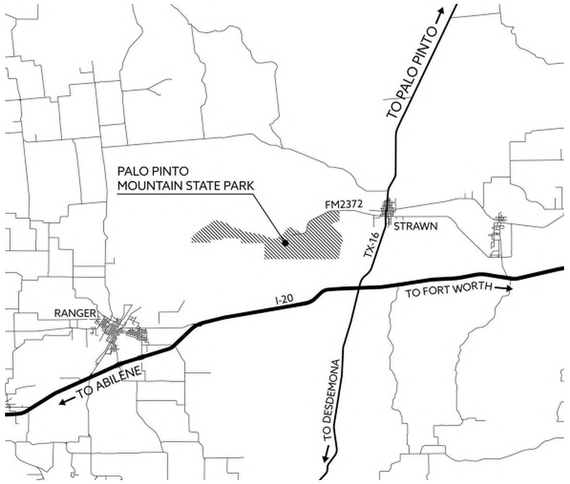
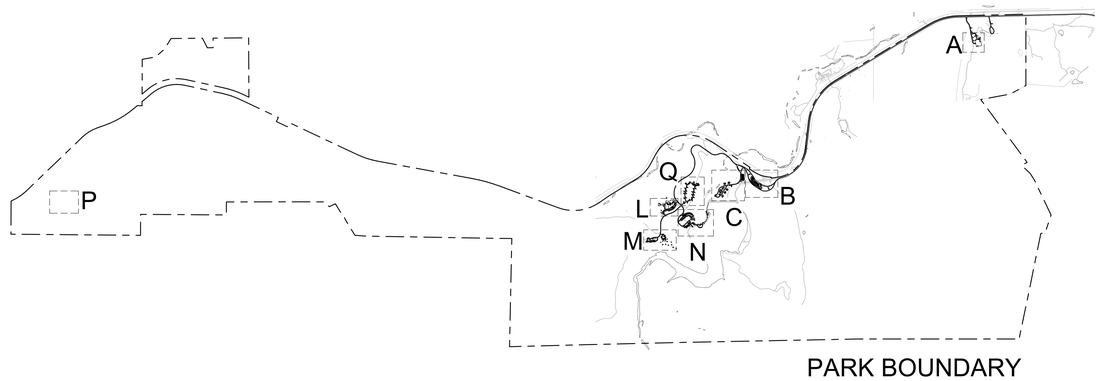
COUNTY LOCATION MAP

NOT TO SCALE



VICINITY MAP

NOT TO SCALE



SITE LOCATION MAP

NOT TO SCALE

PROJECT TEAM

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PROJECT

PALO PINTO MOUNTAINS STATE PARK

SITE DEVELOPMENT

TPWD PROJECT NO. 118271 DATE: 03/29/2021

APPLICABLE BUILDING CODES

A. INTERNATIONAL CODE COUNCIL ADOPTIONS

- i. BUILDING CODE - INTERNATIONAL BUILDING CODE 2012
- ii. STRUCTURAL CODE - INTERNATIONAL BUILDING CODE 2012
- iii. PLUMBING CODE - INTERNATIONAL PLUMBING CODE 2012
- iv. MECHANICAL CODE - INTERNATIONAL MECHANICAL CODE 2012
- v. ENERGY CODE - INTERNATIONAL ENERGY CODE 2012
- vi. GAS CODE - INTERNATIONAL FUEL GAS CODE 2012
- vii. RESIDENTIAL CODE - INTERNATIONAL RESIDENTIAL CODE 2012
- viii. EXISTING BUILDINGS - INTERNATIONAL EXISTING BUILDINGS CODE 2012

B. NATIONAL FIRE PROTECTION ASSOCIATION

- i. ELECTRIC CODE - NATIONAL ELECTRIC CODE 2020

C. STATE ENERGY CONSERVATION OFFICE/TEXAS COMPTROLLERS OFFICE

- i. ENERGY CODES FOR STATE BUILDINGS - Title 34,Part 1,Ch. 19, Sb.C, Rule 19.31
  1. CERTIFICATION FOR RESIDENTIAL AND NONRESIDENTIAL BUILDINGS REQUIRED BY ARCHITECT/ENGINEER-SEE ATTACHED

D. ACCESSIBILITY CODES

- i. US DEPT. OF JUSTICE, 2010 ADA STANDARDS FOR ACCESSIBLE DESIGN
- ii. US DEPT. OF JUSTICE, ARCHITECTURAL BARRIERS ACT, ACCESSIBLITIY GUIDELINES FOR OUTDOOR DEVELOPED AREAS ON FEDERAL LANDS-EFFECTIVE NOVEMBER 25, 2013
- iii. 2012 TEXAS ACCESSIBILITY STANDARDS, ELIMINATION OF ARCHITECTURAL BARRIERS, TEXAS GOVERNMENT CODE, CHAPTER 469

E. PLAYGROUND SAFETY CODE

- i. Public Playground Safety Handbook, U.S. Consumer Product Safety Commission

SCOPE OF WORK

SITE DEVELOPMENT TO INCLUDE PARK ENTRY SIGNAGE, CAMPSITES (MULTI-USE AND TENT CAMPING), PICNIC TABLES, MAINTENANCE VEHICLE GATES, HORSE WASH AREA, HORSE STALLS, FISH CLEANING STATION, SIDEWALKS, STORM WATER FILTRATION SYSTEMS, BOAT RAMP, COURTESY DOCK, FISHING PIER, AND ACCESSIBLE PARKING SIGNAGE. REFER TO SCOPE EXHIBIT FOR FURTHER DETAILS.

THE ENTIRE PARK PROJECT IS SUBJECT TO THE TPWD SUSTAINABILITY PLAN. REFER TO SPECIFICATION SET 01, SECTION 00 31 09. THE RIDGE TOP DAY USE AREA WILL BE PURSUING SITES CERTIFICATION. REFER TO SHEETS GG002 AND GG003 FOR SITES CHECKLIST AND CONTRACTOR RESPONSIBILITIES.

ALTERNATES:

1. ALTERNATE 1 - REFERENCE GL001

   PROVIDE INTEGRAL COLOR CONCRETE PAVING IN LIEU OF STANDARD GRAY CONCRETE PAVING.

2. ALTERNATE 2 - REFERENCE GL001

   PROVIDE AZCA PRESSURE TREATED SOUTHERN YELLOW PINE IN LIEU OF STANDARE WOOD DECKING.

TEXAS PARKS AND WILDLIFE

INFRASTRUCTURE DIVISION

4200 SMITH SCHOOL ROAD AUSTIN, TEXAS 78744-3292

03/29/2021

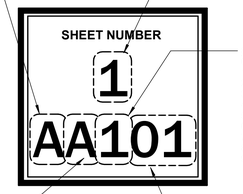
RELEASED FOR SOLICITATION
INFRASTRUCTURE DIVISION

SET NO: 1

SHEET IDENTIFICATION FORMAT

DEVELOPMENT AREA DESIGNATOR
- G GENERAL OVERALL
- A MAINTENANCE & GATE
- B HEADQUARTERS
- C EQUESTRIAN
- L RIDGE TOP DAY USE
- M WALK-IN TENT CAMPING
- N LAKESIDE DAY USE
- Q MULTI-USE CAMPING
- P BACK COUNTRY CAMPING
- V VAULT TOILETS

DISCIPLINE DESIGNATOR
- G GENERAL
- P MASTER PLANNING
- X SURVEYING
- C CIVIL
- R ROADS
- W WATER
- U WASTEWATER
- L LANDSCAPE (SITEWORK)
- S STRUCTURAL
- A ARCHITECTURAL
- F FIRE PROTECTION
- M MECHANICAL HVAC & PLUMBING
- E ELECTRICAL
- T TELECOMMUNICATIONS



DRAWING SET DESIGNATOR
- 1 TEXAS PARKS AND WILDLIFE DEPARTMENT
- 2 TEXAS PARKS AND WILDLIFE FOUNDATION

SHEET TYPE DESIGNATOR
- 0 GENERAL
- 1 PLANS
- 2 ELEVATIONS
- 3 SECTIONS
- 4 ENLARGED
- 5 DETAILS
- 6 SCHEDULES
- 7 RESERVED
- 8 RESERVED
- 9 RESERVED

SEQUENCE DESIGNATOR

SET 01 SHEET INDEX

SHEET NO	SHEET NAME	ISSUE DATE	REVISION NO	REVISION DATE	REVISION DESCRIPTION
0G - GENERAL					
1 GG000	COVER SHEET	03/29/2021			
1 GG001	SHEET INDEX	03/29/2021			
1 GG002	SITES ANALYSIS	03/29/2021			
1 GG003	SITES ANALYSIS CONTINUED	03/29/2021			
1 GC101	OVERALL SITE PLAN	03/29/2021			
1 GC102	OVERALL SITE PLAN	03/29/2021			
1 GC501	GENERAL NOTES	03/29/2021			
1 GL001	GENERAL NOTES & MATERIALS SCHEDULE	03/29/2021			
1 GL002	SHEET MAP	03/29/2021			
1 GL003	SHEET MAP	03/29/2021			
1 GL400	HARDSCAPE DETAILS	03/29/2021			
1 GL401	VERTICAL DETAILS	03/29/2021			
1 GL402	FURNITURE DETAILS	03/29/2021			
1 GL403	ENTRY MONUMENT DETAILS	03/29/2021			
1 GL404	GATE DETAILS	03/29/2021			
1 GL500	PLANTING SCHEDULE & NOTES	03/29/2021			
1 GL501	PLANTING DETAILS	03/29/2021			
1 GE001	ELECTRICAL COVER SHEET	03/29/2021			
1 GE101	ELECTRICAL SITE PLAN	03/29/2021			
1 GE102	MEP SITE PLAN	03/29/2021			
A - MAINTENANCE AREA					
1 AC111	DEMOLITION PLAN	03/29/2021			
1 AL201	AREA A - MAINTENANCE COMPLEX HARDSCAPE PLAN	03/29/2021			
1 AL202	AREA A - MAINTENANCE COMPLEX HARDSCAPE PLAN	03/29/2021			
1 AL400	CAMPSITE DETAILS	03/29/2021			
1 AE101	ELECTRICAL SITE PLAN - MAINTENANCE YARD	03/29/2021			
B - HEADQUARTERS AREA					
1 BC111	DEMOLITION PLAN	03/29/2021			
1 BC112	DEMOLITION PLAN	03/29/2021			
1 BL200	AREA B - PARK HEADQUARTERS HARDSCAPE PLAN	03/29/2021			
1 BE101	ELECTRICAL SITE PLAN - HEADQUARTERS	03/29/2021			
C - EQUESTRIAN CAMPGROUND					
1 CC111	DEMOLITION PLAN	03/29/2021			
1 CC112	DEMOLITION PLAN PHOTOS	03/29/2021			
1 CL200	AREA C - EQUESTRIAN TRAILHEAD PLAN	03/29/2021			
1 CL201	EQUESTRIAN TRAILHEAD ENLARGEMENT HARDSCAPE PLAN	03/29/2021			
1 CL202	AREA C - EQUESTRIAN CAMPING LOOP ENLARGEMENT HARDSCAPE PLAN	03/29/2021			
1 CL301	EQUESTRIAN TRAILHEAD ENLARGEMENT GRADING PLAN	03/29/2021			
1 CL302	AREA C - EQUESTRIAN CAMPING LOOP ENLARGEMENT GRADING PLAN	03/29/2021			
1 CL400	VERTICAL DETAILS	03/29/2021			
1 CL401	CAMPSITE DETAILS	03/29/2021			
1 CL501	EQUESTRIAN TRAILHEAD ENLARGEMENT PLANTING PLAN	03/29/2021			
1 CL502	AREA C - EQUESTRIAN CAMPING LOOP ENLARGEMENT PLANTING PLAN	03/29/2021			
1 CE101	ELECTRICAL SITE PLAN - EQUESTRIAN	03/29/2021			
1 CE102	ELECTRICAL SITEP LAN - DUMP STATION	03/29/2021			
L - RIDGE TOP DAY USE					
1 LC111	DEMOLITION PLAN	03/29/2021			
1 LL200	AREA L - RIDGE TOP DAY USE HARDSCAPE PLAN	03/29/2021			
1 LL201	AREA L - RIDGE TOP DAY USE HARDSCAPE ENLARGEMENT PLAN	03/29/2021			
1 LL202	AREA L - RIDGE TOP DAY USE HARDSCAPE ENLARGEMENT PLAN	03/29/2021			
1 LL203	AREA L - RIDGE TOP DAY USE ENLARGEMENT HARDSCAPE PLAN	03/29/2021			
1 LL301	AREA L - RIDGE TOP DAY USE GRADING ENLARGEMENT PLAN	03/29/2021			
1 LL302	AREA L - RIDGE TOP DAY USE GRADING ENLARGEMENT PLAN	03/29/2021			
1 LL303	AREA L - RIDGE TOP DAY USE ENLARGEMENT GRADING PLAN	03/29/2021			
1 LL501	AREA L - RIDGE TOP DAY USE PLANTING ENLARGEMENT PLAN	03/29/2021			
1 LL502	AREA L - RIDGE TOP DAY USE PLANTING ENLARGEMENT PLAN	03/29/2021			
1 LL503	AREA L - RIDGE TOP DAY USE ENLARGEMENT PLANTING PLAN	03/29/2021			
1 LE101	ELECTRICAL SITE PLAN - PAVILION	03/29/2021			
M - WALK IN TENT CAMPGROUND					
1 MC111	DEMOLITION PLAN	03/29/2021			
1 ML200	AREA M - WALK-IN TENT CAMPING HARDSCAPE PLAN	03/29/2021			
1 ML201	AREA M - WALK-IN TENT CAMPING HARDSCAPE ENLARGEMENT PLAN	03/29/2021			
1 ML202	AREA M - WALK-IN TENT CAMPING ENLARGEMENT HARDSCAPE PLAN	03/29/2021			
1 ML400	CAMPSITE DETAILS	03/29/2021			
1 ML501	AREA M - WALK-IN TENT CAMPING PLANTING PLAN	03/29/2021			
1 ML502	AREA M - WALK-IN TENT CAMPING ENLARGEMENT PLANTING PLAN	03/29/2021			
N - LAKESIDE DAY USE					
1 NC111	DEMOLITION PLAN	03/29/2021			
1 NC151	STRUCTURAL NOTES & DETAILS	03/29/2021			
1 NC152	SITE PLAN	03/29/2021			
1 NC153	RAMP FOUNDATION PLAN	03/29/2021			
1 NC154	FOUNDATION DETAILS	03/29/2021			
1 NC161	PAVING PLAN	03/29/2021			
1 NL200	AREA N - LAKESIDE DAY USE PLAN	03/29/2021			
1 NL201	AREA N - LAKESIDE DAY USE ENLARGEMENT HARDSCAPE PLAN	03/29/2021			
1 NL202	AREA N - LAKESIDE DAY USE ENLARGEMENT HARDSCAPE PLAN	03/29/2021			
1 NL203	AREA N - LAKESIDE DAY USE ENLARGEMENT HARDSCAPE PLAN	03/29/2021			
1 NL204	AREA N - LAKESIDE DAY USE ENLARGEMENT HARDSCAPE PLAN	03/29/2021			
1 NL301	AREA N - LAKESIDE DAY USE ENLARGEMENT GRADING PLAN	03/29/2021			
1 NL303	AREA N - LAKESIDE DAY USE ENLARGEMENT GRADING PLAN	03/29/2021			
1 NL304	AREA N - LAKESIDE DAY USE ENLARGEMENT GRADING PLAN	03/29/2021			
1 NL400	AREA N - DECK AND DOCK DETAILS	03/29/2021			
1 NL401	AREA N - DECK AND DOCK DETAILS	03/29/2021			
1 NL401.1	AREA N - DECK AND DOCK DETAILS	03/29/2021			
1 NL402	AREA N - DECK AND DOCK DETAILS	03/29/2021			
1 NL403	AREA N - DECK AND DOCK DETAILS	03/29/2021			
1 NL404	AREA N - DECK AND DOCK DETAILS	03/29/2021			
1 NL405	AREA N - FISHING PIER DETAILS	03/29/2021			
1 NL406	AREA N - FISHING PIER DETAILS	03/29/2021			
1 NL407	AREA N - FISHING PIER BENCH DETAILS	03/29/2021			
1 NL501	AREA N - LAKESIDE DAY USE ENLARGEMENT PLANTING PLAN	03/29/2021			
1 NL503	AREA N - LAKESIDE DAY USE ENLARGEMENT PLANTING PLAN	03/29/2021			
1 NL504	AREA N - LAKESIDE DAY USE ENLARGEMENT PLANTING PLAN	03/29/2021			
1 NS100	FISHING PIER STRUCTURAL NOTES	03/29/2021			
1 NS101	FISHING PIER PLAN	03/29/2021			
1 NE101	ELECTRICAL SITE PLAN - LAKESIDE DAY USE	03/29/2021			
Q - WEST RIDGE CAMPGROUND					
1 QC111	DEMOLITION PLAN	03/29/2021			
1 QL200	AREA Q - WEST RIDGE CAMPGROUND HARDSCAPE PLAN	03/29/2021			
1 QL201	AREA Q - WEST RIDGE CAMPGROUND ENLARGEMENT HARDSCAPE PLAN	03/29/2021			
1 QL202	AREA Q - WEST RIDGE CAMPGROUND ENLARGEMENT HARDSCAPE PLAN	03/29/2021			
1 QL301	AREA Q - WEST RIDGE CAMPGROUND ENLARGEMENT GRADING PLAN	03/29/2021			
1 QL302	AREA Q - WEST RIDGE CAMPGROUND ENLARGEMENT GRADING PLAN	03/29/2021			
1 QL400	CAMPSITE DETAILS	03/29/2021			
1 QL401	CAMPSITE DETAILS	03/29/2021			
1 QE101	ELECTRICAL SITE PLAN - WEST RIDGE CAMPGROUND	03/29/2021			

TEXAS PARKS & WILDLIFE

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03/29/2021

PALO PINTO MOUNTAINS STATE PARK
SITE DEVELOPMENT
TPWD PROJECT NO. 118271

DATE: 03/29/2021
DESIGNED BY: MB
DRAWN BY: TP
REVIEWED BY: AST

REV DESC DATE

SHEET TITLE

SHEET INDEX

SHEET NUMBER

1
GG001

Palo Pinto Mountains State Park
SITES v2 Scorecard
Preliminary DRAFT

Available	Yes	P	No	Prerequisite or credit #	Title	Case / Option / Threshold	Primary Responsible Party
13	2	0	10	**1: SITE CONTEXT**			
	Y			**CONTEXT P1.1**	Limit development on farmland	Case 1: Sites without farmland soils	Civil
						Case 2: Sites with farmland soils - VSPZ	
						Case 3: Sites with farmland soils - Mitigation	
	Y			**CONTEXT P1.2**	Protect floodplain functions	Case 1: Sites without floodplain	Civil
						Case 2: Previously developed and brownfield sites within floodplain	
						Case 3: Greenfield sites within floodplain	
	Y			**CONTEXT P1.3**	Conserve aquatic ecosystems	Case 1: Sites without aquatic ecosystems	Civil/Biologist
						Case 2: Sites with naturally occurring aquatic ecosystems	
						Case 3: Sites with naturally occurring poor quality aquatic ecosystems	
	Y			**CONTEXT P1.4**	Conserve habitats for threatened and endangered species	Case 1: Brownfields and previously developed sites	Biologist
						Case 2: Greenfield sites	
3			3	**CONTEXT C1.5**	Redevelop degraded sites	Case 1: Previously developed sites	Owner
6						Case 2: Brownfield sites	
4			4	**CONTEXT C1.6**	Locate projects within existing developed areas		
2	2		3	**CONTEXT C1.7**	Connect to multi-modal transit networks	Option 1: Pedestrian and bicycle network	Landscape
3						Option 2: Transit network	
3	0	0	3	**2: PRE-DESIGN**			
	Y			**PRE-DESIGN P2.1**	Use an integrative design process		GN/ Arch
	Y			**PRE-DESIGN P2.2**	Conduct a pre-design site assessment		TEAM
	Y			**PRE-DESIGN P2.3**	Designate and communicate Vegetation and Soil Protection Zones		LA/ Owner
3			3	**PRE-DESIGN C2.4**	Engage users and stakeholders		Arch
23	13	3	4	**3: SITE DESIGN - WATER**			
	Y			**WATER P3.1**	Manage precipitation on site		Civil/ LA
	Y			**WATER P3.2**	Reduce water use for landscape irrigation		LA
4	4	2		**WATER C3.3**	Manage precipitation beyond baseline	80th percentile precipitation event	Civil
5						90th percentile precipitation event	
6						95th percentile precipitation event	
4	5			**WATER C3.4**	Reduce outdoor water use	Option 1: Reduce outdoor water use	LA
5						Option 2: Significantly reduce outdoor water use	
6						Option 3: Eliminate outdoor water use	
4	4	1		**WATER C3.5**	Design functional stormwater features as amenities	50% of stormwater features	Civil/ LA
5						100% of stormwater features	
			4	**WATER C3.6**	Restore aquatic ecosystems (project must have existing feature)	No aquatic ecosystems present on site	Bio/ LA
4						30% of the geographic extent	
5						60% of the geographic extent	
6						90% of the geographic extent	
40	15	4	12	**4: SITE DESIGN - SOIL + VEGETATION**			
	Y			**SOIL+VEG P4.1**	Create and communicate a soil management plan		LA/ Geotech
	Y			**SOIL+VEG P4.2**	Control and manage invasive plants	Case 1: No invasive plants found on site	LA/Bio
						Case 2: Invasive plants identified on site	LA/Bio
	Y			**SOIL+VEG P4.3**	Use appropriate plants		LA
		4		**SOIL+VEG C4.4**	Conserve healthy soils and appropriate vegetation (project must have existing feature)	No healthy soils and/or appropriate vegetation present on site	LA
4						50% of the site's existing vegetated area	
5						75% of the site's existing vegetated area	
6						95% of the site's existing vegetated area	
4			4	**SOIL+VEG C4.5**	Conserve special status vegetation (project must have existing feature)		LA
3	4			**SOIL+VEG C4.6**	Conserve and use native plants	20% total native plant score	LA
4						40% total native plant score	
6						60% total native plant score	
4	4			**SOIL+VEG C4.7**	Conserve and restore native plant communities	20% total native plant community score	LA
5						40% total native plant community score	
6						60% total native plant community score	
1	3			**SOIL+VEG C4.8**	Optimize biomass	minimal point score	LA
3						low point score	
5						mid point score	
6						high point score	

Palo Pinto Mountains State Park
SITES v2 Scorecard
Preliminary DRAFT

Available	Yes	P	No	Prerequisite or credit #	Title	Case / Option / Threshold	Primary Responsible Party
4	4			**SOIL+VEG C4.9**	Reduce urban heat island effects		Arch/Civil
						No buildings present on site	LA/Arch
2			4	**SOIL+VEG C4.10**	Use vegetation to minimize building energy use (project must have building on site)	Option 1: Reduce energy use - 5% reduction	
4						Option 1: Reduce energy use - 7% reduction	
1						Option 2: Provide shade structures - 30% shaded	
2						Option 2: Provide shade structures - 60% shaded	
1						Option 3: Provide a windbreak - one row	
2						Option 3: Provide a windbreak - two or more rows	
			4	**SOIL+VEG C4.11**	Reduce the risk of catastrophic wildfire (project must be located in fire-prone area)	Project not in a fire-prone area	LA/Arch
4						Project is in a fire-prone area	
41	10	3	8	**5: SITE DESIGN - MATERIALS SELECTION**			
	Y			**MATERIALS P5.1**	Eliminate the use of wood from threatened tree species		All
	0		4	**MATERIALS C5.2**	Maintain on-site structures and paving (project must have existing feature)	No structures or paving present on site	Civil
2						10% of the total existing built surface area	
3						20% of the total existing built surface area	
4						30% of the total existing built surface area	
3		3		**MATERIALS C5.3**	Design for adaptability and disassembly	30% of total materials cost, excluding plants, rocks, and soils	Civil/ LA
4						60% of total materials cost, excluding plants, rocks, and soils	
3	0		4	**MATERIALS C5.4**	Use salvaged materials and plants	10% of total materials cost, excluding soils	Civil/ LA
4						20% of total materials cost, excluding soils	
3	3			**MATERIALS C5.5**	Use recycled content materials	20% of total materials cost, excluding plants and soils	Civil/ LA
4						40% of total materials cost, excluding plants and soils	
3	3			**MATERIALS C5.6**	Use regional materials	30% of total materials cost	Civil/ LA
4						60% of total materials cost	
5						90% of total materials cost	
1	1			**MATERIALS C5.7**	Support responsible extraction of raw materials	Option 1: Advocate for sustainable extraction of raw materials	Civil/ LA
3						Option 2: Support suppliers that disclose environmental data	
5						Option 3: Support suppliers that meet extraction standards	
1	1			**MATERIALS C5.8**	Support transparency and safer chemistry	Option 1: Advocate for transparency and safer chemistry	Civil/ LA
3						Option 2: Support manufacturers that disclose chemical data	
5						Option 3: Support manufacturers with chemical hazard assessments	
1	1			**MATERIALS C5.9**	Support sustainability in materials manufacturing	Option 1: Advocate for sustainable materials manufacturing	Civil/ LA
3						Option 2: Support manufacturers that disclose data on sustainable practices	
5						Option 3: Support manufacturers that achieve sustainable practices	
1	1			**MATERIALS C5.10**	Support sustainability in plant production	Option 1: Advocate for sustainable plant production	LA
3						Option 2: Support producers that disclose data on sustainable practices	
5						Option 3: Support producers that achieve sustainable practices	
30	12	11	4	**6: SITE DESIGN - HUMAN HEALTH + WELL-BEING**			
	0			**HHWB C6.1**	Protect and maintain cultural and historic places (project must have existing feature)	No cultural or historic places present on site	Owner
2						Option 1: Historic buildings, structures, or objects	
3						Option 2: Historic or cultural landscapes	
2	2			**HHWB C6.2**	Provide optimum site accessibility, safety, and wayfinding		LA/Arch
2		2		**HHWB C6.3**	Promote equitable site use		Owner
2	2			**HHWB C6.4**	Support mental restoration		LA
2		2		**HHWB C6.5**	Support physical activity		LA/Owner
2	2			**HHWB C6.6**	Support social connection		LA
3	0		4	**HHWB C6.7**	Provide on-site food production	Option 1: Food production	LA
4						Option 2: Food production and regular distribution	
4	4			**HHWB C6.8**	Reduce light pollution		LA/Eng
4		4		**HHWB C6.9**	Encourage fuel efficient and multi-modal transportation		Civil
1	2			**HHWB C6.10**	Minimize exposure to environmental tobacco smoke	Option 1: Designate smoke-free zones	Owner
2						Option 2: Prohibit smoking on site	
3		3		**HHWB C6.11**	Support local economy		GC
17	4	7	6	**7: CONSTRUCTION**			
	Y			**CONSTRUCTION P7.1**	Communicate and verify sustainable construction practices		GN/Arch
	Y			**CONSTRUCTION P7.2**	Control and retain construction pollutants		GC
	Y			**CONSTRUCTION P7.3**	Restore soils disturbed during construction		GC
3			5	**CONSTRUCTION C7.4**	Restore soils disturbed by previous development	low point score	GC
4						mid point score	
5						high point score	
3	4			**CONSTRUCTION C7.5**	Divert construction and demolition materials from disposal	50% of structural materials + 95% of roads / infrastructure materials	GC
4						75% of structural materials + 95% of roads / infrastructure materials	
3		3	1	**CONSTRUCTION C7.6**	Divert reusable vegetation, rocks, and soil from disposal	100% of land-clearing materials retained for use within 50 miles	GC/ Owner
4						100% of land-clearing materials retained on site	
2		4		**CONSTRUCTION C7.7**	Protect air quality during construction	50% total run-time hours from Tier 2 or higher engines	GC
3						50% total run-time hours from Tier 3 or higher engines	
4						50% total run-time hours from Tier 4 or higher engines	

TEXAS PARKS & WILDLIFE

BENNETT▪BENNER PARTNERS
ARCHITECTURE • INTERIORS • PLANNING
840 Taylor Street, Suite 2323
Fort Worth, Texas 76102
817.335.4991 | www.bbpfx.com

03/29/2021

PALO PINTO MOUNTAINS STATE PARK
SITE DEVELOPMENT
TPWD PROJECT NO. 118271

DATE: 03/29/2021
DESIGNED BY: MB
DRAWN BY: TP
REVIEWED BY: AST

REV DESC DATE

SHEET TITLE
SITES ANALYSIS

SHEET NUMBER
1
GG002

Palo Pinto Mountains State Park
SITES v2 Scorecard

Preliminary DRAFT

22	16	5	1	8. OPERATIONS + MAINTENANCE			
	Y			O+M P8.1	Plan for sustainable site maintenance		Owner
	Y			O+M P8.2	Provide for storage and collection of recyclables		LA/Owner
3	4		1	O+M C8.3	Recycle organic matter	100% of vegetation trimmings recycled / composted off site within 50 miles	Owner
4						100% of vegetation trimmings recycled / composted on site	
5						100% of vegetation trimmings + food waste recycled / composted on site	
4	4	1		O+M C8.4	Minimize pesticide and fertilizer use	Option 1: Plant health care plan	Owner
5						Option 2: Best management practices for plant health care	
2	4			O+M C8.5	Reduce outdoor energy consumption	30% reduction from baseline energy use for outdoor equipment	Eng/GC
3						60% reduction from baseline energy use for outdoor equipment	
4						90% reduction from baseline energy use for outdoor equipment	
3	4			O+M C8.6	Use renewable sources for landscape electricity needs	Option 1: On-site - 50% annual outdoor site electricity	Eng/ Owner
4						Option 1: On-site - 100% annual outdoor site electricity	
3						Option 2: Green power - 50% annual outdoor site electricity	
4						Option 2: Green power - 100% annual outdoor site electricity	
2		4		O+M C8.7	Protect air quality during landscape maintenance	Option 1: Scheduled maintenance	Owner
3						Option 2: Low-emitting equipment	
4						Option 3: Manual or electric powered maintenance equipment	
11	7	4	0	9. EDUCATION + PERFORMANCE MONITORING			
3	4			EDUCATION C9.1	Promote sustainability awareness and education	Option 1: Educational and interpretive elements	Owner/ Team
4						Option 2: Additional education	
3	3			EDUCATION C9.2	Develop and communicate a case study		Owner/ Team
4		4		EDUCATION C9.3	Plan to monitor and report site performance		Owner
9	3	3	0	10. INNOVATION OR EXEMPLARY PERFORMANCE			
3	3	3		INNOVATION C10.1 (BONUS POINTS)	Innovation or exemplary performance	Option 1: Exemplary performance	TBD
3						Option 2: Innovation outside the SITES v2 Rating System	TBD

YES	?	NO	
82	40	48	TOTAL ESTIMATED

Points	KEY	
70	Available	Points total available for strategy
85	YES	Project confident points are achievable
100	?	Project striving to achieve points, not 100% confident
135	NO	Project is unable to achieve these credit points

SITES Certification levels	Points
CERTIFIED	70
SILVER	85
GOLD	100
PLATINUM	135

CONTRACTOR RESPONSIBILITIES INCLUDE, BUT ARE NOT LIMITED TO:

1. COMMUNICATE AND VERIFY SUSTAINABLE CONSTRUCTION PRACTICES
2. CONTROL AND RETAIN CONSTRUCTION POLLUTANTS
3. DEVELOP, SUBMIT, AND IMPLEMENT A CONSTRUCTION WASTE MANAGEMENT PLAN. RECYCLE OR REUSE MATERIALS WHEN POSSIBLE
4. PROTECT SOILS AND RESTORE DISTURBED SOILS
5. AVOID IMPACT TO THREATENED OR ENDANGERED SPECIES HABITAT
6. PROVIDE DOCUMENTATION FOR MATERIALS CRITERIA OF: RECYCLED CONTENT, REGIONAL PROCUREMENT, LOW VOC CONTENT, FSC CERTIFIED WOOD, ADAPTABILITY/DISASSEMBLY, MATERIAL REUSE/SALVAGE, MANUFACTURER TRANSPARENCY, MANUFACTURER RESPONSIBILITY IN EXTRACTION, AND MANUFACTURING PROCESSES.

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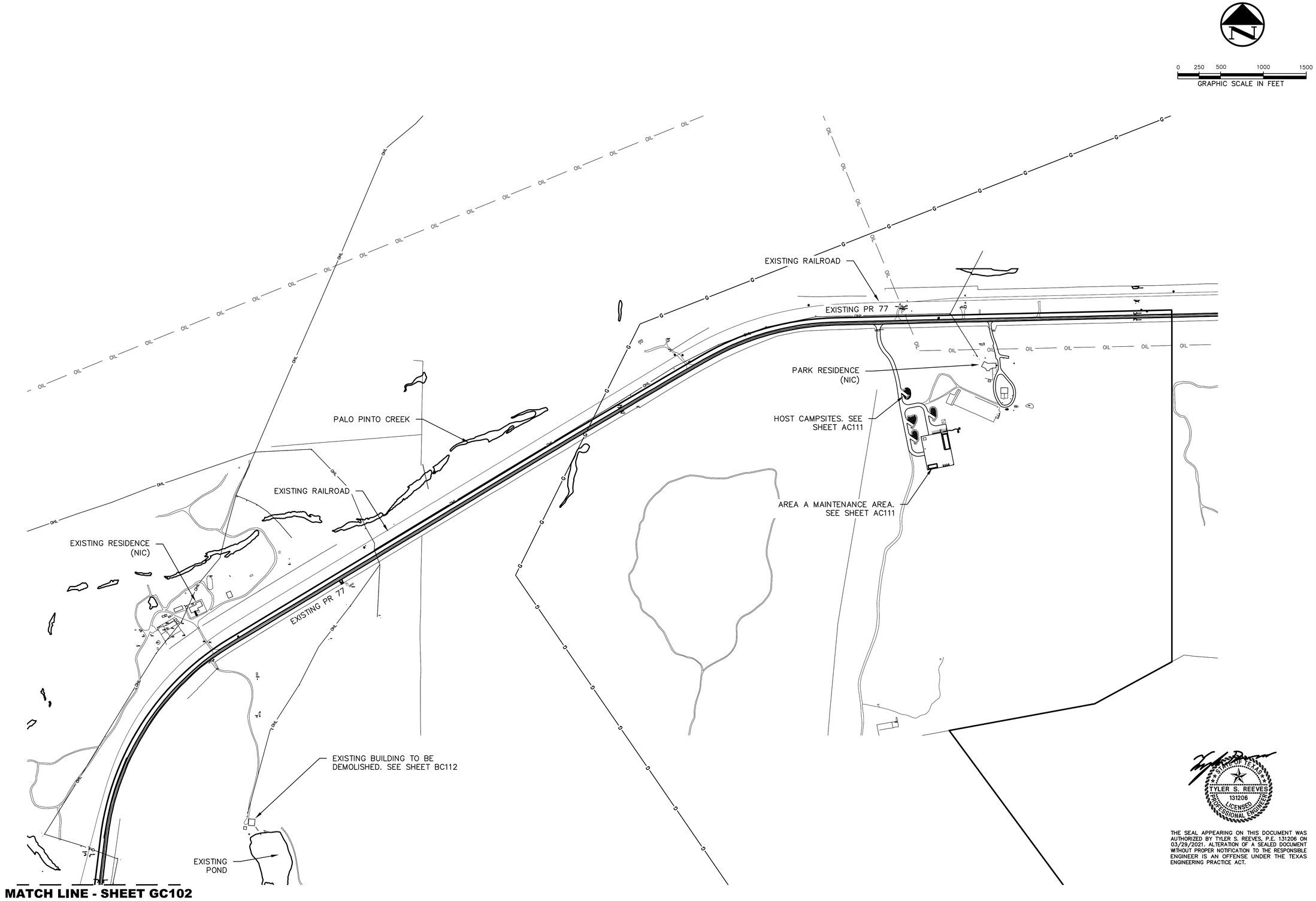
SHEET TITLE
SITES ANALYSIS CONTINUED

SHEET NUMBER
1
GG003



TEXAS PARKS & WILDLIFE

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TX REG. SURVEYING FIRM LS-10008001

PALO PINTO MOUNTAINS STATE PARK
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TPWD PROJECT NO. 118271

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REV	DESC	DATE

STATE OF TEXAS
TYLER S. REEVES
131206
LICENSED
PROFESSIONAL ENGINEER

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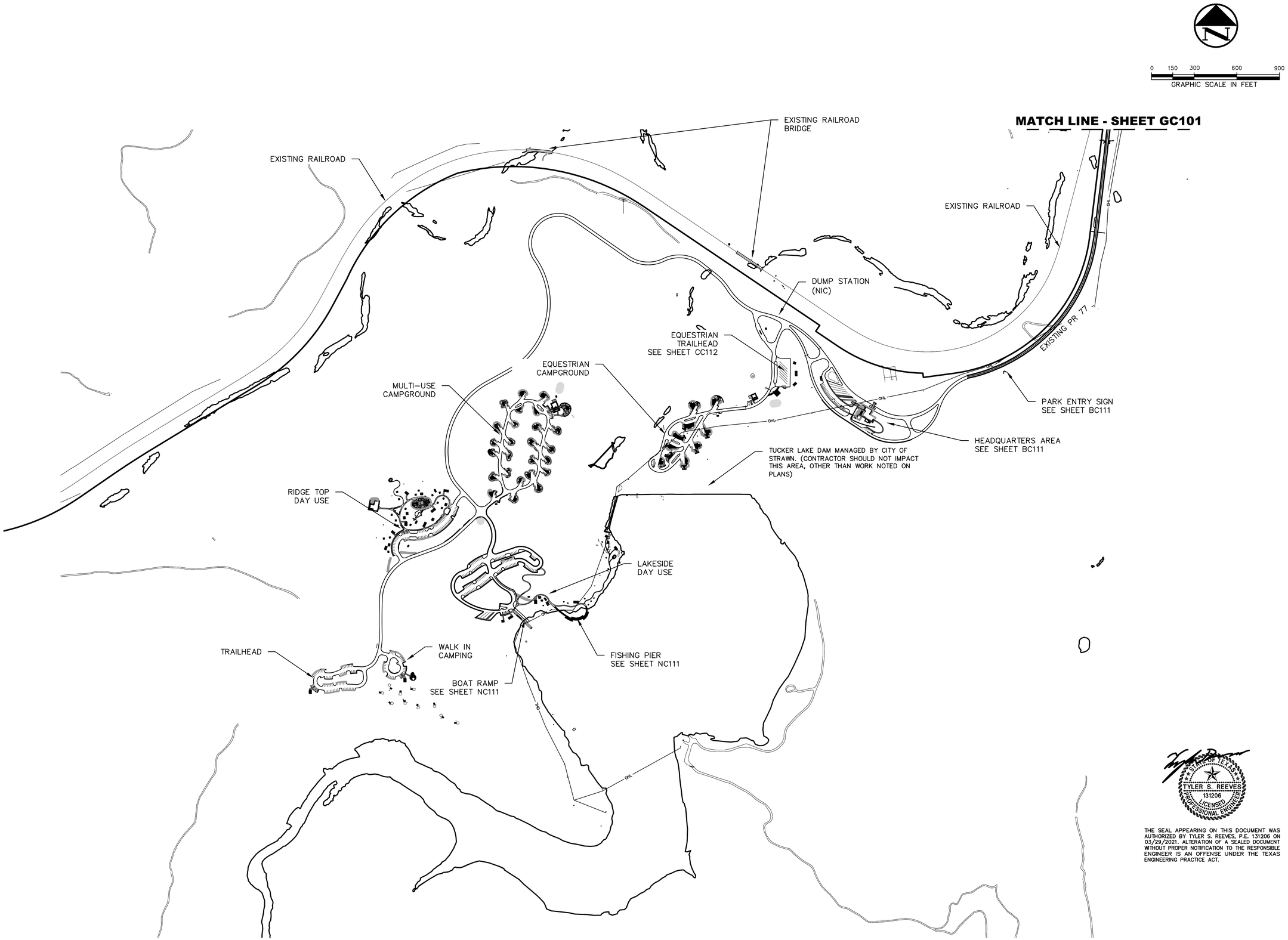
SHEET TITLE
OVERALL SITE PLAN

SHEET NUMBER
1
GC101

ACASTILLO
4/15/2021 5:21 PM
M:\DWG-38\3885-16.491\DWG\CIVIL C3D 2015\AREA A\3885-16.491COVR.DWG

PK-3885-16.491COVR.DWG



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PALO PINTO MOUNTAINS STATE PARK
SITE DEVELOPMENT
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DATE: 2021/03/29
DESIGNED BY: TSR
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OVERALL SITE PLAN

SHEET NUMBER
1
GC102

ACASTILLO
4/15/2021 5:21 PM
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PK-3885-16.491COVR.DWG

GENERAL NOTES

1. ALL WORK, UNLESS OTHERWISE NOTED, SHALL CONFORM TO THE TEXAS PARKS AND WILDLIFE STANDARD CONSTRUCTION SPECIFICATIONS.
2. PRIOR TO ANY CONSTRUCTION, THE CONTRACTOR SHALL BE FAMILIAR WITH THE PLANS, ALL NOTES, THE CITY STANDARDS FOR CONSTRUCTION, AND ANY OTHER APPLICABLE STANDARDS AND SPECIFICATIONS RELEVANT TO THE PROPER COMPLETION OF THE WORK SPECIFIED. FAILURE ON THE PART OF THE CONTRACTOR TO BE FAMILIAR WITH ALL STANDARDS AND SPECIFICATIONS PERTAINING TO THIS WORK SHALL IN NO WAY RELIEVE THE CONTRACTOR OF RESPONSIBILITY OF PERFORMING THE WORK IN ACCORDANCE WITH ALL SUCH APPLICABLE STANDARDS AND SPECIFICATIONS.
3. THE HORIZONTAL AND VERTICAL LOCATIONS OF EXISTING SUBSURFACE UTILITIES HAVE BEEN DETERMINED FROM DATA RECORDED BY OTHERS. CONTRACTOR SHALL VERIFY THAT NECESSARY CROSSING CLEARANCES BETWEEN EXISTING AND PROPOSED UTILITIES EXIST PRIOR TO CONSTRUCTION OF ANY SUCH CROSSINGS. IT WILL BE THE RESPONSIBILITY OF THE CONTRACTOR TO PROTECT ALL UTILITIES IN THE CONSTRUCTION OF THIS PROJECT. CONTRACTOR TO VERIFY SIZE AND LOCATION OF ALL UTILITIES PRIOR TO CONSTRUCTION.
4. IT WILL BE THE RESPONSIBILITY OF THE CONTRACTOR TO PROTECT ALL MANHOLES, CLEANOUTS, VALVE BOXES, AND FIRE HYDRANTS, ETC.. CONTRACTOR TO ADJUST TO PROPER LINE AND GRADE PRIOR TO AND AFTER THE PLACING OF PERMANENT PAVING AND GRADING. UTILITIES MUST BE MAINTAINED TO PROPER LINE AND GRADE DURING THE CONSTRUCTION OF THE PAVING FOR THIS DEVELOPMENT.
5.
   - 5.1. PROTECT AND MAINTAIN ROADWAY TRAFFIC THROUGHOUT THE PROJECT, PROVIDING A MINIMUM OF ONE (1) LANE OPEN IN EACH DIRECTION;
   - 5.2. PROVIDE AND MAINTAIN INTERIM ACCESS FROM ROADWAYS CURRENTLY IN USE TO ALL DRIVEWAYS AND INTERSECTING STREETS;
   - 5.3. MAINTAIN NORMAL PROJECT DRAINAGE UNTIL NEW DRAINAGE FACILITIES ARE FUNCTIONAL, INCLUDING, WHERE NECESSARY, INTERIM REPLACEMENT OF EXISTING DRAINAGE STRUCTURES REMOVED FOR CONSTRUCTION OF NEW DRAINAGE FACILITIES;
   - 5.4. MAINTAIN ALL WORK AND MATERIAL STORAGE AREAS IN ORDERLY CONDITION, FREE OF DEBRIS AND WASTE. ON COMPLETION OF CONSTRUCTION, CLEAN UP THE PROJECT AND ADJACENT AFFECTED AREAS TO ACCEPTABLE CONDITION, ALL AS PROVIDED IN THE GENERAL CONDITIONS.
6. PRIOR TO COMMENCEMENT OF CONSTRUCTION, COORDINATE WITH TPWD GENERAL CONDITIONS.
7. THE CONTRACTOR IS RESPONSIBLE FOR COMPLIANCE WITH ALL FEDERAL, STATE, AND LOCAL REGULATIONS REGARDING TRENCH SAFETY.
8. REFER TO ARCHITECTURAL AND STRUCTURAL PLANS TO VERIFY ALL BUILDING DIMENSIONS.
9. REFER TO ARCHITECTURAL PLANS FOR DETAILED BUILDING ENTRANCE LAYOUTS, RAMPS, LANDSCAPE, AND SIDEWALKS.
10. BARRICADING AND PROJECT SIGNS SHALL CONFORM TO TEXAS DEPARTMENT OF TRANSPORTATION MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES AND LATEST UPDATES.
11. EXACT SAWCUT PAVEMENT REMOVAL AND REPLACEMENT LIMITS WITHIN THE PUBLIC RIGHT-OF-WAY IS TO BE IN ACCORDANCE WITH THE CITY PAVEMENT REPAIR MANUAL AND INCLUDED IN THE BASE BID.

GRADING & DRAINAGE GENERAL NOTES

1. REFER TO GEOTECHNICAL REPORT FOR REQUIREMENTS REGARDING FILL COMPACTION AND MOISTURE CONTENT.
2. UNLESS NOTED, ALL FILL IS TO BE COMPACTED TO A MINIMUM OF 95% STANDARD PROCTOR DENSITY WITHIN 3% OF OPTIMUM MOISTURE CONTENT. FILL TO BE PLACED IN MAXIMUM LIFTS OF 6 INCHES.
3. SIDEWALKS AND ACCESSIBLE ROUTES SHALL HAVE A RUNNING SLOPE NO GREATER THAN 5% (UNLESS OTHERWISE NOTED) AND A CROSS SLOPE NO GREATER THAN 2%.
4. GRADING OF ALL HANDICAPPED SPACES AND ROUTES TO CONFORM TO FEDERAL, STATE, AND LOCAL GUIDELINES.
5. ALL PROPOSED AND EXISTING GRADES IN NON-PAVED AREAS ARE "FINISHED GRADE" (i.e. IN LANDSCAPE BEDS, TOP OF MULCH/BEDDING MATERIAL).
6. UNLESS NOTED, STORM DRAIN LINES SHALL BE OF THE FOLLOWING MATERIALS AND INSTALLED IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS:
   - 6.A. RCP C-76, CLASS III
   - 6.B. ADS N-12
   - 6.C. HANCOR HI-Q
   - 6.D. CONTECH ALUMINIZED ULTRA FLOW
7. UNLESS NOTED, GRATE INLETS TO BE "FORTERRA PIPE AND PRECAST" CATCH BASIN SIZED AS SHOWN, OR APPROVED EQUAL.
8. FINAL PAVING, CURB, AND SIDEWALK ELEVATIONS WILL BE PLACED AT PLUS OR MINUS 0.03 FOOT.
9. REFER TO LANDSCAPE SPECIFICATIONS FOR SEEDING AND SODDING REQUIREMENTS.
10. ANY CONCRETE, ROCK, OR MATERIAL DEEMED BY THE ENGINEER TO BE UNSUITABLE FOR SUBGRADE SHALL BE DISPOSED OF OFFSITE AT CONTRACTOR'S EXPENSE.
11. TRENCH BACKFILL MATERIAL SHALL BE MECHANICALLY COMPACTED IN 6-INCH LIFTS TO THE TOP OF SUBGRADE TO A MINIMUM OF 95% STANDARD PROCTOR DENSITY UNLESS OTHERWISE SHOWN ON THESE PLANS OR STATED IN THE STANDARD CITY SPECIFICATIONS.
12. A ROUND MANHOLE COVER MEETING CITY SPECIFICATIONS SHALL BE PLACED IN ALL INLET TOPS NEAR THE OUTLET PIPE.
13. ALL CONCRETE MIX DESIGNS SHALL BE SUBMITTED TO ENGINEER FOR REVIEW PRIOR TO PLACEMENT.
14. CRUSHED STONE BEDDING OR APPROVED EQUAL SHALL BE PROVIDED BY THE CONTRACTOR WHEN ROCK IS ENCOUNTERED IN TRENCHES. THERE SHALL BE NO ADDITIONAL PAY ITEM FOR CRUSHED STONE BEDDING.
15. IF REQUIRED DUE TO CONSTRUCTION, POWER POLES TO BE BRACED OR RELOCATED AT CONTRACTOR'S EXPENSE.

DEMOLITION GENERAL NOTES

1. CONTRACTOR IS TO REVIEW ALL GENERAL NOTES PRIOR TO BEGINNING WORK.
2. REMOVE ALL EXISTING PAVEMENT AND STRUCTURES WITHIN THE LIMITS OF DEMOLITION UNLESS OTHERWISE NOTED.
3. SAWCUT AND REMOVE ALL EXISTING DRIVE APPROACHES (WITHIN THE LIMITS OF DEMOLITION) TWO FEET FROM BACK OF CURB. SIDEWALKS, PAVEMENT, AND UTILITIES WITHIN THE PUBLIC RIGHT-OF-WAY ARE TO REMAIN UNLESS OTHERWISE NOTED.
4. CONSULT THE DIMENSIONAL CONTROL PLAN. VERIFY THE PORTION OF EXISTING CONCRETE CURBS AND PAVEMENT WHICH ARE TO REMAIN.
5. COORDINATE WITH LOCAL POWER, TELEPHONE, CABLE, AND GAS COMPANIES PRIOR TO THE REMOVAL AND/OR RELOCATION OF EXISTING UTILITIES.
6. ALL UTILITIES SHOULD BE CUT AND PLUGGED IN ACCORDANCE WITH THEIR RESPECTIVE UTILITY COMPANY REQUIREMENTS AND PRIOR TO DEMOLITION OF THE EXISTING BUILDINGS.
7. CONTRACTOR TO PLUG ALL EXISTING EXPOSED ENDS OF ABANDONED UTILITIES.
8. CONTRACTOR TO DETERMINE SOURCE OF ALL EXPOSED UTILITIES AND, IF REQUIRED, RECONNECT TO PROPOSED UTILITIES.
9. CONTRACTOR IS RESPONSIBLE FOR THE REMOVAL AND LEGAL DISPOSAL OF ALL THE UNSUITABLE MATERIALS FROM THE PROJECT SITE. CONTRACTOR SHALL CONTACT ALL LOCAL AUTHORITIES TO DETERMINE DISPOSAL REQUIREMENTS.
10. ALL TREES ON THE PROPERTY SHALL BE PROTECTED AGAINST DAMAGE DURING DEMOLITION OPERATIONS UNLESS OTHERWISE NOTED. THE TREE PROTECTION SHALL BE PLACED AROUND TREES PRIOR TO ANY DEMOLITION OR GRADING. TREE PROTECTION SHALL REMAIN UNTIL ALL WORK IS COMPLETED. REFER TO LANDSCAPE PLANS FOR TREE REMOVAL AND PROTECTION DETAILS.
11. ANY DAMAGE DONE TO EXISTING TREE CROWNS OR ROOT SYSTEMS SHALL BE REPAIRED IMMEDIATELY BY AN APPROVED TREE SURGEON AT THE OWNER'S DIRECTION. ROOTS EXPOSED AND/OR DAMAGED DURING DEMOLITION AND/OR GRADING OPERATIONS SHALL BE CUT OFF CLEANLY INSIDE THE EXPOSED OR DAMAGED AREA, CUT SURFACES PAINTED WITH AN APPROVED TREE PAINT, AND TOPSOIL AND MULCH PLACED OVER THE EXPOSED ROOT AREA IMMEDIATELY.
12. CONTRACTOR IS RESPONSIBLE FOR ESTABLISHING AND MAINTAINING EROSION CONTROL MEASURES ON THE SITE IN ACCORDANCE WITH FEDERAL, STATE, AND LOCAL REGULATIONS UNTIL THE SITE HAS BEEN STABILIZED.
13. CONTRACTOR IS RESPONSIBLE FOR GRADING ALL DISTURBED AREAS TO ALLOW FOR POSITIVE DRAINAGE. GRADING SLOPES ARE NOT TO EXCEED 3:1.
14. AREAS EXCAVATED FOR FOUNDATION OR UNDERGROUND STRUCTURE REMOVAL SHALL BE BACK-FILLED AND COMPACTED TO A MINIMUM OF 95% STANDARD PROCTOR DENSITY.
15. CONTRACTOR IS RESPONSIBLE FOR SECURITY OF THE SITE DURING DEMOLITION ACTIVITIES AND UNTIL SUBSTANTIAL COMPLETION.
16. ALL WORK, UNLESS OTHERWISE NOTED, SHALL CONFORM TO TEXAS PARKS AND WILDLIFE CONSTRUCTION SPECIFICATIONS.
17. THE HORIZONTAL AND VERTICAL LOCATIONS OF EXISTING SUBSURFACE UTILITIES HAVE BEEN DETERMINED FROM DATA RECORDED BY OTHERS. IT WILL BE THE RESPONSIBILITY OF THE CONTRACTOR TO PROTECT ALL UTILITY MAINS, MANHOLES, CLEANOUTS, VALVE BOXES, AND FIRE HYDRANTS, ETC. IN THE AREA OF DEMOLITION.
18. THE CONTRACTOR IS RESPONSIBLE FOR COMPLIANCE WITH ALL FEDERAL, STATE, AND LOCAL REGULATIONS REGARDING TRENCH SAFETY.
19. BARRICADING AND PROJECT SIGNS SHALL CONFORM TO TEXAS DEPARTMENT OF TRANSPORTATION MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES AND LATEST UPDATES.
20. CONTRACTOR SHALL MAINTAIN EXISTING PAVEMENT AND ACCESS TO FIRE HYDRANTS ON SITE UNTIL THE BUILDINGS AND STRUCTURES IN THAT AREA HAVE BEEN DEMOLISHED AND REMOVED.
21. CONTRACTOR WILL PROVIDE ON-SITE PARKING FOR WORKERS. VEHICLE PARKING WILL NOT BE ALLOWED WITHIN THE PUBLIC RIGHT-OF-WAY.
22. CONTRACTOR WILL BE RESPONSIBLE FOR IMPLEMENTING AND MAINTAINING ADEQUATE DUST CONTROL MEASURES DURING DEMOLITION ACTIVITIES.
23. CONTRACTOR IS TO COORDINATE DEMOLITION ACTIVITIES WITH THE HAZARDOUS MATERIAL ABATEMENT CONTRACTORS' ACTIVITIES, IF APPLICABLE.
24. THE CONTRACTOR WILL BE RESPONSIBLE FOR OBTAINING ALL TEMPORARY UTILITY SERVICES REQUIRED TO COMPLETE THE SCOPE OF WORK.

PAVING GENERAL NOTES

1. ALL DIMENSIONS ARE FROM BACK OF CURB UNLESS OTHERWISE NOTED.
2. ALL CONCRETE MIX DESIGNS SHALL BE SUBMITTED TO ENGINEER FOR REVIEW PRIOR TO PLACEMENT.
3. SUBGRADE PREPARATION IN RIGHT OF WAY SHALL CONFORM TO STANDARD CITY SPECIFICATIONS OR TXDOT STANDARD SPECIFICATIONS.
4. ALL FILL PLACED UNDER PAVING SHALL BE COMPACTED TO 95% STANDARD PROCTOR DENSITY IN 6 INCH LIFTS, UNLESS OTHERWISE NOTED, OR STATED IN GEOTECH REPORT. REFER TO STRUCTURAL SPECIFICATIONS FOR FILL PLACED BENEATH BUILDING AREAS. ALL OTHER FILL AREAS TO BE COMPACTED TO 90% STANDARD PROCTOR.
5. THE CONTRACTOR SHALL SUBMIT A JOINT SPACING PLAN TO THE ENGINEER FOR APPROVAL. EXPANSION JOINT SPACING SHALL BE 90' MAXIMUM EACH WAY WITH NO KEYWAYS AND SAWED DUMMY JOINTS SHALL BE 15' EACH WAY, UNLESS OTHERWISE NOTED.
6. TRANSVERSE CONSTRUCTION JOINTS SHALL BE USED AT THE END OF EACH DAYS PAVING AND WHERE INTERRUPTIONS SUSPEND OPERATIONS FOR 30 MINUTES OR MORE.
7. ALL PAVING TO BE REMOVED SHALL BE SAWCUT TO A NEAT LINE, MINIMUM 1-1/2" DEEP, AND THE PAVEMENT REMOVED IN SUCH A MANNER AS TO PRESERVE THE EXISTING TRANSVERSE REINFORCING STEEL TO THE MAXIMUM EXTENT POSSIBLE.
8. ALL CURB AND GUTTER SHALL BE INTEGRAL WITH THE PAVEMENT AND HAVE THE SAME COMPRESSIVE STRENGTH.
9. PAVEMENT REINFORCEMENT SHALL BE #3 BARS, SPACED AT 18 INCHES CENTER TO CENTER EACH WAY EXCEPT WHERE OTHERWISE NOTED IN THE PLANS OR GEOTECH REPORT.
10. BAR LAPS SHALL BE 30 DIAMETERS IN LENGTH.
11. ALL STRIPES SHALL BE 4 INCHES WIDE, UNLESS OTHERWISE NOTED.
12. INSTALLATION AND PLACEMENT OF IRRIGATION SLEEVES AND UTILITY CONDUITS SHALL BE IN ACCORDANCE WITH LANDSCAPE ARCHITECT AND MEP PLANS. CONTRACTOR TO VERIFY ALL SLEEVES HAVE BEEN PLACED PRIOR TO PAVING BEING PLACED.
13. SIDEWALKS AND ACCESSIBLE ROUTES SHALL HAVE A RUNNING SLOPE NO GREATER THAN 5% (UNLESS OTHERWISE NOTED) AND A CROSS SLOPE NO GREATER THAN 2%.

STATE OF TEXAS
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PALO PINTO MOUNTAINS STATE PARK
SITE DEVELOPMENT
TPWD PROJECT NO. 118271

DATE:	2021/03/29
DESIGNED BY:	TSR
DRAWN BY:	PAC
REVIEWED BY:	CAA

REV DESC DATE

SHEET TITLE
GENERAL NOTES

SHEET NUMBER
1
GC501

MATERIALS LEGEND:

CONCRETE

C-1 CONCRETE PAVING

COLOR: STANDARD GRAY
FINISH: LIGHT BROOM W/ SAWCUT JOINTS
JOINT SEALANT: COLOR TO MATCH CONCRETE
CONTROL JOINTS: SAWCUT (¼" DEPTH OF CONCRETE) @ REGULAR INTERVALS (TYP. JOINT SPACING TO BE EQUAL WIDTH OF WALK.)
EXPANSION JOINTS: GENERALLY 30' O.C. MAX (SEE PLANS FOR EXACT LOCATIONS)
INSTALLATION: REF. CIVIL DRAWINGS FOR CONCRETE DETAILS IN VEHICULAR AREAS

BID ALT: CONCRETE PAVING (INTEGRAL COLOR)

COLOR : (ASSUME 1 COLOR TBD)
FINISH: LIGHT SANDBLAST W/ SAWCUT JOINTS
SUPPLIER: DAVIS COLORS

OR APPROVED EQUAL

PAVERS

P-1 DETECTABLE WARNING SURFACE - CAST-IN-PLACE DETECTABLE WARNING PLATE

NOT USED

MANUF[illegible] DRY
CONTA[illegible]

OR APPROVED EQUAL

STONE

ST-1 STONE STEPS

MATERIAL: SANDSTONE SLABS - PANHANDLE TAN
SIZE: 6"-8" THICKNESS x ±3' L x ±4' W
SUPPLIER: ARNOLD STONE
CONTACT: ANGELIQUE TAROYAN, 972.730.1185
(OR APPROVED EQUAL TO MATCH COLOR AND SIZE)

INSTALLATION:
REFER TO DETAILS AND SPECIFICATIONS. ALL STONE TO BE REVIEWED BY CLIENT AND LANDSCAPE ARCHITECT.

ST-2 STONE SEATING SLABS

NOT USED

MATE[illegible]
SIZE: [illegible]
SUPP[illegible]
CONT[illegible]N, 972.730.1185

HIDDEN MORTAR JOINT. MORTAR COLOR TO MATCH STONE

ST-3 LANDSCAPE BOULDERS

IMPORTANT: STONE HAS ALREADY BEEN SALVAGED FROM ON SITE CONSTRUCTION WORK AREAS AND IS PRESENT ON SITE. CONTRACTOR TO INSTALL ACCORDING TO PLANS, DETAILS, & SPECIFICATIONS.

LARGER BOULDERS AT PLAYGROUND EDGING MUST BE LARGER THAN 15"X15". LARGER BOULDERS AS INDICATED AT CAMPSITES MUST BE LARGER THAN 18"X18"

INSTALLATION:
REFER TO PLANS, DETAILS, AND SPECIFICATIONS.

ST-4 FLAGSTONE

MATERIAL: SANDSTONE FLAGSTONE - PANHANDLE TAN
SIZE: 1/2" MAX. SURFACE DEVIATION, 2" THICK
4" THICK IN VEHICULAR APPLICATIONS
SUPPLIER: ARNOLD STONE
CONTACT: ANGELIQUE TAROYAN, 972.730.1185

INSTALLATION:
1" MAX. MORTAR JOINT BETWEEN FLAGSTONE PIECES

ST-5 STONE VENEER @ MONUMENT SIGN

MATERIAL; SANDSTONE SLABS AND VENEER - PANHANDLE TAN
SIZE: REF. DETAIL
SUPPLIER: ARNOLD STONE
CONTACT: ANGELIQUE TAROYAN, 972.730.1185

HIDDEN MORTAR JOINT. MORTAR COLOR TO MATCH STONE

ST-6 LANDSCAPE BOULDERS - SALVAGED FROM ON SITE CONSTRUCTION WORK AREAS

NOT USED

USE S[illegible]N SITE CONSTRUCTION WORK AREA[illegible]
GENE[illegible] SHALL RANGE FROM 6" X6" UP TO 8"X 12"

INSTALLATION:
REFER TO DETAILS AND SPECIFICATIONS.

WOOD

W-1 ACZA TREATED WOOD MEMBERS

SIZE: VARIES
TYPE: PRESSURE TREATED SOUTHERN YELLOW PINE

INSTALLATION:
REF. PLANS AND DETAILS

W-2 WOOD DECKING

SIZE: 2"X6"
TYPE: KEBONY
CONTACT: TAYLOR YOUNG (512.963.2215)
KEBONY.COM/US

BID ALT: AZCA TREATED PRESSURE TREATED SOUTHERN YELLOW PINE, 2"X6"

FURNITURE

F-1 LANTERN POLE

MODEL: LH/G-1/A LANTERN HOLDER w/ 90 DEGREE ARM w/ WELDED-ON ACCESSIBLE ARM
MATERIAL: HOT DIP GALVANIZED STEEL
SUPPLIER: PILOT ROCK
CONTACT: 800.762.5002

INSTALLATION:
PER MANUFACTURER RECOMMENDATIONS

OR APPROVED EQUAL

F-2 CAMPFIRE RING

MODEL: L-32/6/TB w/ MULTILEVEL COOKING GRATE
SUPPLIER: PILOT ROCK
CONTACT: 800.762.5002

INSTALLATION:
PER MANUFACTURER RECOMMENDATIONS

OR APPROVED EQUAL

F-3 ADA CAMPFIRE RING

MODEL: LDW-36/18/TB w/ MULTILEVEL COOKING GRATE
SUPPLIER: PILOT ROCK
CONTACT: 800.762.5002

INSTALLATION:
PER MANUFACTURER RECOMMENDATIONS

OR APPROVED EQUAL

F-4 PICNIC TABLE - 6'

MODEL: WPTS/G-6AL (ALUMINUM)
SUPPLIER: PILOT ROCK
CONTACT: 800.762.5002

INSTALLATION:
PER MANUFACTURER RECOMMENDATIONS

OR APPROVED EQUAL

F-5 PICNIC TABLE - 8'

WPTS/G-8AL (ALUMINUM)
SUPPLIER: PILOT ROCK
CONTACT: 800.762.5002

INSTALLATION:
PER MANUFACTURER RECOMMENDATIONS

OR APPROVED EQUAL

F-6 BIKE RACK

NOT USED

MODEL: HRP/G
FINIS[illegible]D
SUPP[illegible]
CONT[illegible]

INSTA[illegible]
PER M[illegible]ENDATIONS

OR APPROVED EQUAL

F-7 PET STATION

MANUFACTURER: PET PICK-UPS
MODE[illegible]DISPENSER, SIGN, 13-GAL
FINIS[illegible]M
CONT[illegible]

NOT USED

INSTA[illegible]
PER MANUFACTURER RECOMMENDATIONS

OR APPROVED EQUAL

F-8 BICYCLE REPAIR STATION

MODEL: FIXIT - AIRKIT 2
FINIS[illegible]
SUPP[illegible]
CONT[illegible]

NOT USED

INSTA[illegible]
PER MANUFACTURER RECOMMENDATIONS

OR APPROVED EQUAL

F-9 NOT USED

F-10 ADA GRILL

MODEL: ASW-24 B2
SUPPLIER: PILOT ROCK
CONTACT: 800.762.5002

INSTALLATION:
PER MANUFACTURER RECOMMENDATIONS

OR APPROVED EQUAL

F-11 FOOD STORAGE LOCKER

MODEL: BPFL/CB-15
SUPPLIER: PILOT ROCK
CONTACT: 800.762.5002

INSTALLATION:
PER MANUFACTURER RECOMMENDATIONS

OR APPROVED EQUAL

F-12 TRASH AND RECYCLING RECEPTACLE (DAY USE ONLY)

MODEL: HA SERIES DOUBLE TRASH/RECYCLING ENCLOSURE, ADA COMPLIANT - HA2-PX
SUPPLIER: BEARSAVER
COLOR: FOREST BROWN
CONTACT: 800.851.3887

INSTALLATION:
PER MANUFACTURE RECOMMENDATIONS (FLUSH MOUNTED USING ANC2-4 ANCHORING KIT

F-13 TRASH RECEPTACLE

MODEL: HA SERIES SINGLE TRASH ENCLOSURE, ADA COMPLIANT - HA-P
SUPPLIER: BEARSAVER
COLOR: FOREST BROWN
CONTACT: 800.851.3887

INSTALLATION:
PER MANUFACTURE RECOMMENDATIONS (FLUSH MOUNTED USING ANC2-4 ANCHORING KIT

GRAVEL / AGGREGATE

G-1 DECOMPOSED GRANITE

COLOR: TAN
SIZE:A: 75% #2, 25% FINES
SUPPLIER: WHIZ Q STONE
OR APPROVED EQUAL

INSTALLATION:
MIXED WITH STABILIZER AT SUPPLIER, OVER FILTER FABRIC, REFER TO DETAILS.

G-1A DECOMPOSED GRANITE - STABILIZER

SUPPLIER: STABILIZER SOLUTIONS
CONTACT: 800.336.2468

INSTALLATION:
PER MANUFACTURER'S RECOMMENDATIONS.

OR APPROVED EQUAL

G-2 RIVER [illegible]

NOT USED

STON[illegible]
SIZE: [illegible]
SUPP[illegible]E

G-3 SAND [illegible]

NOT USED

TYPE[illegible]N SAND *OR APPROVED EQUAL*
SUPP[illegible]OLUTIONS
CONT[illegible]

METAL

M-1 WELDED WIRE MESH

SIZE: PANEL 48" X 120"
OPENING: 3.75" X 3.75"
WIRE DIA.: 0.25" (2 $\frac{2}{3}$ GUAGE)
MATERIAL: GALVANIZED STEEL
MANUFACTURER: McNICHOLS
CONTACT: mcnichols.com

INSTALLATION:
REFER TO PLANS, DETAILS AND SPECIFICATIONS.

M-2 STEEL PIPE

MATERIAL: WEATHERING STEEL ASTM A847
SIZE: REF. DETAILS A,B GL404

INSTALLATION:
REFER TO PLANS, DETAILS AND SPECIFICATIONS.

M-3 WEATHERING STEEL PLATE

MATERIAL: WEATHERING STEEL ASTM A242

INSTALLATION:
REFER TO PLANS, DETAILS AND SPECIFICATIONS.

M-4 GUARDRAIL PIPE AND FITTINGS

MATERIAL: 1.5" Ø GALVANIZED STEEL

INSTALLATION:
REFER TO PLANS, DETAILS, AND SPECIFICATIONS.
PROVIDE SAMPLES & HANDRAIL SHOP DRAWINGS.

M-5 PERFORATED TRENCH GRATE

MATE[illegible]
MODE[illegible]
FINIS[illegible]
SUPP[illegible]

NOT USED

INSTALLATION:
REFER TO PLANS, DETAILS AND SPECIFICATIONS.

M-6 HINGE

MATERIAL: STEEL
MODEL: ITEM # 44-2000-KONG
FINISH: GALVANIZED
SUPPLIER: KING METALS

INSTALLATION:
REFER TO PLANS, DETAILS AND SPECIFICATIONS.

M-7 LATCH

MATERIAL: STEEL
MODEL: ITEM #1-1000
FINISH: GALVANIZED
SUPPLIER: KING METALS

INSTALLATION:
REFER TO PLANS, DETAILS AND SPECIFICATIONS.

LIGHTING

L-1 SOLAR POWERED LIGHT

MODEL: LIGHT STRIP
MANUFACTURER: SOLARTONIC
CONTACT: HARRY GILES
734-418-0696
HARRY@SOLARTONIC.COM

INSTALLATION:
REFER TO PLANS, DETAILS AND SPECIFICATIONS.

MISC.

X-1 PLAY SURFACE

SUPPLIER: FIBAR ENGINEERED WOOD FIBER
CONT[illegible]

NOT USED

INSTA[illegible]
PER M[illegible]ENDATIONS
OR AP[illegible]

X-2 STEEL SIGN PANEL

MATERIAL: WEATHERING STEEL ASTM A242

INSTALLATION:
PER MANUFACTURER RECOMMENDATIONS

OR APPROVED EQUAL

X-3 COURTESY DOCK

SUPPLIER: EZ DOCK TEXAS, EZDOCKTEXAS.COM
CONTACT: DAVID SCHNAIDERMAN
PHONE: (817) 684-0202

INSTALLATION:
PER MANUFACTURER RECOMMENDATIONS

OR APPROVED EQUAL

X-4 FIRE BRICK

SUPPLIER: SUPERIOR CLAY CORP.
COLO[illegible]
SIZE: [illegible]

NOT USED

INSTA[illegible]
PER M[illegible]ENDATIONS

OR APPROVED EQUAL

X-5 ARTIFICIAL TURF

MANUFACTURER: FOREVER LAWN
CONT[illegible] GRASS

NOT USED

INSTA[illegible]
PER M[illegible]ENDATIONS
INCLUDE FOREVER LAWN AIR GRID

X-6 FLAG POLE

SUPPLIER: FLAGPOLES ETC. OR APPROVED EQUAL
MODE[illegible]L HALYARD W/KEY
MATE[illegible]OR
SIZE: [illegible].125" THICKNESS
(TAPE[illegible]
FINISH[illegible]
CAP: SILVER BALL ON TOP

NOT USED

INSTALLATION:
PER MANUFACTURER MOUNTING DETAIL

X-7 SLIDE

MANUFACTURER: KOMPAN
CONT[illegible]02

NOT USED

INSTA[illegible]
PER MANUFACTURER RECOMMENDATIONS

X-8 SWINGSET

MANU[illegible]
CONT[illegible]922-0901

NOT USED

INSTA[illegible]
PER MANUFACTURER RECOMMENDATIONS

X-9 CLIMBING BOULDER

MANU[illegible]STRUCTURES
CONT[illegible] CLIMBER - MODEL #156068

NOT USED

INSTALLATION:
PER MANUFACTURER RECOMMENDATIONS

X-10 GANGWAY

SUPPLIER: EZ DOCK TEXAS, EZDOCKTEXAS.COM
CONTACT: DAVID SCHNAIDERMAN
PHONE: (817) 684-0202

INSTALLATION:
PER MANUFACTURER RECOMMENDATIONS

OR APPROVED EQUAL

X-11 VEHICLE COUNTER

SUPPLIER: DIAMOND TRAFFIC PRODUCTS
MODEL: TRAFFIC TALLY 200 WITH LOOP SENSOR
CONTACT: support@diamondtraffic.com
PHONE: +1 (541) 782-3903

INSTALLATION:
PER MANUFACTURER RECOMMENDATIONS

GENERAL NOTES:

1. WARNING!!!!!!!! CALL BEFORE YOU DIG!!!!!! TOLL FREE 811
2. WRITTEN DIMENSIONS PREVAIL OVER SCALED DIMENSIONS. NOTIFY LANDSCAPE ARCHITECT OF ANY DISCREPANCIES.
3. THE CONTRACTOR BEARS ALL RESPONSIBILITY FOR VERIFYING ALL UNDERGROUND UTILITIES, PIPES, STRUCTURES, AND LINE RUNS IN THE FIELD PRIOR TO CONSTRUCTION. ANY DAMAGE TO UTILITIES THAT ARE TO REMAIN SHALL BE REPAIRED IMMEDIATELY AT NO EXPENSE TO THE OWNER. LANDSCAPE ARCHITECT ASSUMES NO RESPONSIBILITY FOR ANY NOT SHOWN ON PLANS.
4. THE LOCATIONS OF EXISTING UTILITIES AS SHOWN ON THESE PLANS ARE APPROXIMATE. THERE MAY BE OTHER UNDERGROUND UTILITIES WITHIN THE PROJECT AREA THAT ARE NOT SHOWN.
5. ALL PROPOSED AND FINISHED GRADES ARE BASED ON INFORMATION PROVIDED BY THE OWNER'S SURVEY AND/OR CIVIL ENGINEER. ANY DISCREPANCIES IN ACTUAL FIELD MEASUREMENTS ARE TO BE REPORTED TO THE LANDSCAPE ARCHITECT IMMEDIATELY.
6. CONTRACTOR IS RESPONSIBLE FOR ALL QUANTITIES PER DRAWINGS AND SPECIFICATIONS. ANY QUANTITIES PROVIDED BY LANDSCAPE ARCHITECT ARE PROVIDED FOR CONVENIENCE ONLY CONTRACTORS ARE TO BID THEIR OWN VERIFIED QUANTITIES. NOTIFY LANDSCAPE ARCHITECT OF ANY DISCREPANCIES.
7. EASEMENTS SETBACKS, BUILDING, CURB AND GUTTER, UNDERGROUND UTILITIES HAVE BEEN SUPPLIED TO LANDSCAPE ARCHITECT BY THE PROJECT CIVIL ENGINEER. REFER TO CIVIL ENGINEERS DRAWINGS FOR ADDITIONAL INFORMATION.
8. STUDIO OUTSIDE ASSUMES NO RESPONSIBILITY FOR DAMAGES, LIABILITIES, OR COST RESULTING FROM CHANGES OR ALTERATIONS MADE TO THE PLAN WITHOUT THE EXPRESS WRITTEN CONSENT OF STUDIO OUTSIDE.
9. ALL TREES FOR REMOVAL TO BE TAGGED WITH LANDSCAPE ARCHITECT, TPWD NATURAL RESOURCE COORDINATOR, AND TPWD PARK PLANNER. COORDINATE SCHEDULES AT APPROPRIATE TIMES.

SYMBOLS LEGEND:

GENERAL

POINT OF BEGINNING
ELEVATION REFERENCE (X / X.XX)
SECTION REFERENCE (X / X.XX)
DETAIL REFERENCE (DETAIL # X / SHEET # X.XX)
MATERIAL REFERENCE (MATERIAL X-1)
SPOT GRADE (624.25)
CENTER LINE
LIMIT OF WORK
MATCHLINE
EXPANSION JOINT (EJ)
CONTROL JOINT
STEEL EDGING
ENLARGEMENT REFERENCE (X / X.XX)

ABBREVIATIONS

AD = AREA DRAIN	LP = LOW POINT
BS = BOTTOM STEP	POB = POINT OF BEGINNING
BW = BOTTOM OF WALL	TC = TOP OF CURB
CB = CATCH BASIN	TF = TOP OF FOOTING
CJ = CONTROL JOINT	TR = TREE (EXISTING)
CL = CENTER LINE	TS = TOP STEP
EJ = EXPANSION JOINT	TW = TOP OF WALL
HP = HIGH POINT	TW F= TOP OF WATER FEATURE
LOW = LIMIT OF WORK	

SHOP DRAWING, SAMPLES, MOCK-UPS:

	CUT SHEETS	PHOTOS	SHOP DRAWINGS	SAMPLE	MOCK-UP
CONCRETE PAVING (ALL COLORS/FINISHES)	●			●	●
CONCRETE PAVERS (ALL TYPES/COLORS)	●			●	●
PAVER TRANSITIONS					●
EXPANSION JOINT SEALANT	●			●	●
DECOMPOSED GRANITE WITH STABILIZER				●	●
SITE FURNISHINGS (ALL TYPES)	●				
LIGHTING	●				
TREES & PLANTS		●			
DECK & BOARDWALK					●
STONE				●	
STONE WALLS				●	●
STONE STEPS				●	●
GRAVEL				●	●
CAMPSITE EDGE					●
FENCES / GATES / RAILINGS			●		●
SIGNAGE - ALL TYPES			●		

- **THE ABOVE LIST IS PROVIDED FOR REFERENCE AND MAY NOT BE COMPLETE. REFER TO SPECIFICATIONS FOR ALL SUBMITTAL REQUIREMENTS.**
- ALL TREES TO BE TAGGED WITH LANDSCAPE ARCHITECT, TPWD NATURAL RESOURCE COORDINATOR, AND TPWD PARK PLANNER. COORDINATE SCHEDULES AT APPROPRIATE TIMES.

TEXAS PARKS & WILDLIFE

studioOutside
824 Exposition Avenue, Ste. 5
Dallas, Texas 75226
o214.954.7160 f214.954.7162

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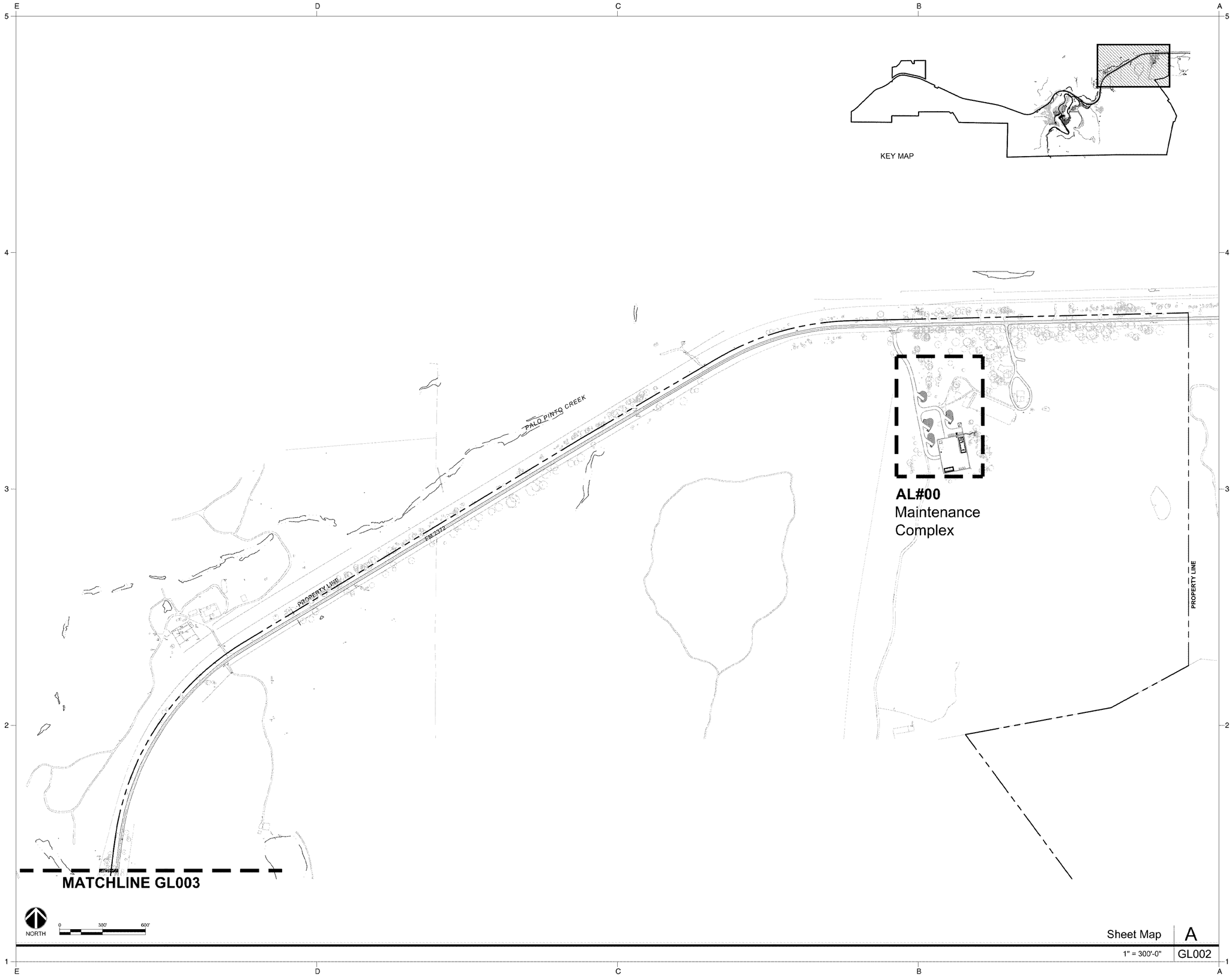
PALO PINTO MOUNTAINS STATE PARK
SITE DEVELOPMENT
TPWD PROJECT NO. 118271

DATE: 2021/03/29
DESIGNED BY: AD/BH
DRAWN BY: JT/RO/AA
REVIEWED BY: BH

REV DESC DATE

SHEET TITLE
GENERAL NOTES & MATERIALS SCHEDULE

SHEET NUMBER
1
GL001



Sheet Map | A

1" = 300'-0" | GL002

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PALO PINTO MOUNTAINS STATE PARK

SITE DEVELOPMENT

TPWD PROJECT NO. 118271

DATE: 2021/03/29
DESIGNED BY: AD/BH
DRAWN BY: JT/RO/AA
REVIEWED BY: BH

REV DESC DATE

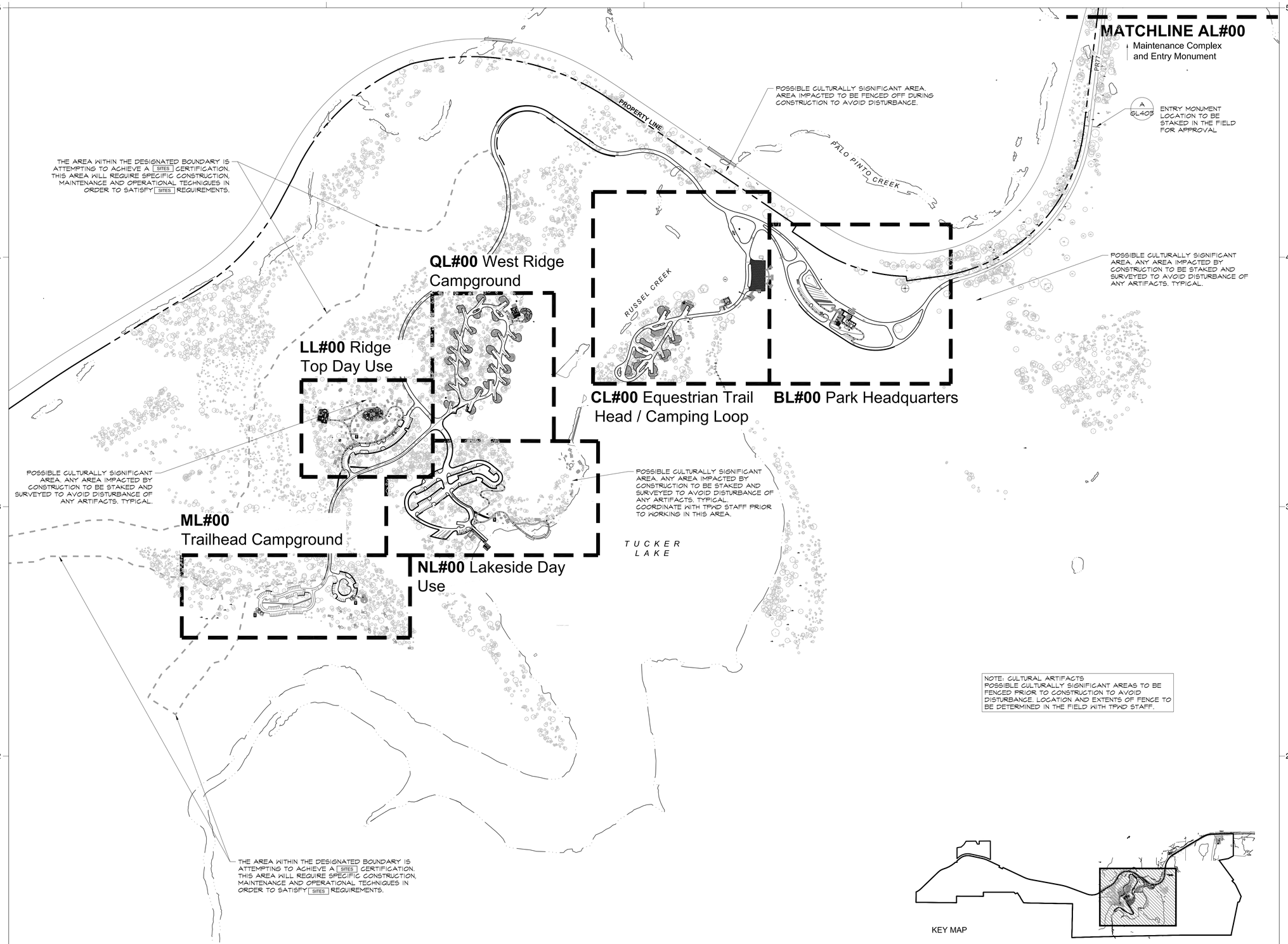
SHEET TITLE

SHEET MAP

SHEET NUMBER

1

GL002



Sheet Map | A

1" = 300'-0" | GL003

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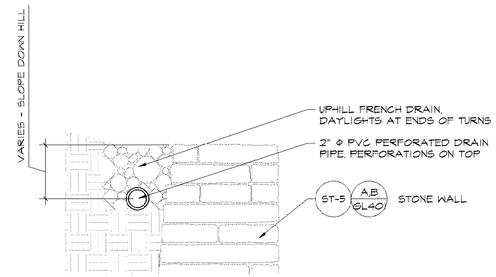
PALO PINTO MOUNTAINS STATE PARK
SITE DEVELOPMENT
TPWD PROJECT NO. 118271

DATE:	2021/03/29
DESIGNED BY:	AD/BH
DRAWN BY:	JT/RO/AA
REVIEWED BY:	BH

REV DESC DATE

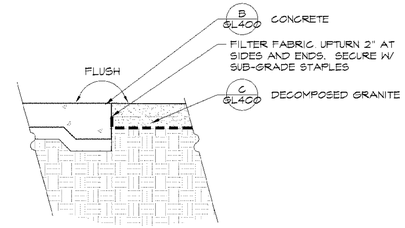
SHEET TITLE
SHEET MAP

SHEET NUMBER
1
GL003



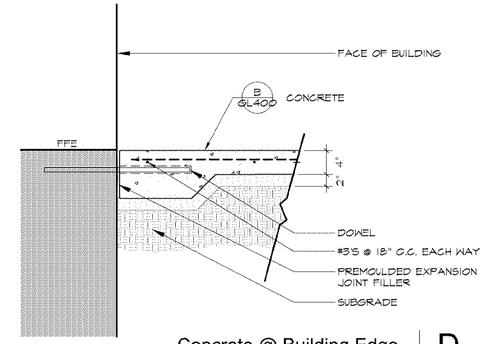
French Drain | L

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



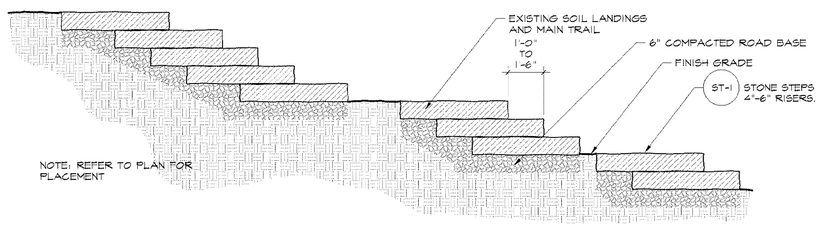
Decomposed Granite @ Concrete | H

Scale: 1" = 1'-0"



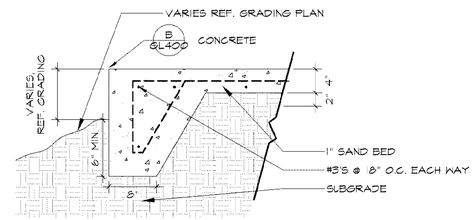
Concrete @ Building Edge | D

Scale: 1" = 1'-0"



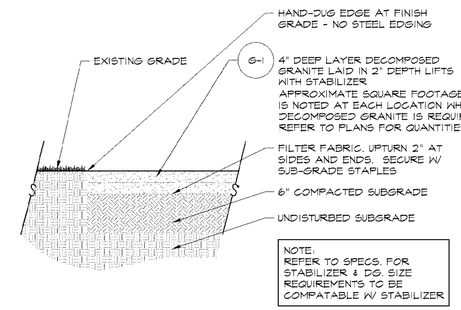
Stone Slab Steps | K

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



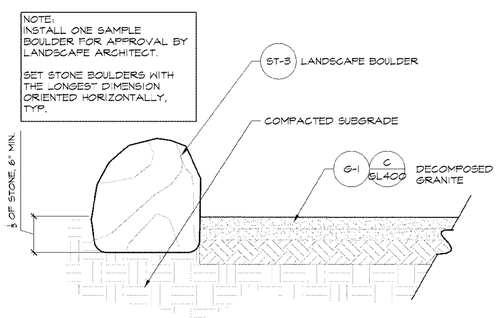
Concrete Turn Down Edge | G

Scale: 1" = 1'-0"



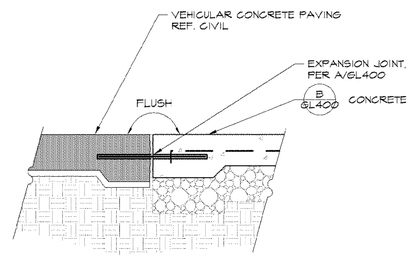
Decomposed Granite | C

Scale: 1" = 1'-0"



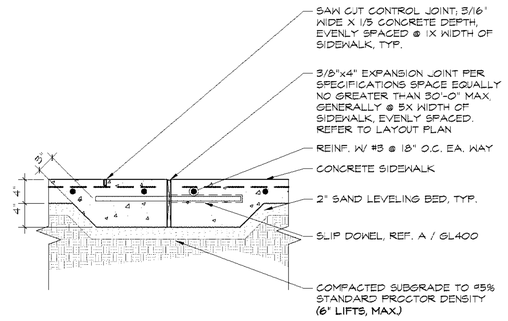
Landscape Boulder | J

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



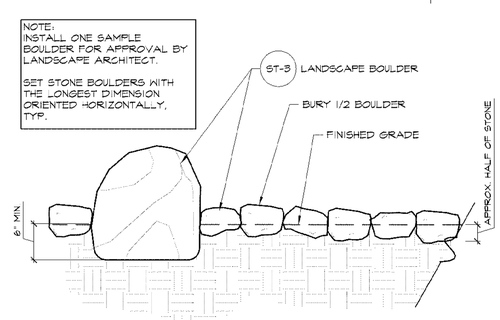
Vehicular Paving @ Concrete Transition | F

Scale: 1" = 1'-0"



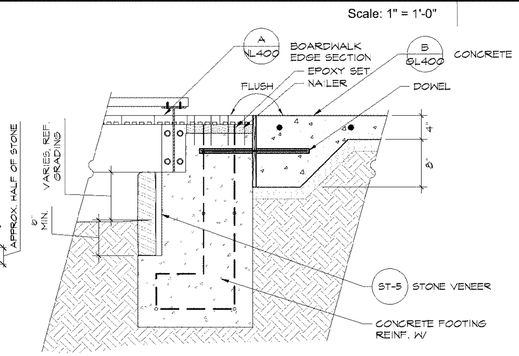
Concrete Sidewalk & Typ. Exp. & Control Joints | B

Scale: 1" = 1'-0"



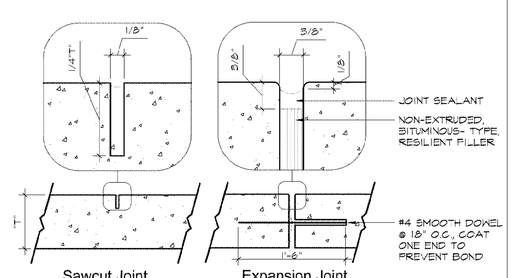
Stone Border | I

Scale: 1" = 1'-0"



Concrete @ Boardwalk Transition | E

Scale: 1" = 1'-0"



Concrete Paving Joints | A

Scale: 1" = 1'-0"

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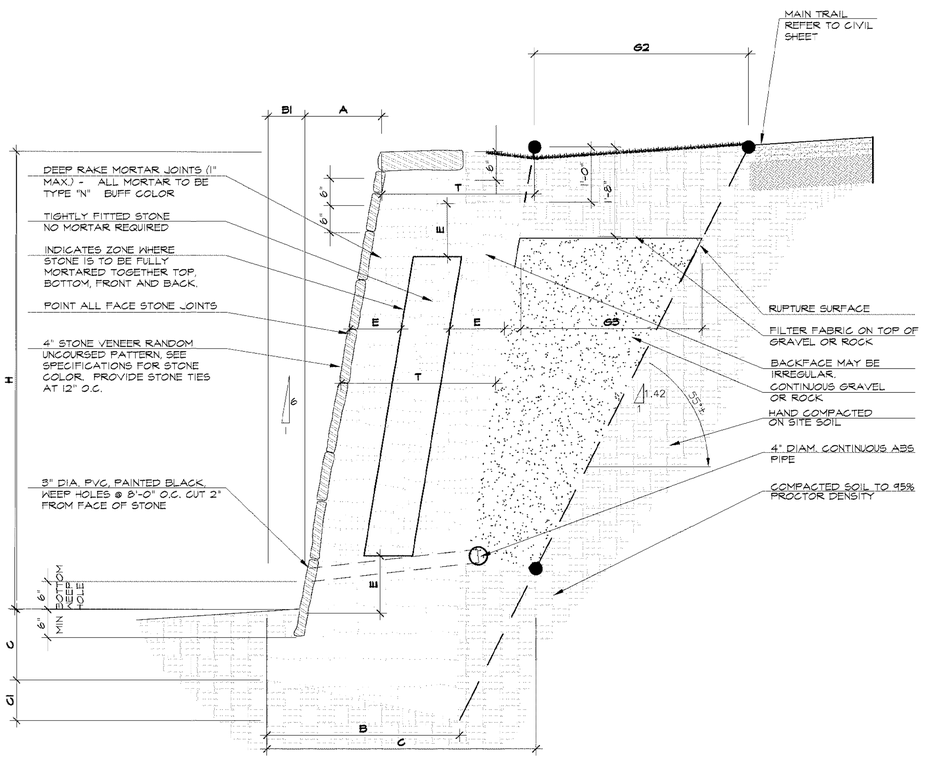
PALO PINTO MOUNTAINS STATE PARK
SITE DEVELOPMENT
TPWD PROJECT NO. 118271

DATE: 2021/03/29
DESIGNED BY: AD/BH
DRAWN BY: JT/RO/AA
REVIEWED BY: BH

REV DESC DATE

SHEET TITLE
HARDSCAPE DETAILS

SHEET NUMBER
1
GL400



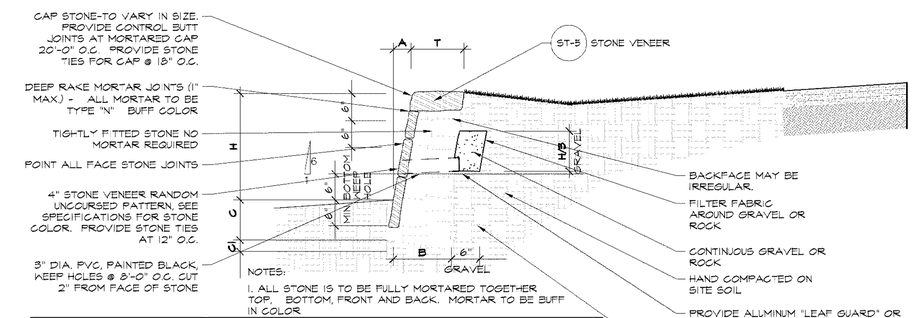
MASONRY WALL SCHEDULE
500 psf - BEARING CAPACITY (STIFF NATURAL UNDISTURBED SOILS OR COMPACTED AND TESTED SOILS SEE GENERAL NOTES SHEET RW1)

WALL HEIGHT H	BATTER A	BASE WIDTH B	TOE B'	WALL THICKNESS T	BASE DEPTH(TOE) C	BASE DEPTH(HEEL) C1	FULLY MORTARED ZONE E	GRAVEL (BOTTOM) G1	GRAVEL (TOP) G2	GRAVEL G3	VOLUME STONE cf/ft	VOLUME GRAVEL cf/ft	BEARING CAPACITY
> 4'-0"	0'-8"	1'-7"	0'-0"	1'-7"	0'-9"	0'-4"	FULLY MORTARED	1'-0"	3'-2"	2'-3"	7.2	3.8	
5'-0"	0'-10"	2'-1"	0'-2"	1'-11"	1'-0"	0'-5"	0'-8"	1'-0"	3'-8"	2'-10"	11.	6.5	
6'-0"	1'-0"	2'-6"	0'-3"	2'-3"	1'-0"	0'-6"	0'-10"	1'-0"	4'-3"	3'-4"	15.3	9.3	
7'-0"	1'-2"	2'-11"	0'-4"	2'-7"	1'-3"	0'-7"	0'-10"	1'-0"	4'-9"	3'-10"	20.9	12.9	1500 psf
8'-0"	1'-4"	3'-5"	0'-5"	3'-0"	1'-6"	0'-8"	1'-0"	1'-0"	5'-3"	4'-5"	28.2	17.0	
9'-0"	1'-6"	3'-10"	0'-6"	3'-4"	1'-6"	0'-8"	1'-0"	1'-0"	5'-10"	4'-11"	34.7	21.7	
10'-0"	1'-8"	4'-3"	0'-7"	3'-8"	1'-6"	0'-9"	1'-2"	1'-3"	6'-7"	5'-8"	42.0	28.9	
11'-0"	1'-10"	4'-8"	0'-8"	4'-0"	1'-6"	0'-10"	1'-2"	1'-3"	7'-2"	6'-3"	49.9	34.9	1600 psf
12'-0"	2'-0"	5'-3"	0'-8"	4'-7"	1'-9"	0'-11"	1'-4"	1'-3"	7'-8"	6'-9"	63.0	41.4	1800 psf

USE THIS SCHEDULE FOR 3/RW2

Typical wall section 'H" > 4'-0", bearing clay soils
Slope soils on the top of wall 1V : 4H (14 deg), MAX. **C**

Scale: 3/4" = 1'-0"



NOTES:
1. ALL STONE IS TO BE FULLY MORTARED TOGETHER TOP, BOTTOM, FRONT AND BACK. MORTAR TO BE BUFF IN COLOR

MASONRY WALL SCHEDULE

WALL HEIGHT H	BATTER A	BASE WIDTH B	WALL THICKNESS T	BASE DEPTH(TOE) C	BASE DEPTH(HEEL) C1	VOLUME STONE cf/ft	VOLUME GRAVEL cf/ft
1'-0" OR SMALLER	0'-2"	1'-0"	1'-0"	0'-6"	0'-3"	1.6	0.2
1'-6"	0'-3"	1'-0"	1'-0"	0'-6"	0'-3"	2.1	0.25
< 2'-0"	0'-4"	1'-0"	1'-0"	0'-6"	0'-3"	2.6	0.3

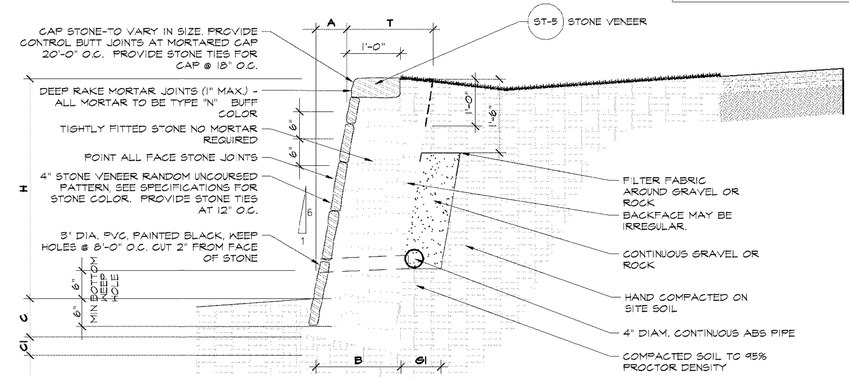
USE THIS SCHEDULE FOR 1/RW2

DETAIL TO CONVEY CONCEPT ONLY WALLS TO BE DESIGN / BUILD. REF. PLANS FOR LOCATIONS. PROVIDE STAMPED ENGINEERED SHOP DRAWING SUBMITTAL FOR REVIEW.

Typical wall section, "H" UP TO < 2'-0", all soil bearing conditions
Slope soils on the top of wall 1V : 4H (14 deg), MAX. **B**

Scale: 3/4" = 1'-0"

DETAIL TO CONVEY CONCEPT ONLY WALLS TO BE DESIGN / BUILD. REF. PLANS FOR LOCATIONS. PROVIDE STAMPED ENGINEERED SHOP DRAWING SUBMITTAL FOR REVIEW.



1. ALL STONE IS TO BE FULLY MORTARED TOGETHER TOP, BOTTOM, FRONT AND BACK. MORTAR TO BE BUFF IN COLOR

MASONRY WALL SCHEDULE
1500 psf - BEARING CAPACITY (STIFF NATURAL UNDISTURBED SOILS OR OR COMPACTED AND TESTED SOILS SEE GENERAL NOTES SHEET RW1)

WALL HEIGHT H	BATTER A	BASE WIDTH B	WALL THICKNESS T	BASE DEPTH(TOE) C	BASE DEPTH(HEEL) C1	GRAVEL (BOTTOM) G1	VOLUME STONE c^3/ft	VOLUME GRAVEL cf/ft
> 2'-0"	0'-6"	1'-0"	1'-0"	0'-6"	0'-3"	0'-6"	2.6	0.3
3'-0"	0'-6"	1'-3"	1'-3"	0'-9"	0'-3"	0'-6"	4.6	0.8
< 4'-0"	0'-8"	1'-7"	1'-7"	0'-9"	0'-4'	0'-9"	7.2	1.9

USE THIS SCHEDULE FOR 2/RW2

Typical wall section, "H" >2'-0" TO < 4'-0" MAX., BEARING CLAY SOILS
Slope soils on the top of wall 1V : 4H (14 deg), MAX. **A**

Scale: 3/4" = 1'-0"

TEXAS PARKS & WILDLIFE

studioOutside
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o214.954.7160 f214.954.7162

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PALO PINTO MOUNTAINS STATE PARK
SITE DEVELOPMENT
TPWD PROJECT NO. 118271

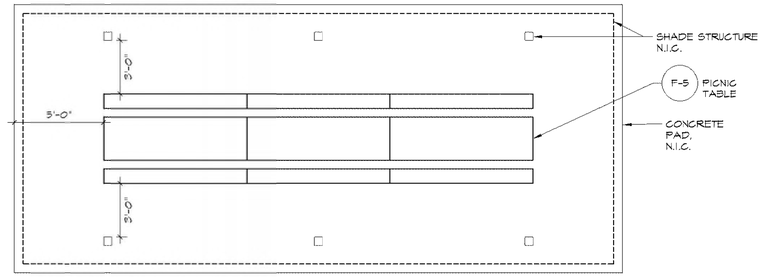
DATE: 2021/03/29
DESIGNED BY: AD/BH
DRAWN BY: JT/RO/AA
REVIEWED BY: BH

REV DESC DATE

SHEET TITLE
VERTICAL DETAILS

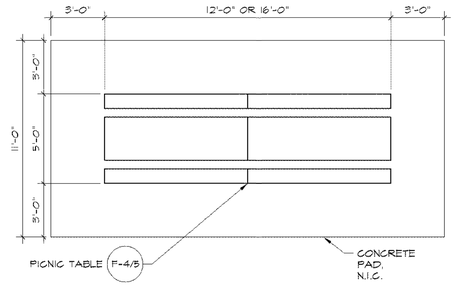
SHEET NUMBER
1
GL401

NOTE: PICNIC TABLES (F-4 AND F-5) ARE IN CONTRACT FOR SET 01. PICNIC TABLE SLABS AND SHADE STRUCTURES ARE NOT IN CONTRACT.



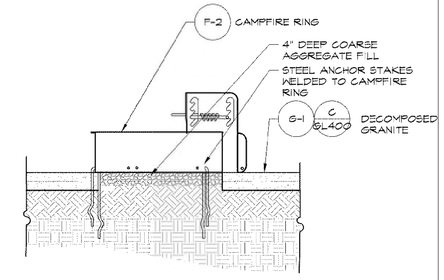
Triple ADA Picnic Table Plan | M

Scale: 1/4" = 1'-0"



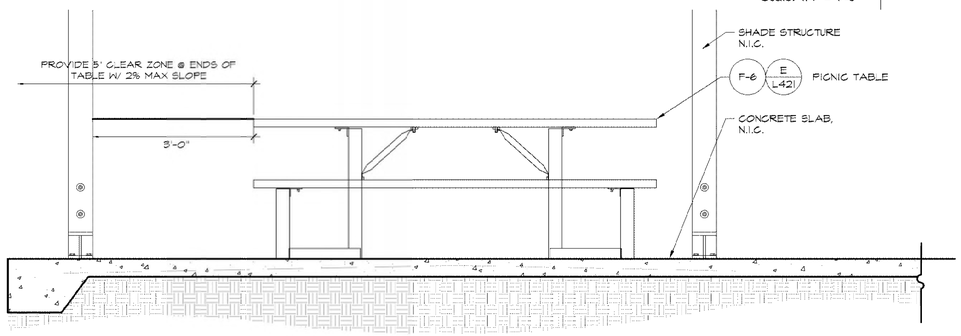
Double Picnic Table Plan | G

Scale: 1/4" = 1'-0"



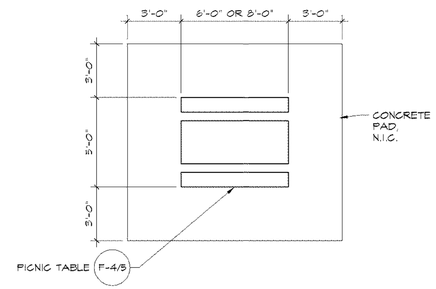
Campfire Ring | C

Scale: 3/4" = 1'-0"



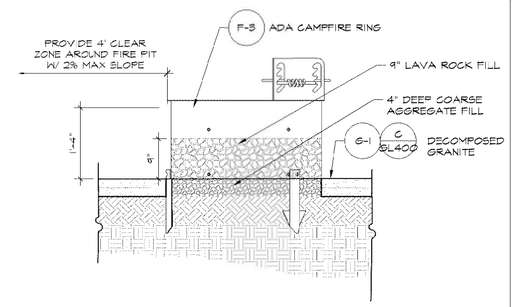
Picnic Table at ADA Campsite | L

Scale: 3/4" = 1'-0"



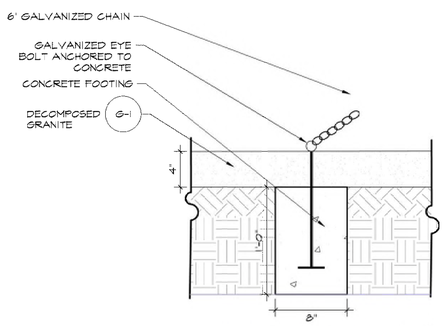
Single Picnic Table Plan | F

Scale: 1/4" = 1'-0"



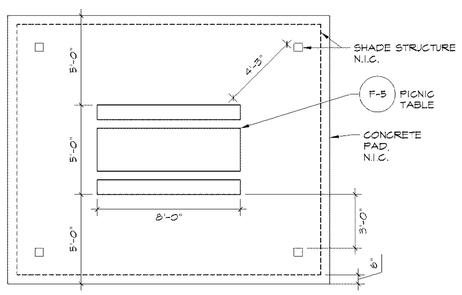
ADA Campfire Ring | B

Scale: 3/4" = 1'-0"



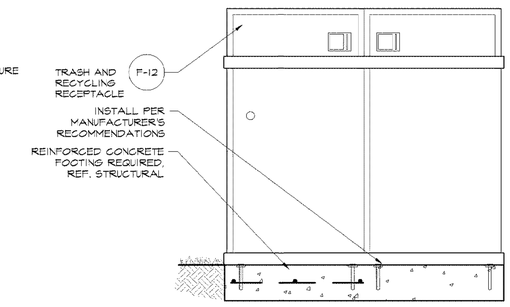
Picnic Table Anchor | K

Scale: 3/4" = 1'-0"



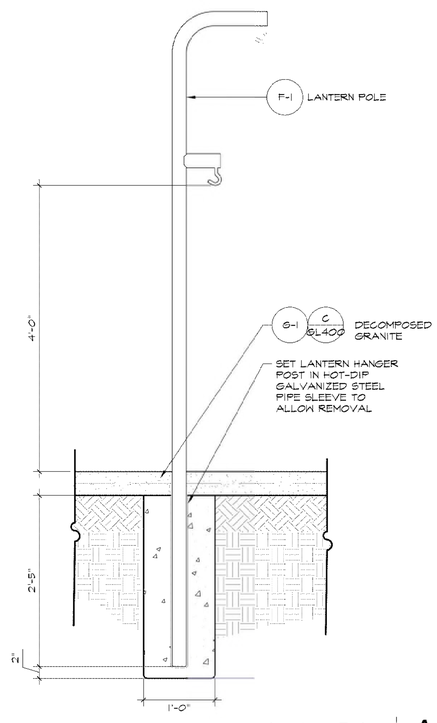
Single ADA Picnic Table Plan | I

Scale: 1/4" = 1'-0"



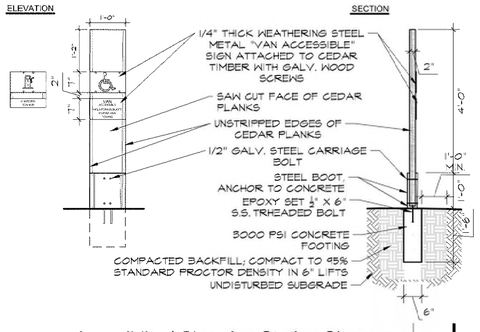
(Day Use Only)
Trash and Recycling Receptacle | E

Scale: 1/4" = 1'-0"



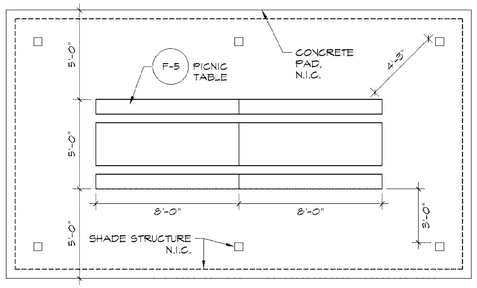
Lantern Pole | A

Scale: 1" = 1'-0"



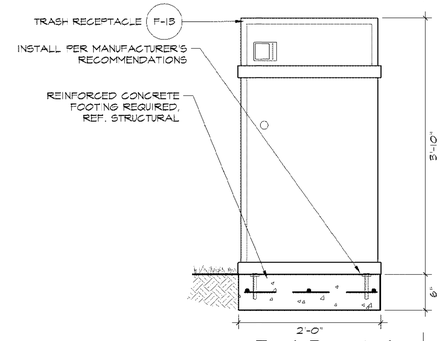
Acessibilty / Charging Station Signage | J

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



Double ADA Picnic Table Plan | H

Scale: 1/4" = 1'-0"



Trash Receptacle | D

Scale: 1" = 1'-0"

TEXAS PARKS & WILDLIFE

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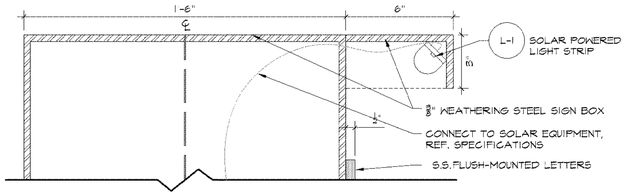
PALO PINTO MOUNTAINS STATE PARK
SITE DEVELOPMENT
TPWD PROJECT NO. 118271

DATE: 2021/03/29
DESIGNED BY: AD/BH
DRAWN BY: JT/RO/AA
REVIEWED BY: BH

REV DESC DATE

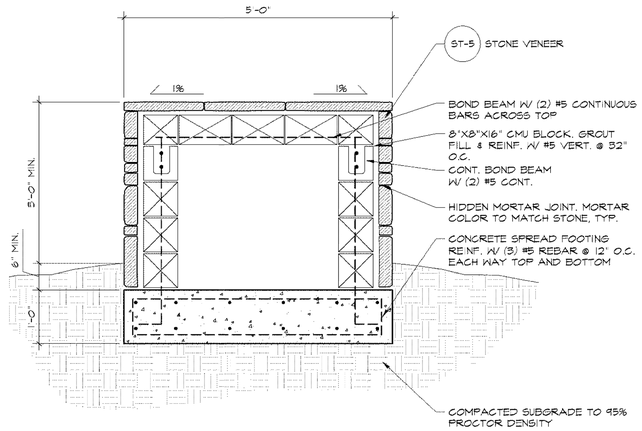
SHEET TITLE
FURNITURE DETAILS

SHEET NUMBER
1
GL402



Down Light Enlargement | F

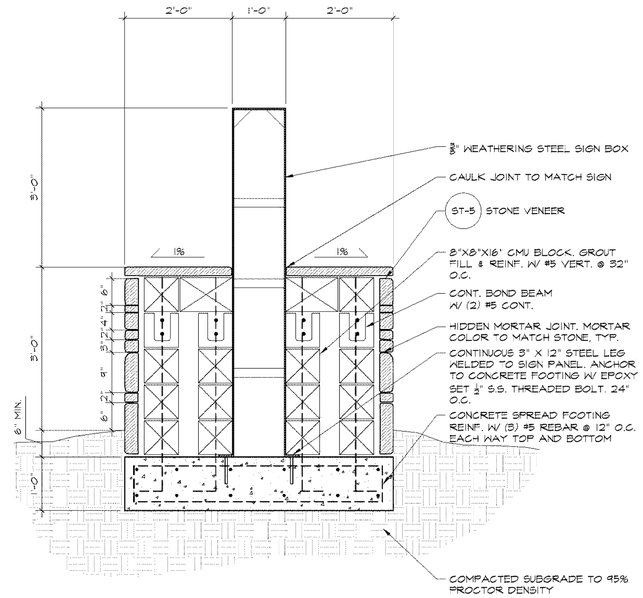
3"=1'-0"



Entry Monument - Wall Section | E

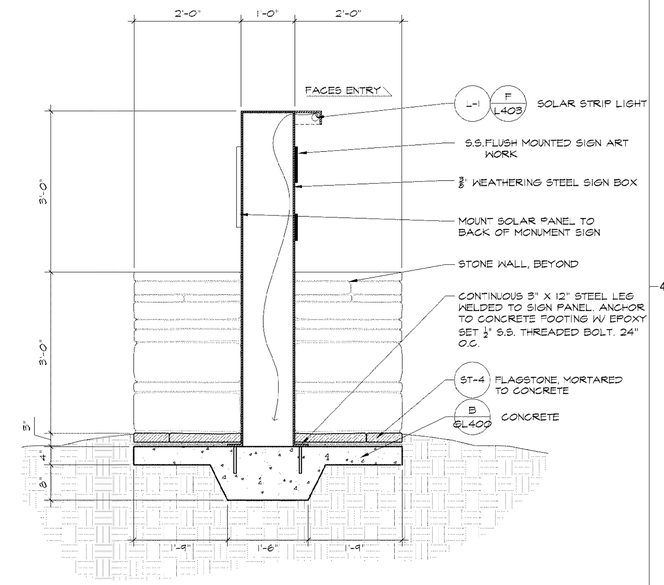
Scale: 3/4" = 1'-0"

NOTE: MANUFACTURER TO PROVIDE SHOP DRAWINGS FOR ALL INTERIOR REINFORCEMENT AND PANEL CONNECTIONS



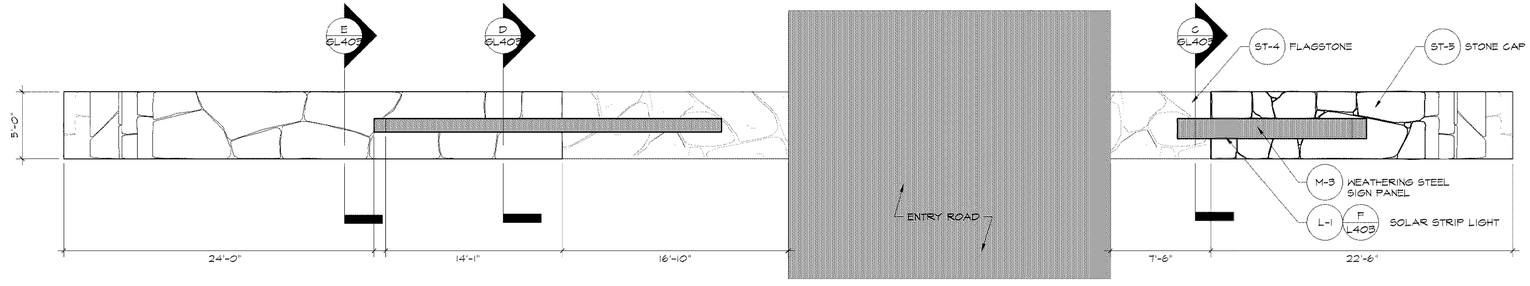
Entry Monument - Sign & Wall Section | D

Scale: 3/4" = 1'-0"



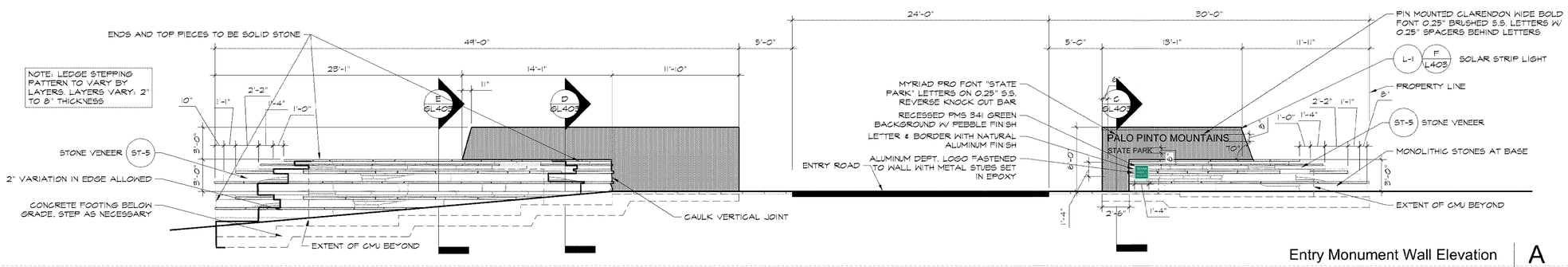
Entry Monument - Sign Section | C

Scale: 3/4" = 1'-0"



Entry Monument Wall Plan | B

Scale: 3/16" = 1'-0"



Entry Monument Wall Elevation | A

Scale: 3/16" = 1'-0"

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PALO PINTO MOUNTAINS STATE PARK
SITE DEVELOPMENT
TPWD PROJECT NO. 118271

DATE: 2021/03/29
DESIGNED BY: AD/BH
DRAWN BY: JT/RO/AA
REVIEWED BY: BH

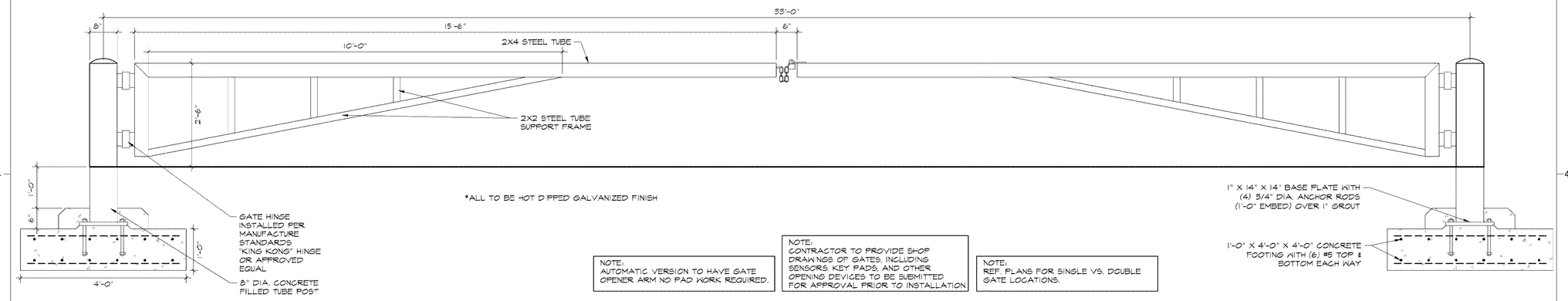
REV	DESC	DATE

SHEET TITLE

ENTRY MONUMENT DETAILS

SHEET NUMBER

1
GL403



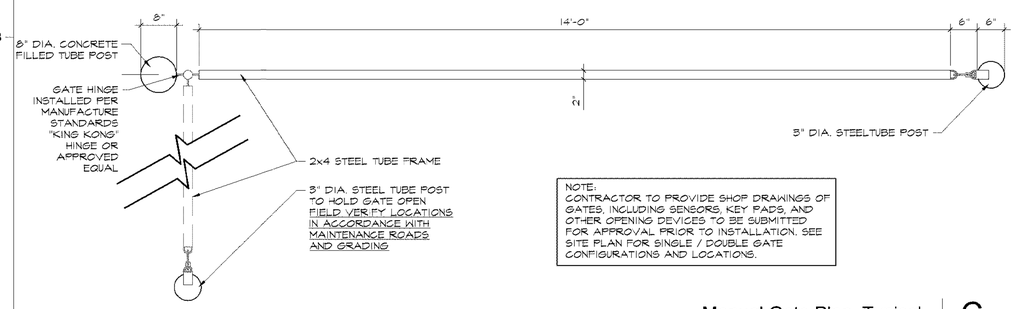
NOTE:
AUTOMATIC VERSION TO HAVE GATE OPENER ARM NO PAD WORK REQUIRED.

NOTE:
CONTRACTOR TO PROVIDE SHOP DRAWINGS OF GATES, INCLUDING SENSORS, KEY PADS, AND OTHER OPENING DEVICES TO BE SUBMITTED FOR APPROVAL PRIOR TO INSTALLATION

NOTE:
REF. PLANS FOR SINGLE VS. DOUBLE GATE LOCATIONS.

Custom Manual Gate Elevation | D

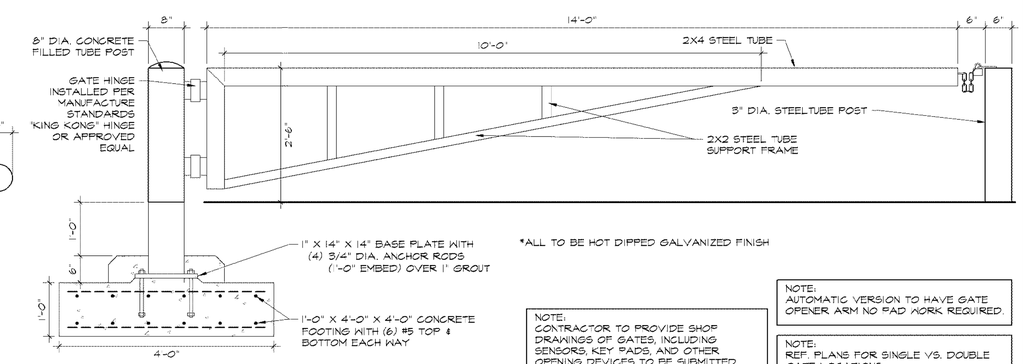
Scale: 3/4" = 1'-0"



NOTE:
CONTRACTOR TO PROVIDE SHOP DRAWINGS OF GATES, INCLUDING SENSORS, KEY PADS, AND OTHER OPENING DEVICES TO BE SUBMITTED FOR APPROVAL PRIOR TO INSTALLATION. SEE SITE PLAN FOR SINGLE / DOUBLE GATE CONFIGURATIONS AND LOCATIONS.

Manual Gate Plan, Typical | C

Scale: 3/4" = 1'-0"



*ALL TO BE HOT DIPPED GALVANIZED FINISH

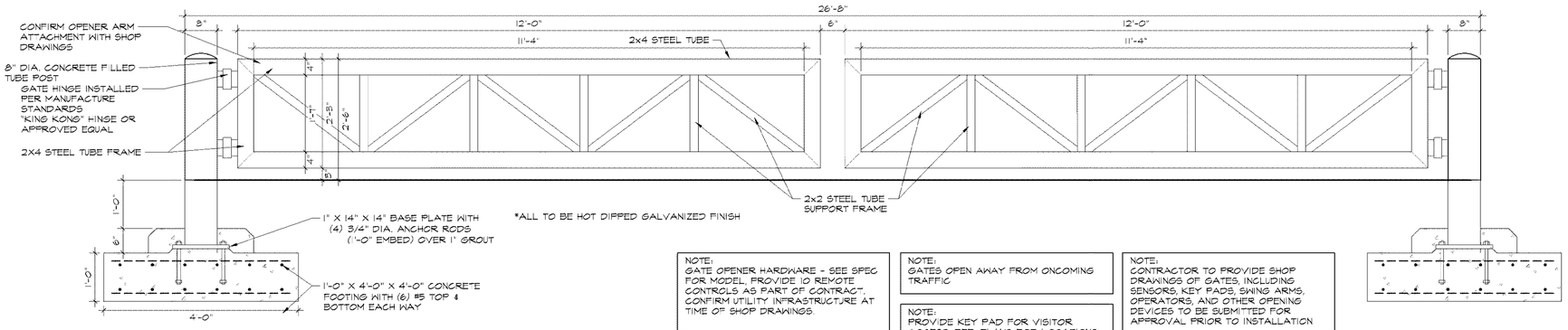
NOTE:
CONTRACTOR TO PROVIDE SHOP DRAWINGS OF GATES, INCLUDING SENSORS, KEY PADS, AND OTHER OPENING DEVICES TO BE SUBMITTED FOR APPROVAL PRIOR TO INSTALLATION

NOTE:
AUTOMATIC VERSION TO HAVE GATE OPENER ARM NO PAD WORK REQUIRED.

NOTE:
REF. PLANS FOR SINGLE VS. DOUBLE GATE LOCATIONS.

Manual Gate Elevation, Typical | B

Scale: 3/4" = 1'-0"



*ALL TO BE HOT DIPPED GALVANIZED FINISH

NOTE:
GATE OPENER HARDWARE - SEE SPEC FOR MODEL. PROVIDE 10 REMOTE CONTROLS AS PART OF CONTRACT. CONFIRM UTILITY INFRASTRUCTURE AT TIME OF SHOP DRAWINGS.

NOTE:
GATES OPEN AWAY FROM ONCOMING TRAFFIC

NOTE:
PROVIDE KEY PAD FOR VISITOR ACCESS. REF. PLANS FOR LOCATIONS.

NOTE:
CONTRACTOR TO PROVIDE SHOP DRAWINGS OF GATES, INCLUDING SENSORS, KEY PADS, SWING ARMS, OPERATORS, AND OTHER OPENING DEVICES TO BE SUBMITTED FOR APPROVAL PRIOR TO INSTALLATION

Typical Double Gate Elevation | A

Scale: 3/4" = 1'-0"

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PALO PINTO MOUNTAINS STATE PARK
SITE DEVELOPMENT
TPWD PROJECT NO. 118271

DATE: 2021/03/29
DESIGNED BY: AD/BH
DRAWN BY: JT/RO/AA
REVIEWED BY: BH

REV DESC DATE

SHEET TITLE
GATE DETAILS

SHEET NUMBER
1
GL404

PLANTING NOTES:

1. LANDSCAPE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING THE LOCATION OF ALL UNDERGROUND UTILITIES, PIPES, STRUCTURES, AND LINE RUNS IN THE FIELD PRIOR TO THE INSTALLATION OF ANY PLANT MATERIAL.
2. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO ADVISE THE LANDSCAPE ARCHITECT OF ANY CONDITION FOUND ON THE SITE WHICH PROHIBITS INSTALLATION AS SHOWN ON THESE DRAWINGS.
3. ALL PLANT MATERIAL SHALL BE MAINTAINED IN A HEALTHY AND GROWING CONDITION AND MUST BE REPLACED WITH PLAN MATERIAL OF SAME VARIETY AND SIZE IF DAMAGED, DESTROYED, OR REMOVED.
4. LANDSCAPE CONTRACTOR SHALL BE RESPONSIBLE FOR FINE GRADING AND REMOVAL OF DEBRIS PRIOR TO PLANTING IN ALL AREAS.
5. FINAL FINISH GRADING SHALL BE REVIEWED BY THE LANDSCAPE ARCHITECT. LANDSCAPE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY ADDITIONAL TOPSOIL REQUIRED TO CREATE A SMOOTH CONDITION PRIOR TO PLANTING.
6. ALL PLANT QUANTITIES LISTED ARE FOR INFORMATION ONLY. IS IS THE CONTRACTORS RESPONSIBILITY TO PROVIDE FULL COVERAGE IN ALL PLANTING AREAS AS SPECIFIED IN THE PLANT SCHEDULE AND VERIFY ALL QUANTITIES.
7. ALL PLANT MATERIAL SHALL CONFORM TO THE SPECIFICATIONS AND SIZES GIVEN IN THE PLANT LIST AND SHALL BE NURSERY GROWN IN ACCORDANCE WITH THE AMERICAN STANDARD FOR NURSERY STOCK. LATEST EDITION AMERICAN ASSOCIATION OF NURSERYMEN STANDARDS. ANY PLANT SUBSTITUTION SHALL BE APPROVED BY LANDSCAPE ARCHITECT PRIOR TO PURCHASE.
8. LANDSCAPE CONTRACTOR IS RESPONSIBLE FOR ANY COORDINATION WITH OTHER CONTRACTORS ON SITE AS REQUIRED TO ACCOMPLISH ALL PLANTING OPERATIONS.
9. ALL NEW PLANTING AREAS TO BE AMENDED PER SPECIFICATIONS.
10. ANY PLANT MATERIAL THAT DOES NOT SURVIVE SHALL BE REPLACED WITH AN EQUIVALENT SIZE AND SPECIES WITHIN THIRTY (30) DAYS.
11. PLANT MATERIAL SHALL BE PRUNED AS NECESSARY TO CONTROL SIZE BUT NOT TO DISRUPT THE NATURAL GROWTH PATTERN OR CHARACTERISTIC FORM OF THE PLANT EXCEPT AS NECESSARY TO ACHIEVE HEIGHT CLEARANCE FOR VISIBILITY AND PEDESTRIAN PASSAGE OR TO ACHIEVE A CONTINUOUS OPAQUE HEDGE IF REQUIRED.
12. LANDSCAPE AREAS SHALL BE KEPT FREE OF TRASH, WEDS. DEBRIS, AND DEAD PLANT MATERIAL.
13. ALL LIME STABILIZED SOIL & INORGANIC SELECT FILL FOR BUILDING SHOULD BE REMOVED FROM PLANTING AREAS TO A DEPTH OF 24" & REPLACED WITH ORGANIC IMPORTED TOPSOIL FILL.

REFER TO SPECIFICATION SECTION FOR MAINTENANCE REQUIREMENTS.

PLANT LEGEND:

		PLANT ABBR.	COMMON NAME BOTANICAL NAME	MINIMUM SIZE	MINIMUM HEIGHT	MINIMUM SPREAD	MINIMUM SPACING	COMMENTS
			CANOPY TREES					
20		JA	Juniperus ashei ASHE JUNIPER	3" CAL. B&B	8'	5'	-	NURSERY GROWN, STANDARD, MATCHED, FULL, WELL BRANCHED STRONG CENTRAL LEADER, PLANT AS SHOWN
17		UC	Ulmus crassifolia CEDAR ELM	3" CAL. B&B	16'	5'	-	NURSERY GROWN, STANDARD, MATCHED, FULL, WELL BRANCHED STRONG CENTRAL LEADER, PLANT AS SHOWN
7		UC	Ulmus crassifolia CEDAR ELM	1" CAL. B&B	8'	3'	-	NURSERY GROWN, STANDARD, MATCHED, FULL, WELL BRANCHED STRONG CENTRAL LEADER, PLANT AS SHOWN
19		QB	Quercus buckleyi TEXAS RED OAK	3" CAL. B&B	14'	4'	-	NURSERY GROWN, STANDARD, MATCHED, FULL, WELL BRANCHED STRONG CENTRAL LEADER, PLANT AS SHOWN
7		QM	Quercus macrocarpa BUR OAK	3" CAL. B&B	16'	5'	-	NURSERY GROWN, STANDARD, MATCHED, FULL, WELL BRANCHED STRONG CENTRAL LEADER, PLANT AS SHOWN
3		QH	Quercus shumardii SHUMARD OAK	3" CAL. B&B	16'	5'	-	NURSERY GROWN, STANDARD, MATCHED, FULL, WELL BRANCHED STRONG CENTRAL LEADER, PLANT AS SHOWN
			SHRUBS					
		ID	Ilex decidua POSSUMHAW	B&B	8'	3'	-	NURSERY GROWN, STANDARD, MATCHED, FULL, WELL BRANCHED MULTI-TRUNK, PLANT AS SHOWN
			GROUNDCOVER					
		MS	- MIDWAY SEED MIX	N/A	N/A	N/A	-	PROVIDED BY NATIVE AMERICAN SEED OR APPROVAL EQUAL

NOTE: ALL LANDSCAPE & SEEDED AREAS TO BE PROVIDED WITH CONSISTENT WATERING VIA WATER TRUCK OF OTHER MEANS FOR ONE FULL GROWING SEASON.
PROVIDE PLANS + RECORDS FOR TPWD APPROVAL.

TEXAS PARKS & WILDLIFE

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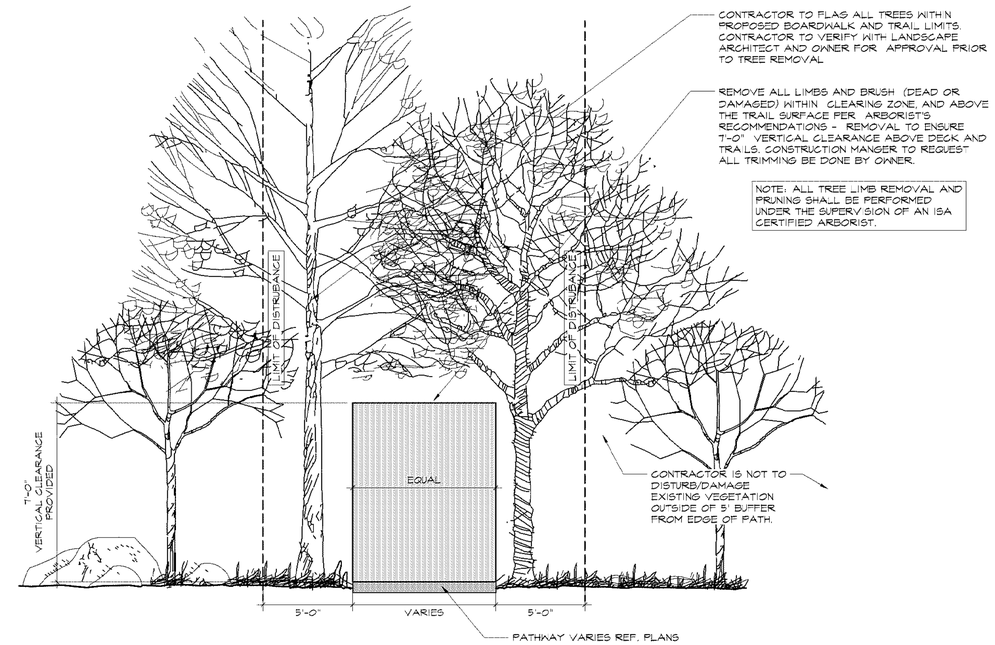
PALO PINTO MOUNTAINS STATE PARK
SITE DEVELOPMENT
TPWD PROJECT NO. 118271

DATE: 2021/03/29
DESIGNED BY: AD/BH
DRAWN BY: JT/RO/AA
REVIEWED BY: BH

REV DESC DATE

SHEET TITLE
PLANTING SCHEDULE & NOTES

SHEET NUMBER
1
GL500



Sidewalk/Path Clearing Detail | B

Scale: 1/4" = 1'-0"

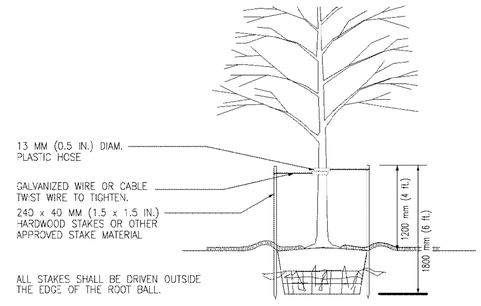
INTERNATIONAL SOCIETY OF ARBORICULTURE

INTERNATIONAL SOCIETY OF ARBORICULTURE
1400 WEST ANTHONY DRIVE
CHAMPAIGN, IL 61821
(217) 355-9411
(217) 355-9516 FAX

WIRE OR CABLE SIZES SHALL BE AS FOLLOWS:
TREES UP TO 65 MM (2.5 IN.) CALIPER – 14 GAUGE
TREES 65 MM (2.5 IN.) TO 75 MM (3 IN.) CALIPER – 12 GAUGE

TIGHTEN WIRE OR CABLE ONLY ENOUGH TO KEEP FROM SLIPPING. ALLOW FOR SOME TRUNK MOVEMENT. PLASTIC HOSE SHALL BE LONG ENOUGH TO ACCOMMODATE 35MM (1.5 IN.) OF GROWTH AND BUFFER ALL BRANCHES FROM THE WIRE.

TUCK ANY LOOSE ENDS OF THE WIRE OR CABLE INTO THE WIRE WRAP SO THAT NO SHARP WIRE ENDS ARE EXPOSED.



ASSURE THAT THE BEARING SURFACE OF THE PROTECTIVE COVERING OF THE WIRE OR CABLE AGAINST THE TREE TRUNK IS A MINIMUM OF 12 MM (0.5 IN.).

REMOVE ALL STAKING AS SOON AS THE TREE HAS GROWN SUFFICIENT ROOTS TO OVERCOME THE PROBLEM THAT REQUIRED THE TREE TO BE STAKED. STAKES SHALL BE REMOVED NO LATER THE END OF THE FIRST GROWING SEASON AFTER PLANTING.

TREES NORMALLY DO NOT NEED TO BE STAKED AND STAKING CAN BE HARMFUL TO THE TREE. STAKING SHOULD BE DONE ONLY WITH THE APPROVAL OF THE LANDSCAPE ARCHITECT IF IT IS EXPECTED THAT THE TREE WILL NOT BE ABLE TO SUPPORT ITSELF. THE FOLLOWING ARE REASONS WHY TREES DO NOT REMAIN STRAIGHT.

- o TREES WITH POOR – QUALITY ROOT BALLS OR ROOT BALLS THAT HAVE BEEN CRACKED OR DAMAGED. REJECT RATHER THAN STAKE.
- o TREES THAT HAVE GROWN TOO CLOSE TOGETHER IN THE NURSERY, RESULTING IN WEAK TRUNKS. REJECT RATHER THAN STAKE.
- o PLANTING PROCEDURES THAT DO NOT ADEQUATELY TAMP SOILS AROUND THE ROOT BALL. CORRECT THE PLANTING PROCEDURE
- o ROOT BALLS PLACED ON SOFT SOIL. TAMP SOILS UNDER ROOT BALL PRIOR TO PLANTING.
- o ROOT BALLS WITH VERY SANDY SOIL OR VERY WET CLAY SOIL. STAKING ADVISABLE.
- o TREES LOCATED IN A PLACE OF EXTREMELY WINDY CONDITIONS. STAKING ADVISABLE.

NOTES

1. PLEASE REFER TO INTRODUCTION AND USE CRITERIA PRIOR TO USING THIS DETAIL.

Staking for Trees 3" caliper or less | B

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

INTERNATIONAL SOCIETY OF ARBORICULTURE

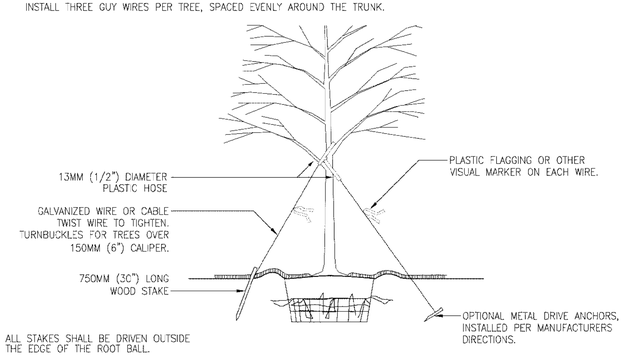
INTERNATIONAL SOCIETY OF ARBORICULTURE
1400 WEST ANTHONY DRIVE
CHAMPAIGN, IL 61821
(217) 355-9411
(217) 355-9516 FAX

WIRE OR CABLE SIZES SHALL BE AS FOLLOWS:
TREES UP TO 65 MM (2.5 IN.) CALIPER – 14 GAUGE
TREES 65 MM (2.5 IN.) TO 75 MM (3 IN.) CALIPER – 12 GAUGE

TIGHTEN WIRE OR CABLE ONLY ENOUGH TO KEEP FROM SLIPPING. ALLOW FOR SOME TRUNK MOVEMENT. PLASTIC HOSE SHALL BE LONG ENOUGH TO ACCOMMODATE 35MM (1.5 IN.) OF GROWTH AND BUFFER ALL BRANCHES FROM THE WIRE.

TUCK ANY LOOSE ENDS OF THE WIRE OR CABLE INTO THE WIRE WRAP SO THAT NO SHARP WIRE ENDS ARE EXPOSED.

INSTALL THREE GUY WIRES PER TREE, SPACED EVENLY AROUND THE TRUNK.



ALL STAKES SHALL BE DRIVEN OUTSIDE THE EDGE OF THE ROOT BALL.

ASSURE THAT THE BEARING SURFACE OF THE PROTECTIVE COVERING OF THE WIRE OR CABLE AGAINST THE TREE TRUNK IS A MINIMUM OF 12 MM (0.5 IN.).

REMOVE ALL STAKING AS SOON AS THE TREE HAS GROWN SUFFICIENT ROOTS TO OVERCOME THE PROBLEM THAT REQUIRED THE TREE TO BE STAKED. STAKES SHALL BE REMOVED NO LATER THE END OF THE FIRST GROWING SEASON AFTER PLANTING.

TREES NORMALLY DO NOT NEED TO BE STAKED AND STAKING CAN BE HARMFUL TO THE TREE. STAKING SHOULD BE DONE ONLY WITH THE APPROVAL OF THE LANDSCAPE ARCHITECT IF IT IS EXPECTED THAT THE TREE WILL NOT BE ABLE TO SUPPORT ITSELF. THE FOLLOWING ARE REASONS WHY TREES DO NOT REMAIN STRAIGHT.

- o TREES WITH POOR–QUALITY ROOT BALLS OR ROOT BALLS THAT HAVE BEEN CRACKED OR DAMAGED. REJECT RATHER THAN STAKE.
- o TREES THAT HAVE GROWN TOO CLOSE TOGETHER IN THE NURSERY, RESULTING IN WEAK TRUNKS. REJECT RATHER THAN STAKE.
- o PLANTING PROCEDURES THAT DO NOT ADEQUATELY TAMP SOILS AROUND THE ROOT BALL. CORRECT THE PLANTING PROCEDURE.
- o ROOT BALLS PLACED ON SOFT SOIL. TAMP SOILS UNDER ROOT BALL PRIOR TO PLANTING.
- o ROOT BALLS WITH VERY SANDY SOIL OR VERY WET CLAY SOIL. STAKING ADVISABLE.
- o TREES LOCATED IN A PLACE OF EXTREMELY WINDY CONDITIONS. STAKING ADVISABLE.

NOTES:

1. PLEASE REFER TO INTRODUCTION AND USE CRITERIA PRIOR TO USING THIS DETAIL.

Staking for Trees 3" caliper or larger | A

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

TEXAS PARKS & WILDLIFE

studioOutside
824 Exposition Avenue, Ste. 5
Dallas, Texas 75226
o214.954.7160 f214.954.7162

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PALO PINTO MOUNTAINS STATE PARK
SITE DEVELOPMENT
TPWD PROJECT NO. 118271

DATE: 2021/03/29
DESIGNED BY: AD/BH
DRAWN BY: JT/RO/AA
REVIEWED BY: BH

REV DESC DATE

SHEET TITLE
PLANTING DETAILS

SHEET NUMBER
1
GL501

ELECTRICAL LEGEND

SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION
	CONDUIT		JUNCTION BOX
	CONDUIT IN OR UNDER GROUND		WALL JUNCTION BOX
	CONDUIT WITH SWITCH LEG, HOT & NEUTRAL		EQUIPMENT CONNECTION
	COND. HOMERUN TO PANEL-GND, HOT, NEUT.	M	UTILITY METER LOCATION
	COND. HOMERUN-IG, EQMT. GND, HOT, NEUT.		POLE-MOUNTED TRANSFORMER
	CONDUIT STUBBED UP		MOTOR CONNECTION
	CONDUIT STUBBED DOWN		DISCONNECT SWITCH
T	TELEPHONE SYSTEM CONDUIT		MAGNETIC MOTOR STARTER
	LIGHTING FIXTURE		COMB. MAGNETIC STARTER/DISC SWITCH
			TRANSFORMER
	LIGHTING FIXTURE, WALL MTD.		GROUND CONNECTION
			PANELBOARD
	CEILING LIGHTING FIXTURE		PANELBOARD FLUSH MOUNTED
	WALL LIGHTING FIXTURE	S.T.	SHUNT TRIP
	DUPLEX RECEPTACLE		DISTRIBUTION PANEL/SWITCHBOARD
GFI	GROUND FAULT CIRCUIT INTERRUPTER RCPT.		WIREWAY
IG	ISOLATED GROUND DUPLEX RECEPTACLE	H - 1,3,5	THREE (3) ONE-POLE CIRCUITS
	QUADRUPLEX RECEPTACLE	H - 1/3/5	ONE (1) THREE-POLE CIRCUIT
	SIMPLEX RECEPTACLE		
	SPECIAL RECEPTACLE AS NOTED		

NOTE: NOT ALL SYMBOLS USED - REFER TO FLOOR PLANS

LINE TYPE LEGEND

SYMBOL	DESCRIPTION
	LINE TYPE INDICATES SCOPE OF WORK
	LINE TYPE INDICATES SCOPE OF WORK
	SCREENED LINE TYPE INDICATES FOR INFORMATION ONLY
	SCREENED LINE TYPE INDICATES FOR INFORMATION ONLY
	LINE TYPE INDICATES FOR INFORMATION ONLY
	LINE TYPE INDICATES FOR INFORMATION ONLY

ELECTRICAL GENERAL NOTES

1. SITE EQUIPMENT LOCATIONS SHALL BE COORDINATED WITH LANDSCAPE ARCHITECTURAL DRAWINGS.

TEXAS PARKS & WILDLIFE

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J.A. Ivy & Associates, Inc. - Texas Registered Engineering Firm F-1386
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(214) 739-8889 (214) 739-1777 Fax www.jjaeo.com
J.A. Ivy
Texas Registered Engineering Firm F-1386

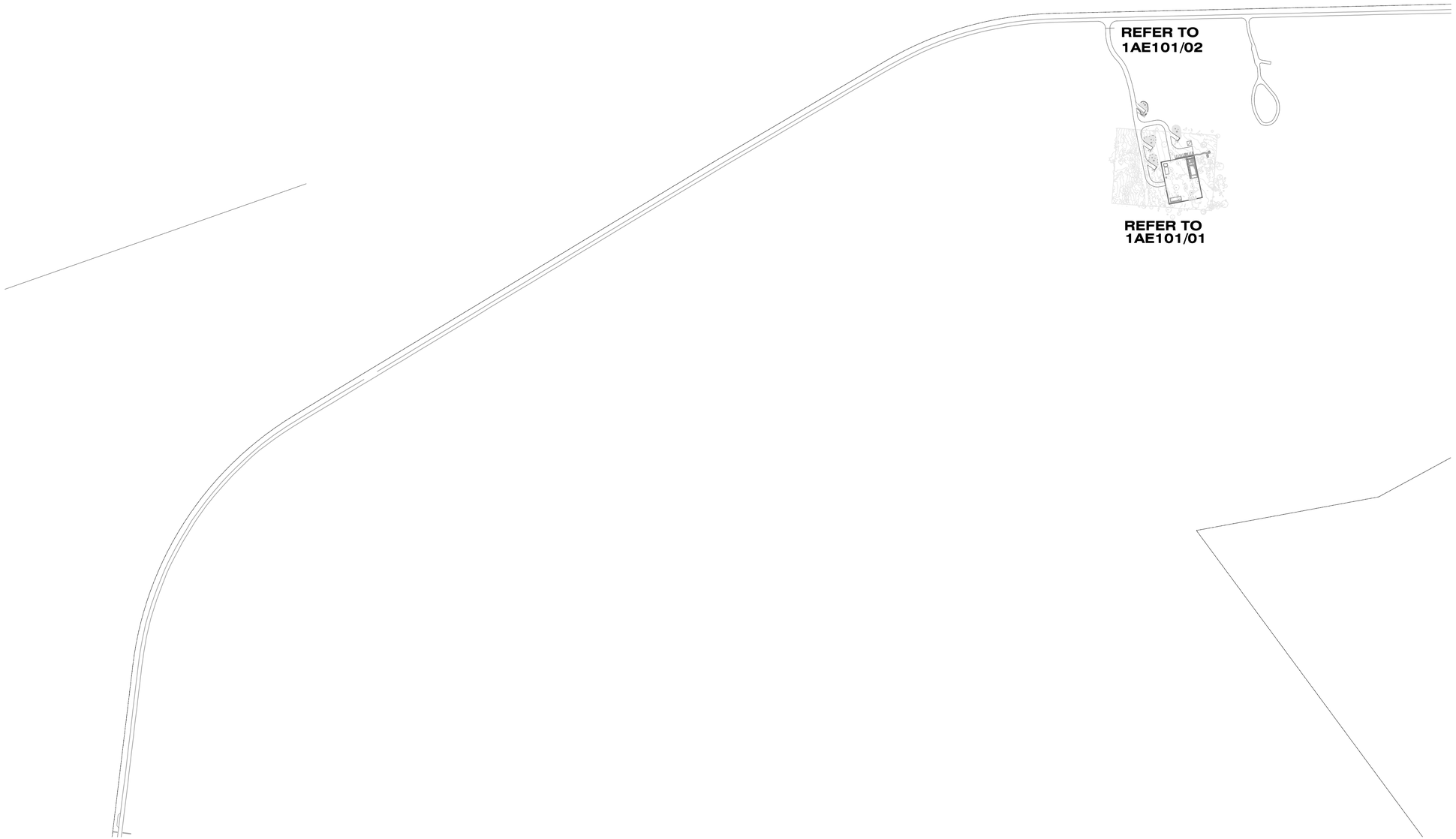
PALO PINTO MOUNTAINS STATE PARK
SITE DEVELOPMENT
TPWD PROJECT NO. 118271

DATE: 2021/03/29
DESIGNED BY: ILB
DRAWN BY: AC
REVIEWED BY: ILB

REV DESC DATE

SHEET TITLE
ELECTRICAL COVER SHEET

SHEET NUMBER
1
GE001



1 **ELECTRICAL SITE PLAN**
1" = 300'-0"

0' 300' 600' 900'

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Jim Jones
Texas Registered Engineering Firm F-1295

STATE OF TEXAS
J.L. BASCEANU
97465
LICENSED
PROFESSIONAL ENGINEER
5/29/21

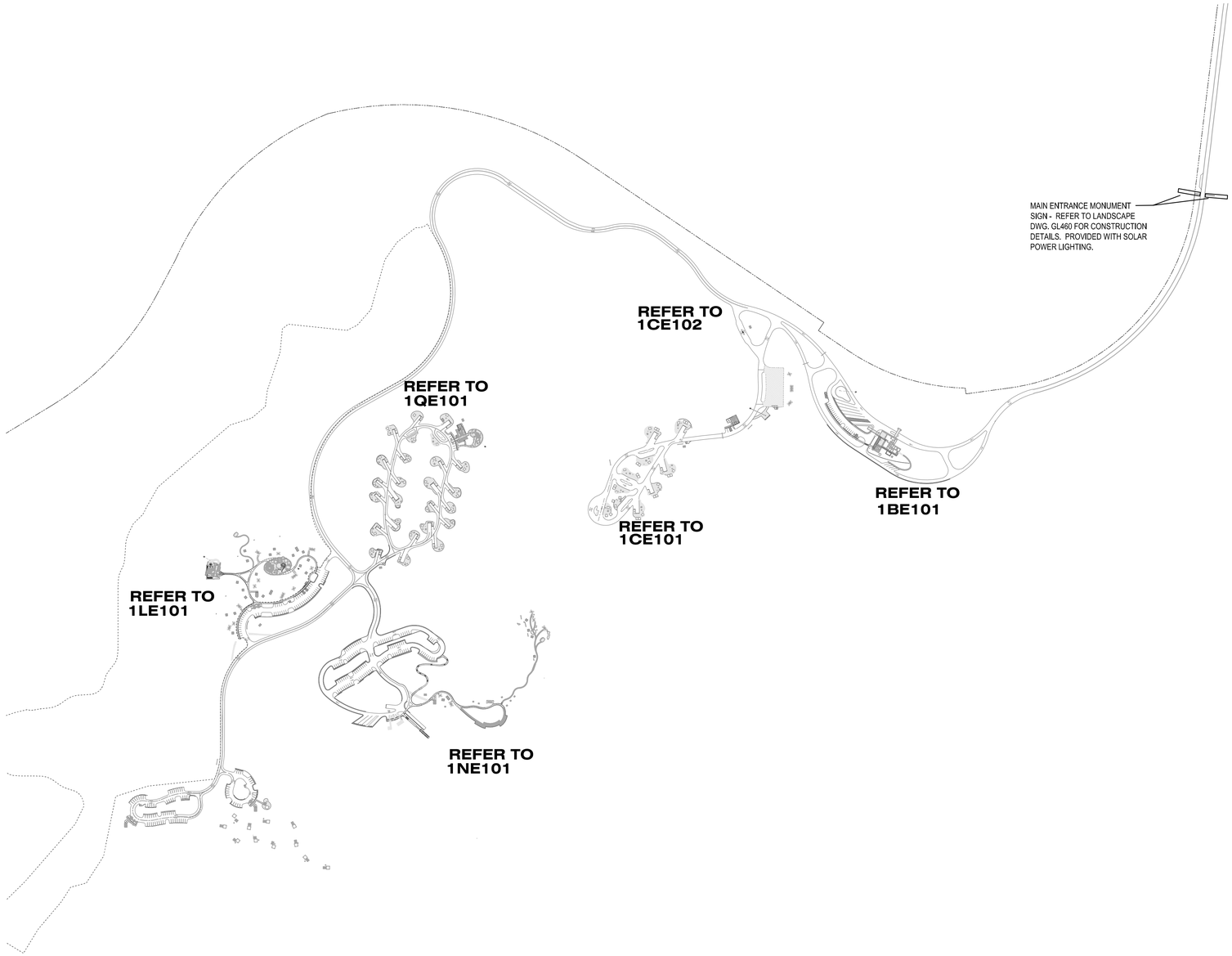
PALO PINTO MOUNTAINS STATE PARK
SITE DEVELOPMENT
TPWD PROJECT NO. 118271

DATE: 2021/03/29
DESIGNED BY: JFJ
DRAWN BY: AC
REVIEWED BY: JFJ

REV DESC DATE

SHEET TITLE
ELECTRICAL SITE PLAN

SHEET NUMBER
1
GE101



1 **MEP SITE PLAN**
1" = 300'-0"

0' 300' 600' 900'

TEXAS PARKS & WILDLIFE

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PROFESSIONAL ENGINEER
5/29/21

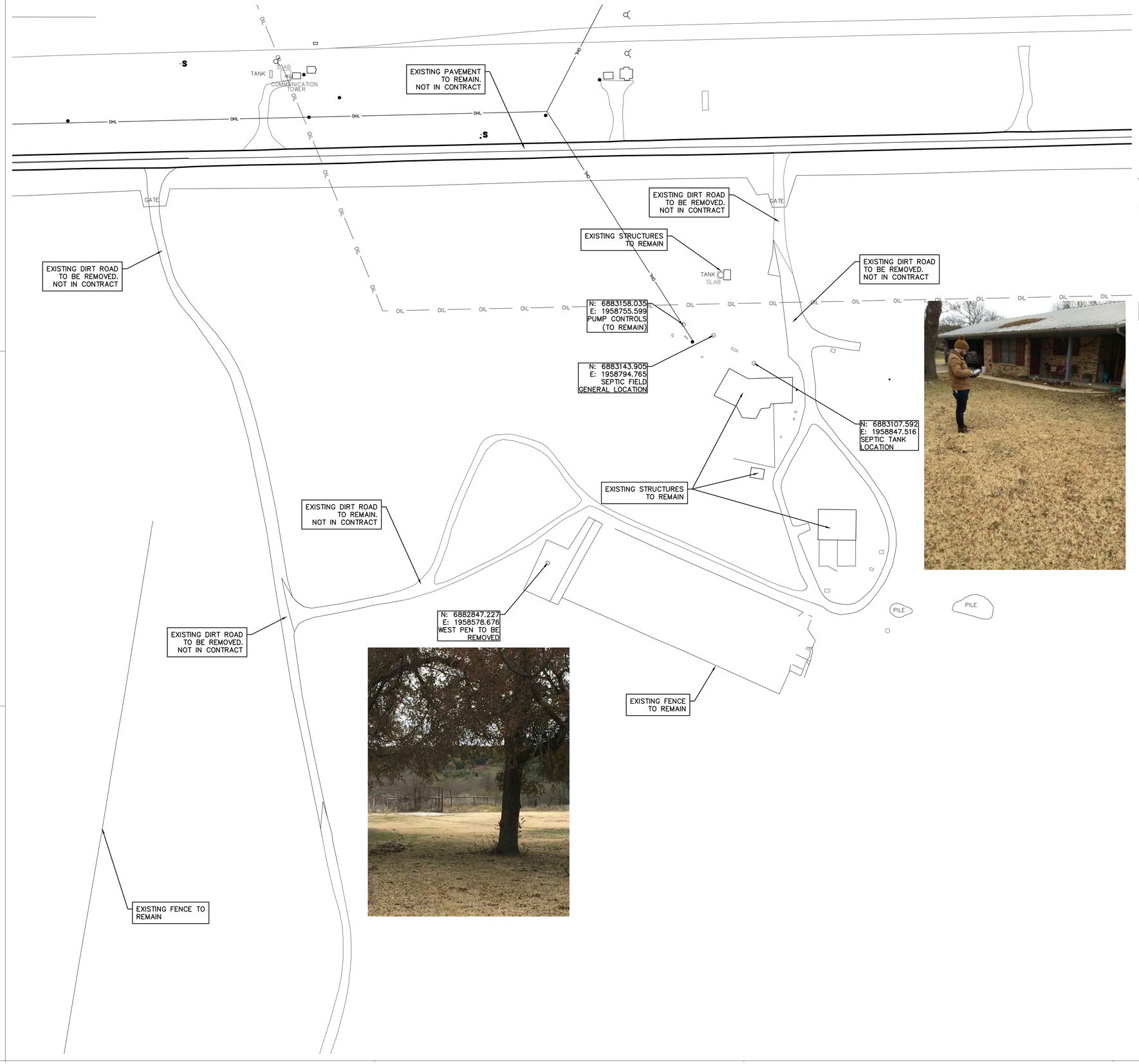
PALO PINTO MOUNTAINS STATE PARK
SITE DEVELOPMENT
TPWD PROJECT NO. 118271

DATE: 2021/03/29
DESIGNED BY: JFJ
DRAWN BY: AC
REVIEWED BY: JFJ

REV DESC DATE

SHEET TITLE
MEP
SITE PLAN

SHEET NUMBER
1
GE102



LEGEND

BL	BOLLARD
EM	ELECTRIC METER
PP	POWER POLE
LS	LIGHT STANDARD
WM	WATER METER
WV	WATER VALVE
ICV	IRRIGATION CONTROL VALVE
FH	FIRE HYDRANT
CO	CLEANOUT
MH	MANHOLE
TSC	TRAFFIC SIGNAL CONTROL
TSP	TRAFFIC SIGNAL POLE
TELE	TELEPHONE BOX
	FLOOD LIGHT
FP	FLAG POLE
SIGN	TRAFFIC SIGN
IRS	1/2-INCH IRON ROD W/"PACHECO KOCH" CAP SET
(C.M.)	CONTROLLING MONUMENT
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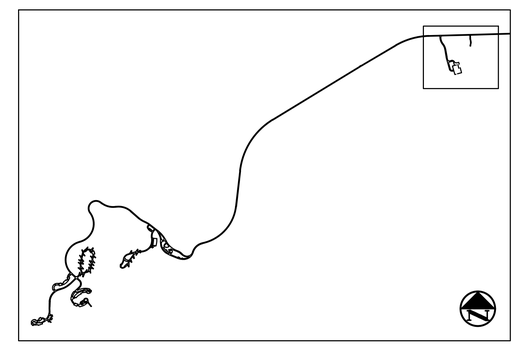
X	FENCE
OHL	OVERHEAD UTILITY LINE
F	FIBER OPTIC LINE
30" R.C.P.	UNDERGROUND STORM LINE
E	UNDERGROUND ELECTRIC LINE
T	UNDERGROUND TELEPHONE LINE
C	UNDERGROUND CABLE LINE
6"W	UNDERGROUND WATER LINE
6"SS	UNDERGROUND SEWER LINE
613	EXIST CONTOUR
612.39	EXIST SPOT ELEVATION
TC 612.39 G 611.89	EXIST TOP OF CURB ELEVATION EXIST GUTTER ELEVATION
SAWCUT	LIMITS OF SAWCUT
	DEMOLITION AREA

0 30 60 120 180
GRAPHIC SCALE IN FEET

REFERENCE LANDSCAPE PLANS FOR TREE REMOVAL AND PROTECTION



KEY MAP
N.T.S.

STATE OF TEXAS
TYLER S. REEVES
131206
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PROFESSIONAL ENGINEER

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TX REG. ENGINEERING FIRM F-469
TX REG. SURVEYING FIRM LS-10008001

PALO PINTO MOUNTAINS STATE PARK
SITE DEVELOPMENT
TPWD PROJECT NO. 118271

DATE:	2021/03/29
DESIGNED BY:	TSR
DRAWN BY:	PAC
REVIEWED BY:	CAA

REV DESC DATE

SHEET TITLE
DEMOLITION PLAN

SHEET NUMBER
1
AC111

ACASTILLO
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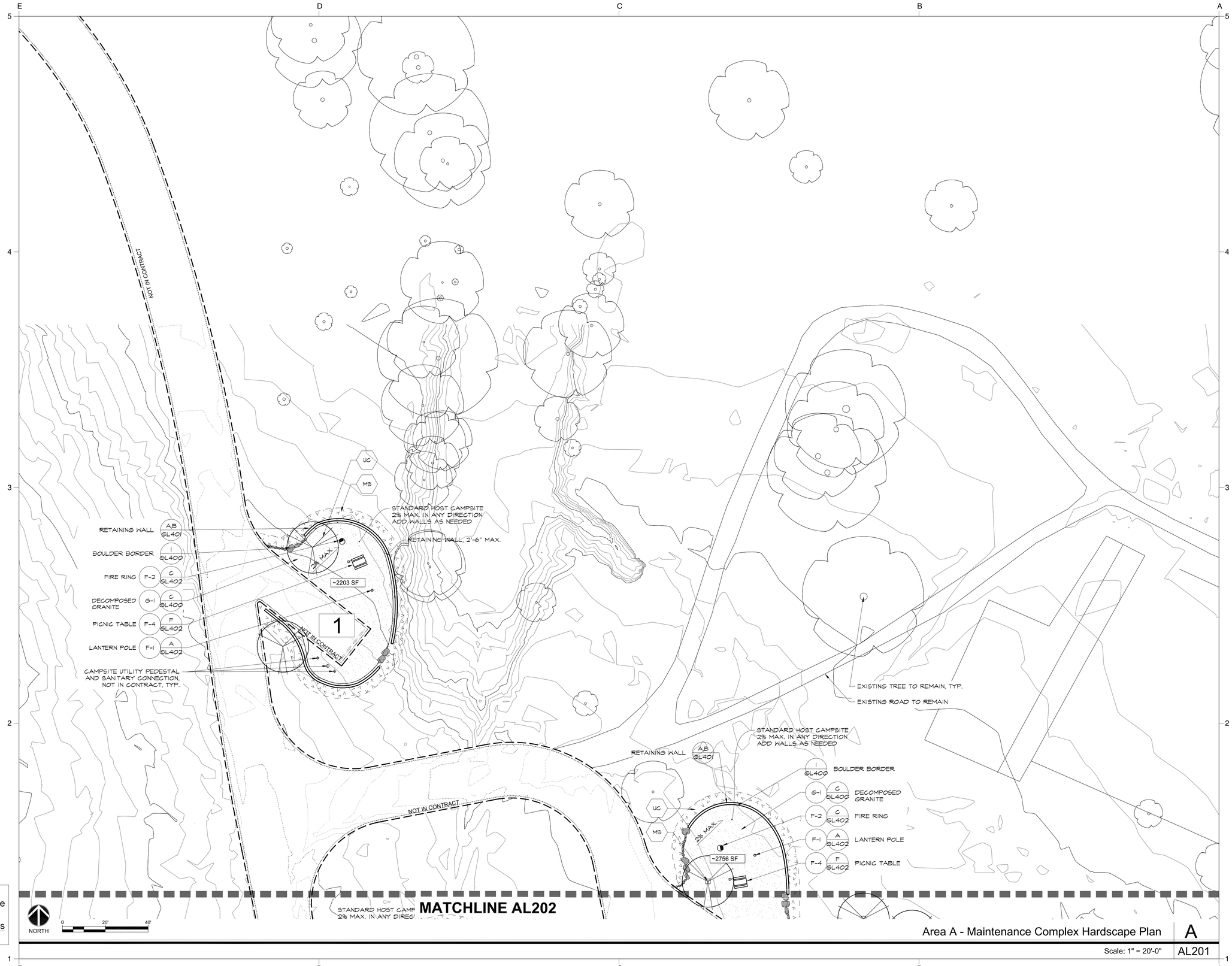
PK-3885-16.491DEMO_AREA A.DWG



IMPORTANT:
Spot elevations & grading notes are preliminary. Grading will be field verified after vehicular paving areas are installed.

Area A - Maintenance Complex Hardscape Plan | A

Scale: 1" = 20'-0" | AL201

TEXAS PARKS & WILDLIFE

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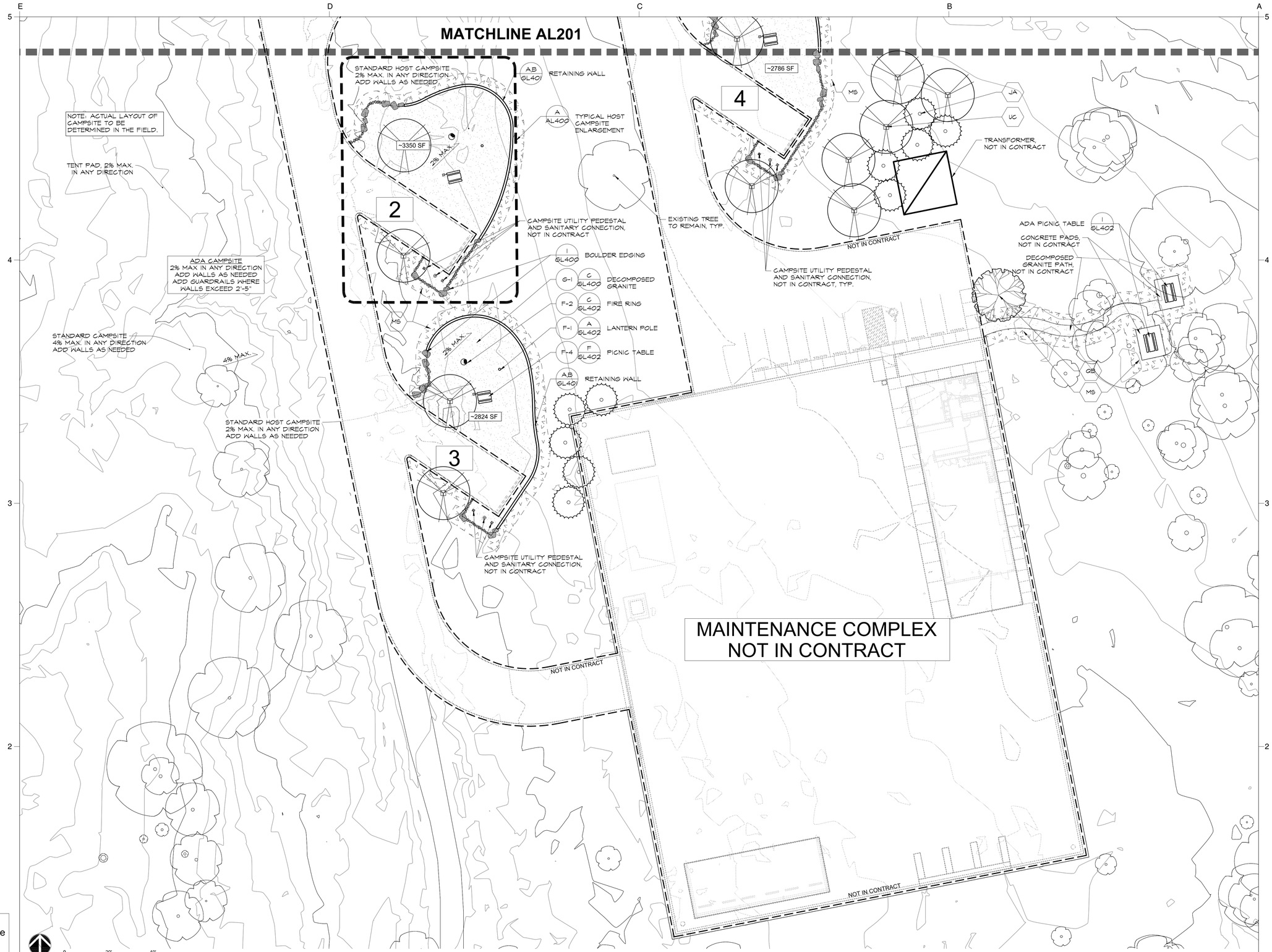
SITE DEVELOPMENT
TPWD PROJECT NO. 118271

DATE: 2021/03/29
DESIGNED BY: AD/BH
DRAWN BY: JT/RO/AA
REVIEWED BY: BH

REV DESC DATE

SHEET TITLE
AREA A - MAINTENANCE COMPLEX HARDSCAPE PLAN

SHEET NUMBER
1
AL201



IMPORTANT:
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Area A - Maintenance Complex Hardscape Plan | A

Scale: 1" = 20'-0" | AL202

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SITE DEVELOPMENT
TPWD PROJECT NO. 118271

DATE: 2021/03/29
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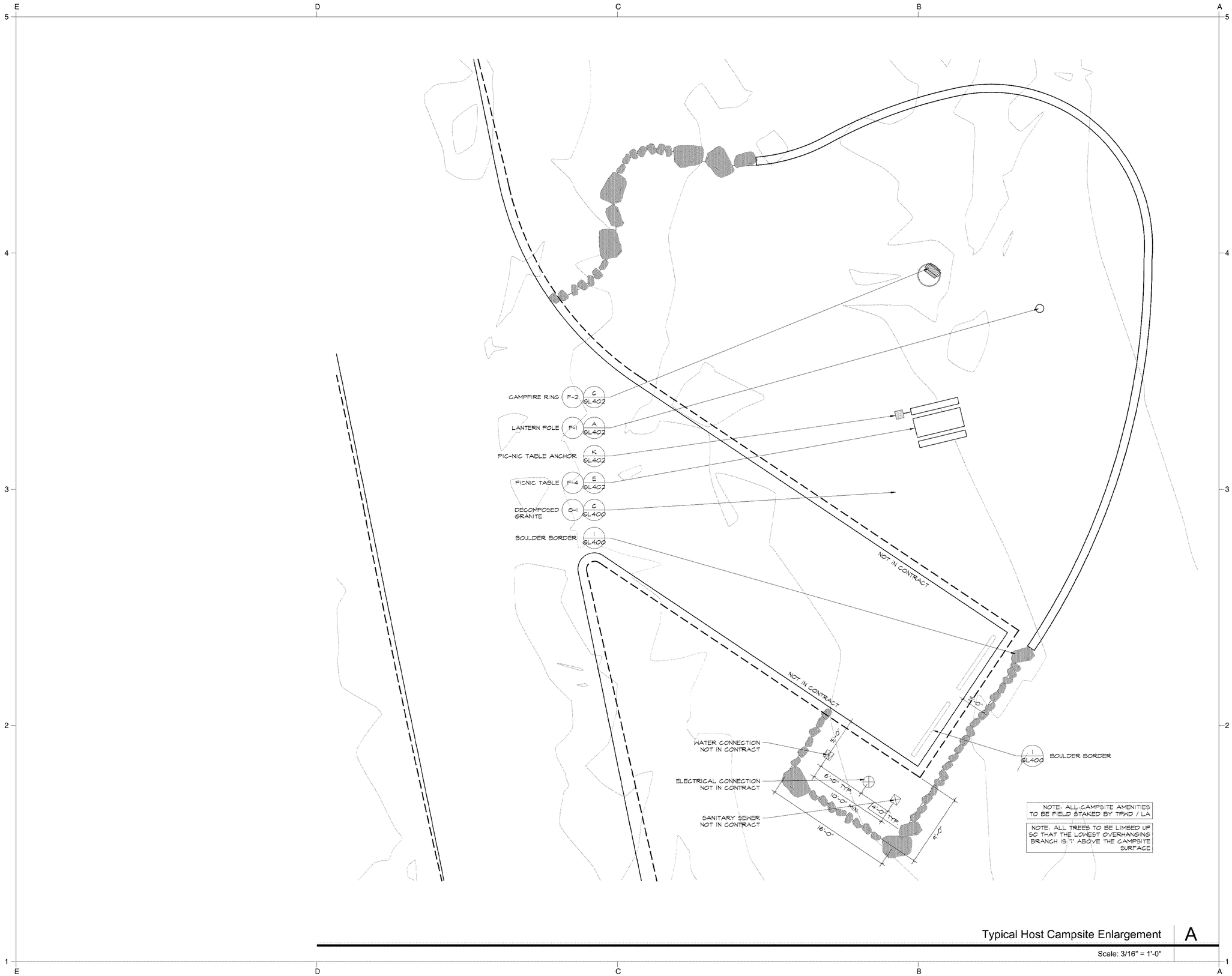
DRAWN BY: JT/RO/AA
REVIEWED BY: BH

REV DESC DATE

SHEET TITLE
AREA A - MAINTENANCE COMPLEX HARDSCAPE PLAN

SHEET NUMBER
1
AL202



Typical Host Campsite Enlargement | A

Scale: 3/16" = 1'-0"

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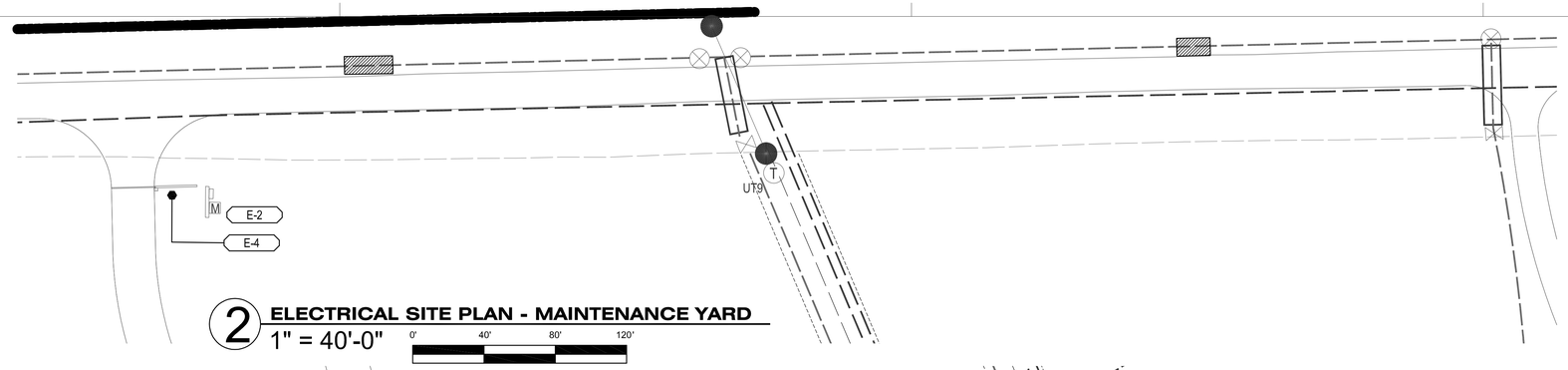
SHEET TITLE
CAMPSITE DETAILS

SHEET NUMBER
1
AL400



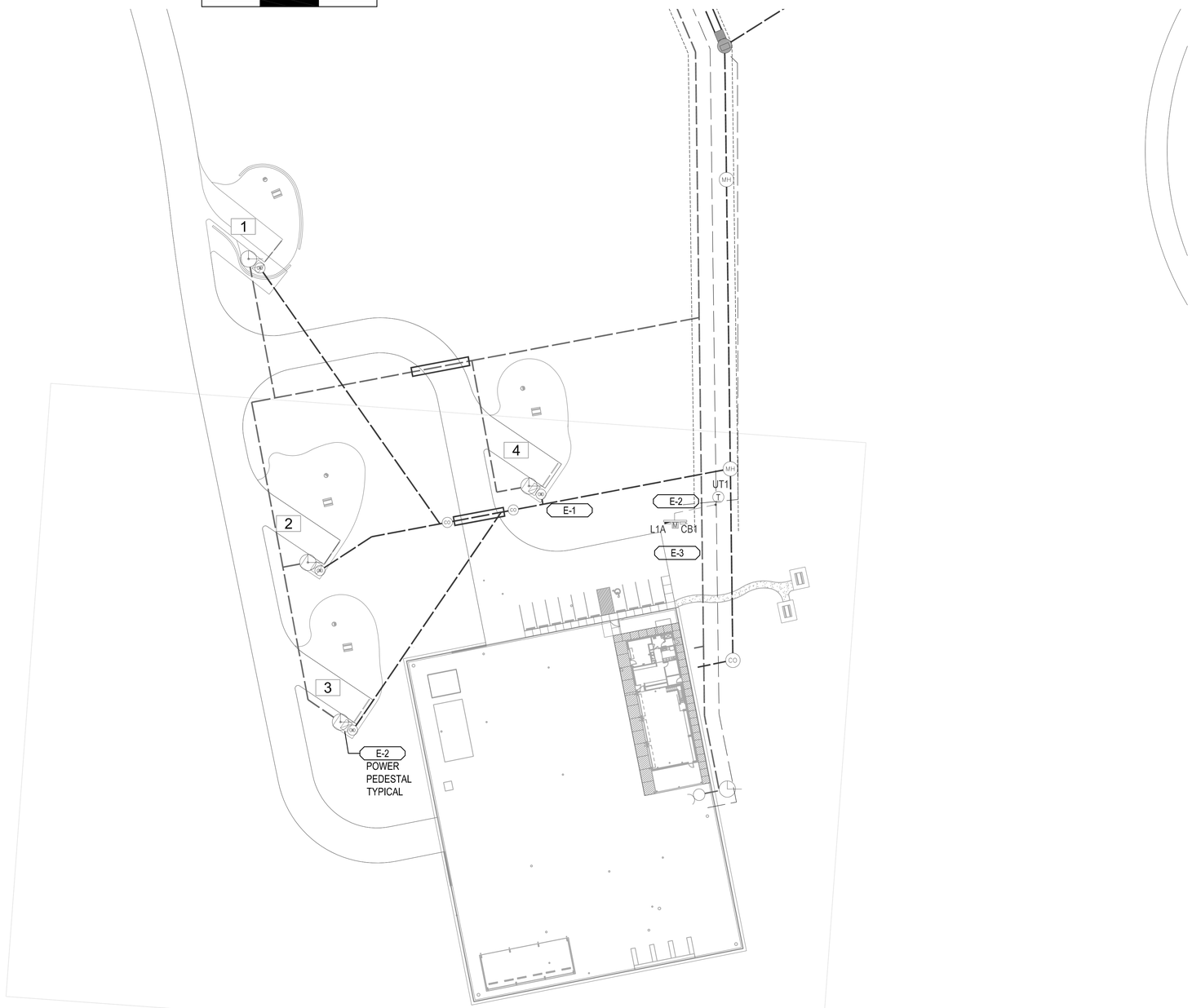
2 ELECTRICAL SITE PLAN - MAINTENANCE YARD

1" = 40'-0"

0' 40' 80' 120'

ELECTRICAL NOTES BY SYMBOL E-X

1. WATER AND SEWER LINE SHOWN FOR REFERENCE ONLY FOR COORDINATION OF UTILITIES.
2. UTILITY POWER PROVISIONS FOR THIS AREA SHOWN FOR INFORMATION ONLY.
3. SCOPE OF WORK - PROVIDE 120V 20A/1P POWER FOR WIFI TRANSMITTER SERVING THIS AREA. COORDINATE LOCATION WITH TPWD. WIRE WITH 2 #12, 1#12G, 3/4"C
4. POWER FOR GATE.. PROVIDE (1) 20A/1P ENCLOSED CIRCUIT BREAKER FOR GATE CONTROLLER AND (1) 20A/1P FOR ONE WP/GFI RECEPTACLE FOR GENERAL USE AND MAINTENANCE. WIRE WITH 2 #12, 1#12G, 3/4.



1 ELECTRICAL SITE PLAN - MAINTENANCE YARD

1" = 40'-0"

0' 40' 80' 120'

TEXAS PARKS & WILDLIFE

JJA

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J.A. Ivy
Texas Registered Engineering Firm F-1080

STATE OF TEXAS
ILB BASCEANU
07465
LICENSED
PROFESSIONAL ENGINEER
5/27/21

PALO PINTO MOUNTAINS STATE PARK
SITE DEVELOPMENT
TPWD PROJECT NO. 118271

DATE:	2021/03/29
DESIGNED BY:	ILB
DRAWN BY:	JH
REVIEWED BY:	ILB

REV DESC DATE

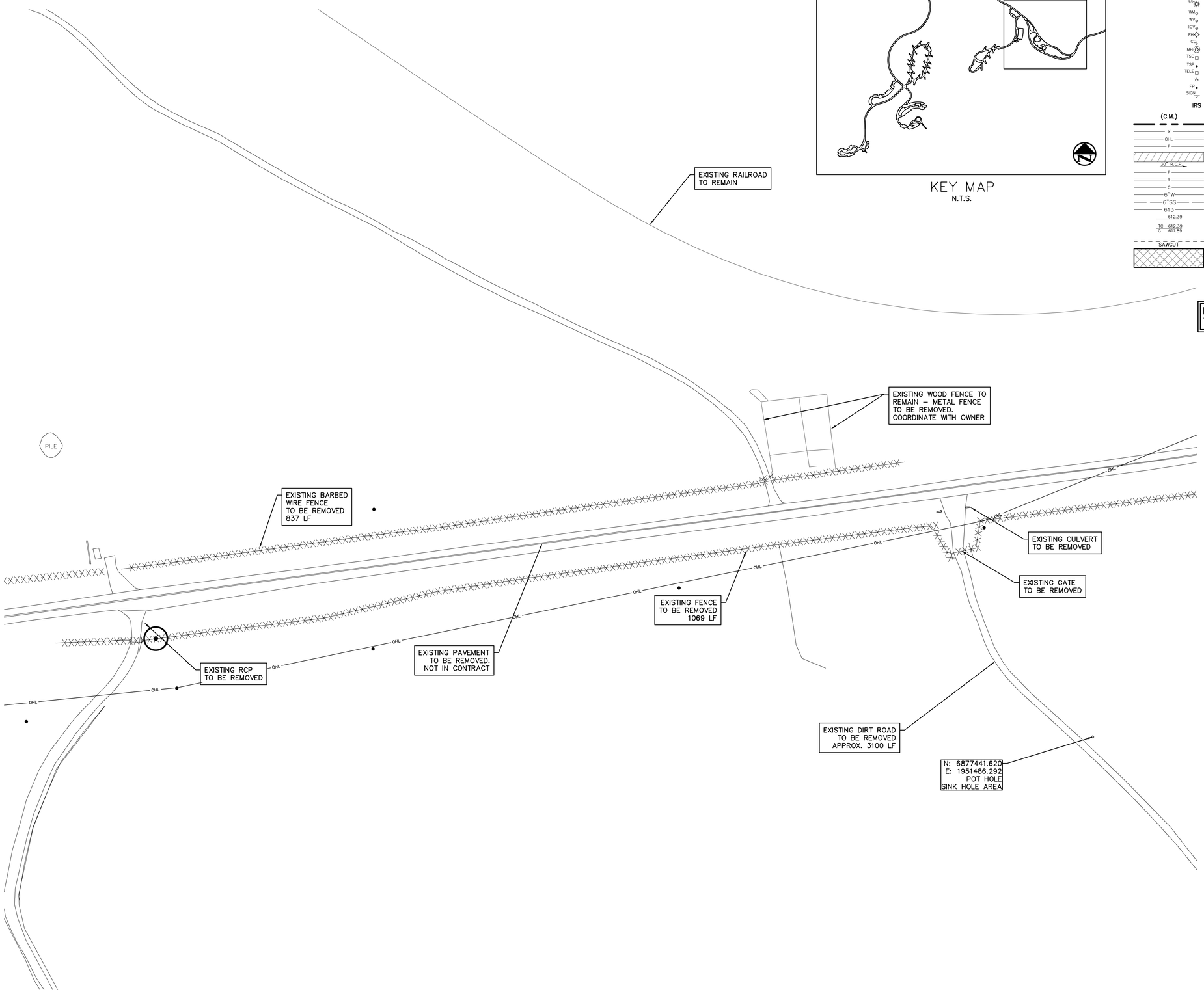
SHEET TITLE

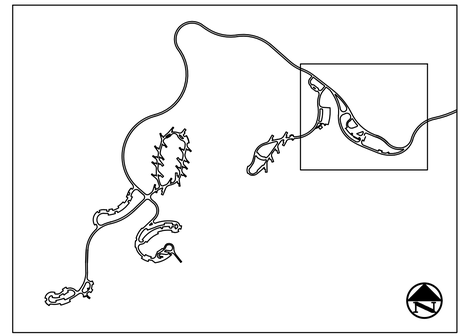
ELECTRICAL SITE PLAN - MAINTENANCE YARD

SHEET NUMBER

1

AE101





KEY MAP
N.T.S.

LEGEND

BL	BOLLARD
EM	ELECTRIC METER
PP	POWER POLE
LS	LIGHT STANDARD
WM	WATER METER
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SIGN	TRAFFIC SIGN
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612.39	EXIST SPOT ELEVATION
TC 612.39 / G 611.89	EXIST TOP OF CURB ELEVATION / EXIST GUTTER ELEVATION
SAWCUT	LIMITS OF SAWCUT
	DEMOLITION AREA

0 50 100 200 300
GRAPHIC SCALE IN FEET

REFERENCE LANDSCAPE PLANS FOR TREE REMOVAL AND PROTECTION

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TX REG. SURVEYING FIRM LS-10008001

PALO PINTO MOUNTAINS STATE PARK
SITE DEVELOPMENT
TPWD PROJECT NO. 118271

DATE:	2021/03/29
DESIGNED BY:	TSR
DRAWN BY:	PAC
REVIEWED BY:	CAA

REV DESC DATE

SHEET TITLE
DEMOLITION PLAN

SHEET NUMBER
1
BC111

ACASTILLO
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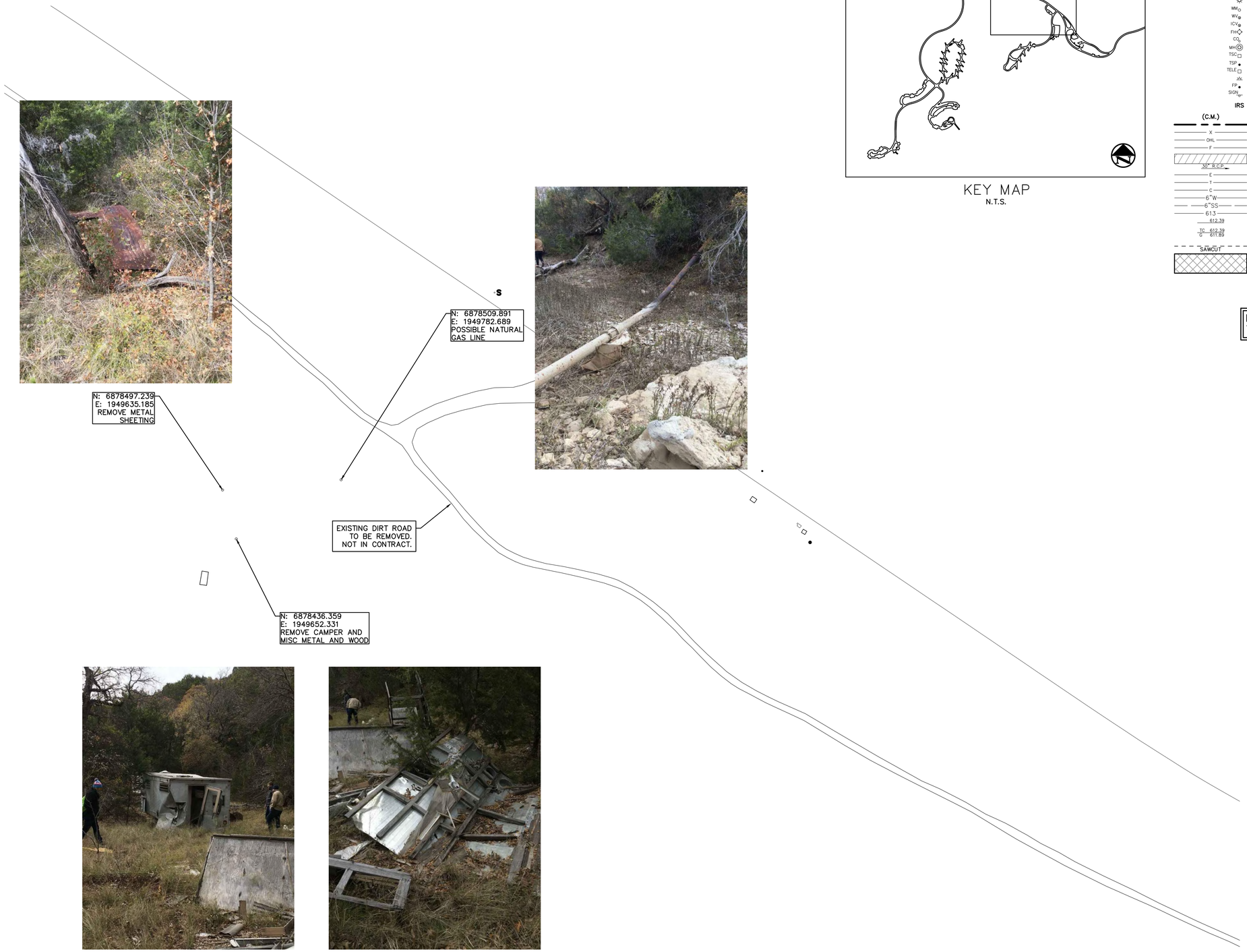

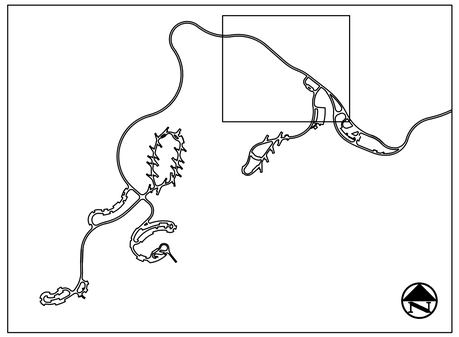

KEY MAP
N.T.S.

LEGEND

BL	BOLLARD
EM	ELECTRIC METER
PP	POWER POLE
LS	LIGHT STANDARD
WM	WATER METER
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(C.M.)	CONTROLLING MONUMENT
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SAWCUT	LIMITS OF SAWCUT
	DEMOLITION AREA

0 50 100 200 300
GRAPHIC SCALE IN FEET

REFERENCE LANDSCAPE PLANS FOR TREE REMOVAL AND PROTECTION

STATE OF TEXAS
TYLER S. REEVES
131206
LICENSED
PROFESSIONAL ENGINEER

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PALO PINTO MOUNTAINS STATE PARK
SITE DEVELOPMENT
TPWD PROJECT NO. 118271

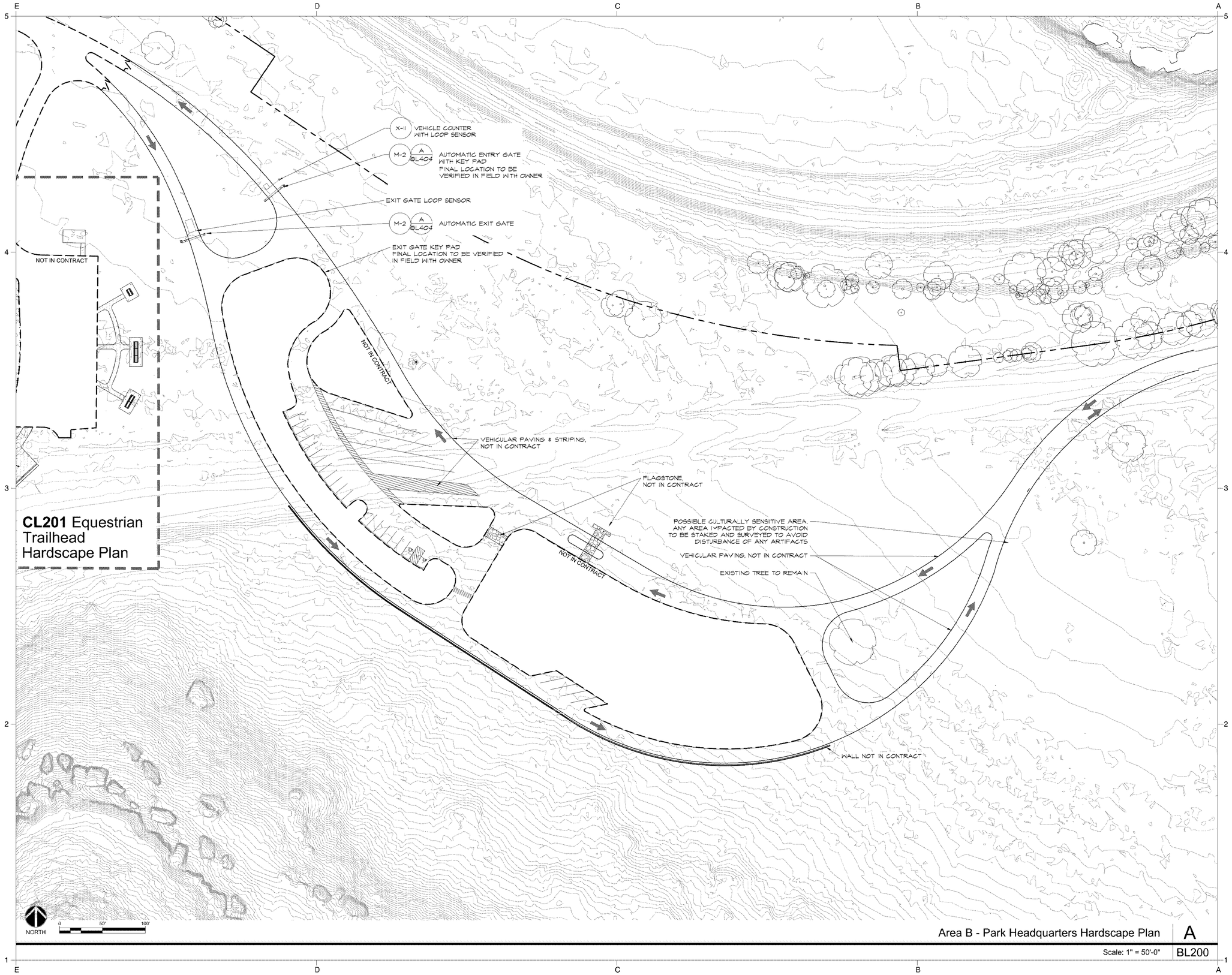
DATE:	2021/03/29
DESIGNED BY:	TSR
DRAWN BY:	PAC
REVIEWED BY:	CAA

REV DESC DATE

SHEET TITLE
DEMOLITION PLAN

SHEET NUMBER
1
BC112

ACASTILLO
4/15/2021 5:22 PM
M:\DWG-38\3885-16.491\DWG\CIVIL C3D 2015\AREA B\3885-16.491DEMO_AREA B.DWG



Area B - Park Headquarters Hardscape Plan | A

Scale: 1" = 50'-0" | BL200

TEXAS PARKS & WILDLIFE

studioOutside
824 Exposition Avenue, Ste. 5
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PALO PINTO MOUNTAINS STATE PARK
SITE DEVELOPMENT
TPWD PROJECT NO. 118271

DATE: 2021/03/29
DESIGNED BY: AD/BH
DRAWN BY: JT/RO/AA
REVIEWED BY: BH

REV DESC DATE

SHEET TITLE
AREA B - PARK HEADQUARTERS HARDSCAPE PLAN

SHEET NUMBER
1
BL200

ELECTRICAL NOTES BY SYMBOL (E-X)

1. WATER AND SEWER LINE SHOWN FOR REFERENCE ONLY FOR COORDINATION OF UTILITIES.
2. UTILITY POWER PROVISIONS FOR THIS AREA SHOWN FOR INFORMATION ONLY.
3. PARK RADIO TOWER EXACT LOCATION TO BE DETERMINED. PROVIDE (2) 3"C FOR SIGNAL. PROVIDE POWER PER TPWD DESIGN OR (2) 120V BRANCH CIRCUITS FROM PANEL L2B IF INFO NOT AVAILABLE. WIRE EACH WITH 2 #10, 1# 10G IN ONE COMMON 1"C.
4. EXTEND POWER TO GATES CONTROLLERS (1) 120V BRANCH CIRCUIT EACH (2# 10, 1# 12G , 3/4" C) FROM EXISTING POWER PROVISIONS IN PHASE 00 AT THIS LOCATION AND MAKE REQUIRED INSTALLATION. CONNECT FOR KEYPADS PROVIDE (2) 1" CONDUITS AND INSTALL POWER AND CONTROL AS REQUIRED.
5. PROVIDE POWER VIA CONDUIT PROVIDED IN PHASE 00 FROM PANEL L2B. WIRE WITH 2# 8, 1# 10G, IN (1) 1" CONDUIT OR 2 #10, 1#10 G, " ON SHORTER PORTIONS. PROVIDE PHOTOCELL ON A 4FT 3/4 "RIGID CONDUIT ATTACHED TO THE RACK AND CONTROL RELAY IN WP ENCLOSURE TO CONTROL OF BOLLARDS.
6. LIGHT POLE EQUAL TO KIM ARCHITYPE 1SA-SAR3-E35-60L-3K-208-TBD-A31-NFO-SCH-R - ARM SIDE, TYPE III DISTRIBUTION, 350ma DRIVER, 66W LED 3K COLOR TEMP, 208V, FINISH TBD, BUTTON PHOTOCELL AND OCCUPANCY SENSOR, NEIGHBOR FRIENDLY OPTIC, ROUND POLE 5", 20FT POLE INSTALLED ON CONCRETE BASE 30" ABOVE GRADE.
7. BOLLARD EQUAL TO STREET LIFE BRIGHT BOLLARDS LED 35"HT, 6"X6" CROSS SECTION, CORTEN STEEL FINISH WITH INTEGRATED STALES STEEL PLATE TO SPREAD THE LIGHT. INSTALL STANDARD LED FIXTURE 35W, 30K COLOR TEMP, 120V AT THE TOP OF BOLLARD. INSTALL ON CONCRETE BASE 4" ABOVE GRADE.
8. POWER FOR SALES: PROVIDE POWER FROM PANEL L2B VIA 1" CONDUIT PROVIDED IN PHASE 00. WIRE WITH 2# 10, 1# 10G, IN EXISTING (1) 1" CONDUIT. PROVIDE WP/GFCI RECEPTACLE AT LOCATION DIRECTED BY TPWD.

1 **ELECTRICAL SITE PLAN - HEADQUARTERS**

1" = 40'-0"

0' 40' 80' 120'

TEXAS PARKS & WILDLIFE

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Texas Registered Engineering Firm F-1290

STATE OF TEXAS
ILL BASCEANU
07465
LICENSED
PROFESSIONAL ENGINEER
5/27/21

PALO PINTO MOUNTAINS STATE PARK
SITE DEVELOPMENT
TPWD PROJECT NO. 118271

DATE:	2021/03/29
DESIGNED BY:	ILB
DRAWN BY:	AC
REVIEWED BY:	ILB

REV DESC DATE

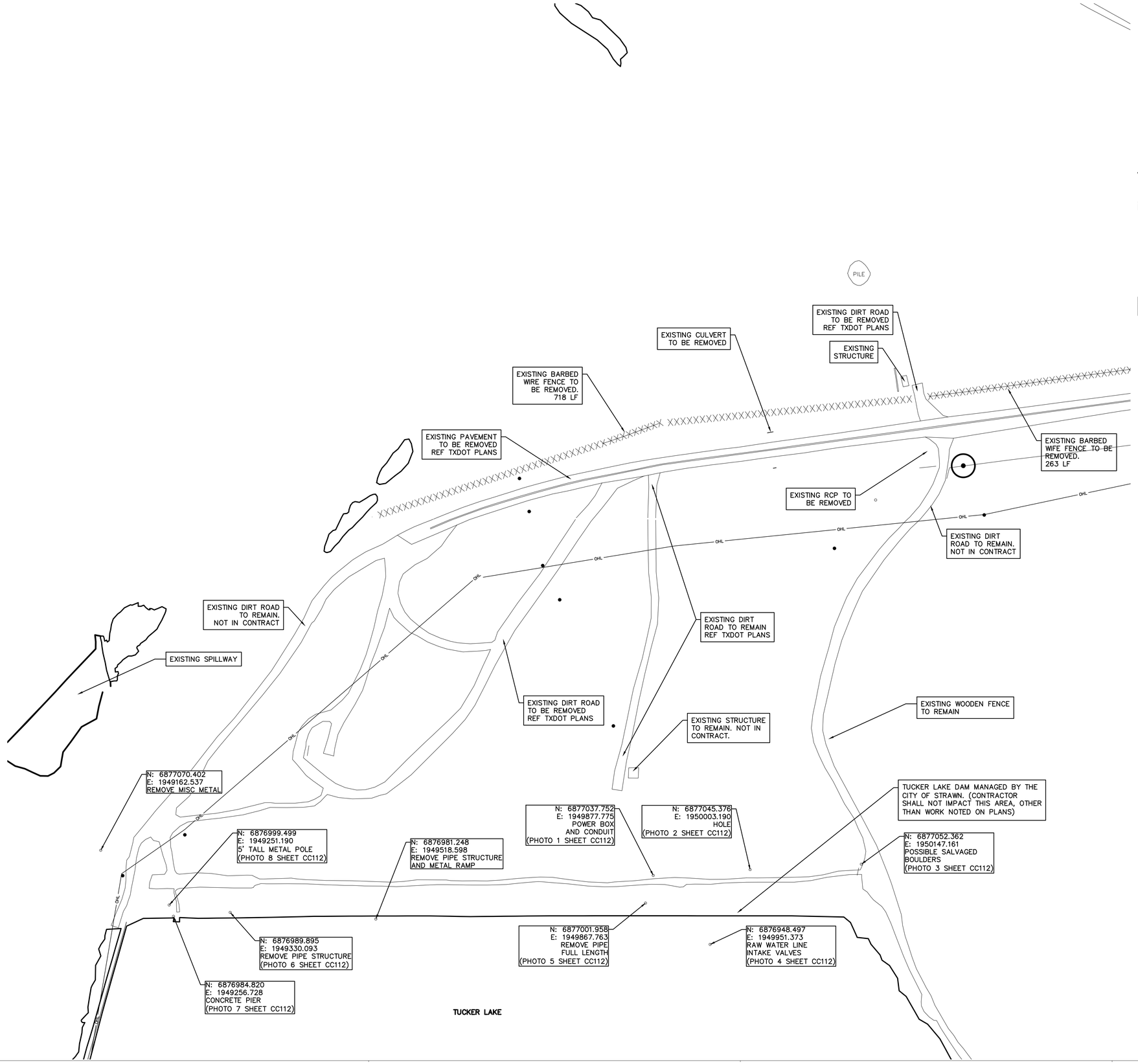
SHEET TITLE

ELECTRICAL SITE PLAN - HEADQUARTERS

SHEET NUMBER

1

BE101

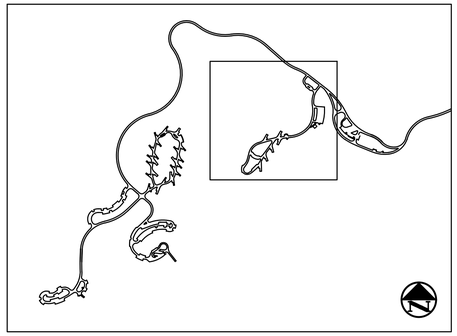


LEGEND

- BL — BOLLARD
- EM — ELECTRIC METER
- PP — POWER POLE
- LS — LIGHT STANDARD
- WM — WATER METER
- WV — WATER VALVE
- ICV — IRRIGATION CONTROL VALVE
- FH — FIRE HYDRANT
- CO — CLEANOUT
- MH — MANHOLE
- TSC — TRAFFIC SIGNAL CONTROL
- TSP — TRAFFIC SIGNAL POLE
- TELE — TELEPHONE BOX
- FL — FLOOD LIGHT
- FP — FLAG POLE
- SIGN — TRAFFIC SIGN
- IRS — 1/2-INCH IRON ROD W/"PACHECO KOCH" CAP SET
- (C.M.) — CONTROLLING MONUMENT
- PROPERTY LINE
- X — FENCE
- OHL — OVERHEAD UTILITY LINE
- F — FIBER OPTIC LINE
- 30" R.C.P. — UNDERGROUND STORM LINE
- E — UNDERGROUND ELECTRIC LINE
- T — UNDERGROUND TELEPHONE LINE
- C — UNDERGROUND CABLE LINE
- 6"W — UNDERGROUND WATER LINE
- 6"SS — UNDERGROUND SEWER LINE
- 613 — EXIST CONTOUR
- 612.39 — EXIST SPOT ELEVATION
- TC 612.39 / G 611.89 — EXIST TOP OF CURB ELEVATION / EXIST GUTTER ELEVATION
- SAWCUT — LIMITS OF SAWCUT
- DEMOLITION AREA

0 30 60 120 180
GRAPHIC SCALE IN FEET

REFERENCE LANDSCAPE PLANS FOR TREE REMOVAL AND PROTECTION



KEY MAP
N.T.S.

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TX REG. SURVEYING FIRM LS-10008001

PALO PINTO MOUNTAINS STATE PARK
SITE DEVELOPMENT
TPWD PROJECT NO. 118271

DATE:	2021/03/29
DESIGNED BY:	TSR
DRAWN BY:	PAC
REVIEWED BY:	CAA

REV DESC DATE

SHEET TITLE
DEMOLITION PLAN

SHEET NUMBER
1
CC111

ACASTILLO
4/15/2021 5:22 PM
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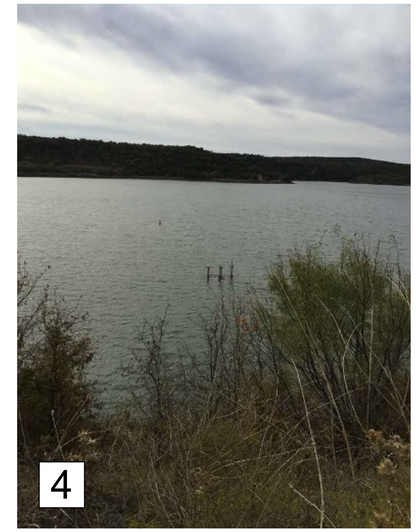

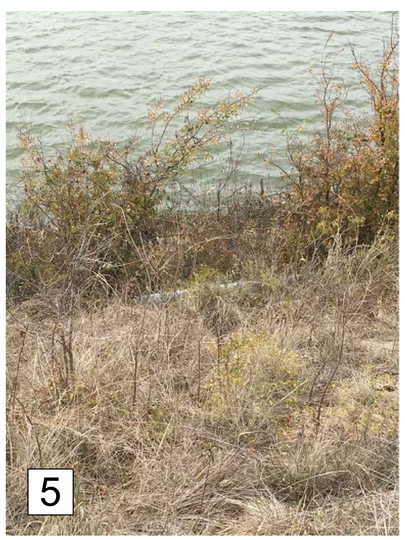

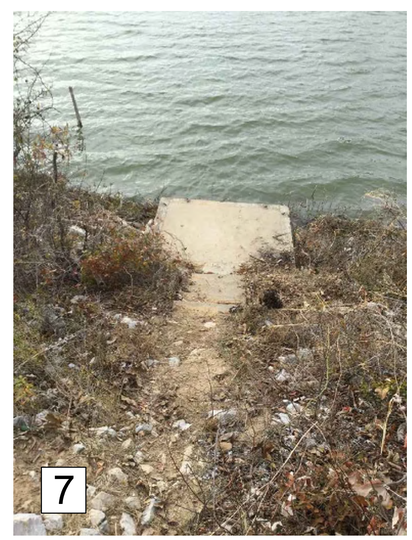

STATE OF TEXAS
TYLER S. REEVES
131206
LICENSED
PROFESSIONAL ENGINEER

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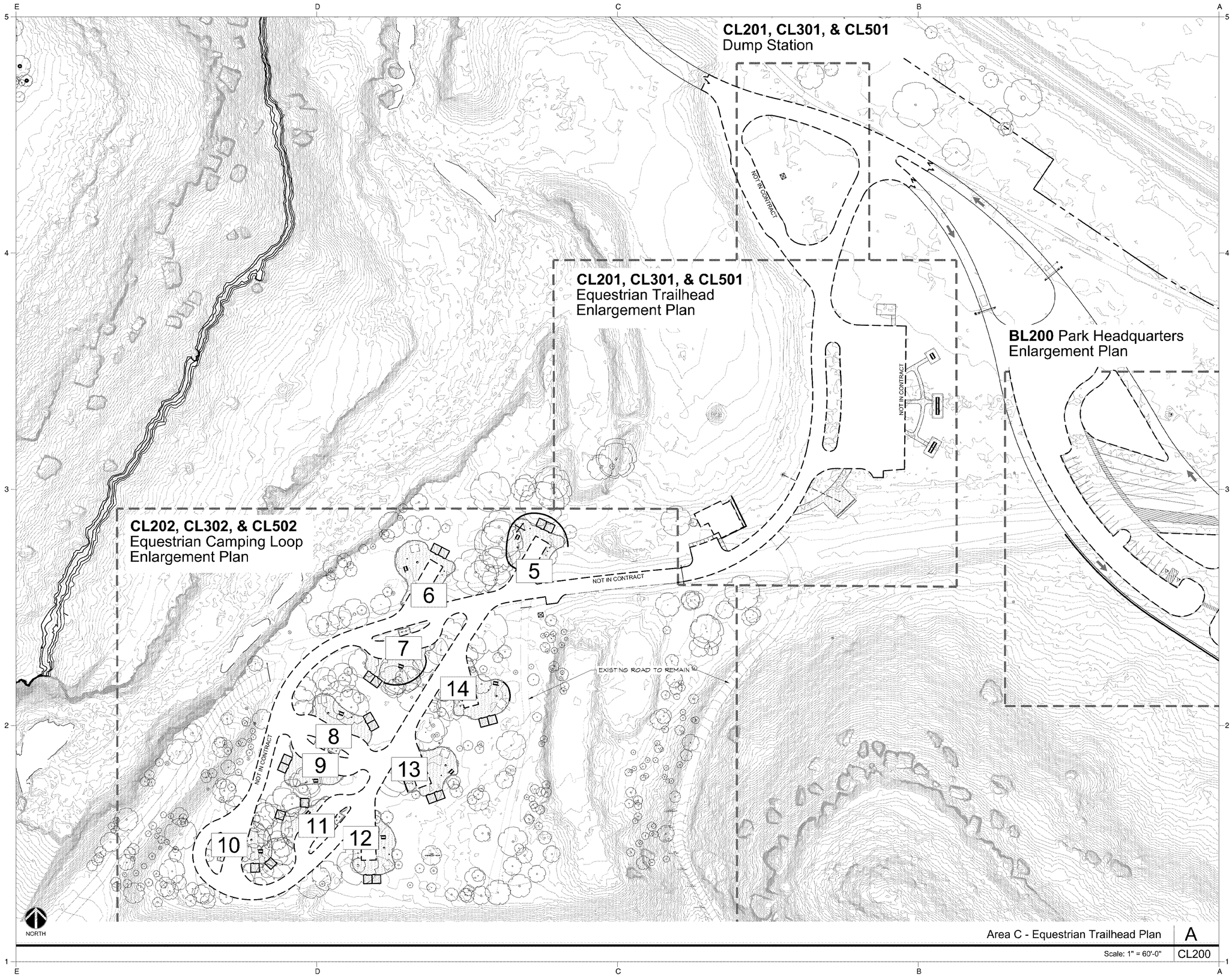
PALO PINTO MOUNTAINS STATE PARK
SITE DEVELOPMENT
TPWD PROJECT NO. 118271

DATE:	2021/03/29
DESIGNED BY:	TSR
DRAWN BY:	PAC
REVIEWED BY:	CAA

REV	DESC	DATE

SHEET TITLE
DEMOLITION PLAN PHOTOS

SHEET NUMBER
1
CC112



Area C - Equestrian Trailhead Plan | A

Scale: 1" = 60'-0" | CL200

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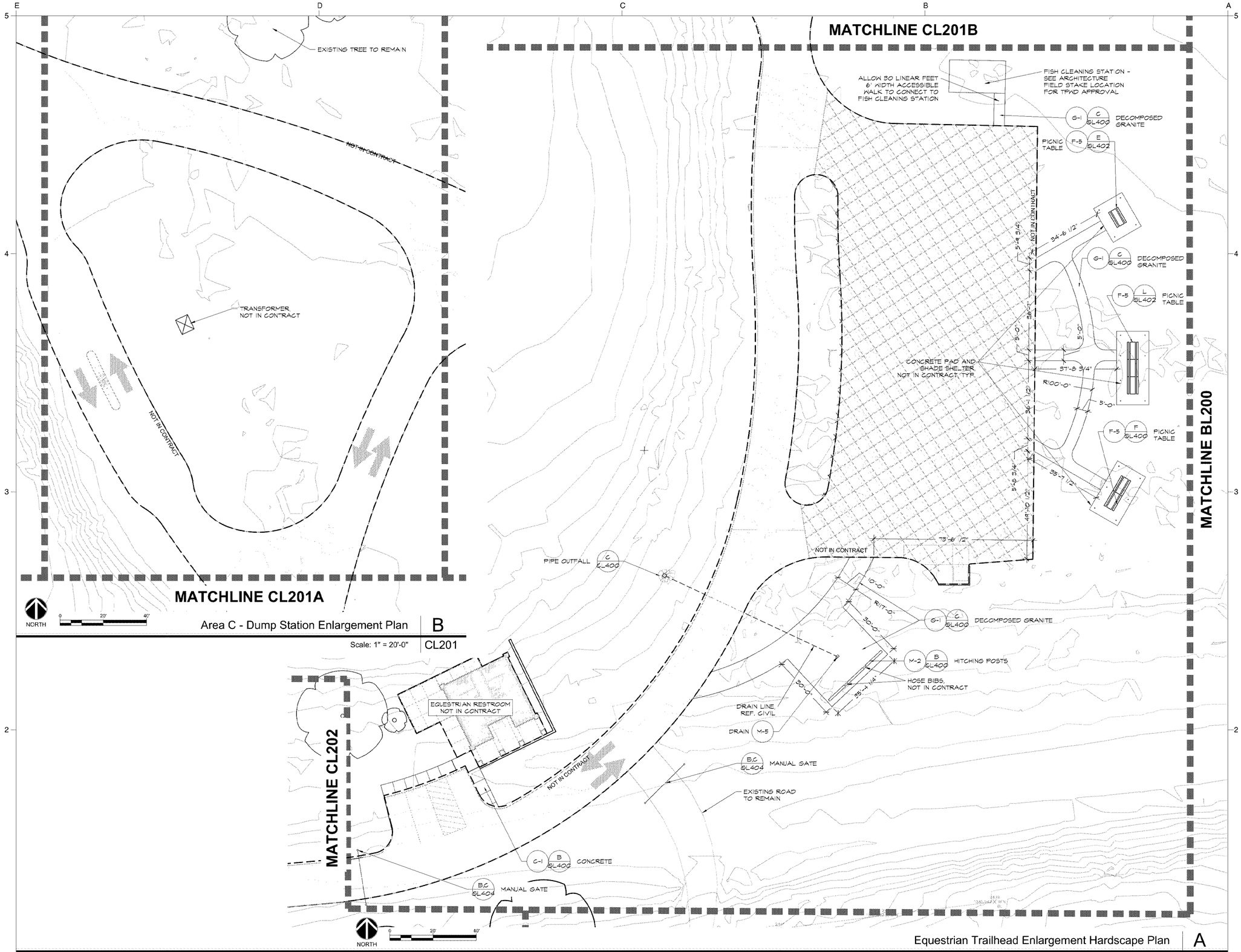
SITE DEVELOPMENT
TPWD PROJECT NO. 118271

DATE: 2021/03/29
DESIGNED BY: AD/BH
DRAWN BY: JT/RO/AA
REVIEWED BY: BH

REV DESC DATE

SHEET TITLE
AREA C - EQUESTRIAN TRAILHEAD PLAN

SHEET NUMBER
1
CL200



Area C - Dump Station Enlargement Plan | B

Scale: 1" = 20'-0" | CL201

Equestrian Trailhead Enlargement Hardscape Plan | A

Scale: 1" = 20'-0" | CL201

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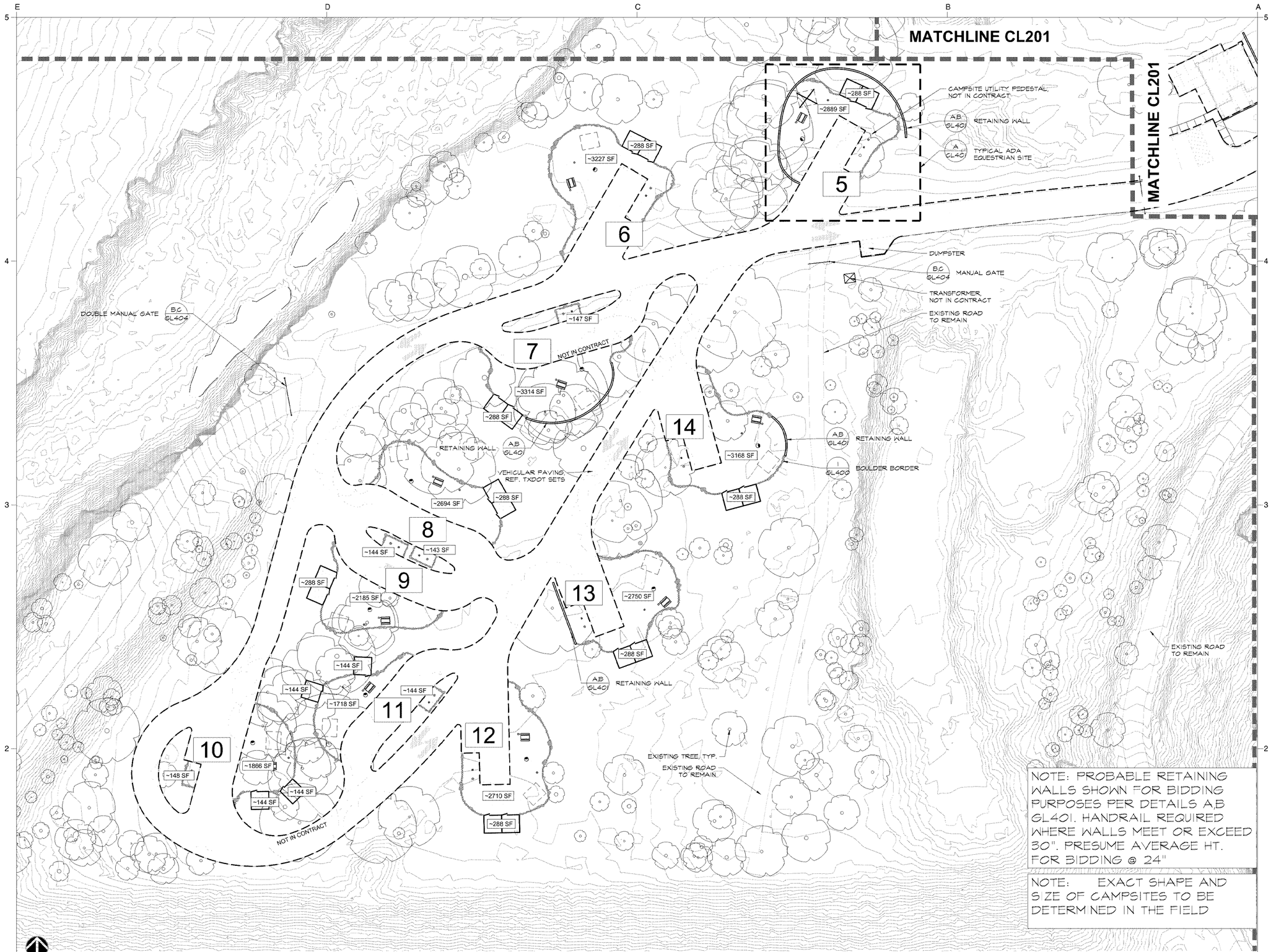
SITE DEVELOPMENT
TPWD PROJECT NO. 118271

DATE: 2021/03/29
DESIGNED BY: AD/BH
DRAWN BY: JT/RO/AA
REVIEWED BY: BH

REV DESC DATE

SHEET TITLE
EQUESTRIAN TRAILHEAD ENLARGEMENT HARDSCAPE PLAN

SHEET NUMBER
1
CL201



NOTE: PROBABLE RETAINING WALLS SHOWN FOR BIDDING PURPOSES PER DETAILS A,B GL401. HANDRAIL REQUIRED WHERE WALLS MEET OR EXCEED 30". PRESUME AVERAGE HT. FOR BIDDING @ 24"

NOTE: EXACT SHAPE AND SIZE OF CAMPSITES TO BE DETERMINED IN THE FIELD

Area C - Equestrian Camping Loop Enlargment Hardscape Plan | A

Scale: 1" = 30'-0" | CL202

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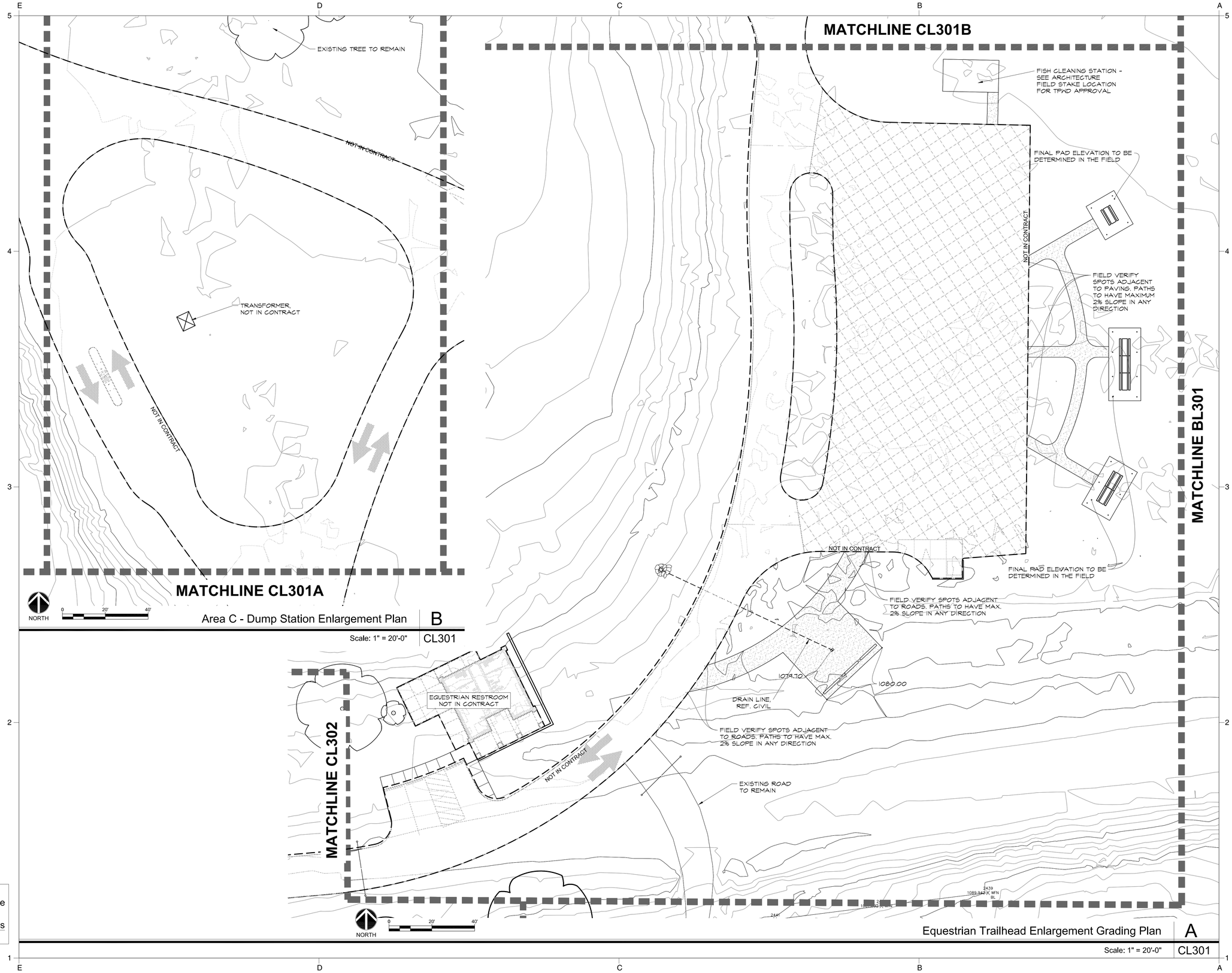
SITE DEVELOPMENT
TPWD PROJECT NO. 118271

DATE: 2021/03/29
DESIGNED BY: AD/BH
DRAWN BY: JT/RO/AA
REVIEWED BY: BH

REV DESC DATE

SHEET TITLE
AREA C - EQUESTRIAN CAMPING LOOP ENLARGMENT HARDSCAPE PLAN

SHEET NUMBER
1
CL202



IMPORTANT:
Spot elevations & grading notes are preliminary. Grading will be field verified after vehicular paving areas are installed.

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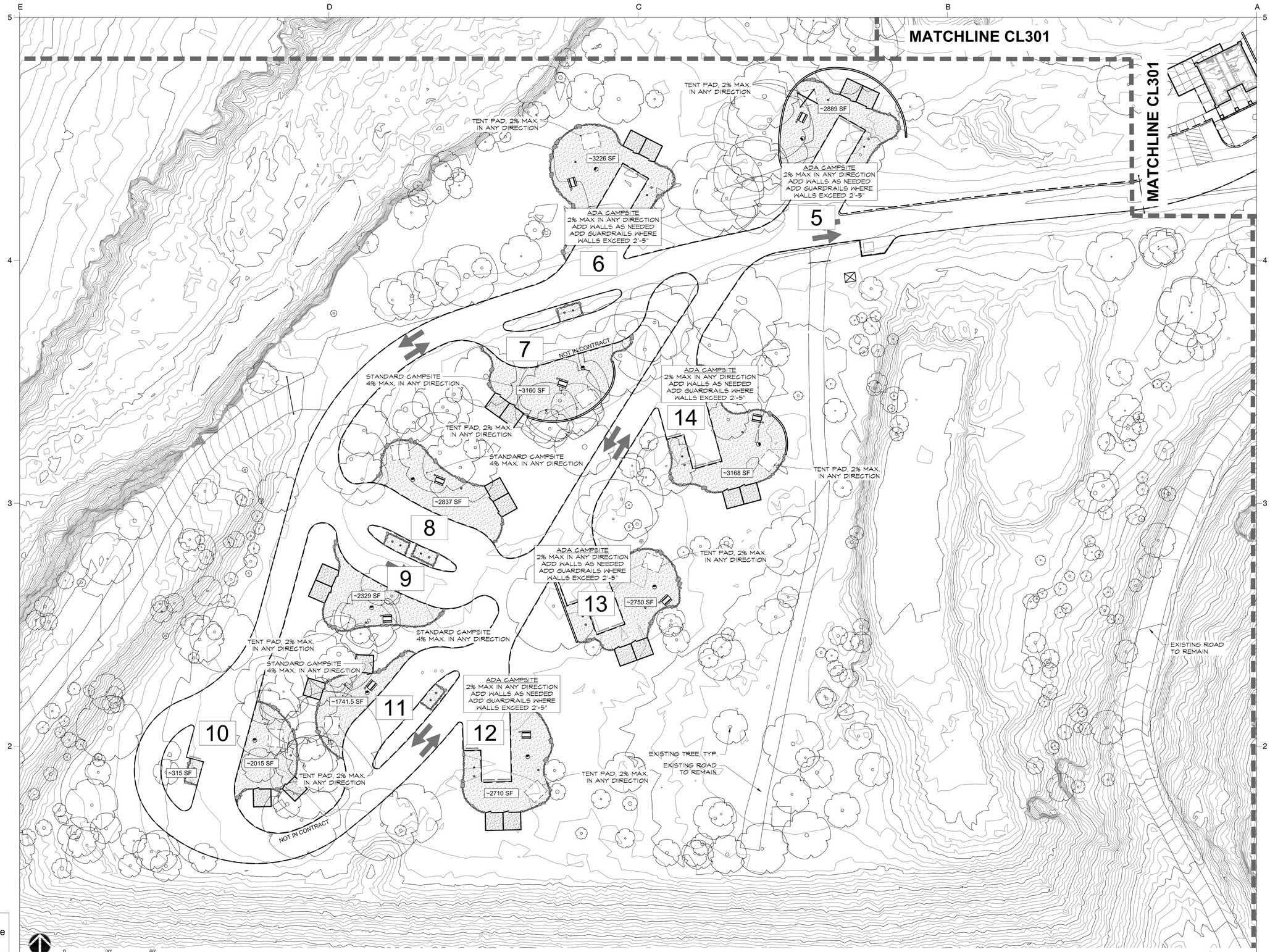
SITE DEVELOPMENT
TPWD PROJECT NO. 118271

DATE: 2021/03/29
DESIGNED BY: AD/BH
DRAWN BY: JT/RO/AA
REVIEWED BY: BH

REV DESC DATE

SHEET TITLE
EQUESTRIAN TRAILHEAD ENLARGEMENT GRADING PLAN

SHEET NUMBER
1
CL301



IMPORTANT:
Spot elevations & grading notes are preliminary. Grading will be field verified after vehicular paving areas are installed.

Area C - Equestrian Camping Loop Enlargment Grading Plan | A

Scale: 1" = 30'-0" | CL302

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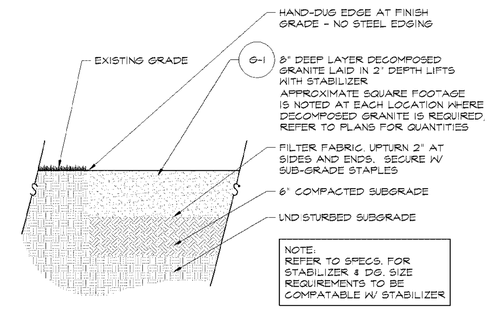
SITE DEVELOPMENT
TPWD PROJECT NO. 118271

DATE: 2021/03/29
DESIGNED BY: AD/BH
DRAWN BY: JT/RO/AA
REVIEWED BY: BH

REV	DESC	DATE

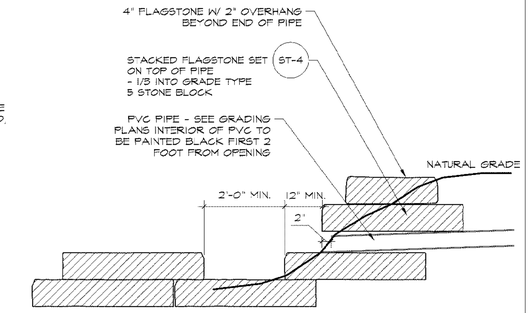
SHEET TITLE
AREA C - EQUESTRIAN CAMPING LOOP ENLARGMENT GRADING PLAN

SHEET NUMBER
1
CL302



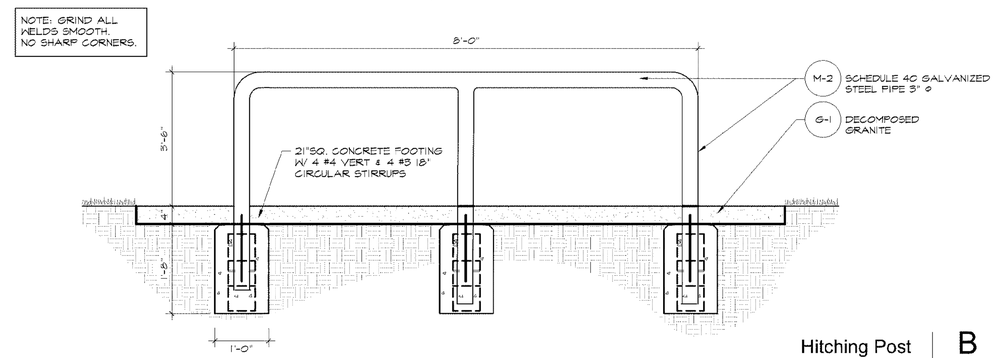
Decomposed Granite at Equestrian Stables | D

Scale: 1" = 1'-0"



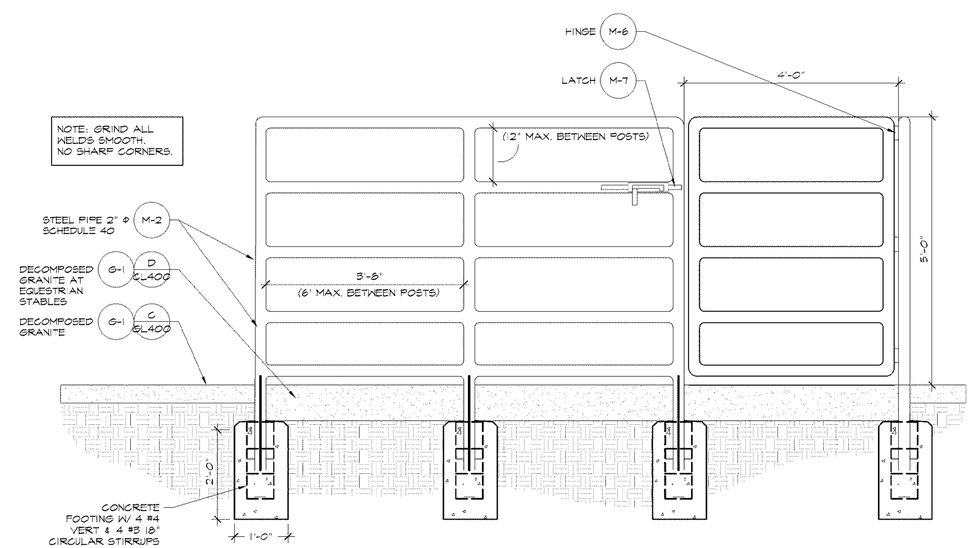
Pipe Outfall & Stilling Basin | C

Scale: 3/4" = 1'-0"



Hitching Post | B

Scale: 3/4" = 1'-0"



Equestrian Stable | A

Scale: 3/4" = 1'-0"

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SITE DEVELOPMENT
TPWD PROJECT NO. 118271

DATE: 2021/03/29
DESIGNED BY: AD/BH
DRAWN BY: JT/RO/AA
REVIEWED BY: BH

REV	DESC	DATE

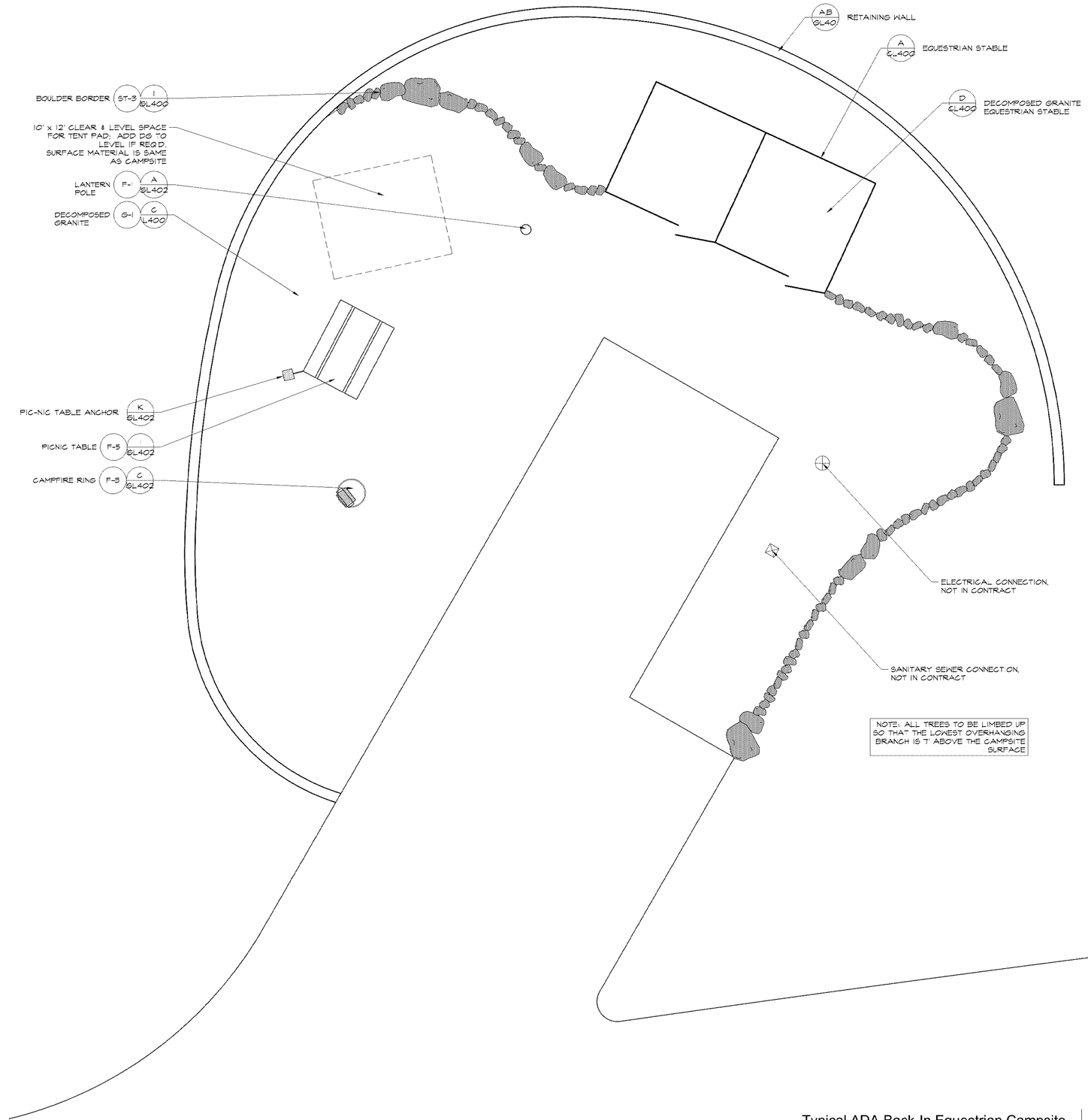
SHEET TITLE

VERTICAL DETAILS

SHEET NUMBER

1

CL400



Typical ADA Back-In Equestrian Campsite | A

Scale: 3/16" = 1'-0"

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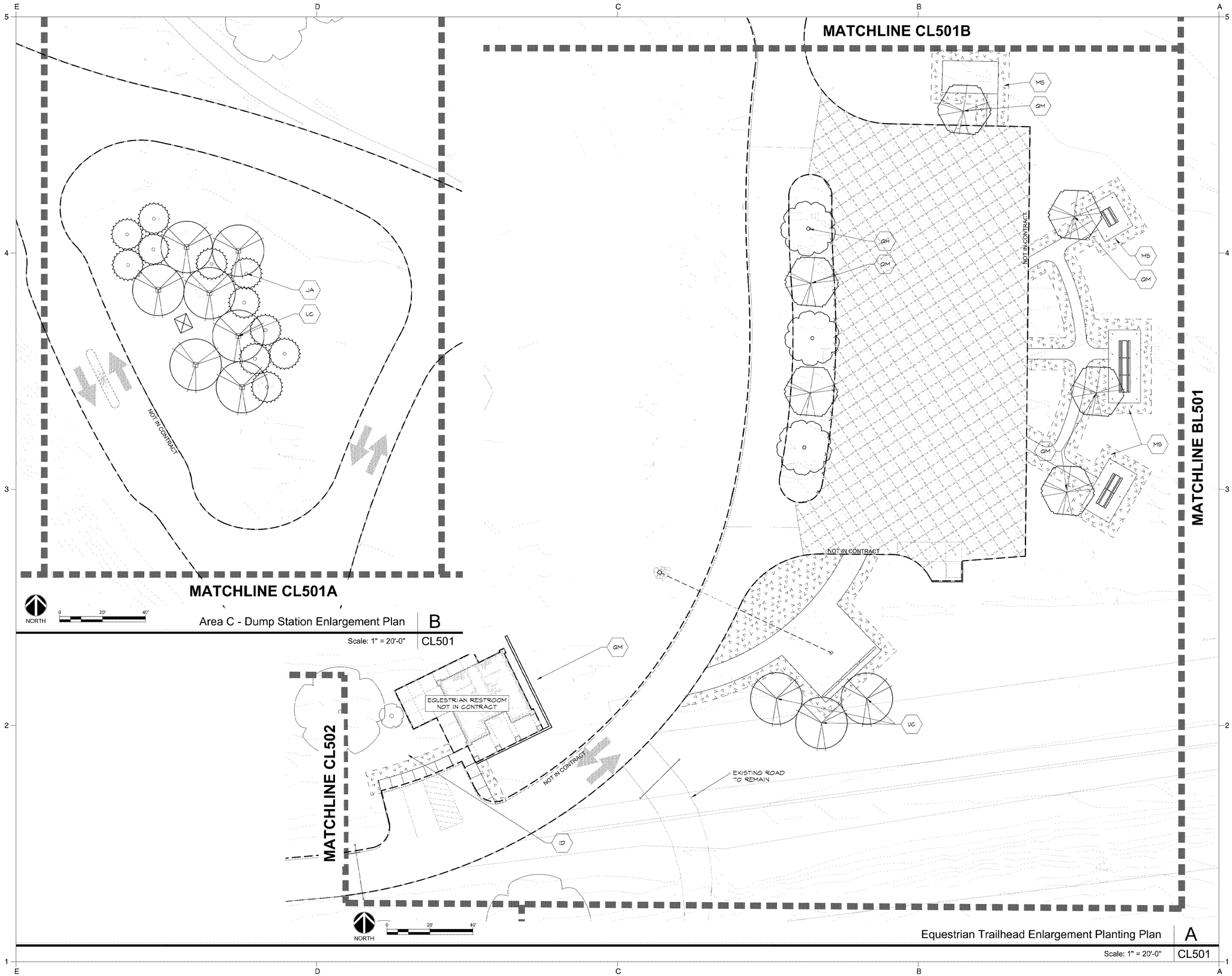
SITE DEVELOPMENT
TPWD PROJECT NO. 118271

DATE: 2021/03/29
DESIGNED BY: AD/BH
DRAWN BY: JT/RO/AA
REVIEWED BY: BH

REV DESC DATE

SHEET TITLE
CAMPSITE DETAILS

SHEET NUMBER
1
CL401



Area C - Dump Station Enlargement Plan | B

Scale: 1" = 20'-0" | CL501

Equestrian Trailhead Enlargement Planting Plan | A

Scale: 1" = 20'-0" | CL501

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PALO PINTO MOUNTAINS STATE PARK

SITE DEVELOPMENT

TPWD PROJECT NO. 118271

DATE: 2021/03/29
DESIGNED BY: AD/BH
DRAWN BY: JT/RO/AA
REVIEWED BY: BH

REV DESC DATE

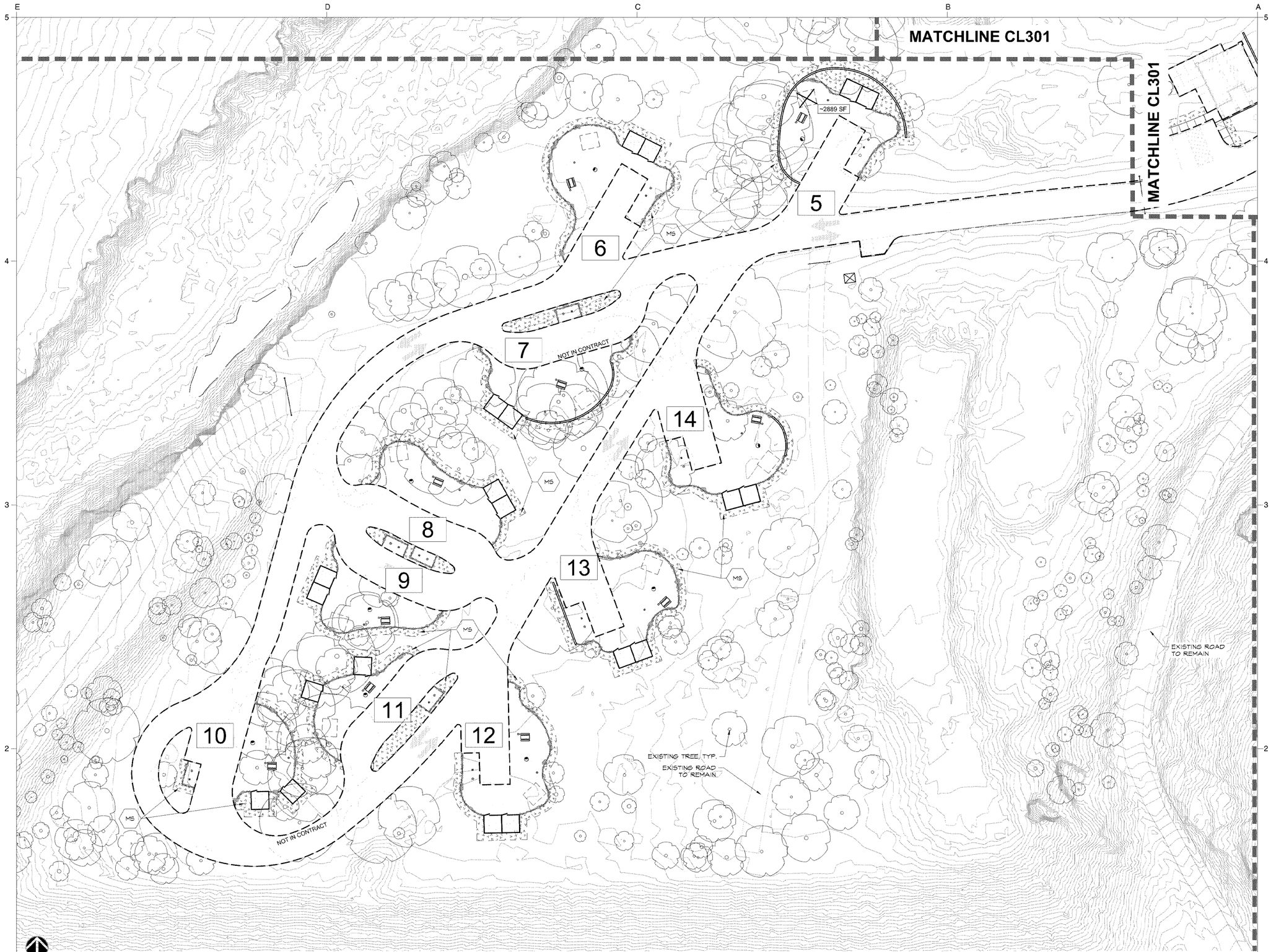
SHEET TITLE

EQUESTRIAN TRAILHEAD ENLARGEMENT PLANTING PLAN

SHEET NUMBER

1

CL501



Area C - Equestrian Camping Loop Enlargment Planting Plan | A

Scale: 1" = 30'-0" | CL502

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Dallas, Texas 75226
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PALO PINTO MOUNTAINS STATE PARK
SITE DEVELOPMENT
TPWD PROJECT NO. 118271

DATE: 2021/03/29
DESIGNED BY: AD/BH
DRAWN BY: JT/RO/AA
REVIEWED BY: BH

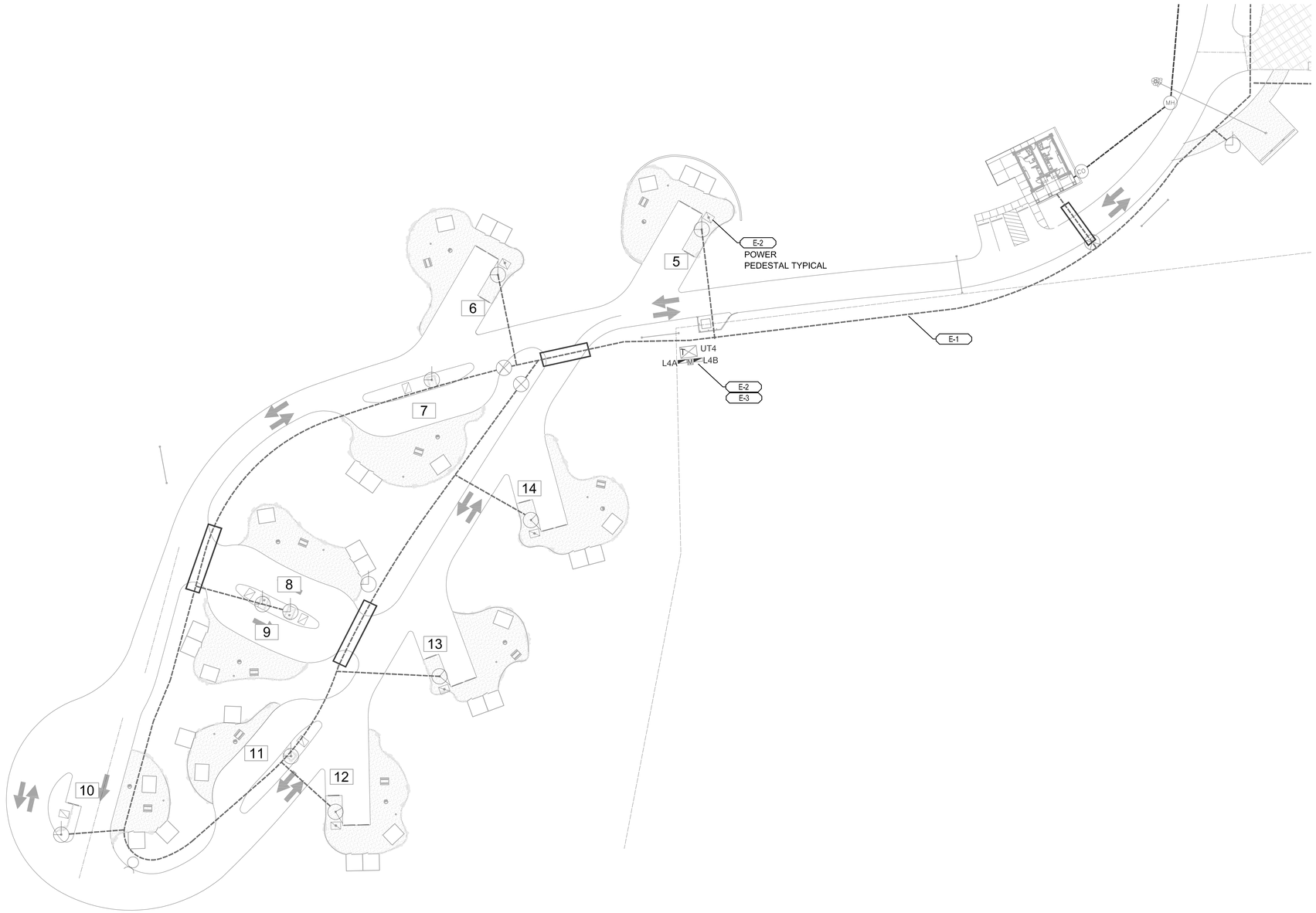
REV	DESC	DATE

SHEET TITLE
AREA C - EQUESTRIAN CAMPING LOOP ENLARGMENT PLANTING PLAN

SHEET NUMBER
1
CL502

ELECTRICAL NOTES BY SYMBOL (E-X)

1. WATER AND SEWER LINES SHOWN FOR REFERENCE ONLY, FOR COORDINATION OF UNDERGROUND UTILITIES.
2. UTILITY POWER PROVISIONS THIS AREA SHOWN FOR INFORMATION ONLY.
3. PROVIDE 120V 20A/1P POWER FOR WIFI TRANSMITTER SERVING THIS AREA. COORDINATE LOCATION WITH TPWD. WIRE WITH 2#10, 1#10G, 3/4"C.



1 ELECTRICAL SITE PLAN - EQUESTRIAN CAMPING LOOP
1" = 40'-0"

0' 40' 80' 120'

TEXAS PARKS & WILDLIFE

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STATE OF TEXAS
I. L. BASCEANU
97465
LICENSED
PROFESSIONAL ENGINEER
3/29/21

PALO PINTO MOUNTAINS STATE PARK
SITE DEVELOPMENT
TPWD PROJECT NO. 118271

DATE: 2021/03/29
DESIGNED BY: ILB
DRAWN BY: AC
REVIEWED BY: ILB

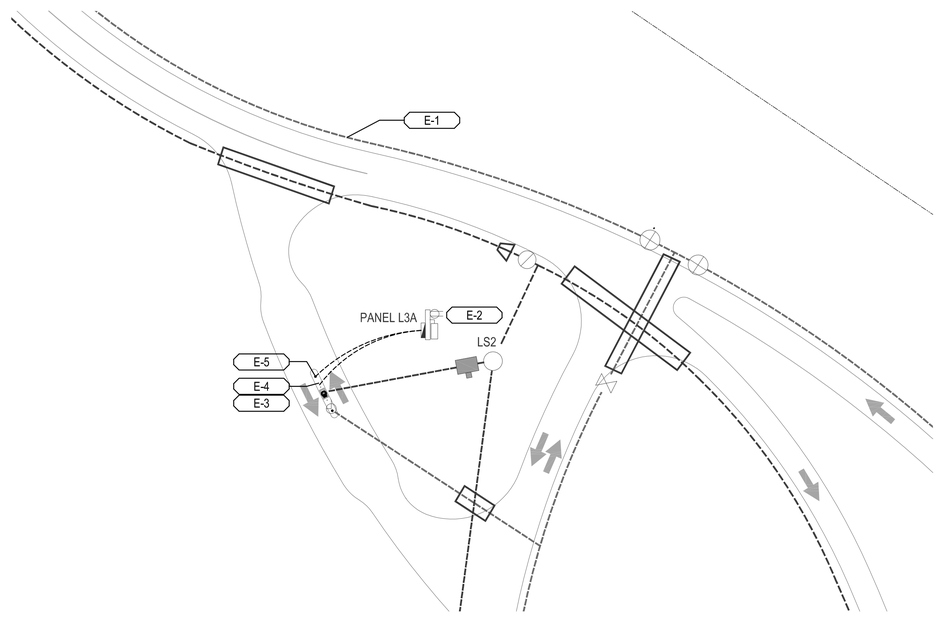
REV DESC DATE

SHEET TITLE
ELECTRICAL SITE PLAN - EQUESTRIAN

SHEET NUMBER
1
CE101

ELECTRICAL NOTES BY SYMBOL (E-X)

1. WATER AND SEWER LINES SHOWN FOR REFERENCE ONLY, FOR COORDINATION OF UNDERGROUND UTILITIES.
2. POWER PROVISIONS INSTALLED IN PHASE 00. SHOWN FOR INFORMATION ONLY.
3. PROVIDE POWER FROM PANEL L3A-6 VIA CONDUIT PROVIDED IN PHASE 00. WIRE WITH 2# 12, 1# 12G, IN EXISTING 1" CONDUIT.
4. LIGHT POLE EQUAL TO KIM ARCHITYPE 1SA-SAR3-E35-60L-3K-208-TBD-A31-NFO-SCH-R - ARM SIDE, TYPE III DISTRIBUTION, 350ma DRIVER, 66W LED 3K COLOR TEMP, 208V, FINISH TBD, BUTTON PHOTOCELL AND OCCUPANCY SENSOR, NEIGHBOR FRIENDLY OPTIC, ROUND POLE 5", 20FT POLE INSTALLED ON CONCRETE BASE 30" ABOVE GRADE. PROVIDE POWER FROM PANEL L3A.
5. PROVIDE POWER FROM L3A-8 VIA CONDUIT PROVIDED IN PHASE 00 FOR WIFI TRANSMITTER SERVING THIS AREA. WIRE WITH COORDINATE LOCATION WITH TPWD. WIRE WITH 2# 12, 1# 12G, IN EXISTING 1" CONDUIT.



1 **ELECTRICAL SITE PLAN - DUMP STATION**
1" = 40'-0"
0' 40' 80' 120'

TEXAS PARKS & WILDLIFE

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J.A. Ivy
Texas Registered Engineering Firm F-1290

STATE OF TEXAS
ILL BASCEANUS
07465
LICENSED
PROFESSIONAL ENGINEER
5/27/21

PALO PINTO MOUNTAINS STATE PARK
SITE DEVELOPMENT
TPWD PROJECT NO. 118271

DATE:	2021/03/29
DESIGNED BY:	ILB
DRAWN BY:	AC
REVIEWED BY:	ILB

REV DESC DATE

SHEET TITLE
ELECTRICAL SITE PLAN - DUMP STATION

SHEET NUMBER
1
CE102

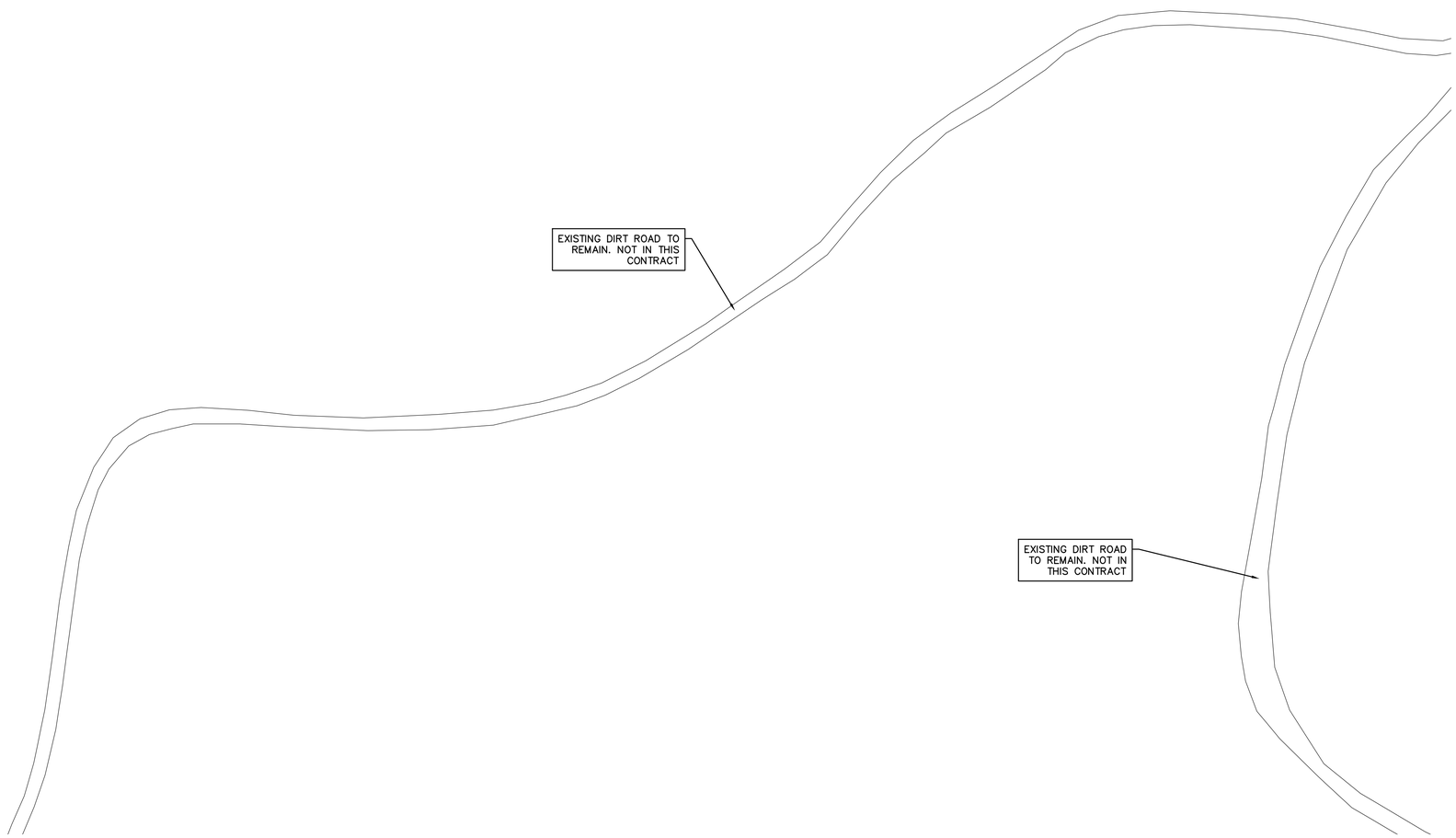
LEGEND

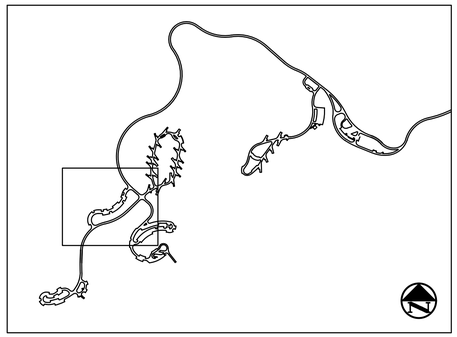
- BL — BOLLARD
- EM — ELECTRIC METER
- PP — POWER POLE
- LS — LIGHT STANDARD
- WM — WATER METER
- WV — WATER VALVE
- ICV — IRRIGATION CONTROL VALVE
- FH — FIRE HYDRANT
- CO — CLEANOUT
- MH — MANHOLE
- TSC — TRAFFIC SIGNAL CONTROL
- TSP — TRAFFIC SIGNAL POLE
- TELE — TELEPHONE BOX
- FL — FLOOD LIGHT
- FP — FLAG POLE
- SIGN — TRAFFIC SIGN
- IRS — 1/2-INCH IRON ROD W/"PACHECO KOCH" CAP SET
- (C.M.) — CONTROLLING MONUMENT
- PROPERTY LINE
- X — FENCE
- OHL — OVERHEAD UTILITY LINE
- F — FIBER OPTIC LINE
- 30" RCP — UNDERGROUND STORM LINE
- E — UNDERGROUND ELECTRIC LINE
- T — UNDERGROUND TELEPHONE LINE
- C — UNDERGROUND CABLE LINE
- 6"W — UNDERGROUND WATER LINE
- 6"SS — UNDERGROUND SEWER LINE
- 613 — EXIST CONTOUR
- 612.39 — EXIST SPOT ELEVATION
- TC 612.39 / G 611.89 — EXIST TOP OF CURB ELEVATION / EXIST GUTTER ELEVATION
- SAWCUT — LIMITS OF SAWCUT
- DEMOLITION AREA

N

0 20 40 80 120
GRAPHIC SCALE IN FEET

REFERENCE LANDSCAPE PLANS FOR TREE REMOVAL AND PROTECTION





KEY MAP
N.T.S.

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STATE OF TEXAS
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TX REG. SURVEYING FIRM LS-10008001

PALO PINTO MOUNTAINS STATE PARK
SITE DEVELOPMENT
TPWD PROJECT NO. 118271

DATE:	2021/03/29
DESIGNED BY:	TSR
DRAWN BY:	PAC
REVIEWED BY:	CAA

REV DESC DATE

SHEET TITLE
DEMOLITION PLAN

SHEET NUMBER
1
LC111

ACASTILLO
4/15/2021 5:22 PM
M:\DWG-38\3885-16.491\DWG\CIVIL C3D 2015\AREA L\3885-16.491DEMO_AREA L.DWG

NOTE: THE AREA WITHIN THE DESIGNATED BOUNDARY IS ATTEMPTING TO ACHIEVE A SITES CERTIFICATION. THIS AREA WILL REQUIRE SPECIFIC CONSTRUCTION, MAINTENANCE, AND OPERATIONAL TECHNIQUES IN ORDER TO SATISFY SITES REQUIREMENTS. REFER TO SPECIFICATIONS FOR CONTRACTOR ROLE AND RESPONSIBILITIES.

POSSIBLE CULTURALLY SENSITIVE AREA. THIS AREA HAS BEEN MITIGATED FOR IMPACTS TO ARCHEOLOGICAL RESOURCES. CONSTRUCTION IN THE AREA WILL BE MONITORED. STAKING IS NOT REQUIRED HERE.

QL202 & QL302
West Ridge Campground Plan

LL203, LL303, & LL503
Ridge Top Pavilion
Enlargement Plan

LL201, LL301, & LL501
Ridge Top Pavilion
Enlargement Plan

NL201, NL301, & NL501
Lakeside Day Use Plan

LL202, LL302, & LL502
Ridge Top Trailhead
Enlargement Plan

NL203, NL303, & NL503
Lakeside Day Use Plan

NOT IN CONTRACT

SITES BOUNDARY

37 38 39 15

NOTE: PICNIC TABLE LOCATIONS ARE SHOWN FOR PRICING. FINAL LOCATIONS TO BE DETERMINED IN FIELD BY TPWD.

POSSIBLE HISTORICAL RESOURCES IN AREA. ANY AREA IMPACTED BY CONSTRUCTION TO BE STAKED AND SURVEYED TO AVOID DISTRUBANCE OF ANY ARTIFACTS.

NOTE: PICNIC TABLE LOCATIONS ARE SHOWN FOR PRICING. FINAL LOCATIONS TO BE DETERMINED IN FIELD BY TPWD.

NORTH 0 50' 100'

Area L - Ridge Top Day Use Hardscape Plan | A

Scale: 1" = 50'-0" | LL200

TEXAS PARKS & WILDLIFE

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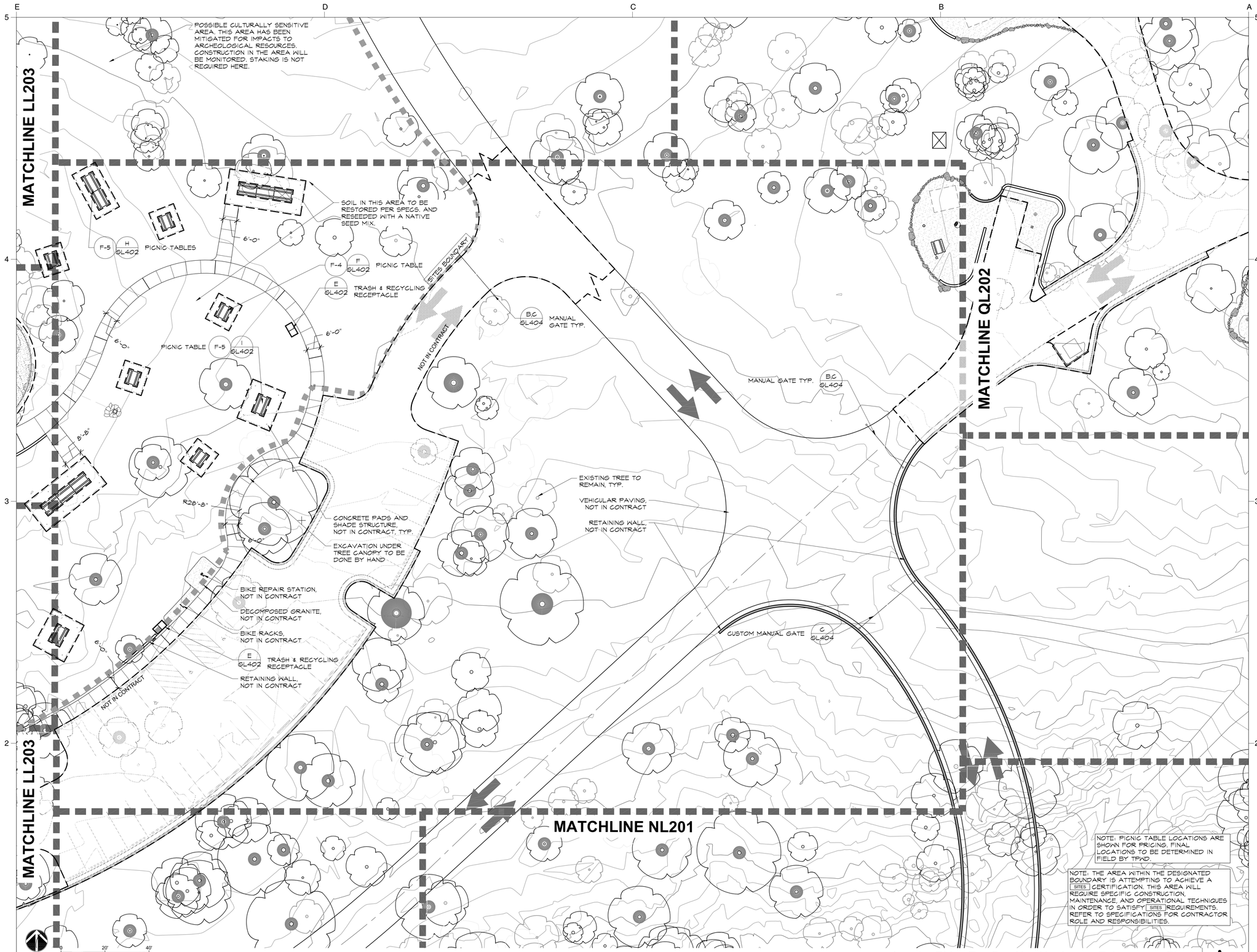
PALO PINTO MOUNTAINS STATE PARK
SITE DEVELOPMENT
TPWD PROJECT NO. 118271

DATE: 2021/03/29
DESIGNED BY: AD/BH
DRAWN BY: JT/RO/AA
REVIEWED BY: BH

REV DESC DATE

SHEET TITLE
AREA L - RIDGE TOP DAY USE HARDSCAPE PLAN

SHEET NUMBER
1
LL200



NOTE: PICNIC TABLE LOCATIONS ARE SHOWN FOR PRICING. FINAL LOCATIONS TO BE DETERMINED IN FIELD BY TPWD.

NOTE: THE AREA WITHIN THE DESIGNATED BOUNDARY IS ATTEMPTING TO ACHIEVE A SITES CERTIFICATION. THIS AREA WILL REQUIRE SPECIFIC CONSTRUCTION, MAINTENANCE, AND OPERATIONAL TECHNIQUES IN ORDER TO SATISFY SITES REQUIREMENTS. REFER TO SPECIFICATIONS FOR CONTRACTOR ROLE AND RESPONSIBILITIES.

Area L - Ridge Top Day Use Hardscape Enlargement Plan | A

Scale: 1" = 20'-0" | LL201

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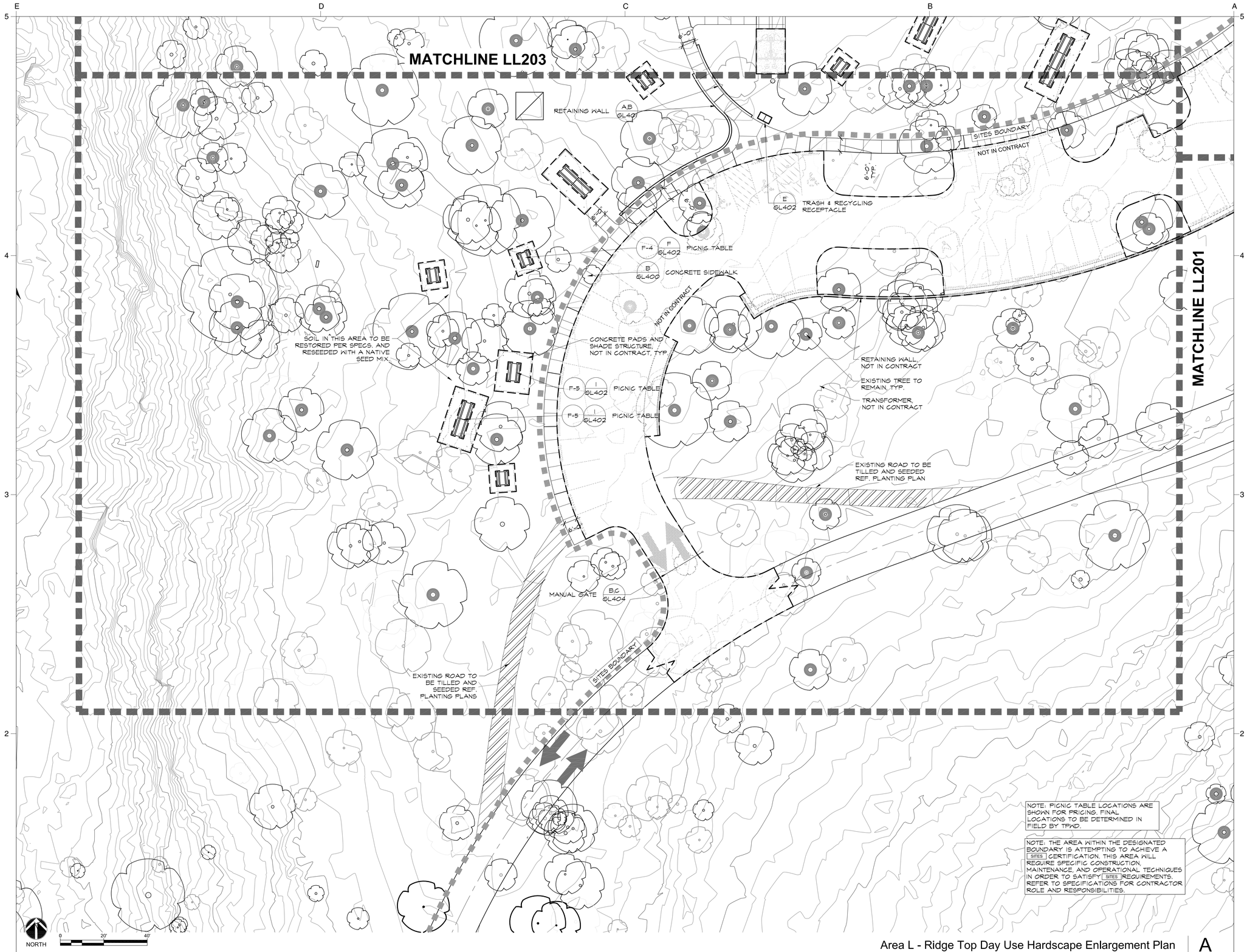
SITE DEVELOPMENT
TPWD PROJECT NO. 118271

DATE: 2021/03/29
DESIGNED BY: AD/BH
DRAWN BY: JT/RO/AA
REVIEWED BY: BH

REV	DESC	DATE

SHEET TITLE
AREA L - RIDGE TOP DAY USE HARDSCAPE ENLARGEMENT PLAN

SHEET NUMBER
1
LL201



Area L - Ridge Top Day Use Hardscape Enlargement Plan | A

Scale: 1" = 20'-0" | LL202

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SITE DEVELOPMENT
TPWD PROJECT NO. 118271

DATE: 2021/03/29
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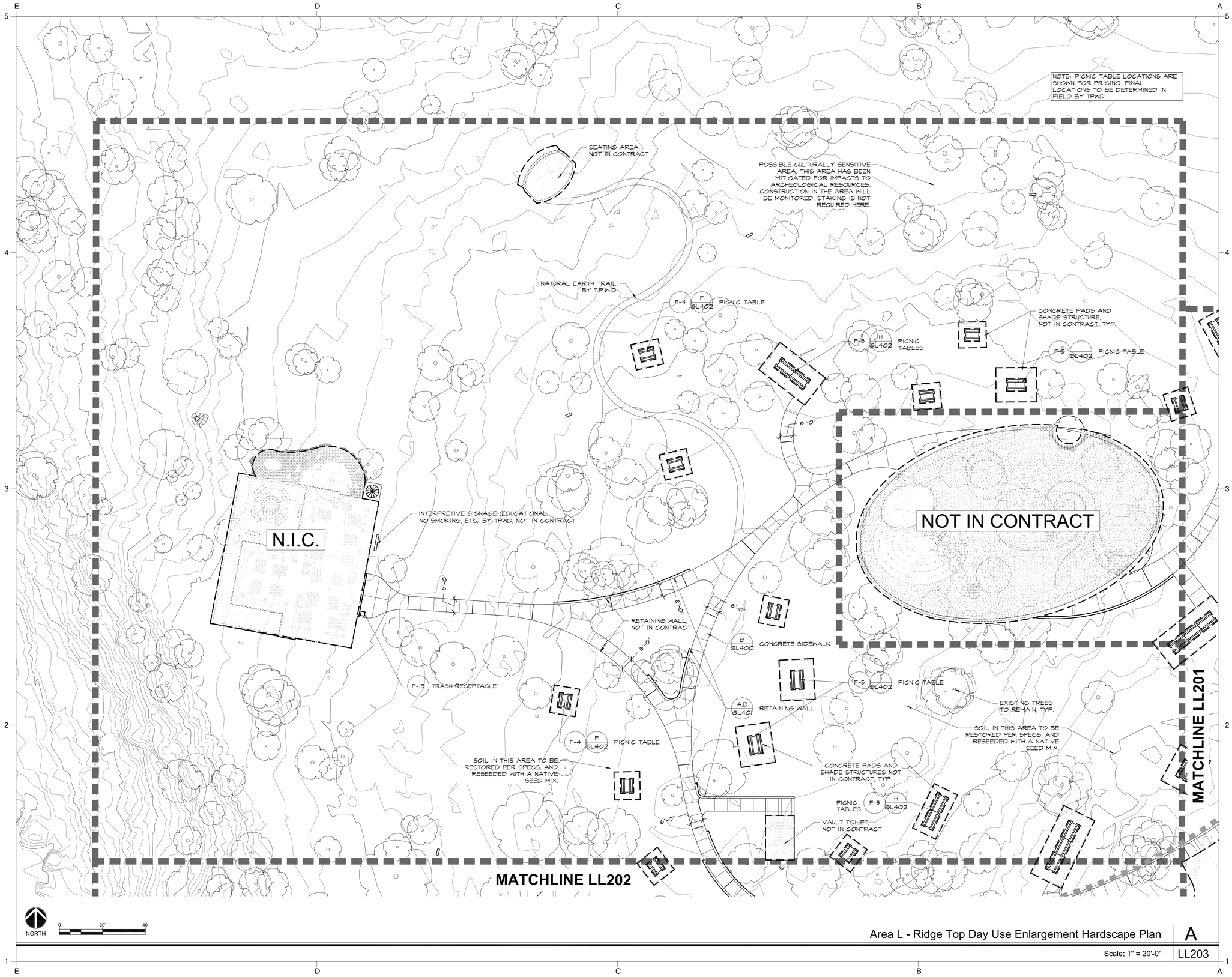
DRAWN BY: JT/RO/AA
REVIEWED BY: BH

REV DESC DATE

SHEET TITLE
AREA L - RIDGE TOP DAY USE HARDSCAPE ENLARGEMENT PLAN

SHEET NUMBER
1
LL202



Area L - Ridge Top Day Use Enlargement Hardscape Plan | A

Scale: 1" = 20'-0" | LL203

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SITE DEVELOPMENT
TPWD PROJECT NO. 118271

DATE: 2021/03/29
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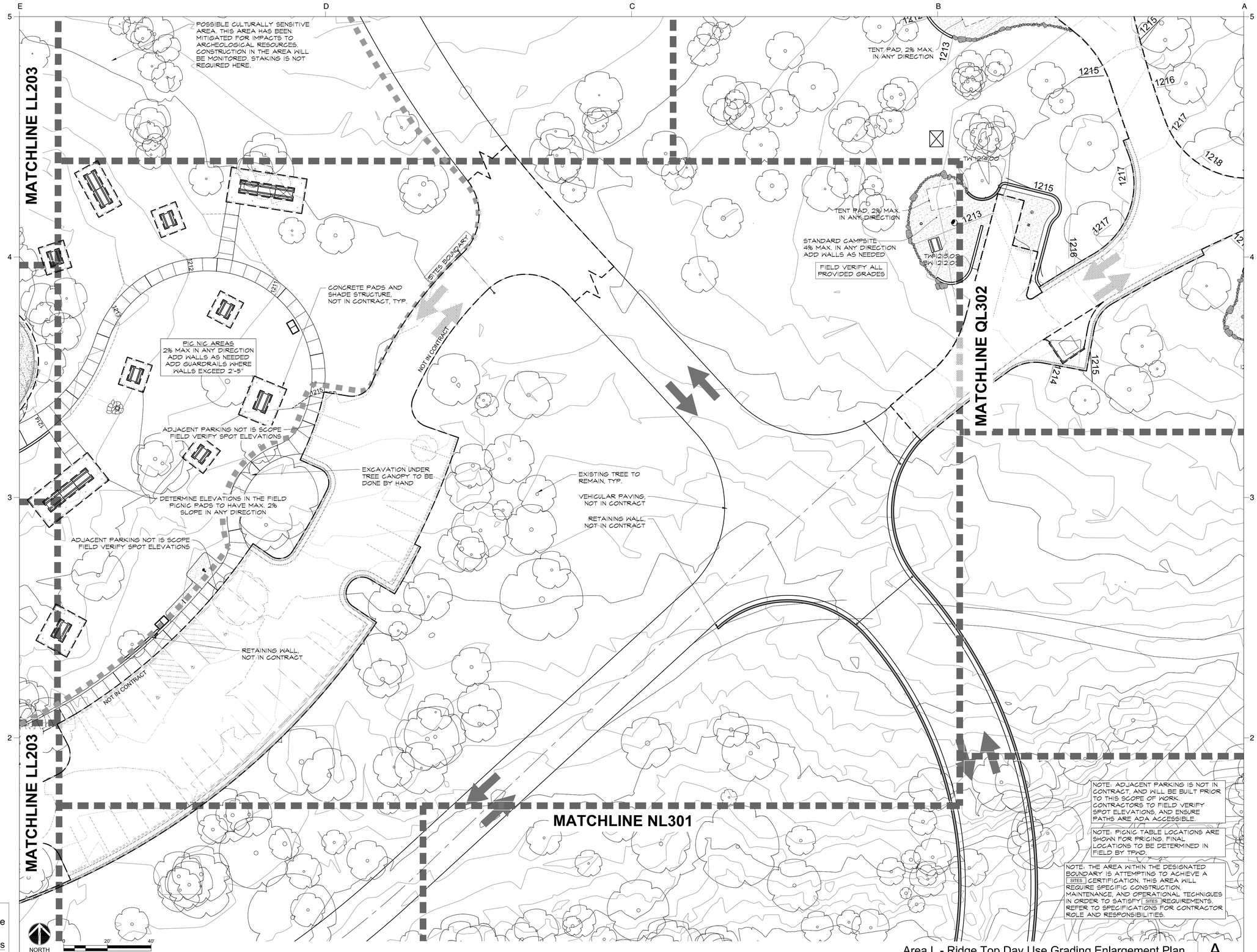
DRAWN BY: JT/RO/AA
REVIEWED BY: BH

REV DESC DATE

SHEET TITLE
AREA L - RIDGE TOP DAY USE ENLARGEMENT HARDSCAPE PLAN

SHEET NUMBER
1
LL203



IMPORTANT:
Spot elevations & grading notes are preliminary. Grading will be field verified after vehicular paving areas are installed.

Area L - Ridge Top Day Use Grading Enlargement Plan | A

Scale: 1" = 20'-0" | LL301

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SITE DEVELOPMENT
TPWD PROJECT NO. 118271

DATE: 2021/03/29
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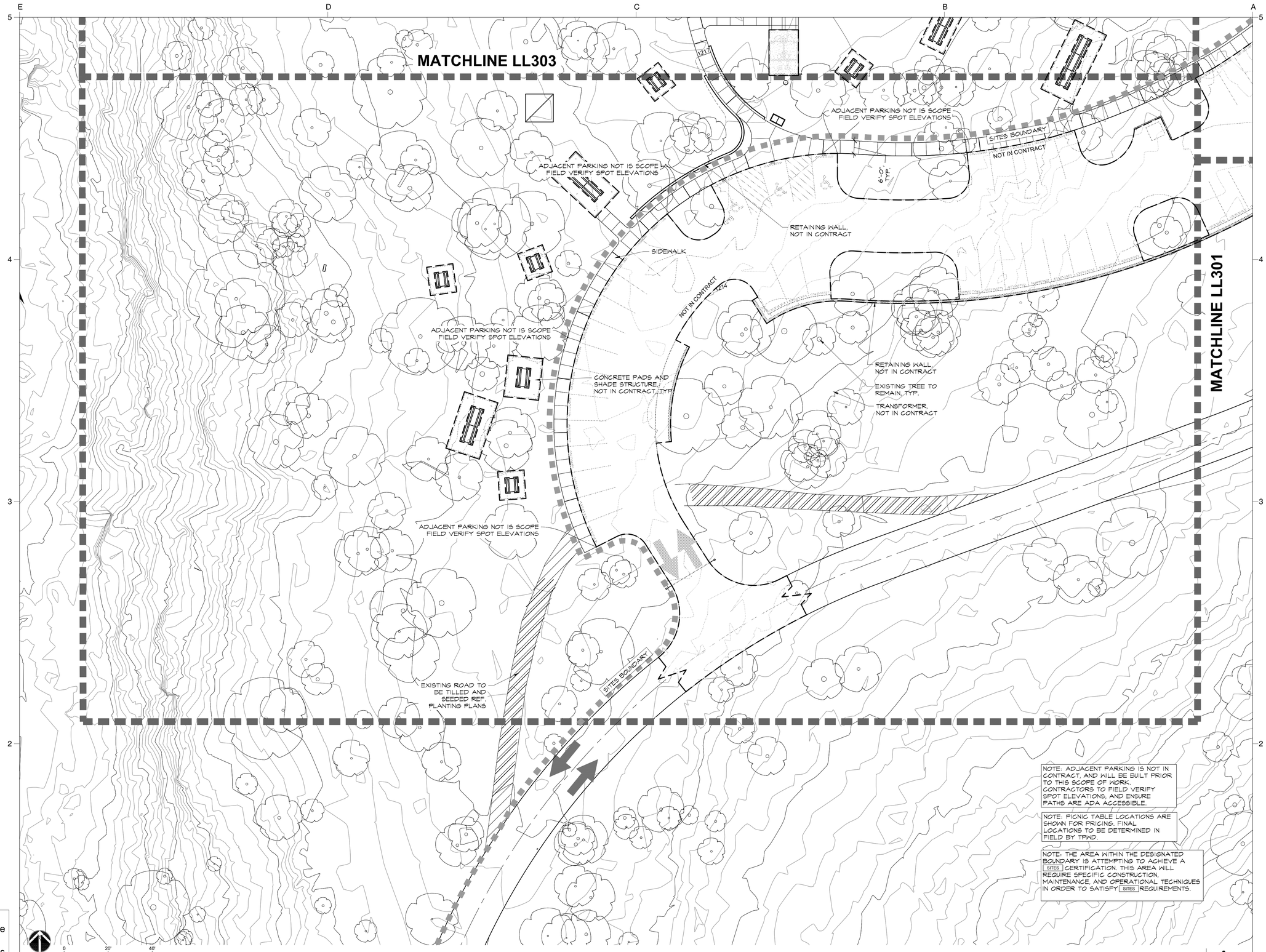
DRAWN BY: JT/RO/AA
REVIEWED BY: BH

REV	DESC	DATE

SHEET TITLE
AREA L - RIDGE TOP DAY USE GRADING ENLARGEMENT PLAN

SHEET NUMBER
1
LL301



NOTE: ADJACENT PARKING IS NOT IN CONTRACT, AND WILL BE BUILT PRIOR TO THIS SCOPE OF WORK. CONTRACTORS TO FIELD VERIFY SPOT ELEVATIONS, AND ENSURE PATHS ARE ADA ACCESSIBLE.

NOTE: PICNIC TABLE LOCATIONS ARE SHOWN FOR PRICING. FINAL LOCATIONS TO BE DETERMINED IN FIELD BY TPWD.

NOTE: THE AREA WITHIN THE DESIGNATED BOUNDARY IS ATTEMPTING TO ACHIEVE A SITES CERTIFICATION. THIS AREA WILL REQUIRE SPECIFIC CONSTRUCTION, MAINTENANCE, AND OPERATIONAL TECHNIQUES IN ORDER TO SATISFY SITES REQUIREMENTS.

IMPORTANT:
Spot elevations & grading notes are preliminary. Grading will be field verified after vehicular paving areas are installed.

Area L - Ridge Top Day Use Grading Enlargement Plan | A

Scale: 1" = 20'-0" | LL302

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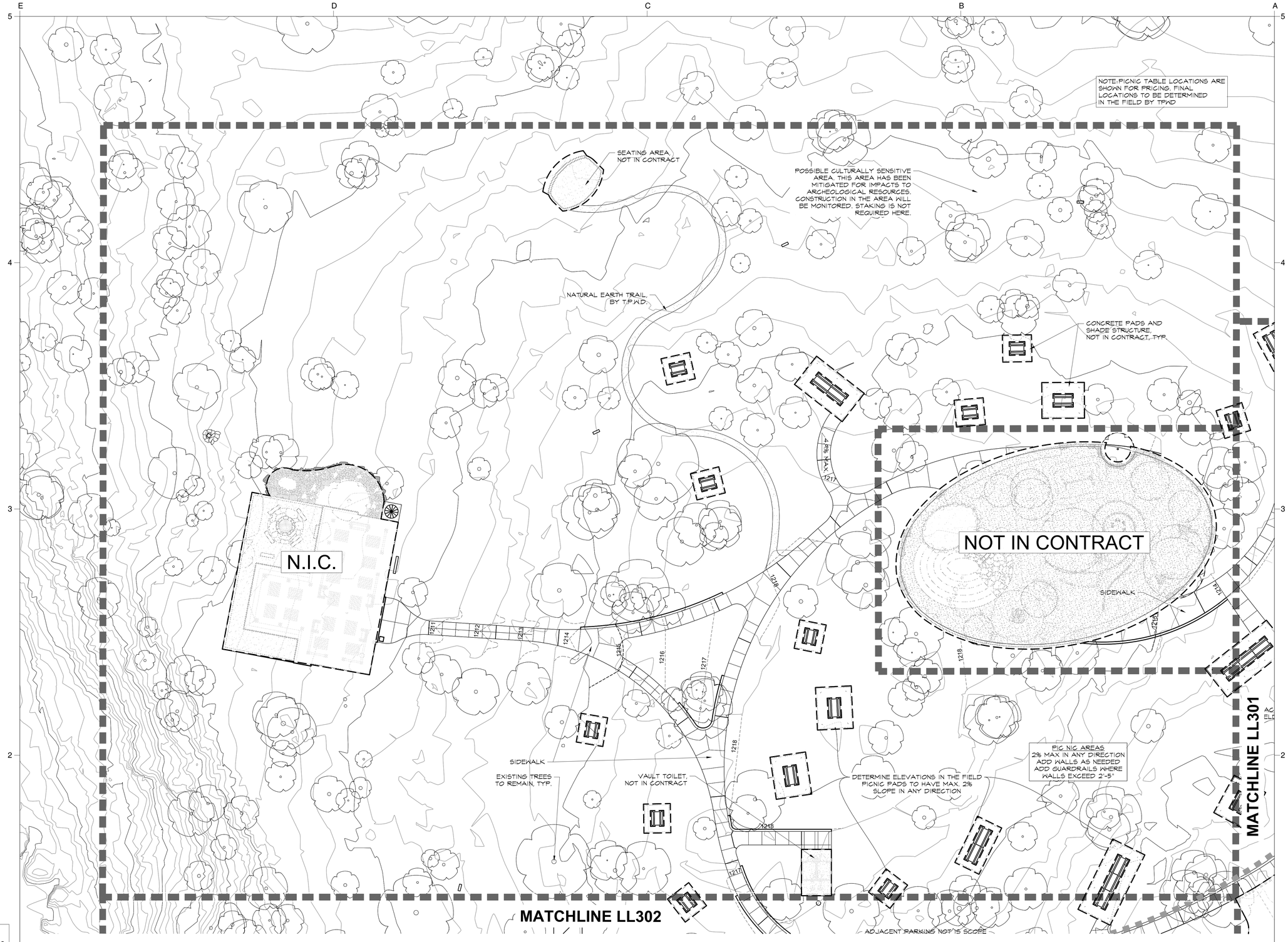
SITE DEVELOPMENT
TPWD PROJECT NO. 118271

DATE: 2021/03/29
DESIGNED BY: AD/BH
DRAWN BY: JT/RO/AA
REVIEWED BY: BH

REV DESC DATE

SHEET TITLE
AREA L - RIDGE TOP DAY USE GRADING ENLARGEMENT PLAN

SHEET NUMBER
1
LL302



IMPORTANT:
Spot elevations & grading notes are preliminary. Grading will be field verified after vehicular paving areas are installed.

Area L - Ridge Top Day Use Enlargement Grading Plan | A

Scale: 1" = 20'-0" | LL303

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SITE DEVELOPMENT
TPWD PROJECT NO. 118271

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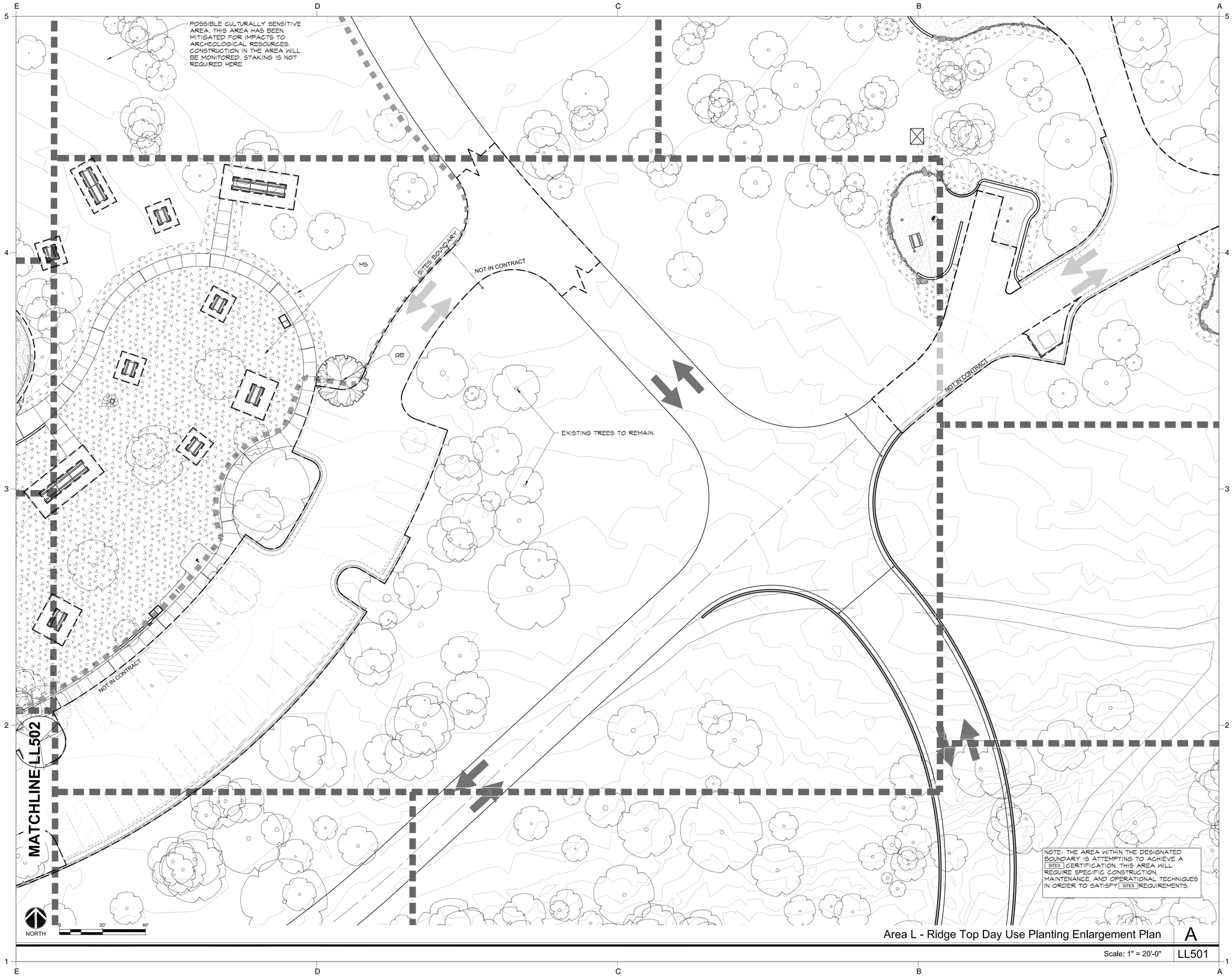
REV DESC DATE

SHEET TITLE
AREA L - RIDGE TOP DAY USE ENLARGEMENT GRADING PLAN

SHEET NUMBER
1
LL303



Area L - Ridge Top Day Use Planting Enlargement Plan | A

Scale: 1" = 20'-0" | LL501

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SITE DEVELOPMENT
TPWD PROJECT NO. 118271

DATE: 2021/03/29
DESIGNED BY: AD/BH
DRAWN BY: JT/RO/AA
REVIEWED BY: BH

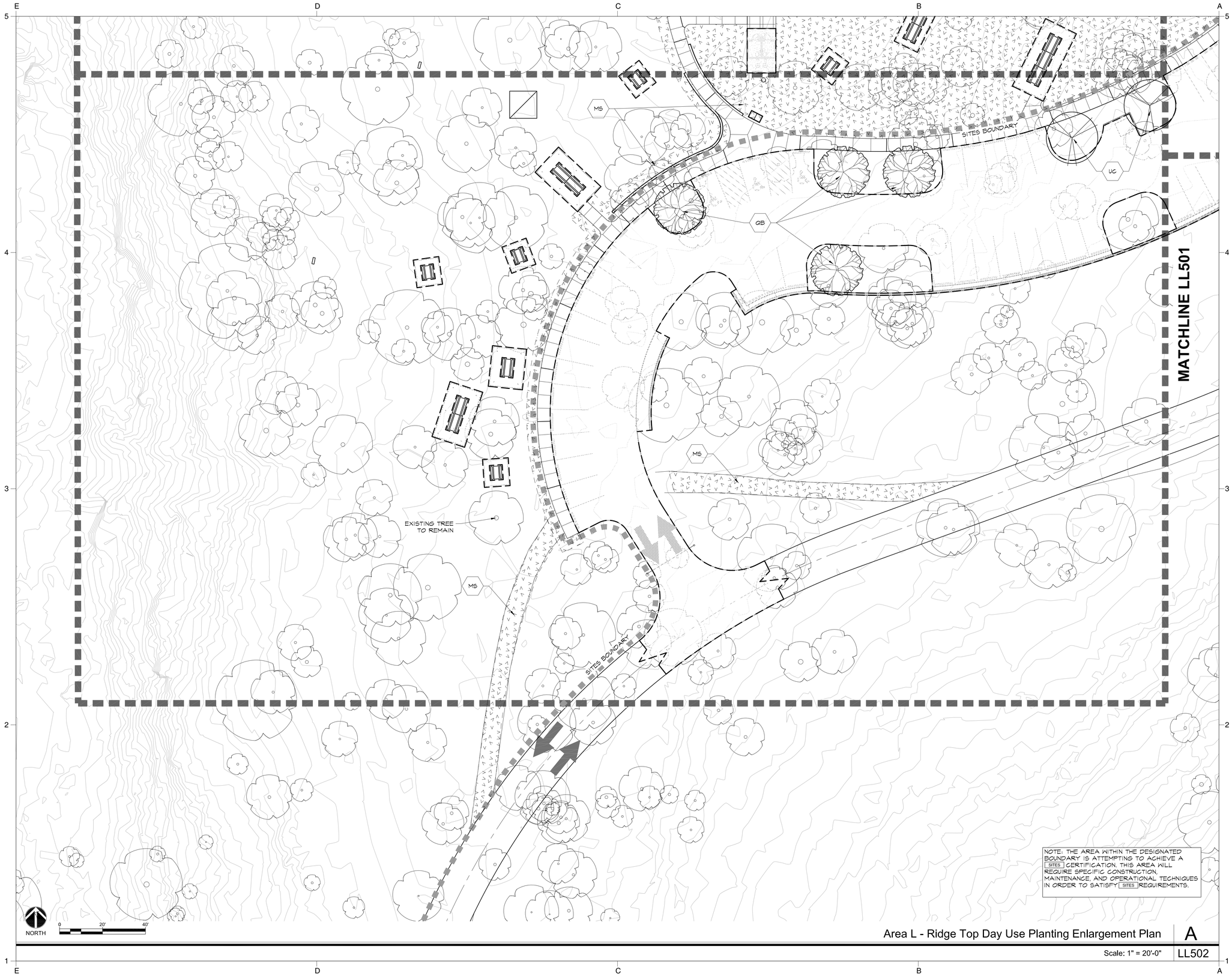
REV DESC DATE

SHEET TITLE

AREA L - RIDGE TOP DAY USE PLANTING ENLARGEMENT PLAN

SHEET NUMBER

1
LL501



NOTE. THE AREA WITHIN THE DESIGNATED BOUNDARY IS ATTEMPTING TO ACHIEVE A SITES CERTIFICATION. THIS AREA WILL REQUIRE SPECIFIC CONSTRUCTION, MAINTENANCE, AND OPERATIONAL TECHNIQUES IN ORDER TO SATISFY SITES REQUIREMENTS.

Area L - Ridge Top Day Use Planting Enlargement Plan | A

Scale: 1" = 20'-0" | LL502

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SITE DEVELOPMENT
TPWD PROJECT NO. 118271

DATE: 2021/03/29
DESIGNED BY: AD/BH
DRAWN BY: JT/RO/AA
REVIEWED BY: BH

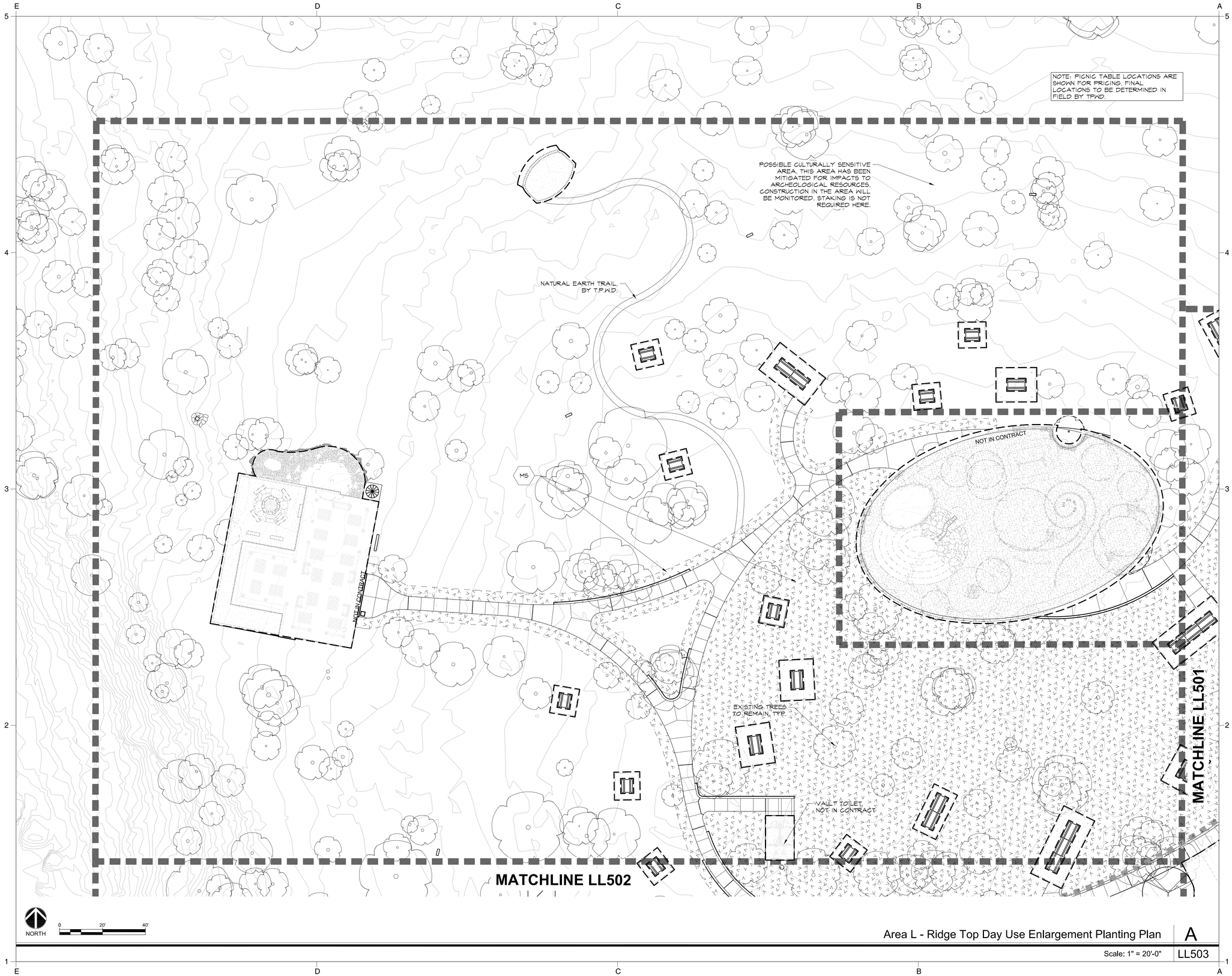
REV DESC DATE

SHEET TITLE

AREA L - RIDGE TOP DAY USE PLANTING ENLARGEMENT PLAN

SHEET NUMBER

1
LL502



Area L - Ridge Top Day Use Enlargement Planting Plan | A

Scale: 1" = 20'-0" | LL503

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SITE DEVELOPMENT
TPWD PROJECT NO. 118271

DATE: 2021/03/29
DESIGNED BY: AD/BH
DRAWN BY: JT/RO/AA
REVIEWED BY: BH

REV	DESC	DATE

SHEET TITLE

AREA L - RIDGE TOP DAY USE ENLARGEMENT PLANTING PLAN

SHEET NUMBER

1
LL503

ELECTRICAL NOTES BY SYMBOL E-X

1. WATERLINE SHOWN FOR REFERENCE ONLY, FOR COORDINATION OF UNDERGROUND UTILITIES.
2. UTILITY POWER PROVISIONS FOR THIS AREA SHOWN FOR INFORMATION ONLY.
3. PROVIDE POWER TO BOLLARDS VIA (1) 1"CONDUIT PROVIDED IN PHASE 00. WIRE WITH (#6) AS 2 #6, 1# 10G IN EXISTING 1"C, (#8) AS 2 #8, 1# 10G, (#10) AS 2 #10, 1# 10G, AND (#12) AS 2 #12, 1# 12G. PROVIDE ONE PHOTOCELL INSTALLED ON 1" RIGID CONDUIT ATTACHED TO PANEL RACK AND RELAY IN WP BOX FOR CONTROL.
4. BOLLARD EQUAL TO STREET LIFE BRIGHT BOLLARDS LED 35"HT, 6"X6" CROSS SECTION, CORTEN STEEL FINISH WITH INTEGRATED STALES STEEL PLATE TO SPREAD THE LIGHT. INSTALL STANDARD LED FIXTURE 35W, 30K COLOR TEMP, 120V AT THE TOP OF BOLLARD. INSTALL ON CONCRETE BASE 4" ABOVE GRADE.
5. PROVIDE 120V 20A/1P POWER FOR WIFI TRANSMITTER SERVING THIS AREA. COORDINATE LOCATION WITH TPWD. WIRE WITH 2 #10, 1# 10G IN 3/4"C.

1 **ELECTRICAL SITE PLAN - PAVILION**
1" = 40'-0"
0' 40' 80' 120'

TEXAS PARKS & WILDLIFE

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J.A. Ivy
Texas Registered Engineering Firm F-1386

STATE OF TEXAS
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07463
LICENSED
PROFESSIONAL ENGINEER
5/27/21

PALO PINTO MOUNTAINS STATE PARK
SITE DEVELOPMENT
TPWD PROJECT NO. 118271

DATE:	2021/03/29
DESIGNED BY:	ILB
DRAWN BY:	AC
REVIEWED BY:	ILB

REV DESC DATE

SHEET TITLE
ELECTRICAL SITE PLAN - PAVILION

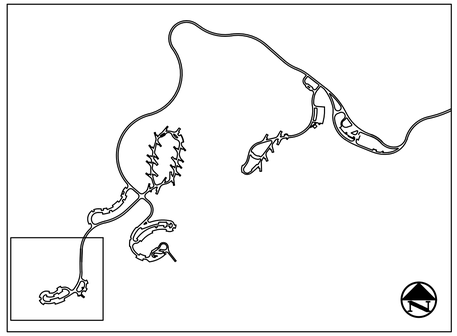
SHEET NUMBER
1
LE101

LEGEND

- BL — BOLLARD
- EM — ELECTRIC METER
- PP — POWER POLE
- LS — LIGHT STANDARD
- WM — WATER METER
- WV — WATER VALVE
- ICV — IRRIGATION CONTROL VALVE
- FH — FIRE HYDRANT
- CO — CLEANOUT
- MH — MANHOLE
- TSC — TRAFFIC SIGNAL CONTROL
- TSP — TRAFFIC SIGNAL POLE
- TELE — TELEPHONE BOX
- FL — FLOOD LIGHT
- FP — FLAG POLE
- SIGN — TRAFFIC SIGN
- IRS — 1/2-INCH IRON ROD W/"PACHECO KOCH" CAP SET
- (C.M.) — CONTROLLING MONUMENT
- PROPERTY LINE
- X — FENCE
- OHL — OVERHEAD UTILITY LINE
- F — FIBER OPTIC LINE
- 30" R.C.P. — UNDERGROUND STORM LINE
- E — UNDERGROUND ELECTRIC LINE
- T — UNDERGROUND TELEPHONE LINE
- C — UNDERGROUND CABLE LINE
- 6"W — UNDERGROUND WATER LINE
- 6"SS — UNDERGROUND SEWER LINE
- 613 — EXIST CONTOUR
- 612.39 — EXIST SPOT ELEVATION
- TC 612.39 / G 611.89 — EXIST TOP OF CURB ELEVATION / EXIST GUTTER ELEVATION
- SAWCUT — LIMITS OF SAWCUT
- DEMOLITION AREA

GRAPHIC SCALE IN FEET: 0 20 40 80 120

REFERENCE LANDSCAPE PLANS FOR TREE REMOVAL AND PROTECTION



KEY MAP
N.T.S.

STATE OF TEXAS
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131206
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PROFESSIONAL ENGINEER

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PALO PINTO MOUNTAINS STATE PARK
SITE DEVELOPMENT
TPWD PROJECT NO. 118271

DATE:	2021/03/29
DESIGNED BY:	TSR
DRAWN BY:	PAC
REVIEWED BY:	CAA

REV	DESC	DATE

SHEET TITLE
DEMOLITION PLAN

SHEET NUMBER
1
MC111

ACASTILLO
4/15/2021 5:23 PM
M:\DWG-38\3885-16.491\DWG\CIVIL C3D 2015\AREA M\3885-16.491DEMO_AREA M.DWG

PK-3885-16.491DEMO_AREA M.DWG

NOTE: THE AREA WITHIN THE DESIGNATED BOUNDARY IS ATTEMPTING TO ACHIEVE A SITES CERTIFICATION. THIS AREA WILL REQUIRE SPECIFIC CONSTRUCTION, MAINTENANCE, AND OPERATIONAL TECHNIQUES IN ORDER TO SATISFY SITES REQUIREMENTS.

ML202 & ML502 Trailhead
Enlargement Hardscape Plan

ML201 & ML501 Walk-In Tent Campground
Enlargement Hardscape Plan

SITES BOUNDARY

MANUAL GATE

BC
SL404

NOT IN CONTRACT

NOT IN CONTRACT

NOT IN CONTRACT

SITES BOUNDARY

SITES BOUNDARY

SITES BOUNDARY

1 2 3 4 5 6 7 8 9 10 11 12

TYP. WALK-IN CAMPSITE A ML400

NORTH

0 50' 100'

Area M - Walk-In Tent Camping Hardscape Plan & Trailhead Parking | A

Scale: 1" = 50'-0" | ML200

TEXAS PARKS & WILDLIFE

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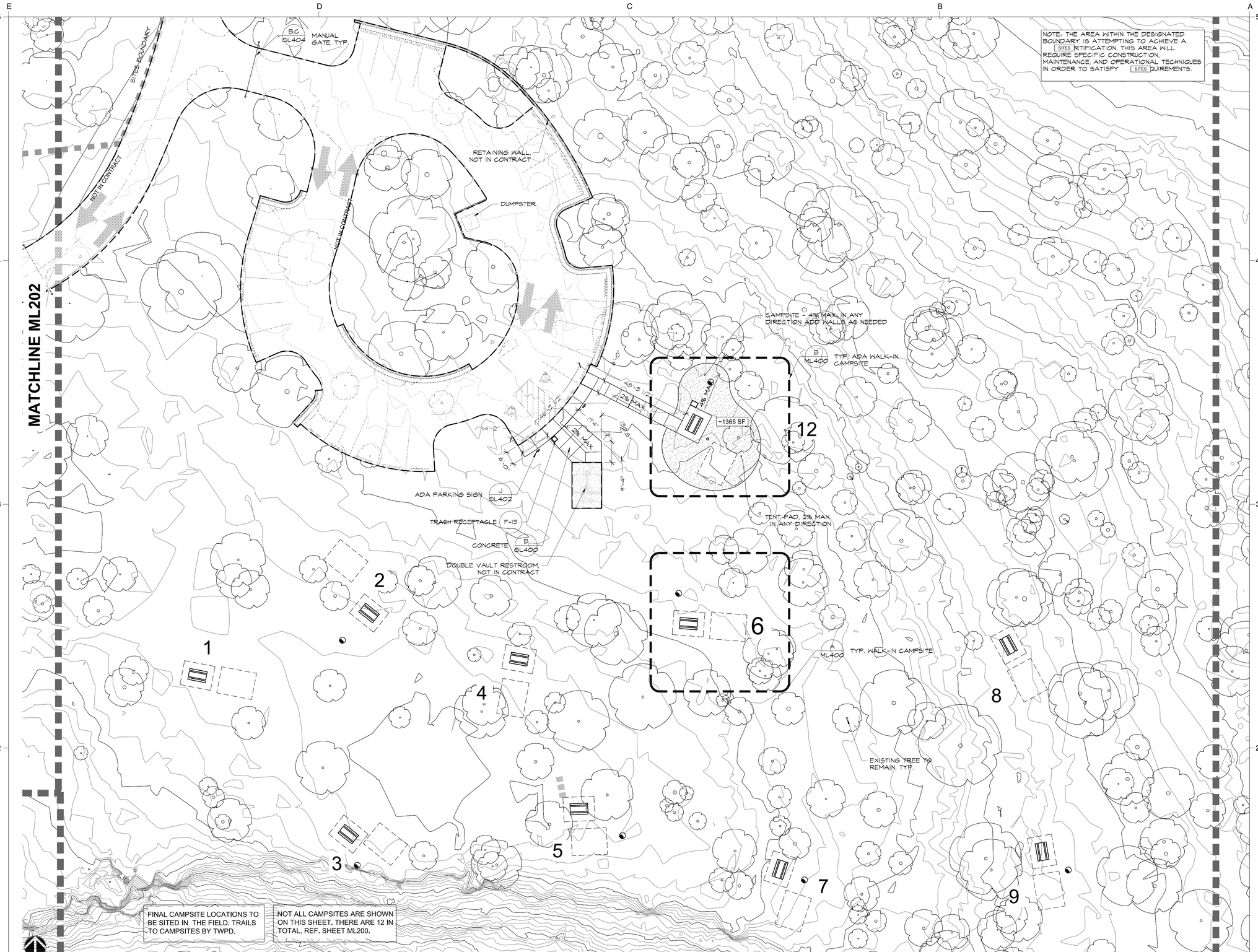
PALO PINTO MOUNTAINS STATE PARK
SITE DEVELOPMENT
TPWD PROJECT NO. 118271

DATE: 2021/03/29
DESIGNED BY: AD/BH
DRAWN BY: JT/RO/AA
REVIEWED BY: BH

REV DESC DATE

SHEET TITLE
AREA M - WALK-IN TENT CAMPING HARDSCAPE PLAN

SHEET NUMBER
1
ML200



Area M - Walk-In Tent East Camping Hardscape Plan | A

Scale: 1" = 20'-0" | ML201

IMPORTANT:
Spot elevations & grading notes are preliminary. Grading will be field verified after vehicular paving areas are installed.

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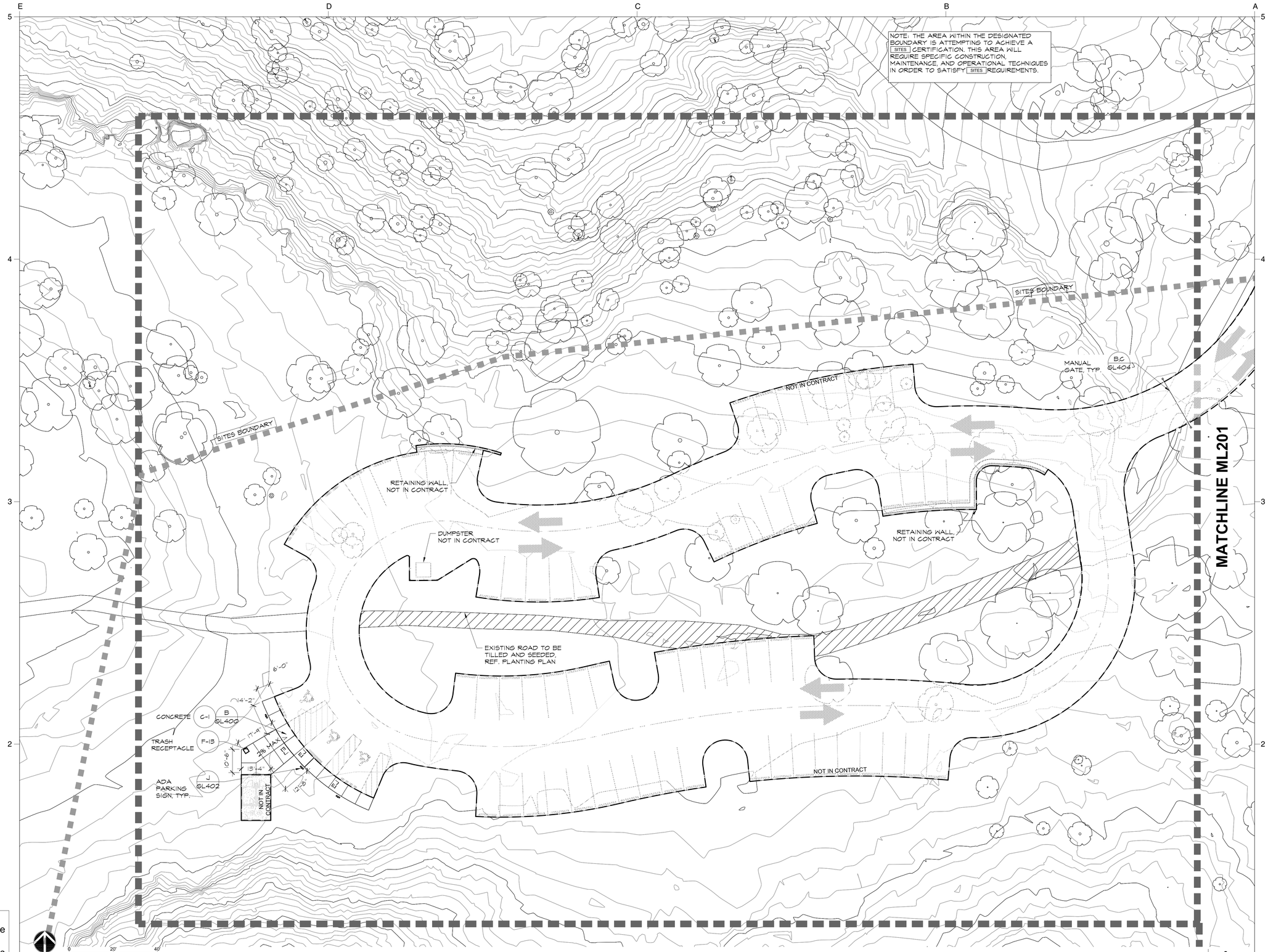
REV DESC DATE

SHEET TITLE
AREA M - WALK-IN TENT CAMPING HARDSCAPE PLAN

SHEET NUMBER
1
ML201



Area M - Walk-In Tent Camping Enlargement Hardscape Plan | A

Scale: 1" = 20'-0" | ML202

IMPORTANT:
Spot elevations & grading notes are preliminary. Grading will be field verified after vehicular paving areas are installed.

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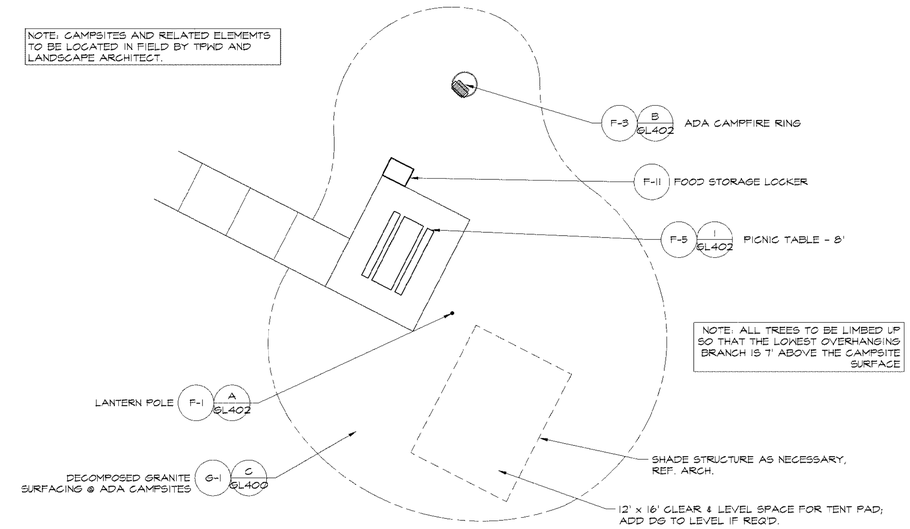
REV DESC DATE

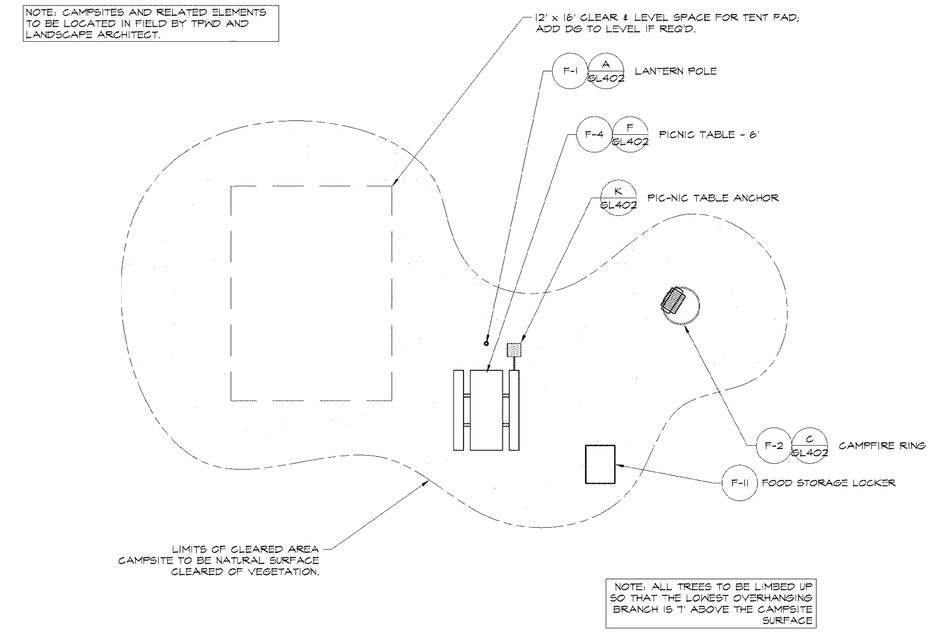
SHEET TITLE
AREA M - WALK-IN TENT CAMPING ENLARGEMENT HARDSCAPE PLAN

SHEET NUMBER
1
ML202



Walk-In Tent Campground ADA Site Layout | B

Scale: 1/8" = 1'-0"



Walk-In Tent Campground Typical Site Layout | A

Scale: 3/16" = 1'-0"

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SITE DEVELOPMENT
TPWD PROJECT NO. 118271

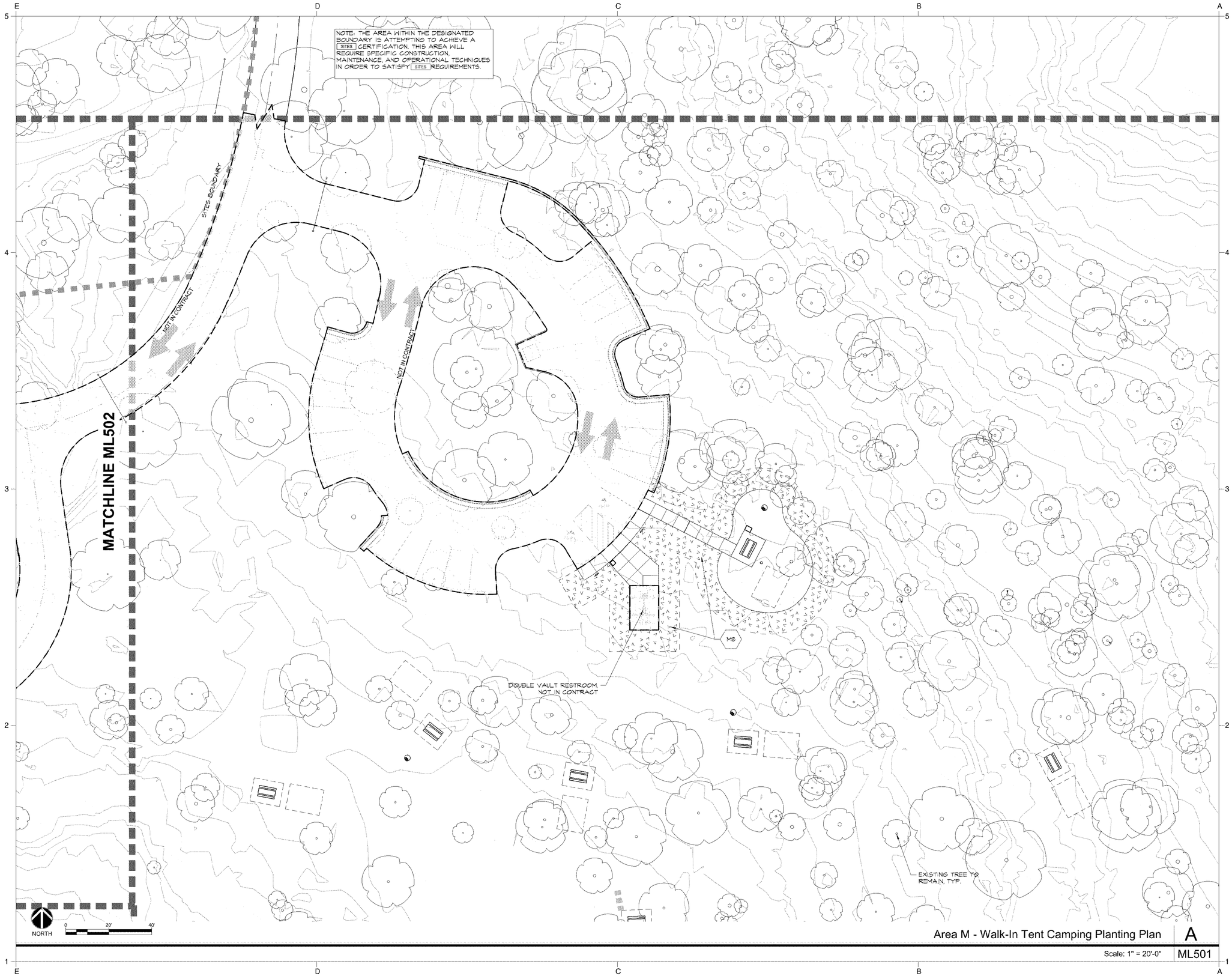
DATE: 2021/03/29
DESIGNED BY: AD/BH
DRAWN BY: JT/RO/AA
REVIEWED BY: BH

REV DESC DATE

SHEET TITLE

CAMPSITE DETAILS

SHEET NUMBER
1
ML400



Area M - Walk-In Tent Camping Planting Plan | A

Scale: 1" = 20'-0" | ML501

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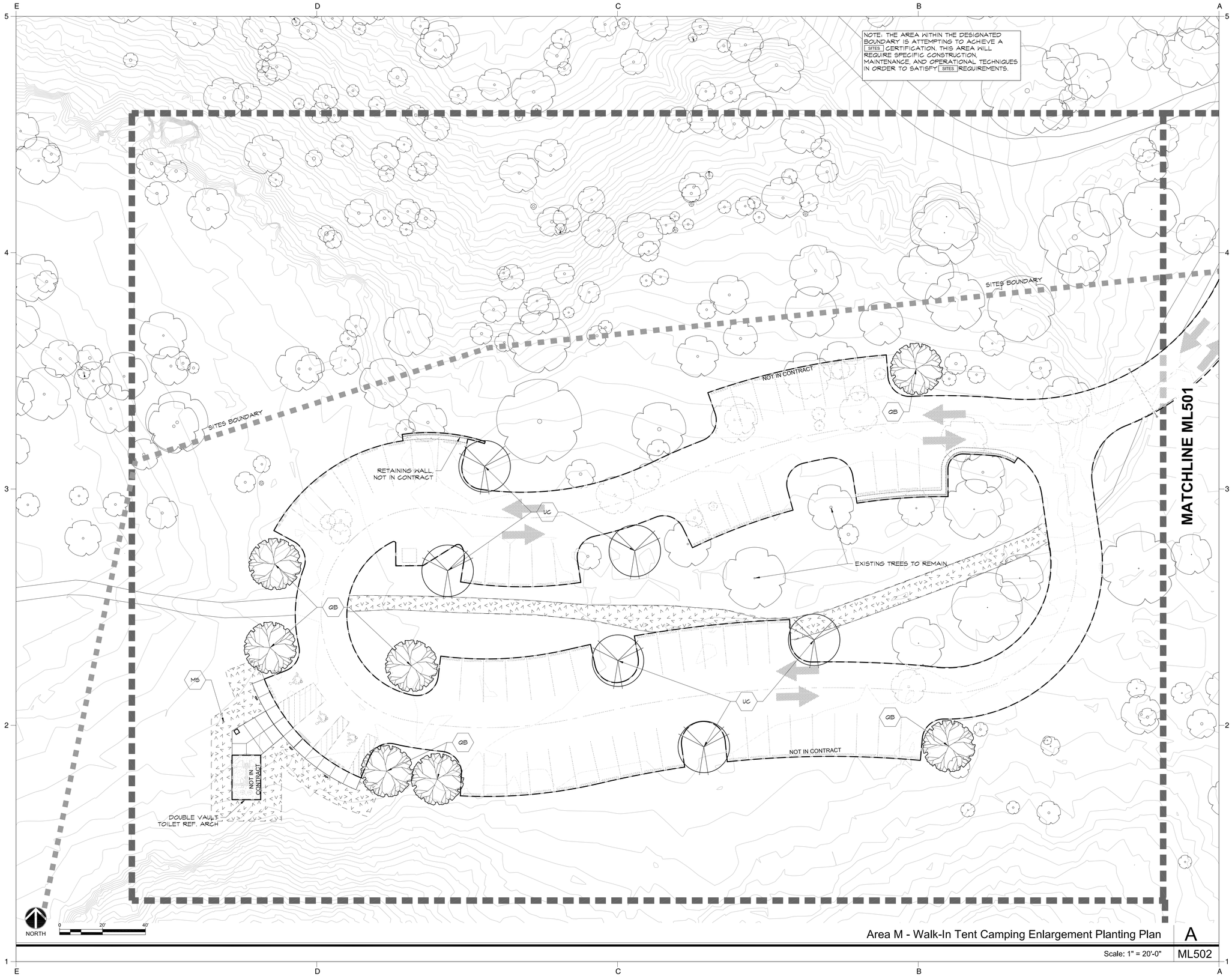
SITE DEVELOPMENT
TPWD PROJECT NO. 118271

DATE: 2021/03/29
DESIGNED BY: AD/BH
DRAWN BY: JT/RO/AA
REVIEWED BY: BH

REV DESC DATE

SHEET TITLE
AREA M - WALK-IN TENT CAMPING PLANTING PLAN

SHEET NUMBER
1
ML501



Area M - Walk-In Tent Camping Enlargement Planting Plan | A

Scale: 1" = 20'-0" | ML502

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TPWD PROJECT NO. 118271

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REV DESC DATE

SHEET TITLE

AREA M - WALK-IN TENT CAMPING ENLARGEMENT PLANTING PLAN

SHEET NUMBER

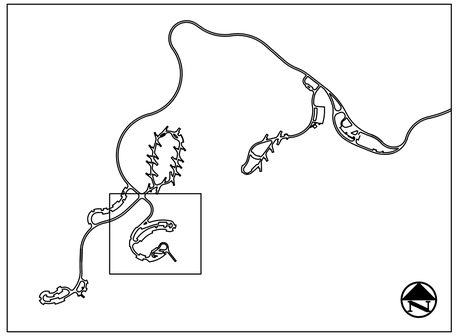
1
ML502

LEGEND

- BL — BOLLARD
- EM — ELECTRIC METER
- PP — POWER POLE
- LS — LIGHT STANDARD
- WM — WATER METER
- WV — WATER VALVE
- ICV — IRRIGATION CONTROL VALVE
- FH — FIRE HYDRANT
- CO — CLEANOUT
- MH — MANHOLE
- TSC — TRAFFIC SIGNAL CONTROL
- TSP — TRAFFIC SIGNAL POLE
- TELE — TELEPHONE BOX
- FLOOD LIGHT
- FP — FLAG POLE
- SIGN — TRAFFIC SIGN
- IRS — 1/2-INCH IRON ROD W/"PACHECO KOCH" CAP SET
- (C.M.) — CONTROLLING MONUMENT
- PROPERTY LINE
- X — FENCE
- OHL — OVERHEAD UTILITY LINE
- F — FIBER OPTIC LINE
- 30" R.C.P. — UNDERGROUND STORM LINE
- E — UNDERGROUND ELECTRIC LINE
- T — UNDERGROUND TELEPHONE LINE
- C — UNDERGROUND CABLE LINE
- 6"W — UNDERGROUND WATER LINE
- 6"SS — UNDERGROUND SEWER LINE
- 613 — EXIST CONTOUR
- 612.39 — EXIST SPOT ELEVATION
- TC 612.39 / G 611.89 — EXIST TOP OF CURB ELEVATION / EXIST GUTTER ELEVATION
- SAWCUT — LIMITS OF SAWCUT
- DEMOLITION AREA

0 20 40 80 120
GRAPHIC SCALE IN FEET

REFERENCE LANDSCAPE PLANS FOR TREE REMOVAL AND PROTECTION



KEY MAP
N.T.S.

STATE OF TEXAS
TYLER S. REEVES
131206
LICENSED
PROFESSIONAL ENGINEER

THE SEAL APPEARING ON THIS DOCUMENT WAS AUTHORIZED BY TYLER S. REEVES, P.E. 131206 ON 03/29/2021. ALTERATION OF A SEALED DOCUMENT WITHOUT PROPER NOTIFICATION TO THE RESPONSIBLE ENGINEER IS AN OFFENSE UNDER THE TEXAS ENGINEERING PRACTICE ACT.

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TX REG. SURVEYING FIRM LS-10008001

PALO PINTO MOUNTAINS STATE PARK
SITE DEVELOPMENT
TPWD PROJECT NO. 118271

DATE:	2021/03/29
DESIGNED BY:	TSR
DRAWN BY:	PAC
REVIEWED BY:	CAA

REV DESC DATE

SHEET TITLE
DEMOLITION PLAN

SHEET NUMBER
1
NC111

STRUCTURAL NOTES

GENERAL

GN-1 ALL DETAILS ARE TYPICAL AND SHALL APPLY TO SIMILAR CONDITIONS UNLESS NOTED OTHERWISE.

GN-2 THE CONTRACTOR SHALL COORDINATE THE SIZE AND LOCATION OF ALL HOLES AND SLEEVES THROUGH WALLS AND SLABS WITH ARCHITECTURAL, MECHANICAL, PLUMBING, ELECTRICAL AND CIVIL DRAWINGS. ALL PLUMBING AND MECHANICAL PENETRATIONS THROUGH WALLS AND SLABS SHALL BE PROPERLY SLEEVED. PENETRATING FOOTINGS, BEAMS, JOISTS, OR COLUMNS IS PROHIBITED. PLUMBING AND CONDUITS SHALL NOT BE INSTALLED BELOW FOOTINGS WITHOUT PRIOR WRITTEN APPROVAL FROM STUBBS ENGINEERING, INC.

GN-3 THE STRUCTURE AS SHOWN IN THESE DRAWINGS IS STABLE UNDER THE FINAL CONDITION. THE STRUCTURE IS DESIGNED FOR THE IN-SERVICE LOADS ONLY. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO ENSURE THE STRUCTURAL STABILITY DURING CONSTRUCTION. SEQUENCE OF CONSTRUCTION, SHORING, AND MEANS AND METHODS SHALL BE DETERMINED BY THE CONTRACTOR.

GN-4 NON-LOAD BEARING ELEMENTS SHALL BE CONNECTED TO THE STRUCTURE BY METHODS THAT ALLOW VERTICAL DEFLECTION OF THE STRUCTURE. ALLOWABLE DEFLECTIONS OF THE STRUCTURE SHALL BE THE MAXIMUM OF EITHER A HALF INCH OR THE STRUCTURAL SPAN DIVIDED BY 360.

GN-5 NOTCHING, CUTTING OR MODIFYING STRUCTURAL ELEMENTS IN THE FIELD IS PROHIBITED.

GN-6 THE CONTRACTOR SHALL VERIFY FIELD CONDITIONS AND REPORT ANY DISCREPANCIES TO THE ENGINEER.

DESIGN CRITERIA

DC-1 THE STRUCTURAL DESIGN WAS COMPLETED IN ACCORDANCE WITH THE FOLLOWING CODES:
IBC 2015
ASCE 7-10
ACI 318-14

DC-2 DEAD LOAD ARE CALCULATED IN ACCORDANCE WITH CHAPTER 3 OF THE ASCE 7-10.

DC-3 LIVE LOADS ARE CALCULATED IN ACCORDANCE WITH CHAPTER 4 OF THE ASCE 7-10 AS FOLLOWS:

OCCUPANCY OR USE	UNIFORM (psf.)	CONCENTRATED (lbs.)
BOAT RAMP	100	2,000

DC-4 WIND PRESSURES SHALL BE CALCULATED IN ACCORDANCE WITH CHAPTER 26-31 OF THE ASCE 7-10 AS FOLLOWS:

RISK CATEGORY	II
WIND SPEED	115 MPH
DIRECTIONAL FACTORS (Kd)	0.85 MFRS 0.85 COMPONENTS
TOPOGRAPHIC FACTOR (Kzt)	1.00
SURFACE ROUGHNESS	C
INTERNAL PRESSURE COEFFICIENT	±0.18

DC-5 SNOW LOADS SHALL BE CALCULATED IN ACCORDANCE WITH CHAPTER 7 OF THE ASCE 7-10 AS FOLLOWS:

RISK CATEGORY	II
GROUND SNOW (pg)	5 PSF
EXPOSURE FACTOR (Ce)	0.90
THERMAL FACTOR (Ct)	1.0
IMPORTANCE FACTOR	1.00

DC-6 SEISMIC LOADS SHALL BE CALCULATED IN ACCORDANCE WITH CHAPTER 11 AND 12 OF THE ASCE 7-10 AS FOLLOWS:

RISK CATEGORY	II
MAPPED MCE	Ss=0.078 S1=0.044
SPECTRAL RESPONSE COEFFICIENT	SDs=0.063 SD1=0.05
SITE CLASSIFICATION	D
IMPORTANCE FACTOR	1.00
SEISMIC DESIGN CATEGORY	A

DC-7 ICE LOAD SHALL BE CALCULATED IN ACCORDANCE WITH CHAPTER 10 OF ASCE 7-10:

MAPPED ICE THICKNESS	0.25 INCHES
IMPORTANCE FACTOR (Ii)	1.00
HEIGHT FACTOR (Fz)	1.00
DESIGN ICE THICKNESS	.025 INCHES

SHOP DRAWINGS

SD-1 THE CONTRACTOR SHALL SUBMIT SHOP DRAWINGS TO THE ARCHITECT/ENGINEER PRIOR TO FABRICATION AS REQUIRED BY THE SPECIFICATIONS AND SHALL INCLUDE AT A MINIMUM THE FOLLOWING SUBMITTALS:
STRUCTURAL FILL AND EARTHWORK
STRUCTURAL STEEL
REINFORCING STEEL
CONCRETE MIX DESIGNS
PRODUCT DATA FOR CONCRETE INSERTS
PRODUCT DATA FOR POWER ACTUATED FASTENERS
PRODUCT DATA FOR CONCRETE EXPANSION ANCHORS

SD-2 REVIEWS BY THE ARCHITECT/ENGINEER SHALL BE FOR GENERAL CONFORMANCE TO THE PLANS AND SPECIFICATIONS ONLY. MODIFICATIONS, COMMENTS AND INFORMATION PROVIDED BY THE ARCHITECT/ENGINEER ON THE SHOP DRAWINGS DOES NOT RELIEVE THE CONTRACTOR FROM THE REQUIREMENTS OF THE PLANS AND SPECIFICATIONS.

SD-3 THE CONTRACTOR IS RESPONSIBLE FOR FIELD VERIFYING DIMENSIONS AT THE JOB SITE AND COORDINATING THEM WITH THE PLANS AND SPECIFICATIONS. ANY DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE ARCHITECT / ENGINEER.

SD-4 THE FABRICATION AND CONSTRUCTION PROCESS, MEANS AND METHODS OF CONSTRUCTION, AND COORDINATING ALL TRADES FOR PERFORMING THE WORK IN A SAFE AND SATISFACTORY METHOD SHALL REMAIN THE RESPONSIBILITY OF THE CONTRACTOR.

SD-5 REPRODUCTION OF CONSTRUCTION DOCUMENTS AS PART OF THE SHOP DRAWINGS IS PROHIBITED. THE SHOP DRAWINGS SHALL BE INDEPENDENTLY PRODUCED DRAWINGS BASED ON THE CONSTRUCTION DOCUMENTS. USE OF ELECTRONIC FILES PRODUCED BY STUBBS ENGINEERING, INC. TO GENERATE SHOP DRAWINGS IS PROHIBITED WITHOUT PRIOR WRITTEN APPROVAL FROM STUBBS ENGINEERING, INC. IF ELECTRONIC DRAWINGS PRODUCED BY THE STUBBS ENGINEERING, INC. ARE USED IN THE PRODUCTION OF THE SHOP DRAWINGS, ANY COMPANY LOGOS, TITLE BLOCKS AND SEALS SHALL BE REMOVED FROM THE SUBMITTAL.

SD-6 THE CONTRACTOR SHALL BE RESPONSIBLE FOR DELAYS DUE TO REJECTION OF INADEQUATE OR INCORRECT SHOP DRAWINGS.

SD-7 SHOP DRAWINGS SUBMITTED WITHOUT PRIOR REVIEW BY THE GENERAL CONTRACTOR SHALL NOT BE REVIEWED BY THE ENGINEER.

SD-8 REQUESTS FOR SUBSTITUTION SHALL BE CLEARLY SHOWN ON SHOP DRAWINGS. SUBSTITUTIONS SHALL NOT BE IMPLEMENTED UNLESS SPECIFICALLY APPROVED IN WRITING BY THE ARCHITECT/ENGINEER.

DRILLED PIERS

DP-1 DRILLED VERTICAL PIER SHAFTS TO DEPTH AND DIAMETER INDICATED. PIERS SHALL NOT BE OUT OF PLUMB BY MORE THAN 2% OF THE LENGTH. PIERS SHALL NOT BE OUT OF LOCATION BY MORE THAN 2" IN ANY DIRECTION.

DP-2 CASING OF PIERS MAY BE REQUIRED. IF CASING IS REQUIRED IT SHALL BE EITHER REMOVABLE OR PERMANENT CASING. PERMANENT CASING SHALL NOT EXTENT BELOW TOP OF BEARING STRATA.

DP-3 AT CONTRACTOR'S OPTION, BENTONITE OR POLYMER SLURRY MAY BE USED TO STABILIZE SHAFTS WHEN DRILLING. POLYMER SLURRY SHALL HAVE A MAXIMUM DENSITY 1FT FROM PIER BOTTOM OF 64 PCF AS TESTED BY API 13B, SECTION 1. BENTONITE SLURRY SHALL HAVE A MAXIMUM DENSITY OF 85 PCF AS TESTED BY ASTM D4380.

DP-4 PIER SHAFT SHALL BE CLEAN OF LOOSE MATERIAL AND WATER PRIOR TO PLACING CONCRETE. CONCRETE SHALL NOT BE PLACED MORE THAN 8 HOURS AFTER PIER SHAFT IS DRILLED. PIER SHAFTS SHALL NOT BE LEFT OPEN OVER NIGHT.

DP-5 REBAR SPACERS SHALL BE PLACED AT A MAXIMUM SPACING OF 36" AND ENSURE THAT REBAR CAGE IS LOCATED PROPERLY DURING CONCRETE PLACEMENT.

DP-6 PLACE CONCRETE IN A SINGLE POUR USING A TREMIE AS REQUIRED TO MAINTAIN PROPER CONCRETE SEGREGATION.

DP-7 TOPS OF PIERS SHALL BE SMOOTH AND ROUND. THE PIER SHALL NOT BE ALLOWED TO MUSHROOM AT THE TOP.

DP-8 PIER DESIGN IS BASED ON THE FOLLOWING DESIGN CRITERIA:
a.) ALLOWABLE END BEARING: 15,000 PSF
b.) ALLOWABLE SKIN FRICTION (COMPRESSION): 1,700 PSF
c.) ALLOWABLE SKIN FRICTION (TENSION): 1,190 PSF

DP-9 REINFORCING CAGE SHALL BE HELD SECURELY AWAY FROM EARTH AT SIDES AND BOTTOM BY SETS OF 3 SPACERS AT A MAXIMUM SPACING OF 8 ft. ALONG THE LENGTH OF THE CAGE AND 1'-0" FROM THE BOTTOM.

FOUNDATION

FND-1 THE CONTRACTOR SHALL REVIEW AND BECOME FAMILIAR WITH THE SOIL, WATER AND SITE CONDITIONS DESCRIBED IN THE SOILS REPORT PRIOR TO BIDDING THE PROJECT. SOILS BORINGS AND CONDITIONS DESCRIBED IN THE SOILS REPORT ARE FOR GENERAL INFORMATION PURPOSES ONLY. THE ACTUAL CONDITIONS MAY VARY AT THE SITE.

FND-2 ALL EARTHWORK AND SITE PREPARATION SHALL BE IN COMPLIANCE WITH THE GEOTECHNICAL REPORT PREPARED BY TERRACON CONSULTANTS INC., DATED APRIL 30, 2021. THE GEOTECHNICAL ENGINEER'S PROJECT NUMBER IS 94175276. ADDITIONAL INFORMATION IS CONTAINED IN THE GEOTECHNICAL REPORT.

FND-3 REMOVE ALL BRUSH, RUBBISH, AND VEGETATION MATERIAL FROM THE BUILDING PAD PRIOR TO EXCAVATION.

FND-4 NATIVE SOILS AT THE BOTTOM OF THE EXCAVATION SHALL BE SCARIFIED TO A DEPTH OF X INCHES. THE NATIVE SOILS SHALL BE COMPACTED TO A MINIMUM DRY DENSITY OF XX% PER THE STANDARD PROCTOR (ASTM D698) AT A MOISTURE CONTENT OF +/- X% OPTIMUM. WEAK OR COMPRESSIBLE NATIVE SOILS IDENTIFIED DURING EARTHWORK SHALL BE REMOVED AND REPLACED.

FND-5 STRUCTURAL SELECT FILL SHALL BE FREE OF ROCKS, ROOTS, VEGETABLE MATTER, CLAY CLUMPS OR ROCKS GREATER THAN 3 INCHES IN ANY DIMENSION. STRUCTURAL SELECT FILL SHALL MEET THE FOLLOWING REQUIREMENTS:
NO EXPANSIVE MATERIAL
MAXIMUM LIQUID LIMIT (ASTM D4318): 30
MAXIMUM PLASTIC LIMIT (ASTM D4318): 10
UNIFIED SOILS CLASSIFICATION SYSTEM: SP-SM, SM, SC, SC-SM, GC, GC-GM, & GP-GC
GRADATION (ASTM D422)

SIEVE SIZE	PERCENT PASSING
3-INCH	100%
1½-INCH	90-100%
NO. 4	25-55%
NO. 40	15-50%
NO. 200	15-45%

FND-6 PLACE ALL STRUCTURAL SELECT FILL IN X INCH MAXIMUM LOOSE LIFTS. MOISTEN TO A MOISTURE CONTENT OF +/- X% OPTIMUM MOISTURE CONTENT AND COMPACT TO A MINIMUM DENSITY OF XX% STANDARD PROCTOR (ASTM D698) MAXIMUM DRY DENSITY.

FND-7 ALL EARTHWORK SHALL BE INSPECTED BY A LICENSED GEOTECHNICAL ENGINEER TO ENSURE SPECIFICATIONS ARE MET, THERE IS A LOW SETTLEMENT OR HEAVE POTENTIAL AND THAT FILL IS PLACED WITH PROPER MOISTURE CONTENT. TESTING SHALL BE PERFORMED AT THE FOLLOWING MINIMUM RATES. THE GEOTECHNICAL ENGINEER MAY DETERMINE MORE STRINGENT TESTING IF REQUIRED.:
-- ONE MOISTURE-DENSITY CURVE, IN ACCORDANCE WITH ASTM D1557, FOR EACH TYPE OF STRUCTURAL SELECT FILL OR EACH SOURCE OF STRUCTURAL FILL USED FOR THE PROJECT.
-- ONE FIELD DENSITY TEST, IN ACCORDANCE WITH ASTM D1556, D2167 OR D2922, PER EACH 2,500 SQUARE FEET OF COMPACTED NATIVE SUBGRADE PRIOR TO PLACING STRUCTURAL SELECT FILL OR FLOOR SLAB. PROVIDE A MINIMUM OF THREE TESTS.
-- EACH HORIZONTAL LIFT OF STRUCTURAL SELECT FILL SHALL BE TESTED WITH ONE FIELD DENSITY TEST, IN ACCORDANCE WITH ASTM D1556, D2167 OR D2922, PER EACH 2,500 SQUARE FEET AND 100 FEET OF CONTINUOUS FOOTING WITH A MINIMUM OF THREE TESTS.

CONCRETE

CNC-1 ALL CONCRETE SHALL BE PROPORTIONED, CONSTRUCTED AND CONFORM TO THE SPECIFICATION OF ACI 301-16. CONCRETE DESIGN SHALL CONFORM TO ACI 318-14.

CNC-2 PORTLAND CEMENT SHALL CONFORM TO ASTM C-150, TYPE I OR II. CONCRETE IN CONTACT WITH SOIL SHALL BE TYPE II CEMENT.

CNC-3 FLY ASH SHALL NOT BE USED IN ARCHITECTURALLY EXPOSED CONCRETE, TILTWALLS OR SLABS ON GRADE. FLY ASH IS ALLOWED IN ALL OTHER NON-ARCHITECTURALLY EXPOSED CONCRETE, UP TO A MAXIMUM OF 20% OF THE CEMENT CONTENT. THE MIX DESIGN SHALL INDICATE THAT THE FLY ASH SHALL NOT ADVERSELY EFFECT THE PERFORMANCE OF OTHER PRODUCTS AND MATERIALS THAT WILL BE IN CONTACT WIT THE CONCRETE.

CNC-4 CONCRETE SHALL BE PROPORTIONED TO THE FOLLOWING REQUIREMENTS:

LOCATION	f'c AT 28 DAYS	MAX SIZE AGGREGATE	SLUMP	AIR CONTENT	CONCRETE TYPE	MAXIMUM WATER TO CEMENT RATIO
GRADE BEAMS & SLABS	4000 PSI	¾ - INCH	4 - 6 INCH	NONE	NORMAL WEIGHT	0.45
DRILLED PIERS	3000 PSI	1 - INCH	5 - 7 INCH	0-5%	NORMAL WEIGHT	0.55

CONCRETE SHALL BE PROPORTIONED TO EXCEED 75% OF THE 28-DAY STRENGTH IN 7 DAYS.

CNC-5 CONCRETE REINFORCING STEEL AND EMBEDS SHALL HAVE THE FOLLOWING PROPERTIES:

TYPE	DESIGNATION ON PLAN	ASTM	YIELD STRENGTH	NOTES
REBAR	#	A615	60 KSI	NOT WELDABLE

CNC-6 UNLESS OTHERWISE SHOWN THE CLEAR DISTANCE FOR THE FACE OF CONCRETE FORMS TO THE REINFORCING STEEL SHALL BE:

CONDITION	CLEAR DISTANCE	NOTES
CONCRETE CAST AGAINST EARTH OR WATER	3 - INCH	EXCLUDES SLABS ON GRADE
CONCRETE CAST TO FORMS EXPOSED TO EARTH, WATER OR WEATHER	2 - INCH	NO. 6 BAR AND LARGER
	1½ - INCH	NO. 5 BAR AND SMALLER
CONCRETE CAST TO FORMS NOT EXPOSED TO EARTH, WATER OR WEATHER	1 - INCH	SLABS AND JOISTS
	1½ - INCH	BEAMS, COLUMNS, & WALLS
SLABS ON GRADE	2 - INCH	FROM BOTTOM SURFACE
	1½ - INCH	FROM TROWLED SURFACE
	¾ - INCH	FROM SCREED SURFACE

CNC-7 REINFORCING DETAILING AND PLACEMENT SHALL BE IN COMPLIANCE WITH ACI 315-08.

CNC-8 ALL REINFORCING SHALL BE SPLICED IN ACCORDANCE WITH DETAIL 4/NC151 AND STANDARD HOOK SHALL BE PROVIDED PER DETAIL 3/NC151.

CNC-9 ALL REINFORCING STEEL IN SLABS SHALL BE CHAIRED AS REQUIRED TO PROVIDE REQUIRED COVER. CHAIRS SHALL BE DESIGNED TO SUPPORT REINFORCING ON SOIL. SLAB REINFORCING SHALL BE SUPPORTED ADEQUATELY TO PREVENT ACCIDENTAL DISPLACEMENT. CHAIRS USED FOR WELDED WIRE FABRIC SHALL BE SPECIFICALLY DESIGNED FOR APPLICATION WITH WELDED WIRE FABRIC.

CNC-10 SIZE AND LOCATION OF EQUIPMENT SUPPORTS AND EMBEDS SHALL BE COORDINATED WITH THE EQUIPMENT SUPPLIER AND SHALL BE IN ACCORDANCE WITH APPROVED SHOP DRAWINGS.

CNC-11 ALL CONCRETE SHALL BE CONSOLIDATED BY VIBRATORY MEANS. CONSOLIDATIONS SHALL BE OBSERVED BY INSPECTION AGENCY.

CNC-12 CONCRETE DIMENSIONS SHOWN ON DRAWINGS ARE ACTUAL DIMENSIONS NOT NOMINAL DIMENSIONS.

CNC-13 ALL CONTINUOUS REINFORCING IN FOOTINGS AND WALLS SHALL EITHER BE CONTINUOUS AROUND CORNERS OR HAVE BENT CORNER BARS OF THE SAME SIZE AND SPACING AS THE HORIZONTAL BARS.

CNC-14 FORM TIES SHALL BE EITHER OF THE THREADED OR SNAP OFF TYPE. NO EXPOSED METAL SHALL BE ALLOWED WITHIN ONE INCH OF THE SURFACE. ALL RECESSES SHALL BE POINTED WITH MORTAR.

CNC-15 ALL DOWELS, EMBEDS AND REINFORCING BARS SHALL BE SECURELY TIED PRIOR TO PLACING CONCRETE. INSTALLATION OF ITEMS INTO WET CONCRETE WILL NOT BE ALLOWED.

CNC-16 ALL EXPOSED CONCRETE CORNERS SHALL HAVE A ¾" CHAMFER.

CNC-17 CONCRETE SHALL NOT BE DROPPED VERTICALLY MORE THAN 5 FEET WITHOUT THE USE OF A TREMIE.

VOID FORMS

VF-1 VOID FORMS SHALL BE MOISTURE RESISTANT TREATED PAPER FACES, BIODEGRADABLE, STRUCTURALLY SUFFICIENT TO SUPPORT 450 POUNDS PER SQUARE FOOT.

VF-2 VOID FORMS SHALL BE STORED IN MANUFACTURES PACKAGING. ANY VOID FORMS DAMAGED BY MOISTURE PRIOR TO CONCRETE PLACEMENT SHALL BE REPLACED.

VF-3 PREFORMED CIRCULAR VOID FORMS SHALL BE PLACED AROUND PIERS.

VF-4 SOIL RETAINERS SHALL BE MANUFACTURED FROM HIGH DENSITY POLYETHYLENE PLASTIC OR OTHER PRODUCT APPROVED BY ENGINEER AND DESIGN TO WITHSTAND SOILS AND WATER PRESSURE WITHOUT DETERIORATION.

VF-5 VOID FORMS AND SOIL RETAINERS SHALL BE INSTALLED PER MANUFACTURES RECOMMENDATIONS.

QUALITY ASSURANCE PLAN

SPECIAL INSPECTION AND TESTING

1. STRUCTURAL INSPECTIONS SHALL BE PROVIDED IN ACCORDANCE WITH CHAPTER 17 OF THE 2015 IBC.
2. IT IS THE GENERAL CONTRACTORS RESPONSIBILITY TO SCHEDULE AND COORDINATE THE PERFORMANCE OF INSPECTIONS AND TESTING IN ACCORDANCE WITH THE SPECIFICATIONS, BUILDING CODE AND THE SPECIAL INSPECTION SCHEDULES.
3. SPECIAL INSPECTION AND TESTING SHALL BE PERFORMED BY A QUALIFIED PERSON OR AGENCY THAT IS APPROVED BY THE BUILDING OFFICIAL. INSPECTIONS PROVIDED BY LOCAL BUILDING OFFICIALS SHALL NOT BE CONSIDERED A SUBSTITUTION FOR SPECIAL INSPECTIONS OR TESTING REQUIREMENTS.
4. DUTIES AND RESPONSIBILITIES OF THE SPECIAL INSPECTOR:
   A. THE SPECIAL INSPECTOR SHALL INSPECT THE WORK AS REQUIRED BY THE SPECIAL INSPECTION SCHEDULES TO ENSURE THAT THE WORK IS IN ACCORDANCE WITH THE APPROVED PLANS AND SPECIFICATIONS.
   B. ALL DISCREPANCIES SHALL BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE GENERAL CONTRACTOR. THE GENERAL CONTRACTOR SHALL IMPLEMENT A TIMELY PLAN TO CORRECT ANY DISCREPANCIES. IN THE EVENT THE DISCREPANCIES ARE NOT CORRECTED, THE ENGINEER, ARCHITECT AND BUILDING OFFICIAL SHALL BE NOTIFIED.
   C. THE SPECIAL INSPECTOR SHALL PROVIDE INSPECTION REPORTS TO THE GENERAL CONTRACTOR, ARCHITECT, ENGINEER AND THE BUILDING OFFICIAL IN A TIMELY MANNER.

REQUIRED SPECIAL INSPECTION AND TESTS OF SOILS

VERIFICATION AND INSPECTION TASK	CONTINUOUS SPECIAL INSPECTION	PERIODIC SPECIAL INSPECTION	IBC REFERENCE
1. VERIFY MATERIALS BELOW SHALLOW FOUNDATION ARE ADEQUATE TO ACHIEVE THE DESIGN BEARING CAPACITY.		X	1705.6
2. VERIFY EXCAVATIONS ARE EXTENDED TO PROPER DEPTH AND HAVE REACHED PROPER MATERIAL.		X	1705.6
3. PERFORM CLASSIFICATION AND TESTING OF COMPACTED FILL MATERIALS.		X	1705.6
4. VERIFY USE OF PROPER MATERIALS, DENSITIES AND LIFT THICKNESS DURING PLACEMENT AND COMPACTION OF COMPACTED FILL.	X		1705.6
5. PRIOR TO PLACEMENT OF COMPACTED FILL, INSPECT SUBGRADE AND VERIFY THAT SITE HAS BEEN PREPARED PROPERLY.		X	1705.6

REQUIRED SPECIAL INSPECTION AND TESTS OF CAST-IN-PLACE DEEP FOUNDATION ELEMENTS

VERIFICATION AND INSPECTION TASK	CONTINUOUS DURING TASK LISTED	PERIODICALLY DURING TASK LISTED	IBC REFERENCE
1. INSPECT DRILLING OPERATIONS AND MAINTAIN COMPLETE AND ACCURATE RECORDS FOR EACH ELEMENT.	X		1705.8
2. VERIFY PLACEMENT LOCATIONS AND PLUMBNESS, CONFIRM ELEMENT DIAMETERS, BELL DIAMETERS (IF APPLICABLE), LENGTHS, EMBEDMENT INTO BEDROCK (IF APPLICABLE) AND ADEQUATE END-BEARING STRATA CAPACITY. RECORD CONCRETE OR GROUT VOLUMES.	X		1705.8
3. FOR CONCRETE ELEMENTS, PERFORM TEST AND ADDITIONAL SPECIAL INSPECTIONS IN ACCORDANCE WITH SECTION 1705.3.			1705.8

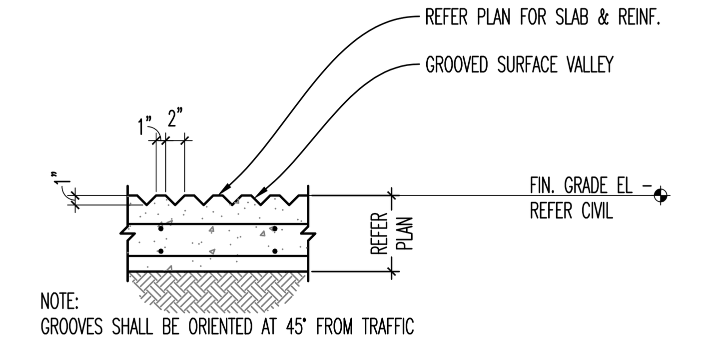
REQUIRED SPECIAL INSPECTION AND TESTS OF CONCRETE CONSTRUCTION

TYPE	CONTINUOUS SPECIAL INSPECTION	PERIODIC SPECIAL INSPECTION	IBC REFERENCE	REFERENCED STANDARD
1. INSPECT REINFORCEMENT, INCLUDING PRESTRESSING TENDONS AND PLACEMENT.		X	1910.4	ACI 318: CH. 20, 25.2, 25.3, 26.6.1-26.6.3
2. REINFORCING BAR WELDING: a. VERIFY WELDABILITY OF REINFORCING BARS OTHER THAN ASTM A706; b. INSPECT SINGLE-PASS FILLET WELDS, MAXIMUM 5/16"; AND c. INSPECT ALL OTHER WELDS.	 c. X	a. X b. X		AWS D1.4 ACI 318: 26.6.4
3. INSPECT ANCHORS CAST IN CONCRETE.		X		ACI 318: 17.8.2
4. INSPECT ANCHORS POST-INSTALLED IN HARDENED CONCRETE MEMBERS.[b] a. ADHESIVE ANCHORS INSTALLED IN HORIZONTALLY OR UPWARDLY INCLINED ORIENTATIONS TO RESIST SUSTAINED TENSION LOADS. b. MECHANICAL ANCHORS AND ADHESIVE ANCHORS NOT DEFINED IN 4.a.	a. X	b. X		a. ACI 318: 17.8.2.4 b. ACI 318: 17.8.2
5. VERIFYING USE OF REQUIRED DESIGN MIX.		X	1904.1, 1904.2, 1908.2, 1908.3	ACI 318: CH. 19, 26.4.3, 26.4.4
6. PRIOR TO CONCRETE PLACEMENT, FABRICATE SPECIMENS FOR STRENGTH TESTS, PERFORM SLUMP AND AIR CONTENT TESTS, AND DETERMINE THE TEMPERATURE OF THE CONCRETE.	X		1908.10	ASTM C172 ASTM C31 ACI 318: 26.4, 26.12
7. INSPECT CONCRETE AND SHOTCRETE PLACEMENT FOR PROPER APPLICATION TECHNIQUES.	X		1908.6, 1908.7, 1908.8	ACI 318: 26.5
8. VERIFY MAINTENANCE OF SPECIFIED CURING TEMPERATURE AND TECHNIQUES.		X	1908.9	ACI 318: 26.5.3-26.5.5
9. INSPECT PRESTRESSED CONCRETE FOR: a. APPLICATION OF PRESTRESSING FORCES; AND b. GROUTING OF BONDED PRSTRESSING TENDONS.	X X			ACI 318: 26.10
10. INSPECT ERECTION OF PRECAST CONCRETE MEMBERS.		X		ACI 318: CH. 26.8
11. VERIFY IN-SITU CONCRETE STRENGTH, PRIOR TO STRESSING OF TENDONS IN POST-TENSIONED CONCRETE AND PRIOR TO REMOVAL OF SHORES AND FORMS FROM BEAMS AND STRUCTURAL SLABS.		X		ACI 318: 26.11.2
12. INSPECT FORMWORK FOR SHAPE, LOCATION AND DIMENSIONS OF THE CONCRETE MEMBER BEING FORMED.		X		ACI 318: 26.11.1.2(b)

FOR SI: 1 INCH=25.4 mm
a. WHERE APPLICABLE, SEE ALSO SECTION 1705.12, SPECIAL INSPECTIONS FOE SEISMIC RESISTANCE.
b. SPECIFIC REQUIREMENTS FOR SPECIAL INSPECTION SHALL BE INCLUDED IN THE RESEARCH REPORT FOR THE ANCHOR ISSUED BY AN APPROVED SOURCE IN ACCORDANCE WITH 17.8.2 IN ACI 318, OR OTHER QUALIFICATION PROCEDURES. WHERE SPECIFIC REQUIREMENTS ARE NOT PROVIDED, SPECIAL INSPECTION REQUIREMENTS SHALL BE SPECIFIED BY THE REGISTERED DESIGN PROFESSIONAL AND SHALL BE APPROVED BY THE BUILDING OFFICIAL PRIOR TO THE COMMENCEMENT OF THE WORK.

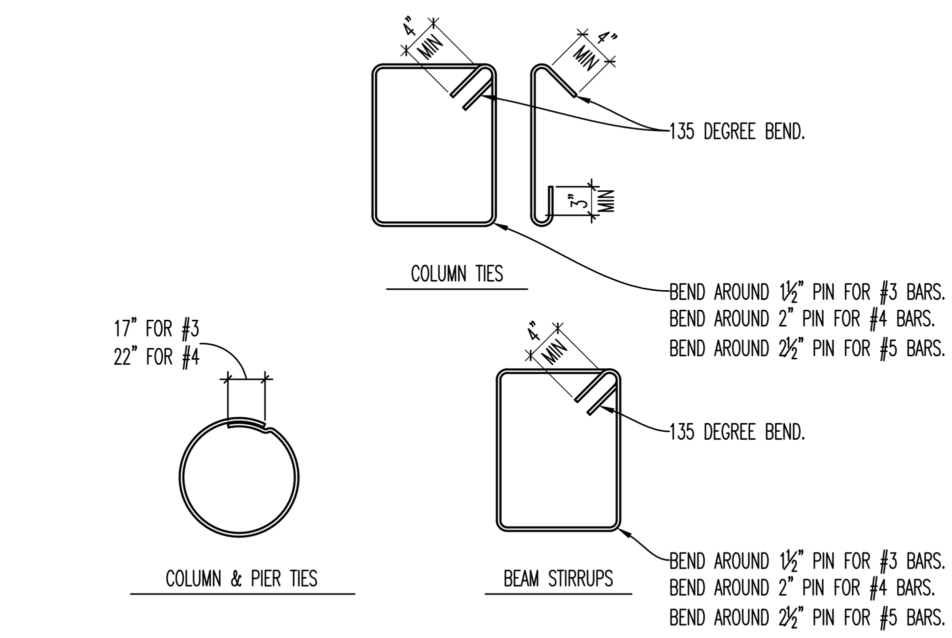
ABBREVIATIONS

&	-	AND
@	-	AT
°	-	DEGREE
ø	-	DIAMETER
ALT.	-	ALTERNATE
ALUM.	-	ALUMINUM
ANSI.	-	AMERICAN NATIONAL STANDARDS INSTITUTE
APPROX.	-	APPROXIMATE
ARCH.	-	ARCHITECTURAL
ASTM.	-	AMERICAN SOCIETY FOR TESTING AND MATERIALS
AWS	-	AMERICAN WELDING SOCIETY
B/F	-	BOTTOM OF FOOTING
BLDG.	-	BUILDING
BOT.	-	BOTTOM
BRG.	-	BEARING
CANT.	-	CANTILEVER
CEA	-	CONCRETE EXPANSION ANCHOR
CIP.	-	CAST IN PLACE
CJ	-	CONTROL JOINT
℄	-	CENTERLINE
CLR.	-	CLEARANCE
CMU	-	CONCRETE MASONRY UNIT
COL.	-	COLUMN
CONC.	-	CONCRETE
CONST.	-	CONSTRUCTION
CONT.	-	CONTINUOUS
CONX.	-	CONNECTION
COORD.	-	COORDINATE
DBL.	-	DOUBLE
DEMO.	-	DEMOLISH; DEMOLITION
DET.	-	DETAIL
DIM.	-	DIMENSION
DWG.	-	DRAWING
EA	-	EPOXY ANCHOR
EJ	-	EXPANSION JOINT
EL	-	ELEVATION
EXIST.	-	EXISTING
EQ.	-	EQUAL
FIN.	-	FINISH
FLR.	-	FLOOR.
F.V.	-	FIELD VERIFY
HAS	-	HEADED ANCHOR STUD
FT.	-	FEET
FTG.	-	FOOTING
ga.	-	GAGE
GALV.	-	GALVANIZED
GR.	-	GRADE
HORIZ.	-	HORIZONTAL
HSS	-	HOLLOW STEEL SECTION
lb.	-	POUNDS
LT.	-	LIGHT
LLH	-	LONG LEG HORIZONTAL
LLV	-	LONG LEG VERTICAL
JST.	-	JOIST
MAX.	-	MAXIMUM
MCJ	-	MASONRY CONTROL JOINT
MFG.	-	MANUFACTURE
MIN.	-	MINIMUM
NTS	-	NOT TO SCALE
OPP.	-	OPPOSITE
PCP.	-	PRECAST CONCRETE PANEL
PEN.	-	PENETRATION
℘	-	PLATE
PREFAB.	-	PREFABRICATED
REFER	-	REFERENCE
REINF.	-	REINFORCE, REINFORCEMENT
SCH.	-	SCHEDULE
SIM.	-	SIMILAR
SPEC.	-	SPECIFICATION
SQ.	-	SQUARE
STD.	-	STANDARD
STRL.	-	STRUCTURAL
TOS	-	TOP OF STEEL
TOW	-	TOP OF WALL
TYP.	-	TYPICAL
VERT.	-	VERTICAL
WWF	-	WELDED WIRE FABRIC



1 TYPICAL BOAT RAMP SURFACE DETAIL

SCALE: 3/4"=1'-0"



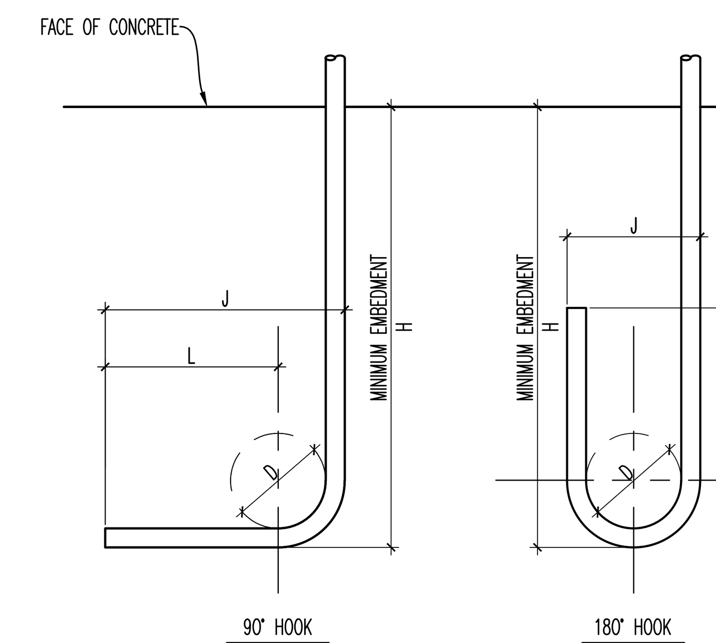
2 TYPICAL CONCRETE REINFORCING BAR DETAILS

SCALE: 3/4"=1'-0"

REBAR STANDARD HOOKS

REBAR SIZE	D (IN.)	90° HOOK J (IN.)	90° HOOK L (IN.)	90° HOOK H (IN.)		180° HOOK J (IN.)	180° HOOK L (IN.)	180° HOOK H (IN.)	
#3	2 ¼	6	4 ½	F'c = 3000PSI	9	3	1 ½	F'c = 3000PSI	6
				F'c = 4000PSI	7			F'c = 4000PSI	6
#4	3	8	6	F'c = 3000PSI	11	4	2	F'c = 3000PSI	7
				F'c = 4000PSI	10			F'c = 4000PSI	7
#5	3 ¾	10	7 ½	F'c = 3000PSI	14	5	2 ½	F'c = 3000PSI	7
				F'c = 4000PSI	12			F'c = 4000PSI	7
#6	4 ½	12	9	F'c = 3000PSI	17	6	3	F'c = 3000PSI	8
				F'c = 4000PSI	15			F'c = 4000PSI	8
#7	5 ¼	14	10 ½	F'c = 3000PSI	19	7	3 ½	F'c = 3000PSI	9
				F'c = 4000PSI	17			F'c = 4000PSI	9
#8	6	16	12	F'c = 3000PSI	22	8	4	F'c = 3000PSI	10
				F'c = 4000PSI	19			F'c = 4000PSI	10
#9	9 ½	19	13 ½	F'c = 3000PSI	25	11 ¾	4 ½	F'c = 3000PSI	12
				F'c = 4000PSI	22			F'c = 4000PSI	12
#10	10 ¾	22	15 ¼	F'c = 3000PSI	28	13 ¼	5 ¼	F'c = 3000PSI	14
				F'c = 4000PSI	24			F'c = 4000PSI	14

NOTES:
1. THE HOOK DIMENSIONS GIVEN SHALL BE USED FOR BEAMS, JOISTS, COLUMNS, WALLS, SLABS AND FOOTINGS.
2. HOOK SHALL BE ROTATED TO FIT IN SPACE AND MAINTAIN ADEQUATE COVER. DO NOT CUT HOOK WITHOUT WRITTEN PERMISSION FROM THE ENGINEER.

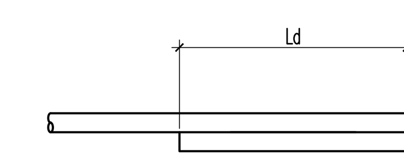


3 REBAR STANDARD HOOKS

SCALE: NTS

CONCRETE REINFORCING SPLICE SCHEDULE

F'c (PSI)	SPLICE TYPE	BAR SIZE #3	#4	#5	#6	#7	#8	#9	#10
3000	TOP BARS	28	37	47	56	81	93	105	118
	OTHER BARS	22	29	36	43	63	72	81	91
4000	TOP BARS	24	32	40	48	70	80	91	102
	OTHER BARS	19	25	31	37	54	62	70	79
5000	TOP BARS	22	29	36	43	63	72	81	91
	OTHER BARS	17	22	28	33	49	55	63	70
6000	TOP BARS	20	26	33	40	58	66	74	83
	OTHER BARS	15	20	25	31	44	51	57	64



NOTES:
1. ALL REBAR SPLICE LENGTHS (Ld) PROVIDED ARE IN INCHES.
2. TOP BARS ARE DEFINED AS HORIZONTAL REINFORCEMENT PLACED SO THAT MORE THAN 12 INCHES OF CONCRETE IS CAST IN THE MEMBER BELOW THE BAR.
3. THE SPLICE LENGTHS GIVEN SHALL BE USED FOR BEAMS, JOISTS, COLUMNS, WALLS, SLABS AND FOOTINGS.
4. WHEN THE CLEAR SPACING BETWEEN BARS IS LESS THAN 2 BAR DIAMETERS AND/OR THE CLEAR COVER IS LESS THAN 1 BAR DIAMETER, MULTIPLY THE SPLICE LENGTH IN THE TABLE BY 1.50.
5. WHEN SPLICING BARS OF DIFFERENT SIZE, USE THE SPLICE LENGTH OF THE LARGER BAR.

4 CONCRETE REINFORCING SPLICE SCHEDULE

SCALE: NTS

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92018
LICENSED PROFESSIONAL ENGINEER
5/5/21

STUBBS ENGINEERING, INC.
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KENNEDALE, TX 76060
PH: (817) 402-4590
TBPE FIRM NO.: F-12826

TEXAS PARKS & WILDLIFE

Pacheco Koch

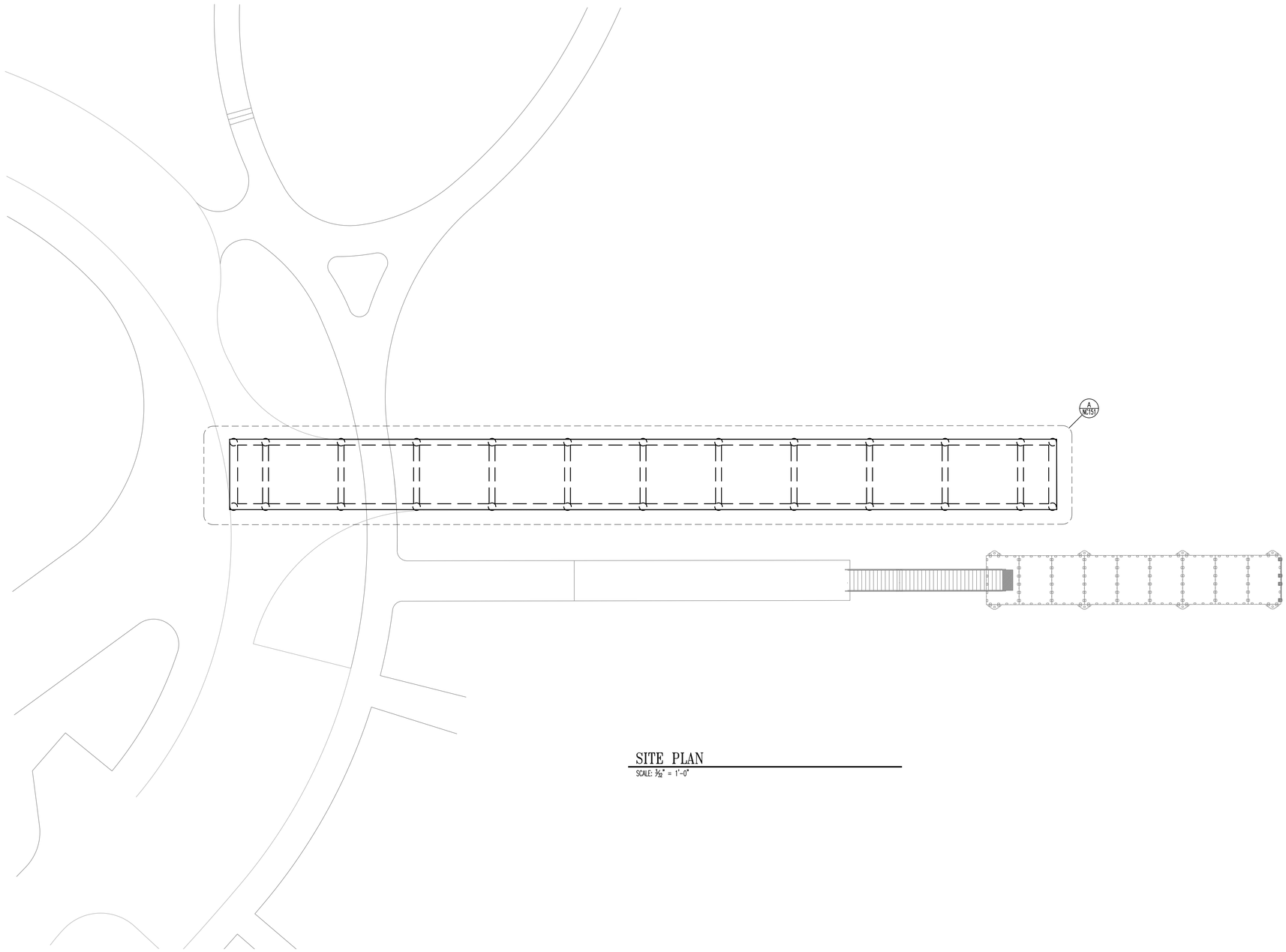
PALO PINTO MOUNTAINS STATE PARK
PARK FACILITIES
TPWD PROJECT NO. 118271

DATE: 2021/05/05
DESIGNED BY: CO
DRAWN BY: BD
REVIEWED BY: MAS

REV DESC DATE

SHEET TITLE
STRUCUTRAL NOTES & DETAILS

SHEET NUMBER
NC151



SITE PLAN

SCALE: 3/32" = 1'-0"

TEXAS PARKS & WILDLIFE

ISSUED FOR PRELIMINARY PRICING PURPOSES ONLY
(SUBJECT TO REVISION PRIOR TO CONSTRUCTION)

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TX REG. SURVEYING FIRM LS-10008001

PALO PINTO MOUNTAINS STATE PARK

PARK FACILITIES

TPWD PROJECT NO. 118271

DATE: 2021/05/05
DESIGNED BY: C0
DRAWN BY: BD
REVIEWED BY: MAS

REV DESC DATE

SHEET TITLE

SITE PLAN

SHEET NUMBER

NC152

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PH: (817) 402-4590
TBPE FIRM NO.: F-12826

MICHAEL A. STUBBS
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LICENSED
PROFESSIONAL ENGINEER
5/5/21

PLAN NOTES

ALL DIMENSIONS ARE TO FACE OF CONCRETE UNLESS NOTED OTHERWISE.

DIMENSIONS PROVIDED ARE IN PLANE OF SLOPE.

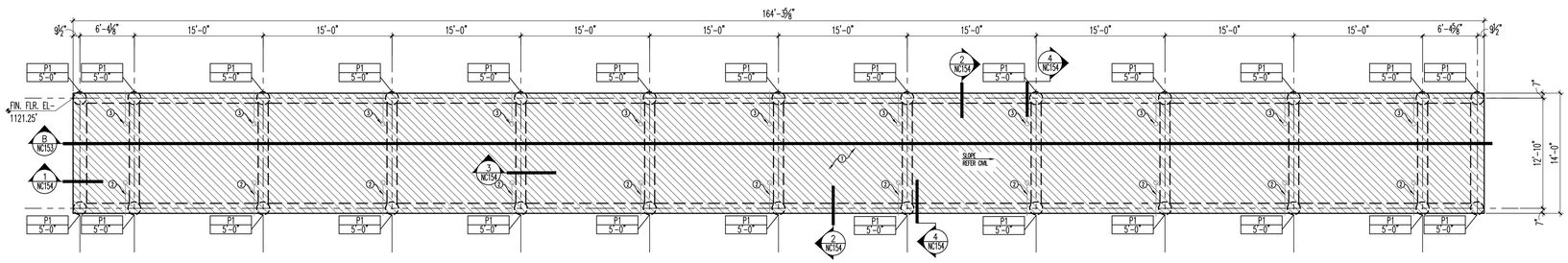
○ KEY NOTES

1. 8" CONCRETE SLAB W/ # 5 @ 12" O.C. EACH WAY TOP AND BOTTOM OVER 6" VOID FORM AND PREPARED SUBGRADE. REFERENCE STRUCTURAL NOTES.
2. HORIZONTAL DRAIN – 3"Ø SCHEDULE 40, PVC DRAIN PIPE WITH 1/4"Ø PERFORATIONS AT EACH END. WRAP EACH END W/ 316 STAINLESS STEEL MESH. 1/4"x1/4" MAXIMUM OPENING SIZE
3. VERTICAL DRAIN – 3"Ø SCHEDULE 40, PVC DRAIN PIPE WITH 1/4"Ø PERFORATIONS AT EACH END. WRAP EACH END W/ GEOTEXTILE

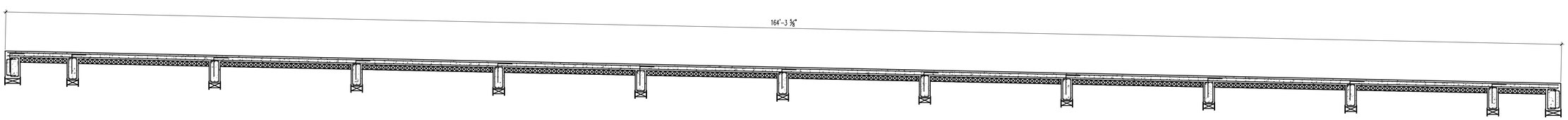
PIER FOUNDATION CALLOUTS

PXX – PIER MARK
XX'-XX" – EMBEDMENT DEPTH

REFERENCE PIER ELEV. DETAIL 8/NC154



A FOUNDATION PLAN
SCALE: 1/4" = 1'-0"



B CROSS SECTION
SCALE: 3/16" = 1'-0"

TEXAS PARKS & WILDLIFE

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PALO PINTO MOUNTAINS STATE PARK

PARK FACILITIES

TPWD PROJECT NO. 118271

DATE: 2021/05/05
DESIGNED BY: CO
DRAWN BY: BD
REVIEWED BY: MAS

REV	DESC	DATE

SHEET TITLE
RAMP FOUNDATION PLAN

SHEET NUMBER
NC153

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5/5/21

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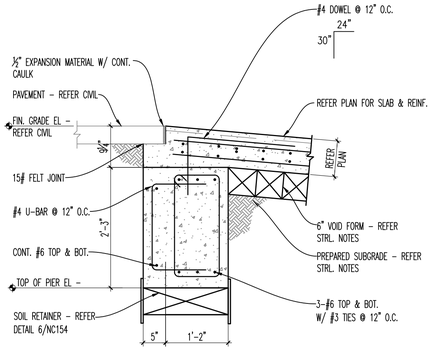

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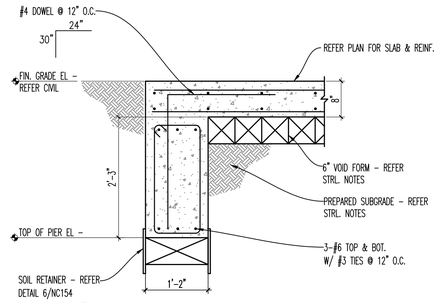
SCALE: 3/4"=1'-0"



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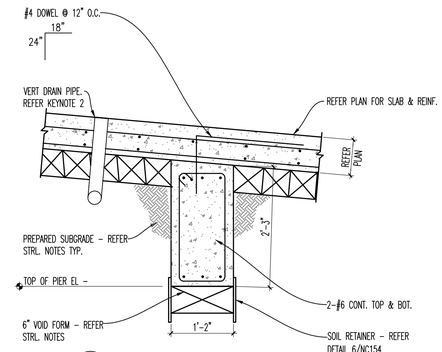
SCALE: 3/4"=1'-0"



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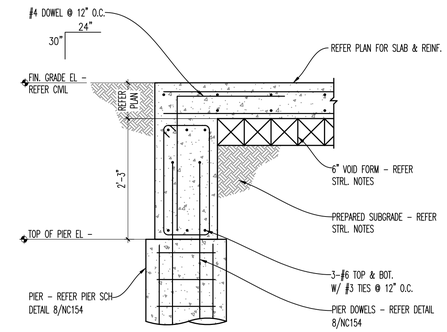

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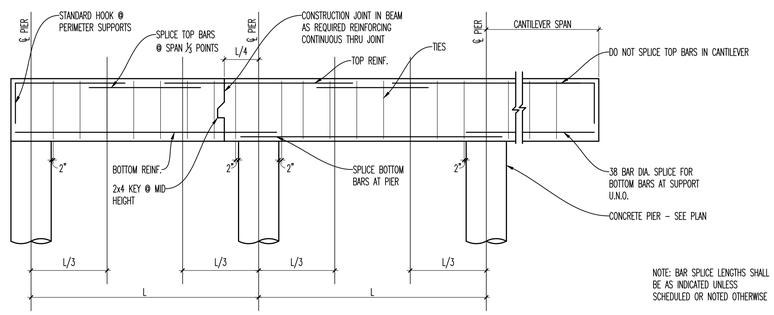
SCALE: 3/4"=1'-0"

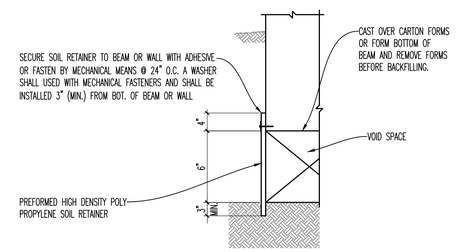


NOTE: BAR SPLICE LENGTHS SHALL BE AS INDICATED UNLESS SCHEDULED OR NOTED OTHERWISE

5

TYPICAL GRADE BEAM REINFORCING

SCALE: NTS



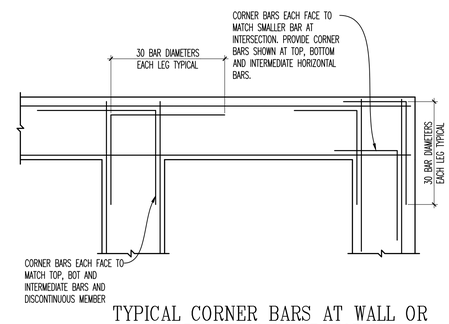
NOTES:

1. FORM ALL SIDES OF ALL BELOW GRADE BEAMS, WALLS, PILASTERS, AND PIER CAPS, EARTH FORMING IS NOT PERMITTED.
2. PLACE SOILS RETAINERS AT SIDES OF VOID SPACE UNDER ALL STRUCTURAL CONCRETE PIER CAPS, PILASTERS, GRADE BEAMS, AND WALLS BELOW GRADE.
3. INSTALL SOIL RETAINERS IN STRICT ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS AND AS FOLLOWS:
4. PLACE BACKFILL AS SPECIFIED AFTER COMPLETION OF SOIL RETAINER INSTALLATION. TAKE NECESSARY PRECAUTIONS TO PROTECT SOIL RETAINERS FROM DAMAGE FROM COMPACTION EQUIPMENT.
5. STORE RETAINERS FLAT AND PROTECT FROM DIRECT SUNLIGHT TO AVOID WARPAGE.

6

TYPICAL SOIL RETAINER DETAIL

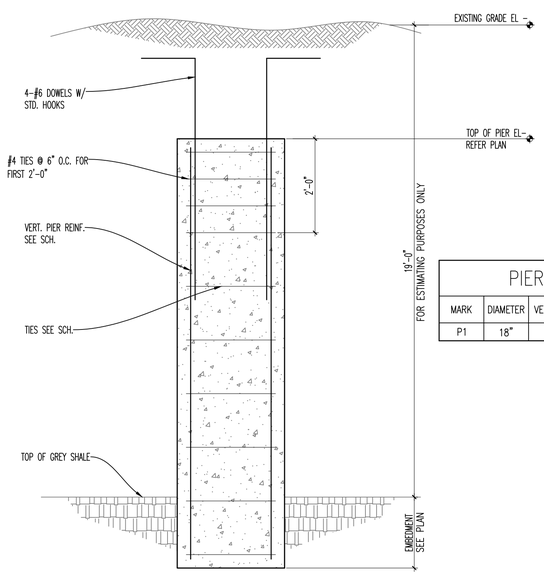
SCALE: NTS



7

TYPICAL CORNER BARS AT WALL OR GRADE BEAM INTERSECTION

SCALE: NTS



PIER SCHEDULE			
MARK	DIAMETER	VERT. REINFORCING	TIES
P1	18"	4–#6	#3 @ 12" O.C.

8

TYPICAL PIER ELEVATION

SCALE: NTS

TEXAS PARKS & WILDLIFE

THESE DOCUMENTS ARE PREPARED BY THE ENGINEER WITH THE INTENT OF ACCURACY AT THE TIME OF PREPARATION. THE ENGINEER DOES NOT ASSUME RESPONSIBILITY FOR ALTERATIONS OR DEGRADATION BY THE ELEMENTS OF THE DOCUMENTS AFTER THEY HAVE BEEN RELEASED OR DISTRIBUTED BY THE ENGINEER TO OTHERS. THE ENGINEER DOES NOT ASSUME RESPONSIBILITY FOR ANY DOCUMENTS NOT SEALED BY THE ENGINEER. THE PLANS AND THE PROPERTY, FOR REVISION PRIOR TO ANY CONSTRUCTION.

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TX REG. SURVEYING FIRM LS-10030600

PALO PINTO MOUNTAINS STATE PARK

PARK FACILITIES

TPWD PROJECT NO. 118271

DATE: 2021/05/05
DESIGNED BY: CO
DRAWN BY: BD
REVIEWED BY: MAS

REV	DESC	DATE

SHEET TITLE

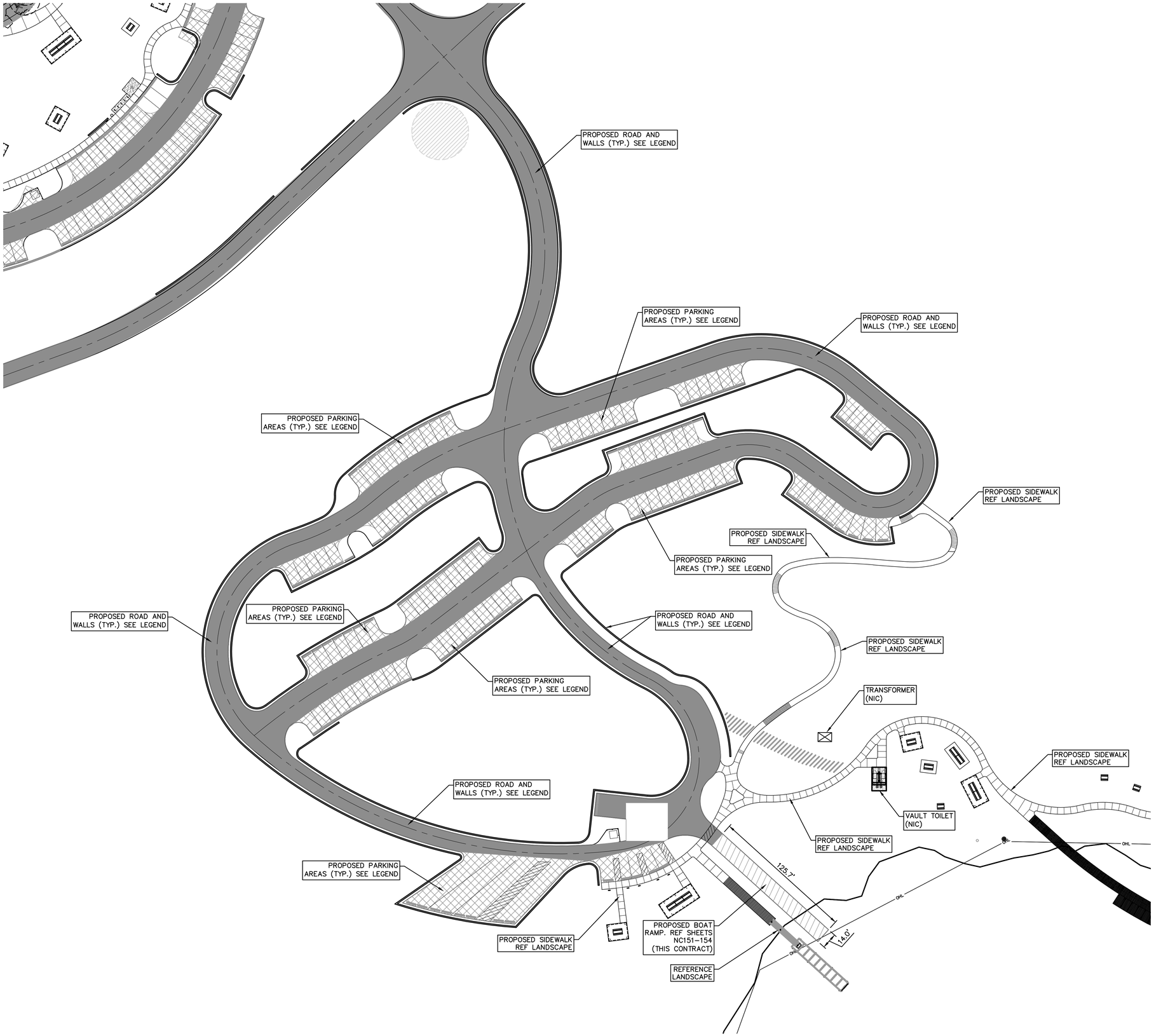
FOUNDATION DETAILS

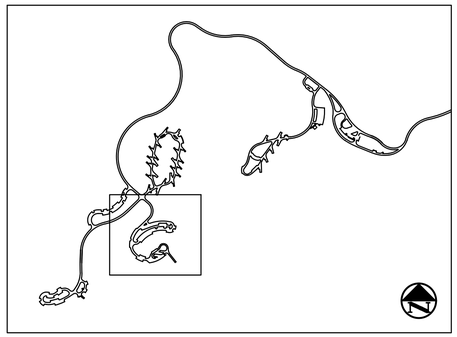
SHEET NUMBER

NC154

MICHAEL A. STUBBS 92018 LICENSED PROFESSIONAL ENGINEER 2/5/21

STUBBS ENGINEERING, INC.
1150 E. KENNEDALE PKWY.
KENNEDALE, TX 76060
PH: (817) 402-4590
TBPE FIRM NO.: F-12826





KEY MAP
N.T.S.

0 20 40 80 120
GRAPHIC SCALE IN FEET

LEGEND

BL	BOLLARD
EM	ELECTRIC METER
PP	POWER POLE
LS	LIGHT STANDARD
WM	WATER METER
WV	WATER VALVE
ICV	IRRIGATION CONTROL VALVE
FH	FIRE HYDRANT
CO	CLEANOUT
MH	MANHOLE
TSC	TRAFFIC SIGNAL CONTROL
TSP	TRAFFIC SIGNAL POLE
TELE	TELEPHONE BOX
FL	FLOOD LIGHT
FP	FLAG POLE
SIGN	TRAFFIC SIGN
IRS (C.M.)	1/2–INCH IRON ROD W/"PACHECO KOCH" CAP SET CONTROLLING MONUMENT
	PROPERTY LINE
X	FENCE
	PARKING AREAS (REFERENCE TxDOT ROAD PACKAGE FOR PAVING SECTION. NOT IN CONTRACT)
	TxDOT ROAD PACKAGE (NOT IN CONTRACT)
	BOAT RAMP (SEE SHEETS NC151–154)

TEXAS PARKS & WILDLIFE

PALO PINTO MOUNTAIN STATE PARK
SITE DEVELOPMENT
TPWD PROJECT NO. 118271

DATE: 2021/03/29
DESIGNED BY: RR
DRAWN BY: PAC
REVIEWED BY: CAA

REV DESC DATE

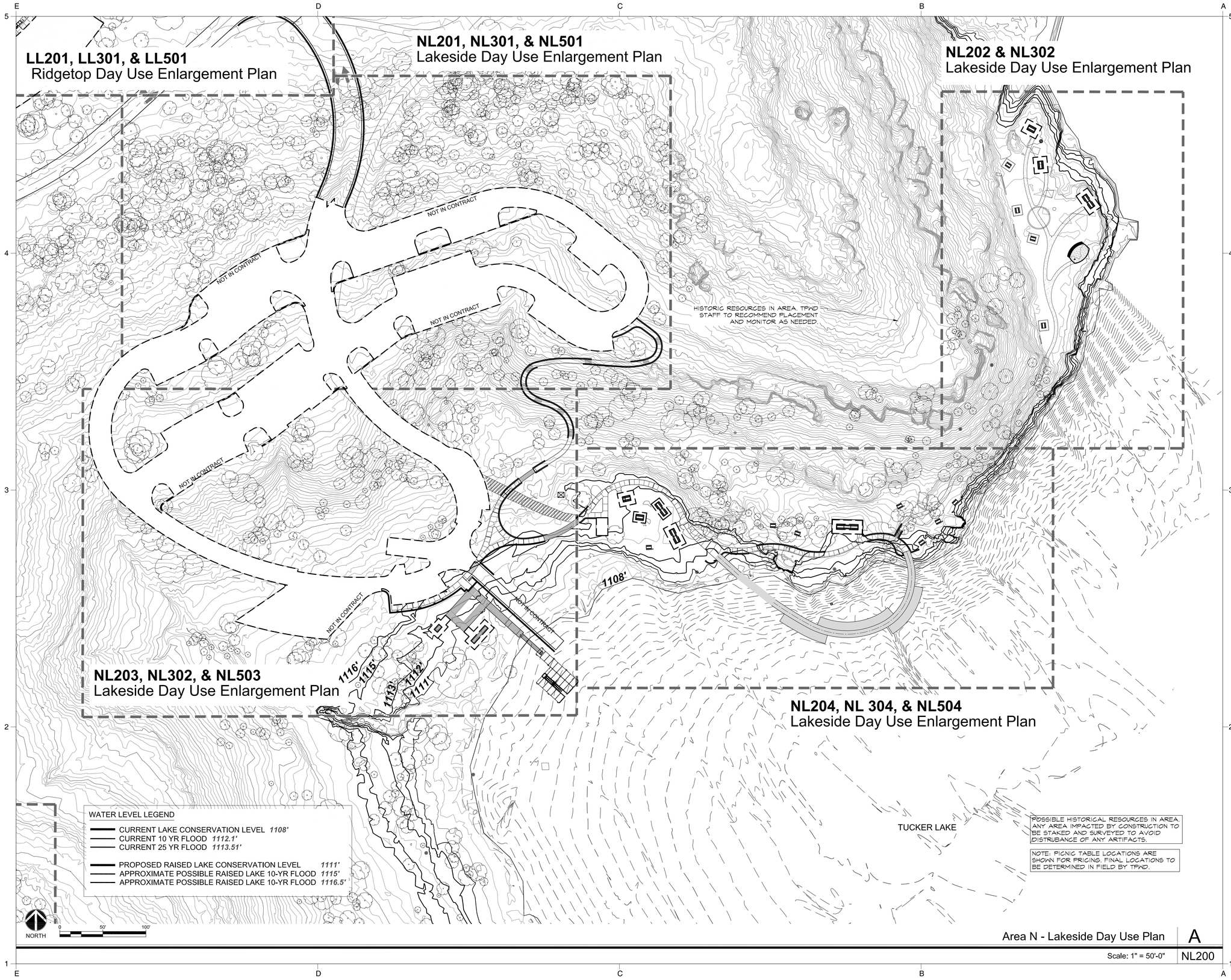
SHEET TITLE
PAVING PLAN

SHEET NUMBER
1
NC161

STATE OF TEXAS
RONALD RAMIREZ
81821
LICENSED
PROFESSIONAL ENGINEER

THE SEAL APPEARING ON THIS DOCUMENT WAS AUTHORIZED BY RONALD RAMIREZ, P.E. 81821 ON 03/29/2021. ALTERATION OF A SEALED DOCUMENT WITHOUT PROPER NOTIFICATION TO THE RESPONSIBLE ENGINEER IS AN OFFENSE UNDER THE TEXAS ENGINEERING PRACTICE ACT.

ACASTILLO
4/16/2021 9:48 AM
M:\DWG-38\3885-16.491\DWG\CIVIL C3D 2015\AREA N\3885-16.491PVMT_AREA N.DWG



Area N - Lakeside Day Use Plan | A

Scale: 1" = 50'-0" | NL200

TEXAS PARKS & WILDLIFE

studioOutside
824 Exposition Avenue, Ste. 5
Dallas, Texas 75226
o214.954.7160 f214.954.7162

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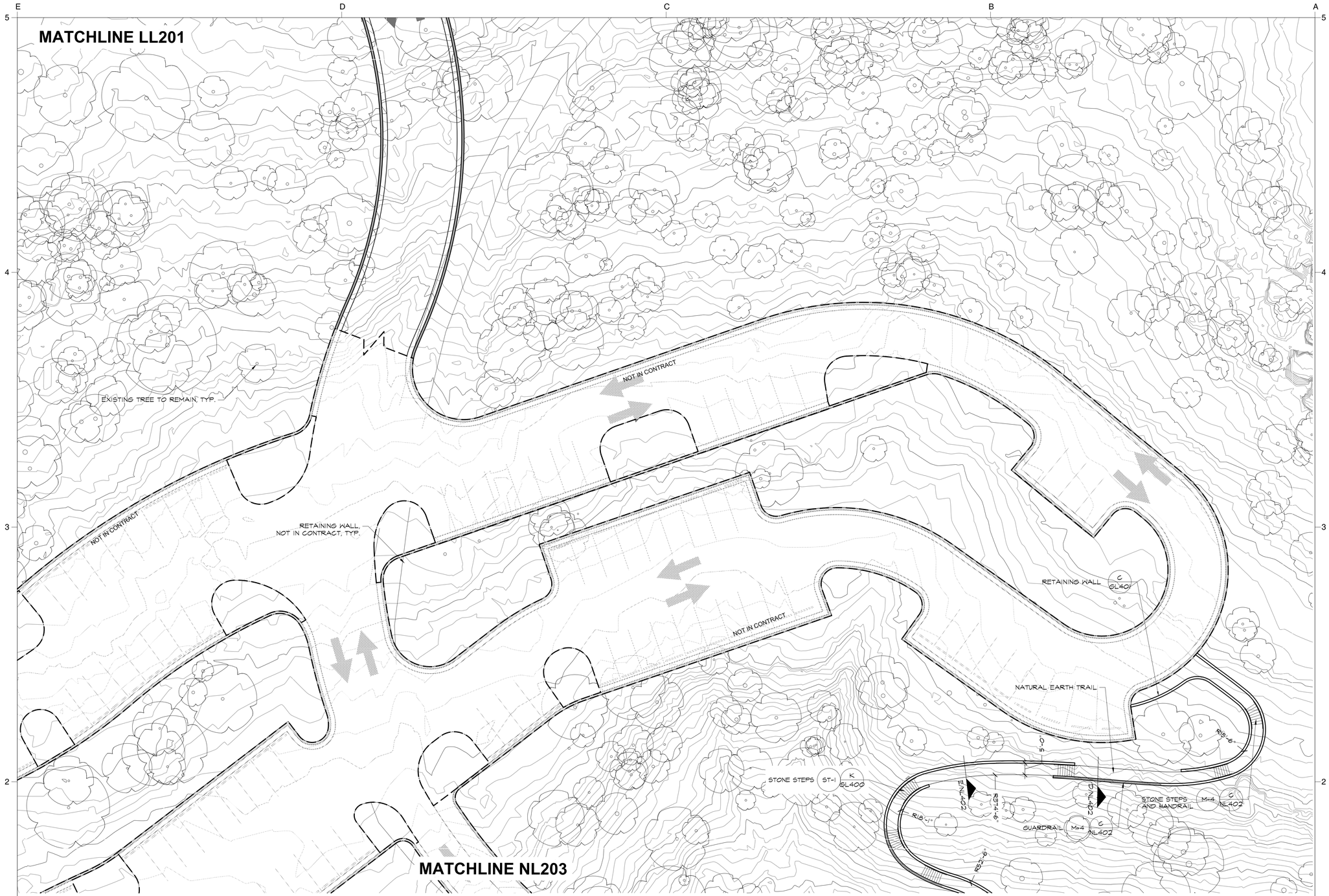
PALO PINTO MOUNTAINS STATE PARK
SITE DEVELOPMENT
TPWD PROJECT NO. 118271

DATE: 2021/03/29
DESIGNED BY: AD/BH
DRAWN BY: JT/RO/AA
REVIEWED BY: BH

REV DESC DATE

SHEET TITLE
AREA N - LAKESIDE DAY USE PLAN

SHEET NUMBER
1
NL200



NORTH

0 20' 40'

Area N - Lakeside Day Use Enlargement Hardscape Plan | A

Scale: 1" = 20'-0" | NL201

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PALO PINTO MOUNTAINS STATE PARK
SITE DEVELOPMENT
TPWD PROJECT NO. 118271

DATE: 2021/03/29
DESIGNED BY: AD/BH
DRAWN BY: JT/RO/AA
REVIEWED BY: BH

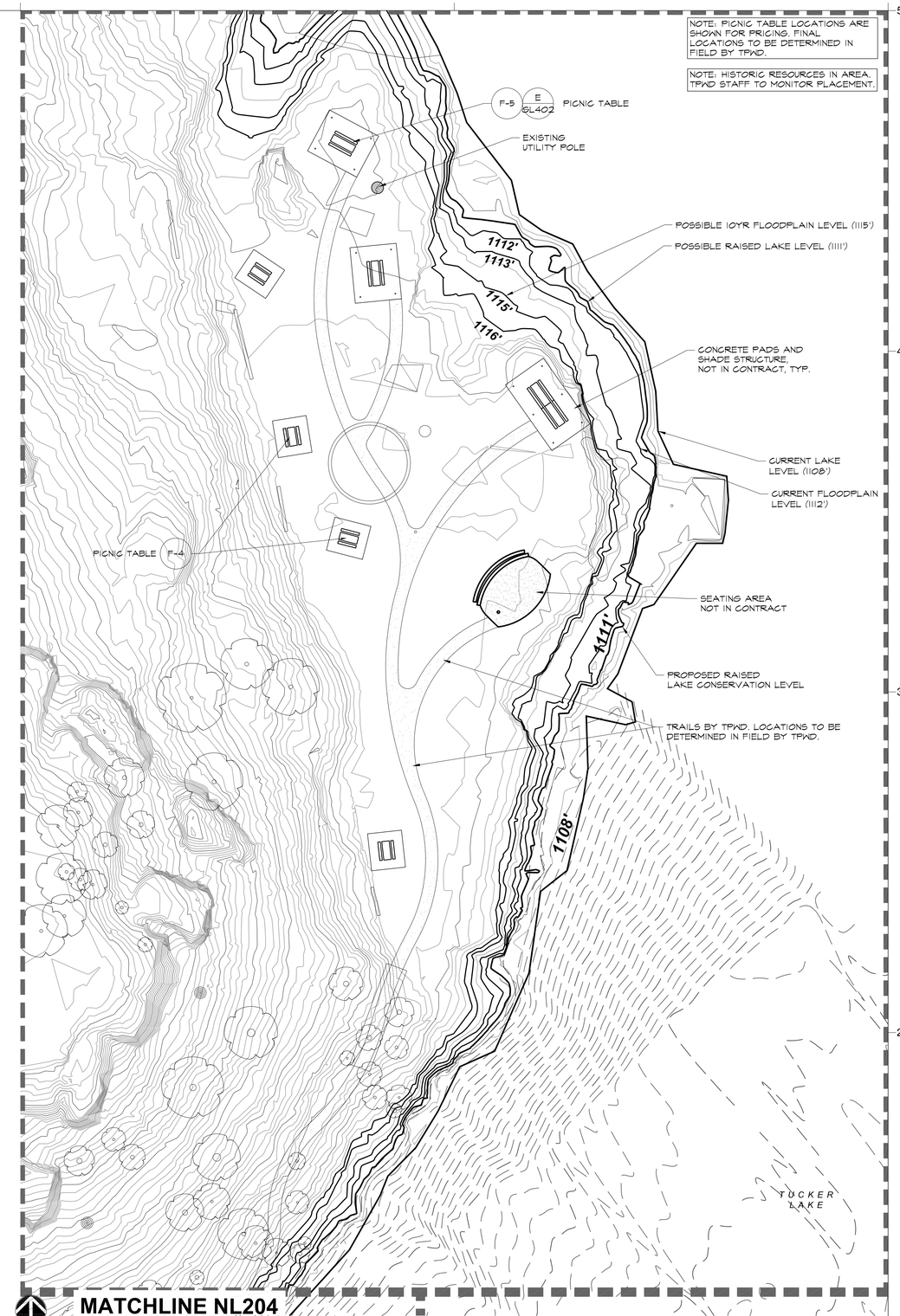
REV	DESC	DATE

SHEET TITLE

AREA N - LAKESIDE DAY USE ENLARGEMENT HARDSCAPE PLAN

SHEET NUMBER

1
NL201



WATER LEVEL LEGEND

- CURRENT LAKE CONSERVATION LEVEL *1108'*
- CURRENT 10 YR FLOOD *1112.1'*
- CURRENT 25 YR FLOOD *1113.51'*
- PROPOSED RAISED LAKE CONSERVATION LEVEL *1111'*
- APPROXIMATE POSSIBLE RAISED LAKE 10-YR FLOOD *1115'*
- APPROXIMATE POSSIBLE RAISED LAKE 10-YR FLOOD *1116.5'*

Area N - Lakeside Day Use Enlargement Hardscape Plan | A

Scale: 1" = 20'-0" | NL202

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PALO PINTO MOUNTAINS STATE PARK
SITE DEVELOPMENT
TPWD PROJECT NO. 118271

DATE: 2021/03/29
DESIGNED BY: AD/BH
DRAWN BY: JT/RO/AA
REVIEWED BY: BH

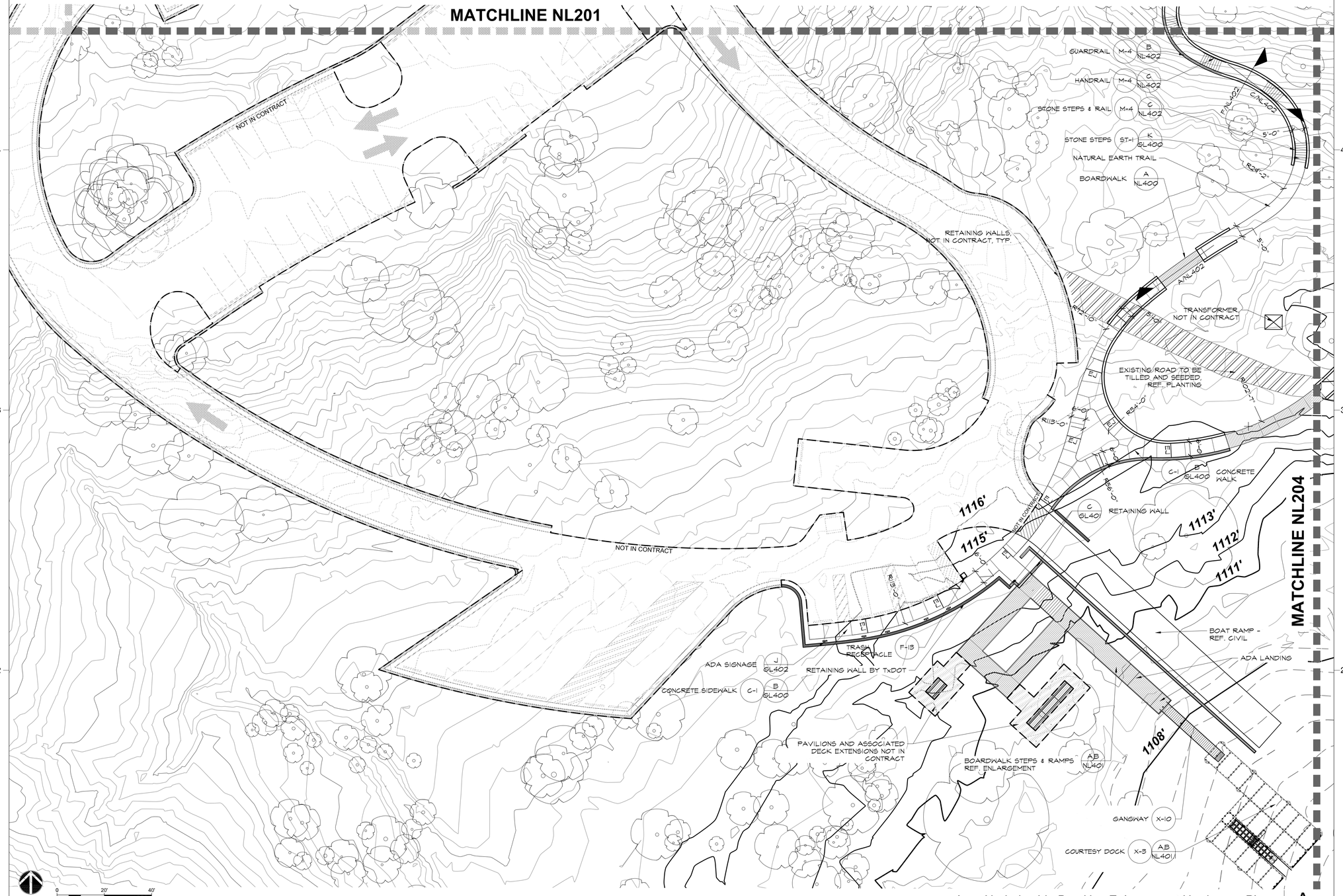
REV DESC DATE

SHEET TITLE
AREA N - LAKESIDE DAY USE ENLARGEMENT HARDSCAPE PLAN

SHEET NUMBER
1
NL202

WATER LEVEL LEGEND

- CURRENT LAKE CONSERVATION LEVEL *1108'*
- CURRENT 10 YR FLOOD *1112.1'*
- CURRENT 25 YR FLOOD *1113.51'*
- PROPOSED RAISED LAKE CONSERVATION LEVEL *1111'*
- APPROXIMATE POSSIBLE RAISED LAKE 10-YR FLOOD *1115'*
- APPROXIMATE POSSIBLE RAISED LAKE 25-YR FLOOD *1116.5'*



Area N - Lakeside Day Use Enlargement Hardscape Plan A

Scale: 1" = 20'-0" NL203

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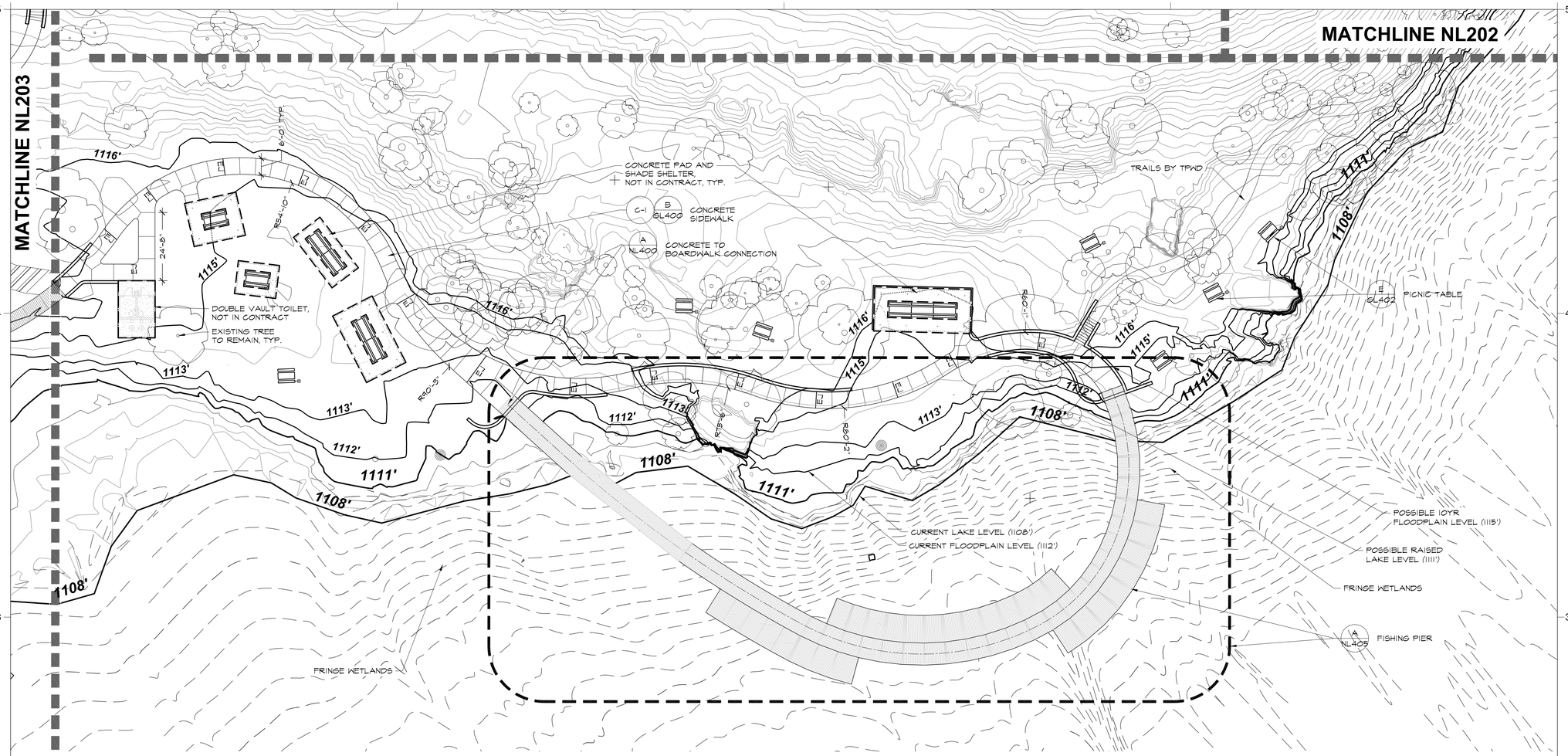
PALO PINTO MOUNTAINS STATE PARK
SITE DEVELOPMENT
TPWD PROJECT NO. 118271

DATE: 2021/03/29
DESIGNED BY: AD/BH
DRAWN BY: JT/RO/AA
REVIEWED BY: BH

REV	DESC	DATE

SHEET TITLE
AREA N - LAKESIDE DAY USE ENLARGEMENT HARDSCAPE PLAN

SHEET NUMBER
1
NL203



WATER LEVEL LEGEND

- CURRENT LAKE CONSERVATION LEVEL *1108'*
- CURRENT 10 YR FLOOD *1112.1'*
- CURRENT 25 YR FLOOD *1113.51'*
- PROPOSED RAISED LAKE CONSERVATION LEVEL *1111'*
- APPROXIMATE POSSIBLE RAISED LAKE 10-YR FLOOD *1115'*
- APPROXIMATE POSSIBLE RAISED LAKE 25-YR FLOOD *1116.5'*

NOTE: PICNIC TABLE LOCATIONS ARE SHOWN FOR PRICING. FINAL LOCATIONS TO BE DETERMINED IN FIELD BY TPWD.

NORTH

0 20' 40'

Area N - Lakeside Day Use Enlargement Hardscape Plan | A

Scale: 1" = 20'-0" | NL204

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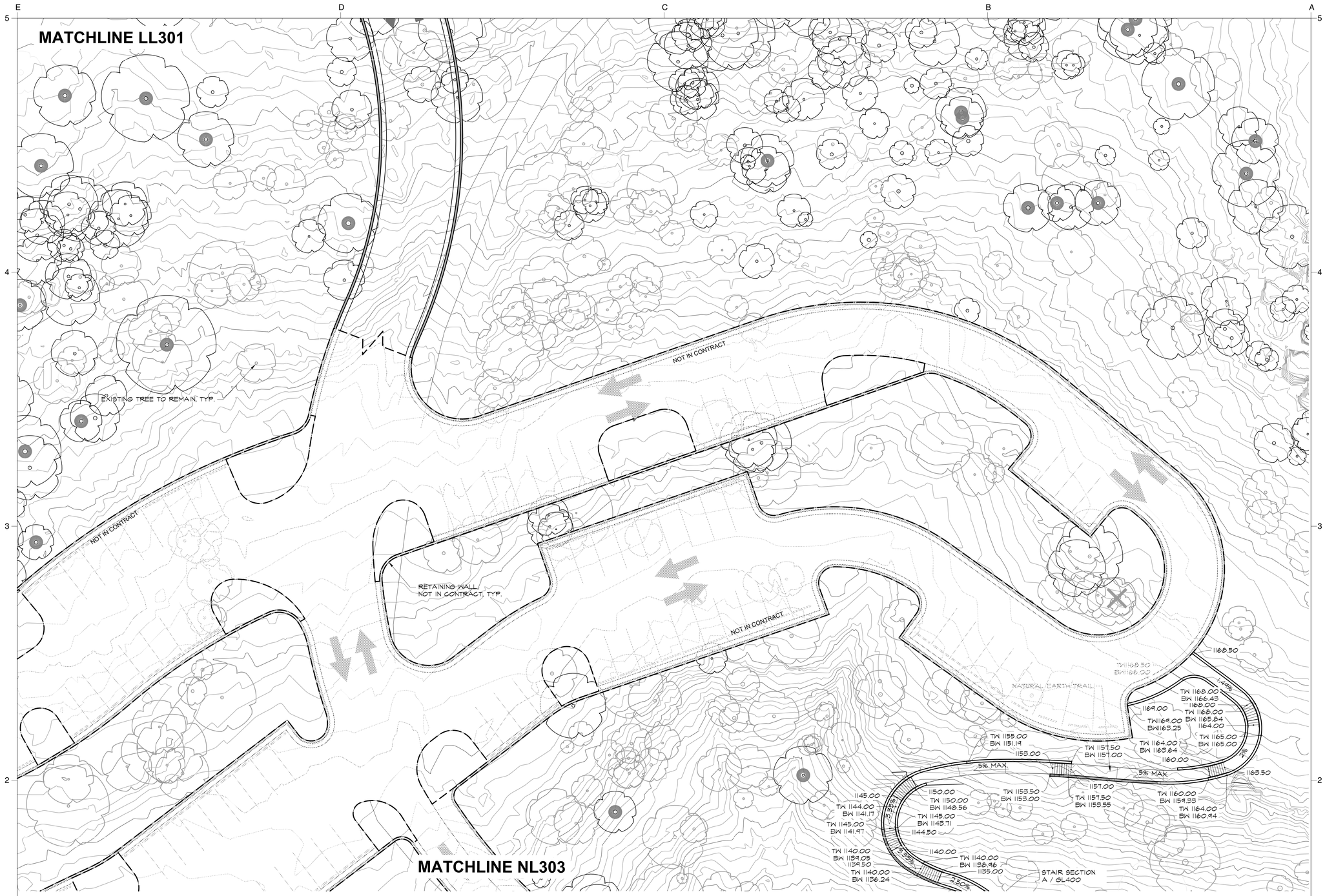
PALO PINTO MOUNTAINS STATE PARK
SITE DEVELOPMENT
TPWD PROJECT NO. 118271

DATE: 2021/03/29
DESIGNED BY: AD/BH
DRAWN BY: JT/RO/AA
REVIEWED BY: BH

REV DESC DATE

SHEET TITLE
AREA N - LAKESIDE DAY USE ENLARGEMENT HARDSCAPE PLAN

SHEET NUMBER
1
NL204



IMPORTANT:
Spot elevations & grading notes are preliminary. Grading will be field verified after vehicular paving areas are installed.

Area N - Lakeside Day Use Enlargement Grading Plan | A

Scale: 1" = 20'-0" | NL301

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SITE DEVELOPMENT
TPWD PROJECT NO. 118271

DATE: 2021/03/29
DESIGNED BY: AD/BH
DRAWN BY: JT/RO/AA
REVIEWED BY: BH

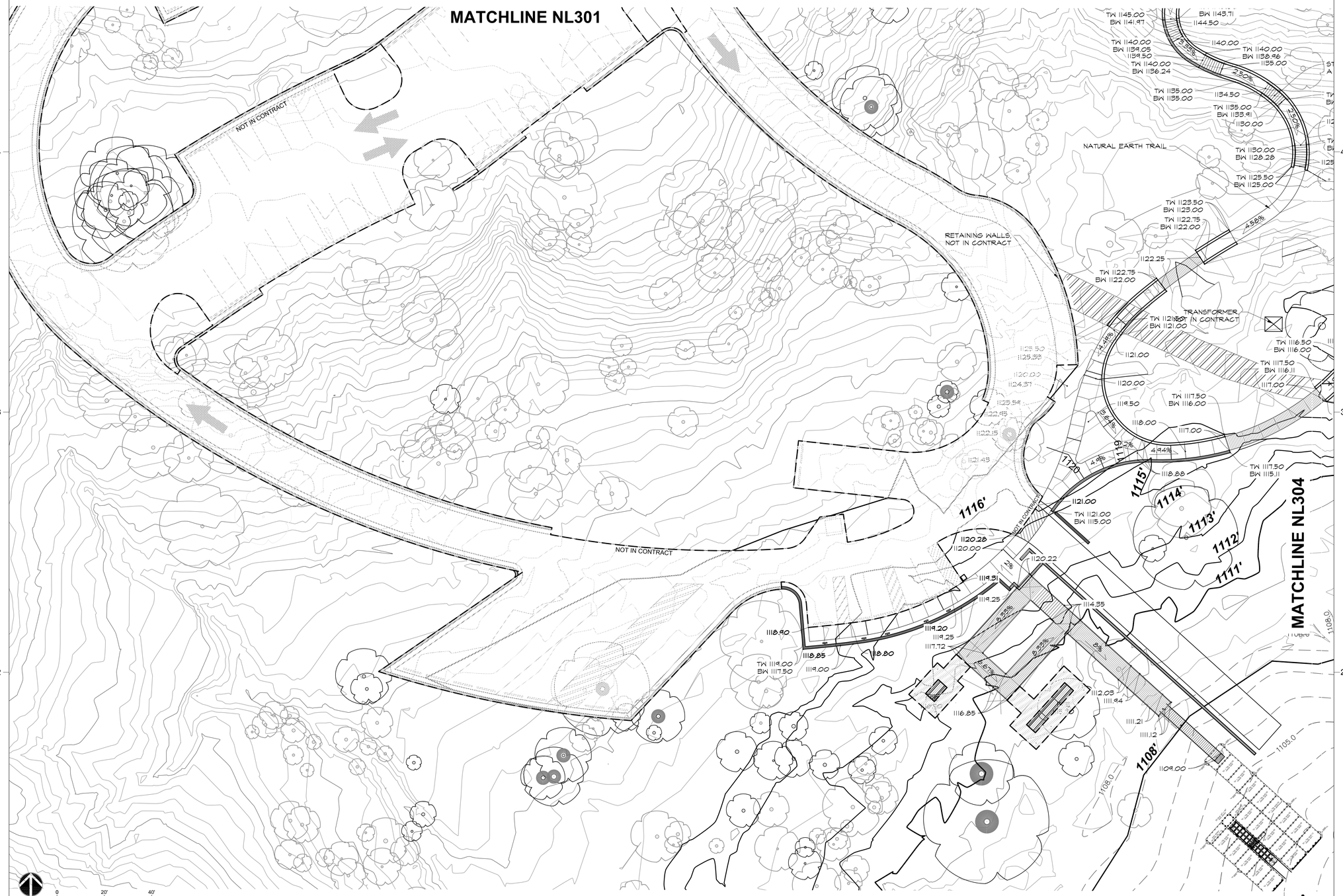
REV DESC DATE

SHEET TITLE
AREA N - LAKESIDE DAY USE ENLARGEMENT GRADING PLAN

SHEET NUMBER
1
NL301

WATER LEVEL LEGEND

- CURRENT LAKE CONSERVATION LEVEL *1108'*
- CURRENT 10 YR FLOOD *1112.1'*
- CURRENT 25 YR FLOOD *1113.51'*
- PROPOSED RAISED LAKE CONSERVATION LEVEL *1111'*
- APPROXIMATE POSSIBLE RAISED LAKE 10-YR FLOOD *1115'*
- APPROXIMATE POSSIBLE RAISED LAKE 25-YR FLOOD *1116.5'*



IMPORTANT:
Spot elevations & grading notes are preliminary. Grading will be field verified after vehicular paving areas are installed.

Area N - Lakeside Day Use Enlargement Grading Plan | A

Scale: 1" = 20'-0" | NL303

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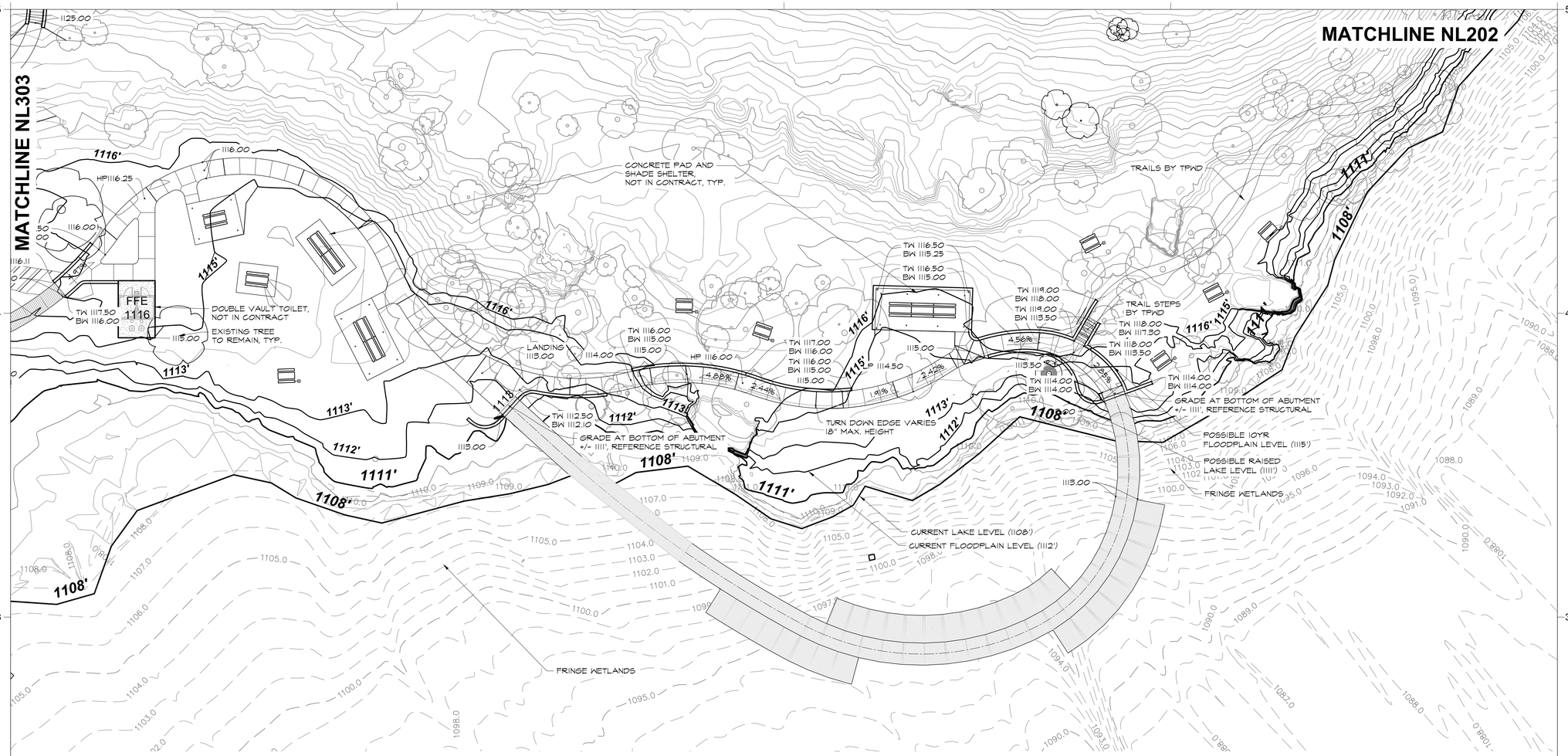
SITE DEVELOPMENT
TPWD PROJECT NO. 118271

DATE: 2021/03/29
DESIGNED BY: AD/BH
DRAWN BY: JT/RO/AA
REVIEWED BY: BH

REV DESC DATE

SHEET TITLE
AREA N - LAKESIDE DAY USE ENLARGEMENT GRADING PLAN

SHEET NUMBER
1
NL303



WATER LEVEL LEGEND

- CURRENT LAKE CONSERVATION LEVEL *1108'*
- CURRENT 10 YR FLOOD *1112.1'*
- CURRENT 25 YR FLOOD *1113.51'*
- PROPOSED RAISED LAKE CONSERVATION LEVEL *1111'*
- APPROXIMATE POSSIBLE RAISED LAKE 10-YR FLOOD *1115'*
- APPROXIMATE POSSIBLE RAISED LAKE 25-YR FLOOD *1116.5'*

NOTE: PICNIC TABLE LOCATIONS ARE SHOWN FOR PRICING. FINAL LOCATIONS TO BE DETERMINED IN FIELD BY TPWD.

IMPORTANT:
Spot elevations & grading notes are preliminary. Grading will be field verified after vehicular paving areas are installed.

NORTH

0 20' 40'

Area N - Lakeside Day Use Enlargement Grading Plan | A

Scale: 1" = 20'-0" | NL304

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PALO PINTO MOUNTAINS STATE PARK
SITE DEVELOPMENT
TPWD PROJECT NO. 118271

DATE: 2021/03/29
DESIGNED BY: AD/BH
DRAWN BY: JT/RO/AA
REVIEWED BY: BH

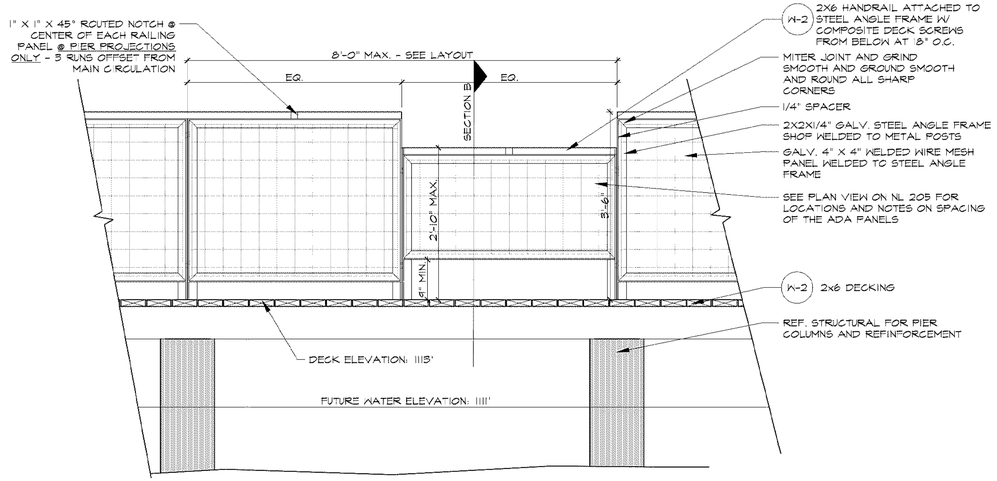
REV DESC DATE

SHEET TITLE
AREA N - LAKESIDE DAY USE ENLARGEMENT GRADING PLAN

SHEET NUMBER
1
NL304

IMPORTANT!! ALL STEEL COMPONENTS TO BE GALVANIZED, ALL LUMBER FRAMING TO BE ACZA TREATED.

IMPORTANT!! CONTRACTOR TO PROVIDE SHOP DRAWINGS & MOCK-UP FOR LANDSCAPE ARCHITECT APPROVAL PRIOR TO CONSTRUCTION

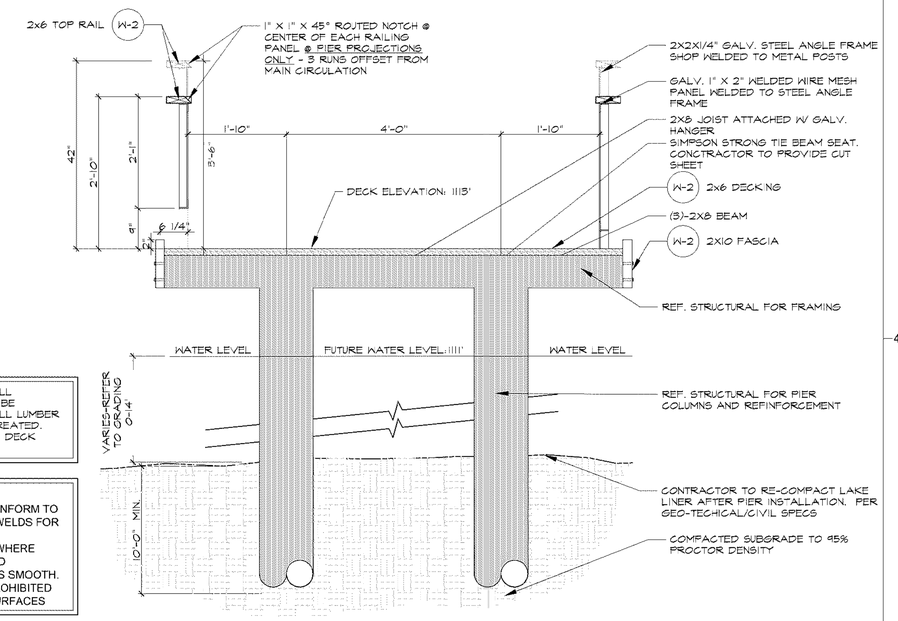


Fishing Pier Railing Elevatoin w/ ADA Spot | C

Scale: 3/4" = 1'-0"

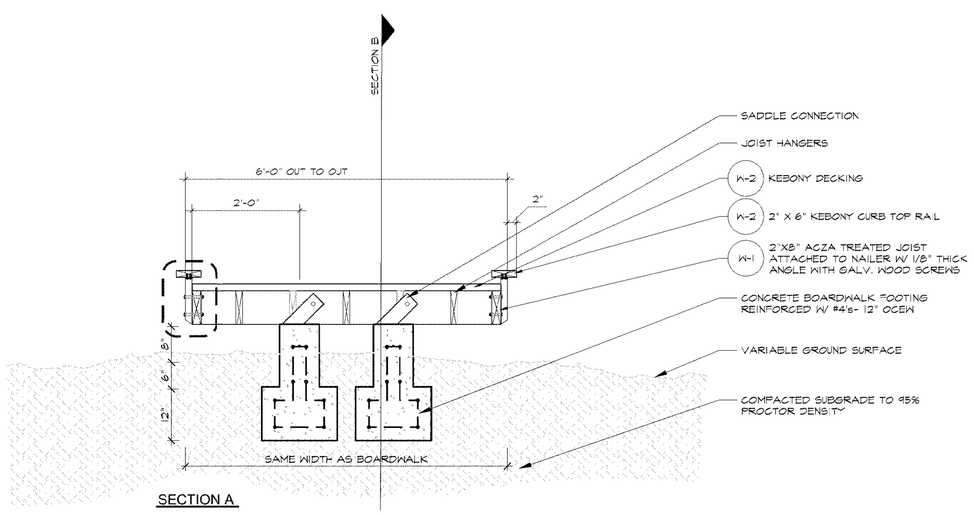
IMPORTANT!! ALL HARDWARE TO BE GALVANIZED ALL LUMBER TO BE ACZA TREATED. COLOR MATCH DECK SCREWS

IMPORTANT!! WELDING TO CONFORM TO AWS D1.1. USE WELDS FOR PERMANENT CONNECTIONS WHERE POSSIBLE. GRIND EXPOSED WELDS SMOOTH. TACK WELDS PROHIBITED ON EXPOSED SURFACES

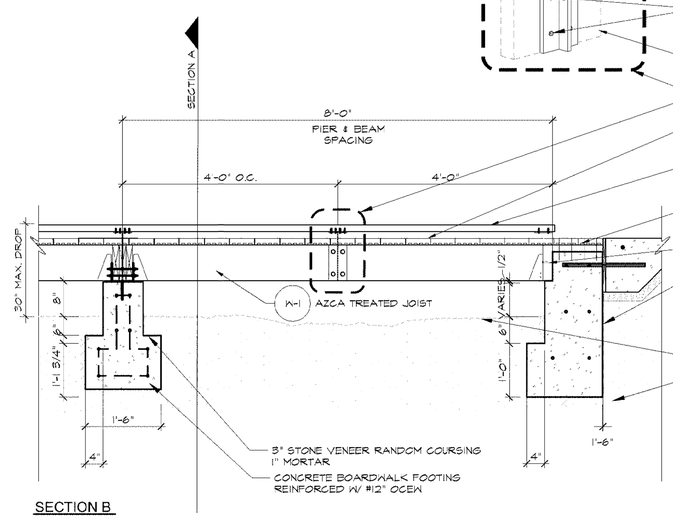


Fishing Pier Section | B

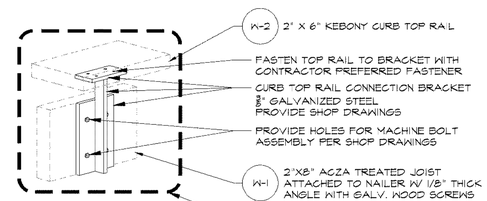
Scale: 3/4" = 1'-0"



SECTION A



SECTION B



Boardwalk Edge Section | A

Scale: 3/4" = 1'-0"

TEXAS PARKS & WILDLIFE

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Dallas, Texas 75226
o214.954.7160 f214.954.7162

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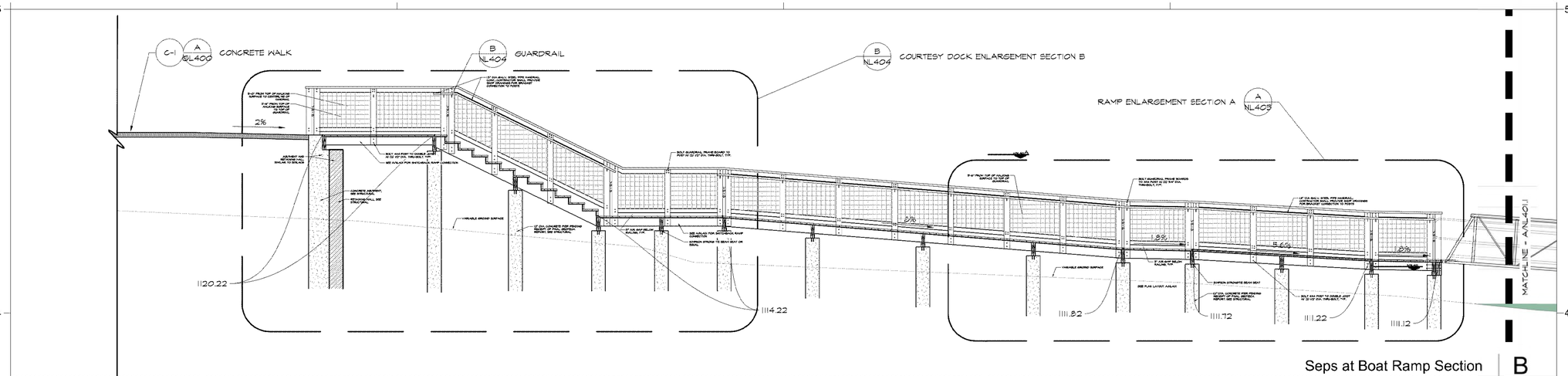
PALO PINTO MOUNTAINS STATE PARK
SITE DEVELOPMENT
TPWD PROJECT NO. 118271

DATE: 2021/03/29
DESIGNED BY: AD/BH
DRAWN BY: JT/RO/AA
REVIEWED BY: BH

REV DESC DATE

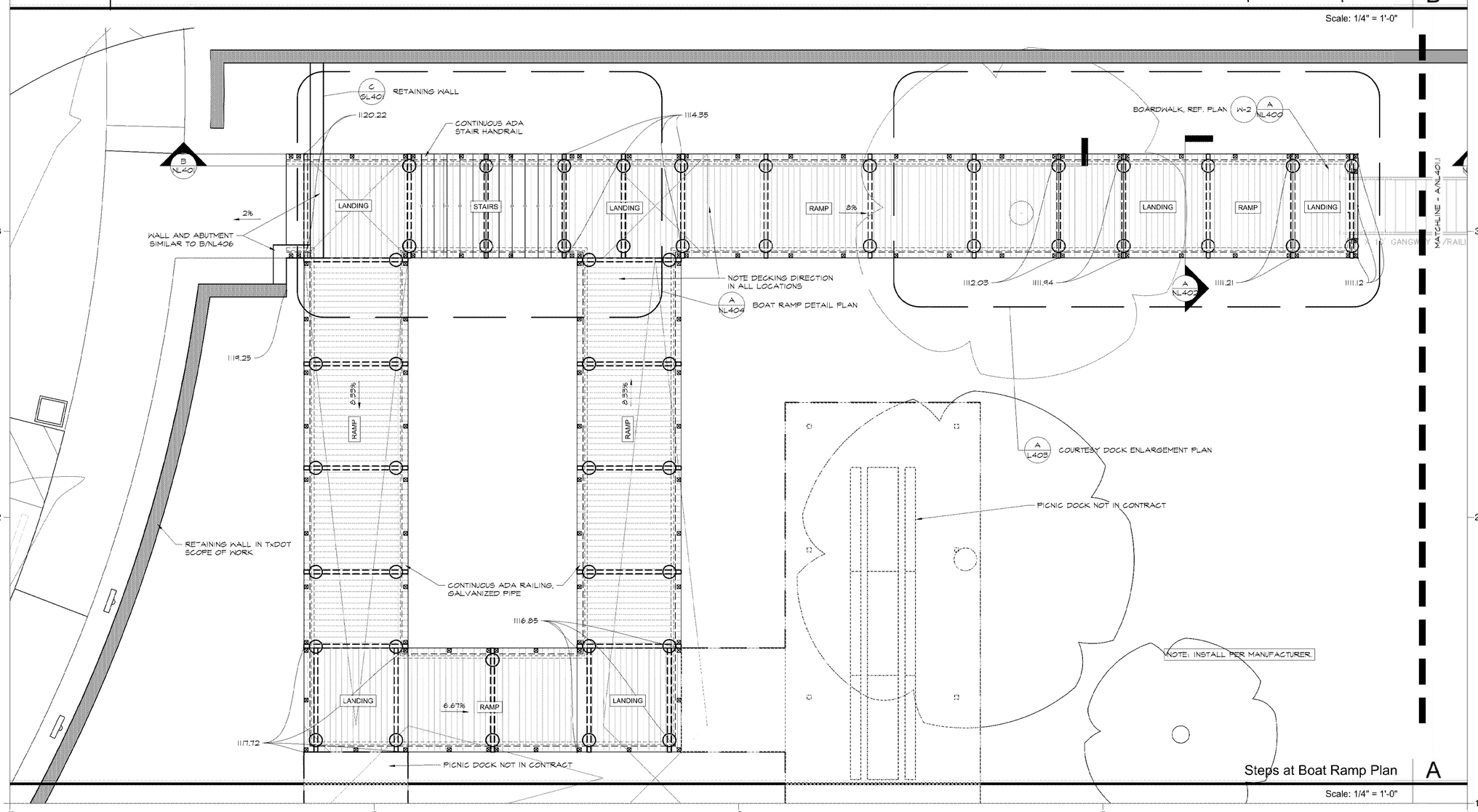
SHEET TITLE
AREA N - DECK AND DOCK DETAILS

SHEET NUMBER
1
NL400



Seps at Boat Ramp Section | B

Scale: 1/4" = 1'-0"



Steps at Boat Ramp Plan | A

Scale: 1/4" = 1'-0"

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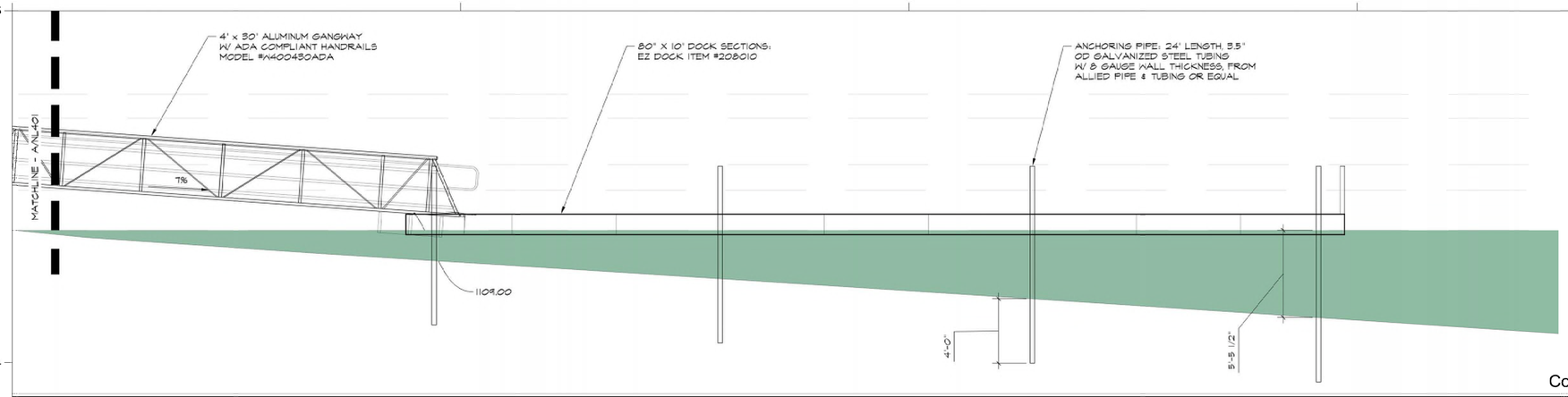
SITE DEVELOPMENT
TPWD PROJECT NO. 118271

DATE: 2021/03/29
DESIGNED BY: AD/BH
DRAWN BY: JT/RO/AA
REVIEWED BY: BH

REV DESC DATE

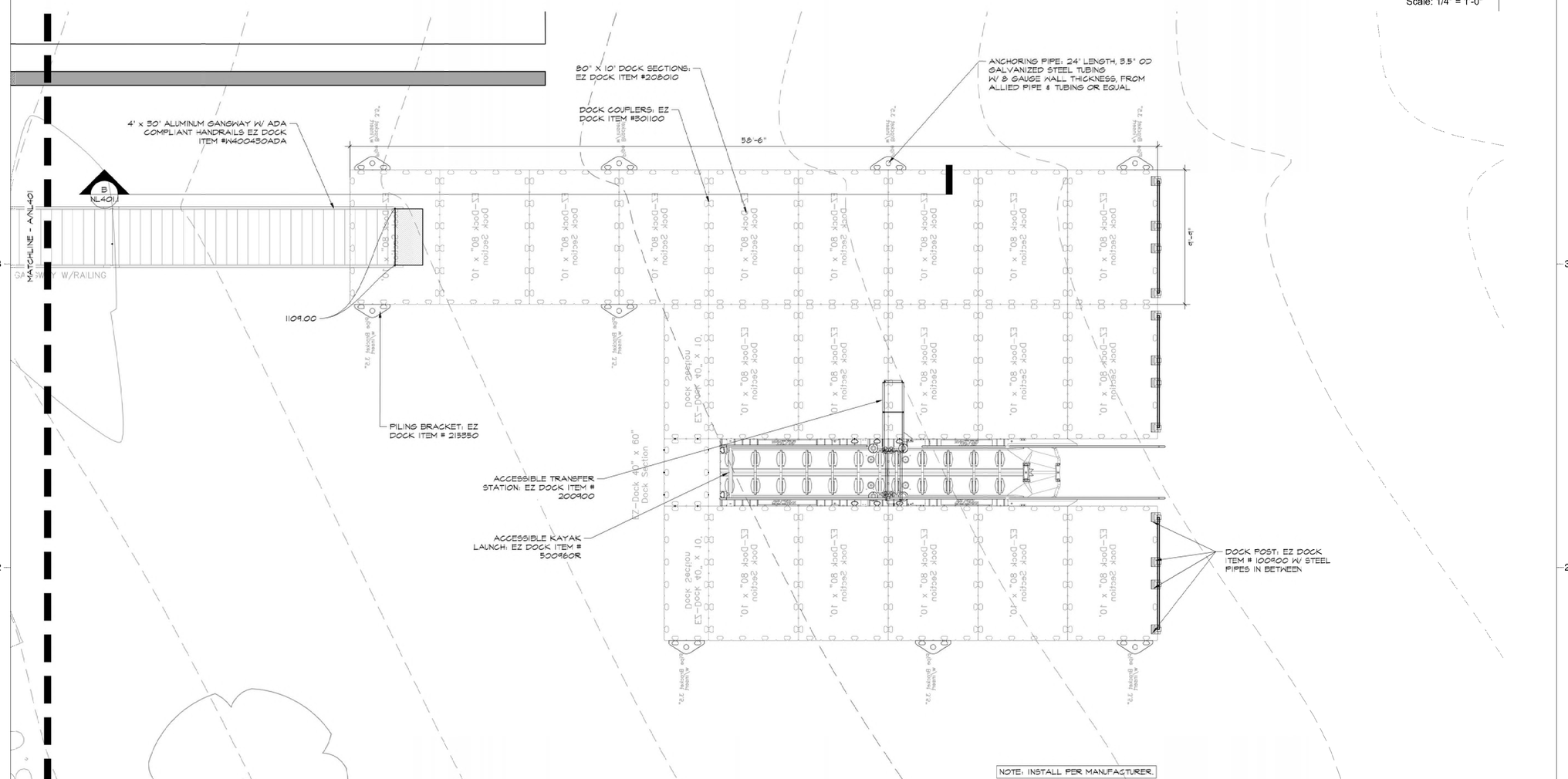
SHEET TITLE
AREA N - DECK AND DOCK DETAILS

SHEET NUMBER
1
NL401



Courtesy Dock Section | B

Scale: 1/4" = 1'-0"



Courtesy Dock Plan | A

Scale: 1/4" = 1'-0"

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SITE DEVELOPMENT
TPWD PROJECT NO. 118271

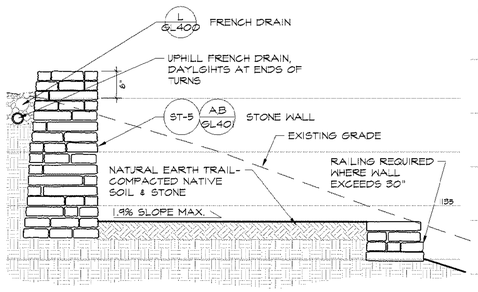
DATE: 2021/03/29
DESIGNED BY: AD/BH
DRAWN BY: JT/RO/AA
REVIEWED BY: BH

REV DESC DATE

SHEET TITLE

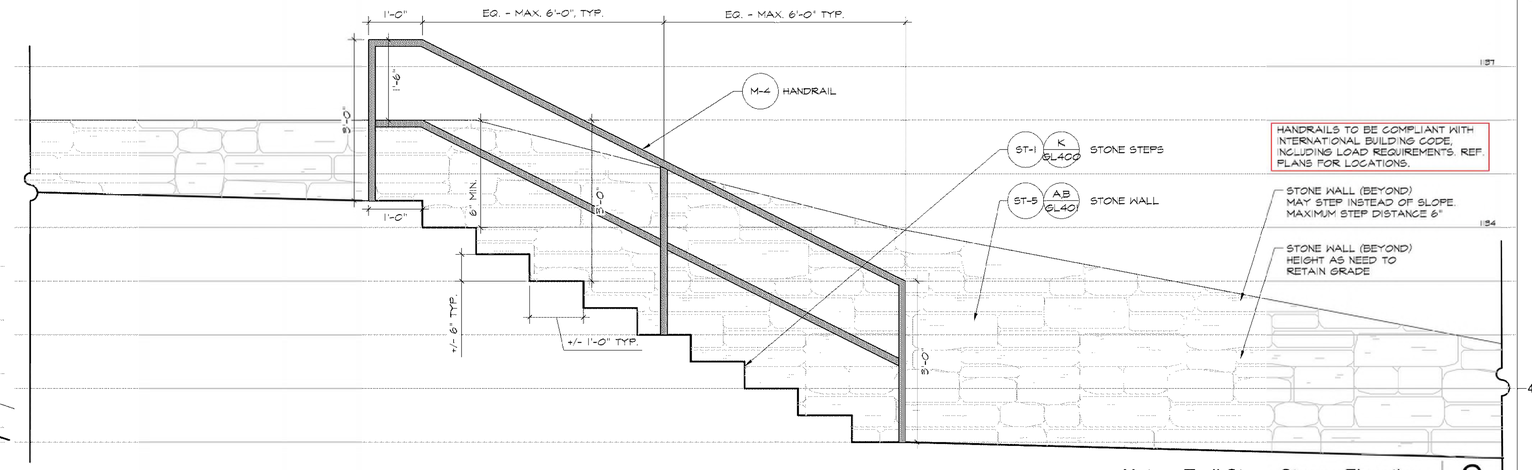
AREA N - DECK AND DOCK DETAILS

SHEET NUMBER
1
NL401.1



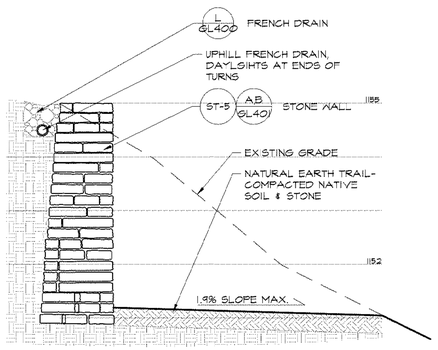
Nature Trail - Section F

Scale: 3/4" = 1'-0"



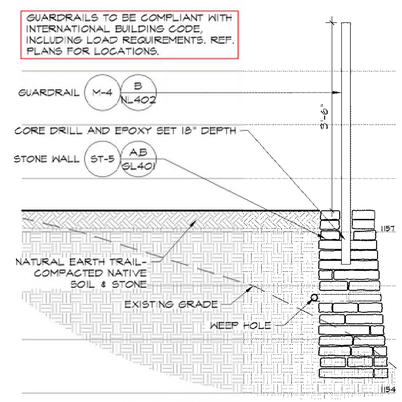
Nature Trail Stone Steps - Elevation C

Scale: 3/4" = 1'-0"



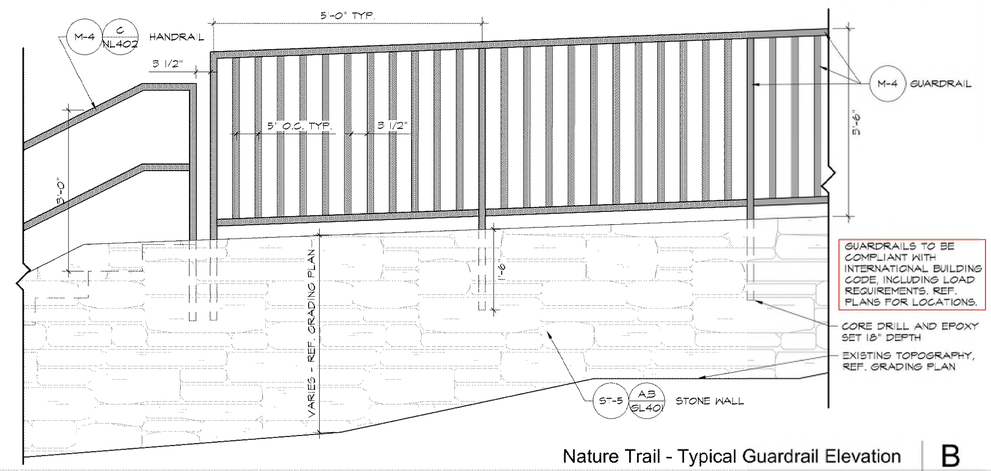
Nature Trail - Section E

Scale: 3/4" = 1'-0"



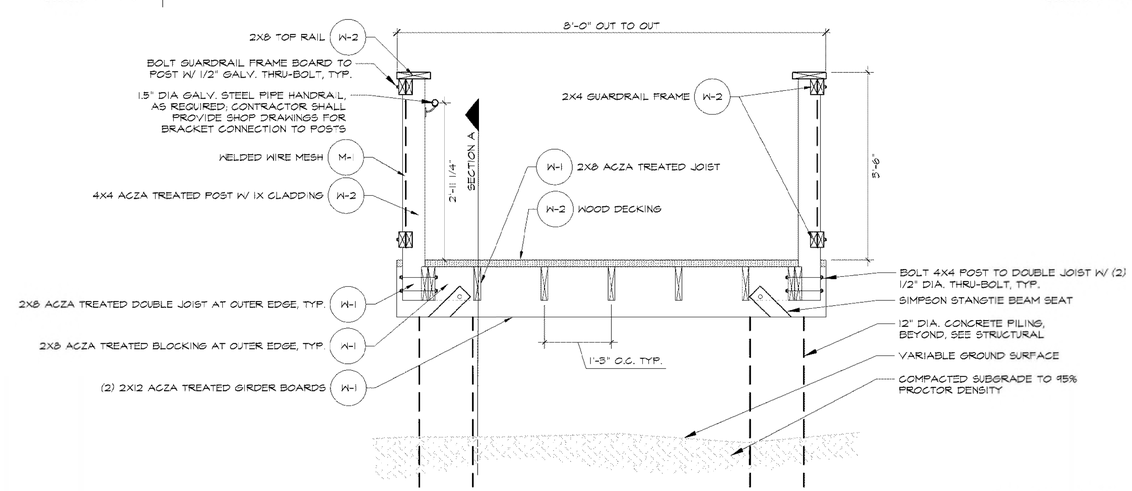
Nature Trail - Section D

Scale: 3/4" = 1'-0"



Nature Trail - Typical Guardrail Elevation B

Scale: 3/4" = 1'-0"



Courtesy Dock Section Through Handrail A

Scale: 3/4" = 1'-0"

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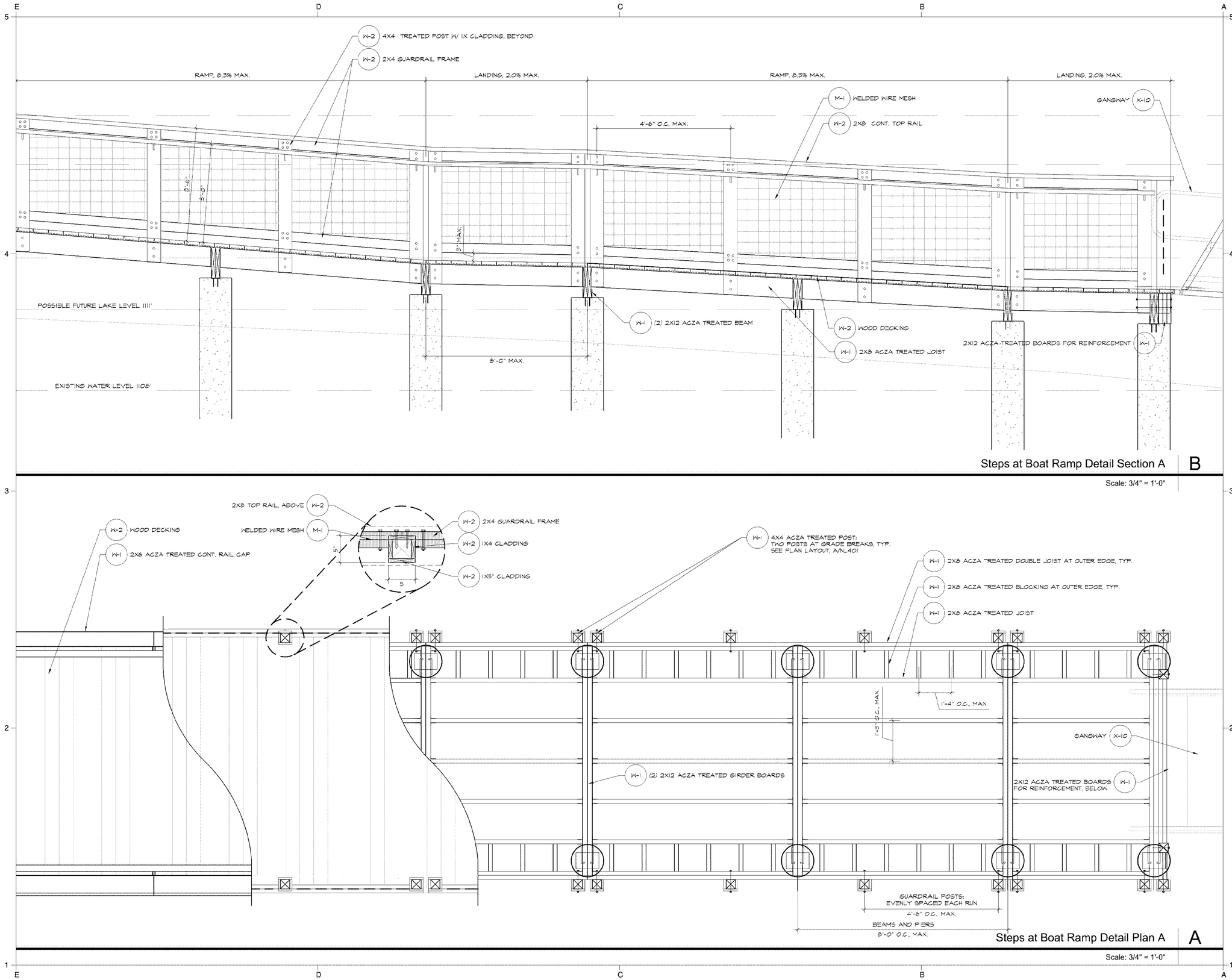
DESIGNED BY: AD/BH
DRAWN BY: JT/RO/AA
REVIEWED BY: BH

REV DESC DATE

SHEET TITLE
AREA N - DECK AND DOCK DETAILS

SHEET NUMBER
1
NL402



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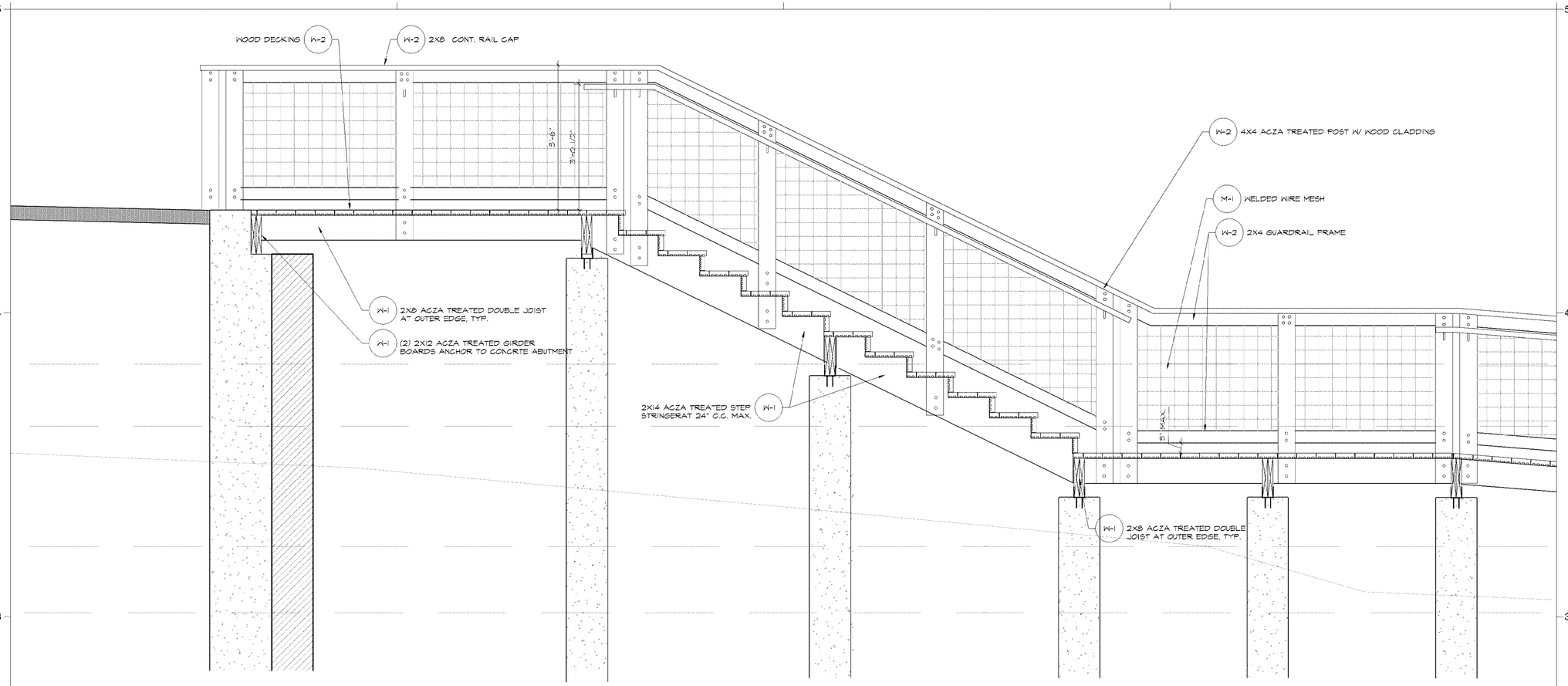
PALO PINTO MOUNTAINS STATE PARK
SITE DEVELOPMENT
TPWD PROJECT NO. 118271

DATE: 2021/03/29
DESIGNED BY: AD/BH
DRAWN BY: JT/RO/AA
REVIEWED BY: BH

REV DESC DATE

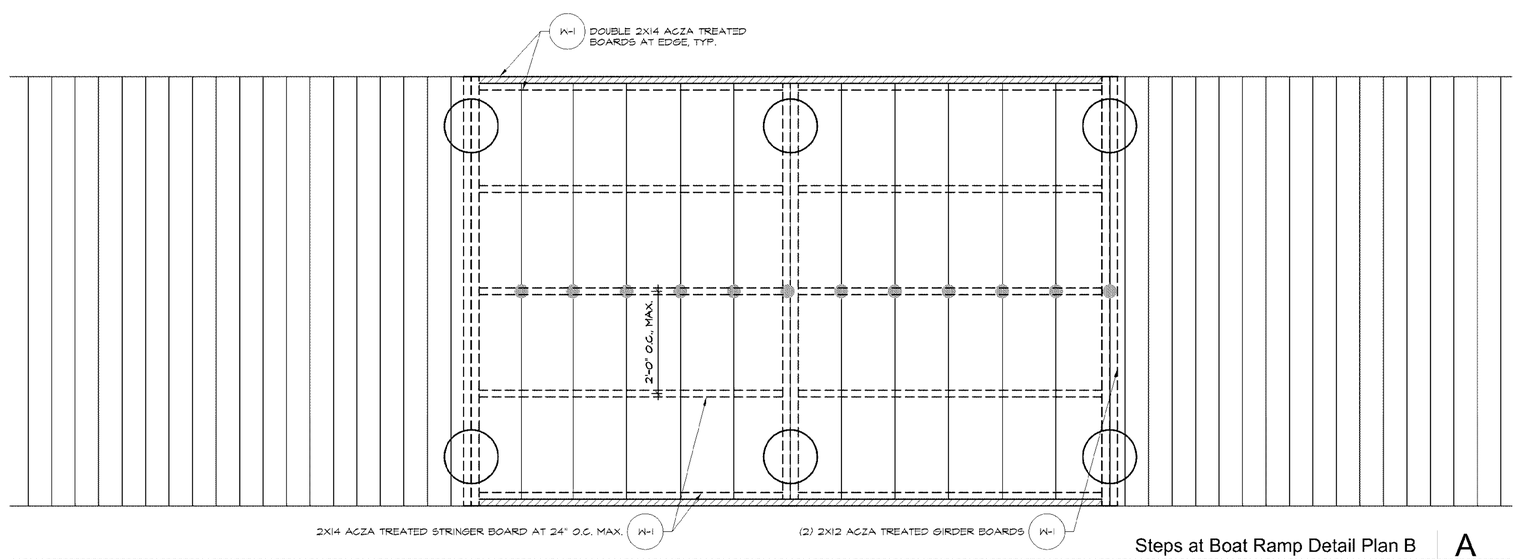
SHEET TITLE
AREA N - DECK AND DOCK DETAILS

SHEET NUMBER
1
NL403



Steps at Boat Ramp Detail Section B | B

Scale: 3/4" = 1'-0"



Steps at Boat Ramp Detail Plan B | A

Scale: 3/4" = 1'-0"

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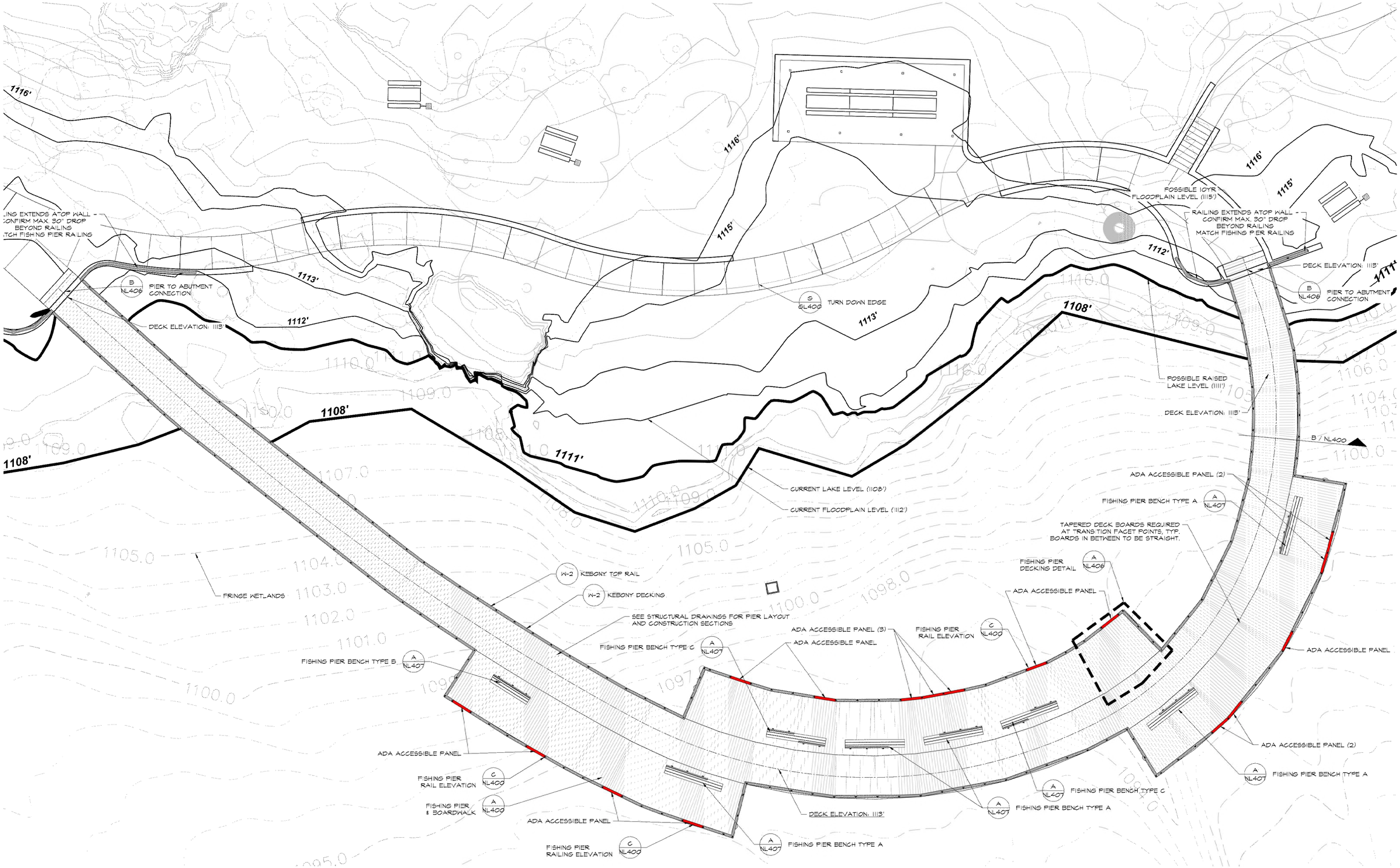
REV DESC DATE

SHEET TITLE
AREA N - DECK AND DOCK DETAILS

SHEET NUMBER
1
NL404



Fishing Pier Enlargement | A

Scale: 1/8" = 1'-0"

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SITE DEVELOPMENT
TPWD PROJECT NO. 118271

DATE: 2021/03/29
DESIGNED BY: AD/BH
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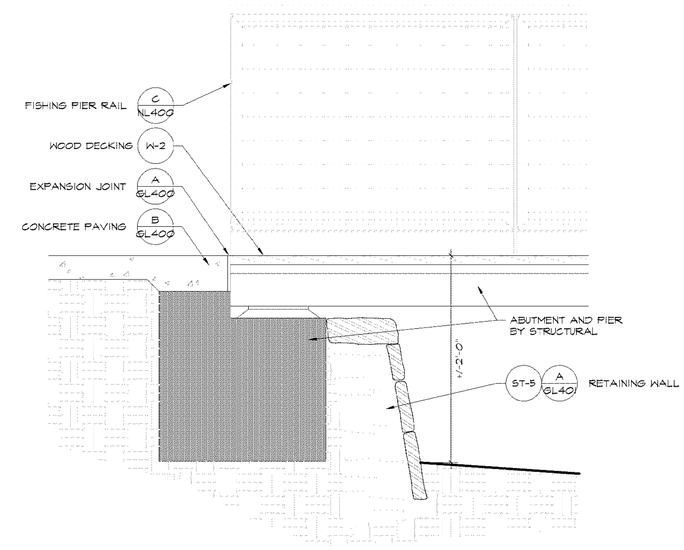
REV DESC DATE

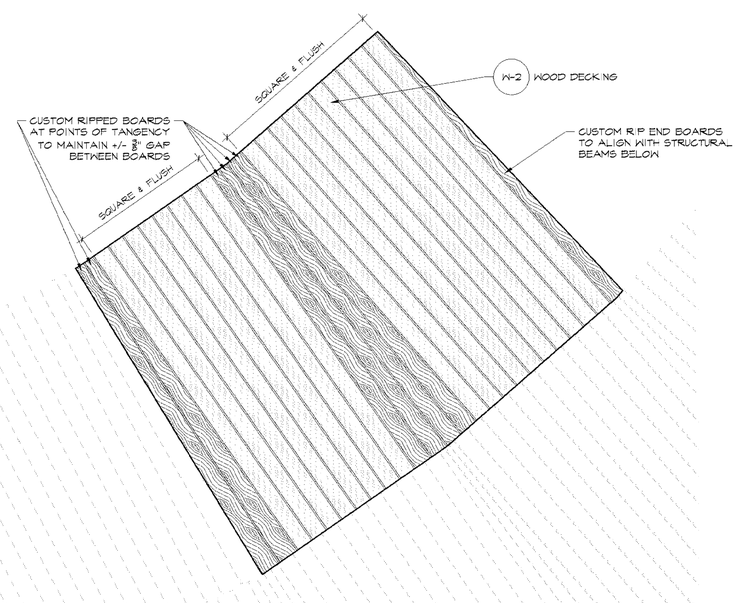
SHEET TITLE
AREA N - FISHING PIER DETAILS

SHEET NUMBER
1
NL405



Pier to Abutment | B

Scale: 1" = 1'-0"



Fishing Pier - Decking Enlargement | A

Scale: 1/4" = 1'-0"

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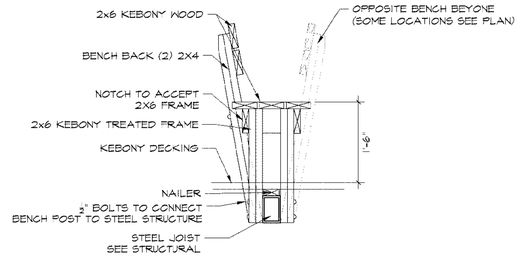
REVIEWED BY: BH

REV DESC DATE

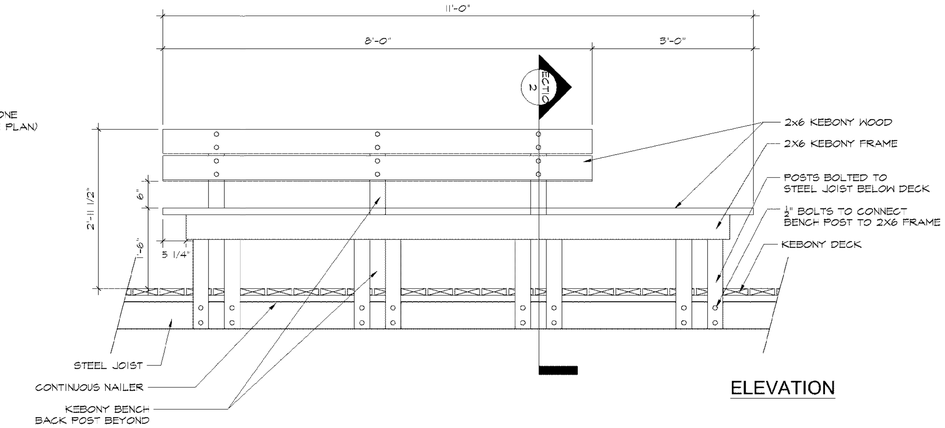
SHEET TITLE

AREA N - FISHING PIER DETAILS

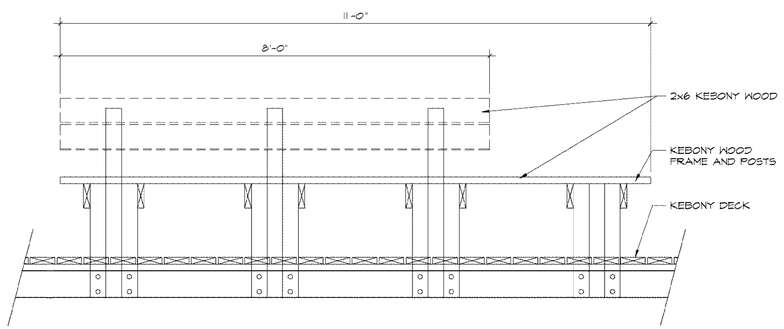
SHEET NUMBER
1
NL406



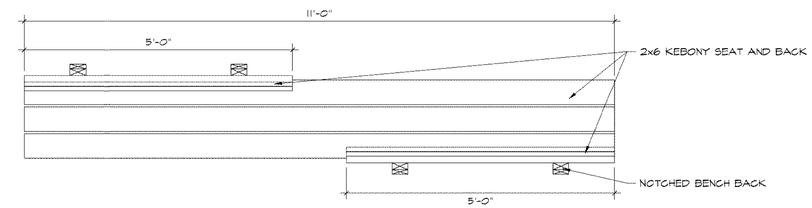
SECTION 2



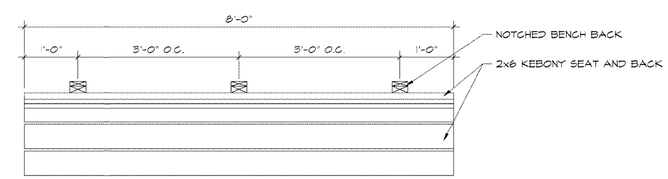
ELEVATION



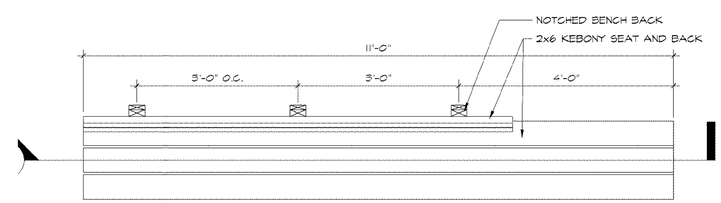
SECTION 1



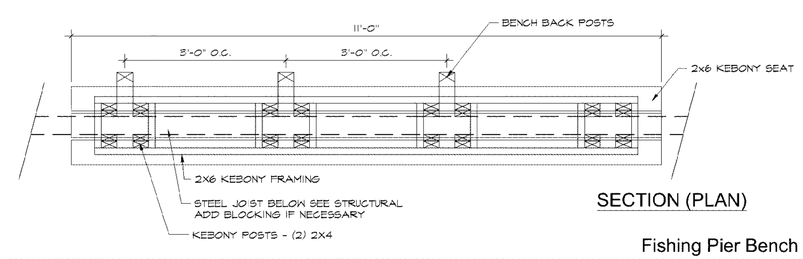
TYPE C PLAN: SPLIT BACK



TYPE B PLAN: SHORT/SINGLE BACK



TYPE A PLAN: LONG BENCH WITH 8' BACK



SECTION (PLAN)

Fishing Pier Bench | A

Scale: 3/4" = 1'-0"

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TPWD PROJECT NO. 118271

DATE: 2021/03/29
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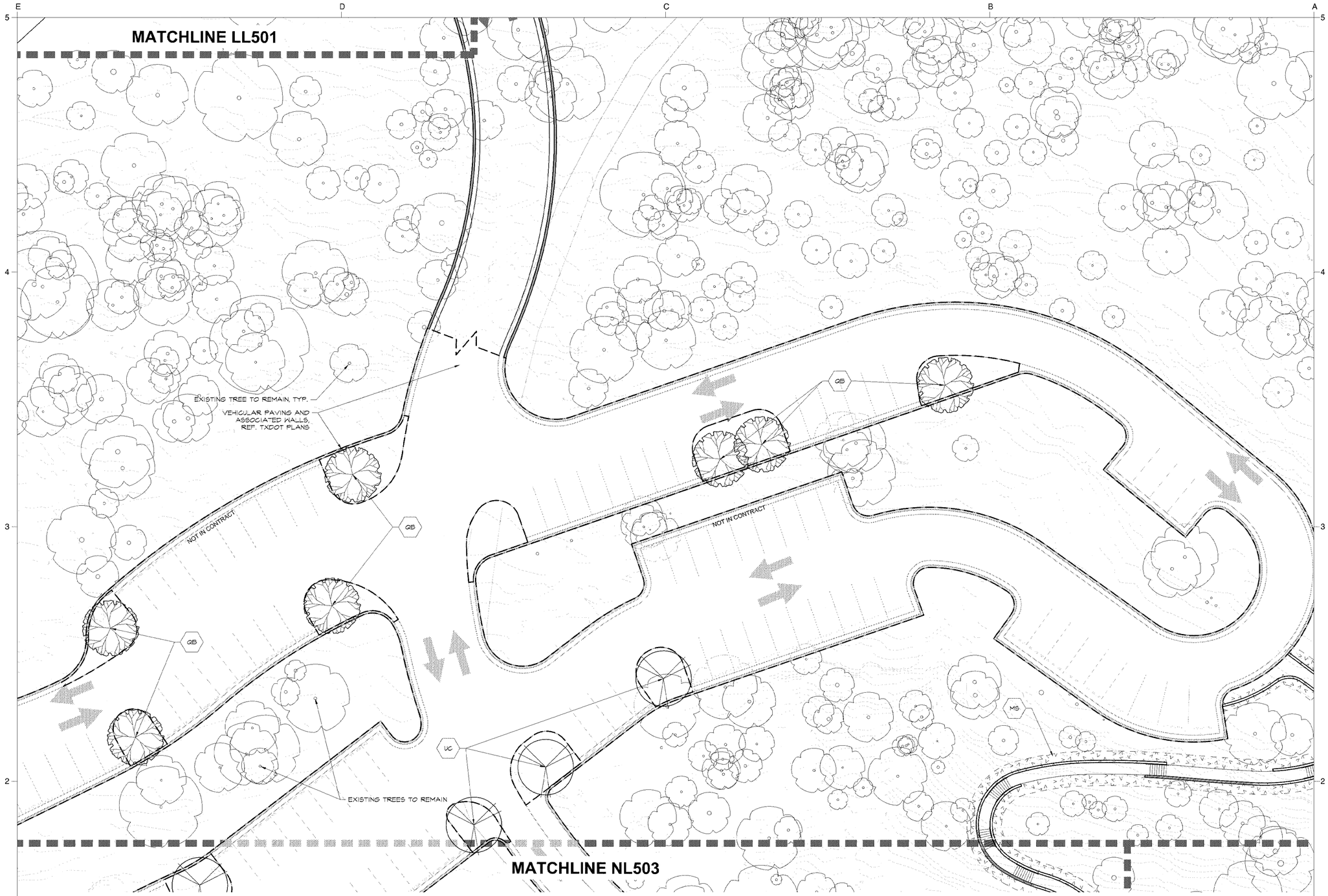
SHEET TITLE
AREA N- FISHING PIER BENCH DETAILS

SHEET NUMBER
1
NL407



NORTH

0 20' 40'

Area N - Lakeside Day Use Enlargement Planting Plan | A

Scale: 1" = 20'-0" | NL501

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SITE DEVELOPMENT
TPWD PROJECT NO. 118271

DATE: 2021/03/29
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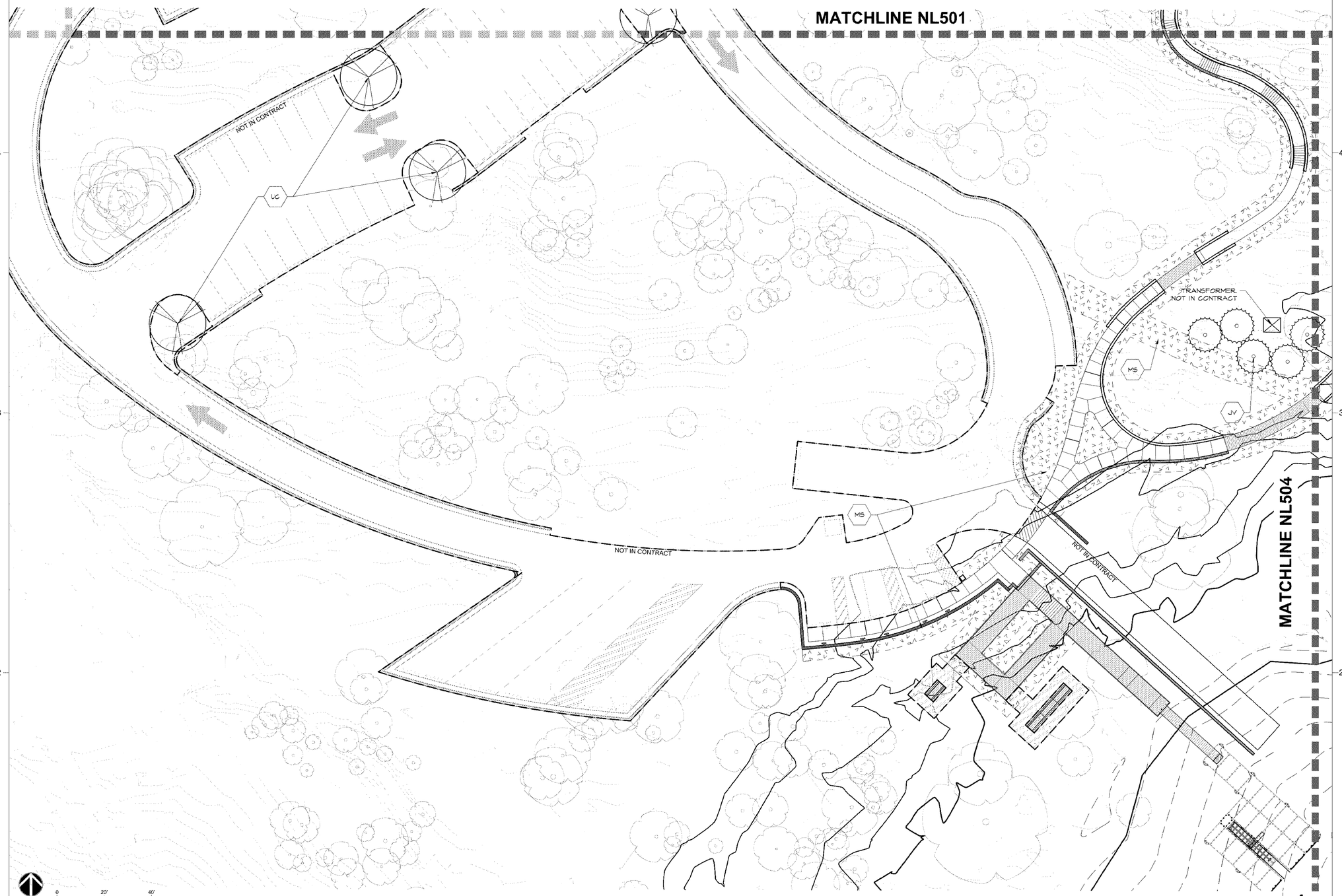
REVIEWED BY: BH

REV DESC DATE

SHEET TITLE
AREA N - LAKESIDE DAY USE ENLARGEMENT PLANTING PLAN

SHEET NUMBER
1
NL501



Area N - Lakeside Day Use Enlargement Planting Plan | A

Scale: 1" = 20'-0" | NL503

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TPWD PROJECT NO. 118271

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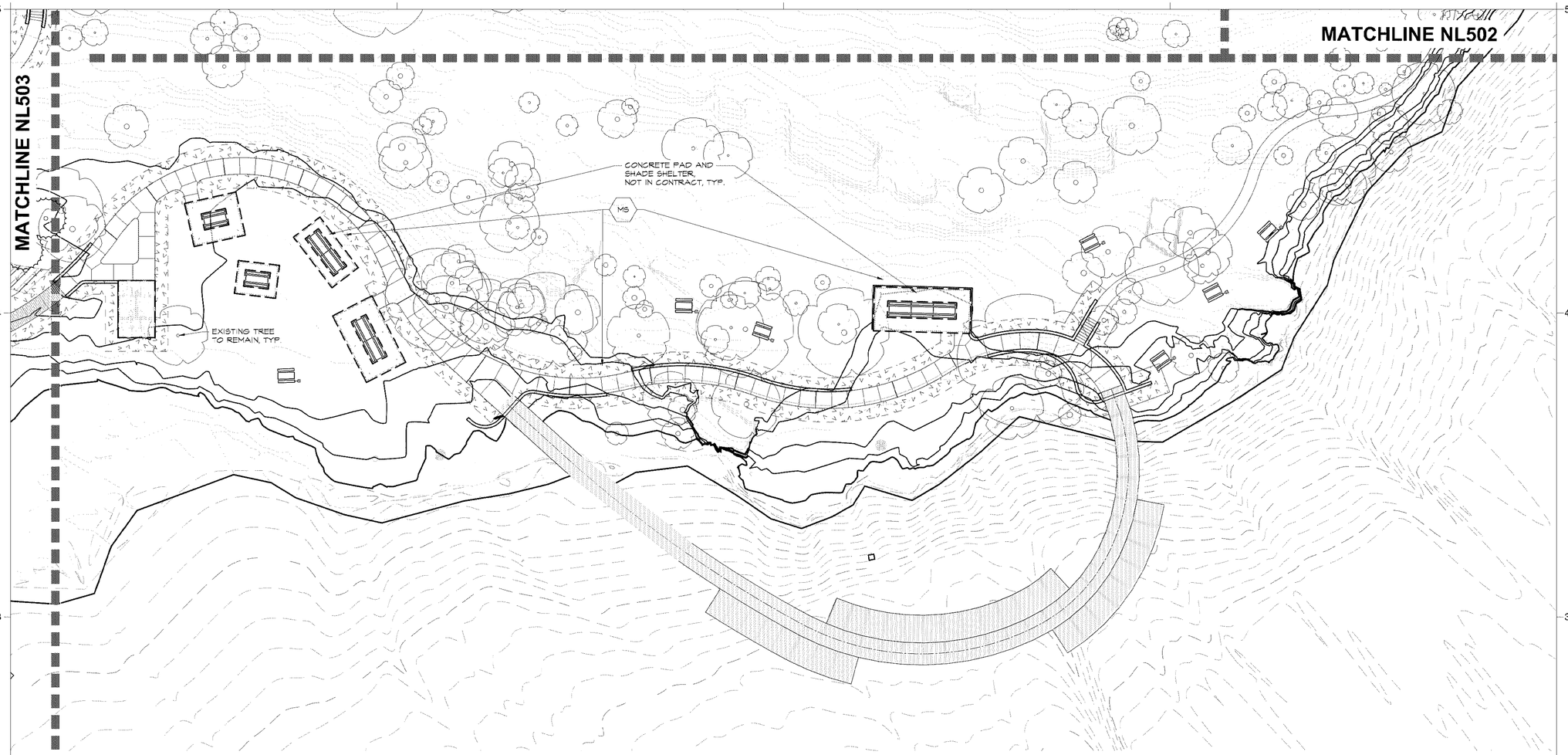
DRAWN BY: JT/RO/AA
REVIEWED BY: BH

REV DESC DATE

SHEET TITLE
AREA N - LAKESIDE DAY USE ENLARGEMENT PLANTING PLAN

SHEET NUMBER
1
NL503



NOTE: PICNIC TABLE LOCATIONS ARE SHOWN FOR PRICING. FINAL LOCATIONS TO BE DETERMINED IN FIELD BY TPWD.

NORTH

0 20' 40'

Area N - Lakeside Day Use Enlargement Planting Plan | A

Scale: 1" = 20'-0" | NL504

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REVIEWED BY: BH

REV DESC DATE

SHEET TITLE
AREA N - LAKESIDE DAY USE ENLARGEMENT PLANTING PLAN

SHEET NUMBER
1
NL504

GENERAL NOTES

1. THE STRUCTURAL DRAWINGS DEPICT THE STRUCTURE IN ITS FINAL CONSTRUCTED CONFIGURATION. NEITHER CONSTRUCTION MEANS AND METHODS NOR CONSTRUCTION SAFETY ARE PART OF THE STRUCTURAL ENGINEER'S EXPERTISE OR SCOPE OF WORK. THE GENERAL CONTRACTOR AND SUBCONTRACTORS ARE FULLY RESPONSIBLE FOR THE MEANS AND METHODS USED TO CONSTRUCT THE STRUCTURE AND FOR FULL COMPLIANCE WITH ALL JOB SAFETY RELATED REGULATIONS AND CONDITIONS AT THE SITE. LIMITED SITE VISITS, IF ANY, BY THE STRUCTURAL ENGINEER ARE SOLELY TO OBSERVE COMPLETED PARTS OF THE STRUCTURE. THE STRUCTURAL ENGINEER IS NEITHER QUALIFIED TO OBSERVE NOR COMMENT ON CONSTRUCTION MEANS AND METHODS AND JOB SITE SAFETY. ADDITIONAL SHORING NOT INDICATED ON THE CONTRACT DOCUMENTS IS THE SOLE RESPONSIBILITY OF THE GENERAL CONTRACTOR.

2. THE GENERAL CONTRACTOR SHALL INCLUDE A STRUCTURAL CONTINGENCY IN THEIR BID TO THE OWNER. THIS CONTINGENCY SHALL EQUAL 5% OF THE INSTALLED COST OF THE CORE AND SHELL STRUCTURE. ANY REMAINING CONTINGENCY SHALL BE REFUNDED TO THE OWNER UPON PROJECT COMPLETION. UNIT COST INCREASES RELATED TO DEEP FOUNDATION SYSTEMS SHALL BE A SEPARATE COST ITEM AS SPECIFIED IN FOUNDATION NOTES.

3. ALL DETAILS ARE TYPICAL UNLESS NOTED OTHERWISE. DETAILS SHALL APPLY TO ALL SIMILAR AND LIKE CONDITIONS.

4. THE GENERAL CONTRACTOR SHALL SUBMIT ELECTRONIC SHOP DRAWINGS TO THE ENGINEER FOR REVIEW OF THE FOLLOWING ITEMS. SEE SPECIFICATIONS WHERE APPLICABLE FOR FURTHER REQUIREMENTS:

   CONCRETE MIX DESIGNS FOR EACH CLASS OF CONCRETE INCLUDING TEST DATA
   CONCRETE ACCESSORIES (WATER VAPOR BARRIER, REINFORCING SUPPORT CHAIRS, ETC.)
   CONCRETE REINFORCING
   STRUCTURAL STEEL AND ERECTION DRAWINGS
   MISCELLANEOUS STEEL

5. THE OMISSION FROM THE SHOP DRAWINGS OF ANY MATERIALS REQUIRED BY THE CONTRACT DOCUMENTS TO BE FURNISHED SHALL NOT RELIEVE THE CONTRACTOR OF THE RESPONSIBILITY OF FURNISHING AND INSTALLING SUCH MATERIALS, REGARDLESS OF WHETHER THE SHOP DRAWINGS HAVE BEEN REVIEWED AND APPROVED.

6. ALL SHOP DRAWINGS MUST BE REVIEWED AND APPROVED BY THE GENERAL CONTRACTOR PRIOR TO THE SUBMITTAL TO THE ENGINEER. THE USE OF ELECTRONIC FILES OR REPRODUCTIONS OF THESE CONTRACT DOCUMENTS BY ANY CONTRACTOR, SUBCONTRACTOR, ERECTOR, FABRICATOR, OR MATERIAL SUPPLIER IN LIEU OF PREPARATION OF SHOP DRAWINGS SIGNIFIES THEIR ACCEPTANCE OF ALL INFORMATION SHOWN HEREON AS CORRECT, AND OBLIGATES THEMSELVES TO ANY JOB EXPENSE, REAL OR IMPLIED, ARISING DUE TO ANY ERRORS OR OMISSIONS THAT MAY OCCUR HEREON.

   ERECTION OF STRUCTURAL STEEL MAY NOT BEGIN UNTIL THE FIELD STRENGTH OF THE CONCRETE PIERS MEET A MINIMUM OF 70% OF THE 28 DAY DESIGN COMPRESSIVE STRENGTH.

7. DESIGN CRITERIA:

   BUILDING CODE: INTERNATIONAL BUILDING CODE, 2015 EDITION

   LIVE LOAD:

   FLOORS:
   BOARDWALK - 90 PSF
   HANDRAILS & GUARDRAILS - 200# OR 50 PLF APPLIED IN ANY DIRECTION

   ALLOWABLE SOIL BEARING CAPACITY IN [SOIL TYPE]
   (AT X'-XX" BELOW EXISTING GRADE)

   TOTAL LOAD - X,XXX PSF
   DEAD LOAD - X,XXX PSF

   ALLOWABLE SKIN FRICTION CAPACITY IN [SOIL TYPE]
   (BEGINNING AT X'-XX" BELOW [SOIL TYPE])

   TENSION - X,XXX PSF
   COMPRESSION - X,XXX PSF

FOUNDATIONS

1. FOUNDATION DETAILING SHOWN ON THE DRAWINGS IS BASED ON A FOUNDATION DESIGN SPECIFIED IN THE PRELIMINARY SOIL REPORT BY TERRACON CONSULTANTS INC., REPORT NO. 94175276, DATED AUGUST 17, 2020. THE RECOMMENDATIONS CONTAINED IN THE GEOTECHNICAL REPORT SHALL NOT SUPERSEDE THE REQUIREMENTS SHOWN IN THE CONTRACT DOCUMENTS OR IN THE SPECIFICATIONS WHEN THE REQUIREMENTS SHOWN ON THE CONTRACT DOCUMENTS ARE MORE STRINGENT THAN THOSE SHOWN IN THE GEOTECHNICAL REPORT. THE CONTRACTOR IS REQUIRED TO SECURE A COPY OF THE GEOTECHNICAL REPORT FROM THE OWNER AND TO HAVE A COPY ON THE JOB SITE AT ALL TIMES FOR THEIR USE AND REFERENCE. FOUNDATION DESIGN IS CURRENTLY BASED ON PRELIMINARY GEOTECHNICAL INVESTIGATIONS PROVIDED BY TERRACON CONSULTANTS. DUNAWAY HAS NOT RECEIVED THE FINAL GEOTECHNICAL REPORT AT TIME OF ISSUANCE OF DRAWINGS. FINAL DESIGN WILL BE REVIEWED AND MODIFIED BASED UPON RECEIPT OF FINAL GEOTECHNICAL REPORT.

2. CONTRACTOR SHALL BE PREPARED TO USE TEMPORARY CASING AS REQUIRED TO FINISH THE DRILLED PIERS. CASING SIZE SHALL HAVE AN INTERIOR DIAMETER EQUAL TO THE SPECIFIED SHAFT SIZE SHOWN ON THE PLANS. CONTRACTOR SHALL PROVIDE A UNIT PRICE FOR A CASED DRILLED SHAFT.

3. ALL FOOTINGS SHALL BE CONSOLIDATED WITH A CONCRETE VIBRATOR AS PER THE REQUIREMENTS OF ACI 318 AND ACI 308R, LATEST EDITION.

4. FOOTINGS SHALL BE POURED IMMEDIATELY UPON COMPLETION OF EXCAVATION AND CLEANING OF FOOTING BEARING SURFACE. ALL SPOILS FROM THE FOOTING EXCAVATIONS SHALL BE REMOVED FROM THE BUILDING PAD.

5. WHERE A DRILLED PIER IS SHOWN ON THE PLAN CLOSER THAN 6'-0 FROM ANOTHER FOOTING, DRILL ONE PIER, FILL WITH CONCRETE AND LET CURE 24 HOURS PRIOR TO DRILLING THE ADJACENT FOOTING. (6'-0" DIMENSION IS MEASURED BETWEEN EDGE OF BELL OR STRAIGHT SHAFT NOT CENTER TO CENTER.)

6. TOPS OF DRILLED PIERS SHALL NOT HAVE "MUSHROOMED" OR FLARED TOPS. CONTRACTOR SHALL USE SONOTUBE, SURETOP OR APPROVED EQUAL TO FORM TOP OF PIERS TERMINATED AT GRADE LEVEL. CONCRETE OF FLARED TOP FOOTINGS SHALL BE REMOVED PRIOR TO FORMING AND PLACING OF THE CONCRETE IN PIER CAPS OR GRADE BEAMS. TOPS OF ALL PIERS SHALL BE CLEANED PRIOR TO THE PLACEMENT OF ADDITIONAL CONCRETE.

7. PROVIDE A TREMIE TO PLACE CONCRETE IN DRILLED FOOTINGS SO THAT CONCRETE DOES NOT FREE FALL OVER 10'-0".

8. PROVIDE PIER SLEDS TO MAINTAIN 3" MINIMUM CLEAR COVER ON FOOTING SHAFT REINFORCING. PIER SLEDS SHALL BE STAGGERED ALONG THE VERTICAL REINFORCING. DO NOT PLACE SLEDS AT THE SAME LOCATION.

CONCRETE

1. ALL CONCRETE REINFORCING BARS SHALL CONFORM TO ASTM A615, GRADE 60, EXCEPT WHERE NOTED. NO. 3 BARS SHALL CONFORM TO ASTM A615, GRADE 40. DEFORMED BAR ANCHORS SHALL CONFORM TO ASTM A496, GR 70. ALL WELDED WIRE FABRIC SHALL BE SMOOTH ROUND WIRE IN FLAT SHEETS (NOT ROLLED) AND CONFORM TO ASTM A185.

2. CONCRETE PERTAINING TO THE FOLLOWING ITEMS SHALL HAVE SAND AND CRUSHED CARBONATE AGGREGATE CONFORMING TO ASTM C33, TYPE I/II PORTLAND CEMENT CONFORMING TO ASTM C150 AND FLY ASH CONFORMING TO ASTM C618, CLASS 'C' OR 'F' UP TO 25 PERCENT REPLACEMENT BY VOLUME. CONCRETE MIX DESIGNS SHALL CONFORM TO ACI 318-11 TABLE 4.2.1, 4.3.1 AND 4.4.1 FOR ADDITIONAL REQUIREMENTS DUE TO FREEZING AND THAWING EXPOSURE CLASS ALONG WITH THE FOLLOWING DESIGNATED COMPRESSIVE STRENGTH (f'c) IN 28 DAYS:

CONCRETE MIX DESIGN REQUIREMENTS

MEMBER TYPE	STRENGTH (PSI)	MAXIMUM AGGREGATE	MAXIMUM W/C RATIO
FOUNDATION			
DRILLED PIERS	3000	1"	0.55

   CONCRETE SUPPLIER SHALL BE AWARE OF CEMENTS THAT CAN CAUSE DELAYED ETTRINGITE FORMATION IN THE CEMENT PASTE AND BE PREPARED TO SHOW THAT THE CEMENTS USED WILL NOT CAUSE THIS PROBLEM.

3. CONCRETE PROTECTION FOR REINFORCEMENT SHALL BE AS FOLLOWS; SEE SEC. 7.7 ACI 318, LATEST EDITION FOR CONDITIONS NOT NOTED.

   CONCRETE CAST AGAINST AND PERMANENTLY EXPOSED TO EARTH - 3"

   CONCRETE EXPOSED TO EARTH OR WEATHER:
   #6 THRU #18 BARS - 2"
   #5 BAR AND SMALLER - 1 1/2"

   CONCRETE NOT EXPOSED TO WEATHER OR IN CONTACT WITH GROUND:
   #14 & #18 BAR - 1 1/2"
   #11 BAR AND SMALLER - 3/4"

4. PROVIDE CHAIR SUPPORTS (AZTEC EZ CHAIR, WHC SERIES 'B' OR EQUAL) TO ADEQUATELY SUPPORT BARS FOR PROPER CLEARANCE AS RECOMMENDED BY THE AMERICAN CONCRETE INSTITUTE AND THE CONCRETE REINFORCING STEEL INSTITUTE. SLAB ON GRADE REINFORCEMENT SHALL BE SUPPORTED AT 45-INCH MAXIMUM INTERVALS OR EVERY THIRD BAR.

5. NO HORIZONTAL JOINTS WILL BE PERMITTED IN CONCRETE EXCEPT WHERE THEY NORMALLY OCCUR OR WHERE NOTED. VERTICAL JOINTS SHALL ONLY OCCUR AT LOCATIONS APPROVED BY THE STRUCTURAL ENGINEER.

6. DETAILING OF CONCRETE REINFORCEMENT AND ACCESSORIES SHALL BE IN ACCORDANCE WITH ACI PUBLICATION 315, LATEST EDITION. ALL HOOKED BARS SHOWN IN DETAILS SHALL HAVE STANDARD HOOKS UNLESS NOTED OTHERWISE.

7. REINFORCING BARS SHALL NOT BE WELDED WITHOUT APPROVAL OF THE STRUCTURAL ENGINEER.

8. ALL CONTINUOUS REINFORCEMENT SHALL BE SPLICED WITH A CLASS 'B' TENSION SPLICE, UNLESS NOTED OTHERWISE. PROVIDE TOP AND BOTTOM BARS (TWO 36" LEGS MINIMUM WITH 90 DEGREE BEND) TO MATCH SIZE AND SPACING OF CONTINUOUS REINFORCING AT CORNERS AND INTERSECTIONS, AND AT 18" ON CENTER VERTICALLY AT WALLS.

9. ALL MIXING, TRANSPORTING, PLACING AND CURING OF CONCRETE SHALL BE DONE IN ACCORDANCE WITH THE RECOMMENDATIONS OF THE AMERICAN CONCRETE INSTITUTE, ACI 301, LATEST EDITION.

10. ALL BASE PLATES AND ANCHOR RODS SHALL BE PROTECTED WITH 3" (MIN.) OF CONCRETE. ANCHOR RODS SHALL BE FABRICATED FROM FULL BODIED STEEL RODS CONFORMING TO ASTM F1554, GRADE 36, WASHERS CONFORMING TO ASTM F436 AND NUTS CONFORMING TO ASTM A194 OR A563 AND HAVING THE SAME DIAMETER AS THE BOLT DIAMETER AND USING CUT THREADS. ROLLED THREADS ARE NOT ACCEPTABLE. BOLTS SHALL BE SET USING RIGID TEMPLATES.

11. ALL DOWELS, ANCHOR BOLTS, EMBEDDED STEEL, ELECTRICAL CONDUITS, PIPE SLEEVES, PIPING, WATERSTOPS, INSERTS, GROUNDS, AND ALL OTHER EMBEDDED ITEMS AND FORMED DETAILS SHALL BE IN PLACE BEFORE START OF CONCRETE PLACEMENT. FOR EMBEDDED ITEMS AND REQUIRED DETAILS, SEE MECHANICAL, ELECTRICAL, AND ARCHITECTURAL DRAWINGS. VERIFY SIZE AND LOCATIONS OF ALL OPENINGS.

STRUCTURAL STEEL

1. A NON-SHRINK GROUT SHALL BE USED UNDER ALL STEEL COLUMN BASE PLATES. GROUT SHALL CONFORM TO ASTM C1107 AND THE CORPS OF ENGINEERS SPECIFICATION CRD-C-621. GROUT SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 6000 PSI. 100 PERCENT OF VOID UNDER ALL BASE PLATES IS TO BE GROUTED. ALL BASE PLATES WITH A DIMENSION GREATER THAN 24" SHALL HAVE TWO 1" DIAMETER GROUT HOLES. IF THE SPACE UNDER A COLUMN BASE PLATE IS LESS THAN 1/4", A PRESSURE INJECTION SYSTEM SHALL BE USED.

2. ALL STRUCTURAL STEEL DESIGN, DETAILING, FABRICATION AND ERECTION SHALL CONFORM TO LOAD AND RESISTANCE FACTOR DESIGN (LRFD) ACCORDING TO THE LATEST EDITION AISC SPECIFICATION.

3. ALL WELDING SHALL CONFORM TO THE STANDARDS OF THE LATEST EDITION OF THE MANUAL OF STEEL CONSTRUCTION OF THE AMERICAN INSTITUTE OF STEEL CONSTRUCTION, AND THE AMERICAN WELDING SOCIETY ANSI/AWS D1.1 STRUCTURAL WELDING CODE-STEEL. WELDING OF REINFORCING BARS SHALL COMPLY TO THE AMERICAN WELDING SOCIETY AWS D1.4. SHORT CIRCUIT TRANSFER FOR THE GAS METAL ARC WELDING PROCESS IS NOT PERMITTED.

4. ELECTRODES FOR ALL FIELD AND SHOP WELDING SHALL BE CLASS E70XX.

5. ALL STRUCTURAL STEEL ROLLED W-SHAPES SHALL CONFORM TO ASTM A992, AND ALL ANGLES, BARS, CHANNELS AND PLATES SHALL CONFORM TO ASTM A36. ALL SQUARE AND RECTANGULAR HSS (Fy 50 KSI) AND ROUND HSS (Fy 46KSI) SHALL CONFORM TO ASTM A500 GRADE C. ROUND PIPES (Fy 36KSI) SHALL CONFORM TO ASTM A53 GR B.

6. ALL MISCELLANEOUS WELDS (FIELD OR SHOP) SHALL BE MINIMUM SIZE FILLET ALL AROUND IN ACCORDANCE WITH AISC. WELDING OF CONTINUOUS MEMBERS SHALL BE A MINIMUM OF 2 INCHES OF 3/16 INCH FILLET STITCH WELDS AT 12 INCHES O.C., STAGGERED EACH SIDE, UNLESS NOTED OTHERWISE. COLUMN BASE PLATES, CAP PLATES AND STIFFENER PLATES SHALL BE WELDED ALL AROUND.

7. PROVIDE ALL NECESSARY HOLES IN MISCELLANEOUS STRUCTURAL STEEL MEMBERS FOR ATTACHMENT OF NON-STRUCTURAL ITEMS (IE: WINDOW HEAD ANCHORS, CAST STONE ATTACHMENT, ETC), SEE ARCHITECTURAL DRAWINGS FOR REQUIREMENTS.

8. SPLICING OF STRUCTURAL STEEL MEMBERS WHERE NOT DETAILED IS PROHIBITED WITHOUT PRIOR APPROVAL OF THE STRUCTURAL ENGINEER.

9. ALL CONNECTION BOLTS FOR STRUCTURAL STEEL MEMBERS SHALL CONFORM TO ASTM A325 EXCEPT WHERE NOTED OTHERWISE. MINIMUM SIZE SHALL BE 3/4 INCH DIAMETER UNLESS NOTED OTHERWISE. BOLTS SHALL BE TWIST OFF TYPE TENSION CONTROLLED BOLTS CONFORMING TO ASTM F1852 WITH HARDENED WASHERS UNDER THE NUT. HEX HEAD NUTS SHALL CONFORM TO ASTM A563 AND WASHERS SHALL CONFORM TO ASTM F436.

10. SHOP BOLTED CONNECTIONS ARE PERMISSIBLE IF SUFFICIENT BOLT CLEARANCE IS AVAILABLE FOR TIGHTENING OF HIGH STRENGTH BOLTS. CLEARANCES SHALL BE IN ACCORDANCE WITH TABLE 7-16 AND 7-17 OF THE LATEST EDITION OF THE MANUAL OF STEEL CONSTRUCTION OF THE AISC. ALL STEEL MEMBERS AND ASSEMBLIES SHALL BE SHOP FABRICATED TO THE GREATEST EXTENT POSSIBLE. TRUSSES SHALL BE PREASSEMBLED, AND FIELD SPLICES FOR SHIPPING SHALL BE APPROVED BY THE ENGINEER OF RECORD. THE STEEL FABRICATOR AND THE STEEL ERECTOR SHALL COORDINATE THE SHOP FABRICATION, SHIPPING AND ERECTION OF ALL STRUCTURAL MEMBERS AND ASSEMBLIES.

11. ALL STRUCTURAL STEEL FOR THE FISHING PIER SHALL BE HOT DIPPED GALVANIZED. ZINC COATING SHALL MEET THE REQUIREMENTS OF ASTM 123-73, WITH A MINIMUM COATING CLASS OF G85 UNLESS SPECIFIED OTHERWISE BY ARCHITECT AND SHALL BE APPLIED AFTER FABRICATION. ALL FIELD WELDS SHALL BE GROUND SMOOTH AND TOUCHED UP WITH A ZINC RICH PAINT.

12. THE GENERAL CONTRACTOR AND SUBCONTRACTOR'S SHALL COMPLY TO OSHA 29 CFR 1926 SUBPART R, SAFETY STANDARDS FOR STEEL ERECTION.

13. AS SCOPE AND PERFORMANCE DOCUMENTS, THE DRAWINGS AND SPECIFICATIONS DO NOT INDICATE OR DESCRIBE ALL OF THE WORK REQUIRED FOR THE PERFORMANCE AND COMPLETION OF THIS WORK. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR THE FABRICATION AND INSTALLATION OF ALL MISCELLANEOUS METAL ITEMS INDICATED, DESCRIBED, OR IMPLIED ON THE STRUCTURAL AND/OR THE ARCHITECTURAL DRAWINGS. MISCELLANEOUS STEEL ITEMS, WITHIN AN ASSEMBLY AND NOT ATTACHED TO THE STRUCTURE, ARE THE RESPONSIBILITY OF THE GENERAL CONTRACTOR AND SUBCONTRACTORS WHETHER THEY ARE SHOWN OR NOT SHOWN ON THE ARCHITECTURAL OR STRUCTURAL DRAWINGS. SUCH ASSEMBLIES INCLUDE BUT ARE NOT LIMITED TO, EXTERIOR AND INTERIOR WALLS, CEILINGS, PARTITIONS, SHELVES AND CABINETS, AND ALL OTHER SIMILAR ASSEMBLIES. ANY MISCELLANEOUS METAL ITEMS INDICATED ON THE ARCHITECTURAL DRAWINGS WITHOUT SIZES AND NOT SHOWN ON STRUCTURAL DRAWINGS SHALL BE A MINIMUM OF L4x4x1/2", C7x9.8, 3/8" PLATE OR HSS4x4x3/8" UNLESS OTHERWISE APPROVED BY THE STRUCTURAL ENGINEER.

STRUCTURAL TESTING AND INSPECTIONS

DRILLED PIERS TESTING

1. DURING DRILLED PIER OPERATIONS KEEP A COMPETENT TRAINED TECHNICIAN ASSIGNED TO THE PROJECT. SERVICES PROVIDED SHALL INCLUDE:
   A. OBSERVING THE BOTTOM OF SHAFT FOR CLEANLINESS.
   B. CHECKING SHAFT FOR CONFORMANCE TO REQUIRED TOLERANCES. PIERS SHALL BE WITHIN 3" OF THEIR REQUIRED LOCATIONS AND SHAFTS SHALL NOT BE OUT OF PLUMB BY MORE THAN 2 PERCENT OF THE SHAFT LENGTH.
   C. CHECKING SHAFT BOTTOM FOR PROPER BEARING MATERIAL.
   D. NOTING DEPTH AND DIAMETER OF ALL PIERS.
   E. VERIFY QUANTITY, SIZE AND LOCATION OF REINFORCEMENT.
   F. CHECK FOR CAVING OF SHAFT WALLS.
2. ENSURE THAT THE SPOILS FROM THE DRILLED PIER EXCAVATIONS ARE REMOVED FROM THE BUILDING PAD AND THAT THE PAD IS MOISTURE CONDITIONED AND RECOMPACTED AS SPECIFIED.

CONCRETE TESTING

1. CONCRETE MIX DESIGNS SHALL BE SUBMITTED FOR REVIEW INDICATING CONFORMANCE WITH ACI 318, LATEST EDITION, CHAPTER 5, SECTION 5.3.

2. SLUMP TESTS, CONFORMING TO ASTM C143, SHALL BE TAKEN AT THE POINT OF DISCHARGE AT THE SAME RATE AS NOTED BELOW IN NOTE NUMBER 5.

3. AIR CONTENT TESTS CONFORMING TO ASTM C173, VOLUMETRIC METHOD FOR LIGHTWEIGHT OR NORMAL WEIGHT CONCRETE; ASTM C231 PRESSURE METHOD FOR NORMAL WEIGHT CONCRETE; SHALL BE TAKEN FOR EACH DAY'S POUR OF EACH TYPE OF AIR-ENTRAINED CONCRETE.

4. CONCRETE TEMPERATURE SHALL BE TESTED HOURLY WHEN AIR TEMPERATURE IS 40 DEG F (4 DEG C) AND BELOW, WHEN 80 DEG F (27 DEG C) AND ABOVE, AND EACH TIME A SET OF COMPRESSION TEST SPECIMENS IS MADE.

5. ONE SET OF FOUR COMPRESSION TEST SPECIMENS CONFORMING TO ASTM C31 SHALL BE MOLDED AND STORED FOR LABORATORY-CURED SPECIMENS. COMPRESSIVE STRENGTH TESTS SHALL CONFORM TO ASTM C39 AND SHALL CONSIST OF ONE SET FOR EACH DAY'S POUR EXCEEDING 5 CU. YDS, BUT LESS THAN 25 CU. YDS, PLUS ADDITIONAL SETS FOR EACH ADDITIONAL 50 CU. YDS. OF EACH CONCRETE CLASS PLACED IN ANY ONE DAY. FOR 6"x12" CYLINDERS: ONE SPECIMEN SHALL BE TESTED AT 7 DAYS, TWO SPECIMENS SHALL BE TESTED AT 28 DAYS, AND ONE SPECIMEN SHALL BE RETAINED FOR LATER TESTING AS REQUIRED. FOR 4"x8" CYLINDERS: ONE SPECIMEN SHALL BE TESTED AT 7 DAYS, THREE SPECIMENS SHALL BE TESTED AT 28 DAYS, AND ONE SPECIMEN SHALL BE RETAINED FOR LATER TESTING AS REQUIRED

6. VERIFY CONCRETE IS BEING CONSOLIDATED IN ACCORDANCE WITH THE RECOMMENDATIONS OF ACI 318 AND ACI 308R, LATEST EDITION.

7. VERIFY THAT POST INSTALLED ANCHORS ARE AS SPECIFIED AND THAT THE ANCHORS ARE INSTALLED PER THE MANUFACTURER'S RECOMMENDATIONS AND REQUIREMENTS.

REINFORCING STEEL INSTALLATION

1. A COMPETENT TRAINED TECHNICIAN SHOULD BE KEPT AT ALL TIMES DURING CAST-IN-PLACE REINFORCING PLACEMENT OPERATIONS. REINFORCING STEEL INSPECTION SHALL FOLLOW THE GUIDELINES SET FORTH IN ACI 311.4R "GUIDE FOR CONCRETE INSPECTION". INSPECTION SERVICES SHALL INCLUDE:

   A. VERIFY TYPE AND GRADE OF ALL REINFORCING STEEL.
   B. VERIFY REBAR IS FREE OF OIL, DIRT, EXCESSIVE RUST AND FROM DAMAGE DURING SHIPMENT TO SITE.
   C. VERIFY REINFORCING IS ADEQUATELY TIED, CHAIRED AND SUPPORTED TO PREVENT DISPLACEMENT DURING CONCRETE PLACEMENT.
   D. VERIFY MINIMUM AND MAXIMUM CLEAR DISTANCES BETWEEN BARS AND MINIMUM STRUCTURAL DISTANCE TO OUTSIDE OF CONCRETE.
   E. VERIFY QUANTITY, SIZE AND LOCATION OF REINFORCEMENT.
   F. VERIFY MINIMUM CONCRETE COVER IS MAINTAINED BETWEEN REBAR AND SURFACE OF CONCRETE.
   G. VERIFY SIZE, PLACEMENT, LAP LENGTHS, LOCATION OF LAPS, BEND LOCATIONS, SLOPE, LENGTH, HOOKED BAR LENGTHS AND LOCATIONS.

STRUCTURAL STEEL TESTING

1. CERTIFY WELDERS FOR THE WELD TYPES IN THE PROJECT AND CONDUCT INSPECTIONS AND TESTS AS REQUIRED, AS A MINIMUM, WELDERS SHALL BE AISC CERTIFIED. RECORD TYPES AND LOCATIONS OF DEFECTS FOUND IN WORK. RECORD WORK REQUIRED AND PERFORMED TO CORRECT DEFICIENCIES.

2. VISUALLY INSPECT SHOP AND FIELD WELDS IN ACCORDANCE WITH AWS D1.1/D1.1M.

3. ALL WELDS THAT FAIL SHALL BE REWELDED AND RETESTED UNTIL THEY PASS THE TEST. TEST TWO ADDITIONAL WELDS AT THE CONTRACTOR'S EXPENSE FOR EVERY WELD FAILURE.

4. VISUALLY INSPECT WELDS ON 100% OF ALL STUDS AND TEST 10% BY THE METHOD DESCRIBED BELOW IN COMPLIANCE WITH AWS D1.1. HEADED STUD SHALL BE TESTED BY ALTERNATELY BENDING 30 DEG. IN OPPOSITE DIRECTIONS FROM ITS ORIGINAL AXIS BY EITHER STRIKING THE STUDS WITH A HAMMER ON THE UNWELDED END OR PLACING A PIPE OR OTHER SUITABLE HOLLOW DEVICE OVER THE STUD AND MANUALLY OR MECHANICALLY BENDING THE STUD. IF FAILURE RATE IS 10% OR GREATER, TEST 100% OF STUDS AT CONTRACTOR'S EXPENSE UNTIL FAILURE RATE FALLS BELOW 10%. IF A VISUAL INSPECTION REVEALS ANY STUD THAT DOES NOT SHOW A FULL 360 DEG. FLASH (AS DEFINED IN AWS D1.1) OR ANY STUD THAT HAS BEEN REPAIRED BY WELDING, SUCH STUD SHALL BE BENT TO AN ANGLE OF APPROXIMATELY 15 DEG. FROM ITS ORIGINAL AXIS. THE DIRECTION OF BENDING FOR STUDS WITH LESS THAN 360 DEG. FLASH SHALL BE OPPOSITE TO THE MISSING PORTION OF FLASH.

5. BOLTS SHALL BE VISUALLY INSPECTED WHEN TWIST-OFF SPLINES ARE USED, OTHERWISE BOLTS SHALL BE SNUG TIGHT.

CAST-IN-PLACE DEEP FOUNDATION ELEMENTS
(TABLE 1705.8)

VERIFICATION AND INSPECTION		INSPECTION FREQUENCY	
		CONTINUOUS	PERIODIC
1.	INSPECT DRILLING OPERATIONS AND MAINTAIN COMPLETE AND ACCURATE RECORDS FOR EACH ELEMENT.	X	
2.	VERIFY PLACEMENT LOCATIONS AND PLUMBNESS, CONFIRM ELEMENT DIAMETERS, BELL DIAMETERS (IF APPLICABLE), LENGTHS, EMBEDMENT INTO BEDROCK (IF APPLICABLE) AND ADEQUATE END-BEARING STRATA CAPACITY. RECORD CONCRETE OR GROUT VOLUMES.	X	
3.	FOR CONCRETE ELEMENTS, PERFORM ADDITIONAL INSPECTIONS IN ACCORDANCE WITH SECTION 1705.3.		

CONCRETE CONSTRUCTION
(TABLE 1705.3)

VERIFICATION AND INSPECTION		INSPECTION FREQUENCY	
		CONTINUOUS	PERIODIC
1.	INSPECTION OF REINFORCING STEEL, INCLUDING PRESTRESSING TENDONS, AND PLACEMENT.		X
2.	INSPECTION OF REINFORCING STEEL WELDING IN ACCORDANCE WITH TABLE 1705.2.2, ITEM 2b.		
a.	VERIFY WELDABILITY OF REINFORCING BARS OTHER THAN ASTM A 706		X
b.	INSPECT SINGLE-PASS FILLET WELDS, MAXIMUM 5/16"		X
c.	INSPECT ALL OTHER WELDS	X	
3.	INSPECT ANCHORS CAST IN CONCRETE		X
4.	INSPECTION OF ANCHORS POST-INSTALLED IN HARDENED CONCRETE MEMBERS.		
a.	ADHESIVE ANCHORS INSTALLED IN HORIZONTALLY OR UPWARDLY INCLINED ORIENTATIONS TO RESIST SUSTAINED TENSION LOADS.	X	
b.	MECHANICAL ANCHORS AND ADHESIVE ANCHORS NOT DEFINED IN 4.a.		X
5.	VERIFYING USE OF REQUIRED DESIGN MIX.		X
6.	PRIOR TO CONCRETE PLACEMENT, FABRICATE SPECIMENS FOR STRENGTH TESTS, PERFORM SLUMP AND AIR CONTENT TESTS, AND DETERMINE THE TEMPERATURE OF THE CONCRETE	X	
7.	INSPECTION OF CONCRETE AND SHOTCRETE PLACEMENT FOR PROPER APPLICATION TECHNIQUES.	X	
8.	VERIFY MAINTENANCE OF SPECIFIED CURING TEMPERATURE AND TECHNIQUES.		X
9.	INSPECTION OF PRESTRESSED CONCRETE:		
a.	APPLICATION OF PRESTRESSING FORCES.	X	
b.	GROUTING OF BONDED PRESTRESSING TENDONS.	X	
10.	ERECTION OF PRECAST CONCRETE MEMBERS.		X
11.	VERIFICATION OF IN-SITU CONCRETE STRENGTH, PRIOR TO STRESSING OF TENDONS IN POST-TENSIONED CONCRETE AND PRIOR TO REMOVAL OF SHORES AND FORMS FROM BEAMS AND STRUCTURAL SLABS.		X
12.	INSPECT FORMWORK FOR SHAPE, LOCATION AND DIMENSIONS OF THE CONCRETE MEMBER BEING FORMED.		X

STEEL CONSTRUCTION
(SECTION 1705.2)

VERIFICATION AND INSPECTION		INSPECTION FREQUENCY	
		CONTINUOUS	PERIODIC
1.	MATERIAL VERIFICATION OF COLD-FORMED STEEL DECK:		
a.	SPECIAL INSPECTIONS AND QUALIFICATION OF WELDING SPECIAL INSPECTORS FOR COLD-FORMED STEEL FLOOR AND ROOF DECK SHALL BE IN ACCORDANCE WITH THE QUALITY ASSURANCE INSPECTIONS REQUIREMENTS OF SDI QA/QC.		
2.	INSPECTION OF WELDING:		
a.	COLD-FORMED STEEL DECK:		
	1) FLOOR AND ROOF DECK WELDS PER SDI QA/QC		

STRUCTURAL STEEL CONSTRUCTION
(AISC 360)

VERIFICATION AND INSPECTION		INSPECTION FREQUENCY	
		CONTINUOUS	PERIODIC
1.	INSPECTION TASKS PRIOR TO WELDING (TABLE N5.4-1)		
a.	WELDING PROCEDURE SPECIFICATIONS (WPsS) AVAILABLE	X	
b.	MANUFACTURER CERTIFICATIONS FOR WELDING CONSUMABLES AVAILABLE	X	
c.	MATERIAL IDENTIFICATION (TYPE/GRADE)		X
d.	WELDER IDENTIFICATION SYSTEM		X
e.	FIT-UP GROOVE WELDS (INCLUDING JOINT GEOMETRY)		
	1) JOINT PREPARATION		X
	2) DIMENSIONS (ALIGNMENT, ROOT OPENING, ROOT FACE, BEVEL)		X
	3) CLEANLINESS (CONDITION OF STEEL SURFACES)		X
	4) TACKING (TACK WELD QUALITY AND LOCATION)		X
	5) BACKING TYPE AND FIT (IF APPLICABLE)		X
f.	CONFIGURATION AND FINISH OF ACCESS HOLES		X
g.	FIT-UP OF FILLET WELDS		
	1) DIMENSIONS (ALIGNMENT, GAPS AT ROOT)		X
	2) CLEANLINESS (CONDITION OF STEEL SURFACES)		X
	3) TACKING (TACK WELD QUALITY AND LOCATION)		X
h.	CHECK WELDING EQUIPMENT		X
2.	INSPECTION TASKS DURING WELDING (TABLE N5.4-2)		
a.	USE OF QUALIFIED WELDERS		X
b.	CONTROL AND HANDLING OF WELDING CONSUMABLES		
	1) PACKAGING		X
	2) EXPOSURE CONTROL		X
c.	NO WELDING OVER CRACKED TACK WELDS		X
d.	ENVIRONMENTAL CONDITIONS		
	1) WIND SPEED WITHIN LIMITS		X
	2) PRECIPITATION AND TEMPERATURE		X
e.	WPS FOLLOWED		
	1) SETTINGS ON WELDING EQUIPMENT		X
	2) TRAVEL SPEED		X
	3) SELECTED WELDING MATERIALS		X
	4) SHIELDING GAS TYPE/FLOW RATE		X
	5) PREHEAT APPLIED		X
	6) INTERPASS TEMPERATURE MAINTAINED (MIN/MAX)		X
	7) PROPER POSITION (F,V,H, OH)		X
f.	WELDING TECHNIQUES		
	1) INTERPASS AND FINAL CLEANING		X
	2) EACH PASS WITHIN PROFILE LIMITATIONS		X
	3) EACH PASS MEETS QUALITY REQUIREMENTS		X
3.	INSPECTION TASKS AFTER WELDING (TABLE N5.4-3)		
a.	WELDS CLEANED		X
b.	SIZE, LENGTH AND LOCATION OF WELDS	X	
c.	WELDS MEET VISUAL ACCEPTANCE CRITERIA		
	1) CRACK PROHIBITION	X	
	2) WELD/BASE-METAL FUSION	X	
	3) CRATER CROSS SECTION	X	
	4) WELD PROFILES	X	
	5) WELD SIZE	X	
	6) UNDERCUT	X	
	7) POROSITY	X	
d.	ARC STRIKES	X	
e.	K-AREA	X	
f.	BACKING REMOVED AND WELD TABS REMOVED (IF REQUIRED)	X	
g.	REPAIR ACTIVITIES	X	
h.	DOCUMENT ACCEPTANCE OR REJECTION OF WELDED JOINT OR MEMBER	X	
4.	INSPECTION TASKS PRIOR TO BOLTING (TABLE N5.6-1)		
a.	MANUFACTURER'S CERTIFICATION AVAILABLE FOR FASTENER MATERIALS	X	
b.	FASTENERS MARKED IN ACCORDANCE WITH ASTM REQUIREMENTS		X
c.	PROPER FASTENERS SELECTED FOR JOINT DETAIL (GRADE, TYPE, BOLT LENGTH IF THREADS ARE TO BE EXCLUDED FROM SHEAR PLANE)		X
d.	PROPER BOLTING PROCEDURE SELECTED FOR JOINT DETAIL		X
e.	CONNECTING ELEMENTS, INCLUDING APPROPRIATE FAYING SURFACE CONDITION AND HOLE PREPARATION, IF SPECIFIED, MEET APPLICABLE REQUIREMENTS		X
f.	PRE-INSTALLATION VERIFICATION TESTING BY INSTALLATION PERSONNEL OBSERVED AND DOCUMENTED FOR FASTENER ASSEMBLIES AND METHODS USED		X
g.	PROPER STORAGE PROVIDED FOR BOLTS, NUTS, WASHERS, AND OTHER FASTENER COMPONENTS		X
5.	INSPECTION TASKS DURING BOLTING (TABLE N5.6-2)		
a.	FASTENER ASSEMBLIES OF SUITABLE CONDITION, PACED IN ALL HOLES AND WASHERS (IF REQUIRED) ARE POSITIONED AS REQUIRED		X
b.	JOINT BROUGHT TO THE SNUG-TIGHT CONDITION PRIOR TO PRETENSIONING OPERATIONS		X
c.	FASTENER COMPONENT NOT TURNED BY THE WRENCH PREVENTED FROM ROTATING		X
d.	FASTENERS ARE PRETENSIONED IN ACCORDANCE WITH RCSC SPECIFICATION, PROGRESSING SYSTEMATICALLY FROM THE MOST RIGID POINT TOWARD THE FREE EDGES		X
6.	INSPECTION TASKS AFTER BOLTING		
a.	DOCUMENT ACCEPTANCE OR REJECTION OF BOLTED CONNECTIONS	X	
7.	OTHER STEEL INSPECTIONS (SECTION N5.7)		
a.	ANCHOR RODS AND OTHER EMBEDMENTS SUPPORTING STRUCTURAL STEEL	X	
b.	FABRICATED STEEL OR ERECTED STEEL FRAME		X

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LICENSED PROFESSIONAL ENGINEER
03/29/2021
TX FIRM REG No. F-1114

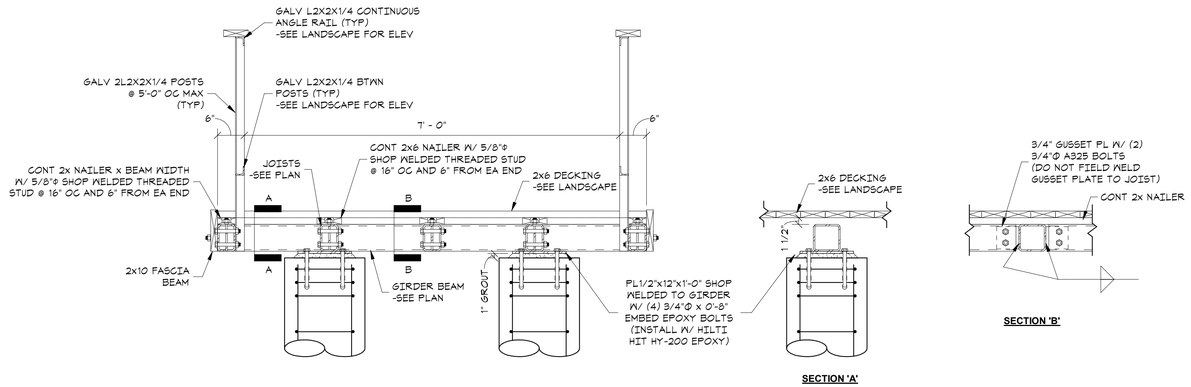
PALO PINTO MOUNTAINS STATE PARK
SITE DEVELOPMENT
TPWD PROJECT NO. 118271

DATE: 03/29/2021
DESIGNED BY: NH
DRAWN BY: NH
REVIEWED BY: RR

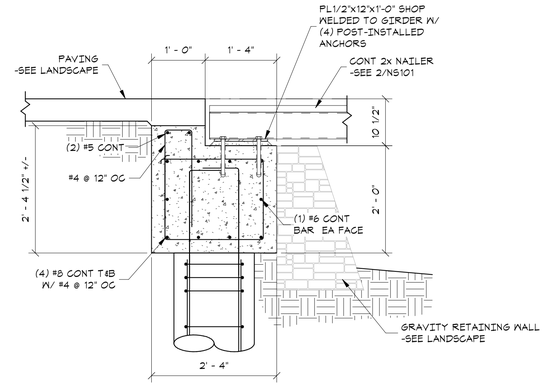
REV DESC DATE

SHEET TITLE
FISHING PIER STRUCTURAL NOTES

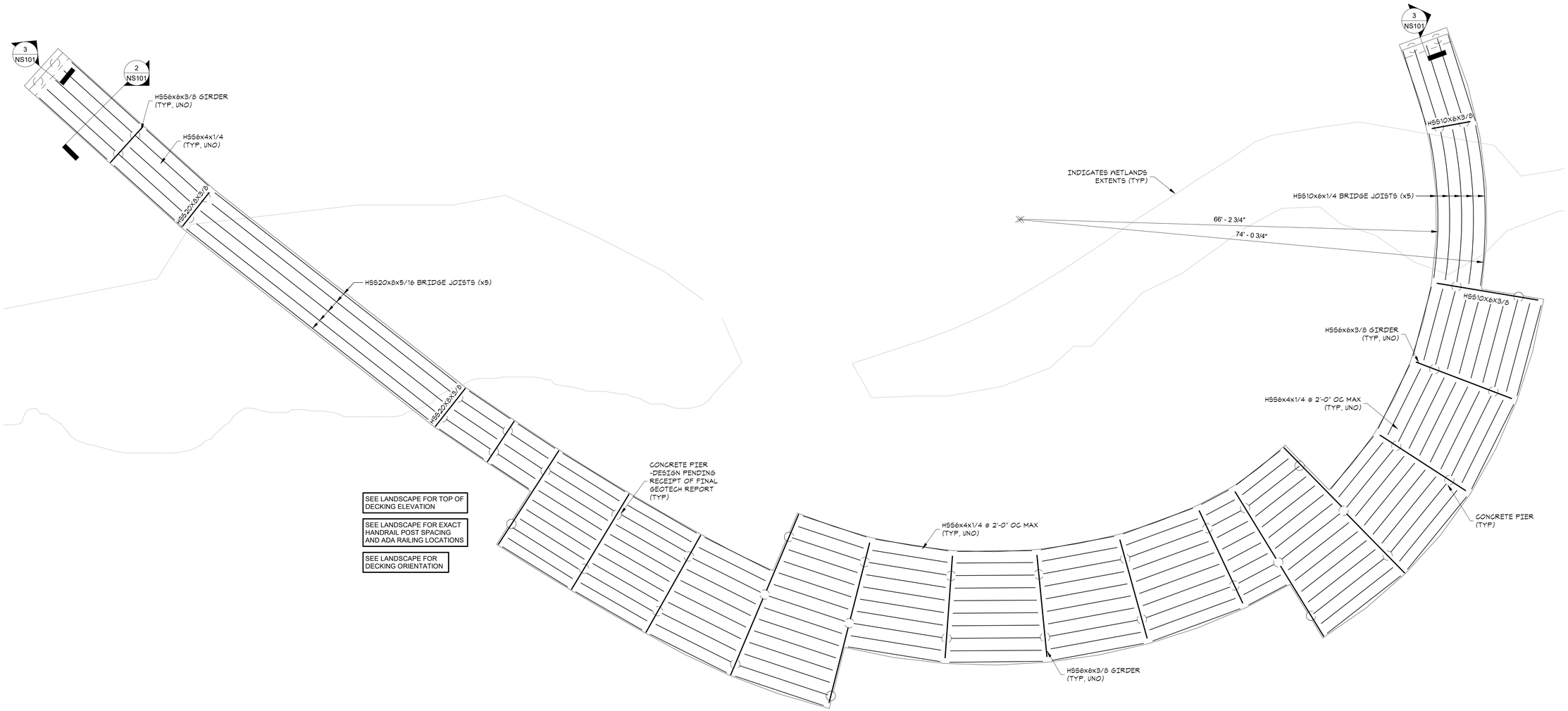
SHEET NUMBER
1
NS100



2 PIER DETAILS
SCALE: 3/4" = 1'-0"



3 ABUTMENT DETAIL
SCALE: 3/4" = 1'-0"



SEE LANDSCAPE FOR TOP OF DECKING ELEVATION

SEE LANDSCAPE FOR EXACT HANDRAIL POST SPACING AND ADA RAILING LOCATIONS

SEE LANDSCAPE FOR DECKING ORIENTATION

FISHING PIER PLAN
SCALE: 1/8" = 1'-0"

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SITE DEVELOPMENT
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DATE: 03/29/2021
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REVIEWED BY: RR

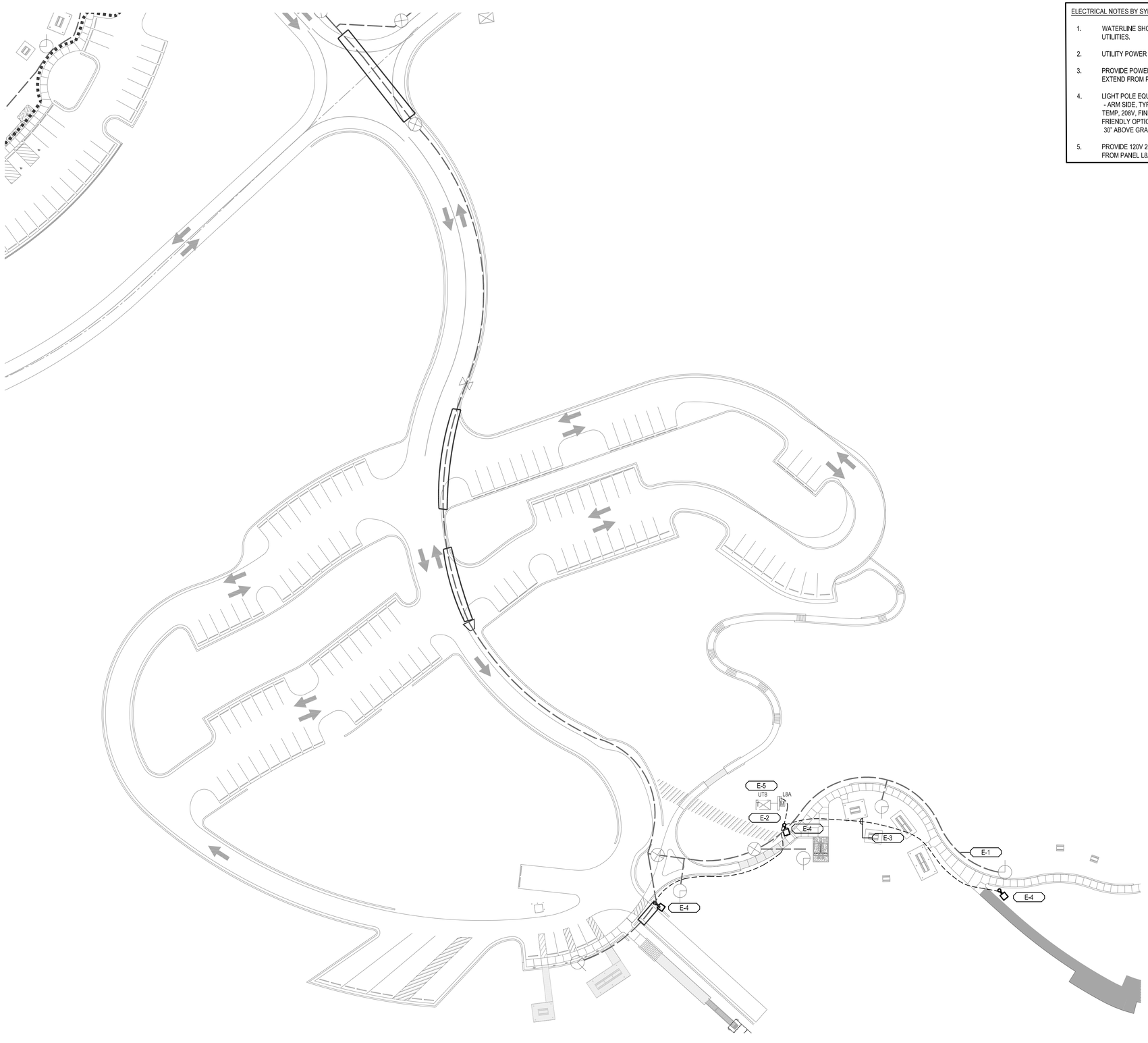
REV DESC DATE

SHEET TITLE
FISHING PIER PLAN

SHEET NUMBER
1
NS101

ELECTRICAL NOTES BY SYMBOL (E-X)

1. WATERLINE SHOWN FOR REFERENCE ONLY, FOR COORDINATION OF UNDERGROUND UTILITIES.
2. UTILITY POWER PROVISIONS THIS AREA SHOWN FOR INFORMATION ONLY.
3. PROVIDE POWER TO THE LIGHT POLES VIA (1) 1" CONDUIT PROVIDED PHASE 00. EXTEND FROM PANEL L8A, WIRE WITH 2# 10, 1# 10G.
4. LIGHT POLE EQUAL TO KIM ARCHITYPE 1SA-SAR3-E35-60L-3K-208-TBD-A31-NFO-SCH-R - ARM SIDE, TYPE III DISTRIBUTION, 350ma DRIVER, 66W LED 3K COLOR TEMP, 208V, FINISH TBD, BUTTON PHOTOCELL AND OCCUPANCY SENSOR, NEIGHBOR FRIENDLY OPTIC, ROUND POLE 5", 20FT POLE INSTALLED ON CONCRETE BASE 30" ABOVE GRADE.
5. PROVIDE 120V 20A/1P POWER FOR WIFI TRANSMITTER SERVING THIS AREA. EXTEND FROM PANEL L8A, WIRE WITH 2# 10, 1# 10G. COORDINATE LOCATION WITH TPWD.



1 **ELECTRICAL SITE PLAN - LAKESIDE DAY USE**
1" = 40'-0"
0' 40' 80' 120'

TEXAS PARKS & WILDLIFE

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STATE OF TEXAS
ILL BASCEANUS
07463
LICENSED
PROFESSIONAL ENGINEER
3/29/21

PALO PINTO MOUNTAINS STATE PARK
SITE DEVELOPMENT
TPWD PROJECT NO. 118271

DATE:	2021/03/29
DESIGNED BY:	ILB
DRAWN BY:	AC
REVIEWED BY:	ILB

REV DESC DATE

SHEET TITLE
ELECTRICAL SITE PLAN - LAKESIDE DAY USE

SHEET NUMBER
1
NE101

EXISTING DIRT ROAD TO BE REMOVED. NOT IN THIS CONTRACT

EXISTING BARBED WIRE FENCE TO BE REMOVED. LENGTHS TO BE VERIFIED IN THE FIELD.

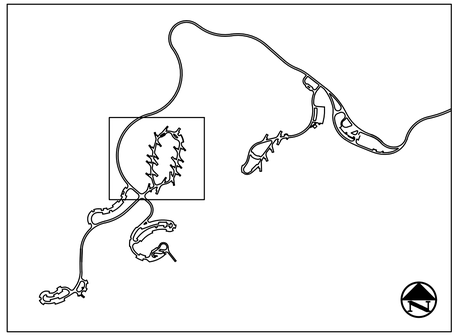
LEGEND

- BL — BOLLARD
- EM — ELECTRIC METER
- PP — POWER POLE
- LS — LIGHT STANDARD
- WM — WATER METER
- WV — WATER VALVE
- ICV — IRRIGATION CONTROL VALVE
- FH — FIRE HYDRANT
- CO — CLEANOUT
- MH — MANHOLE
- TSC — TRAFFIC SIGNAL CONTROL
- TSP — TRAFFIC SIGNAL POLE
- TELE — TELEPHONE BOX
- FLOOD LIGHT
- FP — FLAG POLE
- SIGN — TRAFFIC SIGN
- IRS — 1/2-INCH IRON ROD W/"PACHECO KOCH" CAP SET
- (C.M.) — CONTROLLING MONUMENT
- PROPERTY LINE
- X — FENCE
- OHL — OVERHEAD UTILITY LINE
- F — FIBER OPTIC LINE
- 30" R.C.P. — UNDERGROUND STORM LINE
- E — UNDERGROUND ELECTRIC LINE
- T — UNDERGROUND TELEPHONE LINE
- C — UNDERGROUND CABLE LINE
- 6"W — UNDERGROUND WATER LINE
- 6"SS — UNDERGROUND SEWER LINE
- 613 — EXIST CONTOUR
- 612.39 — EXIST SPOT ELEVATION
- TC 612.39 / G 611.89 — EXIST TOP OF CURB ELEVATION / EXIST GUTTER ELEVATION
- SAWCUT — LIMITS OF SAWCUT
- DEMOLITION AREA

N

0 20 40 80 120
GRAPHIC SCALE IN FEET

REFERENCE LANDSCAPE PLANS FOR TREE REMOVAL AND PROTECTION



KEY MAP
N.T.S.

STATE OF TEXAS
TYLER S. REEVES
131206
LICENSED
PROFESSIONAL ENGINEER

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TX REG. SURVEYING FIRM LS-10008001

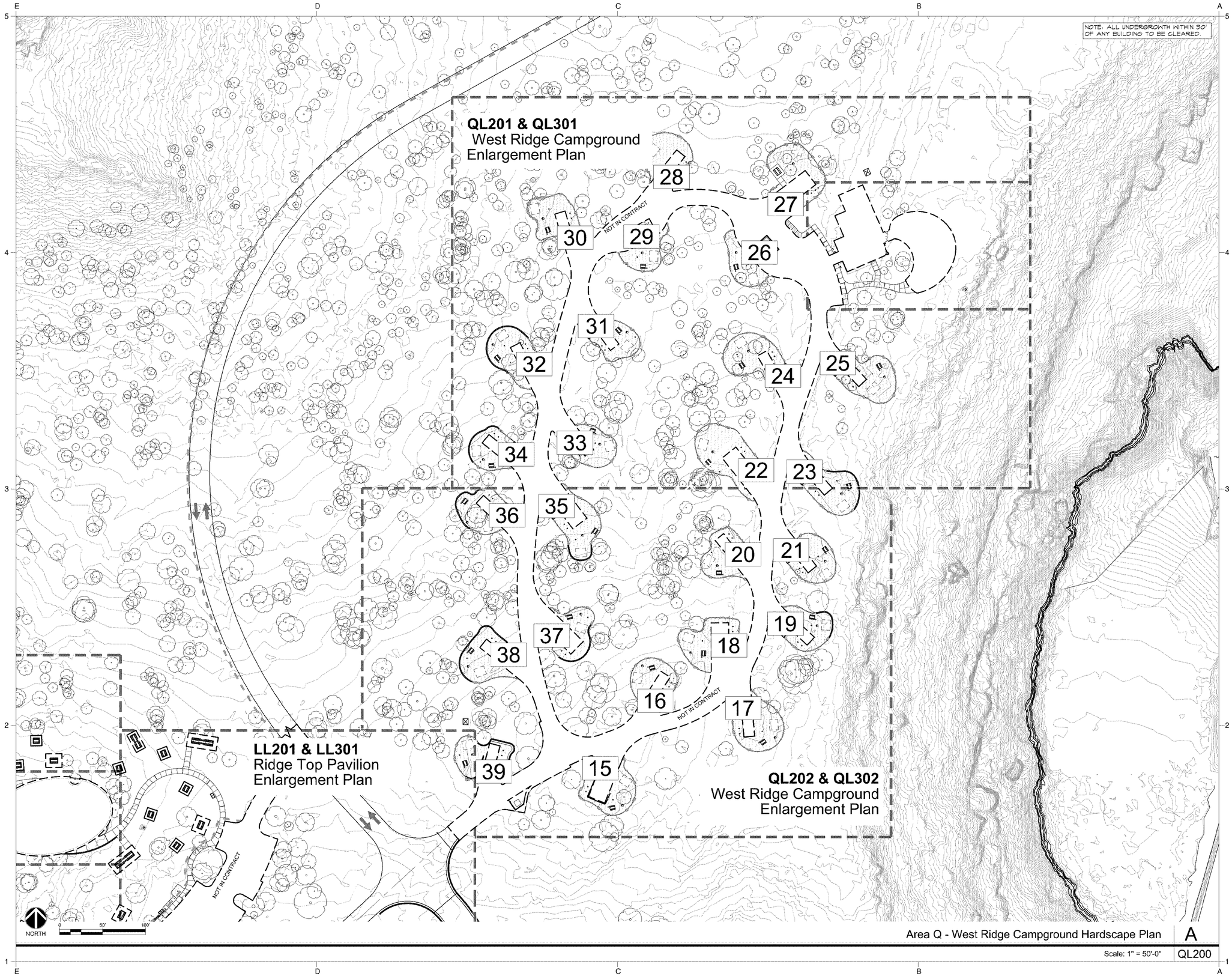
PALO PINTO MOUNTAINS STATE PARK
SITE DEVELOPMENT
TPWD PROJECT NO. 118271

DATE:	2021/03/29
DESIGNED BY:	TSR
DRAWN BY:	PAC
REVIEWED BY:	CAA

REV	DESC	DATE

SHEET TITLE
DEMOLITION PLAN

SHEET NUMBER
1
QC111



Area Q - West Ridge Campground Hardscape Plan | A

Scale: 1" = 50'-0" | QL200

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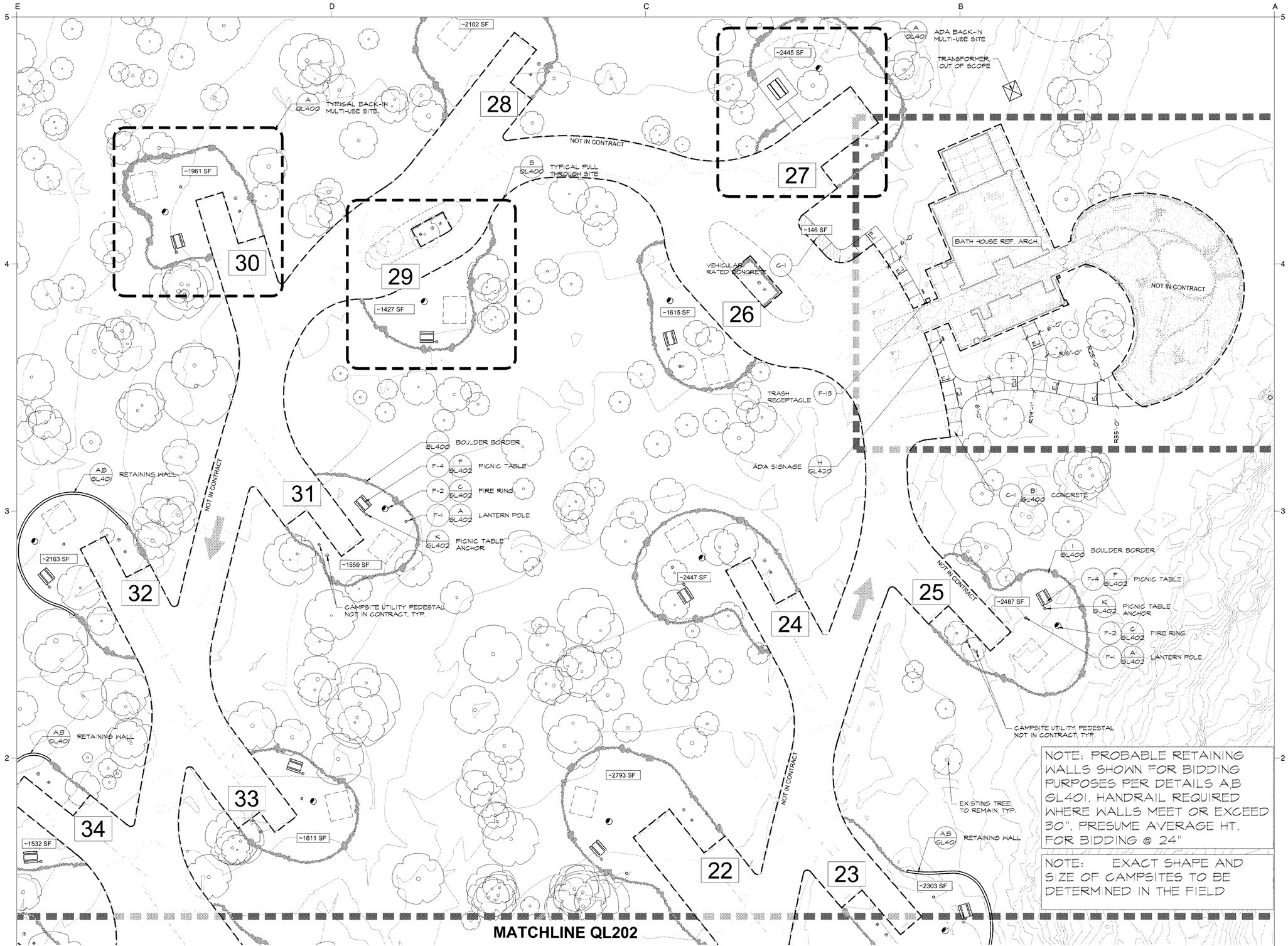
PALO PINTO MOUNTAINS STATE PARK
SITE DEVELOPMENT
TPWD PROJECT NO. 118271

DATE: 2021/03/29
DESIGNED BY: AD/BH
DRAWN BY: JT/RO/AA
REVIEWED BY: BH

REV DESC DATE

SHEET TITLE
AREA Q - WEST RIDGE CAMPGROUND HARDSCAPE PLAN

SHEET NUMBER
1
QL200



NOTE: PROBABLE RETAINING WALLS SHOWN FOR BIDDING PURPOSES PER DETAILS A,B GL401. HANDRAIL REQUIRED WHERE WALLS MEET OR EXCEED 30". PRESUME AVERAGE HT. FOR BIDDING @ 24"

NOTE: EXACT SHAPE AND SIZE OF CAMPSITES TO BE DETERMINED IN THE FIELD

Area Q - West Ridge Campground Hardscape Enlargement Plan | A

Scale: 1" = 20'-0" | QL201

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TPWD PROJECT NO. 118271

DATE: 2021/03/29
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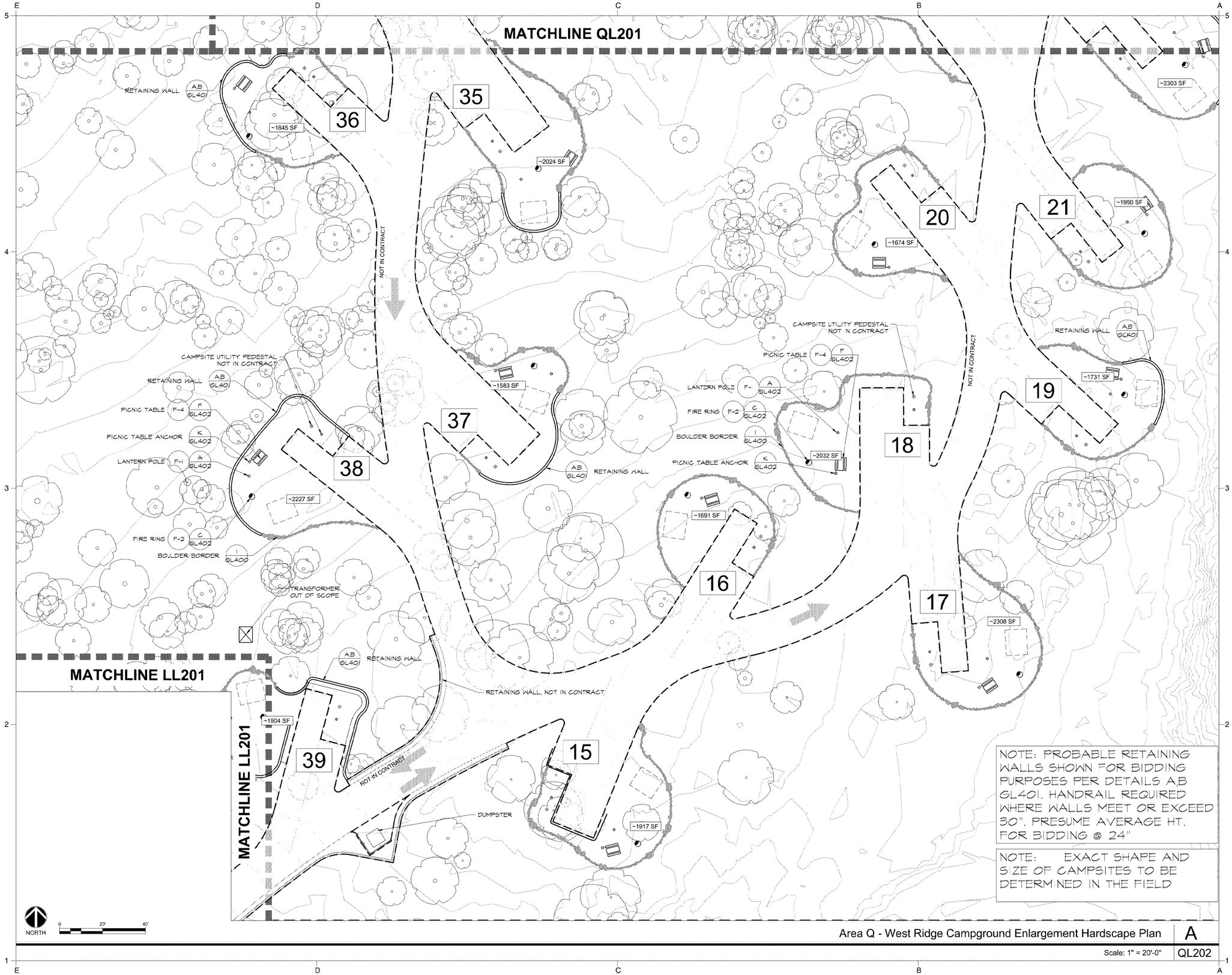
REV DESC DATE

SHEET TITLE
AREA Q - WEST RIDGE CAMPGROUND ENLARGEMENT HARDSCAPE PLAN

SHEET NUMBER
1
QL201



Area Q - West Ridge Campground Enlargement Hardscape Plan | A

Scale: 1" = 20'-0" | QL202

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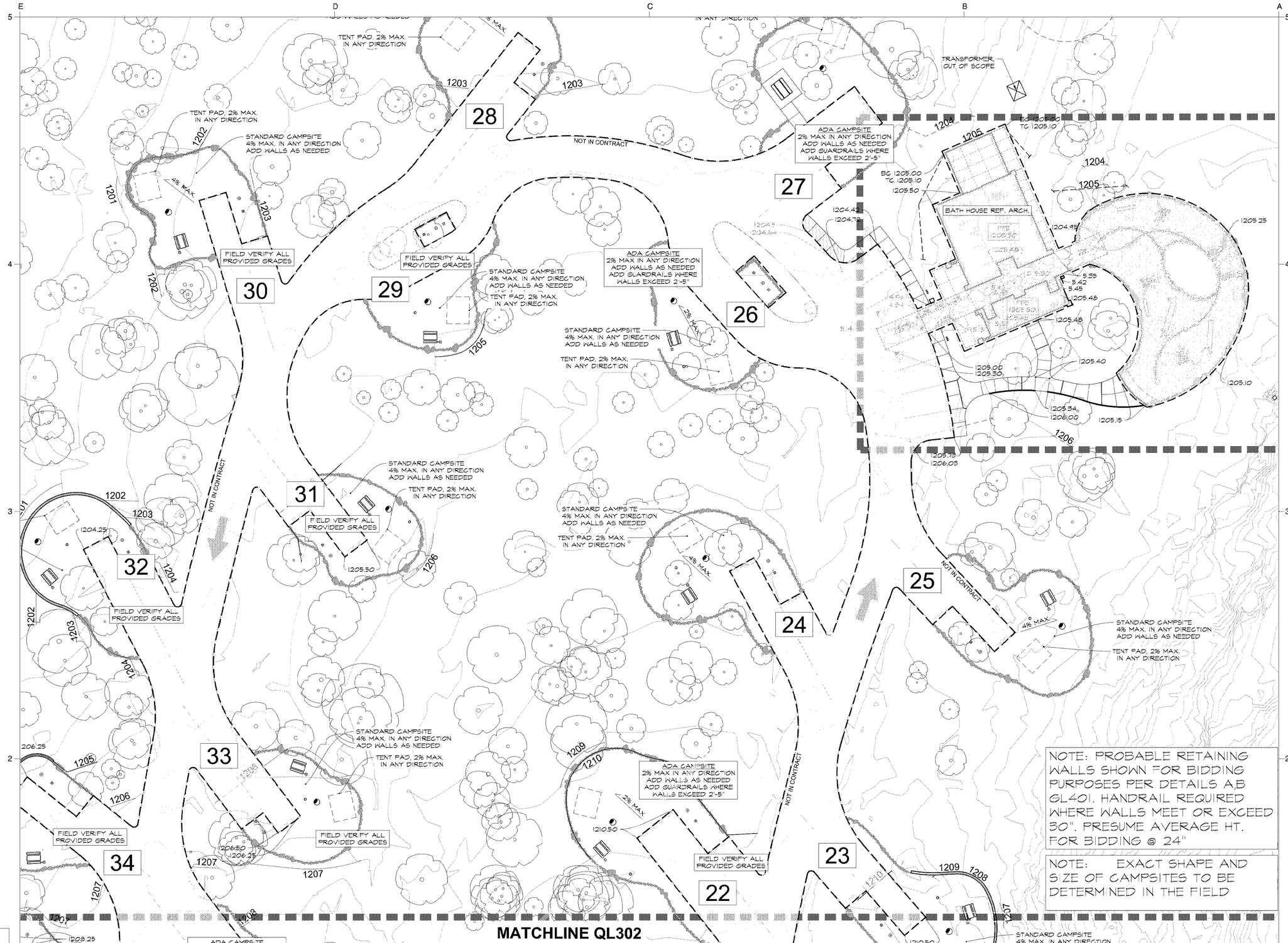
SITE DEVELOPMENT
TPWD PROJECT NO. 118271

DATE: 2021/03/29
DESIGNED BY: AD/BH
DRAWN BY: JT/RO/AA
REVIEWED BY: BH

REV DESC DATE

SHEET TITLE
AREA Q - WEST RIDGE CAMPGROUND ENLARGEMENT HARDSCAPE PLAN

SHEET NUMBER
1
QL202



NOTE: PROBABLE RETAINING WALLS SHOWN FOR BIDDING PURPOSES PER DETAILS A,B GL401. HANDRAIL REQUIRED WHERE WALLS MEET OR EXCEED 30". PRESUME AVERAGE HT. FOR BIDDING @ 24"

NOTE: EXACT SHAPE AND SIZE OF CAMPSITES TO BE DETERMINED IN THE FIELD

IMPORTANT:
Spot elevations & grading notes are preliminary. Grading will be field verified after vehicular paving areas are installed.

Area Q - West Ridge Campground Enlargement Grading Plan | A

Scale: 1" = 20'-0" | QL301

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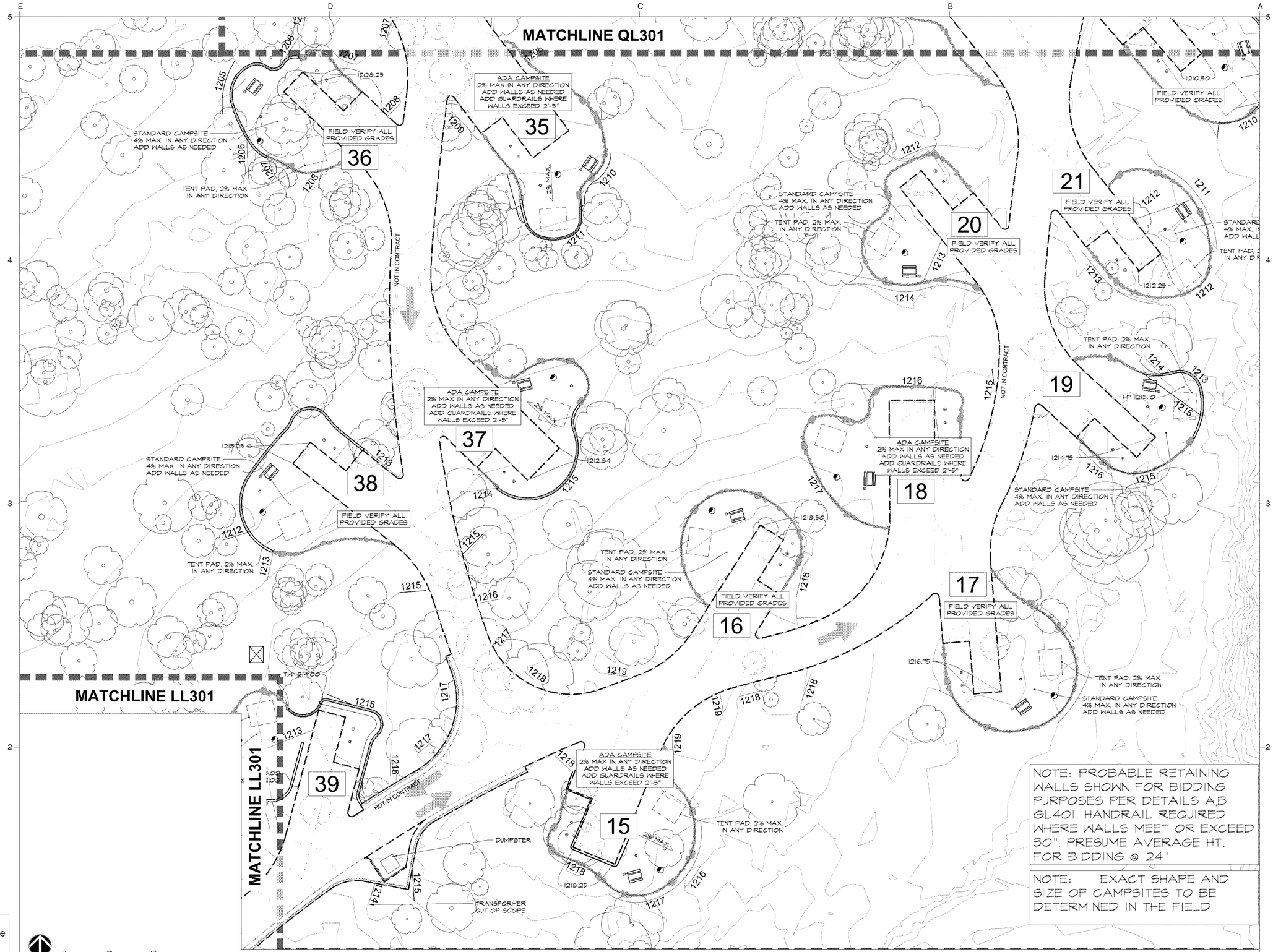
SITE DEVELOPMENT
TPWD PROJECT NO. 118271

DATE: 2021/03/29
DESIGNED BY: AD/BH
DRAWN BY: JT/RO/AA
REVIEWED BY: BH

REV DESC DATE

SHEET TITLE
AREA Q - WEST RIDGE CAMPGROUND ENLARGEMENT GRADING PLAN

SHEET NUMBER
1
QL301



NOTE: PROBABLE RETAINING WALLS SHOWN FOR BIDDING PURPOSES PER DETAILS A,B GL401. HANDRAIL REQUIRED WHERE WALLS MEET OR EXCEED 30". PRESUME AVERAGE HT. FOR BIDDING @ 24"

NOTE: EXACT SHAPE AND SIZE OF CAMPSITES TO BE DETERMINED IN THE FIELD

IMPORTANT:
Spot elevations & grading notes are preliminary. Grading will be field verified after vehicular paving areas are installed.

Area Q - West Ridge Campground Enlargement Grading Plan | A

Scale: 1" = 20'-0" | QL302

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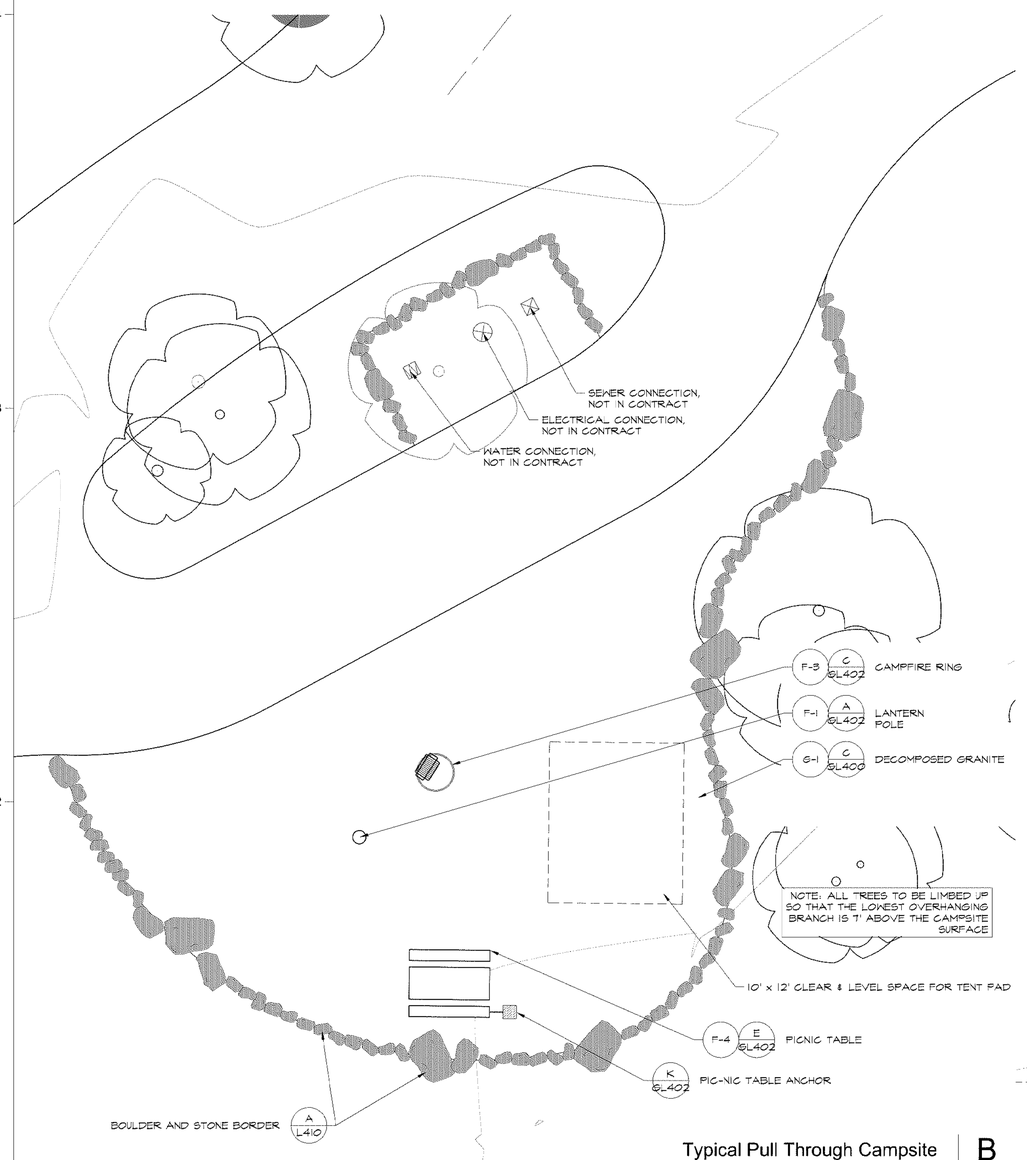
SITE DEVELOPMENT
TPWD PROJECT NO. 118271

DATE: 2021/03/29
DESIGNED BY: AD/BH
DRAWN BY: JT/RO/AA
REVIEWED BY: BH

REV DESC DATE

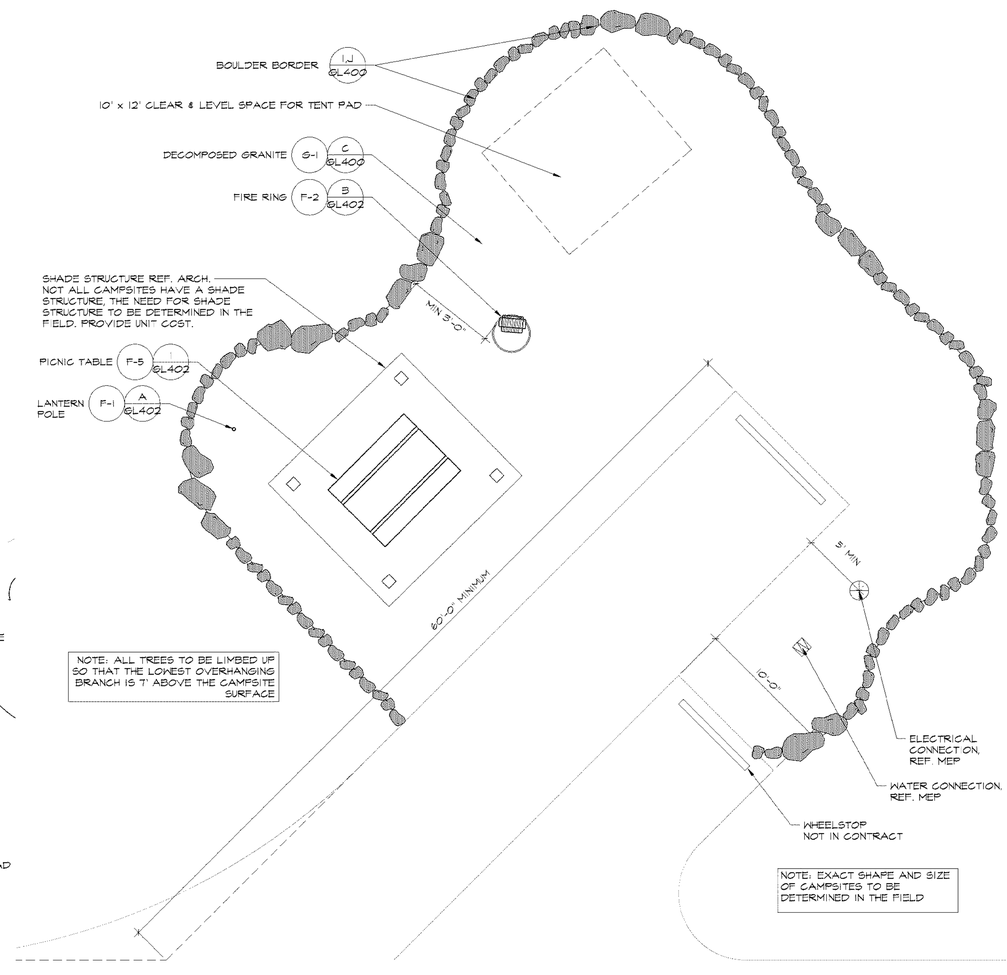
SHEET TITLE
AREA Q - WEST RIDGE CAMPGROUND ENLARGEMENT GRADING PLAN

SHEET NUMBER
1
QL302



Typical Pull Through Campsite | B

Scale: 3/16" = 1'-0"



Typical Back-In Multi-Use Campsite | A

Scale: 3/16" = 1'-0"

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TPWD PROJECT NO. 118271

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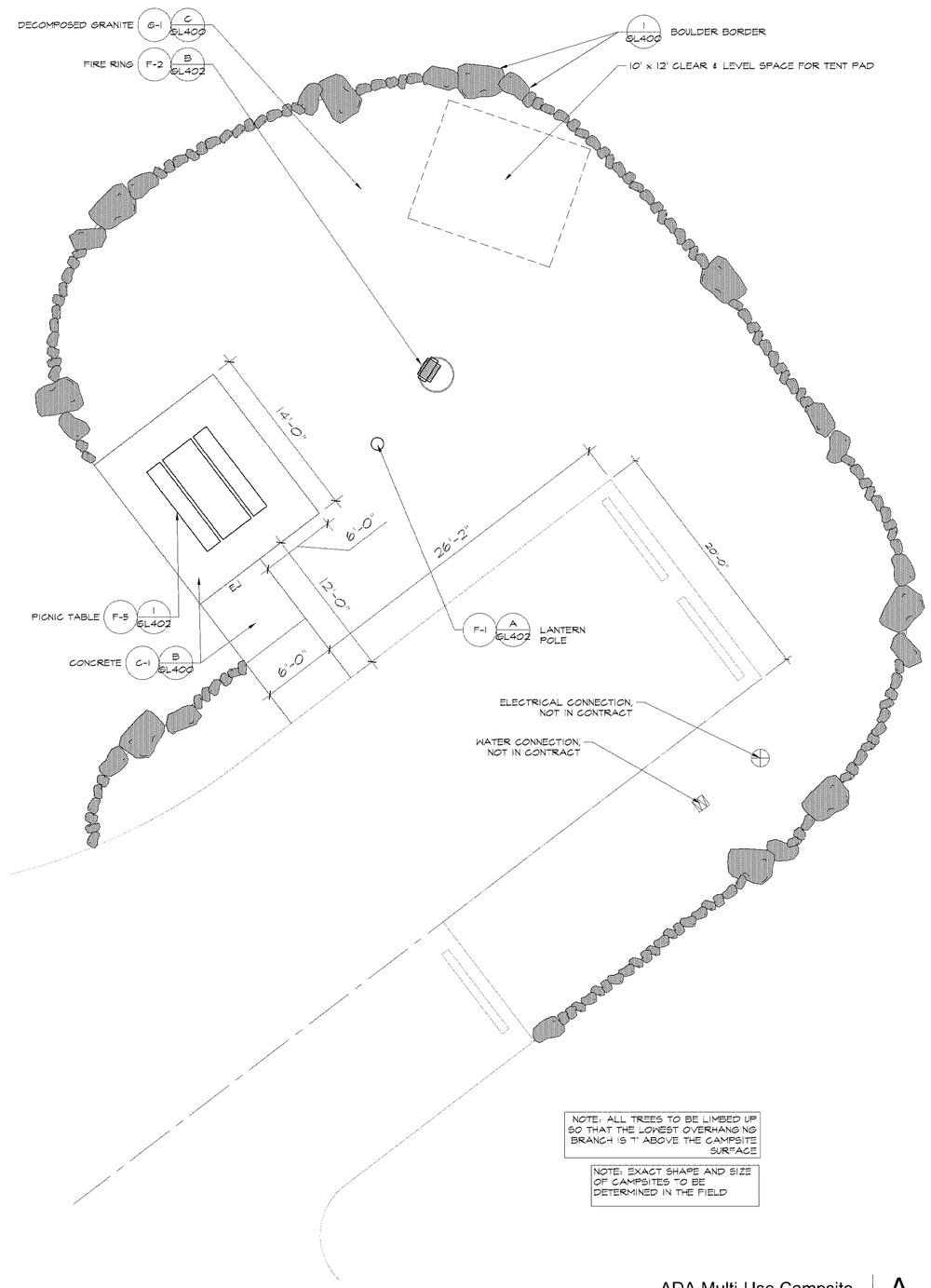
REV DESC DATE

SHEET TITLE
CAMPSITE DETAILS

SHEET NUMBER
1
QL400



ADA Multi-Use Campsite | A

Scale: 3/16" = 1'-0"

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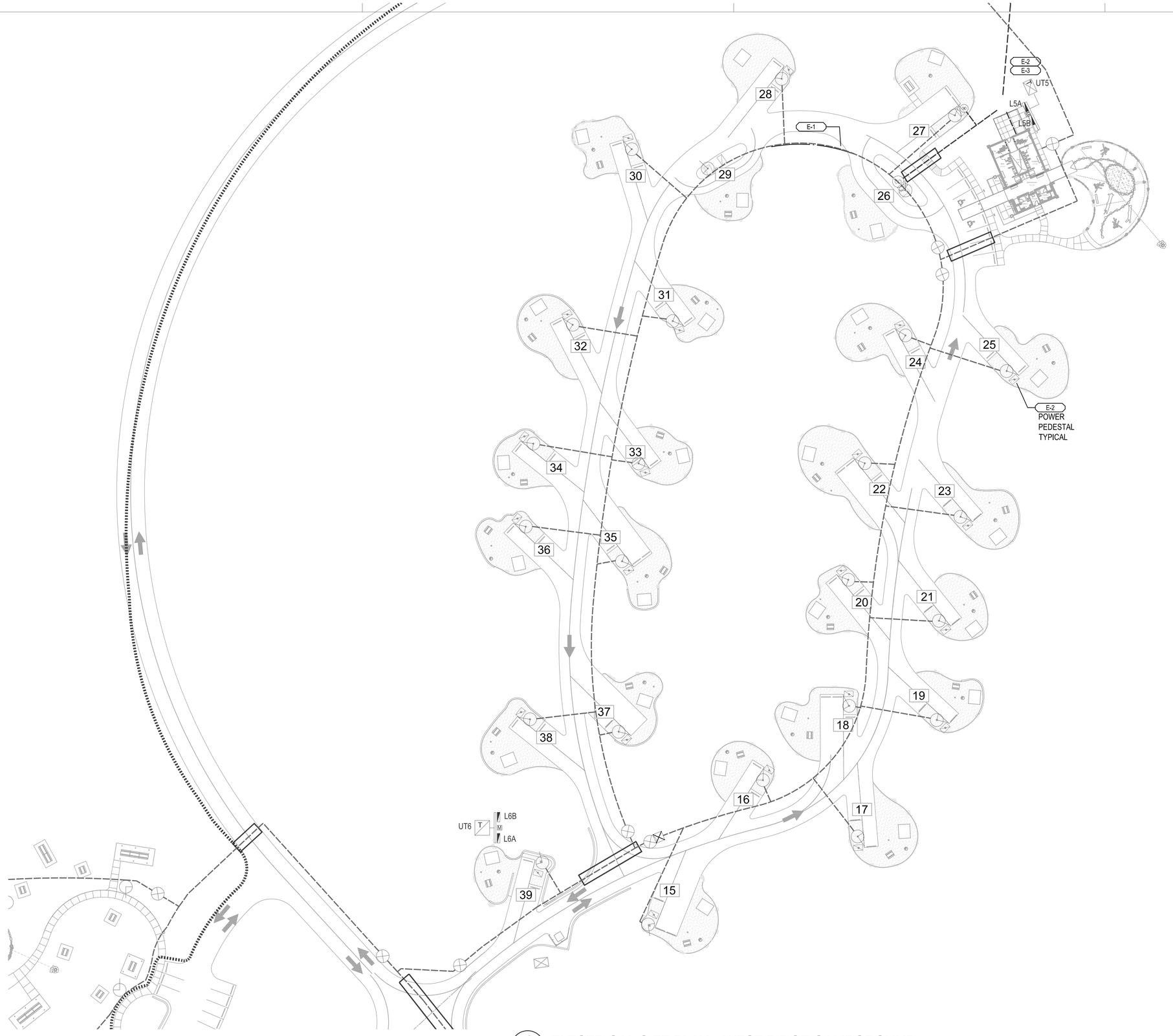
SHEET TITLE
CAMPSITE DETAILS

SHEET NUMBER
1
QL401



1 **ELECTRICAL SITE PLAN - WEST RIDGE CAMPGROUND**

1" = 40'-0"

0' 40' 80' 120'

ELECTRICAL NOTES BY SYMBOL E-X

1. WATER AND SEWER LINES SHOWN FOR REFERENCE ONLY, FOR COORDINATION OF UNDERGROUND UTILITIES.
2. UTILITY POWER PROVISIONS THIS AREA SHOWN FOR INFORMATION ONLY.
3. PROVIDE 120V 20A/1P POWER FOR WIFI TRANSMITTER SERVING THIS AREA. COORDINATE LOCATION WITH TPWD. WIRE WITH 2# 10, 1# 10G, 3/ 4"C.

TEXAS PARKS & WILDLIFE

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STATE OF TEXAS
E. L. BASCEANT
07465
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PROFESSIONAL ENGINEER

5/29/21

PALO PINTO MOUNTAINS STATE PARK

SITE DEVELOPMENT

TPWD PROJECT NO. 118271

DATE:	2021/03/29
DESIGNED BY:	ILB
DRAWN BY:	AC
REVIEWED BY:	ILB

REV DESC DATE

SHEET TITLE

ELECTRICAL SITE PLAN - WEST RIDGE CAMPGROUND

SHEET NUMBER

1

QE101