OCALA SPRINGS BOARDWALKS - JUNIPER SPRINGS

FLORIDA

CONSTRUCTION DOCUMENTS

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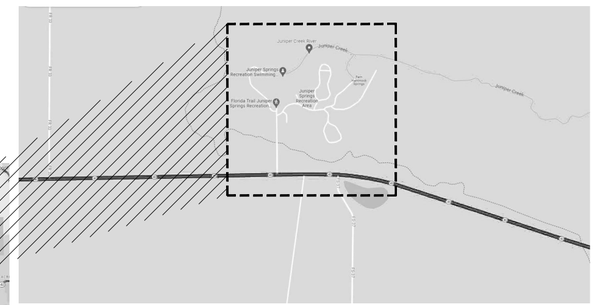
LOCATION MAP



VICINITY MAP: JUNIPER SPRING

ALL EROSION AND SEDIMENTATION CONTROLS AND TREE PROTECTION MEASURES SHALL BE INSTALLED PRIOR TO DEMOLITION.

PREPARED FOR:

USDA Forest Service

Lake George Ranger District,
17147 E HWY 40
Silver Springs, FL 34488-5849

PREPARED BY:

TSW

1447 PEACHTREE ST, STE 850
ATLANTA, GA 30309
404.873.6730

DATE: 09/20/2024
PROJECT No: 23009

RECOMMENDED:

CAROLYN SEKERAK — Digitally signed by CAROLYN SEKERAK Date: 2024.10.18 17:00:47 -04'00'
DISTRICT RANGER, OCALA NATIONAL FOREST — DATE

JONATHAN MICKETT — Digitally signed by JONATHAN MICKETT Date: 2024.10.31 10:15:35 -04'00'
DEPUTY RANGER, OCALA NATIONAL FOREST — DATE

BRADLEY ASHER — Digitally signed by BRADLEY ASHER Date: 2024.10.25 10:58:06 -04'00'
REGION 8 BRIDGE ENGINEER — DATE

APPROVED:

BRANDON ROBERTS — Digitally signed by BRANDON ROBERTS Date: 2024.10.11 15:34:37 -04'00'
FOREST ENGINEER, OCALA NATIONAL FOREST — DATE

Ivan Green — Digitally signed by Ivan Green Date: 2024.12.03 13:26:34 -05'00'
FOREST SUPERVISOR, OCALA NATIONAL FOREST — DATE

MARK MENG — Digitally signed by MARK MENG Date: 2024.12.03 09:26:37 -05'00'
REGIONAL ENGINEER — DATE

USDA United States Department of Agriculture Forest Service

STAMPS, LOGOS, AND SEALS

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FLORIDA LANDSCAPE ARCHITECT LICENSE No. LA 6667272 09/20/2024 KIRSTEN KOEHNEMANN

NO.	REVISION/ISSUE	DATE
4		
3		
2		
1		

PROJECT NAME

OCALA SPRINGS BOARDWALKS - JUNIPER SPRINGS

NATIONAL FORESTS IN FLORIDA, OCALA
LATITUDE: 29.18263380
LONGITUDE: -81.71097440
USDA FOREST SERVICE
LAKE GEORGE RANGER DISTRICT,
17147 E HWY 40
SILVER SPRINGS, FL 34488-5849
770-209-2708

DRAWING TITLE

COVER SHEET

DATE 09/20/2024	ARCHIVE NUMBER
DESIGNER	DRAWING SHEET NO. L-0.00
DRAWN KK	
CHECKED DL / AW	
PROJECT NO. 23009	

PROJECT DIRECTORY

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Email: william.fulghum@volkert.com
Office: 352-372-9594, Direct: 352-240-7456

PROJECT ADDRESSES

PHYSICAL LOCATION:
26701 FL-40, SILVER SPRINGS, FL 34488.

MAILING ADDRESS:
LAKE GEORGE RANGER DISTRICT 17147 E. STATE ROAD 40 SILVER SPRINGS, FL 34488.

GENERAL NOTES:

1. ALL WORK DESCRIBED IN THE PLAN NOTES SHALL BE INCLUDED IN THE CONTRACTORS BID.
2. THE CONTRACTOR SHALL STOP WORK AND NOTIFY THE LANDSCAPE ARCHITECT IMMEDIATELY IF PLAN DISCREPANCIES, SITE CONFLICTS, OR OTHER UNFORESEEN CONDITIONS ARE DISCOVERED THAT IMPACT THE WORK.
3. EROSION CONTROL: THE CONTRACTOR SHALL INSTALL AND MAINTAIN STORMWATER EROSION CONTROL MEASURES TO PREVENT EROSION WITHIN THE PROJECT AREA PER THE PLANS. THE CONTRACTOR SHALL PROVIDE ANY ADDITIONAL MEASURES NECESSARY TO STABILIZE THE SITE THROUGHOUT FINAL COMPLETION AT NO ADDITIONAL COST TO THE CONTRACTING OFFICER. ANY ADDITIONAL MEASURES TO BE APPROVED BY OWNER AND LANDSCAPE ARCHITECT PRIOR TO INSTALLATION.
4. ALL REFUSE, DEBRIS, AND MISCELLANEOUS ITEMS TO BE REMOVED SHALL BE RECYCLED TO THE GREATEST EXTENT POSSIBLE. NON-RECYCLED MATERIALS SHALL BE LEGALLY DISPOSED OF OFF SITE BY THE CONTRACTOR. DISPOSAL IN COMPLIANCE WITH STATE REQUIREMENTS AND PROOF OF DISPOSAL REQUIRED. CONTRACTOR TO SUPPLY PROOF OF DISPOSAL RECEIPT FOR RECORD THAT ALL MATERIALS HAVE BEEN PROPERLY DISPOSED.
5. ALL POINTS OF CONSTRUCTION INGRESS AND EGRESS SHALL BE PROTECTED AS REQUIRED BY THE AUTHORITY WITH JURISDICTION. IN THE ABSENCE OF REQUIREMENTS, THE CONTRACTOR SHALL EMPLOY BEST PRACTICES TO PREVENT MUD AND CONSTRUCTION DEBRIS FROM ENTERING THE PUBLIC WAYS AND MAINTAIN A CLEAN CONSTRUCTION ACCESS POINT.
6. THE CONTRACTOR SHALL VERIFY VERTICAL AND HORIZONTAL LAYOUT DIMENSIONS PRIOR TO CONSTRUCTION AND IS RESPONSIBLE FOR REWORK, AT THEIR OWN EXPENSE, OF AREAS THAT ARE NOT BUILT PER THE PLANS.
7. ALL CONSTRUCTION SHALL CONFORM TO APPLICABLE JURISDICTIONAL STANDARDS, SPECIFICATIONS, AND DETAILS. IT IS THE CONTRACTOR'S RESPONSIBILITY TO ACQUIRE THESE DOCUMENTS, BE FAMILIAR WITH THEM, AND HAVE THEM ON THE JOB SITE AT ALL TIMES.
8. ALL CONSTRUCTION VEHICLES SHALL PARK IN AREAS DESIGNATED BY THE OWNER.

TREE PROTECTION NOTES:

1. ALL CONSTRUCTION ACTIVITIES WILL STAY WITHIN LIMITS OF DISTURBANCE TO PROTECT EXISTING TREES.

LAYOUT PLAN NOTES:

1. ALL EDGES OF PAVEMENT ARE TO BE STRAIGHT AND RADII CONSISTENT.
2. CONSTRUCTION LAYOUT STAKING FOR ALL PROJECT ELEMENTS SHALL BE PERFORMED BY A LAND SURVEYOR OR APPROVED PROFESSIONAL USING DIGITAL DRAWINGS PROVIDED BY THE DESIGN TEAM.
3. ALL CONSTRUCTION STAKING SHALL BE APPROVED BY CONTRACTING OFFICER (CO) PRIOR TO CONSTRUCTION.
4. IF DIMENSIONS VARY BY 1/2" OR MORE OR ALTER THE DRAINAGE FLOW DIRECTION, NOTIFY THE LANDSCAPE ARCHITECT OR CONTRACTING OFFICER (CO) FOR REVIEW AND CONFIRMATION PRIOR TO PROCEEDING WITH CONSTRUCTION.
5. ALL +/- DIMENSIONS SHOULD NOT VARY MORE THAN 1". IF VARIATIONS ARE GREATER THAN 1", CONTACT THE LANDSCAPE ARCHITECT OR CONTRACTING OFFICER (CO) PRIOR TO PROCEEDING WITH CONSTRUCTION.

GRADING NOTES:

1. CONTRACTOR SHALL ESTABLISH AND PROTECT A TEMPORARY BENCHMARK (T.B.M.) TO BE USED DURING CONSTRUCTION. THE CONTRACTOR SHALL SUBMIT THE (T.B.M) LOCATION AND ELEVATION TO THE OWNER'S REPRESENTATIVE PRIOR TO CONSTRUCTION.
2. ALL ELEVATIONS SHALL BE SET AND CHECKED RELATIVE TO THE (T.B.M.) PRIOR TO CONSTRUCTING HARDSCAPE ELEMENTS.
3. THE CONTRACTOR SHALL CLEAN ALL SURFACES PRIOR TO THE SUBSTANTIAL COMPLETION PUNCH WALK.
4. GRADES BETWEEN SPOT ELEVATIONS SHALL BE CONSTANT SLOPES.
5. FINISHED HARDSCAPE SLOPES SHALL BE GREATER THAN 1 PERCENT AND POSITIVE FLOW WITHOUT PUDDLING OR PONDING.
6. RAMPS - MAXIMUM SLOPE IS 8.33%.
7. WHERE NEW PAVING MEETS EXISTING PAVING, MEET LINE AND GRADE OF EXISTING WITH NEW CONSTRUCTION.
8. FINISH GRADES: THE CONTRACTOR SHALL BE RESPONSIBLE FOR ENSURING THAT ALL NEW PAVED AREAS ARE GRADED TO DRAIN, EXISTING STRUCTURES AND FREE OF PONDING OR STANDING WATER THAT WILL NOT COMPLETELY EVAPORATE WITHIN 24 HOURS. PAVING AREAS THAT DO NOT MEET THESE REQUIREMENTS WILL BE REMOVED AND REPLACED AT THE CONTRACTOR'S EXPENSE.
9. CONTRACTOR SHALL BE RESPONSIBLE FOR ENSURING COMPLIANCE WITH ALL FEDERAL, STATE AND LOCAL ACCESSIBILITY CODES.

ABBREVATIONS:

- C.O.: CONTRACTING OFFICER
- C.O.R.: CONTRACTING OFFICER REPRESENTATIVE
- CL: CENTERLINE
- DDH: DEAD, DYING, HAZARDOUS
- L.O.D.: LIMITS OF DISTURBANCE
- TYP.: TYPICAL

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Atlanta, GA | Tulsa, OK | Chattanooga, TN

FLORIDA
LICENSED
LANDSCAPE ARCHITECT
No. LA 0667372
09/20/2024
KRISTEN FEIGH KOELNEMANN

NO.	REVISION/ISSUE	DATE
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PROJECT NAME

OCALA SPRINGS BOARDWALKS - JUNIPER SPRINGS

NATIONAL FORESTS IN FLORIDA, OCALA
LATITUDE: 29.18263380
LONGITUDE: -81.71097440
USDA FOREST SERVICE
LAKE GEORGE RANGER DISTRICT, 17147 E HWY 40
SILVER SPRINGS, FL 34488-5849
770-209-2708

DRAWING TITLE
GENERAL NOTES

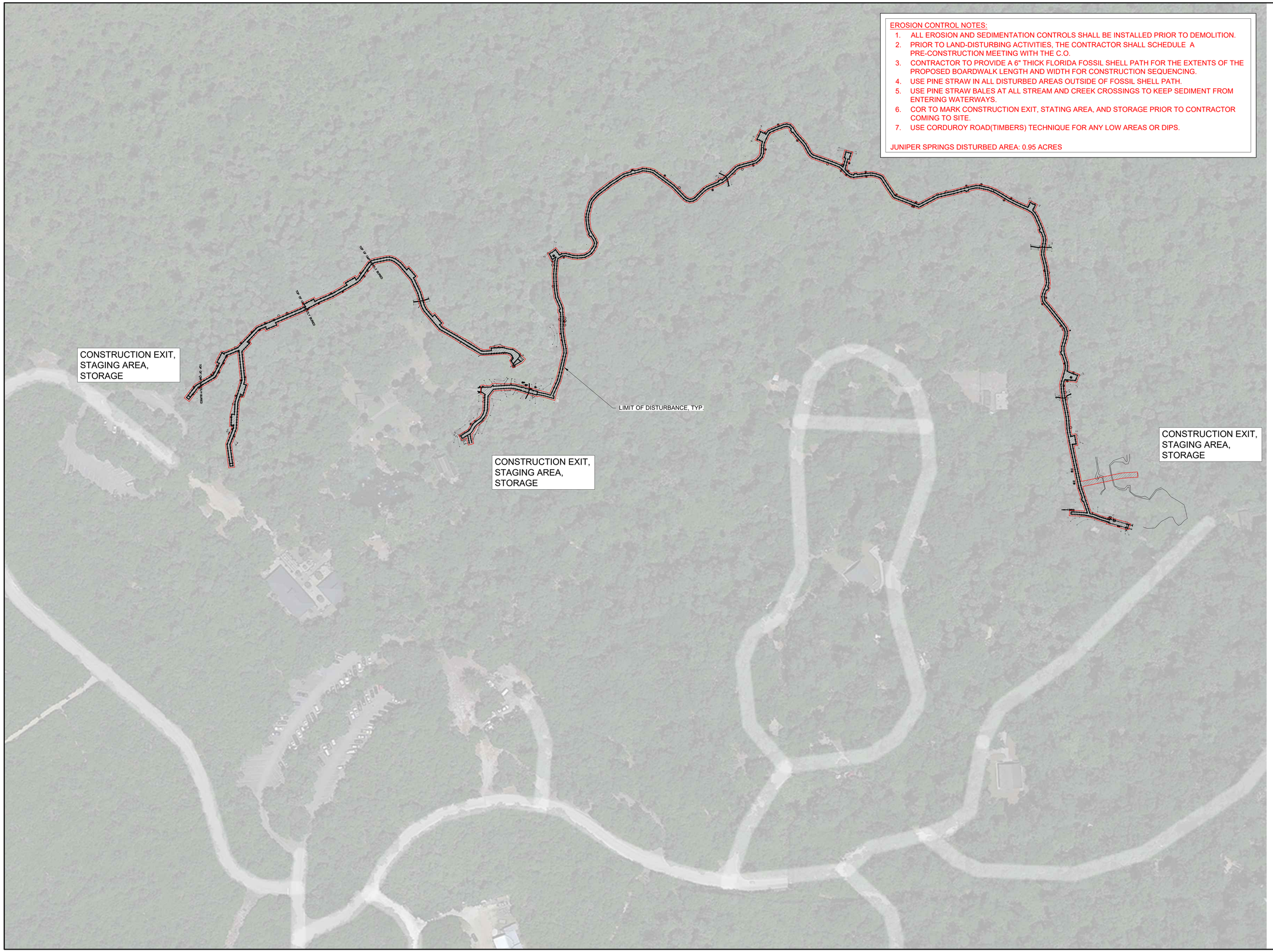
DATE 09/20/2024	ARCHIVE NUMBER
DESIGNER	DRAWING SHEET NO.
DRAWN KK	L-0.10
CHECKED DL / AW	
PROJECT NO. 23009	

CONSTRUCTION DOCUMENTS

EROSION CONTROL NOTES:

1. ALL EROSION AND SEDIMENTATION CONTROLS SHALL BE INSTALLED PRIOR TO DEMOLITION.
2. PRIOR TO LAND-DISTURBING ACTIVITIES, THE CONTRACTOR SHALL SCHEDULE A PRE-CONSTRUCTION MEETING WITH THE C.O.
3. CONTRACTOR TO PROVIDE A 6" THICK FLORIDA FOSSIL SHELL PATH FOR THE EXTENTS OF THE PROPOSED BOARDWALK LENGTH AND WIDTH FOR CONSTRUCTION SEQUENCING.
4. USE PINE STRAW IN ALL DISTURBED AREAS OUTSIDE OF FOSSIL SHELL PATH.
5. USE PINE STRAW BALES AT ALL STREAM AND CREEK CROSSINGS TO KEEP SEDIMENT FROM ENTERING WATERWAYS.
6. COR TO MARK CONSTRUCTION EXIT, STATING AREA, AND STORAGE PRIOR TO CONTRACTOR COMING TO SITE.
7. USE CORDUROY ROAD(TIMBERS) TECHNIQUE FOR ANY LOW AREAS OR DIPS.

JUNIPER SPRINGS DISTURBED AREA: 0.95 ACRES



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scale: 1" = 80'-0"

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DRAWING TITLE

EROSION CONTROL PLAN - JUNIPER

DATE 09/20/2024	ARCHIVE NUMBER
DESIGNER	DRAWING SHEET NO. L-0.20
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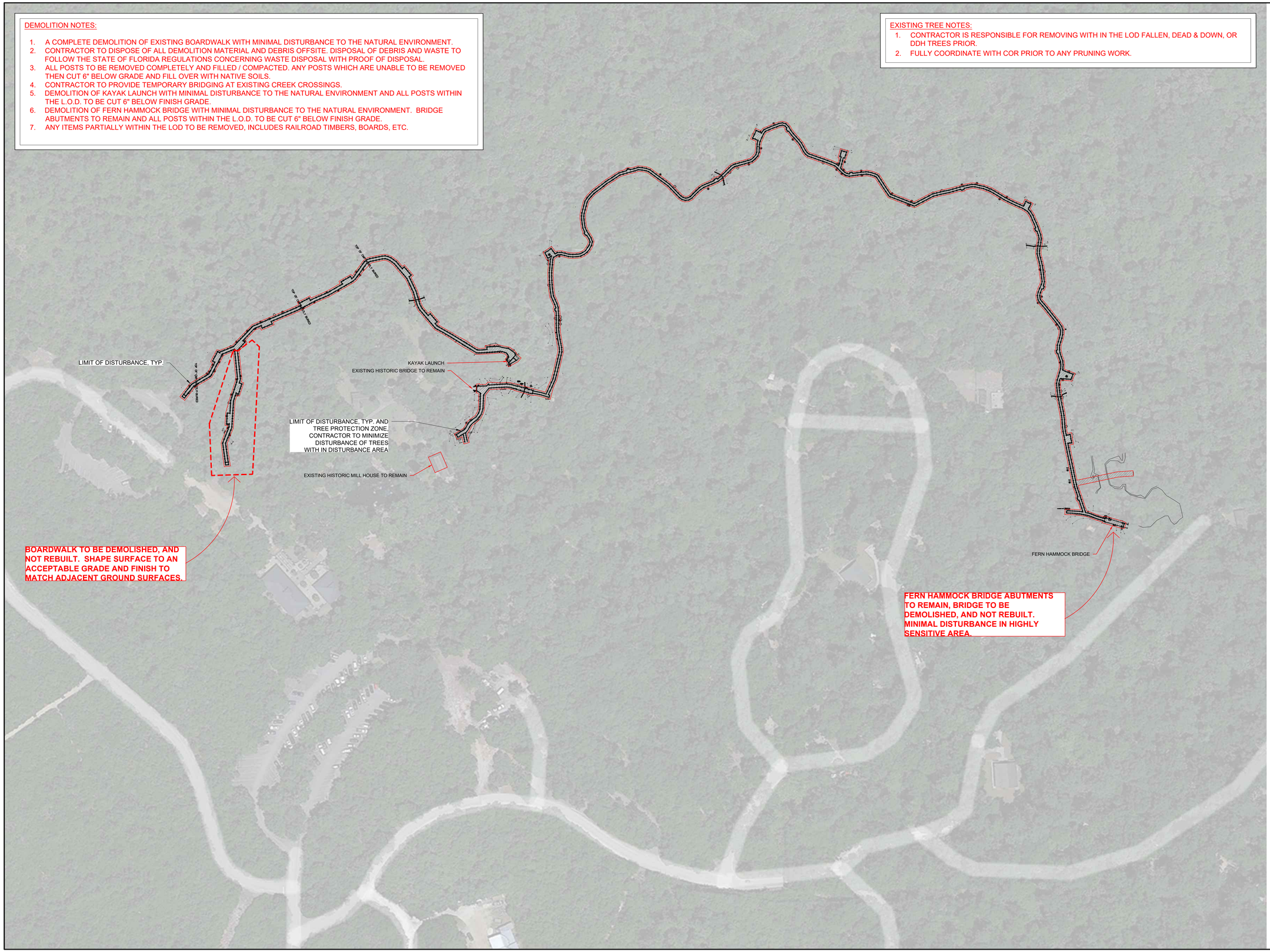
CONSTRUCTION DOCUMENTS

DEMOLITION NOTES:

1. A COMPLETE DEMOLITION OF EXISTING BOARDWALK WITH MINIMAL DISTURBANCE TO THE NATURAL ENVIRONMENT.
2. CONTRACTOR TO DISPOSE OF ALL DEMOLITION MATERIAL AND DEBRIS OFFSITE. DISPOSAL OF DEBRIS AND WASTE TO FOLLOW THE STATE OF FLORIDA REGULATIONS CONCERNING WASTE DISPOSAL WITH PROOF OF DISPOSAL.
3. ALL POSTS TO BE REMOVED COMPLETELY AND FILLED / COMPACTED. ANY POSTS WHICH ARE UNABLE TO BE REMOVED THEN CUT 6" BELOW GRADE AND FILL OVER WITH NATIVE SOILS.
4. CONTRACTOR TO PROVIDE TEMPORARY BRIDGING AT EXISTING CREEK CROSSINGS.
5. DEMOLITION OF KAYAK LAUNCH WITH MINIMAL DISTURBANCE TO THE NATURAL ENVIRONMENT AND ALL POSTS WITHIN THE L.O.D. TO BE CUT 6" BELOW FINISH GRADE.
6. DEMOLITION OF FERN HAMMOCK BRIDGE WITH MINIMAL DISTURBANCE TO THE NATURAL ENVIRONMENT. BRIDGE ABUTMENTS TO REMAIN AND ALL POSTS WITHIN THE L.O.D. TO BE CUT 6" BELOW FINISH GRADE.
7. ANY ITEMS PARTIALLY WITHIN THE LOD TO BE REMOVED, INCLUDES RAILROAD TIMBERS, BOARDS, ETC.

EXISTING TREE NOTES:

1. CONTRACTOR IS RESPONSIBLE FOR REMOVING WITH IN THE LOD FALLEN, DEAD & DOWN, OR DDH TREES PRIOR.
2. FULLY COORDINATE WITH COR PRIOR TO ANY PRUNING WORK.



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FLORIDA REGISTERED LANDSCAPE ARCHITECT
Lic. No. LA 0667272
09/20/2024
KRISTEN FEIGH KOELLNEMANN

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770-209-2708

scale: 1" = 80'-0"
0 40 80 120 200

DRAWING TITLE

DEMOLITION PLAN - JUNIPER

DATE 09/20/2024	ARCHIVE NUMBER
DESIGNER	DRAWING SHEET NO. L-0.30
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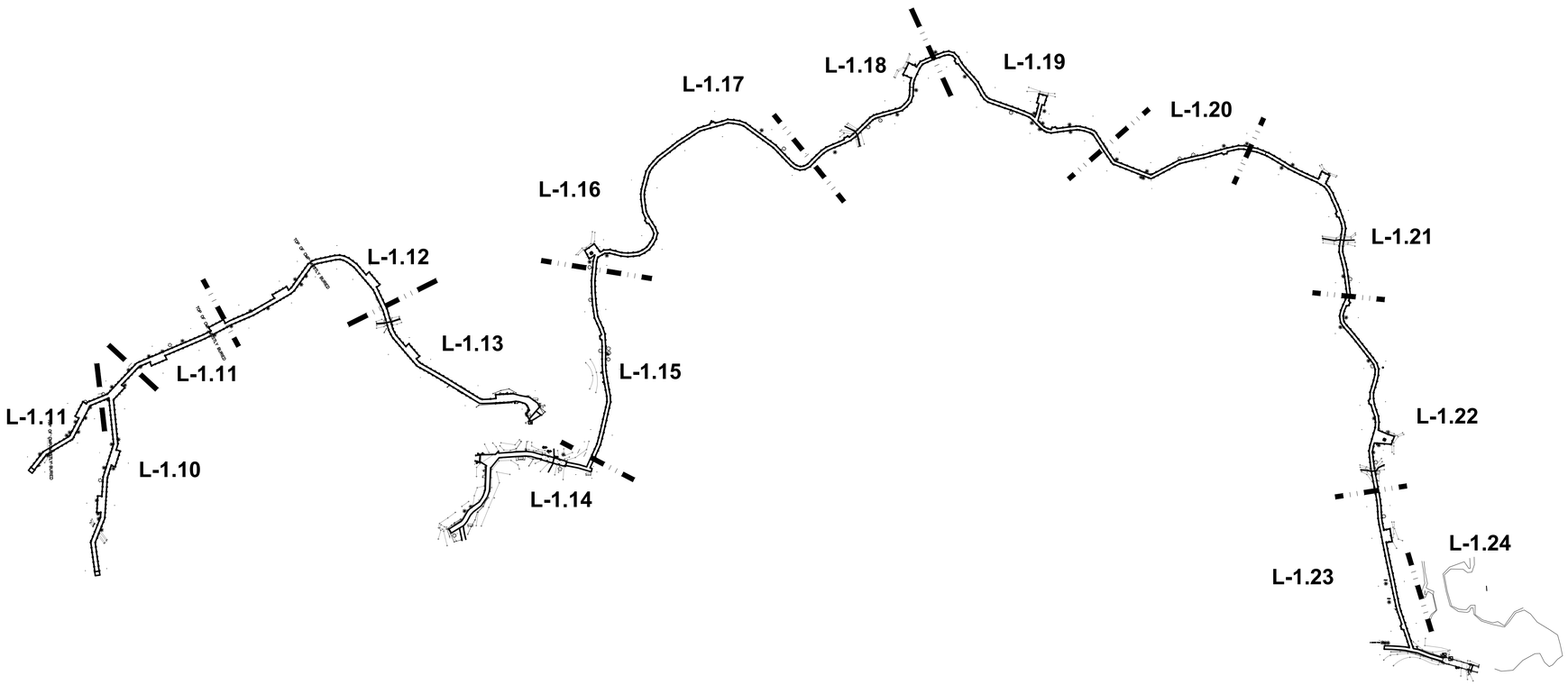
CONSTRUCTION DOCUMENTS



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KRISTEN LEIGH KOELLNEMANN

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770-209-2708

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scale: 1" = 80'-0"

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DRAWING TITLE
SURVEY KEY MAP - JUNIPER

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CONSTRUCTION DOCUMENTS

Name	Northing	Easting	Elevation	Description
GPS1	1763467.862	747292.798	38.925	FND 2" PIPE W/ 4" USDA ALUMINUM DISK "R.L.S. 19"
GPS2	1763204.775	747602.999	36.301	SET CONC. MONUMENT 4" X 4" W/ DISK "LB 4641"
GPS3	1762679.640	749001.392	33.974	SET CONC. MONUMENT 4" X 4" W/ DISK "LB 4641"
GPS4	1762526.372	748619.883	37.381	SET CONC. MONUMENT 4" X 4" W/ DISK "LB 4641"

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STATE OF FLORIDA
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scale: 1" = 80'-0"

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DRAWING TITLE
SURVEY CONTROL POINTS

DATE 09/20/2024	ARCHIVE NUMBER
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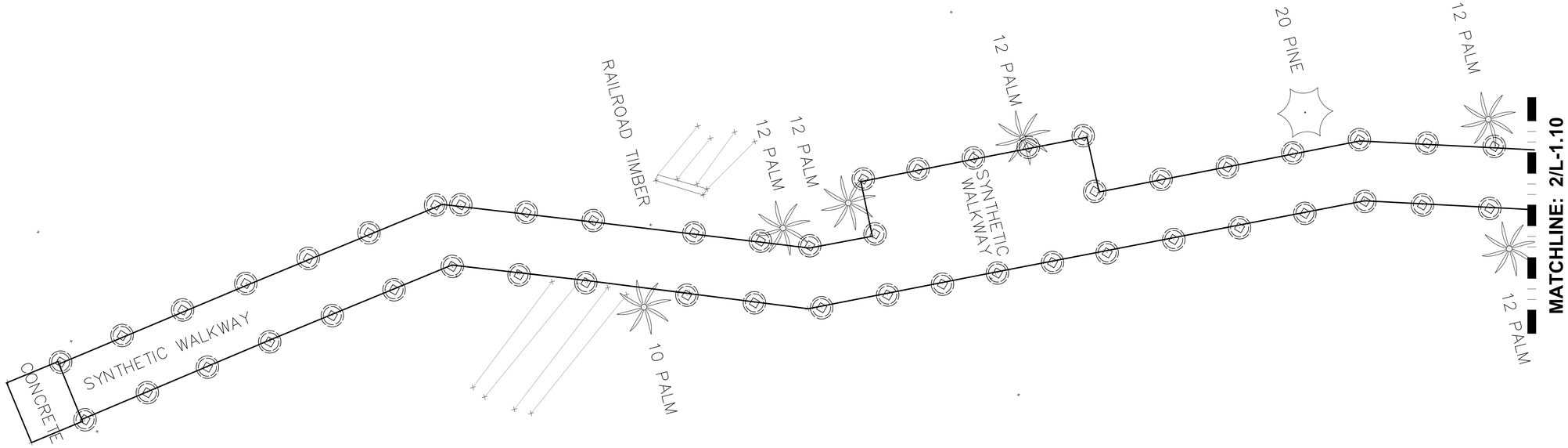
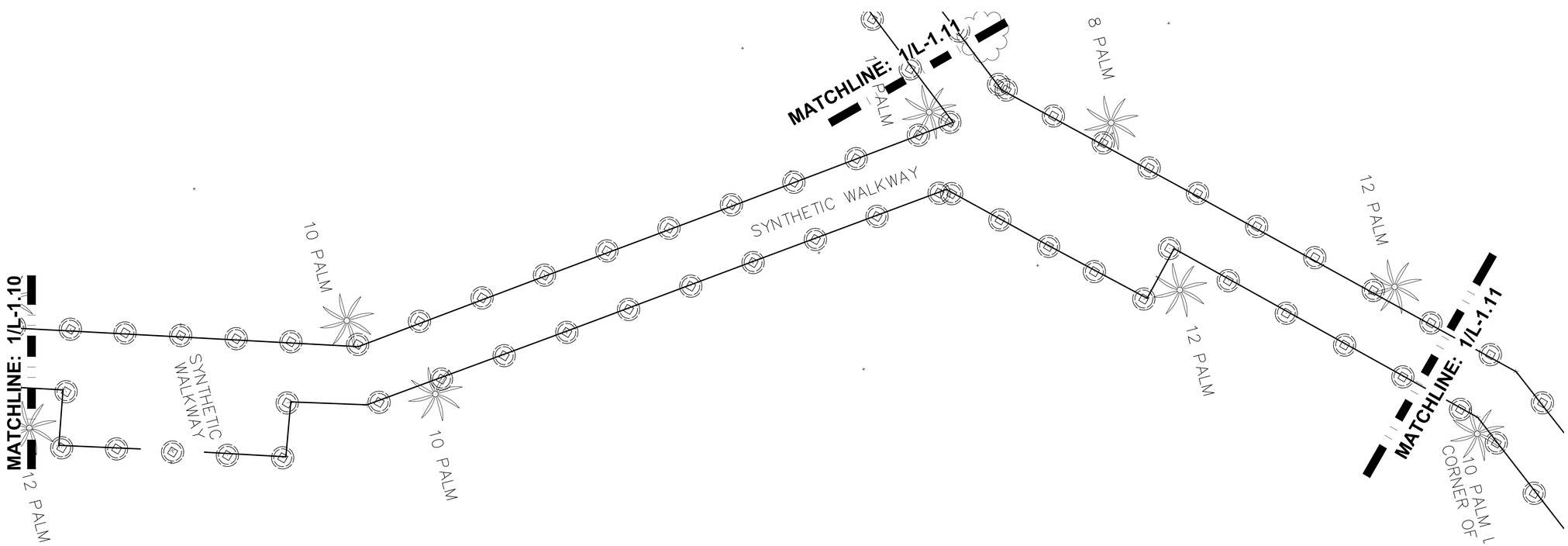
CONSTRUCTION DOCUMENTS



1 SEGMENT 1



2 SEGMENT 2

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scale: 1" = 5'-0"
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DRAWING TITLE
SURVEY - JUNIPER

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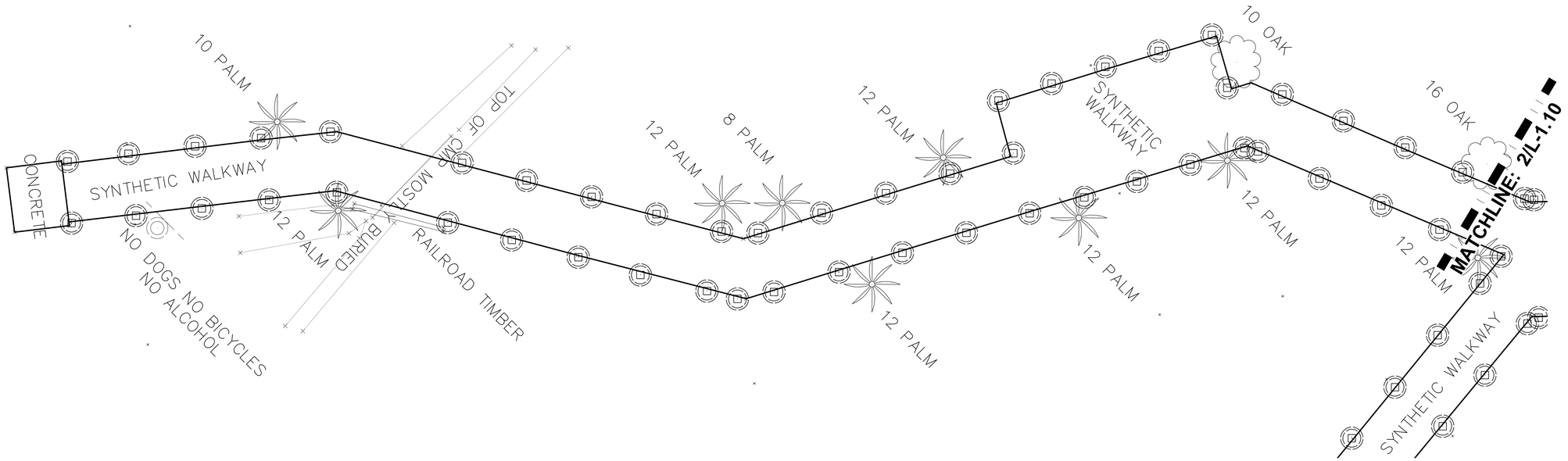

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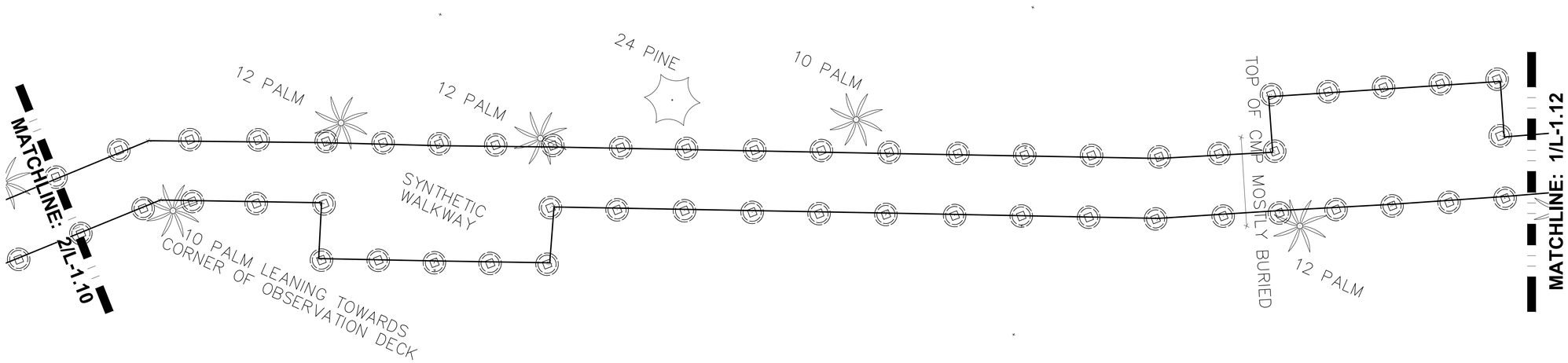

2 SEGMENT 4

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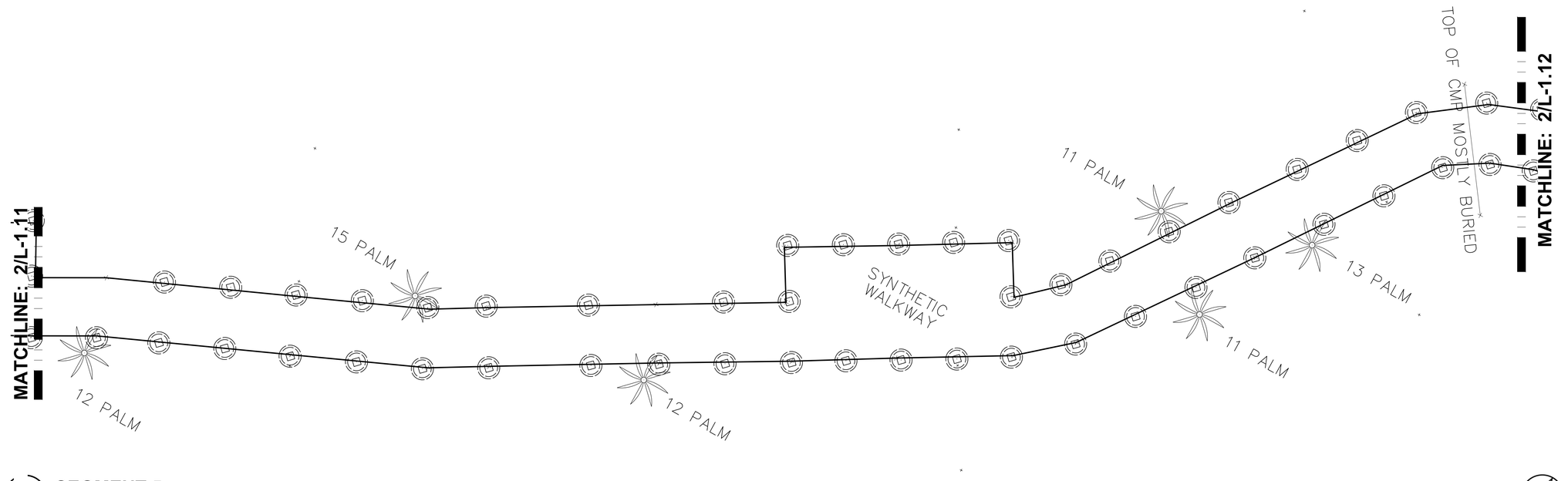
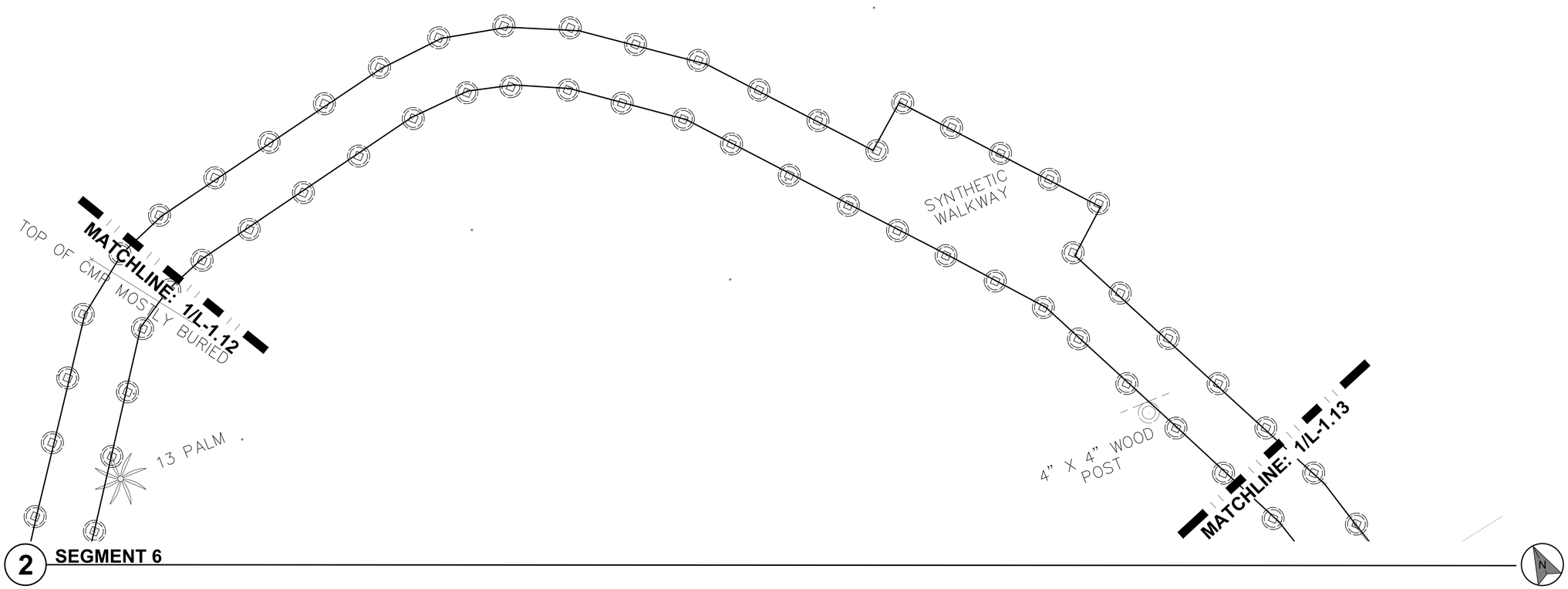


1 SEGMENT 5



2 SEGMENT 6

USDA
United States Department of Agriculture
Forest Service

STAMPS, LOGOS, AND SEALS

TSW
PLANNING • ARCHITECTURE
LANDSCAPE ARCHITECTURE
Atlanta, GA | Tulsa, OK | Chattanooga, TN

FLORIDA
LICENSED
LANDSCAPE ARCHITECT
No. LA 0667372
09/20/2024
KRISTEN EIGH KOELLNEMANN

NO.	REVISION/ISSUE	DATE
4		
3		
2		
1		

PROJECT NAME
OCALA SPRINGS BOARDWALKS - JUNIPER SPRINGS

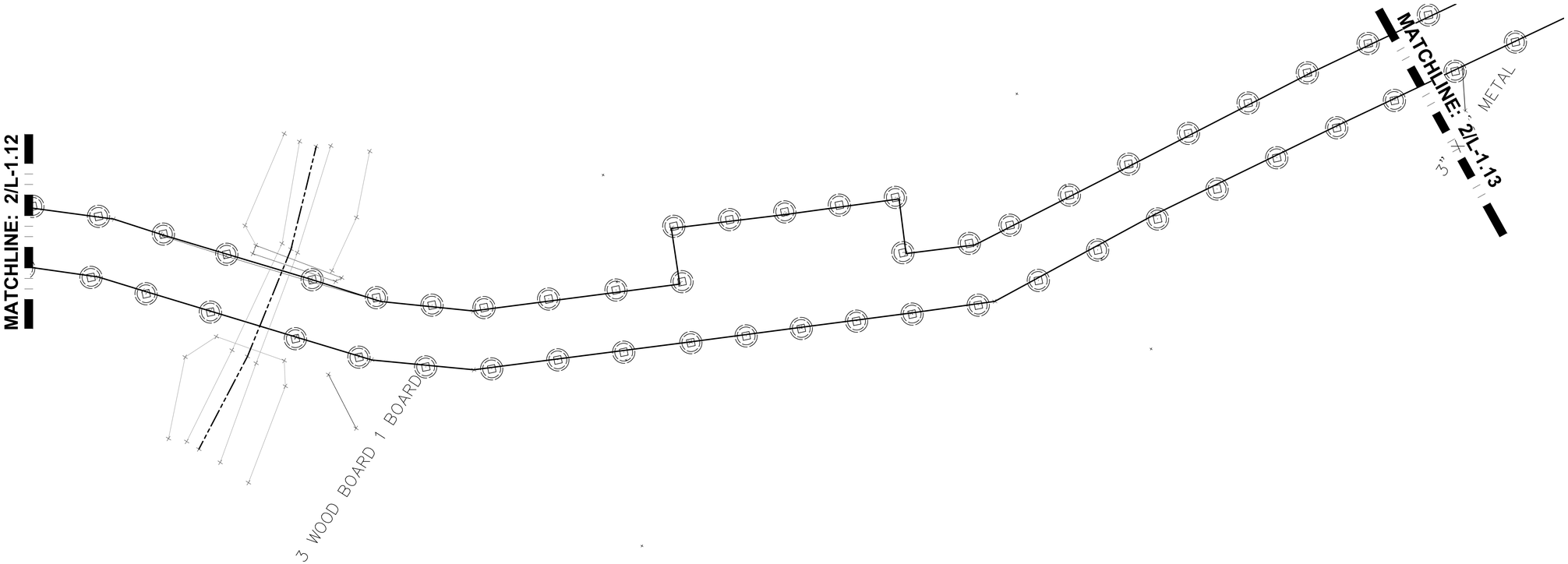
NATIONAL FORESTS IN FLORIDA, OCALA
LATITUDE: 29.18263380
LONGITUDE: -81.71097440
USDA FOREST SERVICE
LAKE GEORGE RANGER DISTRICT, 17147 E HWY 40
SILVER SPRINGS, FL 34488-5849
770-209-2708

scale: 1" = 5'-0"
0 2.5 5 7.5 12.5

DRAWING TITLE
SURVEY - JUNIPER

DATE 09/20/2024	ARCHIVE NUMBER
DESIGNER	DRAWING SHEET NO. L-1.12
DRAWN KK	
CHECKED DL / AW	
PROJECT NO. 23009	

CONSTRUCTION DOCUMENTS



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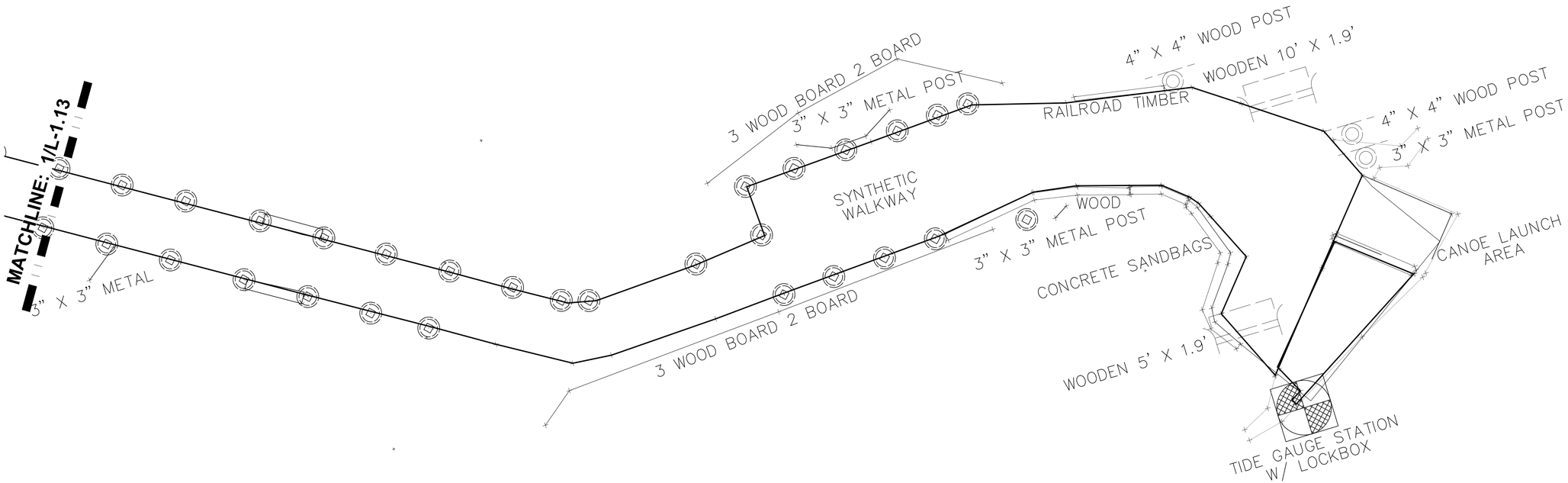

2 **SEGMENT 8**

CONSTRUCTION DOCUMENTS

USDA
United States Department of Agriculture
Forest Service

STAMPS, LOGOS, AND SEALS

TSW
PLANNING • ARCHITECTURE
LANDSCAPE ARCHITECTURE
Atlanta, GA | Tulsa, OK | Chattanooga, TN

FLORIDA LICENSED LANDSCAPE ARCHITECT
Lic. No. LA 0667272
09/20/2024
KRISTEN FEIGH KOELNEMANN

NO.	REVISION/ISSUE	DATE
4		
3		
2		
1		

PROJECT NAME

OCALA SPRINGS BOARDWALKS - JUNIPER SPRINGS

NATIONAL FORESTS IN FLORIDA, OCALA
LATITUDE: 29.18263380
LONGITUDE: -81.71097440
USDA FOREST SERVICE
LAKE GEORGE RANGER DISTRICT,
17147 E HWY 40
SILVER SPRINGS, FL 34488-5849
770-209-2708

DRAWING TITLE
SURVEY - JUNIPER

scale: 1" = 5'-0"
0 2.5 5 7.5 12.5

DATE 09/20/2024	ARCHIVE NUMBER
DESIGNER	DRAWING SHEET NO. L-1.13
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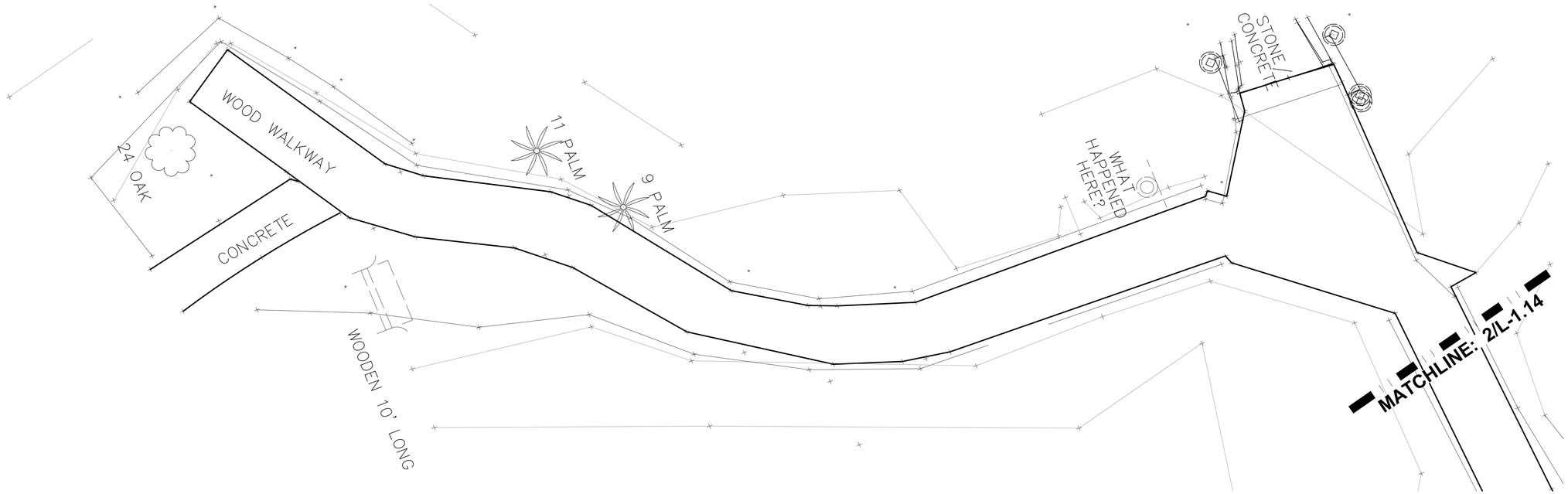
CHECKED DL / AW	
PROJECT NO. 23009	



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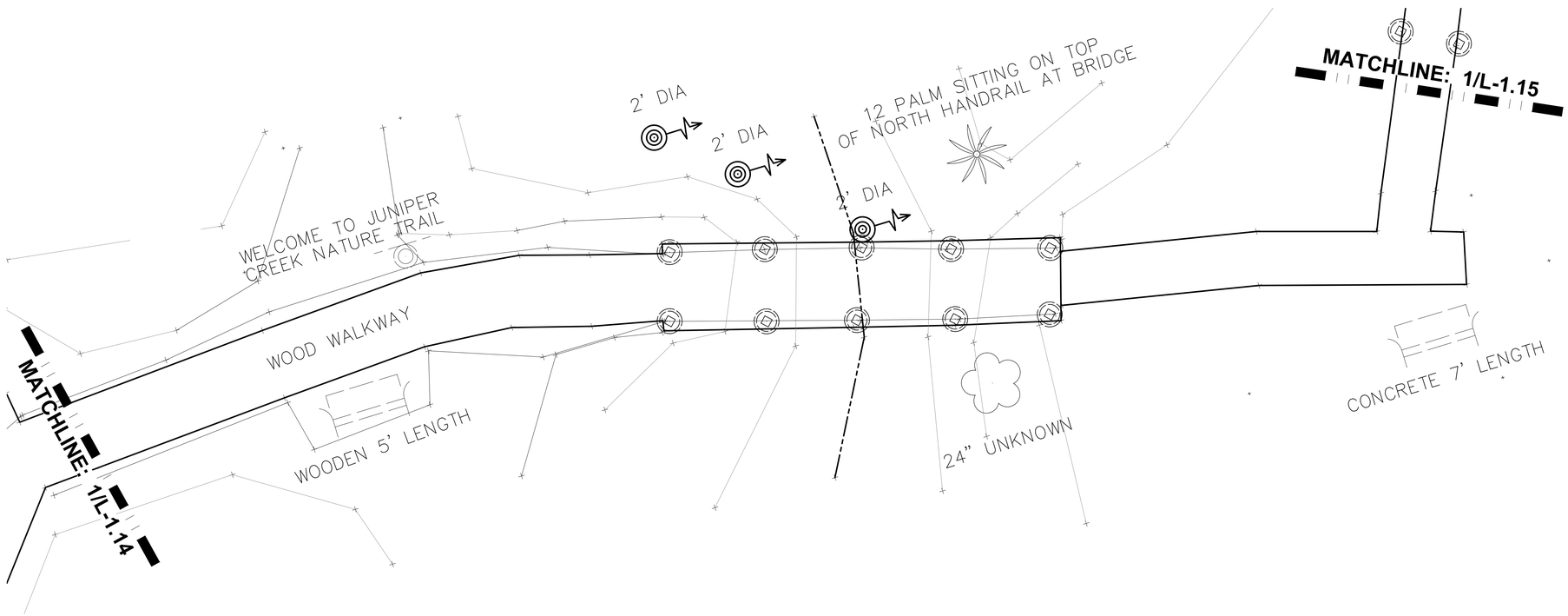

2 SEGMENT 10

United States Department of Agriculture
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STAMPS, LOGOS, AND SEALS

TSW
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LANDSCAPE ARCHITECTURE
Atlanta, GA | Tulsa, OK | Chattanooga, TN

FLORIDA
LICENSED
LANDSCAPE ARCHITECT
No. LA 0667272
09/20/2024
KRISTEN FEIGH KOELLNEMANN

NO.	REVISION/ISSUE	DATE
4		
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1		

PROJECT NAME
OCALA SPRINGS BOARDWALKS - JUNIPER SPRINGS

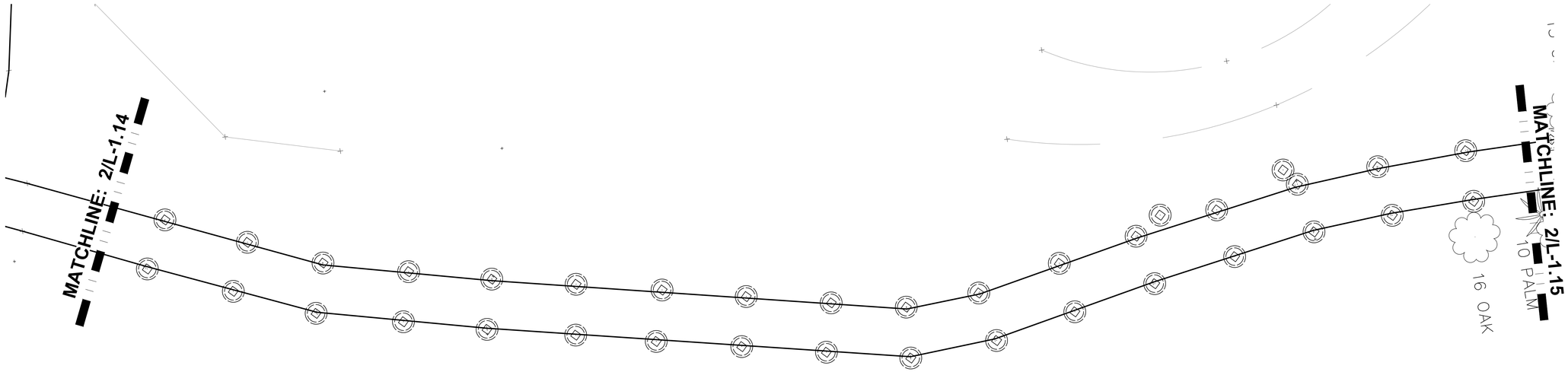
NATIONAL FORESTS IN FLORIDA, OCALA
LATITUDE: 29.18263380
LONGITUDE: -81.71097440
USDA FOREST SERVICE
LAKE GEORGE RANGER DISTRICT,
17147 E HWY 40
SILVER SPRINGS, FL 34488-5849
770-209-2708

scale: 1" = 5'-0"
0 2.5 5 7.5 12.5

DRAWING TITLE
SURVEY - JUNIPER

DATE 09/20/2024	ARCHIVE NUMBER
DESIGNER	DRAWING SHEET NO. L-1.14
DRAWN KK	
CHECKED DL / AW	
PROJECT NO. 23009	

CONSTRUCTION DOCUMENTS



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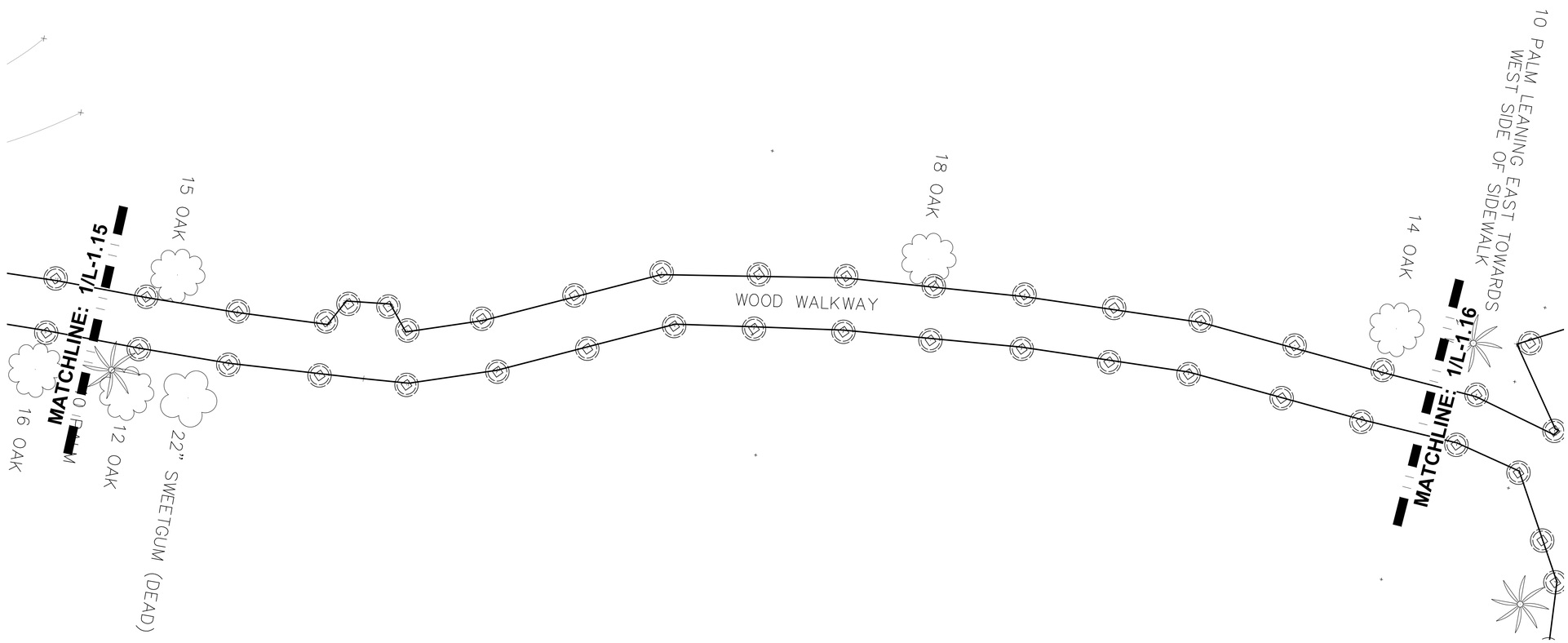

2 SEGMENT 12

USDA
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Forest Service

STAMPS, LOGOS, AND SEALS

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LANDSCAPE ARCHITECTURE
Atlanta, GA | Tulsa, OK | Chattanooga, TN

FLORIDA
LICENSED
LANDSCAPE ARCHITECT
No. LA 0667372
09/20/2024
KRISTEN EIGH KOELLNEMANN

NO.	REVISION/ISSUE	DATE
4		
3		
2		
1		

PROJECT NAME
OCALA SPRINGS BOARDWALKS - JUNIPER SPRINGS

NATIONAL FORESTS IN FLORIDA, OCALA
-81.71097440
USDA FOREST SERVICE
LAKE GEORGE RANGER DISTRICT,
17147 E HWY 40
770-209-2708

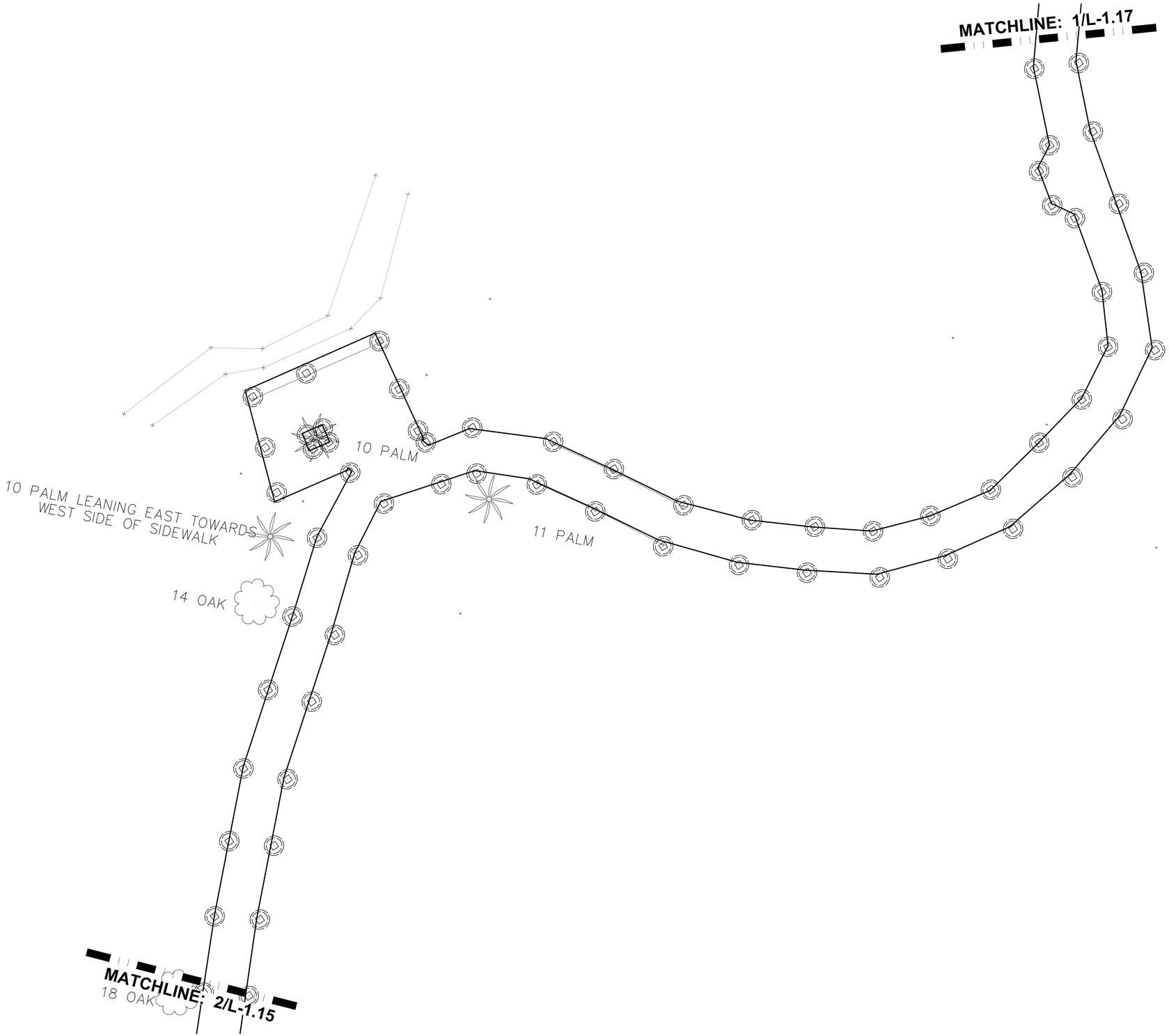
scale: 1" = 5'-0"
0 2.5 5 7.5 12.5

DRAWING TITLE
SURVEY - JUNIPER

scale: 1" = 5'-0"
0 2.5 5 7.5 12.5

DATE 09/20/2024	ARCHIVE NUMBER
DESIGNER	DRAWING SHEET NO. L-1.15
DRAWN KK	
CHECKED DL / AW	
PROJECT NO. 23009	

CONSTRUCTION DOCUMENTS



1 **SEGMENT 13**

United States Department of Agriculture
Forest Service

STAMPS, LOGOS, AND SEALS

TSW
PLANNING • ARCHITECTURE
LANDSCAPE ARCHITECTURE
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FLORIDA
LICENSED
LANDSCAPE ARCHITECT
Lic. No. LA 0667272
09/20/2024
KRISTEN FEIGH KOELLNEMANN

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3		
2		
1		

PROJECT NAME
OCALA SPRINGS BOARDWALKS - JUNIPER SPRINGS

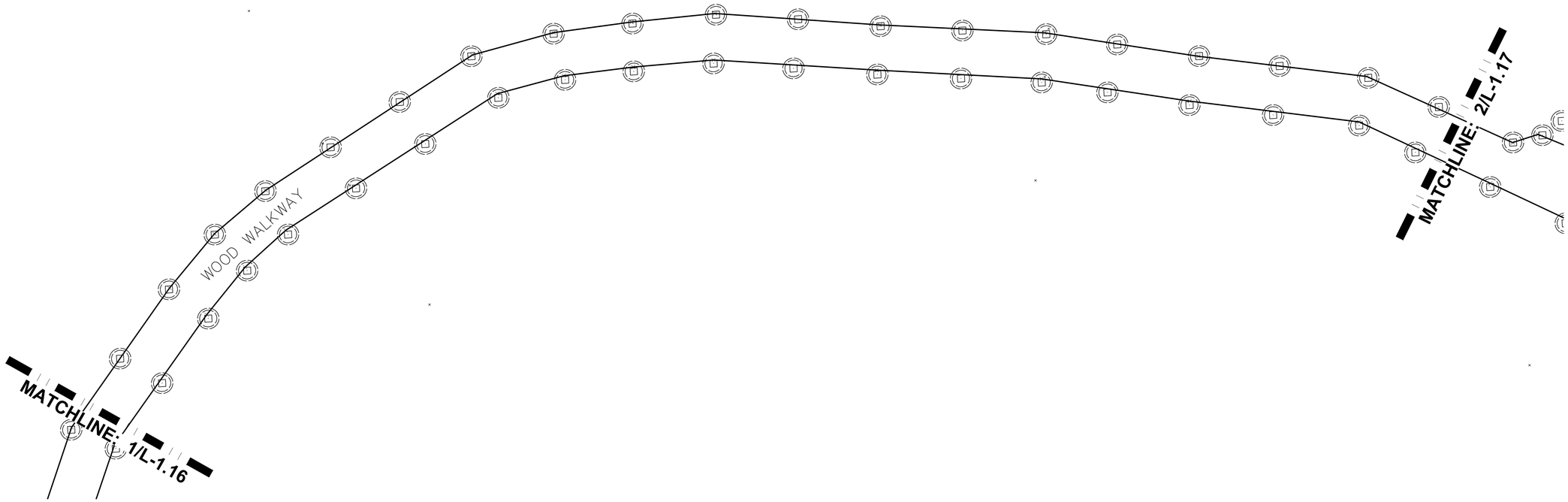
NATIONAL FORESTS IN FLORIDA, OCALA
-81.71097440
USDA FOREST SERVICE
LAKE GEORGE RANGER DISTRICT,
17147 E HWY 40
770-209-2708

scale: 1" = 5'-0"
0 2.5 5 7.5 12.5

DRAWING TITLE
SURVEY - JUNIPER

DATE 09/20/2024	ARCHIVE NUMBER
DESIGNER	DRAWING SHEET NO. L-1.16
DRAWN KK	
CHECKED DL / AW	
PROJECT NO. 23009	

CONSTRUCTION DOCUMENTS



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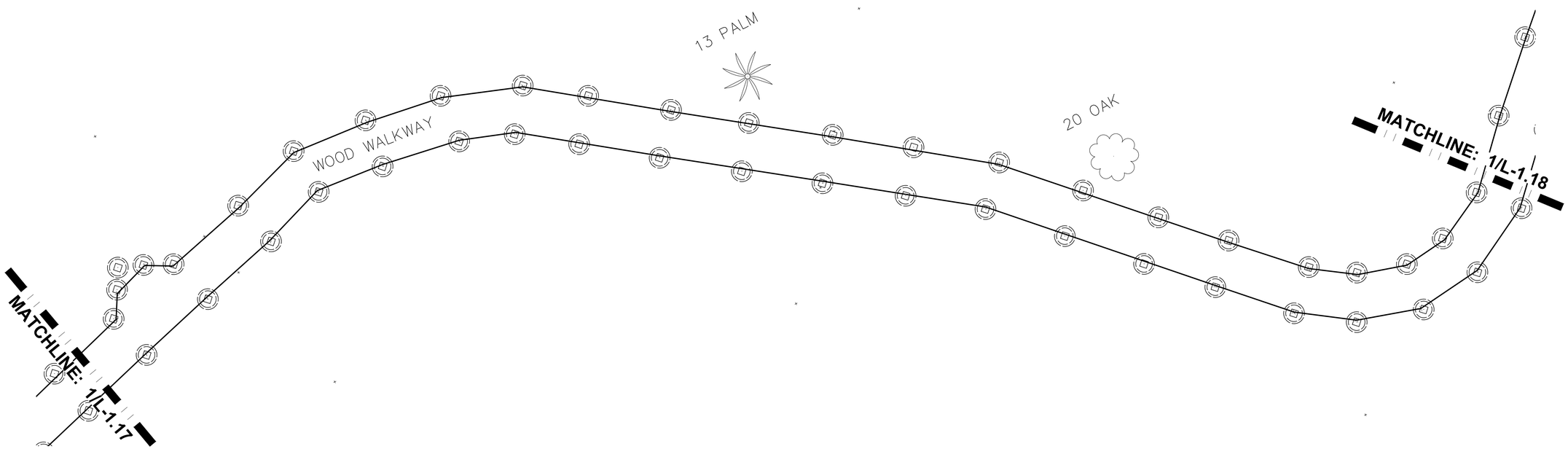

2 SEGMENT 15

United States Department of Agriculture
Forest Service

STAMPS, LOGOS, AND SEALS

TSW
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LANDSCAPE ARCHITECTURE
Atlanta, GA | Tulsa, OK | Chattanooga, TN

FLORIDA
LICENSED
LANDSCAPE ARCHITECT
Lic. No. LA 0667292
09/20/2024
KRISTEN EIGH KOELNEMANN

NO.	REVISION/ISSUE	DATE
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2		
1		

PROJECT NAME
OCALA SPRINGS BOARDWALKS - JUNIPER SPRINGS

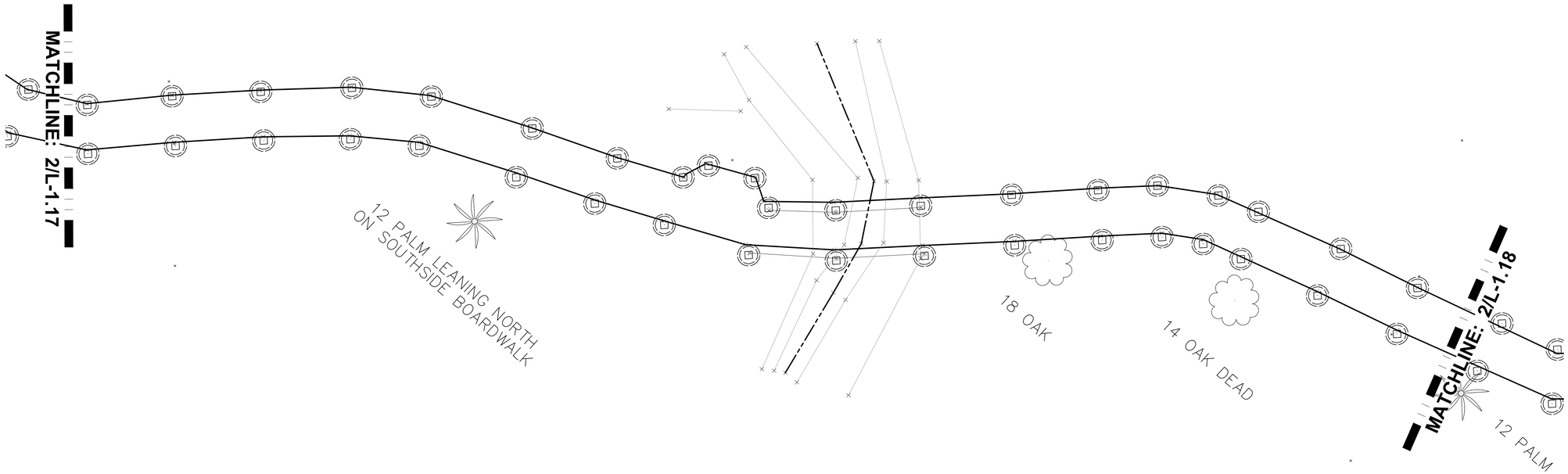
NATIONAL FORESTS IN FLORIDA, OCALA
-81.71097440
USDA FOREST SERVICE
LAKE GEORGE RANGER DISTRICT,
17147 E HWY 40
770-209-2708

scale: 1" = 5'-0"
0 2.5 5 7.5 12.5

DRAWING TITLE
SURVEY - JUNIPER

DATE 09/20/2024	ARCHIVE NUMBER
DESIGNER	DRAWING SHEET NO. L-1.17
DRAWN KK	
CHECKED DL / AW	
PROJECT NO. 23009	

CONSTRUCTION DOCUMENTS



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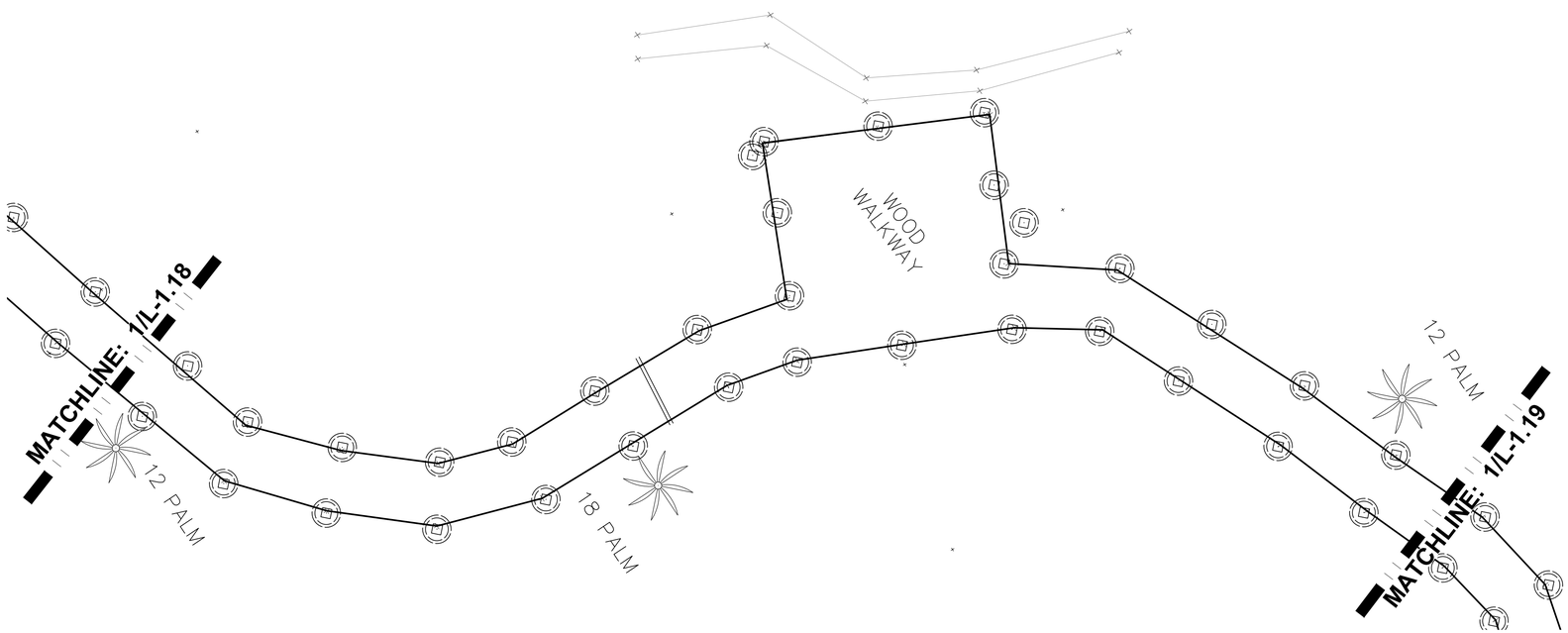


2 SEGMENT 17

USDA
United States Department of Agriculture
Forest Service

STAMPS, LOGOS, AND SEALS

TSW
PLANNING • ARCHITECTURE
LANDSCAPE ARCHITECTURE
Atlanta, GA | Tulsa, OK | Chattanooga, TN

FLORIDA LICENSED LANDSCAPE ARCHITECT
No. LA 0667272
09/20/2024
KRISTEN EIGH KOELLNEMANN

NO.	REVISION/ISSUE	DATE
4		
3		
2		
1		

PROJECT NAME
OCALA SPRINGS BOARDWALKS - JUNIPER SPRINGS

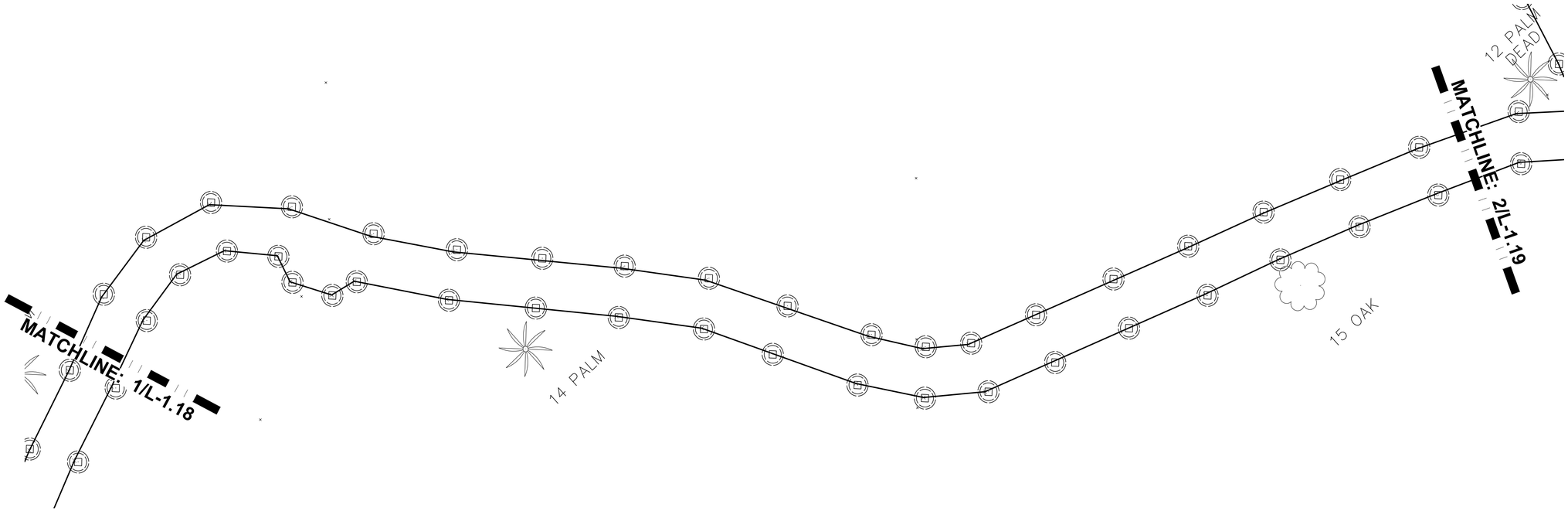
NATIONAL FORESTS IN FLORIDA, OCALA
-81.71097440
USDA FOREST SERVICE
LAKE GEORGE RANGER DISTRICT,
17147 E HWY 40
770-209-2708

scale: 1" = 5'-0"
0 2.5 5 7.5 12.5

DRAWING TITLE
SURVEY - JUNIPER

DATE 09/20/2024	ARCHIVE NUMBER
DESIGNER	DRAWING SHEET NO. L-1.18
DRAWN KK	
CHECKED DL / AW	
PROJECT NO. 23009	

CONSTRUCTION DOCUMENTS



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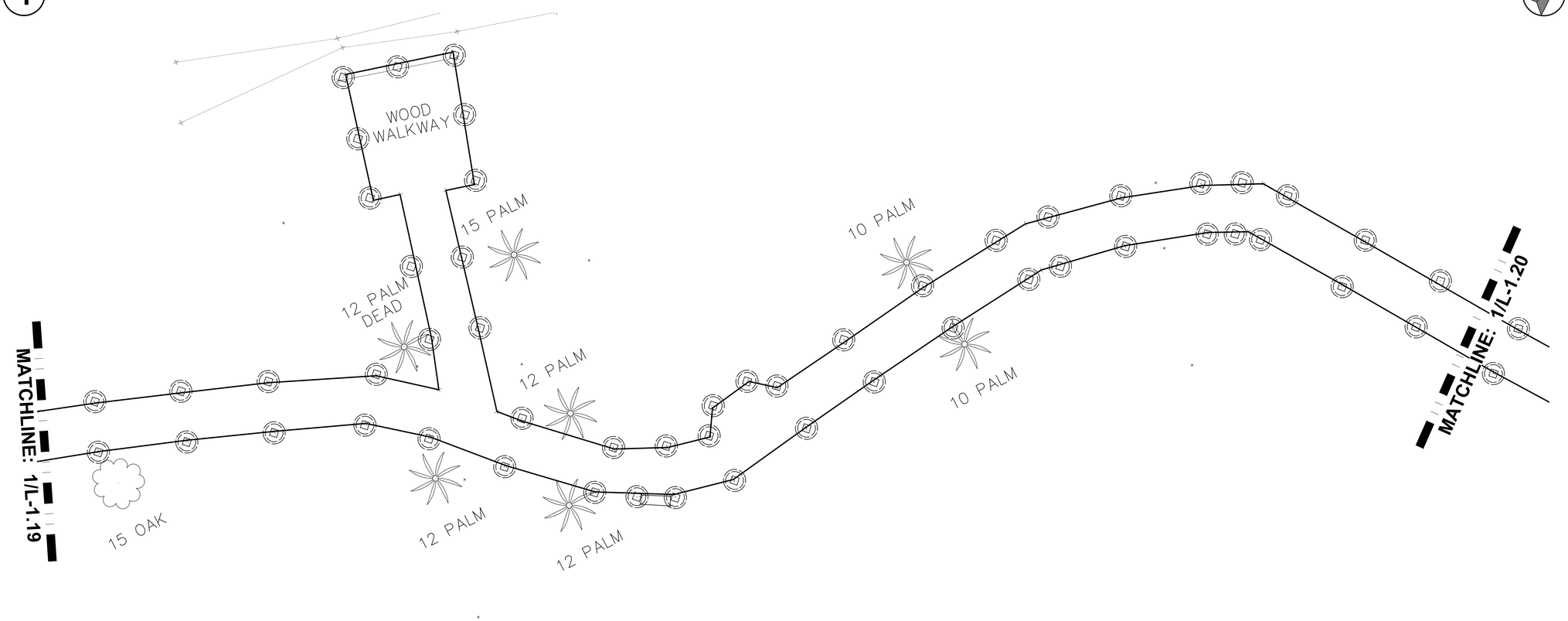

2 SEGMENT 19

USDA
United States Department of Agriculture
Forest Service

STAMPS, LOGOS, AND SEALS

TSW
PLANNING • ARCHITECTURE
LANDSCAPE ARCHITECTURE
Atlanta, GA | Tulsa, OK | Charlottesville, VA

FLORIDA
LICENSED
LANDSCAPE ARCHITECT
No. LA 0667372
09/20/2024
KRISTEN EIGH KOELLNEMANN

NO.	REVISION/ISSUE	DATE
4		
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PROJECT NAME
OCALA SPRINGS BOARDWALKS - JUNIPER SPRINGS

NATIONAL FORESTS IN FLORIDA, OCALA
-81.71097440
USDA FOREST SERVICE
LAKE GEORGE RANGER DISTRICT,
17147 E HWY 40
770-209-2708

scale: 1" = 5'-0"
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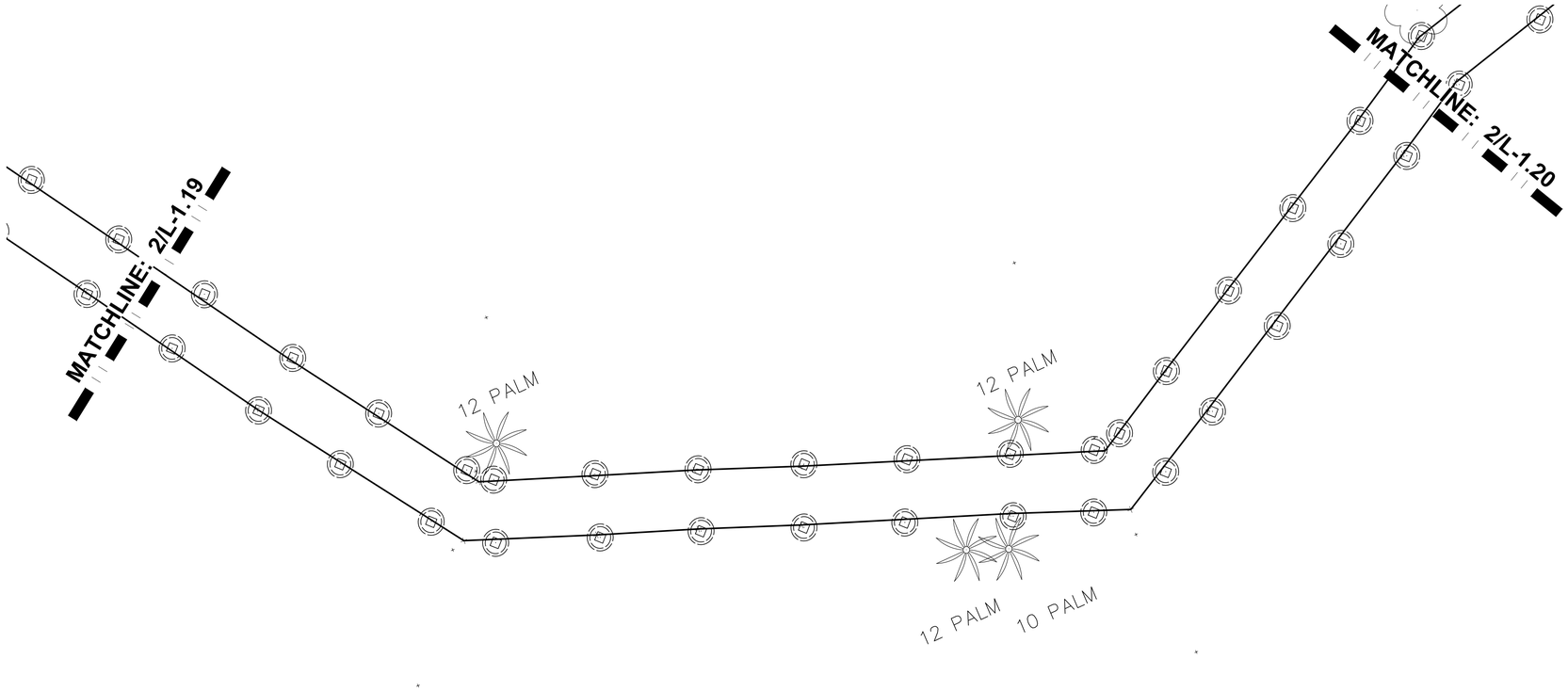
DRAWING TITLE
SURVEY - JUNIPER

DATE 09/20/2024	ARCHIVE NUMBER
DESIGNER	DRAWING SHEET NO. L-1.19
DRAWN KK	
CHECKED DL / AW	
PROJECT NO. 23009	

CONSTRUCTION DOCUMENTS



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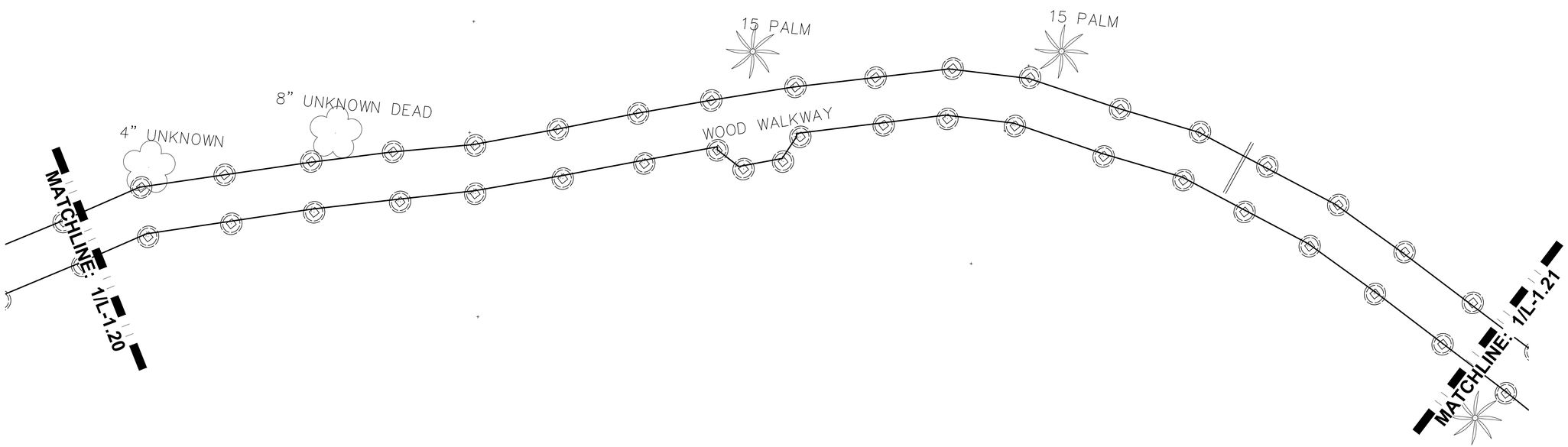

2 SEGMENT 21

USDA
United States Department of Agriculture
Forest Service

STAMPS, LOGOS, AND SEALS

TSW
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LANDSCAPE ARCHITECTURE
Atlanta, GA | Tulsa, OK | Chattanooga, TN

FLORIDA
LICENSED
LANDSCAPE ARCHITECT
No. LA 0667272
09/20/2024
KRISTEN EIGH KOELNEMANN

NO.	REVISION/ISSUE	DATE
4		
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PROJECT NAME
OCALA SPRINGS BOARDWALKS - JUNIPER SPRINGS

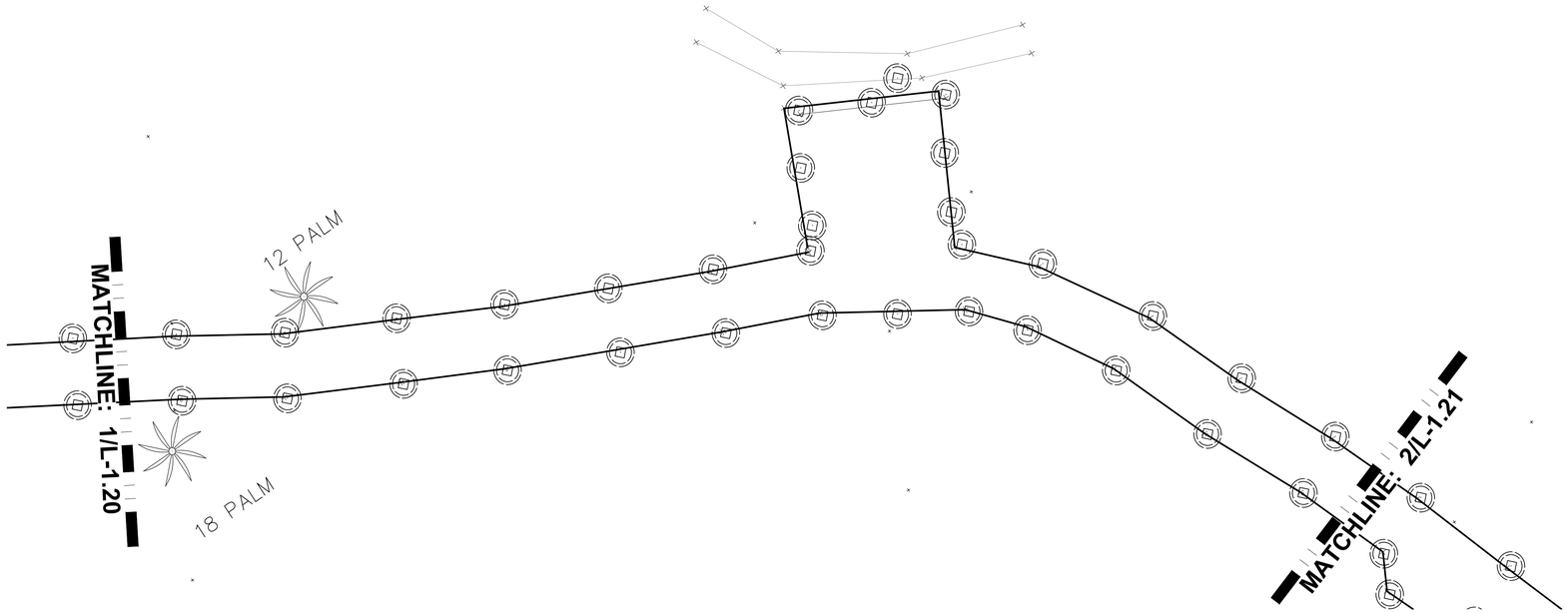
NATIONAL FORESTS IN FLORIDA, OCALA
-81.71097440
USDA FOREST SERVICE
LAKE GEORGE RANGER DISTRICT,
17147 E HWY 40
770-209-2708

scale: 1" = 5'-0"
0 2.5 5 7.5 12.5

DRAWING TITLE
SURVEY - JUNIPER

DATE 09/20/2024	ARCHIVE NUMBER
DESIGNER	DRAWING SHEET NO. L-1.20
DRAWN KK	
CHECKED DL / AW	
PROJECT NO. 23009	

CONSTRUCTION DOCUMENTS



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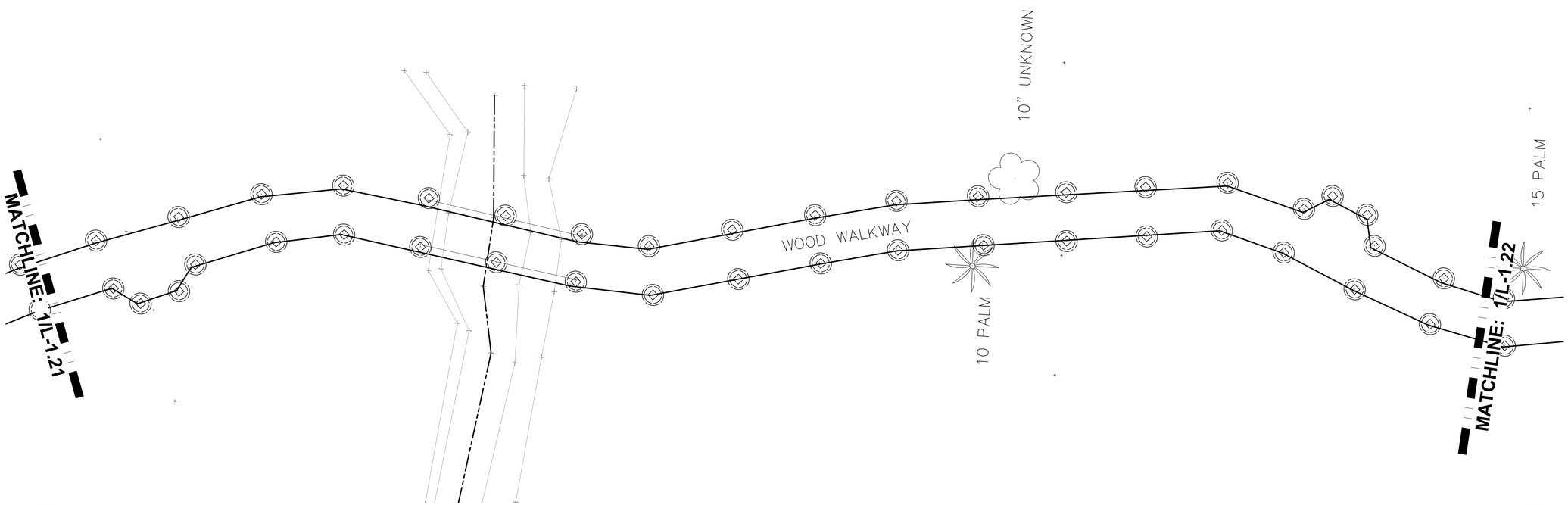

2 SEGMENT 23

United States Department of Agriculture
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STAMPS, LOGOS, AND SEALS

TSW
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LANDSCAPE ARCHITECTURE
Atlanta, GA | Tulsa, OK | Chattanooga, TN

FLORIDA
LICENSED
LANDSCAPE ARCHITECT
No. LA 0667292
09/20/2024
KRISTEN EIGH KOELNEMANN

NO.	REVISION/ISSUE	DATE
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PROJECT NAME
OCALA SPRINGS BOARDWALKS - JUNIPER SPRINGS

NATIONAL FORESTS IN FLORIDA, OCALA
-81.71097440
USDA FOREST SERVICE
LAKE GEORGE RANGER DISTRICT,
17147 E HWY 40
770-209-2708

scale: 1" = 5'-0"
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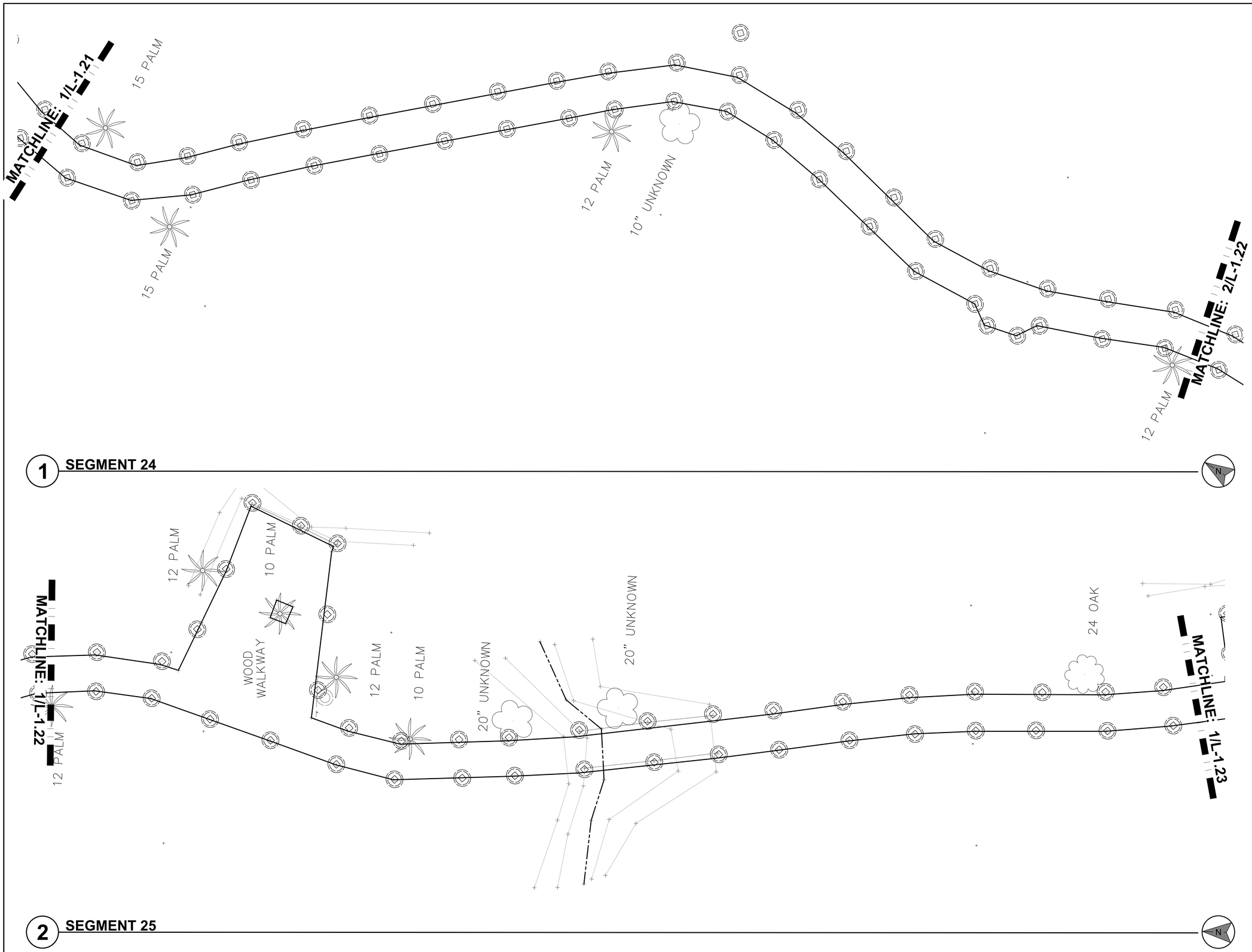
DRAWING TITLE
SURVEY - JUNIPER

DATE 09/20/2024	ARCHIVE NUMBER
DESIGNER	DRAWING SHEET NO. L-1.21
DRAWN KK	
CHECKED DL / AW	
PROJECT NO. 23009	

CONSTRUCTION DOCUMENTS



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STAMPS, LOGOS, AND SEALS

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LANDSCAPE ARCHITECTURE
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FLORIDA
LICENSED
LANDSCAPE ARCHITECT
No. LA 0667272
09/20/2024
KRISTEN FEIGH KOELNEMANN

NO.	REVISION/ISSUE	DATE
4		
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PROJECT NAME
OCALA SPRINGS BOARDWALKS - JUNIPER SPRINGS

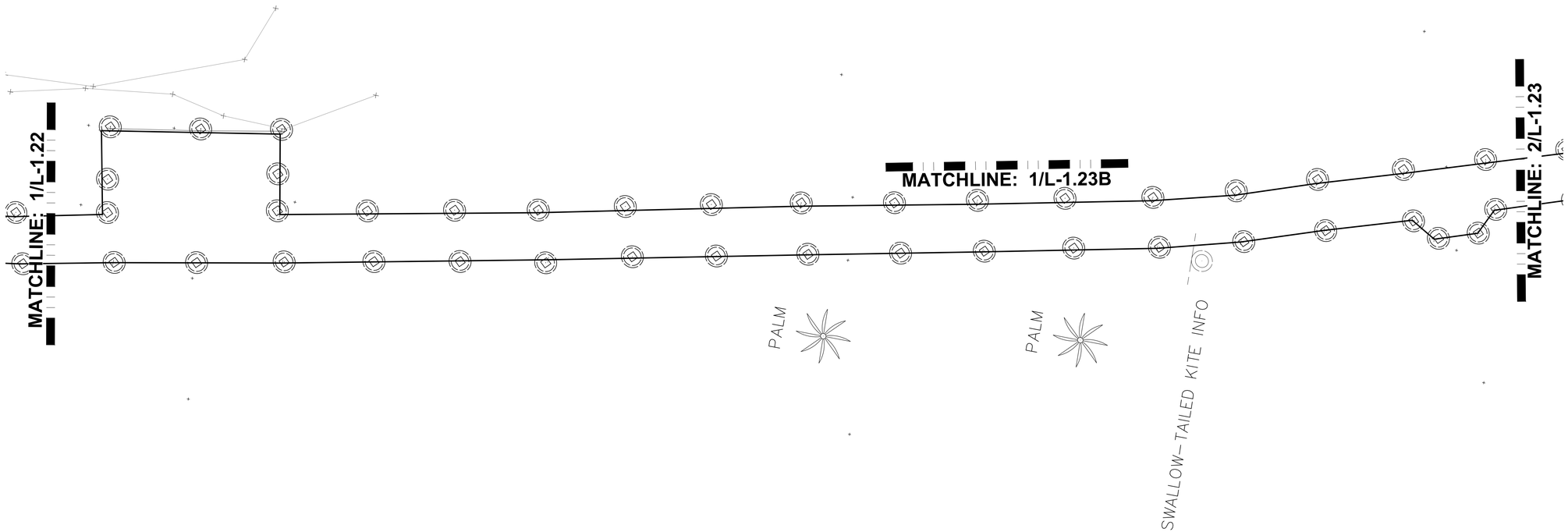
NATIONAL FORESTS IN FLORIDA, OCALA
-81.71097440
USDA FOREST SERVICE
LAKE GEORGE RANGER DISTRICT,
17147 E HWY 40
770-209-2708

scale: 1" = 5'-0"
0 2.5 5 7.5 12.5

DRAWING TITLE
SURVEY - JUNIPER

DATE 09/20/2024	ARCHIVE NUMBER
DESIGNER	DRAWING SHEET NO. L-1.22
DRAWN KK	
CHECKED DL / AW	
PROJECT NO. 23009	

CONSTRUCTION DOCUMENTS



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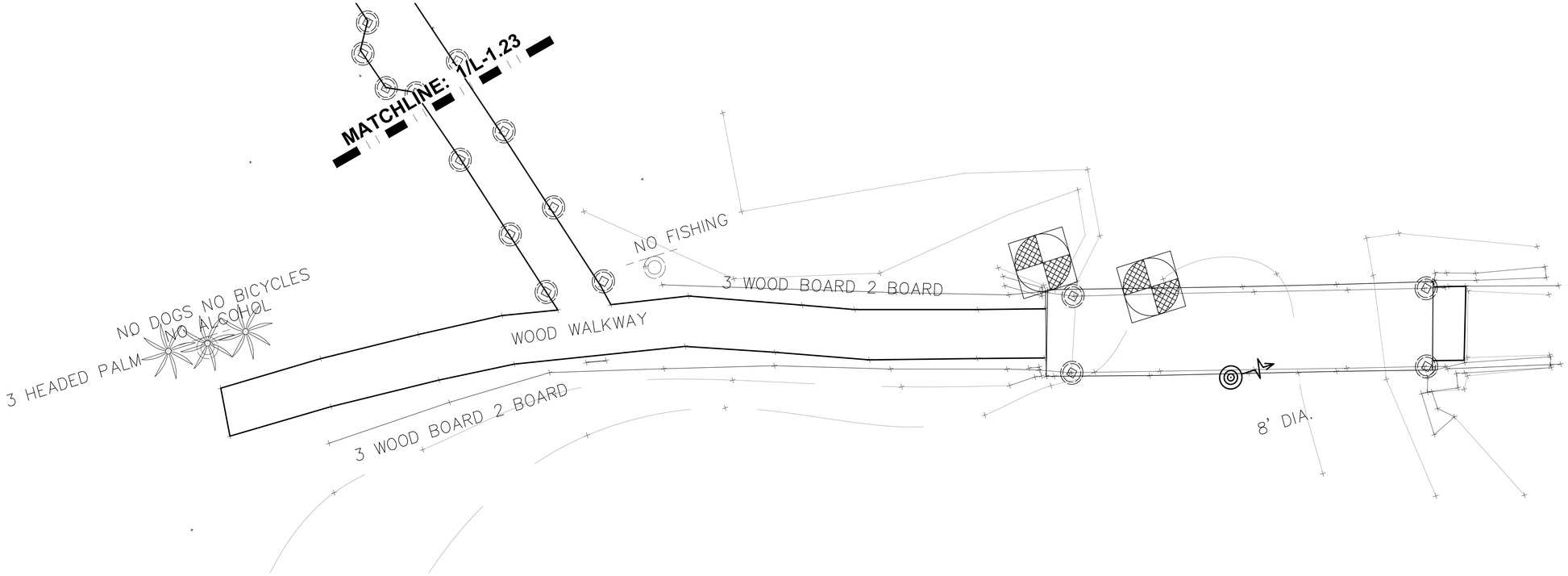

2 SEGMENT 27

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United States Department of Agriculture
Forest Service

STAMPS, LOGOS, AND SEALS

TSW
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LANDSCAPE ARCHITECTURE
Atlanta, GA | Tulsa, OK | Chattanooga, TN

FLORIDA
LICENSED
LANDSCAPE ARCHITECT
No. LA 0667272
09/20/2024
KRISTEN EIGH KOELLNEMANN

NO.	REVISION/ISSUE	DATE
4		
3		
2		
1		

PROJECT NAME
OCALA SPRINGS BOARDWALKS - JUNIPER SPRINGS

NATIONAL FORESTS IN FLORIDA, OCALA
-81.71097440
USDA FOREST SERVICE
LAKE GEORGE RANGER DISTRICT,
17147 E HWY 40
770-209-2708

scale: 1" = 5'-0"
0 2.5 5 7.5 12.5

DRAWING TITLE
SURVEY - JUNIPER

DATE 09/20/2024	ARCHIVE NUMBER
DESIGNER	DRAWING SHEET NO. L-1.23
DRAWN KK	
CHECKED DL / AW	
PROJECT NO. 23009	

CONSTRUCTION DOCUMENTS

1 **SEGMENT 28**

USDA
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Forest Service

STAMPS, LOGOS, AND SEALS

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LANDSCAPE ARCHITECTURE
Atlanta, GA | Tulsa, OK | Chattanooga, TN

FLORIDA
LICENSED
LANDSCAPE ARCHITECT
No. LA 0667272
09/20/2024
KRISTEN EIGH KOELNEMANN

NO.	REVISION/ISSUE	DATE
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PROJECT NAME
OCALA SPRINGS BOARDWALKS - JUNIPER SPRINGS

NATIONAL FORESTS IN FLORIDA, OCALA
-81.71097440
USDA FOREST SERVICE
LAKE GEORGE RANGER DISTRICT,
17147 E HWY 40
770-209-2708

scale: 1" = 5'-0"
0 2.5 5 7.5 12.5

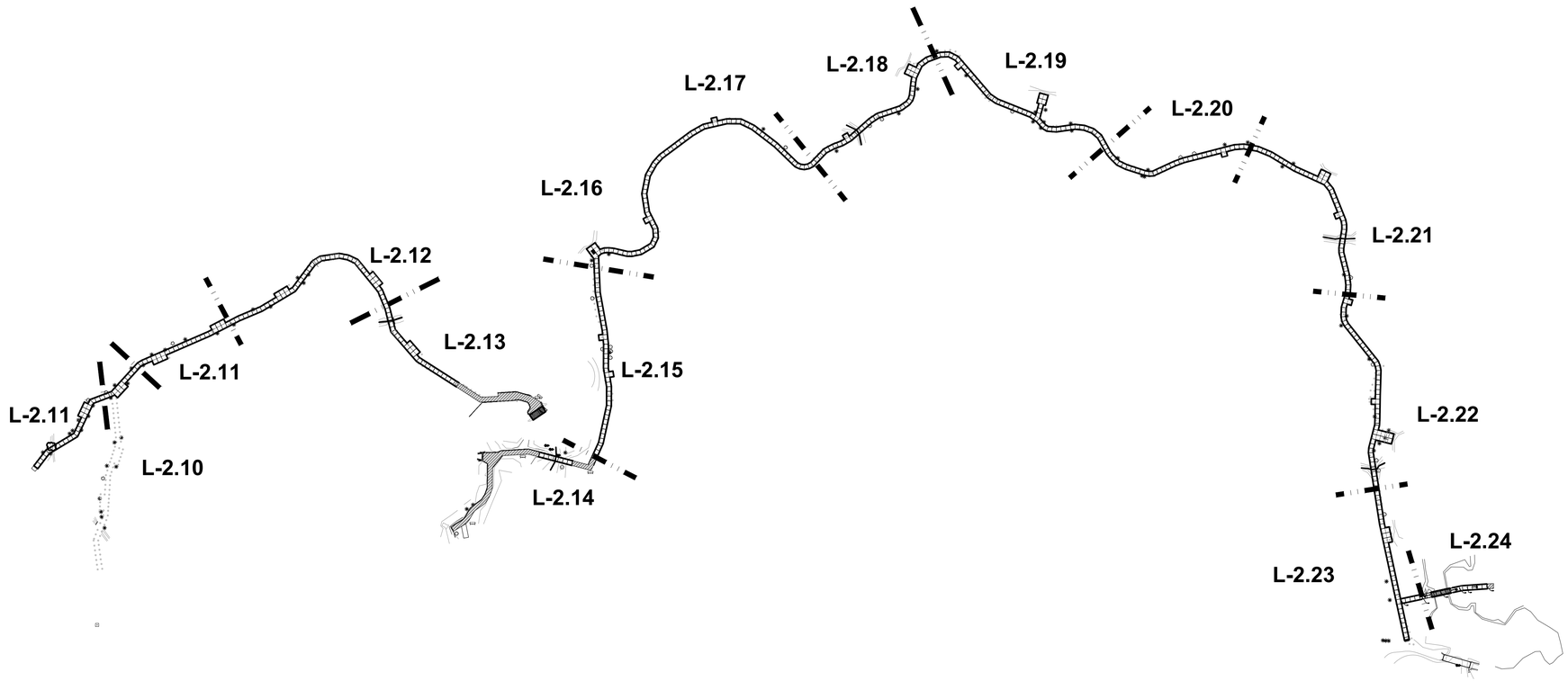
DRAWING TITLE
SURVEY - JUNIPER

DATE 09/20/2024	ARCHIVE NUMBER
DESIGNER	DRAWING SHEET NO. L-1.24
DRAWN KK	
CHECKED DL / AW	
PROJECT NO. 23009	

CONSTRUCTION DOCUMENTS

GENERAL NOTES:

1. PIN FOUNDATION SYSTEMS ARE SPECIFIED TO SUPPORT PROJECTS WHERE THERE IS SEASONAL/ TIDAL WATER. PIN FOUNDATIONS ARE NOT RECOMMENDED TO BE INSTALLED DURING INSTANCES OF STANDING WATER, AND SHALL BE INSTALLED DURING DRY/ LOW WATER PERIODS OR WITH SHORING.
2. CONTRACTOR TO USE FOSSIL SHELL AGGREGATE TO BACK FILL POSTS AS NEEDED FOR NEW PIN FOUNDATIONS. SHAPE SURFACE TO AN ACCEPTABLE GRADE AND FINISH TO MATCH ADJACENT GROUND SURFACES.
3. CONTRACTOR TO PROVIDE 100 SF OF EXTRA CUMARU BOARDS TO BE STORED ON SITE FOR FUTURE USE.
4. CONTRACTOR SHALL SUBMIT A CONSTRUCTION SEQUENCING PLAN TO CONTRACTING OFFICER OR CONTRACTING OFFICER'S REPRESENTATIVE FOR APPROVAL.



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STAMPS, LOGOS, AND SEALS

TSW
PLANNING • ARCHITECTURE
LANDSCAPE ARCHITECTURE
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FLORIDA REGISTERED LANDSCAPE ARCHITECT
Lic. No. LA 0667272
09/20/2024
KRISTEN FEIGH KOELNEMANN

NO.	REVISION/ISSUE	DATE
4		
3		
2		
1		

PROJECT NAME

OCALA SPRINGS BOARDWALKS - JUNIPER SPRINGS

NATIONAL FORESTS IN FLORIDA, OCALA
LATITUDE: 29.18263380
LONGITUDE: -81.71097440
USDA FOREST SERVICE
LAKE GEORGE RANGER DISTRICT,
17147 E HWY 40
SILVER SPRINGS, FL 34488-5849
770-209-2708

N

scale: 1" = 80'-0"

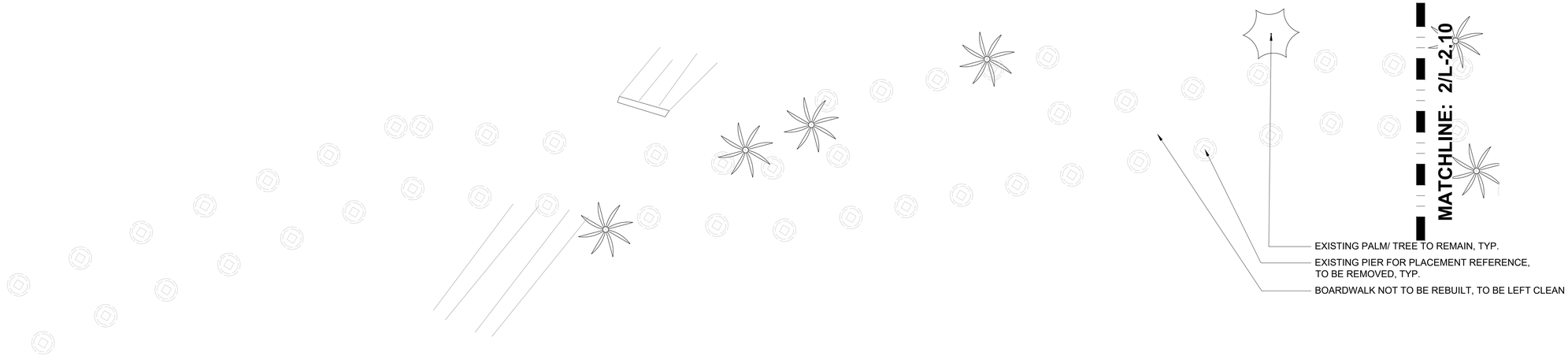
0 40 80 120 200

DRAWING TITLE

SITE PLAN - JUNIPER

DATE 09/20/2024	ARCHIVE NUMBER
DESIGNER	DRAWING SHEET NO. L-2.00
DRAWN KK	
CHECKED DL / AW	
PROJECT NO. 23009	

CONSTRUCTION DOCUMENTS



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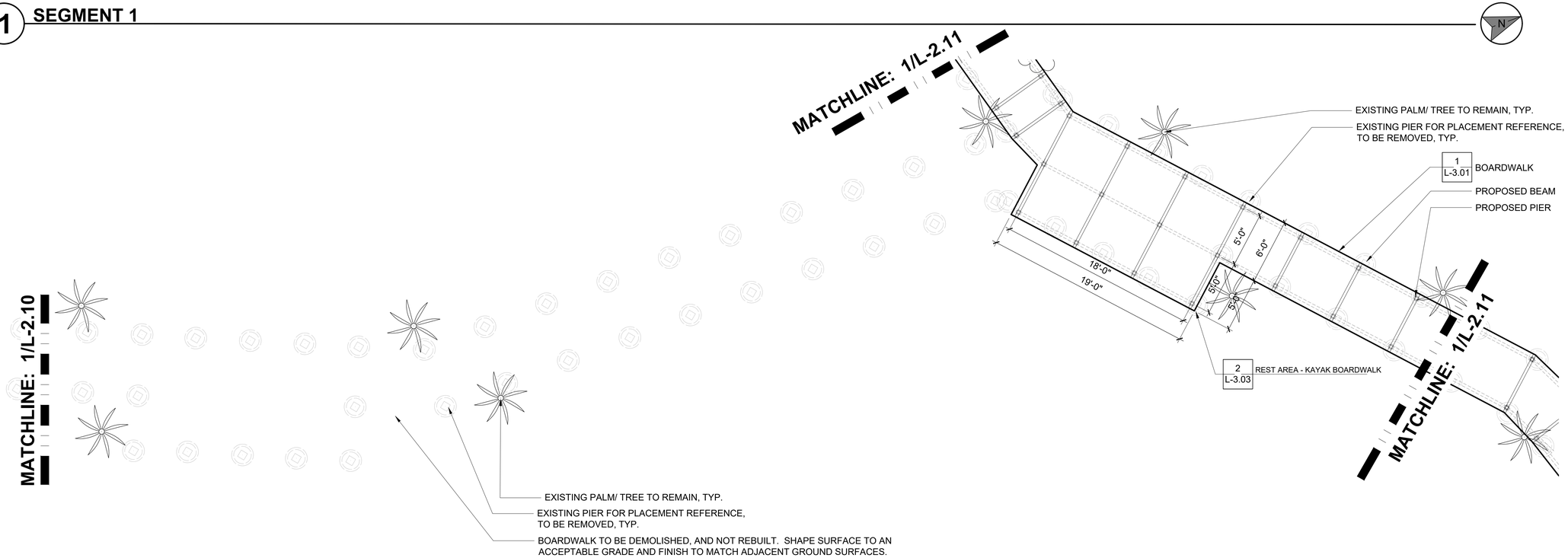

2 SEGMENT 2

United States Department of Agriculture
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STAMPS, LOGOS, AND SEALS

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FLORIDA REGISTERED LANDSCAPE ARCHITECT
Lic. No. LA 0667272
09/20/2024
DUSTIN EIGH KOENEMANN

NO.	REVISION/ISSUE	DATE
4		
3		
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PROJECT NAME
OCALA SPRINGS BOARDWALKS - JUNIPER SPRINGS

NATIONAL FORESTS IN FLORIDA, OCALA
LATITUDE: 29.18263380
LONGITUDE: -81.71097440
USDA FOREST SERVICE
LAKE GEORGE RANGER DISTRICT,
17147 E HWY 40
SILVER SPRINGS, FL 34488-5849
770-209-2708

scale: 1" = 5'-0"
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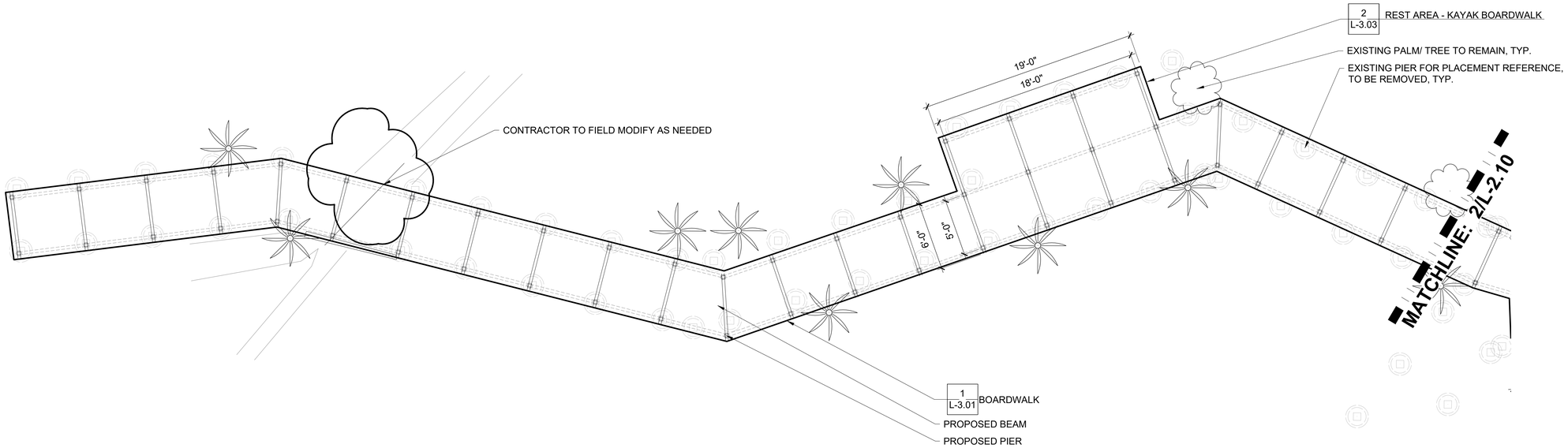
DRAWING TITLE
LAYOUT PLAN - JUNIPER

DATE 09/20/2024	ARCHIVE NUMBER
DESIGNER	DRAWING SHEET NO. L-2.10
DRAWN KK	
CHECKED DL / AW	
PROJECT NO. 23009	

CONSTRUCTION DOCUMENTS



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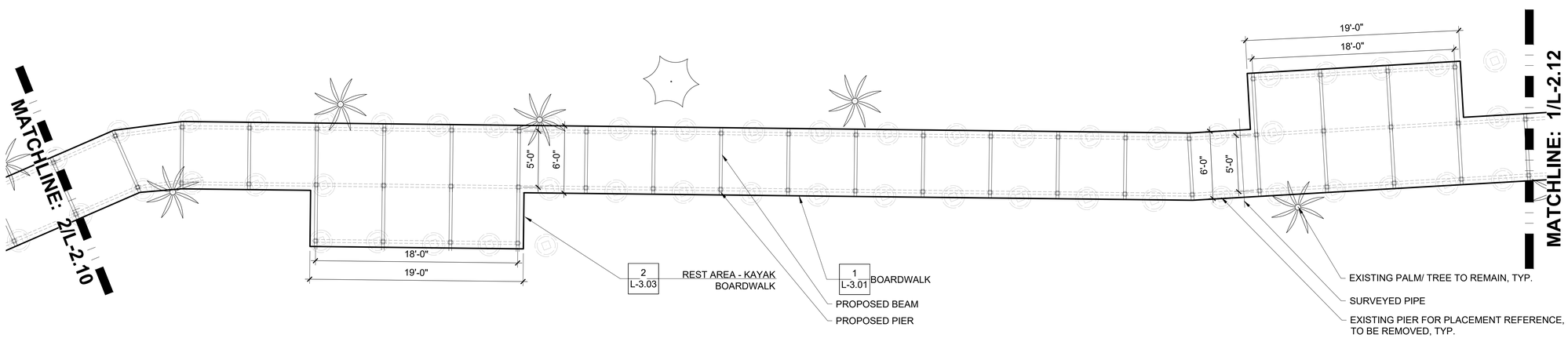

2 SEGMENT 4

United States Department of Agriculture
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STAMPS, LOGOS, AND SEALS

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FLORIDA LICENSED LANDSCAPE ARCHITECT
Lic. No. LA 0667372
09/20/2024
DUSTIN EIGH KOELNEMANN

NO.	REVISION/ISSUE	DATE
4		
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PROJECT NAME
OCALA SPRINGS BOARDWALKS - JUNIPER SPRINGS

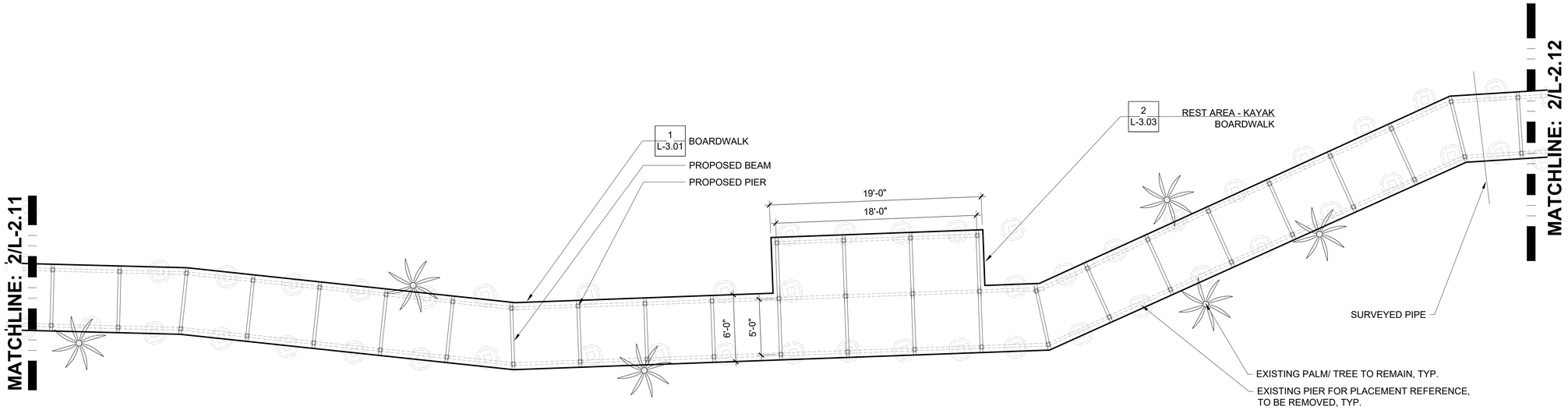
NATIONAL FORESTS IN FLORIDA, OCALA
LATITUDE: 29.18263380
LONGITUDE: -81.71097440
USDA FOREST SERVICE
LAKE GEORGE RANGER DISTRICT,
17147 E HWY 40
SILVER SPRINGS, FL 34488-5849
770-209-2708

scale: 1" = 5'-0"
0 2.5 5 7.5 12.5

DRAWING TITLE
LAYOUT PLAN - JUNIPER

DATE 09/20/2024	ARCHIVE NUMBER
DESIGNER	DRAWING SHEET NO. L-2.11
DRAWN KK	
CHECKED DL / AW	
PROJECT NO. 23009	

CONSTRUCTION DOCUMENTS



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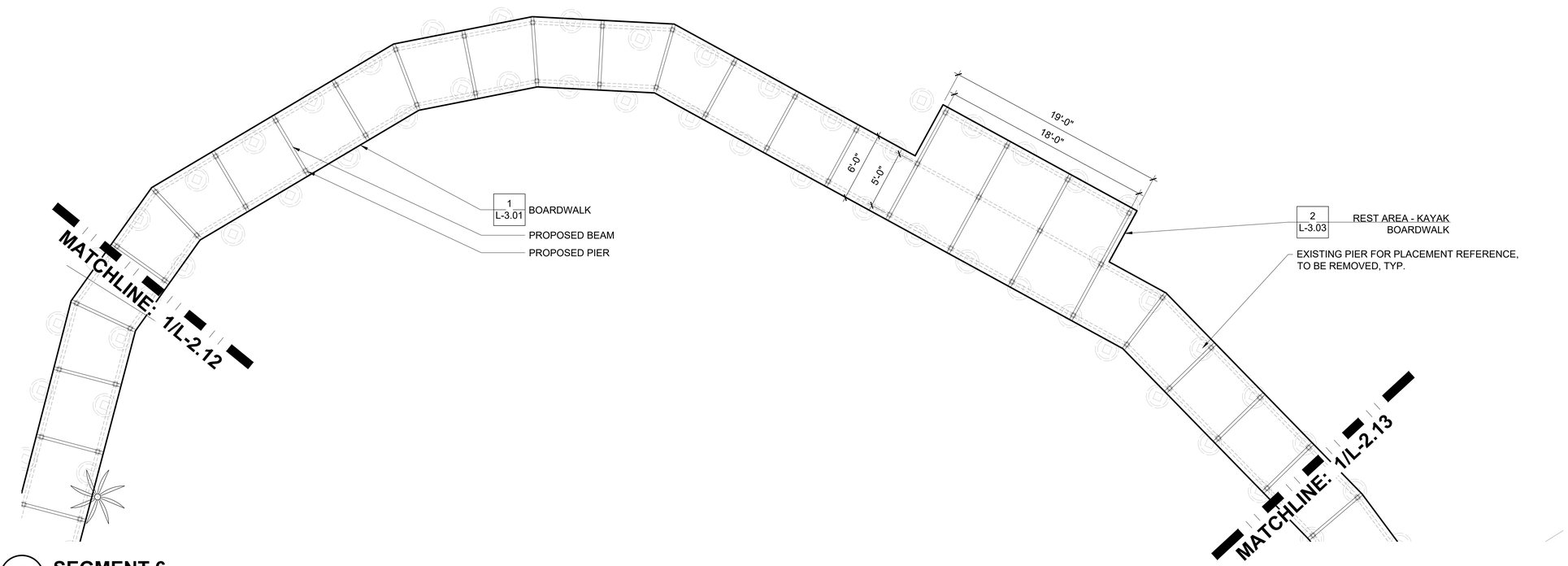

2 SEGMENT 6

USDA
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STAMPS, LOGOS, AND SEALS

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STATE OF FLORIDA
LICENSED
LANDSCAPE ARCHITECT
No. LA 0667372
09/20/2024
KRISTEN EIGH KOELLNEMANN

NO.	REVISION/ISSUE	DATE
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PROJECT NAME
OCALA SPRINGS BOARDWALKS - JUNIPER SPRINGS

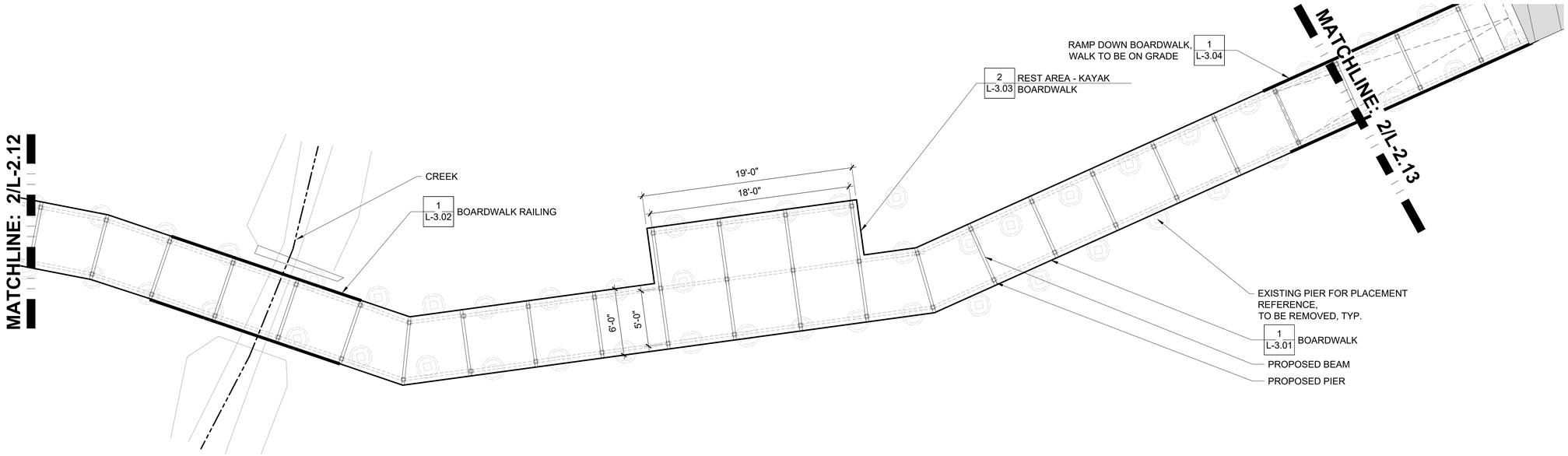
NATIONAL FORESTS IN FLORIDA, OCALA
LATITUDE: 29.18263380
LONGITUDE: -81.71097440
USDA FOREST SERVICE
LAKE GEORGE RANGER DISTRICT,
17147 E HWY 40
SILVER SPRINGS, FL 34488-5849
770-209-2708

scale: 1" = 5'-0"
0 2.5 5 7.5 12.5

DRAWING TITLE
LAYOUT PLAN - JUNIPER

DATE 09/20/2024	ARCHIVE NUMBER
DESIGNER	DRAWING SHEET NO. L-2.12
DRAWN KK	
CHECKED DL / AW	
PROJECT NO. 23009	

CONSTRUCTION DOCUMENTS



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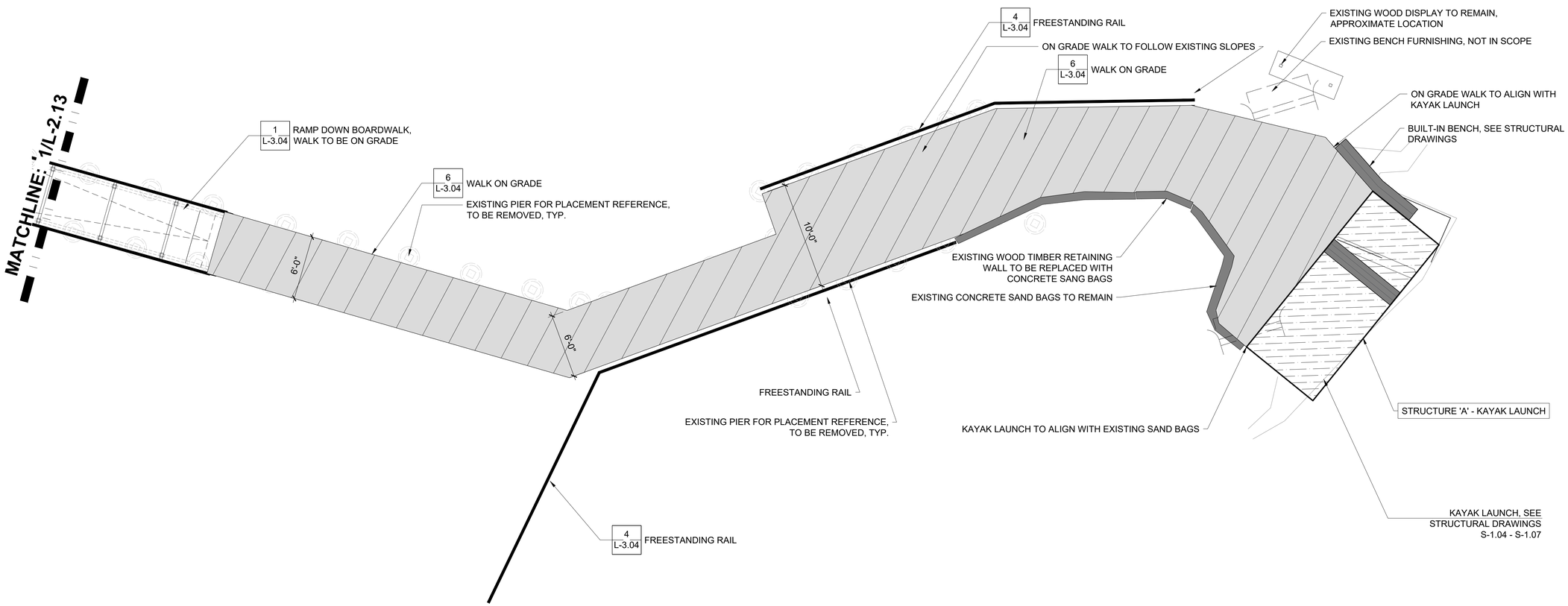

2 SEGMENT 8

CONSTRUCTION DOCUMENTS

USDA FOREST SERVICE
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STAMPS, LOGOS, AND SEALS

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FLORIDA REGISTERED LANDSCAPE ARCHITECT
Lic. No. LA 0667272
09/20/2024
KRISTEN EIGH KOELLNEMANN

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PROJECT NAME

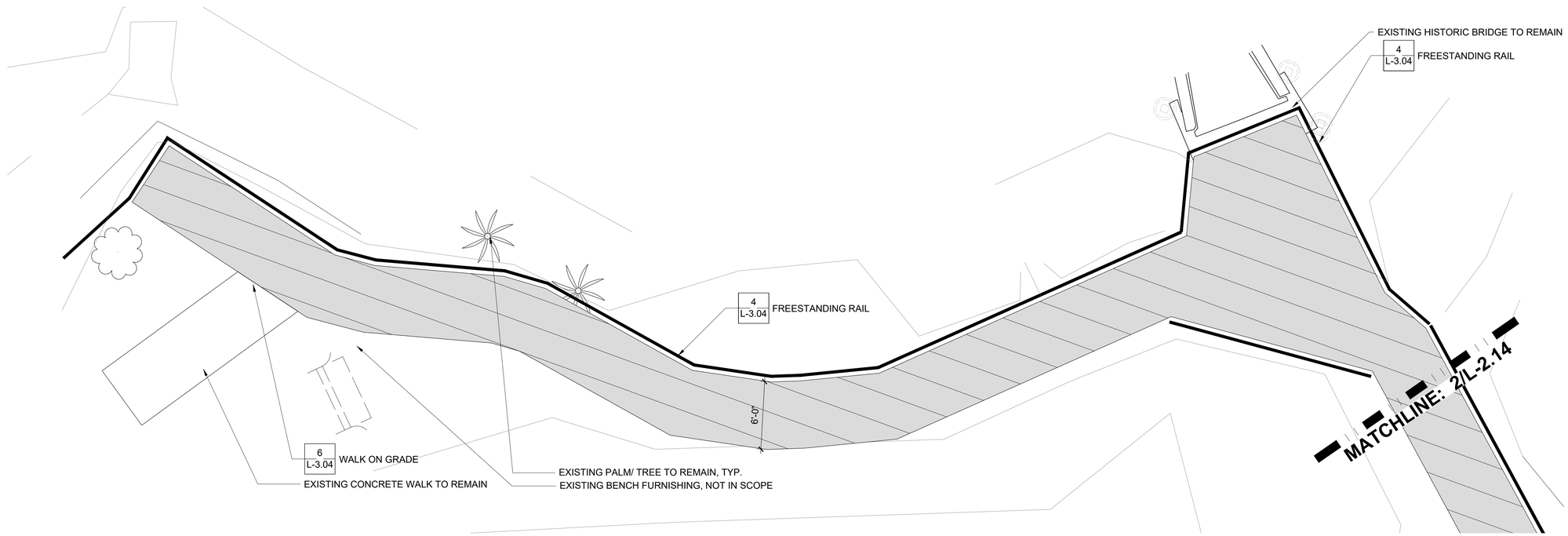
OCALA SPRINGS BOARDWALKS - JUNIPER SPRINGS

NATIONAL FORESTS IN FLORIDA, OCALA
LATITUDE: 29.18263380
LONGITUDE: -81.71097440
USDA FOREST SERVICE
LAKE GEORGE RANGER DISTRICT, 17147 E HWY 40
SILVER SPRINGS, FL 34488-5849
770-209-2708

DRAWING TITLE
LAYOUT PLAN - JUNIPER

scale: 1" = 5'-0"
0 2.5 5 7.5 12.5

DATE 09/20/2024	ARCHIVE NUMBER
DESIGNER	DRAWING SHEET NO. L-2.13
DRAWN KK	
CHECKED DL / AW	
PROJECT NO. 23009	



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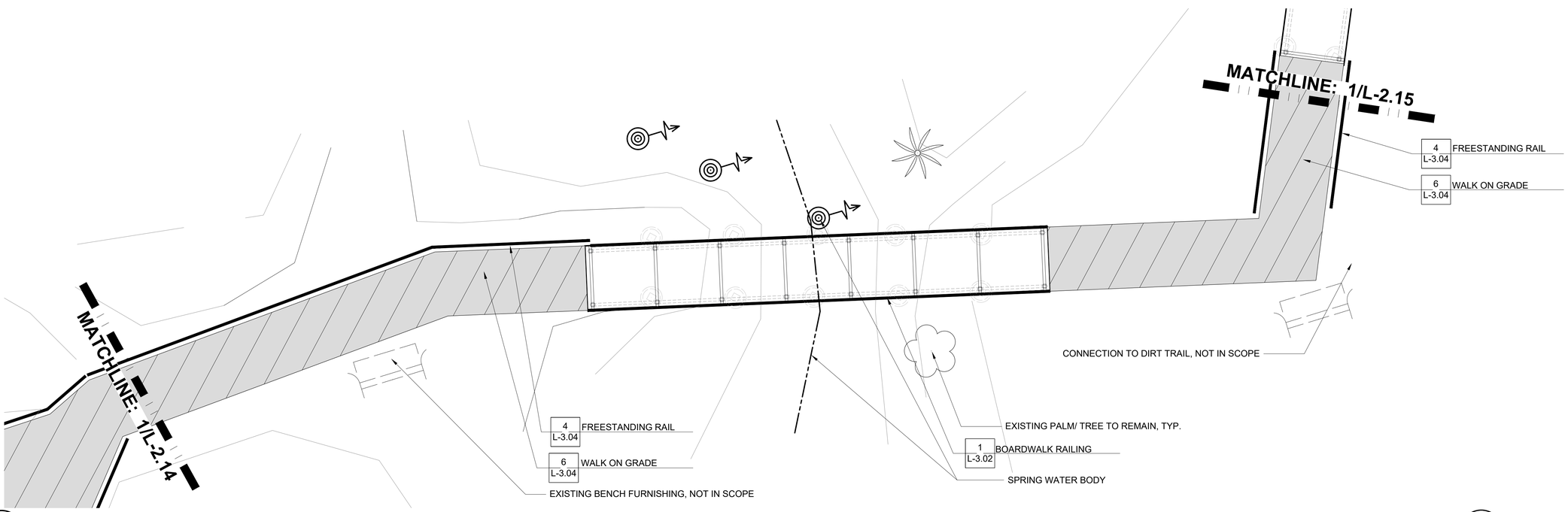

2 SEGMENT 10

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FLORIDA REGISTERED LANDSCAPE ARCHITECT
Lic. No. LA 0667272
09/20/2024
KRISTEN FEIGH KOELLNEMANN

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PROJECT NAME
OCALA SPRINGS BOARDWALKS - JUNIPER SPRINGS

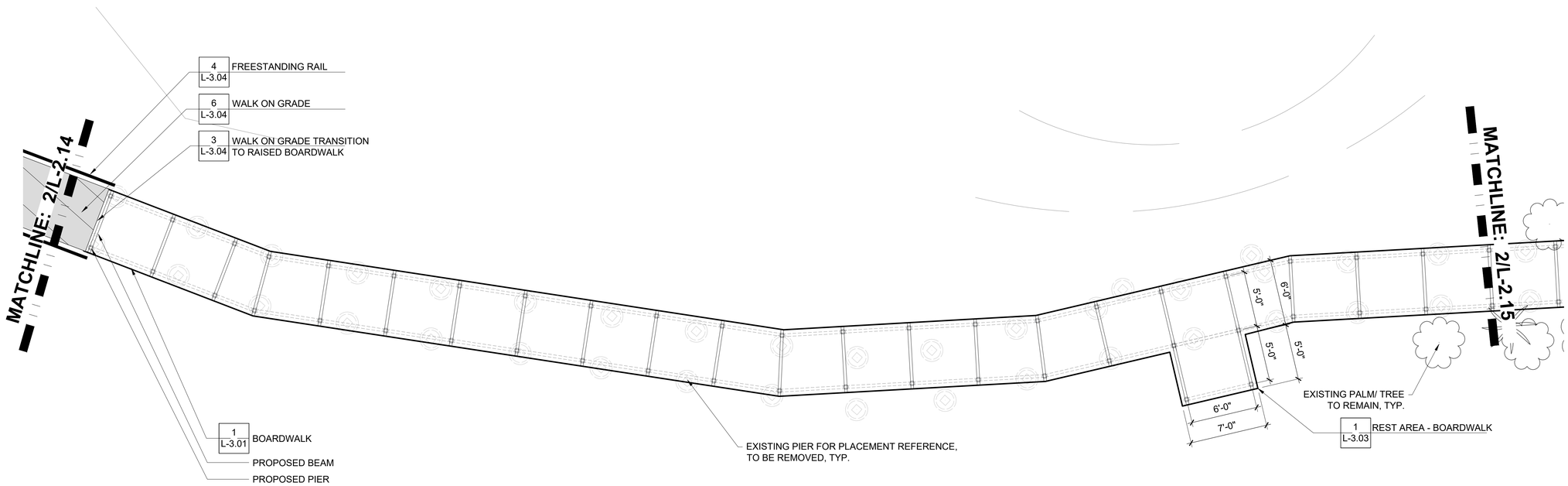
NATIONAL FORESTS IN FLORIDA, OCALA
LATITUDE: 29.18263380
LONGITUDE: -81.71097440
USDA FOREST SERVICE
LAKE GEORGE RANGER DISTRICT, 17147 E HWY 40
SILVER SPRINGS, FL 34488-5849
770-209-2708

scale: 1" = 5'-0"
0 2.5 5 7.5 12.5

DRAWING TITLE
LAYOUT PLAN - JUNIPER

DATE 09/20/2024	ARCHIVE NUMBER
DESIGNER	DRAWING SHEET NO. L-2.14
DRAWN KK	
CHECKED DL / AW	
PROJECT NO. 23009	

CONSTRUCTION DOCUMENTS



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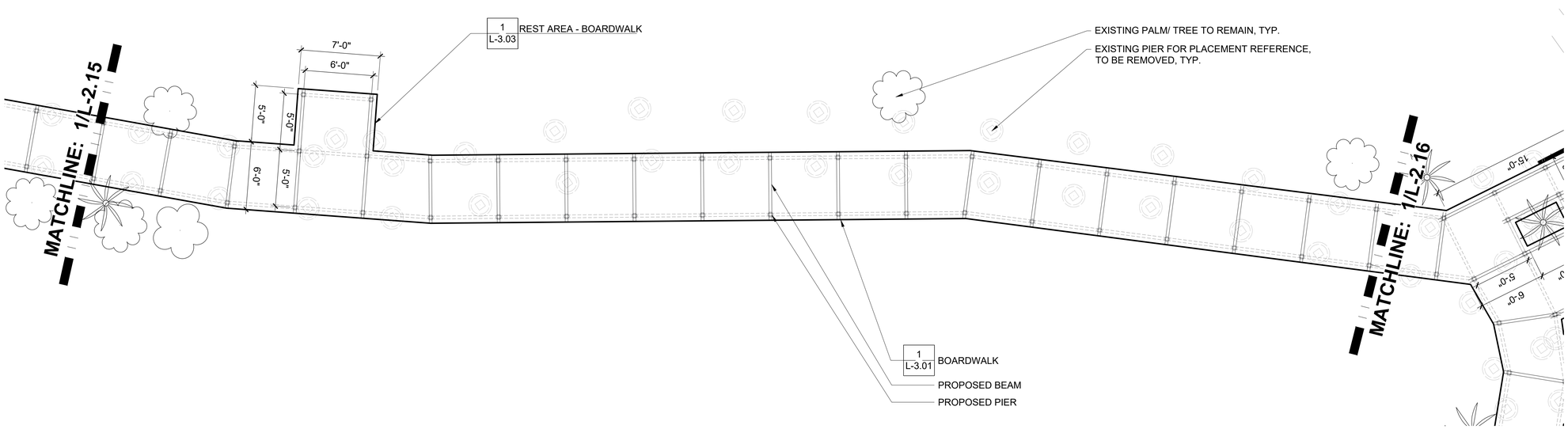

2 SEGMENT 12

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FLORIDA LICENSED LANDSCAPE ARCHITECT
Lic. No. LA 0667272
09/20/2024
KRISTEN FEIGH KOELLNEMANN

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PROJECT NAME
OCALA SPRINGS BOARDWALKS - JUNIPER SPRINGS

NATIONAL FORESTS IN FLORIDA, OCALA
LATITUDE: 29.18263380
LONGITUDE: -81.71097440
USDA FOREST SERVICE
LAKE GEORGE RANGER DISTRICT,
17147 E HWY 40
SILVER SPRINGS, FL 34488-5849
770-209-2708

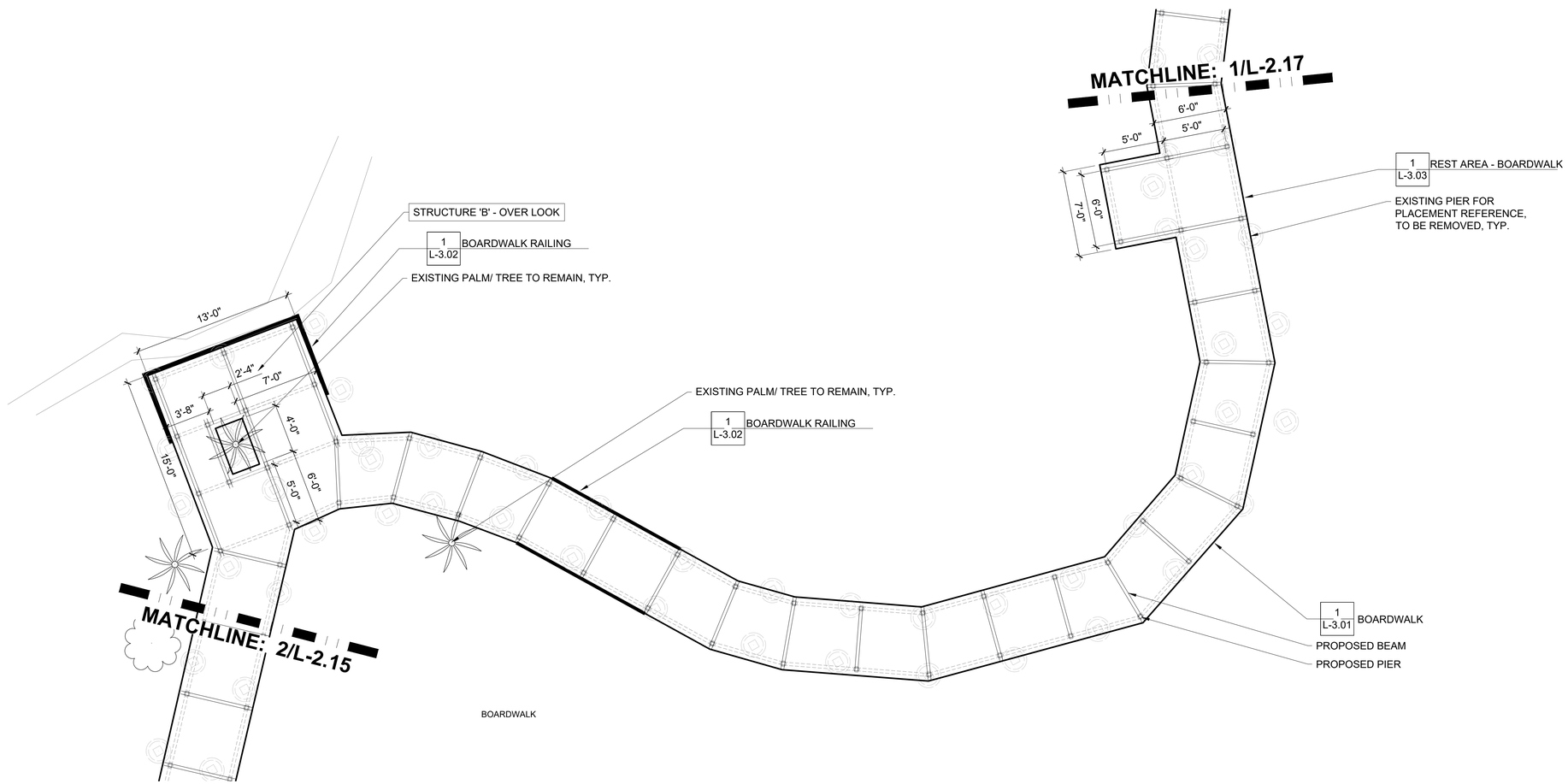
scale: 1" = 5'-0"
0 2.5 5 7.5 12.5

DRAWING TITLE
LAYOUT PLAN - JUNIPER

scale: 1" = 5'-0"
0 2.5 5 7.5 12.5

DATE 09/20/2024	ARCHIVE NUMBER
DESIGNER	DRAWING SHEET NO. L-2.15
DRAWN KK	
CHECKED DL / AW	
PROJECT NO. 23009	

CONSTRUCTION DOCUMENTS



1 **SEGMENT 13**

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LANDSCAPE ARCHITECTURE
Atlanta, GA | Tulsa, OK | Chattanooga, TN

FLORIDA REGISTERED LANDSCAPE ARCHITECT
Lic. No. LA 0667372
09/20/2024
DUSTIN FEIGH KOENIGMAN

NO.	REVISION/ISSUE	DATE
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PROJECT NAME

OCALA SPRINGS BOARDWALKS - JUNIPER SPRINGS

NATIONAL FORESTS IN FLORIDA, OCALA
LATITUDE: 29.18263380
LONGITUDE: -81.71097440
USDA FOREST SERVICE
LAKE GEORGE RANGER DISTRICT,
17147 E HWY 40
SILVER SPRINGS, FL 34488-5849
770-209-2708

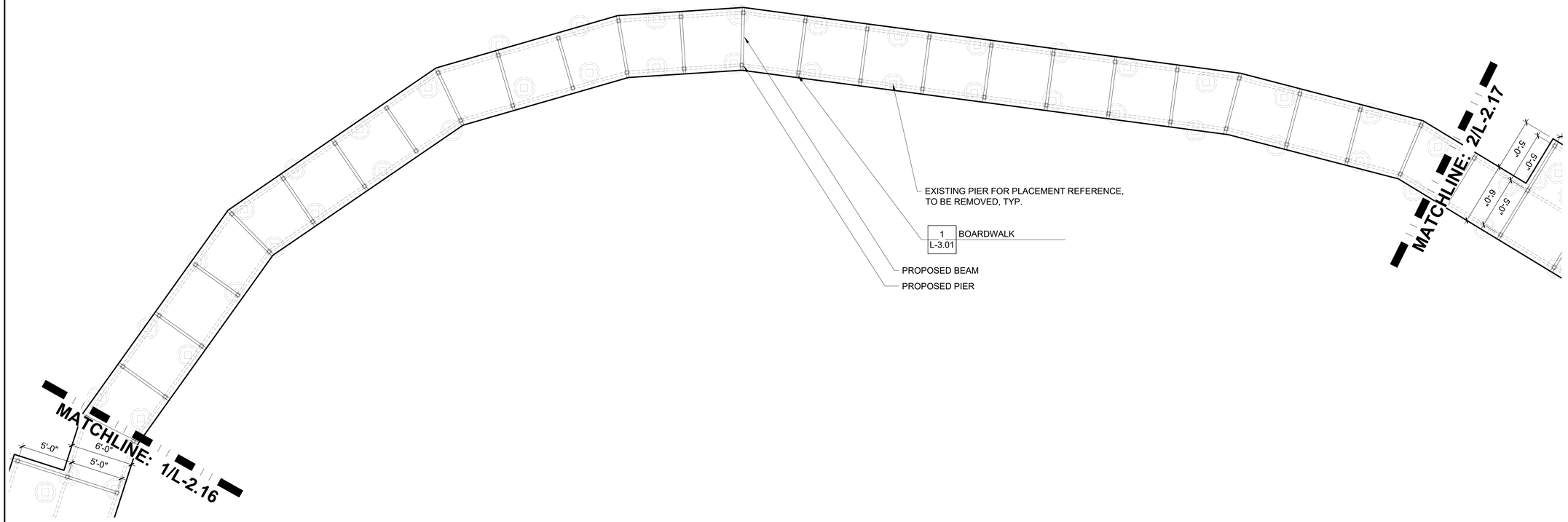
scale: 1" = 5'-0"
0 2.5 5 7.5 12.5

DRAWING TITLE

LAYOUT PLAN - JUNIPER

DATE 09/20/2024	ARCHIVE NUMBER
DESIGNER	DRAWING SHEET NO. L-2.16
DRAWN KK	
CHECKED DL / AW	
PROJECT NO. 23009	

CONSTRUCTION DOCUMENTS



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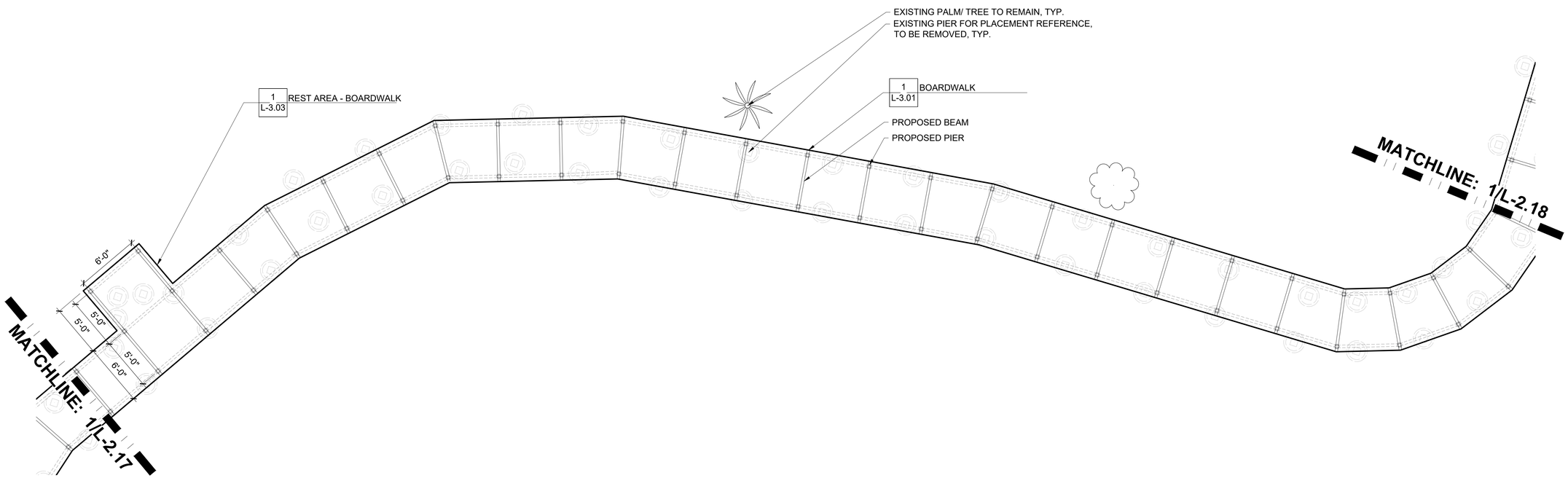

2 SEGMENT 15

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STAMPS, LOGOS, AND SEALS

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FLORIDA
LICENSED
ARCHITECT
Lic. No. LA 0667272
09/20/2024
KRISTEN FEIGH KOELLNEMANN

NO.	REVISION/ISSUE	DATE
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PROJECT NAME
OCALA SPRINGS BOARDWALKS - JUNIPER SPRINGS

NATIONAL FORESTS IN FLORIDA, OCALA
LATITUDE: 29.18263380
LONGITUDE: -81.71097440
USDA FOREST SERVICE
LAKE GEORGE RANGER DISTRICT,
17147 E HWY 40
SILVER SPRINGS, FL 34488-5849
770-209-2708

scale: 1" = 5'-0"
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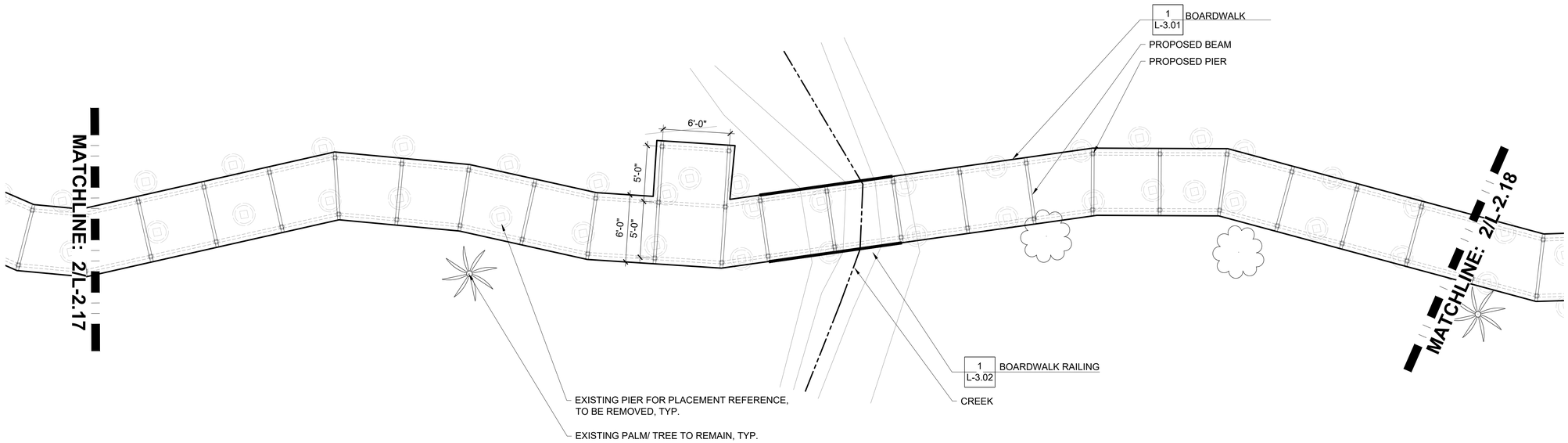
DRAWING TITLE
LAYOUT PLAN - JUNIPER

DATE 09/20/2024	ARCHIVE NUMBER
DESIGNER	DRAWING SHEET NO. L-2.17
DRAWN KK	
CHECKED DL / AW	
PROJECT NO. 23009	

CONSTRUCTION DOCUMENTS



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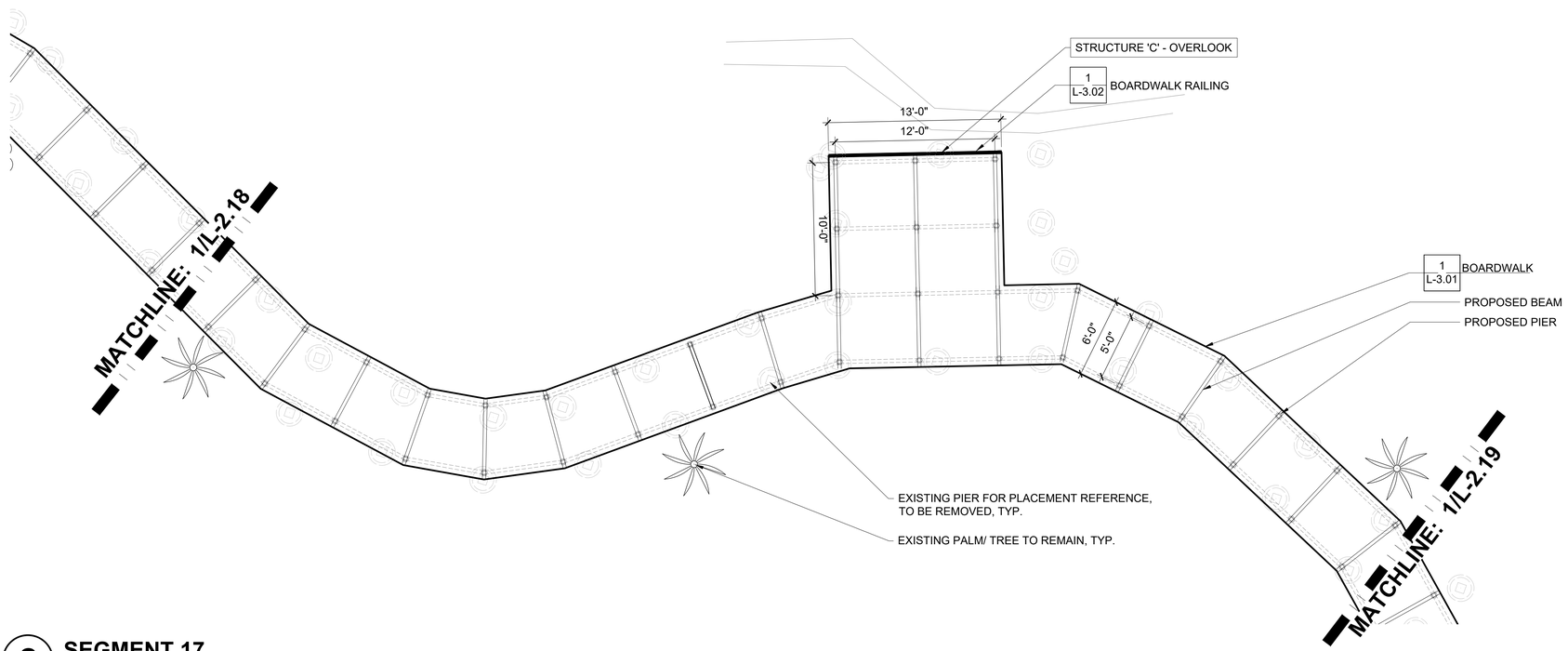

2 SEGMENT 17

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STAMPS, LOGOS, AND SEALS

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FLORIDA
LICENSED
LANDSCAPE ARCHITECT
No. LA 0667372
09/20/2024
KRISTEN EIGH KOENEMANN

NO.	REVISION/ISSUE	DATE
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PROJECT NAME
OCALA SPRINGS BOARDWALKS - JUNIPER SPRINGS

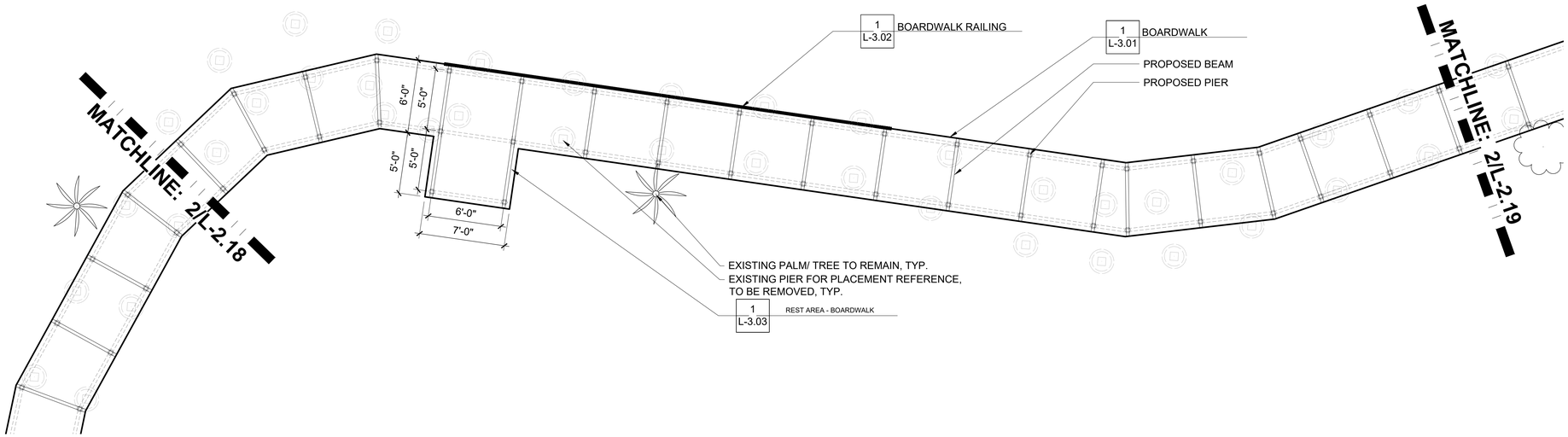
NATIONAL FORESTS IN FLORIDA, OCALA
LATITUDE: 29.18263380
LONGITUDE: -81.71097440
USDA FOREST SERVICE
LAKE GEORGE RANGER DISTRICT,
17147 E HWY 40
SILVER SPRINGS, FL 34488-5849
770-209-2708

scale: 1" = 5'-0"
0 2.5 5 7.5 12.5

DRAWING TITLE
LAYOUT PLAN - JUNIPER

DATE 09/20/2024	ARCHIVE NUMBER
DESIGNER	DRAWING SHEET NO. L-2.18
DRAWN KK	
CHECKED DL / AW	
PROJECT NO. 23009	

CONSTRUCTION DOCUMENTS



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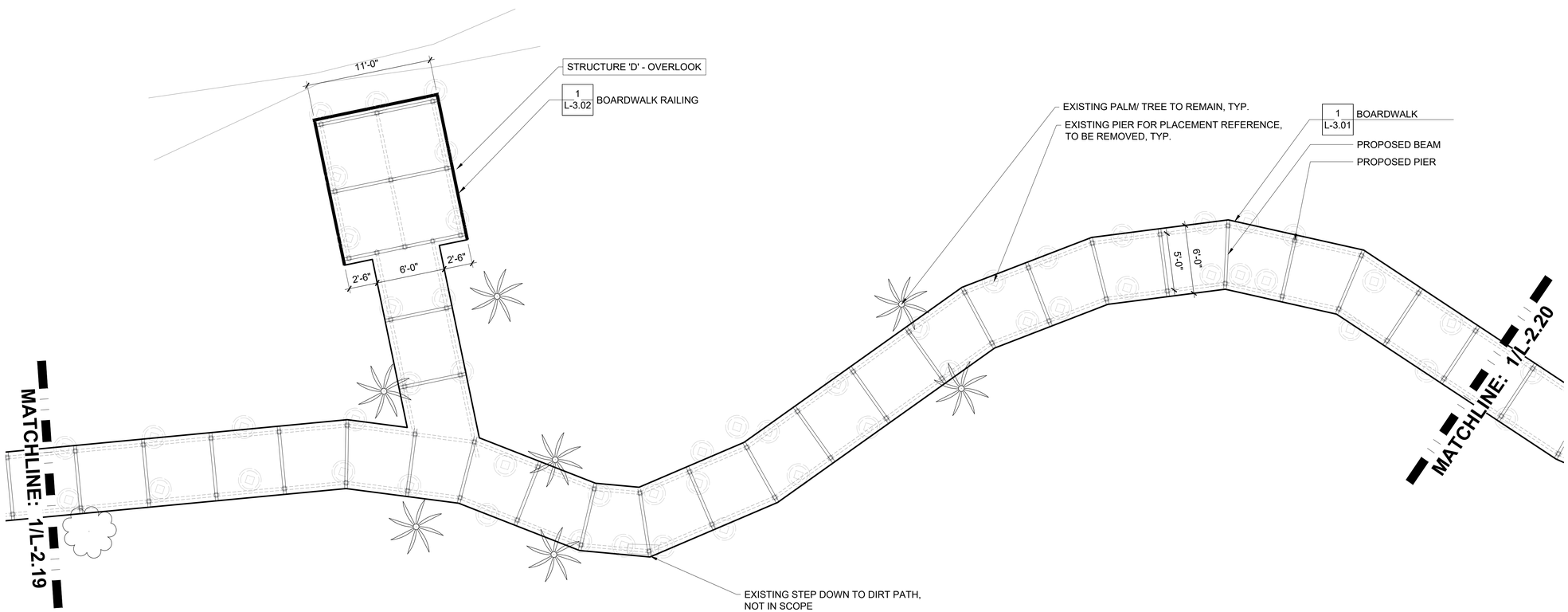

2 SEGMENT 19

United States Department of Agriculture
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STAMPS, LOGOS, AND SEALS

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FLORIDA LICENSED LANDSCAPE ARCHITECT
Lic. No. LA 0667372
09/20/2024
DULSTON EIGH KOELNEMANN

NO.	REVISION/ISSUE	DATE
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PROJECT NAME
OCALA SPRINGS BOARDWALKS - JUNIPER SPRINGS

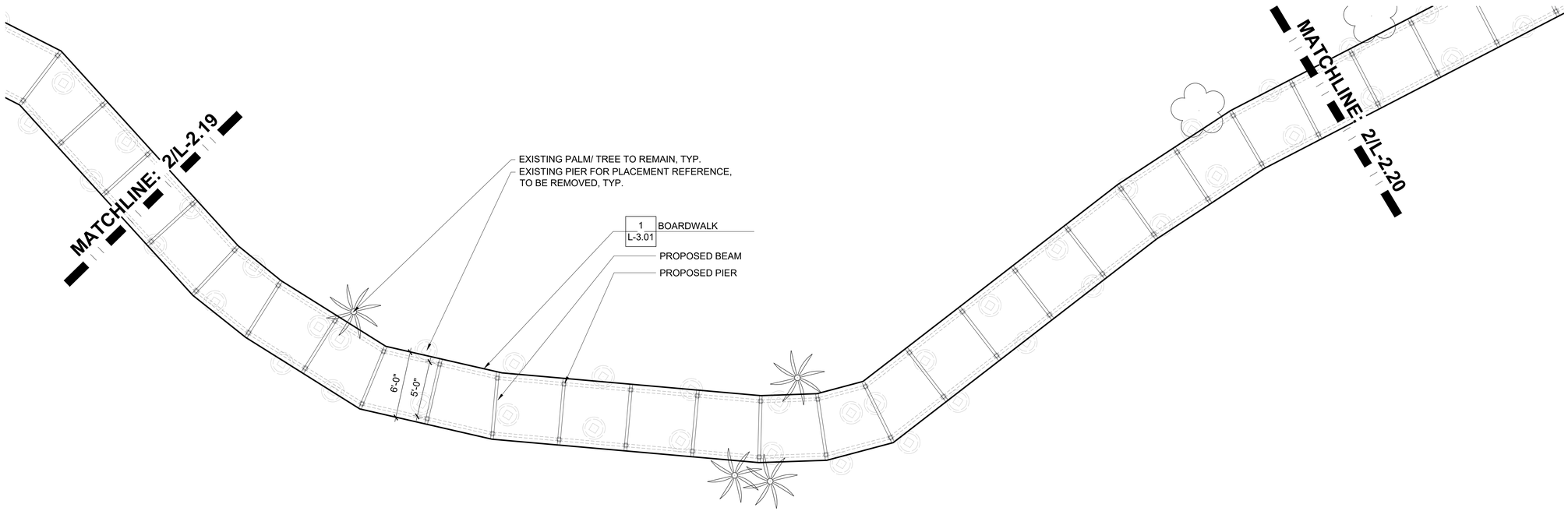
NATIONAL FORESTS IN FLORIDA, OCALA
LATITUDE: 29.18263380
LONGITUDE: -81.71097440
USDA FOREST SERVICE
LAKE GEORGE RANGER DISTRICT, 17147 E HWY 40
SILVER SPRINGS, FL 34488-5849
770-209-2708

scale: 1" = 5'-0"
0 2.5 5 7.5 12.5

DRAWING TITLE
LAYOUT PLAN - JUNIPER

DATE 09/20/2024	ARCHIVE NUMBER
DESIGNER	DRAWING SHEET NO. L-2.19
DRAWN KK	
CHECKED DL / AW	
PROJECT NO. 23009	

CONSTRUCTION DOCUMENTS



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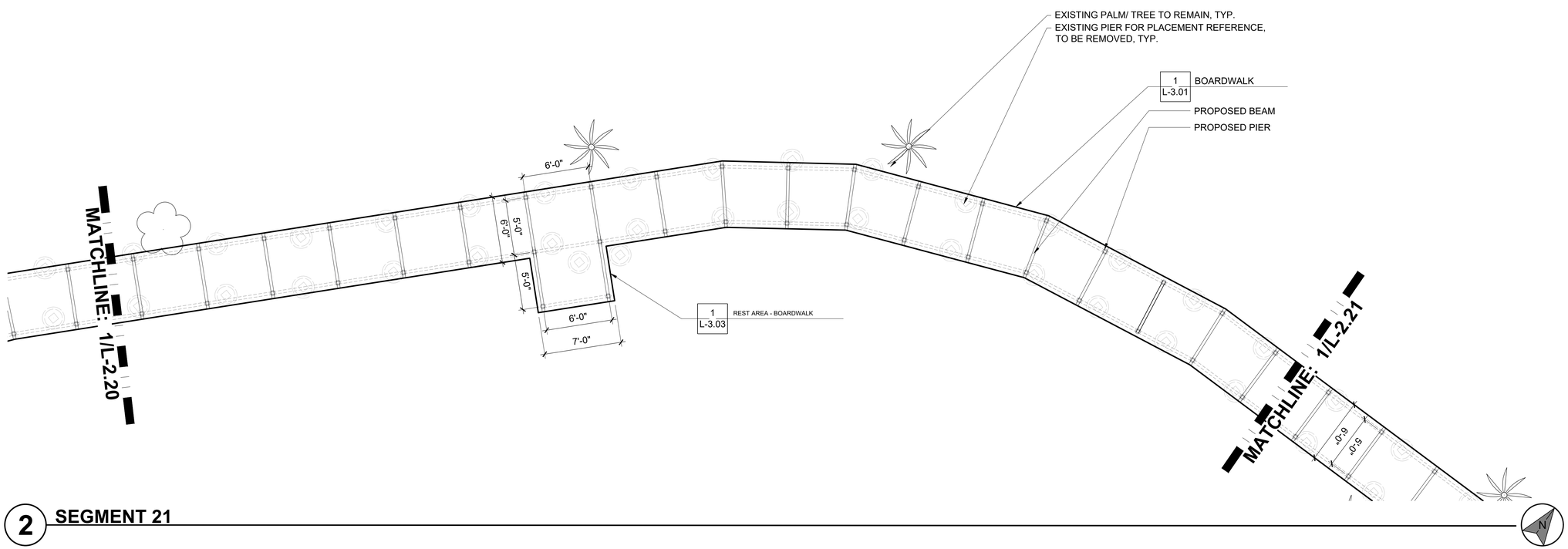

2 SEGMENT 21

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STAMPS, LOGOS, AND SEALS

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FLORIDA LICENSED LANDSCAPE ARCHITECT
Lic. No. LA 0667272
09/20/2024
DUSTIN LEIGH KOELNEMANN

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PROJECT NAME
OCALA SPRINGS BOARDWALKS - JUNIPER SPRINGS

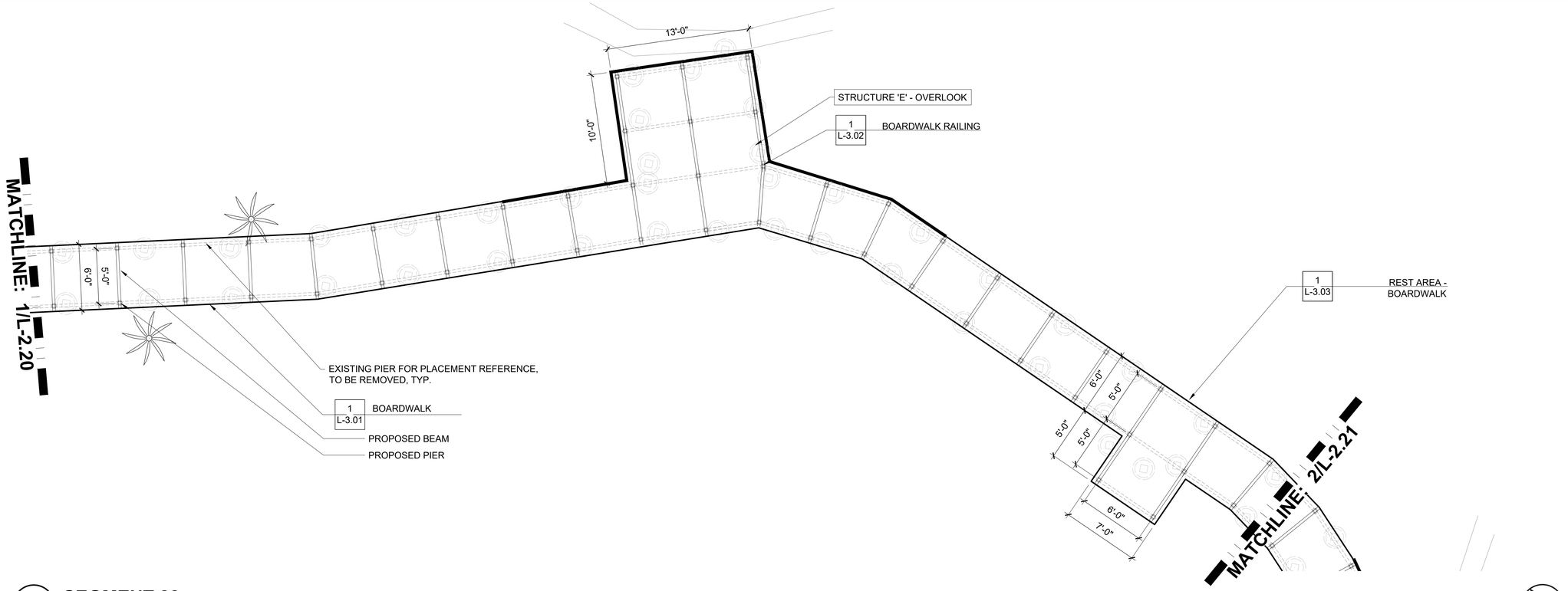
NATIONAL FORESTS IN FLORIDA, OCALA
LATITUDE: 29.18263380
LONGITUDE: -81.71097440
USDA FOREST SERVICE
LAKE GEORGE RANGER DISTRICT, 17147 E HWY 40
SILVER SPRINGS, FL 34488-5849
770-209-2708

scale: 1" = 5'-0"
0 2.5 5 7.5 12.5

DRAWING TITLE
LAYOUT PLAN - JUNIPER

DATE 09/20/2024	ARCHIVE NUMBER
DESIGNER	DRAWING SHEET NO. L-2.20
DRAWN KK	
CHECKED DL / AW	
PROJECT NO. 23009	

CONSTRUCTION DOCUMENTS



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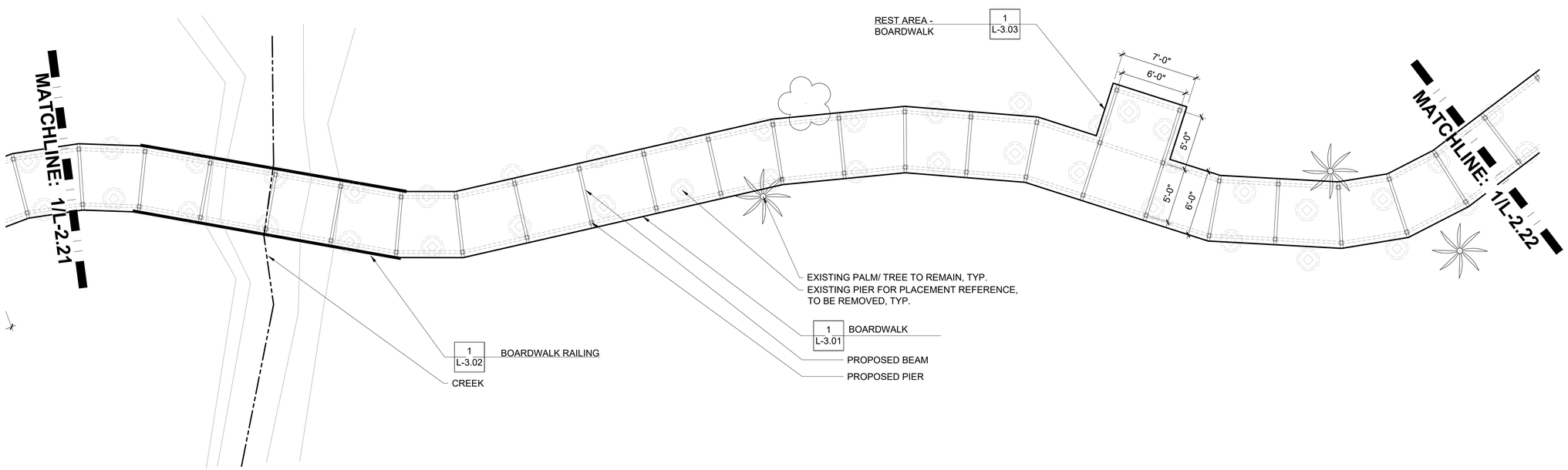

2 SEGMENT 23

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STAMPS, LOGOS, AND SEALS

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LANDSCAPE ARCHITECTURE
Atlanta, GA | Tulsa, OK | Chattanooga, TN

LICENSED LANDSCAPE ARCHITECT
LA No. LA 0667272
09/20/2024
DOUGLAS EIGH KOELNEMANN

NO.	REVISION/ISSUE	DATE
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PROJECT NAME
OCALA SPRINGS BOARDWALKS - JUNIPER SPRINGS

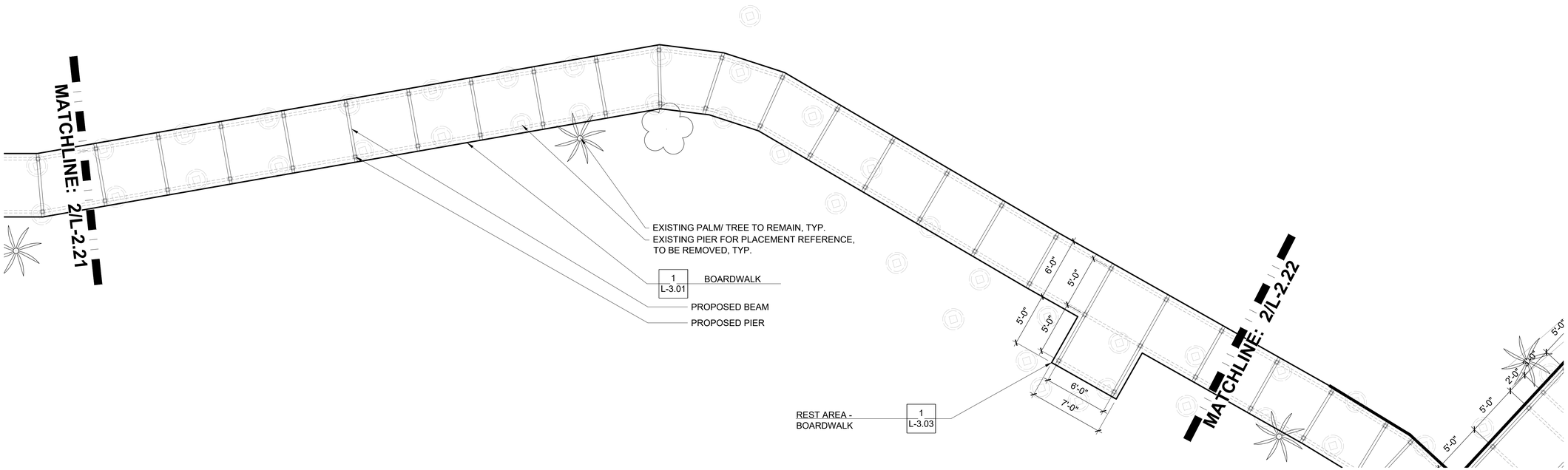
NATIONAL FORESTS IN FLORIDA, OCALA
LATITUDE: 29.18263380
LONGITUDE: -81.71097440
USDA FOREST SERVICE
LAKE GEORGE RANGER DISTRICT,
17147 E HWY 40
SILVER SPRINGS, FL 34488-5849
770-209-2708

scale: 1" = 5'-0"
0 2.5 5 7.5 12.5

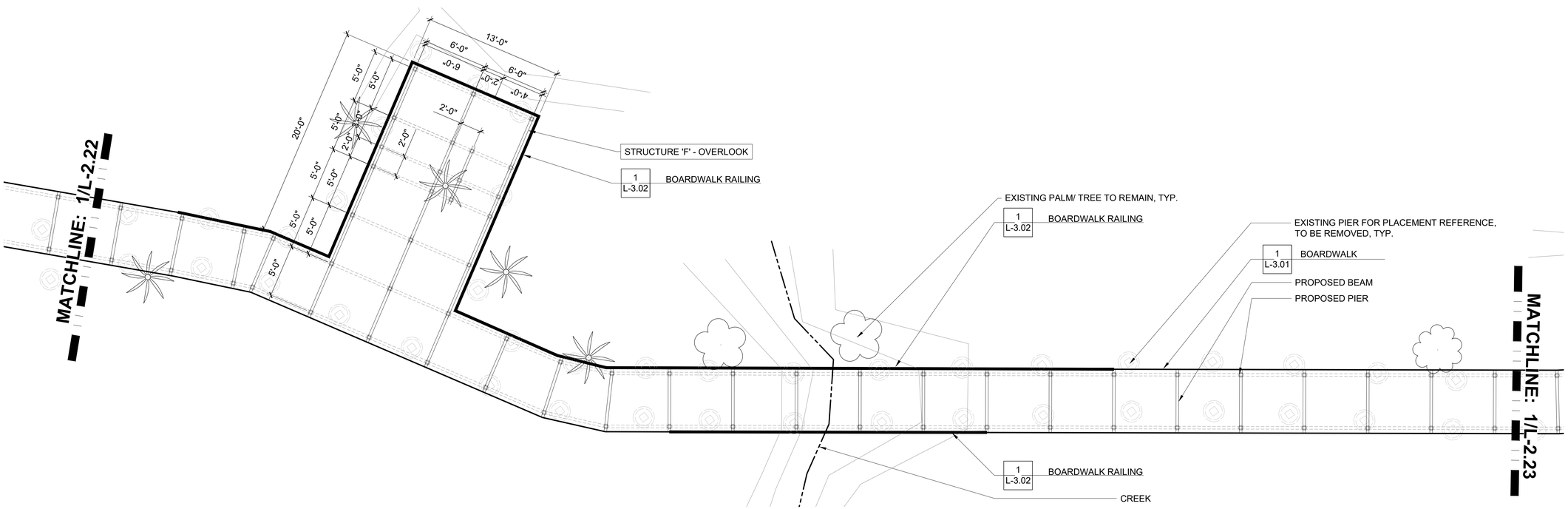
DRAWING TITLE
LAYOUT PLAN - JUNIPER

DATE 09/20/2024	ARCHIVE NUMBER
DESIGNER	DRAWING SHEET NO. L-2.21
DRAWN KK	
CHECKED DL / AW	
PROJECT NO. 23009	

CONSTRUCTION DOCUMENTS



1 SEGMENT 24



2 SEGMENT 25

United States Department of Agriculture
Forest Service

STAMPS, LOGOS, AND SEALS

TSW
PLANNING • ARCHITECTURE
LANDSCAPE ARCHITECTURE
Atlanta, GA | Tulsa, OK | Chattanooga, TN

FLORIDA
Kristen Kellnemann
Lic. No. LA 0667372
09/20/2024
KRISTEN EIGH KOELNEMANN

NO.	REVISION/ISSUE	DATE
4		
3		
2		
1		

PROJECT NAME
OCALA SPRINGS BOARDWALKS - JUNIPER SPRINGS

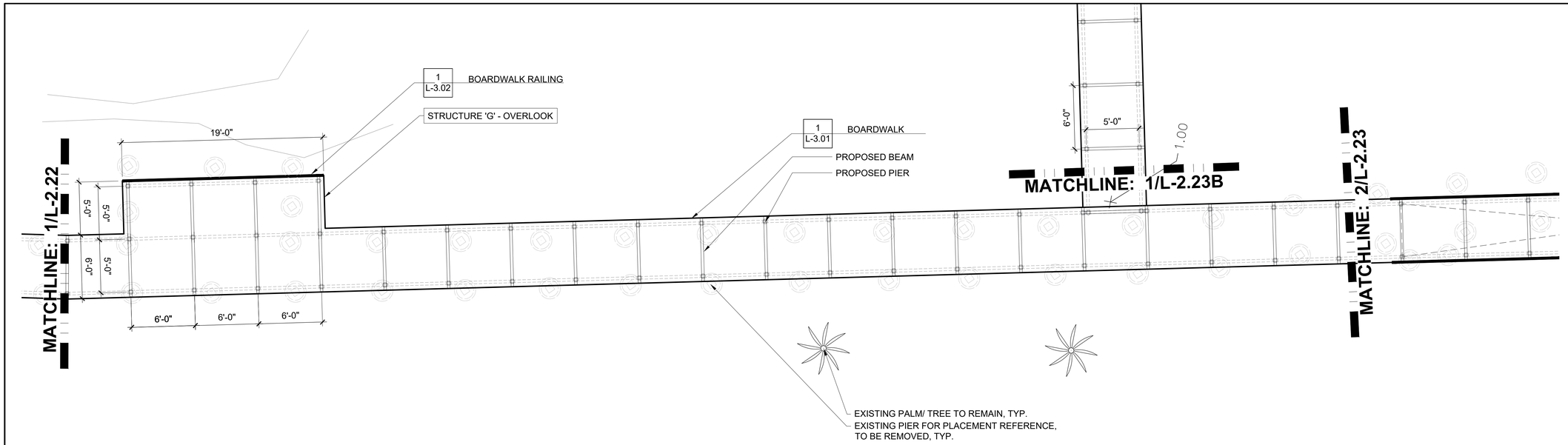
NATIONAL FORESTS IN FLORIDA, OCALA
LATITUDE: 29.18263380
LONGITUDE: -81.71097440
USDA FOREST SERVICE
LAKE GEORGE RANGER DISTRICT, 17147 E HWY 40
SILVER SPRINGS, FL 34488-5849
770-209-2708

scale: 1" = 5'-0"
0 2.5 5 7.5 12.5

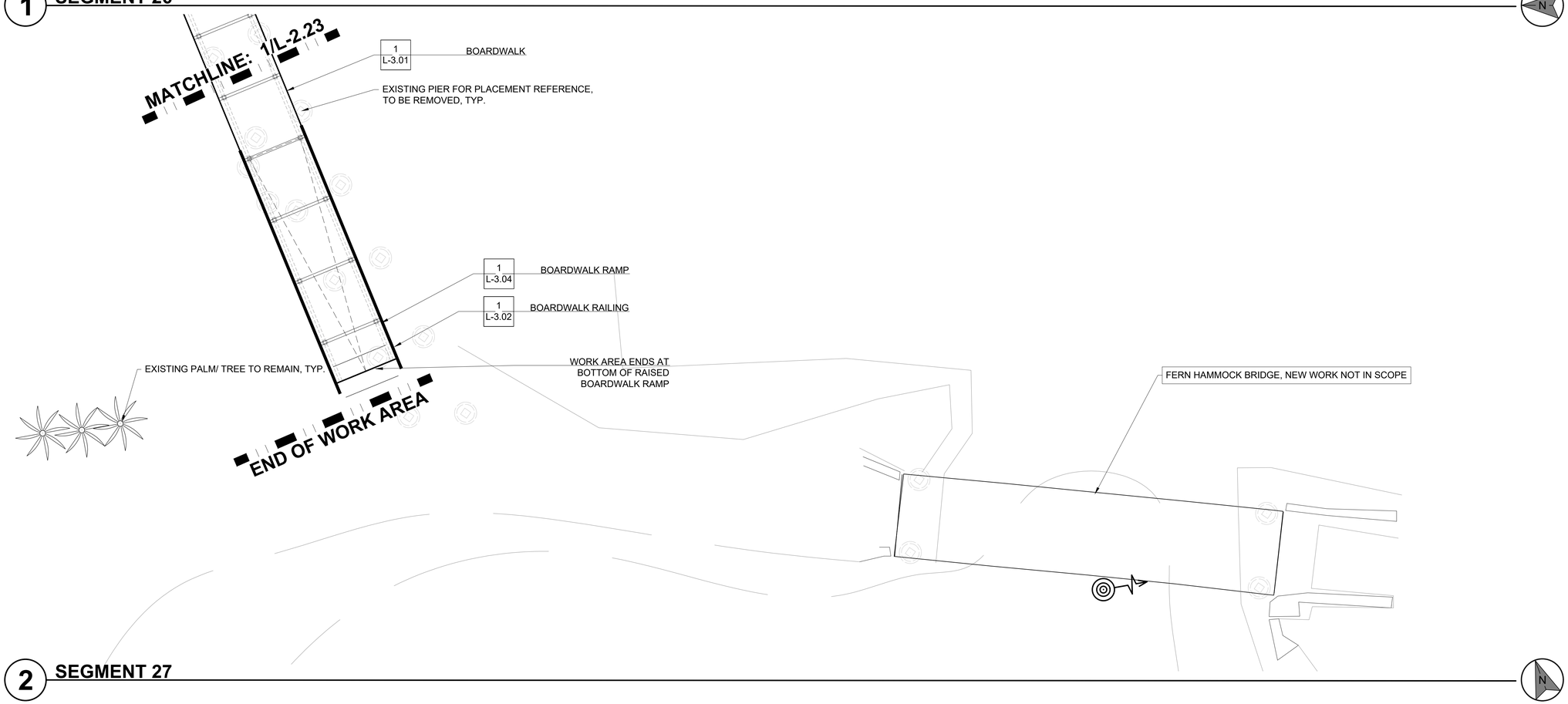
DRAWING TITLE
LAYOUT PLAN - JUNIPER

DATE 09/20/2024	ARCHIVE NUMBER
DESIGNER	DRAWING SHEET NO. L-2.22
DRAWN KK	
CHECKED DL / AW	
PROJECT NO. 23009	

CONSTRUCTION DOCUMENTS



1 SEGMENT 26



2 SEGMENT 27

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United States Department of Agriculture
Forest Service

STAMPS, LOGOS, AND SEALS

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LANDSCAPE ARCHITECTURE
Atlanta, GA | Tulsa, OK | Chattanooga, TN

FLORIDA
LICENSED
LANDSCAPE ARCHITECT
No. LA 0667372
09/20/2024
KRISTEN EIGH KOELLNEMANN

NO.	REVISION/ISSUE	DATE
4		
3		
2		
1		

PROJECT NAME
OCALA SPRINGS BOARDWALKS - JUNIPER SPRINGS

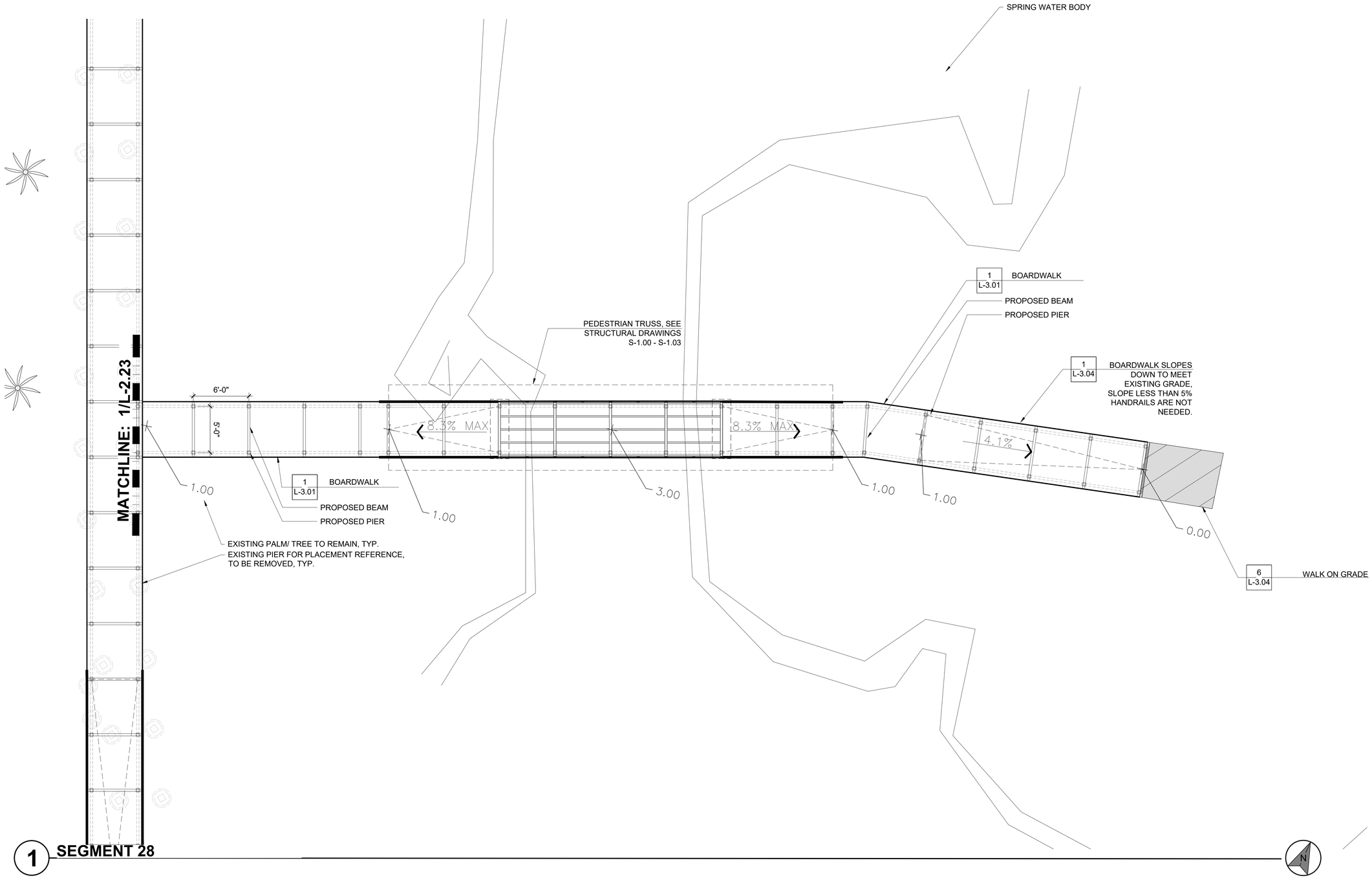
NATIONAL FORESTS IN FLORIDA, OCALA
LATITUDE: 29.18263380
LONGITUDE: -81.71097440
USDA FOREST SERVICE
LAKE GEORGE RANGER DISTRICT,
17147 E HWY 40
SILVER SPRINGS, FL 34488-5849
770-209-2708

scale: 1" = 5'-0"
0 2.5 5 7.5 12.5

DRAWING TITLE
LAYOUT PLAN - JUNIPER

DATE 09/20/2024	ARCHIVE NUMBER
DESIGNER	DRAWING SHEET NO. L-2.23
DRAWN KK	
CHECKED DL / AW	
PROJECT NO. 23009	

CONSTRUCTION DOCUMENTS



USDA

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STAMPS, LOGOS, AND SEALS

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LANDSCAPE ARCHITECTURE
Atlanta, GA | Tulsa, OK | Chattanooga, TN

FLORIDA REGISTERED LANDSCAPE ARCHITECT
Lic. No. LA 0667272
09/20/2024
DUSTIN FEIGH KOELNEMANN

NO.	REVISION/ISSUE	DATE
4		
3		
2		
1		

PROJECT NAME

OCALA SPRINGS BOARDWALKS - JUNIPER SPRINGS

NATIONAL FORESTS IN FLORIDA, OCALA
LATITUDE: 29.18263380
LONGITUDE: -81.71097440
USDA FOREST SERVICE
LAKE GEORGE RANGER DISTRICT,
17147 E HWY 40
SILVER SPRINGS, FL 34488-5849
770-209-2708

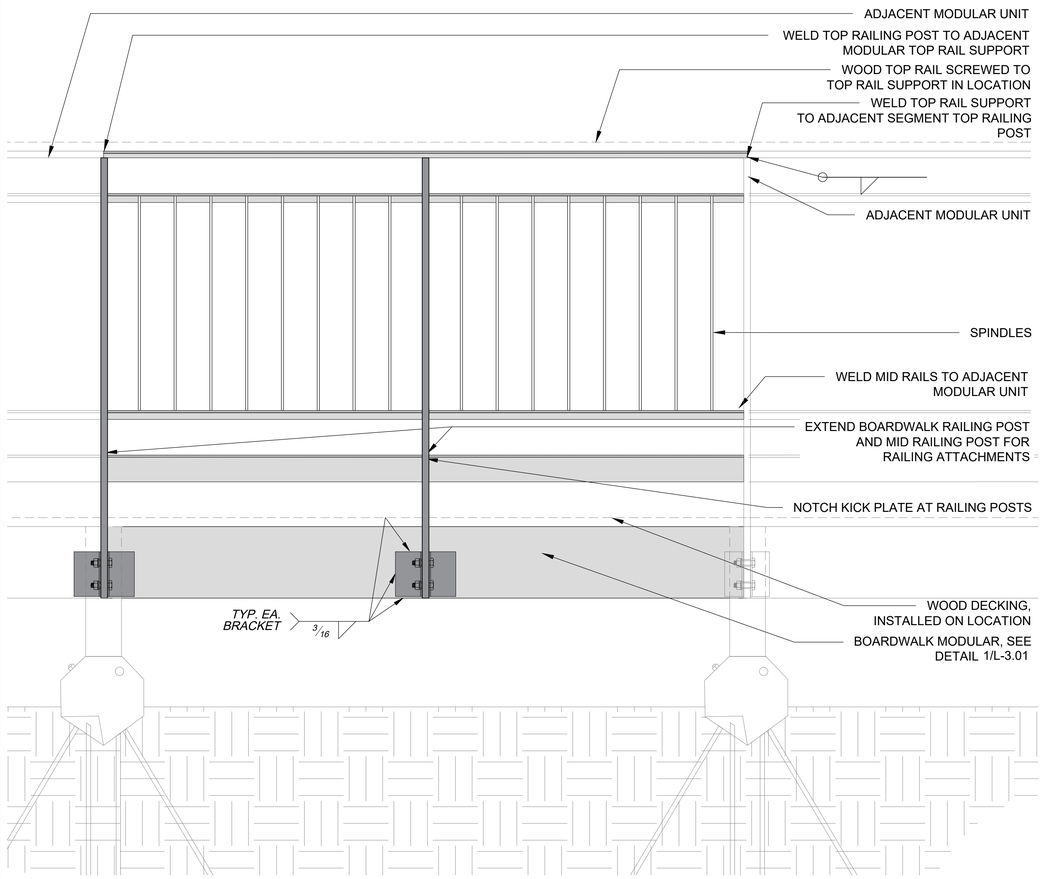
scale: 1" = 5'-0"
0 2.5 5 7.5 12.5

DRAWING TITLE

LAYOUT PLAN - JUNIPER

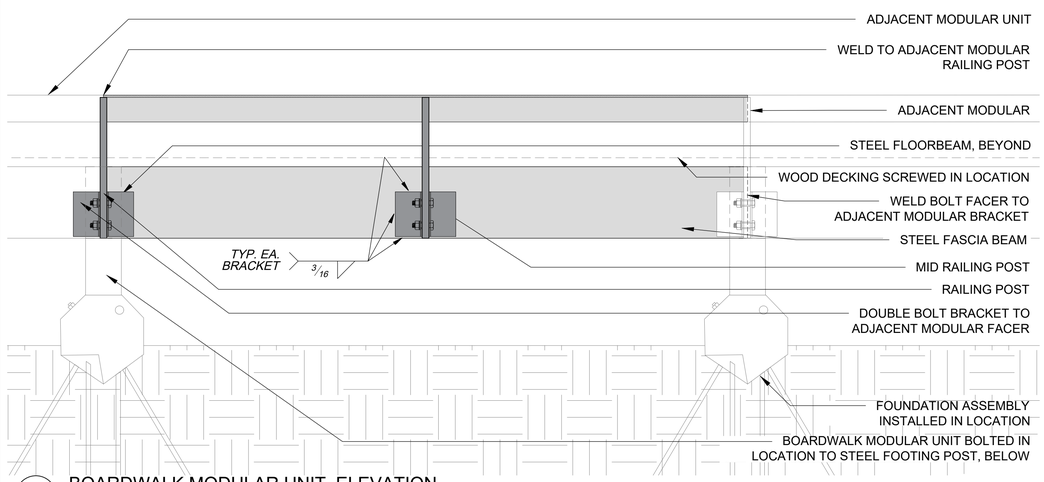
DATE 09/20/2024	ARCHIVE NUMBER
DESIGNER	DRAWING SHEET NO. L-2.24
DRAWN KK	
CHECKED DL / AW	
PROJECT NO. 23009	

CONSTRUCTION DOCUMENTS



3 BOARDWALK MODULAR UNIT W/ RAILING, ELEVATION

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



2 BOARDWALK MODULAR UNIT, ELEVATION

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

MEMBER SIZING NOTES:

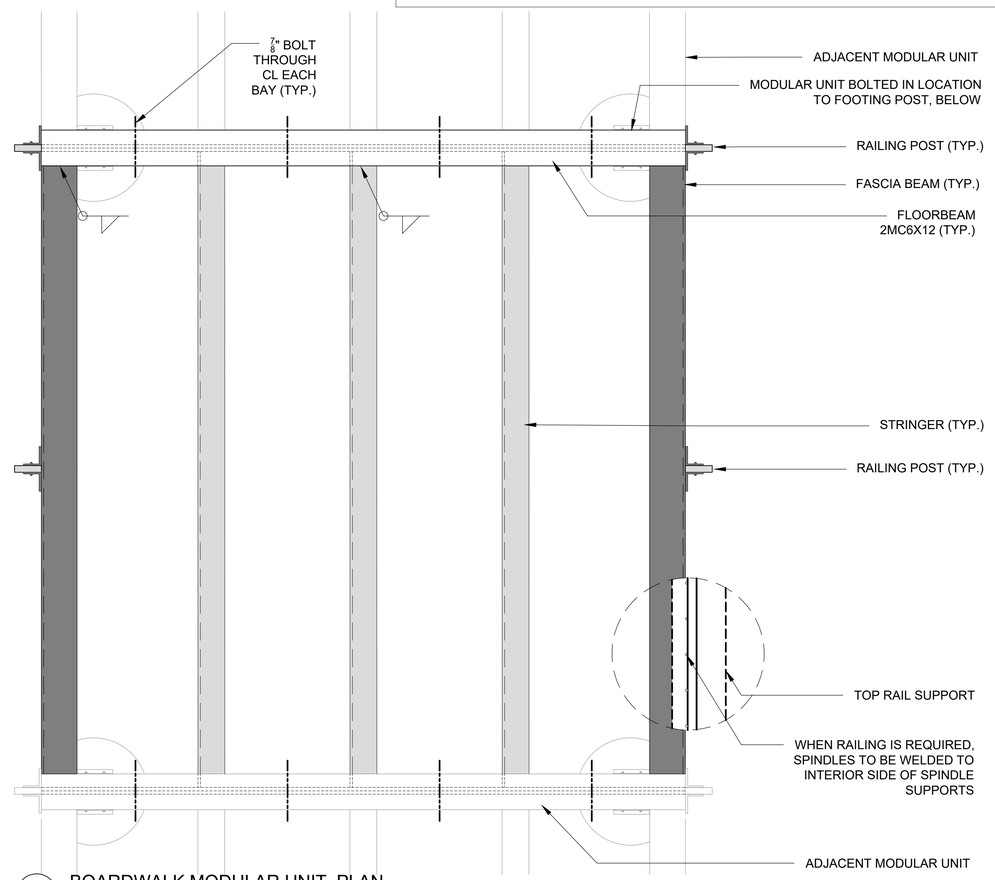
1. FOOTING POST: HSS 4x4x1/4"
2. FOOTING POST CAP: PL 1/4"x5 1/2"x5 7/8"
3. FASCIA BEAM: L6x4x7/16
4. FLOORBEAM: MC6X12
5. STRINGER: L5x5x3/8
6. RAILING POSTS: PL 3/4"x3
7. RAIL SUPPORT: L3x2x3/16
8. KICKPLATE: L3x2x3/16
9. SPINDLE SUPPORT: L1x1x1/8
10. SPINDLE: 1/2" DIA x 24" ROD
11. HANDRAIL BRACKET: L3x3x5/8

NOTES:

1. ALL TIMBER TO BE CUMARU. WOOD DECKING TO BE 1X6, WOOD TOP RAIL TO BE 2X6 UNLESS NOTED OTHERWISE. SEAL ALL BOARD ENDS WITH CLEAR ALL WEATHER SEALANT.
2. CONNECTIONS FOR WOOD DECKING TO STRINGERS TO BE PREDRILLED AND COUNTERSUNK WITH WOOD PLUG.
3. CONNECTIONS FOR WOOD HANDRAIL TO STRINGERS TO BE PREDRILLED AND COUNTERSUNK WITH WOOD PLUG.
4. ALL WELDING OF MISCELLANEOUS COMPONENTS AND STRUCTURAL ELEMENTS SHALL CONFORM TO AWS D1.1. COORDINATE WELD WIRE/FILLS TO ENSURE COLOR CONSISTENCY. NO FIELD WELDING IS PERMITTED ON FLOOR BEAMS, STRINGERS, OR FASCIA BEAMS, EXCEPT FOR SPOT WELDING TO SECURE NUTS IN PLACE.
5. PIER FOUNDATIONS TO BE DIAMOND PIER FOUNDATION SYSTEM OR APPROVED EQUAL TO MINIMIZE ECOLOGICAL DISTURBANCES. DESIGNED BY OTHERS.
6. HANDRAILS SHALL BE UTILIZED IN ALL AREAS FOR WHICH FALL DISTANCE FROM TOP OF DECKING SURFACE TO GROUND OR LOWEST ADJACENT SURFACE IS GREATER THAN 2'-6".
7. STRUCTURAL STEEL SHALL BE ASTM A588 WEATHERING STEEL. STRUCTURAL TUBING SHALL BE ASTM 847 WEATHERING STEEL.
8. BOLTS SHALL BE ASTM A593 GRADE 316 UNLESS NOTED OTHERWISE. NUTS SHALL BE ASTM F594 GRADE 316 UNLESS NOTED OTHERWISE. WASHERS SHALL BE STAINLESS STEEL GRADE 316.
9. DOUBLE NUT AT ALL LOCATIONS TO SECURE SEGMENTS IN PLACE.
10. DECKING SCREWS SHALL BE STAINLESS STEEL GRADE 316.
11. ELECTRODES SHALL BE E70.
12. SUBMIT SHOP DRAWINGS OF ALL PREFABRICATED MODULAR SECTIONS TO ENGINEER OF RECORD FOR APPROVAL.
13. ALL FILLET WELDS SHALL BE 3/16" IN SIZE UNLESS NOTED OTHERWISE.
14. PROVIDE 5/8" DIA. ANCHOR BOLTS 2 1/4" ABOVE CONCRETE SURFACE FOR DIAMOND PIER FOUNDATION UNIT DP-100E 4B TWIST TOP. PROVIDE LEVELING NUTS FOR CONNECTION TO COLUMN.
15. ALL NON-VISIBLE METAL COMPONENTS TO BE WEATHERING STEEL.
16. ALL VISIBLE HARDWARE, INCLUDING BUT NOT LIMITED TO, NUTS, BOLTS, SCREWS, AND FASTENERS TO BE BLACKENED STAINLESS STEEL WITH A SUBSTANTLY UNIFORM BLACK OXIDE COATING OVER THE SURFACE THEREOF, THE ARTICLE BEING FORMED FROM A STEEL ALLOY IN MARTENSITIC STRUCTURE WHICH IS TREATED IN A BOILING AQUEOUS ALKALINE-CHROMATE-OXIDIZING SOLUTION CONTAINING SODIUM HYDROXIDE, SODIUM NITRATE AND SODIUM DICHROMATE AT A TEMPERATURE IN THE RANGE FROM ABOUT 230° F. TO ABOUT 260° F. FOR 30 TO 60 MINUTES.
17. WHEN HANDRAIL RUNS ARE LONGER THAN 6 SEGMENTS, EVERY 6TH SEGMENT TO BE DOUBLE BOLTED IN LIEU OF WELDS.

DESIGN NOTES:

1. THE BOARDWALK SYSTEM HAS BEEN TO DESIGNED AS A MODULAR ASSEMBLY.
2. ALL MODULAR SEGMENTS ARE TO BE FABRICATED PRIOR TO INSTALLATION.
3. THE RAILING SYSTEM IS DESIGNED AS A CONTINUATION OF THE TYPICAL "BOARDWALK SEGMENT"
4. DETAILS ARE TO CONVEY MODULAR INTENT, FOR FULL DESIGN REFER TO DETAIL 1/L-3.01.
5. CONTRACTOR TO CONSTRUCT A MOCKUP OF THE COMPLETE BOARDWALK SECTION, 3 MODULAR UNITS IN LENGTH. MOCKUP MODULES MAY REMAIN AS PART OF THE FINAL BUILD OUT WORK IF APPROVED BY OWNER AND LANDSCAPE ARCHITECT.
6. WOOD DECKING SCREWS TO BE COUNTERSUNK AND PLUGGED WITH IN KIND WOOD.



1 BOARDWALK MODULAR UNIT, PLAN

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

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Atlanta, GA | Tulsa, OK | Chattanooga, TN

KYLE J. VARGHA
LICENSE
No 88474
STATE OF FLORIDA
PROFESSIONAL ENGINEER

Digitally signed by Kyle Vargha
Date: 2025.12.31 09:52:22-04'00'

THIS DOCUMENT HAS BEEN DIGITALLY SIGNED AND SEALED.
VOLKERT, INC.
10 SOUTH ORANGE AVENUE, SUITE 600
ORLANDO, FL 32801
TAMPA, FL 33607
KYLE J. VARGHA, P.E. NO. 88474

VOLKERT

NO.	REVISION/ISSUE	DATE
4		
3		
2		
1		

PROJECT NAME

OCALA SPRINGS BOARDWALKS - JUNIPER SPRINGS

NATIONAL FORESTS IN FLORIDA, OCALA
LATITUDE: 29.18263380
LONGITUDE: -81.71097440
USDA FOREST SERVICE
LAKE GEORGE RANGER DISTRICT,
17147 E HWY 40
SILVER SPRINGS, FL 34488-5849
770-209-2708

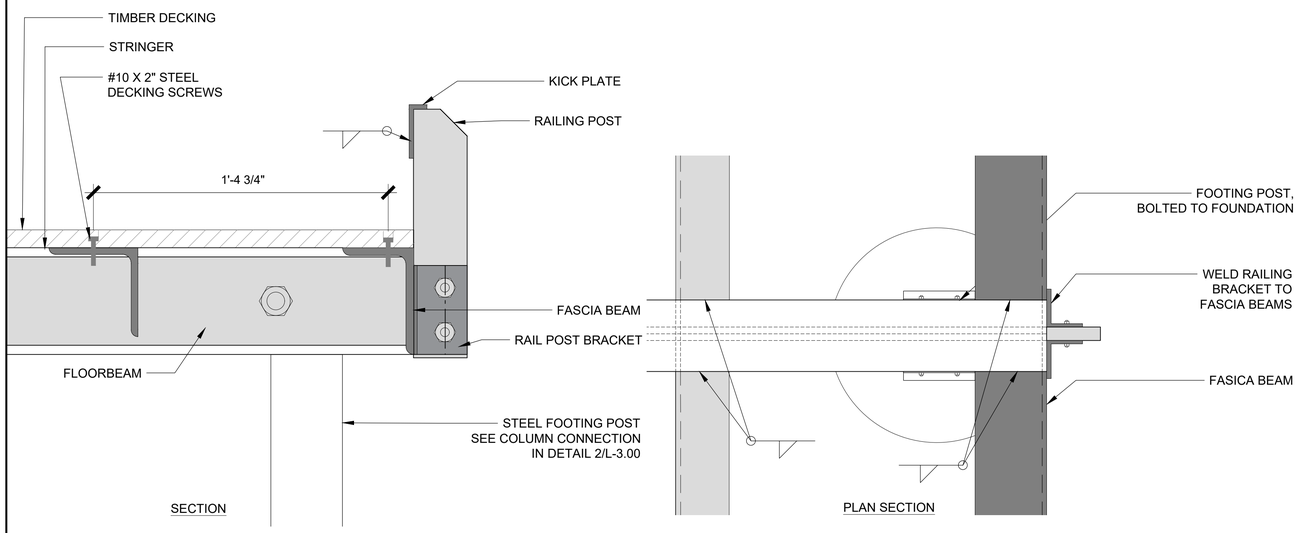
DRAWING TITLE

DETAILS - BOARDWALK - MODULAR

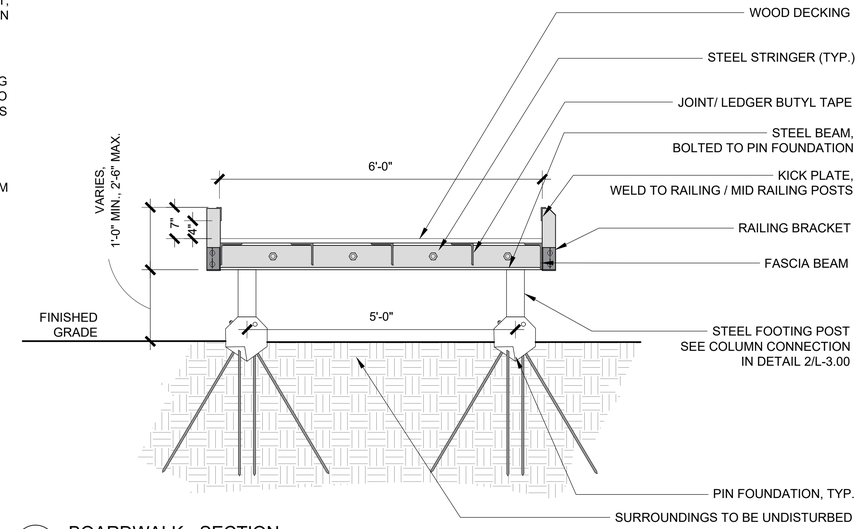
DATE 09/20/2024	ARCHIVE NUMBER
DESIGNER	DRAWING SHEET NO. L-3.00
DRAWN KK	
CHECKED DL / AW	
PROJECT NO. 23009	

CONSTRUCTION DOCUMENTS

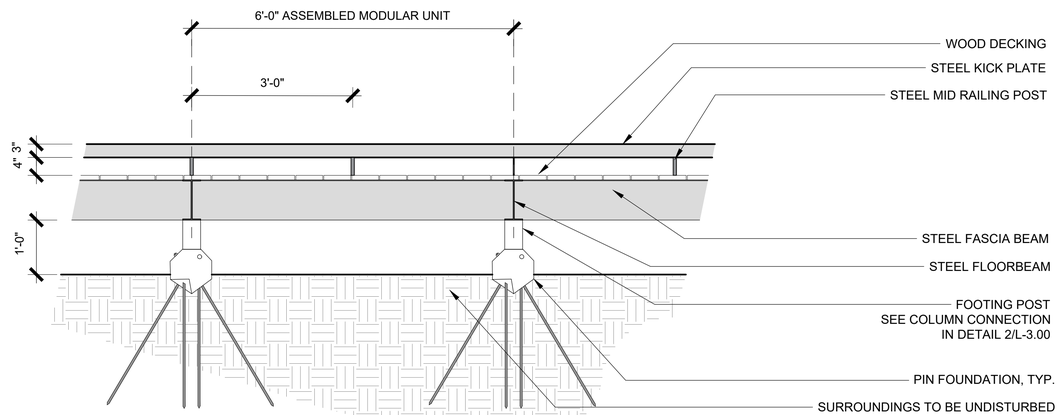
REFER TO SHEET L-3.00
FOR ALL NOTES.



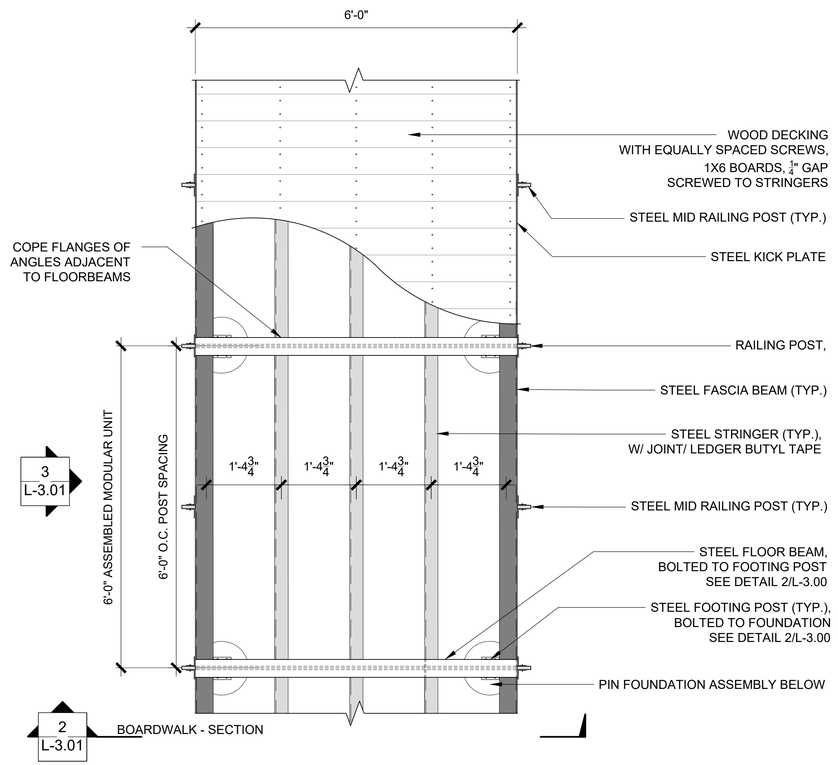
5 BOARDWALK ASSEBMLY ENLARGEMENT
3" = 1'-0"



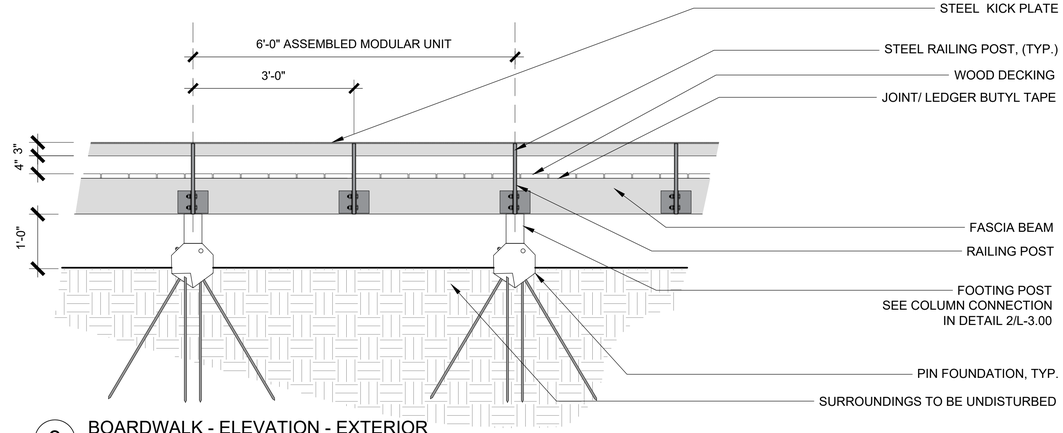
2 BOARDWALK - SECTION
3/4" = 1'-0"



4 BOARDWALK - ELEVATION - INTERIOR
3/4" = 1'-0"



1 BOARDWALK
3/4" = 1'-0"



3 BOARDWALK - ELEVATION - EXTERIOR
3/4" = 1'-0"

United States Department of Agriculture
Forest Service

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Atlanta, GA | Tulsa, OK | Charlottesville, VA

KYLE J. VARGHA
LICENSE
No 88474
STATE OF FLORIDA
PROFESSIONAL ENGINEER

Digitally signed by Kyle Vargha
Date: 2025.12.31 08:32:35-04'00'

THIS DOCUMENT HAS BEEN DIGITALLY SIGNED AND SEALED.
PRINTED COPIES OF THIS DOCUMENT ARE NOT CONSIDERED SIGNED AND SEALED AND MAY NOT BE RELIED ON.
VOLKERT, INC.
5151 E. BROADWAY BLVD., SUITE 600
TUCSON, AZ 85711-3754
KYLE J. VARGHA, P.E. NO. 88474

VOLKERT

NO.	REVISION/ISSUE	DATE
4		
3		
2		
1		

PROJECT NAME
OCALA SPRINGS BOARDWALKS - JUNIPER SPRINGS

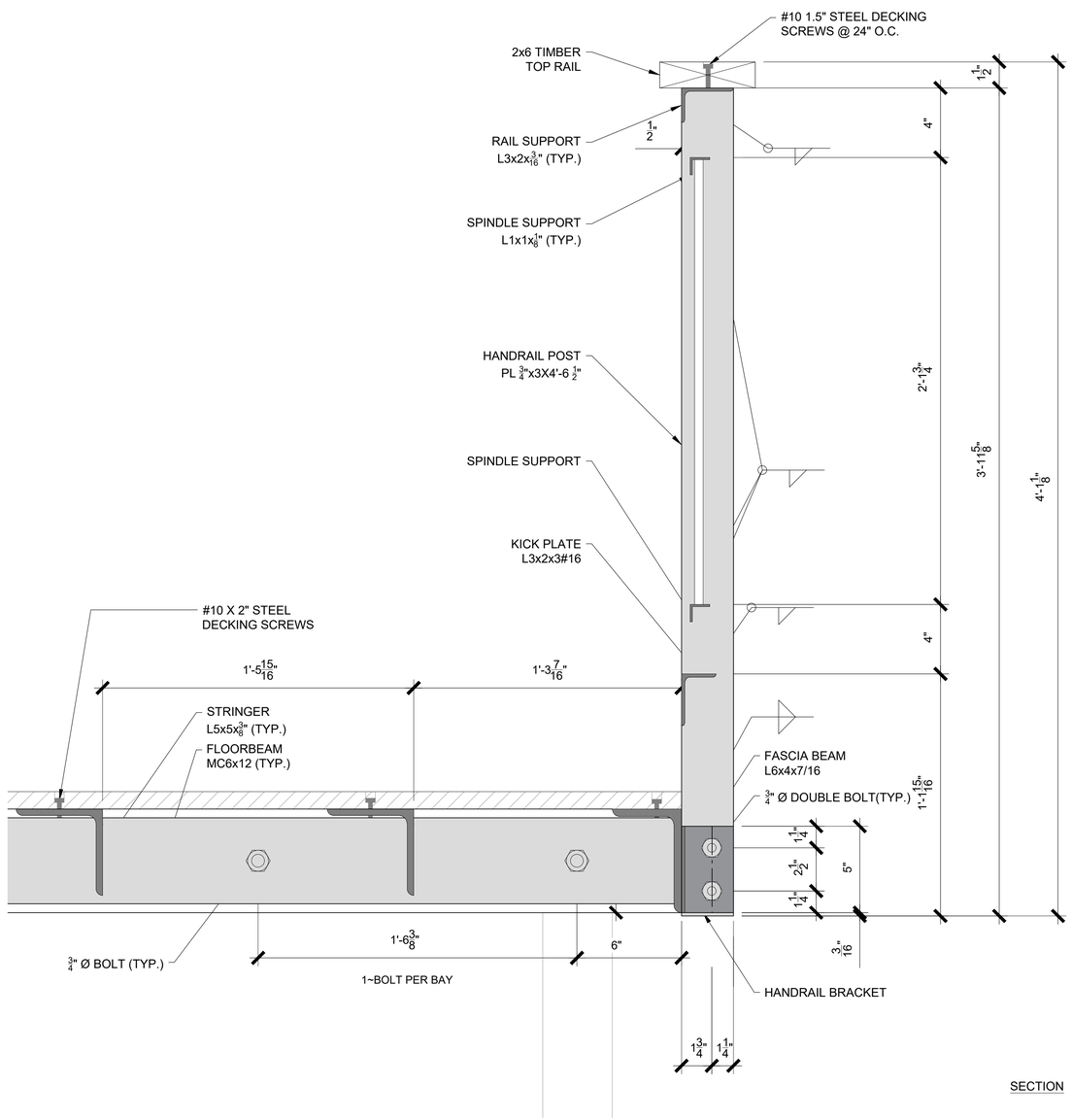
NATIONAL FORESTS IN FLORIDA, OCALA
LATITUDE: 29.18263380
LONGITUDE: -81.71097440
USDA FOREST SERVICE
LAKE GEORGE RANGER DISTRICT,
17147 E HWY 40
SILVER SPRINGS, FL 34488-5849
770-209-2708

DRAWING TITLE
DETAILS - BOARDWALK - ASSEMBLY

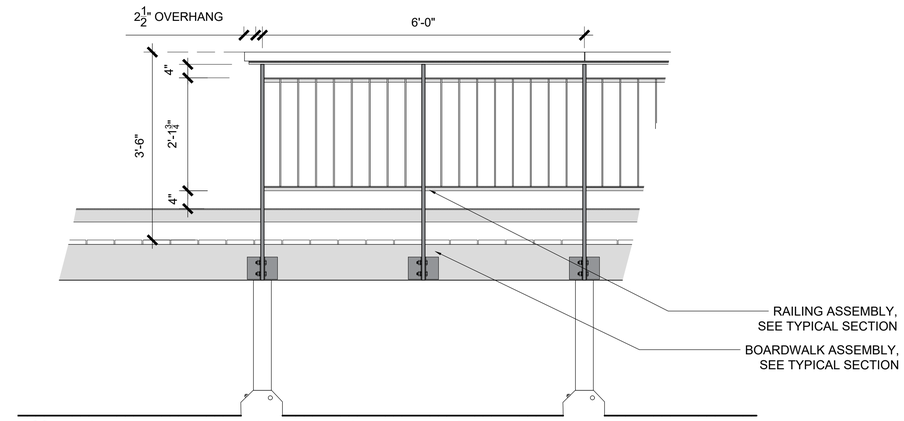
DATE 09/20/2024	ARCHIVE NUMBER
DESIGNER	DRAWING SHEET NO. L-3.01
DRAWN KK	
CHECKED DL / AW	
PROJECT NO. 23009	

CONSTRUCTION DOCUMENTS

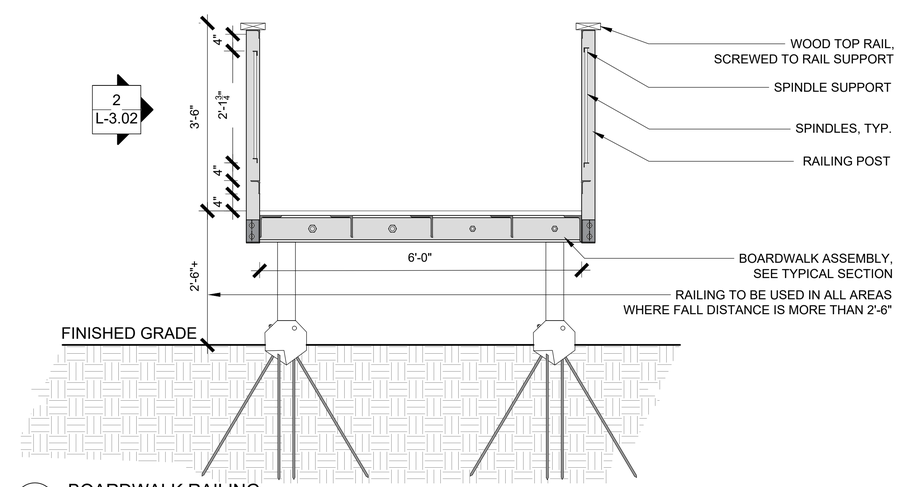
REFER TO SHEET L-3.00
FOR ALL NOTES.



3 RAILING ASSEMBLY ENLARGEMENT
3" = 1'-0"



2 BOARDWALK RAILING - EXTERIOR ELEVATION
3/4" = 1'-0"



1 BOARDWALK RAILING
3/4" = 1'-0"

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KYLE J. VARGHA
LICENSE
No 88474
STATE OF FLORIDA
PROFESSIONAL ENGINEER

Digitally signed by Kyle Vargha
Date: 2025.07.31 08:32:50-04'00'

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5151 E. BROADWAY BLVD., SUITE 600
TUCSON, AZ 85711
TAMPA, FL 33320
KYLE J. VARGHA, P.E. NO. 88474

VOLKERT

NO.	REVISION/ISSUE	DATE
4		
3		
2		
1		

PROJECT NAME
OCALA SPRINGS BOARDWALKS - JUNIPER SPRINGS

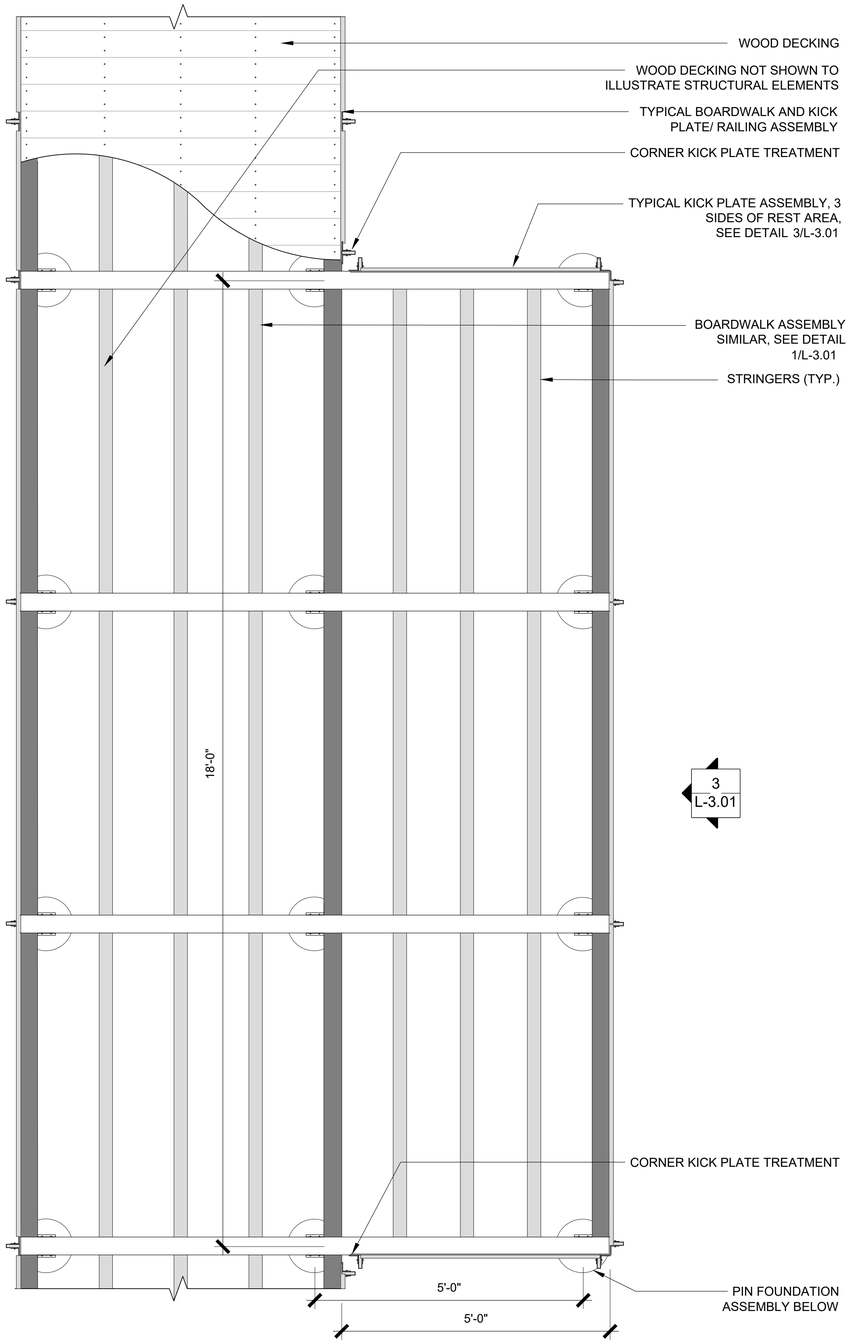
NATIONAL FORESTS IN FLORIDA, OCALA
LATITUDE: 29.18263380
LONGITUDE: -81.71097440
USDA FOREST SERVICE
LAKE GEORGE RANGER DISTRICT,
17147 E HWY 40
SILVER SPRINGS, FL 34488-5849
770-209-2708

DRAWING TITLE
DETAILS - BOARDWALK - RAILING

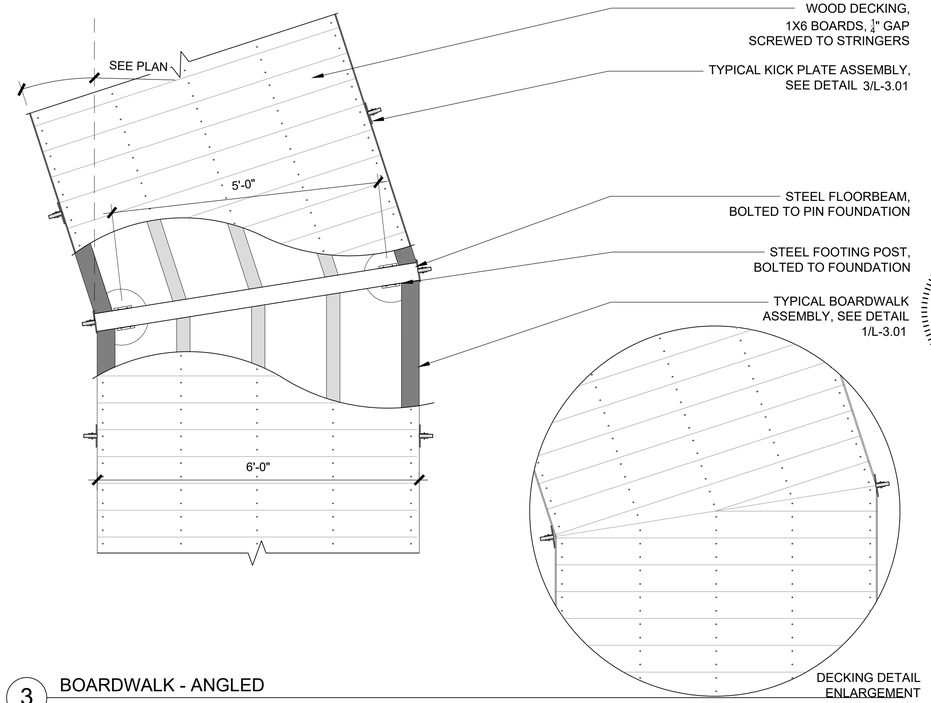
DATE 09/20/2024	ARCHIVE NUMBER
DESIGNER	DRAWING SHEET NO. L-3.02
DRAWN KK	
CHECKED DL / AW	
PROJECT NO. 23009	

CONSTRUCTION DOCUMENTS

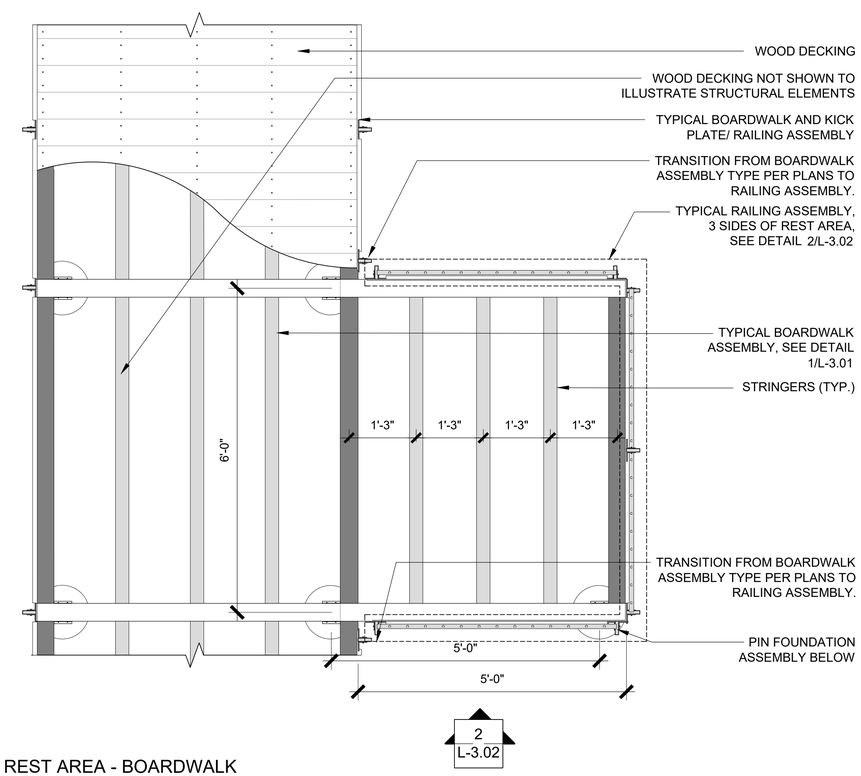
REFER TO SHEET L-3.00
FOR ALL NOTES.



2 REST AREA - KAYAK BOARDWALK
3/4" = 1'-0"



3 BOARDWALK - ANGLED
3/4" = 1'-0"



1 REST AREA - BOARDWALK
3/4" = 1'-0"

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No 88474
STATE OF FLORIDA
PROFESSIONAL ENGINEER

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TUCSON, AZ 85711-3754
KYLE J. VARGHA, P.E. NO. 88474

VOLKERT

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PROJECT NAME
OCALA SPRINGS BOARDWALKS - JUNIPER SPRINGS

NATIONAL FORESTS IN FLORIDA, OCALA
LATITUDE: 29.18263380
LONGITUDE: -81.71097440
USDA FOREST SERVICE
LAKE GEORGE RANGER DISTRICT,
17147 E HWY 40
SILVER SPRINGS, FL 34488-5849
770-209-2708

DRAWING TITLE
DETAILS - BOARDWALK - REST AREA

DATE 09/20/2024	ARCHIVE NUMBER
DESIGNER	DRAWING SHEET NO. L-3.03
DRAWN KK	
CHECKED DL / AW	
PROJECT NO. 23009	

CONSTRUCTION DOCUMENTS

REFER TO SHEET L-3.00
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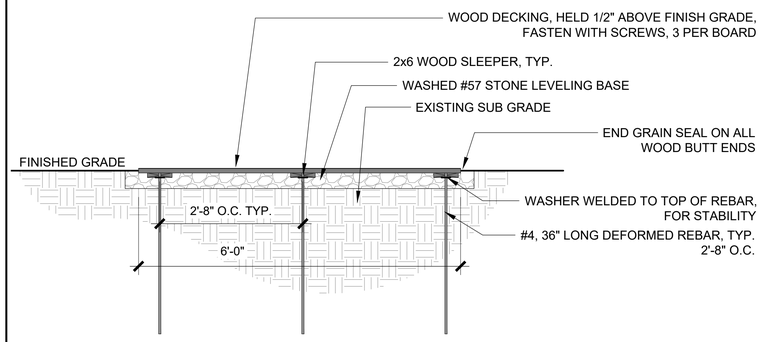
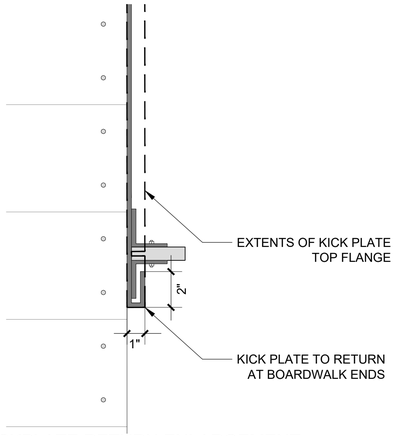
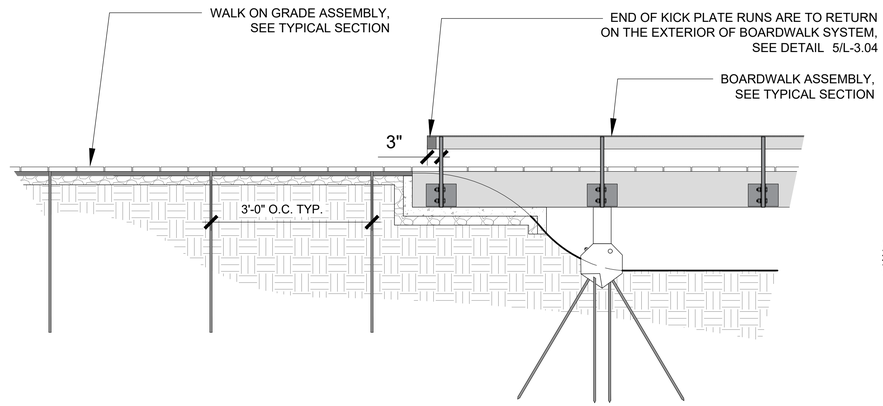


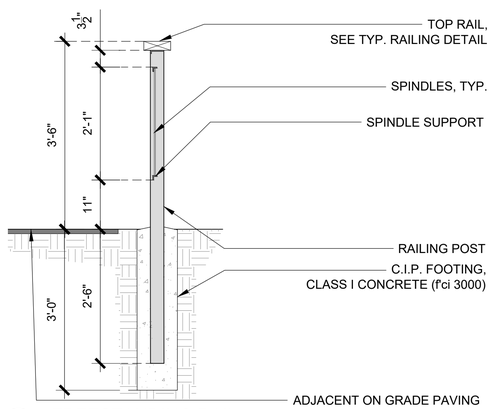
6 WALK ON GRADE
3/4" = 1'-0"



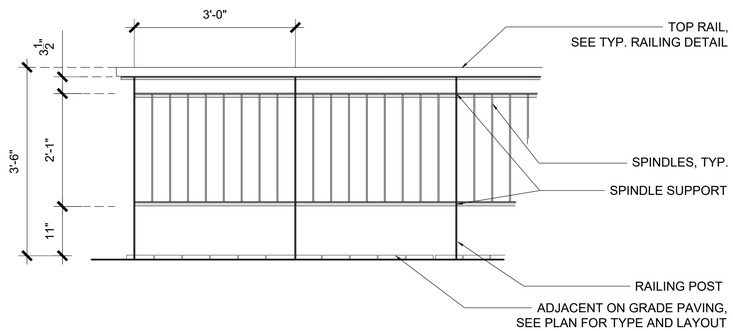
5 KICKPLATE RETURN ENLARGEMENT
3" = 1'-0"



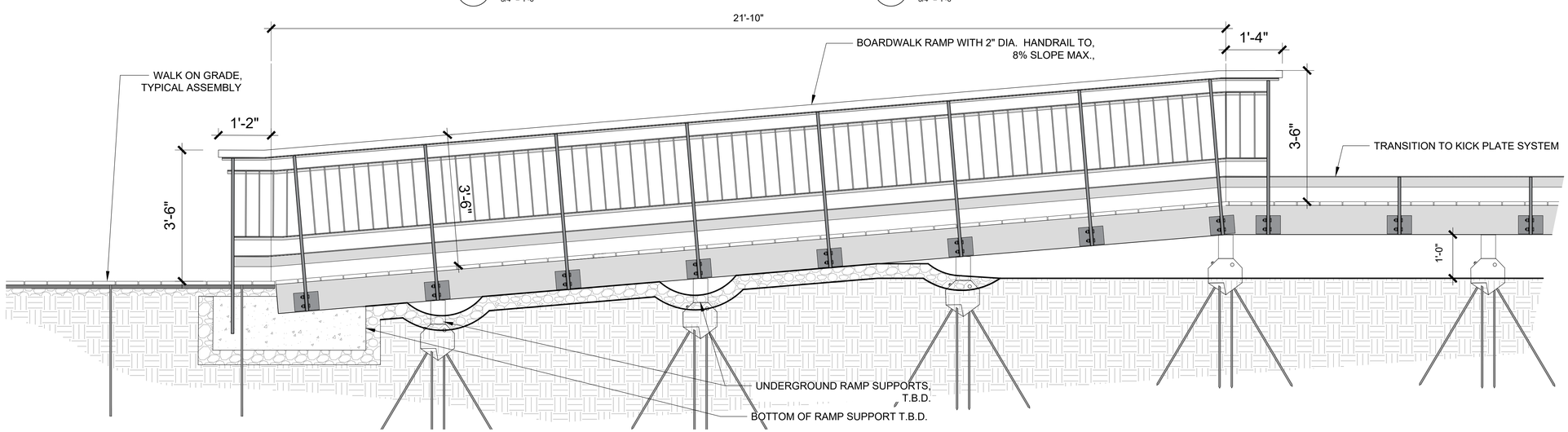
3 WALK ON GRADE TRANSITION TO RAISED BOARDWALK
3/4" = 1'-0"



4 FREESTANDING RAIL
3/4" = 1'-0"



2 FREESTANDING RAIL - ELEVATION
3/4" = 1'-0"



1 BOARDWALK RAMP
3/4" = 1'-0"

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Atlanta, GA | Tulsa, OK | Chattanooga, TN

KYLE J. VARGHA
LICENSE
No 88474
STATE OF FLORIDA
PROFESSIONAL ENGINEER

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Kyle Vargha Digitally signed by Kyle Vargha Date: 2025.12.31 08:33:11-04'00'
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5420 W. LAURA STREET, SUITE 600
TAMPA, FL 33609
KYLE J. VARGHA, P.E. NO. 88474

VOLKERT

NO.	REVISION/ISSUE	DATE
4		
3		
2		
1		

PROJECT NAME
OCALA SPRINGS BOARDWALKS - JUNIPER SPRINGS

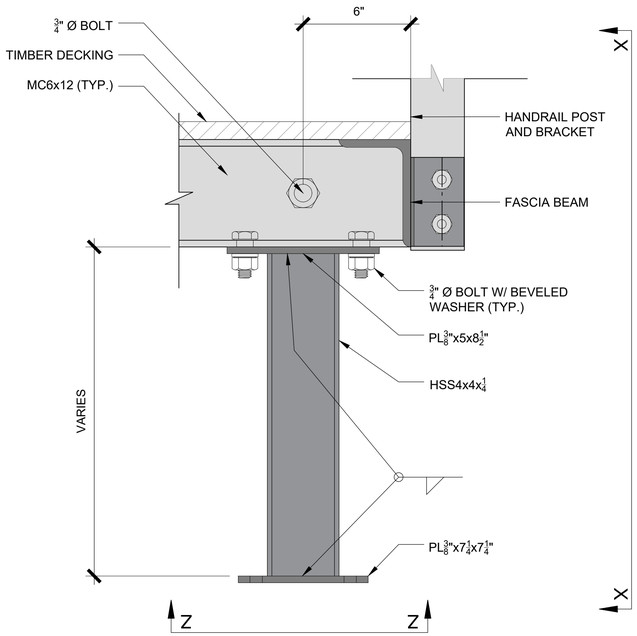
NATIONAL FORESTS IN FLORIDA, OCALA
LATITUDE: 29.18263380
LONGITUDE: -81.71097440
USDA FOREST SERVICE
LAKE GEORGE RANGER DISTRICT, 17147 E HWY 40
SILVER SPRINGS, FL 34488-5849
770-209-2708

DRAWING TITLE
DETAILS - BOARDWALK - ON GRADE

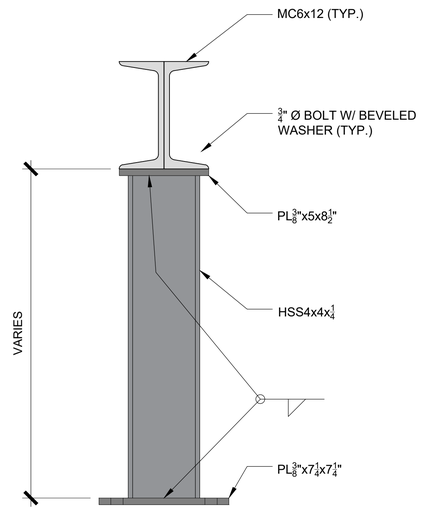
DATE 09/20/2024	ARCHIVE NUMBER
DESIGNER	DRAWING SHEET NO. L-3.04
DRAWN KK	
CHECKED DL / AW	
PROJECT NO. 23009	

CONSTRUCTION DOCUMENTS

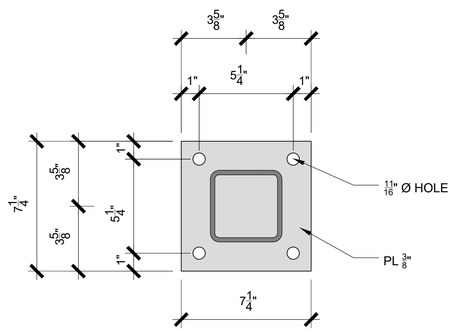
REFER TO SHEET L-3.00
FOR ALL NOTES.



ELEVATION - FLOORBEAM CONNECTION TO COLUMN



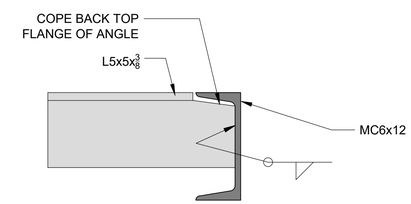
VIEW X-X



VIEW Z-Z

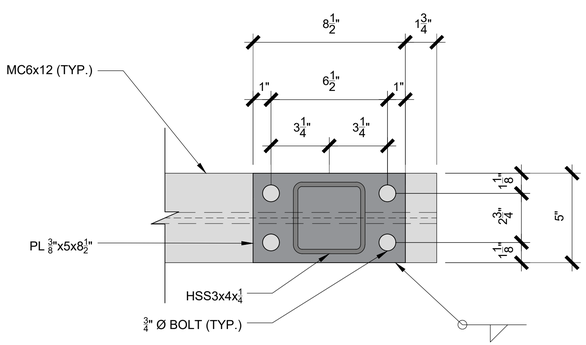
4 ELEVATION - FLOORBEAM CONNECTION TO COLUMN

3" = 1'-0"



2 TYPICAL COPING AT FLOORBEAM-STRINGER CONNECTION

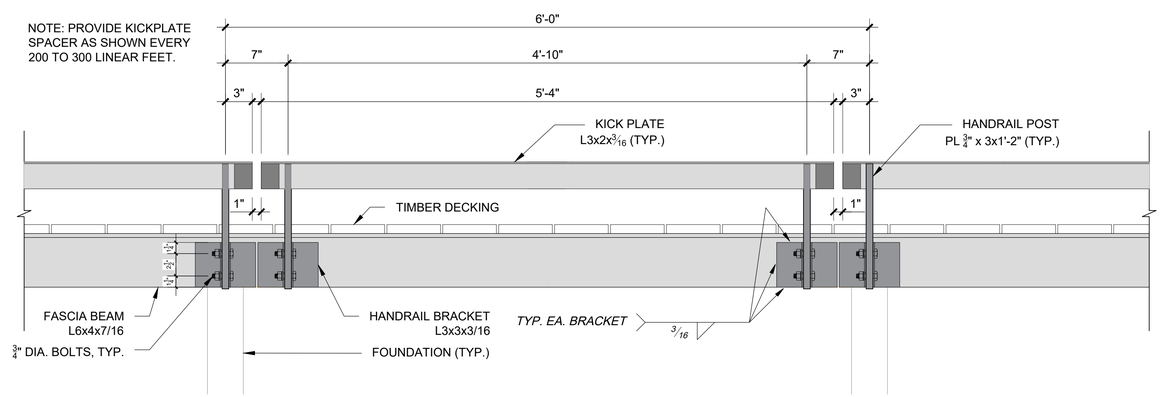
3" = 1'-0"



(HANDRAIL NOT SHOWN FOR CLARITY)

3 PLAN - FLOORBEAM CONNECTION TO COLUMN

3" = 1'-0"



1 KICKPLATE SPACER

1 1/2" = 1'-0"

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LANDSCAPE ARCHITECTURE
Atlanta, GA | Tulsa, OK | Charlotteville, VA

KYLE J. VARGHA
LICENSE
No 88474
STATE OF FLORIDA
PROFESSIONAL ENGINEER

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Kyle Vargha
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5600 W. CYPRESS STREET, SUITE 600
TAMPA, FL 33607
KYLE J. VARGHA, P.E. NO. 88474

VOLKERT

NO.	REVISION/ISSUE	DATE
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3		
2		
1		

PROJECT NAME
OCALA SPRINGS BOARDWALKS - JUNIPER SPRINGS

NATIONAL FORESTS IN FLORIDA, OCALA
LATITUDE: 29.18263380
LONGITUDE: -81.71097440
USDA FOREST SERVICE
LAKE GEORGE RANGER DISTRICT,
17147 E HWY 40
SILVER SPRINGS, FL 34488-5849
770-209-2708

DRAWING TITLE
DETAILS - CONNECTIONS

DATE 09/20/2024	ARCHIVE NUMBER
DESIGNER	DRAWING SHEET NO. L-3.05
DRAWN KK	
CHECKED DL / AW	
PROJECT NO. 23009	

CONSTRUCTION DOCUMENTS

DESIGN SPECIFICATIONS:

1. FLORIDA DEPARTMENT OF TRANSPORTATION (FDOT) STRUCTURES MANUAL DATED JANUARY 2024 AND SUBSEQUENT STRUCTURES DESIGN BULLETINS, AS APPLICABLE.
2. AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS (AASHTO) LOAD AND RESISTANCE FACTOR (LRFD) BRIDGE DESIGN SPECIFICATIONS, 9TH EDITION.
3. AASHTO GUIDE SPECIFICATIONS FOR THE DESIGN OF PEDESTRIAN BRIDGES (GUIDE SPEC.) (DECEMBER 2009)
4. FLORIDA DEPARTMENT OF TRANSPORTATION DESIGN MANUAL DATED JANUARY 2024 AND SUBSEQUENT ROADWAY DESIGN BULLETINS, AS APPLICABLE.

GOVERNING STANDARDS AND CONSTRUCTION SPECIFICATIONS:

1. FLORIDA DEPARTMENT OF TRANSPORTATION, FISCAL YEARS 2023-24 STANDARD PLANS AND REVISED INDEX DRAWINGS AS APPENDED HEREIN, AND JULY 2024 STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, AS AMENDED BY CONTRACT DOCUMENTS.

VERTICAL DATUM:
ALL ELEVATIONS REFER TO THE NORTH AMERICAN VERTICAL DATUM (NAVD) OF 1988.

DIMENSIONS:
ALL DIMENSIONS IN THE PLANS ARE MEASURED IN FEET, EITHER HORIZONTALLY OF VERTICALLY, UNLESS NOTED OTHERWISE.

DESIGN METHOD:
LOAD RESISTANCE FACTOR DESIGN METHOD (LRFD) USING STRENGTH, SERVICE AND FATIGUE LIMIT STATES.

DESIGN LOADING:
LIVE LOAD

PEDESTRIAN LOADING	=90 PSF
PEDESTRIAN LOAD	SPAN/360
PEDESTRIAN LIVE LOAD	CANTILEVER LENGTH/220
HORIZONTAL DEFLECTION DUE TO LATERAL WIND LOAD	SPAN/360

DEAD LOADS:

REINFORCED CONCRETE UNIT WEIGHT	=150 PCF
STRUCTURAL STEEL UNIT WEIGHT	=490 PCF
PEDESTRIAN RAILING	=30 PLF
TRAFFIC RAILING	=385 PLF

UTILITIES - NO ALLOWANCE FOR UTILITY LOADS HAS BEEN INCLUDED IN THE DESIGN.

WIND LOADS:
AS SPECIFIED IN THE GUIDE SPEC.

CONCRETE COVER:
CONCRETE COVER DIMENSIONS SHOWN IN THE PLANS DO NOT INCLUDE PLACEMENT AND FABRICATION TOLERANCES UNLESS SHOWN AS "MINIMUM COVER". SEE SECTION 415 OF THE SPECIFICATIONS FOR ALLOWABLE TOLERANCES.

EXISTING CONDITIONS:
ALL EXISTING INFORMATION DEPICTED ON THESE PLANS IS BASED ON GENERAL SURVEY DATA AND SKETCHES. IT IS THE CONTRACTOR'S RESPONSIBILITY TO VERIFY ALL EXISTING FIELD CONDITIONS DEPICTED ON THESE PLANS PRIOR TO BEGINNING ANY CONSTRUCTION ACTIVITIES AND NOTIFY THE ENGINEER OF ANY DISCREPANCIES.

STEEL GENERAL NOTES:

MATERIAL:
A. ALL MATERIALS SHALL BE IN COMPLIANCE WITH THE APPLICABLE SPECIFICATION. ALL RECTANGULAR AND SQUARE STRUCTURAL TUBING SHALL BE ASTM A847 GRADE 50 WEATHERING STEEL.

B. BOLTS SHALL BE ASTM A593 GRADE 316, NUTS SHALL BE ASTM F594 GRADE 316 AND WASHERS SHALL BE STAINLESS GRADE 316 EXCEPT THAT ALL VISIBLE HARDWARE, INCLUDING BUT NOT LIMITED TO, NUTS, BOLTS, SCREWS, AND FASTENERS SHALL BE BLACKENED STAINLESS STEEL WITH A SUBSTANTLY UNIFORM BLACK OXIDE COATING OVER THE SURFACE THEREOF. THE ARTICLE BEING FORMED FROM A STEEL ALLOY IN MARTENSITIC STRUCTURE WHICH IS TREATED IN A BOILING AQUEOS ALKALINE-CHROMATE-OXIDIZING SOLUTION CONTAINING SODIUM HYDROXIDE, SODIUM NITRATE AND SODIUM DICHROMATE AT A TEMPERATURE IN THE RANGE FROM ABOUT 230° F. TO ABOUT 260° F. FOR 30 TO 60 MINUTES.

CHARPY-V-NOTCH

A. REQUIRE ASTM A709 CHARPY V-NOTCH TESTING FOR ALL STRUCTURAL STEEL TENSION MEMBERS.
B. REQUIRE IMPACT TESTING REQUIREMENTS AS NOTED BELOW:
1. TEST NON-FRACTURE CRITICAL TENSION MEMBERS IN ACCORDANCE WITH ASTM A709 (LATEST VERSION).
2. PRIMARY TENSION CHORDS IN A TWO TRUSS BRIDGE MAY BE CONSIDERED NON-FRACTURE CRITICAL DUE TO FRAME ACTION.
3. TEST FRACTURE CRITICAL TENSION MEMBERS IN ACCORDANCE WITH ASTM A709 (LATEST VERSION).
4. TEST TUBULAR TENSION MEMBERS (ASTMA500) IN ACCORDANCE WITH SECTION 962 OF THE SPECIFICATIONS.

FABRICATION:
THE PEDESTRIAN BRIDGE SHALL BE BUILT TO MATCH THE CAMBER PROFILE AFTER ALL PERMANENT DEAD LOAD HAS BEEN APPLIED.

OPEN ENDED TUBING IS NOT ACCEPTABLE.

PRIOR TO BOLTING OF FIELD SECTIONS TUBULAR MEMBERS SHALL BE CAPPED AND FULLY SEALED WITH THE FOLLOWING EXCEPTION. WEEP HOLES SHALL BE PROVIDED TO THE LOW POINT OF ALL MEMBERS TO ALLOW FOR DRAINAGE OF WATER ACCUMULATED INSIDE THE MEMBERS DURING TRANSPORT AND ERECTION. AFTER ERECTION IS COMPLETE AND PRIOR TO PAINTING, THE WEEP HOLES SHALL BE SEALED WITH SILICONE PLUGS.

PAINTING:
COATINGS ARE NOT REQUIRED FOR ANY STEEL MEMBERS.

WELDING:
ALL WELDING OF MISCELLANEOUS COMPONENTS AND STRUCTURAL ELEMENTS SHALL CONFORM TO AWS D1.1. COORDINATE WELD WIRE/FILLS TO ENSURE COLOR CONSISTENCY. NO FIELD WELDING IS PERMITTED ON FLOORBEAMS, CHORDS OR STRINGERS.

WELDS ARE TO BE $^{3}/_{16}$" UNLESS NOTED OTHERWISE.

ELECTRODES SHALL BE E70XX.

SHOP DRAWINGS:
CONTRACTOR SHALL SUBMIT SHOP DRAWINGS OF THE STEEL TRUSS FOR REVIEW AND APPROVAL BY THE ENGINEER PRIOR TO COMMENCING ANY FABRICATION.

CONCRETE MATERIALS:
CONCRETE CLASS:
CLASS IV (DRILLED SHAFT)

MINIMUM 28-DAY COMPRESSIVE STRENGTH:
5,500 PSI

LOCATION OF CONCRETE STRUCTURE:
AUGER CAST PILES

REINFORCING STEEL:
ALL REINFORCING STEEL SHALL BE ASTM A615, GRADE 60.

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KYLE J. VARGHA
LICENSE
No 88474
STATE OF FLORIDA
PROFESSIONAL ENGINEER

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3408 N. WITCHDUCK BLVD., SUITE 600
VIRGINIA BEACH, VA 23452
KYLE J. VARGHA, P.E. NO. 88474

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NO.	REVISION/ISSUE	DATE
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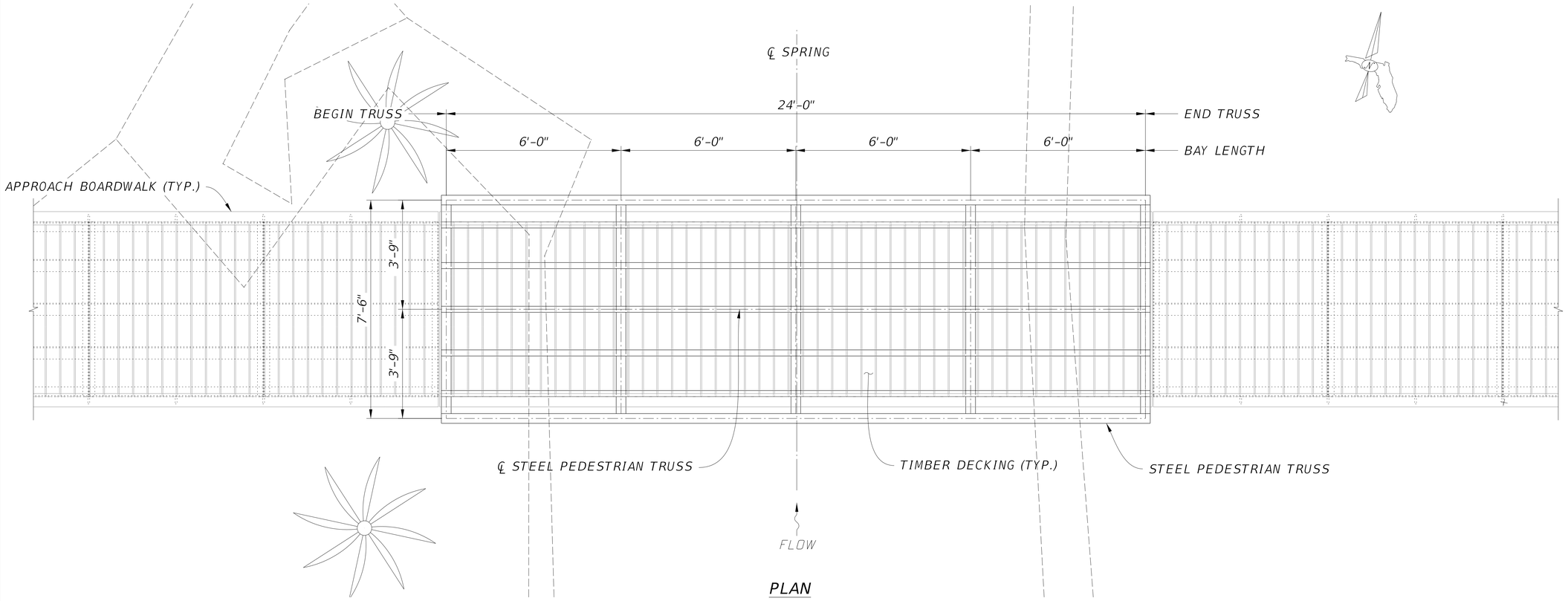
3		
2		
1		

PROJECT NAME
OCALA SPRINGS BOARDWALKS - JUNIPER SPRINGS

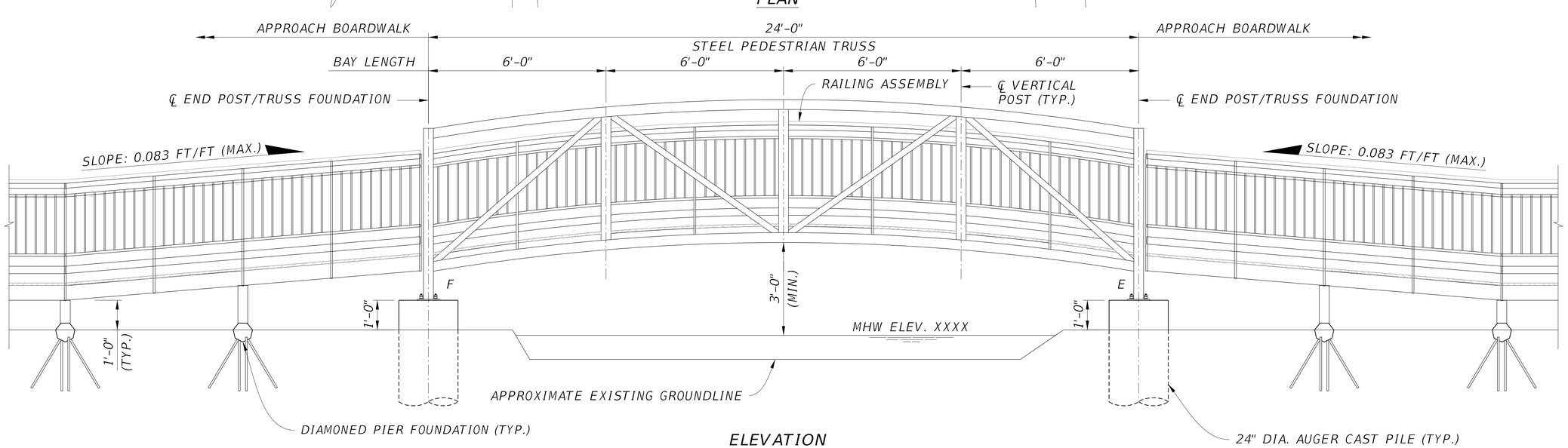
NATIONAL FORESTS IN FLORIDA, OCALA
LATITUDE: 29.18263380
LONGITUDE: -81.71097440
USDA FOREST SERVICE
LAKE GEORGE RANGER DISTRICT,
17147 E HWY 40
SILVER SPRINGS, FL 34488-5849
770-209-2708

DRAWING TITLE
PEDESTRIAN TRUSS GENERAL NOTES

DATE	ARCHIVE NUMBER
DESIGNER	DRAWING SHEET NO.
DRAWN	S-1.00
CHECKED	
PROJECT NO.	



PLAN



ELEVATION

NOTES:
1. BEARING DESIGNATIONS
   F = FIXED
   E = EXPANSION

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LICENSE
No 88474
STATE OF FLORIDA
PROFESSIONAL ENGINEER

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VIRGINIA BEACH, VA 23452
KYLE J. VARGHA, P.E. NO. 88474

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NO.	REVISION/ISSUE	DATE
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3		
2		
1		

PROJECT NAME

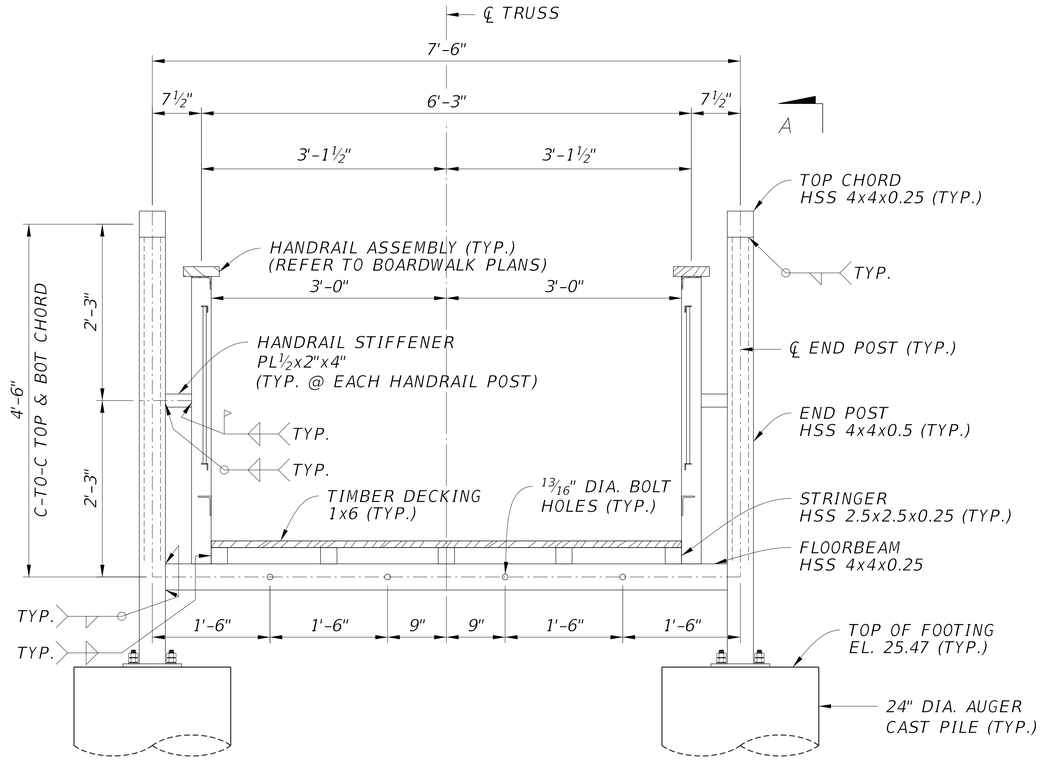
OCALA SPRINGS BOARDWALKS - JUNIPER SPRINGS

NATIONAL FORESTS IN FLORIDA, OCALA
LATITUDE: 29.18263380
LONGITUDE: -81.71097440
USDA FOREST SERVICE
LAKE GEORGE RANGER DISTRICT,
17147 E HWY 40
SILVER SPRINGS, FL 34488-5849
770-209-2708

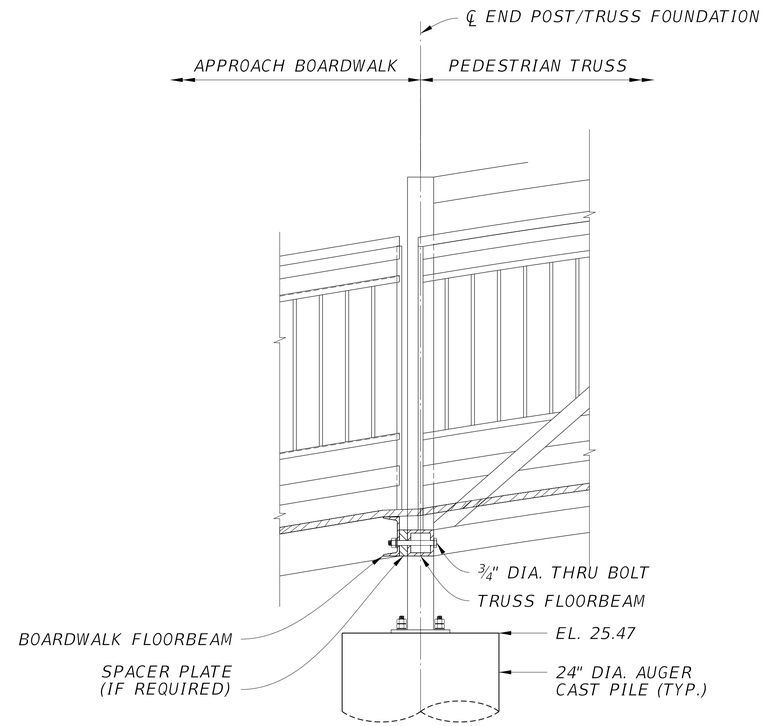
DRAWING TITLE

PEDETRIAN TRUSS PLAN AND ELEVATION

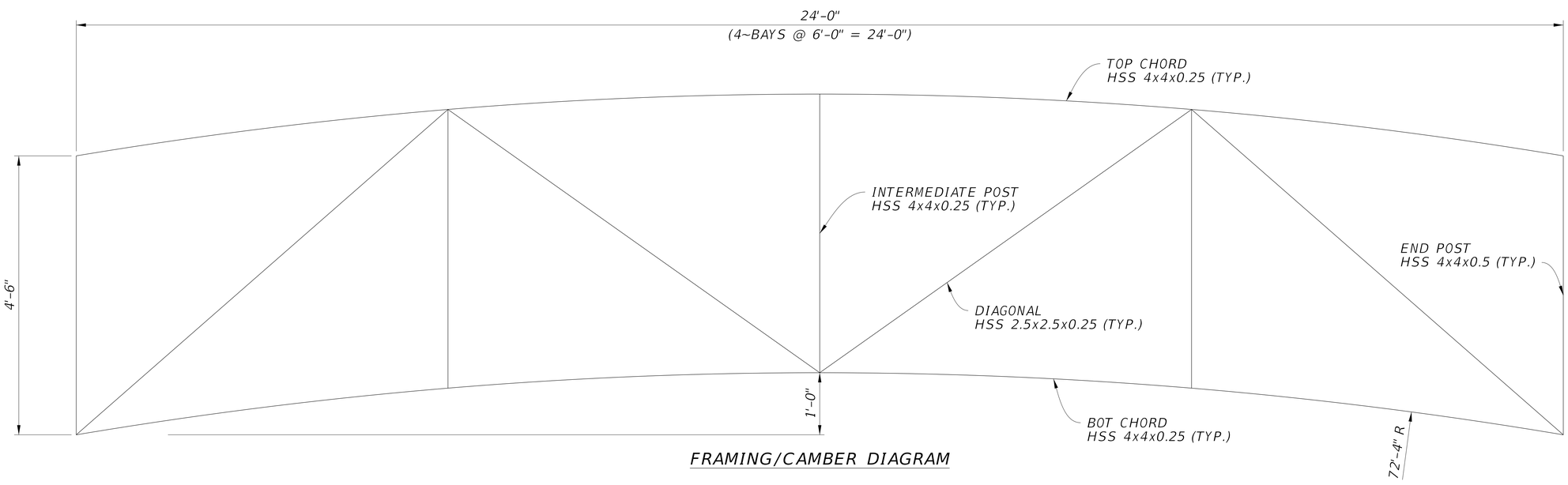
DATE	ARCHIVE NUMBER
DESIGNER	DRAWING SHEET NO.
DRAWN	S-1.01
CHECKED	
PROJECT NO.	



END VIEW OF PEDESTRIAN TRUSS



SECTION A-A



FRAMING/CAMBER DIAGRAM

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Forest Service

STAMPS, LOGOS, AND SEALS

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PLANNING • ARCHITECTURE
LANDSCAPE ARCHITECTURE
Atlanta, GA | Tulsa, OK | Chattanooga, TN

KYLE J. VARGHA
LICENSE
No 88474
STATE OF FLORIDA
PROFESSIONAL ENGINEER

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Date: 2025.01.09 09:36:01 -04'00'

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VIRGINIA BEACH, VA 23452
KYLE J. VARGHA, P.E. NO. 88474

VOLKERT

NO.	REVISION/ISSUE	DATE
4		
3		
2		
1		

PROJECT NAME

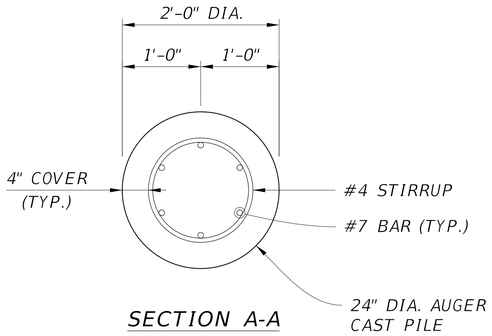
OCALA SPRINGS BOARDWALKS - JUNIPER SPRINGS

NATIONAL FORESTS IN FLORIDA, OCALA
LATITUDE: 29.18263380
LONGITUDE: -81.71097440
USDA FOREST SERVICE
LAKE GEORGE RANGER DISTRICT,
17147 E HWY 40
SILVER SPRINGS, FL 34488-5849
770-209-2708

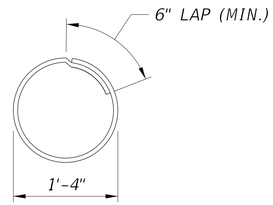
DRAWING TITLE

PEDESTRIAN TRUSS
TYPICAL SECTION
AND TRUSS DETAILS80

DATE	ARCHIVE NUMBER
DESIGNER	DRAWING SHEET NO. S-1.02
DRAWN	
CHECKED	
PROJECT NO.	



SECTION A-A



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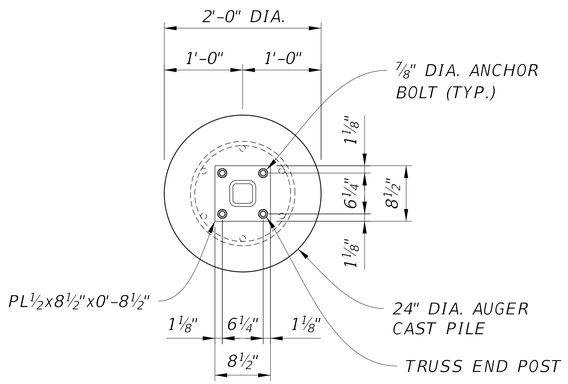
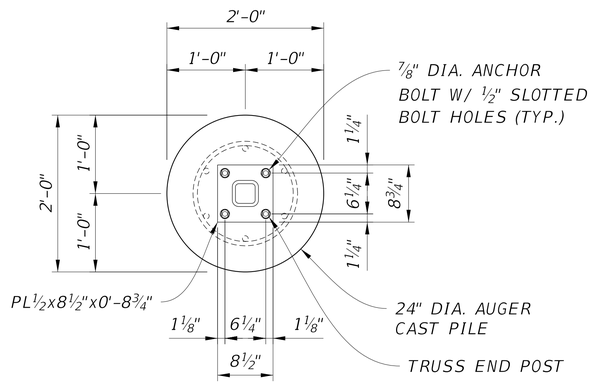


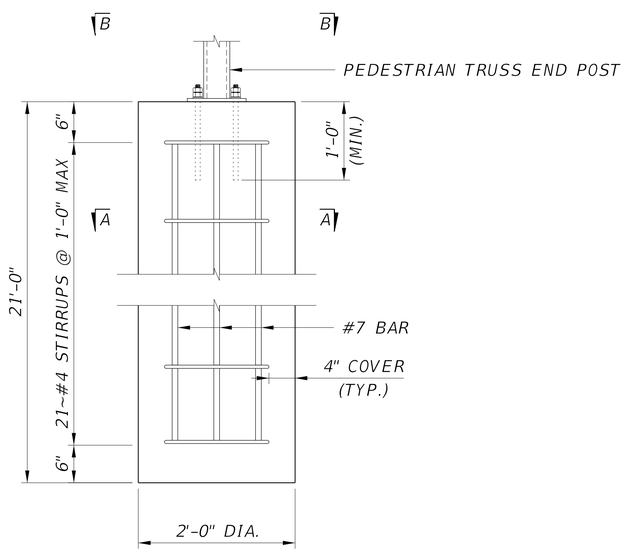
VIEW B-B

(FIXED END OF PEDESTRIAN TRUSS)



VIEW B-B

(PINNED END OF PEDESTRIAN TRUSS)



ELEVATION - AUGER CAST PILE

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KYLE J. VARGHA
LICENSE
No 88474
STATE OF FLORIDA
PROFESSIONAL ENGINEER

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Kyle Vargha
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Date: 2025.11.04 09:59:11 -04'00'
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3408 N. WITCHDUCK BLVD., SUITE 600
VIRGINIA BEACH, VA 23452
KYLE J. VARGHA, P.E. NO. 88474

VOLKERT

NO.	REVISION/ISSUE	DATE
4		
3		
2		
1		

PROJECT NAME

OCALA SPRINGS BOARDWALKS - JUNIPER SPRINGS

NATIONAL FORESTS IN FLORIDA, OCALA
LATITUDE: 29.18263380
LONGITUDE: -81.71097440
USDA FOREST SERVICE
LAKE GEORGE RANGER DISTRICT,
17147 E HWY 40
SILVER SPRINGS, FL 34488-5849
770-209-2708

DRAWING TITLE

PEDESTRIAN TRUSS AUGER CAST PILE DETAILS

DATE	ARCHIVE NUMBER
DESIGNER	DRAWING SHEET NO. S-1.03
DRAWN	
CHECKED	
PROJECT NO.	

A. DESIGN SPECIFICATIONS:

1. AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS (AASHTO) LOAD AND RESISTANCE FACTOR (LRFD) BRIDGE DESIGN SPECIFICATIONS, 9TH EDITION.
2. AASHTO GUIDE SPECIFICATIONS FOR THE DESIGN OF PEDESTRIAN BRIDGES (GUIDE SPEC.) (DECEMBER 2009)
3. FLORIDA DEPARTMENT OF TRANSPORTATION DESIGN MANUAL DATED JANUARY 2024 AND SUBSEQUENT ROADWAY DESIGN BULLETINS, AS APPLICABLE.
4. ASCE/SEI 74-23 LOAD AND RESISTANCE FACTOR DESIGN(LRFD) FOR PULTRUDED FIBER REINFORCED POLYMER (FRP) STRUCTURES 2023

B. GOVERNING STANDARDS AND CONSTRUCTION SPECIFICATIONS:

1. FLORIDA DEPARTMENT OF TRANSPORTATION, FISCAL YEARS 2023-24 STANDARD PLANS AND REVISED INDEX DRAWINGS AS APPENDED HEREIN, AND JULY 2024 STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, AS AMENDED BY CONTRACT DOCUMENTS.

C. VERTICAL DATUM:
ALL ELEVATIONS REFER TO THE NORTH AMERICAN VERTICAL DATUM (NAVD) OF 1988.

D. DIMENSIONS:
ALL DIMENSIONS IN THE PLANS ARE MEASURED IN FEET, EITHER HORIZONTALLY OF VERTICALLY, UNLESS NOTED OTHERWISE.

E. DESIGN METHOD:
LOAD AND RESISTANCE FACTOR DESIGN METHOD (LRFD) USING STRENGTH, SERVICE AND FATIGUE LIMIT STATES.

F. DESIGN LOADING:
1. LIVE LOAD
PEDESTRIAN LOADING =90 PSF

2. DEAD LOADS:
REINFORCED CONCRETE =150 PCF
FRP UNIT WEIGHT =120 PCF
PEDESTRIAN RAILING (FUTURE) =30 PLF
UTILITIES - NO ALLOWANCE FOR UTILITY LOADS HAS BEEN INCLUDED IN THE DESIGN.

3. WIND LOADS:
AS SPECIFIED IN THE GUIDE SPEC.

G. MATERIALS:
1. ALL FRP RECTANGULAR AND SQUARE STRUCTURAL TUBING AND FRP PLATES SHALL MEET THE MATERIAL REQUIREMENTS IN CHAPTER 1 OF ASCE 74-23, LOAD AND RESISTANCE FACTOR DESIGN (LRFD) FOR PULTRUDED FIBER REINFORCED POLYMER (FRP) STRUCTURES.

2. ALL CONNECTION HARDWARE SHALL BE STAINLESS STEEL. BOLTS SHALL BE ASTM F593 GRADE 306. THREADED BARS SHALL BE ASTM A193 GRADE B8M. SCREWS SHALL BE ASTM F593 GRADE 305. WASHERS SHALL BE STAINLESS STEEL GRADE 316. ALL VISIBLE HARDWARE SHALL BE BLACKENED STAINLESS STEEL WITH A SUBSTANTLY UNIFORM BLACK OXIDE COATING OVER THE SURFACE THEREOF. THE ARTICLE BEING FORMED FROM A STEEL ALLOY IN MARTENSITIC STRUCTURE WHICH IS TREATED IN A BOILING AQUEOS ALKALINE-CHROMATE-OXIDIZING SOLUTION CONTAINING SODIUM HYDROXIDE, SODIUM NITRATE AND SODIUM DICHROMATE AT A TEMPERATURE IN THE RANGE FROM ABOUT 230° F. TO ABOUT 260° F FOR 30 TO 60 MINUTES.

H. FRP ADHESIVE CONNECTIONS:
1. FRP RECTANGULAR AND SQUARE STRUCTURAL TUBING AND FRP PLATES MAY BE CONNECTED USING A MANUFACTURER RECOMMENDED ADHESIVE. APPLICATION OF ANY ADHESIVES SHALL BE PER MANUFACTURERS RECOMMENDATIONS.

2. FRP DECKING SHALL BE SCREWED IN PLACE INACCORDANCE WITH THE MANUFACTURERS RECOMMENDATIONS.

J. PAINTING:
FRP MATERIAL COLORING SHALL MATCH, AS CLOSE AS POSSIBLE, THE STEEL BOARDWALK ELEMENTS.

K. FOUNDATIONS:
KAYAK LAUNCH FOUNDATIONS SHALL BE DIAMOND PIER FOUNDATION SYSTEM OR APPROVED EQUIVALENT TO MINIMIZE ECOLOGICAL DISTURBANCES. FOUNDATION ELEMENTS DESIGNED BY OTHERS.L.
INSPECTION:
ALL FRP COMPONENTS SHALL BE INSPECTED BY THE FABRICATOR PRIOR TO BEGINNING FABRICATION. ALL STRUCTURAL SHAPES AND PLATES SHALL BE FREE FROM VISUAL DEFECTS SUCH AS FOREIGN INCLUSIONS, DELAMINATION, BLISTERS, RESIN BURNS, AIR BUBBLES OR PITS.

M. INSTALLATION:
THE CONTRACTOR SHALL FOLLOW THE MANUFACTURER'S INSTRUCTIONS WHEN CUTTING OR DRILLING FIBERGLASS PRODUCTS DURING INSTALLATION.

N. STORAGE:
THE CONTRACTOR SHALL HANDLE AND STORE ALL FRP STRUCTURAL SHAPES AND PLATES PER THE MANUFACTURER'S RECOMMENDATIONS. THE CONTRACTOR SHALL TAKE THE NECESSARY TO PREVENT CRACKING, CHIPPING, ABRASION, TWISTING, OR OTHERWISE DAMAGING FRP SHAPES AND PLATES.

O. SHOP DRAWINGS:
PRIOR TO COMMENCING ANY FABRICATION, THE CONTRACTOR SHALL SUBMIT SHOP DRAWINGS TO THE ENGINEER CONTAINING ALL PROPOSED FRP RECTANGULAR AND SQUARE STRUCTURAL TUBES, FRP PLATES, PROOF OF FRP MATERIAL PROPERTIES, CONNECTION DETAILS AND PROPOSED ADHESIVE MATERIALS.

P. KAYAK LAUNCH REPLACEMENT PROJECT LOCATION:
JUNIPER SPRINGS RECREATION AREA
26701 FL-40, SILVER SPRINGS, FL 34488

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Forest Service

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PROFESSIONAL ENGINEER

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PROJECT NAME

OCALA SPRINGS BOARDWALKS - JUNIPER SPRINGS

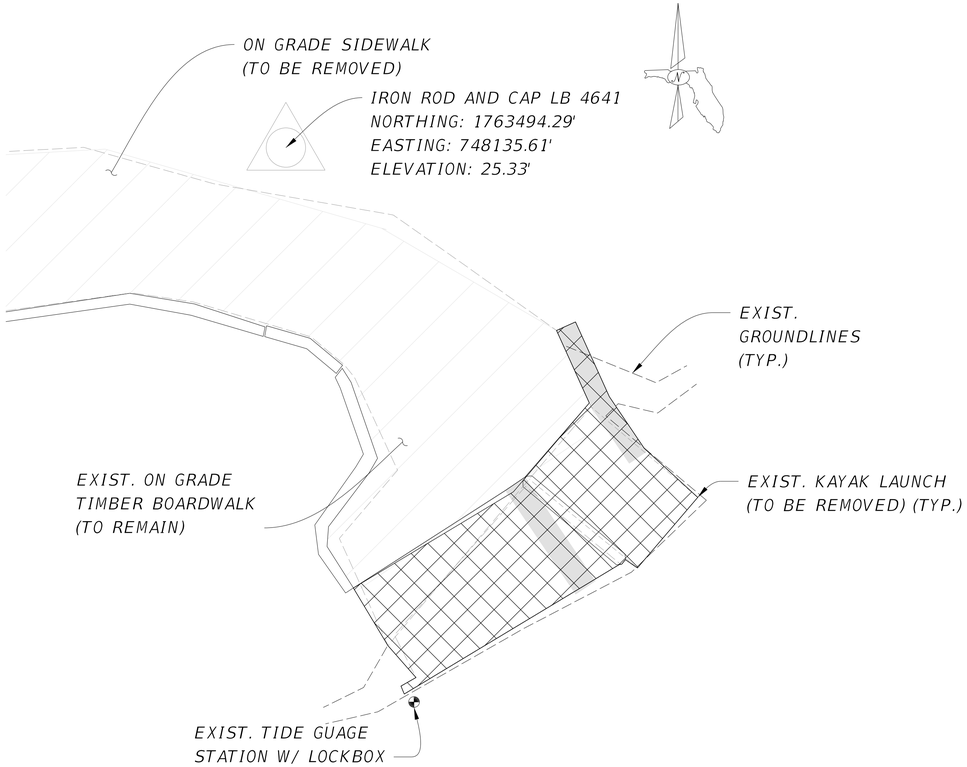
NATIONAL FORESTS IN FLORIDA, OCALA
LATITUDE: 29.18263380
LONGITUDE: -81.71097440
USDA FOREST SERVICE
LAKE GEORGE RANGER DISTRICT,
17147 E HWY 40
SILVER SPRINGS, FL 34488-5849
770-209-2708

DRAWING TITLE

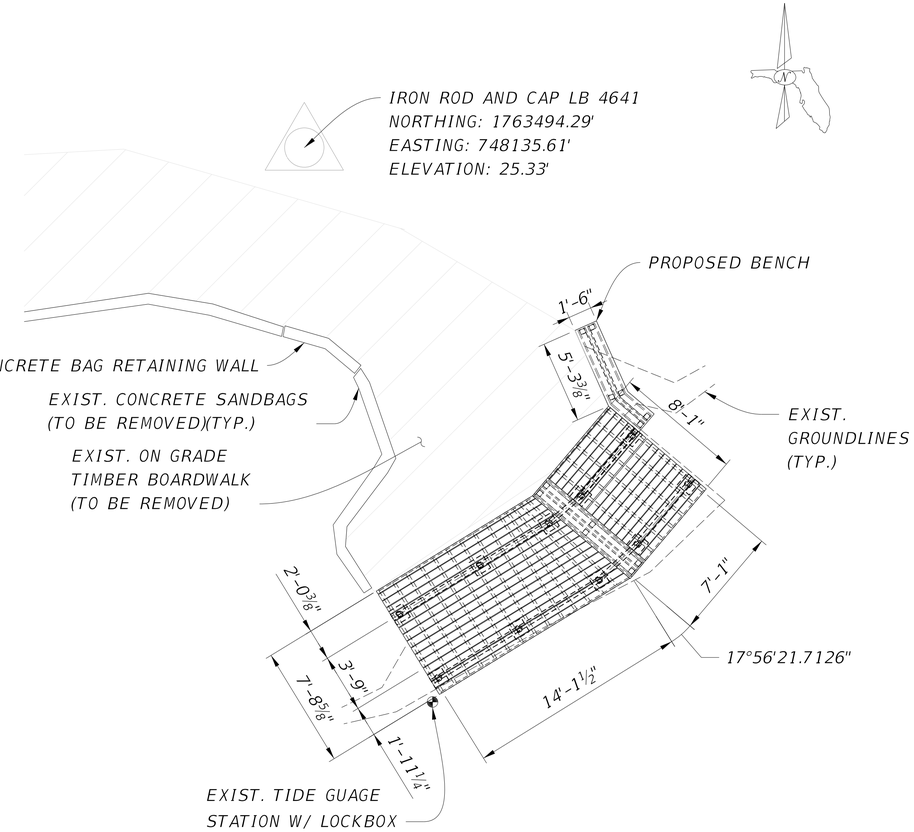
KAYAK LAUNCH PLAN AND ELEVATION VIEW

DATE	ARCHIVE NUMBER
DESIGNER	DRAWING SHEET NO.
DRAWN	S-1.04
CHECKED	
PROJECT NO.	

TEXT SIZE



EXISTING BOARDWALK/KAYAK LAUNCH



PROPOSED BOARDWALK/KAYAK LAUNCH

LEGEND:

APPROXIMATE LIMITS OF EXISTING BOARDWALK REMOVAL

NOTES:

1) TIDE GUAGE STATION W/ LOCKBOX TO REMAIN.

2) REFER TO ARCHITECTURAL PLANS FOR LOCATION OF THE KAYAK LAUNCH.

3) FOR KAYAK LAUNCH DETAILS, SEE KAYAK LAUNCH DETAILS (1 OF 2).

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DRAWING TITLE

KAYAK LAUNCH
PLAN VIEW

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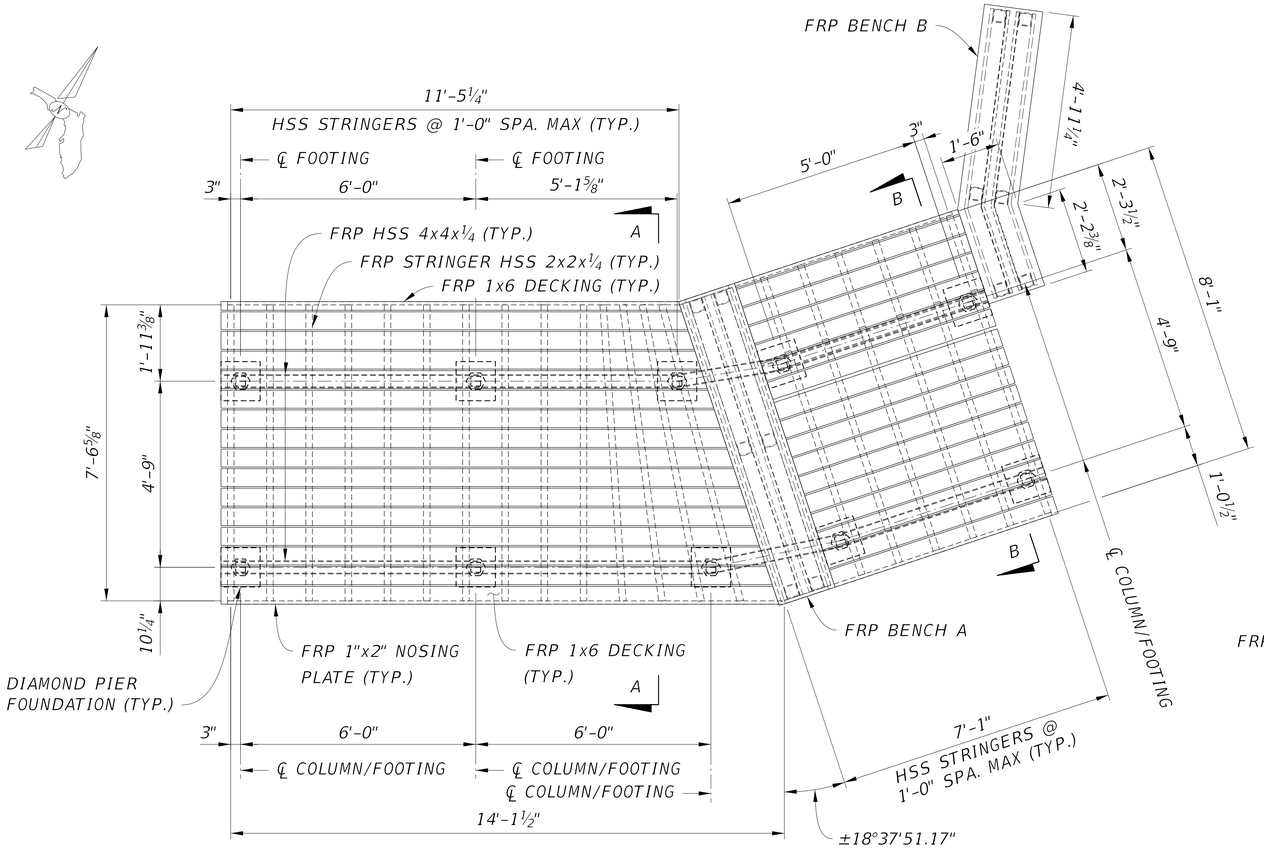
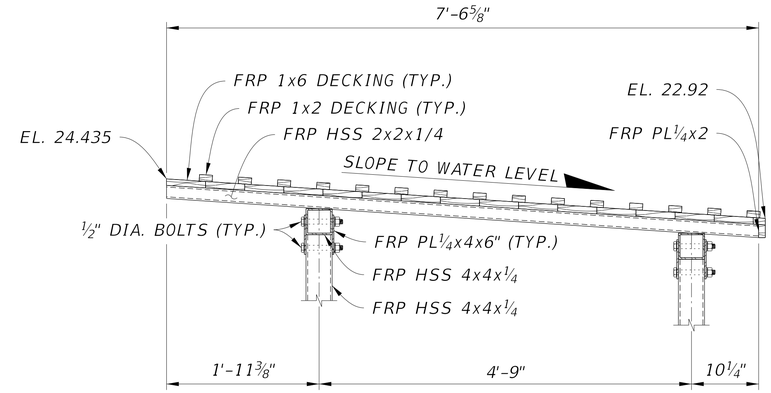
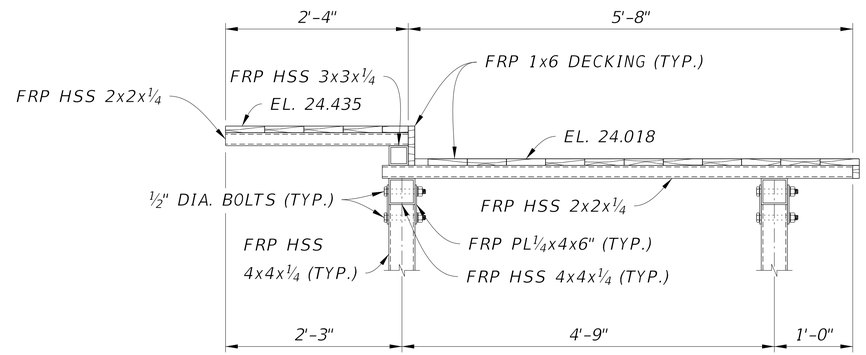
PROJECT NO.	



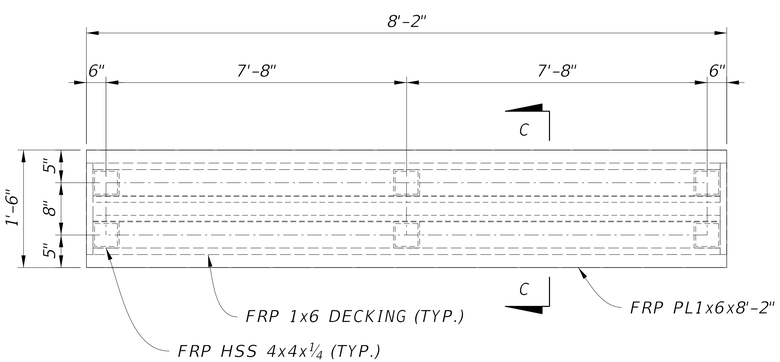
KAYAK LAUNCH FRAMING PLAN



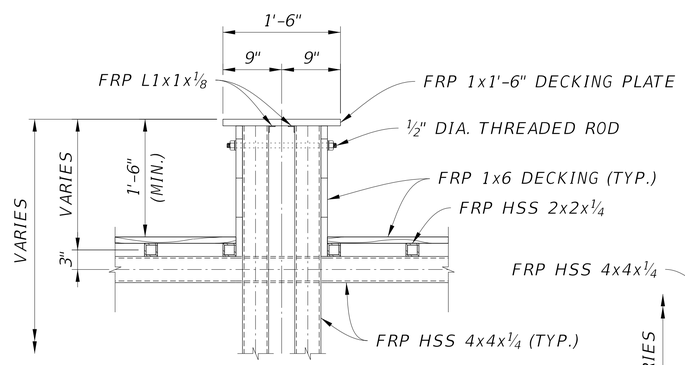
SECTION A-A - SLOPED PLATFORM



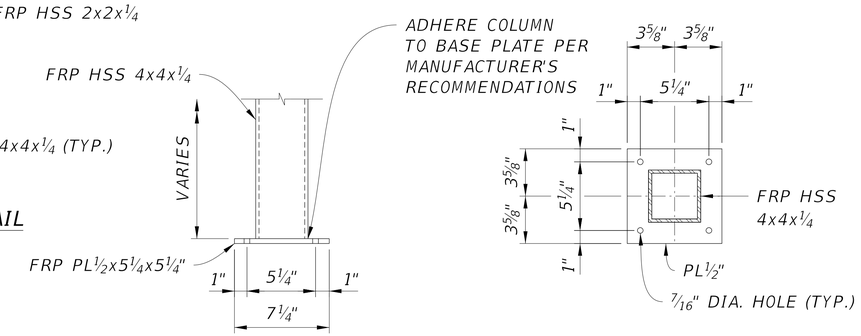
SECTION B-B - STEPPED PLATFORM



PLAN - FRP BENCH A



SECTION C-C - FRP BENCH DETAIL



ELEVATION

PLAN

COLUMN BASE PLATE

NOTES:
1. FOR FRP BENCH B DETAILS, SEE SHEET XX.

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LONGITUDE: -81.71097440
USDA FOREST SERVICE
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SILVER SPRINGS, FL 34488-5849
770-209-2708

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KAYAK LAUNCH DETAILS (1 OF 2)

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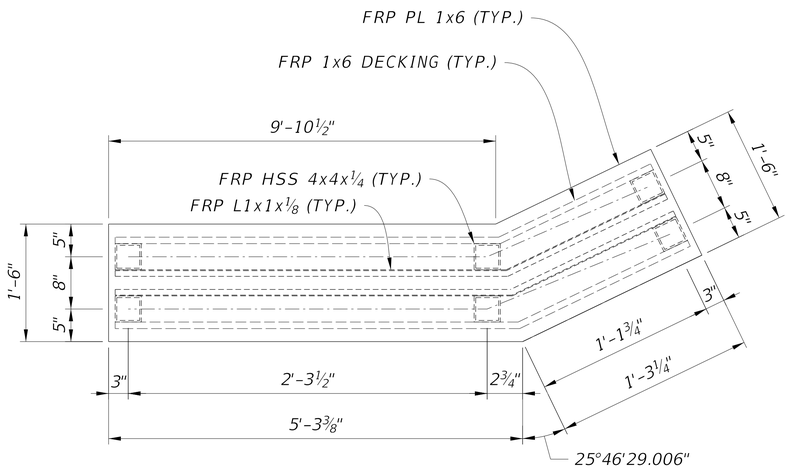
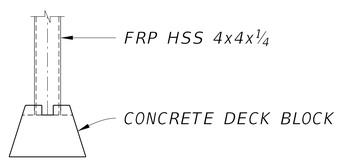


PLAN - FRP BENCH B



BENCH FOUNDATION DETAIL

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KAYAK LAUNCH DETAILS (2 OF 2)

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