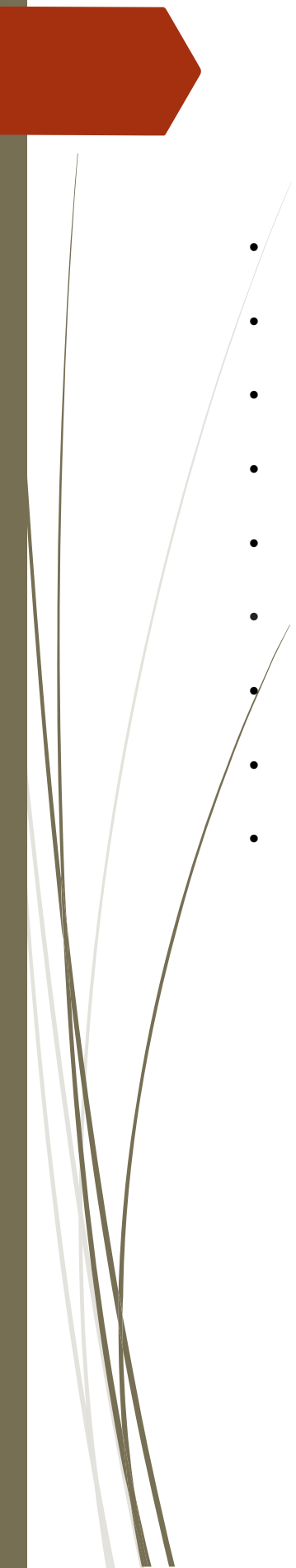


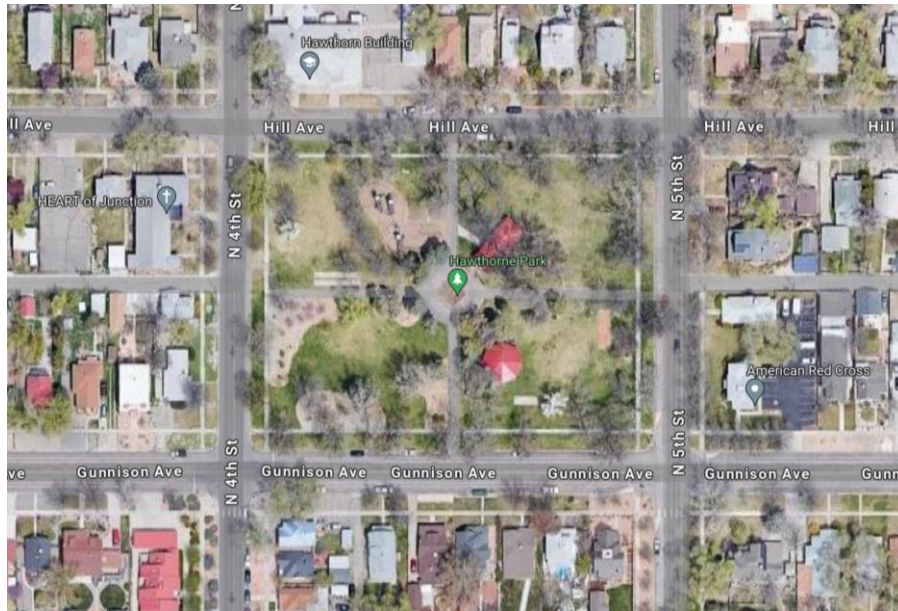
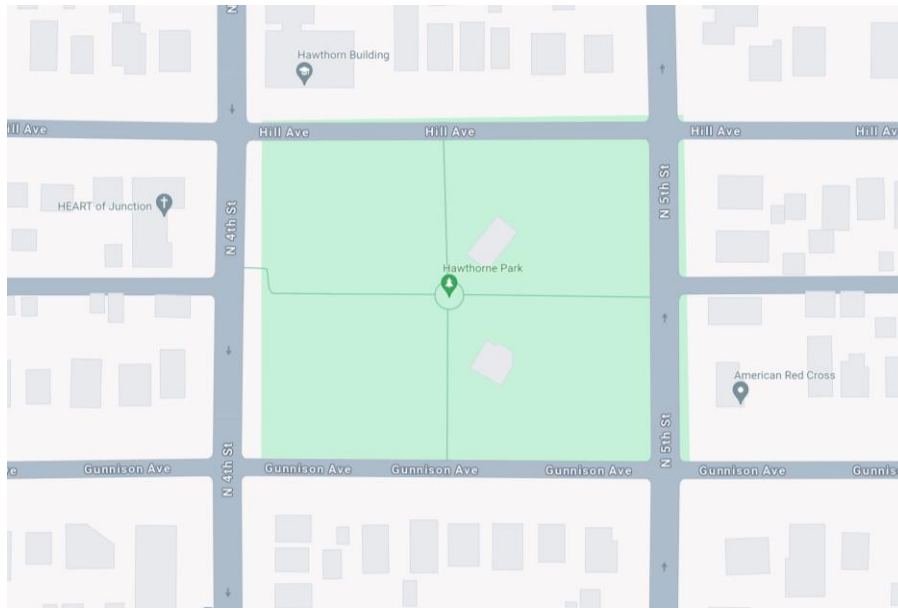


Hawthorne Park
City of Grand Junction Colorado

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 - **Summary of Project Site**
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 - **Project 3 - Sidewalk Replacement and Center Planter Curb Restoration**
 - **Project 4 - Playground Expansion (not part of this project)**
 - **Project 5 - Lighting updating (not part of this project)**

Location



Hawthorne Park Grand Junction Colorado

Located at: 400 Gunnison Ave, Grand Junction, CO 81501

Size: Approximately 3.5 Acres

Amenities: Grill, Open Space, Picnic Tables, Playground, Restrooms, Shelters (2), Bocce Ball, Shuffleboard court (2)

Summary of Hawthorne Park

In September 2023, Team Pain was tasked by the City of Grand Junction to develop a conceptual plan to reimagine and modernize Hawthorne Park. The following is a summary of our findings with recommendations:

History

Located on Gunnison Avenue, Hawthorne Park, previously known as Walnut Park, is one of the four original recreational parks within the City of Grand Junction. In 1895, women from the Grand Junction Loyal Temperance Legion were granted permission by the town council to beautify the park. On Arbor Day of that year, work began alongside school children to plant walnut trees throughout the park. It then became known as Children's Park. In 1909, a new school building was built at 4th and Hill and named Hawthorne School, after

American Novelist Nathaniel Hawthorne. The fountain at the center of the park was also installed that included koi fish and lily pads. A year later, a Balsam tree was planted in the park from the home of Nathaniel Hawthorne and in 1910, the park was renamed Hawthorne Park and a large playground was added.

Current Day Site Information

Today, the park is divided into 4 quadrants, with each area sectioned off by deteriorating asphalt. The fountain feature, although not in working condition, still stands in the middle of the park. Because of the historical significance, this feature should be kept into future development of Hawthorne Park. The site sits under a beautiful tree canopy that will need to be incorporated into the updated design. There is an outdated playground at the northwest quadrant of the park that is set to be updated in fiscal year 2025. In the northeast quadrant, sits a brick-and-mortar restroom with a small covered seating area. The southeast quadrant houses an octagon shade feature and bocci ball court. The area surrounding the park is residential with a good mix of younger families and working professionals.

Project approach

Team Pain met with City of Grand Junction representatives in late September 2023 to begin developing a plan to update Hawthorne Park. A tree study was commenced to determine the area that could be developed while also not disturbing any of the canopy. There were no trees noted that are sick or needed to be removed. Most were healthy and in good shape. 101 trees were noted on the plan. Any concept would need to be developed in a way to not disturb the root zone of these trees. An additional 20 trees were determined to be small enough to relocate. 14 trees were identified as Memorial Trees that needed to stay in place.

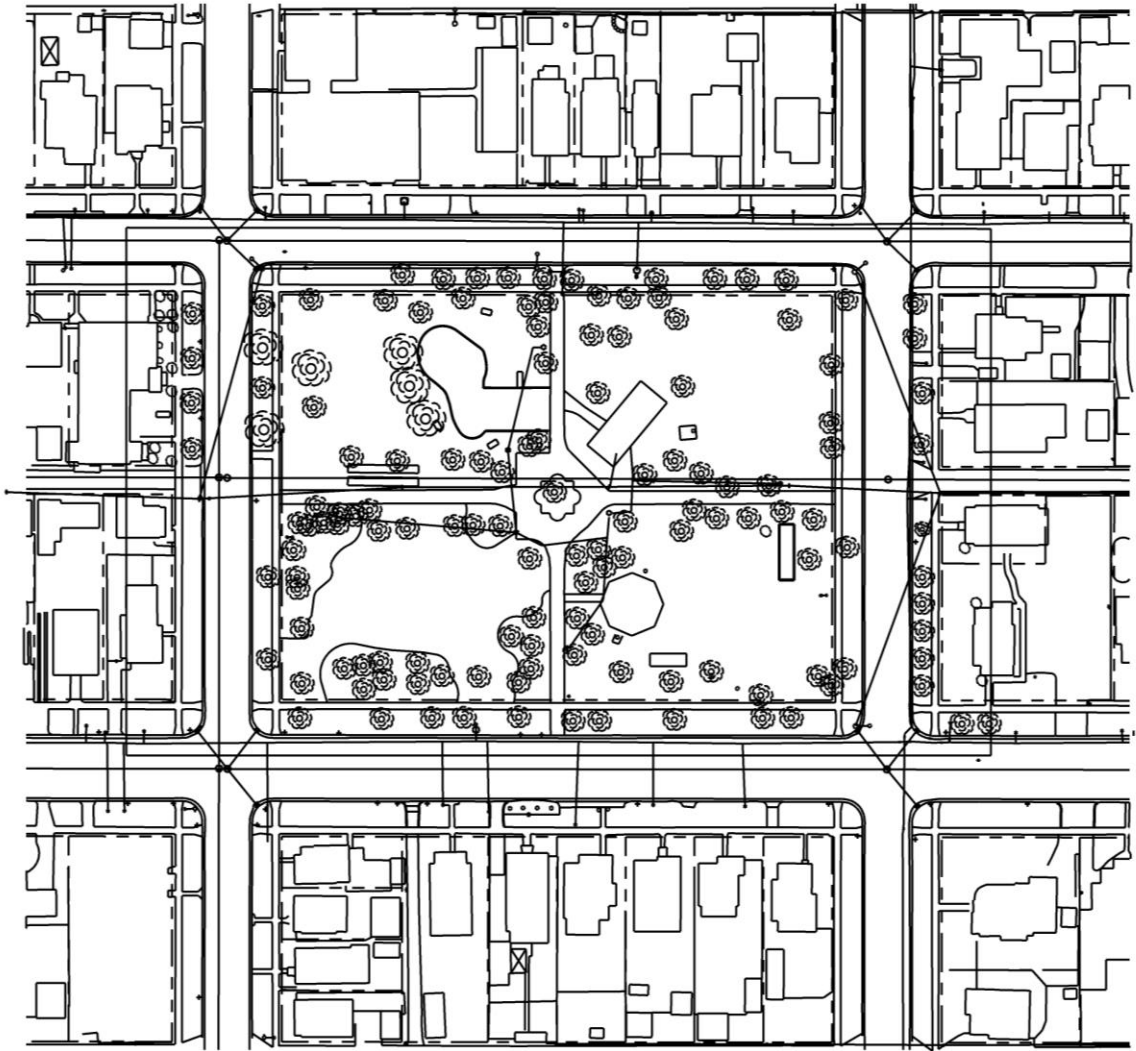
In October 2023, Team Pain met with City Officials to determine what site improvements to include in the conceptual design. They expressed the need for a pump track park that would include elements to attract new users to the sport in a safe and noncompetitive space. City Representatives also envisioned a yoga or fitness space that is fenced off and could be used as a private rentable space for events.

T E A M P A I N S K A T E P A R K S

A CUSTOM SKATE PARK DESIGN/BUILD COMPANY

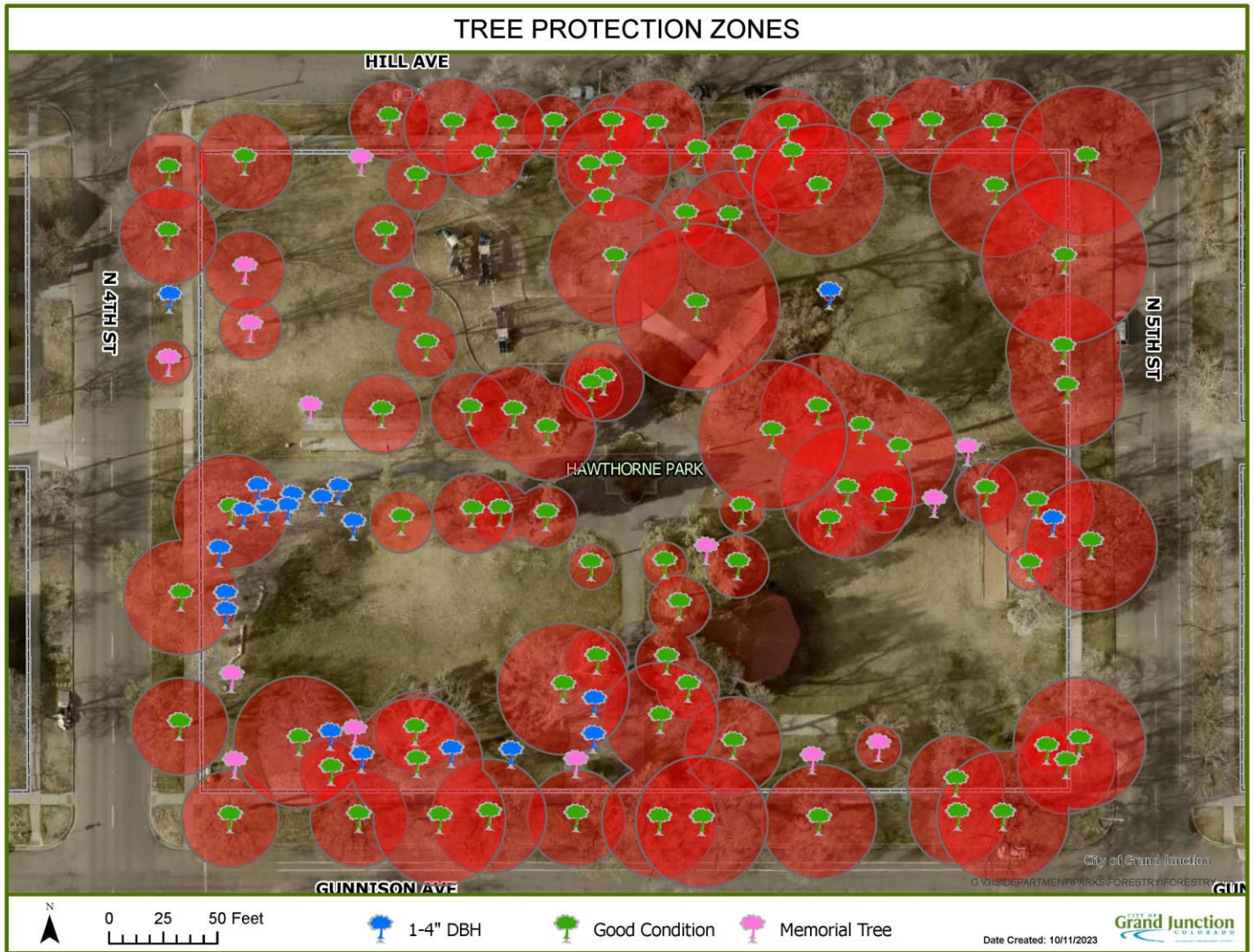
Working through the conceptual design process, it was determined the construction budget for this project is \$360,000 for fiscal year 2024. During several planning sessions and budget analysis with the City, it was realized that the City's requests, would cost upwards of \$560,000. Therefore, a phasing approach of over 2 years would be the best option for Grand Junction to have all the desired amenities without compromising the quality of the amenities. During fiscal year 2024, the design and planning work for the entire project would take place. The grass area in the two southern quadrants is approximately 21,000 square feet. When you take in to account the tree canopy and root system, a 7-10k square foot pump could be constructed that winds through the tree canopy and connects the two lower southern quadrants of the park. Smaller trees that were identified on the survey as relocatable will be placed around the skating area to provide additional shade in years to come. After meeting with the City, it was determined it would be best to remove the existing octogen shade feature and relocate the bocca ball court to another facility. This will allow for additional design space on the southeast quadrant for the pump track. The existing asphalt sidewalks are in poor condition and will need to be replaced for safety reasons. Because the cost to remove and replace the sidewalks could exceed \$90,000, a recommended cost saving measure would be to have the Public Works Department self-perform this with the Parks Department covering the cost of materials as they have done with previous trail projects. Musco was tasked to create a lighting plan. It was determined three fixtures (SA29, SA31, and SA27) and the electrical feeds to the lights in the SW and SE quadrants would need to be taken into consideration when finalizing the final layout and design of the pump track. Minimal landscaping should also be included in the 2024-year budget. The cost for updating the irrigation system is unknown at this time, but we do have concerns with the age of the system. Depending on the materials and quantities used for the pump track, the City may need to consider stormwater collection and treatment methods, including collection ground water through a "bioswale".

For fiscal year 2025, the construction improvements to the northside of the park would take place. We are recommending an updated playground and adding a yoga and dance area that includes 30' x 60' deck with pillars and removable shades. This area would also be fenced off with wrought iron decorative fencing to match fencing at Lincoln Park and Stocker Stadium. This would allow for private events and rentals to take place. Landscaping of local native pollinator plants that require minimal water will surround the yoga area. Because of the historical nature of the planter fountain, we are recommending some concrete repair work so it may be kept in the new design of the park.



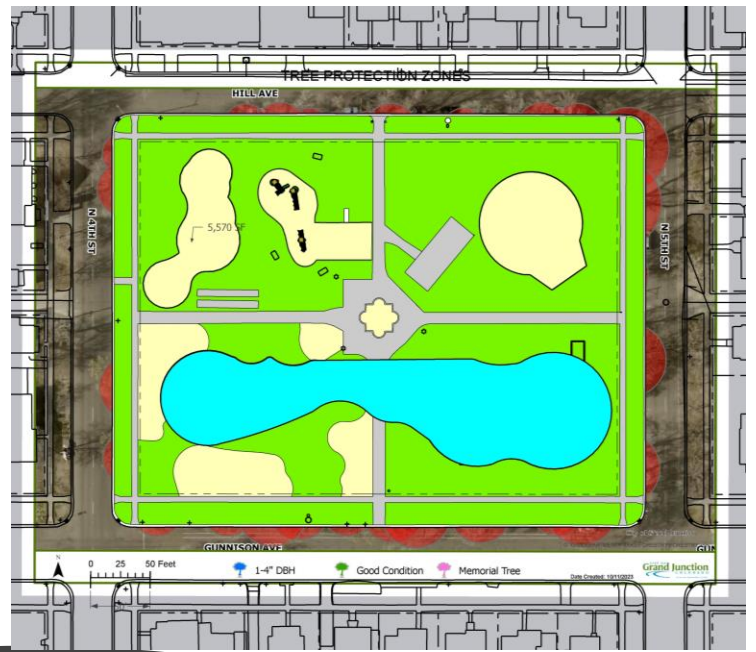
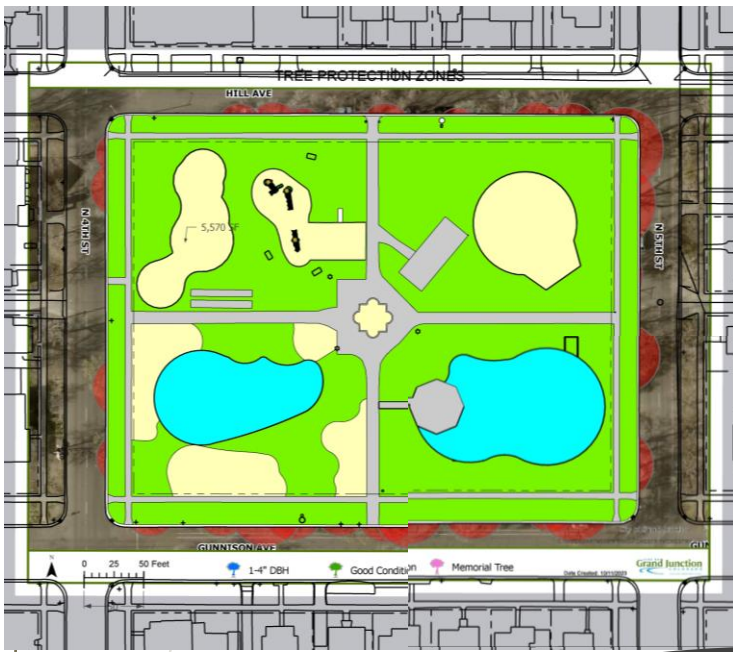
Hawthorne Park
Grand Junction Colorado
DWG file Provided by City of Grand
Junction

Tree Survey



Hawthorne Park
Grand Junction Colorado
Tree Survey Provided by City of
Grand Junction

Project 1 - Concrete Pump Track

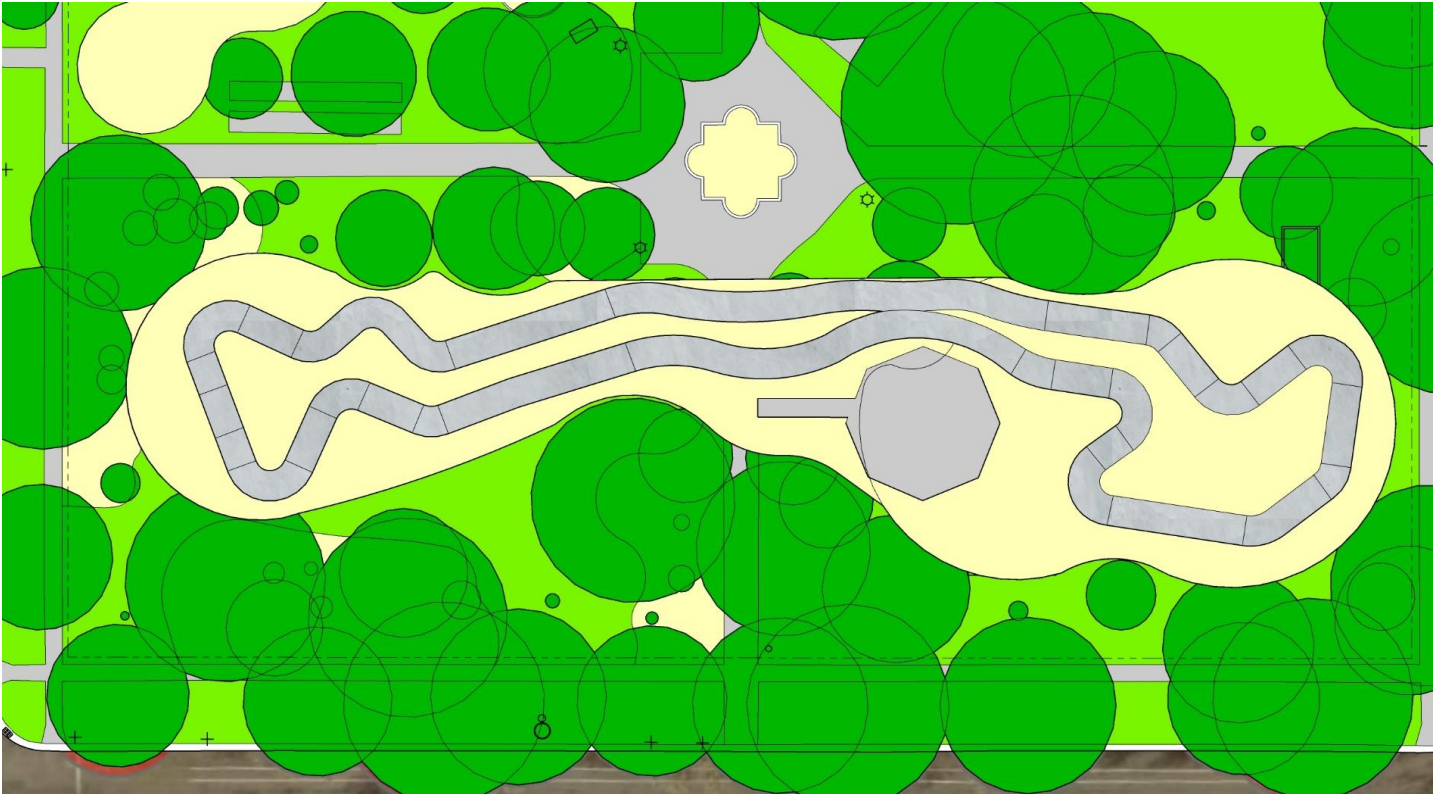


The Pumptrack area is broken up into the southwest and southeast corner of the park. The City wishes to connect these two areas together by removing a few trees and possibly the shelter in that area to make the connection.

Please note: Depending on the materials and quantities used for the pump track, the City may need to consider stormwater collection and treatment methods, including collection ground water through a "bioswale".



Project 1 - Concrete Pump Track



Conceptually designed for beginners and intermediate users

Total area is approximately 24,000 SF of useable space

The pumptrack is estimated to be 7,000 SF to 10,000 SF of concrete

Project 1 - Concrete Pump Track

Pump Track Examples



Project 1 - Concrete Pump Track

Pump Track Examples



Project 1 - Concrete Pump Track Estimate

Design Cost Estimate

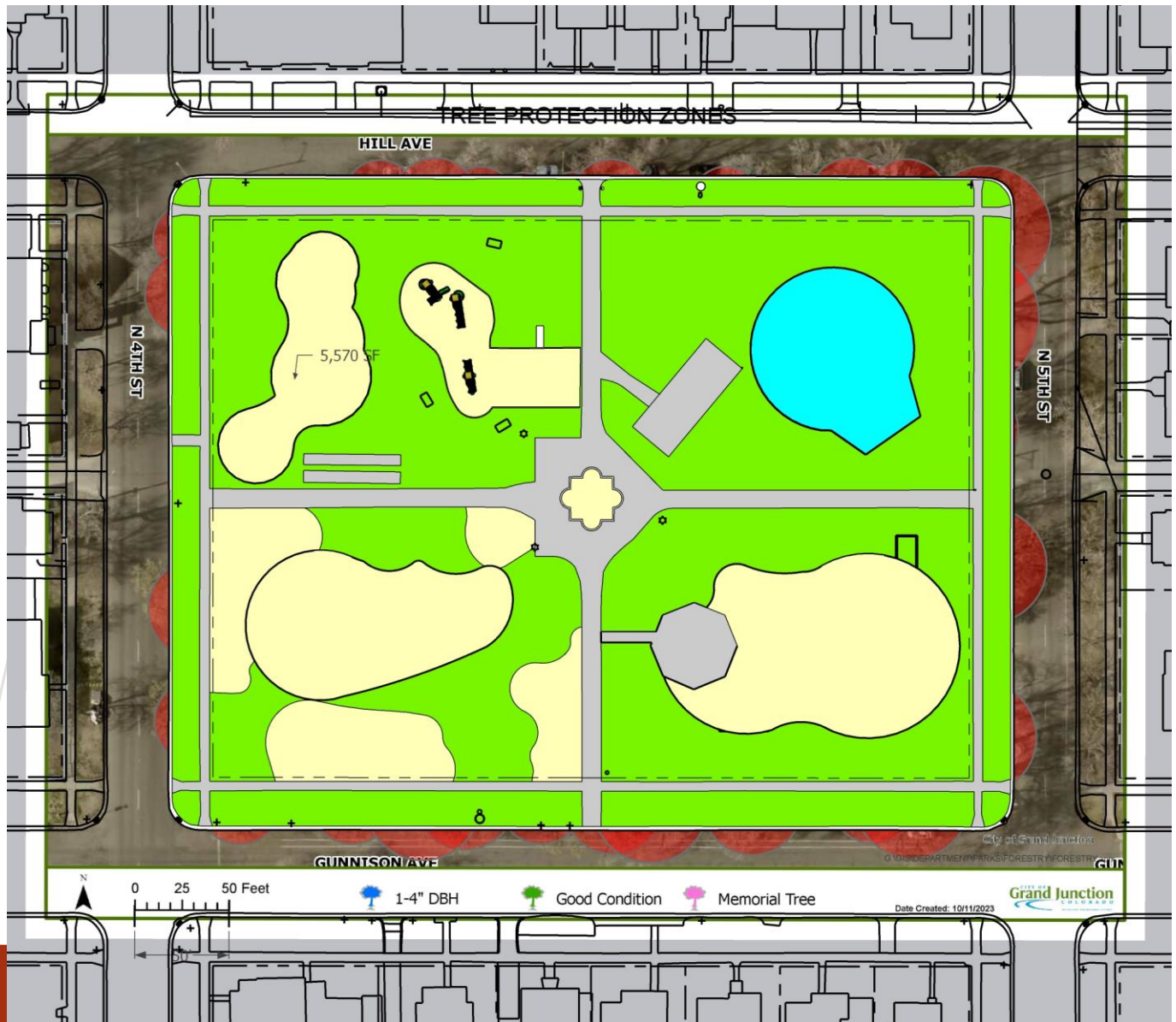
Planning and design	\$10,000.00	
Construction documents	\$15,000.00	
Allowance for permitting	<u>\$ 1,500.00</u>	
	\$26,500.00	Total Estimate

Construction Cost Estimate

Demo and temporary site fencing	\$ 15,000.00	
Concrete pump track	\$290,000.00	
Allowance for pavilion removal, if required	<u>\$ 25,000.00</u>	
	\$330,000.00	Total Estimate

**Irrigation costs to be provided by City

Project 2 - Rentable Flex Space/Yoga Workout Area



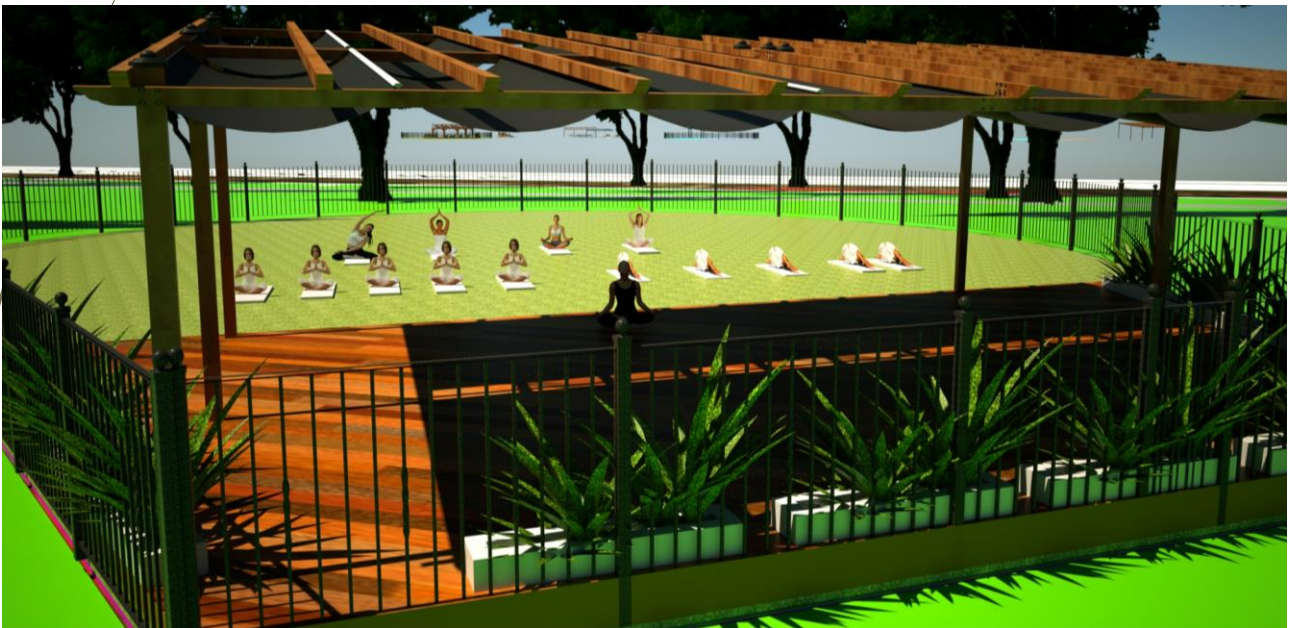
Northeast Flex Space

This area is intended to be designed as a fenced area with deck and covering that could be used as a rentable flex space for Yoga and other activities.

Please note: it was determined it would be best to remove the existing octogen shade feature and relocate the bocca ball court to another facility. that the city

Project 2 - Rentable Flex Space/Yoga Workout Area

Concept Design Example



Flex Space

Conceptually designed as a 43' Radius
With a 30' x 60' deck and shade structure.

Fencing is approximately 290' that
includes a programmable locking push
button combination on the gate.

Project 2 - Rentable Flex Space/Yoga Workout Area



Yoga Studio Vision
covered deck with diffused natural light
and possible ascent lighting for evening
events.

Project 2 - Rentable Flex Space/Yoga Workout Area



Flex space is to be secured with Ameristar: Montage II Genesis fencing 6' tall with programmable locking combination gate.



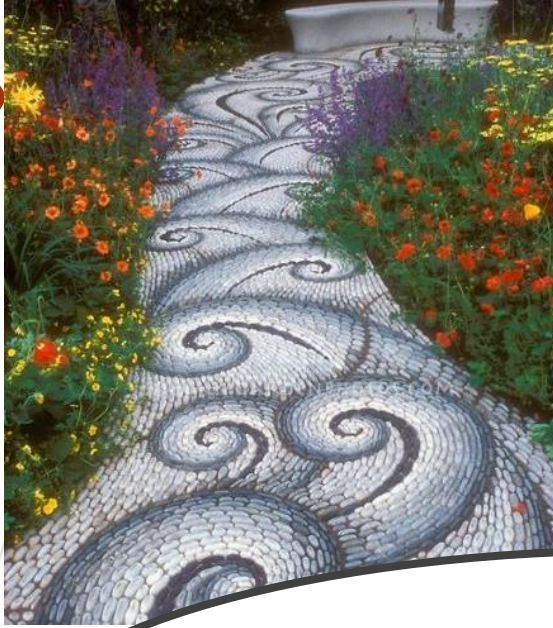
Project 2 - Rentable Flex Space/Yoga Workout Area



Incorporating native plants that require little water into the space, that attract pollinators.



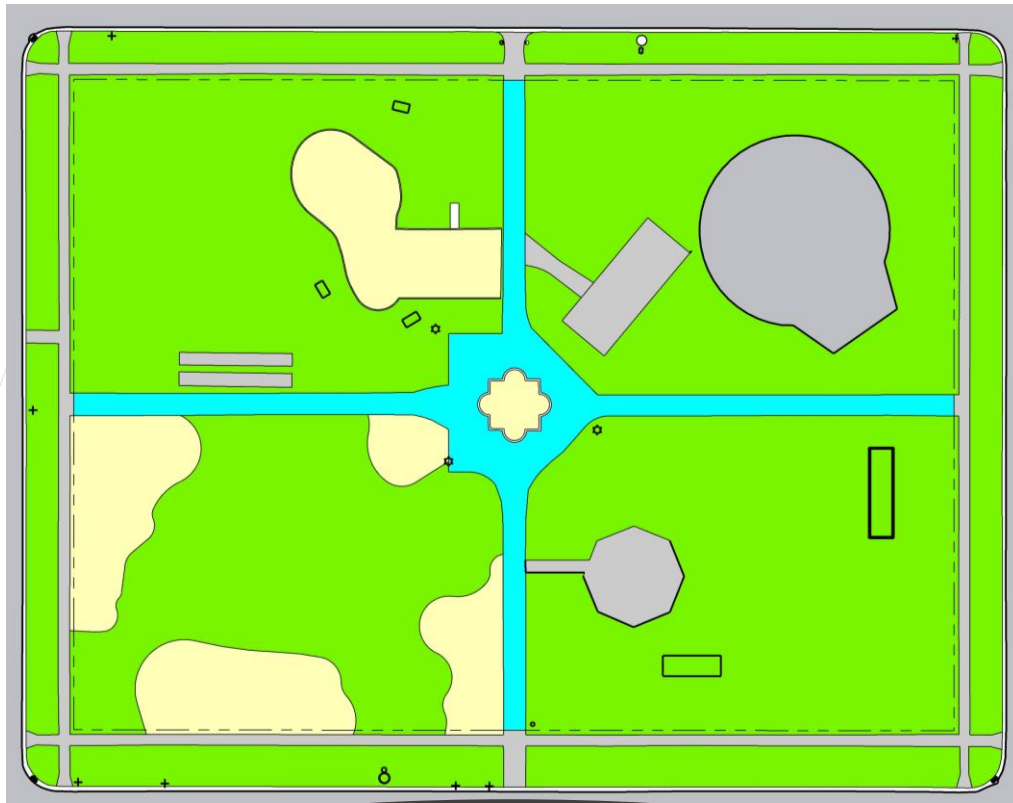
Project 2 - Rentable Flex Space/Yoga Workout Area



The City is open to the addition of artistic pathways in and around the flex space.



Project 3 - Sidewalk Replacement and Center Planter Curb Restoration



Sidewalk replacement inside the park.
The asphalt walkways inside with park need to be replaced with concrete sidewalks.



Project 3 - Sidewalk Replacement and Center Planter Curb Restoration



Center planter curb has historical value and needs to be repaired to preserve the integrity for the future of the park.

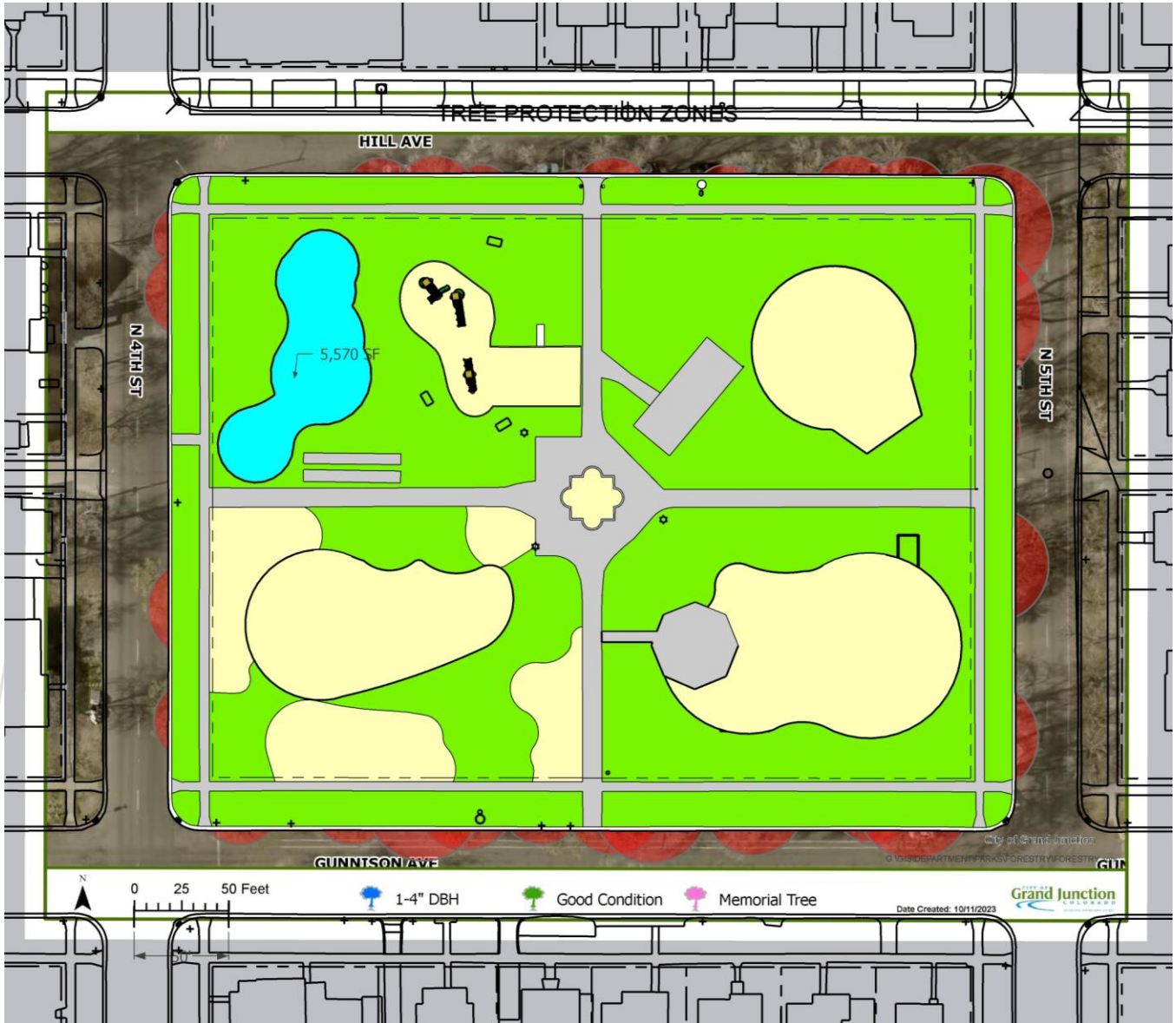


Project 3 - Sidewalk Replacement and Center Planter Curb Restoration

Estimated Costs

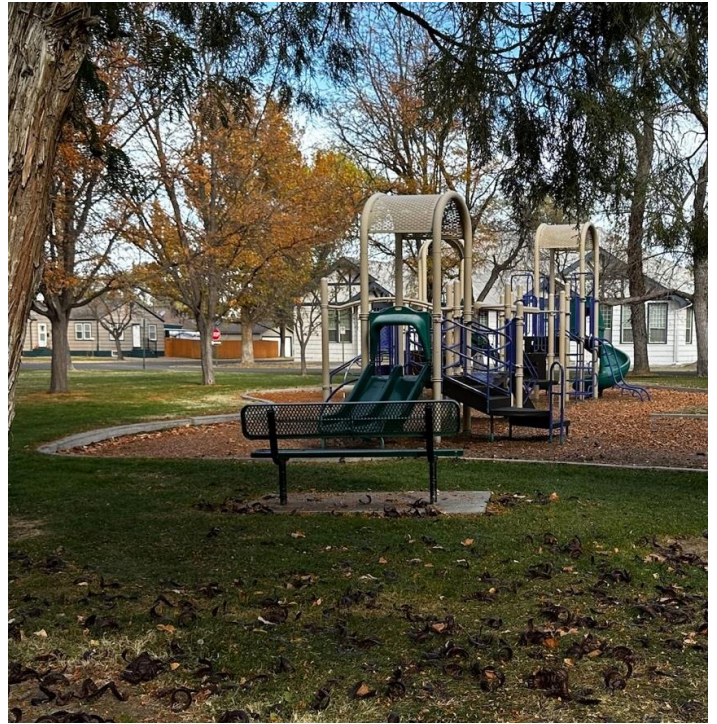
- City, In-house \$25,000.00 Concrete material estimate 8,500 SF
- City, In-house \$65,000.00 Labor estimate
- City, In-house \$ 5,000.00 Curb restoration estimate

Project 4 - Playground Expansion (not part of this project)



Northwest Playground Area
There will be \$600,000 dedicated to the expansion of the playground in 2025 as a separate project that is not part of this current project.

Project 4 - Playground Expansion (not part of this project)



Photos of Northwest Playground Area



Additional amenities inside the park that need to be protected or replaced if disturbed

Project 5 – Updated Lighting at the site



Lighting Plan

Musco was tasked to create a lighting plan. It was determined three fixtures (SA29, SA31, and SA27) and the electrical feeds to the lights in the SW and SE quadrants would need to be taken into consideration when finalizing the final layout and design of the pump track.

See Attached lighting plan regarding preliminary lighting improvement changes

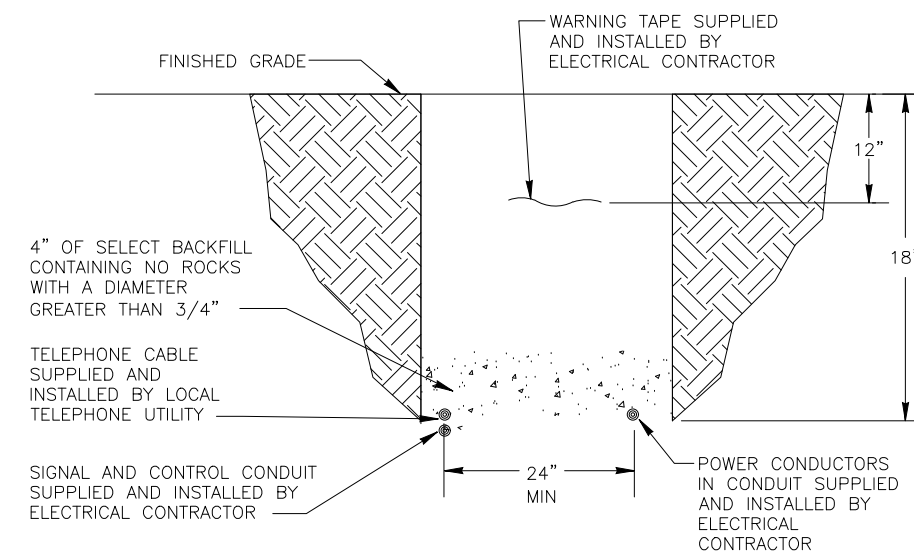
LIGHTING GENERAL NOTES:

1. THIS PROJECT CONSISTS OF WORK TO INSTALL ALL WIRING, CONDUIT, PULL BOXES, NEW LIGHTING, POLES, UTILITY BOXES AND CONCRETE PEDESTALS FOR ADDITION OF TYPE "SA" POLE TOP MOUNTED FIXTURES AS SHOWN IN DRAWINGS.
2. PROVIDE 2" PVC SCHEDULE 80 CONDUIT FROM PANEL "PP1" AS SHOWN IN DRAWINGS TO NEW LIGHT LOCATIONS.
3. LIGHT STANDARD & LUMINARIES (PEDESTRIAN AND STREET LIGHT), SHALL INCLUDE THE FOLLOWING ITEMS FROM ALL PHASE ELECTRIC LOCATED AT 2776 CROSSROADS BLVD, GRAND JUNCTION, CO 81506, 970.245.6031. THE ITEMS NUMBERS ARE AS FOLLOWS.
4. TYPE "SA" - RAB LIGHTING #ALED-5T-78-N-USA, PROVIDE COLLISION BREAK AWAY CONNECTORS. FIXTURE TO BE 10' ABOVE FINISHED GRADE TO BOTTOM OF LIGHT. ORDER WITH PS4-11-10WT POLE
5. ALL PEDESTRIAN LIGHTING FIXTURES (TYPE "SA") INSTALLED ON THE PROJECT WILL BE CONTROLLED WITH NEW LIGHTING CONTROLLER WITH NEW PHOTO CELL LOCATED AS SHOWN IN DRAWINGS.
6. PULL BOXES FOR CDOT PULL BOXES 11"X18"X12".
7. PULL BOXES WILL BE INSTALLED IN GRADES WITHOUT CONCRETE WHERE POSSIBLE.
8. ALL ELECTRICAL CONDUIT SHALL BE SCHEDULE 80 PVC UNLESS NOTED OTHERWISE, TYPICAL.
9. UNLESS OTHERWISE NOTED, THE WORK DESCRIBED ON THE PLANS SHALL INCLUDE PROVIDING ALL LABOR AND MATERIALS NECESSARY FOR A COMPLETE AND OPERATIONAL ELECTRICAL SYSTEM. FURNISH ALL REQUIRED ITEMS WHETHER SUCH ARE SPECIFICALLY SHOWN OR NOT.
10. INFORMATION SHOWN ON DRAWINGS IS DIAGRAMMATIC ONLY AND SHALL NOT BE SCALED. OBTAIN VERIFY EXACT LOCATIONS, MEASUREMENTS, LEVELS, SPACE REQUIREMENTS, POTENTIAL CONFLICTS AMONG TRADES AND FOR ADJUSTING THE WORK REQUIRED BY THE ACTUAL CONDITIONS OF THE PROJECT. CONTRACTOR IS RESPONSIBLE FOR LOCATING ALL UNDER GROUND OBSTRUCTIONS AND MAKING ALLOWANCES FOR FIELD ADJUSTMENT OF LOCATION OF LUMINARIES TO AVOID SHUT DOWN OF ANY SERVICES OR SYSTEMS THAT ARE TO REMAIN.
11. BEFORE SUBMITTING THE BID ELECTRICAL CONTRACTOR SHALL VISIT AND EXAMINE THE PREMISES AND/OR JOB SITE SO AS TO ASCERTAIN THE EXISTING CONDITIONS IN WHICH THE CONTRACTOR WILL BE OBLIGED TO OPERATE IN PERFORMING HIS PART OF THE CONTRACT TO ANTICIPATE ANY POSSIBLE SPACE RESTRICTIONS OR CONSTRAINTS THAT COULD AFFECT THE TIMELY COMPLETION OF THE ELECTRICAL WORK IN ACCORDANCE WITH THE INTENT OF THE SPECIFICATIONS AND DRAWINGS. THE ELECTRICAL CONTRACTOR SHALL REPORT TO THE THE PROJECT ENGINEER OR GENERAL CONTRACTOR ANY CONDITIONS THAT MIGHT PREVENT THE SPECIFIED ELECTRICAL WORK FROM BEING PERFORMED IN THE MANNER INTENDED. NO CONSIDERATION OR ALLOWANCE WILL BE GRANTED TO THE ELECTRICAL CONTRACTOR FOR FAILURE TO VISIT THE PROJECT SITE, OR FOR ANY ALLEGED MISUNDERSTANDING OF THE MATERIALS TO BE FURNISHED OR WORK TO BE DONE..
12. THE ELECTRICAL CONTRACTOR SHALL EXAMINE THE DRAWINGS OF ALL TRADES WHOSE WORK RELATES TO OR IS DEPENDENT ON ELECTRICAL WORK TO BECOME FULLY INFORMED OF THE EXTENT AND CHARACTER OF THEIR SPECIFIED WORK AND BE ABLE TO COORDINATE WITH OTHER TRADES WHILE AVOIDING POSSIBLE INTERFERENCE WITH THE ELECTRICAL WORK.
13. ONLY AREA LIGHTING WILL BE REPLACED ALL OTHER ITEMS POWERED BY EXISTING POWER PANEL WILL REMAIN POWERED.
14. FIELD LOCATE IRRIGATION CONTROL LINES AND AVOID AND PROTECT DURING CONSTRUCTION, TYPICAL.
15. UTILIZE OPEN TRENCH FOR CONDUIT AS MUCH AS POSSIBLE, TRENCH OUTSIDE OF DRIP LINE OF EXISTING TREES TO AVOID DAMAGE TO EXISTING TREES. PROVIDE TRENCHING PLAN TO OWNER PRIOR TO START OF TRENCHING.
16. ADJUST LOCATION OF NEW LIGHTS WITH EXISTING TREES. COORDINATE EXACT LOCATION WITH OWNER PRIOR TO TRENCHING.

- PP1-X ELECTRICAL CIRCUIT NUMBER (REFER TO PANEL SCHEDULES)
- UB HEAVY DUTY, TRAFFIC RATED, FLUSH-TO-GRADE POLYMER CONCRETE SPLICE BOX WITH HEAVY DUTY, TRAFFIC RATED, BOLTED COVER. 11"X18"X12" TYPE 1.
-  UNDER GROUND BURIED RACEWAY (2#6 THWN CU AND 1#8 GND) IN 2" PVC CONDUIT (UNLESS NOTED OTHERWISE ON PLANS) IN 24" DEEP TRENCH, BURY AND COMPACTED BACKFILL TO PRE CONSTRUCTION CONDITION.
-  INSTALL POST TOP MOUNTED PEDESTRIAN STANDARD AS SPECIFIED.

**PRELIMINARY
NOT FOR
CONSTRUCTION**

DATE: 10/25/23



TYPICAL SECONDARY ELECTRICAL TRENCH DETAIL

NOT TO SCALE

ACM CONSULTING
ELECTRICAL DESIGN, CONSULTING
ENGINEERS; PH: 970-245-7292
PO 3211 GRAND JCT., CO 81502
EMAIL: joelm@ACMengrs.com

REVISION	DESCRIPTION	DATE	DRAWN BY	DATE	SCALES:
REVISION Δ	PATH TO AVOID TREE DRIPLINE	10-25-23	AJM	4/19/23	
REVISION Δ			AJM	4/19/23	
REVISION Δ			AJM	4/19/23	
REVISION Δ			EM	4/19/23	



PUBLIC WORKS
ENGINEERING DIVISION

HAWTHORNE PARK LIGHTING
GENERAL NOTES

Schedule of Lighting Devices

ITEM No.	613-30003			613-40012		
DESCRIPTION	LIGHT STANDARD AND LUMINAIRE LED (PEDESTRIAN)			LIGHT STANDARD FOUNDATION SPECIAL		NOTES
	EACH			EACH		
SHEET NO.	TYPE	EAST	NORTH	PLAN	PLAN	
E4	SA-22	90846.45	38068.65	1	1	1,2,3
E4	SA-23	90955.01	38068.69	1	1	1,2,3
E4	SA-24	91143.85	38068.69	1	1	1,2,3
E4	SA-25	91228.92	38068.69	1	1	1,2,3
E4	SA-26	91054.10	38077.55	1	1	1,2,3
E4	SA-27	91017.66	38114.04	1	1	1,2,3
E4	SA-28	90844.04	38135.13	1	1	1,2,3
E4	SA-29	91123.20	38148.13	1	1	1,2,3
E4	SA-30	91231.90	38151.46	1	1	1,2,3
E4	SA-31	91047.06	38157.43	1	1	1,2,3
E4	SA-32	91006.51	38185.87	1	1	1,2,3
E4	SA-33	91168.25	38199.30	1	1	1,2,3
E4	SA-34	91076.50	38200.16	1	1	1,2,3
E4	SA-35	90936.51	38202.99	1	1	1,2,3
E4	SA-36	91125.16	38218.71	1	1	1,2,3
E4	SA-37	90862.05	38219.24	1	1	1,2,3
E4	SA-38	91219.32	38221.31	1	1	1,2,3
E4	SA-39	91002.85	38246.10	1	1	1,2,3
E4	SA-40	91051.80	38266.93	1	1	1,2,3
E4	SA-41	91231.90	38276.35	1	1	1,2,3
E4	SA-42	90846.45	38277.52	1	1	1,2,3
E4	SA-43	91123.20	38286.02	1	1	1,2,3
E4	SA-44	91028.73	38321.28	1	1	1,2,3
E4	SA-45	91231.90	38351.66	1	1	1,2,3
E4	SA-46	90846.45	38352.43	1	1	1,2,3
E4	SA-47	90958.76	38356.36	1	1	1,2,3
E4	SA-48	91101.80	38356.65	1	1	1,2,3
TABLE TOTALS				27	27	

SCHEDULE OF LIGHTING DEVICES NOTES:

- FOUNDATION TOP HEIGHT EQUAL TO ADJACENT SIDEWALK
- LUMINAIRE LED IS TO BE INCLUDED IN THE COST OF PAY ITEM, TYPICAL.
- FOUNDATION TOP HEIGHT AS SHOWN IN DETAIL.

GENERAL NOTES:

- EACH LIGHT TO HAVE A PULL BOX "UB", REFERENCE ELECTRICAL SHEETS.

Tabulation of Approximate Quantities

Item No.	Ref. No.	Construction Note Description	Quantity	Unit	NOTES
1		2 Inch Electrical Conduit (Plastic)	2445	LF	
2		Type two Pull Box(Electric)	30	EA	
3		Wiring	1	LS	
4		Light Standard and Luminaire (Pedestrian)	27	EA	
5		Light Standard Foundation (Special)	27	EA	
6		Lighting Controller	1	EA	
7					
8					
SUMMARY NOTES:					

**PRELIMINARY
NOT FOR
CONSTRUCTION**

DATE: 10/25/23

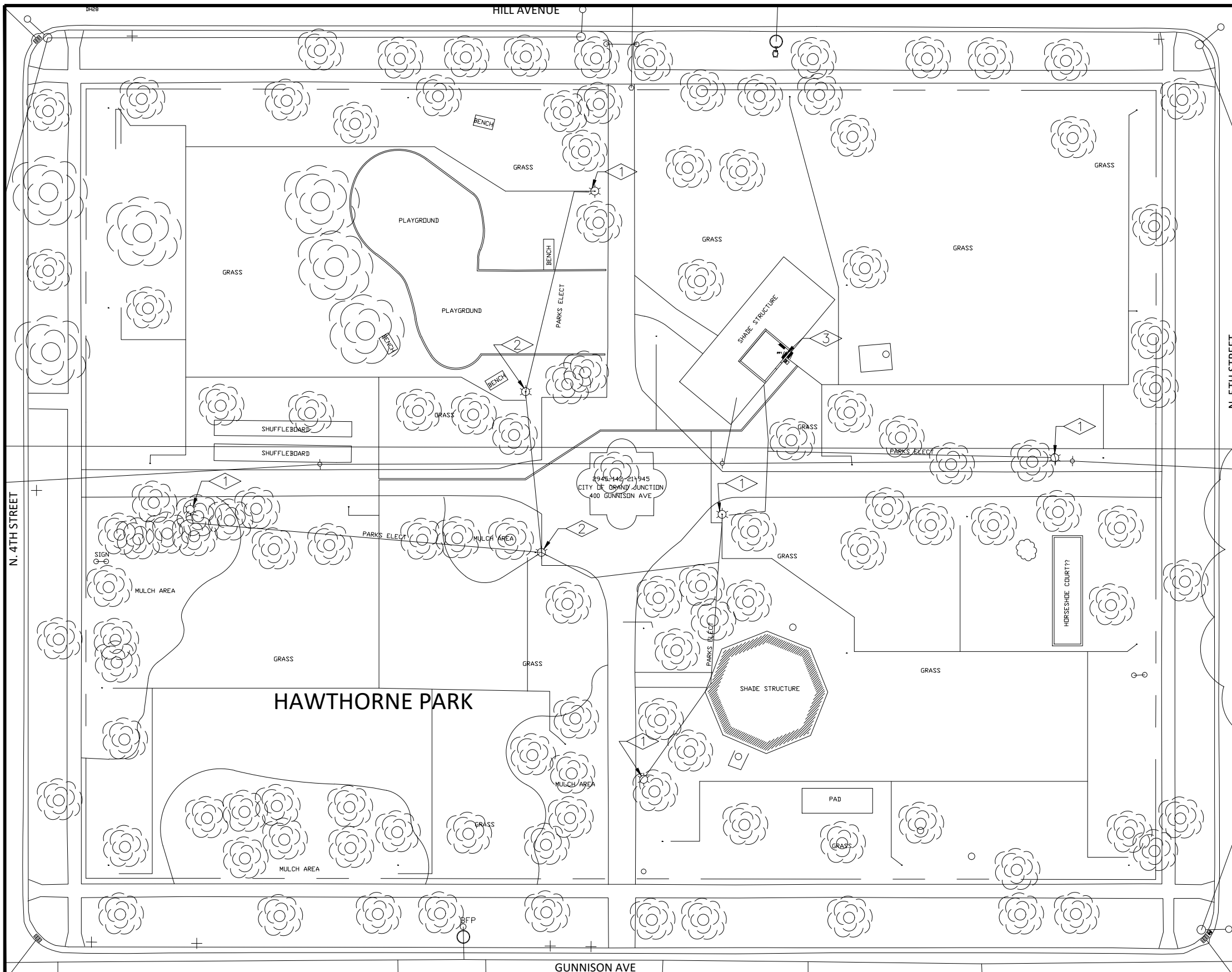
REVISION Δ	DESCRIPTION	DATE	DRAWN BY	DATE
REVISION Δ	PATH TO AVOID TREE DRIFLINE	10-25-23	AJM	4/19/23
REVISION Δ			AJM	4/19/23
REVISION Δ			AJM	4/19/23
REVISION Δ			EM	4/19/23



PUBLIC WORKS
ENGINEERING DIVISION

HAWTHORNE PARK LIGHTING
QUANTITIES SCHEDULES





FLAG NOTES:

- 1 REMOVE EXISTING LIGHT, POLE AND PEDESTAL. ABANDON EXISTING WIRING.
- 2 EXISTING LIGHT POLE HAS BEEN REMOVED. REMOVE PEDESTAL. ABANDON EXISTING WIRING.
- 3 EXISTING PANEL "PP1" TO REMAIN AND BE REUSED.

GENERAL NOTES:

1. POWER CIRCUIT AS SHOWN ON DRAWING, TYPICAL.
2. LIGHT TO BE ORIENTED TO BE PERPENDICULAR TO SIDEWALK AND SHINE ON SIDEWALK, TYPICAL.
3. NEW 2" CONDUIT AND PROVIDE 2-#6 THWN + #10 GND IN 2" PVC SCHEDULE 80 CONDUIT BETWEEN PULL BOXES UNLESS SHOWN OTHERWISE, TYPICAL.
4. FIELD LOCATE IRRIGATION CONTROL LINES AND AVOID AND PROTECT DURING CONSTRUCTION, TYPICAL.
5. UTILIZE OPEN TRENCH BORING AS MUCH AS POSSIBLE, TRENCH OUTSIDE OF DRIP LINE OF EXISTING TREES TO AVOID DAMAGE TO EXISTING TREES.
6. THIS DRAWING DEPICTS A POSSIBLE TRENCHING PATH THAT AVOIDS THE DRIP LINE OF EXISTING TREES. CONTRACTOR TO VISIT SITE AND FIELD VERIFY THAT PATHS DO NOT ENTER DRIP LINE OF EXISTING TREES.
7. PROVIDE TRENCHING PLAN TO OWNER PRIOR TO START OF TRENCHING.
8. ADJUST LOCATION OF NEW LIGHTS WITH EXISTING TREES. COORDINATE EXACT LOCATION WITH OWNER PRIOR TO TRENCHING.

**PRELIMINARY
NOT FOR
CONSTRUCTION**

DATE: 10/25/23

EXISTING LIGHTING PLAN

SCALE: 1"=40'



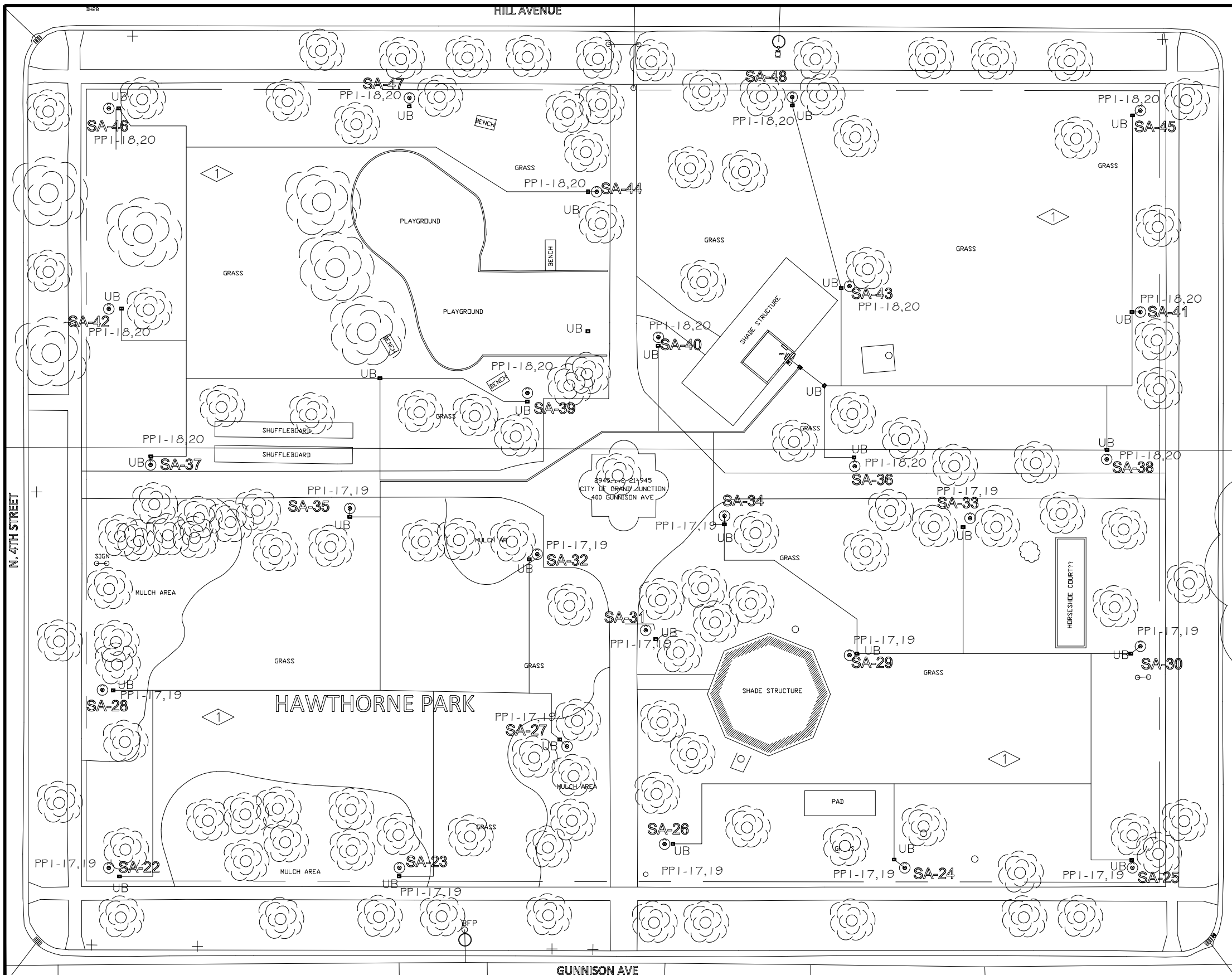
REVISION	DESCRIPTION	DATE	DRAWN BY	DATE	SCALES:
REVISION 1	PATH TO AVOID TREE DRIPLINE	10-25-23	AJM	4/19/23	PLAN & PROFILE
REVISION 2			AJM	4/19/23	0 10 20 40 HORIZONTAL
REVISION 3			AJM	4/19/23	0 NA VERTICAL NA
REVISION 4			EM	4/19/23	



PUBLIC WORKS
ENGINEERING DIVISION

HAWTHORNE PARK LIGHTING
EXISTING LIGHTING PLAN

ACM CONSULTING
ELECTRICAL DESIGN, CONSULTING
ENGINEERS; PH: 970-245-7292
PO 3211 GRAND JCT., CO 81502
EMAIL: joelm@ACMengrs.com



FLAG NOTES:

- 1 PROVIDE NEW LIGHT, POLE, J-BOX AND PEDESTAL, TYPICAL.

GENERAL NOTES:

1. POWER CIRCUIT AS SHOWN ON DRAWING, TYPICAL.
2. LIGHT TO BE ORIENTED TO BE PERPENDICULAR TO SIDEWALK AND SHINE ON SIDEWALK, TYPICAL.
3. NEW 2" CONDUIT AND PROVIDE 2-#6 THWN + #10 GND IN 2" PVC SCHEDULE 80 CONDUIT BETWEEN PULL BOXES UNLESS SHOWN OTHERWISE, TYPICAL.
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7. PROVIDE TRENCHING PLAN TO OWNER PRIOR TO START OF TRENCHING.
8. ADJUST LOCATION OF NEW LIGHTS WITH EXISTING TREES. COORDINATE EXACT LOCATION WITH OWNER PRIOR TO TRENCHING.

**PRELIMINARY
NOT FOR
CONSTRUCTION**

DATE: 10/25/23

NEW LIGHTING PLAN
SCALE: 1"=40'

REVISION	DESCRIPTION	DATE	DRAWN BY	DATE
1	PATH TO AVOID TREE DRIPLENE	10-25-23	AJM	4/19/23
2			AJM	4/19/23
3			AJM	4/19/23
4			EM	4/19/23

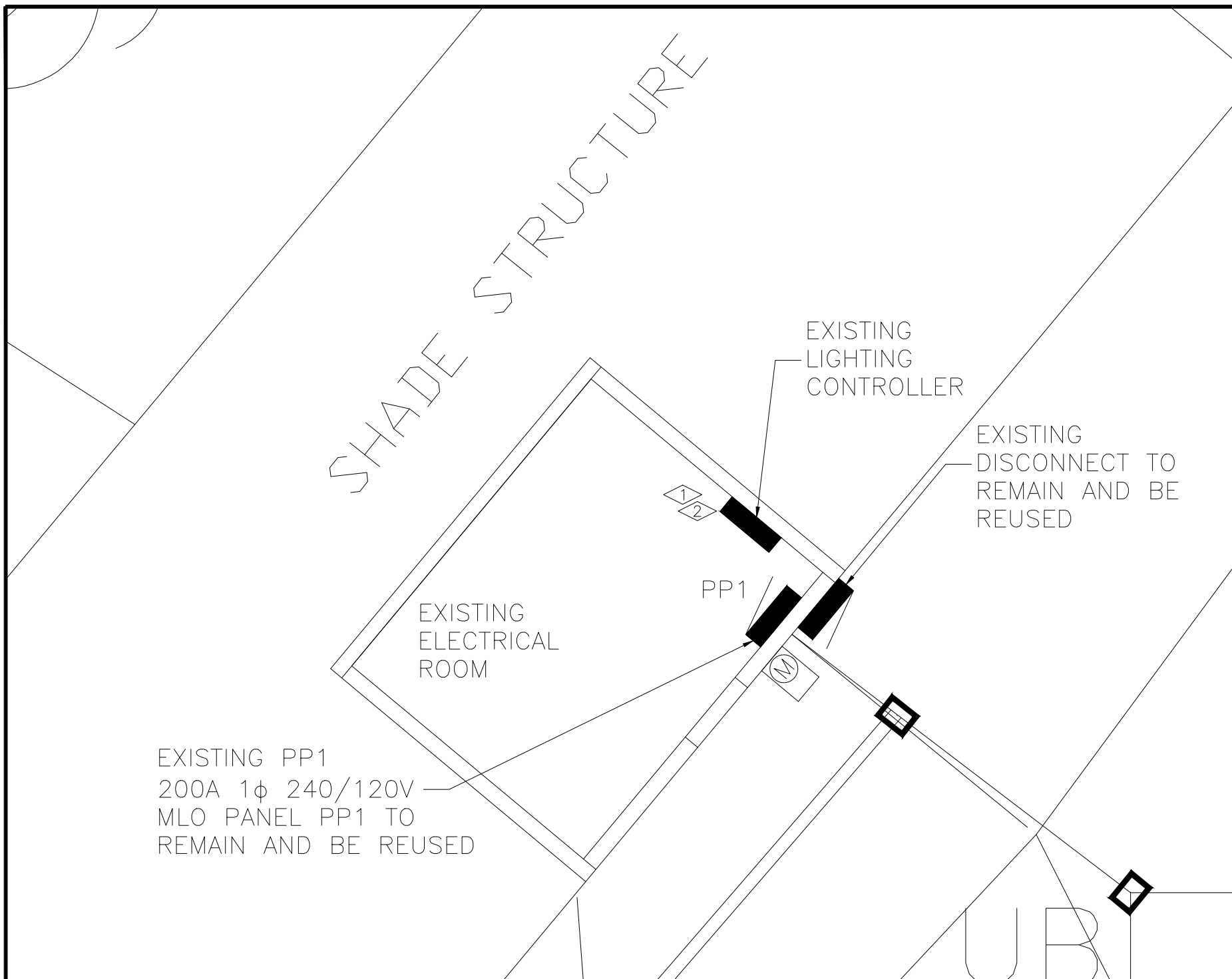
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PLAN & PROFILE	
HORIZONTAL	0 10 20 40
VERTICAL	0 NA NA



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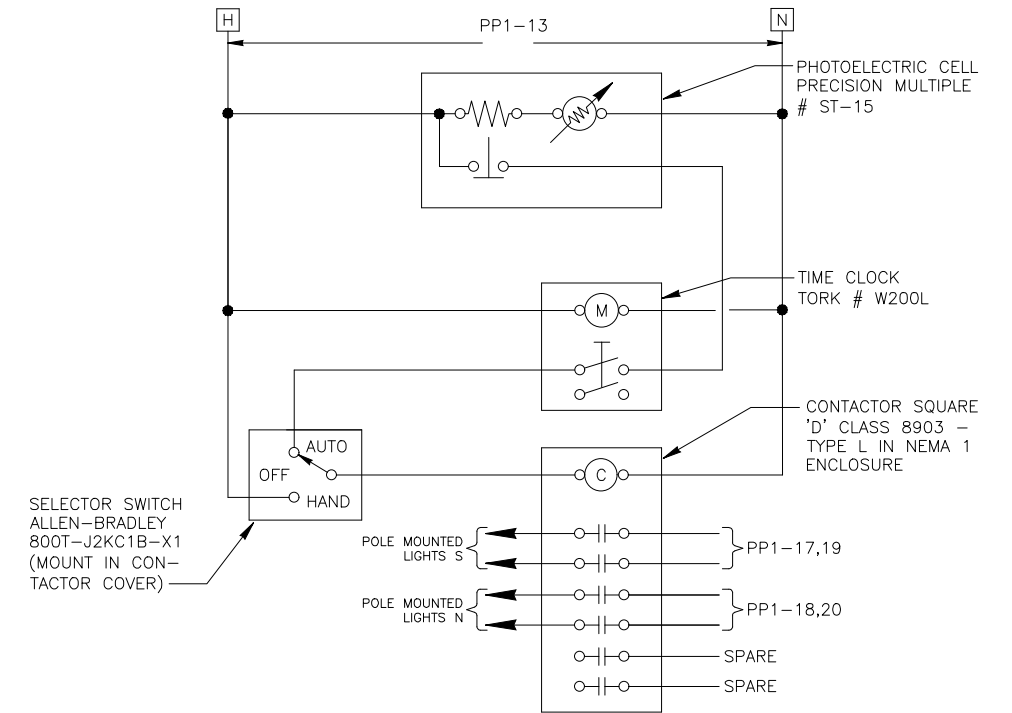
HAWTHORNE PARK LIGHTING
NEW LIGHTING PLAN

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ELECTRICAL DESIGN, CONSULTING
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FLAG NOTES:

- ① REMOVE AND REPLACE EXISTING LIGHTING CONTROLLER AND PHOTOCELL AND REPLACE WITH NEW LIGHTING CONTROLLER, REFERENCE LIGHTING CONTROL SCHEMATIC.
- ② PROVIDE NEW ENCLOSURE FOR CONTROLLER AND RELAYS.



EXISTING PP1
200A 1φ 240/120V
MLO PANEL PP1 TO
REMAIN AND BE REUSED

NEW ELECTRICAL PLAN

SCALE: N.T.S.



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DATE: 10/25/23

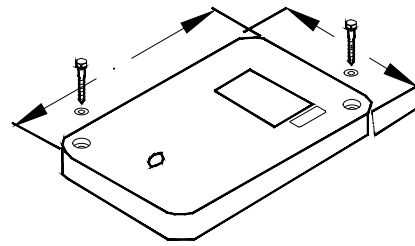
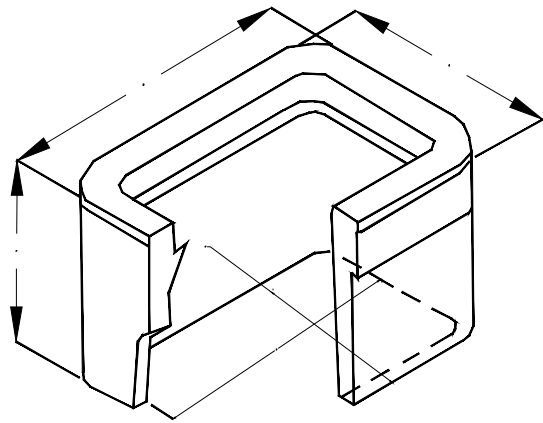
REVISION	DESCRIPTION	DATE	DRAWN BY	DATE	SCALES:
REVISION Δ	PATH TO AVOID TREE DRIPLINE	10-25-23	AJM	4/19/23	PLAN & PROFILE
REVISION Δ			AJM	4/19/23	HORIZONTAL
REVISION Δ			AJM	4/19/23	VERTICAL
REVISION Δ			EM	4/19/23	



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HAWTHORNE PARK LIGHTING
NEW ELECTRICAL PLAN

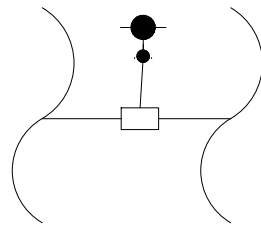




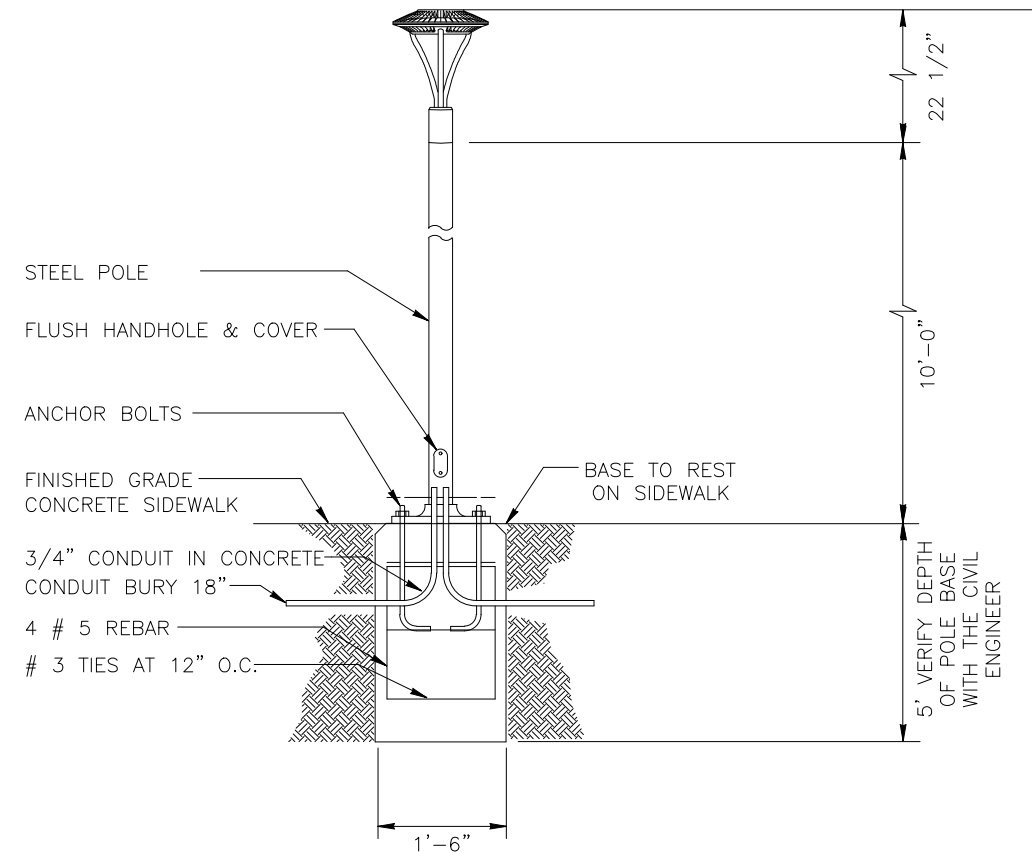
- A 18-1/8"
- B 11-1/4"
- C 1-1/4"
- D 20-1/2"
- E 13-3/8"
- F 12"
- G 15-3/4"
- H 8-7/8"

- PULL BOXES, PULL BOX COVERS AND EXTENSIONS SHALL BE MADE OF FIBERGLASS REINFORCED POLYMER CONCRETE. PULL BOXES SHALL BE VERIFIED BY A 3RD PARTY NATIONALLY RECOGNIZED INDEPENDENT TESTING LABORATORY AS MEETING ALL TEST PROVISIONS OF THE LATEST ANSI/SCTE 77 SPECIFICATION FOR UNDERGROUND ENCLOSURE INTEGRITY, TIER 22 RATING. CERTIFICATION DOCUMENTS SHALL BE SUBMITTED WITH MATERIALS SUBMITTALS. THE PULL BOX SHALL HAVE A DETACHABLE COVER WITH A SKID RESISTANT SURFACE AND HAVE THE WORDS ELECTRICAL CAST INTO THE SURFACE. PAINTING THE WORDS SHALL NOT BE ACCEPTED. MARKINGS SHOWING THE TIER 22 RATING MUST BE LABELED OR STENCILED ON THE INSIDE AND OUTSIDE OF THE BOX AND THE ON THE UNDER SIDE OF THE COVER. THE COVER SHALL BE ATTACHED TO THE PULL BOX BODY BY MEANS OF A MINIMUM 3/8" - 7 UNIFIED NATIONAL COURSE (UNC) STAINLESS STEEL PENTA HEAD BOLTS AND SHALL HAVE TWO LIFT SLOTS TO AID IN THE REMOVAL OF THE LID.
- PULL SLOTS SHALL BE RATED FOR A MINIMUM PULL OUT OF 3,000 POUNDS. MAGNESIUM CHLORIDE TESTS SHOULD BE PERFORMED IN ACCORDANCE WITH THE LATEST ANSI/SCTE 77 SPECIFICATION FOR UNDERGROUND ENCLOSURE INTEGRITY, TIER 22 RATING.
- PROVIDE AT LEAST 6 INCHES OF PEA GRAVEL MEASURED FROM BOTTOM OF PULL BOX FOR DRAINAGE. PEA GRAVEL IS INCLUDED IN PULL BOX PAY ITEM.

C UTILITY BOX DETAIL
1 NOT TO SCALE



C UTILITY BOX CONNECTION DETAIL
2 NOT TO SCALE



TYPE SA LIGHT DETAIL
NOT TO SCALE

GENERAL NOTES:

- ELECTRICAL CONTRACTOR TO ORDER ALL REQUIRED HARDWARE FOR MOUNTING OF EACH LUMINARIES.
- VERIFY THE BURY DEPTH AND DIAMETER OF THE SONOTUBE FOR POLE LUMINARIES WITH THE CIVIL ENGINEER PRIOR TO PURCHASING THE EQUIPMENT. DEPTH WILL DEPEND ON SOIL CONDITIONS. TYPICAL CONCRETE DEPTH IS 6 FT. VERIFY WITH CIVIL ENGINEER.
- ELECTRICAL CONTRACTOR TO VERIFY THAT ALL FIXTURES TO COMPLY WITH LIGHT TRESPASS AND AND DARK SKY CODES.
- NOTIFY ENGINEER OF ANY OBSTRUCTIONS TO POLE PLACEMENT IMMEDIATELY BEFORE PROCEEDING.
- VERIFY REQUIRED VOLTAGE OF FOR EACH LUMINARIES WITH AVAILABLE VOLTAGES PRIOR TO ORDERING.

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LUMINAIRE SCHEDULE					
TYPE	MANUFACTURER MODEL NUMBER	APPROVAL	VOLTAGE MOUNTING # OF LAMPS	BALLAST LAMPE TYPE LAMP CAT. #	DESCRIPTION
SA	RAB LIGHTING ALED-5T-78-N-USA	OWNER REQUESTED	UNV POLE 1	ELECTRONIC LED 78 W	PEDESTRIAN LUMINAIRE, POST TOP MOUNTED, LED,. COLOR OF POLE AND LUMINAIRE TO MATCH POLE. POLE PS4-11-10WT.

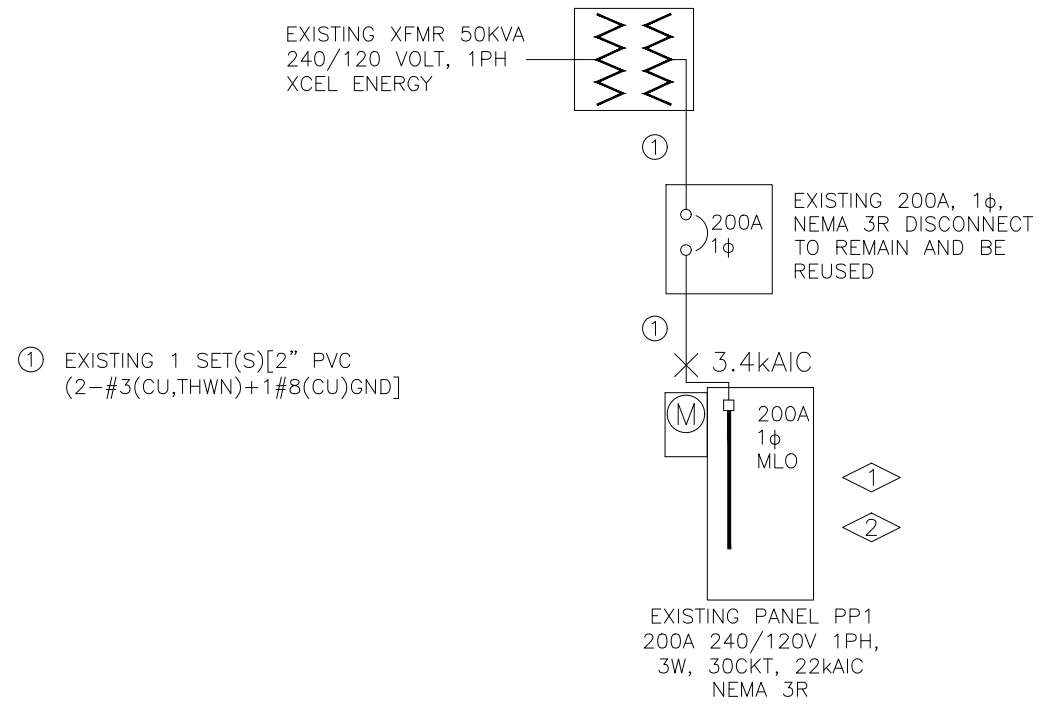
REVISION	DESCRIPTION	DATE	DRAWN BY	DATE	SCALES:
REVISION Δ	PATH TO AVOID TREE DRIPLINE	10-25-23	AJM	4/19/23	PLAN & PROFILE
REVISION Δ			AJM	4/19/23	0 NA HORIZONTAL NA
REVISION Δ			AJM	4/19/23	0 NA VERTICAL NA
REVISION Δ			EM	4/19/23	



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HAWTHORNE PARK LIGHTING
COMPOSITE UTILITY PLAN

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FLAG NOTES:

- ① EXISTING PANEL PP1 TO REMAIN AND BE REUSED
- ② PROVIDE NEW BREAKERS AS SHOWN IN PANEL SCHEDULE DRAWING, TYPICAL. MATCH EXISTING BREAKER RATINGS.

A
1 EXISTING ONE-LINE DIAGRAM
NOT TO SCALE

GENERAL NOTES:

1. IN AS MUCH AS DESIGN REQUIRES THAT CERTAIN ASSUMPTIONS BE MADE REGARDING EXISTING CONDITIONS, AND BECAUSE SOME OF THESE ASSUMPTIONS CANNOT BE VERIFIED. FIELD COORDINATION DURING CONSTRUCTION SERVICES IS IMPERATIVE. CONTRACTORS BIDDING THIS WORK MUST MAKE REASONABLE ALLOWANCES FOR UNFORESEEN CONTINGENCIES.
2. THE SERVING ELECTRICAL ASSOCIATION SHALL ADVISE THE OWNER/ENGINEER PRIOR TO SERVICE MODIFICATION REQUIRING COST TO THE OWNER.
3. COORDINATE INSTALLATION WITH XCEL ENERGY PRIOR TO ROUGH-IN.
4. REFERENCE CIVIL, LANDSCAPE AND IRRIGATION DRAWING PLANS FOR COORDINATION AND LOCATION OF ALL UNDER GROUND SYSTEMS.
5. ALL WORK SHALL BE COORDINATED WITH OTHER TRADES AS REQUIRED: REFERENCE CIVIL LANDSCAPE AND IRRIGATION DRAWINGS.
6. ALL WIRING IS SHOWN DIAGRAMMATICALLY ON DRAWINGS, FIELD VERIFY ALL CONDITIONS PRIOR TO ROUGH-IN.
7. ALL ELECTRICAL WORK SHALL COMPLY WITH THE LATEST EDITION OF NATIONAL ELECTRICAL CODE AND ALL APPLICABLE LOCAL CODES.
8. CONDUCTOR COUNT IS SHOWN FOR REFERENCE ONLY. CONTRACTOR SHALL ENSURE THAT ANY AND ALL DEVICES AND EQUIPMENT ARE CIRCUITED PROPERLY. CONTRACTOR SHALL ENSURE THAT NO EQUIPMENT OR DEVICES ARE COMBINED OTHER THAN WHAT IS DEPICTED.
9. FIELD VERIFY ALL DIMENSIONS, DO NOT SCALE DRAWINGS.
10. COORDINATE INSTALLATION OF METER AND ELECTRICAL REQUIREMENTS WITH XCEL ENERGY.
11. PEDESTAL MUST MEET ALL XCEL ENERGY REQUIREMENTS I.E. COLD SEQUENCE PADLOCK SLIP LATCH ON METER COVER, HOLD OPEN BAR ON METER HOOD.

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REVISION Δ			AJM	4/19/23	
REVISION Δ			AJM	4/19/23	
REVISION Δ			EM	4/19/23	



PUBLIC WORKS
ENGINEERING DIVISION

HAWTHORNE PARK LIGHTING
ONE-LINE PLAN

PANEL: PP1		DC DEVICE TYPE: Breaker		ENCLOSURE: NEMA 1		MAINS(A): MLD		CONTINUOUS(A): 225				
LOCATION: BUS-XFMRO		DEVICE FAMILY: Plug In		MOUNTING: Surface		WIRING: Single-Phase 3-Wire		BUS SC RATING(A): 22000				
INCIDENT ENERGY: 2.57 Cal/cm2 @18.00(in)				VOLTAGE: 240/120				FAULT CURRENT(A): 2077				
DC AMPS P	NOTES	DESCRIPTION	DEMAND CODE	VA	CKT	PHASE LOADS VA A B C	CKT	VA	DEMAND CODE	DESCRIPTION	NOTES	DC AMPS P
20 1		LTG-AREA	LTS	600	1	2807	2	2304	GENERAL	WTR HTR 1		30 1
20 1		LTG-AREA	LTS	600	3	2807	4	2304	GENERAL	WTR HTR 2		30 1
20 1		EXHAUST FANS	LTS	1200	5	2414	6	1344	GENERAL	HAND DRYER 1		25 1
40 2		AIR HANDLER HTR	GENERAL	3840	7	4981	8	1344	GENERAL	HAND DRYER 2		25 1
" "		" "	" "	3840	9	5040	10	1200	REC	RCPT- PINE		20 1
20 1		FLUSH VALVES	GENERAL	300	11	1500	12	1200	GENERAL	RCPT-SPRUCE		20 1
20 1		LTS-CONTROLLER	LTS	600	13	1200	14	600	GENERAL	IRR TIMER		20 1
20 1		LTS-POST SPRUCE	LTS	1200	15	1800	16	600	GENERAL	TIME CLOCK		20 1
					17		18					
					19		20					
					21		22					
					23		24					
ALL CONNECTED		KVA	3P AVE AMPS	* PHASE TOTALS	VA	AMPS	BUS TOTALS	KVA				
TOTAL CONNECTED	23.08	55.5	* A-N	11688.0	97.4	CONNECTED	25.54					
TOTAL DEMAND	24.13	58.0	* B-N	11388.0	94.9	DEMAND	26.59					
TOTAL DESIGN	25.44	61.2	* C-N	0.0	0.0	DESIGN	27.90					

EXISTING PANEL SCHEDULE DETAIL

NOT TO SCALE

PANEL: PP1		DC DEVICE TYPE: Breaker		ENCLOSURE: NEMA 1		MAINS(A): MLD		CONTINUOUS(A): 200				
LOCATION: BUS-XFMRO		DEVICE FAMILY: Plug In		MOUNTING: Surface		WIRING: Single-Phase 3-Wire		BUS SC RATING(A): 22000				
INCIDENT ENERGY: 2.57 Cal/cm2 @18.00(in)				VOLTAGE: 240/120				FAULT CURRENT(A): 2077				
DC AMPS P	NOTES	DESCRIPTION	DEMAND CODE	VA	CKT	PHASE LOADS VA A B C	CKT	VA	DEMAND CODE	DESCRIPTION	NOTES	DC AMPS P
20 1		LTG- POLE NW	LTS	546	1	2760	2	2304	GENERAL	WTR HTR 1		30 1
20 1		LTG-POLE NE	LTS	468	3	2693	4	2304	GENERAL	WTR HTR 2		30 1
20 1		EXHAUST FANS	LTS	1200	5	2414	6	1344	GENERAL	HAND DRYER 1		25 1
40 2		AIR HANDLER HTR	GENERAL	3840	7	4981	8	1344	GENERAL	HAND DRYER 2		25 1
" "		" "	" "	3840	9	5040	10	1200	REC	RCPT- PINE		20 1
20 1		FLUSH VALVES	GENERAL	300	11	1500	12	1200	GENERAL	RCPT-SPRUCE		20 1
20 1		LTS-CONTROLLER	LTS	600	13	1200	14	600	GENERAL	IRR TIMER		20 1
20 1		LTS-POST SPRUCE	LTS	1200	15	1800	16	600	GENERAL	TIME CLOCK		20 1
20 2	1	LTS POLE S	LTS	507	17	1014	18	507	LTS	LTS POLE N	1	20 2
" "		" "	" "	507	19	1014	20	507	" "	" "		" "
					21		22					
					23		24					
ALL CONNECTED		KVA	3P AVE AMPS	* PHASE TOTALS	VA	AMPS	BUS TOTALS	KVA				
TOTAL CONNECTED	24.92	59.9	* A-N	12648.0	105.4	CONNECTED	27.38					
TOTAL DEMAND	26.43	63.6	* B-N	12270.0	102.3	DEMAND	28.89					
TOTAL DESIGN	28.32	68.1	* C-N	0.0	0.0	DESIGN	30.78					

NEW PANEL SCHEDULE DETAIL

NOT TO SCALE

FLAG NOTES:

- 1 PROVIDE NEW 20 AMP 240V 1φ 10KAIC BREAKERS TO MATCH EXISTING RATINGS, TYPICAL.
- 2 PROVIDE NEW UPDATED PANEL SCHEDULE, TYPICAL

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PUBLIC WORKS
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HAWTHORNE PARK LIGHTING
PANEL SCHEDULES PLAN

