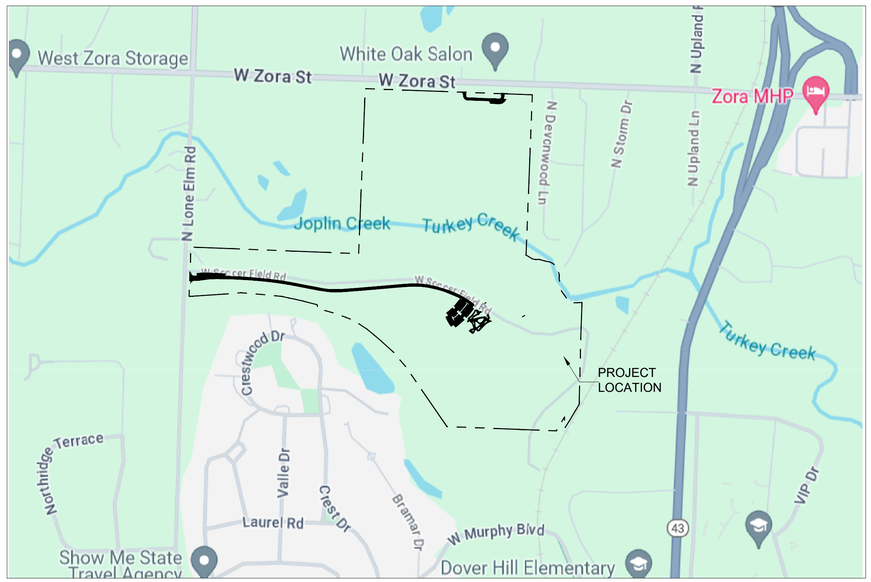
Dover Outdoor Recreation Area (DORA) Bicycle Park

JOPLIN PARKS AND RECREATION
3301 W 1ST ST
JOPLIN, MO 64801
417.625.4750

PREPARED FOR - CITY OF JOPLIN, MO
SUBMISSION - ISSUE FOR BID
ISSUE DATE - 10/09/2024
REVISED AND REISSUED -

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VICINITY MAP:
N.T.S



EXISTING SITE PHOTO:
LOOKING SOUTH FROM ZORA RD

24002 Civil Plan Sheets.dwg AARON TERRY 10/4/2024 11:14 AM

GENERAL NOTES:

1. THE IMPLEMENTATION OF THE WORK DESCRIBED IN THESE PLANS REQUIRES THAT THE CONTRACTOR IS THOROUGHLY KNOWLEDGEABLE WITH APPLICABLE BUILDING CODES AND METHODS FOR CONSTRUCTION SPECIFIC TO THIS PROJECT AND TYPE OF CONSTRUCTION. THE CONTRACTOR MUST ENSURE THAT ALL LABOR, MATERIALS, EQUIPMENT, AND TRANSPORTATION ARE INCLUDED IN THE WORK FOR COMPLETE EXECUTION OF THE PROJECT.
2. USE OF EXPLOSIVES OR BURNING ON SITE IS PROHIBITED.
3. CONTRACTOR MUST NOT REMOVE TREES WITHOUT CITY APPROVAL.
4. ELEVATIONS AND CONTOURS SHOWN ON THESE PLANS ARE TO THE TOP OF FINISHED GROUND OR PAVED SURFACE, UNLESS NOTED OTHERWISE.
5. THE CONTRACTOR MUST BE FULLY FAMILIAR WITH ALL CONDITIONS PERTAINING TO THE WORK DESCRIBED HEREIN. THE CONTRACTOR'S FAILURE TO FAMILIARIZE ITSELF WITH THE SITE PRIOR TO BIDDING WILL NOT CONSTITUTE GROUND FOR CONTRACT CHANGES.
6. CONTRACTOR MUST OBTAIN ALL PERMITS NECESSARY TO ACCOMPLISH THIS WORK. THE COST OF THESE PERMITS SHALL BE INCIDENTAL TO THE PROJECT.
7. ALL WASTE MATERIALS ARE THE PROPERTY OF THE CONTRACTOR, INCLUDING EXCAVATED MATERIAL, TRASH, AND DEBRIS, AND MUST BE DISPOSED OF PROPERLY OFF-SITE.
8. UNLESS NOTED OTHERWISE, CONTRACTOR SHALL REPLACE ALL FENCES, SIGNS, ETC. DAMAGED BY THIS CONSTRUCTION. PROVIDE PROTECTION NECESSARY TO PREVENT DAMAGE TO EXISTING CONDITIONS, TREES, ETC.
9. CONTRACTOR SHALL COORDINATE AND COOPERATE WITH OTHER CONTRACTORS PERFORMING WORK FOR THE CITY.
10. ACCESS TO RESIDENCES AND BUSINESSES SHALL BE PROVIDED BY THE CONTRACTOR AT ALL TIMES DURING CONSTRUCTION AT NO ADDITIONAL COST TO THE CITY.
11. CONTRACTOR MUST COORDINATE WITH THE POLICE DEPARTMENT, EMERGENCY RESPONSE UNITS, THE CITY, AND THE ROAD DISTRICT FOR ANY LANE CLOSURES.
12. IN ADDITION TO COMPLIANCE WITH CONSTRUCTION SAFETY REQUIREMENTS, THE CONTRACTOR SHALL TAKE ALL NECESSARY MEASURES AND PROVIDE ALL NECESSARY SIGNING, WARNING LIGHTS, DRUMS, CONES, AND CONTINUOUS BARRIERS OF SUFFICIENT TYPE, SIZE, AND STRENGTH TO REASONABLY PREVENT ACCESS TO ANY OPEN EXCAVATIONS AT THE COMPLETION OF EACH DAY'S WORK.
13. AREAS ALONG AND OUTSIDE THE LIMITS OF THE PROPOSED WORK, INCLUDING ALL LANDSCAPED AREAS, DRIVEWAYS, RETAINING WALLS, OR SIMILARLY IMPROVED ADJOINING AREAS, SHALL BE PROTECTED AND/OR RESTORED BY THE CONTRACTOR TO THEIR ORIGINAL CONDITION.
14. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ADJUSTING OR COORDINATING THE ADJUSTMENT OF UTILITIES UNCOVERED OR DISTURBED DURING CONSTRUCTION OPERATIONS. THE UNCOVERED OR DISTURBED UTILITIES SHALL BE ADJUSTED TO FINISHED GRADE ELEVATIONS.
15. PAVED SURFACES MUST NOT POND WATER AND WILL BE SUBJECT TO INUNDATION PRIOR TO ACCEPTANCE.
16. CRACKED OR CHIPPED CONCRETE SURFACES WILL BE REJECTED. UNLESS DIRECTED OTHERWISE BY THE ENGINEER OR OWNER, REJECTED CONCRETE SURFACES MUST BE REMOVED AND REPLACED TO THE NEAREST CONTROL JOINT. ENGINEER OR OWNER WILL DETERMINE THE EXTENT TO WHICH REJECTED CONCRETE MUST BE REPLACED.
17. CONTROL JOINTS MUST BE PROPERLY CUT TO A DEPTH OF ¼ OF THE CONCRETE THICKNESS. CONTRACTOR MUST TAKE CARE TO CUT CONTROL JOINTS IN A MANNER THAT WILL NOT CAUSE CRACKING OR CHIPPING OF THE CONCRETE SURFACE.

SURVEY NOTE:

THE CONTRACTOR SHALL HAVE A PROFESSIONAL LAND SURVEYOR LICENSED IN THE STATE OF MISSOURI RESET ANY MONUMENTS DISTURBED DURING CONSTRUCTION AT NO ADDITIONAL CHARGE TO THE CITY.

UTILITY NOTES:

1. CONTRACTOR MUST COMPLY WITH ALL ASPECTS OF MISSOURI UNDERGROUND FACILITY SAFETY AND DAMAGE PREVENTION STATUTE.
2. CONTRACTOR TO NOTIFY AND COORDINATE WITH UTILITY COMPANIES TWO WEEKS PRIOR TO COMMENCEMENT OF PROJECT.
3. CONTRACTOR TO VERIFY LOCATIONS OF UTILITIES AND SERVICE VALVES, VENTS, AND METERS BEFORE BEGINNING WORK.
4. KNOWN UTILITIES AND FACILITIES ADJACENT TO OR WITHIN THE WORK AREA ARE SHOWN ON THE DRAWINGS. THE LOCATIONS SHOWN ARE AS MARKED BY MEMBERS OF THE MISSOURI ONE-CALL SYSTEM. THOSE SHOWN ARE FOR THE CONVENIENCE OF THE CONTRACTOR ONLY, AND NO RESPONSIBILITY IS ASSUMED BY EITHER THE CITY OR THE ENGINEER FOR THEIR ACCURACY OR COMPLETENESS.
5. THE ENGINEER OR THE CITY, NOR THEIR OFFICERS OR AGENTS SHALL BE RESPONSIBLE TO CONTRACTOR FOR DAMAGES AS A RESULT OF CONTRACTOR'S FAILURE TO PROTECT UTILITIES ENCOUNTERED IN THE WORK.
6. CONTRACTOR SHALL EXERCISE REASONABLE CARE AND COORDINATE WITH THE CITY AND THE UTILITY COMPANIES TO VERIFY LOCATIONS OF UTILITIES AND FACILITIES SHOWN ON THE DRAWINGS AND TO DETERMINE THE PRESENCE OF THOSE NOT SHOWN.
7. THE CONTRACTOR MUST NOT BEGIN EXCAVATION PRIOR TO FIELD LOCATION OF UNDERGROUND UTILITIES BY THE UTILITY'S OWNER OR REPRESENTATIVE.
8. PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES AND SHALL CONFIRM THAT THERE IS NO INTERFERENCE BETWEEN EXISTING UTILITIES AND THE PROPOSED WORK. THE CONTRACTOR AGREES TO ASSUME FULL RESPONSIBILITY FOR ANY AND ALL DAMAGE WHICH MIGHT BE OCCASIONED BY THE CONTRACTOR'S FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL UNDERGROUND UTILITIES.
9. IN THE EVENT THAT THE CONTRACTOR DAMAGES AN EXISTING UTILITY SERVICE CAUSING AN INTERRUPTION IN SAID SERVICE THE CONTRACTOR MSUT IMMEDIATELY CONTACT THE AFFECTED UTILITY, COORDINATE REPAIRS, AND PERFORM THE WORK AS DETAILED BY THE UTILITY AS NEEDED TO RESTORE SERVICE, AT NO ADDITIONAL CHARGE TO THE CITY. THE CONTRACTOR SHALL NOT CONTINUE WITH OTHER WORK OPERATIONS UNTIL THE UTILITY SERVICE IS RESTORED, UNLESS OTHERWISE DIRECTED BY THE CITY.

PRECONSTRUCTION SURVEY AND MONITORING:

1. AFTER THE CONTRACT IS AWARDED AND BEFORE STARTING THE WORK, THE CONTRACTOR MUST PERFORM A PRECONSTRUCTION SURVEY OF THE SITE. MAKE A THOROUGH EXAMINATION, PROVIDING COLOR PHOTOGRAPHS AND A COLOR VIDEO OF ALL EXISTING BUILDINGS, STRUCTURES AND OTHER IMPROVEMENTS WITHIN 100 FEET OF THE CONSTRUCTION LIMITS. THE EXAMINATION SHALL BE MADE JOINTLY BY REPRESENTATIVES OF THE CONTRACTOR, THE OWNER, AND THE ENGINEER. THE SCOPE OF THE EXAMINATION AND PHOTOGRAPHS SHALL INCLUDE CRACKS IN STRUCTURES, SETTLEMENT, LEAKAGE, AND SIMILAR CONDITIONS. THE CONTRACTOR IS RESPONSIBLE FOR ELECTRONIC DOCUMENTATION OF THE PRECONSTRUCTION SURVEY.
2. THE CONTRACTOR MUST ESTABLISH VERTICAL AND HORIZONTAL SURVEY CONTROL POINTS ON ALL STRUCTURES AND IMPROVEMENTS WITHIN 100 FEET OF THE CONSTRUCTION LIMITS PRIOR TO BEGINNING WORK AND SHALL PERIODICALLY CHECK THE POINTS FOR MOVEMENT. THE CONTRACTOR MUST FURNISH THE CITY WITH COPIES OF THE SURVEY NOTES FOR EACH SURVEY AND A COPY OF THE LAYOUT OF THE SURVEY CONTROL POINTS.
3. COPIES OF ALL ELECTRONIC DOCUMENTATION MUST BE PROVIDED TO THE OWNER AND THE ENGINEER.
4. THE ABOVE RECORDS AND PHOTOGRAPHS ARE INTENDED FOR USE AS EVIDENCE IN ASCERTAINING THE EXTENT OF ANY DAMAGE WHICH MAY OCCUR AS A RESULT OF THE CONTRACTOR'S OPERATIONS AND ARE FOR THE PROTECTION OF THE CONTRACTOR AND THE OWNER. THE RECORDS WILL PROVIDE A MEANS OF DETERMINING WHETHER AND TO WHAT EXTENT DAMAGE MAY HAVE OCCURRED AS A RESULT OF THE CONTRACTOR'S OPERATIONS. THE RECORDS WILL ALSO GUIDE THE RESTORATION PHASE OF THIS PROJECT.

INTERFERING STRUCTURES:

1. CONTRACTOR MUST TAKE NECESSARY PRECAUTIONS TO PREVENT DAMAGE TO EXISTING STRUCTURES WHETHER ON THE SURFACE, ABOVE GROUND, OR UNDERGROUND.
2. CONTRACTOR MUST PROTECT EXISTING STRUCTURES FROM DAMAGE. WHERE EXISTING FENCES, GATES, BARNS, SHEDS, BUILDINGS, OR OTHER STRUCTURE MUST BE REMOVED TO PROPERLY CARRY OUT WORK, OR ARE DAMAGED DURING THE WORK, RESTORE THEM TO ORIGINAL CONDITION AND TO THE SATISFACTION OF RESPECTIVE OWNER.
3. CONTRACTOR MAY REMOVE AND REPLACE IN EQUAL OR BETTER THAN ORIGINAL CONDITION, SMALL STRUCTURES SUCH AS FENCES, AND SIGNPOSTS THAT INTERFERE WITH CONTRACTOR'S OPERATIONS. THIS WORK SHALL BE COORDINATED WITH THE CITY AND RESPECTIVE OWNER. THIS WORK SHALL BE INCIDENTAL TO THE PROJECT.
4. EXISTING TREES TO REMAIN MUST BE PROTECTED AT ALL TIMES. LIQUIDATED DAMAGES IN THE AMOUNT OF $400 PER INCIDENT WILL BE ASSESSED FOR DAMAGING TREES. REPAIR DAMAGE TO TREE IN ACCORDANCE WITH CITY INSTRUCTIONS.

RESTORATION NOTES:

1. CONTRACTOR MUST REPLACE ANY SIGNS DAMAGED OR LOST DURING REMOVAL, STORAGE, OR RESETTING. CITY MUST APPROVE THE LOCATIONS OF ANY RESET SIGNS.
2. HAND RAKE ALL FINISH GRADING TO HAVE SMOOTH AND CONTINUOUS TRANSITIONS TO EXISTING GRADE. ALL FINAL GRADING TO BE APPROVED BY THE CITY OR ENGINEER PRIOR TO SEEDING OR SODDING.
3. FINISH GRADING TOLERANCE IS ½"BELOW A 10' STRAIGHT EDGE, HOWEVER FINISHED GRADES MUST NOT POND WATER.
4. RESTORATION OF THE SITE SHALL BE MADE WITH "IN KIND" MATERIALS.
5. REPLACE DAMAGE TO CITY OR PRIVATE PROPERTY WHERE NECESSARY TO MATCH PRECONSTRUCTION CONDITIONS.
6. CONTRACTOR MUST MINIMIZE DISTRUBANCE BEYOND CONSTRUCTION LIMITS AND RESTORE ALL DISTURBED OUTSIDE OF THE LIMITS TO THEIR PRECONSTRUCITON CONDITION.

SIGNAGE AND STRIPING NOTES:

1. ALL SIGNAGE AND STRIPING MUST COMPLY WITH THE LATEST EDITIONS OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD) AND THE STANDARD HIGHWAY SIGNS (SHS) PUBLICATIONS.
2. ALL SIGNAGE AND STRIPING MUST MEET THE REQUIREMENTS OF AND BE INSTALLED IN ACCORDANCE WITH THE LATEST EDITIONS CITY OF JOPLIN STANDARD SPECIFICATIONS AND OF THE STANDARD DETAILS.
3. SIGNS MUST BE MOUNTED AT 7 FEET IN ACCORDANCE WITH CITY OF JOPLIN STANDARD DETAIL ST-18, SIGN SUPPORT INSTALLATION DETAILS.
4. ALL STRIPING TO BE THERMOPLASTIC UNLESS NOTED OTHERWISE.

LEGEND

- 900 — EXISTING INDEX CONTOUR
- 901 — EXISTING INTERMEDIATE CONTOUR
- EXISTING FEATURE
- PROPOSED IMPROVEMENT
- FUTURE PATH
- PROPOSED LIMIT OF CONSTRUCTION
- EXISTING EDGE OF WATER
- EXISTING BARBED WIRE FENCE
- FW — EXISTING/PROPOSED REGULATORY FLOODWAY
- EXISTING GUARDRAIL
- PROPERTY LINE
- R/W — EXISTING RIGHT OF WAY LINE
- C_X — EXISTING OVERHEAD COMMUNICATIONS
- FO_X — EXISTING UNDERGROUND FIBER OPTIC CABLE
- E_X — EXISTING OVERHEAD ELECTRIC
- G_X — EXISTING NATURAL GAS LINE
- SS_X — EXISTING SANITARY SEWER
- FM — PROPOSED SANITARY SEWER PRESSURE LINE
- SD_X — EXISTING STORM DRAIN
- SD — PROPOSED STORM DRAIN
- W_X — EXISTING WATER LINE
- W — PROPOSED WATER LINE
- EXISTING TREELINE
- FO — EXISTING FIBER OPTIC MANHOLE
- COMM — EXISTING UNDERGROUND COMMUNICATIONS MARKER
- S — EXISTING SANITARY SEWER MANHOLE
- 12" — EXISTING TREE
- UP — EXISTING UTILITY POLE
- PP — EXISTING POWER POLE
- EXISTING GUY
- WM — EXISTING WATER METER
- EXISTING SIGN
- PROPOSED SIGN
- EXISTING DOUBLE SWING GATE
- EXISTING GATE
- EXISTING CONCRETE
- EXISTING GRAVEL

C&S No. 24002

Prepared For:

JOPLIN MISSOURI
602 S Main St
Joplin, MO 64801

Project:
DORA
Bike Park

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STATE OF MISSOURI · AARON R. TERRY · NUMBER PE-2009019954 · PROFESSIONAL ENGINEER · 10/7/24

Civil & Survey, LLC
Missouri State Certificate of Authority #E-2021014185

Issuances

No.	Description	Date
01	100% Design Development	8/7/2024
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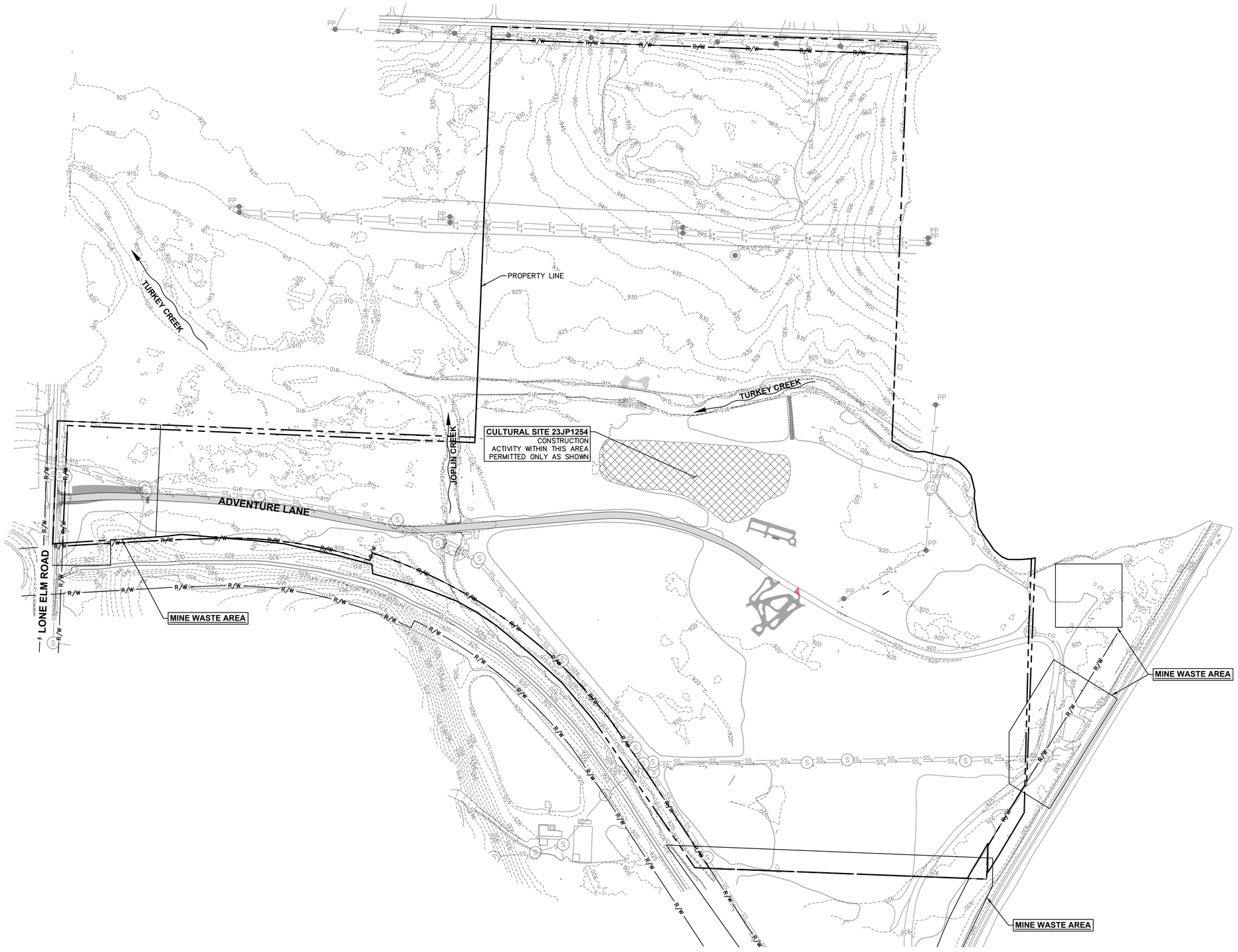
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Sheet Title
GENERAL NOTES

Number
C-010

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A EXISTING CONDITION PLAN
SCALE: 1"=150'

Graphic Scale: 1" = 150'
0' 75' 150' 300' 450'

UNDERGROUND UTILITIES SHOWN HEREIN WERE LOCATED FROM OBSERVED EVIDENCE OF VISIBLE APPURTENANCES AND AS MARKED BY MEMBERS OF THE MISSOURI ONE CALL SYSTEM. OTHER UTILITIES MAY BE PRESENT, AND THE ACTUAL LOCATION, TYPE, SIZE, AND NUMBER OF UTILITIES MAY DIFFER FROM THOSE SHOWN.

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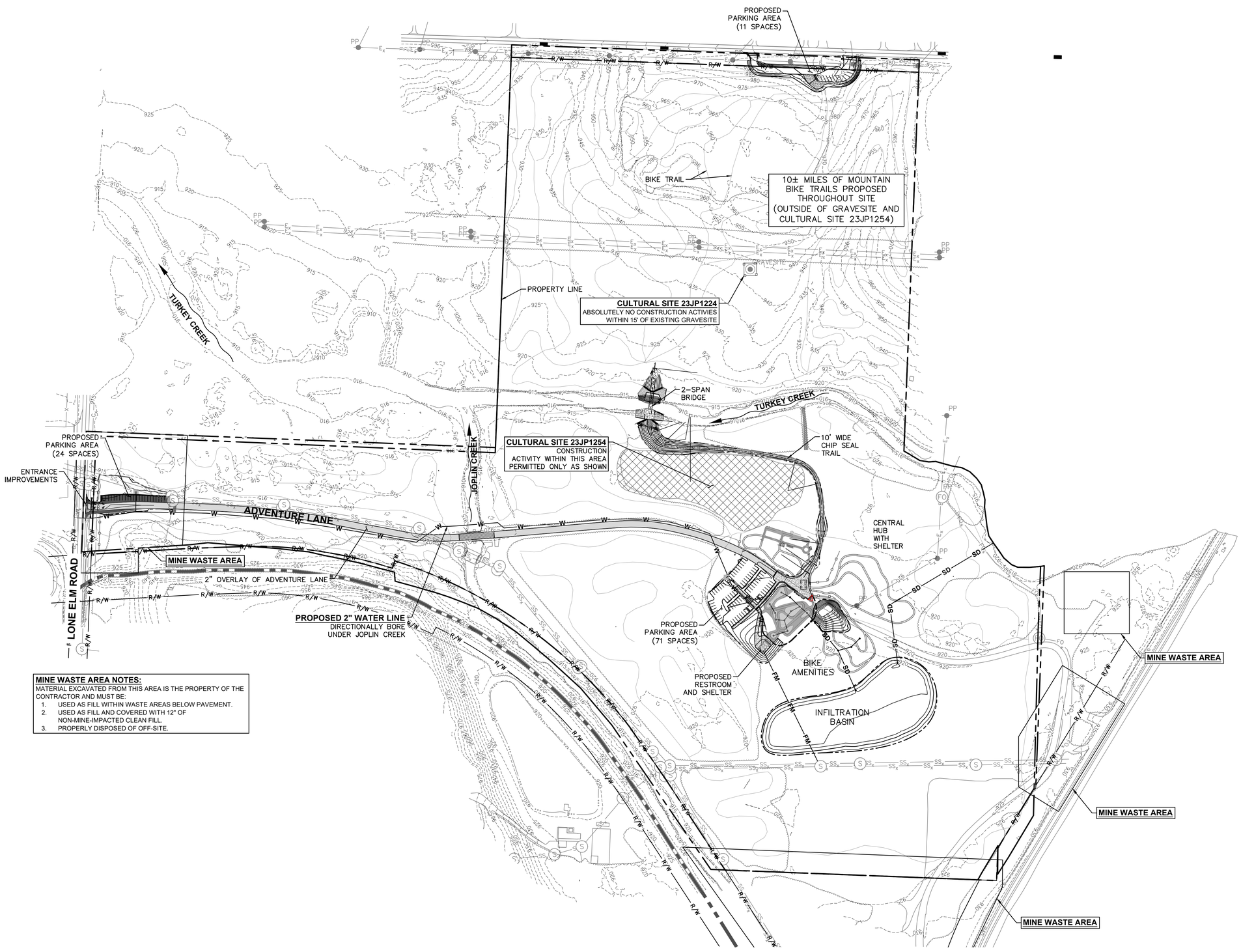
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Sheet Title
EXISTING CONDITION PLAN

Number
C-050

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MINE WASTE AREA NOTES:
MATERIAL EXCAVATED FROM THIS AREA IS THE PROPERTY OF THE CONTRACTOR AND MUST BE:
1. USED AS FILL WITHIN WASTE AREAS BELOW PAVEMENT.
2. USED AS FILL AND COVERED WITH 12" OF NON-MINE-IMPACTED CLEAN FILL.
3. PROPERLY DISPOSED OF OFF-SITE.

A OVERALL SITE PLAN
SCALE: 1"=150'

Graphic Scale: 1" = 150'
0' 75' 150' 300' 450'

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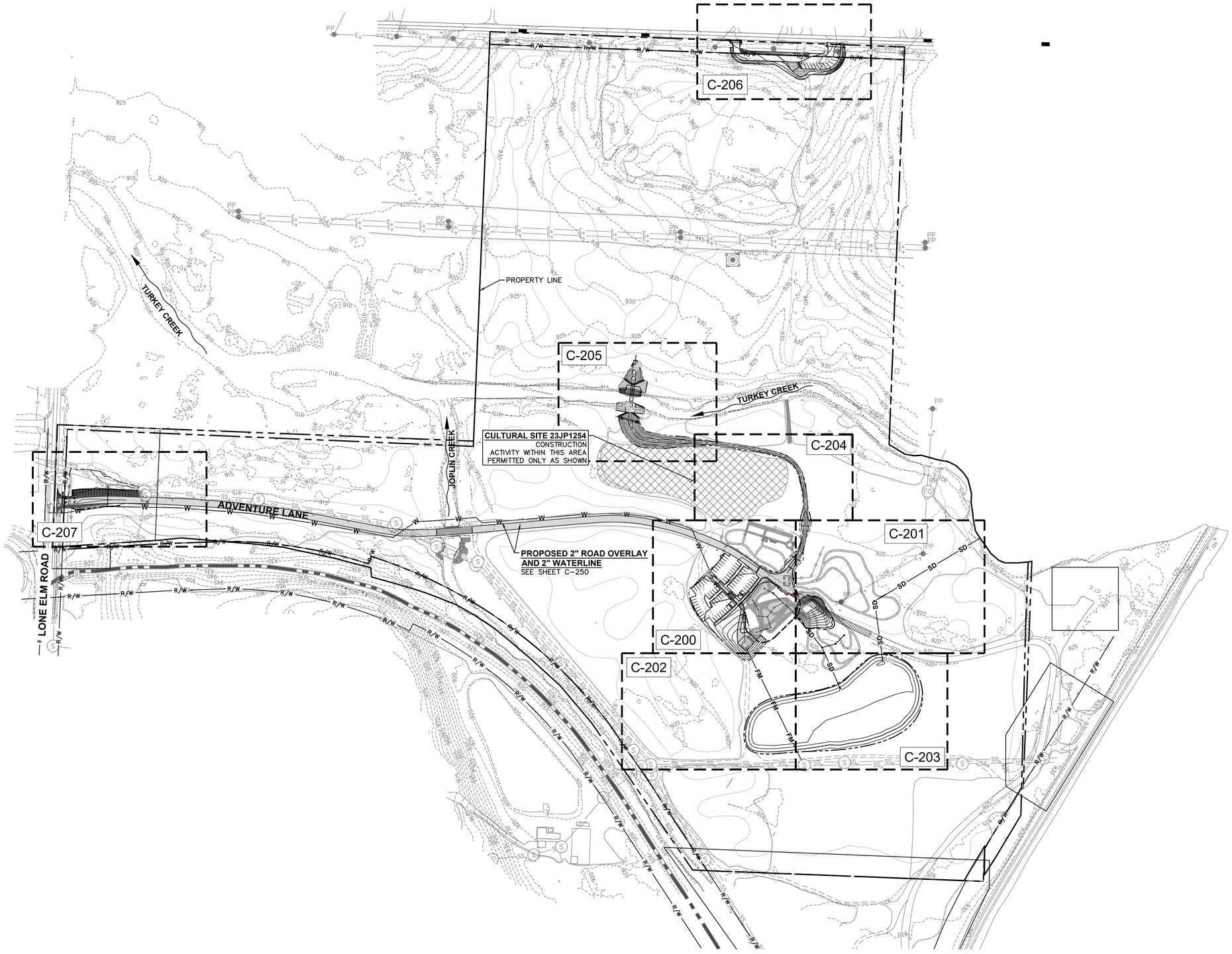
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Sheet Title
OVERALL SITE PLAN

Number
C-100

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ART	ART

Sheet Title
LAYOUT KEY PLAN

Number
C-101

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PROPERTY LINE

TURKEY CREEK

JOPLIN CREEK

CULTURAL SITE 23JP1254
CONSTRUCTION ACTIVITY WITHIN THIS AREA PERMITTED ONLY AS SHOWN

ADVENTURE LANE

LONE ELM ROAD

LEGEND:

REGULATORY FLOODWAY

REGULATORY 1% AEP FLOODPLAIN

A FLOODPLAIN OVERLAY
SCALE: 1"=150'

Graphic Scale: 1" = 150'
0' 75' 150' 300' 450'

UNDERGROUND UTILITIES SHOWN HEREIN WERE LOCATED FROM OBSERVED EVIDENCE OF VISIBLE APPURTENANCES AND AS MARKED BY MEMBERS OF THE MISSOURI ONE CALL SYSTEM. OTHER UTILITIES MAY BE PRESENT, AND THE ACTUAL LOCATION, TYPE, SIZE, AND NUMBER OF UTILITIES MAY DIFFER FROM THOSE SHOWN.

C&S No. 24002

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602 S Main St
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DORA
Bike Park

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Civil & Survey, LLC
Missouri State Certificate of Authority #E-2021014185

Issuances

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01	100% Design Development	8/7/2024
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03	100% Construction Docs	9/20/2024
04	Issued for Bid	10/07/2024

Revisions

No.	Description	Date

SWT No. 21703.01

Drawn ART | Reviewed ART

Sheet Title
FLOODPLAIN OVERLAY

Number
C-102

24002 Civil Plan Sheets.dwg AARON TERRY 10/4/2024 11:14 AM

CULTURAL SITE 23JP1254

ABSOLUTELY NO CONSTRUCTION ACTIVITY WITHIN THIS AREA

MATCHLINE SEE SHEET C-204

NOTE:
SEE SHEETS C-512 FOR SECTIONS

SPLIT RAIL FENCE SEE LANDSCAPE PLANS FOR DETAILS

ADVENTURE LANE

PCC 11+62.26 R=500.00'

PC 10+84.46 R=178.00'

BOP 10+50.36

ROLLED LIP CURB SAWCUT EXISTING PAVEMENT FULL DEPTH (B / C-501)

COLLAPSIBLE BOLLARDS (A / C-502)

CLASS "B" CONCRETE SIDEWALK, SEE SHEET LANDSCAPE PLANS FOR JOINT PATTERN
REMOVE EXISTING PAVEMENT AND BASE AS NECESSARY PRIOR TO CONSTRUCTION

12+00

11+00

STA 12+03
8" SCH 80 PVC PIPE CULVERT WITH METAL FES
FINAL DESIGN PENDING CITY APPROVAL OF PIPE SIZE AND TYPE

10' WIDE CHIP SEAL TRAIL (G / C-501)
SEE SHEET C-300 FOR PROFILE

STA 10+94.35
6" SCH 80 PVC PIPE CULVERT WITH METAL FES
FINAL DESIGN PENDING CITY APPROVAL OF PIPE SIZE AND TYPE

CENTRAL HUB WITH SHELTER

FROST PROOF YARD HYDRANT (C / C-502)

VEHICLE OVERHANG (TYP)

LIMITS OF GRADING

PARKING BLOCK (F / C-501)

12" WHITE THERMOPLASTIC STRIPE, (TYP.)

4" SOLID WHITE THERMOPLASTIC STRIPE, (TYP.)

PROPOSED PARKING AREA (71 SPACES)

4" BLUE STRIPING

CLASS "B" CONCRETE SIDEWALK (C / C-501)

8' WIDE CLASS "B" CONCRETE SIDEWALK WITH TURNDOWN CURB SEE DETAIL K ON SHEET C-501

10' WIDE CLASS "B" CONCRETE SIDEWALK

PROPOSED RESTROOM AND SHELTER

SDMH 7, SDMH 8, SDMH 9, SDMH 10, SDMH 11, SDMH 13, SDMH 14, SDMH 15, SDMH 16, SDMH 17, SDMH 18, SDMH 19, SDMH 20, SDMH 21

15" CL III RCP
SEE PROFILE B ON SHEET C-301

CLASS "B" CONCRETE SIDEWALK

SLOPE LIMIT
BIKE AMENITIES

SEE BIKE SHEETS FOR GRADING IN THIS AREA

MATCHLINE SEE SHEET C-201

MATCHLINE SEE SHEET C-202

MATCHLINE SEE SHEET C-203

KEYED NOTE

[1] R7-8 (NO ARROWS) WITH R7-8aP SIGN

DRAINAGE STRUCTURE			
STRUCTURE ID	TYPE	RIM	FLOWLINE
SDMH 9	NYLOPLAST	919.00	918.47
SDMH 10	NYLOPLAST	922.00	918.57
SDMH 11	NYLOPLAST	920.15	918.70
SDMH 12	NYLOPLAST	920.25	918.80
SDMH 13	NYLOPLAST	920.25	918.73
SDMH 14	NYLOPLAST	920.25	918.91
SDMH 15	NYLOPLAST	920.25	919.04
SDMH 16	NYLOPLAST	922.00	919.15
SDMH 17	NYLOPLAST	920.25	919.32
SDMH 18	NYLOPLAST	920.25	919.09
SDMH 19	NYLOPLAST	922.00	919.33

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(A) ADVENTURE LANE PROGRAM HUB
SCALE: 1"=20'

Graphic Scale: 1" = 20'
0' 10' 20' 40' 60'

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SWT No. 21703.01

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Sheet Title
ENLARGEMENT PLAN

Number
C-200

24002 Civil Plan Sheets.dwg AARON TERRY 10/4/2024 11:15 AM

MATCHLINE SEE SHEET C-204

MATCHLINE SEE SHEET C-200

MATCHLINE SEE SHEET C-203

12+00

11+00

STA 12+03
8" SCH 80 PVC PIPE
CULVERT WITH METAL FES
FINAL DESIGN PENDING CITY
APPROVAL OF PIPE SIZE
AND TYPE

G
C-501
10' WIDE CHIP
SEAL TRAIL
SEE SHEET C-300
FOR PROFILE

STA 10+94.35
6" SCH 80 PVC PIPE
CULVERT WITH METAL FES
FINAL DESIGN PENDING CITY
APPROVAL OF PIPE SIZE
AND TYPE

918.98

919.78

CLASS "B"
CONCRETE
SIDEWALK

SLOPE LIMIT

BIKE AMENITIES

ADVENTURE LANE

DEMO EXISTING
ROAD, FULL DEPTH,
SEE LANDSCAPE
PLANS FOR
BACKFILL MATERIAL
AND PLANTING

FULL DEPTH
SAWCUT OF
EXISTING ROAD

REGULATORY FLOODWAY

PIPE END 1

15" CL III RCP
SEE PROFILE A ON
SHEET C-301

SDMH 2

SDMH 21

SDMH 20

SDMH 7

SDMH 8

CONTRACTOR TO FIELD LOCATE
STRUCTURES SDMH 20 AND SDMH 21.
MINIMUM PIPE SLOPE=0.20%
MINIMUM PIPE COVER=6"

15" CL III RCP
SEE PROFILE B ON
SHEET C-301

DRAINAGE STRUCTURE			
STRUCTURE ID	TYPE	RIM	FLOWLINE
PIPE END 1			913.86
SDMH 2	NYLOPLAST	918.15	915.79
SDMH 7	NYLOPLAST	920.22	917.82
SDMH 8	NYLOPLAST	920.11	918.17

A BICYCLE PUMP TRACK AND SKILLS FEATURES
SCALE: 1"=20'

Graphic Scale: 1" = 20'
0' 10' 20' 40' 60'

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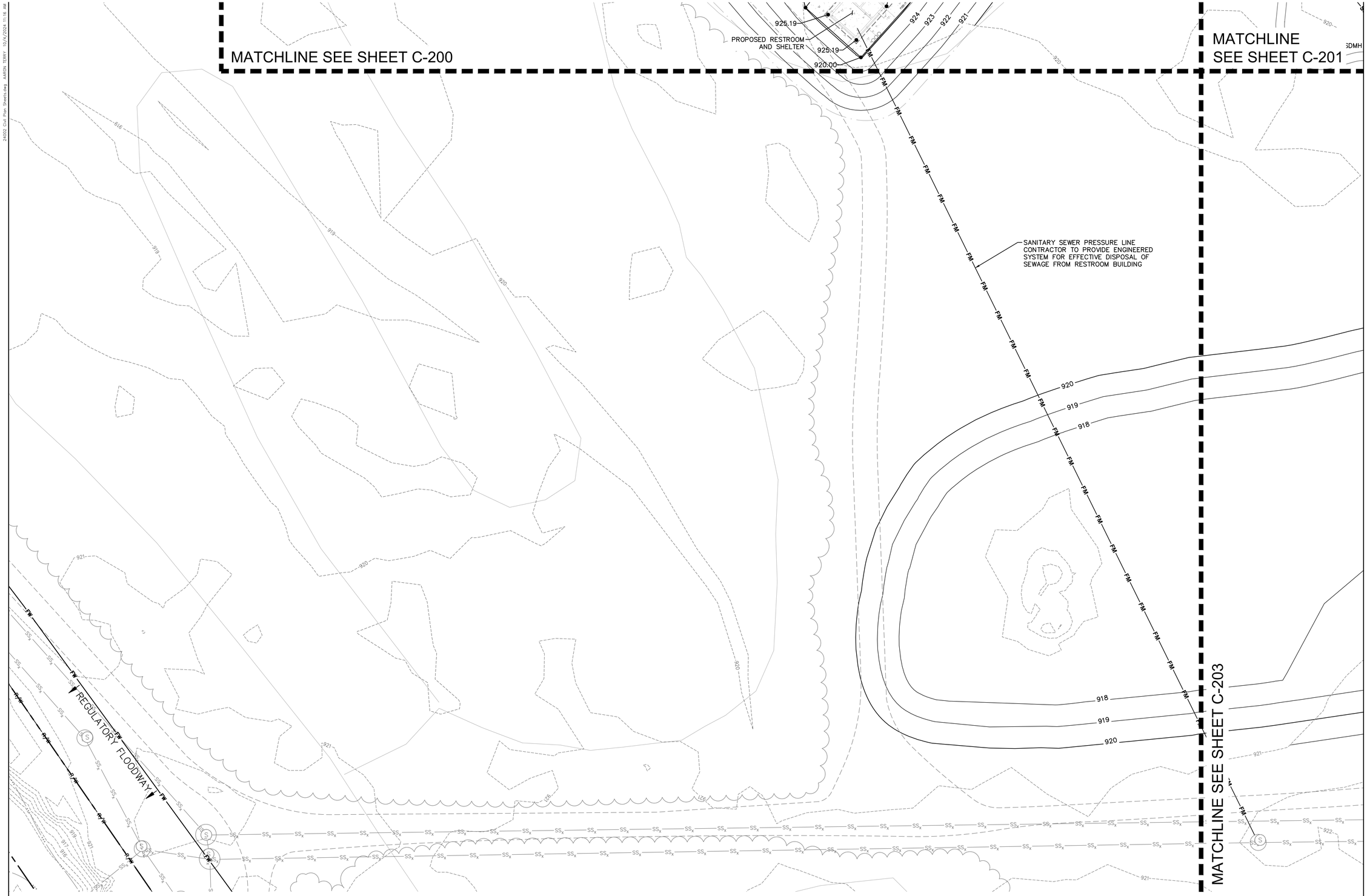
SWT No. 21703.01

Drawn ART
Reviewed ART

Sheet Title
ENLARGEMENT PLAN

Number
C-201

24002 Civil Plan Sheets.dwg AARON.TERRY 10/4/2024 11:16 AM



A INFILTRATION BASIN "B"
SCALE: 1"=20'

Graphic Scale: 1" = 20'
0' 10' 20' 40' 60'

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No.	Description	Date

SWT No. 21703.01

Drawn	Reviewed
ART	ART

Sheet Title
ENLARGEMENT PLAN

Number
C-202

24002 Civil Plan Sheets.dwg AARON TERRY 10/4/2024 11:16 AM

MATCHLINE SEE SHEET C-200

MATCHLINE SEE SHEET C-202

MATCHLINE SEE SHEET C-201

SLOPE LIMIT

BIKE AMENITIES

ADVENTURE LANE

15" CL III RCP
SEE PROFILE B ON
SHEET C-301

SDMH 21

SDMH 20

SDMH 7

CONTRACTOR TO FIELD LOCATE STRUCTURES SDMH 20 AND SDMH 21.
MINIMUM PIPE SLOPE=0.20%
MINIMUM PIPE COVER=6"

FULL DEPTH SAWCUT OF EXISTING ROAD

15" CL III RCP
SEE PROFILE A ON
SHEET C-301

FES 3
FL=916.75

15" CL III RCP
SEE PROFILE B ON
SHEET C-301

FES 6
FL=917.40

INFILTRATION BASIN

DRAINAGE STRUCTURE			
STRUCTURE ID	TYPE	RIM	FLOWLINE
FES 3			916.75
FES 6			917.40

A INFILTRATION BASIN "A"
SCALE: 1"=20'

Graphic Scale: 1" = 20'
0' 10' 20' 40' 60'

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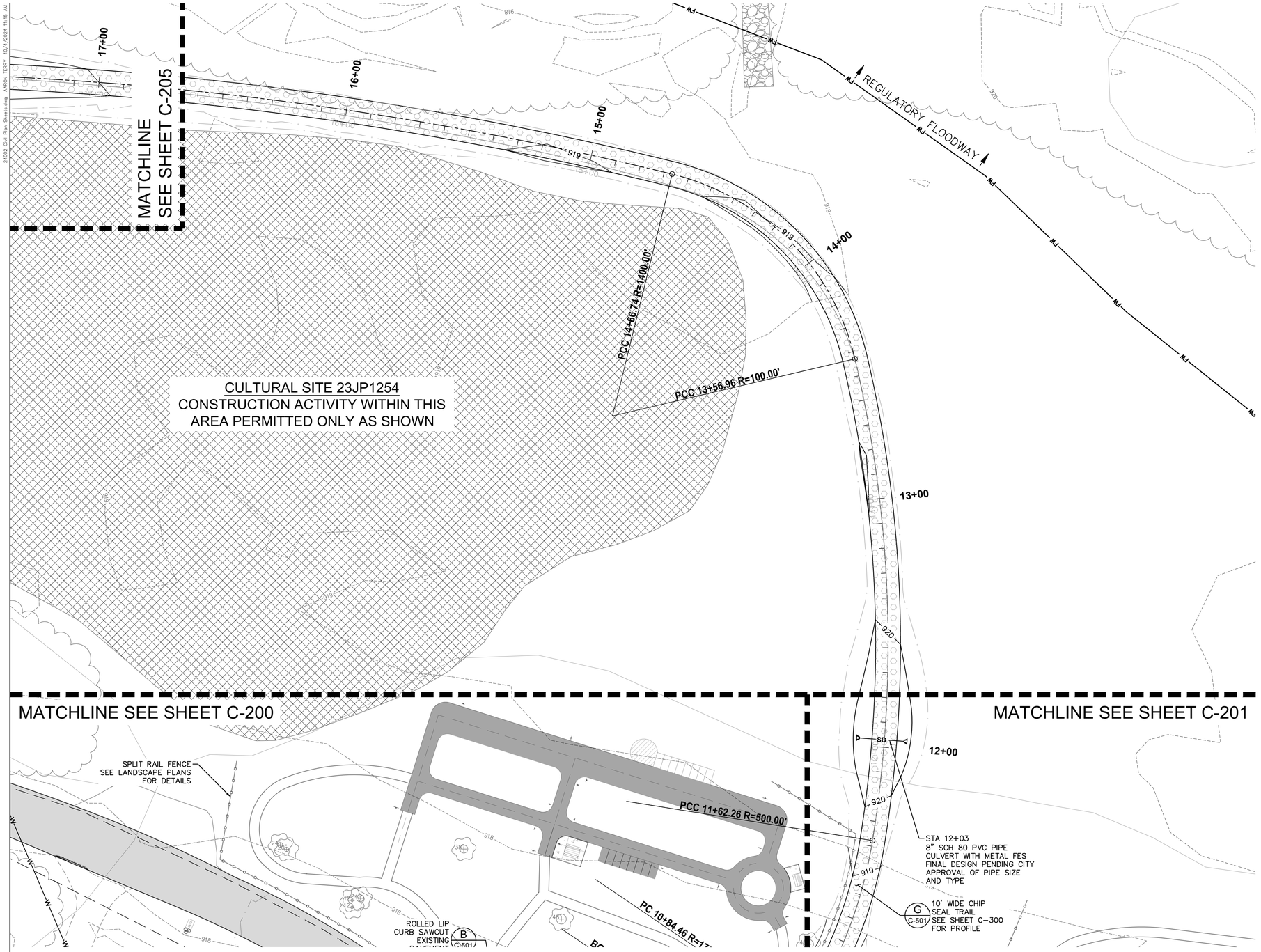
SWT No. 21703.01

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ART	ART

Sheet Title
ENLARGEMENT PLAN

Number
C-203

24002 Civil Plan Sheets.dwg AARON TERRY 10/4/2024 11:15 AM



A 10' WIDE CHIP SEAL TRAIL
SCALE: 1"=20'

Graphic Scale: 1" = 20'
0' 10' 20' 40' 60'

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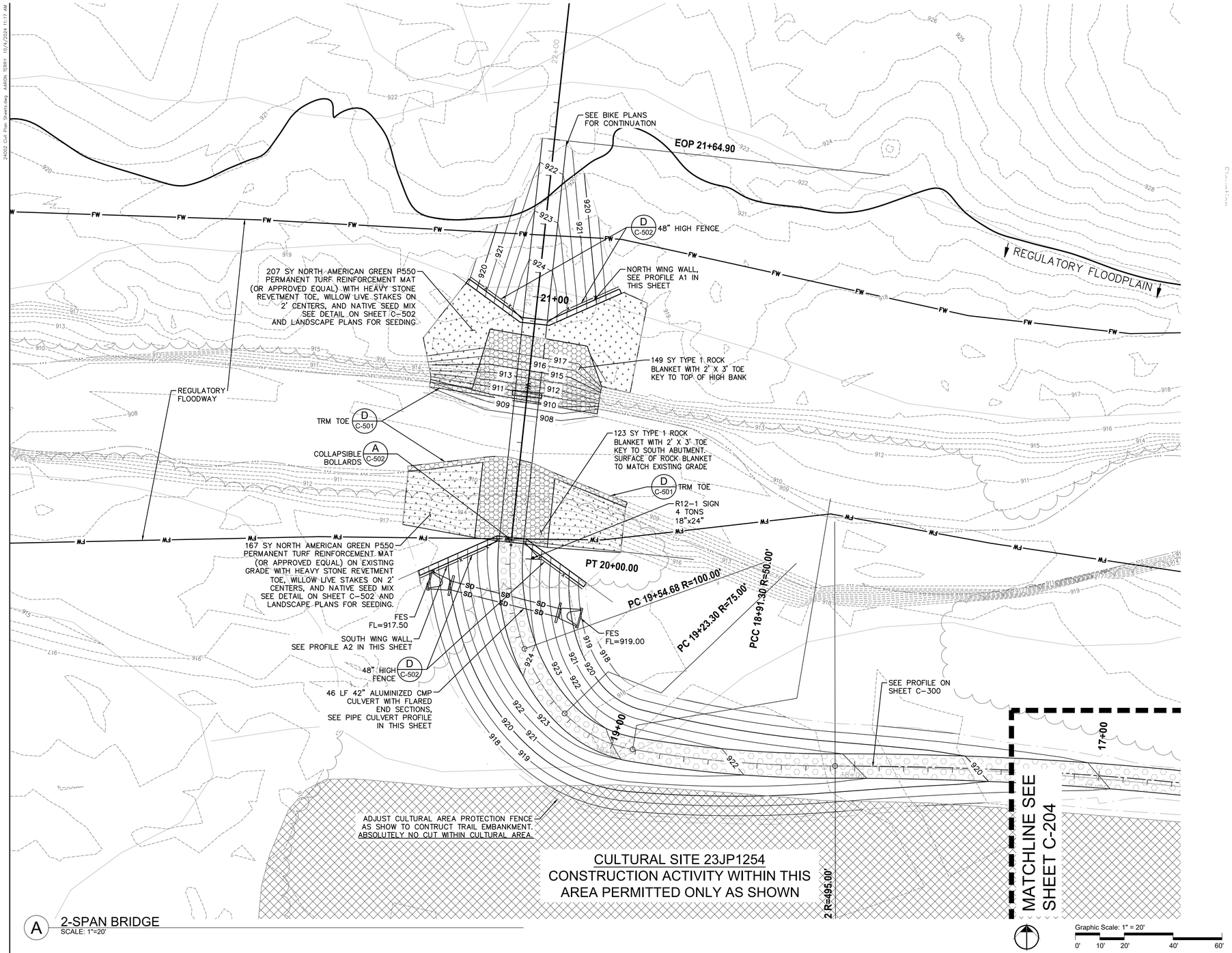
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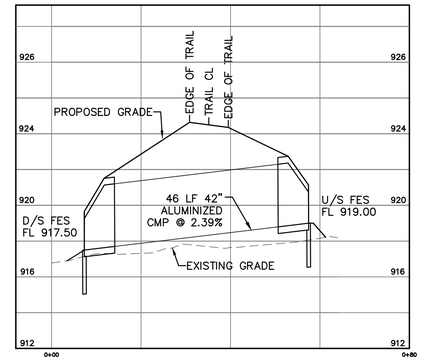
Sheet Title
ENLARGEMENT PLAN

Number
C-204

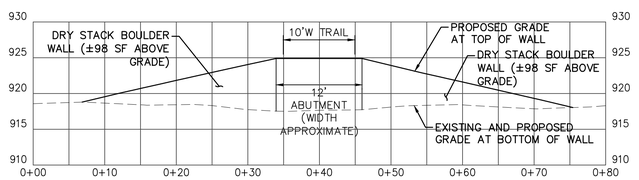
24002 Civil Plan Sheets.dwg AARON TERRY 10/4/2024 11:17 AM



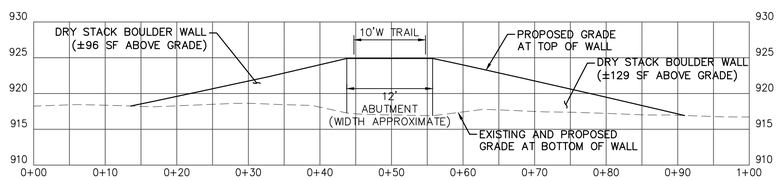
A 2-SPAN BRIDGE
SCALE: 1"=20'



A PIPE CULVERT PROFILE
SCALE: 1"=20' (HORIZ.) & 1"=4' (VERT.)



A1 NORTH WING WALL PROFILE (LOOKING NORTH)
SCALE: 1"=10' (HORIZ.) & 1":10' (VERT.)



A2 SOUTH WING WALL PROFILE (LOOKING SOUTH)
SCALE: 1"=10' (HORIZ.) & 1":10' (VERT.)

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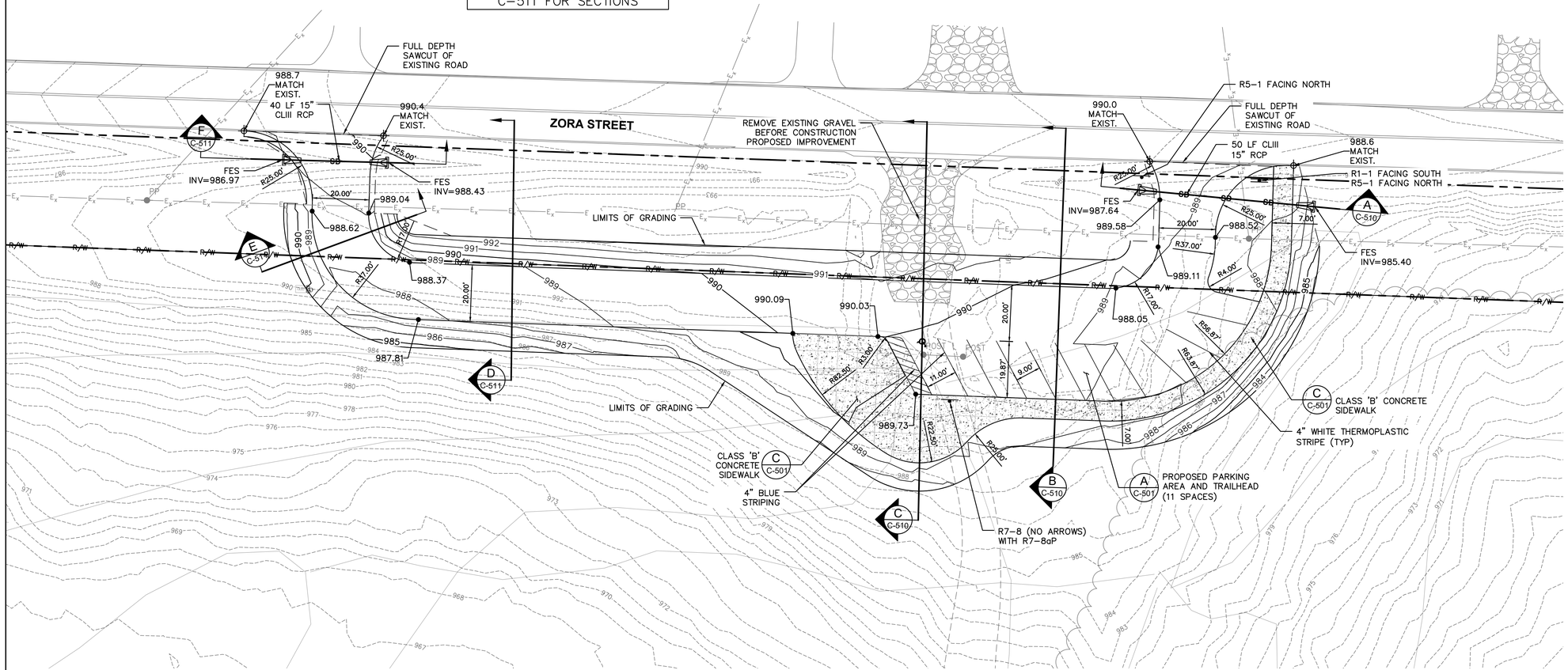
Drawn	Reviewed
ART	ART

Sheet Title
ENLARGEMENT PLAN

Number
C-205

24002 Civil Plan Sheets.dwg AARON TERRY 10/4/2024 11:15 AM

NOTE:
SEE SHEETS C-510 AND C-511 FOR SECTIONS



A ZORA STREET PARKING AREA
SCALE: 1"=20'

Graphic Scale: 1" = 20'
0' 10' 20' 40' 60'

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Drawn	Reviewed
ART	ART

Sheet Title
ENLARGEMENT PLAN

Number
C-206

24002 Civil Plan Sheets.dwg AARON TERRY 10/4/2024 11:16 AM

NOTE:
SEE SHEETS C-511
FOR SECTIONS

LIMITS OF GRADING

REMOVE ALL BOLLARDS

ROW OF BOLLARDS

MINE WASTE AREA NOTES:
MATERIAL EXCAVATED FROM THIS AREA IS THE PROPERTY OF THE CONTRACTOR AND MUST BE:
1. USED AS FILL WITHIN THIS AREA BELOW PAVEMENT.
2. USED AS FILL AND COVERED WITH 12" OF NON-MINE-IMPACTED CLEAN FILL.
3. PROPERLY DISPOSED OF OFF-SITE.

MINE WASTE AREA

SPLIT RAIL FENCE
SEE LANDSCAPE PLANS FOR DETAILS AND LOCATION

REMOVE TOP 6" OF CRUSHED STONE AND PROPERLY DISPOSE OFF-SITE

R7-8 (NO ARROWS) WITH R7-8aP

917.6 MATCH EXIST.

R1-1

R25.00'

918.42

FES
FL=915.48

9.00'

19.00'

0.58'

4" WHITE STRIPE (TYP.)

919.26

24" WHITE STRIPE

LIMITS OF GRADING

36.00'

919.40

2" BP-2 ASPHALTIC CONCRETE OVERLAY

4" DOUBLE SOLID YELLOW STRIPE

EXISTING CULVERT PIPES (UIP)

A C-501 FULL DEPTH PAVEMENT WIDENING

K C-511 53 LF 18" CL V RCP @ 0.50%

POST

918.90

R25.00'

918.2 MATCH EXIST.

FES
FL=915.81

J C-511

SPLIT RAIL FENCE
SEE LANDSCAPE PLANS FOR DETAILS AND LOCATION

CULTURAL SITE 23JP1258

REGULATORY FLOODPLAIN

A LONE ELM ROAD ENTRANCE IMPROVEMENT
SCALE: 1"=20'

Graphic Scale: 1" = 20'
0' 10' 20' 40' 60'

C&S No. 24002

Prepared For:

JOPLIN MISSOURI
602 S Main St
Joplin, MO 64801

Project:
DORA
Bike Park

SWT DESIGN
1925 Central St Suite 202A
Kansas City, MO 64111
t: 816.221.0825

Point of Contact:
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Aaron R. Terry - Engineer
MO # PE-2009019954
STATE OF MISSOURI · AARON R. TERRY · NUMBER PE-2009019954 · PROFESSIONAL ENGINEER
Civil & Survey, LLC
Missouri State Certificate of Authority #E-2021014185

Issuances

No.	Description	Date
01	100% Design Development	8/7/2024
02	Advance Permit Review	8/30/2024
03	100% Construction Docs	9/20/2024
04	Issued for Bid	10/07/2024

Revisions

No.	Description	Date

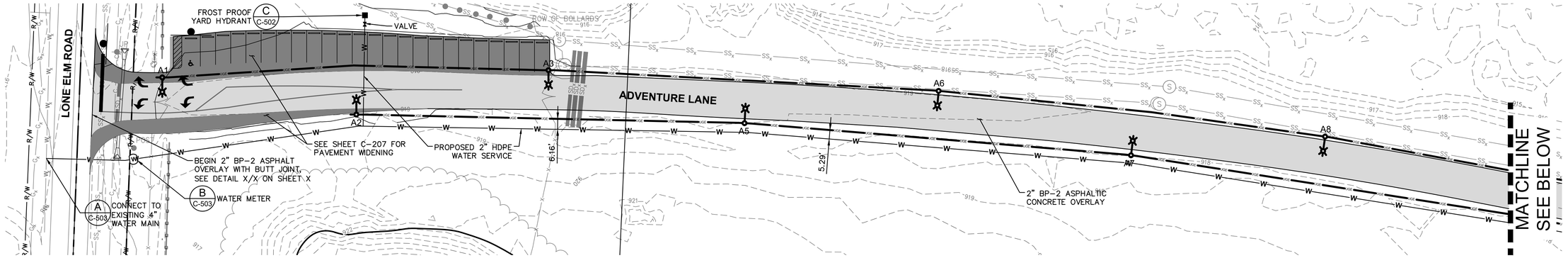
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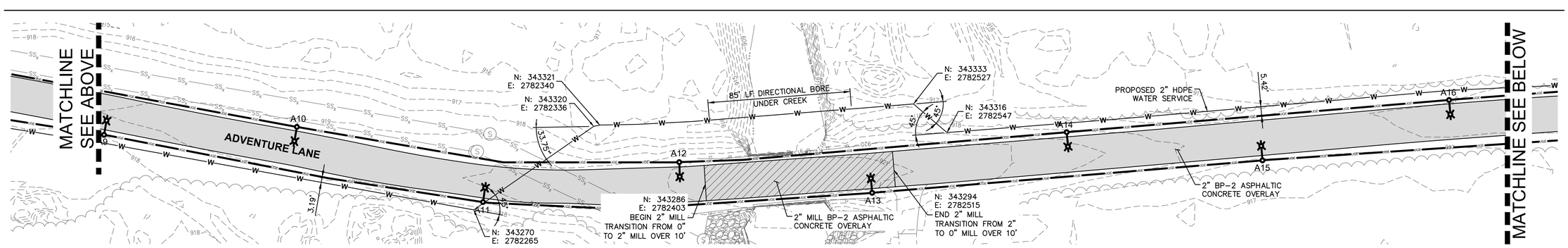
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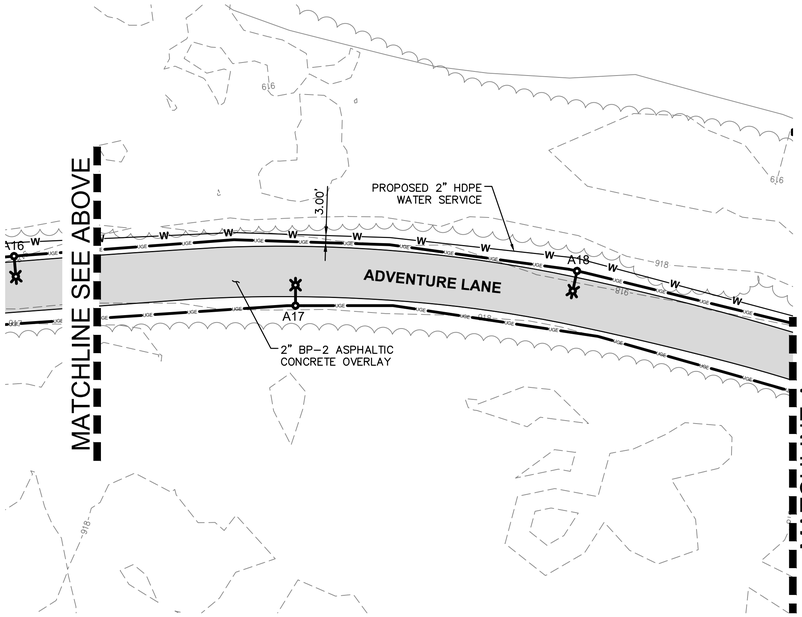
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ENLARGEMENT PLAN

Number
C-207

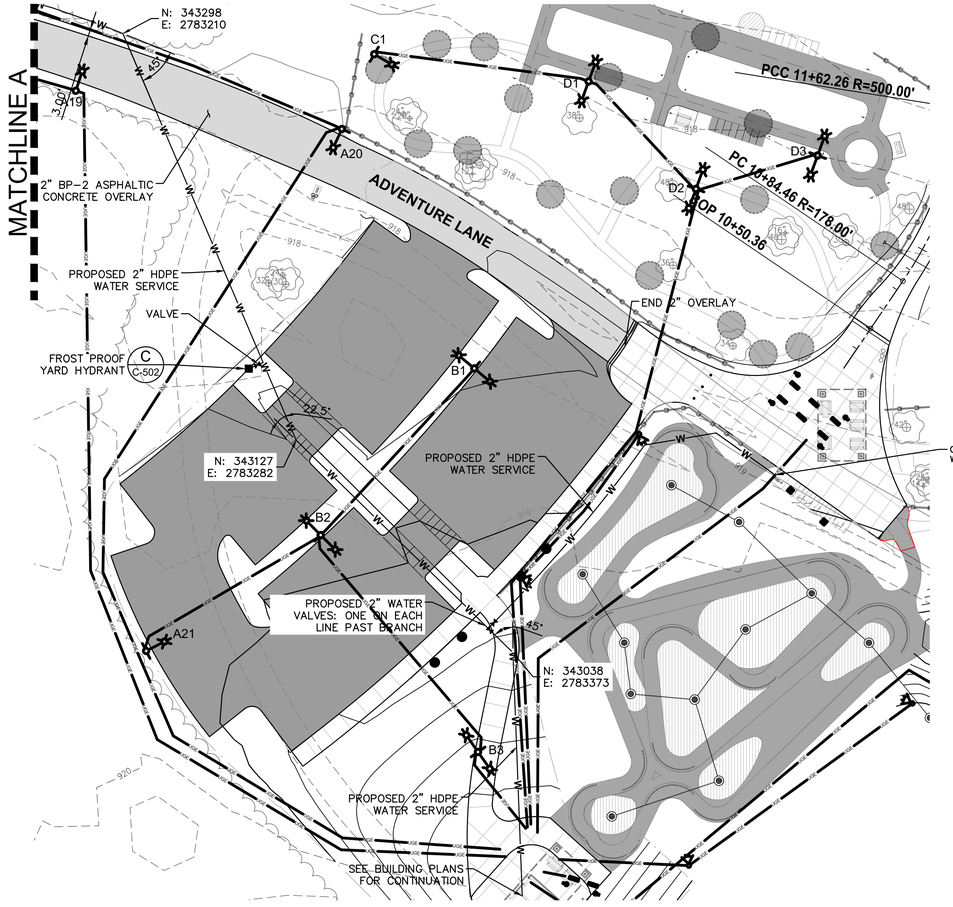
24002 Water Plan Sheets.dwg AARON TERRY 10/4/2024 11:15 AM







A WATER SERVICE & ROAD OVERLAY PLAN
SCALE: 1"=30



GENERAL NOTES:

1. FOR CONSTRUCTION OF WATER SERVICE LINE AND ASPHALT OVERLAY ONLY. ALL OTHER IMPROVEMENTS ARE SHOWN ONLY FOR CONTEXT.
2. SEE B C-503 FOR WATER SERVICE LAYOUT.

Graphic Scale: 1" = 30'
0' 15' 30' 60' 120'

UNDERGROUND UTILITIES SHOWN HEREIN WERE LOCATED FROM OBSERVED EVIDENCE OF VISIBLE APPURTENANCES AND AS MARKED BY MEMBERS OF THE MISSOURI ONE CALL SYSTEM. OTHER UTILITIES MAY BE PRESENT, AND THE ACTUAL LOCATION, TYPE, SIZE, AND NUMBER OF UTILITIES MAY DIFFER FROM THOSE SHOWN.

C&S No. 24002

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Bike Park

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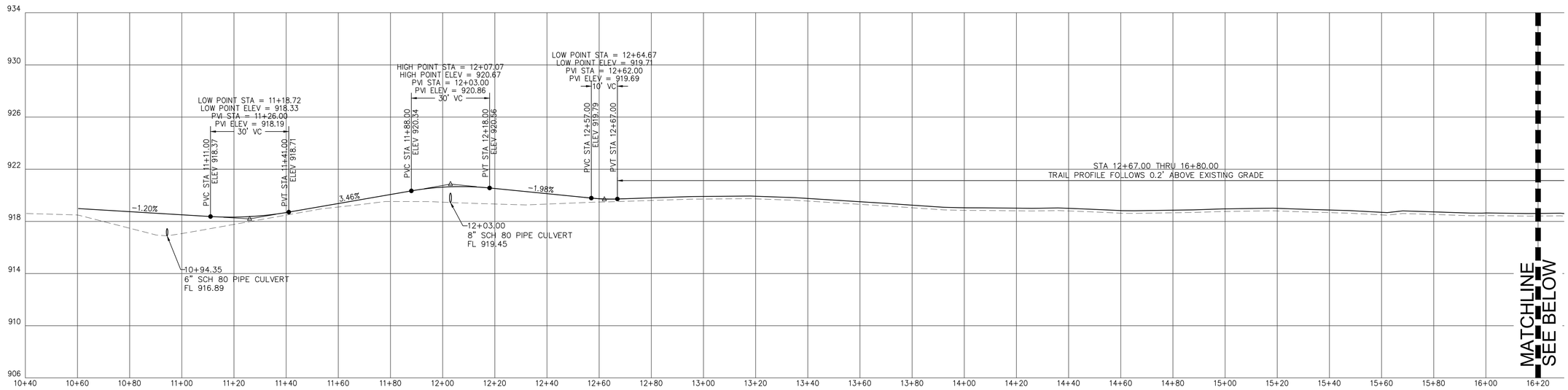
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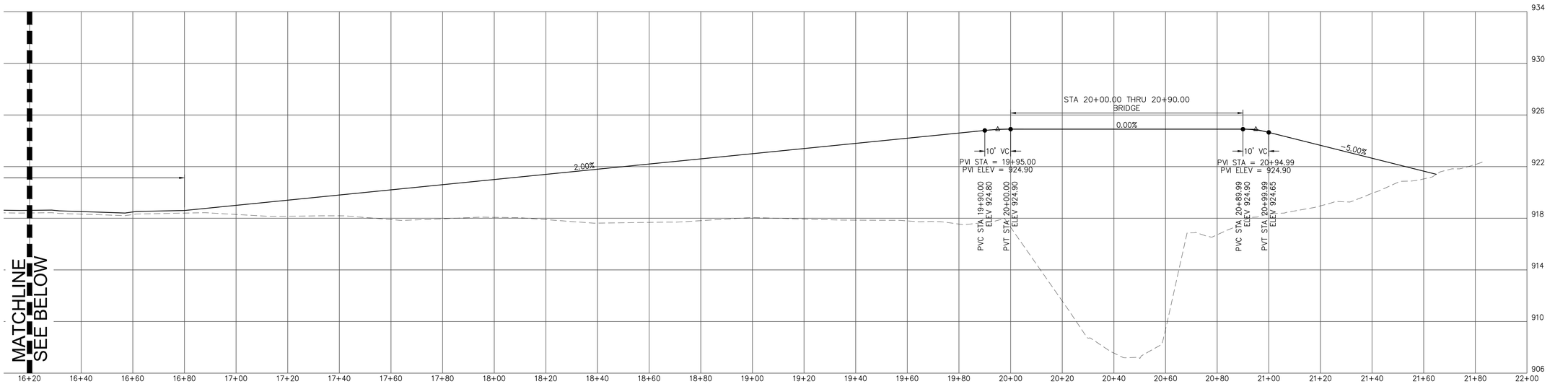
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ART	ART

Sheet Title
WATER SERVICE & ROAD OVERLAY PLAN

Number
C-250

24002 Profile Sheets.dwg AARON TERRY 10/4/2024 11:14 AM





A ROAD PROFILE (BIKE PARK TO BRIDGE)
SCALE: 1"=20' (HORIZ.) & 1"=4' (VERT.)

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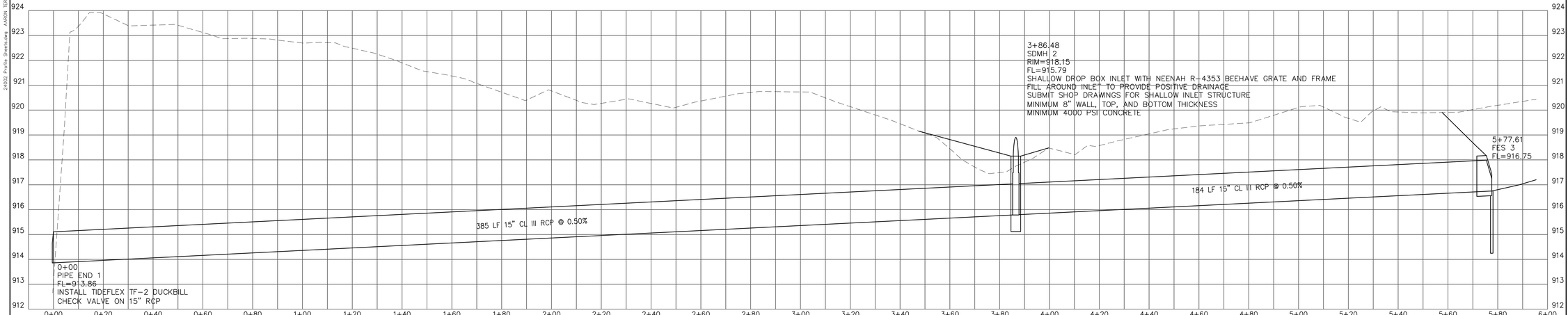
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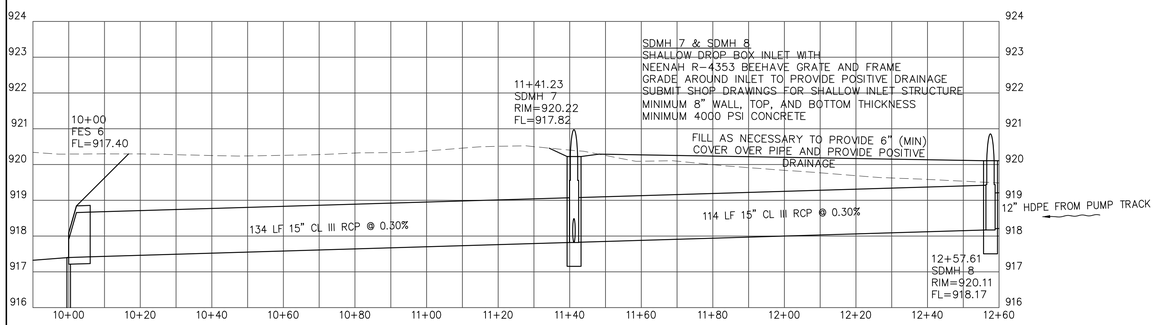
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CONNECTOR TRAIL PROFILE

Number
C-300

24002 Profile Sheets.dwg AARON TERRY 10/4/2024 12:27 PM



A DISCHARGE PIPE PROFILE
SCALE: 1"=20' (HORIZ.) & 1"=2' (VERT.)



B STORM SEWER PROFILE
SCALE: 1"=20' (HORIZ.) & 1"=2' (VERT.)

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Project:
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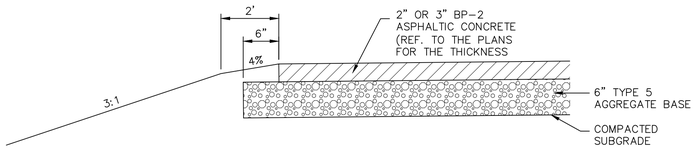
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SEWER PROFILES

Number
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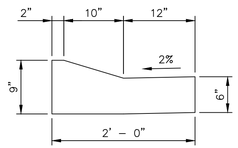
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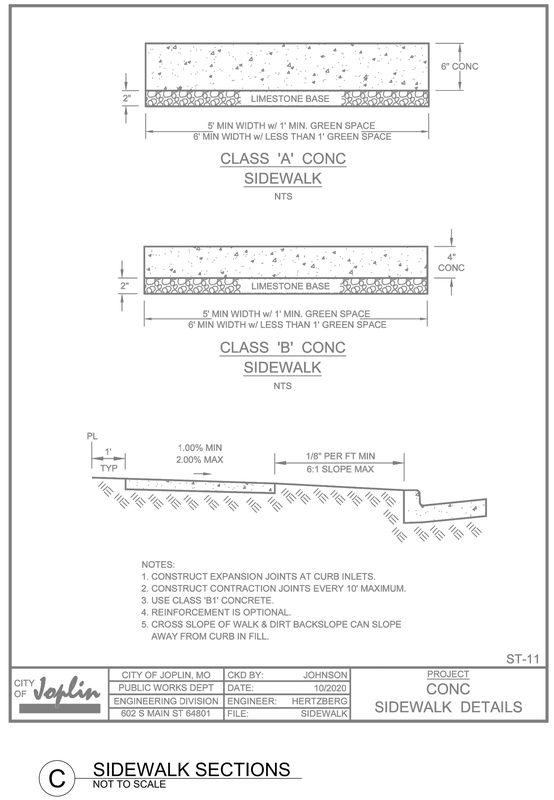
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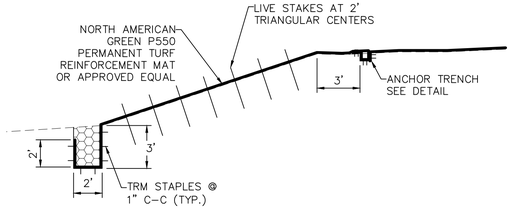
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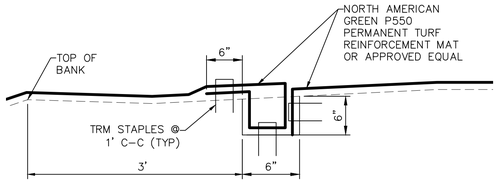
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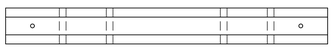
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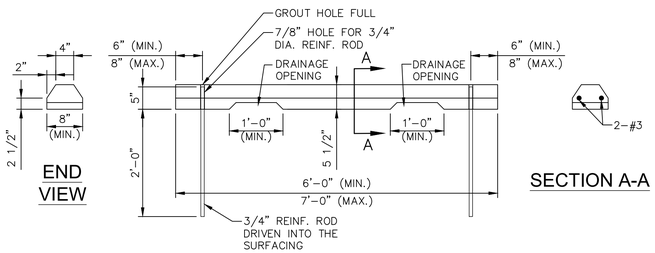
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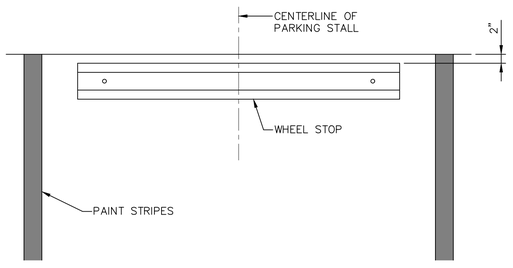
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PLAN

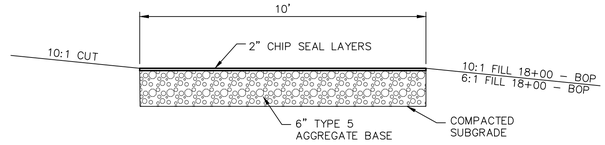


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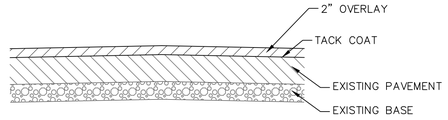


INSTALLATION PLAN

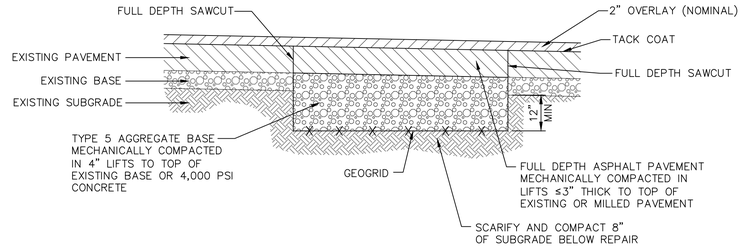
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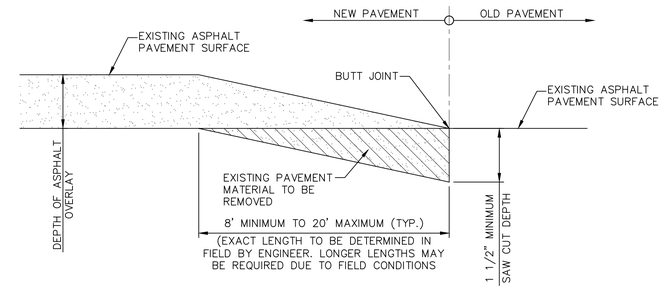
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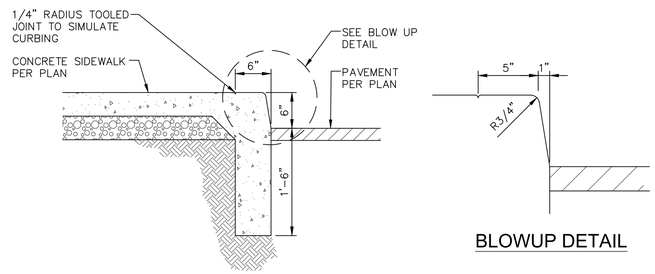
NOTES:

1. MINIMUM PAY QUANTITY SHALL BE 4 SQUARE YARDS PER LOCATION.
2. MINIMUM DIMENSIONS SHALL BE 6' X 6' UNLESS DIRECTED OTHERWISE BY THE ENGINEER.
3. ENGINEER SHALL DELINEATE LIMIT OF FULL DEPTH PAVEMENT REPAIRS.
4. CONTRACTOR MUST NOT PERFORM FULL DEPTH PAVEMENT REPAIRS WITHOUT ENGINEER'S PRIOR APPROVAL.
5. OMIT GEOGRID WHEN USING CONCRETE IN LIEU OF AGGREGATE BASE.

I TYPICAL PAVEMENT REPAIR SECTION
NOT TO SCALE



J BUTT JOINT
NOT TO SCALE



BLOWUP DETAIL

K TURN DOWN SIDEWALK DETAIL
NOT TO SCALE

C&S No. 24002

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SWT No. 21703.01

Drawn ART | Reviewed ART

Sheet Title
DETAILS

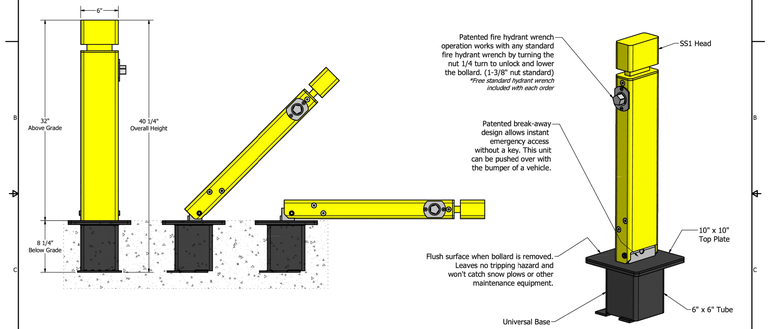
Number
C-501

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MaxiForce™ Collapsible Bollard

Standard Body, Wrench Operated, Standard Style 1 Head, Universal Base

AHJ approved in many cities / counties / campuses for use in fire lanes per International Fire Code (IFC) 503



- Low Maintenance / Durable steel construction
- One year warranty / Protected by $1,000,000 in liability insurance
- No complex assembly required in the field
- Custom sizes, options, colors and finishes available upon request
- Finish options available (add code to the end of the model number)
  - Powder coated (PC)
  - Powder coated with DRYZINC primer (PCZ)
  - Hot dip galvanized (G)
  - Hot dip galvanized & powder coated (GPC)
- Reflective tape available upon request

Bollard Assy. Weight	Base Weight
58 lbs	28 lbs
Drawing Rev.	Created
1	11/2/2009

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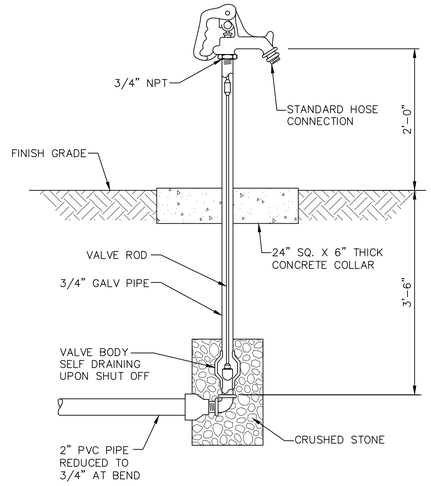
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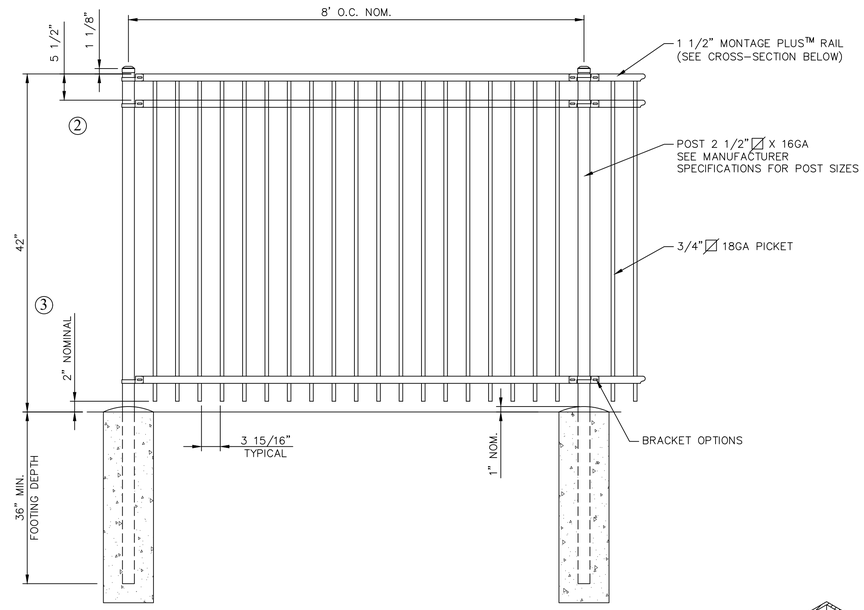
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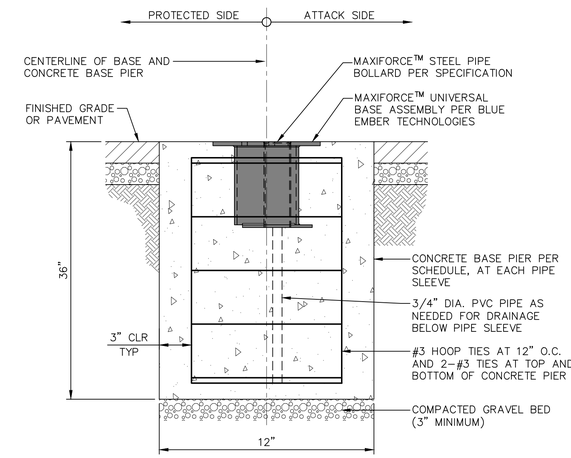
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A COLLAPSIBLE BOLLARDS
NOT TO SCALE



C YARD HYDRANT
NOT TO SCALE



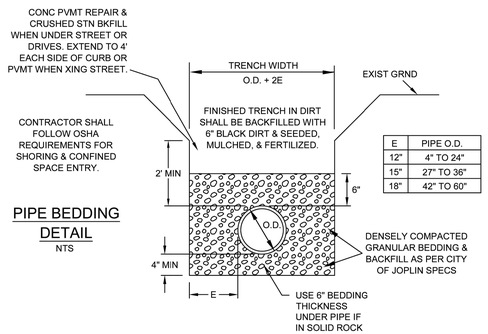


INSTALLATION ORIENTATION

NOTES:

1. UNIVERSAL BASE INSTALLATION DETAIL (3" CONCRETE EACH SIDE OF BASE EXTENDING 36" BELOW FINISHED GRADE).
2. HOT DIP GALVANIZED & POWDER COATED (GPC) BLACK SEMIGLOSS WITH REFLECTIVE TAPE.

B UNIVERSAL BASE PIER FOOTING DETAIL
NOT TO SCALE



E	PIPE O.D.
12"	4" TO 24"
15"	27" TO 36"
18"	42" TO 60"

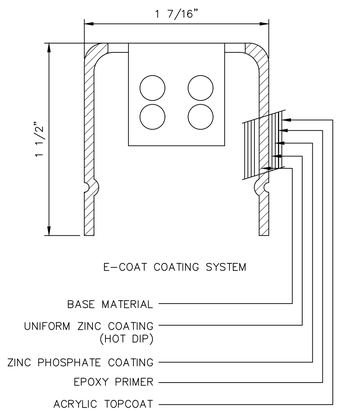
PIPE BEDDING DETAIL
NTS

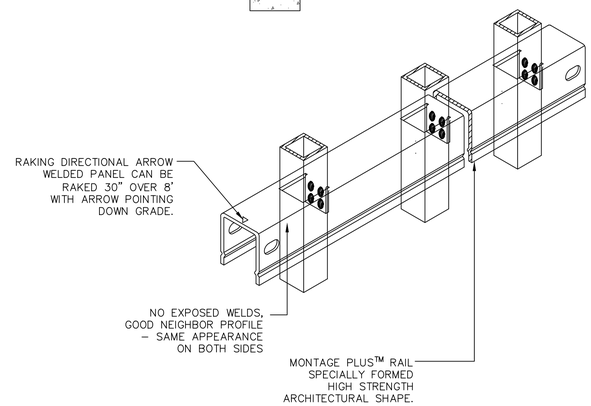
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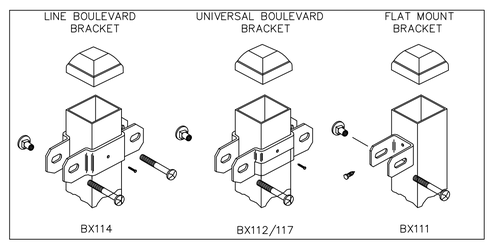
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	PUBLIC WORKS DEPT	DATE: 12/2020	PIPE BEDDING DETAIL
	ENGINEERING DIVISION	ENGINEER: HERTZBERG	
	602 S MAIN ST 64801	FILE: BEDDET	

E PIPE BEDDING DETAIL
NOT TO SCALE

MONTAGE PLUS™ RAIL







VALUES SHOWN ARE NOMINAL AND NOT TO BE USED FOR INSTALLATION PURPOSES. SEE PRODUCT SPECIFICATION FOR INSTALLATION REQUIREMENTS.

NOTES:

1. FENCE MATERIAL TO BE AMERISTAR MONTAGE PLUS MAJESTIC 3-RAIL OR APPROVED EQUAL.
2. FENCE MUST BE INSTALLED IN ACCORDANCE WITH MANUFACTURERS INSTRUCTIONS AND MEET ALL APPLICABLE CODES AND REGULATIONS.

D STEEL FENCE
NOT TO SCALE

Prepared For:

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Project:
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Aaron R. Terry - Engineer
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AARON R. TERRY
NUMBER PE-2009019954
PROFESSIONAL ENGINEER

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Issuances

No.	Description	Date
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02	Advance Permit Review	8/30/2024
03	100% Construction Docs	9/20/2024
04	Issued for Bid	10/07/2024

Revisions

No.	Description	Date

SWT No. 21703.01

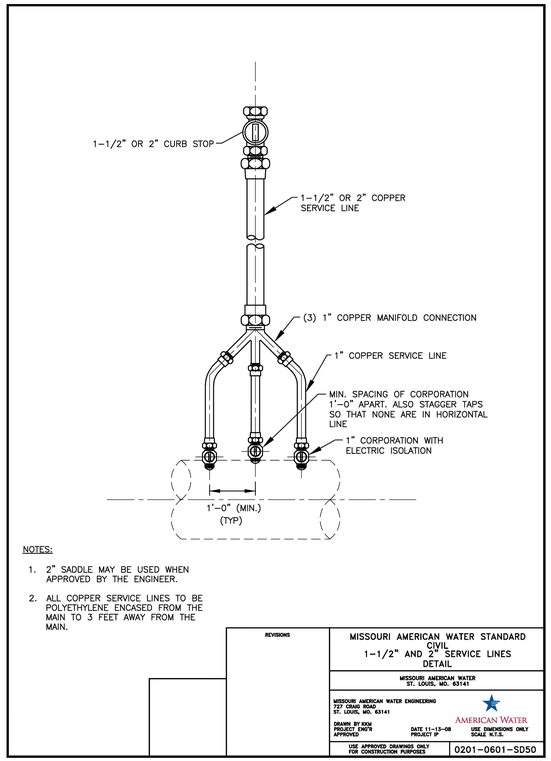
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ART	ART

Sheet Title
DETAILS

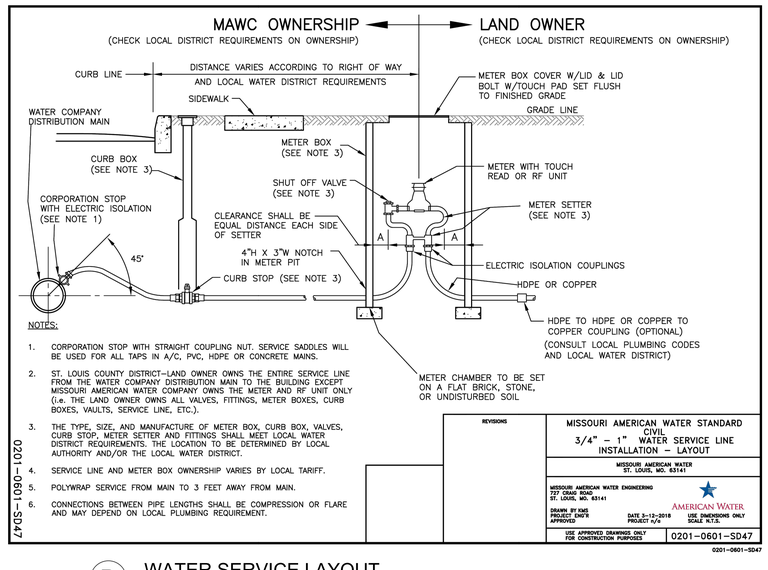
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C-502

C&S No. 24002

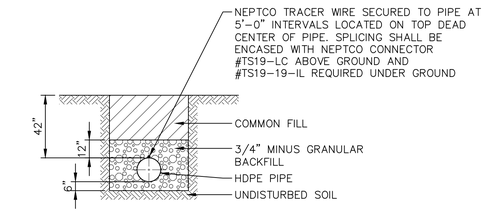
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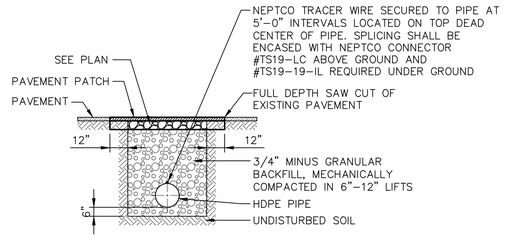
A WATER SERVICE CONNECTION
NOT TO SCALE



B WATER SERVICE LAYOUT
NOT TO SCALE



C WATER SERVICE INSTALLATION (NON-TRAFFIC AREA)
NOT TO SCALE



D WATER SERVICE INSTALLATION (TRAFFIC AREA)
NOT TO SCALE

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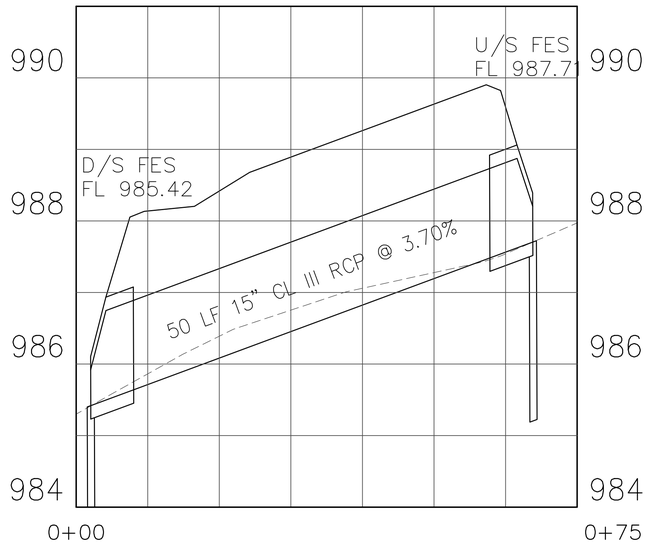
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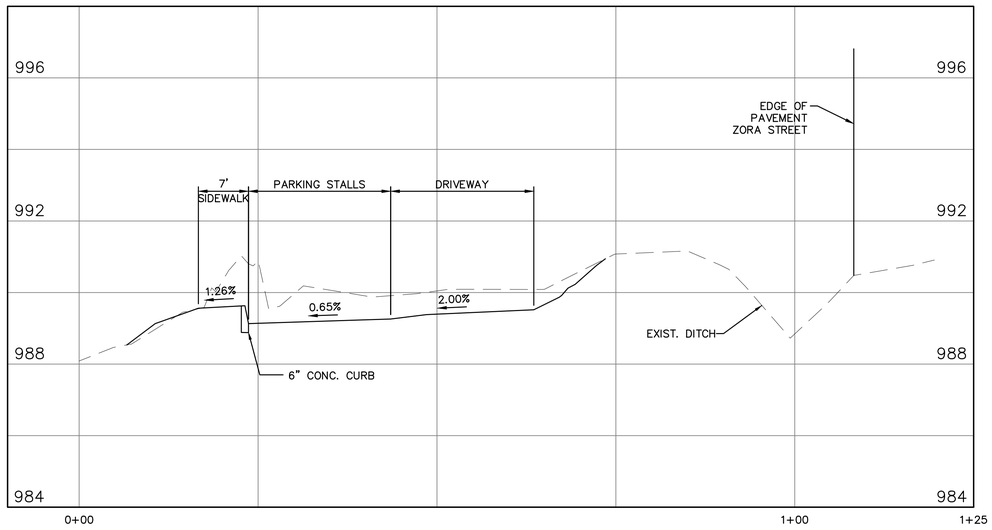
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C&S No. 24002

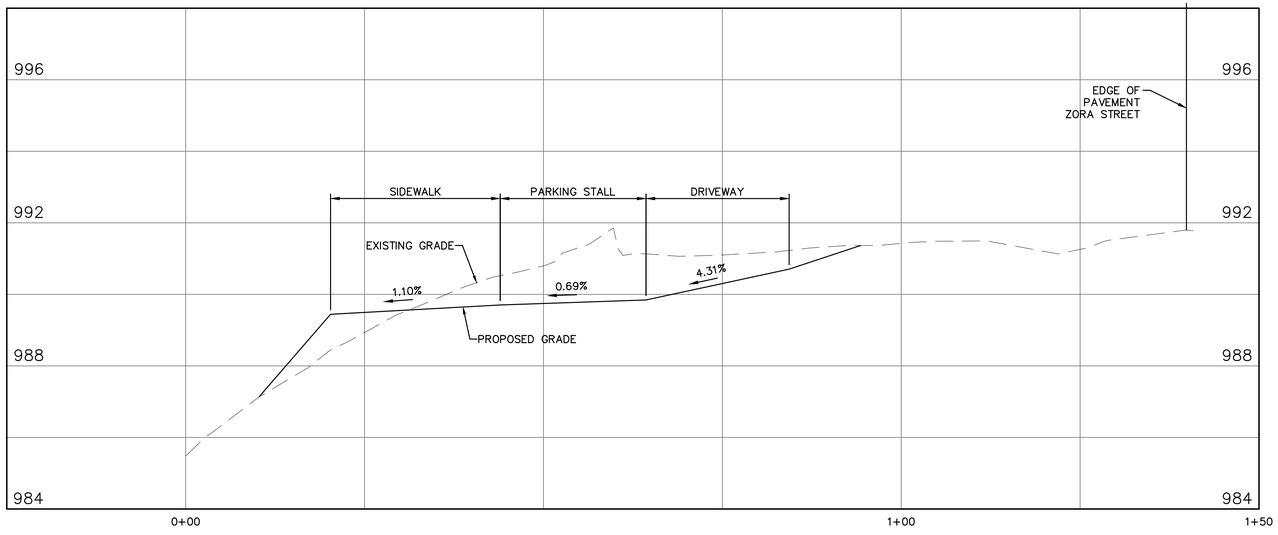
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A SECTION A-A
SCALE: 1"=10' (HORIZ.) & 1"=1' (VERT.)



B SECTION B-B
SCALE: 1"=10' (HORIZ.) & 1"=2' (VERT.)



C SECTION C-C
SCALE: 1"=10' (HORIZ.) & 1"=2' (VERT.)

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UNDERGROUND UTILITIES SHOWN HEREIN WERE LOCATED FROM OBSERVED EVIDENCE OF VISIBLE APPURTENANCES AND AS MARKED BY MEMBERS OF THE MISSOURI ONE CALL SYSTEM. OTHER UTILITIES MAY BE PRESENT, AND THE ACTUAL LOCATION, TYPE, SIZE, AND NUMBER OF UTILITIES MAY DIFFER FROM THOSE SHOWN.

C&S No. 24002

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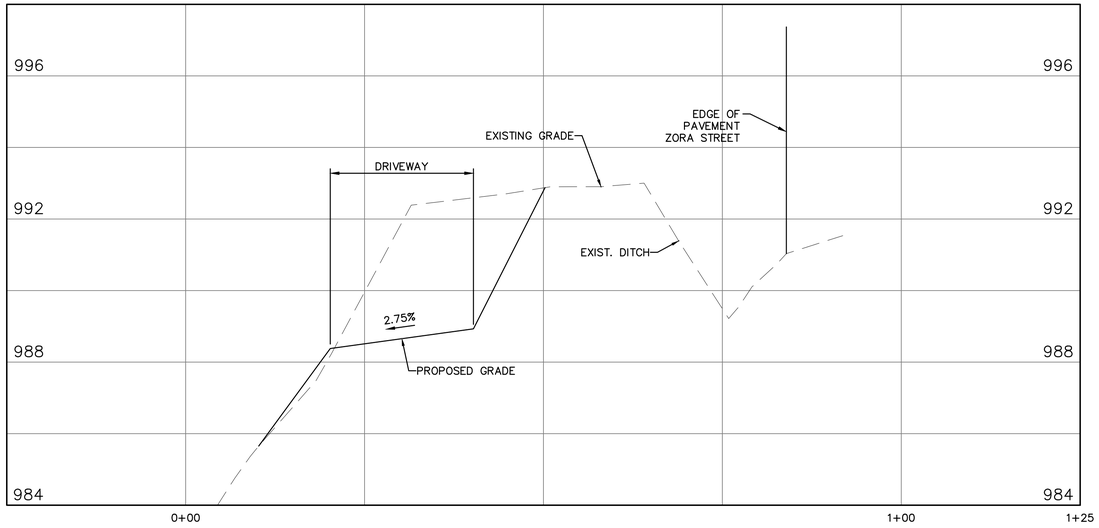
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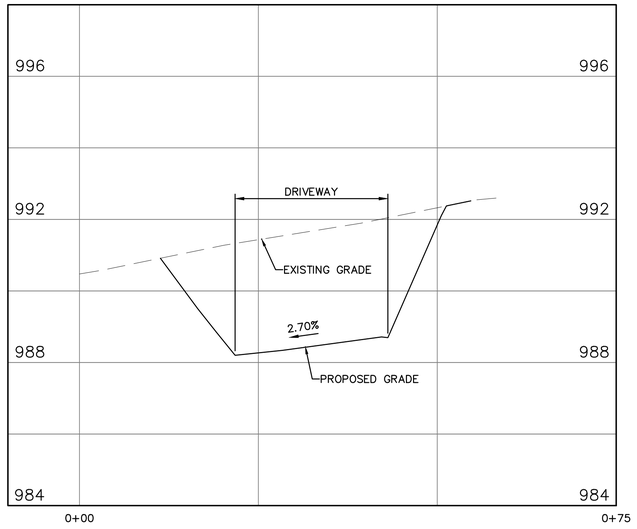
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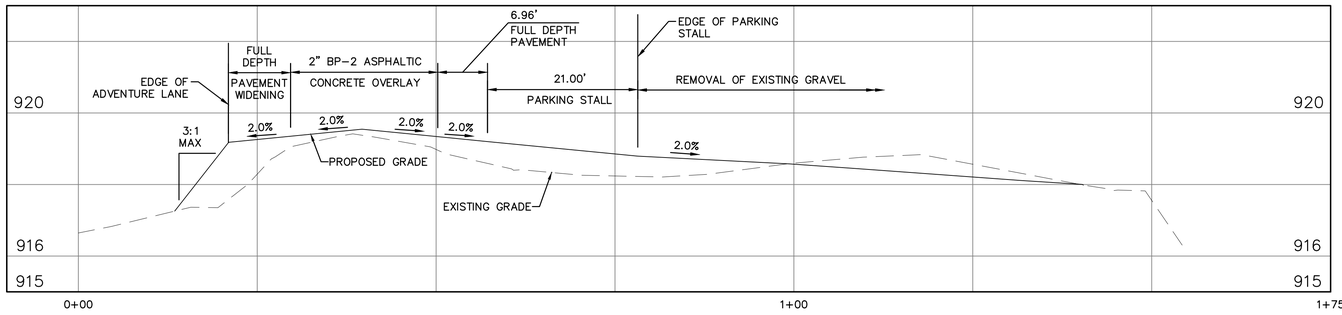
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D SECTION D-D
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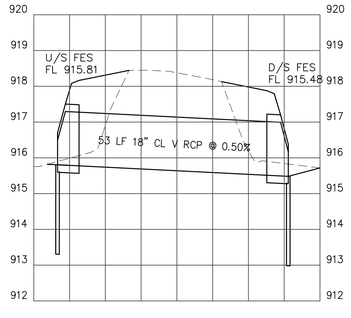


E SECTION E-E
SCALE: 1"=10' (HORIZ.) & 1"=2' (VERT.)



J SECTION: ADVENTURE LANE WIDENING
SCALE: 1"=10' (HORIZ.) & 1"=2' (VERT.)

F SECTION F-F
SCALE: 1"=20' (HORIZ.) & 1"=2' (VERT.)



K LONE ELM ENTRACE PIPE CULVERT PROFILE
SCALE: 1"=20' (HORIZ.) & 1"=2' (VERT.)

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Drawn ART | Reviewed ART

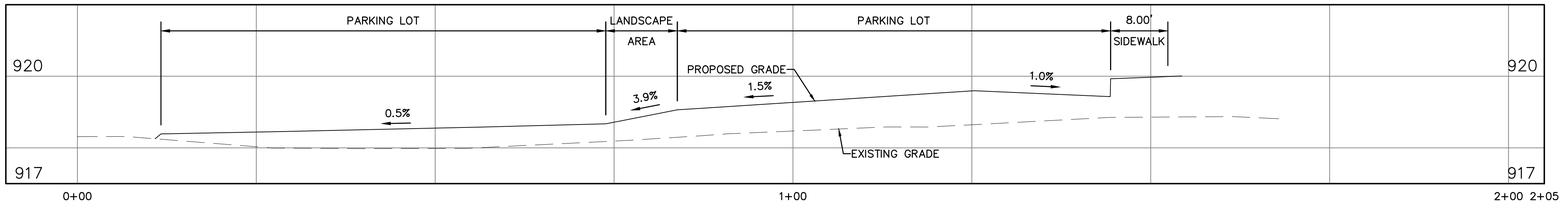
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C-511

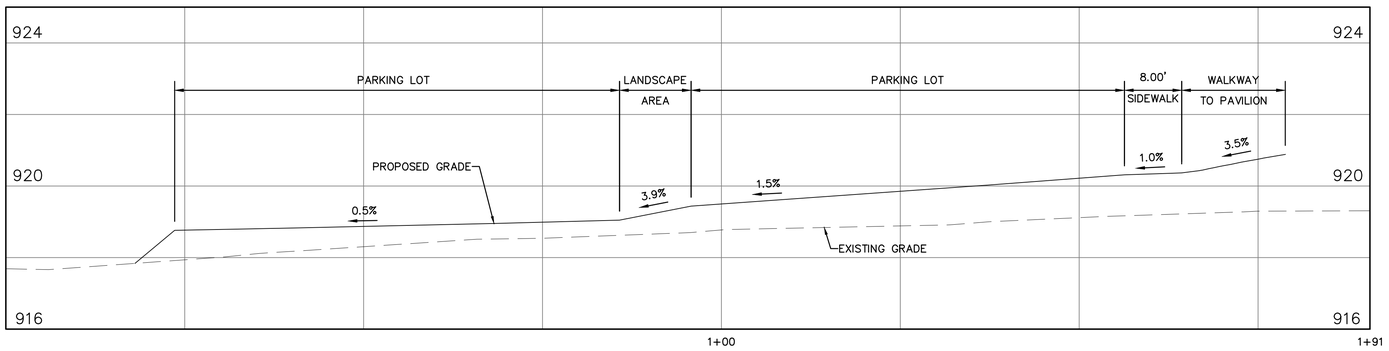
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C&S No. 24002

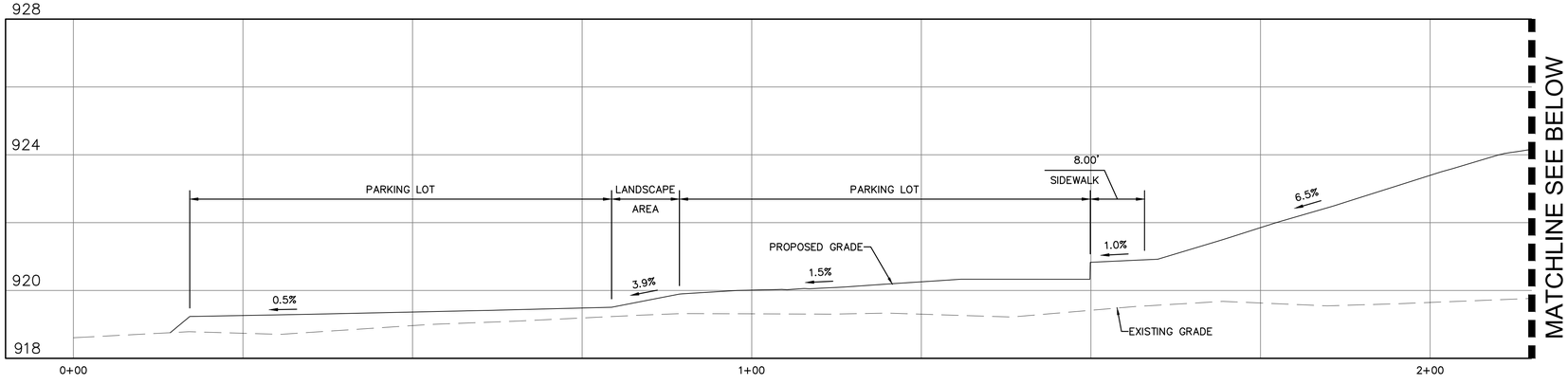
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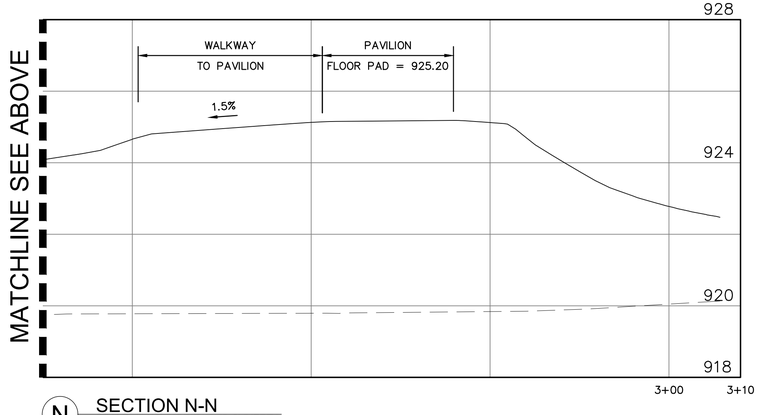


L SECTION L-L
SCALE: 1"=10' (HORIZ.) & 1"=2' (VERT.)



M SECTION M-M
SCALE: 1"=10' (HORIZ.) & 1"=2' (VERT.)





N SECTION N-N
SCALE: 1"=10' (HORIZ.) & 1"=2' (VERT.)

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SWT No. 21703.01

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ART	ART

Sheet Title
SECTIONS

Number
C-512

NOTES:

1. THESE NOTES PERTAIN TO ALL CONSTRUCTION AND THE FOLLOWING DOCUMENTS.
2. DO NOT REPRODUCE DRAWINGS AT DIFFERENT SCALE THAN SHOWN. USE DIMENSIONS SHOWN.
3. CONTRACTOR SHALL NOTIFY THE OWNER IMMEDIATELY IF EXISTING SITE CONDITIONS DIFFER FROM THOSE SHOWN ON PLANS.
4. ALL QUESTIONS REGARDING THESE CONSTRUCTION DOCUMENTS SHALL BE SUBMITTED IN WRITING TO THE GENERAL CONTRACTOR OR LANDSCAPE ARCHITECT.
5. THE CONTRACTOR SHALL OBTAIN ALL NECESSARY PERMITS TO ACCOMPLISH THIS WORK. THE COST OF THESE PERMITS SHALL BE INCLUDED IN THE CONTRACT AMOUNT.
6. PRIOR TO BEGINNING ANY WORK ON THE SITE, THE CONTRACTOR SHALL CONTACT THE OWNER FOR SPECIFIC INSTRUCTIONS RELEVANT TO THE SEQUENCING OF THE WORK, STAGING, AND ACCESS.
7. THE CONTRACTOR SHALL VISIT THE SITE AND BECOME FULLY FAMILIAR WITH ALL OF THE CONDITIONS THAT PERTAIN TO THE WORK DESCRIBED HEREIN. THE FAILURE TO UNDERSTAND OR TO HAVE KNOWLEDGE OF ISSUES THAT COULD HAVE BEEN DETERMINED PRIOR TO BIDDING WILL NOT CONSTITUTE GROUNDS FOR ASKING FOR WORK CHANGE ORDERS OR EXTRA WORK.
8. THIS SET OF PLANS IS SUFFICIENT FOR OBTAINING A BUILDING PERMIT, HOWEVER, ALL MATERIALS AND METHODS OF CONSTRUCTION NECESSARY TO COMPLETE THE PROJECT ARE NOT NECESSARILY DESCRIBED. THE PLANS DELINEATE AND DESCRIBE ONLY LOCATIONS, DIMENSIONS, TYPES OF MATERIALS AND GENERAL METHODS OF ASSEMBLING OR FASTENING. THE SPECIFICATIONS INCLUDED WITH THIS PLAN SET SPECIFY PARTICULAR PRODUCTS OR MATERIALS RECOMMENDED FOR THIS DESIGN. THE IMPLEMENTATION OF THESE PLANS REQUIRES THAT THE CONTRACTOR IS THOROUGHLY KNOWLEDGEABLE WITH THE APPLICABLE BUILDING CODES AND METHODS FOR CONSTRUCTION SPECIFIC TO THIS PROJECT AND TYPE OF CONSTRUCTION. THE CONTRACTOR SHALL ENSURE THAT ALL LABOR, MATERIALS, EQUIPMENT, AND TRANSPORTATION SHALL BE INCLUDED IN THE WORK FOR THE COMPLETE EXECUTION OF THE PROJECT. THE LANDSCAPE ARCHITECT SHALL NOT BE RESPONSIBLE FOR THE MEANS, METHODS, OR SEQUENCING OF CONSTRUCTION.
9. USE OF EXPLOSIVES OR BURNING ON SITE IS PROHIBITED.
10. GENERAL CONTRACTOR SHALL COORDINATE ALL WORK BETWEEN ELECTRICAL, PLUMBING, LANDSCAPE, IRRIGATION, AND OTHER TRADE CONTRACTORS.
11. ALL UNDERGROUND FACILITIES, STRUCTURES, AND UTILITIES HAVE BEEN PLOTTED FROM THE SURVEY PROVIDED BY CIVIL & SURVEY. THEREFORE, THE RELATIONSHIP BETWEEN PROPOSED WORK AND EXISTING FACILITIES, STRUCTURES, AND UTILITIES MUST BE CONSIDERED APPROXIMATE. THE CONTRACTOR SHALL VERIFY THE LOCATION OF EXISTING UTILITIES PRIOR TO ANY GRADING OPERATIONS AND PROTECT THE UTILITIES DURING THIS WORK. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO DETERMINE THE EXACT LOCATION AND EXISTENCE OF ANY UTILITIES NOT SHOWN. ALL UTILITIES SHALL BE LOCATED AND MARKED BOTH HORIZONTALLY AND VERTICALLY TO ENSURE CLEARANCE OF ANY PROPOSED SITE WORK. UTILITY COMPANY REPRESENTATIVES SHALL BE ON SITE DURING TIMES OF EXCAVATION IN THE VICINITY OF THEIR FACILITIES. ANY DISCREPANCIES, OMISSIONS, AND/OR CONFLICTS TO BE ADDRESSED TO LANDSCAPE ARCHITECT PRIOR TO CONTINUATION OF THE WORK.
12. ALL ELEVATIONS ARE BASED ON INFORMATION PROVIDED IN THE SITE SURVEY.
13. ALL EXCAVATION, WHETHER UTILITY TRENCHES OR FOOTING EXCAVATIONS, SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE LATEST OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA) "CONSTRUCTION STANDARDS FOR EXCAVATION."
14. SIGNS, LIGHTS, AND BARRICADES SHALL BE INSTALLED AND MANTAINED AT LOCATIONS NECESSARY TO MAINTAIN A SAFE WORK SITE CONDITION AS DIRECTED/APPROVED BY THE OWNER AND IN ACCORDANCE WITH THE "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES."
15. DO NOT DISTURB ANY UTILITIES UNLESS OTHERWISE NOTED.
16. THE APPROPRIATE UTILITY AGENCY SHALL BE NOTIFIED PRIOR TO THE COMMENCEMENT OF ANY WORK WHICH WILL AFFECT AN EXISTING UTILITY.
17. SILTATION AND EROSION CONTROL DEVICES SHALL BE INSTALLED AS NECESSARY PRIOR TO ANY GRADING OPERATIONS AND SHALL BE INSPECTED AND MAINTAINED DAILY, AFTER PERIODS OF PRECIPITATION, AND ON A REGULAR BASIS UNTIL SUFFICIENT VEGETATION HAS BEEN ESTABLISHED ON THE SITE TO PREVENT EROSION. ADDITIONAL EROSION CONTROL MEASURES SHALL BE INSTALLED BY THE CONTRACTOR AS NEEDED, UPON COORDINATION WITH LANDSCAPE ARCHITECT AND/OR INSPECTOR. CONTRACTOR TO COORDINATE AND INSTALL EROSION CONTROL DEVICES, WITH SEQUENCING OF WORK.
18. HAUL ROUTE APPROVAL SHALL BE OBTAINED FROM THE OWNER PRIOR TO COMMENCEMENT OF HAULING.
19. THE CONTRACTOR SHALL KEEP EXISTING ROADWAYS AND SIDEWALKS CLEAN OF MUD AND DEBRIS AT ALL TIMES.
20. NO AREA SHALL BE CLEARED WITHOUT THE PERMISSION OF THE OWNER.
21. NOTIFY LANDSCAPE ARCHITECT IN THE EVENT OF ANY CONFLICTING TREE ROOTS DURING GRADING AND EXCAVATING WITHIN TREE CANOPY DRIPLINE AREAS.
22. IF REMOVING PAVEMENT, SIDEWALKS, AND OTHER SIMILAR IMPROVEMENTS AND WHERE A PORTION OF SUCH IMPROVEMENTS ARE TO BE LEFT IN PLACE, THEY SHALL BE REMOVED TO AN EXISTING JOINT OR SAW CUT AT LIMITS OF REMOVAL, UNLESS OTHERWISE NOTED.
23. ALL DEBRIS RESULTING FROM THE DEMOLITION OF RIGID PAVEMENTS, CURBING, STRUCTURES, FOUNDATIONS, AND FOOTINGS SHALL BE REMOVED FROM THE SITE AND LEGALLY DISPOSED OF UNLESS NOTED OTHERWISE IN THE PROJECT SPECIFICATIONS.
24. AFTER ALL ASPHALT AND CONCRETE PAVING HAS BEEN REMOVED, CONTRACTOR SHALL DISC AND TURN EXISTING GRANULAR BASE THOROUGHLY AS REQUIRED TO DRY BASE MATERIAL.
25. ALL CUT AREAS AND AREAS TO RECEIVE FILL AND BACKFILL SHALL BE STRIPPED OF TOPSOIL, SOFT SOIL, AND OTHER DELETERIOUS MATERIALS. TOPSOIL TO BE STOCKPILED FOR LATER USE DURING LANDSCAPING OR BE REMOVED FROM THE SITE UPON OWNER'S WRITTEN APPROVAL. CONTRACTOR TO COORDINATE STOCKPILE LOCATION WITH OWNER PRIOR TO COMMENCEMENT OF WORK.
26. ALL TRASH, DEBRIS, ORGANIC MATERIAL, REFUSE, FROZEN EARTH, ETC. SHALL BE REMOVED FROM FILL AREAS PRIOR TO PLACEMENT OF CONTROLLED FILL AND BE PROPERLY DISPOSED OF FROM THE SITE PER LOCAL REGULATIONS. ALL FILLS AND BACKFILLS SHALL BE MADE OF SELECTED EARTH MATERIALS, FREE FROM BROKEN MASONRY, ROCK, FROZEN EARTH, RUBBISH, ORGANIC MATERIAL, AND DEBRIS.
27. CARE SHALL BE EXERCISED IN COMPACTION OF BACKFILL MATERIALS OVER THE TOP OF STRUCTURES OR PIPES IN ORDER TO PREVENT DAMAGE TO PIPES, JOINTS, SEALS, STRUCTURES, AND/OR WATERPROOFING MEMBRANES.
28. REFERENCE LINES AND GRADES SHALL BE MAINTAINED DURING THE PROGRESS OF THE WORK.
29. ALL GRADES SHALL BE WITHIN 0.1 FEET OF THOSE SHOWN ON THE GRADING PLAN, EXCEPT AS INDICATED IN THE PROJECT SPECIFICATIONS.
30. THE TOLERANCE OF ALL LINES AND GRADES IN THE SUBGRADE CROSS SECTION TO BE +/-1" BELOW A 10' STRAIGHT EDGE.
31. ELEVATIONS AND CONTOURS SHOWN ARE TO TOP OF FINISHED GROUND OR PAVED SURFACE, UNLESS NOTED OTHERWISE, AND SHOULD MEET ALL EXISTING SURFACES.
32. FINAL GRADING WITHIN CURB LINE SHALL BE VERIFIED BY LANDSCAPE ARCHITECT PRIOR TO PLANTING.
33. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTING GRADED AREAS, AND IF NECESSARY, RESTORE TO GRADE ANY RUTS, WASHES, OR OTHER CHANGES FROM THE DESIGN ELEVATIONS SHOWN HERE, UNTIL THE GRADING WORK IS ACCEPTED BY THE OWNER.
34. CONTRACTOR TO PROVIDE SAMPLES AND MOCKUPS OF ALL MATERIAL FOR LANDSCAPE ARCHITECT'S APPROVAL. COLORS TO BE REVIEWED AND APPROVED BY OWNER. MOCKUP SHALL BE A MINIMUM OF 4' X 4', UNLESS OTHERWISE NOTED IN SPECIFICATIONS, INDICATING MATERIALS AND PATTERN FOR LANDSCAPE ARCHITECT'S APPROVAL. ALL MATERIAL TYPES, COLORS, FINISHES, AND PROCESSES SHALL BE SELECTED AND APPROVED BY LANDSCAPE ARCHITECT/LANDSCAPE ARCHITECT. SAMPLES AND MOCKUPS SHALL INCLUDE:
    A. PLANT MATERIALS.
    B. SOILS/AMENDMENTS
    C. MULCH
    D. EROSION CONTROL PRODUCTS
    E. ALL SIGNAGE
    F. ALL FURNISHINGS
    G. STONE WORK
    H. PAVILION
    I. RESTROOMS
    J. FENCING.

SHOP DRAWINGS REQUIRED FOR ALL CUSTOM WORK INCLUDING STONE WORK AND CUSTOM SIGNAGE.

36. ALL EXTERIOR PAVEMENT SHALL MEET BUILDING FINISHED FLOOR AND/OR EXISTING PAVEMENT ELEVATIONS.
37. ALL TRENCHES UNDER OR ADJACENT TO PROPOSED PAVEMENT OR SIDEWALKS SHALL BE BACKFILLED TO SUBGRADE ELEVATION WITH COMPACTED 3/4-INCH MINUS CRUSHED LIMESTONE IN LIFTS OF 12" MAX. CRUSHED LIMESTONE SHALL BE COMPACTED AS SPECIFIED.
38. ALL PLANTING AREAS TO BE LAID OUT IN THE FIELD BY THE CONTRACTOR FOR APPROVAL BY LANDSCAPE ARCHITECT PRIOR TO ANY CONSTRUCTION.
39. ALL WALKWAY SURFACES SHALL BE LESS THAN 5% SLOPE, 2% CROSS SLOPE AND SHALL MEET ALL ADA REQUIREMENTS, UNLESS OTHERWISE NOTED.
40. ALL SURFACES SHALL PITCH AWAY FROM THE BUILDING AT A MINIMUM OF 2%, OR AS NOTED.
41. COORDINATE SLEEVES WITH ELECTRICAL CONTRACTORS.
42. THE CONTRACTOR SHALL RESTORE TO ORIGINAL CONDITION ALL "OFF SITE" AREAS/PROPERTY AND EASEMENTS DISTURBED BY HIS OPERATIONS.
43. CONTRACTOR SHALL REPLACE AT HIS/HER EXPENSE ANY SIGNS DAMAGED OR LOST DURING REMOVAL, STORAGE OR RESETTING. THE IMPROVEMENT PLANS SHOW THE LOCATIONS WHERE SIGNS ARE TO BE RESET, AND THE OWNER SHALL APPROVE THE FINAL LOCATIONS.
44. HAND RAKE ALL FINISH GRADING TO HAVE SMOOTH AND CONTINUOUS TRANSITIONS TO THE EXISTING GRADE. ALL FINAL GRADING TO BE APPROVED BY THE OWNER OR LANDSCAPE ARCHITECT PRIOR TO SEEDING OR SODDING. FINISH GRADING TOLERANCE TO BE +/- ½" BELOW 10' STRAIGHT EDGE.
45. SEED AND STRAW ALL DISTURBED AREAS NOT NOTED TO BE IMPROVED PER WRITTEN SPECIFICATIONS.
46. NOTIFY LANDSCAPE ARCHITECT IMMEDIATELY IN THE EVENT OF DISCREPANCIES, OMISSIONS, AND/OR CONFLICTS IN THE DRAWINGS OR SPECIFICATIONS. THE CONTRACTOR IS NOT AUTHORIZED TO SCALE THE DRAWINGS. ALL QUESTIONS IN REFERENCE TO CONTRACT DOCUMENTS SHALL BE IMMEDIATELY DIRECTED TO THE LANDSCAPE ARCHITECT.

TREE PROTECTION/PRESERVATION NOTES:

1. SEE L-110.

PLANTING NOTES:

1. CONTRACTOR SHALL COMPLY WITH ALL FEDERAL, STATE AND LOCAL LAWS AND REGULATIONS PERTAINING TO THE INSPECTION FOR PLANT DISEASE AND INSECT INFESTATION.
2. LANDSCAPE ARCHITECT SHALL APPROVE ALL PLANT MATERIAL AND PLACEMENT PRIOR TO INSTALLATION. CONTACT LANDSCAPE ARCHITECT AT LEAST TWO (2) WEEKS PRIOR TO PLANTING TO COORDINATE REVIEW.
3. ALL TREES AND SHRUBS SHALL EQUAL OR SURPASS AMERICAN STANDARDS FOR NURSERY STOCK ANSI Z60.1, 2014 FOR SIZE, FORM, AND QUALITY.
4. CONTRACTOR SHALL VERIFY THE PLANT MATERIAL IS PROPERLY LABELED, IS OF PROPER SIZE, HAS A WELL DEVELOPED BRANCH AND ROOT STRUCTURE, AND IS IN ACCORDANCE WITH THE AMERICAN ASSOCIATION OF NURSERYMEN. COMPLY WITH THE FOLLOWING:
    A. DO NOT PRUNE PLANT MATERIAL PRIOR TO DELIVERY WITHOUT SPECIFIC APPROVAL BY LANDSCAPE ARCHITECT.
    B. PLANTS ARE SUBJECT TO LANDSCAPE ARCHITECT INSPECTION FOR SIZE, VARIETY, CONDITION, LATENT DEFECTS, AND INJURY AT THE PLACE OF GROWTH AND AT THE PROJECT SITE AT ANY TIME BEFORE AND DURING PROGRESS OF WORK.
    C. WHEN REQUESTED BY LANDSCAPE ARCHITECT, SHOW SAMPLES TO PROVE THAT NO ROOT BOUND CONDITIONS EXIST.
    D. REMOVE REJECTED PLANTS FROM THE SITE IMMEDIATELY AND REPLACE WITH ACCEPTABLE AND LANDSCAPE ARCHITECT APPROVED MATERIALS.
    E. REPLACEMENT PLANTS SHALL BE, AT A MINIMUM, THE SAME TYPE AND SIZE AS ORIGINALLY PLANTED.
5. SUBSTITUTIONS WILL NOT BE PERMITTED WITHOUT THE LANDSCAPE ARCHITECT'S WRITTEN APPROVAL.
6. CONTRACTOR SHALL PROVIDE A WRITTEN WARRANTY TO THE OWNER THAT ALL TREES, SHRUBS, AND PLANT MATERIALS WILL MAINTAIN VIGOROUS AND HEALTHY GROWTH FOR THE SPECIFIED WARRANTY PERIOD OF ONE YEAR, UNLESS OTHERWISE STATED.
7. WARRANTY PERIOD SHALL BEGIN UPON SUBSTANTIAL COMPLETION OF WORK, AFTER OWNER'S APPROVAL, AFTER SUCCESSFUL COMPLETION OF THE SPECIFIED MAINTENANCE PERIOD DURING PLANTING INSTALLATION.
8. CONTRACTOR SHALL REMOVE TAGS, LABELS, NURSERY STAKES, WIRE BASKETS OR CAGES, AND TIES FROM ALL PLANTS.
9. SOIL PREPARATION, FERTILIZATION, PLANTING, AND STAKING AND GUYING SHALL CONFORM TO DETAILS AND SPECIFICATIONS.
10. PLANT MATERIAL QUANTITIES PER PLANT SCHEDULES ARE PROVIDED FOR PRELIMINARY COST ESTIMATE PURPOSES ONLY. LANDSCAPE CONTRACTOR IS RESPONSIBLE FOR VERIFYING QUANTITIES AS SHOWN ON PLANS.
11. CONTRACTOR SHALL COORDINATE LOCATION OF PLANT MATERIAL WITH ALL OTHER CONTRACTORS.
12. ALL PLANT PIT EXCAVATION SHALL BE PER DETAILS AND SPECIFICATIONS.
13. IF PLANTING PITS ARE EXCAVATED USING A POWER AUGER, BREAK VERTICAL SIDES WITH A BALLING BAR OR SPADE TO INTERRUPT CONTINUOUS CURVE INFLUENCE ON ROOT DEVELOPMENT.
14. ALL SOIL FOR LANDSCAPE PLANTING AREAS OR BERMS SHALL BE OBTAINED FROM ON-SITE EXCAVATIONS. CONTRACTOR SHALL PROVIDE A SOIL SUITABILITY TEST TO DETERMINE SOIL FERTILITY. THE RESULTS OF THIS SOIL TEST WILL SERVE AS THE RECOMMENDATIONS FOR ANY NECESSARY SOIL AMENDMENTS. SOIL TEST RESULTS SHALL BE PROVIDED TO THE LANDSCAPE ARCHITECT FOR APPROVAL PRIOR TO SOIL PLACEMENT. ALL SOIL AMENDMENTS SHALL CONFORM TO INDUSTRY STANDARDS.
15. CONTRACTOR SHALL KILL AND REMOVE ALL EXISTING WEEDS FROM PLANTING BEDS.
16. DO NOT ALLOW NEW WEEDS TO GROW AND GO TO SEED IN PLANTING BEDS. CONTRACTOR IS RESPONSIBLE FOR MAINTAINING WEED FREE PLANTING BEDS.
17. SOIL PREPARATION AND BACKFILL RECOMMENDATIONS CONTAINED WITHIN THESE PLANS AND/OR SPECIFICATIONS ARE FOR BID PURPOSES ONLY. FINAL SOIL ANALYSIS RECOMMENDATIONS SHALL SUPERSEDE. SEE SPECIFICATIONS.
18. CONTRACTOR SHALL OBTAIN A MINIMUM OF SIX REPRESENTATIVE SAMPLES FROM VARIED LOCATIONS FOR EACH SOIL TO BE USED OR AMENDED FOR LANDSCAPING PURPOSES. A COPY OF THE SOILS REPORT WITH RECOMMENDATIONS SHALL BE GIVEN TO THE OWNER AND THE LANDSCAPE ARCHITECT PRIOR TO ANY WORK BEING DONE. THE CONTRACTOR SHALL NOTIFY THE LANDSCAPE ARCHITECT OF ANY SOIL PROBLEMS THAT MIGHT AFFECT PLANT GROWTH.
19. CONTRACTOR SHALL INSTALL AMENDED SOIL MIX PER SOIL ANALYSIS RECOMMENDATIONS AND AS APPROVED BY LANDSCAPE ARCHITECT. SCARIFY SUBSOIL, INSTALL AND INCORPORATE AMENDED TOPSOIL AS PER SPECIFICATIONS AND DETAILS, IN ALL PLANTING AND LAWN AREAS.
20. AMENDED SOIL MIX TO BE INSTALLED UP TO 2" BELOW FINISH GRADE ADJACENT TO PAVEMENT AND BUILDING STRUCTURES AT PLANTING AREAS TO ALLOW FOR MULCH; AND ½" BELOW FINISH GRADE ADJACENT TO BUILDING STRUCTURES AND PAVEMENT AT TURF AREAS.
21. BERMS AND SLOPES ADJACENT TO PAVEMENT TO BE GRADED PER DETAILS.
22. CONTRACTOR SHALL REMOVE ALL EXCESS SOIL, CONTAMINATED SOILS, ROCKS, CLODS, AND DEBRIS AS IT ACCUMULATES ON A DAILY BASIS.
23. CONTRACTOR SHALL GRADE AROUND ALL PLANTS TO FINISH GRADE UNLESS OTHERWISE NOTED.
24. ALL LANDSCAPE AREAS (EXCLUDING TURF) ARE TO BE MULCHED WITH A 2" DEEP LAYER OF WELL COMPOSTED BARK MULCH OR DOUBLE GROUND HARDWOOD MULCH AT THE CONCLUSION OF PLANTING OPERATIONS FOR EACH PLANTING BED. MULCH SHALL BE WELL DECOMPOSED BARK MULCH, 3" IN SIZE OR SMALLER AND SHALL BE APPROVED BY LANDSCAPE ARCHITECT/LANDSCAPE ARCHITECT.
25. ALL TRANSITIONS BETWEEN PLANTING BEDS AND LAWNS ARE TO BE SPADE CUT EDGE PER DETAIL, UNLESS OTHERWISE NOTED.
26. ALL PLANTINGS, EXCLUDING SEED AND SOD, SHALL BE HELD 3' CLEAR OF FIRE HYDRANTS, OR PER LOCAL CODE.
27. ALL PLANTING AREAS WITHIN CONCRETE PAVING TO BE LAID OUT IN THE FIELD BY THE CONTRACTOR FOR APPROVAL BY LANDSCAPE ARCHITECT PRIOR TO ANY CONSTRUCTION.

LEGEND:

- PROPERTY LINE/ PROJECT LIMITS
- CULTURAL AREA
- TP — TREE PROTECTION FENCE
- MINING AREA BOUNDARY
- STANDARD CONCRETE
- PA — PLANTING AREA
- RESURFACED ASPHALT ROAD
- 600.75 / 600 — SPOT ELEVATION / EXISTING CONTOURS

KEYNOTES

1. **STANDARD CONCRETE PAVING**
   SEE CIVIL DRAWING SHEET C-501 AND SPECIFICATIONS.
2. **VEHICULAR CONCRETE PAVEMENT**
   SEE CIVIL DRAWING SHEET C-501 AND SPECIFICATIONS
3. **ASPHALT BIKE FEATURE PAVING**
   SEE BIKE DRAWING SHEET DT-05 AND SPECIFICATIONS.
4. **ASPHALT PARKING**
   NEW ASPHALT SURFACE, SEE CIVIL DRAWING SHEET C-501 AND SPECIFICATIONS.
5. **RESURFACED ASPHALT ROAD**
   SEE CIVIL DRAWING SHEET C-501 AND SPECIFICATIONS.
6. **CHIP SEAL BIKE TRAIL PAVING**
   SEE BIKE DRAWING SHEET DT-05 AND SPECIFICATIONS.
7. **N/A**
8. **SPLIT RAIL FENCE**
   SEE DETAIL A,B,C/L-510.
9. **TREE PROTECTION FENCE**
   WHEN PLACED AROUND CULTURAL AREAS, PLACE FENCE 3' OFF OF CULTURAL CENTER BOUNDARY. SEE SHEETS L-100 - L-109 AND DETAILS B,C/L-500
10. **SPADE CUT EDGE**
    SEE SPECIFICATIONS AND DETAIL D/L-520
11. **LANDSCAPE BOULDER**
    NATURAL LIMESTONE BOULDER, SEE DETAIL H/L-520
12. **CUSTOM ENTRY SIGN - LARGE**
    SIGN STRUCTURE WITH VERTICAL HARWOOD POSTS, POWDERCOATED METAL SIGN PLATE AND ACCENT BOULDER, SEE DETAIL A/L-503.
13. **RESTROOM & OVERLOOK SHELTER**
    PRE-ENGINEERED RESTROOM & OVERLOOK SHELTER BUILDING WITH STORAGE, BY ROMTEC OR EQUAL, SEE DETAILS ON SHEET L-530.
14. **PAVILION LARGE**
    PRE-ENGINEERED, OPEN-SIDED PAVILION, BY ICON STRUCTURES OR EQUAL, SEE DETAILS ON SHEET L-531.
15. **EROSION PROTECTION**
    SEE SPECIFICATIONS.
16. **CUSTOM ENTRY SIGN - SMALL**
    SIGN STRUCTURE WITH VERTICAL HARWOOD POSTS, POWDERCOATED METAL SIGN PLATE AND ACCENT BOULDER, SEE DETAIL B/L-503.
17. **SITE FURNISHINGS - SMALL PICNIC TABLE**
    COUNT 4, SEE DETAIL B/L-501
18. **SITE FURNISHINGS ADA PICNIC TABLE**
    COUNT 4, SEE DETAIL C/L-501
19. **SITE FURNISHINGS - BENCH WITH BACK**
    COUNT 1, SEE DETAIL A/L-501
20. **SITE FURNISHINGS - TRASH AND RECYCLING RECEPTACLES**
    COUNT 6, SEE DETAIL D/L-501
21. **SITE FURNISHINGS - BIKE RACK**
    COUNT 10, SPACES 20, SEE DETAIL E/L-501
22. **BIKE REPAIR AND PUMP STATION**
    COUNT 1, SEE DETAIL G/L-501
23. **DRINKING FOUNTAIN - BOTTLE FILLER**
    COUNT 2, SEE DETAIL F/L-501
24. **BRIDGE**
    SEE CIVIL DRAWINGS AND SPECIFICATIONS

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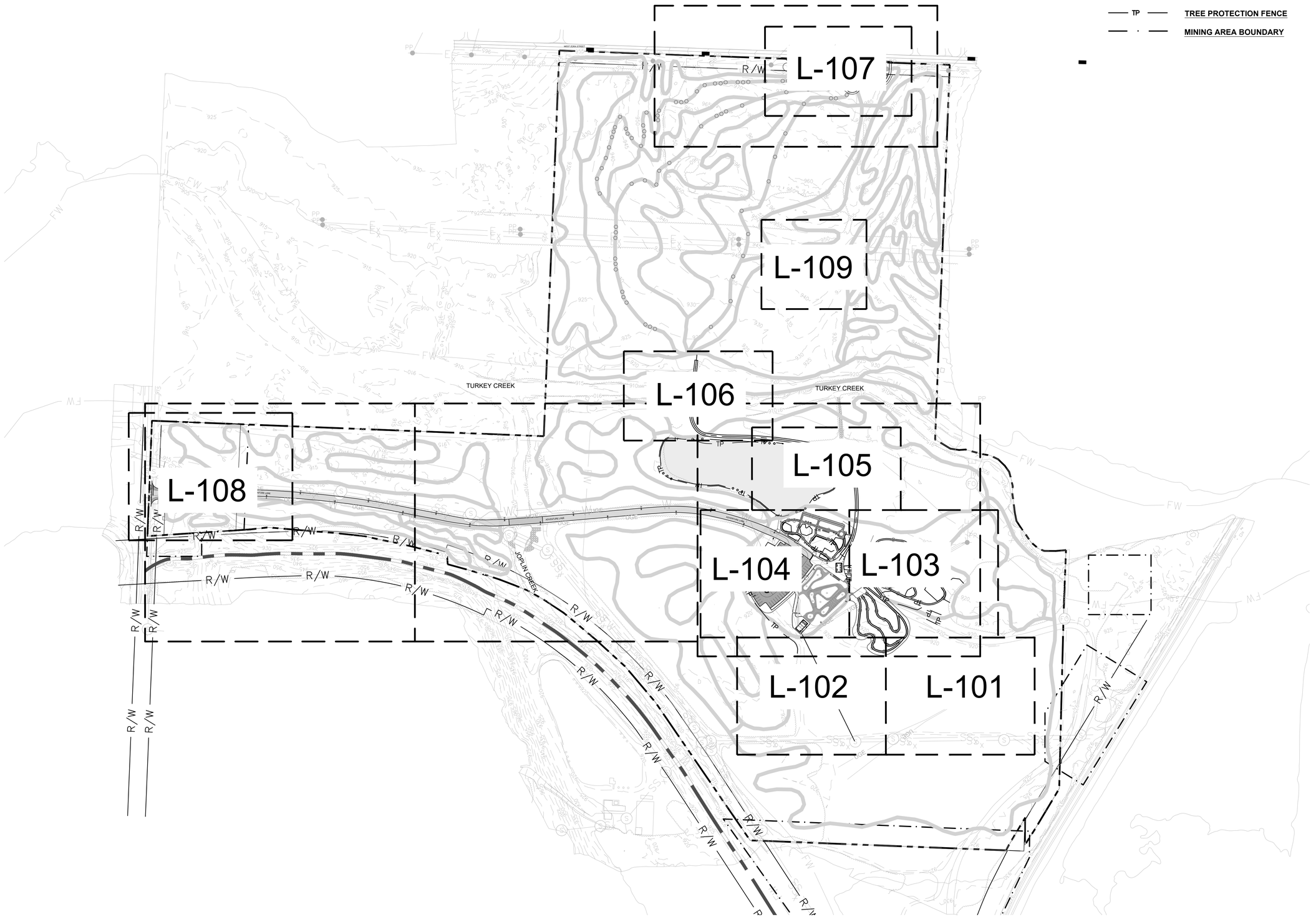
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Sheet Title
NOTES AND LEGEND

Number
L-001



LEGEND

- PROPERTY LINE/ PROJECT LIMITS
- CULTURAL AREA
- TP — TREE PROTECTION FENCE
- MINING AREA BOUNDARY

A OVERALL SITE PLAN
SCALE: 1"=150'

Graphic Scale: 1" = 150'
0' 75' 150' 300' 450'

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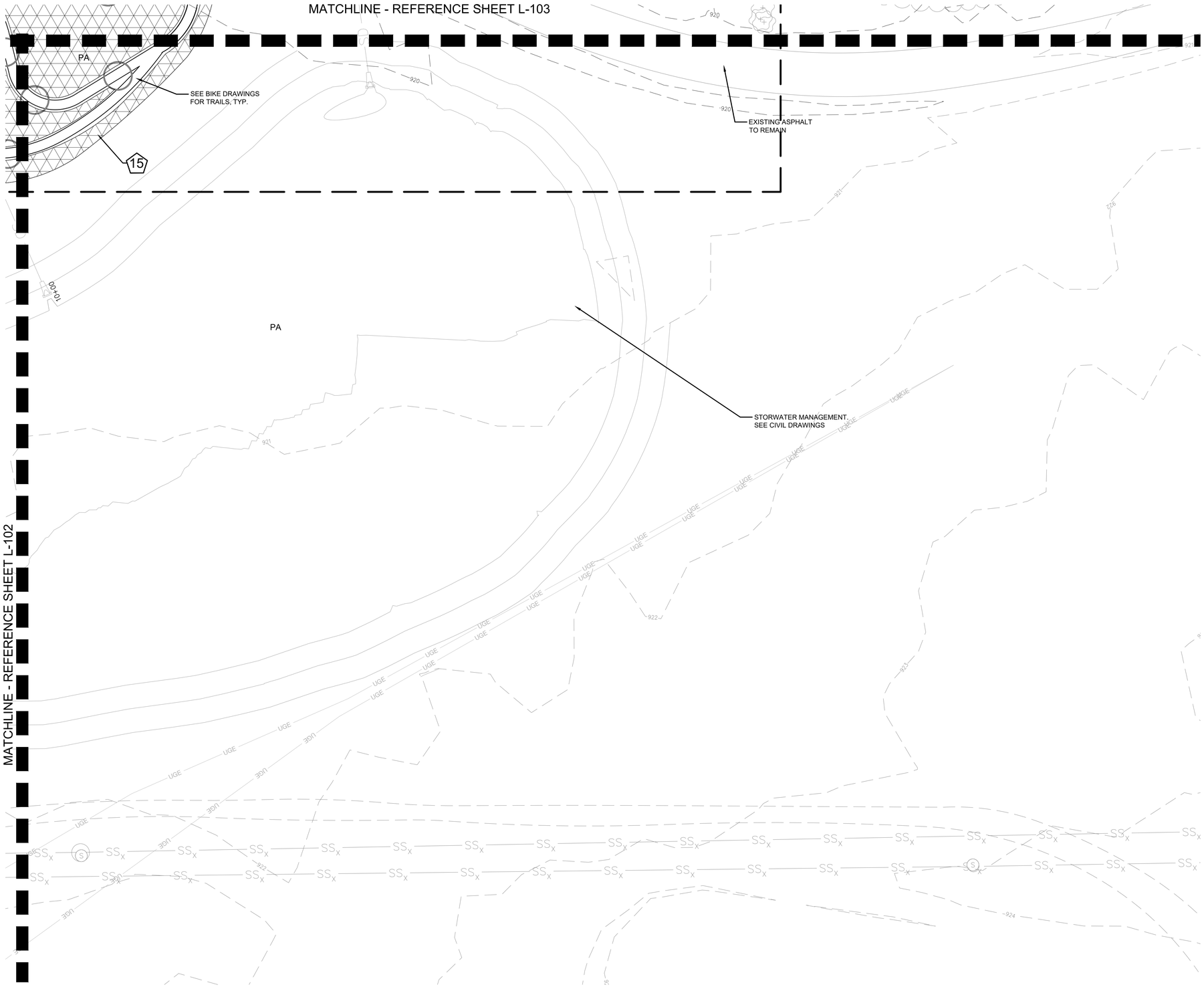
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Reviewed: LK, JW

Sheet Title
OVERALL SITE PLAN

Number
L-100



A ENLARGED SITE PLAN 1
SCALE: 1"=20'

Graphic Scale: 1" = 20'
0' 10' 20' 40' 60'

KEYNOTES

1. STANDARD CONCRETE PAVING
2. VEHICULAR CONCRETE PAVEMENT
3. ASPHALT BIKE FEATURE PAVING
4. ASPHALT PARKING
5. RESURFACED ASPHALT ROAD
6. CHIP SEAL BIKE TRAIL PAVING
7. N/A
8. SPLIT RAIL FENCE
9. TREE PROTECTION FENCE
10. SPADE CUT EDGE
11. LANDSCAPE BOULDER
12. CUSTOM ENTRY SIGN - LARGE
13. RESTROOM & OVERLOOK SHELTER
14. PAVILION LARGE
15. EROSION PROTECTION
16. CUSTOM ENTRY SIGN - SMALL
17. SITE FURNISHINGS - SMALL PICNIC TABLE
18. SITE FURNISHINGS ADA PICNIC TABLE
19. SITE FURNISHINGS - BENCH WITH BACK
20. SITE FURNISHINGS - TRASH AND RECYCLING RECEPTACLES
21. SITE FURNISHINGS - BIKE RACK
22. BIKE REPAIR AND PUMP STATION
23. DRINKING FOUNTAIN - BOTTLE FILLER
24. BRIDGE

LEGEND

- PROPERTY LINE/ PROJECT LIMITS
- CULTURAL AREA
- TP — TREE PROTECTION FENCE
- MINING AREA BOUNDARY
- STANDARD CONCRETE
- PA — PLANTING AREA
- RESURFACED ASPHALT ROAD
- ASPHALT PAVING
- EROSION PROTECTION - SEE SPECIFICATIONS

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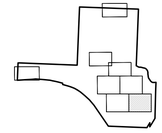
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KEY PLAN



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Sheet Title
ENLARGED SITE PLAN 1

Number
L-101

MATCHLINE - REFERENCE SHEET L-104

MATCHLINE - REFERENCE SHEET L-103

5' CLR ON ALL SIDES.

SEE BIKE DRAWINGS FOR TRAILS, TYP.

SEE BIKE DRAWINGS FOR TRAILS, TYP.

STORWATER MANAGEMENT. SEE CIVIL DRAWINGS

PA

PA

MATCHLINE - REFERENCE SHEET L-101

KEYNOTES

1. STANDARD CONCRETE PAVING
2. VEHICULAR CONCRETE PAVEMENT
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4. ASPHALT PARKING
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- EROSION PROTECTION - SEE SPECIFICATIONS

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Graphic Scale: 1" = 20'

0' 10' 20' 40' 60'

A ENLARGED SITE PLAN 2
SCALE: 1"=20'

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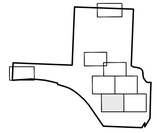
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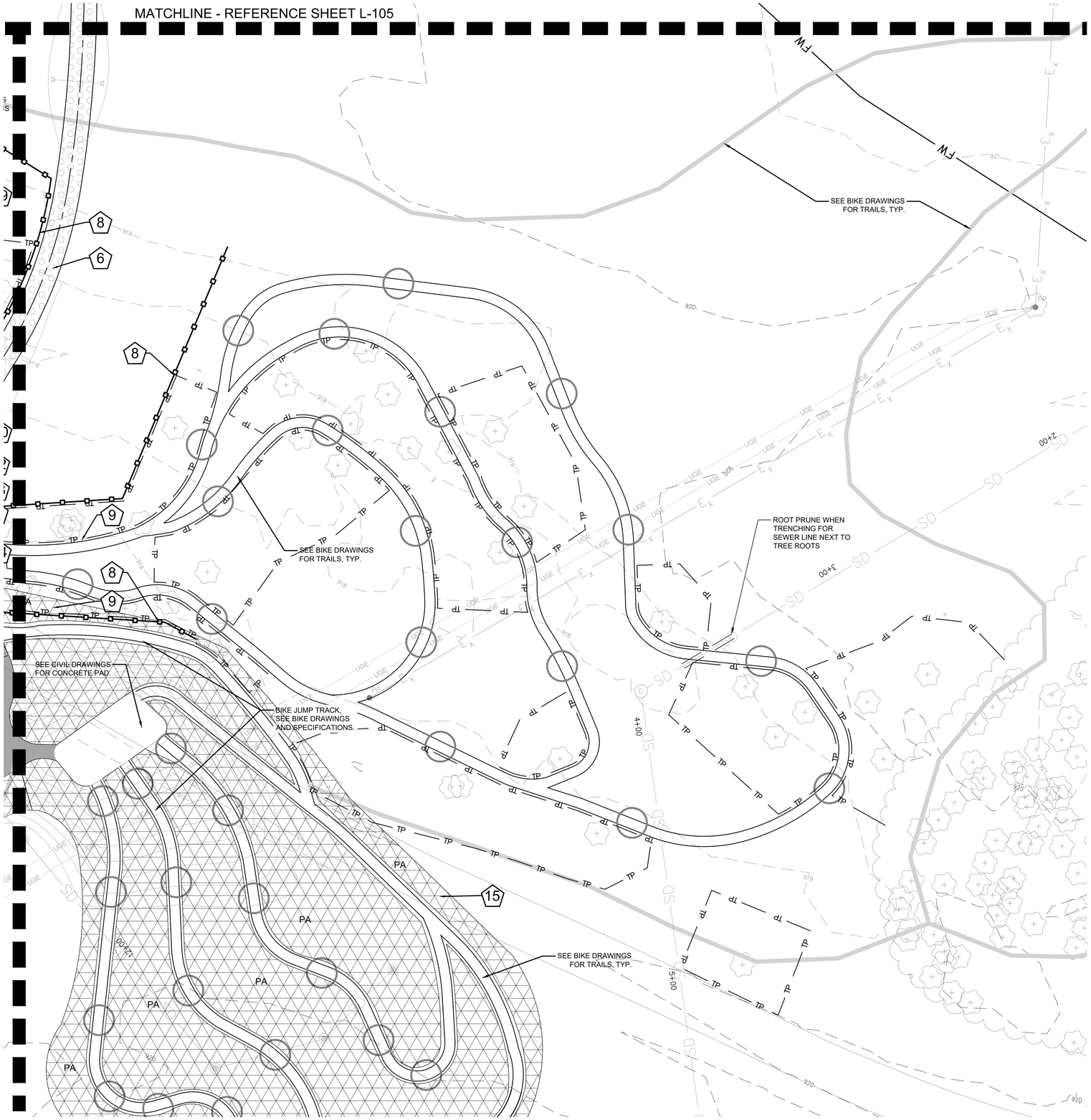
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Sheet Title
ENLARGED SITE PLAN 2

Number
L-102



A ENLARGED SITE PLAN 3
SCALE: 1"=20'

Graphic Scale: 1" = 20'
0' 10' 20' 40' 60'

KEYNOTES

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2. VEHICULAR CONCRETE PAVEMENT
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5. RESURFACED ASPHALT ROAD
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LEGEND

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- RESURFACED ASPHALT ROAD
- ASPHALT PAVING
- EROSION PROTECTION - SEE SPECIFICATIONS

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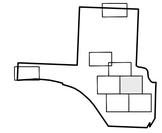
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KEY PLAN



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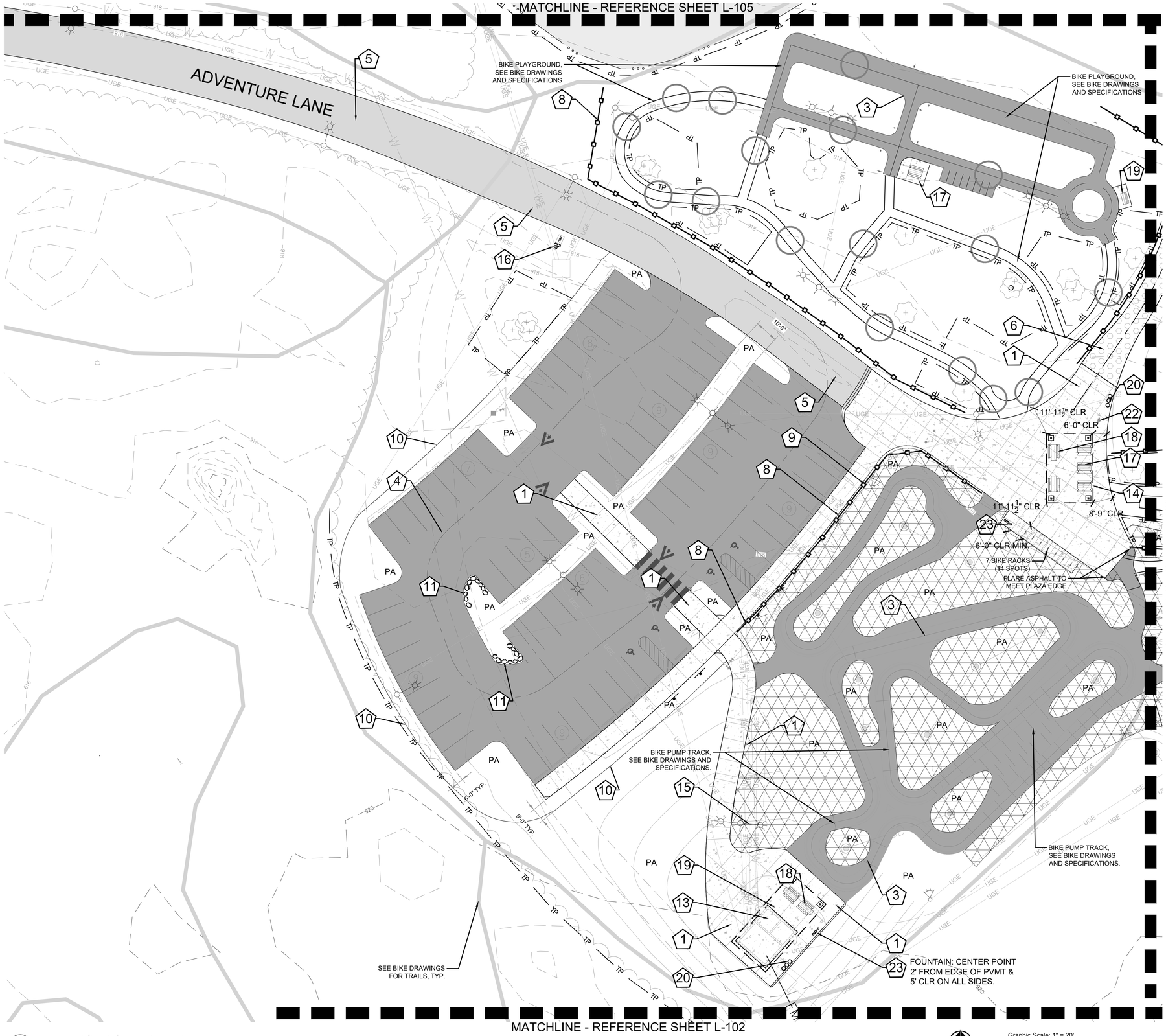
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BV, MB, CP	LK, JW

Sheet Title
ENLARGED SITE PLAN 3

Number
L-103



KEYNOTES

1. STANDARD CONCRETE PAVING
2. VEHICULAR CONCRETE PAVEMENT
3. ASPHALT BIKE FEATURE PAVING
4. ASPHALT PARKING
5. RESURFACED ASPHALT ROAD
6. CHIP SEAL BIKE TRAIL PAVING
7. N/A
8. SPLIT RAIL FENCE
9. TREE PROTECTION FENCE
10. SPADE CUT EDGE
11. LANDSCAPE BOULDER
12. CUSTOM ENTRY SIGN - LARGE
13. RESTROOM & OVERLOOK SHELTER
14. PAVILION LARGE
15. EROSION PROTECTION
16. CUSTOM ENTRY SIGN - SMALL
17. SITE FURNISHINGS - SMALL PICNIC TABLE
18. SITE FURNISHINGS ADA PICNIC TABLE
19. SITE FURNISHINGS - BENCH WITH BACK
20. SITE FURNISHINGS - TRASH AND RECYCLING RECEPTACLES
21. SITE FURNISHINGS - BIKE RACK
22. BIKE REPAIR AND PUMP STATION
23. DRINKING FOUNTAIN - BOTTLE FILLER
24. BRIDGE

LEGEND

- PROPERTY LINE/ PROJECT LIMITS
- CULTURAL AREA
- TP — TREE PROTECTION FENCE
- MINING AREA BOUNDARY
- STANDARD CONCRETE
- PA — PLANTING AREA
- RESURFACED ASPHALT ROAD
- ASPHALT PAVING
- EROSION PROTECTION - SEE SPECIFICATIONS

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A ENLARGED SITE PLAN 4
SCALE: 1"=20'

Graphic Scale: 1" = 20'
0' 10' 20' 40' 60'

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Bike Park

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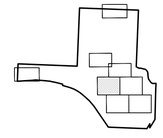
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KEY PLAN



John Wohlschlaeger - Landscape Architect MO # LA - 2009014766
(10/7/2024)
SWT Design, Inc.
Missouri State Certificate of Authority #2006002904

Issuances

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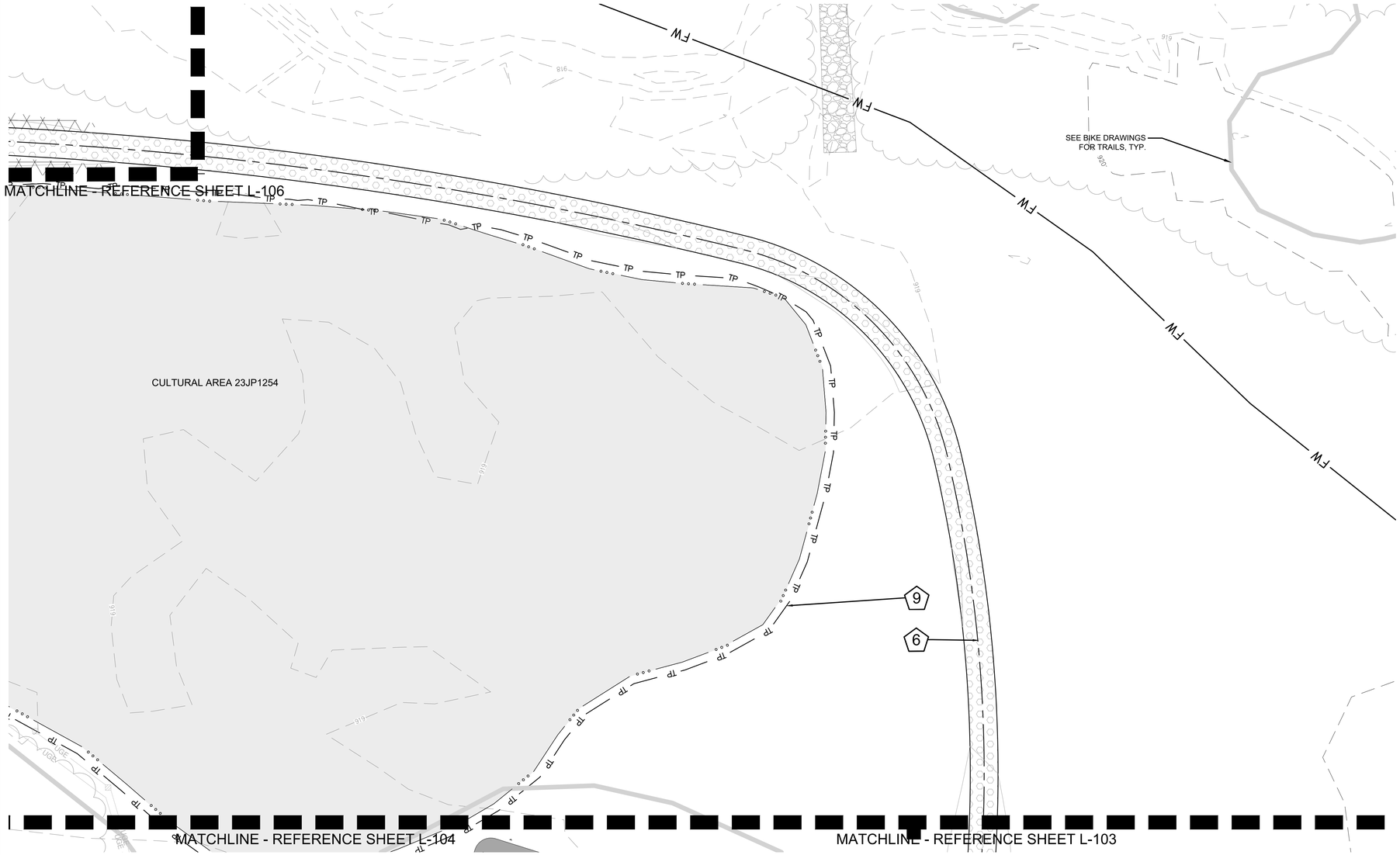
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Sheet Title
ENLARGED SITE PLAN 4

Number
L-104

October 7, 2024 11:38 AM



A ENLARGED SITE PLAN 5
SCALE: 1"=20'

Graphic Scale: 1" = 20'
0' 10' 20' 40' 60'

KEYNOTES

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2. VEHICULAR CONCRETE PAVEMENT
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- RESURFACED ASPHALT ROAD
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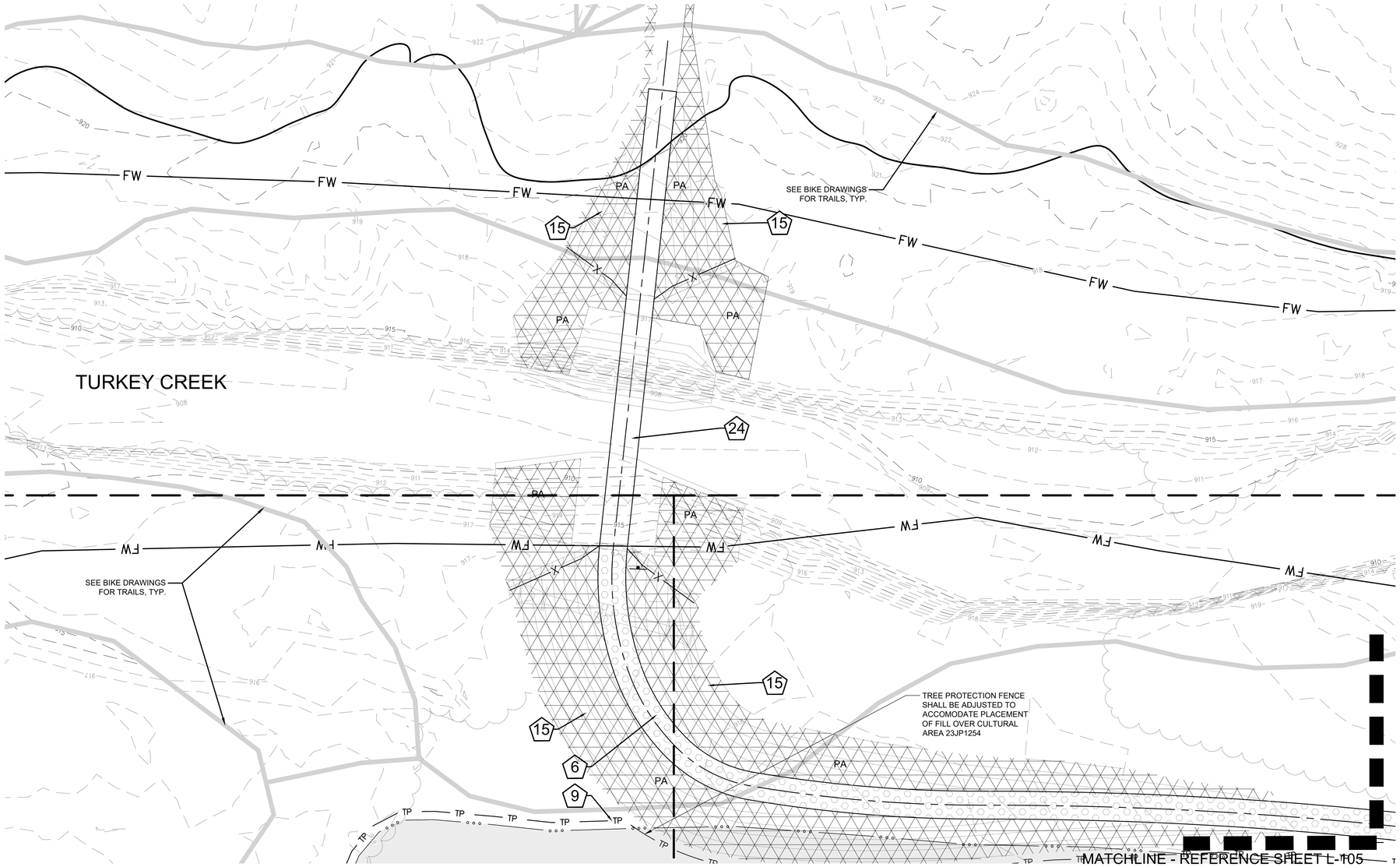
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Sheet Title
ENLARGED SITE PLAN 5

Number
L-105

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A ENLARGED SITE PLAN 6
SCALE: 1"=20'

Graphic Scale: 1" = 20'
0' 10' 20' 40' 60'

KEYNOTES

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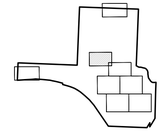
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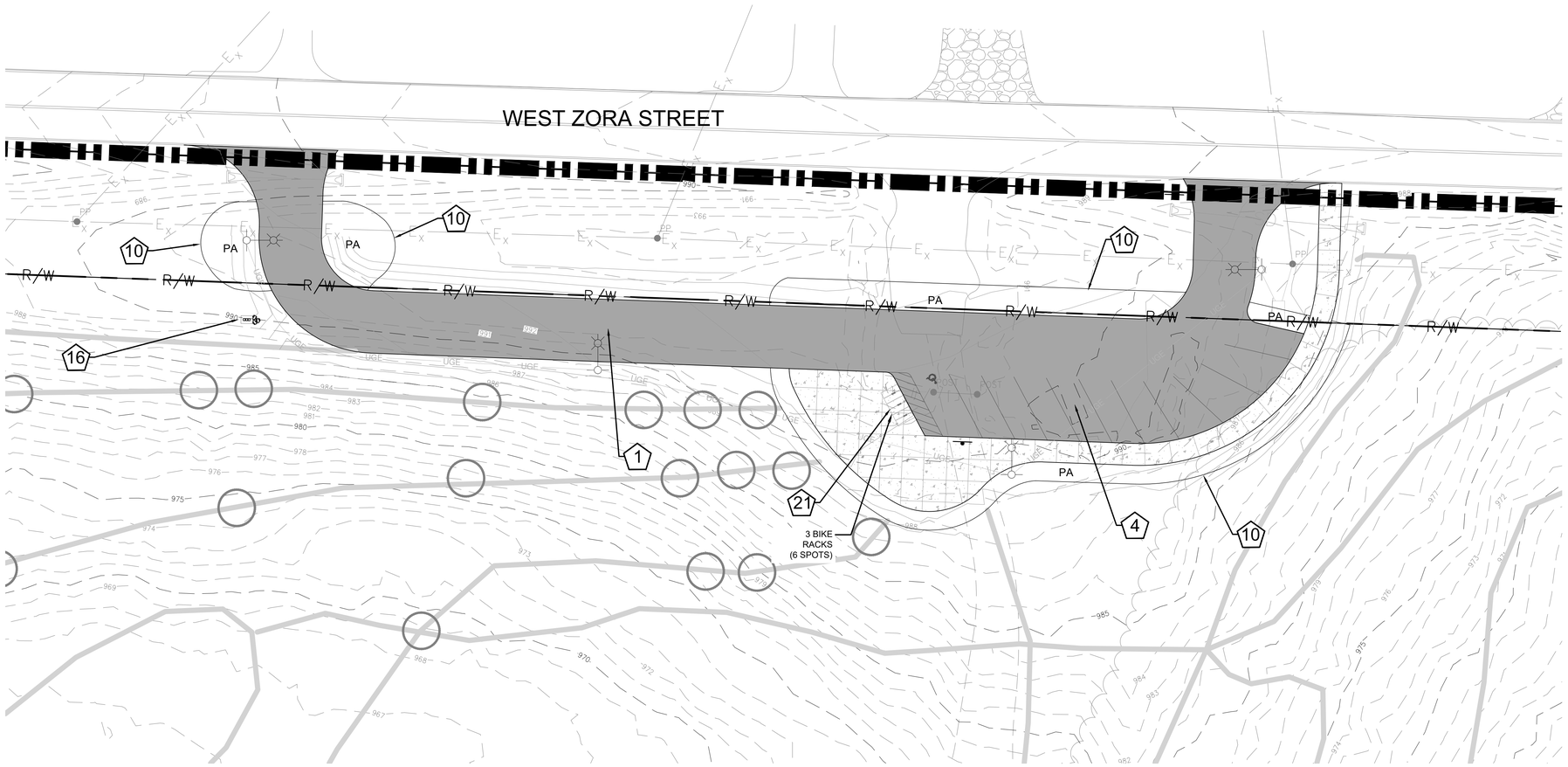
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Sheet Title
ENLARGED SITE PLAN 6

Number
L-106

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A ENLARGED SITE PLAN 7
SCALE: 1"=20'

KEYNOTES

1. STANDARD CONCRETE PAVING
2. VEHICULAR CONCRETE PAVEMENT
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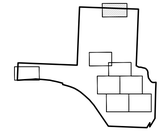
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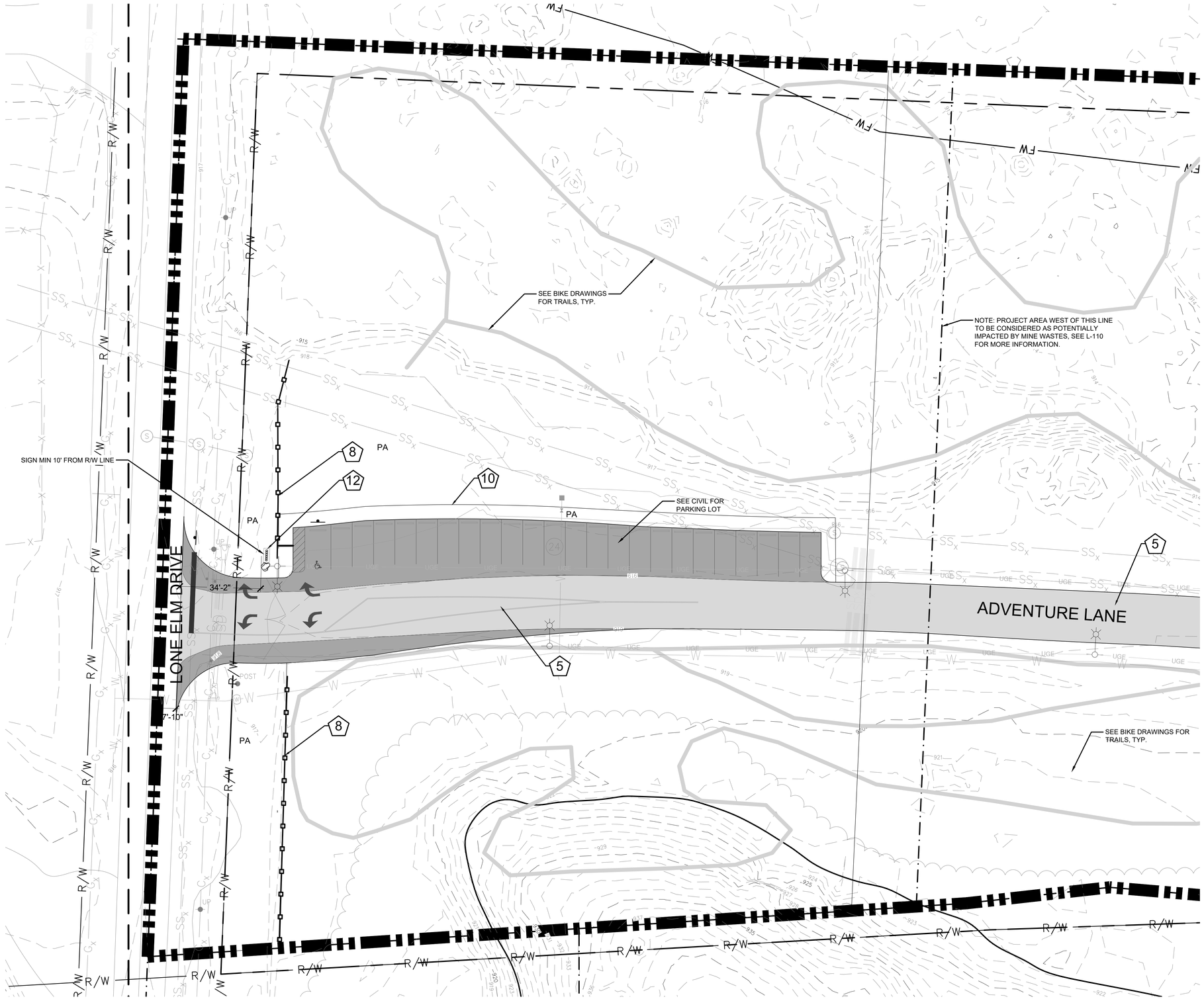
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Reviewed: LK, JW

Sheet Title
ENLARGED SITE PLAN 7

Number
L-107



A ENLARGED SITE PLAN 8
SCALE: 1"=20'

Graphic Scale: 1" = 20'
0' 10' 20' 40' 60'

KEYNOTES

1. STANDARD CONCRETE PAVING
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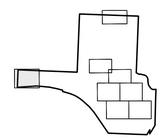
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KEY PLAN



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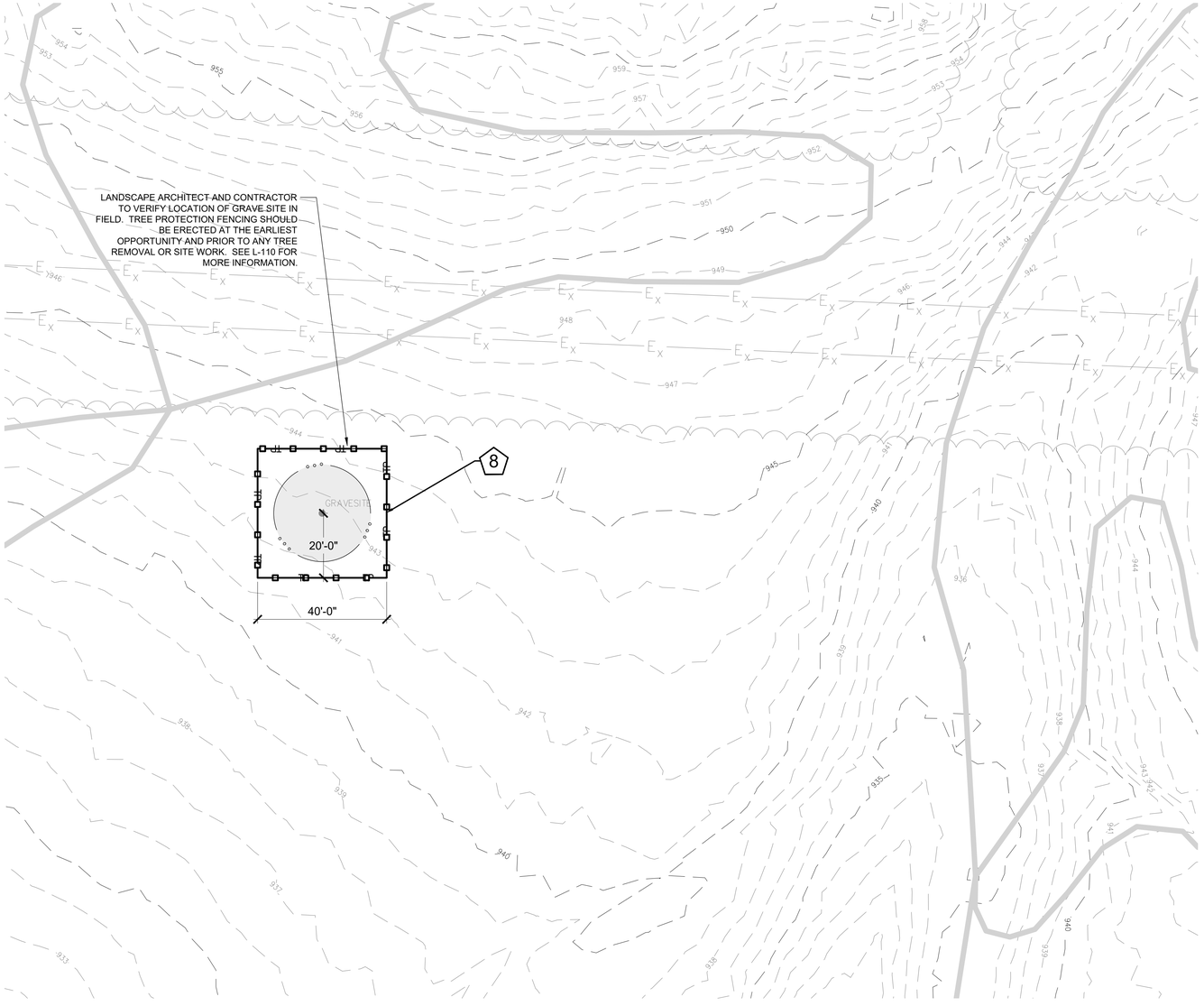
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Sheet Title
ENLARGED SITE PLAN 8

Number
L-108

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A ENLARGED SITE PLAN 9
SCALE: 1"=20'

Graphic Scale: 1" = 20'
0' 10' 20' 40' 60'

KEYNOTES

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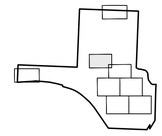
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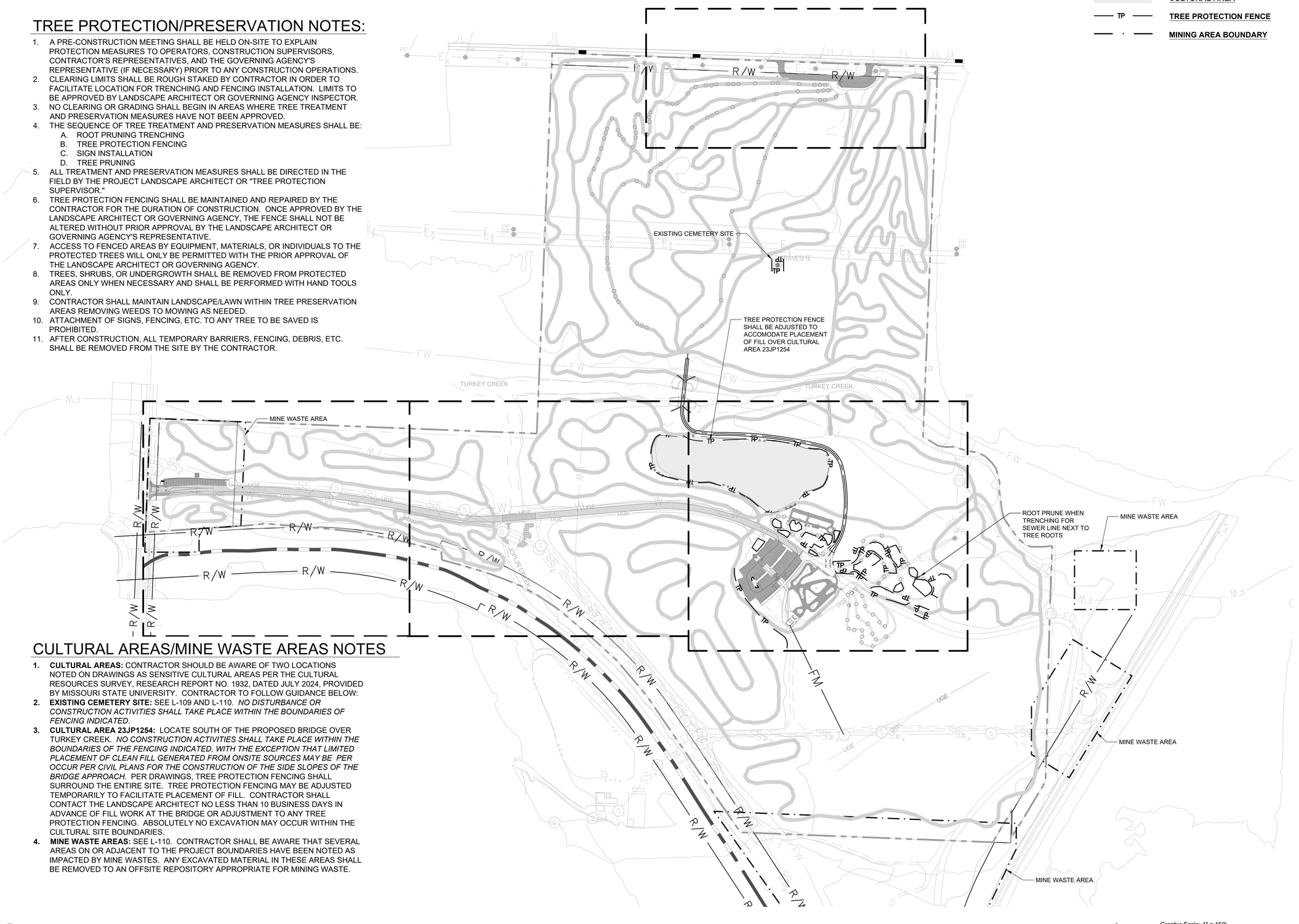
Sheet Title
ENLARGED SITE PLAN 9

Number
L-109

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TREE PROTECTION/PRESERVATION NOTES:

1. A PRE-CONSTRUCTION MEETING SHALL BE HELD ON-SITE TO EXPLAIN PROTECTION MEASURES TO OPERATORS, CONSTRUCTION SUPERVISORS, CONTRACTOR'S REPRESENTATIVES, AND THE GOVERNING AGENCY'S REPRESENTATIVE (IF NECESSARY) PRIOR TO ANY CONSTRUCTION OPERATIONS.
2. CLEARING LIMITS SHALL BE ROUGH STAKED BY CONTRACTOR IN ORDER TO FACILITATE LOCATION FOR TRENCHING AND FENCING INSTALLATION. LIMITS TO BE APPROVED BY LANDSCAPE ARCHITECT OR GOVERNING AGENCY INSPECTOR.
3. NO CLEARING OR GRADING SHALL BEGIN IN AREAS WHERE TREE TREATMENT AND PRESERVATION MEASURES HAVE NOT BEEN APPROVED.
4. THE SEQUENCE OF TREE TREATMENT AND PRESERVATION MEASURES SHALL BE:
   A. ROOT PRUNING TRENCHING
   B. TREE PROTECTION FENCING
   C. SIGN INSTALLATION
   D. TREE PRUNING
5. ALL TREATMENT AND PRESERVATION MEASURES SHALL BE DIRECTED IN THE FIELD BY THE PROJECT LANDSCAPE ARCHITECT OR "TREE PROTECTION SUPERVISOR."
6. TREE PROTECTION FENCING SHALL BE MAINTAINED AND REPAIRED BY THE CONTRACTOR FOR THE DURATION OF CONSTRUCTION. ONCE APPROVED BY THE LANDSCAPE ARCHITECT OR GOVERNING AGENCY, THE FENCE SHALL NOT BE ALTERED WITHOUT PRIOR APPROVAL BY THE LANDSCAPE ARCHITECT OR GOVERNING AGENCY'S REPRESENTATIVE.
7. ACCESS TO FENCED AREAS BY EQUIPMENT, MATERIALS, OR INDIVIDUALS TO THE PROTECTED TREES WILL ONLY BE PERMITTED WITH THE PRIOR APPROVAL OF THE LANDSCAPE ARCHITECT OR GOVERNING AGENCY.
8. TREES, SHRUBS, OR UNDERGROWTH SHALL BE REMOVED FROM PROTECTED AREAS ONLY WHEN NECESSARY AND SHALL BE PERFORMED WITH HAND TOOLS ONLY.
9. CONTRACTOR SHALL MAINTAIN LANDSCAPE/LAWN WITHIN TREE PRESERVATION AREAS REMOVING WEEDS TO MOWING AS NEEDED.
10. ATTACHMENT OF SIGNS, FENCING, ETC. TO ANY TREE TO BE SAVED IS PROHIBITED.
11. AFTER CONSTRUCTION, ALL TEMPORARY BARRIERS, FENCING, DEBRIS, ETC. SHALL BE REMOVED FROM THE SITE BY THE CONTRACTOR.



CULTURAL AREAS/MINE WASTE AREAS NOTES

1. **CULTURAL AREAS:** CONTRACTOR SHOULD BE AWARE OF TWO LOCATIONS NOTED ON DRAWINGS AS SENSITIVE CULTURAL AREAS PER THE CULTURAL RESOURCES SURVEY, RESEARCH REPORT NO. 1932, DATED JULY 2024, PROVIDED BY MISSOURI STATE UNIVERSITY. CONTRACTOR TO FOLLOW GUIDANCE BELOW:
2. **EXISTING CEMETERY SITE:** SEE L-109 AND L-110. *NO DISTURBANCE OR CONSTRUCTION ACTIVITIES SHALL TAKE PLACE WITHIN THE BOUNDARIES OF FENCING INDICATED.*
3. **CULTURAL AREA 23JP1254:** LOCATE SOUTH OF THE PROPOSED BRIDGE OVER TURKEY CREEK. *NO CONSTRUCTION ACTIVITIES SHALL TAKE PLACE WITHIN THE BOUNDARIES OF THE FENCING INDICATED, WITH THE EXCEPTION THAT LIMITED PLACEMENT OF CLEAN FILL GENERATED FROM ONSITE SOURCES MAY BE PER OCCUR PER CIVIL PLANS FOR THE CONSTRUCTION OF THE SIDE SLOPES OF THE BRIDGE APPROACH.* PER DRAWINGS, TREE PROTECTION FENCING SHALL SURROUND THE ENTIRE SITE. TREE PROTECTION FENCING MAY BE ADJUSTED TEMPORARILY TO FACILITATE PLACEMENT OF FILL. CONTRACTOR SHALL CONTACT THE LANDSCAPE ARCHITECT NO LESS THAN 10 BUSINESS DAYS IN ADVANCE OF FILL WORK AT THE BRIDGE OR ADJUSTMENT TO ANY TREE PROTECTION FENCING. ABSOLUTELY NO EXCAVATION MAY OCCUR WITHIN THE CULTURAL SITE BOUNDARIES.
4. **MINE WASTE AREAS:** SEE L-110. CONTRACTOR SHALL BE AWARE THAT SEVERAL AREAS ON OR ADJACENT TO THE PROJECT BOUNDARIES HAVE BEEN NOTED AS IMPACTED BY MINE WASTES. ANY EXCAVATED MATERIAL IN THESE AREAS SHALL BE REMOVED TO AN OFFSITE REPOSITORY APPROPRIATE FOR MINING WASTE.

A TREE PROTECTION, CULTURAL AND MINING AREAS
SCALE: 1"=150'

Graphic Scale: 1" = 150'
0' 75' 150' 300' 450'

Prepared For:

JOPLIN MISSOURI
3301 W 1ST ST
Joplin, MO 64801

Project:
DORA
Bike Park

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417.864.6000

KEY PLAN

John Wohlschlaeger - Landscape Architect MO # LA - 2009014766

STATE OF MISSOURI
JOHN WOHLSCHLAEGER
NUMBER LA-2009014766
LANDSCAPE ARCHITECT

(10/7/2024)
SWT Design, Inc.
Missouri State Certificate of Authority #2006002904

Issuances

No.	Description	Date
01	100% Design Development	8/6/2024
02	Advance Permit Review	8/30/2024
03	100% Construction Docs	9/20/2024
04	Issued for Bid	10/07/2024

Revisions

No.	Description	Date

SWT No. 21703.01

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BV, MB, CP	LK, JW

Sheet Title
TREE PROTECTION, CULTURAL AND MINING AREAS

Number
L-110



LEGEND

ALL SIGNS 10' MIN FROM PROPERTY LINE

(A) **TRAILHEAD KIOSK**
2 TOTAL A SIGNS.
SEE DETAIL A/L-502

(B) **TRAIL NAME POST**
113 TOTAL B SIGNS.
SEE DETAIL C/L-502

(C) **HUB LOCATOR KIOSK**
14 TOTAL C SIGNS.
SEE DETAIL D/L-502

(D) **MAIN ENTRY SIGNAGE**
1 TOTAL D SIGN.
\SEE DETAIL A/L-503

(E) **SECONDARY ENTRY SIGNAGE**
2 TOTAL E SIGNS.
SEE DETAIL B/L-503

(F) **TRAIL CONFIDENCE SIGNAGE**
1 PER 50 YARDS OF TRAIL.
280 TOTAL F SIGNS.
SEE DETAIL E/L-502

(G) **PROPERTY LINE / NO TRESPASSING SIGNAGE**
69 TOTAL G SIGNS. SEE DETAIL B/L-502. MO LICENSED LAND SURVEYOR TO ESTABLISH PROPERTY BOUNDARY IN THE FIELD PRIOR TO SIGN PLACEMENT.

(H) **CEMETERY ACCESS SIGN**
4 TOTAL H SIGNS.
SEE DETAIL F/L-502

(I) **TRAIL DISTANCE MARKERS**
1 PER 50 YARDS OF TRAIL.
280 TOTAL I SIGNS.
SEE DETAIL G/L-502

A SIGNAGE PLAN
SCALE: 1"=150'

Graphic Scale: 1" = 150'
0' 75' 150' 300' 450'

Prepared For:

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Joplin, MO 64801

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KEY PLAN

John Wohlschlaeger - Landscape Architect MO # LA 2009014766

STATE OF MISSOURI JOHN WILLIAM WOHLSCHLAEGER NUMBER LA-2009014766 (10/7/2024)

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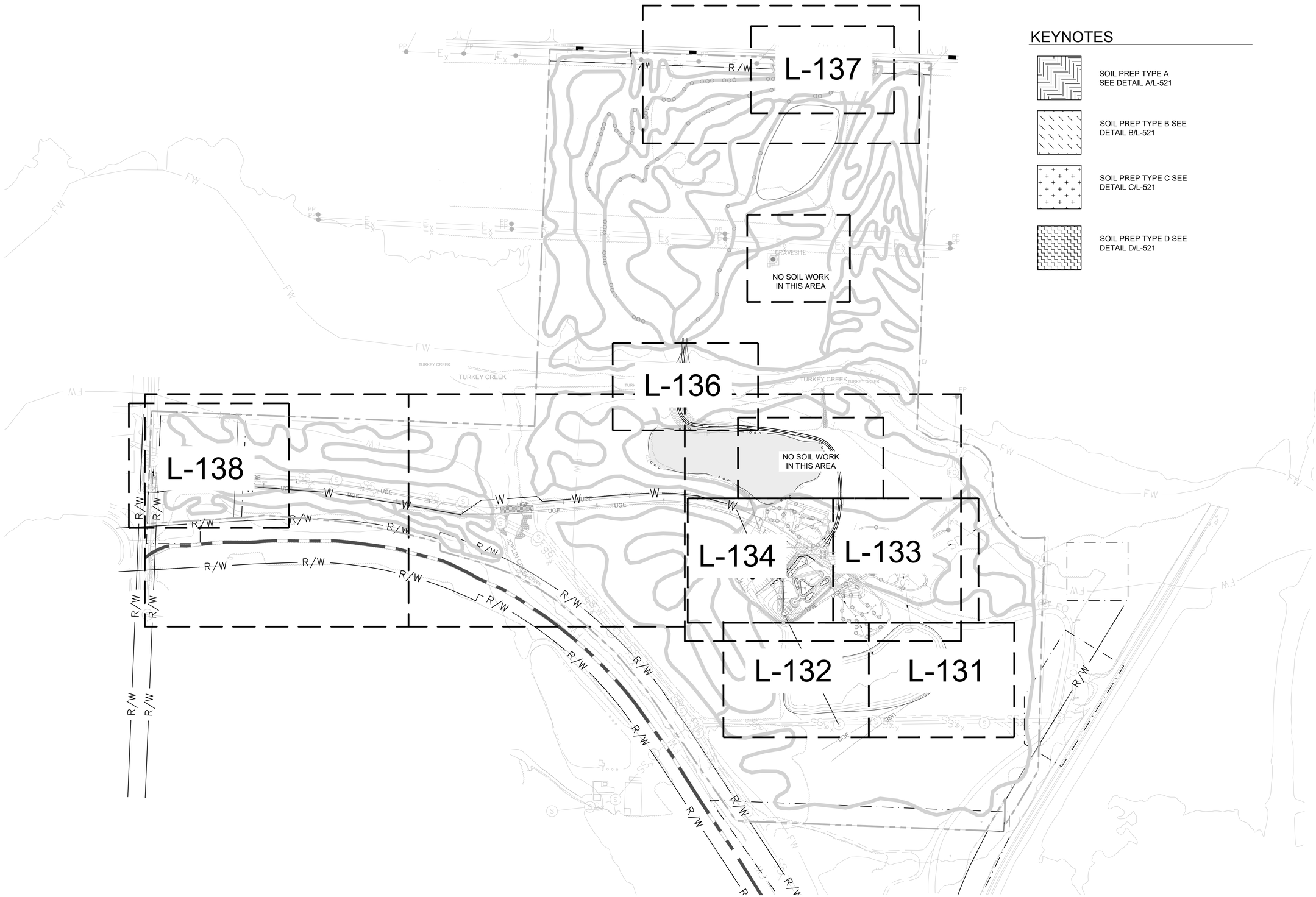
SWT No. 21703.01

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Sheet Title
SIGNAGE PLAN

Number
L-120

October 7, 2024 11:39 AM



KEYNOTES

- SOIL PREP TYPE A SEE DETAIL A/L-521
- SOIL PREP TYPE B SEE DETAIL B/L-521
- SOIL PREP TYPE C SEE DETAIL C/L-521
- SOIL PREP TYPE D SEE DETAIL D/L-521

A SOILS KEY PLAN
SCALE: 1"=150'

Graphic Scale: 1" = 150'
0' 75' 150' 300' 450'

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KEY PLAN

John Wohlschlaeger - Landscape Architect MO # L.A. - 2009014766

STATE OF MISSOURI JOHN WILLIAM WOHLSCHLAEGER NUMBER L.A.-2009014766 (10/7/2024)

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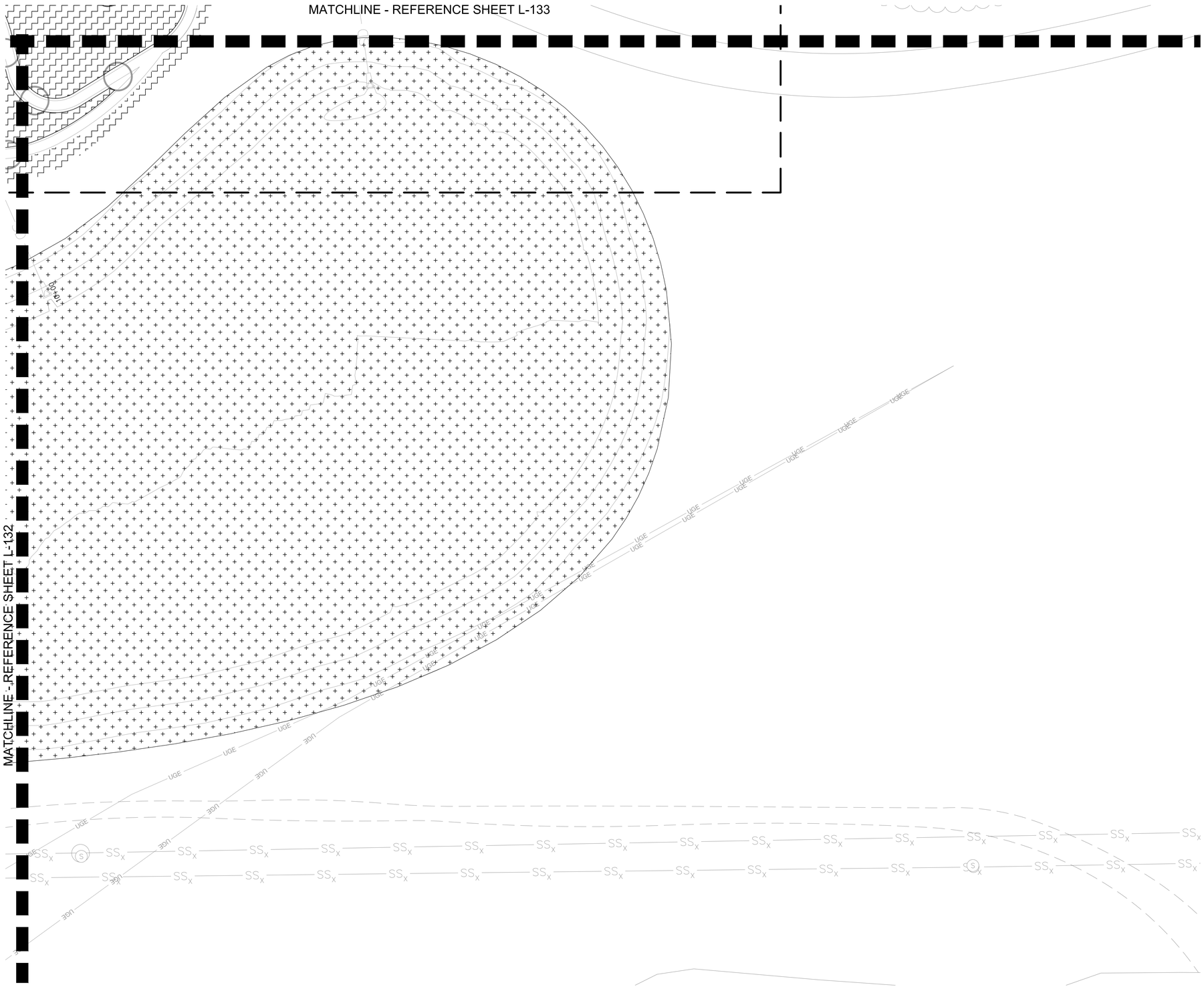
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SWT No. 21703.01

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Reviewed: LK, JW

Sheet Title
SOILS KEY PLAN

Number
L-130



KEYNOTES

SOIL PREP TYPE C SEE DETAIL C/L-521

SOIL PREP TYPE D SEE DETAIL D/L-521

A SOILS PLAN 1
SCALE: 1"=20'

Graphic Scale: 1" = 20'
0' 10' 20' 40' 60'

Prepared For:

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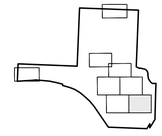
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KEY PLAN



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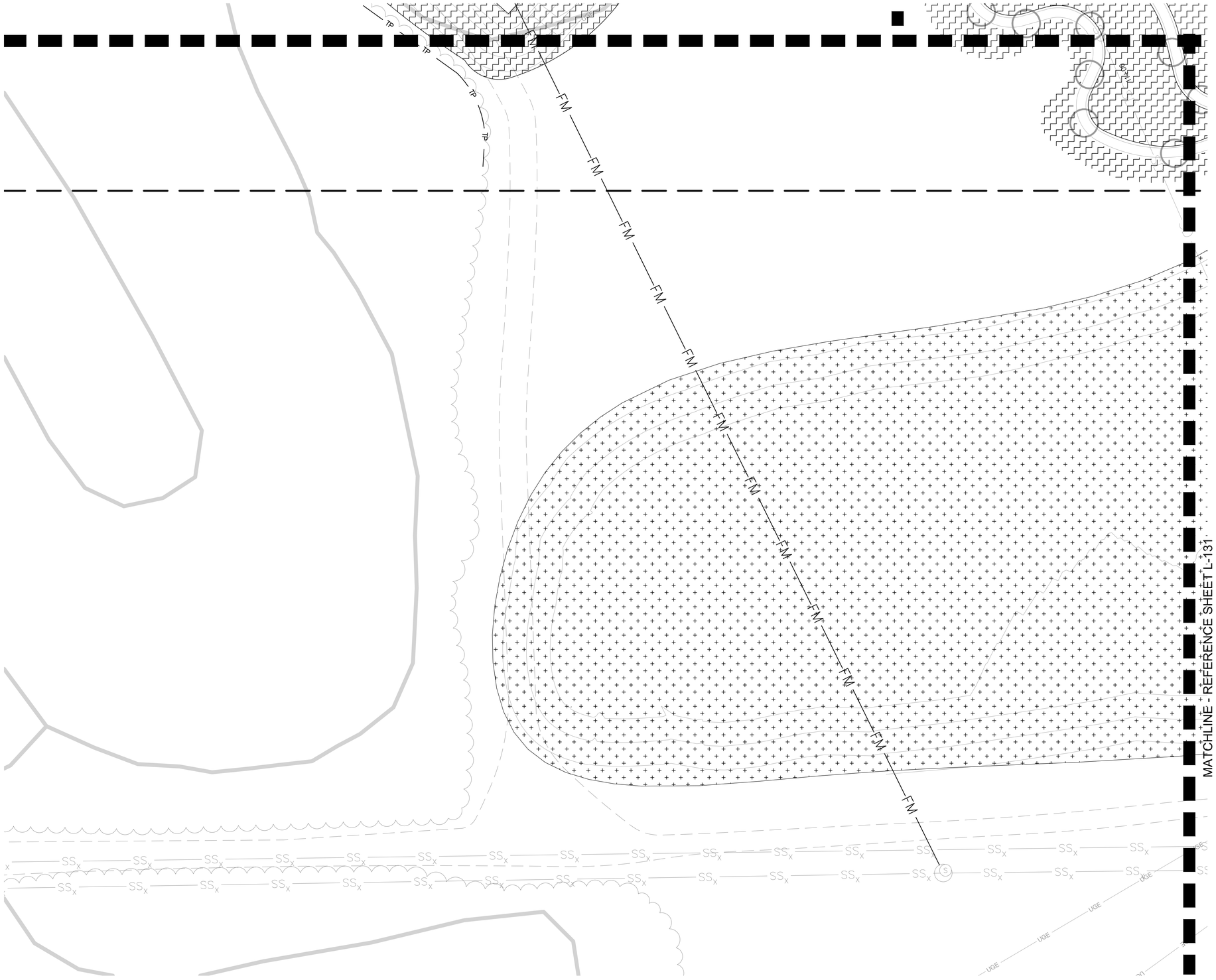
Sheet Title
SOILS PLAN 1

Number
L-131

MATCHLINE - REFERENCE SHEET L-134

MATCHLINE - REFERENCE SHEET L-133

MATCHLINE - REFERENCE SHEET L-131


TP
TP
TP
FM
FM
FM

MATCHLINE - REFERENCE SHEET (NOT INCLUDED)

MATCHLINE - REFERENCE SHEET L-134

MATCHLINE - REFERENCE SHEET L-132

MATCHLINE - REFERENCE SHEET L-131

KEYNOTES

SOIL PREP TYPE C SEE DETAIL C/L-521

SOIL PREP TYPE D SEE DETAIL D/L-521

A SOILS PLAN 3
SCALE: 1"=20'

Graphic Scale: 1" = 20'
0' 10' 20' 40' 60'

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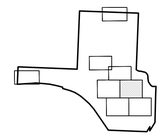
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KEY PLAN



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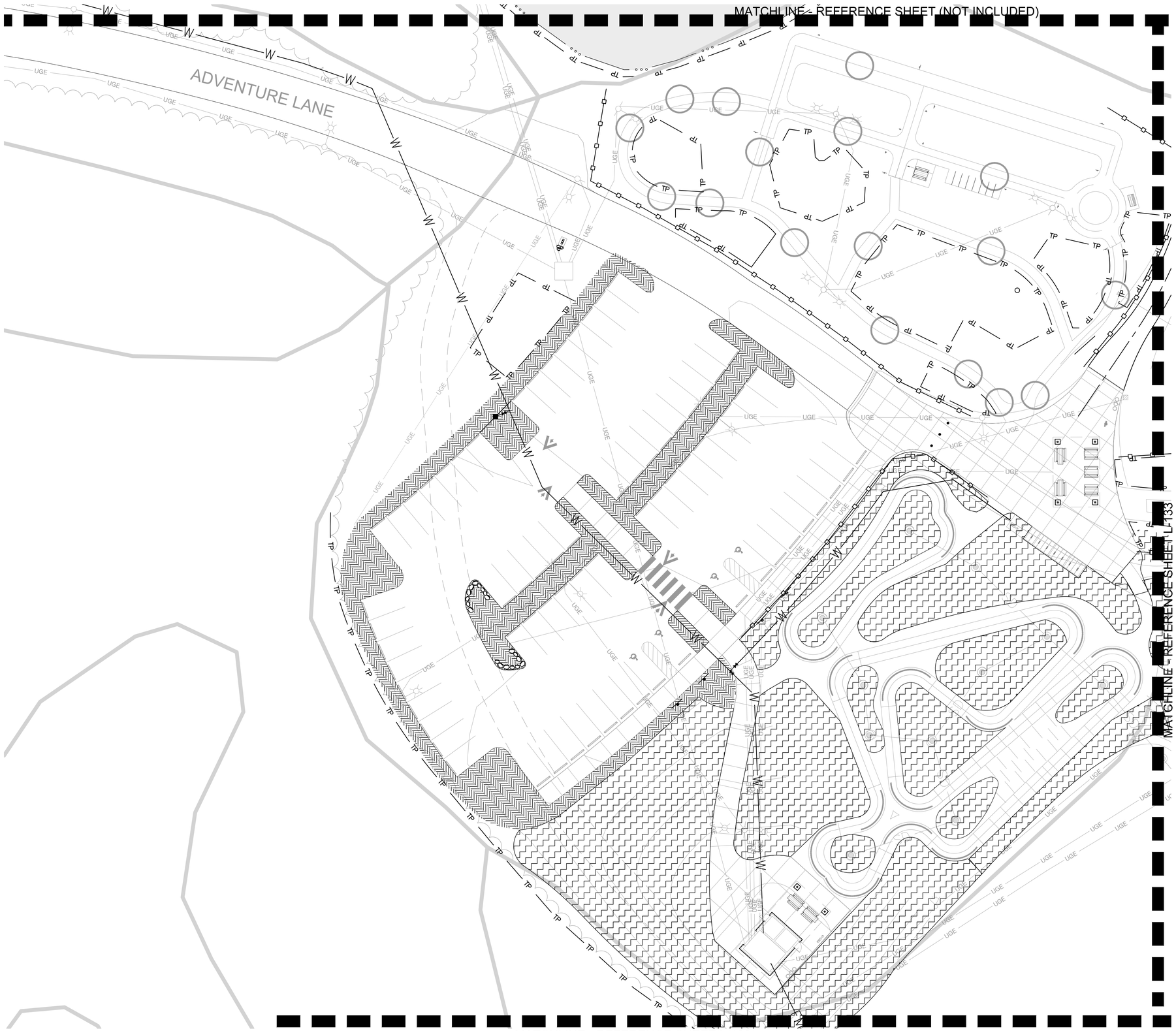
Drawn: BV, MB, CP
Reviewed: LK, JW

Sheet Title
SOILS PLAN 3

Number
L-133

October 7, 2024 11:39 AM

MATCHLINE - REFERENCE SHEET (NOT INCLUDED)



KEYNOTES

SOIL PREP TYPE A
SEE DETAIL A/L-521

SOIL PREP TYPE D
SEE DETAIL D/L-521

A SOILS PLAN 4
SCALE: 1"=20'

Graphic Scale: 1" = 20'
0' 10' 20' 40' 60'

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KEY PLAN

John Wohlschlaeger - Landscape Architect MO # LA - 2009014766
STATE OF MISSOURI JOHN WILLIAM WOHLSCHLAEGER LA-2009014766
(10/7/2024)
SWT Design, Inc.
Missouri State Certificate of Authority #2006002904

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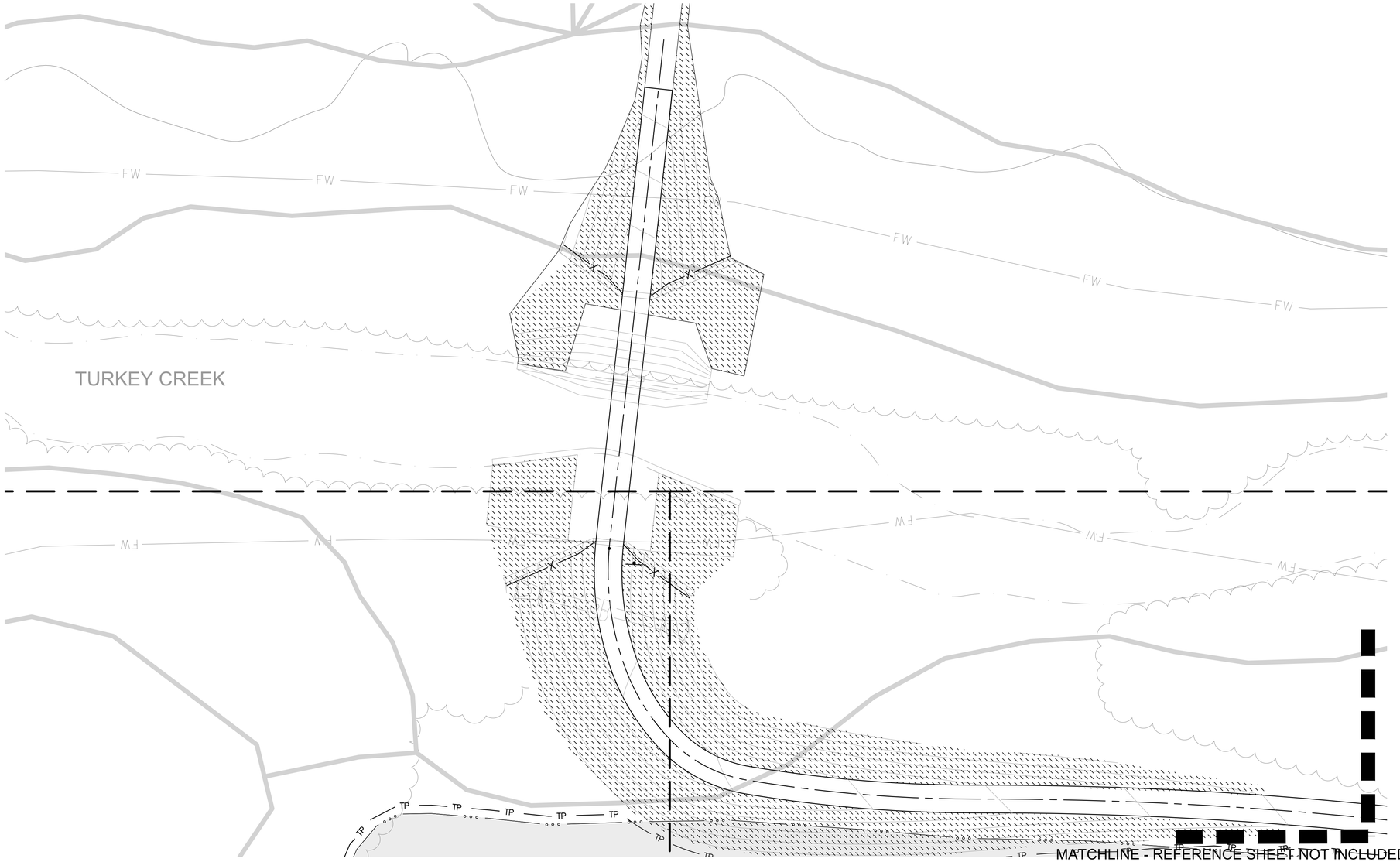
Sheet Title
SOILS PLAN 4

Number
L-134

October 7, 2024 11:39 AM

KEYNOTES

SOIL PREP TYPE B SEE DETAIL B/L-521



A SOILS PLAN 6
SCALE: 1"=20'

Graphic Scale: 1" = 20'
0' 10' 20' 40' 60'

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Project:
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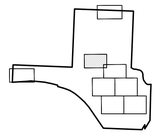
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KEY PLAN



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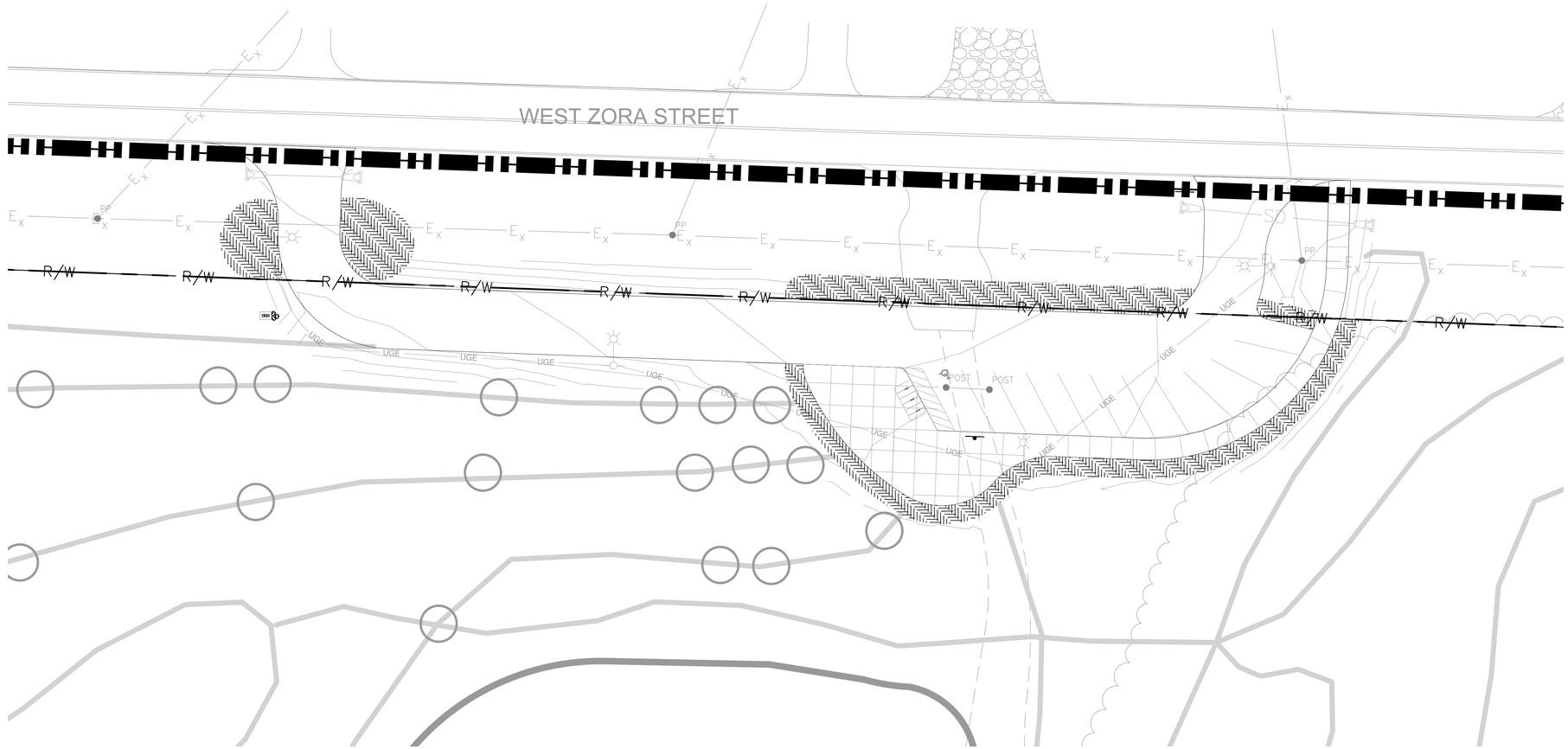
Sheet Title
SOILS PLAN 6

Number
L-136

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KEYNOTES

SOIL PREP TYPE A
SEE DETAIL A/L-521



A SOILS PLAN 7
SCALE: 1"=20'

Graphic Scale: 1" = 20'
0' 10' 20' 40' 60'

Prepared For:

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Joplin, MO 64801

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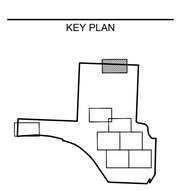
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KEY PLAN



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Sheet Title
SOILS PLAN 7

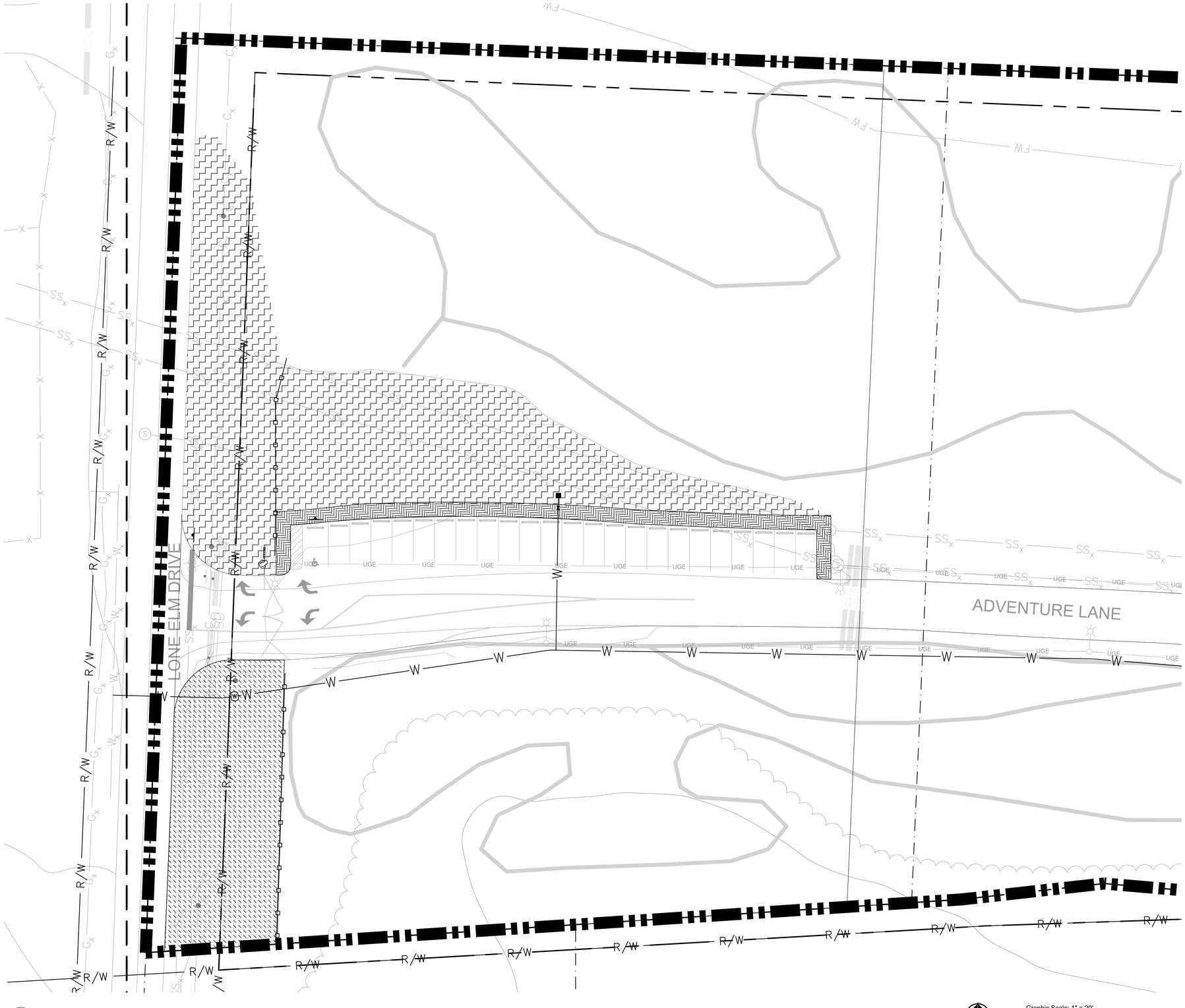
Number
L-137

KEYNOTES

SOIL PREP TYPE A
SEE DETAIL A/L-521

SOIL PREP TYPE B SEE
DETAIL B/L-521

SOIL PREP TYPE D SEE
DETAIL D/L-521



A SOILS PLAN 8
SCALE: 1"=20'

Graphic Scale: 1" = 20'
0' 10' 20' 40' 60'

Prepared For:

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Bike Park

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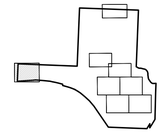
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KEY PLAN



John Wohlschlaeger - Landscape Architect MO # L.A. - 2009014766



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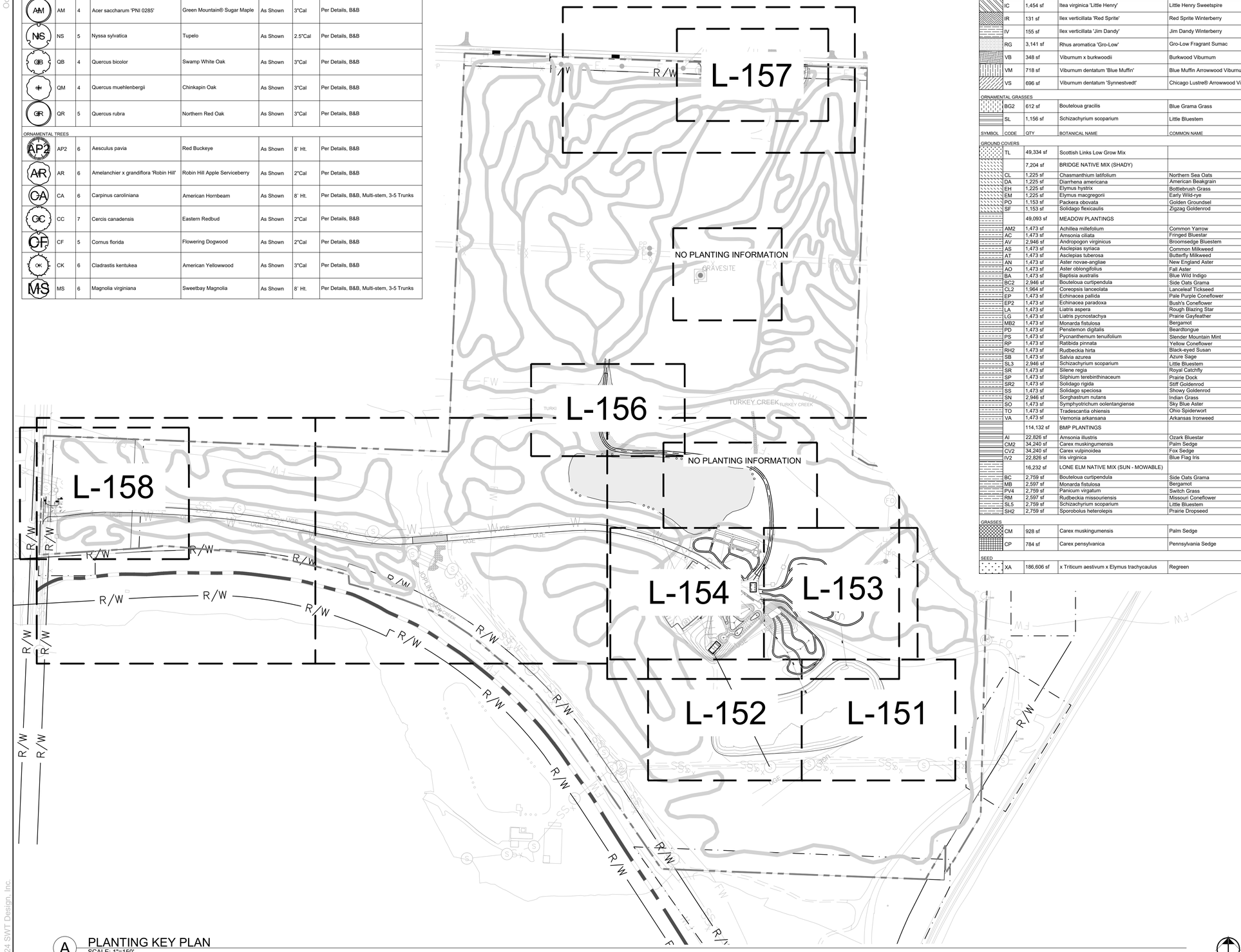
Sheet Title
SOILS PLAN 8

Number
L-138

October 7, 2024 11:40 AM

TREE SCHEDULE

SYMBOL	CODE	QTY	BOTANICAL NAME	COMMON NAME	SPACING	SIZE	COMMENTS
CANOPY TREES							
AS	AG	4	Acer rubrum 'PNI 0268'	October Glory® Red Maple	As Shown	3"Cal	Per Details, B&B
AM	AM	4	Acer saccharum 'PNI 0285'	Green Mountain® Sugar Maple	As Shown	3"Cal	Per Details, B&B
NS	NS	5	Nyssa sylvatica	Tupelo	As Shown	2.5"Cal	Per Details, B&B
QB	QB	4	Quercus bicolor	Swamp White Oak	As Shown	3"Cal	Per Details, B&B
QM	QM	4	Quercus muehlenbergii	Chinkapin Oak	As Shown	3"Cal	Per Details, B&B
QR	QR	5	Quercus rubra	Northern Red Oak	As Shown	3"Cal	Per Details, B&B
ORNAMENTAL TREES							
AP2	AP2	6	Aesculus pavia	Red Buckeye	As Shown	8` Ht.	Per Details, B&B
AR	AR	6	Amelanchier x grandiflora 'Robin Hill'	Robin Hill Apple Serviceberry	As Shown	2"Cal	Per Details, B&B
CA	CA	6	Carpinus caroliniana	American Hornbeam	As Shown	8` Ht.	Per Details, B&B, Multi-stem, 3-5 Trunks
CC	CC	7	Cercis canadensis	Eastern Redbud	As Shown	2"Cal	Per Details, B&B
CF	CF	5	Cornus florida	Flowering Dogwood	As Shown	2"Cal	Per Details, B&B
CK	CK	6	Cladrastis kentukea	American Yellowwood	As Shown	3"Cal	Per Details, B&B
MS	MS	6	Magnolia virginiana	Sweetbay Magnolia	As Shown	8` Ht.	Per Details, B&B, Multi-stem, 3-5 Trunks



A PLANTING KEY PLAN
SCALE: 1"=150'

UNDERSTORY PLANT SCHEDULE

SYMBOL	CODE	QTY	BOTANICAL NAME	COMMON NAME	SPACING	SIZE	COMMENTS	
SHRUB AREAS								
	AP	521 sf	Aronia melanocarpa 'SMNAMPEM'	Low Scape Snowfire™ Black Chokeberry	24" O.C.	#5	Per Details, Cont.	
	BG	733 sf	Buxus x 'Green Velvet'	Green Velvet Boxwood	36" O.C.	#5	Per Details, Cont.	
	HA	439 sf	Hydrangea arborescens 'Abetwo'	Incrediball® Hydrangea	48" O.C.	#5	Per Details, Cont.	
	IC	1,454 sf	Itea virginica 'Little Henry'	Little Henry Sweetspire	24" O.C.	#5	Per Details, Cont.	
	IR	131 sf	Ilex verticillata 'Red Sprite'	Red Sprite Winterberry	36" O.C.	#5	Per Details, Cont.	
	IV	155 sf	Ilex verticillata 'Jim Dandy'	Jim Dandy Winterberry	48" O.C.	#5	Per Details, Cont.	
	RG	3,141 sf	Rhus aromatica 'Gro-Low'	Gro-Low Fragrant Sumac	36" O.C.	#5	Per Details, Cont.	
	VB	348 sf	Viburnum x burkwoodii	Burkwood Viburnum	48" O.C.	#5	Per Details, Cont.	
	VM	718 sf	Viburnum dentatum 'Blue Muffin'	Blue Muffin Arrowwood Viburnum	48" O.C.	#5	Per Details, Cont.	
	VS	696 sf	Viburnum dentatum 'Synnestvedt'	Chicago Lustre® Arrowwood Viburnum	48" O.C.	#5	Per Details, Cont.	
ORNAMENTAL GRASSES								
	BG2	612 sf	Bouteloua gracilis	Blue Grama Grass	18" O.C.	Plug	Per Details, Plug	
	SL	1,156 sf	Schizachyrium scoparium	Little Bluestem	24" O.C.	Plug	Per Details, Plug	
SYMBOL	CODE	QTY	BOTANICAL NAME	COMMON NAME	TYPE	-	COMMENTS	SPACING
GROUND COVERS								
	TL	49,334 sf	Scottish Links Low Grow Mix		Hydroseed	Per Specifications		
		7,204 sf	BRIDGE NATIVE MIX (SHADY)					
	CL	1,225 sf	Chasmanthium latifolium	Northern Sea Oats	Seed	Per Specifications		17%
	DA	1,225 sf	Diarrhena americana	American Beakgrain	Seed	Per Specifications		17%
	EH	1,225 sf	Elymus hystrix	Bottlebrush Grass	Seed	Per Specifications		17%
	EM	1,225 sf	Elymus macgregorii	Early Wild-rye	Seed	Per Specifications		17%
	PO	1,153 sf	Packera obovata	Golden Groundsel	Seed	Per Specifications		16%
	SF	1,153 sf	Solidago flexicaulis	Zigzag Goldenrod	Seed	Per Specifications		16%
		49,093 sf	MEADOW PLANTINGS					
	AM2	1,473 sf	Achillea millefolium	Common Yarrow	Seed	Per Specifications	Native Seed Mix	3%
	AC	1,473 sf	Amsonia ciliata	Fringed Bluestar	Seed	Per Specifications	Native Seed Mix	3%
	AV	2,946 sf	Andropogon virginicus	Broomsedge Bluestem	Seed	Per Specifications	Native Seed Mix	6%
	AS	1,473 sf	Asclepias syriaca	Common Milkweed	Seed	Per Specifications	Native Seed Mix	3%
	AT	1,473 sf	Asclepias tuberosa	Butterfly Milkweed	Seed	Per Specifications	Native Seed Mix	3%
	AN	1,473 sf	Aster novae-angliae	New England Aster	Seed	Per Specifications	Native Seed Mix	3%
	AO	1,473 sf	Aster oblongifolius	Fall Aster	Seed	Per Specifications	Native Seed Mix	3%
	BA	1,473 sf	Baptisia australis	Blue Wild Indigo	Seed	Per Specifications	Native Seed Mix	3%
	BC2	2,946 sf	Bouteloua curtipendula	Side Oats Grama	Seed	Per Specifications	Native Seed Mix	6%
	CL2	1,964 sf	Coreopsis lanceolata	Lanceleaf Tickseed	Seed	Per Specifications	Native Seed Mix	4%
	EP	1,473 sf	Echinacea pallida	Pale Purple Coneflower	Seed	Per Specifications	Native Seed Mix	3%
	EP2	1,473 sf	Echinacea paradoxa	Bush's Coneflower	Seed	Per Specifications	Native Seed Mix	3%
	LA	1,473 sf	Liatris aspera	Rough Blazing Star	Seed	Per Specifications	Native Seed Mix	3%
	LG	1,473 sf	Liatris pycnostachya	Prairie Gayfeather	Seed	Per Specifications	Native Seed Mix	3%
	MB2	1,473 sf	Monarda fistulosa	Bergamot	Seed	Per Specifications	Native Seed Mix	3%
	PD	1,473 sf	Penstemon digitalis	Beardtongue	Seed	Per Specifications	Native Seed Mix	3%
	PS	1,473 sf	Pycnanthemum tenuifolium	Slender Mountain Mint	Seed	Per Specifications	Native Seed Mix	3%
	RP	1,473 sf	Ratibida pinnata	Yellow Coneflower	Seed	Per Specifications	Native Seed Mix	3%
	RH2	1,473 sf	Rudbeckia hirta	Black-eyed Susan	Seed	Per Specifications	Native Seed Mix	3%
	SB	1,473 sf	Salvia azurea	Azure Sage	Seed	Per Specifications	Native Seed Mix	3%
	SL3	2,946 sf	Schizachyrium scoparium	Little Bluestem	Seed	Per Specifications	Native Seed Mix	6%
	SR	1,473 sf	Silene regia	Royal Catchfly	Seed	Per Specifications	Native Seed Mix	3%
	SP	1,473 sf	Silphium terebinthinaceum	Prairie Dock	Seed	Per Specifications	Native Seed Mix	3%
	SR2	1,473 sf	Solidago rigida	Stiff Goldenrod	Seed	Per Specifications	Native Seed Mix	3%
	SS	1,473 sf	Solidago speciosa	Showy Goldenrod	Seed	Per Specifications	Native Seed Mix	3%
	SN	2,946 sf	Sorghastrum nutans	Indian Grass	Seed	Per Specifications	Native Seed Mix	6%
	SO	1,473 sf	Symphyotrichum oolentangiense	Sky Blue Aster	Seed	Per Specifications	Native Seed Mix	3%
	TO	1,473 sf	Tradescantia ohiensis	Ohio Spiderwort	Seed	Per Specifications	Native Seed Mix	3%
	VA	1,473 sf	Vernonia arkansana	Arkansas Ironweed	Seed	Per Specifications	Native Seed Mix	3%
		114,132 sf	BMP PLANTINGS					
	AI	22,826 sf	Amsonia illustris	Ozark Bluestar	Seed	Per Specifications	Native Seed Mix	20%
	CM2	34,240 sf	Carex muskingumensis	Palm Sedge	Seed	Per Specifications	Native Seed Mix	30%
	CV2	34,240 sf	Carex vulpinoidea	Fox Sedge	Seed	Per Specifications	Native Seed Mix	30%
	IV2	22,826 sf	Iris virginica	Blue Flag Iris	Seed	Per Specifications	Native Seed Mix	20%
		16,232 sf	LONE ELM NATIVE MIX (SUN - MOWABLE)					
	BC	2,759 sf	Bouteloua curtipendula	Side Oats Grama	Seed	Per Specifications		17%
	MB	2,597 sf	Monarda fistulosa	Bergamot	Seed	Per Specifications		16%
	PV4	2,759 sf	Panicum virgatum	Switch Grass	Seed	Per Specifications		17%
	RM	2,597 sf	Rudbeckia missouriensis	Missouri Coneflower	Seed	Per Specifications		16%
	SL5	2,759 sf	Schizachyrium scoparium	Little Bluestem	Seed	Per Specifications		17%
	SH2	2,759 sf	Sporobolus heterolepis	Prairie Dropseed	Seed	Per Specifications		17%
GRASSES								
	CM	928 sf	Carex muskingumensis	Palm Sedge	Plug	Per Specifications	Per Details	24" o.c.
	CP	784 sf	Carex pensylvanica	Pennsylvania Sedge	Plug	Per Specifications	Per Details	12" o.c.
SEED								
	XA	186,606 sf	x Triticum aestivum x Elymus trachycaulus	Regreen	Seed	Per Specifications		

Graphic Scale: 1" = 150'
0' 75' 150' 300' 450'

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Prepared For:

JOPLIN MISSOURI
3301 W 1ST ST
Joplin, MO 64801

Project:
DORA
Bike Park

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KEY PLAN

John Wohlschlaeger - Landscape Architect MO # LA - 2009014766

(10/7/2024)

SWT Design, Inc.
Missouri State Certificate of Authority #2006002904

Issuances

No.	Description	Date
01	100% Design Development	8/6/2024
02	Advance Permit Review	8/30/2024
03	100% Construction Docs	9/20/2024
04	Issued for Bid	10/07/2024

Revisions

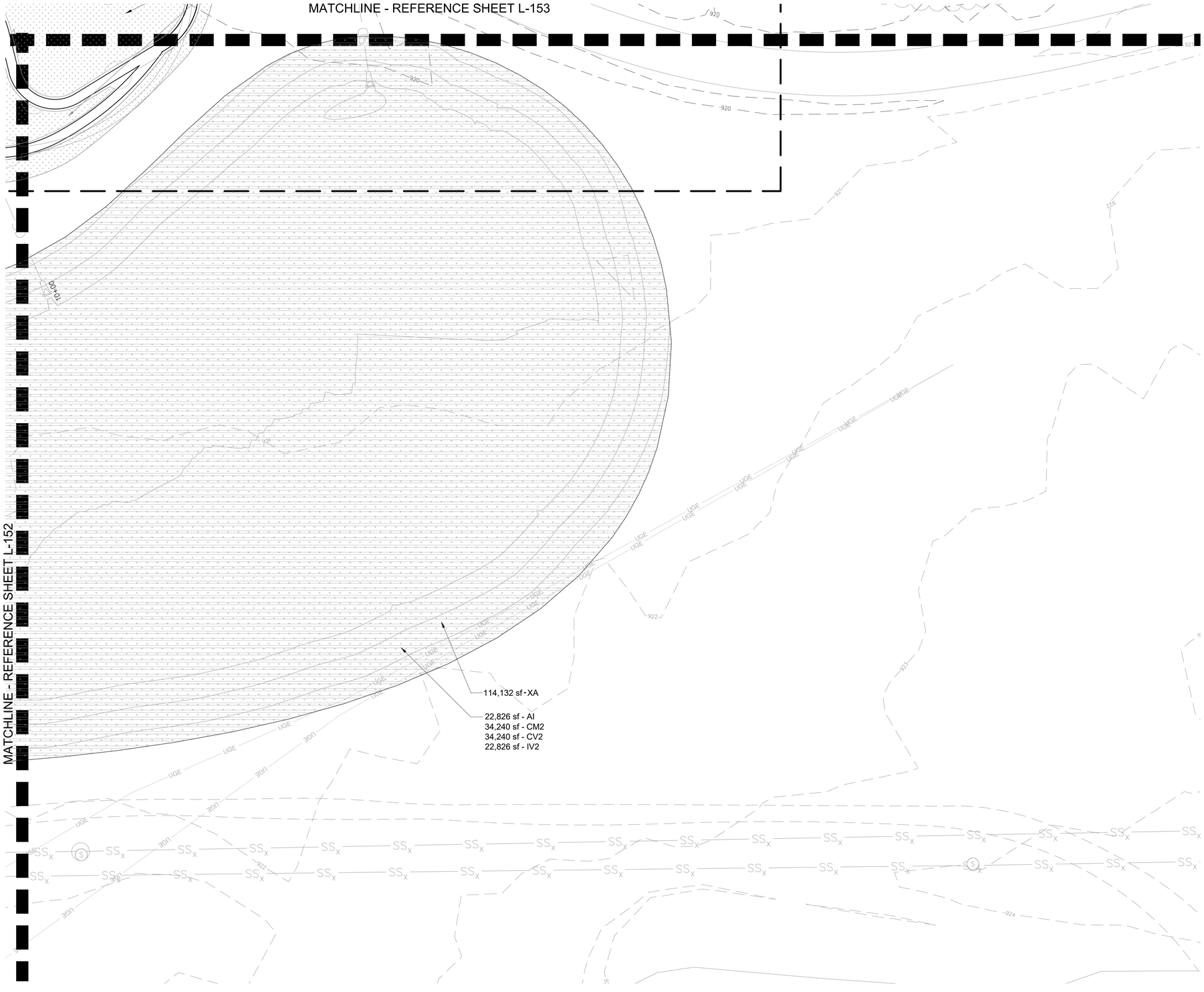
No.	Description	Date

SWT No. 21703.01

Drawn: BV, MB, CP
Reviewed: LK, JW

Sheet Title
PLANTING KEY PLAN

Number
L-150



UNDERSTORY PLANT LEGEND

PLANT SCHEDULE

SYMBOL	CODE	BOTANICAL NAME	COMMON NAME
SHRUB AREAS			
	AP	Aronia melanocarpa 'SMNAMPEM'	Low Scape Snowfire™ Black Chokeberry
	BG	Buxus x 'Green Velvet'	Green Velvet Boxwood
	HA	Hydrangea arborescens 'Abetwo'	Incrediball® Hydrangea
	IC	Itea virginica 'Little Henry'	Little Henry Sweetspire
	IR	Ilex verticillata 'Red Sprite'	Red Sprite Winterberry
	IV	Ilex verticillata 'Jim Dandy'	Jim Dandy Winterberry
	RG	Rhus aromatica 'Gro-Low'	Gro-Low Fragrant Sumac
	VB	Viburnum x burkwoodii	Burkwood Viburnum
	VM	Viburnum dentatum 'Blue Muffin'	Blue Muffin Arrowwood Viburnum
	VS	Viburnum dentatum 'Synnestvedt'	Chicago Lustre® Arrowwood Viburnum
ORNAMENTAL GRASSES			
	BG2	Bouteloua gracilis	Blue Grama Grass
	SL	Schizachyrium scoparium	Little Bluestem
GROUND COVERS			
	TL	Scottish Links Low Grow Mix	
		BRIDGE NATIVE MIX (SHADY)	
	CL	Chasmanthium latifolium	Northern Sea Oats
	DA	Diarrhena americana	American Beakgrain
	EH	Elymus hystrix	Bottlebrush Grass
	EM	Elymus macgregorii	Early Wild-rye
	PO	Packera obovata	Golden Groundsel
	SF	Solidago flexicaulis	Zigzag Goldenrod
		MEADOW PLANTINGS	
	AM2	Achillea millefolium	Common Yarrow
	AC	Amsonia ciliata	Fringed Bluestar
	AV	Andropogon virginicus	Broomsedge Bluestem
	AS	Asclepias syriaca	Common Milkweed
	AT	Asclepias tuberosa	Butterfly Milkweed
	AN	Aster novae-angliae	New England Aster
	AO	Aster oblongifolius	Fall Aster
	BA	Baptisia australis	Blue Wild Indigo
	BC2	Bouteloua curtipendula	Side Oats Grama
	CL2	Coreopsis lanceolata	Lanceleaf Tickseed
	EP	Echinacea pallida	Pale Purple Coneflower
	EP2	Echinacea paradoxa	Bush's Coneflower
	LA	Liatris aspera	Rough Blazing Star
	LG	Liatris pycnostachya	Prairie Gayfeather
	MB2	Monarda fistulosa	Bergamot
	PD	Penstemon digitalis	Beardtongue
	PS	Pycnanthemum tenuifolium	Slender Mountain Mint
	RP	Ratibida pinnata	Yellow Coneflower
	RH2	Rudbeckia hirta	Black-eyed Susan
	SB	Salvia azurea	Azure Sage
	SL3	Schizachyrium scoparium	Little Bluestem
	SR	Silene regia	Royal Catchfly
	SP	Silphium terebinthinaceum	Prairie Dock
	SR2	Solidago rigida	Stiff Goldenrod
	SS	Solidago speciosa	Showy Goldenrod
	SN	Sorghastrum nutans	Indian Grass
	SO	Symphyotrichum oolentangiense	Sky Blue Aster
	TO	Tradescantia ohiensis	Ohio Spiderwort
	VA	Vernonia arkansana	Arkansas Ironweed
		BMP PLANTINGS	
	AI	Amsonia illustris	Ozark Bluestar
	CM2	Carex muskingumensis	Palm Sedge
	CV2	Carex vulpinoidea	Fox Sedge
	IV2	Iris virginica	Blue Flag Iris
		LONE ELM NATIVE MIX (SUN - MOWABLE)	
	BC	Bouteloua curtipendula	Side Oats Grama
	MB	Monarda fistulosa	Bergamot
	PV4	Panicum virgatum	Switch Grass
	RM	Rudbeckia missouriensis	Missouri Coneflower
	SL5	Schizachyrium scoparium	Little Bluestem
	SH2	Sporobolus heterolepis	Prairie Dropseed
GRASSES			
	CM	Carex muskingumensis	Palm Sedge
	CP	Carex pensylvanica	Pennsylvania Sedge
SEED			
	XA	x Triticum aestivum x Elymus trachycaulus	Regreen

SEE L-150 FOR QUANTITIES AND SIZES

NO TREES ON SHEET

A PLANTING PLAN 1
SCALE: 1"=20'

Graphic Scale: 1" = 20'
0' 10' 20' 40' 60'

Prepared For:

JOPLIN MISSOURI
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Project:
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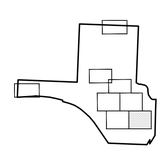
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KEY PLAN



John Wohlschlaeger - Landscape Architect MO # LA - 2009014766



(10/7/2024)
SWT Design, Inc.
Missouri State Certificate of Authority #2006002904

Issuances

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01	100% Design Development	8/6/2024
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03	100% Construction Docs	9/20/2024
04	Issued for Bid	10/07/2024

Revisions

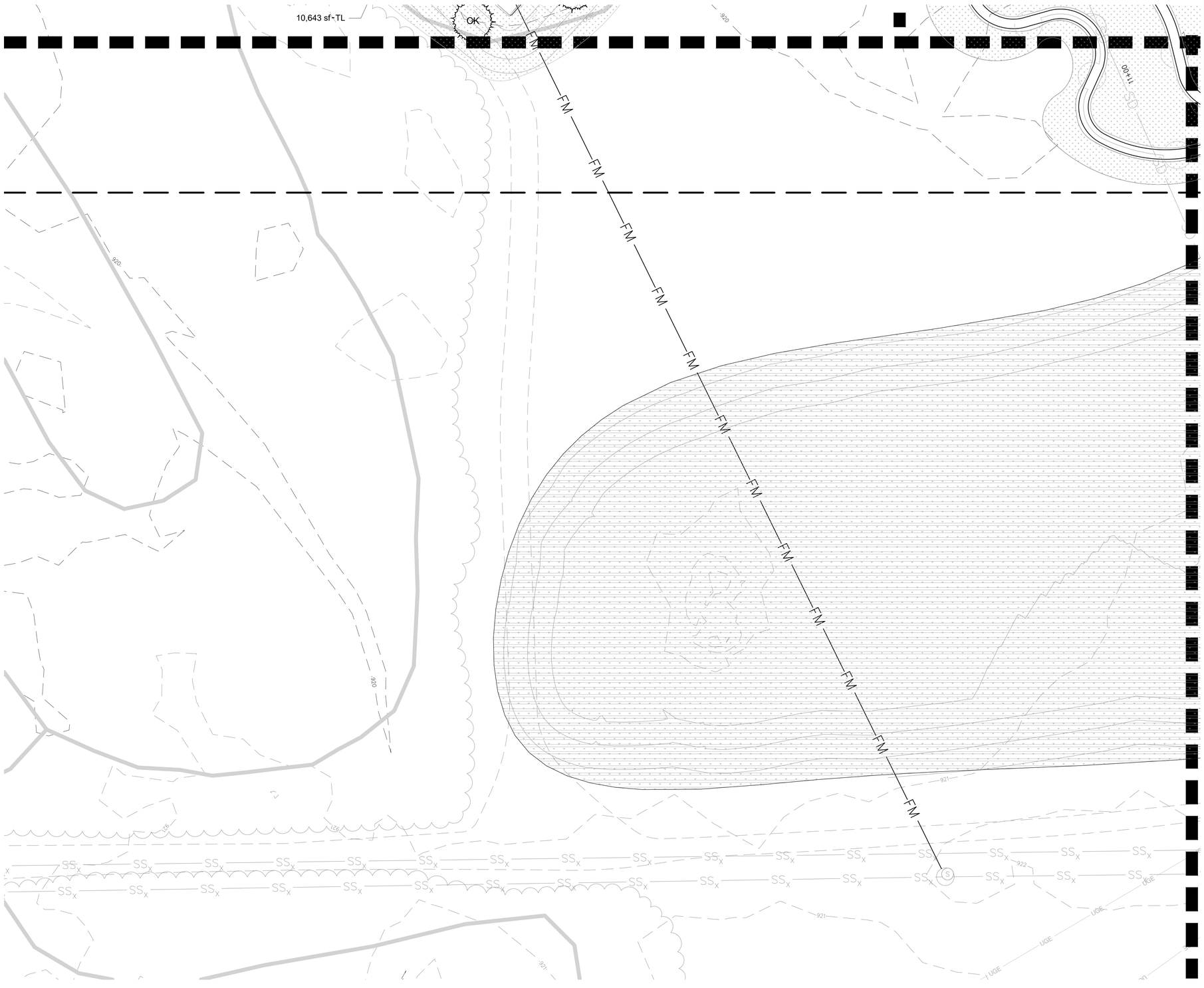
No.	Description	Date

SWT No. 21703.01

Drawn: BV, MB, CP
Reviewed: LK, JW

Sheet Title
PLANTING PLAN 1

Number
L-151



UNDERSTORY PLANT LEGEND

PLANT SCHEDULE

SYMBOL	CODE	BOTANICAL NAME	COMMON NAME
SHRUB AREAS			
	AP	Aronia melanocarpa 'SMNAMPEM'	Low Scape Snowfire™ Black Chokeberry
	BG	Buxus x 'Green Velvet'	Green Velvet Boxwood
	HA	Hydrangea arborescens 'Abetwo'	Incrediball® Hydrangea
	IC	Itea virginica 'Little Henry'	Little Henry Sweetspire
	IR	Ilex verticillata 'Red Sprite'	Red Sprite Winterberry
	IV	Ilex verticillata 'Jim Dandy'	Jim Dandy Winterberry
	RG	Rhus aromatica 'Gro-Low'	Gro-Low Fragrant Sumac
	VB	Viburnum x burkwoodii	Burkwood Viburnum
	VM	Viburnum dentatum 'Blue Muffin'	Blue Muffin Arrowwood Viburnum
	VS	Viburnum dentatum 'Synnestvedt'	Chicago Lustre® Arrowwood Viburnum
ORNAMENTAL GRASSES			
	BG2	Bouteloua gracilis	Blue Grama Grass
	SL	Schizachyrium scoparium	Little Bluestem
GROUND COVERS			
	TL	Scottish Links Low Grow Mix	
		BRIDGE NATIVE MIX (SHADY)	
	CL	Chasmanthium latifolium	Northern Sea Oats
	DA	Diarrhena americana	American Beakgrain
	EH	Elymus hystrix	Bottlebrush Grass
	EM	Elymus macgregorii	Early Wild-rye
	PO	Packera obovata	Golden Groundsel
	SF	Solidago flexicaulis	Zigzag Goldenrod
		MEADOW PLANTINGS	
	AM2	Achillea millefolium	Common Yarrow
	AC	Amsonia ciliata	Fringed Bluestar
	AV	Andropogon virginicus	Broomsedge Bluestem
	AS	Asclepias syriaca	Common Milkweed
	AT	Asclepias tuberosa	Butterfly Milkweed
	AN	Aster novae-angliae	New England Aster
	AO	Aster oblongifolius	Fall Aster
	BA	Baptisia australis	Blue Wild Indigo
	BC2	Bouteloua curtipendula	Side Oats Grama
	CL2	Coreopsis lanceolata	Lanceleaf Tickseed
	EP	Echinacea pallida	Pale Purple Coneflower
	EP2	Echinacea paradoxa	Bush's Coneflower
	LA	Liatris aspera	Rough Blazing Star
	LG	Liatris pycnostachya	Prairie Gayfeather
	MB2	Monarda fistulosa	Bergamot
	PD	Penstemon digitalis	Beardtongue
	PS	Pycnanthemum tenuifolium	Slender Mountain Mint
	RP	Ratibida pinnata	Yellow Coneflower
	RH2	Rudbeckia hirta	Black-eyed Susan
	SB	Salvia azurea	Azure Sage
	SL3	Schizachyrium scoparium	Little Bluestem
	SR	Silene regia	Royal Catchfly
	SP	Silphium terebinthinaceum	Prairie Dock
	SR2	Solidago rigida	Stiff Goldenrod
	SS	Solidago speciosa	Showy Goldenrod
	SN	Sorghastrum nutans	Indian Grass
	SO	Symphyotrichum oolentangiense	Sky Blue Aster
	TO	Tradescantia ohiensis	Ohio Spiderwort
	VA	Vernonia arkansana	Arkansas Ironweed
		BMP PLANTINGS	
	AI	Amsonia illustris	Ozark Bluestar
	CM2	Carex muskingumensis	Palm Sedge
	CV2	Carex vulpinoidea	Fox Sedge
	IV2	Iris virginica	Blue Flag Iris
		LONE ELM NATIVE MIX (SUN - MOWABLE)	
	BC	Bouteloua curtipendula	Side Oats Grama
	MB	Monarda fistulosa	Bergamot
	PV4	Panicum virgatum	Switch Grass
	RM	Rudbeckia missouriensis	Missouri Coneflower
	SL5	Schizachyrium scoparium	Little Bluestem
	SH2	Sporobolus heterolepis	Prairie Dropseed
GRASSES			
	CM	Carex muskingumensis	Palm Sedge
	CP	Carex pensylvanica	Pennsylvania Sedge
SEED			
	XA	x Triticum aestivum x Elymus trachycaulus	Regreen

SEE L-150 FOR QUANTITIES AND SIZES

NO TREES ON SHEET

MATCHLINE - REFERENCE SHEET L-151

A PLANTING PLAN 2
SCALE: 1"=20'

Graphic Scale: 1" = 20'
0' 10' 20' 40' 60'

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Joplin, MO 64801

Project:
DORA
Bike Park

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KEY PLAN

John Wohlschlaeger - Landscape Architect MO # LA - 2009014766

(10/7/2024)
SWT Design, Inc.
Missouri State Certificate of Authority #2006002904

Issuances

No.	Description	Date
01	100% Design Development	8/6/2024
02	Advance Permit Review	8/30/2024
03	100% Construction Docs	9/20/2024
04	Issued for Bid	10/07/2024

Revisions

No.	Description	Date

SWT No. 21703.01

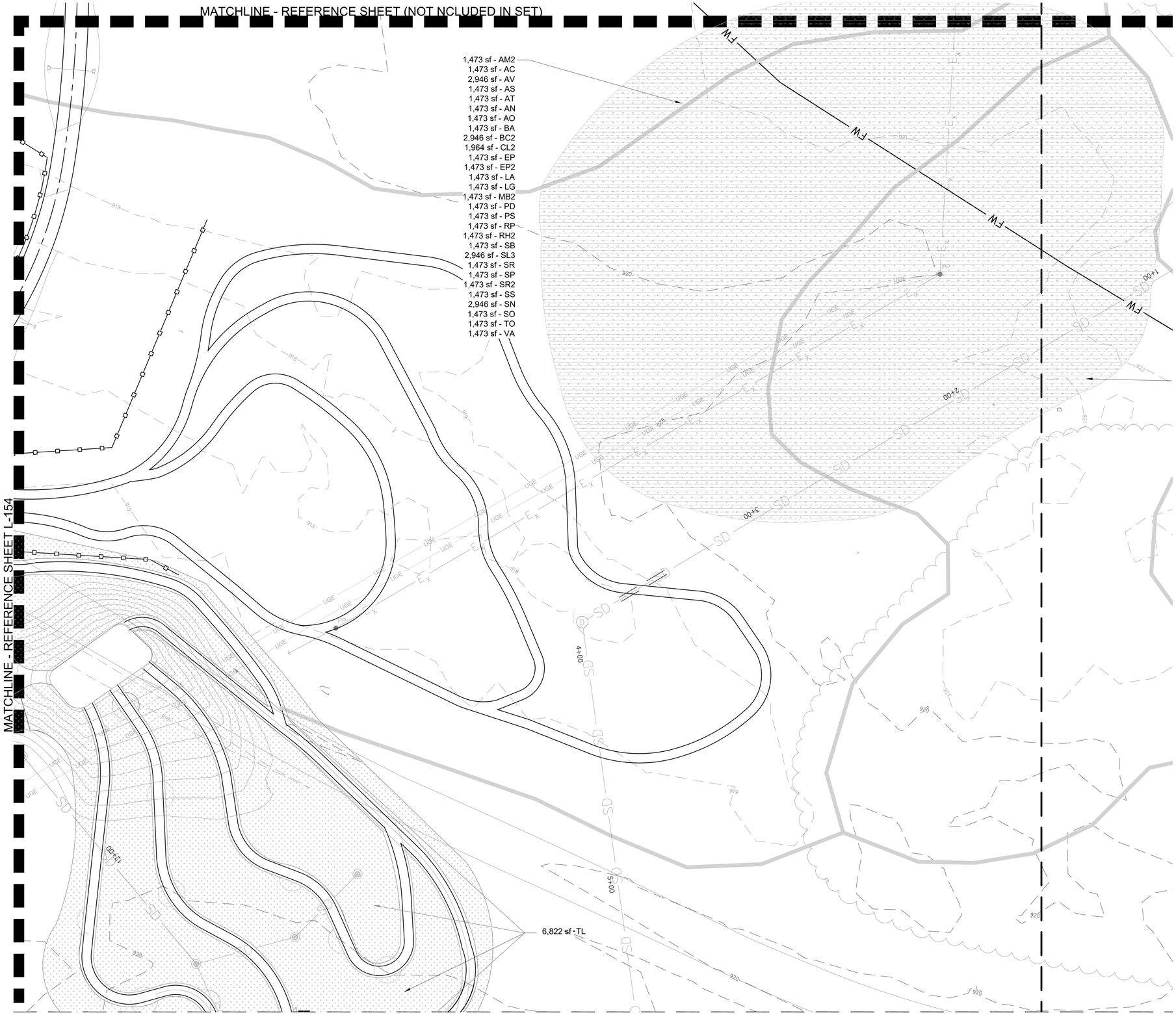
Drawn: BV, MB, CP
Reviewed: LK, JW

Sheet Title
PLANTING PLAN 2

Number
L-152

MATCHLINE - REFERENCE SHEET (NOT NCLUDED IN SET)

MATCHLINE - REFERENCE SHEET L-154



MATCHLINE - REFERENCE SHEET L-152

MATCHLINE - REFERENCE SHEET L-151

A PLANTING PLAN 3
SCALE: 1"=20'

Graphic Scale: 1" = 20'
0' 10' 20' 40' 60'

UNDERSTORY PLANT LEGEND

PLANT SCHEDULE

SYMBOL	CODE	BOTANICAL NAME	COMMON NAME
SHRUB AREAS			
	AP	Aronia melanocarpa 'SMNAMPEM'	Low Scape Snowfire™ Black Chokeberry
	BG	Buxus x 'Green Velvet'	Green Velvet Boxwood
	HA	Hydrangea arborescens 'Abetwo'	Incrediball® Hydrangea
	IC	Itea virginica 'Little Henry'	Little Henry Sweetspire
	IR	Ilex verticillata 'Red Sprite'	Red Sprite Winterberry
	IV	Ilex verticillata 'Jim Dandy'	Jim Dandy Winterberry
	RG	Rhus aromatica 'Gro-Low'	Gro-Low Fragrant Sumac
	VB	Viburnum x burkwoodii	Burkwood Viburnum
	VM	Viburnum dentatum 'Blue Muffin'	Blue Muffin Arrowwood Viburnum
	VS	Viburnum dentatum 'Synnestvedt'	Chicago Lustre® Arrowwood Viburnum
ORNAMENTAL GRASSES			
	BG2	Bouteloua gracilis	Blue Grama Grass
	SL	Schizachyrium scoparium	Little Bluestem
GROUND COVERS			
	TL	Scottish Links Low Grow Mix	
		BRIDGE NATIVE MIX (SHADY)	
	CL	Chasmanthium latifolium	Northern Sea Oats
	DA	Diarrhena americana	American Beakgrain
	EH	Elymus hystrix	Bottlebrush Grass
	EM	Elymus macgregorii	Early Wild-rye
	PO	Packera obovata	Golden Groundsel
	SF	Solidago flexicaulis	Zigzag Goldenrod
		MEADOW PLANTINGS	
	AM2	Achillea millefolium	Common Yarrow
	AC	Amsonia ciliata	Fringed Bluestar
	AV	Andropogon virginicus	Broomsedge Bluestem
	AS	Asclepias syriaca	Common Milkweed
	AT	Asclepias tuberosa	Butterfly Milkweed
	AN	Aster novae-angliae	New England Aster
	AO	Aster oblongifolius	Fall Aster
	BA	Baptisia australis	Blue Wild Indigo
	BC2	Bouteloua curtipendula	Side Oats Grama
	CL2	Coreopsis lanceolata	Lanceleaf Tickseed
	EP	Echinacea pallida	Pale Purple Coneflower
	EP2	Echinacea paradoxa	Bush's Coneflower
	LA	Liatris aspera	Rough Blazing Star
	LG	Liatris pycnostachya	Prairie Gayfeather
	MB2	Monarda fistulosa	Bergamot
	PD	Penstemon digitalis	Beardtongue
	PS	Pycnanthemum tenuifolium	Slender Mountain Mint
	RP	Ratibida pinnata	Yellow Coneflower
	RH2	Rudbeckia hirta	Black-eyed Susan
	SB	Salvia azurea	Azure Sage
	SL3	Schizachyrium scoparium	Little Bluestem
	SR	Silene regia	Royal Catchfly
	SP	Silphium terebinthinaceum	Prairie Dock
	SR2	Solidago rigida	Stiff Goldenrod
	SS	Solidago speciosa	Showy Goldenrod
	SN	Sorghastrum nutans	Indian Grass
	SO	Symphyotrichum oolentangiense	Sky Blue Aster
	TO	Tradescantia ohiensis	Ohio Spiderwort
	VA	Vernonia arkansana	Arkansas Ironweed
		BMP PLANTINGS	
	AI	Amsonia illustris	Ozark Bluestar
	CM2	Carex muskingumensis	Palm Sedge
	CV2	Carex vulpinoidea	Fox Sedge
	IV2	Iris virginica	Blue Flag Iris
		LONE ELM NATIVE MIX (SUN - MOWABLE)	
	BC	Bouteloua curtipendula	Side Oats Grama
	MB	Monarda fistulosa	Bergamot
	PV4	Panicum virgatum	Switch Grass
	RM	Rudbeckia missouriensis	Missouri Coneflower
	SL5	Schizachyrium scoparium	Little Bluestem
	SH2	Sporobolus heterolepis	Prairie Dropseed
GRASSES			
	CM	Carex muskingumensis	Palm Sedge
	CP	Carex pensylvanica	Pennsylvania Sedge
SEED			
	XA	x Triticum aestivum x Elymus trachycaulus	Regreen

SEE L-150 FOR QUANTITIES AND SIZES

NO TREES ON SHEET

Prepared For:

JOPLIN MISSOURI
3301 W 1ST ST
Joplin, MO 64801

Project:
DORA
Bike Park

SWT DESIGN
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t. 816.221.0825

Point of Contact:
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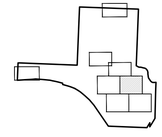
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Geotechnical:
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KEY PLAN



John Wohlschlaeger - Landscape Architect MO # L.A. - 2009014766



(10/7/2024)

SWT Design, Inc.
Missouri State Certificate of Authority #2006002904

Issuances

No.	Description	Date
01	100% Design Development	8/6/2024
02	Advance Permit Review	8/30/2024
03	100% Construction Docs	9/20/2024
04	Issued for Bid	10/07/2024

Revisions

No.	Description	Date

SWT No. 21703.01

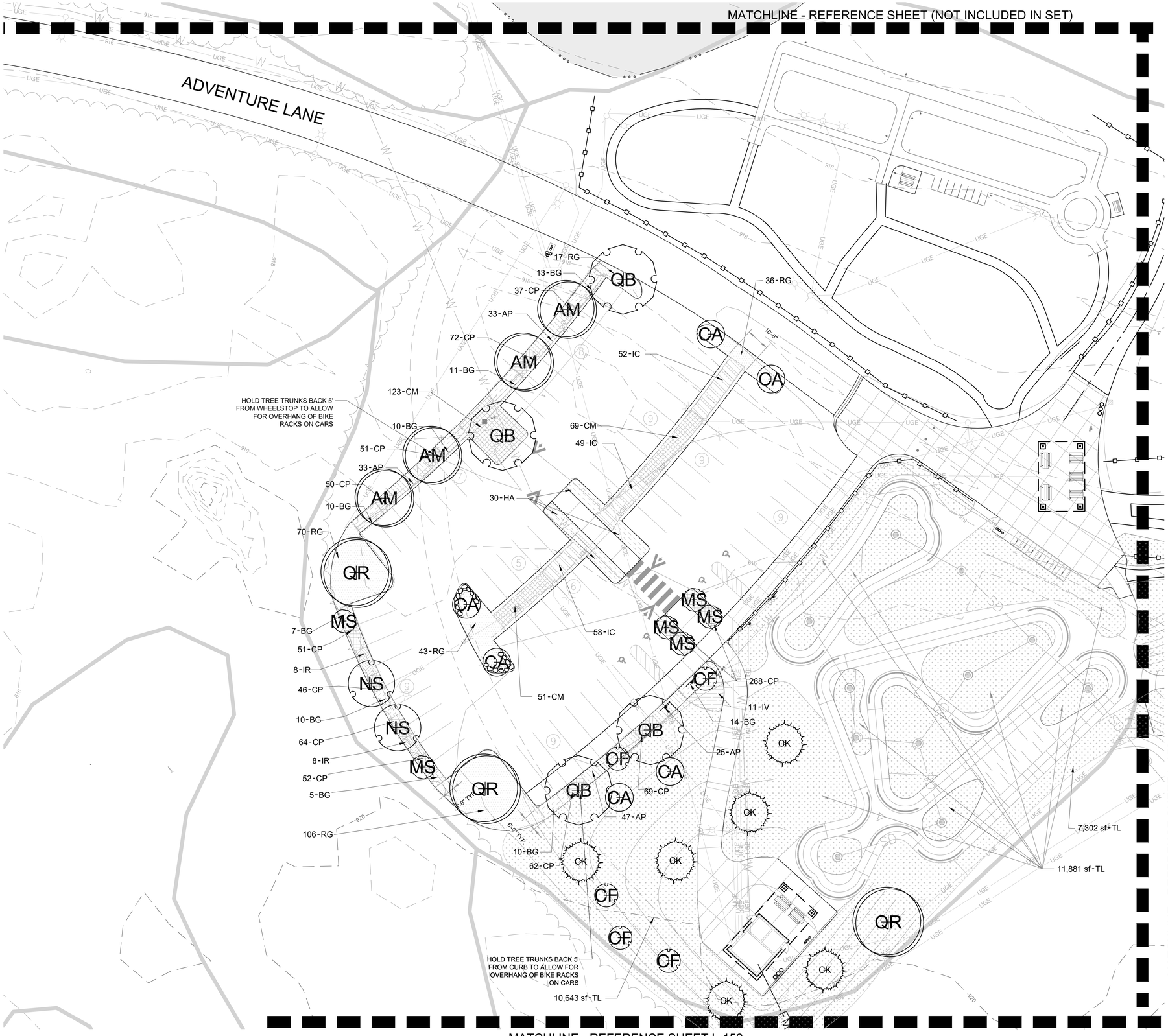
Drawn: BV, MB, CP
Reviewed: LK, JW

Sheet Title
PLANTING PLAN 3

Number
L-153

October 7, 2024 11:40 AM

MATCHLINE - REFERENCE SHEET (NOT INCLUDED IN SET)



MATCHLINE - REFERENCE SHEET L-152

A PLANTING PLAN 4
SCALE: 1"=20'

Graphic Scale: 1" = 20'
0' 10' 20' 40' 60'

UNDERSTORY PLANT LEGEND

PLANT SCHEDULE

SYMBOL	CODE	BOTANICAL NAME	COMMON NAME
SHRUB AREAS			
	AP	Aronia melanocarpa 'SMNAMPEM'	Low Scape Snowfire™ Black Chokeberry
	BG	Buxus x 'Green Velvet'	Green Velvet Boxwood
	HA	Hydrangea arborescens 'Abetwo'	Incrediball® Hydrangea
	IC	Itea virginica 'Little Henry'	Little Henry Sweetspire
	IR	Ilex verticillata 'Red Sprite'	Red Sprite Winterberry
	IV	Ilex verticillata 'Jim Dandy'	Jim Dandy Winterberry
	RG	Rhus aromatica 'Gro-Low'	Gro-Low Fragrant Sumac
	VB	Viburnum x burkwoodii	Burkwood Viburnum
	VM	Viburnum dentatum 'Blue Muffin'	Blue Muffin Arrowwood Viburnum
	VS	Viburnum dentatum 'Synnestvedt'	Chicago Lustre® Arrowwood Viburnum
ORNAMENTAL GRASSES			
	BG2	Bouteloua gracilis	Blue Grama Grass
	SL	Schizachyrium scoparium	Little Bluestem
GROUND COVERS			
	TL	Scottish Links Low Grow Mix	
		BRIDGE NATIVE MIX (SHADY)	
	CL	Chasmanthium latifolium	Northern Sea Oats
	DA	Diarrhena americana	American Beakgrain
	EH	Elymus hystrix	Bottlebrush Grass
	EM	Elymus macgregorii	Early Wild-rye
	PO	Packera obovata	Golden Groundsel
	SF	Solidago flexicaulis	Zigzag Goldenrod
		MEADOW PLANTINGS	
	AM2	Achillea millefolium	Common Yarrow
	AC	Amsonia ciliata	Fringed Bluestar
	AV	Andropogon virginicus	Broomsedge Bluestem
	AS	Asclepias syriaca	Common Milkweed
	AT	Asclepias tuberosa	Butterfly Milkweed
	AN	Aster novae-angliae	New England Aster
	AO	Aster oblongifolius	Fall Aster
	BA	Baptisia australis	Blue Wild Indigo
	BC2	Bouteloua curtipendula	Side Oats Grama
	CL2	Coreopsis lanceolata	Lanceleaf Tickseed
	EP	Echinacea pallida	Pale Purple Coneflower
	EP2	Echinacea paradoxa	Bush's Coneflower
	LA	Liatris aspera	Rough Blazing Star
	LG	Liatris pycnostachya	Prairie Gayfeather
	MB2	Monarda fistulosa	Bergamot
	PD	Penstemon digitalis	Beardtongue
	PS	Pycnanthemum tenuifolium	Slender Mountain Mint
	RP	Ratibida pinnata	Yellow Coneflower
	RH2	Rudbeckia hirta	Black-eyed Susan
	SB	Salvia azurea	Azure Sage
	SL3	Schizachyrium scoparium	Little Bluestem
	SR	Silene regia	Royal Catchfly
	SP	Silphium terebinthinaceum	Prairie Dock
	SR2	Solidago rigida	Stiff Goldenrod
	SS	Solidago speciosa	Showy Goldenrod
	SN	Sorghastrum nutans	Indian Grass
	SO	Symphyotrichum oolentangiense	Sky Blue Aster
	TO	Tradescantia ohiensis	Ohio Spiderwort
	VA	Vernonia arkansana	Arkansas Ironweed
		BMP PLANTINGS	
	AI	Amsonia illustris	Ozark Bluestar
	CM2	Carex muskingumensis	Palm Sedge
	CV2	Carex vulpinoidea	Fox Sedge
	IV2	Iris virginica	Blue Flag Iris
		LONE ELM NATIVE MIX (SUN - MOWABLE)	
	BC	Bouteloua curtipendula	Side Oats Grama
	MB	Monarda fistulosa	Bergamot
	PV4	Panicum virgatum	Switch Grass
	RM	Rudbeckia missouriensis	Missouri Coneflower
	SL5	Schizachyrium scoparium	Little Bluestem
	SH2	Sporobolus heterolepis	Prairie Dropseed
GRASSES			
	CM	Carex muskingumensis	Palm Sedge
	CP	Carex pensylvanica	Pennsylvania Sedge
SEED			
	XA	x Triticum aestivum x Elymus trachycaulus	Regreen

SEE L-150 FOR QUANTITIES AND SIZES

TREE PLAN

SYMBOL	CODE	BOTANICAL NAME	COMMON NAME
CANOPY TREES			
AG	AG	Acer rubrum 'PNI 0268'	October Glory® Red Maple
AM	AM	Acer saccharum 'PNI 0285'	Green Mountain® Sugar Maple
NS	NS	Nyssa sylvatica	Tupelo
QB	QB	Quercus bicolor	Swamp White Oak
QM	QM	Quercus muehlenbergii	Chinkapin Oak
QR	QR	Quercus rubra	Northern Red Oak
ORNAMENTAL TREES			
AP2	AP2	Aesculus pavia	Red Buckeye
AR	AR	Amelanchier x grandiflora 'Robin Hill'	Robin Hill Apple Serviceberry
CA	CA	Carpinus caroliniana	American Hornbeam
CC	CC	Cercis canadensis	Eastern Redbud
CF	CF	Cornus florida	Flowering Dogwood
CK	CK	Cladrastis kentukea	American Yellowwood
MS	MS	Magnolia virginiana	Sweetbay Magnolia

SEE L-150 FOR QUANTITIES AND SIZES

MATCHLINE - REFERENCE SHEET L-153

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Prepared For:

JOPLIN MISSOURI
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Project:
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Bike Park

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Point of Contact:
Bryce Vogel - brycev@swtdesign.com

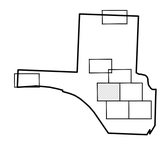
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Geotechnical:
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KEY PLAN



John Wohlschlaeger - Landscape Architect MO # LA - 2009014766
(10/7/2024)
SWT Design, Inc.
Missouri State Certificate of Authority #2006002904

Issuances

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Revisions

No.	Description	Date

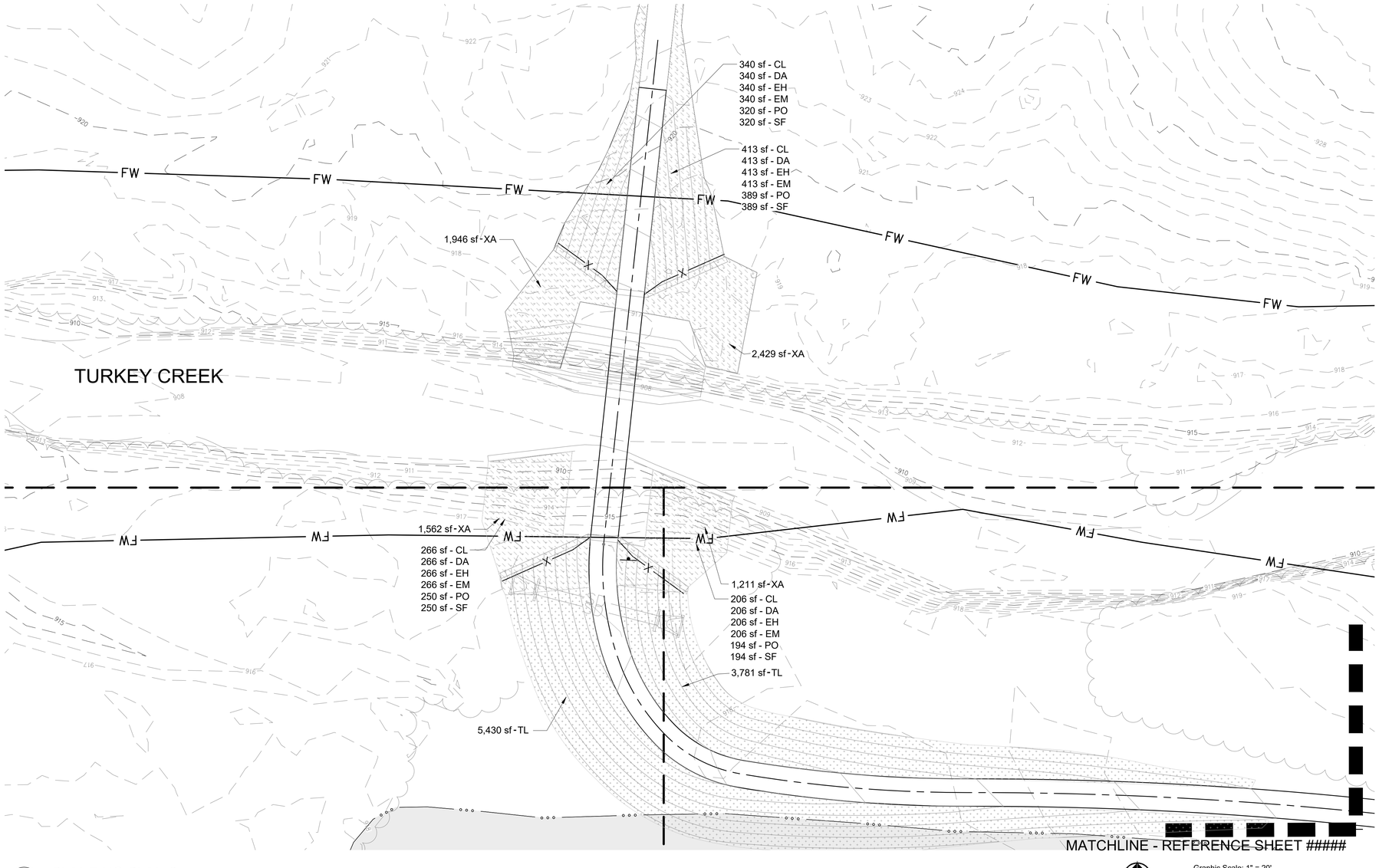
SWT No. 21703.01

Drawn: BV, MB, CP
Reviewed: LK, JW

Sheet Title
PLANTING PLAN 4

Number
L-154

October 7, 2024 11:40 AM



A PLANTING PLAN 6
SCALE: 1"=20'

Graphic Scale: 1" = 20'
0' 10' 20' 40' 60'

UNDERSTORY PLANT LEGEND

PLANT SCHEDULE

SYMBOL	CODE	BOTANICAL NAME	COMMON NAME
SHRUB AREAS			
	AP	Aronia melanocarpa 'SMNAMPEM'	Low Scape Snowfire™ Black Chokeberry
	BG	Buxus x 'Green Velvet'	Green Velvet Boxwood
	HA	Hydrangea arborescens 'Abetwo'	Incrediball® Hydrangea
	IC	Itea virginica 'Little Henry'	Little Henry Sweetspire
	IR	Ilex verticillata 'Red Sprite'	Red Sprite Winterberry
	IV	Ilex verticillata 'Jim Dandy'	Jim Dandy Winterberry
	RG	Rhus aromatica 'Gro-Low'	Gro-Low Fragrant Sumac
	VB	Viburnum x burkwoodii	Burkwood Viburnum
	VM	Viburnum dentatum 'Blue Muffin'	Blue Muffin Arrowwood Viburnum
	VS	Viburnum dentatum 'Synnestvedt'	Chicago Lustre® Arrowwood Viburnum
ORNAMENTAL GRASSES			
	BG2	Bouteloua gracilis	Blue Grama Grass
	SL	Schizachyrium scoparium	Little Bluestem
GROUND COVERS			
	TL	Scottish Links Low Grow Mix	
		BRIDGE NATIVE MIX (SHADY)	
	CL	Chasmanthium latifolium	Northern Sea Oats
	DA	Diarrhena americana	American Beakgrain
	EH	Elymus hystrix	Bottlebrush Grass
	EM	Elymus macgregorii	Early Wild-rye
	PO	Packera obovata	Golden Groundsel
	SF	Solidago flexicaulis	Zigzag Goldenrod
		MEADOW PLANTINGS	
	AM2	Achillea millefolium	Common Yarrow
	AC	Amsonia ciliata	Fringed Bluestar
	AV	Andropogon virginicus	Broomsedge Bluestem
	AS	Asclepias syriaca	Common Milkweed
	AT	Asclepias tuberosa	Butterfly Milkweed
	AN	Aster novae-angliae	New England Aster
	AO	Aster oblongifolius	Fall Aster
	BA	Baptisia australis	Blue Wild Indigo
	BC2	Bouteloua curtipendula	Side Oats Grama
	CL2	Coreopsis lanceolata	Lanceleaf Tickseed
	EP	Echinacea pallida	Pale Purple Coneflower
	EP2	Echinacea paradoxa	Bush's Coneflower
	LA	Liatris aspera	Rough Blazing Star
	LG	Liatris pycnostachya	Prairie Gayfeather
	MB2	Monarda fistulosa	Bergamot
	PD	Penstemon digitalis	Beardtongue
	PS	Pycnanthemum tenuifolium	Slender Mountain Mint
	RP	Ratibida pinnata	Yellow Coneflower
	RH2	Rudbeckia hirta	Black-eyed Susan
	SB	Salvia azurea	Azure Sage
	SL3	Schizachyrium scoparium	Little Bluestem
	SR	Silene regia	Royal Catchfly
	SP	Silphium terebinthinaceum	Prairie Dock
	SR2	Solidago rigida	Stiff Goldenrod
	SS	Solidago speciosa	Showy Goldenrod
	SN	Sorghastrum nutans	Indian Grass
	SO	Symphyotrichum oolentangiense	Sky Blue Aster
	TO	Tradescantia ohiensis	Ohio Spiderwort
	VA	Vernonia arkansana	Arkansas Ironweed
		BMP PLANTINGS	
	AI	Amsonia illustris	Ozark Bluestar
	CM2	Carex muskingumensis	Palm Sedge
	CV2	Carex vulpinoidea	Fox Sedge
	IV2	Iris virginica	Blue Flag Iris
		LONE ELM NATIVE MIX (SUN - MOWABLE)	
	BC	Bouteloua curtipendula	Side Oats Grama
	MB	Monarda fistulosa	Bergamot
	PV4	Panicum virgatum	Switch Grass
	RM	Rudbeckia missouriensis	Missouri Coneflower
	SL5	Schizachyrium scoparium	Little Bluestem
	SH2	Sporobolus heterolepis	Prairie Dropseed
GRASSES			
	CM	Carex muskingumensis	Palm Sedge
	CP	Carex pensylvanica	Pennsylvania Sedge
SEED			
	XA	x Triticum aestivum x Elymus trachycaulus	Regreen

SEE L-150 FOR QUANTITIES AND SIZES

NO TREES ON SHEET

Prepared For:

JOPLIN MISSOURI
3301 W 1ST ST
Joplin, MO 64801

Project:
DORA
Bike Park

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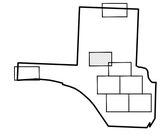
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KEY PLAN



John Wohlschlaeger - Landscape Architect MO # LA - 2009014766



(10/7/2024)
SWT Design, Inc.
Missouri State Certificate of Authority #2006002904

Issuances

No.	Description	Date
01	100% Design Development	8/6/2024
02	Advance Permit Review	8/30/2024
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Revisions

No.	Description	Date

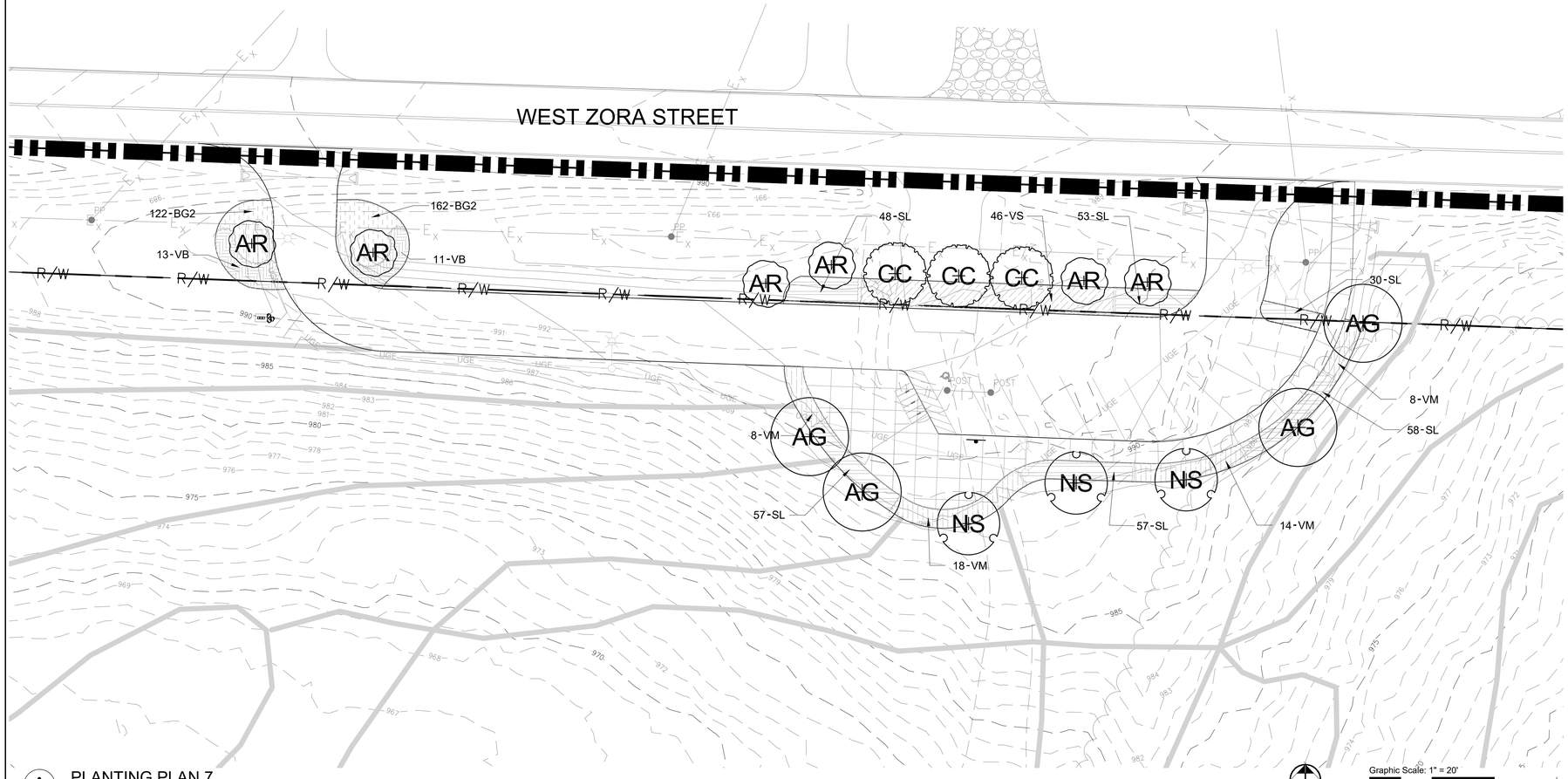
SWT No. 21703.01

Drawn: BV, MB, CP
Reviewed: LK, JW

Sheet Title
PLANTING PLAN 6

Number
L-156

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A PLANTING PLAN 7
SCALE: 1"=20'

UNDERSTORY PLANT LEGEND

PLANT SCHEDULE

SYMBOL	CODE	BOTANICAL NAME	COMMON NAME
SHRUB AREAS			
	AP	Aronia melanocarpa 'SMNAMPEM'	Low Scape Snowfire™ Black Chokeberry
	BG	Buxus x 'Green Velvet'	Green Velvet Boxwood
	HA	Hydrangea arborescens 'Abetwo'	Incrediball® Hydrangea
	IC	Itea virginica 'Little Henry'	Little Henry Sweetspire
	IR	Ilex verticillata 'Red Sprite'	Red Sprite Winterberry
	IV	Ilex verticillata 'Jim Dandy'	Jim Dandy Winterberry
	RG	Rhus aromatica 'Gro-Low'	Gro-Low Fragrant Sumac
	VB	Viburnum x burkwoodii	Burkwood Viburnum
	VM	Viburnum dentatum 'Blue Muffin'	Blue Muffin Arrowwood Viburnum
	VS	Viburnum dentatum 'Synnestvedt'	Chicago Lustre® Arrowwood Viburnum
ORNAMENTAL GRASSES			
	BG2	Bouteloua gracilis	Blue Grama Grass
	SL	Schizachyrium scoparium	Little Bluestem
GROUND COVERS			
	TL	Scottish Links Low Grow Mix	
		BRIDGE NATIVE MIX (SHADY)	
	CL	Chasmanthium latifolium	Northern Sea Oats
	DA	Diarrhena americana	American Beakgrain
	EH	Elymus hystrix	Bottlebrush Grass
	EM	Elymus macgregorii	Early Wild-rye
	PO	Packera obovata	Golden Groundsel
	SF	Solidago flexicaulis	Zigzag Goldenrod
		MEADOW PLANTINGS	
	AM2	Achillea millefolium	Common Yarrow
	AC	Amsonia ciliata	Fringed Bluestar
	AV	Andropogon virginicus	Broomsedge Bluestem
	AS	Asclepias syriaca	Common Milkweed
	AT	Asclepias tuberosa	Butterfly Milkweed
	AN	Aster novae-angliae	New England Aster
	AO	Aster oblongifolius	Fall Aster
	BA	Baptisia australis	Blue Wild Indigo
	BC2	Bouteloua curtipendula	Side Oats Grama
	CL2	Coreopsis lanceolata	Lanceleaf Tickseed
	EP	Echinacea pallida	Pale Purple Coneflower
	EP2	Echinacea paradoxa	Bush's Coneflower
	LA	Liatris aspera	Rough Blazing Star
	LG	Liatris pycnostachya	Prairie Gayfeather
	MB2	Monarda fistulosa	Bergamot
	PD	Penstemon digitalis	Beardtongue
	PS	Pycnanthemum tenuifolium	Slender Mountain Mint
	RP	Ratibida pinnata	Yellow Coneflower
	RH2	Rudbeckia hirta	Black-eyed Susan
	SB	Salvia azurea	Azure Sage
	SL3	Schizachyrium scoparium	Little Bluestem
	SR	Silene regia	Royal Catchfly
	SP	Silphium terebinthinaceum	Prairie Dock
	SR2	Solidago rigida	Stiff Goldenrod
	SS	Solidago speciosa	Showy Goldenrod
	SN	Sorghastrum nutans	Indian Grass
	SO	Symphyotrichum oolentangiense	Sky Blue Aster
	TO	Tradescantia ohiensis	Ohio Spiderwort
	VA	Vernonia arkansana	Arkansas Ironweed
		BMP PLANTINGS	
	AI	Amsonia illustris	Ozark Bluestar
	CM2	Carex muskingumensis	Palm Sedge
	CV2	Carex vulpinoidea	Fox Sedge
	IV2	Iris virginica	Blue Flag Iris
		LONE ELM NATIVE MIX (SUN - MOWABLE)	
	BC	Bouteloua curtipendula	Side Oats Grama
	MB	Monarda fistulosa	Bergamot
	PV4	Panicum virgatum	Switch Grass
	RM	Rudbeckia missouriensis	Missouri Coneflower
	SL5	Schizachyrium scoparium	Little Bluestem
	SH2	Sporobolus heterolepis	Prairie Dropseed
GRASSES			
	CM	Carex muskingumensis	Palm Sedge
	CP	Carex pensylvanica	Pennsylvania Sedge
SEED			
	XA	x Triticum aestivum x Elymus trachycaulus	Regreen

SEE L-150 FOR QUANTITIES AND SIZES

TREE PLAN

SYMBOL	CODE	BOTANICAL NAME	COMMON NAME
CANOPY TREES			
AG	AG	Acer rubrum 'PNI 0268'	October Glory® Red Maple
AM	AM	Acer saccharum 'PNI 0285'	Green Mountain® Sugar Maple
NS	NS	Nyssa sylvatica	Tupelo
QB	QB	Quercus bicolor	Swamp White Oak
QM	QM	Quercus muehlenbergii	Chinkapin Oak
QR	QR	Quercus rubra	Northern Red Oak
ORNAMENTAL TREES			
AP2	AP2	Aesculus pavia	Red Buckeye
AR	AR	Amelanchier x grandiflora 'Robin Hill'	Robin Hill Apple Serviceberry
CA	CA	Carpinus caroliniana	American Hornbeam
CC	CC	Cercis canadensis	Eastern Redbud
CF	CF	Cornus florida	Flowering Dogwood
CK	CK	Cladrastis kentukea	American Yellowwood
MS	MS	Magnolia virginiana	Sweetbay Magnolia

SEE L-150 FOR QUANTITIES AND SIZES

Prepared For:

JOPLIN MISSOURI
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Joplin, MO 64801

Project:
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Bike Park

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Point of Contact:
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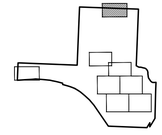
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KEY PLAN



John Wohlschlaeger - Landscape Architect MO # LA - 2009014766



(10/7/2024)

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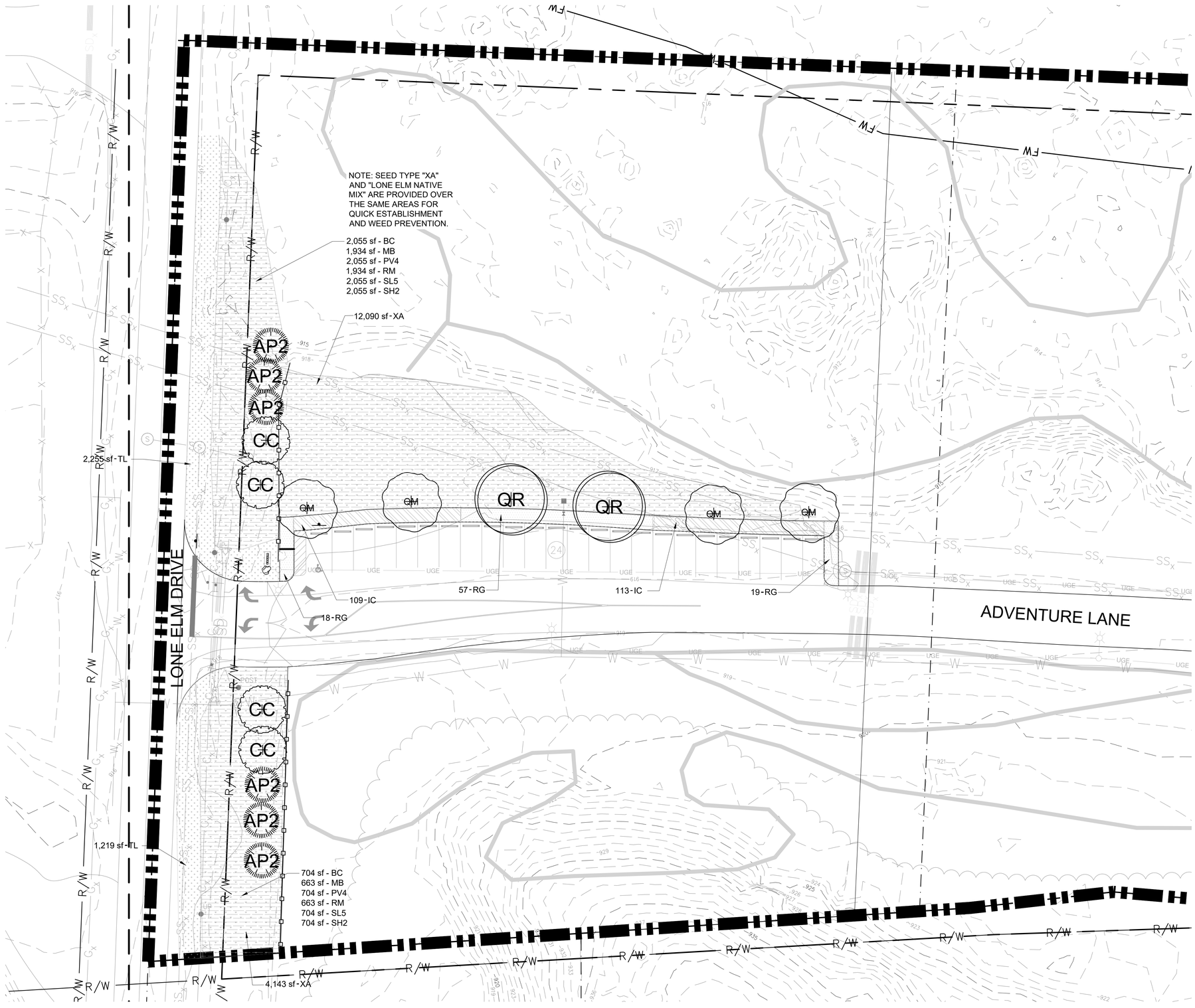
No.	Description	Date

SWT No. 21703.01

Drawn: BV, MB, CP
Reviewed: LK, JW

Sheet Title
PLANTING PLAN 7

Number
L-157



A PLANTING PLAN 8
SCALE: 1"=20'

Graphic Scale: 1" = 20'
0' 10' 20' 40' 60'

UNDERSTORY PLANT LEGEND

PLANT SCHEDULE

SYMBOL	CODE	BOTANICAL NAME	COMMON NAME
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	IR	Ilex verticillata 'Red Sprite'	Red Sprite Winterberry
	IV	Ilex verticillata 'Jim Dandy'	Jim Dandy Winterberry
	RG	Rhus aromatica 'Gro-Low'	Gro-Low Fragrant Sumac
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GROUND COVERS			
	TL	Scottish Links Low Grow Mix	
		BRIDGE NATIVE MIX (SHADY)	
	CL	Chasmanthium latifolium	Northern Sea Oats
	DA	Diarrhena americana	American Beakgrain
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	EM	Elymus macgregorii	Early Wild-rye
	PO	Packera obovata	Golden Groundsel
	SF	Solidago flexicaulis	Zigzag Goldenrod
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	AM2	Achillea millefolium	Common Yarrow
	AC	Amsonia ciliata	Fringed Bluestar
	AV	Andropogon virginicus	Broomsedge Bluestem
	AS	Asclepias syriaca	Common Milkweed
	AT	Asclepias tuberosa	Butterfly Milkweed
	AN	Aster novae-angliae	New England Aster
	AO	Aster oblongifolius	Fall Aster
	BA	Baptisia australis	Blue Wild Indigo
	BC2	Bouteloua curtipendula	Side Oats Grama
	CL2	Coreopsis lanceolata	Lanceleaf Tickseed
	EP	Echinacea pallida	Pale Purple Coneflower
	EP2	Echinacea paradoxa	Bush's Coneflower
	LA	Liatris aspera	Rough Blazing Star
	LG	Liatris pycnostachya	Prairie Gayfeather
	MB2	Monarda fistulosa	Bergamot
	PD	Penstemon digitalis	Beardtongue
	PS	Pycnanthemum tenuifolium	Slender Mountain Mint
	RP	Ratibida pinnata	Yellow Coneflower
	RH2	Rudbeckia hirta	Black-eyed Susan
	SB	Salvia azurea	Azure Sage
	SL3	Schizachyrium scoparium	Little Bluestem
	SR	Silene regia	Royal Catchfly
	SP	Silphium terebinthinaceum	Prairie Dock
	SR2	Solidago rigida	Stiff Goldenrod
	SS	Solidago speciosa	Showy Goldenrod
	SN	Sorghastrum nutans	Indian Grass
	SO	Symphyotrichum oolentangiense	Sky Blue Aster
	TO	Tradescantia ohiensis	Ohio Spiderwort
	VA	Vernonia arkansana	Arkansas Ironweed
		BMP PLANTINGS	
	AI	Amsonia illustris	Ozark Bluestar
	CM2	Carex muskingumensis	Palm Sedge
	CV2	Carex vulpinoidea	Fox Sedge
	IV2	Iris virginica	Blue Flag Iris
		LONE ELM NATIVE MIX (SUN - MOWABLE)	
	BC	Bouteloua curtipendula	Side Oats Grama
	MB	Monarda fistulosa	Bergamot
	PV4	Panicum virgatum	Switch Grass
	RM	Rudbeckia missouriensis	Missouri Coneflower
	SL5	Schizachyrium scoparium	Little Bluestem
	SH2	Sporobolus heterolepis	Prairie Dropseed
GRASSES			
	CM	Carex muskingumensis	Palm Sedge
	CP	Carex pensylvanica	Pennsylvania Sedge
SEED			
	XA	x Triticum aestivum x Elymus trachycaulus	Regreen

SEE L-150 FOR QUANTITIES AND SIZES

TREE PLAN

SYMBOL	CODE	BOTANICAL NAME	COMMON NAME
CANOPY TREES			
AG	AG	Acer rubrum 'PNI 0268'	October Glory® Red Maple
AM	AM	Acer saccharum 'PNI 0285'	Green Mountain® Sugar Maple
NS	NS	Nyssa sylvatica	Tupelo
QB	QB	Quercus bicolor	Swamp White Oak
QM	QM	Quercus muehlenbergii	Chinkapin Oak
QR	QR	Quercus rubra	Northern Red Oak
ORNAMENTAL TREES			
AP2	AP2	Aesculus pavia	Red Buckeye
AR	AR	Amelanchier x grandiflora 'Robin Hill'	Robin Hill Apple Serviceberry
CA	CA	Carpinus caroliniana	American Hornbeam
CC	CC	Cercis canadensis	Eastern Redbud
CF	CF	Cornus florida	Flowering Dogwood
CK	CK	Cladrastis kentukea	American Yellowwood
MS	MS	Magnolia virginiana	Sweetbay Magnolia

SEE L-150 FOR QUANTITIES AND SIZES

Prepared For:

JOPLIN MISSOURI
3301 W 1ST ST
Joplin, MO 64801

Project:
DORA
Bike Park

SWT DESIGN
1925 Central St Suite 202A
Kansas City, MO 64111
t. 816.221.0825

Point of Contact:
Bryce Vogel - brycev@swtdesign.com

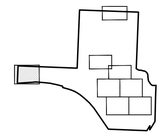
Civil Engineer:
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314.514.4237

Trail Designer:
IMBA
PO Box 20280
Boulder, CO 80308
303.709.0269

Electrical Engineering:
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417.799.6255

Geotechnical:
Palmerton & Parrish
4168 W. Kearney Street
Springfield, MO 65803
417.864.6000

KEY PLAN



John Wohlschlaeger - Landscape Architect MO # LA - 2009014766



(10/7/2024)
SWT Design, Inc.
Missouri State Certificate of Authority #2006002904

Issuances

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01	100% Design Development	8/6/2024
02	Advance Permit Review	8/30/2024
03	100% Construction Docs	9/20/2024
04	Issued for Bid	10/07/2024

Revisions

No.	Description	Date

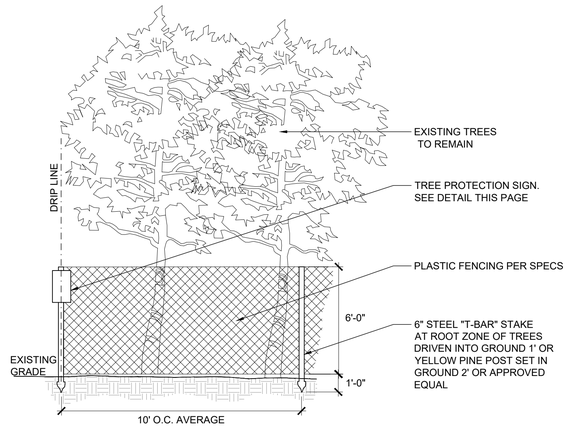
SWT No. 21703.01

Drawn: BV, MB, CP
Reviewed: LK, JW

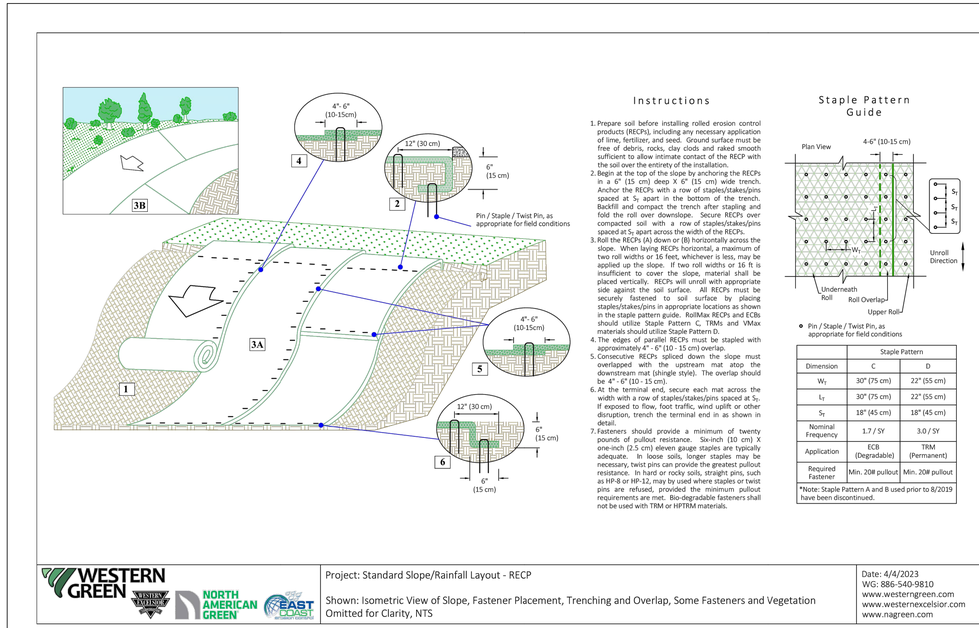
Sheet Title
PLANTING PLAN 8

Number
L-158

October 7, 2024 11:41 AM



B TYPICAL TREE PROTECTION
SCALE: 1"=4'



A EROSION CONTROL BLANKET AND MAT
SCALE: N.T.S.

NOTES:
1. TYPE SIZE SHOULD BE NO SMALLER THAN 48 PT. (1/2" HT.)
2. SIMILAR SIGNS REQUESTING SUBCONTRACTOR COOPERATION AND COMPLIANCE WITH TREE PROTECTION STANDARDS ARE RECOMMENDED AT THE SITE ENTRANCE
3. SIGNS SHOULD BE PLACED AT A DISTANCE NOT TO EXCEED 50'

C TREE PROTECTION SIGN
SCALE: 1"=1'

NOTE:
1. SEE CIVIL DRAWINGS AND SPECIFICATIONS FOR SITE HARDSCAPE DETAILS.
2. SEE BIKE DRAWINGS AND SPECIFICATIONS FOR ALL TRAIL AND BIKE AMENITY SURFACING AND DETAILS.

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Prepared For:

JOPLIN MISSOURI
3301 W 1ST ST
Joplin, MO 64801

Project:
DORA
Bike Park

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417.864.6000

KEY PLAN

John Wohlschlaeger - Landscape Architect MO # L.A. - 2009014766
STATE OF MISSOURI
JOHN WOHLSCHLAEGER
NUMBER
L.A.2009014766
(10/7/2024)
SWT Design, Inc.
Missouri State Certificate of Authority #2006002904

Issuances

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03	100% Construction Docs	9/20/2024
04	Issued for Bid	10/07/2024

Revisions

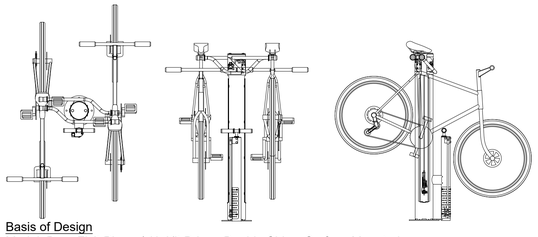
No.	Description	Date

SWT No. 21703.01

Drawn: BV, MB, CP
Reviewed: LK, JW

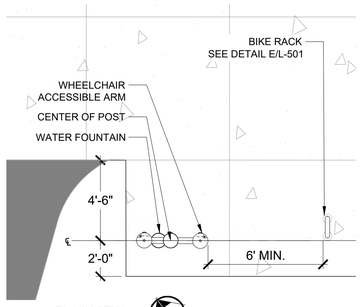
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DETAILS

Number
L-500

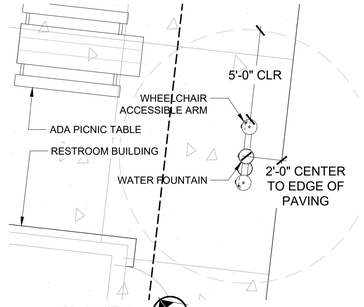


Basis of Design
Model: Dero Fixit Plus w/ Air Kit Prime, Double Sides, Surface Mounted
Or Equal to be Approved by Landscape Architect
Finish: Powder Coated
Color: TBD

G BIKE REPAIR STATION
SCALE: N.T.S.



PLAN VIEW:
SCALE 1" = 4'
SEE L-104 FOR SITE PLAN

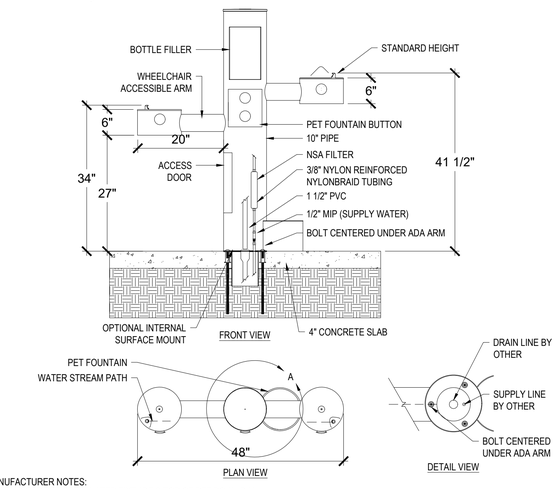


PLAN VIEW:
SCALE 1" = 4'
SEE L-104 FOR SITE PLAN

MOST DEPENDABLE FOUNTAINS, INC.

Basis of Design
Model: MDF 10145SMFA, Surface Mounted, Front Access, Or Equal to be Approved by Landscape Architect
Finish: Powder Coated
Color: TBD

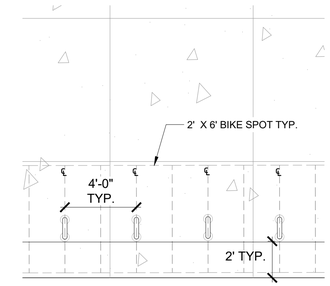
MOST DEPENDABLE FOUNTAINS, INC.
5705 COMMANDER DR. P.O. BOX 587
ARLINGTON, TN 38002-0587
PHONE: (901) 867-0039
www.mostdependable.com



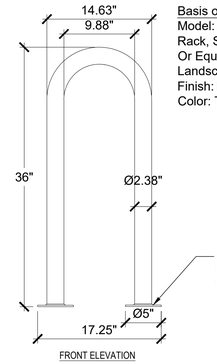
MANUFACTURER NOTES:
1. 3" AIR GAP BETWEEN WATER FIXTURE & TOP OF PET BOWL RIM

NOTES:
1. INSTALLATION TO BE COMPLETED IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS.
2. DO NOT SCALE DRAWING.
3. THIS DRAWING IS INTENDED FOR USE BY ARCHITECTS, ENGINEERS, CONTRACTORS, CONSULTANTS AND DESIGN PROFESSIONALS FOR PLANNING PURPOSES ONLY. THIS DRAWING MAY NOT BE USED FOR CONSTRUCTION.
4. ALL INFORMATION CONTAINED HEREIN WAS CURRENT AT THE TIME OF DEVELOPMENT BUT MUST BE REVIEWED AND APPROVED BY THE PRODUCT MANUFACTURER TO BE CONSIDERED ACCURATE.
5. CONTRACTOR'S NOTE: FOR PRODUCT AND COMPANY INFORMATION VISIT www.CADdetails.com/info AND ENTER REFERENCE NUMBER 3354-167.

F WATER FOUNTAIN - FREE STANDING
SCALE: N.T.S.



PLAN VIEW:
SCALE 1" = 4'
SEE L-104 FOR SITE PLAN



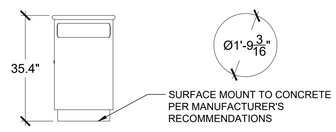
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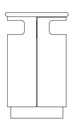
Basis of Design
Model: Anova Streetside 3-Bike/L-Loop Rack, Surface Mounted
Or Equal to be Approved by Landscape Architect
Finish: Powder Coated
Color: TBD

Colors and/or Options: Please see manufacturer website at www.anovafurnishings.com.
Finish: Fade-resistant, powder coated steel finish features a state-of-the-art primer proven to prevent rusting.
Material: 11-gauge wall steel tubing.
Capacity: 3 Bikes.
Unit Weight: 21 lbs.
Assembly: Bike rack requires no assembly except for the surface mounting.
Structural Warranty: Limited 20-year warranty.
Finish Warranty: 3-year warranty against rusting, peeling, chipping, cracking, mold, mildew, and defects in materials and/or workmanship. 7-year warranty against fading.

NOTES:
1. INSTALLATION TO BE COMPLETED IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS.
2. DO NOT SCALE DRAWING.
3. THIS DRAWING IS INTENDED FOR USE BY ARCHITECTS, ENGINEERS, CONTRACTORS, CONSULTANTS AND DESIGN PROFESSIONALS FOR PLANNING PURPOSES ONLY. THIS DRAWING MAY NOT BE USED FOR CONSTRUCTION.
4. ALL INFORMATION CONTAINED HEREIN WAS CURRENT AT THE TIME OF DEVELOPMENT BUT MUST BE REVIEWED AND APPROVED BY THE PRODUCT MANUFACTURER TO BE CONSIDERED ACCURATE.
5. CONTRACTOR'S NOTE: FOR PRODUCT AND COMPANY INFORMATION VISIT www.CADdetails.com/info AND ENTER REFERENCE NUMBER 21703.01_L-500 Details.

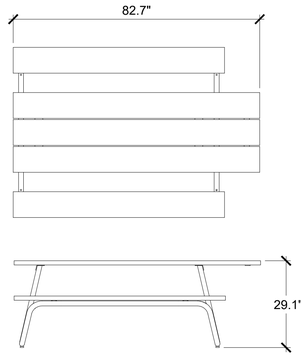
E BIKE RACK
SCALE: N.T.S.



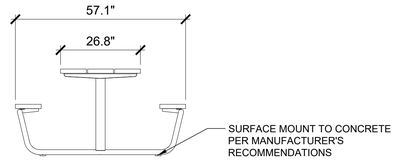


Basis of Design
Model: Vestre City 47.6 Gal, Surface Mounted, Flat Top, Split Opening
Or Equal to be Approved by Landscape Architect
Finish: Galvanized & Powder Coated
Color: TBD

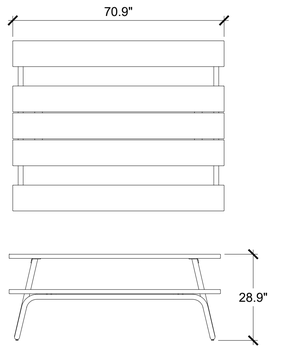
D TRASH & RECYCLING RECEPTACLE
SCALE: N.T.S.



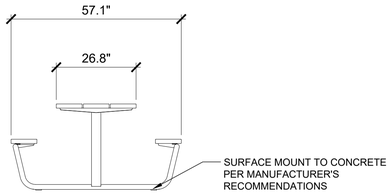
Basis of Design
Model: Vestre Berg Picnic ADA, Surface Mounted
Or Equal to be Approved by Landscape Architect
Finish: Galvanized & Powder Coated, Nordic Pine
Color: TBD



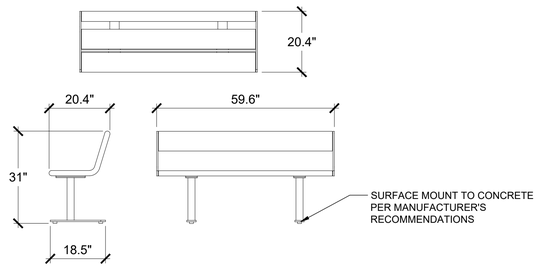
C ADA PICNIC TABLE
SCALE: N.T.S.



Basis of Design
Model: Vestre Berg Picnic, Surface Mounted
Or Equal to be Approved by Landscape Architect
Finish: Galvanized & Powder Coated, Nordic Pine
Color: TBD



B PICNIC TABLE
SCALE: N.T.S.



Basis of Design
Model: Vestre 716 April Seat
Or Equal to be Approved by Landscape Architect
Finish: Galvanized & Powder Coated, Nordic Pine
Color: TBD

A BENCH WITH BACK
SCALE: N.T.S.

Prepared For:

JOPLIN MISSOURI
3301 W 1ST ST
Joplin, MO 64801

Project:
DORA
Bike Park

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KEY PLAN

John Wohlschlaeger - Landscape Architect MO # LA - 2009014766



(10/7/2024)
SWT Design, Inc.
Missouri State Certificate of Authority #2006002904

Issuances

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01	100% Design Development	8/6/2024
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04	Issued for Bid	10/07/2024

Revisions

No.	Description	Date

SWT No. 21703.01

Drawn: BV, MB, CP
Reviewed: LK, JW

Sheet Title
FURNISHING DETAILS

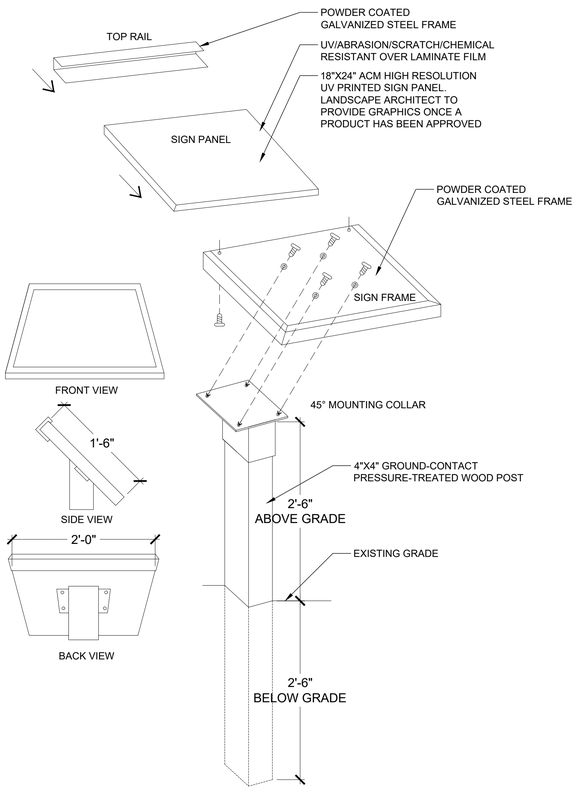
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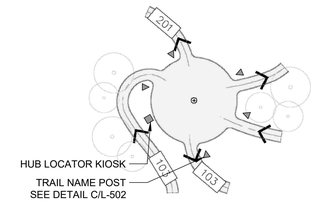
October 7, 2024 11:41 AM



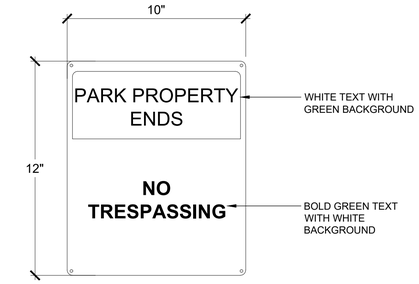
NOTE:
1. TRAIL DISTANCE MARKERS NUTRON OSM CUSTOM DISTANCE MARKERS AS BASIS OF DESIGN.
2. MARKERS TO BE PLACED AT 50 YARD INTERVALS.
3. AT BIDIRECTIONAL TRAIL TYPES, MARKERS SHOULD BE PLACED TO SERVE BOTH DIRECTIONS OF TRAVEL.
4. SEE L-120 SIGNAGE PLAN FOR APPLICATION PER DISTANCE.
5. MOUNT TO EXISTING TREE WITH STAINLESS STEEL MECHANICAL FASTENERS.
6. MOUNTING HEIGHT: BOTTOM OF SIGN TO BE 4' ABOVE GRADE, TYP.

G TRAIL DISTANCE MARKER
SCALE: N.T.S.





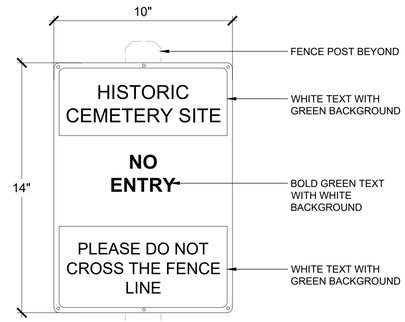
TRAIL HUB PLAN VIEW



NOTE:
1. ALUMINUM SIGN PER SPECIFICATIONS.
2. MOUNT TO EXISTING TREE WITH STAINLESS STEEL MECHANICAL FASTENERS.
3. MOUNTING HEIGHT: BOTTOM OF SIGN TO BE 5' ABOVE GRADE, TYP.
4. IF NO SUITABLE TREE FOR MOUNTING EXISTS AT A REQUIRED LOCATION, MOUNT TO A 4X4" GROUND-CONTACT PRESSURE-TREATED POST. POST TO BE DIRECTLY BURIED TO A DEPTH OF 30". TOP OF POST SHALL BE LEVEL WITH THE TOP OF THE SIGN, TYP.

D HUB LOCATOR KIOSK
SCALE: N.T.S.

B NO TRESPASSING SIGN
SCALE: N.T.S.



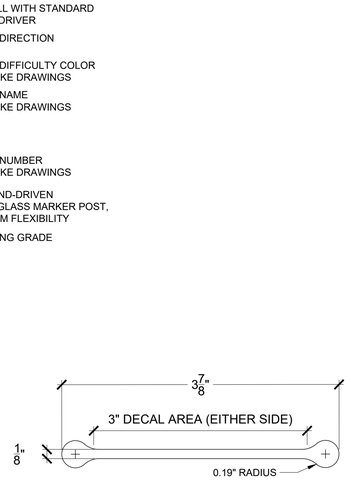
NOTE:
1. ALUMINUM SIGN PER SPECIFICATIONS.
2. MOUNT TO CEDAR SPLIT RAIL FENCE WITH STAINLESS STEEL MECHANICAL FASTENERS.
3. MOUNTING HEIGHT: TOP OF SIGN TO BE 3" BELOW TOP OF FENCE POST, TYP.

F CEMETERY SIGN
SCALE: N.T.S.



NOTE:
1. TRAIL CONFIDENCE MARKERS PER SPECIFICATIONS. MULTIPLE COLORS ARE SPECIFIED TO ALIGN WITH TRAIL USERS AND DIFFICULTIES.
2. SEE BIKE DRAWINGS FOR TRAIL TYPES.
3. AT BIDIRECTIONAL TRAIL TYPES, MARKERS SHOULD BE PLACED TO SERVE BOTH DIRECTIONS OF TRAVEL.
4. SEE L-120 SIGNAGE PLAN FOR APPLICATION PER DISTANCE.
5. MOUNT TO EXISTING TREE WITH STAINLESS STEEL MECHANICAL FASTENERS.
6. MOUNTING HEIGHT: BOTTOM OF SIGN TO BE 5' ABOVE GRADE, TYP.

E TRAIL CONFIDENCE MARKER
SCALE: N.T.S.



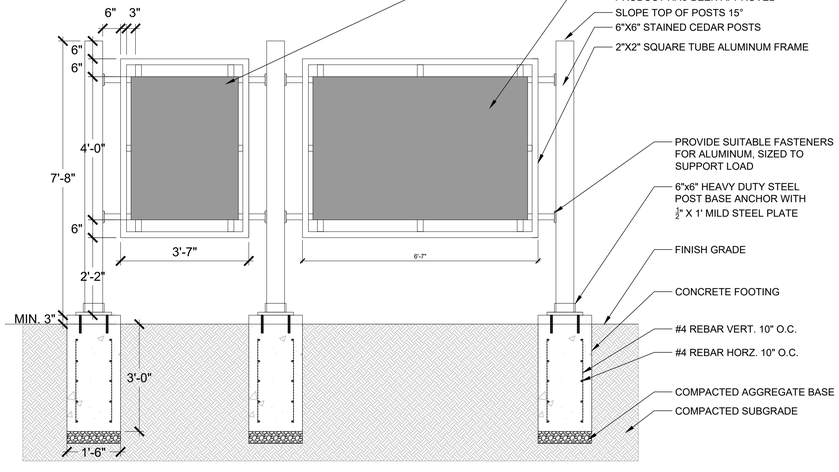
SECTION
SCALE: 1"=1'

PLAN
SCALE: ACTUAL SIZE

C TRAIL NAME POST



SIGN PRECEDENT



A TRAILHEAD KIOSK
SCALE: 1"=2'

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Prepared For:

JOPLIN MISSOURI
3301 W 1ST ST
Joplin, MO 64801

Project:
DORA
Bike Park

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1925 Central St Suite 202A
Kansas City, MO 64111
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Geotechnical:
Palmerton & Parrish
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Springfield, MO 65803
417.864.6000

KEY PLAN

John Wohlschlaeger - Landscape Architect MO # LA - 2009014766
STATE OF MISSOURI
JOHN WILLIAM WOHLSCHLAEGER
NUMBER
LA-2009014766
(10/7/2024)
SWT Design, Inc.
Missouri State Certificate of Authority #2006002904

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SWT No. 21703.01

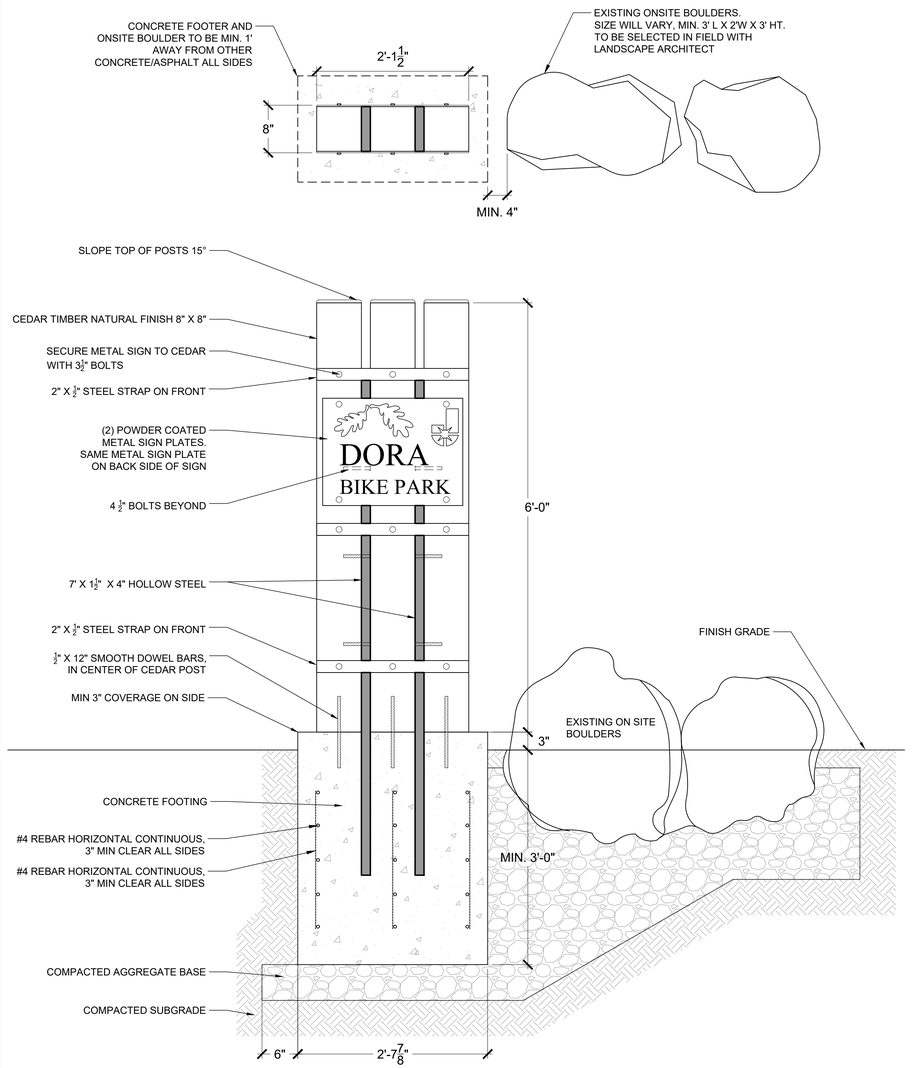
Drawn	Reviewed
BV, MB, CP	LK, JW

Sheet Title
SIGN DETAILS

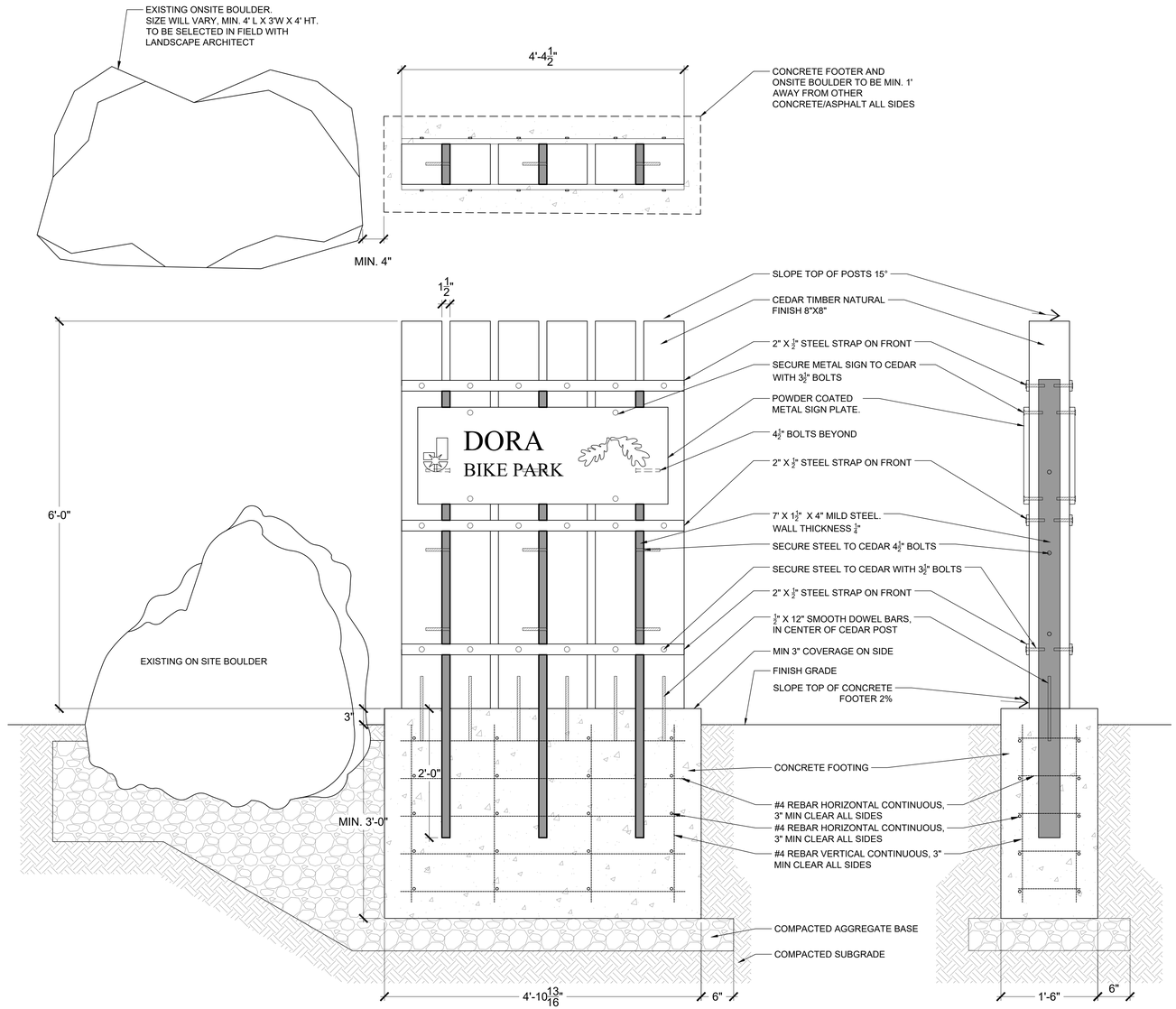
Number
L-502

October 7, 2024 11:42 AM

NOTE:
1. PROVIDE MOCK-UP OR BUILD ONE SIGN IN FIELD FOR LANDSCAPE ARCHITECT APPROVAL



B DORA BIKE PARK SECONDARY ENTRY SIGN (ZORA ENTRANCE AND PAVILION / PLAZA)
SCALE: 1"=1'



A DORA BIKE PARK MAIN ENTRY SIGN (LONE ELM ENTRANCE)
SCALE: N.T.S.

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Prepared For:

JOPLIN MISSOURI
3301 W 1ST ST
Joplin, MO 64801

Project:
DORA
Bike Park

SWT DESIGN
1925 Central St Suite 202A
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Springfield, MO 65803
417.864.6000

KEY PLAN

John Wohlschlaeger - Landscape Architect MO # L.A. - 2009014766

(10/7/2024)

SWT Design, Inc.
Missouri State Certificate of Authority #2006002904

Issuances

No.	Description	Date
01	100% Design Development	8/6/2024
02	Advance Permit Review	8/30/2024
03	100% Construction Docs	9/20/2024
04	Issued for Bid	10/07/2024

Revisions

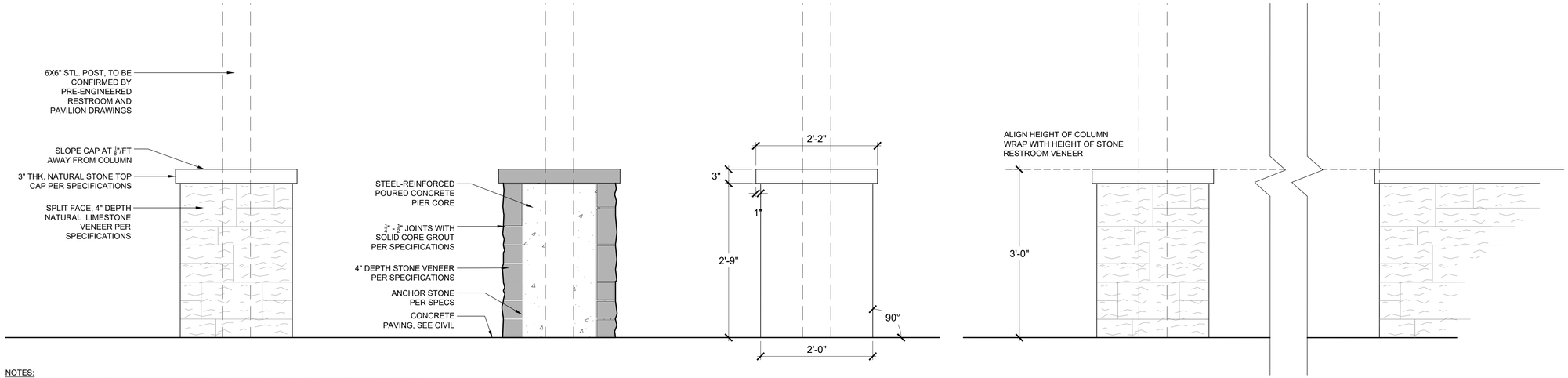
No.	Description	Date

SWT No. 21703.01

Drawn	Reviewed
BV, MB, CP	LK, JW

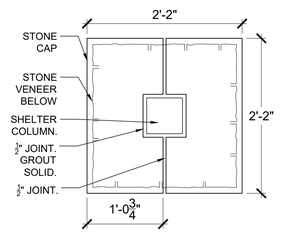
Sheet Title
ENTRY SIGNAGE

Number
L-503



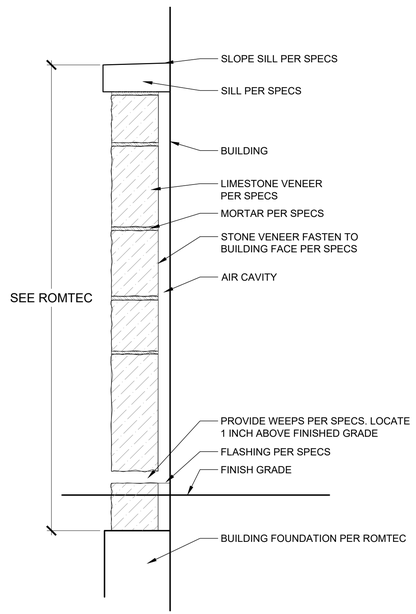
NOTES:
1. COLUMN SIZE WAS DETERMINED THROUGH PRELIMINARY DESIGN. FINAL ENGINEERED DRAWINGS WILL DETERMINE FINAL COLUMN SIZE. CONTRACTOR TO PROVIDE ENGINEERED SHOP DRAWINGS FOR APPROVAL. (INCLUDING FOOTER)
2. COORDINATE WITH FINAL DRAWINGS FOR PRE-ENGINEERED RESTROOM AND PAVILION.

F STONE COLUMN BASES AT PAVILION AND RESTROOM BULIDING
SCALE: 1"=1'

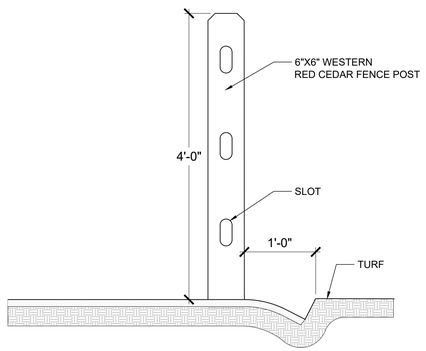


PRE-CAST CONCRETE CAP PLAN VIEW

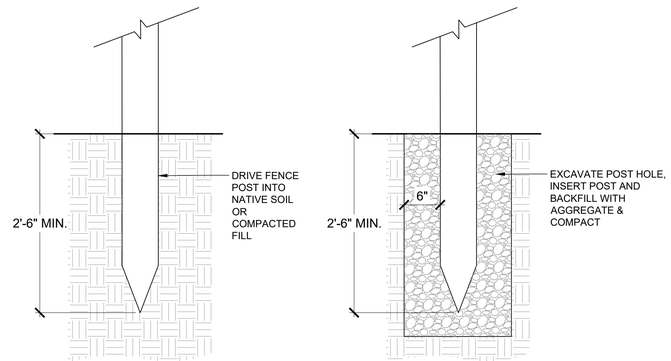
E STONE COLUMN TOP CAP
SCALE: 1"=1'



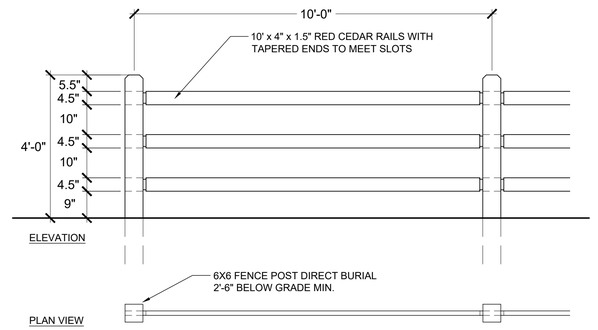
D STONE VENEER ON BUILDING
SCALE: 2"=1'



C SPLIT RAIL FENCE - SIDE ELEVATION
SCALE: 1"=1'



B SPLIT RAIL FENCE - POST BASE OPTIONS
SCALE: 1"=1'



A SPLIT RAIL FENCE
SCALE: 1"=2'

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Prepared For:

JOPLIN MISSOURI
3301 W 1ST ST
Joplin, MO 64801

Project:
DORA
Bike Park

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KEY PLAN

John Wohlschlaeger - Landscape Architect MO # LA - 2009014766
STATE OF MISSOURI JOHN WILLIAM WOHLSCHLAEGER NUMBER LA-2009014766 LANDSCAPE ARCHITECT
(10/7/2024)
SWT Design, Inc.
Missouri State Certificate of Authority #2006002904

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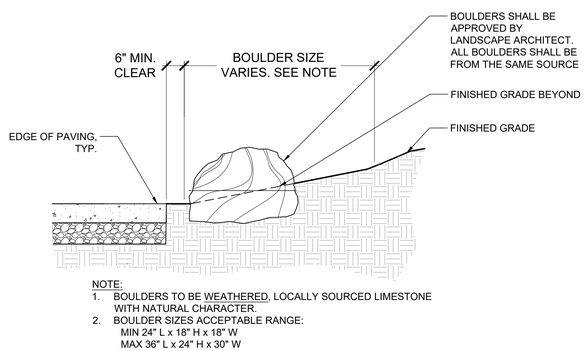
SWT No. 21703.01

Drawn: BV, MB, CP
Reviewed: LK, JW

Sheet Title
HARDSCAPE DETAILS

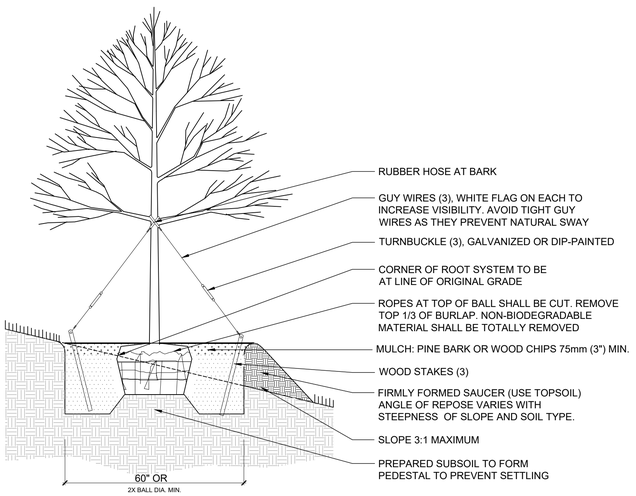
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L-510

October 7, 2024 11:42 AM



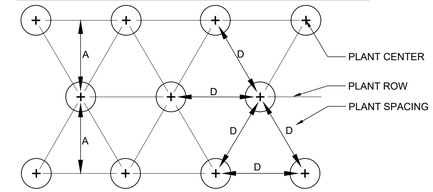
NOTE:
1. BOULDERS TO BE WEATHERED, LOCALLY SOURCED LIMESTONE WITH NATURAL CHARACTER.
2. BOULDER SIZES ACCEPTABLE RANGE:
   MIN 24" L x 18" H x 18" W
   MAX 36" L x 24" H x 30" W

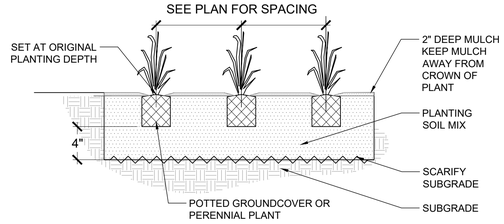
H LANDSCAPE BOULDER
SCALE: 1"=1'



E TREE PLANTING ON SLOPE
SCALE: 1"=2'

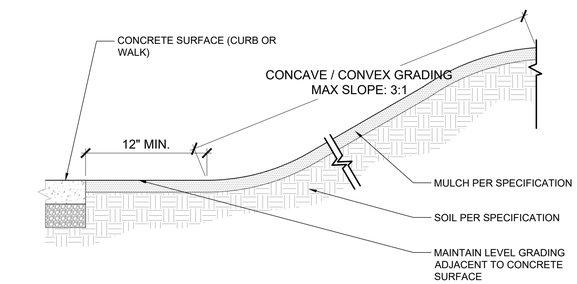
SPACING "D"	ROW "A"	NUMBER OF PLANTS/SQ. FT.
18"	15.6"	.450
15"	13.0"	.640
12"	10.4"	1.00
10"	8.66"	1.44
8"	6.93"	2.25
6"	5.19"	4.00



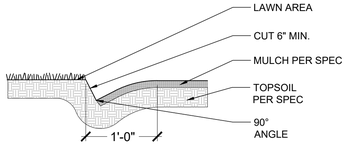


NOTES:
1. REMOVE SPENT FLOWERS PRIOR TO PLANTING.
2. LOOSEN ROOT MASS AT BOTTOM OF ROOT BALL.
3. TOP OF ROOT BALL STRIPPED OF ¼" SURFACE GROWING MEDIA AND COVERED WITH ¼" LANDSCAPE BED MIX PLUS SURFACE MULCH.
4. GROUNDCOVER SPACING SHALL BE AS NOTED IN PLANTING SCHEDULE.

B GROUNDCOVER/PERENNIAL PLANTING
SCALE: 1"=1'

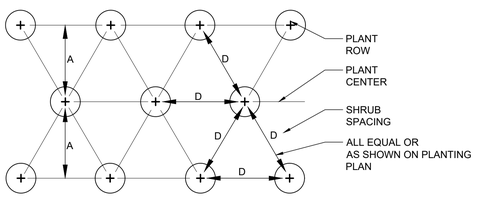


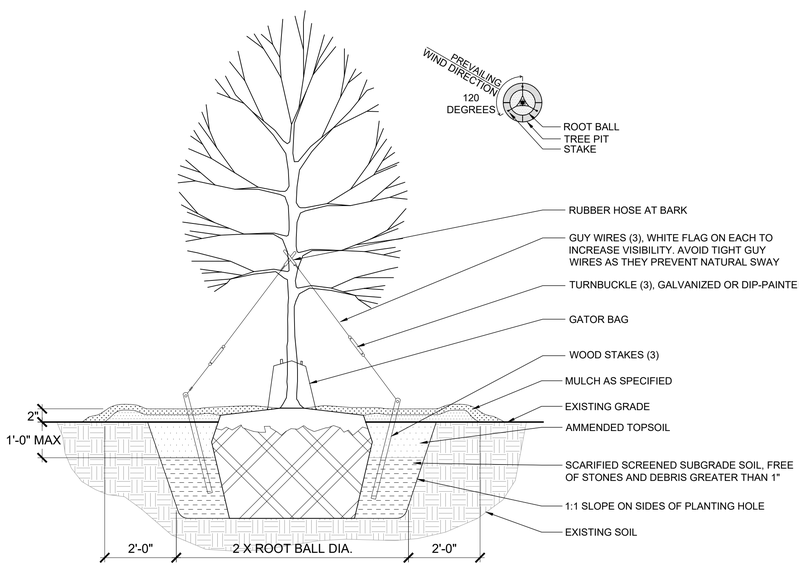
G GRADING - BERM
SCALE: 1"=1'



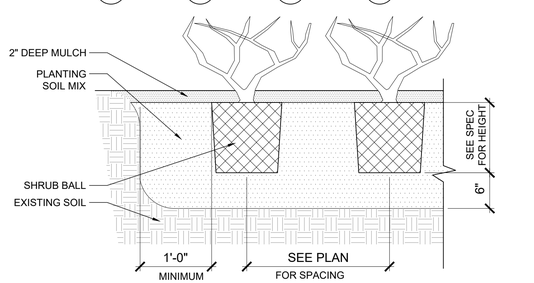
D SPADE CUT EDGE
SCALE: 1"=1'

SPACING "D"	ROW "A"	NUMBER OF PLANTS/SQ. FT.
24"	20.8"	.250
30"	26.0"	.160
36"	30.0"	.110
4'	3.46'	.060

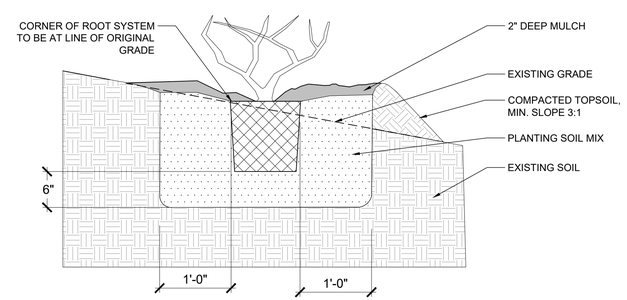




C TREE PLANTING
SCALE: 1"=2'



NOTES:
1. SHRUB SPACING SHALL BE AS NOTED IN PLANTING SCHEDULE.
2. IF SHRUBS ARE B&B, ROPES AT TOP OF BALL SHALL BE CUT. REMOVE TOP 1/3 OF BURLAP. NON-BIODEGRADABLE MATERIAL SHALL BE TOTALLY REMOVED.



F SHRUB PLANTING ON SLOPE
SCALE: N.T.S

A SHRUB PLANTING
SCALE: 1"=1'

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Prepared For:

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Project:
DORA
Bike Park

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417.864.6000

KEY PLAN

John Wohlschlaeger - Landscape Architect MO # LA 2009014766
STATE OF MISSOURI JOHN WILLIAM WOHLSCHLAEGER NUMBER LA-2009014766 REGISTERED LANDSCAPE ARCHITECT
(10/7/2024)
SWT Design, Inc.
Missouri State Certificate of Authority #2006002904

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Revisions

No.	Description	Date

SWT No. 21703.01

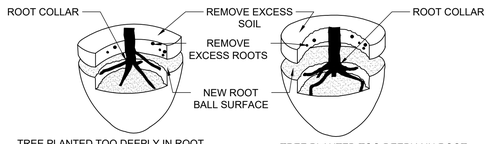
Drawn BV, MB, CP
Reviewed LK, JW

Sheet Title
PLANTING DETAILS

Number
L-520

October 7, 2024 11:42 AM

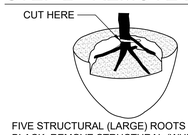
STEP 1 - REMOVE SOIL AND ROOTS OVER THE ROOT COLLAR.



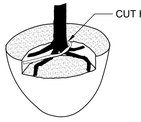
TREE PLANTED TOO DEEPLY IN ROOT BALL. REMOVE EXCESS SOIL AND ROOTS TO MEET ROOT INSPECTION DETAIL.

TREE PLANTED TOO DEEPLY IN ROOT BALL. REMOVE EXCESS SOIL AND ROOTS TO MEET ROOT INSPECTION DETAIL.

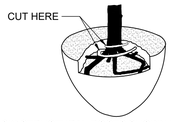
STEP 2 - REMOVE DEFECTS



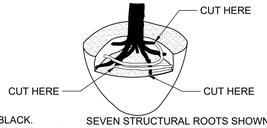
FIVE STRUCTURAL (LARGE) ROOTS SHOWN IN BLACK. REMOVE STRUCTURAL (WHITE) ROOT WRAPPING ROOT COLLAR.



FOUR STRUCTURAL ROOTS SHOWN IN BLACK. REMOVE ROOT (WHITE) GROWING OVER STRUCTURAL ROOTS.



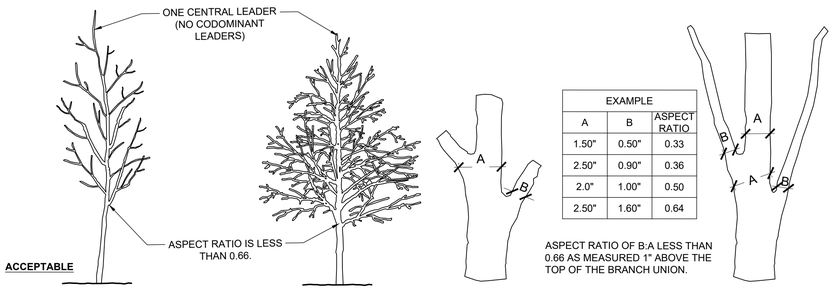
SIX STRUCTURAL ROOTS SHOWN IN BLACK. REMOVE STRUCTURAL ROOTS (WHITE) GROWING OVER ROOT COLLAR BY CUTTING THEM JUST BEFORE THEY MAKE AN ABRUPT TURN.



SEVEN STRUCTURAL ROOTS SHOWN IN BLACK. REMOVE STRUCTURAL ROOTS (WHITE) GROWING AROUND OR OVER ROOT COLLAR BY CUTTING THEM JUST BEFORE THEY MAKE AN ABRUPT TURN.

NOTES:
1. ALL TREES SHOWN ARE REJECTABLE UNLESS THEY UNDERGO RECOMMENDED CORRECTION.
2. FIRST STEP 1, THEN STEP 2. ADJUST HOLE DEPTH TO ALLOW FOR THE REMOVAL OF EXCESS SOIL AND ROOTS OVER THE ROOT COLLAR.
3. ROOTS AND SOIL MAY BE REMOVED DURING THE CORRECTION PROCESS; SUBSTRATE/SOIL SHALL BE REPLACED AFTER THE CORRECTION HAS BEEN COMPLETED.
4. TREES SHALL PASS ROOT OBSERVATIONS DETAIL FOLLOWING CORRECTION.

H ROOT CORRECTION DETAIL - BALLED & BURLAP TREES
SCALE: N.T.S



EXAMPLE		
A	B	ASPECT RATIO
1.50"	0.50"	0.33
2.50"	0.90"	0.36
2.0"	1.00"	0.50
2.50"	1.60"	0.64

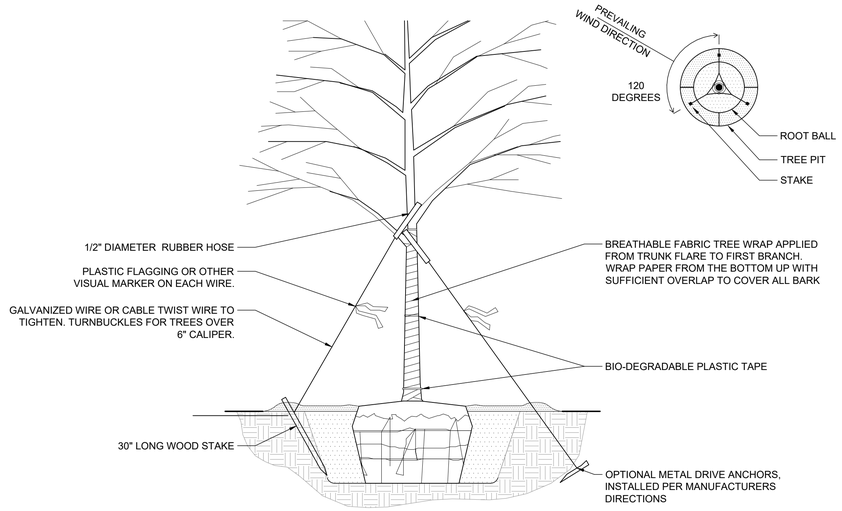
ASPECT RATIO OF B:A LESS THAN 0.66 AS MEASURED 1" ABOVE THE TOP OF THE BRANCH UNION.

EXAMPLE		
A	B	ASPECT RATIO
2.50"	1.80"	0.72
2.0"	2.0"	1.0
2.50"	2.0"	0.80
4.0"	3.0"	0.75

ASPECT RATIO OF B:A GREATER THAN OR EQUAL TO 0.66 AS MEASURED 1" ABOVE THE TOP OF THE BRANCH UNION.

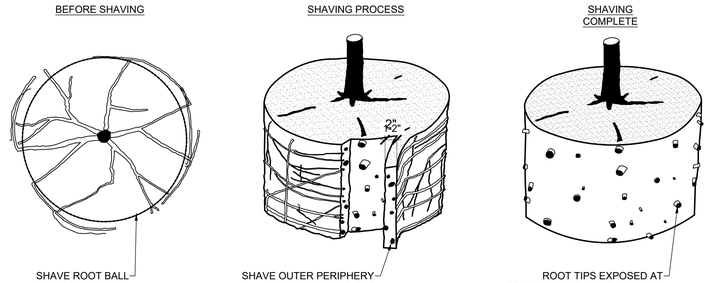
NOTES:
1. ASPECT RATIO SHALL BE LESS THAN 0.66 ON ALL BRANCH UNIONS. ASPECT RATIO IS THE DIAMETER OF BRANCH (B) DIVIDED BY THE DIAMETER OF THE TRUNK (A) AS MEASURED 1" ABOVE THE TOP OF THE BRANCH UNION.
2. ANY TREE NOT MEETING THE CROWN OBSERVATIONS DETAIL MAY BE REJECTED.

G TREE CROWN OBSERVATIONS
SCALE: N.T.S



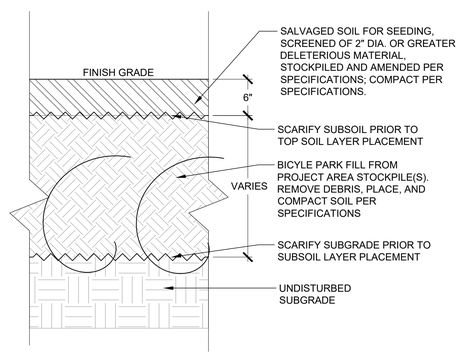
NOTES:
1. WIRE OR CABLE SIZES SHALL BE 12 GAUGE.
2. TIGHTEN WIRE OR CABLE ONLY ENOUGH TO KEEP FROM SLIPPING. ALLOW FOR SOME TRUNK MOVEMENT. PLASTIC HOSE SHALL BE LONG ENOUGH TO ACCOMMODATE 1.5" GROWTH AND BUFFER ALL BRANCHES FROM THE WIRE.
3. TUCK ANY LOOSE ENDS OF THE WIRE OR CABLE INTO THE WIRE WRAP SO THAT NO SHARP WIRE ENDS ARE EXPOSED.
4. INSTALL THREE GUY WIRES PER TREE, SPACED EVENLY AROUND THE TRUNK.
5. ALL STAKES SHALL BE DRIVEN OUTSIDE THE EDGE OF THE ROOT BALL.
6. ASSURE THAT THE BEARING SURFACE OF THE PROTECTIVE COVERING OF THE WIRE OR CABLE AGAINST THE TREE TRUNK IS A MINIMUM OF $\frac{1}{2}$ " IN HEIGHT, SO IT DOES NOT GIRDLE THE BARK OF THE TRUNK.
7. REMOVE ALL STAKING AS SOON AS THE TREE HAS GROWN SUFFICIENT ROOTS TO OVERCOME THE PROBLEM THAT REQUIRED THE TREE TO BE STAKED.
8. TREES NORMALLY DO NOT NEED TO BE STAKED OR WRAPPED, AS THEY CAN BE HARMFUL TO THE TREE. STAKING AND WRAPPING 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 OR IF IT WILL SUFFER FROM EXPOSURE.
9. TREE WRAP SHOULD BE REMOVED WHEN DIRECTED BY THE LANDSCAPE ARCHITECT, BUT NO LATER THAN 12 MONTHS AFTER PLANTING.

F TREE STAKING
SCALE: N.T.S



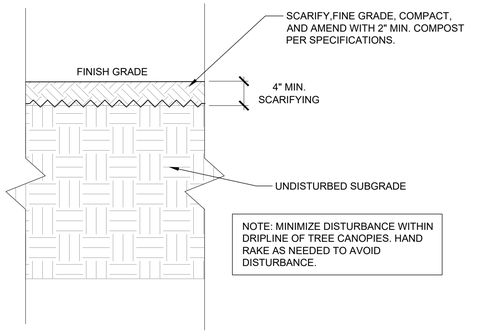
NOTES:
1. SHAVING TO BE CONDUCTED USING A SHARP BLADE OR HAND SAW ELIMINATING NO MORE THAN NEEDED TO REMOVE ALL ROOTS ON THE PERIPHERY OF ROOT BALL.
2. SHAVING CAN BE PERFORMED JUST PRIOR TO PLANTING OR AFTER PLACING IN THE HOLE.

E ROOT CORRECTION DETAIL - BALLED & BURLAP TREES
SCALE: N.T.S



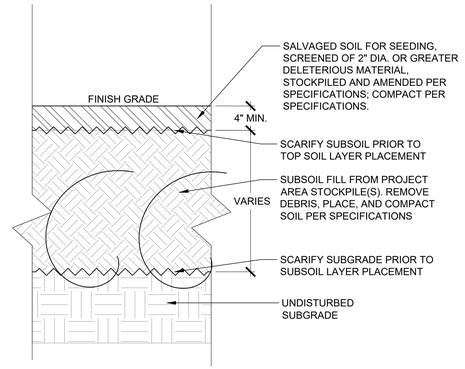
NOTE:
1. MPR = MATERIALS MODIFIED PROCTOR - ASTMD 1557 - MAXIMUM DRY DENSITY.
2. SEE SPECIFICATIONS FOR MORE INFORMATION.
3. SOIL TESTS TO BE CONDUCTED PER SOILS SPECIFICATIONS.
4. SOIL PLACEMENT DETAILS ARE FOR GENERAL SOIL PREPARATION.
5. ALL PLANTING DETAILS SHALL BE FOLLOWED PER PLANTING SPECIFICATIONS.

D SOIL PREP TYPE D
SCALE: 1"=1'



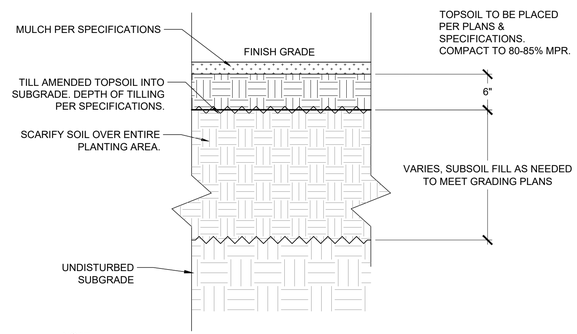
NOTE:
1. MPR = MATERIALS MODIFIED PROCTOR - ASTMD 1557 - MAXIMUM DRY DENSITY.
2. SALVAGED ON-SITE SOIL, SCREENED OF 2" DIA. OR GREATER DELETERIOUS MATERIAL
3. SEE SPECIFICATIONS FOR MORE INFORMATION.
4. SOIL TESTS TO BE CONDUCTED PER SOILS SPECIFICATIONS.
5. SOIL PLACEMENT DETAILS ARE FOR GENERAL SOIL PREPARATION.

C SOIL PREP TYPE C
SCALE: 1"=1'



NOTE:
1. MPR = MATERIALS MODIFIED PROCTOR - ASTMD 1557 - MAXIMUM DRY DENSITY.
2. SEE SPECIFICATIONS FOR MORE INFORMATION.
3. SOIL TESTS TO BE CONDUCTED PER SOILS SPECIFICATIONS.
4. SOIL PLACEMENT DETAILS ARE FOR GENERAL SOIL PREPARATION.
5. ALL PLANTING DETAILS SHALL BE FOLLOWED PER PLANTING SPECIFICATIONS.

B SOIL PREP TYPE B
SCALE: 1"=1'



NOTE:
1. MPR = MATERIALS MODIFIED PROCTOR - ASTMD 1557 - MAXIMUM DRY DENSITY.

A SOIL PREP TYPE A
SCALE: 1"=1'

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KEY PLAN

John Wohlschlaeger - Landscape Architect MO # L.A. - 2009014766
STATE OF MISSOURI JOHN WILLIAM WOHLSCHLAEGER NUMBER L.A.-2009014766 (10/7/2024)
SWT Design, Inc.
Missouri State Certificate of Authority #2006002904

Issuances

No.	Description	Date
01	100% Design Development	8/6/2024
02	Advance Permit Review	8/30/2024
03	100% Construction Docs	9/20/2024
04	Issued for Bid	10/07/2024

Revisions

No.	Description	Date

SWT No. 21703.01

Drawn: BV, MB, CP
Reviewed: LK, JW

Sheet Title
PLANTING AND SOIL DETAILS

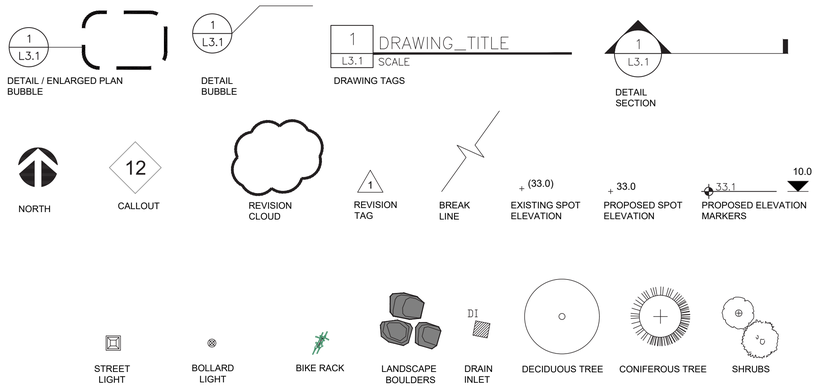
Number
L-521

October 4, 2024 8:05 AM

DRAWING SET ABBREVIATIONS

ABC	AGGREGATE BASE COURSE	EQ	EQUAL	MECH	MECHANICAL	SD	STORM DRAIN
AD	AREA DRAIN	EQUIP	EQUIPMENT	MED	MEDIUM	SECT	SECTION
ADJ	ADJACENT	ESC	ESCALATOR	MEZZ	MEZZANINE	SF	SQUARE FEET
AFF	ABOVE FINISH FLOOR	EXIST	EXISTING	MFR	MANUFACTURER	SHT	SHEET
ALT	ALTERNATE	EXP	EXPOSED	MH	MANHOLE	SIM	SIMILAR
ALUM	ALUMINIUM	EXPA	EXPANSION	MIN	MINIMUM	SIP	STRUCTURAL INSULATION PANEL
ANOD	ANODIZED	EXT	EXTERIOR	MISC	MISCELLANEOUS	SLR	SEALER
APPROX	APPROXIMATE	FD	FLOOR DRAIN	MLW	MILLWORK	SNK	SINK
ARCH	ARCHITECTURAL	FDN	FOUNDATION	MO	MASONRY OPENING	SPEC	SPECIFICATION
B&B	BALL AND BURLAP	FIN	FINISH(ed)	MTD	MOUNTED	SQ	SQUARE
B/O	BOTTOM OF	FL	FLOOR	MTL	METAL	SS	STAINLESS STEEL
BC	BACK OF CURB	FLG	FLANGE	N	NORTH	SSK	SERVICE SINK
BLW	BELOW	FLSG	FLASHING	N/A	NOT APPLICABLE	STA	STAINED
BLDG	BUILDING	FLR	FLOOR	NIC	NOT IN CONTRACT	STD	STANDARD
BLKG	BLOCKING	FLUOR	FLUORESCENT	NO	NUMBER	STIFF	STIFFENER
BM	BEAM	FOC	FACE OF CONCRETE	NOM	NOMINAL	STL	STEEL
BOT	BOTTOM	FOF	FACE OF FINISH	NTS	NOT TO SCALE	STMP	STAMPED
BRG	BEARING	FOS	FACE OF STUD	OA	OVERALL	STN	STONE
BRK	BRICK	FR	FIRE-RETARDANT	OC	ON CENTER	STOR	STORAGE
BS	BOTTOM OF STEP	FT	FEET	OD	OUTSIDE DIAMETER	STRUCT	STRUCTURAL
BW	BOTTOM OF WALL	FTG	FOOTING	OFD	OVERFLOW DRAIN	SUSP	SUSPENDED
C/C	CENTER TO CENTER	GA	GAUGE	OPNG	OPENING	TR	TREAD
CAL	TREE CALIPER	GAL	GALLON	OPP	OPPOSITE	TSS	TOP OF STRUCTURAL SLAB
CFM	CUBIC FEET PER MINUTE	GALV	GALVANIZED	OSB	ORIENTED STRAND BOARD	TSF	TOP OF STRUCTURAL FLOOR
CIP	CAST IN PLACE	GC	GENERAL CONTRACTOR	OSF	OUTSIDE FACE	TFF	TOP OF FINISH FLOOR
CJ	CONTROL JOINT	GI	GALVANIZED IRON	OZ	OUNCE	TOC	TOP OF CURB
CL	CENTER LINE	GL BLK	GLASS BLOCK	PA	PAINTED	TEL	TELEPHONE
CLG	CEILING	GL	GLASS	PART	PARTITION	THK	THICKNESS
CLR	CLEAR	GMMU	GLASS MESH MASONARY UNIT	PAV	PAVERS	THRU	THROUGH
CM	CORRUGATED METAL	GND	GROUND	PC	POINTS OF CURVATURE	TOB	TOP OF BEAM
CMP	CORRUGATED METAL PIPE	GR	GRANITE	PCC	PRECAST CONCRETE	TC	TOP OF CONCRETE
CMU	CONCRETE MASONRY UNIT	GRD	GRADE	PERP	PERPENDICULAR	TW	TOP OF WALL
CO	CLEAN OUT	H&V	HEATING & VENTILATION	PL	PLATE	TRANS	TRANSVERSE
COL	COLUMN	HB	HOSE BIB	PLMB	PLUMBING	TS	TOP OF STEP
CONC	CONCRETE	HC	HOLLOW CORE	PLSTC	PLASTIC	TYP	TYPICAL
CONST	CONSTRUCTION	HDW	HARDWARE	PLWD	PLYWOOD	UG	UNDERGROUND
CONT	CONTINUOUS	HM	HOLLOW METAL	PNT	PAINTED	UL	UNDERWRITER'S LAB
CORR	CORRUGATED	HH	HAND HEWN	PPL	PROPERTY LINE	UNO	UNLESS NOTED OTHERWISE
CS	CONCRETE SEALER	HORZ	HORIZONTAL	PR	PAIR	UR	URINAL
CU	CUBIC	HP	HIGH POINT	PREFAB	PREFABRICATE	VERT	VERTICAL
CY	CUBIC YARD	HR	HOURS	PROJ	PROJECTION	VEST	VESTIBULE
D	DEPTH	HT	HEIGHT	PSF	POUNDS PER SQUARE FOOT	VIF	VERIFY IN FIELD
DD	DECK DRAIN	ID	INSIDE DIAMETER	PSI	POUNDS PER SQUARE INCH	VNR	VENEER
DF	DRINKING FOUNTAIN	IN	INCHES	PT	PRESSURE TREATED	W	WEST
DI	DRAIN INLET	INCL	INCLUDE	PVC	POLYVINYL CHLORIDE	WC	WATER CLOSET
DIA	DIAMETER	INFO	INFORMATION	QTY	QUANTITY	WD	WOOD
DIAG	DIAGONAL	INSUL	INSULATION	R	RISER	WLS	WALLS
DIM	DIMENSION	INT	INTERIORS	RD	ROOF DRAIN	WP	WATERPROOF
DN	DOWN	JT	JOINT	REF	REFERENCE	WPM	WATERPROOF MEMBRANE
DS	DOWNSPOUT	LAB	LABORATORY	REFR	REFRIGERATOR	WR	WATER RESISTANT
DTL	DETAIL	LAM	LAMINATED	REINF	REINFORCED	WS	WATER SURFACE
DWG	DRAWING	LAV	LAVATORY	REQD	REQUIRED	WWF	WELDED WIRE FABRIC
E	EAST	LB(S)	POUNDS	REV	REVISION	WWP	WHITE WATER PARK
EA	EACH	LP	LOW POINT	RM	ROOM	YDS	YARDS
EC	EXPOSED CONSTRUCTION	LT	LIGHT	RO	ROUGH OPENING		
EJ	EXPANSION JOINT	LTWT	LIGHTWEIGHT	RP	RADIUS POINT		
ELEC	ELECTRICAL	LVR	LOUVER	RS	ROUGH SAWN		
ELEV	ELEVATION	MACH	MACHINE	S	SOUTH		
ELEVR	ELEVATOR	MATL	MATERIAL	SC	SOLID CORE		
EM	EMERGENCY	MAX	MAXIMUM	SCH	SCHEDULE		
EMBED	EMBEDMENT						

GRAPHIC SYMBOLS LEGEND



GENERAL TRAIL SPECIFICATIONS:

DESCRIPTION
Work under this item shall include all work, materials, labor and incidentals necessary for the Contractor to provide, install, and construct Trails as detailed in the bid documents.

Trail Work Specifications
All trail work shall be done according to the specifications and typicals included in this document. When field conditions do not pertain to specifications provided the work shall be done in accordance with the 2007 edition of the USDA Trail Construction and Maintenance Notebook, the 2007 edition of Managing Mountain Biking, 2004 edition of IMBA Trail Solutions Guide to Building Sweet Singletrack, and the 2017 edition of Guidelines for a Quality Trail Experience. Refer to these publications for details and descriptions of trail maintenance and construction. Deviation from these specifications will be allowed with the permission or at the direction of the Client.

1.1 Trail Alignment
Trail alignments have been designed and flagged in the field by Trail Solutions. The trail flagging delineates the center of the approved trail corridor and desired trail alignment. The approved corridor extends 20' on each side of original flagline. The Client may approve adjustments to the flagline within this corridor to improve sustainability, improve the trail experience, reduce impact, and improve build efficiency. Material, such as stone, may be harvested within this corridor as long as that harvesting does not negatively impact the trail experience or stability. Trail Contractor shall create an exact final alignment and location for each trail and trail feature. The alignments and locations shall meet appropriate specifications as provided in the construction documents. The alignment, location, design, and construction of each individual trail shall conform to the specifications, intent, character, and description for that specific trail as described in the construction documents. If conflicts arise in trail alignments, features, armoring, vegetation, landscaping, irrigation, and/or other items, Trail Contractor is required to immediately contact Owner's Representative for resolution before proceeding. The Trail Contractor shall work with the Owner's Representative to identify the need to further refine or adjust construction notes, location or types of trails or features, and make minor adjustments as soon as identified by the contractor.

1.2 Technical Trail Features (TTF's)
The plans provide quantities and feature types, but are diagrammatic and do not reflect an exact final alignment, location, or dimension for each feature. The Trail Contractor shall determine exact final location and dimension of all TTFs based upon final trail alignment, trail flow, character, difficulty, and surrounding terrain. It is the Trail Contractor's responsibility to ensure that final dimensions of TTFs (height, length, radius, width, etc.) flow appropriately with the speed of travel, other features and surrounding trails. TTF placements are required to include an optional line or bypass trail that provides users with an open and obvious route to avoid the TTF. Refer to details for typical detail. All manufactured TTF lengths are linear, not chord lengths. All manufactured TTF heights are from top of concrete footing or earth anchor to top of decking. TTFs to be American Ramp Company or approved equal. Substitutions shall require approval by Owner's Rep. All manufactured TTFs will be sourced from insured bike park feature manufacture. Feature manufacturer shall hold product liability insurance.

1.3 Turns
Turns on the trail system shall be cambered/banked/bermed as necessary according to the specifications, drawings, intended riding experience, trail flow, trail speed, and difficulty. Turns shall be built according to the trail type and difficulty level as specified in the construction documents. Turns shall be constructed according to design and sustainability guidelines as set forth in the 2004 edition of IMBA Trail Solutions Guide to Building Sweet Singletrack. Turns shall be built with proper drainage and grade reversals before and after the turn.

1.4 Vertical Undulations / Features
The trails should have vertical undulations such as rollers, jumps, grade reversals, and dips as necessary according to the specifications, drawings, intended riding experience, trail flow, trail speed, and difficulty. Construction of typical trail features that are approximately 24" or less in height are included in the base trail cost and will not be quoted as separate feature units unless specifically identified in the bid form (ex. rollers, grade reversals, jumps <24").

1.5 Trail Drainage
All finished tread must provide positive drainage off of the trail. The finished tread shall show no signs of erosion prior to final payment. Drainage shall promote sheet flow off of the tread, riling from shallow concentrated flow shall not occur on trail tread. Where necessary, Trail Contractor may construct shallow porous stormwater infiltration areas and swales adjacent to the trail to manage surface water drainage, provided they are constructed in an appropriate manner and do not create a hazard.

1.6 Grade Reversals (Rolling Grade Dip) / Drains
A designed grade reversal or constructed rolling grade dip shall occur at least every 100-150 feet along the trail alignment, preferably more frequently. All grade reversals must be strongly anchored to discourage short cutting. Grade reversals shall have cross slopes that promote positive drainage off trail and down slope of the tread. Cross slopes shall be twice that of the average tread cross slope (minimum 10%, maximum 20%). The grade reversal transition shall be gradual and the feature shall cover a distance of at least 10 feet of trail. Ref. to Details.

1.7 Trail Corralling
Trail Contractor shall provide speed-reducing features and curves in the trail alignment to slow riders before reaching trail intersections. Speed-reducing features may include boulders, cut trees or in extreme cases fencing as obstacles. Contractor shall furnish and install landscape boulders on the trail system where necessary to help anchor the apex of turns, help define and improve intersections, prevent short-cutting, and to otherwise enhance the edge of the trail corridor where necessary. Landscape boulders shall be native rock partially buried into soil a minimum of 50% of the boulders height below grade and per plan.

1.8 Rock Armor / Tech Trails
Rock armoring shall be installed where necessary to prevent trail erosion, harden wet tread, or provide tread texture. Rock armoring should utilize local rocks. When possible rocks shall be harvested from the work site. Stone pitching, a form of rock armoring, shall be at least ten (10) inches deep with a minimum of seven (7) inches of the rock buried below the surface of the surrounding grade. Stones should be stable and aligned perpendicular to the direction of travel. Each end of a pitched section shall be supported by larger "bookend" stones embedded in the ground to prevent movement of the rock armor. Surface depth variation and unavoidable obstacles shall adhere to IMBA trail difficulty rating system. Rocks shall not move. Flagstone paving, a form of rock armoring, shall be two (2) inches to 24 inches thick and 12 inches to 48 inches wide. Voids larger than 2" shall be filled with compacted crushed stone and topped with compacted native soil, Rocks shall not move. Rock armor shall be constructed such that the desirable path of travel is the tread and not the surrounding forest floor. Additional guide stones may be required if the final surface of the trail appears more rugged than the adjacent landscape. All rock embedded in the trail surface should be stable. When used in structures, care will be taken to match rock to the immediate surroundings; grain patterns, lichen growth, etc. Excess tool marks on rocks is not acceptable. Contractor shall determine the appropriate ratio of "stone pitching" vs. "flagstone paving" for the particular trail segment.

1.9 Rock Placement at Drainage Crossings
Trail Contractor shall construct a sub-base of crushed rock under the Rock Armor layer at drainage crossings. Possible locations include very low-lying terrain where water ponding is probable, significant water drainage crossings, or other areas expected to have very poor drainage. Rock placement must not obstruct flow above or below the drainage crossing. It should be placed in such a way that water runs through the intended channel. Refer to Details. Locations for this improvement were identified by the field flagging crews and are outlined in the special considerations column of the Trail Schedule and quantified in the bid form, additional locations, while unlikely, may be determined by Owner's Representative and shall be considered incidental to the unit rate for Natural Surface Trails. If additional locations exceed 400 square feet, the contractor may submit a change order for added cost at the unit rate only after receiving written approval from the Owner's Representative.

1.10 Rock Procurement
All rock armoring, rock gardens, and landscape boulders to be used in trail construction shall first be obtained from on site stockpiles or designated areas to the extent possible. The Trails Contractor should anticipate the quantity of rock the project requires and the potential need to source suitable stone elsewhere.

1.11 Boulders
Boulders used in rock armor, for TTFs or landscaping shall have a character and shape consistent with native landscape rock settings. If no native landscape rock is present, the contractor shall source boulders that are angular an irregular with properties that are positive for riding on and construction. Boulders shall be a range of sizes and shapes, minimum size is 2'Wx1.5'Hx2.5'L. To the greatest extent possible, rocks shall be placed in their final locations with the lichen or weathered side exposed.

1.12 Trail Surfacing Material
The intent of the Trail Surfacing Material is to cover the existing soils as called for in the plan set (typically on jump lines and gravity trails) with a well-balanced surface that facilitates drainage, compacts well, and that performs reasonably in both wet and dry weather conditions. Trail surfacing material shall be incidental to the unit rate for trail construction. All imported soil will require lab testing to meet the following requirements: 1. Surface material shall be composed of between 65-75% clay and 35-25% sand. 2. Material shall be natural, uncontaminated, and free of organic material, vegetation, waste, recycled concrete, asphalt, noxious weeds/seeds and other deleterious matter. 3. Material comprised wholly of rock aggregate, gravel, road base, crusher fines or similar is not acceptable due to unfavorable looseness, surface marbles, lack of binding, and other negative characteristics for bike riding. 4. The trail surface material must be tested in both wet and dry conditions on the sample trail sections described in the performance specifications. Modifications to the material may be necessary based on the sample test. Owner's Representative must approve the material before additional construction may proceed. The owner's representative and the Trails Contractor shall coordinate a quantity and location for a stockpile of Trail Surfacing Material to be used for future maintenance.

1.13 Compaction
All trail sub grades, trail treads, trail surfacing materials, backslopes, rollers, berms, fill, and terrain enhancements shall be compacted in a manner that will support the intended use.

1.14 Quantities
For all specifications that contain more or less quantities, it shall be understood and agreed that quantities listed in the specifications are estimated only and may be increased or decreased in accordance with the requirements of the owner.

1.15 Fill Material
Fill needed for trail construction, berms, rollers, or other features may be generated during trail excavation, borrowed from surrounding landscape where appropriate, borrowed from onsite stockpiles, or imported if necessary. Fill material shall be uncontaminated and free of organic material, trash, noxious weeds/seeds, and other objects. Fill material shall be placed, graded, and compacted by Trail Contractor in a manner that will support the intended use. The non-riding surfaces of berms, rollers, landscape mounds, or other terrain enhancements created by the Trail Contractor shall not exceed a 1:1.5 slope, unless stabilized in an approved manner.

1.16 Backslope
The backslope of trail should be graded to a slope that limits the amount of site disturbance and does not exceed a 1:1.5 slope or until it matches the existing ground. The edge between existing ground surface and backslope shall be smooth and not impede the flow of water or provide vertical drop between the existing ground surface and backslope. Any backslope that is created by fill shall be compacted to 90% Proctor. Refer to Erosion Control specifications (if part of documents) for additional requirements pertaining to backslopes.

1.17 Lift and Tilt Tread Construction
This construction method shall be implemented in flat areas and when called for in the Trail Schedule. "Lift and tilt" tread construction is a way of raising the tread above the existing grade while simultaneously lowering the grade of areas off the trail that act as natural drains. This enhances tread drainage while increasing the fun factor for mountain bikers. Borrow basins are dug to harvest suitable mineral soil to lift and tilt the tread. If borrow basins are not allowed or possible, Trail Contractor shall be responsible for sourcing fill material. Woody debris is used to replace the soil taken from the borrow basins, which are then masked and blended with organics to create natural-looking low points for drainage. This technique holds the rider on the trailwhile directing water off the tread into the basins.

1.18 Trail Finished Condition
Finish and grading of backslope, down slope spoils, and drainage features shall leave surface that matches the texture of the surrounding forest floor. Finished tread should be compacted in a manner that supports the intended use and provides positive drainage off trail. Finished tread shall incorporate fixed natural and native roots and rocks according to specifications and dependent on trail type. Runoff shall be diverted during sheet flow prior to shallow concentrated flow. Cross slopes may vary (5% minimum, 10% maximum), including cambering of turns, but water must exit the trail in sheet flow without causing erosion of or puddling on, the trail. Locations intended to drain water from the trail shall have a minimum slope of 10%, unless authorized by the Owner or Owner's Representative.

1.19 Spoils Stabilization
All excavated materials not used in the trail tread or other trail structures must be stabilized. Spoils shall not be placed in drainages, swales, ephemeral streams, wetlands, or any area known to convey water during wet weather events. When possible, spoils should be mulched with native materials to discourage erosion while native seed stocks reestablish. In areas without adequate native mulch, seed-free straw and suitable native seed may substitute. In certain circumstances, installation of formal erosion control measures may be required. It is the Contractor's responsibility to conform with all local, state, and federal stormwater regulations.

1.20 Corridor Clearing
The finished trail corridor shall extend horizontally a minimum of 1.0 foot from the edge of the trail tread to both sides and shall be a minimum vertically eight (8) feet high and higher in the case of jump and flow trail types as determined to be necessary by the Owner's Representative. Corridor clearing shall be confined to within five (5) feet of the trail tread edge.

1.21 Spoils
The trail tread shall consist of mechanically compacted earth or rock. No organic material may be within trail tread. Tread shall be mineral soil or rock. All stumps shall be excavated and removed from the trail tread. Any stumps resulting from corridor clearing and not in the trail tread should be excavated and removed or cut flush to the ground. Stumps not removed in the corridor may pose an unreasonable risk. Spoils shall be stabilized as outlined in "Stabilization". Any downslope spoils must be distributed to encourage drainage off the trail. Spoils may be distributed upslope on hillsides with a slope angle less than 30%. Spoils and disturbed areas outside of the trail tread must be stabilized with a covering of forest mulch or leaves. In areas with insufficient duff, weed-free straw may be substituted for forest materials. Excess soil shall not be distributed into drainages or adjacent to streams. Any woody debris not used in trail closure should be removed from sight of the trail or arranged to blend into the landscape.

1.22 Debris and Woody Material
Any woody debris not used in trail closure should be removed from sight of the trail or arranged to blend into the landscape. Cut and scatter all branches and brush to maximum height of 18 inches above the existing ground surface. No debris shall be left within 10 feet of trail, unless placed as anchors or stabilization. Butt-ends of any sawed limbs shall be placed facing away from trail. All branches trimmed shall be cut to a main branch or trunk to prevent stabs or "coat hangers". Woody material such as stumps, logs, and brush shall be removed from the trail tread. Stumps within a minimum of three (3) feet of the trail tread will be removed or flush cut to existing ground surface.

1.23 Test Riding
Trail Contractor shall thoroughly test ride all trails and trail features, by bike with appropriately skilled rider, to ensure the specified riding experience, design, flow, rhythm, character, difficulty, and specifications are met. Testing shall be performed during the trail alignment and trail feature location process, as well as during construction and following construction, to the extent possible and in consultation with Owner's Representative. Trails and features shall be modified and corrected as necessary until performance specifications are met.

1.24 Sample Trail Section
Contractor shall construct sample segments of a minimum of 50 linear feet of each trail type and 20 square feet of each armoring type as indicated in the construction plans. These sections shall contain a complete sample of the construction methods, materials, and workmanship intended for the project. The Owner's Representative must accept work before additional construction may proceed. Corrections shall be executed as necessary for acceptance. The accepted samples shall be retained during construction as a standard of work. Accepted samples shall be part of the actual trail system. Upon completion of sample, up to 1,250' lengths of individual trail may be constructed at a time. Owner's representative to approve up to 1,250' section prior to commencement of next section.

1.25 Bridges
Any required bridges shall adhere to local codes and regulations. Design and determining exact location(s) shall be the responsibility of the selected contractor. Shop drawing shall be provided and must be approved by Owner's Representative.
1.26 Contractor Coordination
Trail contractor shall be responsible for any coordination with General Contractor and Subcontractors as required to complete all operations.

1.27 Missing Specification
Any specifications not addressed in these notes are to be covered by the region Master Specifications

BASEMAPS
MSD No. XXMSD-XXXXX

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KEY PLAN

John Wohlschlaeger - Landscape Architect MO # LA - 2009014766



(10/7/2024)

SWT Design, Inc.
Missouri State Certificate of Authority #2006002904

Issuances

No.	Description	Date
01	100% Design Development	8/7/2024
	Advance Permit Review	8/30/2024
	100% Construction Docs	9/20/2024
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Revisions

No.	Description	Date

SWT No. 21703.01
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Sheet Title
DETAILS

Number
CP-02

October 4, 2024 8:05 AM

2. ASPHALT PUMP TRACK AND (ASPHALT JUMP SKILLS ZONE (BID ALTERNATES)) SPECIFICATIONS

2.1. Work on an HMA surfaced pumptrack includes but is not limited to providing field design and construction of an HMA-surfaced pumptrack
2.1.1. Field design and construction of an HMA-surfaced pumptrack for all ages and riding abilities
2.1.2. The ability to ride bikes, skateboards, rollerblades and scooters
2.1.3. At most 0.6" HMA paving riding surface
2.1.4. Importing materials required to complete the work
2.1.5. Coordinating operations with other work of the project.

2.2. Quality assurance
2.2.1. Contractor is required to measure all sub-grades and finish grades to laser level accuracy and shall provide a last level on site for the owner to use for checking if desired
2.2.2. Subgrades: plus minus 0.6" in 10' of design elevations
2.2.3. Other unpaved areas plus or minus 1.2" in 10.0' from design
2.2.4. Compaction fills embarkments , finish grades, and all imported aggregates to a maximum of 95% dry density(MDD as determined by ASTM: D 1557) or as otherwise noted.

2.3. Field surveying
field surveying shall be conducted to be laser accurate to 0.1". Laser level shall be present on site and available for use by owner to check grades

2.4. Pump track dimensions
start platform height – 4.25'
berm heights - max 4.25'
pump spacing – 7.9' to 18.0' - varies by height
berm radii - 90-180 degree

2.5. Protection of existing facilities
2.5.1. Utilities: the contractor shall protect from damage, private and public utilities. verify the locations of underground utilities, call local service a minimum 48 hour prior to excavation. verify location of utilities and identify those to remain intact and in continuous operation. protect active utilities encountered.
2.5.2. Pavement: the contractor shall protect from damage all new and existing pavement or paved areas including curbs and walk intended to remain. contractor shall be responsible for replacement if damage occurs to pavement curbs.

2.6. Barriers and safety provide for protection as required by local department of labor and industries.
2.7. Geotextile fabric geotextile fabric shall comply and be non-woven geotextile for separation.
2.8. Execution
2.8.1. Prior to all work, the contractor shall become thoroughly familiar with the site conditions. prior to commencing the track construction, all site surface water shall be collected and routed away from the work areas to facilitate the work.
2.8.2. Delays may occur due to inclement weather. it shall be a contractor's responsibility to immediately notify the owner and request and extention of completion time for justified reasons.
2.9. Finish elevation and lines
Elevations shown on drawings indicate the general, finished heights for all berms and rollers. elevations shown are measured from the finished subgrade. finish elevations for all berms, rollers, and track features may vary from those indicated to ensure the final layout is well designed, safe, and the pump track is functioning as it should.
2.10. Fill and compaction
2.10.1. Spread subgrade in loose lifts not to exceed 20cm in thickness. each lift shall have the optimum moisture content and must be compacted to min. 95% compaction prior to placing the next lift.
2.10.2. Water or aerate the fill material as necessary.
2.10.3. Repeat compaction process until finish grade is attained.
2.11. HMA surfacing
2.11.1. Owner will be notified before HMA is applied. this is the period for inspection before HMA phase begins.
2.11.2. HMA will be hand placed and compacted to a depth of 3" with a drum roller or plate compactor.
2.12. Grading
Except as otherwise directed by the owner, perform all rough and finish grading required to attain the elevations required for an acceptable pump track. provide the grading to an elevation to allow for finish materials and to achieve a smooth transition to undisturbed grades at the project perimeter.
2.13. Disposal of excess materials
2.13.1. Excavated material in excess of the material used to attain finish grades shall be considered common barrow and spread on site
2.13.2. Remove unacceptable excavated material (material that is not mineral soil), including but not limited to trash, rebar and woody debris shall be hauled off-site and disposed of in a legal manner.

3. CHIP SEAL MOUNTAIN BIKE OPTIMIZED TRAIL SPECIFICATIONS

3.1 Chip Seal Trail will use rolling contour and lift and tilt (where required for drainage) construction methods and will have a medium frequency of rollers, berms and table top and rollable gap jumps (3-5 PER 100LF), or as quantified in construction documents.

3.2 All trail construction shall comply with the specifications, drawings, requirements, and design intent prescribed in the construction and contract documents. Additional resources include "Trail Solutions, IMBA's Guide to Building Sweet Singletrack" (2004) and "Managing Mountain Biking" (2007). Modifications shall be approved by Owner's Representative.

3.3 Trail shall include Technical Trail Features (TTF) in the types and locations called for on the plans and referenced in detail drawings.

3.4 Completed products shall reflect professional workmanship in appearance, quality, and attention to detail. Trails and features shall be well integrated into site, aesthetically pleasing in appearance, and well-shaped, crafted, and finished according to commonly accepted best practices for high quality and sustainable mountain biking trails. Work must be completed to the satisfaction of the Owner's Representative.

3.5 Trail Contractor shall thoroughly test ride all trails and trail features, by bike with appropriately skilled rider, to ensure the specified riding experience, design, flow, rhythm, character, difficulty, and specifications are met. Testing shall be performed during the trail alignment and trail feature location process, as well as during construction and following construction, to the extent possible and in consultation with Owner's Representative. Trails and features shall be modified and corrected as necessary until performance specifications are met.

3.6 Following test ride and approval of final alignment and shapes, contractor shall import and compact road base (3/4 minus) or similar at 3-4 inches depth or greater if site soil characteristics require it. Site visit and test ride required for sign off prior to applying chip seal.

3.7 Contractor shall apply two layers of CRS2-P (Polymer based) tar and two compacted layers of chip seal (3/8 clean chipped material for the initial layer and a more decorative 3/8 minus for the second (top) layer. Sample section of finished condition shall be provided by Contractor and approved by Owner's Representative prior to proceeding with final chip seal.

3.8 Contractor must submit a surfacing mixture sample(s) (1 gallon) to the engineer or owner's representative prior to delivery to the site. Color and texture of final chip layer to be approved by engineer or owner's representative prior to delivery and/or installation.

Prepared For:

JOPLIN MISSOURI
602 S Main St
Joplin, MO 64801

Project:
DORA
Bike Park

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KEY PLAN

John Wohlschlaeger - Landscape Architect MO # LA - 2009014766



(10/7/2024)
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Missouri State Certificate of Authority #2006002904

Issuances

No.	Description	Date
01	100% Design Development	8/7/2024
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	100% Construction Docs	9/20/2024
	Issued for Bid	10/7/2024

Revisions

No.	Description	Date

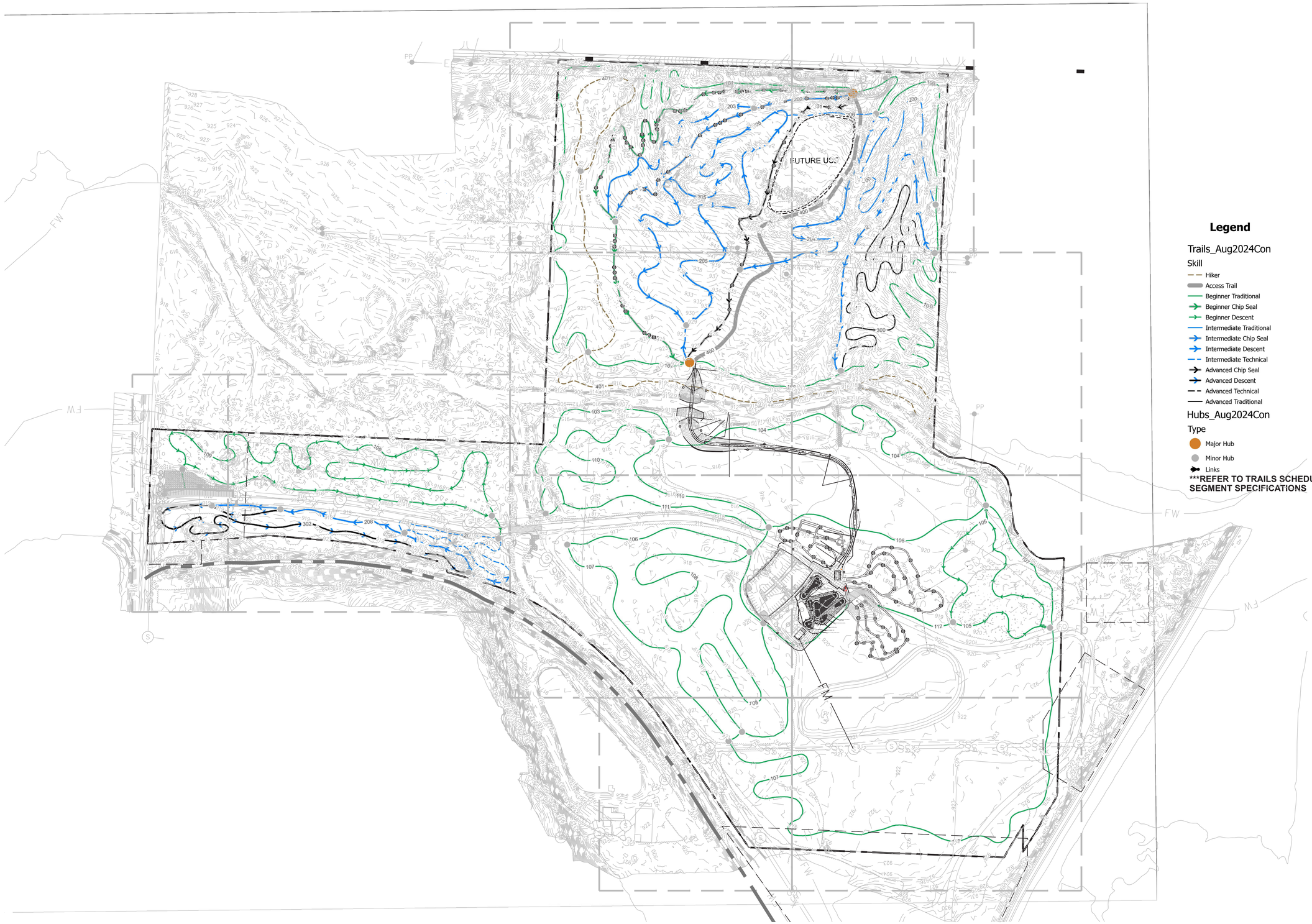
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Sheet Title
DETAILS

Number
CP-03

BASEMAPS
MSD No. XXMSD-XXXXX

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Legend

Trails_Aug2024Con

Skill

- Hiker
- Access Trail
- Beginner Traditional
- Beginner Chip Seal
- Beginner Descent
- Intermediate Traditional
- Intermediate Chip Seal
- Intermediate Descent
- Intermediate Technical
- Advanced Chip Seal
- Advanced Descent
- Advanced Technical
- Advanced Traditional

Hubs_Aug2024Con

Type

- Major Hub
- Minor Hub
- Links

*****REFER TO TRAILS SCHEDULE FOR SEGMENT SPECIFICATIONS**

A OVERALL SITE PLAN
SCALE: 1"=150'

Graphic Scale: 1" = 150'
0' 75' 150' 300' 450'

Prepared For:

JOPLIN MISSOURI
602 S Main St
Joplin, MO 64801

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DORA
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KEY PLAN

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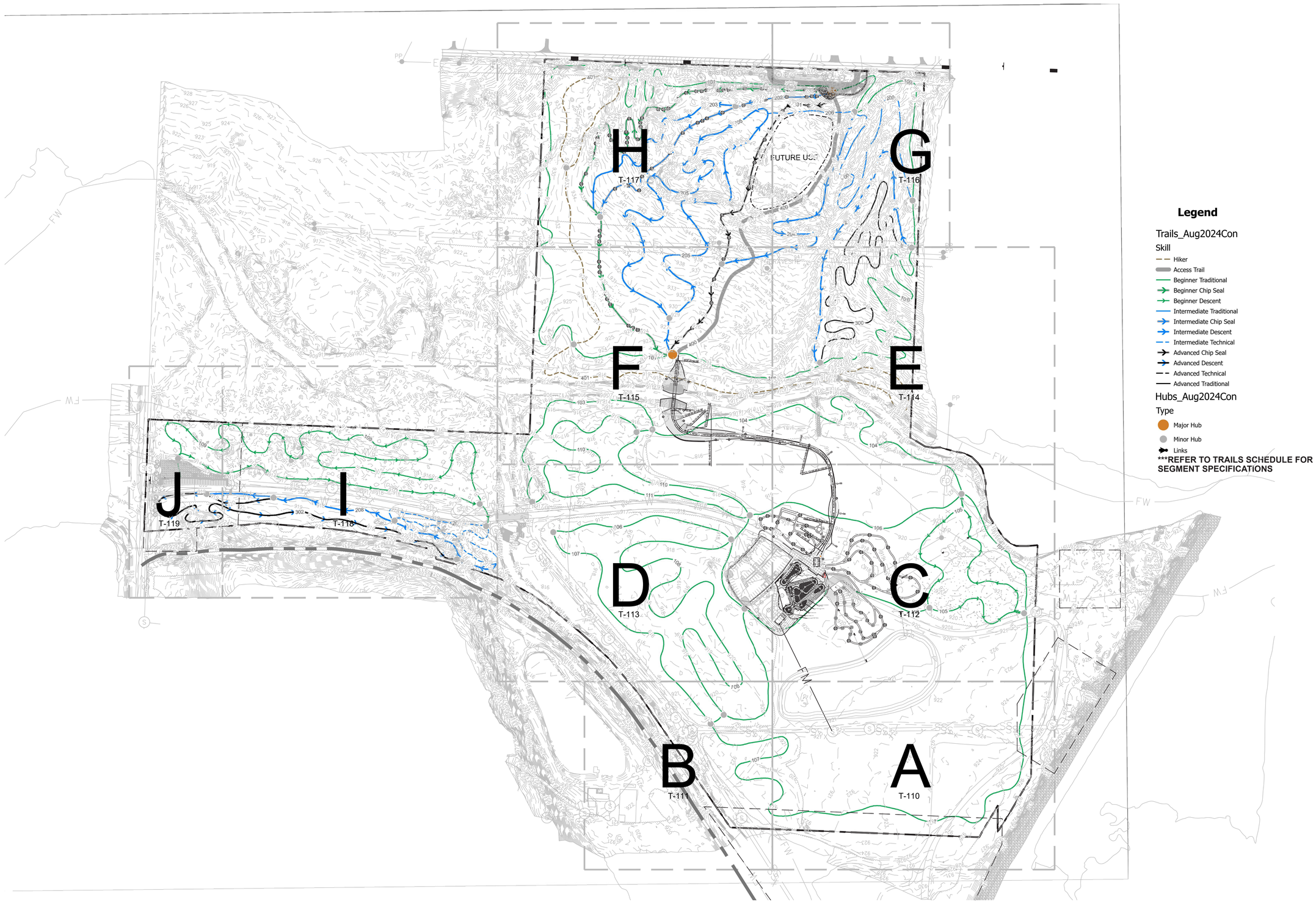
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Sheet Title
OVERALL SITE PLAN

Number
T-100

October 4, 2024 8:01 AM



Legend

Trails_Aug2024Con

Skill

- Hiker
- Access Trail
- Beginner Traditional
- Beginner Chip Seal
- Beginner Descent
- Intermediate Traditional
- Intermediate Chip Seal
- Intermediate Descent
- Intermediate Technical
- Advanced Chip Seal
- Advanced Descent
- Advanced Technical
- Advanced Traditional

Hubs_Aug2024Con

Type

- Major Hub
- Minor Hub
- Links

***REFER TO TRAILS SCHEDULE FOR SEGMENT SPECIFICATIONS

A LAYOUT KEY PLAN
SCALE: 1"=150'

Graphic Scale: 1" = 150'
0' 75' 150' 300' 450'

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KEY PLAN

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STATE OF MISSOURI JOHN WILLIAM WOHLSCHLAEGER NOTARIAL SEAL LA-2009014766

(10/7/2024)

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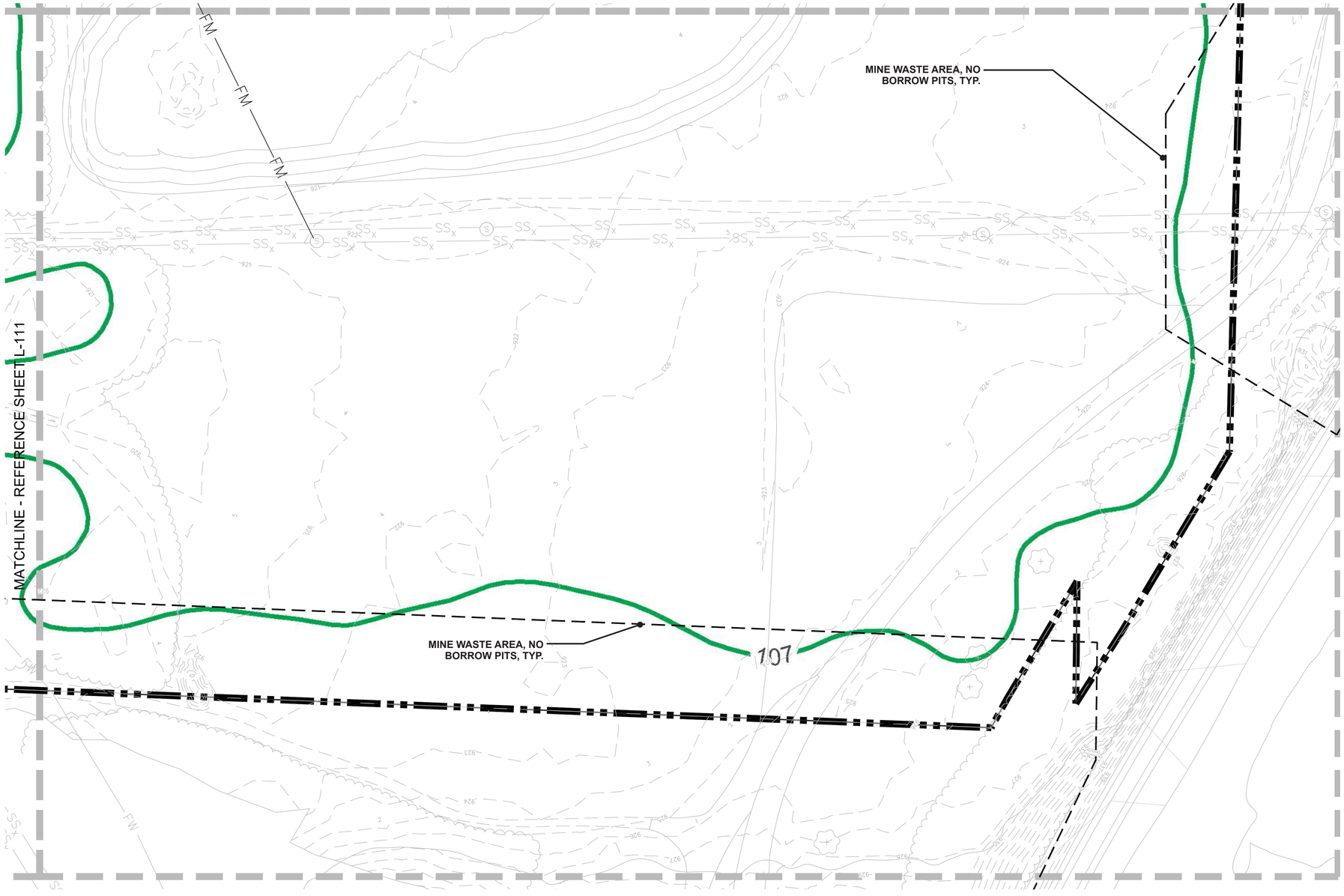
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Sheet Title
LAYOUT KEY PLAN

Number
T-101

October 4, 2024 8:01 AM

MATCHLINE - REFERENCE SHEET L-112



A SITE PLAN - AREA A
SCALE: 1"=40'

Graphic Scale: 1" = 40'
0' 20' 40' 80' 120'

Legend

Trails_Aug2024Con

Skill

- Hiker
- Access Trail
- Beginner Traditional
- Beginner Chip Seal
- Beginner Descent
- Intermediate Traditional
- Intermediate Chip Seal
- Intermediate Descent
- Intermediate Technical
- Advanced Chip Seal
- Advanced Descent
- Advanced Technical
- Advanced Traditional

Hubs_Aug2024Con

Type

- Major Hub
- Minor Hub
- Links

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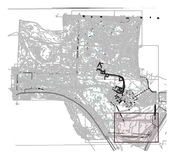
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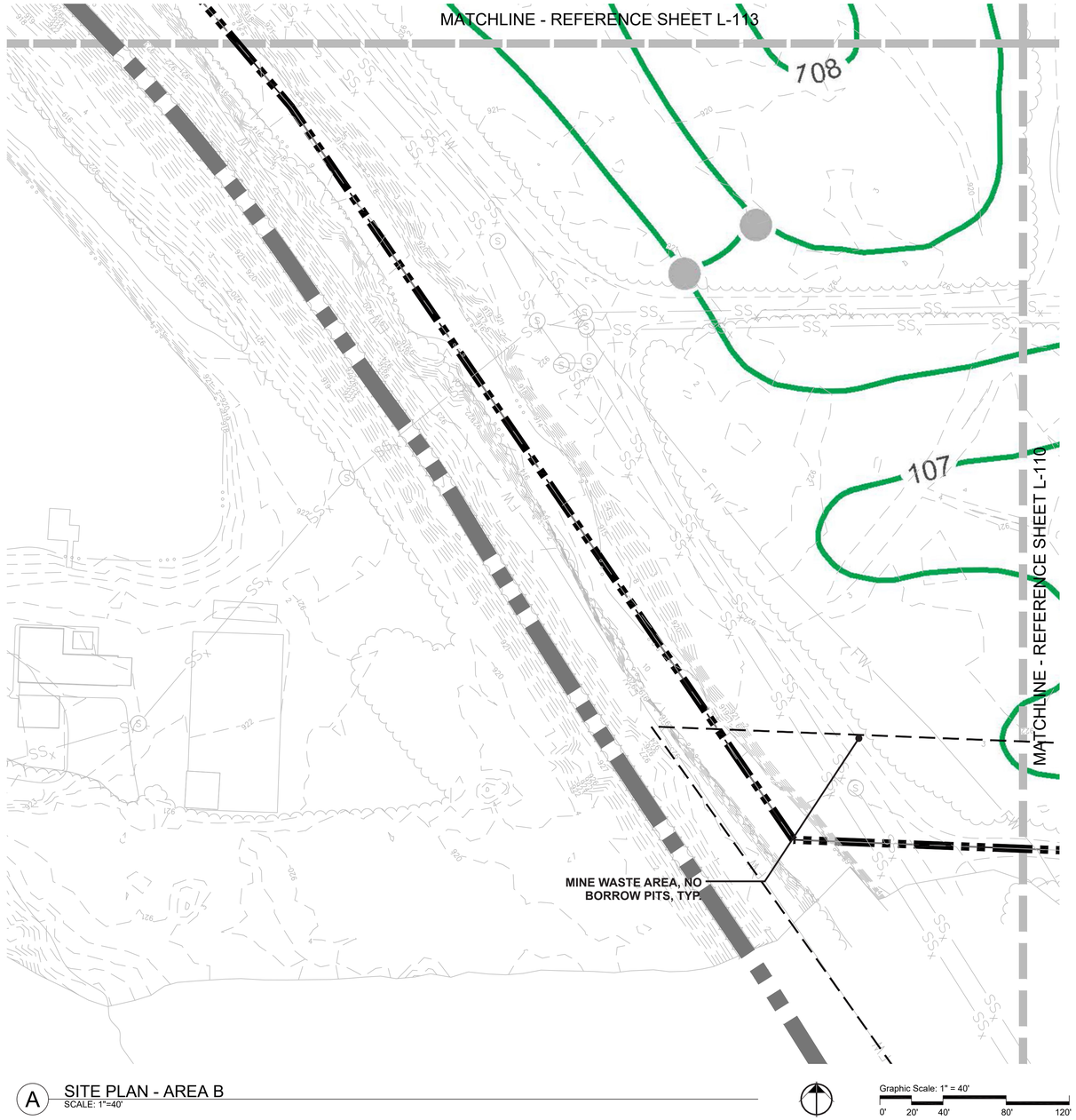
Sheet Title
LAYOUT PLAN A

Number
T-110

BASEMAPS
MSD No. XXMSD-XXXXX

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A SITE PLAN - AREA B
SCALE: 1"=40'

Graphic Scale: 1" = 40'
0' 20' 40' 80' 120'

Legend

Trails_Aug2024Con

Skill

- Hiker
- Access Trail
- Beginner Traditional
- Beginner Chip Seal
- Beginner Descent
- Intermediate Traditional
- Intermediate Chip Seal
- Intermediate Descent
- Intermediate Technical
- Advanced Chip Seal
- Advanced Descent
- Advanced Technical
- Advanced Traditional

Hubs_Aug2024Con

Type

- Major Hub
- Minor Hub
- Links

***REFER TO TRAILS SCHEDULE FOR SEGMENT SPECIFICATIONS

Prepared For:

JOPLIN MISSOURI
602 S Main St
Joplin, MO 64801

Project:
DORA
Bike Park

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Revisions

No.	Description	Date

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Sheet Title
LAYOUT PLAN B

Number
T-111

BASEMAPS
MSD No. XXMSD-XXXXX

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MATCHLINE - REFERENCE SHEET L-114

PCC 14+66.74
PCC 13+56.96 R=100.00'
13+00
12+00
11+00
PCC 11+62.26 R=500.00'
PC 10+84.46 R=178.00'
BOP 10+50.36
1+00
2+00
3+00
4+00
5+00
10+00
11+00
12+00
106
105
107
112
113
1 SP-01 FEATURES PLAN - CORE AREA
MATCHLINE - REFERENCE SHEET L-113
FM
FM
FM
MINE WASTE AREA, NO BORROW PITS, TYP.
MATCHLINE - REFERENCE SHEET L-110

A SITE PLAN - AREA C
SCALE: 1"=40'

Graphic Scale: 1" = 40'
0' 20' 40' 80' 120'

Legend

Trails_Aug2024Con

Skill

- Hiker
- Access Trail
- Beginner Traditional
- Beginner Chip Seal
- Beginner Descent
- Intermediate Traditional
- Intermediate Chip Seal
- Intermediate Descent
- Intermediate Technical
- Advanced Chip Seal
- Advanced Descent
- Advanced Technical
- Advanced Traditional

Hubs_Aug2024Con

Type

- Major Hub
- Minor Hub
- Links

***REFER TO TRAILS SCHEDULE FOR SEGMENT SPECIFICATIONS

Prepared For:

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602 S Main St
Joplin, MO 64801

Project:
DORA
Bike Park

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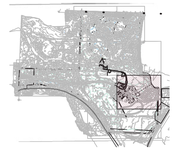
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Geotechnical:
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417.864.6000

KEY PLAN



John Wohlschlaeger - Landscape Architect MO # LA - 2009014766



(10/7/2024)
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Issuances

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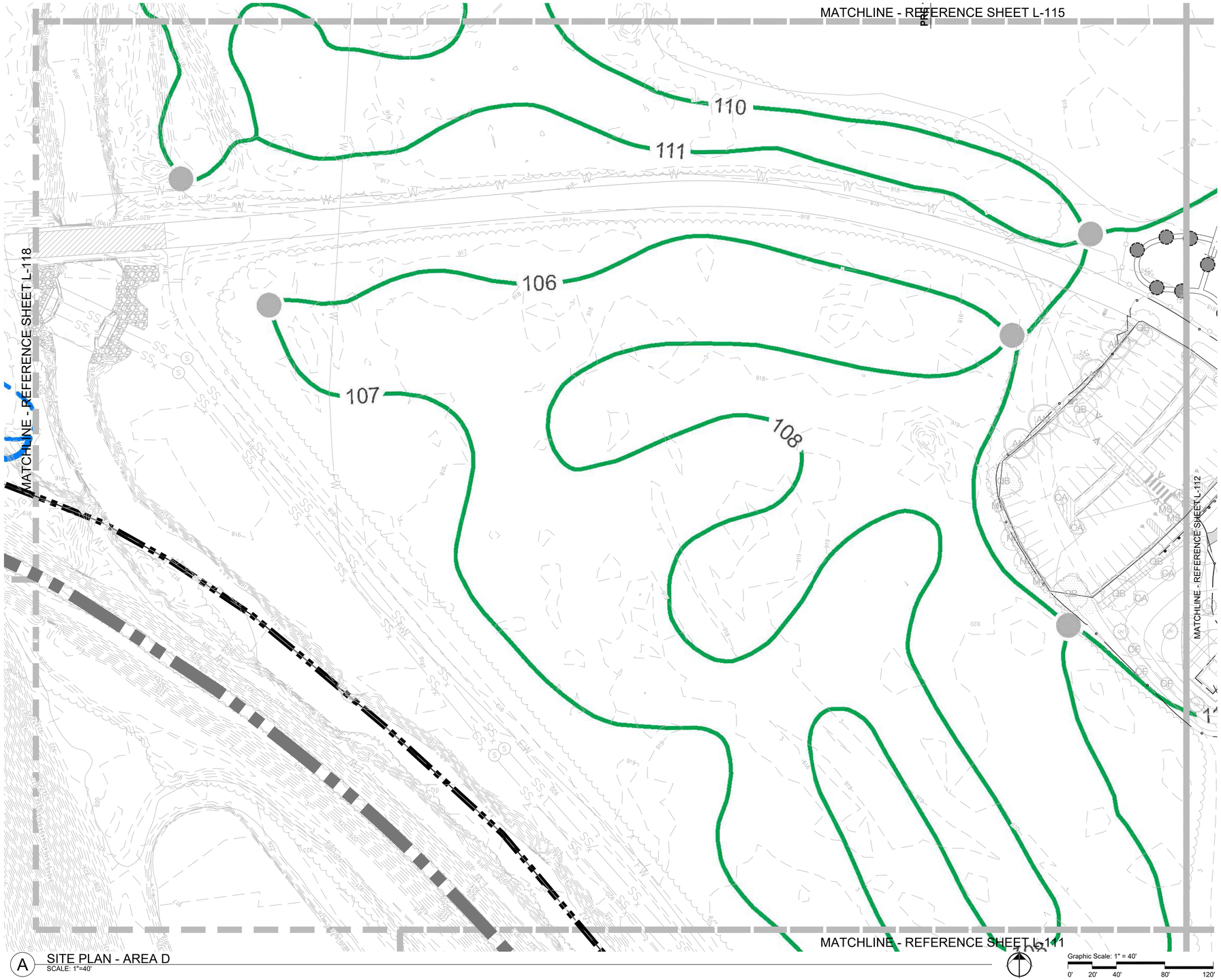
No.	Description	Date

SWT No. 21703.01
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Sheet Title
LAYOUT PLAN C

Number
T-112

October 4, 2024 8:02 AM



A SITE PLAN - AREA D
SCALE: 1"=40'

Graphic Scale: 1" = 40'
0' 20' 40' 80' 120'

Legend

Trails_Aug2024Con

Skill
- Hiker
- Access Trail
- Beginner Traditional
- Beginner Chip Seal
- Beginner Descent
- Intermediate Traditional
- Intermediate Chip Seal
- Intermediate Descent
- Intermediate Technical
- Advanced Chip Seal
- Advanced Descent
- Advanced Technical
- Advanced Traditional

Hubs_Aug2024Con

Type
- Major Hub
- Minor Hub
- Links

***REFER TO TRAILS SCHEDULE FOR SEGMENT SPECIFICATIONS

Prepared For:

JOPLIN MISSOURI
602 S Main St
Joplin, MO 64801

Project:
DORA
Bike Park

SWT DESIGN
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LAYOUT PLAN D

Number
T-113

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GRAVEL SITE

100

300

104

16+00

15+00

14+00

C 14+66.74 R=1400.00'

14+56.96 R=100.00'

A SITE PLAN - AREA E
SCALE: 1"=40'

Graphic Scale: 1" = 40'
0' 20' 40' 80' 120'

Legend

Trails_Aug2024Con

Skill

- Hiker
- Access Trail
- Beginner Traditional
- Beginner Chip Seal
- Beginner Descent
- Intermediate Traditional
- Intermediate Chip Seal
- Intermediate Descent
- Intermediate Technical
- Advanced Chip Seal
- Advanced Descent
- Advanced Technical
- Advanced Traditional

Hubs_Aug2024Con

Type

- Major Hub
- Minor Hub
- Links

***REFER TO TRAILS SCHEDULE FOR SEGMENT SPECIFICATIONS

Prepared For:

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602 S Main St
Joplin, MO 64801

Project:
DORA
Bike Park

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417.864.6000

KEY PLAN

John Wohlschlaeger - Landscape Architect MO # LA. 2009014766
STATE OF MISSOURI
JOHN WOHLSCHLAEGER
LANDSCAPE ARCHITECT
LA-2009014766
(10/7/2024)
SWT Design, Inc.
Missouri State Certificate of Authority #2006002904

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Sheet Title
LAYOUT PLAN E

Number
T-114

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MATCHLINE - REFERENCE SHEET L-118

MATCHLINE - REFERENCE SHEET L-114

MATCHLINE - REFERENCE SHEET L-113

ROLLERS 1 DT-03

ROLLERS 1 DT-03

ROLLERS 1 DT-03

4 DT-08 STEP-UP JUMP

1 DT-08 TABLE TOP JUMP

2 DT-08 ROLLABLE GAP JUMP

3 DT-08 HIP JUMP

EOP 21+64.90

1 DT-07 TRAIL HUB

21+00

PT 20+00.00

PC 19+54.68 R=100.00'

PC 19+23.30 R=75.00'

PCC 18+91.30 R=50.00'

19+00

17+00

16+00

PRC 18+08.02 R=495.00'

205

102

101

400

401

402

103

104

110

GRAVEL PIT

A SITE PLAN - AREA F
SCALE: 1"=40'

Graphic Scale: 1" = 40'
0' 20' 40' 80' 120'

Legend

Trails_Aug2024Con

Skill

- Hiker
- Access Trail
- Beginner Traditional
- Beginner Chip Seal
- Beginner Descent
- Intermediate Traditional
- Intermediate Chip Seal
- Intermediate Descent
- Intermediate Technical
- Advanced Chip Seal
- Advanced Descent
- Advanced Technical
- Advanced Traditional

Hubs_Aug2024Con

Type

- Major Hub
- Minor Hub
- Links

***REFER TO TRAILS SCHEDULE FOR SEGMENT SPECIFICATIONS

BASEMAPS
MSD No. XXMSD-XXXXX

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Joplin, MO 64801

Project:
DORA
Bike Park

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KEY PLAN



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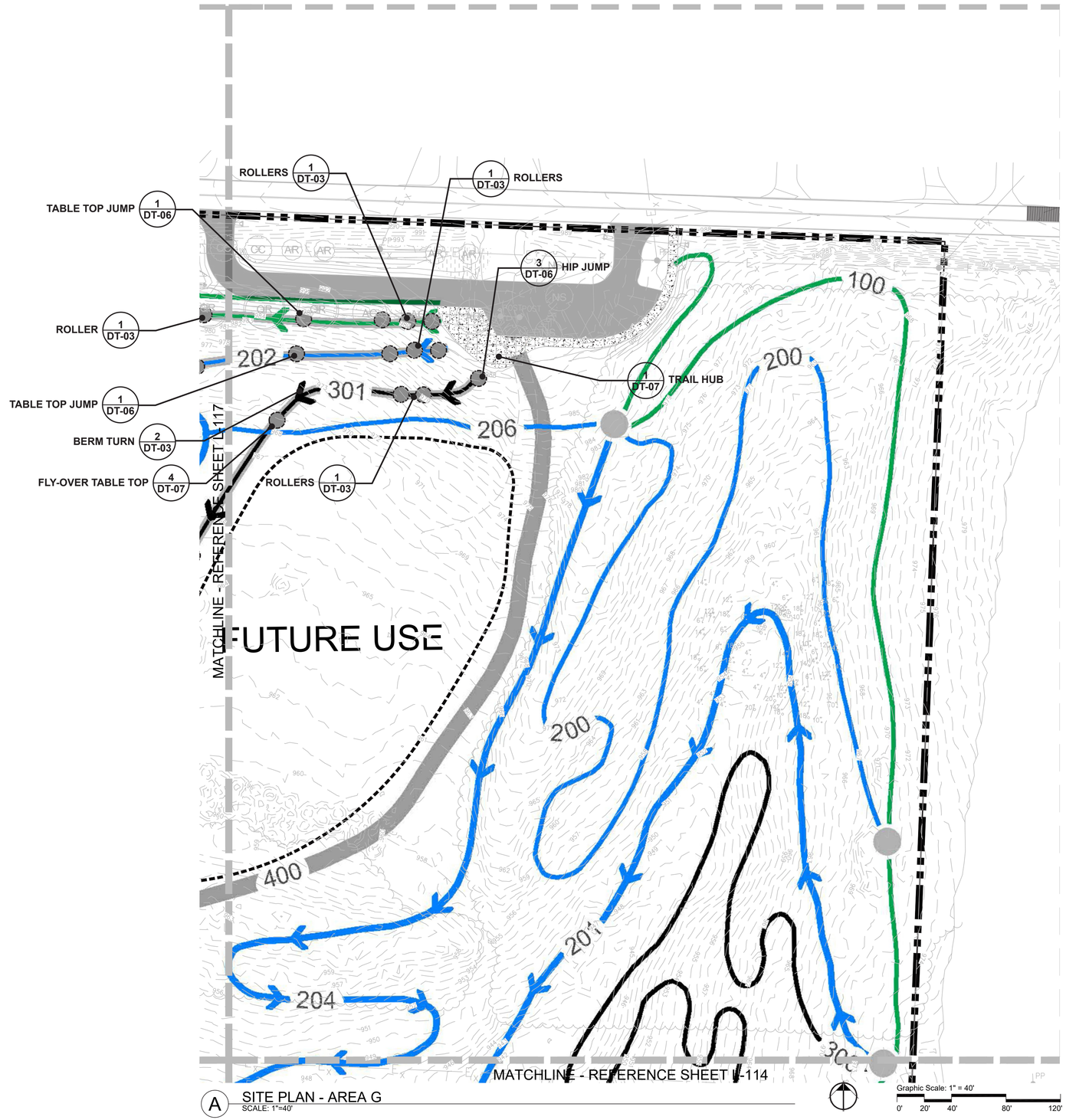
No.	Description	Date

SWT No. 21703.01
Drawn Reviewed

Sheet Title
LAYOUT PLAN F

Number
T-115

October 4, 2024 1:56 PM



A SITE PLAN - AREA G
SCALE: 1"=40'

Legend

Trails_Aug2024Con

Skill

- Hiker
- Access Trail
- Beginner Traditional
- Beginner Chip Seal
- Beginner Descent
- Intermediate Traditional
- Intermediate Chip Seal
- Intermediate Descent
- Intermediate Technical
- Advanced Chip Seal
- Advanced Descent
- Advanced Technical
- Advanced Traditional

Hubs_Aug2024Con

Type

- Major Hub
- Minor Hub
- Links

***REFER TO TRAILS SCHEDULE FOR SEGMENT SPECIFICATIONS

Prepared For:

JOPLIN MISSOURI
602 S Main St
Joplin, MO 64801

Project:
DORA
Bike Park

SWT DESIGN
1925 Central St Suite 202A
Kansas City, MO 64111
t. 816.221.0825

Point of Contact:
Bryce Vogel - brycev@swtdesign.com

Civil Engineer:
Civil & Survey
2419 S 11th Street
St. Louis, MO 63104
314.514.4237

Trail Designer:
IMBA Trail Solutions
PO Box 20280
Boulder, CO 80308
303.709.0269

Electrical Engineering:
Crawford, Murphy & Tilly
1631 West Elfindale
Springfield, MO 65807
417.799.6255

Geotechnical:
Palmerton & Parrish
4168 W. Kearney Street
Springfield, MO 65803
417.864.6000

KEY PLAN



John Wohlschlaeger - Landscape Architect MO # LA - 2009014766

STATE OF MISSOURI JOHN WOHLSCHLAEGER NOTARY PUBLIC LA-2009014766

(10/7/2024)

SWT Design, Inc.
Missouri State Certificate of Authority #2006002904

Issuances

No.	Description	Date
01	100% Design Development	8/7/2024
	Advance Permit Review	8/30/2024
	100% Construction Docs	9/20/2024
	Issued for Bid	10/7/2024

Revisions

No.	Description	Date

SWT No. 21703.01

Drawn Reviewed

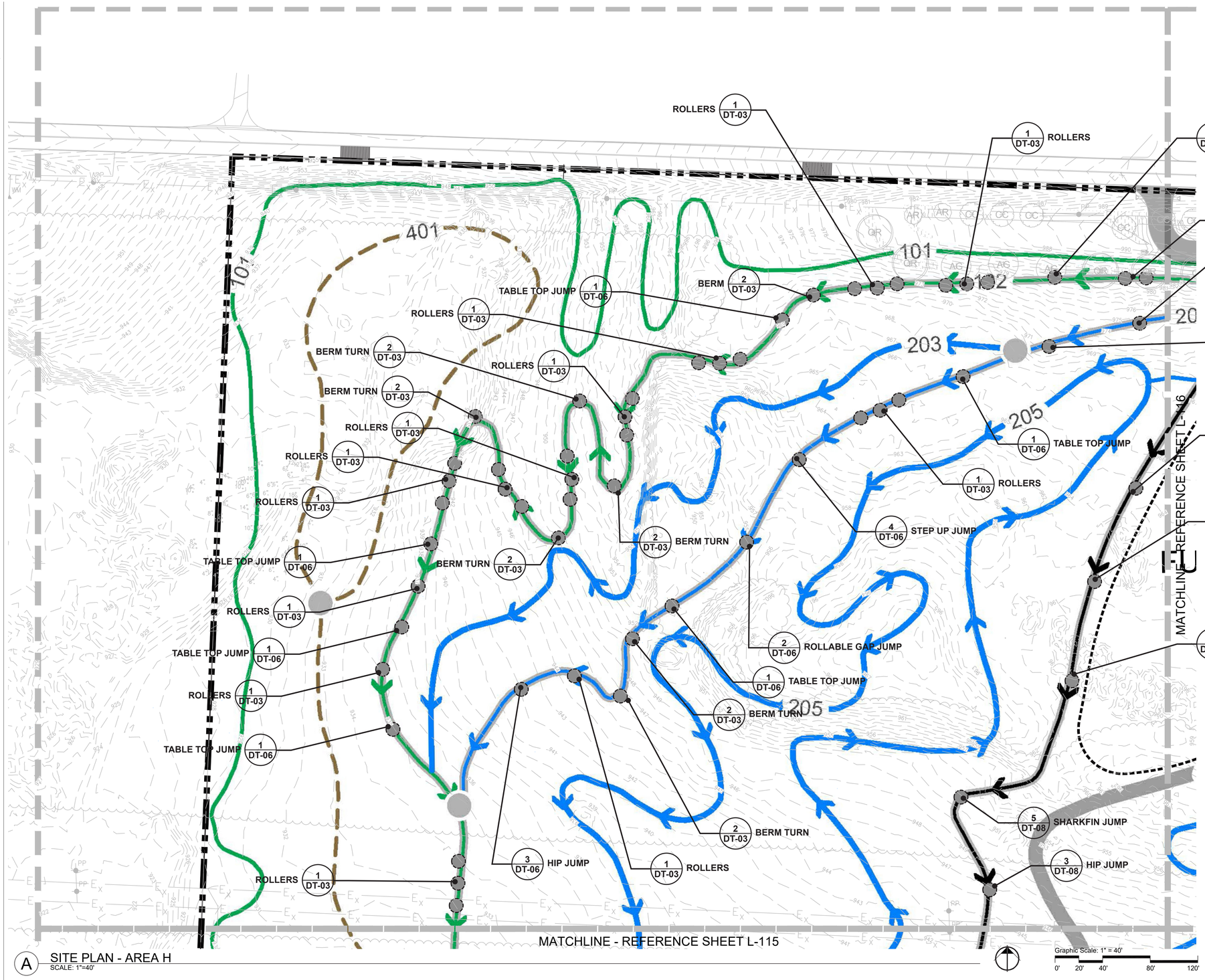
Sheet Title
LAYOUT PLAN G

Number
T-116

BASEMAPS
MSD No. XXMSD-XXXXX

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October 4, 2024 8:03 AM



A SITE PLAN - AREA H
SCALE: 1"=40'

Legend

Trails_Aug2024Con

Skill
- Hiker
- Access Trail
- Beginner Traditional
- Beginner Chip Seal
- Beginner Descent
- Intermediate Traditional
- Intermediate Chip Seal
- Intermediate Descent
- Intermediate Technical
- Advanced Chip Seal
- Advanced Descent
- Advanced Technical
- Advanced Traditional

Hubs_Aug2024Con

Type
- Major Hub
- Minor Hub
- Links

***REFER TO TRAILS SCHEDULE FOR SEGMENT SPECIFICATIONS

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KEY PLAN



John Wohlschlaeger - Landscape Architect MO # LA 2009014766



(10/7/2024)

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Drawn Reviewed

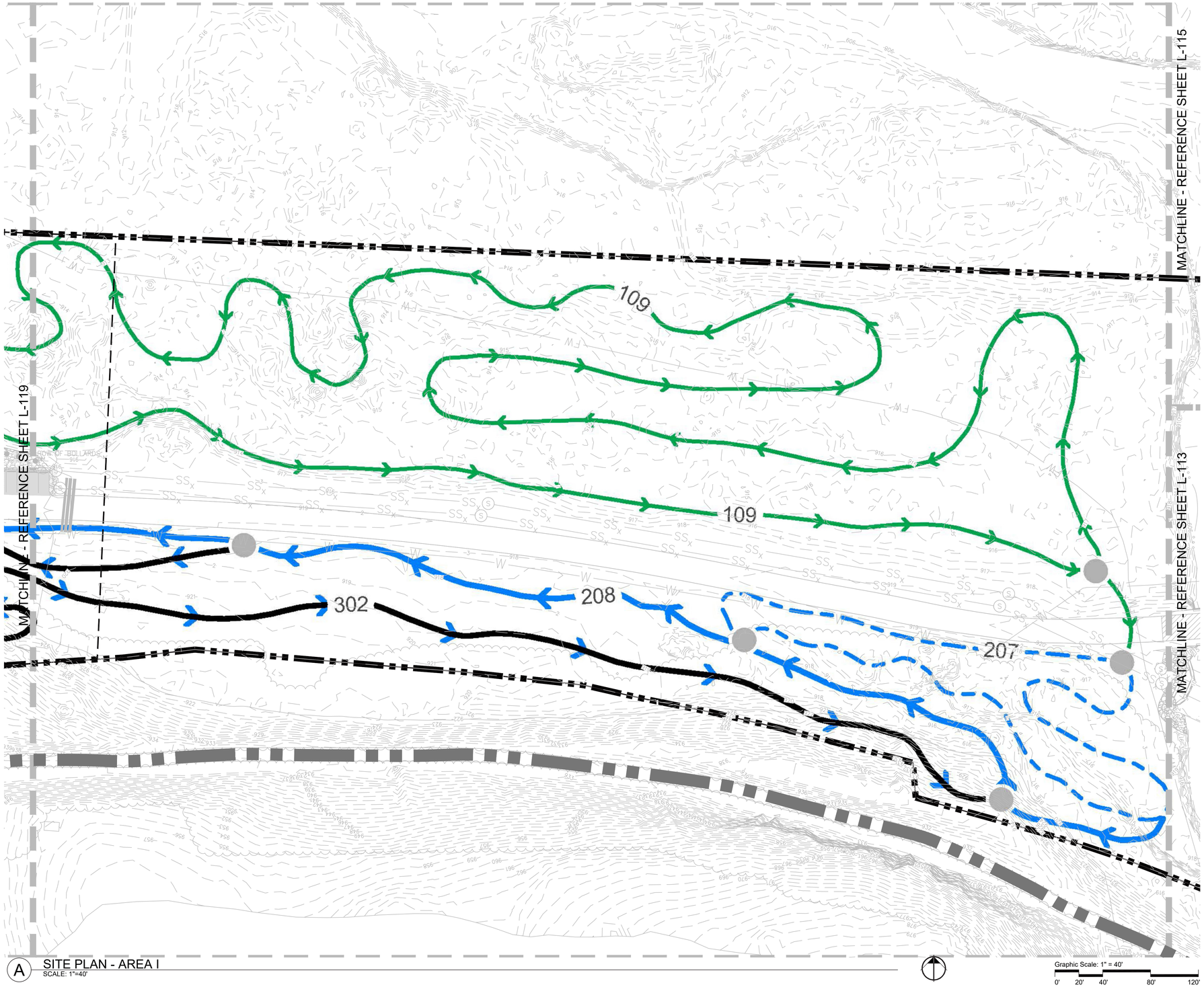
Sheet Title
LAYOUT PLAN H

Number
T-117

BASEMAPS
MSD No. XXMSD-XXXXX

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October 4, 2024 8:04 AM



A SITE PLAN - AREA I
SCALE: 1"=40'

Graphic Scale: 1" = 40'
0' 20' 40' 80' 120'

Legend

Trails_Aug2024Con

Skill

- Hiker
- Access Trail
- Beginner Traditional
- Beginner Chip Seal
- Beginner Descent
- Intermediate Traditional
- Intermediate Chip Seal
- Intermediate Descent
- Intermediate Technical
- Advanced Chip Seal
- Advanced Descent
- Advanced Technical
- Advanced Traditional

Hubs_Aug2024Con

Type

- Major Hub
- Minor Hub
- Links

***REFER TO TRAILS SCHEDULE FOR SEGMENT SPECIFICATIONS

BASEMAPS
MSD No. XXMSD-XXXXX

Prepared For:

JOPLIN MISSOURI
602 S Main St
Joplin, MO 64801

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DORA
Bike Park

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KEY PLAN



John Wohlschlaeger - Landscape Architect MO # LA - 2009014766

(10/7/2024)

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Revisions

No.	Description	Date

SWT No. 21703.01
Drawn Reviewed

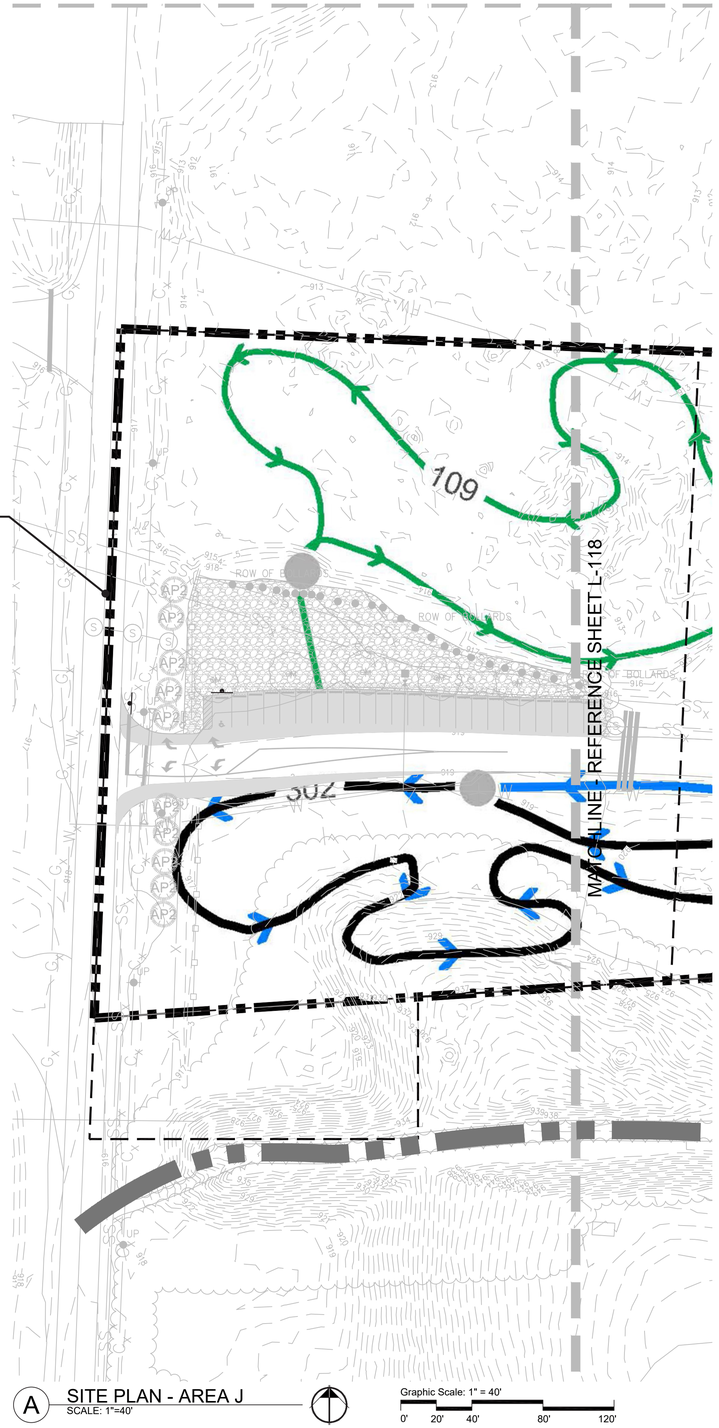
Sheet Title
LAYOUT PLAN I

Number
T-118

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October 4, 2024 8:04 AM

MINE WASTE AREA, NO BORROW PITS, TYP.



A SITE PLAN - AREA J
SCALE: 1"=40'

Graphic Scale: 1" = 40'
0' 20' 40' 80' 120'

Legend

Trails_Aug2024Con

Skill
- Hiker
- Access Trail
- Beginner Traditional
- Beginner Chip Seal
- Beginner Descent
- Intermediate Traditional
- Intermediate Chip Seal
- Intermediate Descent
- Intermediate Technical
- Advanced Chip Seal
- Advanced Descent
- Advanced Technical
- Advanced Traditional

Hubs_Aug2024Con

Type
- Major Hub
- Minor Hub
- Links

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BASEMAPS
MSD No. XXMSD-XXXXX

Prepared For:

JOPLIN MISSOURI
602 S Main St
Joplin, MO 64801

Project:
DORA
Bike Park

SWT DESIGN
1925 Central St Suite 202A
Kansas City, MO 64111
t. 816.221.0825
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Boulder, CO 80308
303.709.0269

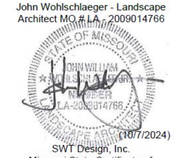
Electrical Engineering:
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Springfield, MO 65807
417.799.6255

Geotechnical:
Palmerton & Parrish
4168 W. Kearney Street
Springfield, MO 65803
417.864.6000

KEY PLAN



John Wohlschlaeger - Landscape Architect MO # LA - 2009014766



SWT Design, Inc.
Missouri State Certificate of Authority #2006002904

Issuances

No.	Description	Date
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	Issued for Bid	10/7/2024

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No.	Description	Date

SWT No. 21703.01
Drawn Reviewed

Sheet Title
LAYOUT PLAN J

Number
T-119

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October 4, 2024 2:24 PM

2 DT-01 CONES
REF. TO LANDSCAPE DWG FOR MORE DTL
MTN. TOP PEAK 13 DT-01
15 DT-01 TEETER TOTTER
2 DT-06 ASPHALT SURFACE
ROLLER 8 DT-01
ROLLER 8 DT-01
SEE SHEET SP-03 FOR DETAIL
ROCK ROLLER 1 DT-02
7 DT-02 ROLLER CORNER
SNAKE LADDER 9 DT-01
ROCK GARDEN 2 DT-02
4 DT-01 RINGS
4 DT-01 5 PACK RINGS
6 DT-01 ZIG ZAG
1 DT-05 48" CRUSHER FINES TREAD TYP. ALL FEATURES SHALL HAVE RIDE AROUNDS
10 DT-01 STEP DOWN ROLLER
8 DT-01 START/FINISH LINE
14 DT-01 ZIG ZAG CORNER
11 DT-01 DOUBLE ROLLER
TUNNEL 3 DT-01
ROLLER 8 DT-01
START/FINISH LINE 1 DT-01
ROLLER 8 DT-01
ENTRANCE SIGN 5 DT-01
LADDER DROP 4 DT-03
3' KICKER RAMP 8 DT-03 1 DT-06
SEE SHEET SP-02 FOR DETAIL
LADDER DROP 5 DT-03
4' KICKER RAMP 9 DT-03 1 DT-06
4' KICKER RAMP 9 DT-03 1 DT-06
ADD ALTERNATE 1 AREA ASPHALT ALL RIDE SURFACES REF. 2/CP-03
BERM TURN 2 DT-03
ROLLERS X2 1 DT-03
BERM TURN 2 DT-03
ROLLERS X2 1 DT-03
INTERMEDIATE CURVED WALL 7 DT-03
5 DT-05 TYPICAL TRAIL SECTION

10 DT-02 MTN. TOP TWIN PEAKS
1 DT-02 ROCK ROLLER
15 DT-02 NESSY 4 BUMPS
1 DT-05 48" CRUSHER FINES TREAD TYP. ALL FEATURES SHALL HAVE RIDE AROUNDS
14 DT-02 STRAIGHT LADDER 2'
4 DT-02 PODIUM BOX
3 DT-02 STRAIGHT LADDER 1'
SPLIT DECISION 12 DT-02
ROLLER CORNER 7 DT-02
9 DT-02 SNAKE LADDER
2 DT-02 ROCK GARDEN
ZIG ZAG S CORNER 5 DT-02
6 DT-02 ZIG ZAG SHORT
6 DT-02 ZIG ZAG SHORT
1 DT-02 ROCK ROLLER
11 DT-02 DOUBLE ROLLER
3 DT-03 WIDE ROLL-IN
8 DT-02 NESSY 3 BUMPS
13 DT-02 MTN. 3' TOP PEAK
1 DT-03 ROLLERS X2
1 DT-03 ROLLERS X2
1 DT-06 TABLE TOP JUMP
4 DT-05 6 DT-05 60-72" TREAD WIDTH, TYP. ALL RIDING SURFACES SHALL RECEIVE TRAIL SURFACING MATERIAL PER SPEC.
1 DT-03 ROLLERS X3
1 DT-06 TABLE TOP JUMP
2 DT-03 BERM TURN
6 DT-03 BEGINNER CURVED WALL
1 DT-03 ROLLERS X3
8 DT-03 1 DT-06 3' KICKER RAMP
1 DT-03 ROLLERS X 3
8 DT-03 1 DT-06 3' KICKER RAMP
9 DT-03 1 DT-06 4' KICKER RAMP
2 DT-03 BERM TURN
1 DT-03 ROLLERS X3

- PROGRESSIVE JUMP SKILLS ZONE: The progressive jump skills zone design goal is to provide beginner to intermediate jump and flow experiences in a progressive manner. Inspiration and ques should be taken by the Trails Contractor from the Slaughter Pen Skills zone. Site constraints and spatial constraints may limit the capability to fully mimic the Slaughter Pen Skills zone, but that is the intention.
- Notes: 1) This design is intended to provide the baseline direction to the selected contractor. At a minumum, the contractor shall construct the progressive jumps skills zone and infrastructure to provide the layout, quantity and experiences as designed in the bid documents. The selected contractor should field fit and shift features to create the intended riding experiences and appropriate trail speeds. If the selected contractor sees the opportunity to provide refinements and/or additional quantity and experiences at the same contracted price, this can be proposed and achieved by the selected contractor submitting shop drawings for approval by the owner's representative. 2) Ref. to Civil drawings for any additional drainage req's. 3) Ref. to Landscape drawings for stabilization/revegetation req's.

A FEATURES PLAN - CORE AREA
SCALE: 1"=20'

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Prepared For:

JOPLIN MISSOURI
602 S Main St
Joplin, MO 64801

Project:
DORA
Bike Park

SWT DESIGN
1925 Central St Suite 202A
Kansas City, MO 64111
t. 816.221.0925

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Electrical Engineering:
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1631 West Elfindale
Springfield, MO 65807
417.799.6255

Geotechnical:
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4168 W. Kearney Street
Springfield, MO 65803
417.864.6000

KEY PLAN



John Wohlschlaeger - Landscape Architect MO # LA - 2009014766
STATE OF MISSOURI JOHN WILLIAM WOHLSCHLAEGER NUMBER LA-2009014766 REGISTERED LANDSCAPE ARCHITECT
(10/7/2024)
SWT Design, Inc.
Missouri State Certificate of Authority #2006002904

Issuances

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	Issued for Bid	10/7/2024

Revisions

No.	Description	Date

SWT No. 21703.01
Drawn Reviewed

Sheet Title

Number
SP-01

DATUM: 0.0 = 920.50'

ADAPTIVE / BEGINNER PUMP TRACK

INTERMEDIATE / ADVANCED PUMP TRACK

PUMP TRACK INFIELD AREA , TYP.

DEEP BERM AREA

SAFETY STRIPE, TYP.

LIMIT OF WORK (PUMP TRACK)

A SITE PLAN - PUMP TRACK ENLARGMENT
SCALE: 1"=10'

- INTERMEDIATE/ADVANCED PUMP TRACK: The intermediate pump track is intended to be an anchor of the bike park and shall be constructed by a qualified contractor that can deliver a cutting edge product that is at the forefront of progression in asphalt pumptrack design and construction. This design details a snake run style track that is approachable by intermediate and advanced riders and wheeled users.

- ADAPTIVE/BEGINNER PUMP TRACK: The adaptive/beginner pump track will serve users on balance bikes, “never evers” and users with disabilities. Special care will be required by the contractor to ensure the track is adaptive friendly. Previous experience with adaptive pump track design and construction will be critical to the success of this track.

- Notes: 1) This design is intended to provide the baseline direction to the selected contractor. At a minumum, the contractor shall construct the pump track infrastructure to provide the layout, quantity and experiences as designed in the bid documents. If the selected contractor sees the opportunity to provide refinements and/or additional quantity and experiences at the same contracted price, this can be proposed and achieved by the selected contractor submitting shop drawings for approval by the owner’s representative. Spot elevations are provided that will allow for the pump track to be easily incorporated into the site with limited disturbance and to ensure that area drains can daylight without difficulty. The selected contractor shall adhere to the provided spot elevations unless approved otherwise



Prepared For:

JOPLIN MISSOURI
602 S Main St
Joplin, MO 64801

Project:
DORA
Bike Park

SWT DESIGN
1925 Central St Suite 202A
Kansas City, MO 64111
t. 816.221.3825

Point of Contact:
Bryce Vogel - brycev@swtdesign.com

Civil Engineer:
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St. Louis, MO 63104
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John Wohlschlaeger - Landscape Architect MO # LA-2009014766



(10/7/2024)

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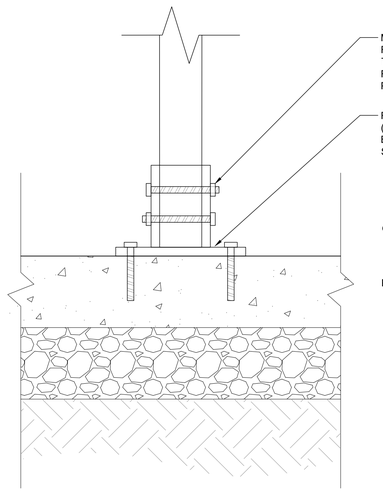
SWT No. 21703.01

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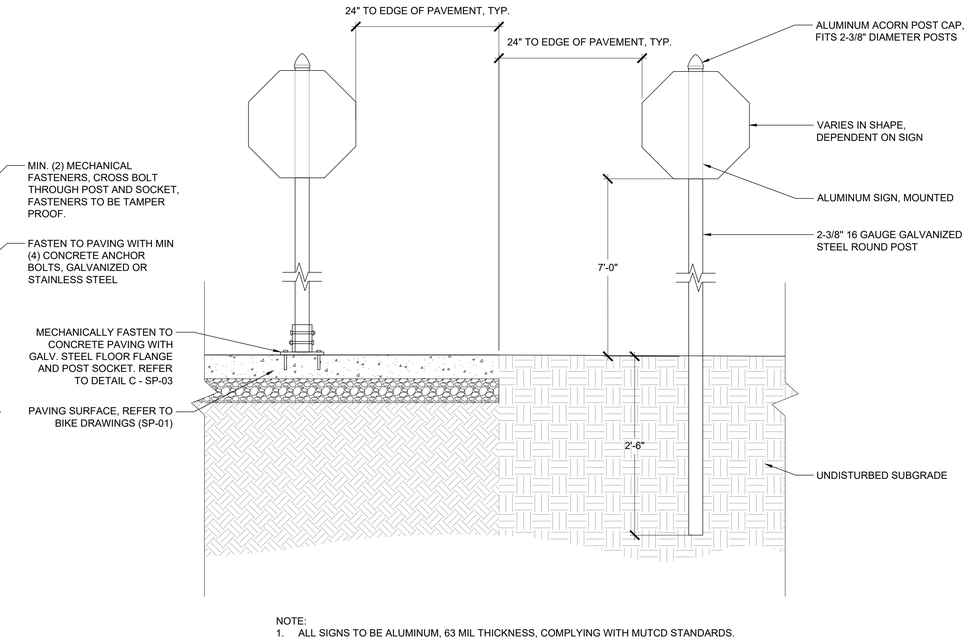
Sheet Title
LAYOUT PLAN C

Number
SP-02

October 7, 2024 11:43 AM



C ROAD SIGN AND POLE FASTENER DETAIL
SCALE: 3"=1'



NOTE:
1. ALL SIGNS TO BE ALUMINUM, 63 MIL THICKNESS, COMPLYING WITH MUTCD STANDARDS.

B ROAD SIGN AND POLE IN CONCRETE AND SOIL
SCALE: 1"=1'

SIGNAGE CALLOUTS
SCALE: 1"=1'

1 **STOP SIGN (R1-1) - 18"x18"**



ALL-WAY (R1-3P) - 18"x6"



2 **PEDESTRIAN CROSSING (K-6544) - 18"X18"**



3 **ROAD WORK AHEAD (W20-1B) - 24"X24"**



4 **BICYCLE PARKING (D4-3) - 18"X12"**



5 **ROUNDABOUT (W2-6) - 24"X24"**



6 **PAVEMENT ENDS (W8-30) - 24"X24"**

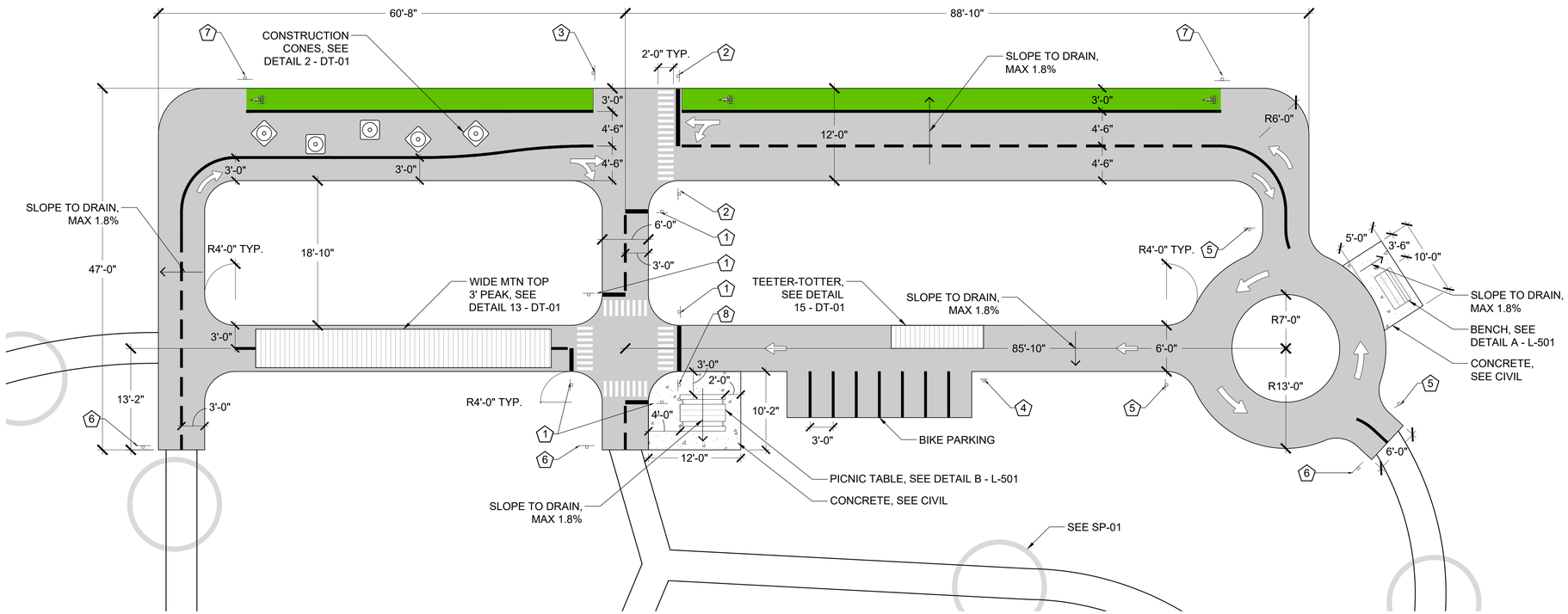


7 **BIKE ROUTE (D11-1) - 24"X18"**



8 **DO NOT ENTER (X-R5-1) - 18"X18"**





A BIKE PLAYGROUND STRIPING AND SIGNAGE
SCALE: 1"=8'

LEGEND

- NO PASSING LANE - 4"
- PASSING LANE - 4"
- STOP LINE - 6"
- CROSS WALK LANE - 4"
- CONCRETE PAVING
- ASPHALT PAVING
- ASPHALT PAVING WITH PAINT
- BIKE RAMP STRUCTURE
- BIKE LANE SYMBOL
- TRAFFIC ARROWS

NOTE:
1. 4 INCH WHITE THERMOPLASTIC PAVING MARKINGS, SEE CITY OF JOPLIN TECHNICAL SPECIFICATIONS.
2. SEE CIVIL DRAWINGS AND SPECIFICATIONS FOR SITE HARDSCAPE DETAILS.
3. SEE BIKE DRAWINGS AND SPECIFICATIONS FOR ALL TRAIL AND BIKE AMENITY SURFACING AND DETAILS.

Graphic Scale: 1" = 8'
0' 4' 8' 16' 24'

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Prepared For:

JOPLIN MISSOURI
3301 W 1ST ST
Joplin, MO 64801

Project:
DORA
Bike Park

SWT DESIGN
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t: 816.221.0825

Point of Contact:
Bryce Vogel - brycev@swtdesign.com

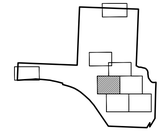
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KEY PLAN



John Wohlschlaeger - Landscape Architect MO # LA - 2009014766

(10/7/2024)

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Issuances

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SWT No. 21703.01

Drawn BV, MB, CP
Reviewed LK, JW

Sheet Title
CYCLE CITY ENLARGEMENT

Number
SP-03

BICYCLE SKILLS FEATURES



PRODUCT MADE BY AMERICAN RAMP COMPANY
CONTACT: JEREMY JONES
EMAIL: JEREMY@AMERICANRAMPCOMPANY.COM
WEB: AMERICANRAMPCOMPANY.COM
PRODUCT DESCRIPTION: START/FINISH

NOTE: OR APPROVED EQUAL

1 START/FINISH LINE - 4” H X 3’ W
NTS



PRODUCT MADE BY AMERICAN RAMP COMPANY
CONTACT: JEREMY JONES
EMAIL: JEREMY@AMERICANRAMPCOMPANY.COM
WEB: AMERICANRAMPCOMPANY.COM
PRODUCT DESCRIPTION: CONES

NOTE: OR APPROVED EQUAL

2 CONSTRUCTION CONE - 56” H X 29” W
NTS



PRODUCT MADE BY AMERICAN RAMP COMPANY
CONTACT: JEREMY JONES
EMAIL: JEREMY@AMERICANRAMPCOMPANY.COM
WEB: AMERICANRAMPCOMPANY.COM
PRODUCT DESCRIPTION: TUNNEL

NOTE: OR APPROVED EQUAL

3 TUNNEL - 8’H X 8’W
NTS



PRODUCT MADE BY AMERICAN RAMP COMPANY
CONTACT: JEREMY JONES
EMAIL: JEREMY@AMERICANRAMPCOMPANY.COM
WEB: AMERICANRAMPCOMPANY.COM
PRODUCT DESCRIPTION: RINGS

NOTE: OR APPROVED EQUAL

4 5 RING PACK - 8’H X 8’W
NTS



PRODUCT MADE BY AMERICAN RAMP COMPANY
CONTACT: ALEC BELDEN
EMAIL: ALEC@AMERICANRAMPCOMPANY.COM
WEB: AMERICANRAMPCOMPANY.COM
PRODUCT DESCRIPTION: ENTRANCE SIGN

NOTE: OR APPROVED EQUAL

5 ENTRANCE SIGN - 12’H X 13’W
NTS



PRODUCT MADE BY AMERICAN RAMP COMPANY
CONTACT: JEREMY JONES
EMAIL: JEREMY@AMERICANRAMPCOMPANY.COM
WEB: AMERICANRAMPCOMPANY.COM
PRODUCT DESCRIPTION: ZIG ZAG SHORT (15 DEG) 1’ X 24.4’ X 36”

NOTE: OR APPROVED EQUAL

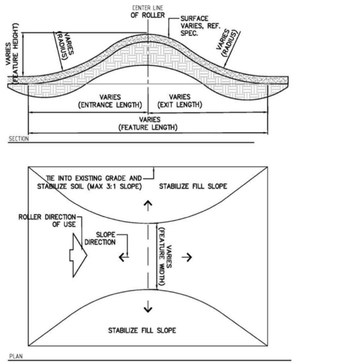
6 ZIG ZAG SHORT - 1’H X 36”W
NTS



PRODUCT MADE BY AMERICAN RAMP COMPANY
CONTACT: JEREMY JONES
EMAIL: JEREMY@AMERICANRAMPCOMPANY.COM
WEB: AMERICANRAMPCOMPANY.COM
PRODUCT DESCRIPTION: ROLLER CORNER (45 DEG) 1’ X 23.9’ X 60”

NOTE: OR APPROVED EQUAL

7 WIDE ROLLER CORNER - 1’H X 60”W
NTS



Roller dimension ranges

Difficulty	Height (ft)	Length (ft)	Width (ft)
Beginner	0.5' - 2'	10' - 15'	3' - 5'
Intermediate and above	1' - 3'	10' - 20'	3' - 6'

8 TYPICAL ROLLER
NTS



PRODUCT MADE BY AMERICAN RAMP COMPANY
CONTACT: JEREMY JONES
EMAIL: JEREMY@AMERICANRAMPCOMPANY.COM
WEB: AMERICANRAMPCOMPANY.COM
PRODUCT DESCRIPTION: SNAKE LADDER 1’ X 57.5’ X 36”

NOTE: OR APPROVED EQUAL

9 SNAKE LADDER - 1’H X 36”W
NTS



PRODUCT MADE BY AMERICAN RAMP COMPANY
CONTACT: ALEC@AMERICANRAMPCOMPANY.COM
WEB: AMERICANRAMPCOMPANY.COM
PRODUCT DESCRIPTION: STEP DOWN ROLLER 2’ X 31.2’ X 60” (CUSTOM)

NOTE: OR APPROVED EQUAL

10 WIDE STEP DOWN ROLLER - 2’H X 60”W
NTS



PRODUCT MADE BY AMERICAN RAMP COMPANY
CONTACT: JEREMY JONES
EMAIL: JEREMY@AMERICANRAMPCOMPANY.COM
WEB: AMERICANRAMPCOMPANY.COM
PRODUCT DESCRIPTION: WIDE DOUBLE ROLLER 2’ X 34.7’ X 60”

NOTE: OR APPROVED EQUAL

11 WIDE DOUBLE ROLLER - 2’H x 60”W
NTS



PRODUCT MADE BY AMERICAN RAMP COMPANY
CONTACT: JEREMY JONES
EMAIL: JEREMY@AMERICANRAMPCOMPANY.COM
WEB: AMERICANRAMPCOMPANY.COM
PRODUCT DESCRIPTION: MTN TOP TWIN PEAKS 2’ X 54.2’ X 36”

NOTE: OR APPROVED EQUAL

12 MTN TOP TWIN PEAKS - 2’H X 36”W
NTS



PRODUCT MADE BY AMERICAN RAMP COMPANY
CONTACT: JEREMY JONES
EMAIL: JEREMY@AMERICANRAMPCOMPANY.COM
WEB: AMERICANRAMPCOMPANY.COM
PRODUCT DESCRIPTION:MOUNTAIN TOP 3’ PEAK 3’ X 34.8’ X 60” (CUSTOM)
NOTE: OR APPROVED EQUAL

13 WIDE MTN TOP 3’ PEAK - 3’H X 60”W
NTS



PRODUCT MADE BY AMERICAN RAMP COMPANY
CONTACT: JEREMY JONES
EMAIL: JEREMY@AMERICANRAMPCOMPANY.COM
WEB: AMERICANRAMPCOMPANY.COM
PRODUCT DESCRIPTION: ZIG ZAG CORNER (90 DEG) 1’ X 21.9’ X 36”

NOTE: OR APPROVED EQUAL

14 ZIG ZAG CORNER - 1’H X 36”W
NTS



PRODUCT MADE BY AMERICAN RAMP COMPANY
CONTACT: JEREMY JONES
EMAIL: JEREMY@AMERICANRAMPCOMPANY.COM
WEB: AMERICANRAMPCOMPANY.COM
PRODUCT DESCRIPTION: TEETER TOTTER & SIGNAGE 1’X12’X36”
NOTE: OR APPROVED EQUAL

15 TEETER TOTTER - 1’H X 36”W
NTS

BASEMAPS
MSD No. XXMSD-XXXXX

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Prepared For:

JOPLIN MISSOURI
602 S Main St
Joplin, MO 64801

Project:
DORA
Bike Park

SWT DESIGN
1925 Central St Suite 202A
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417.799.6255

Geotechnical:
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Springfield, MO 65803
417.864.6000

KEY PLAN

John Wohlschlaeger - Landscape Architect MO # LA - 2009014766
STATE OF MISSOURI JOHN WILLIAM WOHLSCHLAEGER NUMBER LA-2009014766 (10/7/2024)
SWT Design, Inc.
Missouri State Certificate of Authority #2006002904

Issuances

No.	Description	Date
01	100% Design Development	8/7/2024
	Advance Permit Review	8/30/2024
	100% Construction Docs	9/20/2024
	Issued for Bid	10/7/2024

Revisions

No.	Description	Date

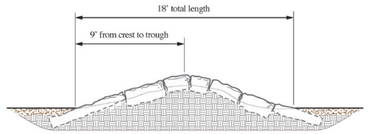
SWT No. 21703.01
Drawn Reviewed

Sheet Title
DETAILS

Number
DT-01

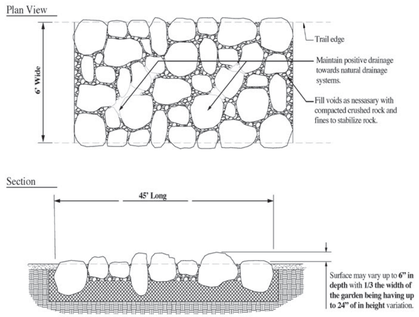
BICYCLE TRAIL FEATURES





***REFER TO SPECIFICATIONS FOR MINIMUM BOULDER AND ROCK SIZES AND CHARACTERISTICS

1 ROCK ROLLER
NTS



***REFER TO SPECIFICATIONS FOR MINIMUM BOULDER AND ROCK SIZES AND CHARACTERISTICS

2 ROCK GARDEN
NTS



PRODUCT MADE BY AMERICAN RAMP COMPANY
CONTACT: ALEC BELDEN
EMAIL: ALEC@AMERICANRAMPCOMPANY.COM
WEB: AMERICANRAMPCOMPANY.COM
PRODUCT DESCRIPTION:STRAIGHT LADDER (3.5 DEG) 1' X 27.7' X 12"
NOTE: OR APPROVED EQUAL

3 STRAIGHT LADDER 1' - 1'H X 12"W
NTS



PRODUCT MADE BY AMERICAN RAMP COMPANY
CONTACT: JEREMY JONES
EMAIL: JEREMY@AMERICANRAMPCOMPANY.COM
WEB: AMERICANRAMPCOMPANY.COM
PRODUCT DESCRIPTION: PODIUM BOX 1-2' X 24 X 36"

NOTE: OR APPROVED EQUAL

4 PODIUM BOX
NTS



PRODUCT MADE BY AMERICAN RAMP COMPANY
CONTACT: ALEC BELDEN
EMAIL: ALEC@AMERICANRAMPCOMPANY.COM
WEB: AMERICANRAMPCOMPANY.COM
PRODUCT DESCRIPTION: ZIG ZAG S CORNER (90 DEG) 2' X 36.7' X 36"

NOTE: OR APPROVED EQUAL

5 ZIG ZAG S CORNER - 2'H X 36"W
NTS



PRODUCT MADE BY AMERICAN RAMP COMPANY
CONTACT: JEREMY JONES
EMAIL: JEREMY@AMERICANRAMPCOMPANY.COM
WEB: AMERICANRAMPCOMPANY.COM
PRODUCT DESCRIPTION: ZIG ZAG SHORT (15 DEG) 2' X 24.4' X 36"

NOTE: OR APPROVED EQUAL

6 ZIG ZAG SHORT - 2'WH X 36"W
NTS



PRODUCT MADE BY AMERICAN RAMP COMPANY
CONTACT: JEREMY JONES
EMAIL: JEREMY@AMERICANRAMPCOMPANY.COM
WEB: AMERICANRAMPCOMPANY.COM
PRODUCT DESCRIPTION: ROLLER CORNER (90 DEG) 2' X 23.9' X 36"

NOTE: OR APPROVED EQUAL

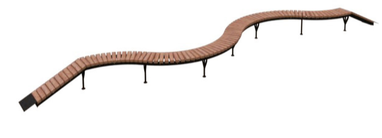
7 ROLLER CORNER - 2'H X 36"W
NTS



PRODUCT MADE BY AMERICAN RAMP COMPANY
CONTACT: JEREMY JONES
EMAIL: JEREMY@AMERICANRAMPCOMPANY.COM
WEB: AMERICANRAMPCOMPANY.COM
PRODUCT DESCRIPTION: WIDE NESSY 3 BUMPS 3' X 44.8' X 60" (CUSTOM)

NOTE: OR APPROVED EQUAL

8 WIDE NESSY 3 BUMPS - 3'H X 60"W
NTS



PRODUCT MADE BY AMERICAN RAMP COMPANY
CONTACT: JEREMY JONES
EMAIL: JEREMY@AMERICANRAMPCOMPANY.COM
WEB: AMERICANRAMPCOMPANY.COM
PRODUCT DESCRIPTION; SNAKE LADDER 2' X 57.5' X 36"

NOTE: OR APPROVED EQUAL

9 SNAKE LADDER - 2'H X 36"W
NTS



PRODUCT MADE BY AMERICAN RAMP COMPANY
CONTACT: ALEC BELDEN
EMAIL: ALEC@AMERICANRAMPCOMPANY.COM
WEB: AMERICANRAMPCOMPANY.COM
PRODUCT DESCRIPTION: MOUNTAIN TOP TWIN PEAKS 2' X 54.2' X 36"
NOTE: OR APPROVED EQUAL

10 MTN TOP TWIN PEAKS -2'H X 36"W
NTS



PRODUCT MADE BY AMERICAN RAMP COMPANY
CONTACT: JEREMY JONES
EMAIL: JEREMY@AMERICANRAMPCOMPANY.COM
WEB: AMERICANRAMPCOMPANY.COM
PRODUCT DESCRIPTION: WIDE DOUBLE ROLLER 2' X 34.7' X 60"

NOTE: OR APPROVED EQUAL

11 WIDE DOUBLE ROLLER - 2'H X 60"W
NTS



PRODUCT MADE BY AMERICAN RAMP COMPANY
CONTACT: JEREMY JONES
EMAIL: JEREMY@AMERICANRAMPCOMPANY.COM
WEB: AMERICANRAMPCOMPANY.COM
PRODUCT DESCRIPTION: SPLIT DECISION 2' X 48.8' X 60" (CUSTOM)
NOTE: OR APPROVED EQUAL

12 WIDE SPLIT DECISION - 2'H X 60"W
NTS



PRODUCT MADE BY AMERICAN RAMP COMPANY
CONTACT: JEREMY JONES
EMAIL: JEREMY@AMERICANRAMPCOMPANY.COM
WEB: AMERICANRAMPCOMPANY.COM
PRODUCT DESCRIPTION:MOUNTAIN TOP 3' PEAK 2' X 34.8' X 60" (CUSTOM)

NOTE: OR APPROVED EQUAL

13 WIDE MTN TOP 3' PEAK - 2'H X 60"W
NTS



PRODUCT MADE BY AMERICAN RAMP COMPANY
CONTACT: JEREMY JONES
EMAIL: JEREMY@AMERICANRAMPCOMPANY.COM
WEB: AMERICANRAMPCOMPANY.COM
PRODUCT DESCRIPTION:STRAIGHT LADDER 2' (15 DEG) 2' X 22.9' X 12"
NOTE: OR APPROVED EQUAL

14 STRAIGHT LADDER 2' - 2'H X 12"W
NTS



PRODUCT MADE BY AMERICAN RAMP COMPANY
CONTACT: JEREMY JONES
EMAIL: JEREMY@AMERICANRAMPCOMPANY.COM
WEB: AMERICANRAMPCOMPANY.COM
PRODUCT DESCRIPTION: WIDE NESSY 4 BUMPS 3' X 57.8' X 72"

NOTE: OR APPROVED EQUAL

15 WIDE NESSY 4 BUMPS - 3'H X 60"W
NTS

BASEMAPS
MSD No. XXMSD-XXXXX

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Prepared For:

JOPLIN MISSOURI
602 S Main St
Joplin, MO 64801

Project:
DORA
Bike Park

SWT DESIGN
1925 Central St Suite 202A
Kansas City, MO 64111
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417.864.6000

KEY PLAN

John Wohlschlaeger - Landscape Architect MO # L.A. - 2009014766
STATE OF MISSOURI
JOHN WILLIAM WOHLSCHLAEGER
NUMBER
LA-2009014766
(10/7/2024)
SWT Design, Inc.
Missouri State Certificate of Authority #2006002904

Issuances

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01	100% Design Development	8/7/2024
	Advance Permit Review	8/30/2024
	100% Construction Docs	9/20/2024
	Issued for Bid	10/7/2024

Revisions

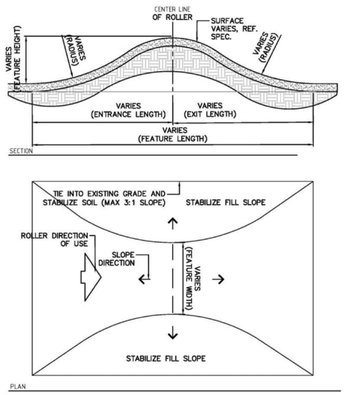
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SWT No. 21703.01
Drawn Reviewed

Sheet Title
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Number
DT-02

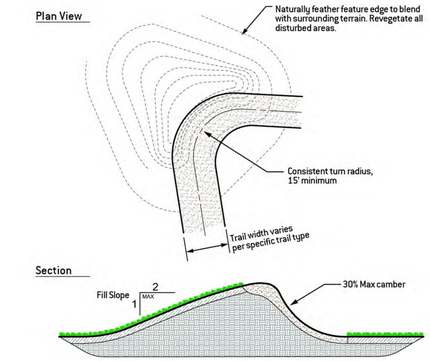
PROGRESSIVE JUMP FEATURES



Roller dimension ranges

Difficulty	Height (ft)	Length (ft)	Width (ft)
Beginner	0.5' - 2'	10' - 15'	3' - 5'
Intermediate and above	1' - 3'	10' - 20'	3' - 6'

1 TYPICAL ROLLER
NTS



***REFER TO PLAN FOR LOCATIONS. ALL FILL SLOPES AND DISTURBED NON-RIDING SURFACES SHALL RECEIVE EROSION MATTING

2 TYPICAL BERM TURN
NTS



PRODUCT MADE BY AMERICAN RAMP COMPANY
CONTACT: ALEC BELDEN
EMAIL: ALEC@AMERICANRAMPCOMPANY.COM
WEB: AMERICANRAMPCOMPANY.COM
PRODUCT DESCRIPTION: WIDE ROLL-IN 1' X 8.1' X 72"
NOTE: OR APPROVED EQUAL

3 WIDE ROLL-IN - 1'H X 60"W
NTS



PRODUCT MADE BY AMERICAN RAMP COMPANY
CONTACT: JEREMY JONES
EMAIL: JEREMY@AMERICANRAMPCOMPANY.COM
WEB: AMERICANRAMPCOMPANY.COM
PRODUCT DESCRIPTION: LADDER DROP 2' X 8' X 48"

NOTE: OR APPROVED EQUAL

4 LADDER DROP - 1'H X 48"W
NTS



PRODUCT MADE BY AMERICAN RAMP COMPANY
CONTACT: JEREMY JONES
EMAIL: JEREMY@AMERICANRAMPCOMPANY.COM
WEB: AMERICANRAMPCOMPANY.COM
PRODUCT DESCRIPTION: LADDER DROP 3' X 8' X 48"

NOTE: OR APPROVED EQUAL

5 LADDER DROP - 2'H X 48"W
NTS



PRODUCT MADE BY AMERICAN RAMP COMPANY
CONTACT: JEREMY JONES
EMAIL: JEREMY@AMERICANRAMPCOMPANY.COM
WEB: AMERICANRAMPCOMPANY.COM
PRODUCT DESCRIPTION: BEGINNER CURVED WALL (55 DEG) 8' X 20'

NOTE: OR APPROVED EQUAL

6 BEGINNER CURVED WALL - 8'H X 20'L
NTS



PRODUCT MADE BY AMERICAN RAMP COMPANY
CONTACT: JEREMY JONES
EMAIL: JEREMY@AMERICANRAMPCOMPANY.COM
WEB: AMERICANRAMPCOMPANY.COM
PRODUCT DESCRIPTION: INTERMEDIATE CURVED WALL (65 DEG) 8' X 25'

NOTE: OR APPROVED EQUAL

7 INTERMEDIATE CURVED WALL - 8'H X 25'L
NTS



PRODUCT MADE BY AMERICAN RAMP COMPANY
CONTACT: JEREMY JONES
EMAIL: JEREMY@AMERICANRAMPCOMPANY.COM
WEB: AMERICANRAMPCOMPANY.COM
PRODUCT DESCRIPTION: KICKER RAMP 3' X 8.2' X 48"

NOTE: OR APPROVED EQUAL

8 KICKER RAMP - 3'H X 48"W
NTS



PRODUCT MADE BY AMERICAN RAMP COMPANY
CONTACT: JEREMY JONES
EMAIL: JEREMY@AMERICANRAMPCOMPANY.COM
WEB: AMERICANRAMPCOMPANY.COM
PRODUCT DESCRIPTION: KICKER RAMP 4' X 8.2' X 60"

NOTE: OR APPROVED EQUAL

9 KICKER RAMP - 4'H X 60"W
NTS

BASEMAPS
MSD No. XXMSD-XXXXX

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Prepared For:

JOPLIN MISSOURI
602 S Main St
Joplin, MO 64801

Project:
DORA
Bike Park

SWT DESIGN
1925 Central St Suite 202A
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Geotechnical:
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4168 W. Kearney Street
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417.864.6000

KEY PLAN

John Wohlschlaeger - Landscape Architect MO # LA - 2009014766
(10/7/2024)
SWT Design, Inc.
Missouri State Certificate of Authority #2006002904

Issuances

No.	Description	Date
01	100% Design Development	8/7/2024
	Advance Permit Review	8/30/2024
	100% Construction Docs	9/20/2024
	Issued for Bid	10/7/2024

Revisions

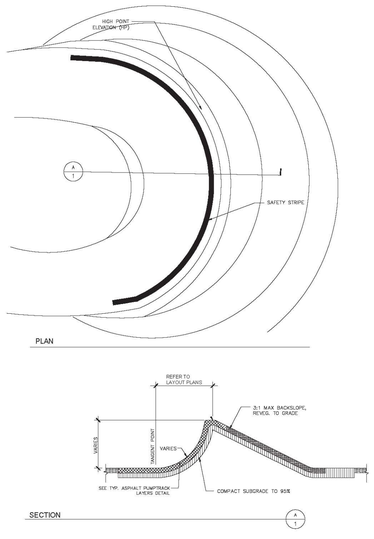
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SWT No. 21703.01
Drawn Reviewed

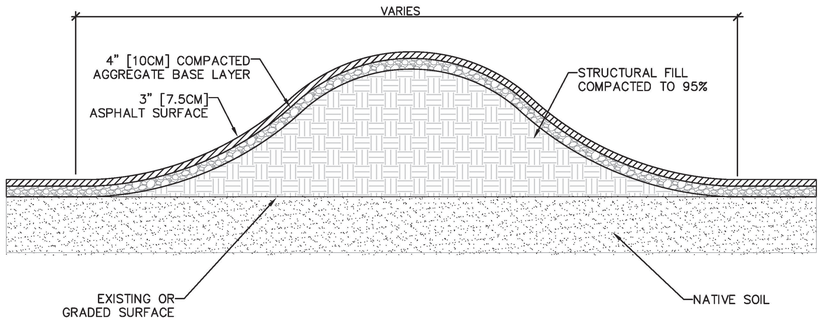
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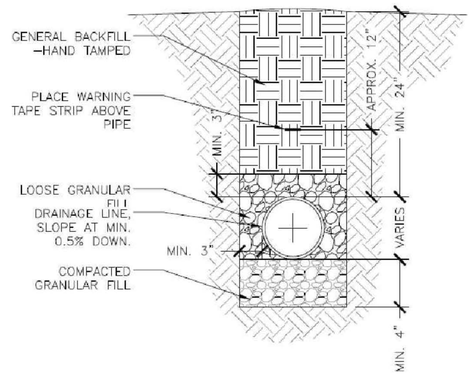
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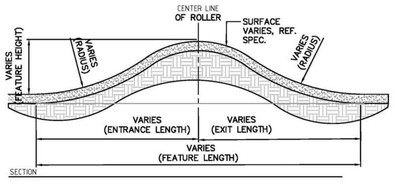
1 DEEP ASPHALT BERM TURN
NTS



2 TYP. ASPHALT FILL SECTIONS
NTS



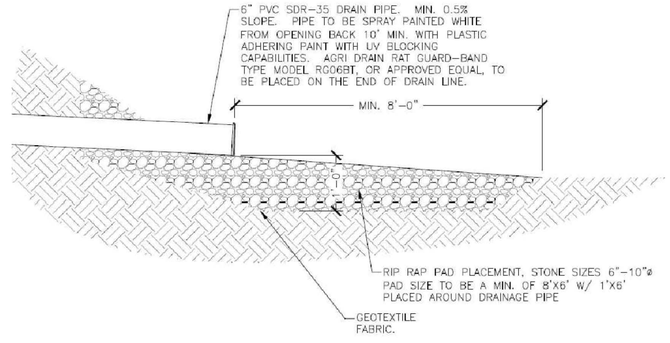
3 BURIED DRAINAGE LINE
NTS



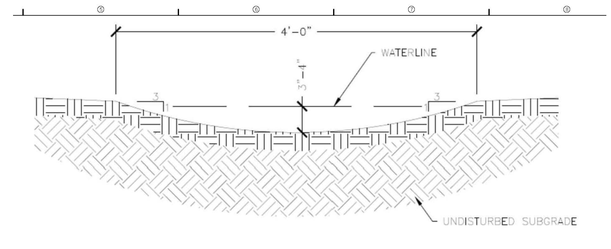
Roller dimension ranges

Difficulty	Height (ft)	Length (ft)	Width (ft)
Beginner	0.5' - 2'	10' - 15'	3' - 5'
Intermediate and above	1' - 3'	10' - 20'	3' - 6'

4 TYP. ASPHALT ROLLER
NTS



5 TYP. DRAINAGE OUTFLOW (DAYLIGHT SYSTEM)



6 TYP. TURF SWALE
NTS

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BASEMAPS
MSD No. XXMSD-XXXXX

Prepared For:

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KEY PLAN

John Wohlschlaeger - Landscape Architect MO # LA - 2009014766

(10/7/2024)
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Issuances

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01	100% Design Development	8/7/2024
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Revisions

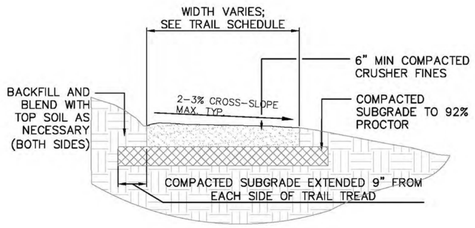
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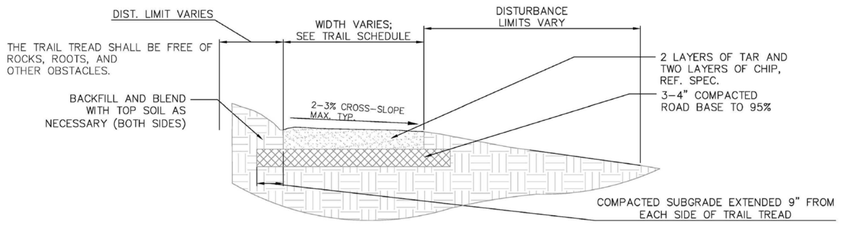
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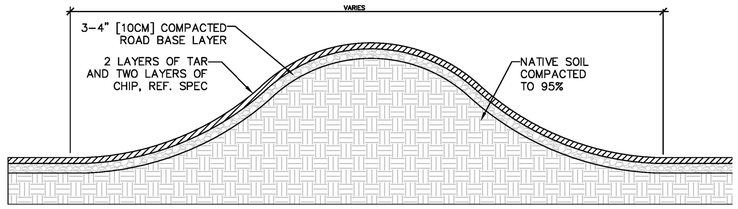
***Any backslope and disturbed areas shall receive seed and duff or straw mulch per spec. any disturbed area exceeding 3:1 shall receive erosion matting and seed per spec

1 ENHANCED TREAD-CRUSHER FINES
NTS



***Any backslope and disturbed areas shall receive seed and duff or straw mulch per spec. any disturbed area exceeding 3:1 shall receive erosion matting and seed per spec

2 CHIP SEAL TREAD TYP.
NTS



3 CHIP SEAL LAYERS, TYP.
NTS

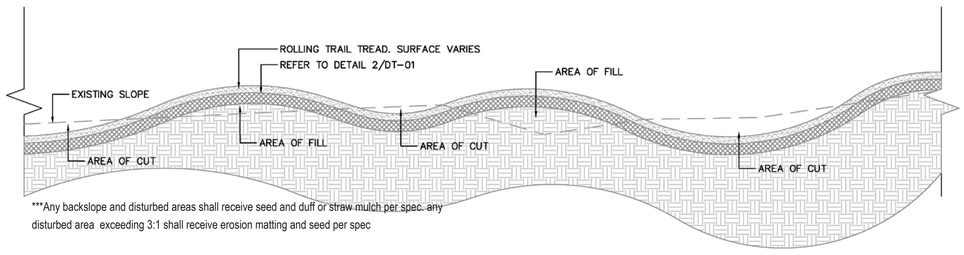
***Any backslope and disturbed areas shall receive seed and duff or straw mulch per spec. any disturbed area exceeding 3:1 shall receive erosion matting and seed per spec

4 LIFT AND TILT TREAD CONSTRUCTION, TYP.
NTS

***Any backslope and disturbed areas shall receive seed and duff or straw mulch per spec. any disturbed area exceeding 3:1 shall receive erosion matting and seed per spec

5 NATURAL SURFACE TRAIL SECTION, TYP.
NTS

6 TRAIL SURFACING SECTION (JUMP ZONE)
NTS



***Any backslope and disturbed areas shall receive seed and duff or straw mulch per spec. any disturbed area exceeding 3:1 shall receive erosion matting and seed per spec

7 TYPICAL MOUNTAIN BIKE OPTIMIZED SECTION
NTS

Prepared For:

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602 S Main St
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Bike Park

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KEY PLAN

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Drawn Reviewed

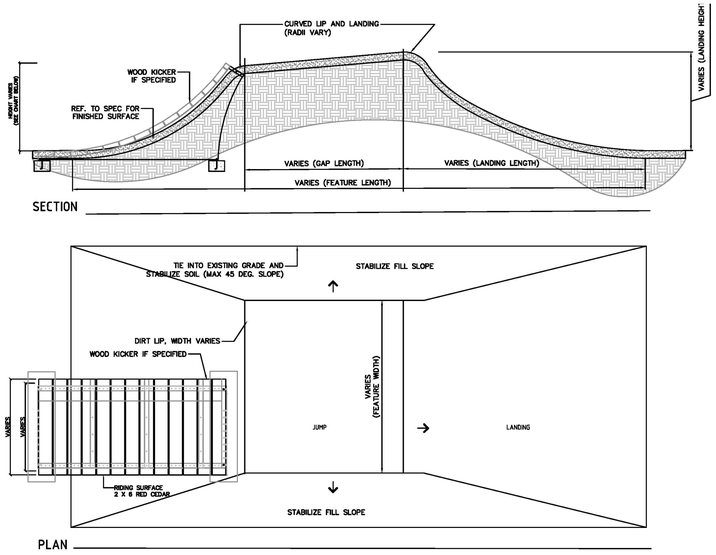
Sheet Title
DETAILS

Number
DT-05

BASEMAPS
MSD No. XXMSD-XXXXX

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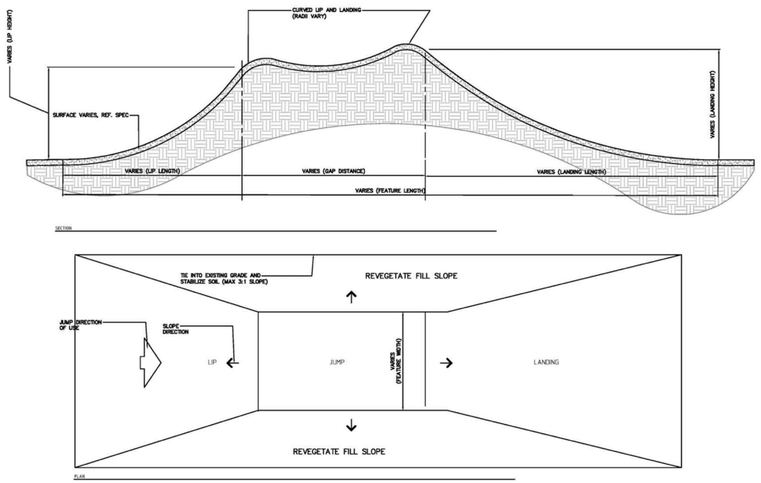
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Jump dimension ranges

Difficulty	Height (ft)	Length (ft)	Width (ft)
Beginner	2' - 3'	25 ' -35'	4' - 6'
Intermediate	3' - 5'	30' - 40'	4' - 6'
Advanced	4' - 7'	20' - 50'	4' - 6'

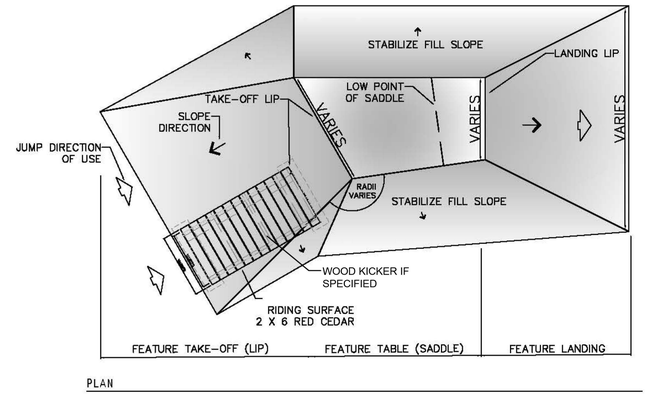
1 TYPICAL TABLE TOP JUMP
NTS

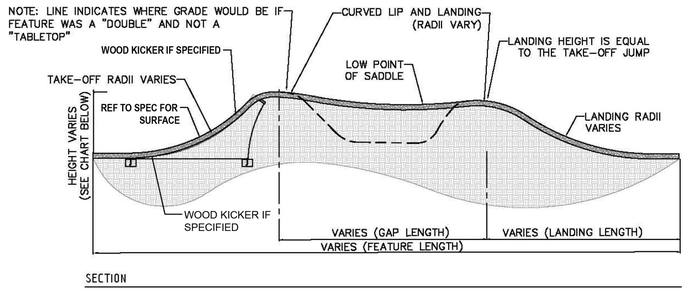


Jump dimension ranges

Difficulty	Height (ft)	Length (ft)	Width (ft)
Beginner	2' - 3'	25 ' -35'	4' - 6'
Intermediate	3' - 5'	30' - 40'	4' - 6'
Advanced	4' - 7'	20' - 50'	4' - 6'

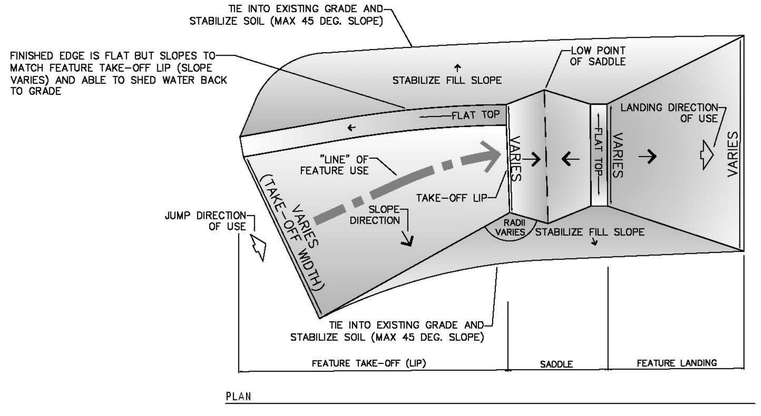
2 TYPICAL ROLLABLE GAP JUMP
NTS





3 TYPICAL HIP JUMP
NTS

4 TYPICAL STEP UP JUMP
NTS



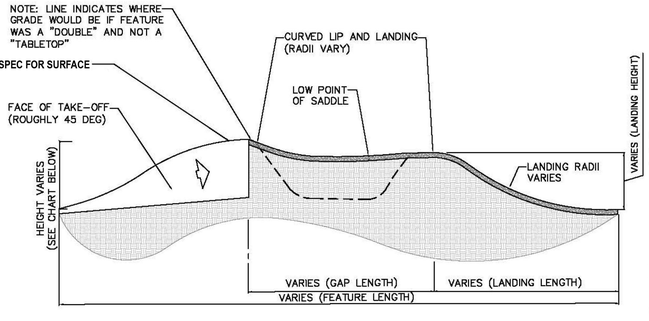
Jump dimension ranges

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Advanced	4' - 7'	20' - 50'	4' - 6'



CONSTRUCTED EXAMPLE

5 TYPICAL SHARK'S FIN JUMP
NTS



Prepared For:

JOPLIN MISSOURI
602 S Main St
Joplin, MO 64801

Project:
DORA
Bike Park

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KEY PLAN

John Wohlschlaeger - Landscape Architect MO # LA - 2009014766
(10/7/2024)
SWT Design, Inc.
Missouri State Certificate of Authority #2006002904

Issuances

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	100% Construction Docs	9/20/2024
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Revisions

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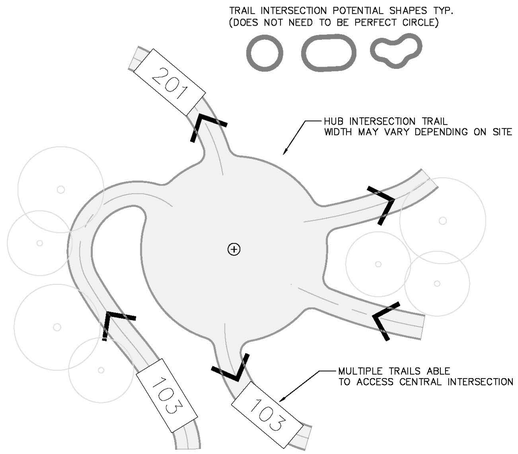
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DETAILS

Number
DT-06

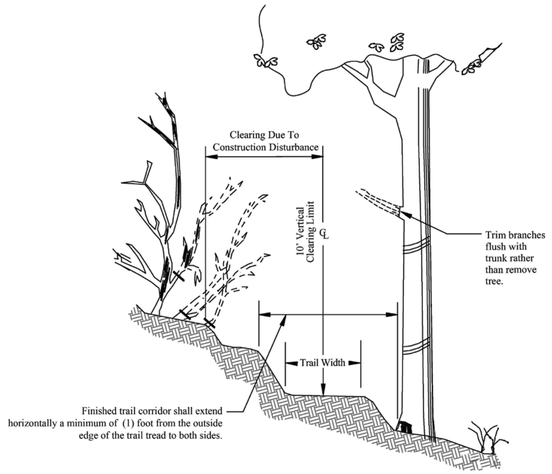
BASEMAPS
MSD No. XXMSD-XXXXX

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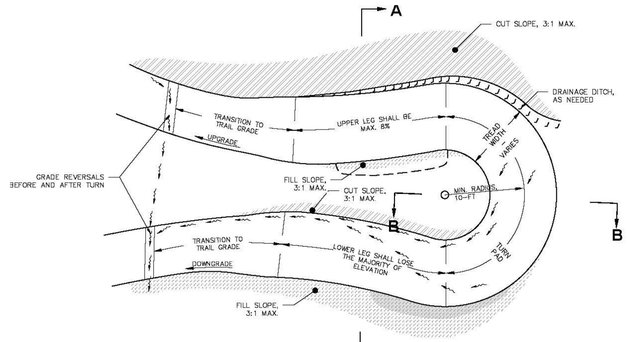


1 TRAIL HUB
NTS



Trees up to four (4) inches in diameter at breast height (DBH) shall be cleared and removed from the trail corridor. Trees exceeding six (6) inches DBH require owner approval prior to removal.

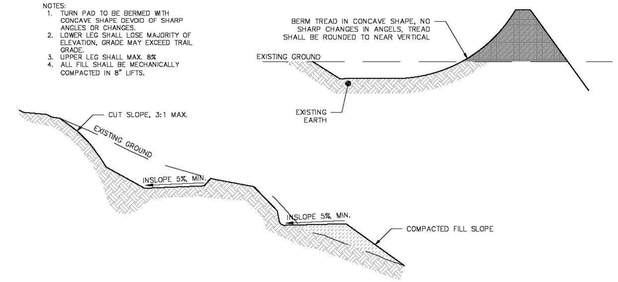
2 GENERAL CORRIDOR CLEARING
NTS



PLAN VIEW

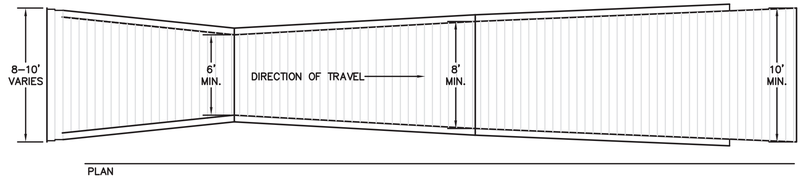
DESCENDING PAD TURN

NOTES:
1. TURN PAD TO BE BERMED WITH CONCAVE SHAPE DEVOID OF SHARP ANGLES OR CHANGES.
2. LOWER LEG SHALL LOSE MAJORITY OF ELEVATION, GRADE MAY EXCEED TRAIL GRADE.
3. UPPER LEG SHALL MAX. 8%
4. ALL FILL SHALL BE MECHANICALLY COMPACTED IN 8" LIFTS.



SECTION A-A

3 DESCENDING INSLOPED TURN, TYP.
NTS





***NOTES: 1) 8' MIN. HEIGHT CLEARANCE. 2) RED CEDAR RIDING SURFACE. PRESSURE TREATED WOOD OR STEEL SUB-STRUCTURE, TO PERFORM FOR 10 YEARS, MIN. 3) GENERAL SCHMEMATIC DESIGN SHALL BE SUBMITTED APPROVAL BY OWNER'S REP. PRIOR TO PROCEEDING WITH ENGINEERED DRAWINGS. 3) ENGINEERS STAMPED DRAWINGS DESIGNED TO MEET 100 PSF LIVE LOAD DESIGN PARAMETER REQ'D PRIOR TO CONSTRUCTION. 4) FEATURE SHALL MEET ALL REQUIREMNETS AS LAID OUT IN THE GENERAL TRAILS SPECIFICATION.

4 FLY-OVER TABLE TOP BRIDGE SCHEMATIC PLAN / PROFILE
NTS

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KEY PLAN

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BASEMAPS
MSD No. XXMSD-XXXXX

Joplin Bike Park: Trail Schedule - August 26, 2024

Segment	Skill	Style-Type	Direction	Tread Width	Length (Miles)	Length (Feet)	Min. Turn Radius	Feature Frequency	Status	Flag Color	Trail Description	Special Considerations
100	GRN	MBO	Bidirectional	60"	0.52	2763	12'	Low	Not Flagged		Perimeter green trail.	Lift and Tilt and bench cut tread construction.
101	GRN	MBO	Bidirectional	60"	0.57	3035	12'	Low	Not Flagged		Perimeter green trail.	Lift and Tilt and bench cut tread construction.
102	GRN	GRV-CHIP	Downhill	48"	0.39	2043	12'	See Plan	Not Flagged		Mountian bike optimized, beginner, directional, chip seal surface trail . This trail is intended to provide an all-weather, bike specific descent for beginner riders.	Refer to plans for features.
103	GRN	TRD	Bidirectional	60"	0.17	876	12'	Low	Not Flagged		Perimeter green trail.	Lift and Tilt tread construction.
104	GRN	TRD	Bidirectional	60"	0.29	1511	12'	Low	Not Flagged		Perimeter green trail.	Lift and Tilt tread construction.
105	GRN	TRD	Directional	60"	0.3	1562	12'	Low	Not Flagged		"Gateway green trail" for the most beginner users.	Lift and Tilt tread construction.
106	GRN	TRD	Bidirectional	60"	0.29	1531	12'	Low	Not Flagged		Green connecter	Lift and Tilt tread construction.
107	GRN	TRD	Bidirectional	60"	0.75	3982	12'	Low	Not Flagged		Perimeter green trail.	Lift and Tilt tread construction.
108	GRN	TRD	Bidirectional	48"	0.57	3015	12'	Low	Not Flagged		Pedally mileage segment	Lift and Tilt tread construction.
109	GRN	MBO	Directional	48"	0.75	3945	12'	Med	Not Flagged		Pedally mileage segment with med. Frequency of rollers and insloped turns.	Lift and Tilt tread construction. **Contractor to confirm extents of previous mining operations. Some areas may not allow for borrow pitting and will require transporting material.**
110	GRN	TRD	Bidirectional	48"	0.31	1620	12'	Low	Not Flagged		Pedally mileage segment	Lift and Tilt tread construction.
111	GRN	TRD	Bidirectional	60"	0.14	715	12'	Low	Not Flagged		Green connecter	Lift and Tilt tread construction.
112	GRN	TRD	Bidirectional	48"	0.15	793	12'	Low	Not Flagged		Green connecter	Lift and Tilt tread construction.
200	BLU	MBO	Bidirectional	48"	0.24	1292	12'	Med	Not Flagged		Blue optional connector with med. Frequency of features.	Bench cut and borrow pit construction must take advantage of the good terrain with alt lines and highly bike optimized trail construction
201	BLU	GRV	Downhill	48"	0.22	1176	14'	Med	Not Flagged		Natural surface gravity trail focussing on flow and features.	Bench cut construction must take advantage of the good terrain with alt lines and highly bike optimized trail construction
202	BLU	GRV-CHIP	Downhill	48"	0.19	997	14'	See Plan	Not Flagged		Mountian bike optimized, intermediate, directional, chip seal surface trail . This trail is intended to provide an all-weather, bike specific descent for intermediate riders.	Refer to plans for features.
203	BLU	MBO	Downhill	48"	0.15	807	12'	Med	Not Flagged		Mountain bike optimized "rock-tech-flow" directional trail. Stone, rock and boulders will be harvested on-site and imported to craft a succesion of technical rock panels or hits. Features are meant to provide the experience of machine-built flow peppered with a series of rock gardens, drops, slabs, booters and or step-ups. This trail should take advantage of placed rock to create alternate advanced lines or jumps that reward faster more experienced riders, while allowing for less experienced riders to have slower yet roll-able, skill building passages. Trail shall take inspiration from the "Dragon Scales" trail at the Castle in Bentonville, understanding terrain limitations won't allow for an identical experience here.	**Budget should allow for roughly 60% of entire length of tread to be built of stone. Tread to be built of stone at 3ft to 6ft width providing a 2ft to 3ft wide tread.** Rock texture and features should be spaced evenly throughout the trail, providing ample breaks in rigosity for riders to recouperate before hitting the next difficult challenge. Rock and fill can be used to "lift and tilt" tread when in flat, gentle terrain to heighten trail difficulty while improving drainage.
204	BLU	MBO	Downhill	48"	0.26	1378	14'	Med	Not Flagged		Natural surface gravity trail focussing on flow and features.	Bench cut and borrow pit construction must take advantage of the good terrain with alt lines and highly bike optimized trail construction
205	BLU	MBO	Directional	36"	0.55	2879	10'	Med	Not Flagged		Undulating XC mileage trail with medium feature frequency	Lift and Tilt and bench cut and borrow pit construction should focus on good directional flow.
206	BLU	TRD	Bidirectional	36"	0.05	253	10'	Low	Not Flagged		Connector	Lift and Tilt and bench cut tread construction.
207	BLU	TEC	Bidirectional	36"	0.21	1102	8'	High	Not Flagged		Technical rock trail. Utilize existing and imported rock, boulders, plates, to create a high frequency of technical feautures an optional lines.	Lift and Tilt and bench cut tread construction. **Contractor to confirm extents of previous mining operations. Some areas may not allow for borrow pitting and will require transporting material.**
208	BLU	TEC	Directional	36"	0.21	1084	8'	Med	Not Flagged		Technical rock trail. Utilize existing and imported rock, boulders, plates, to create a high frequency of technical feautures an optional lines.	Lift and Tilt and bench cut tread construction. **Contractor to confirm extents of previous mining operations. Some areas may not allow for borrow pitting and will require transporting material.**
300	BLK	TRD	Bidirectional	36"	0.42	2207	6'	Low	Not Flagged		"Old school" style traditional singletrack with tighter turn radii and "hand cut feel" (can be machine built). Stacked "up/down" alignment maximizes the length and experience in this tight area. Alt lines should be constructed if possible. Trail should be constructed to be ridden either direction.	Lift and Tilt and bench cut tread construction.
301	BLK	GRV-CHIP	Downhill	60"	0.22	1142	14'	See Plan	Not Flagged		Mountian bike optimized, advanced, directional, chip seal surface trail . This trail is intended to provide an all-weather, bike specific descent for advanced riders.	Refer to plans for features.
302	BLK	TEC	Directional	36"	0.33	1753	8'	High	Not Flagged		Technical rock trail. Utilize existing and imported rock, boulders, plates, to create a high frequency of technical feautures an optional lines.	Lift and Tilt and bench cut tread construction. **Contractor to confirm extents of previous mining operations. Some areas may not allow for borrow pitting and will require transporting material.**
400	Access Trail	TRD-CHIP	Bidirectional	72"	0.22	1180	14'	N/A	Not Flagged		Main all weather arterial access trail.	Elevated tread (refer to specs and details) with ditches and or pipes for drainage where necessary
401	Hiker	HIKE	Bidirectional	36"	0.43	2257	N/A	N/A	Not Flagged		Hiker only trail	Lift and tilt and bench cut tread construction
402	Hiker	HIKE	Bidirectional	36"	0.22	1177	N/A	N/A	Not Flagged		Hiker only trail	Lift and tilt and bench cut tread construction
					9.12	48075	Total					

Footnotes

1. Feature Frequency is averaged over long distances. Per 100': "low" = 2-3 features, "med" = 3-5 features, "high" = 5-8 features.

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JOPLIN MISSOURI

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KEY PLAN

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Sheet Title

DETAILS

Number

DT-08

BASEMAPS
MSD No. XXMSD-XXXXX

October 3, 2024 3:30 PM

SCHEMATIC LEGEND

- NORMALLY OPEN (N.O.) RELAY CONTACT
- NORMALLY CLOSE (N.C.) RELAY CONTACT
- S* — STARTER COIL, * = STARTER NUMBER
- OVERLOAD RELAY CONTACT
- CR* — CONTROL RELAY, * = CONTROL RELAY NUMBER
- TD* — TIME DELAY RELAY, * = DEVICE NUMBER, ** = TIME SETTING
- CLOSED SWITCH WITH TIME DELAY OPENING
- OPEN SWITCH WITH TIME DELAY CLOSING
- CLOSED SWITCH WITH TIME DELAY CLOSING
- OPEN SWITCH WITH TIME DELAY OPENING
- P — PILOT LIGHT, (P) = LETTER DENOTING COLOR, E.G. R=RED, G=GREEN, A=AMBER, W=WHITE
- HORN
- SV* — SOLENOID VALVE, * = SOLENOID VALVE NUMBER
- H O A — 3-POSITION SELECTOR SWITCH (H-O-A SHOWN)
- ON OFF — 2-POSTION SELECTOR SWITCH
- N.C. (STOP) / N.O. (START) — PUSHBUTTONS
- N.C. / N.O. — PRESSURE SWITCHES
- N.C. / N.O. — LEVEL SWITCHES
- N.C. / N.O. — THERMAL SWITCHES
- N.C. / N.O. — FLOW SWITCHES
- N.C. / N.O. — LIMIT SWITCHES
- N.C. / N.O. — PROXIMITY SWITCHES
- CONNECTOR, DISCONNECT DEVICE
- TIME CLOCK
- PHOTOCELL
- TERMINAL BLOCK, * = TERMINAL NUMBER
- DEVICE TERMINAL. * = DEVICE TERMINAL NUMBER
- RTM — RUN TIME METER, HOUR METER
- CIRCUIT BREAKER
- FUSE
- CONTROL POWER TRANSFORMER
- INTERNAL PANEL WIRING OR DEVICES
- FIELD WIRING OR DEVICES

ONE-LINE LEGEND

- TRANSFORMER
- ELECTRIC UTILITY METER AND BASE
- G — GENERATOR
- AUTOMATIC TRANSFER SWITCH (N=NORMAL, E=EMERGENCY, L=LOAD)
- POWER MONITOR
- SURGE PROTECTION DEVICE
- CIRCUIT BREAKER (MAGNETIC ONLY)
- CIRCUIT BREAKER (THERMAL MAGNETIC)
- K — KEY INTERLOCK
- GROUND (CHASSIS, BUS OR AT EARTH POTENTIAL)
- GROUND BUS OR TERMINAL
- NEUTRAL BUS
- MOTOR SINGLE PHASE
- MOTOR THREE PHASE
- REMOTE CONTROL STATION
- HEAVY DUTY ENCLOSED SAFETY SWITCH FUSED DISCONNECT
- HEAVY DUTY ENCLOSED SAFETY SWITCH NON FUSED DISCONNECT
- GRD * CKT — COMBINATION CIRCUIT BREAKER WITH OVERLOAD PROTECTION #=SIZE
- PANELBOARD WITH MAIN CIRCUIT BREAKER
- PANELBOARD WITH MAIN LUGS
- VFD — VARIABLE FREQUENCY DRIVE

LIGHTING SYMBOLS

- FX CKT — LIGHT FIXTURE (2'x4') FX = FIXTURE NUMBER (TYP.) CKT = CIRCUIT NUMBER (TYP.)
- FX CKT — EMERGENCY LIGHT FIXTURE INCLUDE AN UNSWITCHED HOT LEG
- FX CKT — LIGHT FIXTURE (1'x4')
- FX CKT — LIGHT FIXTURE (2'x2')
- FX CKT FX CKT — RECESSED CAN LIGHT
- FX CKT — STRIP FIXTURE
- FX CKT — WALL MOUNTED EMERGENCY LIGHT
- FX CKT — EXIT SIGN WITH DIRECTIONAL ARROW SHADED AREA DENOTES VIEWED FACE
- FX CKT — EXTERIOR BUILDING WALL PACK
- OS — CEILING MOUNTED 360° DUEL TECH OCCUPANCY SENSOR
- PC — PHOTOCELL WITH LIGHT LEVEL SELECTION

ELECTRICAL DEVICES

- DUPLEX RECPTACLE
- QUADRAPLEX RECPTACLE
- SINGLE RECPTACLE
- SPECIAL PURPOSE RECPTACLE

  AC - ABOVE COUNTER
  NONE - 20 AMP 125VAC
  GFCI - GROUND FAULT CIRCUIT INTERUPTER TYPE
  WP - WEATHER PROOF TYPE
  ES - ENERGY SAVING
  XX - RECEPTACLE CIRCUIT NUMBER
  XXX - "XX" HEIGHT ABOVE FINISHED FLOOR

- VOICE ONLY OUTLET
- W — VOICE ONLY OUTLET WALL MOUNTED
- DATA/VOICE OUTLET
- DATA OUTLET
- WAP — WIRELESS ACCESS POINT
- CEILING MOUNTED DEVICE
- FLOOR MOUNTED DEVICE (DUPLEX RECEPTACLE SHOW)
- FLOOR BOX ONLY
- FLOOR BOX (POWER AND DATA)
- TV — TELEVISION OUTLET
- $ — TOGGLE SWITCH, 20 AMP, 120/277 VAC
- $3 — TOGGLE SWITCH, 3-WAY
- $4 — TOGGLE SWITCH, 4-WAY
- $LV — LOW VOLTAGE LIGHTING CONTROL SWITCH

  ADJACENT LETTERS TO THE SYMBOL INDICATES THE FOLLOWING:

  OS - OCCUPANCY SENSOR (WALL MOUNTED)
  D - DIMMABLE
  1 - ONE CHANNEL "ON/OFF" CONTROL
  2 - TWO CHANNEL "ON/OFF" CONTROL

- $M — MANUAL MOTOR STARTER/DISCONNECT WITH OVERLOADS AND LOCKOUT PROVISIONS. (NUMBER OF POLES AS REQUIRED PER MOTOR) XP - EXPLOSION PROOF

SECURITY & ACCESS CONTROL

- FIXED POSITION CCTV CAMERA EX = EXTERIOR
- 360 — PAN-TILIT-ZOOM CCTV CAMERA EX = EXTERIOR
- DOOR BUZZER
- DR — DOOR RELEASE BUTTON
- ES — ELECTRIC DOOR STRIKE
- CR — SECURITY CARD READER
- CR K — COMBINATION CARD READER WITH KEY PAD
- REX — SECURITY DOOR REQUEST TO EXIST
- EB — SECURITY EXIT PUSHBUTTON
- DC — SECURITY DOOR CONTACTS
- PT — ELECTRIC POWER TRANSFER
- PP — PUSH PLATE
- S — DOOR SWITCH - DOOR POSITION MONITORING POINT
- J — JUNCTION BOX

GENERAL PLAN SYMBOLS

- SWITCHGEAR, SWITCHBOARD OR MOTOR CONTROL CENTER, DASHED LINES INDICATE FUTURE
- BRANCH PANELBOARD AND CABINET, SURFACE MOUNTED
- BRANCH PANELBOARD AND CABINET, FLUSH MOUNTED
- FUSED DISCONNECT SWITCH HEAVY DUTY
- NON-FUSED DISCONNECT SWITCH HEAVY DUTY
- COMBINATION MAGNETIC MOTOR STARTER
- CONDUCTORS IN CONDUIT, #12 AWG AND ¾" CONDUIT MINIMUM, ARROW INDICATES HOMERUN
- CONDUIT STUBBED UP
- CONDUIT STUBBED DOWN
- CONDUIT CAPPED
- EXPLOSION PROOF CONDUIT SEAL
- J — JUNCTION BOX
- GROUND ROD
- CABLE TRAY

FIRE ALARM SYSTEM

- FACP — FIRE ALARM CONTROL PANEL
- FAAP — FIRE ALARM ANNUNCIATOR PANEL
- K — KNOX BOX (PER CITY'S REQUIREMENTS)
- DETECTOR, SMOKE SENSOR
- HD — DETECTOR, HEAT AND RATE OF RISE
- P — FIRE ALARM STATION MANUAL PULL
- RA — RESCUE ASSISTANCE STATION (AREA REFUGE)
- DD — DUCT DETECTOR, SMOKE
- TS TS — SPRINKLER TAMPER SWITCH DETECTION
- FS — SPRINKLER FLOW SWITCH DETECTION
- COMBINATION AUDIBLE/VISUAL NOTIFICATION DEVICE (WP INDICATED WEATHER PROOF)
- VISUAL ONLY NOTIFICATION DEVICE
- 2/C #16 TWISTED PAIR CABLE IN CONDUIT (SLC ADDRESSABLE DATA CIRCUIT)
- 2/C #14 TWISTED PAIR CABLE (FPLP) FIRE ALARM CABLE (SIGNAL/CONTROL CIRCUIT) IN CONDUIT

SITE PLAN SYMBOLS

- T — PAD MOUNTED TRANSFORMER
- POWER POLE
- OHE — EXISTING OVERHEAD ELECTRIC
- UGE — EXISTING UNDERGROUND ELECTRIC
- OHE — PROPOSED OVERHEAD ELECTRIC
- UGE — PROPOSED UNDERGROUND ELECTRIC
- E — ELECTRIC MANHOLE
- H — ELECTRIC HANDHOLE
- LIGHT FOUNDATION, POLE AND FIXTURE S"X" - SITE FIXTURE NUMBER

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DORA
Bike Park

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KEY PLAN

Louis D. Weller - Electrical Engineer
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Crawford, Murphy & Tilly
Expires: 12/31/2024
Date: 10/07/2024

Issuances

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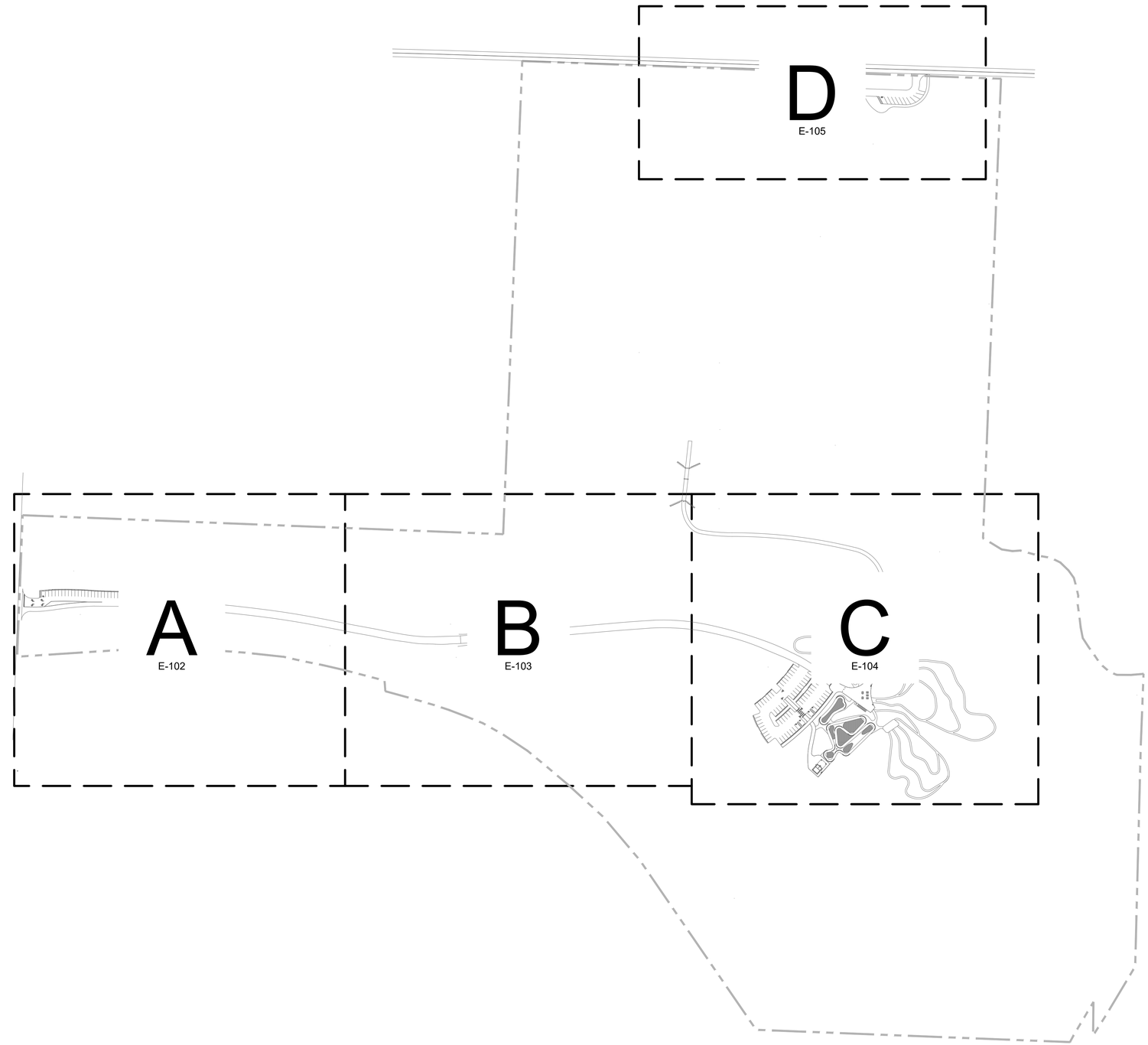
Sheet Title
ELECTRICAL STANDARD LEGEND & GENERAL NOTES

Number
E-001

October 3, 2024 3:31 PM

GENERAL NOTES

1. THIS IS AN OVERALL ELECTRICAL SITE PLAN THAT INDICATES ENLARGED VIEWS. SEE ADDITIONAL ELECTRICAL SITE PLANS FOR FURTHER INFORMATION.



A OVERALL ELECTRICAL SITE PLAN
SCALE: 1"=150'

Graphic Scale: 1" = 150'
0' 75' 150' 300' 450'

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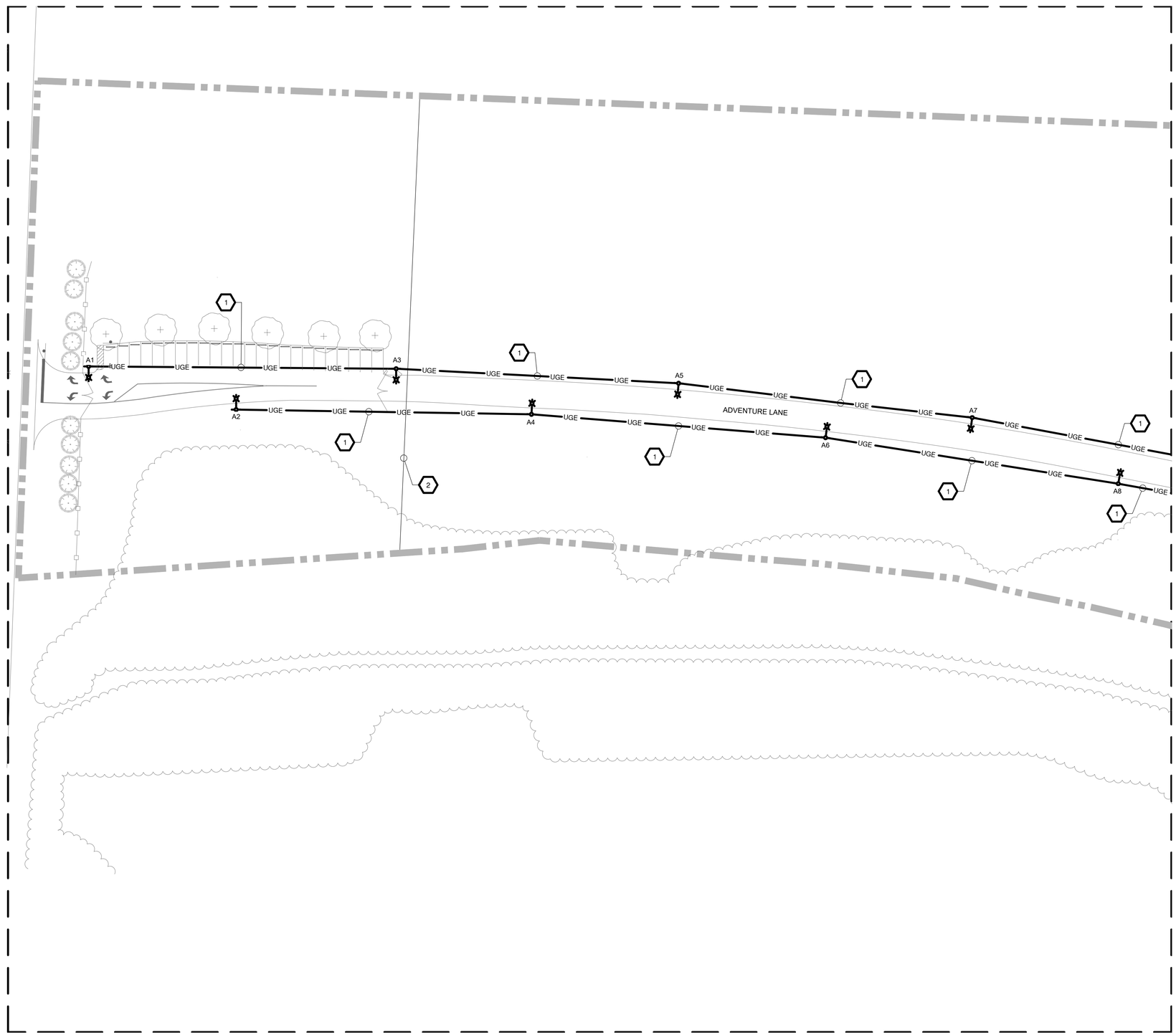
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JRV	LDW

Sheet Title
OVERALL ELECTRICAL SITE PLAN

Number
E-101

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KEYNOTES

1. 2 - #10THWN (240VAC SINGLE PHASE) 1 - #10 GROUND IN 1" CONDUIT.
2. ALL THE EXCAVATION FROM THIS LINE TO THE WEST IS CONSIDERED A MINE WASTE AREA. SEE CIVIL SHEETS FOR EXCAVATION, REMOVAL AND RESTORATION REQUIREMENTS IN THIS AREA.

A ELECTRICAL SITE PLAN - AREA A
SCALE: 1"=40'

Graphic Scale: 1" = 40'
0' 20' 40' 80' 120'

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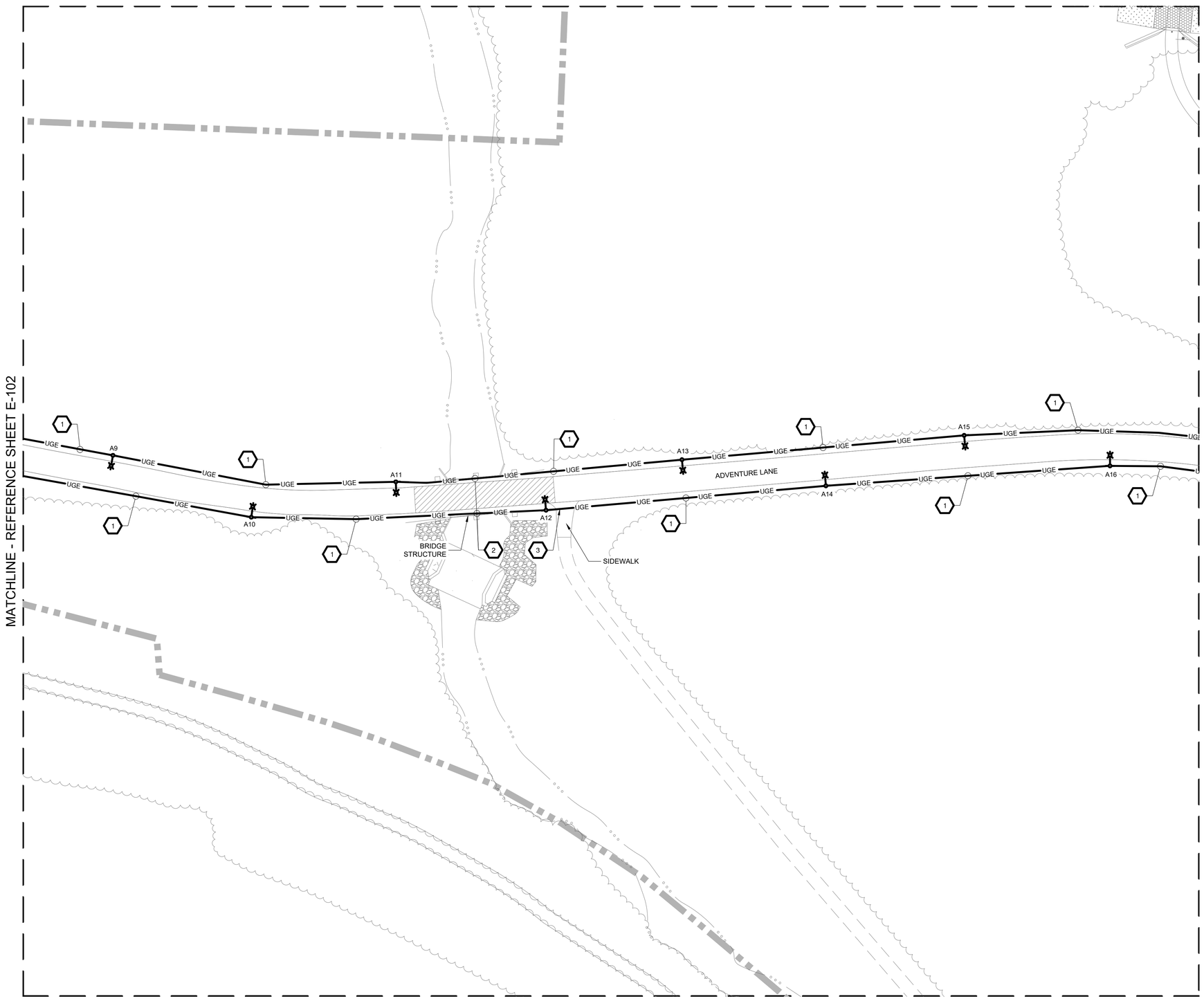
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JRV	LDW

Sheet Title
ELECTRICAL SITE PLAN A

Number
E-102

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A ELECTRICAL SITE PLAN - AREA B
SCALE: 1"=40'

Graphic Scale: 1" = 40'
0' 20' 40' 80' 120'

KEYNOTES

1. 2 - #10THWN (240VAC SINGLE PHASE) 1 - #10 GROUND IN 1" CONDUIT.
2. THE CONTRACTOR TO ROUTE CONDUIT BELOW GRADE PRIOR TO STRUCTURE, ROUTE TO ON TOP OF STRUCTURE FOR THE LENGTH OF THE STRUCTURE THEN PROCEED BACK TO BELOW GRADE. PROVIDE NEMA 4X JUNCTION BOXES ON EACH END. CONDUIT SHALL TRANSITION TO LIQUID TIGHT FLEXIBLE CONDUIT FROM BELOW GRADE AND THEN BE SCHEDULE 40 ALUMINUM WHERE EXPOSED.
3. CONTRACTOR SHALL REMOVE SIDEWALK BY CUTTING AT JOINTS OR SAW CUTTING A MINIMUM OF 4' WIDE TO ALLOW CONDUIT INSTALLATION. BACKFILL REPLACED IN KIND UNLESS THE CONTRACTOR DECIDES TO PUSH OR JACK A 2" GRSC UNDER SIDEWALK.

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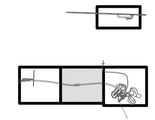
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Sheet Title
ELECTRICAL SITE PLAN B

Number
E-103

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A ELECTRICAL SITE PLAN - AREA C
SCALE: 1"=40'

Graphic Scale: 1" = 40'
0' 20' 40' 80' 120'

KEYNOTES

1. EXISTING OVERHEAD ELECTRICAL TO BE DEMOLISHED BY UTILITY.
2. EXISTING UTILITY POLE TO REMAIN.
3. PRIMARY CONDUIT BURIED BELOW GRADE BY UTILITY.
4. PAD MOUNTED TRANSFORMER BY UTILITY.
5. 2 - #10THWN (240VAC SINGLE PHASE) 1 - #10 GROUND IN 1" CONDUIT.
6. 2 - #3 THWN (240VAC SINGLE PHASE) 1 - #3 NEUTRAL, 1 - #8 GROUND IN 1-1/2" CONDUIT
7. POWER PEDESTAL WITH 50AMP 240VAC SINGLE PHASE, 30 AMP 120VAC RECEPTACLE, AND 20 AMP 120VAC GFCI RECEPTACLE (TYP. OF 4).
8. HANDHOLE. SEE HANDHOLE DETAIL FOR FURTHER INFORMATION.
9. 2 - #10 THWN (120VAC PAVILION LIGHTING), 2 - #10 THWN (120VAC PAVILION RECEPTACLES), 1 - #10 GND IN 1" CONDUIT AND 2 - 1" SPARE CONDUITS WITH PULLSTRING.
10. 3 - #8 THWN, 1 - #8 GROUND IN 1" CONDUIT.
11. 2-2" SPARE CONDUITS WITH PULL STRING.
12. HIGH MAST LIGHTING FIXTURE TYPICAL OF 4.
13. CONDUIT BY UTILITY FOR FUTURE FIBER OPTIC.

GENERAL NOTE

1. ALL LOCATIONS FOR LIGHTING FIXTURES, HIGH MAST FIXTURES, POWER PEDESTALS ARE APPROXIMATE. THE CONTRACTOR SHALL LAY OUT PROPOSED LOCATIONS AND THE ENGINEER SHALL EITHER APPROVE OR RELOCATE PRIOR TO INSTALLATION.
2. ALL UNDERGROUND CONDUIT AND WIRING IS SHOWN IN APPROXIMATE LOCATIONS. THE CONTRACTOR SHALL ROUTE IN A MANNER AS TO NOT AFFECT THE EXISTING TREES THAT ARE TO REMAIN.

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SWT No. 21703.01

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Sheet Title
ELECTRICAL SITE PLAN C

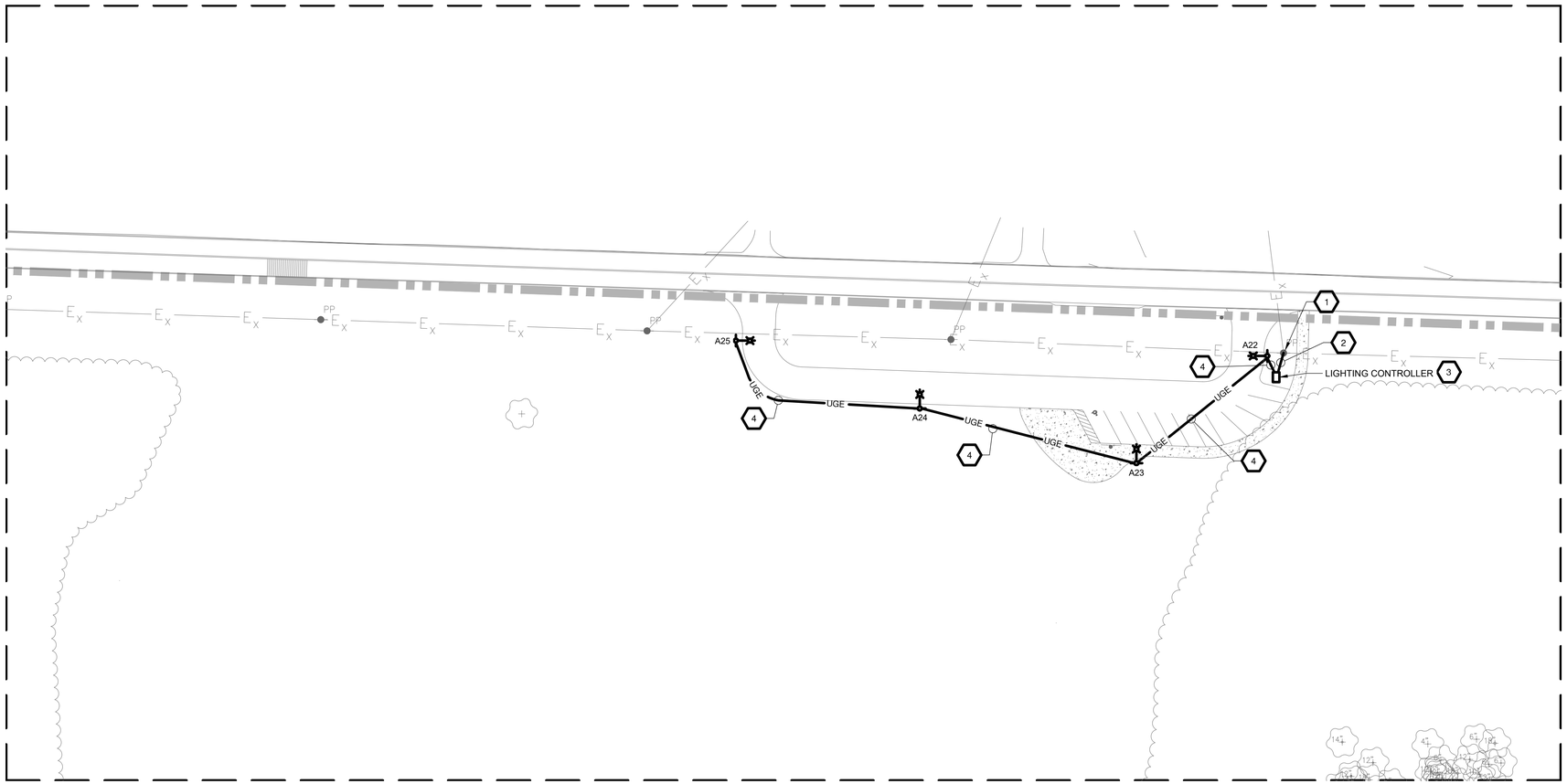
Number
E-104

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KEYNOTES

1. EXISTING POWER POLE. UTILITY TO PROVIDE 120/240V 1 PHASE SECONDARY TRANSFORMER FOR NEW ELECTRICAL SERVICE. CONTRACTOR TO PROVIDE RISER AND CONDUCTORS WITH ENOUGH SLACK FOR UTILITY CONNECTION.
2. 2 - #3 AWG, 1 - #3 AWG GROUNDED CONDUCTOR IN 2" SCHEDULE 80 PVC CONDUIT TO LIGHTING CONTROLLER.
3. LIGHTING CONTROLLER SEE DETAIL IN SHEET E-503 FOR FURTHER INFORMATION.
4. 2 - #10THWN (240VAC SINGLE PHASE) 1 - #10 GROUND IN 1" CONDUIT.



A ELECTRICAL SITE PLAN - AREA D
SCALE: 1"=40'

Graphic Scale: 1" = 40'
0' 20' 40' 80' 120'

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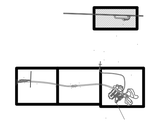
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Date: 10/07/2024

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Sheet Title
ELECTRICAL SITE PLAN D

Number
E-105

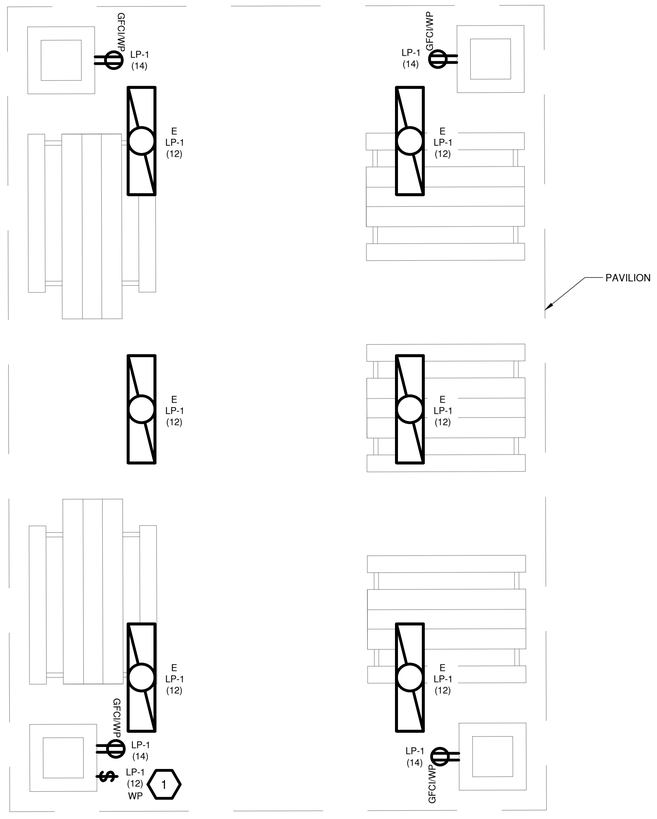
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GENERAL NOTES

1. INSTALL LIGHTING IN SUCH A MANNER AS TO OPTIMIZE LIGHTING.
2. INSTALL RECEPTACLES ON POSTS APPROXIMATELY 48" (OR ABOVE DECORATIVE STONE) ABOVE FINISHED GRADE.

KEYED NOTE

1. 120V, 20A SINGLE POLE TOGGLE SWITCH, WEATHER PROOF TO PROVIDE ON/OFF CONTROL TO PAVILION LIGHTS. MOUNT 48" (OR ABOVE DECORATIVE STONE) ABOVE FINISHED GRADE.



A ENLARGED PAVILION ELECTRICAL PLAN
SCALE: 3/8"=1'-0"

0 2' 4' 6'

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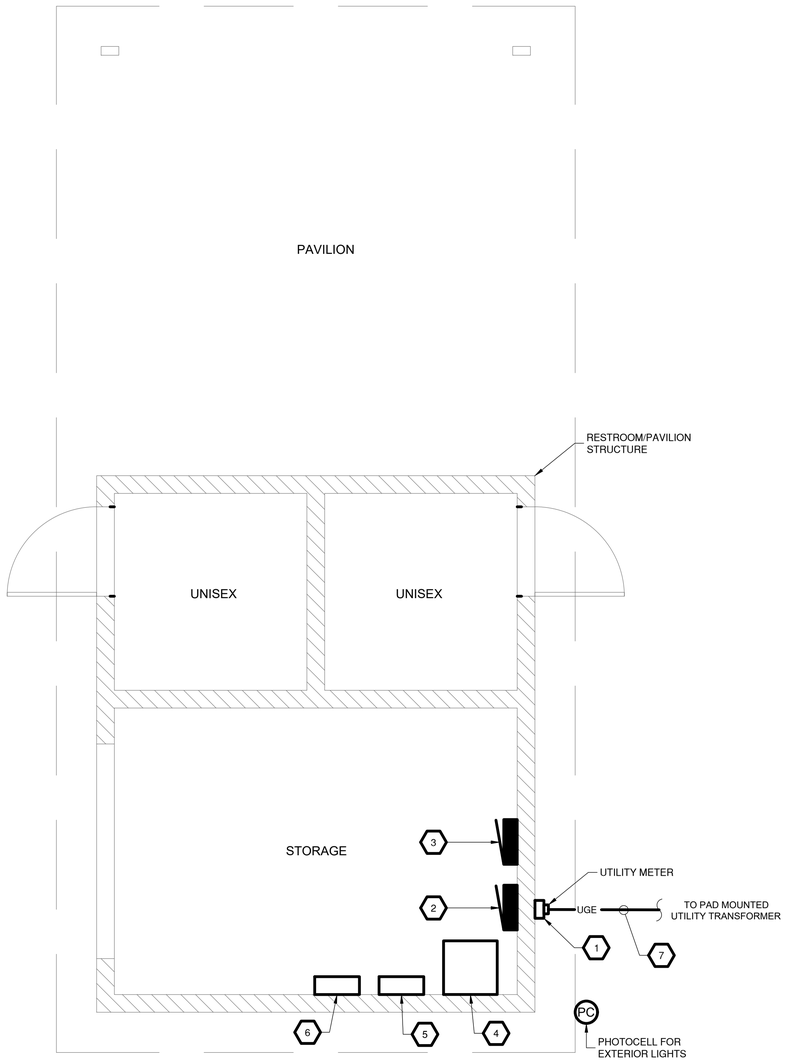
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Sheet Title
ENLARGED PAVILION ELECTRICAL PLAN

Number
E-106

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A ENLARGED RESTROOM & PAVILION POWER PLAN
SCALE: 3/8"=1'-0"

GENERAL NOTES

1. FOR CLARITY ALL THE ELECTRICAL WORK REQUIRED FOR THE INTERIOR OF THE RESTROOM/PAVILION STRUCTURE IS NOT SHOWN ON THIS SHEET. SEE THE BUILDING PLANS FOR ADDITIONAL INFORMATION ON LIGHTING, RECEPTACLES, HOUSE PANELBOARD, HVAC EQUIPMENT...ETC.
2. SEE THE ELECTRICAL RISER FOR ADDITIONAL INFORMATION ON CONDUIT AND WIRING.

KEYNOTES

1. UTILITY METER MOUNTED 5'-0" ABOVE FINISHED GRADE. COORDINATE REQUIREMENTS WITH SERVING UTILITY.
2. 400AMP, 120/240VAC, 1 PHASE, 3 WIRE MAIN DISTRIBUTION PANEL. SEE PANELBOARD SCHEDULE FOR ADDITIONAL INFORMATION.
3. BUILDING HOUSE PANELBOARD 100AMP, 120/240VAC, 1 PHASE, 3 WIRE. SEE THE BUILDING PLANS FOR ADDITIONAL INFORMATION.
4. WALL MOUNTED COMPUTING RACK (FOR CCTV) APPROXIMATELY 42" TALL BY APPROX. 24" WIDE BY 24" DEEP TO BE BY THE OWNER. INCLUDE SPACE.
5. HIGH MAST LIGHTING CONTROLLER. SEE THE SPECIFICATIONS FOR FURTHER DETAILS.
6. EXTERIOR LIGHTING CONTROLLER. SEE EXTERIOR LIGHT CONTROL SCHEMATIC FOR FURTHER DETAIL.
7. 3" SCHEDULE 80 PVC CONDUIT WITH GALVANIZED RIGID STEEL CONDUIT LONG RADIUS BENDS FROM UTILITY METER TO 10' FROM BUILDING FOUNDATION AND CAPPED FOR UTILITY USE.

0 2' 4' 6'

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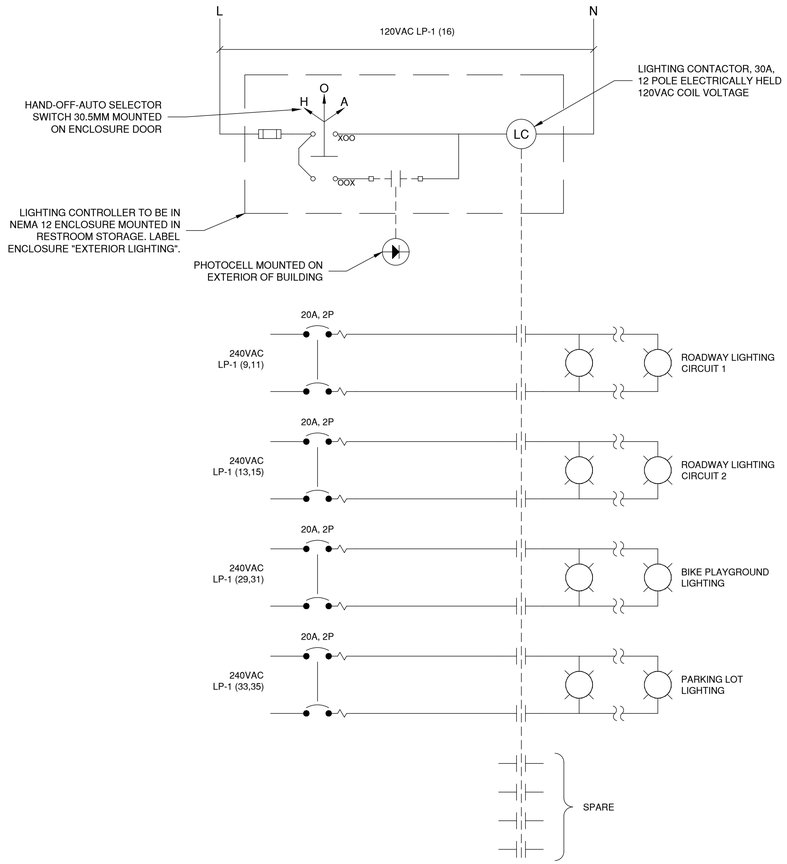
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Sheet Title
ENLARGED RESTROOM & PAVILION POWER PLAN

Number
E-107

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C3 EXTERIOR LIGHTS CONTROL SCHEMATIC

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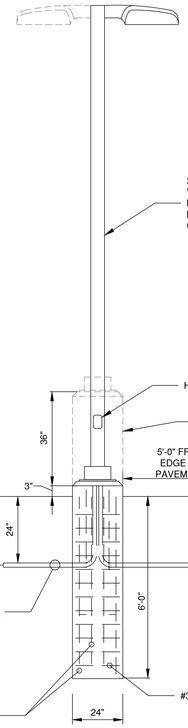
LIGHT FIXTURE SCHEDULE

FIXTURE NO.	DESCRIPTION	MANUFACTURER	CATALOG MODEL NO.	LAMP	MOUNTING	FIXTURE CONFIGURATION
A	AREA LUMINAIRE, 11,130 LUMENS, 4000K COLOR TEMPERATURE, 70CRI, TYPE III MEDIUM DISTRIBUTION, 120-277V, ROUND POLE MOUNTING WITH MOTION SENSOR, DARK BRONZE	LITHONIA OR EQUIVALENT	DSX0 LED-P4-40K-70CRI-T3M-MVOLT-RPA-PIR-DDBXD RSA-25-6G-DM19AS(DM28AS)-VD-DDBXD	LED	SEE DETAIL 3 ON E-501	SINGLE
B	AREA LUMINAIRE, 11,130 LUMENS, 4000K COLOR TEMPERATURE, 70CRI, TYPE III MEDIUM DISTRIBUTION, 120-277V, ROUND POLE MOUNTING WITH MOTION SENSOR, DARK BRONZE	LITHONIA OR EQUIVALENT	DSX0 LED-P4-40K-70CRI-T3M-MVOLT-RPA-PIR-DDBXD RSA-25-6G-DM19AS(DM28AS)-VD-DDBXD	LED	SEE DETAIL 3 ON E-501	TWIN
C	AREA LUMINAIRE, 20,320 LUMENS, 4000K COLOR TEMPERATURE, 70CRI, TYPE III MEDIUM DISTRIBUTION, 120-277V, ROUND POLE MOUNTING WITH MOTION SENSOR, DARK BRONZE	LITHONIA OR EQUIVALENT	DSX0 LED-P4-40K-70CRI-T3M-MVOLT-RPA-PIR-DDBXD RSA-25-6G-DM19AS(DM28AS)-VD-DDBXD	LED	SEE DETAIL 3 ON E-501	SINGLE
D	AREA LUMINAIRE, 20,320 LUMENS, 4000K COLOR TEMPERATURE, 70CRI, TYPE III MEDIUM DISTRIBUTION, 120-277V, ROUND POLE MOUNTING WITH MOTION SENSOR, DARK BRONZE	LITHONIA OR EQUIVALENT	DSX0 LED-P4-40K-70CRI-T3M-MVOLT-RPA-PIR-DDBXD RSA-25-6G-DM19AS(DM28AS)-VD-DDBXD	LED	SEE DETAIL 3 ON E-501	TWIN
E	1X4 WET LOCATION LISTED LUMINAIRE, 3000 LUMENS, DEEP FROSTED ACRYLIC LENS, MEDIUM DISTRIBUTION, 120-277V, 0-10V DIMMING, 4000K COLOR TEMPERATURE, 80 CRI	LITHONIA OR EQUIVALENT	FEM-L48-3000LM-IMAFD-MD-MVOLT-GZ10-40K-80CRI	LED	CEILING MOUNTED	N/A

CONTROLS NOTE:

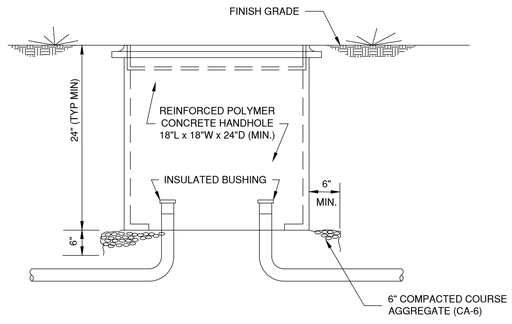
LIGHTING CONTROLS FOR AREA FIXTURES TO BE REMOTE PHOTOCELL WITH LOCAL MOTION SENSOR. LIGHTS TO BE AT A LOWER SETTING (OWNER TO DECIDE LEVEL) DURING NO OCCUPANCY THEN TO 100% WITH OCCUPANCY DETECTED.





3 LIGHT FIXTURE B DETAIL

N.T.S.

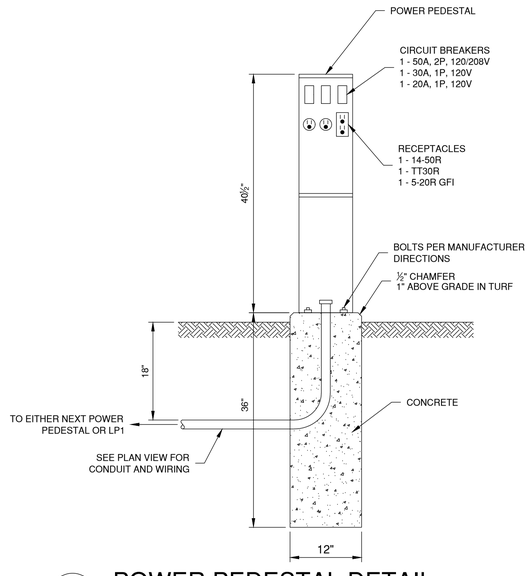


NOTES

1. COVER TO BE LABELED ELECTRICAL OR CONTROLS AS REQUIRED.
2. HEAVY DUTY HAND HOLE AND COVER TO BE RATED ANSI TIER 22.
3. STAINLESS STEEL INSERTS AND BOLTS.
4. PROVIDE LIFTING RING FOR LID REMOVAL.
5. CONDUIT DIMENSIONS AND LOCATIONS AS SHOWN ARE NOT TYPICAL OF EVERY HANHOLE. CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING ALL CONDUIT OPENING DIMENSIONS AND LOCATIONS FOR EACH HANDHOLE.

1 ELECTRICAL HANDHOLE DETAIL

N.T.S.



2 POWER PEDESTAL DETAIL

N.T.S.

Prepared For:

JOPLIN MISSOURI
602 S Main St
Joplin, MO 64801

Project:
DORA
Bike Park

SWT DESIGN
7722 Big Bend Blvd.
St. Louis, MO 63119
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KEY PLAN

Louis D. Weller - Electrical Engineer

STATE OF MISSOURI
LOUIS D. WELLER
NUMBER PE-2002009025
REGISTERED PROFESSIONAL ENGINEER

Crawford, Murphy & Tilly
Expires: 12/31/2024
Date: 10/07/2024

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Revisions

No.	Description	Date

SWT No. 21703.01

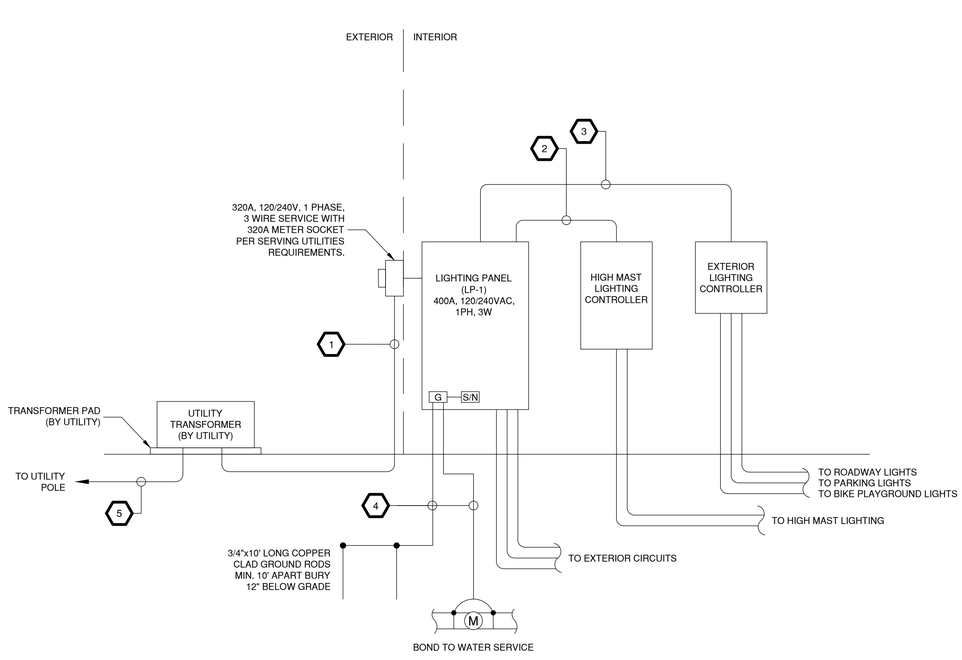
Drawn JRV | Reviewed LDW

Sheet Title
ELECTRICAL DETAILS I

Number
E-501

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October 3, 2024 3:31 PM



1 RESTROOMS/PAVILION ELECTRICAL RISER

N.T.S.

1. 3" SCHEDULE 80 PVC CONDUIT WITH GRSC BENDS TO 10' OUT FROM FOUNDATION.
2. 2 - #6 AWG, 1 - #10 GND IN 1" CONDUIT.
3. 2 - #10 AWG (LIGHTING CONTROLLER).
   2 - #10 AWG (ROADWAY LIGHTING CKT #1).
   2 - #10 AWG (ROADWAY LIGHTING CKT #2).
   2 - #10 AWG (BIKE PLAYGROUND LIGHTS).
   2 - #10 AWG (PARKING LOT LIGHTS), 1 - #10 GND IN 1-1/2" CONDUIT.
4. #1/0 AWG IN 1" SCHEDULE 40 PVC CONDUIT.

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No.	Description	Date

SWT No. 21703.01

Drawn	Reviewed
JRV	LDW

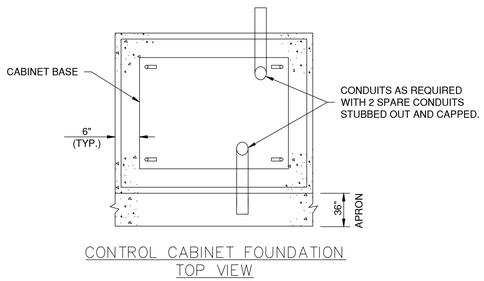
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ELECTRICAL DETAILS II

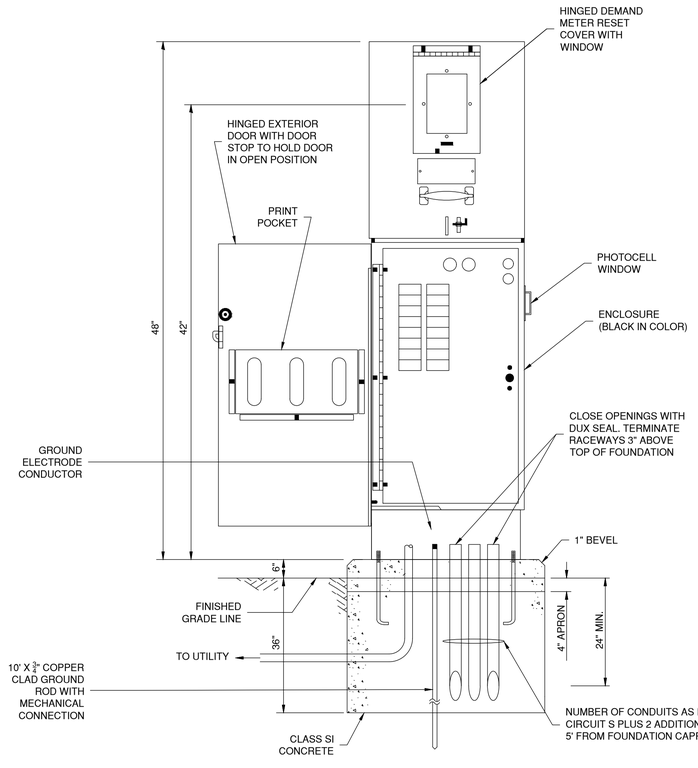
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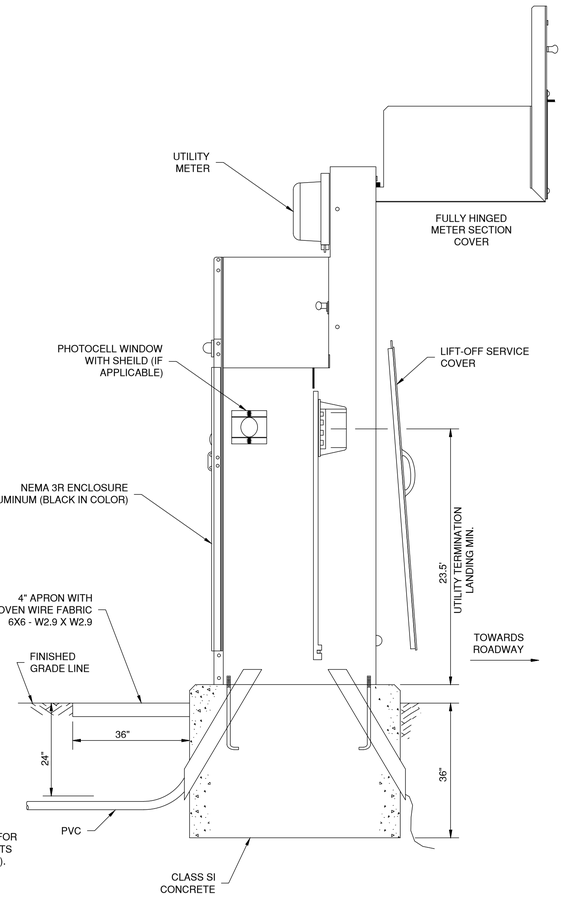
E-502

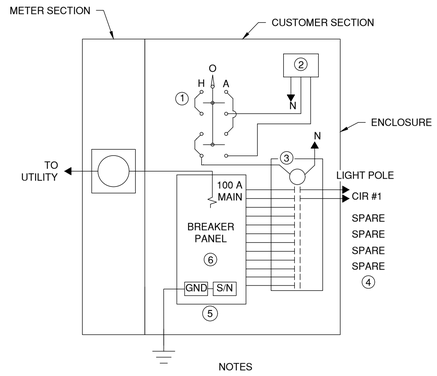
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CONTROL CABINET FOUNDATION
TOP VIEW







NOTES

1. H-O-A SWITCH WITH ENGRAVED NAMEPLATE AS DETAILED, MOUNTED BEHIND DOOR.
2. PHOTOCELL WITH INTEGRAL SURGE SUPPRESSOR.
3. CONTACTOR, 30A, 8P, 120V COIL, ELECTRICALLY HELD.
4. GND AND NEUTRAL CONDUCTORS NOT SHOW FOR CLARITY.
5. PROVIDE MAIN BONDING JUMPER AND CONNECT TO GROUND ROD.
6. 100A, 240V, SINGLE PHASE, 3 WIRE, 16 POLE BREAKER PANEL WITH 100A MAIN CB OR EQUIVALENT PROVIDE 16 20A, 1P CB

1 LIGHTING CONTROLLER AND FOUNDATION DETAIL (NORTHERN PARKING LOT)

N.T.S.

2 CONTROLLER WIRING DIAGRAM

N.T.S.

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JRV	LDW

Sheet Title

ELECTRICAL DETAILS III

Number

E-503

October 3, 2024 3:32 PM

PANELBOARD SCHEDULE

PANEL DESIGNATION: **LIGHTING PANEL (LP-1)**
LOCATION: **RR/STORAGE BLDG**
MFR & TYPE: **SQ D, EATON, GE, OR EQUAL**

BOND NEUTRAL AND GROUND BAR: **YES**
NEUTRAL BUS RATING: **100%**
SERVICE ENTRANCE RATED: **YES**

POLE: **42**
SHORT CIRCUIT RATING: **10KA**
SERIES OR FULLY RATED: **SERIES**
SPD & DISCONNECT REQUIRED: **YES**

VOLTS: **120/240**
PHASE: **1**
WIRE: **3**

MOUNTING: **SURFACE**
ENCL RATING: **NEMA 1**

BUS RATING (AMPS): **400**
BUS: **COPPER; SILVER OR TIN PLATED**
MAIN CIRCUIT BREAKER: **300/2**

CKT NO.	LOAD	BREAKER SIZE	LOAD AMPS	USAGE FACTOR	PHASE AMPS A	PHASE AMPS B	POLE NO.		PHASE AMPS A	PHASE AMPS B	USAGE FACTOR	LOAD AMPS	BREAKER SIZE	LOAD	CKT NO.
1	SURGE PROTECTION DEVICE (SPD)	30/2	0	1	0		1	2	8		0.5	16	20/1	STORAGE BLDG HEATER	2
3			0	1		0	3	4		1	1	1	20/1	RR/STORAGE BLDG EXHUAT FAN	4
5	HIGH MAST LIGHTING CONTROLLER	50/2	27	1	27		5	6	1.5		1	1.5	20/1	RR/STORAGE BLDG LIGHTING	6
7			27	1		27	7	8		4	1	4	20/1	RR/STORAGE RECEPT	8
9	ROADWAY LIGHTING CIR 1 (NORTH SIDE OF SOCCER ROAD)	20/2	4	1	4		9	10	8		0.5	16	20/1	RR/STORAGE WATER HEATER	10
11			4	1		4	11	12		3	1	3	20/1	PAVILION LIGHTING	12
13	ROADWAY LIGHTING CIR 2 (SOUTH SIDE OF SOCCER ROAD)	20/2	3.5	1	3.5		13	14	4		1	4	20/1	PAVILION RECEPT	14
15			3.5	1		3.5	15	16		1	1	1	20/1	LIGHTING CONTROLLER	16
17	POWER PEDESTRAL PP1	50/2	40	0.6	24		17	18	8		0.5	16	20/1	RR NO. 1 HEATER	18
19			40	0.6		24	19	20		8	0.5	16	20/1	RR NO. 2 HEATER	20
21	POWER PEDESTALS PP2 & PP3	100/2	80	0.6	48		21	22	0		1		20/2	SPARE	22
23			80	0.6		48	23	24		0	1				24
25	POWER PEDESTRAL PP4	50/2	40	0.6	24		25	26	0		1		20/1	SPARE	26
27			40	0.6		24	27	28		0	1		20/1	SPARE	28
29	BIKE PLAYGROUND LIGHTING	20/2	5	1	5		29	30	0		1		20/1	SPARE	30
31			5	1		5	31	32		0	1		20/1	SPARE	32
33	PARKING LOT LIGHTING	20/2	3	1	3		33	34	0		1		20/1	SPARE	34
35			3	1		3	35	36		0	1		20/1	SPARE	36
37	SPARE	50/2		1	0		37	38	0		1		20/1	SPARE	38
39				1		0	39	40		0	1		20/2	SPARE	40
41	SPARE	20/1		1	0		41	42	0		1				42
	SECTION TOTAL:				138.5	138.5			29.5	17					

	A	B
PHASE TOTAL AMPS:	168	155.5
PHASE TOTAL VA:	20160	18660

MINIMUM MAIN CIRCUIT BREAKER AMPS: 253

TOTAL USAGE LOAD: 38820 VA

MIN. XFMR VA: 48525 VA

NOTES:

Prepared For:

JOPLIN MISSOURI
602 S Main St
Joplin, MO 64801

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DORA
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Revisions

No.	Description	Date

SWT No. 21703.01

Drawn: JRV
Reviewed: LDW

Sheet Title
PANELBOARD SCHEDULES

Number
E-601

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Joplin Bike Park
Joplin, MO

Lighting System

Pole/Fixture Summary

Pole ID	Pole Height	Mtg Height	Fixture Qty	Luminaire Type	Load	Circuit
P1-P4	50'	50'	3	TLC-LED-550	1.62 kW	A
4			**12**		**6.48 kW**	

Circuit Summary

Circuit	Description	Load	Fixture Qty
A		6.48 kW	12

Fixture Type Summary

Type	Source	Wattage	Lumens	L90	L80	L70	Quantity
TLC-LED-550	LED 5700K - 75 CRI	540W	67,000	>120,000	>120,000	>120,000	12

Single Luminaire Amperage Draw Chart

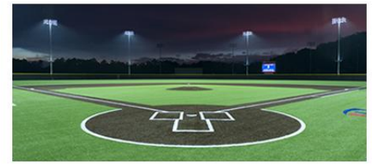
Driver Specifications (.90 min power factor)	Line Amperage Per Luminaire (max draw)						
Single Phase Voltage	208 (60)	220 (60)	240 (60)	277 (60)	347 (60)	380 (60)	480 (60)
TLC-LED-550	3.2	3.0	2.8	2.4	1.9	1.8	1.4

Light Level Summary

Calculation Grid Summary

Grid Name	Calculation Metric	Illumination					Circuits	Fixture Qty
		Ave	Min	Max	Max/Min	Ave/Min		
Bike Park	Horizontal Illuminance	0.00	0	0	-	0.00	A	12
Pump Track	Horizontal	26.24	15	34	2.37	1.81	A	12

From Hometown to Professional









NOTES:
1. DRAWINGS SHOWN ARE BASIS OF DESIGN FOR SPORTS LIGHTING AT THE PUMP TRACK.
2. BIDDER MAY OFFER ALTERNATIVE LIGHTING SUPPLIER. CONTRACTOR SHOULD PROVIDE PRELIMINARY DRAWINGS NO LESS THAN 7 CALENDAR DAYS PRIOR TO BID OPENING. IF ACCEPTED, THE BIDDER WILL RECEIVE WRITTEN PRE-APPROVAL FOR THE SUBSITUTION. BIDDER MAY NOT INCLUDE AN ALTERNATE LIGHTING SUPPLIER IN THEIR BID WITHOUT PRE-APPROVAL.
3. CONTRACTOR SHOULD SUBMIT FINAL LIGHTING PLANS STAMPED BY AN ENGINEER THAT SHALL MEET CITY OF JOPLIN BUILDING REQUIREMENTS (2018 INTERNATIONAL BUILDING CODE), INCLUDING ALL LOCAL AMENDMENTS.

ENGINEERED DESIGN By: E.ARNOLD • File #238007B • 18-Sep-24

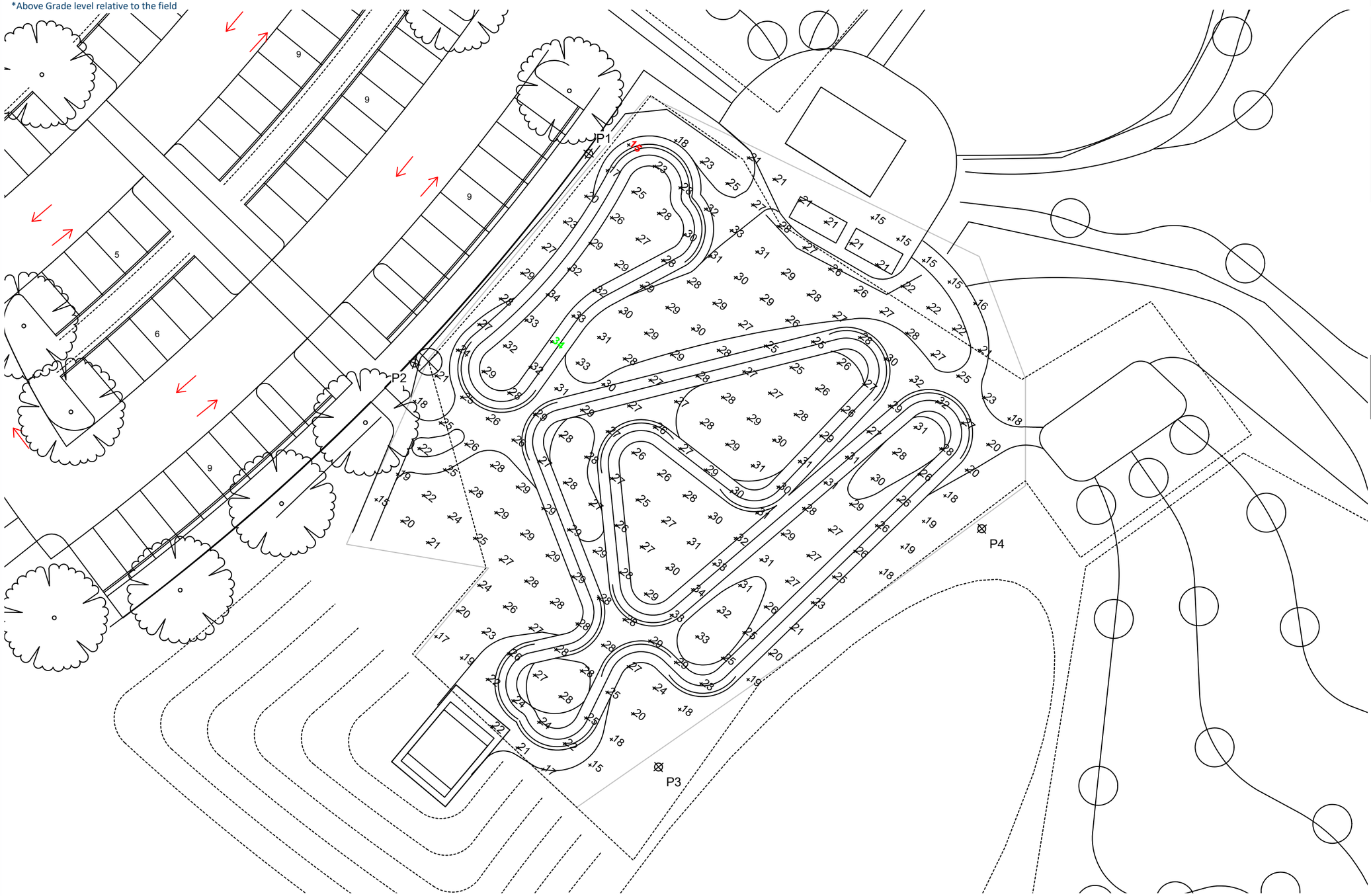
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Equipment List For Areas Shown

Pole				Luminaires				
QTY	LOCATION	SIZE	GRADE ELEVATION	ABOVE GRADE LEVEL	LUMINAIRE TYPE	QTY/POLE	THIS GRID	OTHER GRIDS
4	P1-P4	50'	-	50'	TLC-LED-550	3	3	0
4	Totals					12	12	0

*Above Grade level relative to the field



Joplin Bike Park

Joplin, MO

Grid Summary

Name	**Pump Track**
Spacing	10.0' x 10.0'
Height	3.0' above grade

Illumination Summary

MAINTAINED HORIZONTAL FOOTCANDLES

	Entire Grid
Scan Average	**26.24**
Maximum	34
Minimum	15
Avg/Min	1.81
Max/Min	**2.37**
UG (adjacent pts)	1.59
CU	0.77
No. of Points	240
LUMINAIRE INFORMATION	
Applied Circuits	A
No. of Luminaires	**12**
Total Load	6.48 kW

Guaranteed Performance: The ILLUMINATION described above is guaranteed per your Musco Warranty document and includes a 0.95 dirt depreciation factor.

Field Measurements: Individual field measurements may vary from computer-calculated predictions and should be taken in accordance with IESNA RP-6-15.

Electrical System Requirements: Refer to Amperage Draw Chart and/or the **"Musco Control System Summary"** for electrical sizing.

Installation Requirements: Results assume ± 3% nominal voltage at line side of the driver and structures located within 3 feet (1m) of design locations.

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1. DRAWINGS SHOWN ARE BASIS OF DESIGN FOR SPORTS LIGHTING AT THE PUMP TRACK.
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SCALE IN FEET 1 : 30

0' 30' 60'

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Pole location(s) ⊕ dimensions are relative to 0,0 reference point(s) ⊠

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Joplin Bike Park

Joplin, MO

Equipment Layout

INCLUDES:
· Pump Track

Electrical System Requirements: Refer to Amperage Draw Chart and/or the **"Musco Control System Summary"** for electrical sizing.

Installation Requirements: Results assume ± 3% nominal voltage at line side of the driver and structures located within 3 feet (1m) of design locations.

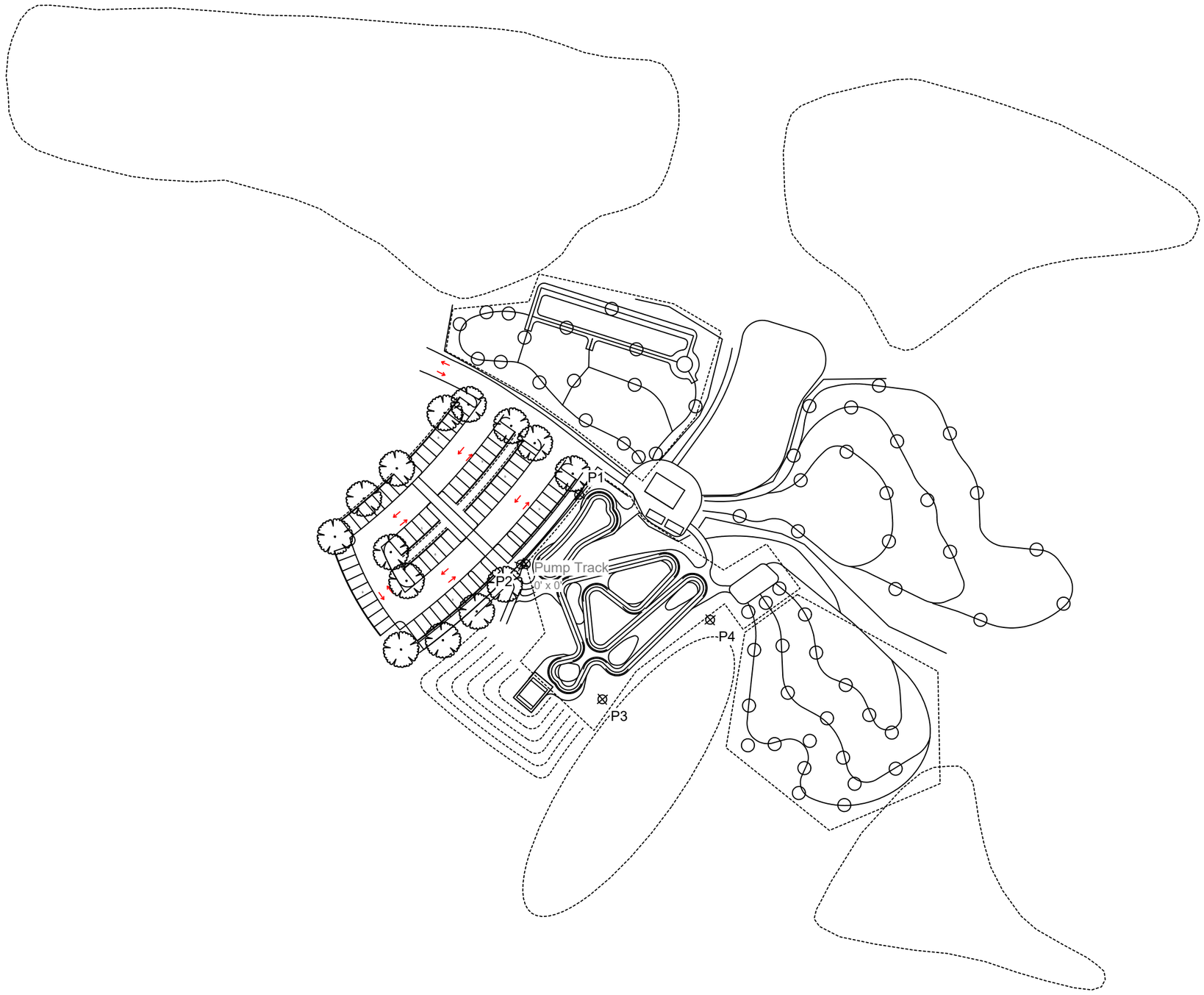
Equipment List For Areas Shown

Pole				Luminaires		
QTY	LOCATION	SIZE	GRADE ELEVATION	ABOVE GRADE LEVEL	LUMINAIRE TYPE	QTY/POLE
4	P1-P4	50'	-	50'	TLC-LED-550	3
4	Totals					12

Single Luminaire Amperage Draw Chart

Driver Specifications (.90 min power factor)	Line Amperage Per Luminaire (max draw)						
Single Phase Voltage	208 (60)	220 (60)	240 (60)	277 (60)	347 (60)	380 (60)	480 (60)
TLC-LED-550	3.2	3.0	2.8	2.4	1.9	1.8	1.4

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SCALE IN FEET 1 : 100

0' 100' 200'

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Pole location(s) ⊕ dimensions are relative to 0,0 reference point(s) ⊠

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NOTES:

1. DRAWINGS SHOWN ARE BASIS OF DESIGN FOR A PRE-ENGINEERED STRUCTURE ASSEMBLED ONSITE.
2. CONTRACTOR MAY SUBMIT EQUALS FOR APPROVAL BY THE LANDSCAPE ARCHITECT, SEE SPECIFICATIONS.
3. FINAL PLANS SUBMITTED BY THE CONTRACTOR FOR APPROVAL SHALL BE STAMPED BY A LICENSED ENGINEER.
4. FINAL PLANS SHALL MEET CITY OF JOPLIN BUILDING REQUIREMENTS (2018 INTERNATIONAL BUILDING CODE), INCLUDING ALL LOCAL AMENDMENTS:
   - 4.1. ROOFTOP SNOW LOAD: 30 PSF
   - 4.2. WIND GUST: 115 MPH
   - 4.3. MINIMUM FOOTING SIZE: 16" Ø X 30" DEEP

ROMTEC

18240 NORTH BANK ROAD - ROSEBURG, OR 97470

(541)-496-3541 FAX (541)-496-0803



1 ISOMETRIC RENDER

SCALE: NTS

DORA BICYCLE PARK RESTROOM

SHEET SCHEDULE	
SHEET	CONTENTS
RT-001	TITLE PAGE
RT-002	FLOOR PLAN & ELEVATIONS
RT-003	CMU PLAN & DETAILS
RT-004	FOUNDATION PLAN & DETAILS

PRELIMINARY

THESE PLAN VIEW AND ELEVATION DRAWINGS ARE A PRELIMINARY ARCHITECTURAL REPRESENTATION OF THE BUILDING. ALL DIMENSIONS, FEATURES AND COMPONENTS SHOWN ON THESE PRELIMINARY DRAWINGS MAY OR MAY NOT BE PART OF THE QUOTE. PLEASE REFER TO THE "SCOPE OF SUPPLY AND SERVICES" LETTER PROVIDED WITH YOUR QUOTE FOR ROMTEC'S PROPOSED SCOPE OF SUPPLY.

ROMTEC
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PROJECT: DORA BICYCLE PARK - RESTROOM
JOPLIN, MISSOURI

SHEET TITLE: TITLE PAGE SPECIFICATIONS

PROJECT #: 2448 A

DATE: 09/18/24

DRAWN BY: NP

REV.	DATE	BY

REVISIONS:

SHEET NO: RT-001

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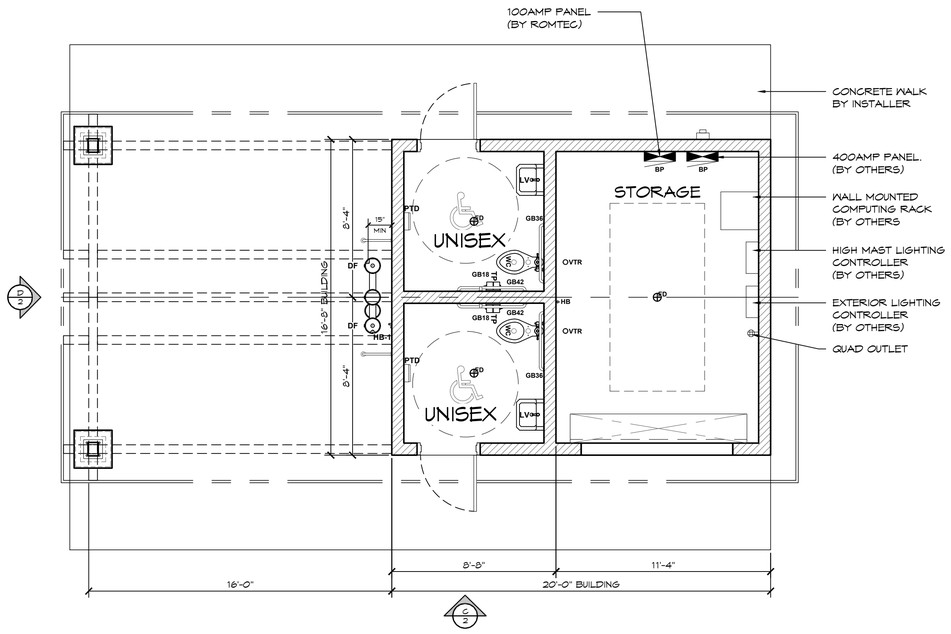
NOTES:

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   - 4.2. WIND GUST: 115 MPH
   - 4.3. MINIMUM FOOTING SIZE: 16" Ø X 30" DEEP

LEGEND		
SYMBOL	DESCRIPTION	AREA/ QUANTITY
	EXTERIOR WALL LIGHTS	5
	INTERIOR CEILING LIGHTS	4

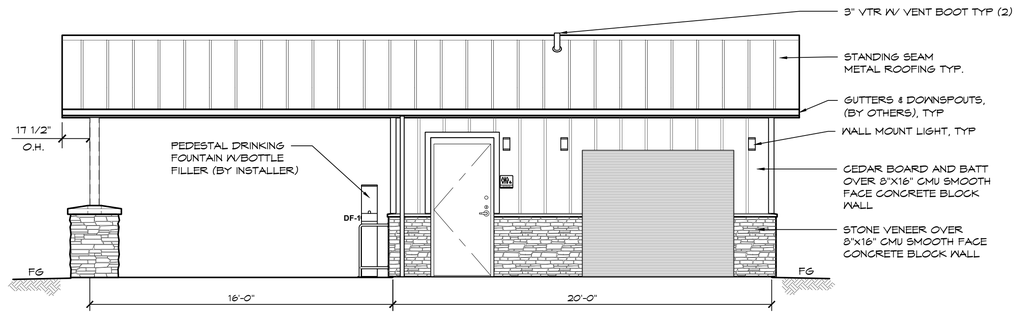
WALL TYPE SCHEDULE

8" REINFORCED CONCRETE MASONRY BLOCK WALL WITH MORTAR JOINTS, GROUTED SOLID ALL CELLS RUNNING BOND PATTERN.



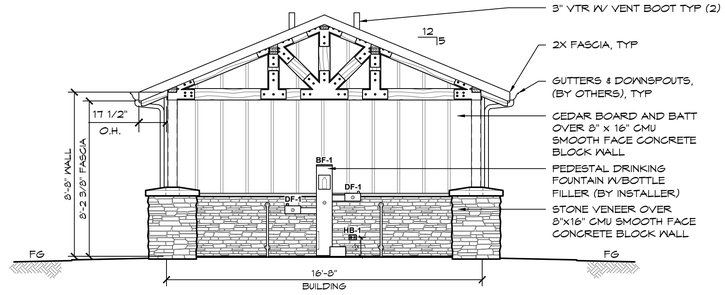
1 FLOOR PLAN

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



C ELEVATION VIEW

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



D ELEVATION VIEW

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

PRELIMINARY

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PROJECT: DORA BICYCLE PARK - RESTROOM
JOPLIN, MISSOURI

SHEET TITLE: FLOOR PLAN, ELEVATION VIEWS

PROJECT #: 2448 A

DATE: 09/18/24

DRAWN BY: NP

REV.	DATE	BY

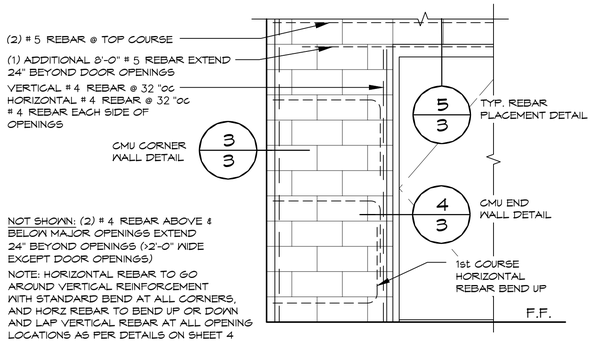
REVISIONS:

SHEET NO: RT-002

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   - 4.2. WIND GUST: 115 MPH
   - 4.3. MINIMUM FOOTING SIZE: 16" Ø X 30" DEEP



NOT SHOWN: (2) # 4 REBAR ABOVE & BELOW MAJOR OPENINGS EXTEND 24" BEYOND OPENINGS (>2'-0" WIDE EXCEPT DOOR OPENINGS)

NOTE: HORIZONTAL REBAR TO GO AROUND VERTICAL REINFORCEMENT WITH STANDARD BEND AT ALL CORNERS, AND HORZ REBAR TO BEND UP OR DOWN AND LAP VERTICAL REBAR AT ALL OPENING LOCATIONS AS PER DETAILS ON SHEET 4

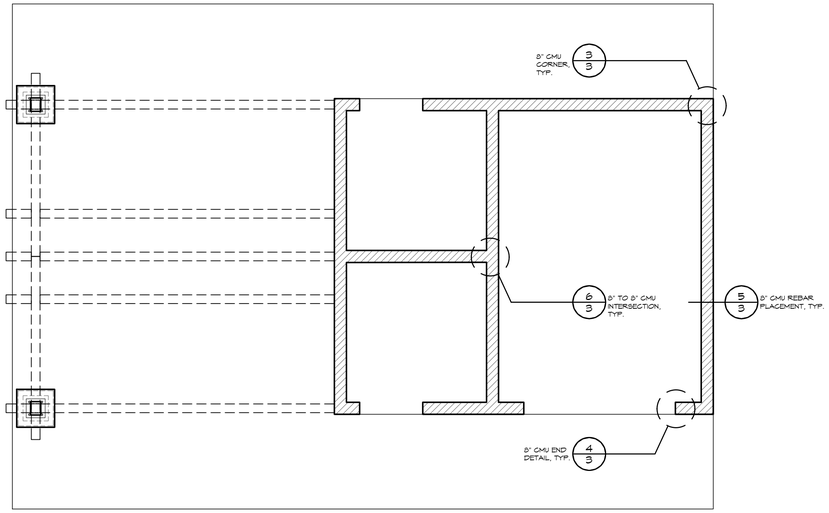
CMU REBAR SCHEDULE		
REBAR	MIN. LAP	BEND DIAMETER
#4	24"	3" MIN.
#5	30"	3-3/4" MIN.

CMU REBAR NOTES:
- BENDS: MIN. INSIDE BEND DIAMETER SHALL BE NOT LESS THAN 6d AS PER TMS 402-16 SECTION 6.1.8.2
- SPLICES: LAP SPLICES ARE PERMITTED AS PER TMS 402-16 SECTION 6.1.6.1.1

PIPES INSTALLED THROUGH CMU WALL NOTES:
- SUPPLY: THE FIXTURE SUPPLY LINE SHOULD BE BORED A 1/2" LARGER THAN REQUIRED LINE SIZE AND THE PORTION OF PIPE LOCATED IN CMU WALL SHALL BE WRAPPED WITH 10MIL BLACK TAPE
- WASTE PIPE: THE FIXTURE WASTE LINE SHOULD BE BORED A 1/2" LARGER THAN REQUIRED LINE SIZE.

1 CMU REBAR LAYOUT DETAIL

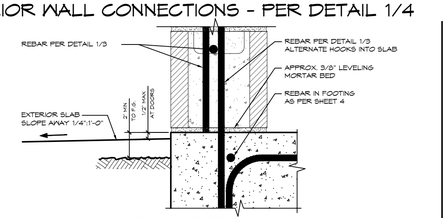
SCALE: 1" = 1'-0"



A STRUCTURAL CMU PLAN

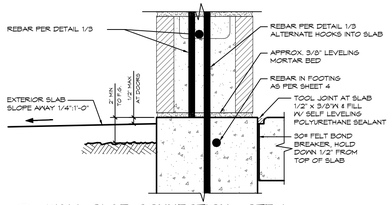
SCALE: 1/4" = 1'-0"

EXTERIOR WALL CONNECTIONS - PER DETAIL 1/4



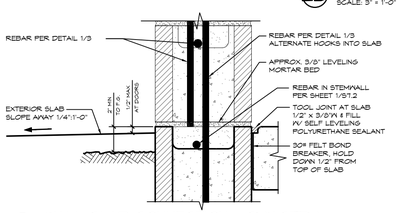
2A WALL-SLAB CONNECTION - MONO

SCALE: 3" = 1'-0"



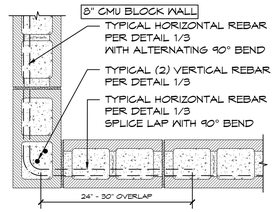
2B WALL-SLAB CONNECTION - STEM

SCALE: 3" = 1'-0"



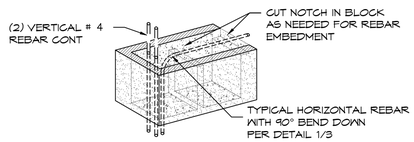
2C WALL-SLAB CONNECTION - CMU STEM

SCALE: 3" = 1'-0"



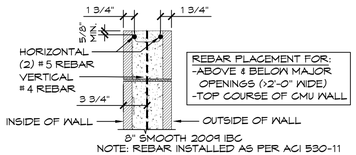
3 MORTAR JOINT CMU CORNER DETAIL

SCALE: 1" = 1'-0"



4 MORTAR JOINT CMU WALL END DETAIL

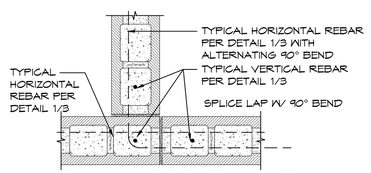
SCALE: 1" = 1'-0"



NOTE: REBAR INSTALLED AS PER ACI 530-11

5 8" CMU REBAR PLACEMENT

SCALE: 1" = 1'-0"



6 8" TO 8" MORTAR JOINT CMU INTERSECTION DETAIL

SCALE: 1" = 1'-0"

PRELIMINARY

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PROJECT: DORA BICYCLE PARK - RESTROOM
JOPLIN, MISSOURI

SHEET TITLE: STRUCTURAL CMU PLAN & DETAILS
SPECIFICATIONS

PROJECT #: 2448 A
DATE: 09/18/24
DRAWN BY: NP

REV.	DATE	BY

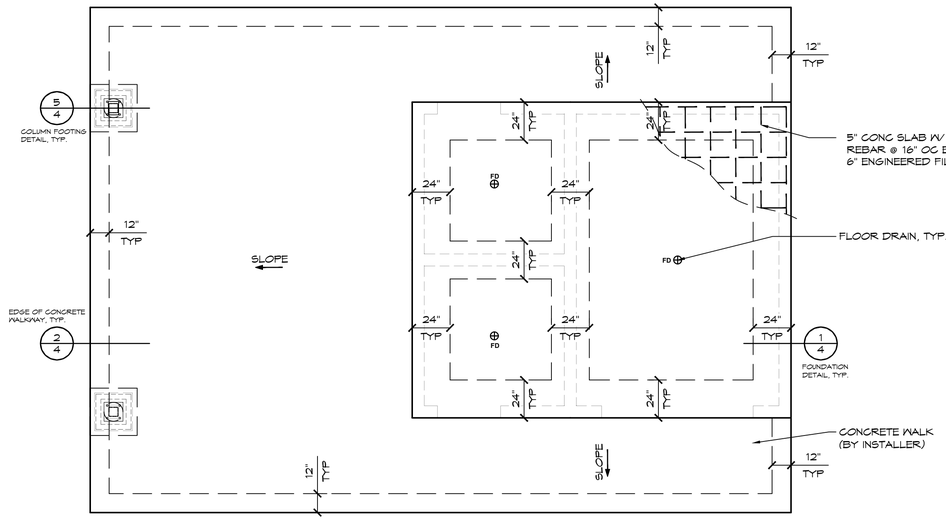
REVISIONS:

SHEET NO: RT-003

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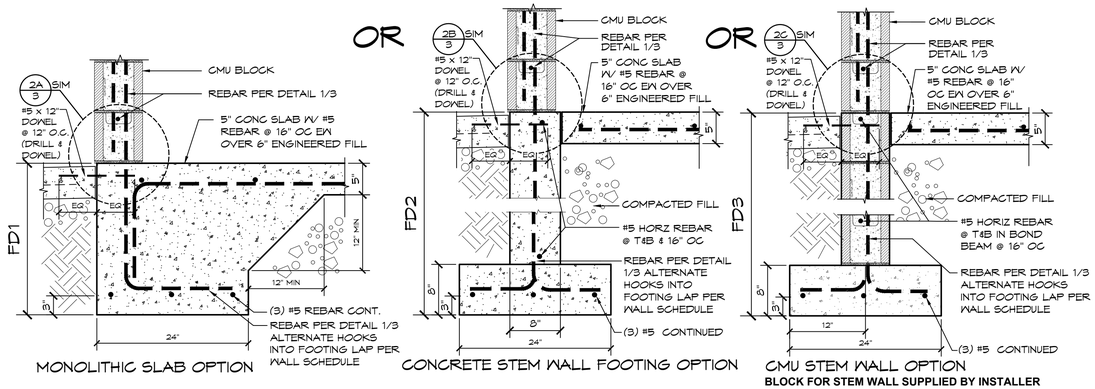


A FOUNDATION PLAN

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

EXTERIOR WALL FOUNDATIONS - CHOOSE ONE OF THE FOLLOWING

SEE FLOOR PLAN FOR EXTERIOR WALL LOCATIONS, SHEET 3

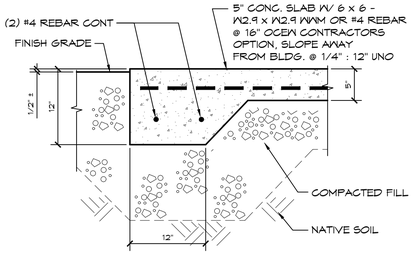


1 EXTERIOR WALL FOUNDATION DETAIL OPTIONS

SCALE: 1" = 1'-0"

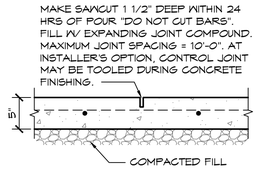
GENERAL NOTES:
* WHEN USING EITHER STEM WALL OPTION RECESS STEM WALL THE THICKNESS OF SLAB AT DOOR THRESHOLD
* PRIVACY WALLS TO HAVE A 30" WIDE x 12" DEEP FOOTING, IF APPLICABLE
* CMU STEM WALL OPTION, CMU BLOCK IS BY INSTALLER
* VERTICAL REBAR IN SLAB/STEM WALL TO MATCH VERTICAL WALL REINFORCEMENT LAP PER WALL SCHEDULE

FOUNDATION DESIGN SHOWN HERE IS PRELIMINARY AND SUBJECT TO CHANGE. FINAL FOUNDATION DESIGN TO BE DETERMINED DURING THE FORTHCOMING FULL DESIGN PHASE FOR THE BUILDING. ANY INCREASED COSTS OR TIME NEEDED TO CONSTRUCT THE FINAL FOUNDATION DESIGN IS BETWEEN THE END OWNER AND THE BUILDING INSTALLER



2 EDGE OF CONC. WALKWAY

SCALE: 1" = 1'-0"



3 SAWCUT JOINT

SCALE: 1" = 1'-0"

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PROJECT: DORA BICYCLE PARK - RESTROOM
JOPLIN, MISSOURI

SHEET TITLE: FOUNDATION PLAN & DETAILS SPECIFICATIONS

PROJECT #: 2448 A
DATE: 09/18/24
DRAWN BY: NP

REV.	DATE	BY

REVISIONS:

SHEET NO. RT-004

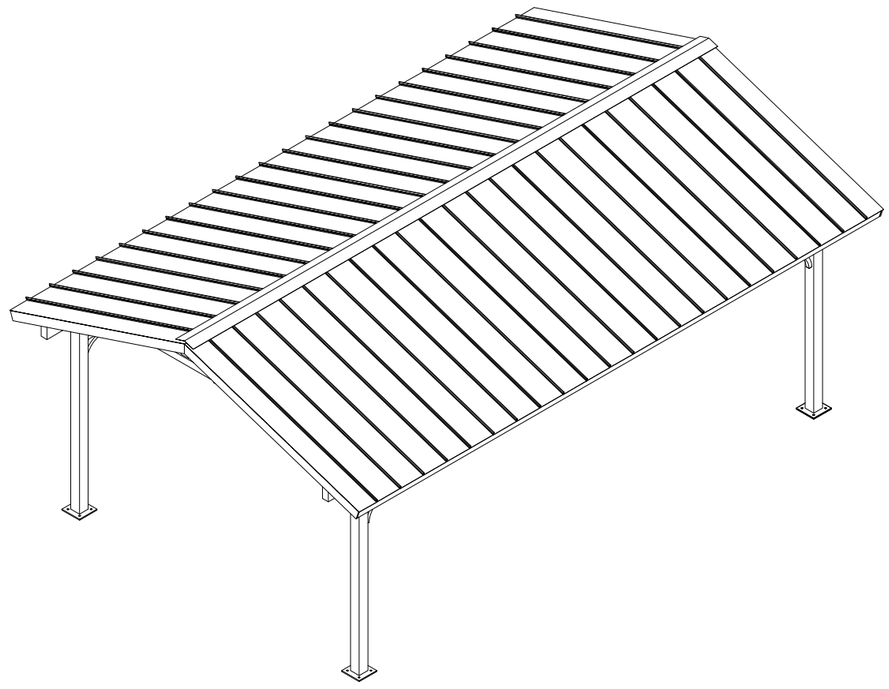
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NOTES:

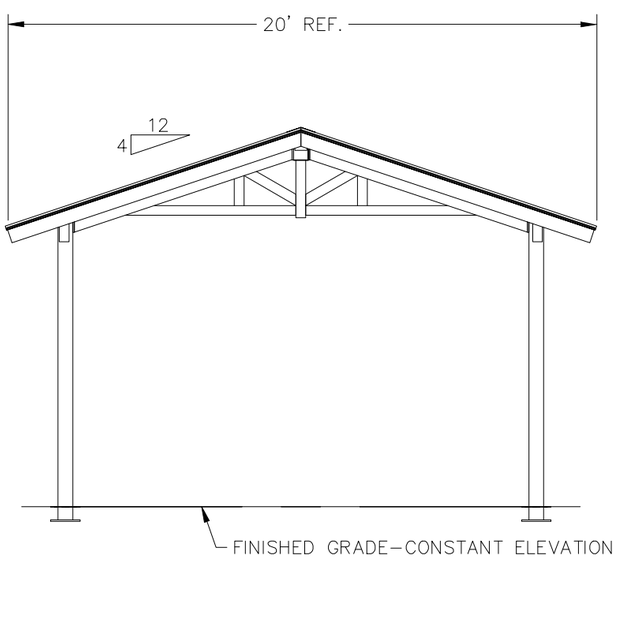
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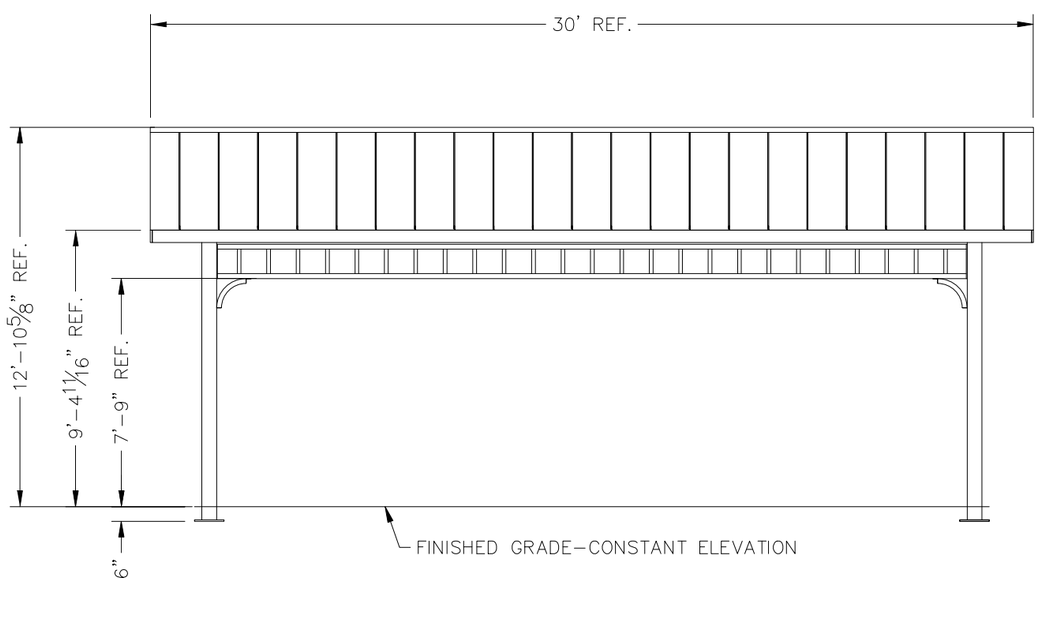
CHARACTER REFERENCE IMAGE:





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Elevation

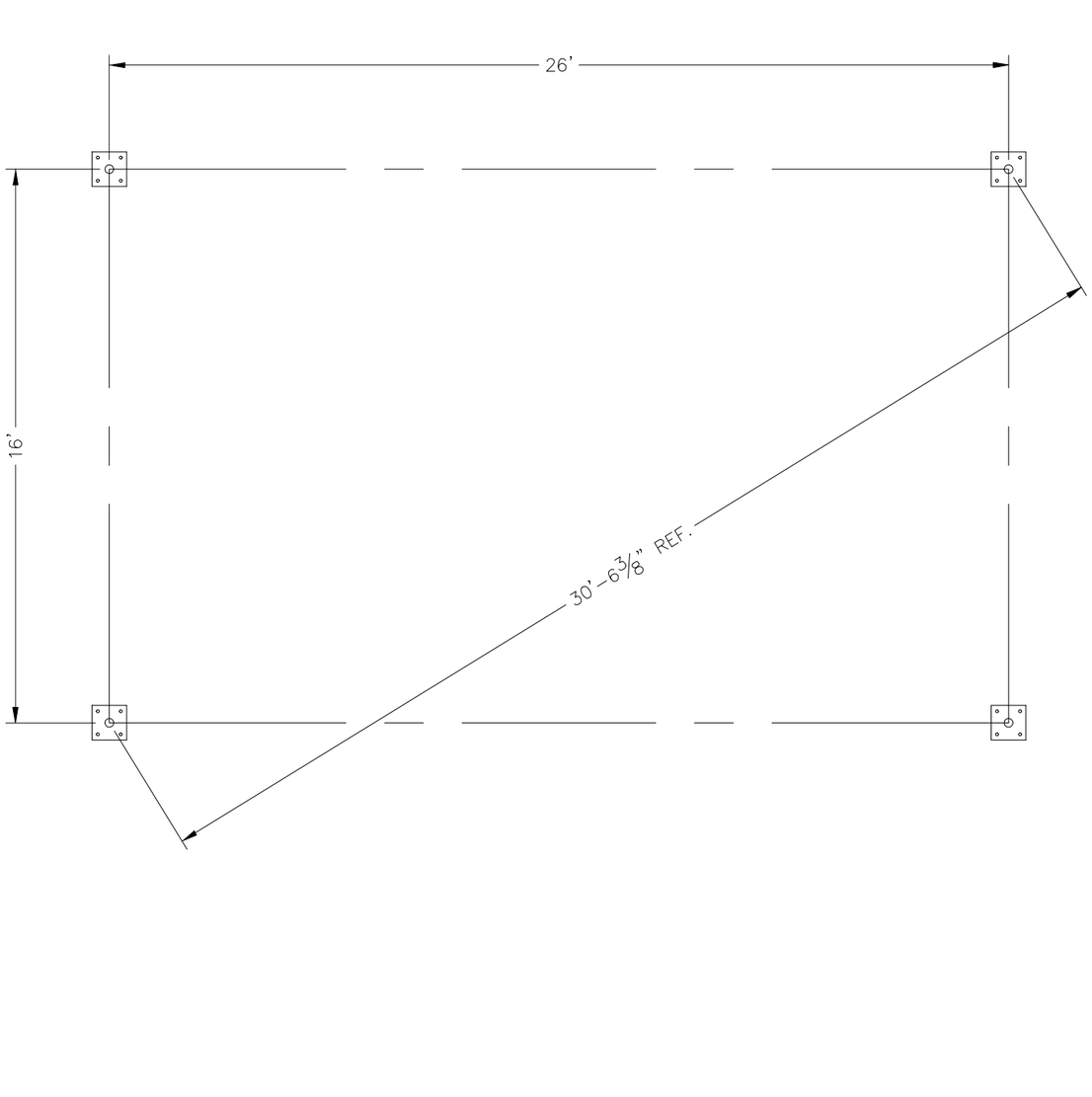
DRAWN BY:	MH
DATE:	9/9/2024
PRELIMINARY ID:	89163
REVISION:	A
BUILDING TYPE:	CG20X30TS–P4
PROJECT NAME:	

SHEET 1.0

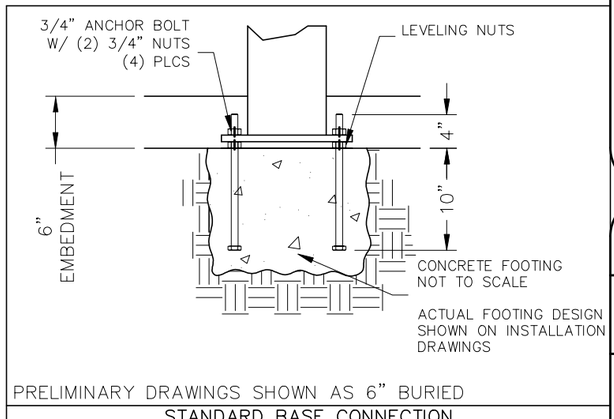
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DWG:CG\20x30\TS–P4–30–115–30\Drawings\Preliminary\CG20x30TS–P4–30–115–30~89163.dwg

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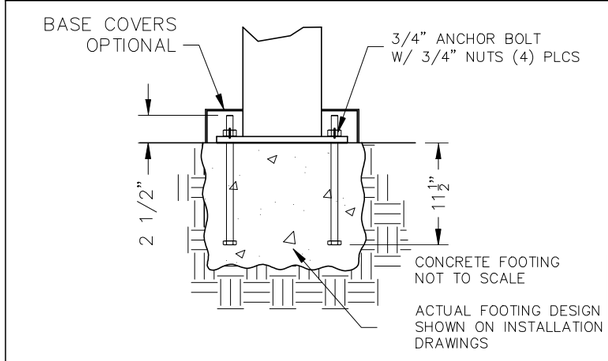


PRELIMINARY: NOT FOR CONSTRUCTION



PRELIMINARY DRAWINGS SHOWN AS 6" BURIED

STANDARD BASE CONNECTION
COLUMN TYPE: A (6" BURIED)



OPTIONAL BASE CONNECTION
COLUMN TYPE: B (SURFACE MOUNT W/ COVERS)

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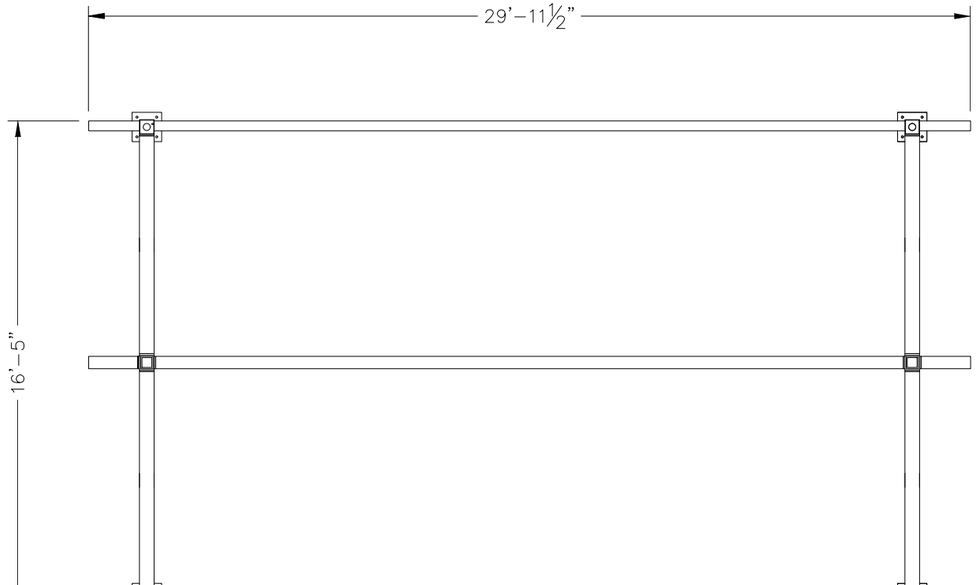
Anchor Bolt Layout

DRAWN BY:	MH
DATE:	9/9/2024
PRELIMINARY ID:	89163
REVISION:	A
BUILDING TYPE:	CG20X30TS-P4
PROJECT NAME:	

SHEET 2.0

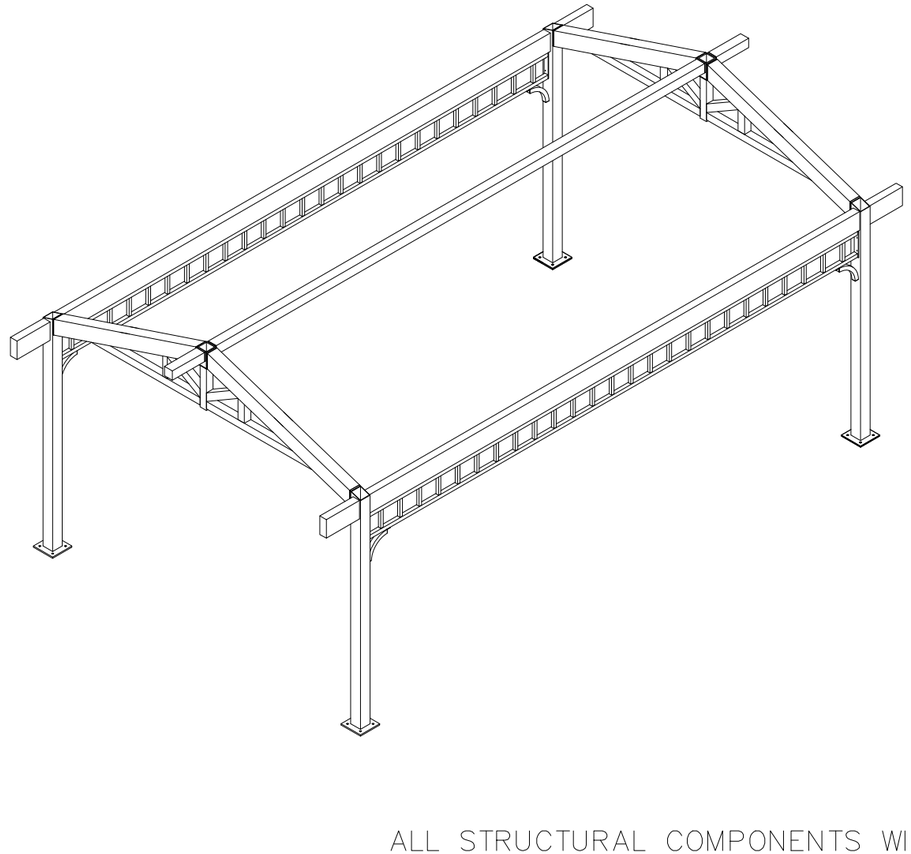
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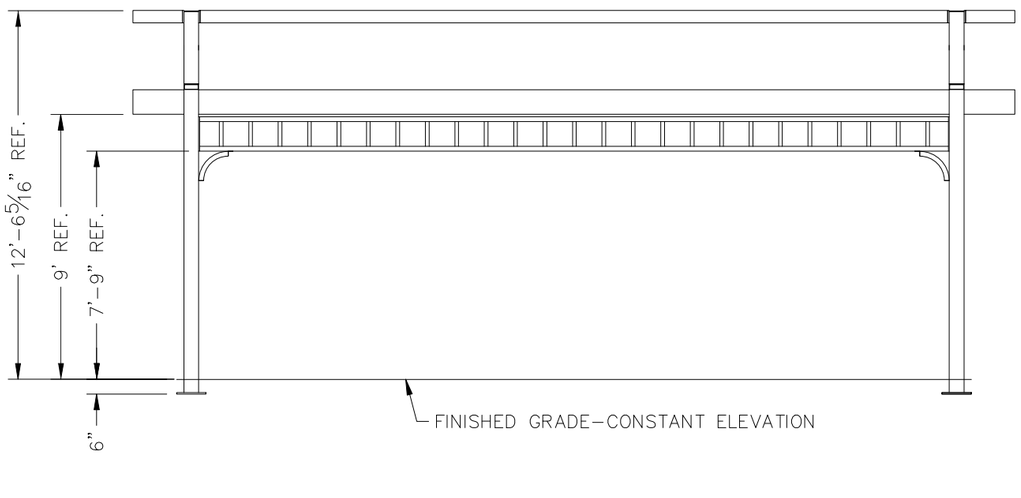
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   - 4.3. MINIMUM FOOTING SIZE: 16" Ø X 30" DEEP

PRELIMINARY: NOT FOR CONSTRUCTION





ALL STRUCTURAL COMPONENTS WILL BE:
TUBE: ASTM A500 GRADE B
PLATE: ASTM A36
BOLTS: ASTM A325
NUTS: ASTM A563
WELDING: GMAW

NOTE:
COLUMN SIZE: HSS 6x6x3/16

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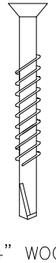
Frame

DRAWN BY:
MH
DATE:
9/9/2024
PRELIMINARY ID:
89163
REVISION:
A
BUILDING TYPE:
CG20X30TS-P4
PROJECT NAME:

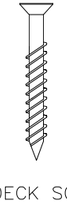
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DWG:CG\20x30\TS-P4-30-115-30\Drawings\Preliminary\CG20x30TS-P4-30-115-30~89163.dwg

FASTENERS



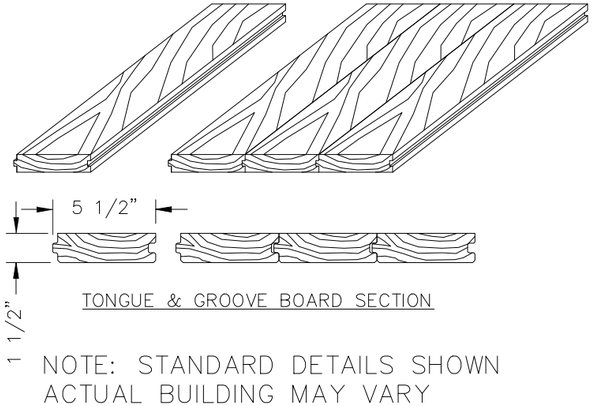
2 3/4" WOOD TO METAL SCREW



2" DECK SCREW

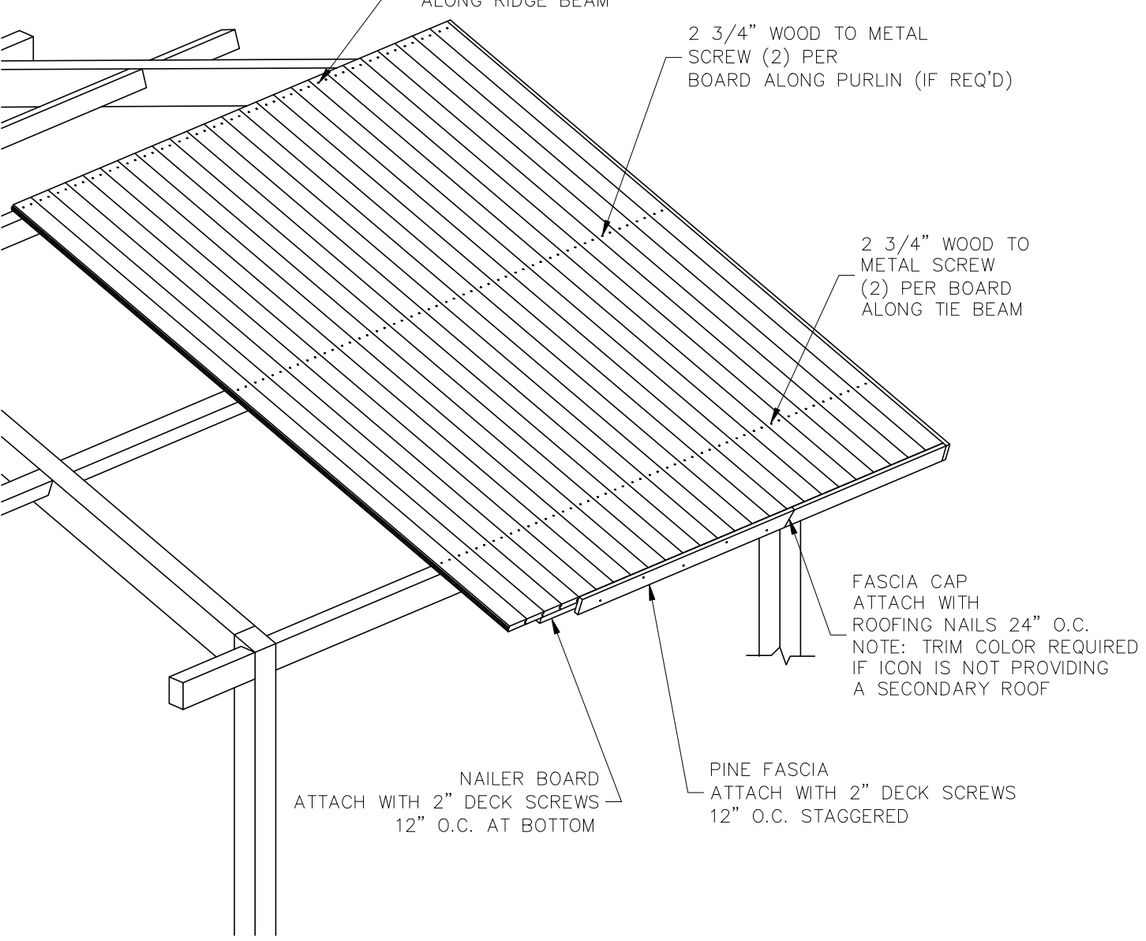


ROOFING NAIL



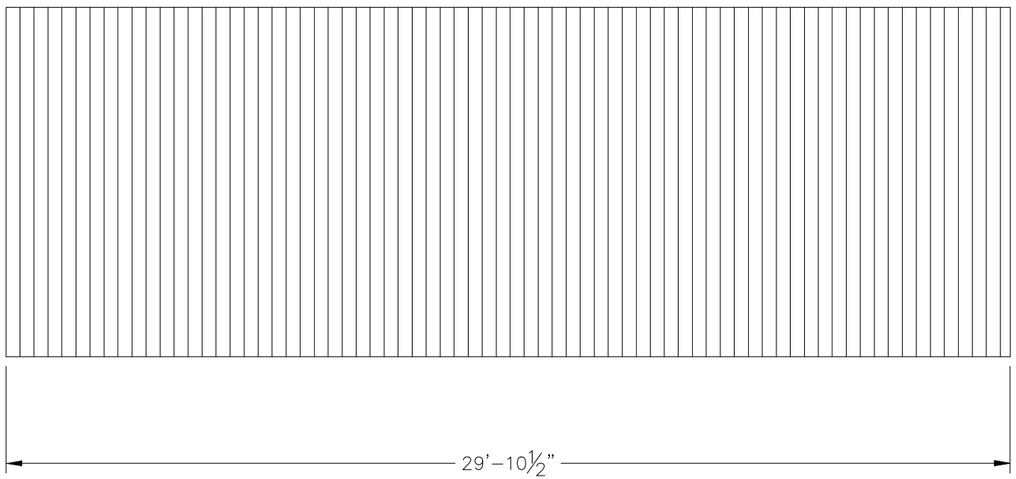
TONGUE & GROOVE BOARD SECTION

NOTE: STANDARD DETAILS SHOWN ACTUAL BUILDING MAY VARY



NOTES:

1. DRAWINGS SHOWN ARE BASIS OF DESIGN FOR A PRE-ENGINEERED STRUCTURE ASSEMBLED ONSITE.
2. CONTRACTOR MAY SUBMIT EQUALS FOR APPROVAL BY THE LANDSCAPE ARCHITECT, SEE SPECIFICATIONS.
3. FINAL PLANS SUBMITTED BY THE CONTRACTOR FOR APPROVAL SHALL BE STAMPED BY A LICENSED ENGINEER.
4. FINAL PLANS SHALL MEET CITY OF JOPLIN BUILDING REQUIREMENTS (2018 INTERNATIONAL BUILDING CODE), INCLUDING ALL LOCAL AMENDMENTS:
   - 4.1. ROOFTOP SNOW LOAD: 30 PSF
   - 4.2. WIND GUST: 115 MPH
   - 4.3. MINIMUM FOOTING SIZE: 16" Ø X 30" DEEP



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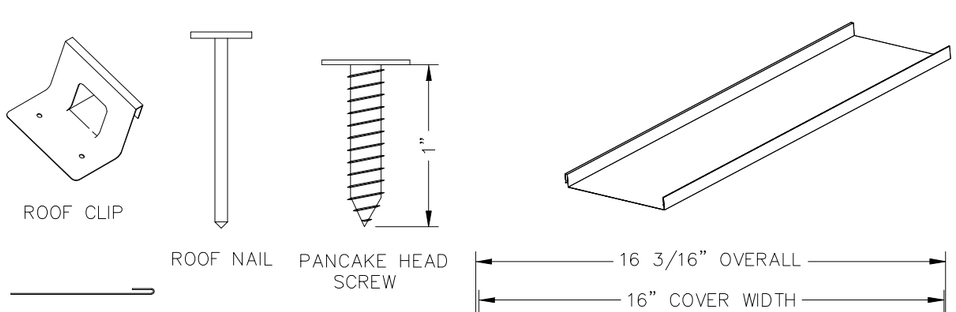
Roof Layout

DRAWN BY:
MH
DATE:
9/9/2024
PRELIMINARY ID:
89163
REVISION:
A
BUILDING TYPE:
CG20X30TS-P4
PROJECT NAME:

SHEET
4.0

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QF-73-01-42

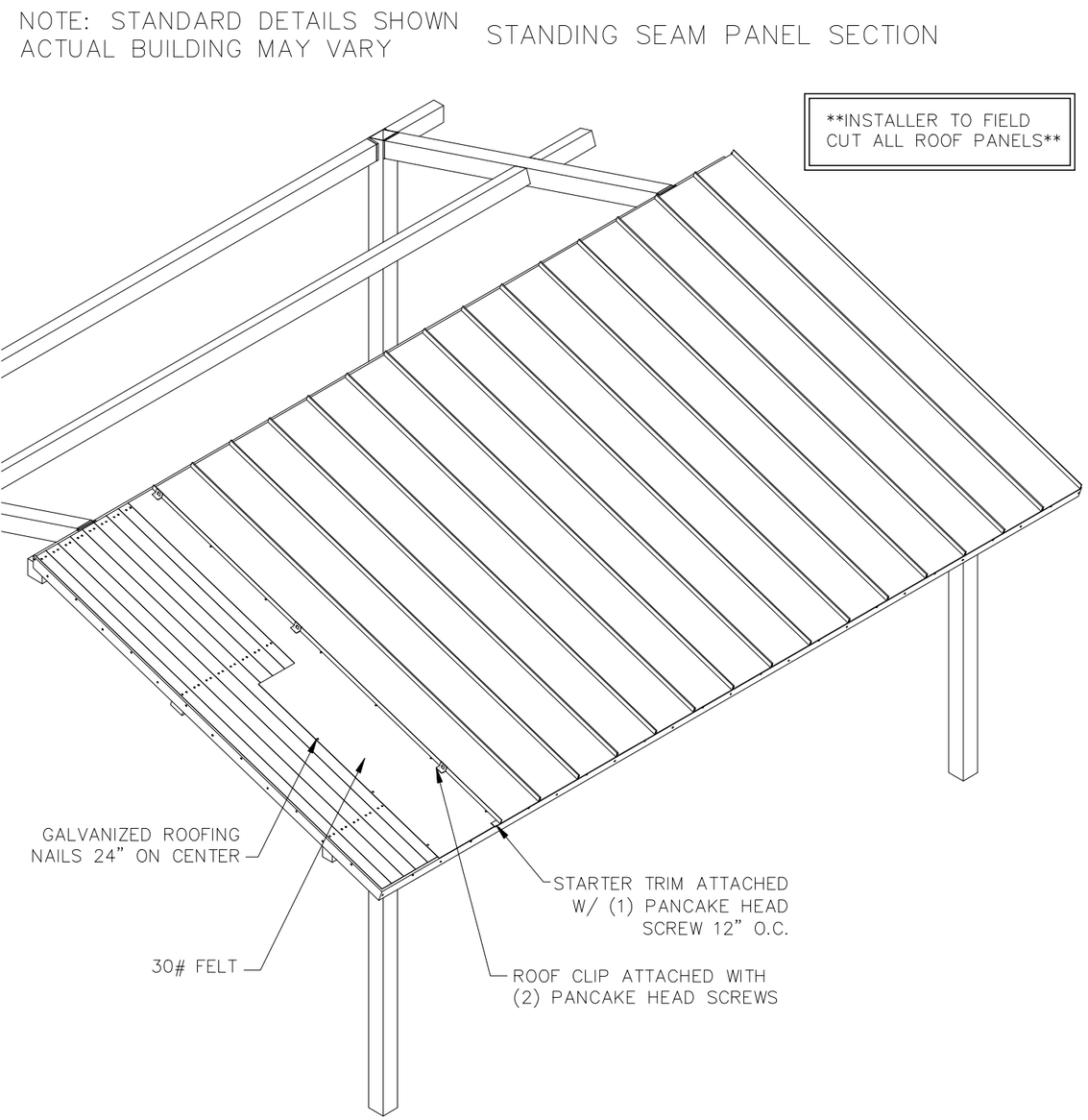
DWG:CG\20x30\TS-P4-30-115-30\Drawings\Preliminary\CG20x30TS-P4-30-115-30~89163.dwg



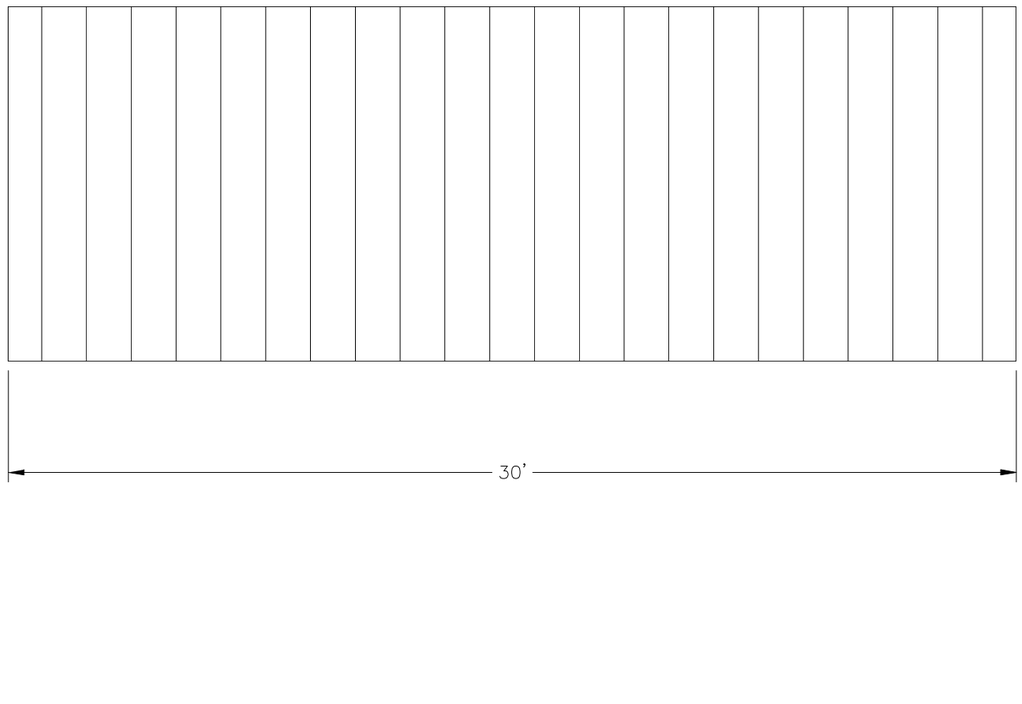
NOTE: STANDARD DETAILS SHOWN ACTUAL BUILDING MAY VARY

STANDING SEAM PANEL SECTION

INSTALLER TO FIELD CUT ALL ROOF PANELS



NOTES:
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Roof Layout

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SHEET 4.1

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ELECTRICAL INFORMATION - RECTANGULAR GABLE

ICON'S STANDARD ELECTRICAL IS DESIGNED TO ACCOMMODATE Ø1/2" CONDUIT WITH A Ø3" INLET HOLE ON THE BOTTOM OF EACH COLUMN. THE CONDUIT PATHWAY RUNS THROUGH THE COLUMN, RAFTER, AND RIDGE BEAM THROUGH ALL BOLTED CONNECTIONS AS SHOWN. IF YOU HAVE SPECIAL ELECTRICAL REQUIREMENTS, PLEASE OUTLINE ANY CHANGES BELOW AS DESCRIBED.

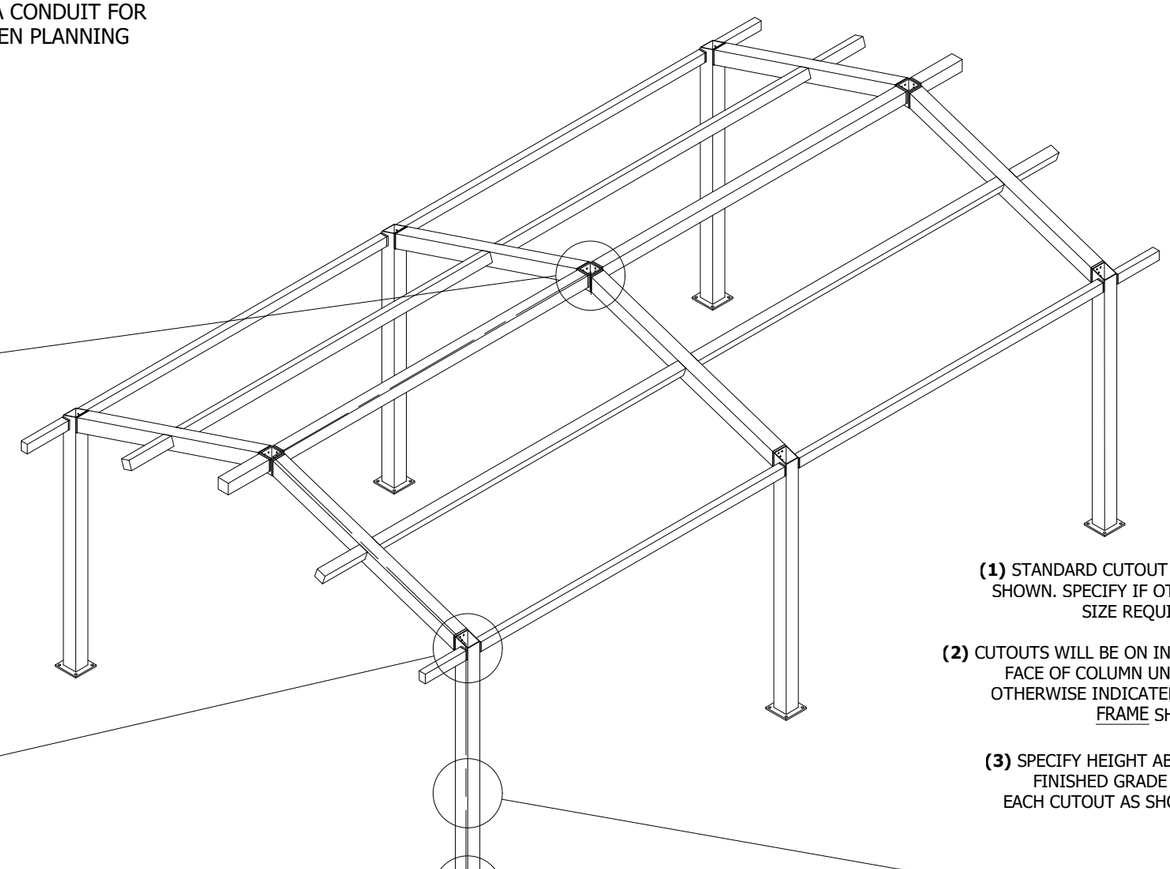
PLEASE NOTE: DESIGN LIMITATIONS ON HOLE/CUTOUT SIZES MAY APPLY. ICON WILL REACH OUT TO DISCUSS ANY SUCH LIMITATIONS AS NEEDED.

NOTE: ICON SHELTER FRAME IS NOT UL LISTED TO ACT AS A CONDUIT FOR ELECTRICAL WIRING. CONSULT LOCAL BUILDING CODES WHEN PLANNING YOUR ELECTRICAL SYSTEM.

NOTES:
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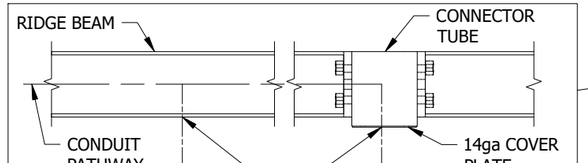
STEPS:
1. CONDUIT HOLE SIZE (DETAIL A)
2. ELECTRICAL EXIT HOLES (DETAIL B)
3. ELECTRICAL ACCESS & COVER PLATES (DETAIL C)
4. ELECTRICAL CONDUIT PATHWAY (DETAIL D)

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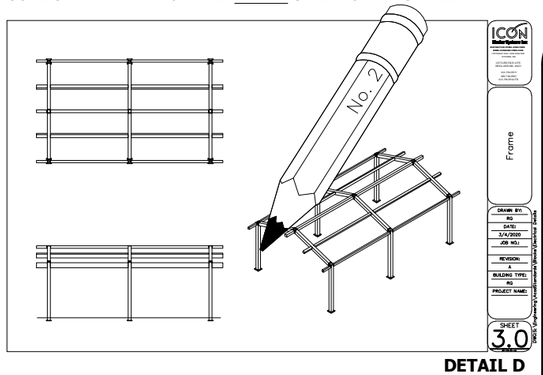
OPTIONAL EXIT HOLES

IF REQUIRED, EXIT HOLES FOR LIGHTING, ETC. CAN BE PLACED IN THE RIDGE BEAM AND/OR CONNECTOR TUBE WITH 14ga COVER PLATE AS SHOWN (CHARGES APPLY) USE FRAME SHEET OF THIS PRELIMINARY TO SPECIFY REQUIRED EXIT HOLE LOCATIONS AND SIZE.

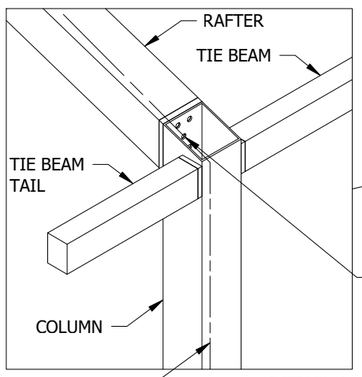


DETAIL B

IF REQUIRED, PLEASE DRAW THE NECESSARY ELECTRICAL CONDUIT PATHWAY ON THE FRAME SHEET OF THIS PRELIMINARY.



DETAIL D



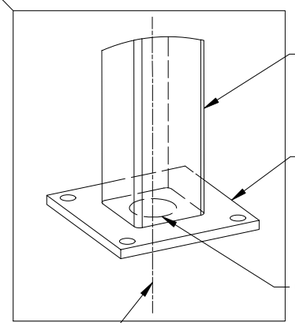
DETAIL A

ICON PROVIDES A MINIMUM OF (1) 3/4" HOLE AT EACH CONNECTION FOR 1/2" CONDUIT. IF APPLICABLE, PLEASE SPECIFY REQUIRED CONDUIT SIZE: (CHARGES APPLY)

- ☐ 3/4" CONDUIT (1" HOLES)
- ☐ 1" CONDUIT (1 1/4" HOLES)
- ☐ OTHER (PLEASE SPECIFY

_____

CONDUIT PATHWAY PROVIDED FOR EACH COLUMN.



BASE DETAIL

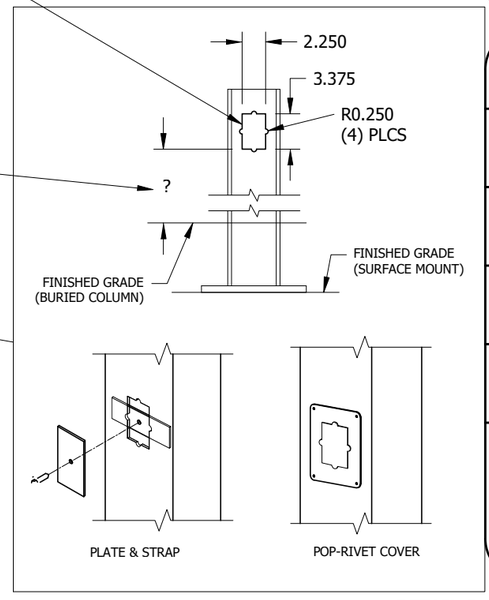
OPTIONAL CUTOUTS

USE FRAME SHEET OF THIS PRELIMINARY TO SPECIFY REQUIRED CUTOUT LOCATIONS (CHARGES APPLY) SEE REQUIRED INFO BELOW

(1) STANDARD CUTOUT SIZE SHOWN. SPECIFY IF OTHER SIZE REQUIRED.

(2) CUTOUTS WILL BE ON INSIDE FACE OF COLUMN UNLESS OTHERWISE INDICATED ON FRAME SHEET.

(3) SPECIFY HEIGHT ABOVE FINISHED GRADE FOR EACH CUTOUT AS SHOWN



DETAIL C

(4) COVER PLATES PROVIDED UPON REQUEST (CHARGES APPLY)
PLEASE SPECIFY TYPE AND QUANTITY REQUIRED:

- ☐ PLATE & STRAP
- ☐ POP-RIVET COVER PLATE

HOW MANY REQUIRED?_____

NOTE: BUILDING DEPICTED ON THIS SHEET FOR ILLUSTRATION PURPOSES ONLY. ACTUAL LAYOUT AND FRAME MEMBER QUANTITIES VARY BY DESIGN. PLEASE REFER TO ELEVATION AND FRAME SHEETS IN THIS PRELIMINARY FOR ORDER-SPECIFIC CONFIGURATION.

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Electrical

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DATE:	9/9/2024
PRELIMINARY ID:	89163
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BUILDING TYPE:	CG20X30TS-P4
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SHEET 5.0

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DWG:CG\20x30TS-P4-30-115-30\Drawings\Preliminary\CG20x30TS-P4-30-115-30~89163.dwg