Limited access roadways with work zone speed ≤ 55 mph, the minimum spacing may be reduced in accordance with the MUTCD and as approved by the Engineer.

TABLE 4
BUFFER LENGTH "B"

Work Zone Speed (mph)	Minimum Length (feet)
25	155
30	200
35	250
40	305
45	360
50	425
55	495
60	570
65	645
70	730

NOTE:
When Buffer Length "B" cannot be attained due to geometric constraints, use the greatest length possible, but not less than 155 feet.

TABLE 5
CLEAR ZONE WIDTHS FOR WORK ZONES

Work Zone Speed (mph)	Travel Lanes & Multilane Ramps (feet)	Auxiliary Lanes & Single Lane Ramps (feet)
60-70	30	18
55	24	14
45-50	18	10
30-40	14	10
ALL SPEEDS CURB & GUTTER	4' BEHIND FACE OF CURB	4' BEHIND FACE OF CURB

NOTE:
For temporary conditions where existing curb has been removed but not reconstructed, curb and gutter values may be used.

TABLE 6
MINIMUM RADII FOR NORMAL CROWN

Work Zone Posted Speed (mph)	Minimum Radius (feet)
70	4090
65	3130
60	2400
55	1840
50	1390
45	1080
40	820
35	610
30	430

Superelevate When Smaller Radii is Used

TABLE 7
POST AND FOUNDATION TABLE FOR WORK ZONE SIGNS

SIGN SHAPE	SIGN SIZE (inches)	NUMBER OF STEEL U CHANNEL POSTS
Octagon	30x30	1
Triangle	36x36x36	1
	48x48x48	1
	60x60x60	2
Rectangle (W x H)	24x18	1
	24x30	1
	30x24	1
	36x18	1
	36x24	1
	48x18	1
	48x24	1
	36x48	2
	48x30	2
	48x36	2
	54x36	2
	48x60	3
	72x48	3
Square	30x30	1
	36x36	2
	48x48	2
Diamond	48x48	2
Circle	360	2

Notes For Table:

1. Use 3 lb/ft posts for Clear Height up to 10' and 4 lb/ft posts for Clear Height up to 12'.
2. Minimum foundation depth is 4.0' for 3 lb/ft posts and 4.5' for 4 lb/ft posts.
3. For both 3 lb/ft and 4 lb/ft base or sign posts installed in rock, a minimum cumulative depth of 2' of rock layer is required.
4. The soil plate as shown on the APL vendor drawing is not required for base posts or sign posts installed in existing rock (as defined in Note 3), asphalt roadway, shoulder pavement or soil under sidewalk.
5. For diamond warning signs with supplement plaque (up to 5 ft^2 in area), use 4 lb/ft posts for up to 10 ft Clear Height (measure to the bottom of diamond warning sign).

TABLE 8
DROP-OFF PROTECTION REQUIREMENTS

Condition	E (ft)	D (in.)	Device Required
1	0-12	> 3	Temporary Barrier
2	> 12-CZ	> 3 to ≤ 5	Channelizing Device
3	0-CZ	> 5	Temporary Barrier
4	Removal of Bridge or Retaining Wall Barrier		Temporary Barrier
5	Removal of portions of Bridge Deck		Temporary Barrier

SHEET	TABLE OF CONTENTS
1	General Notes, TTC Tables
2	Definitions Temporary Traffic Control Devices Overhead Work Railroads Sight Distance Above Ground Hazard
3	Clear Zone Widths For Work Zones Superelevation Length Of Lane Closures Overweight/Oversize Vehicles Lane Widths High-Visibility Safety Apparel Speed Reduction Signing
4	Flagger Control Survey Work Zones Signs
5	Work Zone Sign Supports
6	Commonly Used Warning and Regulatory Signs In Work Zones
7	Manholes/Crosswalks/Joints Truck Mounted Attenuators Signals Channelizing Devices Channelizing Devices Consistency Advanced Warning Arrow Boards
8	Drop-Offs In Work Zones
9	Business Entrance Temporary Asphalt Separator
10	Channelizing Devices Notes Temporary Barrier Notes
11	Pavement Markings

GENERAL NOTES:

1. This Index contains information specific to the Federal and State guidelines and standards for the preparation of traffic control plans and for the execution of traffic control in work zones, for construction and maintenance operations and utility work on highways, roads and streets on the State Highway System. Certain requirements in this Index are based on the high volume nature of State Highways. For highways, roads and streets off the State Highway System, the local agency (City/County) having jurisdiction may adopt requirements based on the minimum requirements provided in the MUTCD.

2. Use this Index in accordance with the Plans and Indexes 102-601 through 102-680. Indexes 102-601 through 102-680 are Department-specific typical applications of commonly encountered situations. Adjust device location or number thereof as recommended by the Worksite Traffic Supervisor and approved by the Engineer. Devices include, but are not limited to, flaggers, portable temporary signals, signs, pavement markings, and channelizing devices. Comply with MUTCD or applicable Department criteria for any changes and document the reason for the change.

3. Except for emergencies, any road closure on State Highway System must comply with Section 335.15, F.S.

TABLE 1
CHANNELIZING DEVICE SPACING

Work Zone Speed (mph)	Max. Spacing (feet)			
	Cones or Temporary Tubular Markers		Type I Barricades, Type II Barricades, Vertical Panels, or Drums	
	Taper	Tangent	Taper	Tangent
≤ 45	25	50	25	50
≥ 50	25	50	50	100

TABLE 2
TAPER LENGTH "L"

Work Zone Speed (mph)	Min. Length (feet)
≤ 40	$L = \frac{WS^2}{60}$
≥ 45	$L = WS$

Where: W = width of offset in feet
S = speed in mph

TABLE 3
WORK ZONE SIGN SPACING "X"

Road Type	Min. Spacing (feet)
Arterials and Collectors with Work Zone Speed ≤ 40 mph	200
Arterials and Collectors with Work Zone Speed ≥ 45 mph	500
Limited Access Roadways *	1,500

* For Limited access roadways with work zone speed ≤ 55 mph, the minimum spacing may be reduced in accordance with the MUTCD and as approved by the Engineer.

TABLE 4
BUFFER LENGTH "B"

Work Zone Speed (mph)	Min. Length (feet)
25	155
30	200
35	250
40	305
45	360
50	425
55	495
60	570
65	645
70	730

Note: When Buffer Length "B" cannot be attained due to geometric constraints, use the greatest length possible, but not less than 155 feet.

SYMBOLS:

- Work Area
- Channelizing Device
- Work Zone Sign
- Type III Barricade
- Lane Identification and Direction of Traffic

DEFINITIONS:

Regulatory Speed (In Work Zones)

The maximum permitted travel speed posted for the work zone is indicated by the regulatory speed limit signs. The work zone speed must be shown or noted in the plans. This speed should be used as the minimum design speed to determine runout lengths, departure rates, flare rates, lengths of need, clear zone widths, taper lengths, crash cushion requirements, marker spacings, superelevation and other similar features.

Advisory Speed

The maximum recommended travel speed through a curve or a hazardous area.

Travel Way

The portion of the roadway for the movement of vehicles. For traffic control through work zones, travel way may include the temporary use of shoulders and any other permanent or temporary surface intended for use as a lane for the movement of vehicular traffic.

a. Travel Lane: The designated widths of roadway pavement marked to carry through traffic and to separate it from opposing traffic or traffic occupying other traffic lanes.

b. Auxiliary Lane: The designated widths of roadway pavement marked to separate speed change, turning, passing and climbing maneuvers from through traffic.

Detour, Lane Shift, and Diversion

A detour is the redirection of traffic onto another roadway to bypass the temporary traffic control zone. A lane shift is the redirection of traffic onto a different section of the permanent pavement. A diversion is the redirection of traffic onto a temporary roadway, usually adjacent to the permanent roadway and within the limits of the right of way.

Aboveground Hazard

An aboveground hazard is any object, material or equipment other than traffic control devices that encroaches upon the travel way or that is located within the clear zone which does not meet the Department's safety criteria, i.e., anything that is greater than 4" in height and is firm and unyielding or doesn't meet breakaway requirements.

TEMPORARY TRAFFIC CONTROL DEVICES:

1. All temporary traffic control devices shall be ON the Department's Approved Products List (APL). Ensure the appropriate APL number is permanently marked on the device in a readily visible location.

2. All temporary traffic control devices shall be removed as soon as practical when they are no longer needed. When work is suspended for short periods of time, temporary traffic control devices that are no longer appropriate shall be removed or covered. Do not store temporary traffic control devices on the shoulder, sidewalk, or other roadway facility not affected by the work when work is suspended.

3. Arrow Boards, Portable Changeable Message Signs, Radar Speed Display Trailer, Portable Regulatory Signs, and any other trailer mounted device shall be delineated with a channelizing device placed at each corner when in use and shall be moved outside the travel way and clear zone or be shielded by a barrier or crash cushion when not in use.

OVERHEAD WORK:

Work is only allowed over a traffic lane when one of the following options is used:

OPTION 1 (OVERHEAD WORK USING A MODIFIED LANE CLOSURE)

Overhead work using a modified lane closure is allowed if all of the following conditions are met:

a. Work operation is located in a signalized intersection and limited to signals, signs, lighting and utilities.
b. Work operations are 60 minutes or less.
c. Speed limit is 45 mph or less.
d. Aerial lift equipment in the work area has high-intensity, rotating, flashing, oscillating, or strobe lights operating.
e. Aerial lift equipment is placed directly below the work area to close the lane.
f. Traffic control devices are placed in advance of the vehicle/equipment closing the lane using a minimum 100 foot taper.
g. Volume or complexity of the roadway may dictate additional devices, signs, flagmen and/or a traffic control officer.

OPTION 2 (OVERHEAD WORK ABOVE AN OPEN TRAFFIC LANE)

Overhead work above a open traffic lane is allowed if all of the following conditions are met:

a. Work operation is located on a utility pole, light pole, signal pole, or their appurtenances.
b. Work operations are 60 minutes or less.
c. Speed limit is 45 mph or less.
d. No encroachment by any part of the work activities and equipment within an area bounded by 2 feet outside the edge of travel way and 18 feet high.
e. Aerial lift equipment in the work area has high-intensity, rotating, flashing, oscillating, or strobe lights operating.
f. Volume or complexity of the roadway may dictate additional devices, signs, flagmen and/or a traffic control officer.
g. Adequate precautions are taken to prevent parts, tools, equipment and other objects from falling into open lanes of traffic.
h. Other Governmental Agencies, Rail facilities, or Codes may require a greater clearance. The greater clearance required prevails as the rule.

OPTION 3 (OVERHEAD WORK ADJACENT TO AN OPEN TRAFFIC LANE)

Overhead work adjacent to an open traffic lane is allowed if all of the following conditions are met:

a. Work operation is located on a utility pole, light pole, signal pole, or their appurtenances.
b .Work operations are 1 day or less.
c. Speed limit is 45 mph or less.
d. No encroachment by any part of the work activities and equipment within 2 foot from the edge of travel way up to 18' height. Above 18' in height, no encroachment by any part of the work activities and equipment over the open traffic lane (except as allowed in Option 2 for work operations of 60 minutes or less).
e. Aerial lift equipment in the work area has high-intensity, rotating, flashing, oscillating, or strobe lights operating.
f. Volume or complexity of the roadway may dictate additional devices, signs, flagmen and/or a traffic control officer.
g. Adequate precautions are taken to prevent parts, tools, equipment and other objects from falling into open lanes of traffic.
h. Other Governmental Agencies, Rail facilities, or Codes may require a greater clearance. The greater clearance required prevails as the rule.

OVERHEAD WORK: (Cont.)

OPTION 4 (OVERHEAD WORK MAINTAINING TRAFFIC WITH NO ENCROACHMENT BELOW THE OVERHEAD WORK AREA)

Traffic shall be detoured, shifted, diverted or paced as to not encroach in the area directly below the overhead work operations in accordance with the appropriate index drawing or detailed in the plans. This option applies to, but not limited to, the following construction activities:

a. Beam, girder, segment, and bent/pier cap placement.
b. Form and falsework placement and removal.
c. Concrete placement.
d. Railing construction located at edge of deck.
e. Structure demolition.

OPTION 5 (CONDUCTOR/CABLE PULLING ABOVE AN OPEN TRAFFIC LANE)

Overhead cable and/or de-energized conductor installations initial pull to proper tension shall be done in accordance with the appropriate Index or temporary traffic control plan.

Continuous pulling operations of secured cable and/or conductors are allowed over open lane(s) of traffic with no encroachment by any part of the work activities, materials or equipment within the minimal vertical clearance above the travel way. The utility shall take precautions to ensure that pull ropes and conductors/cables at no time fall below the minimum vertical clearance.

On Limited Access facilities, a site specific temporary traffic control plan is required. The temporary traffic control plan shall include:

a. The temporary traffic control set up for the initial pulling of the pull rope across the roadway.
b. During pulling operations, advance warning consisting of no less than a Changeable Message Sign upstream of the work area with alternating messages, "Overhead Work Ahead" and "Be Prepared to Stop" followed by a traffic control officer and police vehicle with blue lights flashing during the pulling operation.

RAILROADS:

Railroad crossings affected by a construction project should be evaluated for traffic controls to reduce queuing on the tracks. The evaluation should include as a minimum: traffic volumes, distance from the tracks to the intersections, lane closure or taper locations, signal timing, etc.

SIGHT DISTANCE:

1. Tapers: Transition tapers should be obvious to drivers. If restricted sight distance is a problem (e.g., a sharp vertical or horizontal curve), the taper should begin well in advance of the view obstruction. The beginning of tapers should not be hidden behind curves.

2. Intersections: Traffic control devices at intersections must provide sight distances for the road user to perceive potential conflicts and to traverse the intersection safely. Construction equipment and materials shall not restrict intersection sight distance.

ABOVEGROUND HAZARD:

1. Aboveground hazards (see definitions) are to be considered work areas during working hours and treated with appropriate work zone traffic control procedures. During nonworking hours, all objects, materials and equipment that constitute an aboveground hazard must be stored/placed outside the travel way and clear zone or be shielded by a barrier or crash cushion.

2. For aboveground hazards within a work zone the clear zone required should be based on the regulatory speed posted during construction.

CLEAR ZONE WIDTHS FOR WORK ZONES:

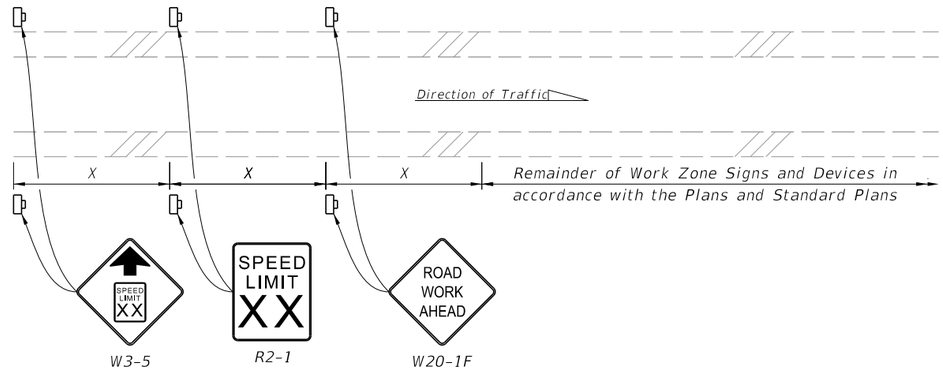
The term 'clear zone' describes the unobstructed relatively flat area, impacted by construction, extending outward from the edge of the traffic lane. The table below gives clear zone widths in work zones for medians and roadside conditions other than for roadside canals; where roadside canals are present, clear zone widths are to conform with the distances to canals as described in the FDOT Design Manual 215.2.

TABLE 5

CLEAR ZONE WIDTHS FOR WORK ZONES

WORK ZONE SPEED (MPH)	TRAVEL LANES & MULTILANE RAMPS (feet)	AUXILIARY LANES & SINGLE LANE RAMPS (feet)
60-70	30	18
55	24	14
45-50	18	10
30-40	14	10
ALL SPEEDS CURB & GUTTER	4' BEHIND FACE OF CURB	4' BEHIND FACE OF CURB

NOTE: For temporary conditions where existing curb has been removed but not reconstructed, curb and gutter values may be used.



NOTES:

1. X = Work Zone Sign Spacing
2. When called for in the Plans, use this detail in accordance with the Plans and Standard Plans. Place the speed reduction signs (W3-5 and R2-1) in advance of the "Road Work Ahead" sign (W20-1F) as shown.
3. Do not use this detail in conjunction with the Motorist Awareness System.
4. For speed reductions greater than 10 MPH, reduce the speed in 10 MPH increments of 'X' distance. Do not reduce the speed below the minimum statutory speed for the class of facility.
5. Place additional "Speed Limit" signs (R2-1) at intervals of no more than one mile for rural conditions and 1,000 feet for urban conditions.
6. For undivided roadways, omit the signs shown in the median.
7. Remove temporary regulatory speed signs as soon as the conditions requiring the reduced speed no longer exist. Once the work zone regulatory speeds are removed, the regulatory speed existing prior to construction will automatically go back into effect.

SPEED REDUCTION SIGNING

SUPERELEVATION:

Horizontal curves constructed in conjunction with work zone traffic control should have the required superelevation applied to the design radii. Under conditions where normal crown controls curvature, the minimum radii that can be applied are listed in the table below.

TABLE 6

MINIMUM RADII FOR NORMAL CROWN

WORK ZONE POSTED SPEED	MINIMUM RADIUS
MPH	feet
70	4090
65	3130
60	2400
55	1840
50	1390
45	1080
40	820
35	610
30	430
Superelevate When Smaller Radii is Used	

OVERWEIGHT/OVERSIZE VEHICLES:

Restrictions to Lane Widths, Heights or Load Capacity can greatly impact the movement of over dimensioned loads. The Contractor shall notify the Engineer who in turn shall notify the State Permits Office, phone no. (850) 410-5777, at least seven calendar days in advance of implementing a maintenance of traffic plan which will impact the flow of overweight/oversized vehicles. Information provided shall include location, type of restriction (height, width or weight) and restriction time frames. When the roadway is restored to normal service the State Permits Office shall be notified immediately.

LANE WIDTHS:

Lane widths of through roadways should be maintained through work zone travel ways wherever practical. Provide minimum widths for work zone travel lanes as follows: 11' for Interstate with at least one 12' lane provided in each direction, unless formally excepted by the Federal Highway Administration; 11' for all other limited access roadways; and 10' for all other facilities.

HIGH-VISIBILITY SAFETY APPAREL:

All high-visibility safety apparel shall meet the requirements of the International Safety Equipment Association (ISEA) and the American National Standards Institute (ANSI) for "High-Visibility Safety Apparel", and labeled as ANSI/ISEA 107-2004 or newer. The apparel background (outer) material color shall be either fluorescent orange-red or fluorescent yellow-green as defined by the standard. The retroreflective material shall be orange, yellow, white, silver, yellow-green, or a fluorescent version of these colors, and shall be visible at a minimum distance of 1,000 feet. Class 3 apparel may be substituted for Class 2 apparel. Replace apparel that is not visible at 1,000 feet.

WORKERS: All workers within the right-of-way shall wear ANSI/ISEA Class 2 apparel. Workers operating machinery or equipment in which loose clothing could become entangled during operation shall wear fitted high-visibility safety apparel. Workers inside the bucket of a bucket truck are not required to wear high-visibility safety apparel.

UTILITIES: When other industry apparel safety standards require utility workers to wear apparel that is inconsistent with FDOT requirements such as NFPA, OSHA, ANSI, etc., the other standards for apparel may prevail.

FLAGGERS: For daytime activities, Flaggers shall wear ANSI/ISEA Class 2 apparel. For nighttime activities, Flaggers shall wear ANSI/ISEA Class 3 apparel.

LENGTH OF LANE CLOSURES:

For interstates and state highways with a posted speed of 55MPH or greater, lane closures must not exceed 3 miles (includes taper, buffer, and work zone) in any given direction and must not close two consecutive interchanges.

FLAGGER CONTROL:

Regulatory Speed (In Work Zones)

Where flaggers are used, a FLAGGER symbol or legend sign must replace the WORKERS symbol or legend sign.

The flagger must be clearly visible to approaching traffic for a distance sufficient to permit proper response by the motorist to the flagging instructions, and to permit traffic to reduce speed or to stop as required before entering the work site. Flaggers shall be positioned to maintain maximum color contrast between the Flagger's high-visibility safety apparel and equipment and the work area background.

Hand-Signaling Devices

STOP/SLOW paddles are the primary hand-signaling device. The STOP/SLOW paddle shall have an octagonal shape on a rigid handle. If the STOP/SLOW paddle is placed on a rigid staff, the minimum length of the staff, measured from the bottom of the paddle to the end of the staff that rests on the ground, must not be less than 6 ft. STOP/SLOW paddles shall be at least 24 inches wide with letters at least 6 inches high and should be fabricated from light semirigid material. The background of the STOP face shall be red with white letters and border. The background of the SLOW face shall be orange with black letters and border. When used at night-time, the STOP/SLOW paddle shall be retroreflectorized.

Flag use is limited to immediate emergencies, intersections, and when working on the centerline or shared left turn lanes where two (2) flaggers are required and there is opposing traffic in the adjacent lanes. Flags, when used, shall be a minimum of 24 inches square, made of a good grade of red material, and securely fastened to a staff that is approximately 36 inches in length. When used at nighttime, flags shall be retroreflectorized red.

Flashlight, lantern or other lighted signal that will display a red warning light shall be used at night.

Flagger Stations

Flagger stations shall be located far enough in advance of the work area so that approaching road users will have sufficient distance to stop before entering the work area. When used at nighttime, the flagger station shall be illuminated.

SURVEY WORK ZONES:

The SURVEY CREW AHEAD symbol or legend sign shall be the principal Advance Warning Sign used for Traffic Control Through Survey Work Zones and may replace the ROAD WORK AHEAD sign when lane closures occur, at the discretion of the Party Chief.

When Traffic Control Through Work Zones is being used for survey purposes only, the END ROAD WORK sign as called for on certain 102 Series of Indexes should be omitted.

Survey Between Active Traffic Lanes or Shared Left Turn Lanes

The following provisions apply to Main Roadway Traffic Control Work Zones. These provisions must be adjusted by the Party Chief to fit roadway and traffic conditions when the Survey Work Zone includes intersections.

(A) A STAY IN YOUR LANE (MOT-1-06) sign shall be added to the Advance Warning Sign sequence as the second most immediate sign from the work area.

(B) Elevation Surveys-Cones may be used at the discretion of the Party Chief to protect prism holder and flagger(s). Cones, if used, may be placed at up to 50' intervals along the break line throughout the work zone.

SURVEY WORK ZONES: (Cont.)

(C) Horizontal Control-With traffic flow in the same direction, cones shall be used to protect the backsight tripod and/or instrument. Cones shall be placed at the equipment, and up to 50' intervals for at least 200' towards the flow of traffic.

(D) Horizontal Control-With traffic flow in opposite directions, cones shall be used to protect the backsight tripod and/or instrument. Cones shall be placed at the equipment, and up to 50' intervals for at least 200' in both directions towards the flow of traffic.

SIGNS:

SIGN MATERIALS

Mesh signs and non-retroreflectice vinyl signs may only be used for daylight operations. Non-retroreflectice vinyl signs must meet the requirements of Specifications Section 994.

Retroreflective vinyl signs meeting the requirements of Specification Section 994 may be used for daylight or night operations not to exceed 1 day except as noted in the Indexes.

Rigid or Lightweight sign panels may be used in accordance with the vendor APL drawing for the sign stand to which they are attached.

INTERSECTING ROAD SIGNING

Signing for the control of traffic entering and leaving work zones by way of intersecting crossroads shall be adequate to make drivers aware of work zone conditions. When Work operations exceed 60 minutes, place the ROAD WORK AHEAD sign on the side street entering the work zone.

ADJOINING AND/OR OVERLAPPING WORK ZONE SIGNING

Adjoining work zones may not have sufficient spacing for standard placement of signs and other traffic control devices in their advance warning areas or in some cases other areas within their traffic control zones. Where such restraints or conflicts occur or are likely to occur, one of the following methods will be employed to avoid conflicts and prevent conditions that could lead to misunderstanding on the part of the traveling public as to the intended travel way by the traffic control procedure applied:

(A) For scheduled projects the engineer in responsible charge of project design will resolve anticipated work zone conflicts during the development of the project traffic control plan. This may entail revision of plans on preceding projects and coordination of plans on concurrent projects.

(B) Unanticipated conflicts arising between adjoining in progress highway construction projects will be resolved by the Resident Engineer for projects under his residency, and, by the District Construction Engineer for in progress projects under adjoining residencies.

(C) The District Maintenance Engineer will resolve anticipated and occurring conflicts within scheduled maintenance operations.

(D) The Unit Maintenance Engineer will resolve conflicts that occur within routine maintenance works; between routine maintenance work, unscheduled work and/or permitted work; and, between unit controlled maintenance works and highway construction projects.

SIGNS: (Cont.)

SIGN COVERING AND INTERMITTENT WORK STOPPAGE SIGNING

Existing or temporary traffic control signs that are no longer applicable or are inconsistent with intended travel paths shall be removed or fully covered.

Sign blanks or other available coverings must completely cover the existing sign. Rigid sign coverings shall be the same size as the sign it is covering, and bolted in a manner to prevent movement.

Sign covers are incidental to work operations and are not paid for separately.

SIGNING FOR DETOURS, LANE SHIFTS AND DIVERSIONS

Detours should be signed clearly over their entire length so that motorists can easily determine how to return to the original roadway. The reverse curve (W1-4) warning sign should be used for the advanced warning for a lane shift. A diversion should be signed as a lane shift.

EXTENDED DISTANCE ADVANCE WARNING SIGN

Advance Warning Signs shall be used at extended distance of one-half mile or more when limited sight distance or the nature of the obstruction may require a motorist to bring their vehicle to a stop. Extended distance Advanced Warning Signs may be required on any type roadway, but particularly be considered on multilane divided highways where vehicle speed is generally in the higher range (45 MPH or more).

UTILITY WORK AHEAD SIGN

The UTILITY WORK AHEAD (W21-7) sign may be used as an alternate to the ROAD WORK AHEAD or the ROAD WORK XX FT (W20-1) sign for utility operations on or adjacent to a highway.

LENGTH OF ROAD WORK SIGN

The length of road work sign (G20-1) bearing the legend ROAD WORK NEXT_____ MILES is required for all projects of more than 2 miles in length. The number of miles entered should be rounded up to the nearest mile. The sign shall be located at begin construction points.

GROOVED PAVEMENT AHEAD SIGN

The GROOVED PAVEMENT AHEAD sign is required 500 feet in advance of a milled or grooved surface open to traffic. The W8-15P placard shall be used in conjunction with the GROOVED PAVEMENT AHEAD sign.

END ROAD WORK SIGN

The END ROAD WORK sign (G20-2) should be installed on all projects, but may be omitted where the work operation is less than 1 day. The sign should be placed approximately 500 feet beyond the end of a construction or maintenance project unless other distance is called for in the plans. When other Construction or Maintenance Operations occur within 1 mile this sign should be omitted and signing coordinated in accordance with Index 102-600, ADJOINING AND/OR OVERLAPPING WORK ZONE SIGNING.

NOTES:

1. All signs shall be post mounted when work operations exceed one day except for:

   a. Road closure signs mounted in accordance with the vendor drawing for the Type III Barricade shown on the APL.
   b. Pedestrian and bicycle advanced warning or pedestrian regulatory signs mounted on sign supports in accordance with the vendor drawing shown on the APL.
   c. Median barrier mounted signs per Index 700-013.
   d. Bridge mounted signs per Index 700-012.

2. Unless shielded with barrier or outside of the Clear Zone, signs mounted on temporary supports or barricades, and barricade/sign combination must be crashworthy in accordance with NCHRP 350 requirements and included on the Approved Products List (APL).

3. Use only approved systems listed on the Department's Approved Products List (APL).

4. Manufacturers seeking approval of U-Channel and steel square tube sign support assemblies for inclusion on the Approved Products List (APL) must submit a APL application, design calculations (for square tube only), and detailed drawings showing the product meets all the requirements of this Index.

5. Provide 3 lb/ft Steel U-Channel Posts with a minimum section modulus of 0.43 in³ for 60 ksi steel, a minimum section modulus of 0.37 in³ for 70 ksi steel, or a minimum section modulus of 0.34 in³ for 80 ksi steel.

6. Provide 4 lb/ft Steel U-Channel Posts with a minimum section modulus of 0.56 in³ for 60 ksi steel, or a minimum section modulus of 0.47 in³ for 70 ksi or 80 ksi steel.

7. U-channel posts shall conform with ASTM A 499, Grade 60, or ASTM A 576, Grade 1080 (with a minimum yield strength of 60 ksi). Square tube posts shall conform with ASTM A 653, Grade 50, or ASTM A 1011, Grade 50.

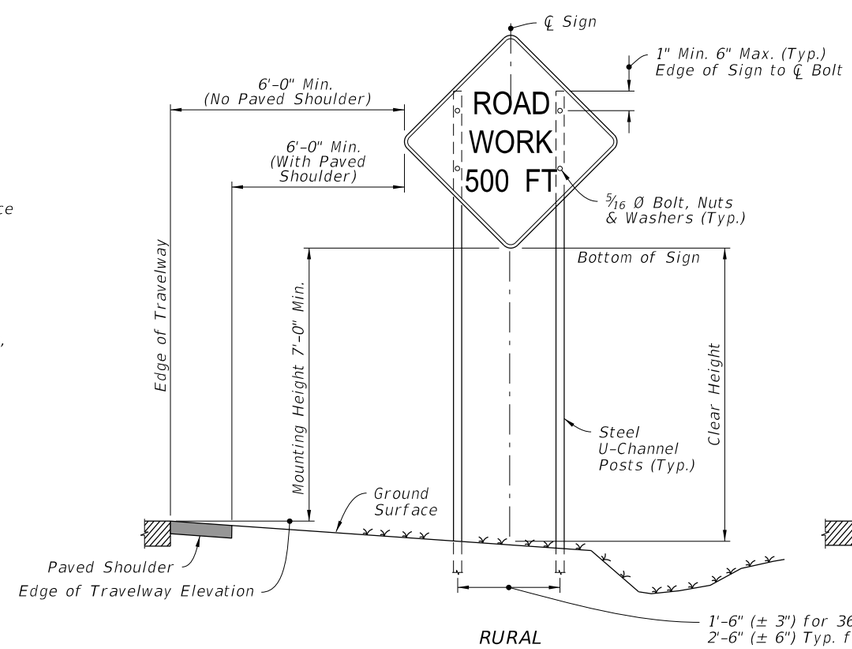
8. Sign attachment bolts, washers, nuts, and spacers shall conform with ASTM A307 or A 36.

9. Install 4 lb/ft Steel U-Channel Posts with approved breakaway splice in accordance with the manufacturer's detail shown on the APL.

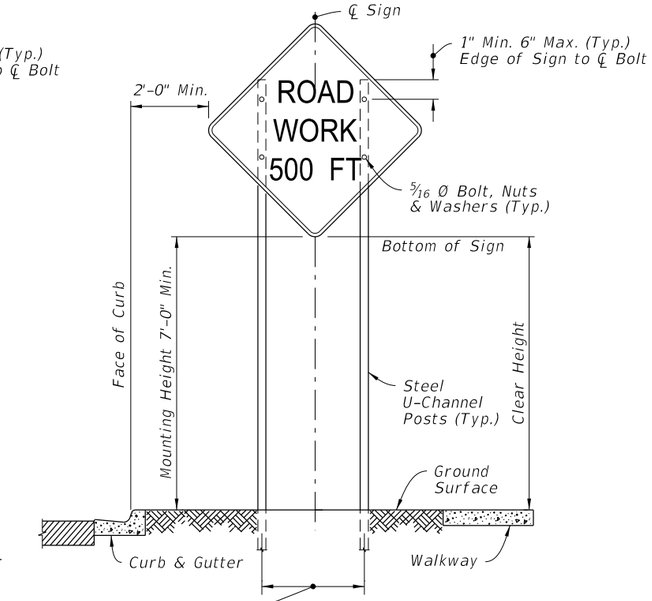
10. The contractor may install 3 lb/ft Steel U-Channel Posts with approved breakaway splice in accordance with the manufacturer's detail shown on the APL.

11. Install all posts plumb.

12. The contractor may set posts in preformed holes to the specified depth with suitable backfill tamped securely on all sides, or drive 3 lb/ft sign posts and any size base post in accordance with the manufacturer's detail shown on the APL.



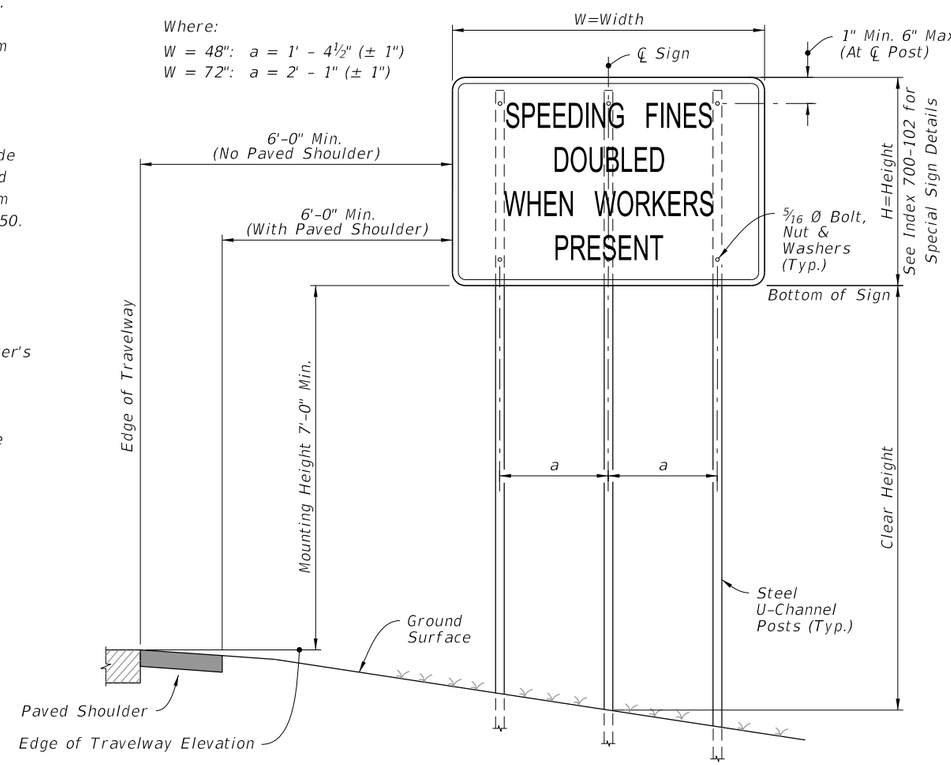
RURAL



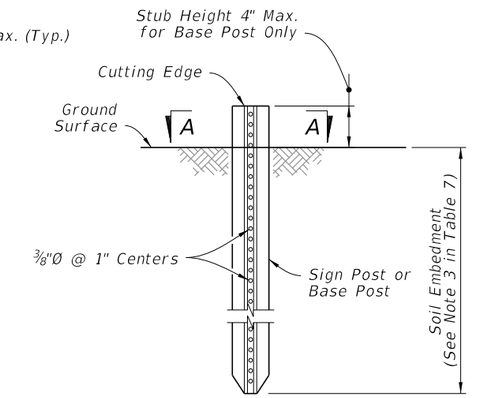
URBAN

2 POST SIGN SUPPORT MOUNTING DETAILS
(SINGLE POST SIMILAR)

Where:
W = 48": a = 1' - 4½" (± 1")
W = 72": a = 2' - 1" (± 1")

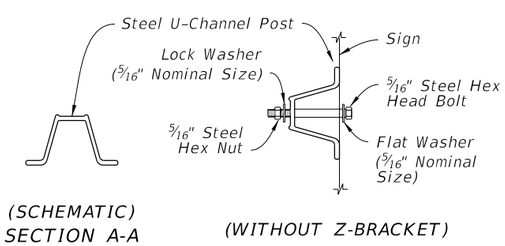


3 POST SIGN SUPPORT MOUNTING DETAILS



See APL for post, splice and connection details.
No bolts installed closer than 1" to cutting edge.

FOUNDATION DETAIL



SIGN ATTACHMENT DETAIL

TABLE 7
POST AND FOUNDATION TABLE FOR WORK ZONE SIGNS

SIGN SHAPE	SIGN SIZE (inches)	NUMBER OF STEEL U CHANNEL POSTS
Octagon	30x30	1
Triangle	36x36x36	1
	48x48x48	1
	60x60x60	2
Rectangle (W x H)	24x18	1
	24x30	1
	30x24	1
	36x18	1
	36x24	1
	48x18	1
	48x24	1
	36x48	2
	48x30	2
	48x36	2
	54x36	2
	48x60	3
	72x48	3
Square	30x30	1
	36x36	2
	48x48	2
Diamond	48x48	2
Circle	36Ø	2

Notes For Table:

1. Use 3 lb/ft posts for Clear Height up to 10' and 4 lb/ft posts for Clear Height up to 12'.

2. Minimum foundation depth is 4.0' for 3 lb/ft posts and 4.5' for 4 lb/ft posts.

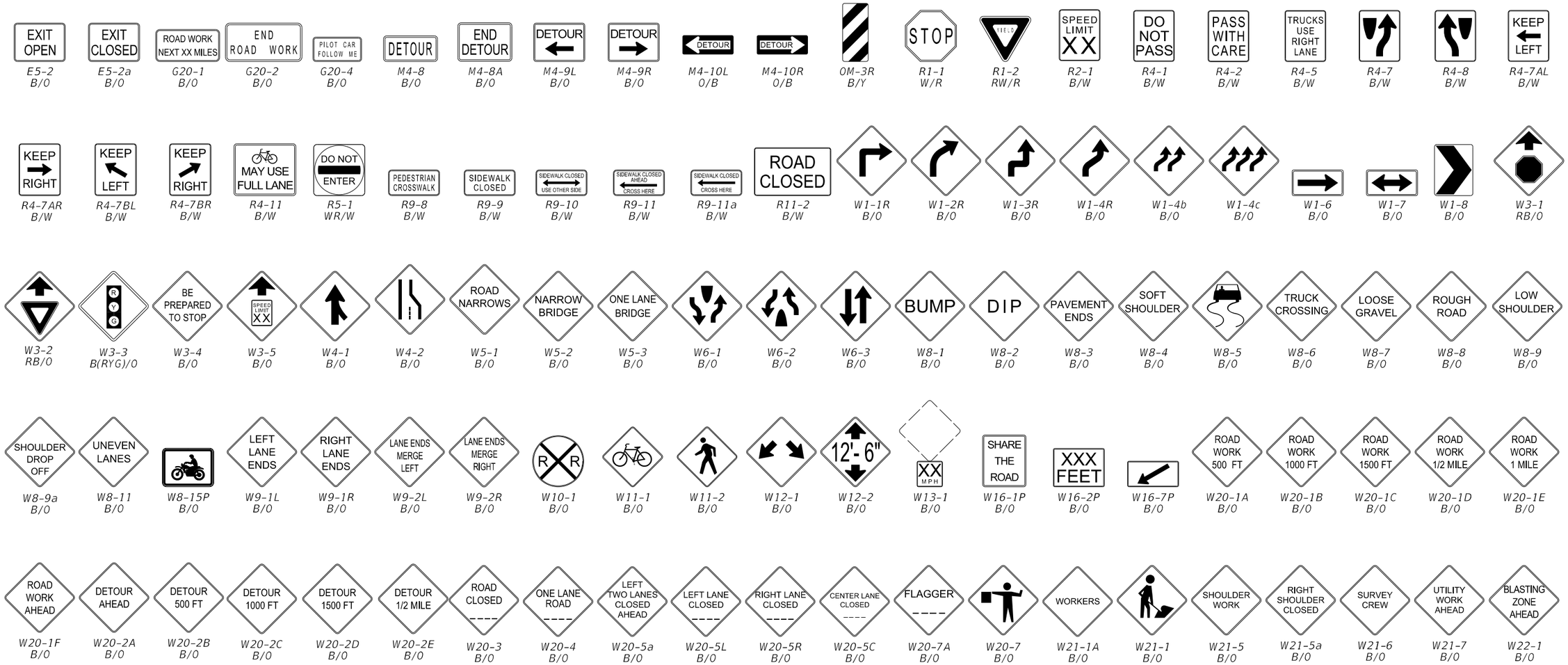
3. For both 3 lb/ft and 4 lb/ft base or sign posts installed in rock, a minimum cumulative depth of 2' of rock layer is required.

4. The soil plate as shown on the APL vendor drawing is not required for base posts or sign posts installed in existing rock (as defined in Note 3), asphalt roadway, shoulder pavement or soil under sidewalk.

5. For diamond warning signs with supplement plaque (up to 5 ft² in area), use 4 lb/ft posts for up to 10 ft Clear Height (measure to the bottom of diamond warning sign).

10:54:09 AM
10/3/2023

WORK ZONE SIGN SUPPORTS



NOTES:

1. The size of diamond shaped Temporary Traffic Control (TTC) warning signs shall be a minimum of 48" X 48".
2. Fluorescent orange shall be used for all orange colored work zone signs.
3. The sign shields, symbols and messages contained on this sheet are provided for ready reference to those signs used in the development of the 102 Series of Indexes and are commonly used in the development of traffic control plans. For additional signs and sign detail information refer to the STANDARD HIGHWAY SIGNS MANUAL as specified in the MUTCD. Special signs for traffic control plans will be as approved by the State Traffic Plans Engineer.

   The sign codes shown on this sheet are for the purpose of identifying cell names found in the Traffic Control Cell Library (TCZ.Cel).

   The STANDARD HIGHWAY SIGNS MANUAL should be referenced for the official sign codes for use in the development of traffic control plans.

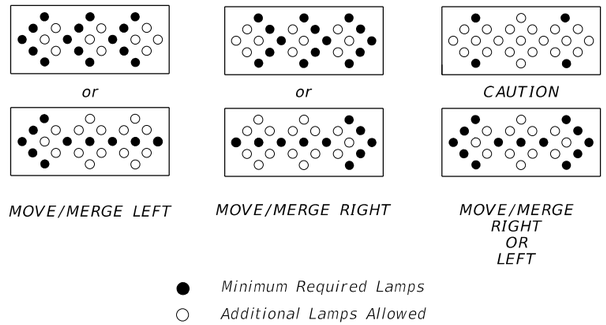
   See Index 700-102 for MOT sign details.

COLOR CODES:

Legend and/or
Symbol Background

R-Red (Reflectorized)
Y-Yellow (Reflectorized)
G-Green (Reflectorized)
O-Orange (Reflectorized)
B-Black (Non-Reflectorized)
W-White (Reflectorized)

COMMONLY USED WARNING AND REGULATORY SIGNS IN WORK ZONES



MODES

NOTES:

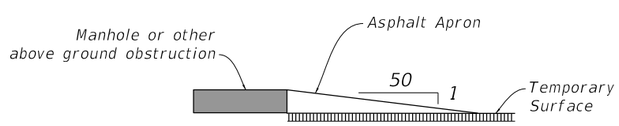
An arrow board in the arrow or chevron mode shall be used only for stationary or moving lane closures on multilane roadways.

For shoulder work, blocking the shoulder, for roadside work near the shoulder, or for temporarily closing one lane on a two-lane, two-way roadway, an arrow board shall be used only in the caution mode.

A single arrow board shall not be used to merge traffic laterally more than one lane. When arrow boards are used to close multiple lanes, a single board shall be used at the merging taper for each closed lane.

When Advance Warning Arrow Boards are used at night, the intensity of the flashers shall be reduced during darkness when lower intensities are desirable.

ADVANCE WARNING ARROW BOARDS



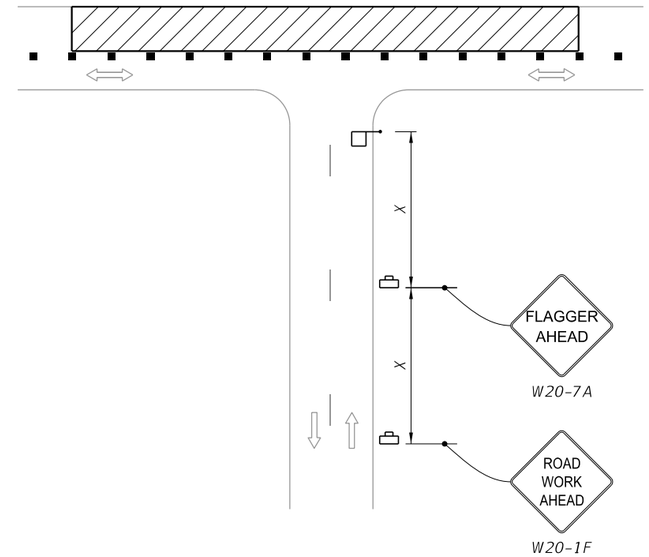
NOTES:

Manholes extending 1" or more above the travel lane and crosswalks having an uneven surface greater than ¼" shall have a temporary asphalt apron constructed as shown above.

All transverse joints that have a difference in elevation of 1" or more shall have a temporary asphalt apron constructed as shown above.

The apron is to be removed prior to constructing the next lift of asphalt. The cost of the temporary asphalt shall be included in the contract unit price for Maintenance of Traffic, LS.

MANHOLES/CROSSWALKS/JOINTS



NOTE:

Optionally, use "Flagger Ahead" sign with text (W20-7A) instead of "Flagger Ahead" sign with symbol (W20-7).

SIDE ROAD INTERSECTING THE WORK ZONE

SIGNALS:

Existing traffic signal operations that require modification in order to carry out work zone traffic control shall be included in the Plans and be approved by the District Traffic Operations Engineer.

Refer to Specification 102-9 for additional information.

CHANNELIZING DEVICES:

Channelizing devices for work zone traffic control shall be as prescribed in Part VI of the MUTCD, subject to supplemental revisions provided in the contract documents and the 102 Series of Indexes. Lighting Devices must not be used to supplement channelization. Omit tapers and channelizing devices for paved shoulders less than 4' in width.

CHANNELIZING DEVICE CONSISTENCY:

Barricades, vertical panels, cones, tubular markers and drums shall not be intermixed within either the lateral transition or within the tangent alignment.

TRUCK/TRAILER-MOUNTED ATTENUATORS:

Truck/Trailer-mounted attenuators (TMA) can be used for moving operations and short-term stationary operations. For moving operations, see Index 102-607. For short-term, stationary operations, see Part VI of the MUTCD.

DROP-OFF CONDITION NOTES

1. These conditions and treatments can be applied only in work areas that fall within a properly signed work zone.

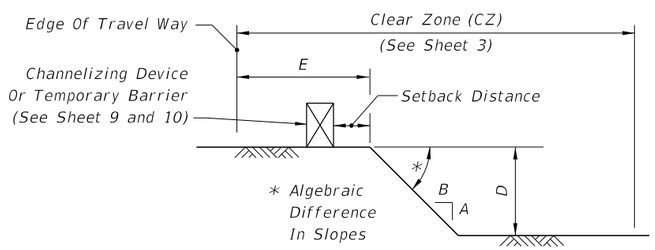
2. When drop-offs occur within the clear zone due to construction or maintenance activities, protection devices are required (See Table 8). A drop-off is defined as a drop in elevation, parallel to the adjacent travel lanes, greater than 3" with slope (A:B) steeper than 1:4. In superelevated sections, the algebraic difference in slopes should not exceed 0.25 (See Drop-off Condition Detail).

3. Drop-offs may be mitigated by placement of slopes with optional base material per Specifications Section 285. Slopes shallower than 1:4 may be required to avoid algebraic difference in slopes greater than 0.25. Include the cost for the placement and removal of the material in Maintenance of Traffic, LS. Use of this treatment in lieu of a temporary barrier is not eligible for CSIP consideration. Conduct daily inspections for deficiencies related to erosion, excessive slopes, rutting or other adverse conditions. Repair any deficiencies immediately.

4. For Setback Distance, refer to the Index or Approved Products List (APL) drawing of the selected barrier.

5. For Conditions 1 and 3 provided in Table 8, any drop-off condition that is created and restored within the same work period will not be subject to use of temporary barriers; however, channelizing devices will be required.

6. When permanent curb heights are ≥ 6", no channelizing device will be required. For curb heights < 6", see Table 8.



DROP-OFF CONDITION DETAIL

Table 8
Drop-off Protection Requirements

Condition	E (ft)	D (in.)	Device Required
1	0-12	> 3	Temporary Barrier
2	> 12-CZ	> 3 to ≤ 5	Channelizing Device
3	0-CZ	> 5	Temporary Barrier
4	Removal of Bridge or Retaining Wall Barrier		Temporary Barrier
5	Removal of portions of Bridge Deck		Temporary Barrier

TRAVEL LANE TREATMENT FOR MILLING OR RESURFACING NOTES

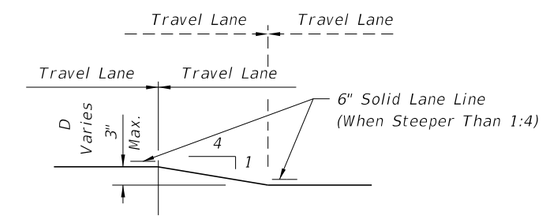
1. This treatment applies to resurfacing or milling operations between adjacent travel lanes.

2. Whenever there is a difference in elevation between adjacent travel lanes, the W8-11 sign with "UNEVEN LANES" is required at intervals of ½ mile maximum.

3. If D is 1½" or less, no treatment is required.

4. Treatment allowed only when D is 3" or less.

5. If the slope is steeper than 1:4 (not to be steeper than 1:1), the R4-1 and MOT-1-06 signs shall be used as a supplement to the W8-11; this condition should never exceed 3 miles in length.



TRAVEL LANE TREATMENT FOR MILLING OR RESURFACING DETAIL

PEDESTRIAN WAY DROP-OFF CONDITION NOTES

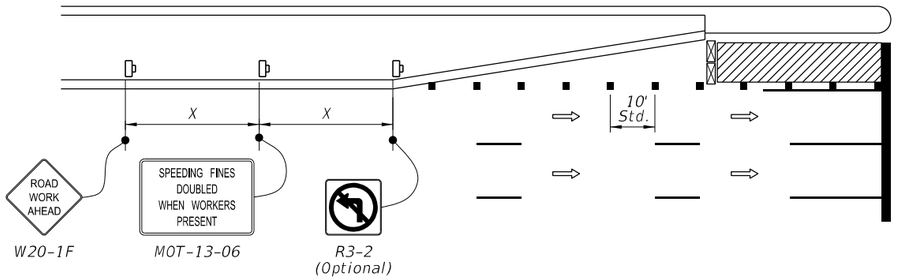
1. A pedestrian way drop-off is defined as:

   a. a drop in elevation greater than 10" that is closer than 2' from the edge of the pedestrian way

   b. a slope steeper than 1:2 that begins closer than 2' from the edge of the pedestrian way when the total drop-off is greater than 60"

2. Protect any drop-off adjacent to a pedestrian way with pedestrian longitudinal channelizing devices, temporary barrier wall, or approved handrail.

DROP-OFFS IN WORK ZONES

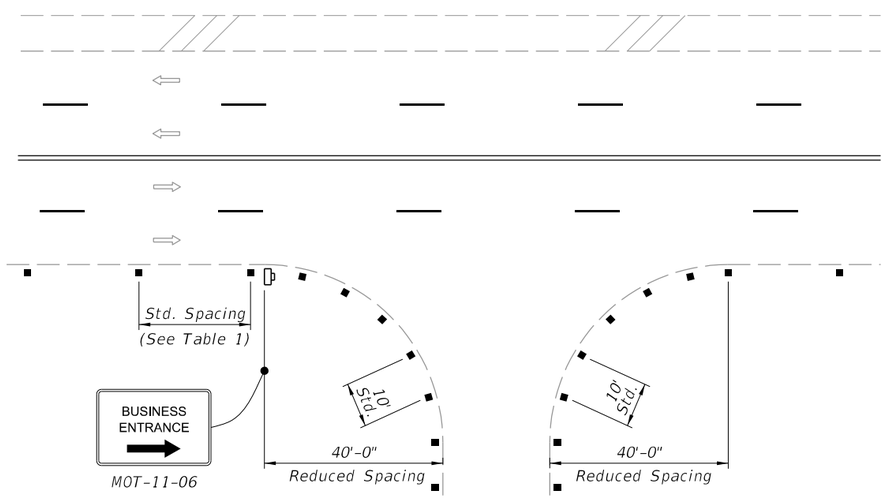


NOTES:

1. X = Work Zone Sign Spacing (See Table 3).

2. The SPEEDING FINES DOUBLE WHEN WORKERS PRESENT sign (MOT-13-06) may be omitted when work operation will be in place for 24 hours or less.

AUXILIARY LANE CLOSURE



NOTES:

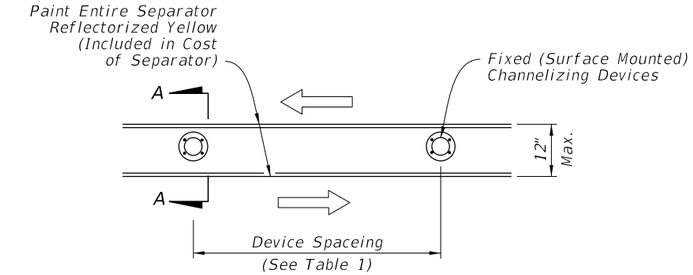
1. For single business entrances, place one 24" x 36" BUSINESS ENTRANCE sign (MOT-11-06) showing the specific business name for each affected driveway entrance. Logos may be provided by business owners. Standard BUSINESS ENTRANCE sign (MOT-11-06) may be used when approved by the Engineer.

2. When several businesses share a common driveway entrance, place one 24" x 36" standard BUSINESS ENTRANCE sign (MOT-11-06) in accordance with Index 700-102 at the common driveway entrance.

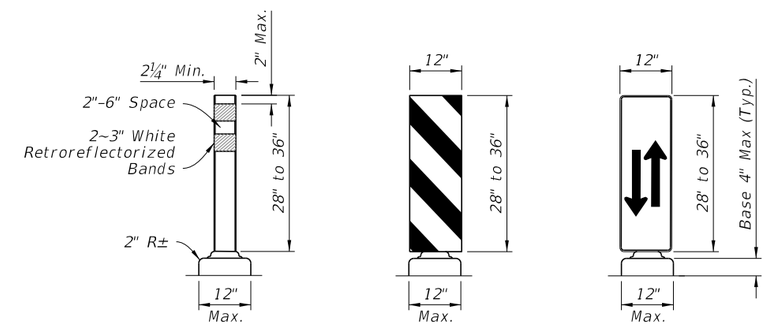
3. Channelizing devices shall be placed at a reduced spacing on each side of the driveway entrance, but shall not restrict sight distance for the driveway users.

4. Business entrance signs are intended to guide motorist to business entrances moved/modified or disturbed during construction projects. Business entrance signs are not required where there is minimal disruption to business driveways which is often the case with resurfacing type projects.

BUSINESS ENTRANCE SIGNS AND CHANNELIZING DEVICES PLACEMENT AT BUSINESS ENTRANCE



PLAN



SECTION A-A

NOTES:

1. Temporary lane separators shall be supplemented with any of the following approved fixed (surface mounted) channelizing devices: temporary tubular markers, vertical panels, or opposing traffic lane divider panels. Opposing traffic lane divider panels (W6-4) shall only be used as center lane dividers to separate opposing vehicular traffic on a two-lane, two-way operation. Temporary Tubular Markers, Vertical Panels and Opposing Traffic Lane Divider panels shall not be intermixed within the limits where the temporary lane separator is used. The connection between the channelizing device and the temporary lane separator curb shall hold the channelizing device in a vertical position.

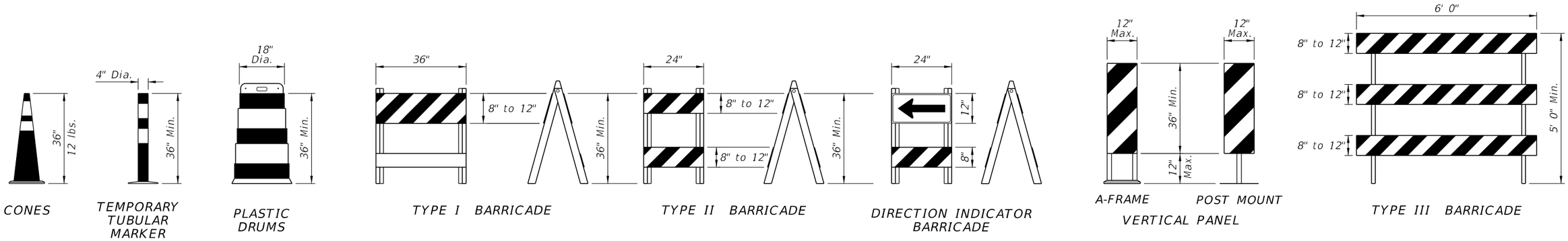
2. Reflectorized materials shall have a smooth sealed outer surface which will display the same approximate color day and night. Furnish channelizing devices having retroreflective sheeting meeting the requirements of Section 990.

3. 12" openings for drainage shall be constructed in the asphalt and portable temporary lane separator at a maximum spacing of 25' in areas with grades of 1% or less or 50' in areas with grades over 1% as directed by the Engineer.

4. Tapered ends shall be used at the beginning and end of each run of the temporary lane separator to form a gradual increase in height from the pavement level to the top of the temporary lane separator.

5. The Contractor has the option of using portable temporary lane separators containing fixed channelizing devices in lieu of the temporary asphalt separator and channelizing devices detailed on this sheet. The portable temporary lane separator shall come in portable sections that can be connected to maintain continuous alignment between the separate curb sections. Each temporary lane separator section shall be 36 inches to 48 inches in total length. Portable temporary lane separators shall duplicate the color of the pavement marking. Portable temporary lane separators shall be one of those listed on the Approved Products List.

FIXED CHANNELIZING DEVICES (Temporary Lane Separators)



CHANNELIZING DEVICES

CHANNELIZING DEVICE NOTES:

1. The details shown on this sheet are for the following purposes:
   a. For ease of identification and
   b. To provide information that supplements or supersedes that provided by the MUTCD.

2. The Type III Barricade shall have a unit length of 6'-0" only. When barricades of greater lengths are required those lengths shall be in multiples of the 6'-0" unit.

3. No sign panel should be mounted on any channelizing device unless the channelizing device/sign combination was found to be crashworthy and the sign panel is mounted in accordance with the vendor drawing for the channelizing device shown on the Approved Products List (APL).

4. Ballast shall not be placed on top rails or any striped rails or higher than 13" above the driving surface.

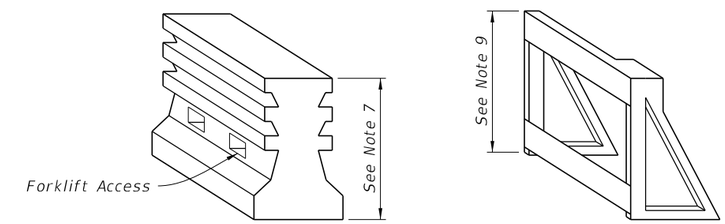
5. The direction indicator barricade may be used in tapers and transitions where specific directional guidance to drivers is necessary. If used, direction indicator barricades shall be used in series to direct the driver through the transition and into the intended travel lane.

6. The splicing of sheeting is not permitted on channelizing devices or MOT signs.

7. For rails less than 3'-0" long, 4" stripes shall be used.

8. Cones shall:
   a. Be used only in active work zones where workers are present.
   b. Be reflectorized as per the MUTCD with Department-approved reflective collars when used at night.

9. For pedestrian longitudinal channelizing devices, the device shall have a minimum of 8" continuous detectable edging above the walkway. A gap not exceeding a height of 2" is allowed to facilitate drainage. The top surface of the device shall be a minimum height of 32" and have a ⅛" or less difference in any plane at all connection points between the devices to facilitate hand trailing. The bottom and the top surface of the device shall be in the same vertical plane. If pedestrian drop-off protection is required, the device shall have a footprint or offset of at least 2', otherwise the device must be at least 42" in height above the walkway and be anchored or ballasted to withstand a 200 lb lateral point load at the top of the device.



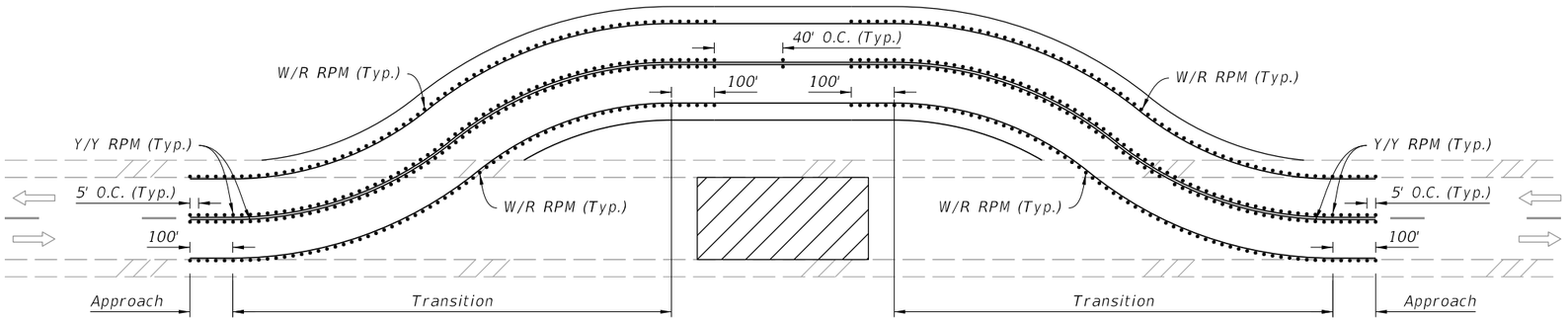
PEDESTRIAN LONGITUDINAL CHANNELIZING DEVICES

TEMPORARY BARRIER NOTES:

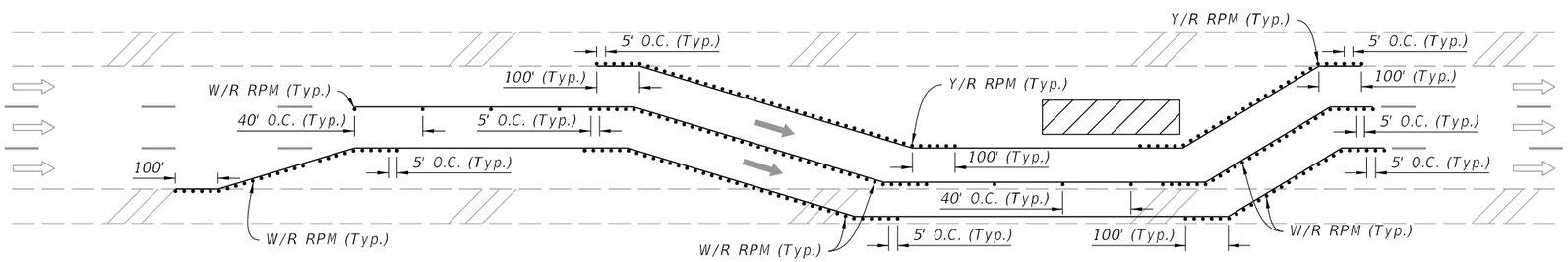
1. Where a barrier is specified, any of the types below may be used in accordance with the applicable Index:

Index	Description
102-100	Temporary Barrier
102-120	Low Profile Barrier
536-001	Guardrail

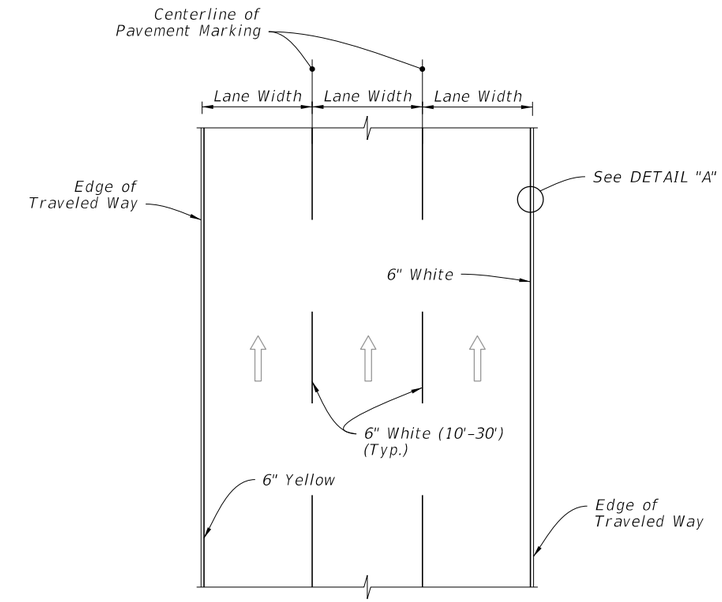
2. Trailer Mounted Barriers may be used to provide positive protection for workers within the work areas. APL drawings may be used as a guide to develop project specific Temporary Traffic Control Plans that are signed and sealed by the Contractor's Engineer.



RPM PLACEMENT ON TWO-LANE ROADWAYS



RPM PLACEMENT ON MULTILANE ROADWAYS
(Lane Shift Shown, Other Multilane Typical Applications Similar)



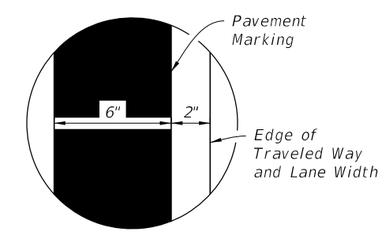
PLAN VIEW

NOTES:

1. Install RPMs as a supplement to:
   a. All lane lines
   b. Edge lines in transitions (e.g., merges, diversions, lane shifts)
   c. Edge lines of gore areas

2. Extend pavement marking and 5' RPM spacing by 100' in each direction for all transitions regardless of the line type.

3. Place RPMs in accordance with this detail and Index 706-001.



DETAIL "A"

RPM PLACEMENT IN WORK ZONES

PAVEMENT MARKINGS PLACEMENT

10/3/2023 10:54:49 AM

WORK ZONE PAVEMENT MARKINGS

NOTE:

1. This Index applies to Two-Lane, Two-Way and Multilane Roadways, including Medians of divided roadways, with work on the shoulder.

2. L = Taper Length
   X = Work Zone Sign Spacing
   B = Buffer Length
   See Index 102-600 for "L", "X", "B", and channelizing device spacing values.

3. 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.

4. 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.

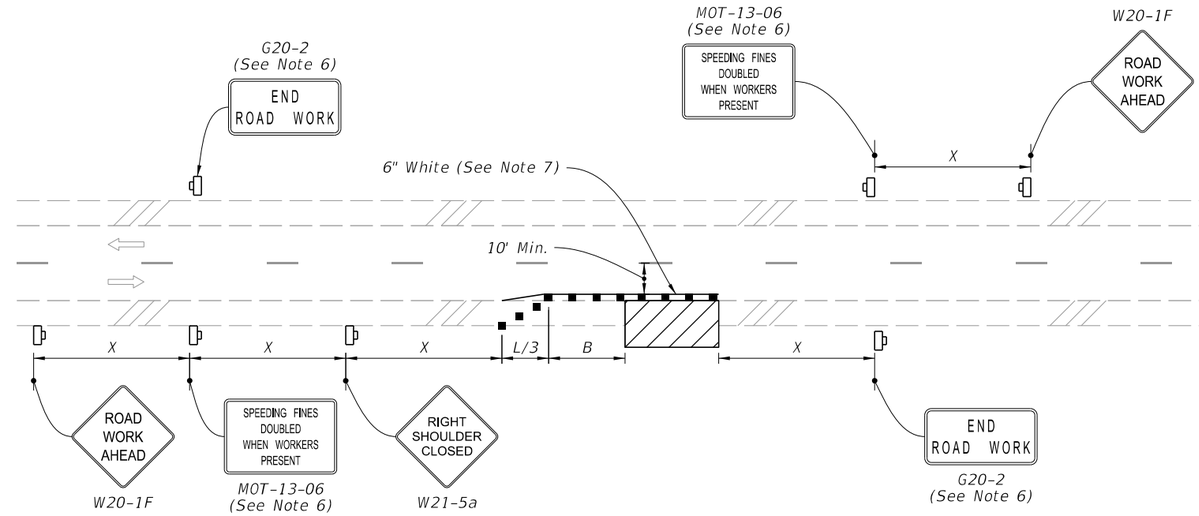
5. For work less than 2' from the traveled way and work zone speed is greater than 45 MPH, use a lane closure.

6. 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.

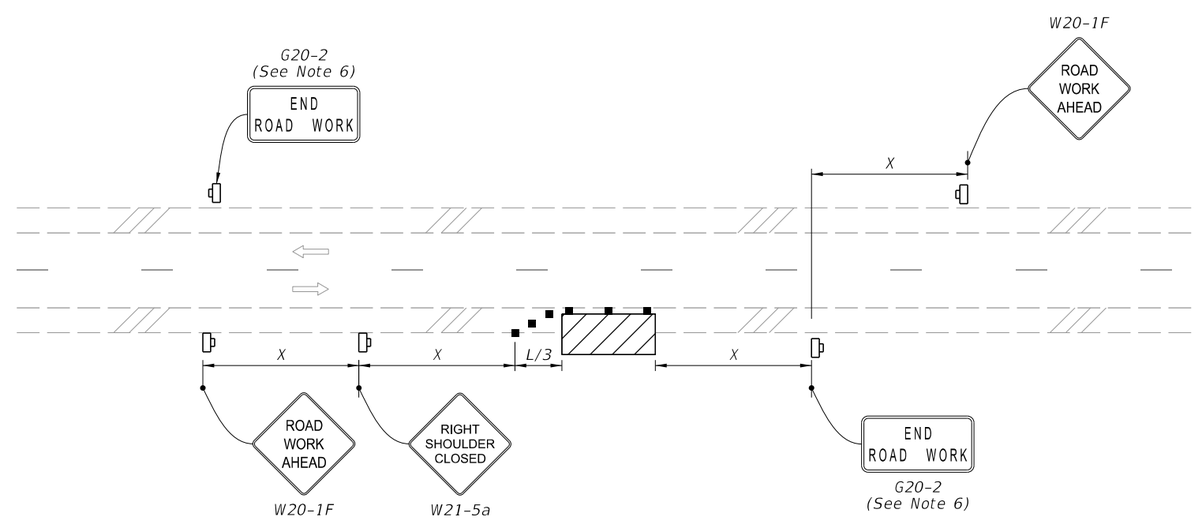
7. Temporary pavement markings may be omitted when the work operation is in place for 3 days or less.

8. Omit "Shoulder Closed" signs (W21-5a) along with associated work zone sign spacing distances for work on the median.

9. 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

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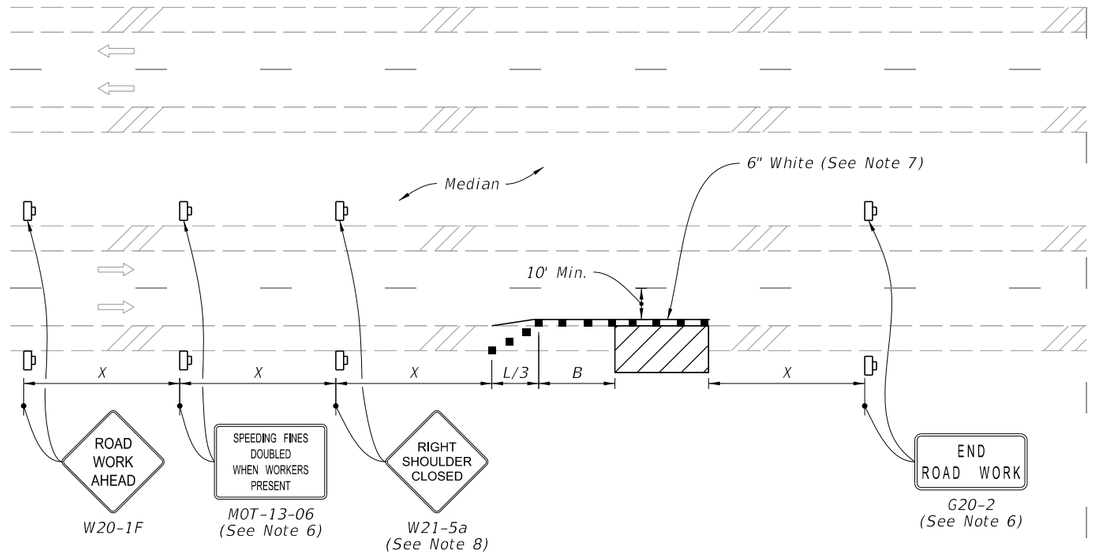
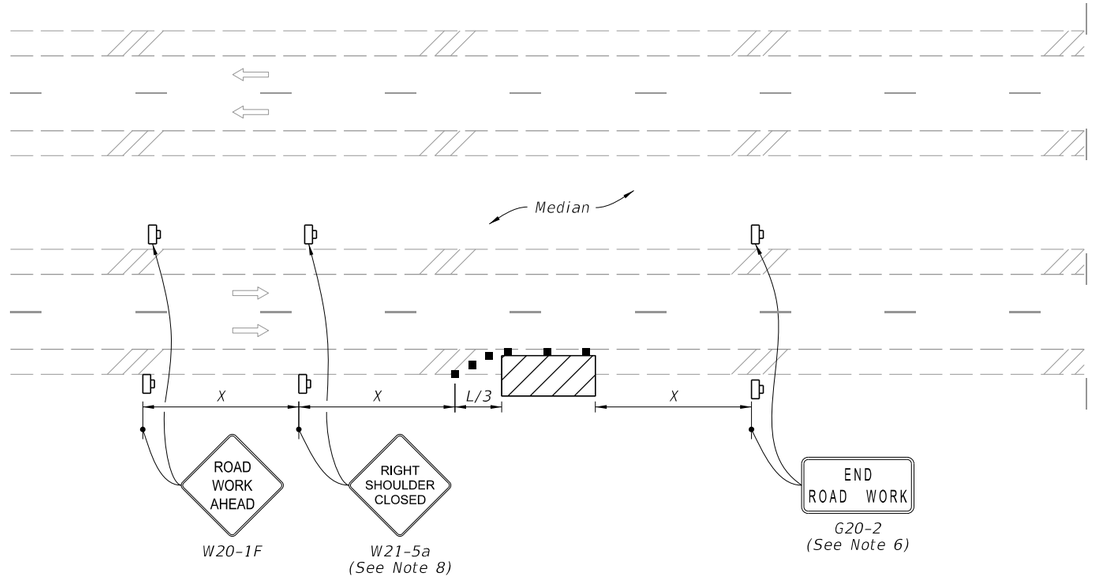


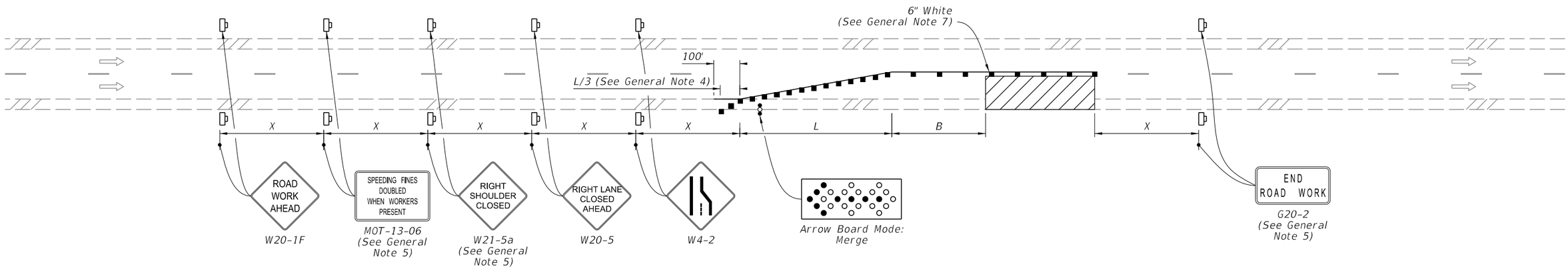
MULTILANE ROADWAY
SHOULDER WORK LESS THAN 2' FROM THE TRAVELED WAY
WITH WORK ZONE SPEED OF 45 MPH OR LESS



MULTILANE 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



SINGLE LANE CLOSURE

SYMBOLS:

- Work Area
- Channelizing Device (See Index 102-600)
- Work Zone Sign
- Arrow Board
- Lane Identification and Direction of Traffic

GENERAL NOTE:

1. L = Taper Length
   B = Buffer Length
   X = Work Zone Sign Distance
   See Index 102-600 for "L", "B", "X", and channelizing device spacing values.

2. On undivided highways the median signs as shown are to be omitted.

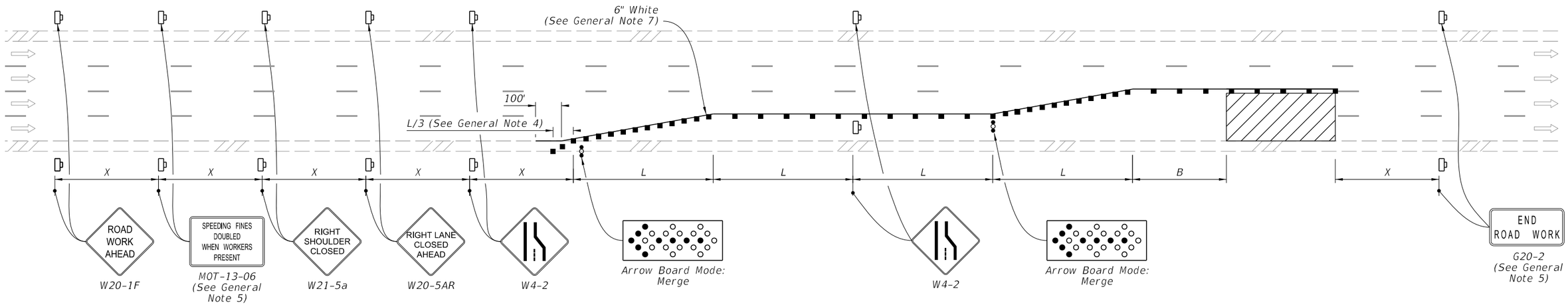
3. On limited access facilities, omit "Right Shoulder Closed" signs (W21-5a) and associated work zone sign spacing distances.

4. If the paved shoulder is less than 4' in width, omit the taper and channelizing devices from the paved shoulder.

5. 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 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.

6. Use inverted plan of the illustrations for work on left side of roadways.

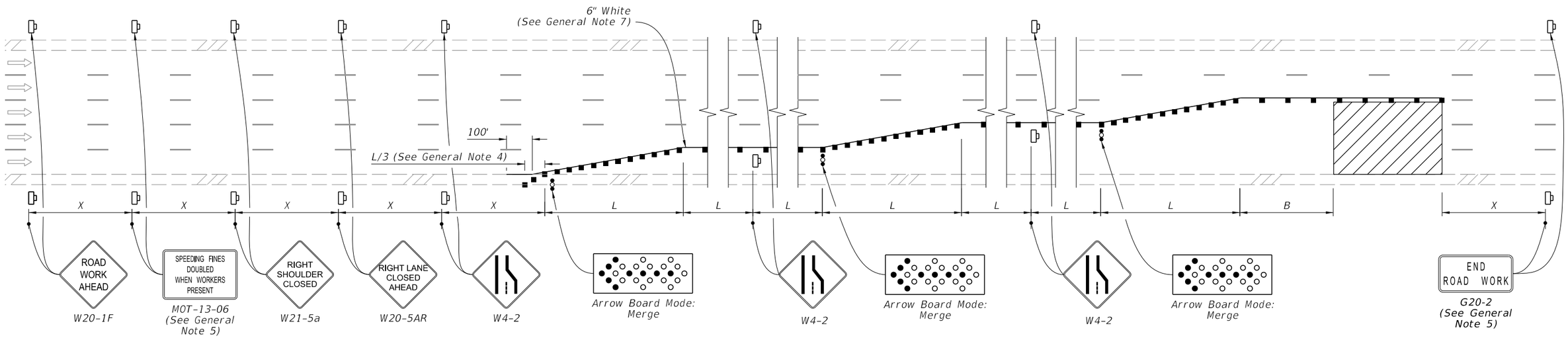
7. Temporary pavement markings may be omitted when the work operation is in place for 3 days or less.



DOUBLE LANE CLOSURE

SYMBOLS:

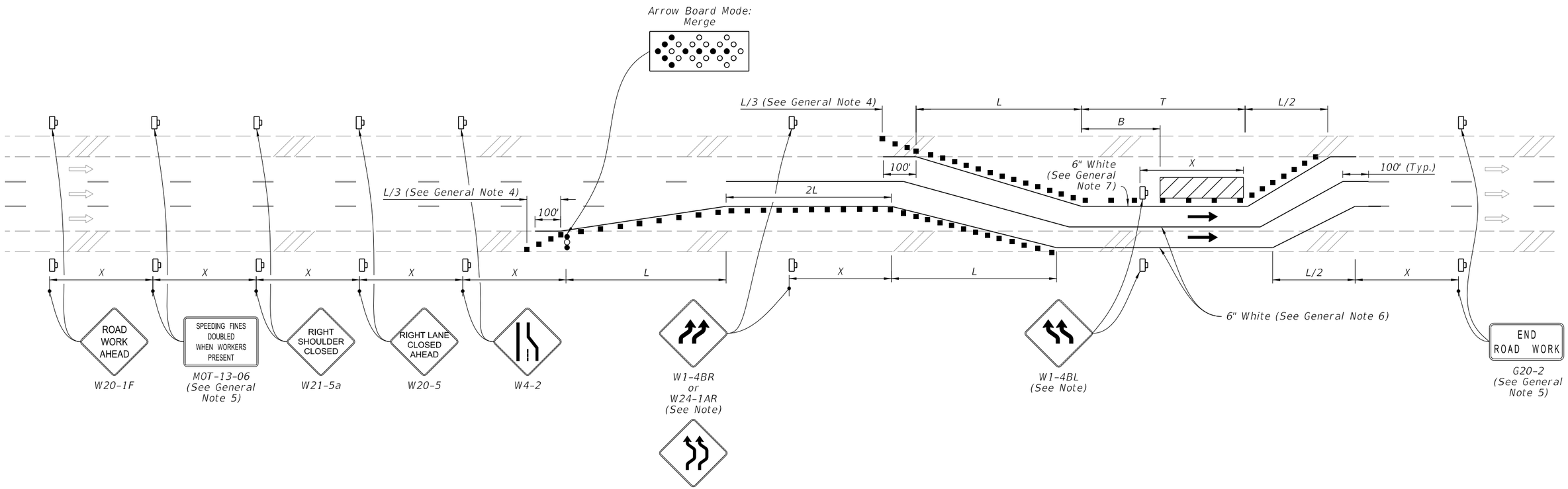
- Work Area
- Channelizing Device (See Index 102-600)
- Work Zone Sign
- Arrow Board
- Lane Identification and Direction of Traffic



TRIPLE LANE CLOSURE

SYMBOLS:

- Work Area
- Channelizing Device (See Index 102-600)
- Work Zone Sign
- Arrow Board
- Lane Identification and Direction of Traffic



LANE CLOSURE WITH LANE SHIFT

NOTE:

If the tangent distance "T" is less than 600', then use "Double Reverse Curve" signs (W24-1A) instead of the first pair of "Reverse Curve" signs (W1-4B) and omit the second pair of "Reverse Curve" signs.

SYMBOLS:

- Work Area
- Channelizing Device (See Index 102-600)
- Work Zone Sign
- Arrow Board
- Lane Identification and Direction of Traffic

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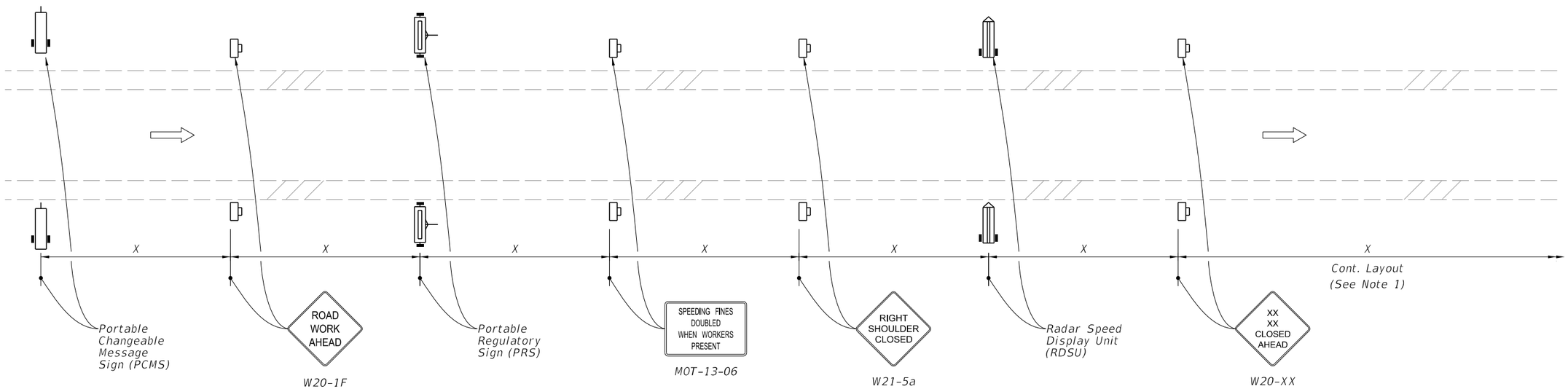

MOTORIST AWARENESS SYSTEM

SYMBOLS:

- Work Zone Sign
- (1) PCMS= Portable Changeable (Variable) Message Sign
- (2) PRS= Portable Regulatory Sign-Speed Limit When Flashing
- (2) RSDU= Radar Speed Display Unit
- Lane Identification and Direction of Traffic

NOTES:

1. Use the Motorist Awareness System (MAS) for lane closures of at least 5 days (consecutive or not) on multilane divided facilities with a posted speed of 55 mph or greater when workers are present and not protected by a barrier.

2. Locate the Motorist MAS devices (i.e., PCMS, PRS, and RDSU) within the advance warning signs as shown. Continue with the remainder of the work zone signs and devices in accordance with the Plans or Standard Plans after the appropriate "Lane Closed Ahead" (W20-XX) sign.

3. For a posted speed of 65 mph or greater, display speed with a ten mph reduction. For a posted speed of 60 mph, display a reduced speed of 55 mph. For areas outside of the lane closure, use the posted speed as the work zone speed.

4. Omit the PCMS in the median for roadways with three lanes or less in the same direction of traffic.

TYPICAL PCMS DISPLAY:

With speed reduction:
Message 1: WORKERS PRESENT AHEAD
Message 2: SPEED REDUCED NEXT XXMI

Without speed reduction:
Message 1: WORKERS PRESENT AHEAD
Message 2: NEXT XX MILES