6. Appendices

Appendix A: Plant Schedule

PLANT SCHEDULE - ALL PLANTS

FLANT SCHLDU		LANIS	
SYMBOL	CODE	BOTANICAL NAME	COMMON NAME
TREES	CADE	CALOCEDRUS DECURRENS	INCENSE CEDAR
	FRPU	FRANGULA PURSHIANA	CASCARA BUCKTHORN
	PISI	PICEA SITCHENSIS	SITKA SPRUCE
	PSME	PSEUDOTSUGA MENZIESII	DOUGLAS FIR
	SESE	SEQUOIA SEMPERVIRENS	COAST REDWOOD
	UMCA	UMBELLULARIA CALIFORNICA	BAY LAUREL
<u>SHRUBS</u>	ARDO	ARTEMISIA DOUGLASIANA	MUGWORT
$\langle \cdot \rangle$	CEIN	CEANOTHUS INTEGERRIMUS	DEER BRUSH
(+)	CEVE	CEANOTHUS VELUTINUS	SNOWBRUSH
	0000	CORYLUS CORNUTA CALIFORNICA	WESTERN HAZELNUT
Ø	ESNW	ESCALLONIA X 'NEWPORT DWARF'	NEWPORT DWARF ESCALLONIA
\odot	GASH	GAULTHERIA SHALLON	SALAL
	HEAR	HETEROMELES ARBUTIFOLIA	TOYON
*	MAAQ	MAHONIA AQUIFOLIUM	OREGON GRAPE
O	MARE	MAHONIA REPENS	CREEPING MAHONIA
(+)	MYCA	MYRICA CALIFORNICA	PACIFIC WAX MYRTLE
$\bigcirc \bigcirc$	PHCA	PHYSOCARPUS CAPITATUS	PACIFIC NINEBARK
@	RHNE	RHODODENDRON NEOGLANDULOSUM	SWAMP TEA
٨	RIRO	RIBES ROEZLII VAR. CRUENTUM	SPINY FRUITED GOOSEBERRY
०	RISA	RIBES SANGUINEUM	RED FLOWERING CURRANT
\bigcirc	RONU	ROSA NUTKANA VAR. NUTKANA	NOOTKA ROSE
\bigotimes	ROPI	ROSA PISOCARPA	CLUSTERED WILD ROSE
\odot	RUSP	RUBUS SPECTABILIS	SALMONBERRY
$\overline{(\cdot)}$	SAEX	SALIX EXIGUA	NARROW LEAF WILLOW
	SAME	SAMBUCUS MEXICANA	BLUE ELDERBERRY
	SARA	SAMBUCUS RACEMOSA	RED ELDERBERRY
401 104 11 € 11 11 € 11	VAOV	VACCINIUM OVATUM	EVERGREEN HUCKLEBERRY
$\langle \div \rangle$	WOFI	WOODWARDIA FIMBRIATA	GIANT CHAIN FERN

SIZE AND TYPE	GROUND COVERS	ADAL
		ARUV
4`-6` HT, B&B		CATU
		DECE
4`-6` HT, B&B		ERLA
		ERST
4`-6` HT, B&B		FRVE
		HOBR
4`-6` HT, B&B		IRMA
		LEMO
4`-6` HT, B&B		PEFR
		POMU
4`-6` HT, B&B		WOFI2
1 GAL CONT		XETE
1 GAL CONT		IRIR
1 GAL CONT		CATU
#2 CONT		
1 GAL CONT		POMU
1 GAL CONT		JUPA
5 GAL CONT		ACMI
1 GAL CONT		ERLA
1 GAL CONT		EKLA
1 GAL CONT		

ADIANTUM ALEUTICUM	WESTERN MAIDENHAIR FERN	1 GAL CONT
ARCTOSTAPHYLOS UVA-URSI	KINNIKINNICK	1 GAL CONT
CAREX TUMULICOLA	FOOTHILL SEDGE	4" POT
DESCHAMPSIA CESPITOSA	TUFTED HAIR GRASS	1 GAL CONT
ERIOPHYLLUM LANATUM	OREGON SUNSHINE	4" POT
ERIOPHYLLUM STAECHADIFOLIUM	GOLDEN YARROW	1 GAL CONT
FRAGARIA VESCA	WOOD STRAWBERRY	4" POT
HORDEUM BRACHYANTHERUM	MEADOW BARLEY	1 GAL CONT
IRIS MACROSIPHON	BOWLTUBE IRIS	4" POT
LEYMUS MOLLIS	AMERICAN DUNEGRASS	1 GAL CONT
PETASITES FRIGIDUS VAR. PALMATUS	PALMATET COLTSFOOT	1 GAL CONT
POLYSTICHUM MUNITUM	WESTERN SWORD FERN	1 GAL CONT
WOODWARDIA FIMBRIATA	GIANT CHAIN FERN	1 GAL CONT
XEROPHYLLUM TENAX	BEARGRASS	1 GAL CONT
FILTER STRIP - SHADE		
IRIS DOUGLASIANA	DOUGLAS IRIS	4" POT
CAREX TUMULICOLA	FOOTHILL SEDGE	4" POT
POLYSTICHUM MUNITUM	WESTERN SWORD FERN	1 GAL CONT
FILTER STRIP - SUN		
JUNCUS PATENS	CALIFORNIA GRAY RUSH	4" POT
ACHILLEA MILLEFOLIUM	COMMON YARROW	4" POT
ERIOPHYLLUM LANATUM	OREGON SUNSHINE	4" POT

PLANTING NOTES

1 GAL CONT

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#2 CONT

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1 GAL CONT

- 1. PROVIDE PLANTING SOIL AND BARK MULCH OF THE COMPOSITION AND DEPTHS REQUIRED IN ACCORDANCE WITH THE DRAWINGS AND SPECIFICATIONS.
- 2. INSTALL ALL PLANT MATERIALS IN ACCORDANCE WITH THE DRAWINGS AND SPECIFICATIONS.
- 3. PLANT QUANTITIES ARE LISTED FOR CONVENIENCE ONLY. ALL COUNTS SHALL BE VERIFIED PRIOR TO INSTALLATION. IN THE CASE OF A DISCREPANCY BETWEEN THE SCHEDULE AND THE AREAS SHOWN ON THE PLANS; PLANTS INDICATED ON THE PLANS SHALL SUPERSEDE QUANTITIES LISTED IN THE SCHEDULE.
- 4. UTILITY LOCATIONS INDICATED MAY DIFFER FROM FIELD CONDITIONS. FIELD VERIFY ALL UTILITIES PRIOR TO INSTALLATION. CONFLICTS BETWEEN EXISTING AND PROPOSED UTILITIES SHALL BE BROUGHT TO THE ATTENTION OF THE OWNER'S REPRESENTATIVE IMMEDIATELY.
- 5. PLANTS WITHIN STORMWATER FACILITIES DESIGNED WITH PERMANENT POOLS OF WATER OR FACILITIES ANTICIPATED TO BE FREQUENTLY INUNDATED (TO WATER DEPTHS ABOVE THE SMALLEST INSTALLED PLANT HEIGHT) SHALL BE ENTIRELY DEWATERED PRIOR TO INSTALLATION. PLANTS INTENDED TO BE INSTALLED IN STORMWATER FACILITIES THAT ARE PRESENTED WITH SEASONAL HIGH-WATER LEVELS THAT WOULD NEGATIVELY IMPACT THEIR ESTABLISHMENT MAY BE INSTALLED OUTSIDE THE SPECIFIED PLANTING SEASON IF ADDITIONAL SUPPLEMENTAL IRRIGATION IS PROVIDED.



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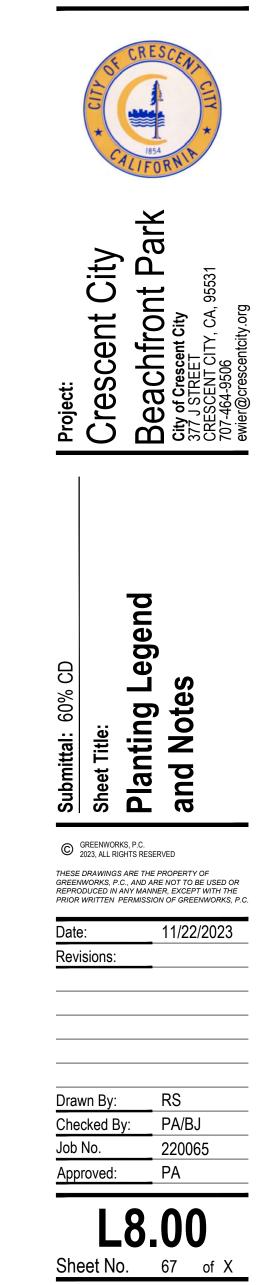


VERIFY SCALE: DRAWINGS ARE TO SCALE IF BAR MEASURES 1"

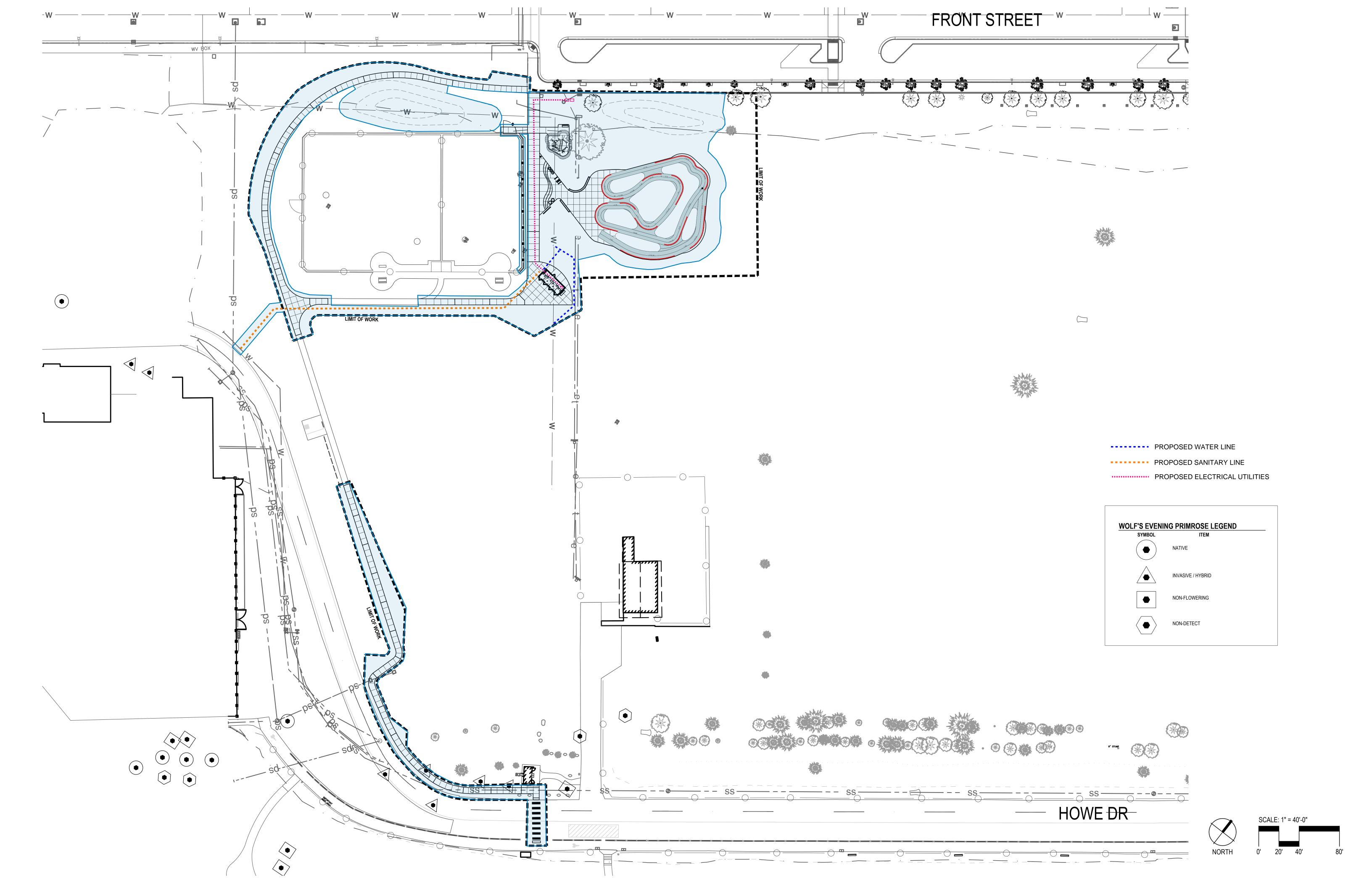
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*PLACE LIKE PLANTS IN CLUMPS OF 3-5

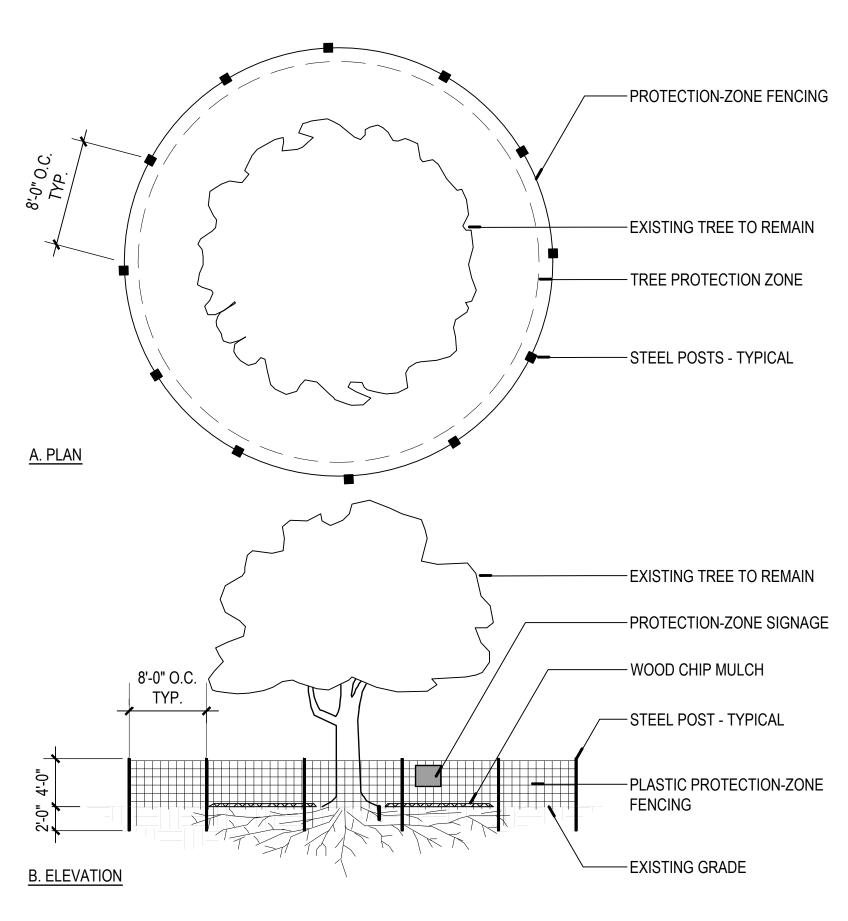
*PLACE LIKE CLUMPS IN CLUMPS OF 3-5



Appendix B: Utilities Diagram



Appendix C: Tree Protection Plan



NOTES:

- INDICATED ON THE DRAWINGS OTHERWISE.
- AROUND TREES; USE OF FASTENERS OF ANY TYPE INTO THE TREE.
- WITHIN 24 HOURS BY A CERTIFIED ARBORIST.

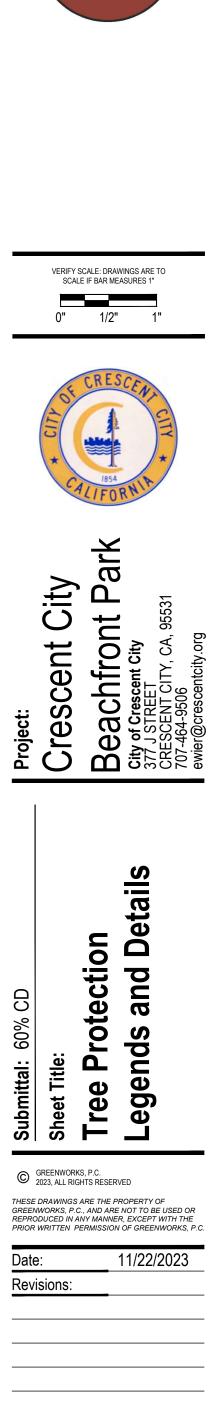


1. DO NOT INSTALL ANY COMPONENT OF TREE PROTECTION FENCING WITHIN TREE PROTECTION ZONES UNLESS

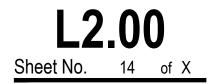
2. THE FOLLOWING PRACTICES ARE PROHIBITED WITHIN TREE PROTECTION ZONES: STORAGE OF CONSTRUCTION MATERIALS, DEBRIS, OR EXCAVATED MATERIAL; CLEANING OF MATERIALS OR EQUIPMENT; MOVING OR PARKING VEHICLES OR EQUIPMENT; FOOT TRAFFIC; ERECTION OF STRUCTURES; IMPOUNDMENT OF WATER; EXCAVATION OR OTHER DIGGING UNLESS OTHERWISE INDICATED; ATTACHMENT OF SIGNS TO OR WRAPPING MATERIALS

3. THE CITY OF CRESCENT CITY SHALL BE NOTIFIED WITHIN 24 HOURS OF ANY SUSPECTED DAMAGE TO EXISTING TREES WITHIN THE PROJECT AREA THAT WERE NOT IDENTIFIED AND APPROVED FOR REMOVAL OR RELOCATION. IF DAMAGE OCCURS DURING CONSTRUCTION, THE CONSTRUCTION APPLICANT SHALL HAVE THE TREE RESTORED

NOT TO SCALE



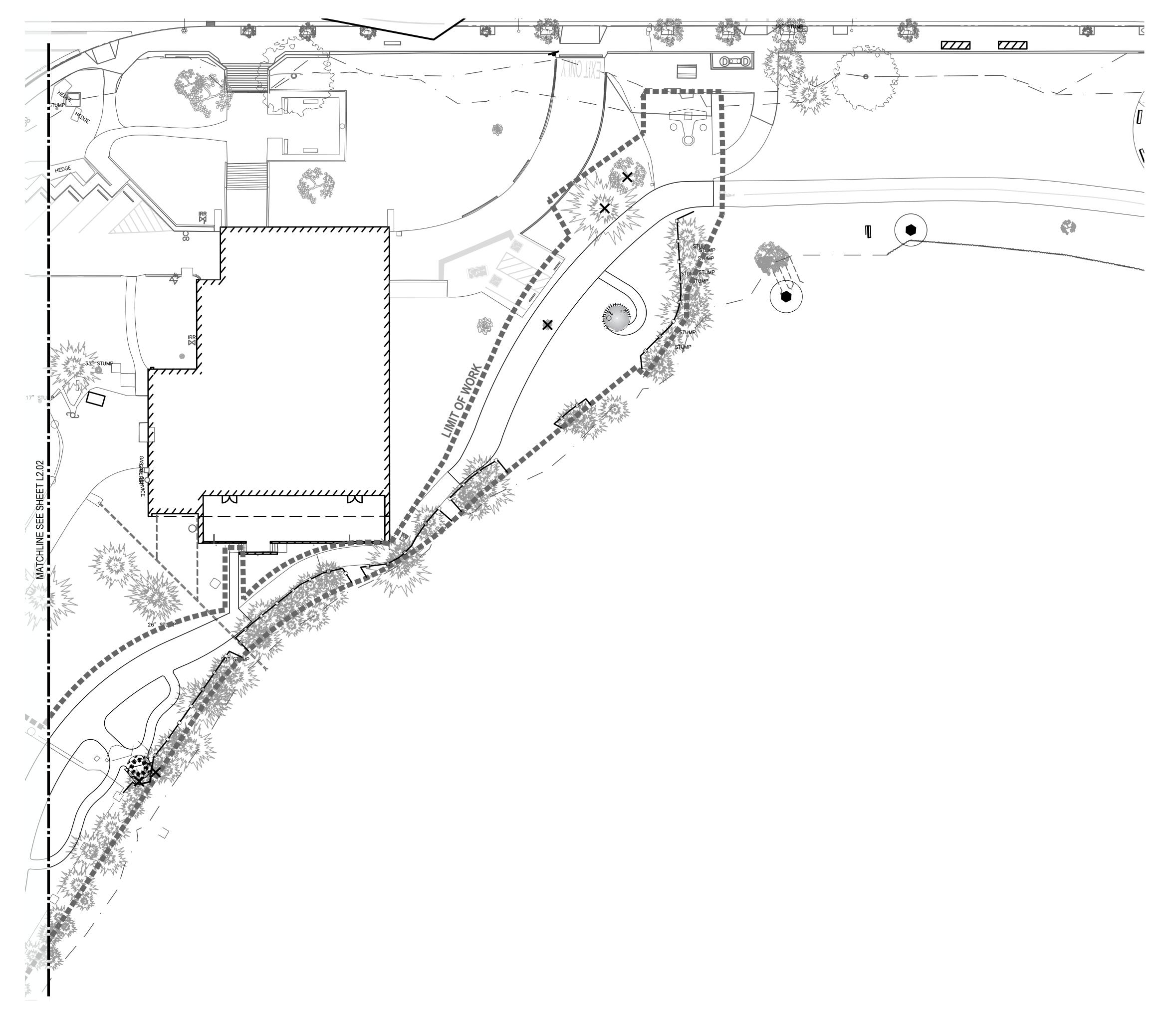
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Job No.	220065
Approved:	PA





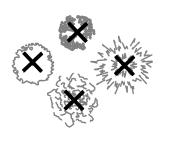
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TREE PROTECTION LEGEND

ITEM



EXISTING REDWOOD TREES TO REMAIN

EXISTING DECIDUOUS TREES

EXISTING PINE TREES

EXISTING CYPRESS TREES

EXISTING TREES TO BE REMOVED

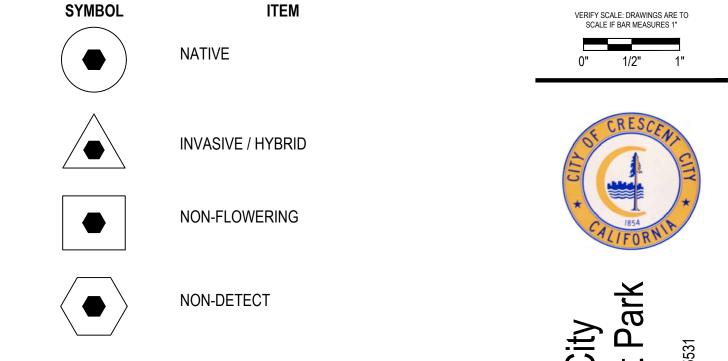
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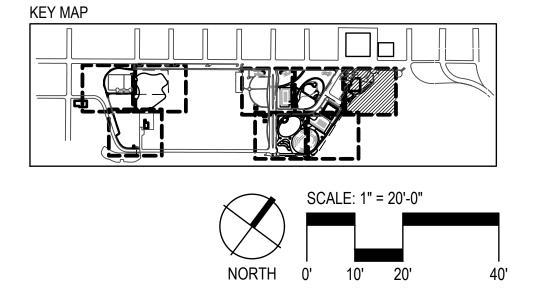


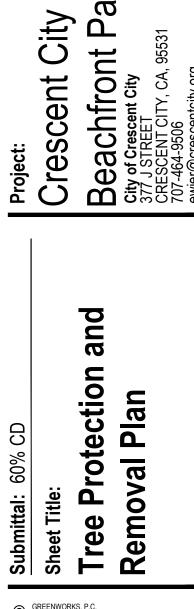
WOLF'S EVENING PRIMROSE LEGEND



TREE PROTECTION AND REMOVAL NOTES

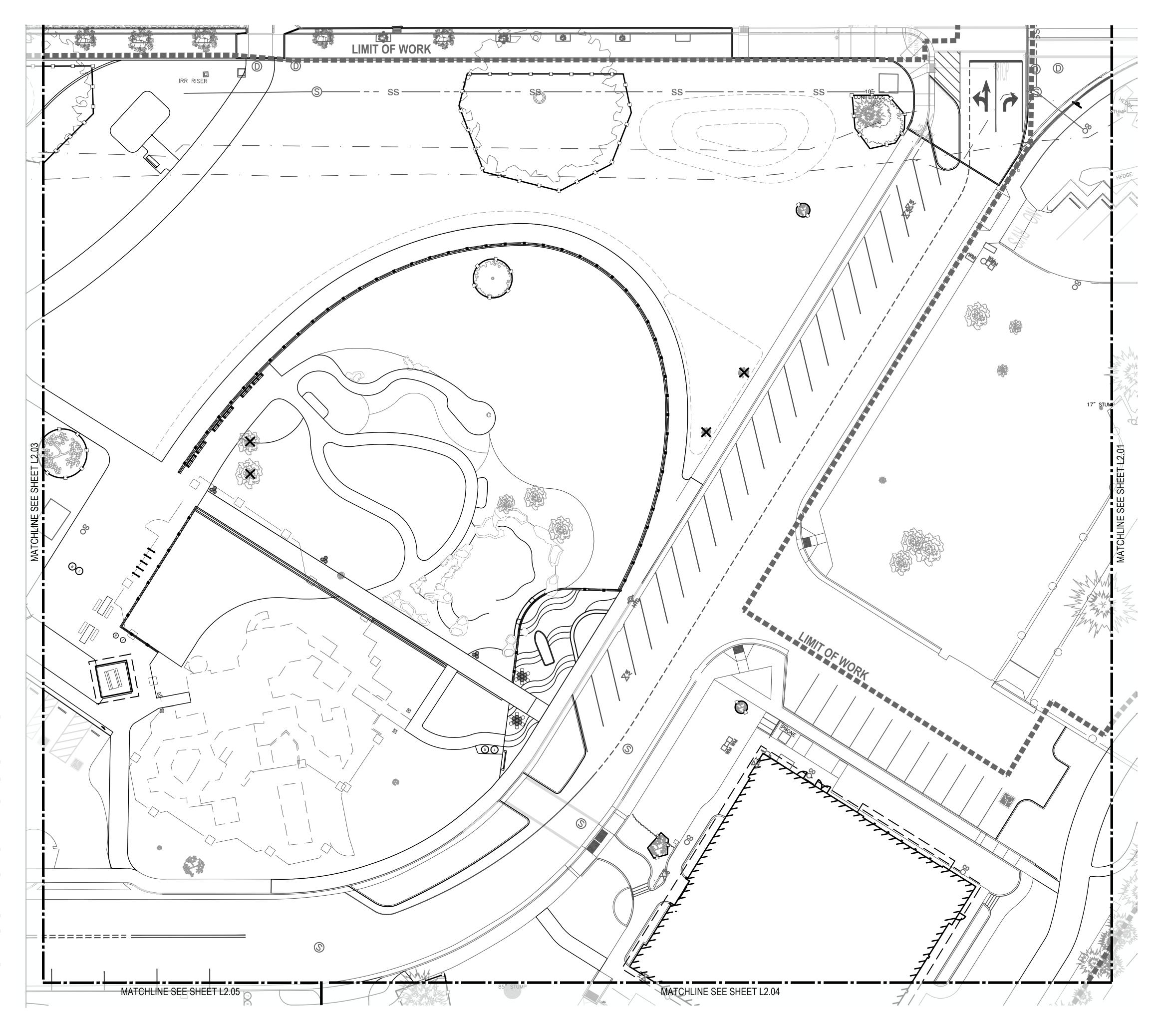
- 1. NO CONSTRUCTION ACTIVITIES ALLOWED TO IMPACT ONE-HALF TREE PROTECTION ZONE (TPZ) AREA.
- 2. TRUNK PROTECTION AND SUPPLEMENTAL WATERING MAY BE REQUIRED AT THE DISCRETION OF THE PROJECT ARBORIST.
- 3. ANY CONSTRUCTION WORK INCLUDING BUT NOT LIMITED TO DEMOLITION, GRADING AND TRENCHING IN ANY TPZ SHALL ONLY BE DONE WITH WRITTEN APPROVAL FROM THE OWNER'S REPRESENTATIVE. CUT AND GRIND ALL STUMPS EXCEPT AS NOTED.
- 4. NO PARKING, EXCAVATION, TRENCHING, GRADING, ROOT PRUNING, STOCKPILING OF ANY MATERIALS OR OTHER ACTIVITIES SHALL OCCUR WITHIN THE TREE PROTECTION FENCING UNLESS APPROVED BY THE OWNER'S REPRESENTATIVE.
- 5. TREE PROTECTION FENCING NOT TO BE MOVED WITHOUT PRIOR APPROVAL OF THE OWNER'S REPRESENTATIVE.





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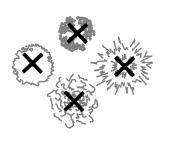
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TREE PROTECTION LEGEND SYMBOL

ITEM

Star -CYR?



EXISTING REDWOOD TREES TO REMAIN

EXISTING DECIDUOUS TREES

EXISTING PINE TREES

EXISTING CYPRESS TREES

EXISTING TREES TO BE REMOVED

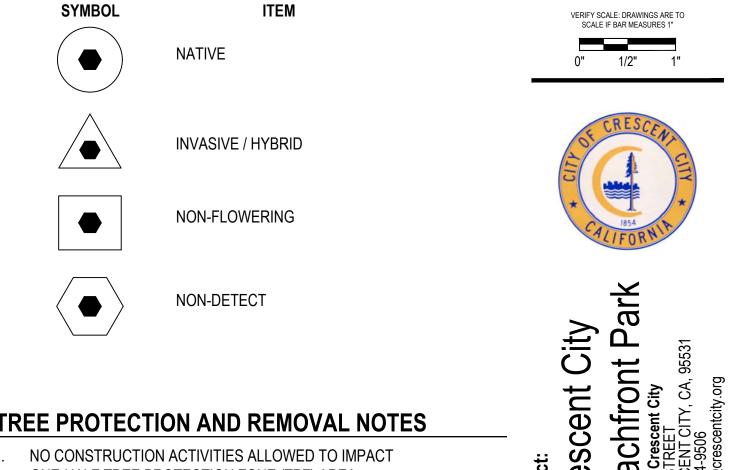
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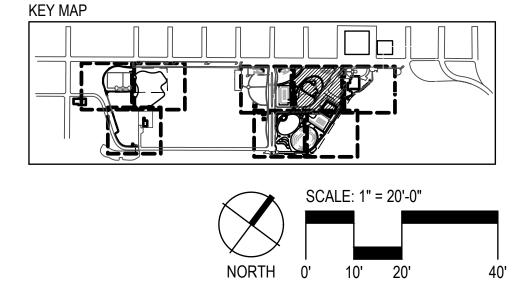


WOLF'S EVENING PRIMROSE LEGEND



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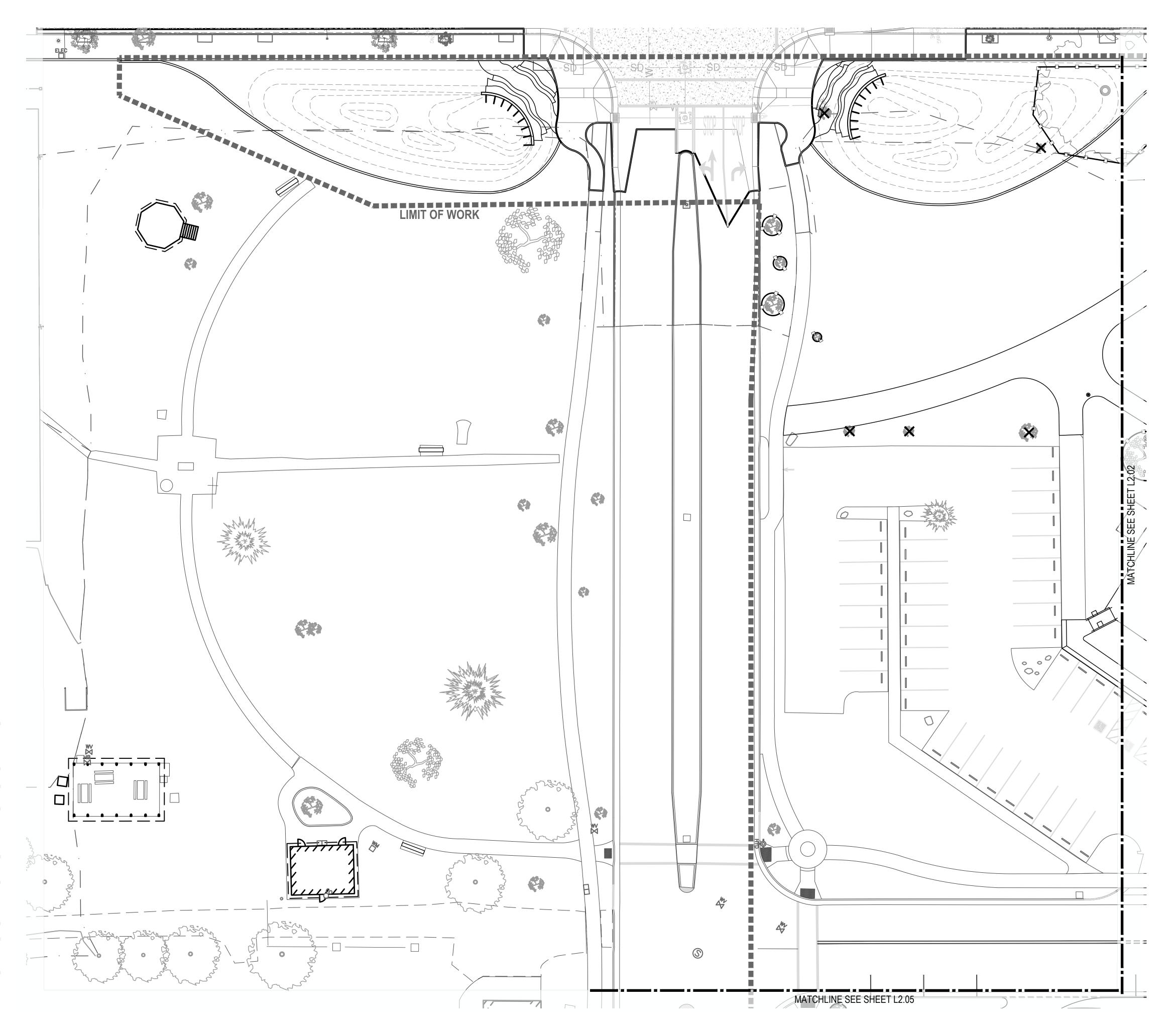




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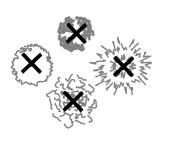
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Sheet No. <u>17</u> of X



NPROJECTS/220065.1 CRESCENT CITY BEACHFRONT PARK/02 PRODUCTION/01 CAD/01 PLOT SHEETS/220065 TREE.DW

TREE PROTECTION LEGEND



EXISTING REDWOOD TREES TO REMAIN

EXISTING DECIDUOUS TREES

EXISTING PINE TREES

EXISTING CYPRESS TREES

EXISTING TREES TO BE REMOVED

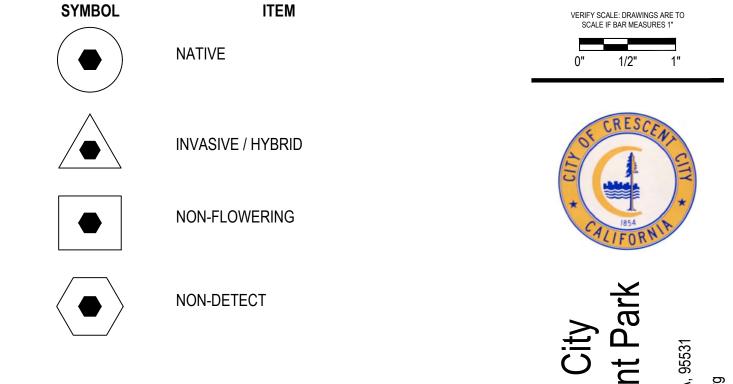
TREE PROTECTION FENCING



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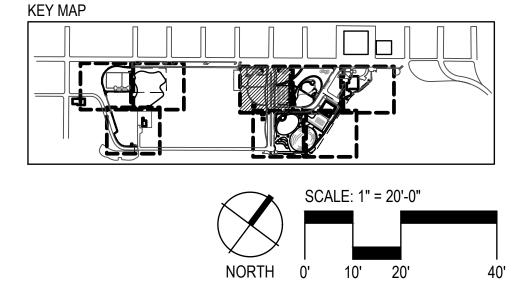


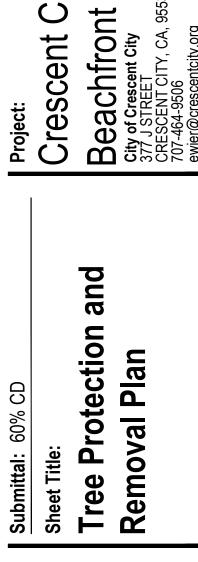
WOLF'S EVENING PRIMROSE LEGEND



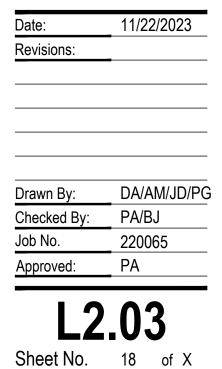
TREE PROTECTION AND REMOVAL NOTES

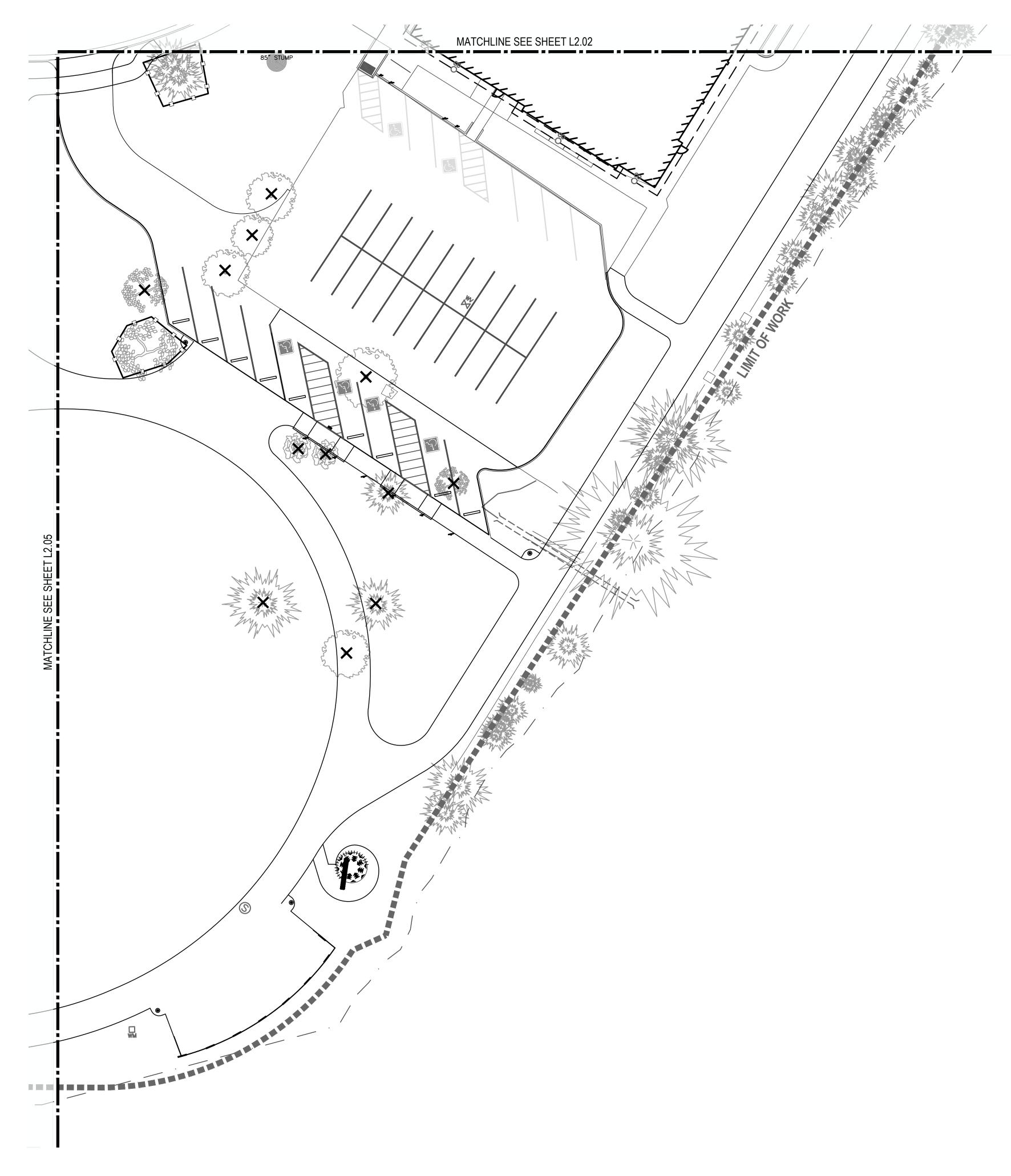
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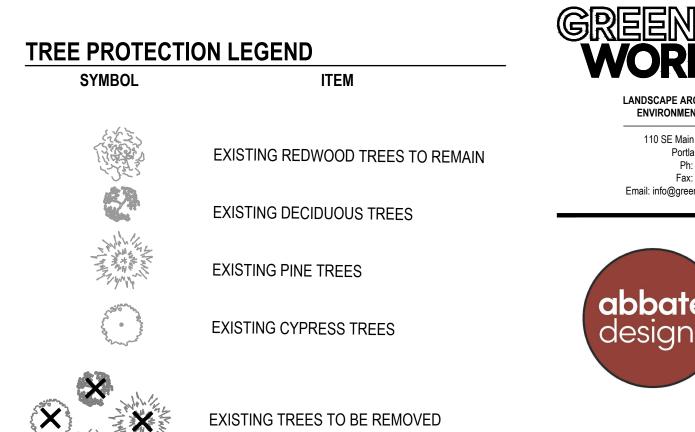




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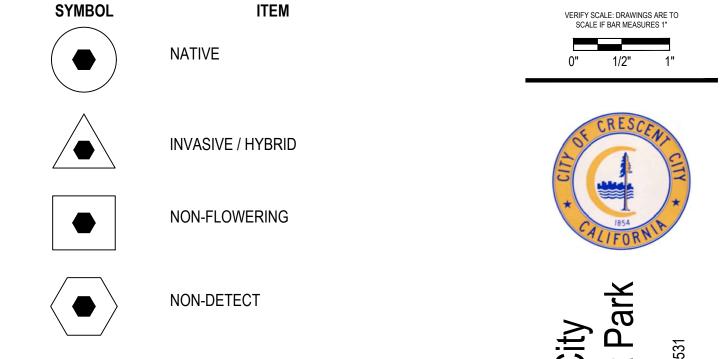
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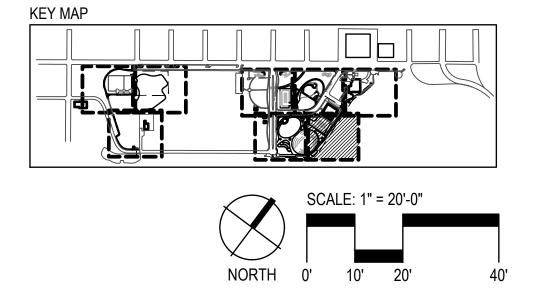
WOLF'S EVENING PRIMROSE LEGEND

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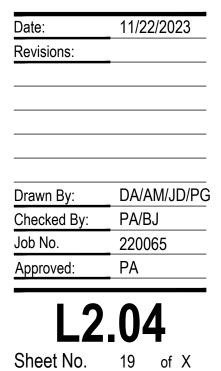
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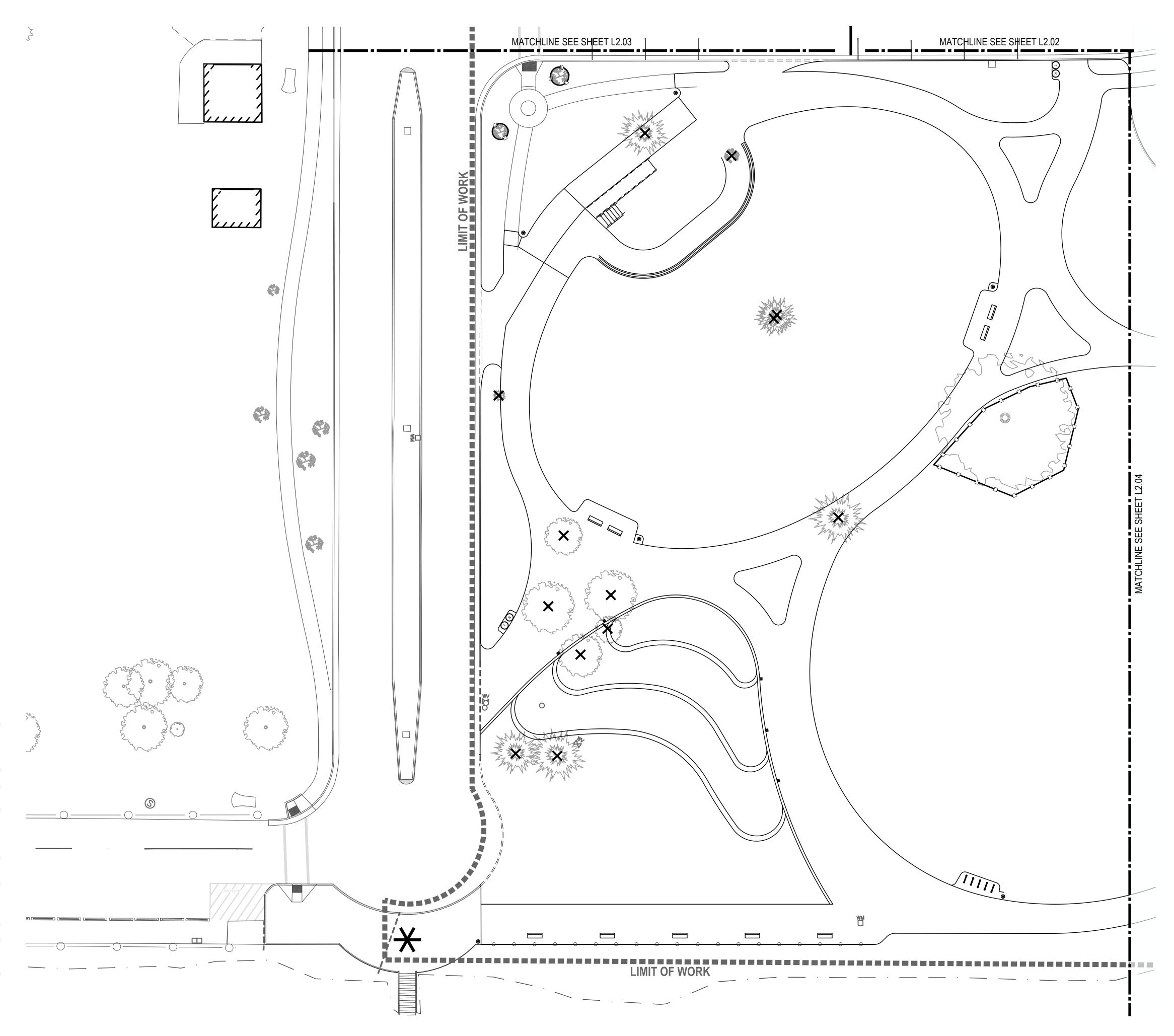
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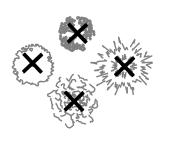




TREE PROTECTION LEGEND SYMBOL

ITEM

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EXISTING REDWOOD TREES TO REMAIN

EXISTING DECIDUOUS TREES

EXISTING PINE TREES

EXISTING CYPRESS TREES

EXISTING TREES TO BE REMOVED

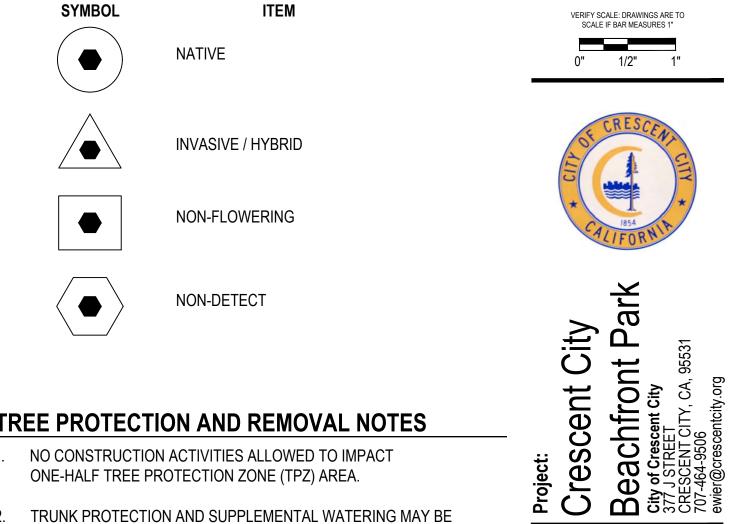
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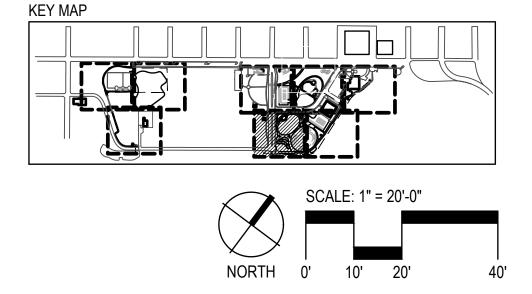


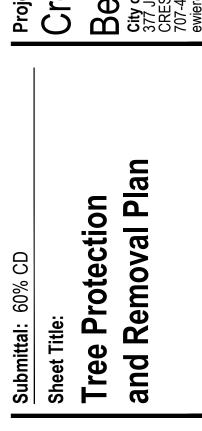
WOLF'S EVENING PRIMROSE LEGEND



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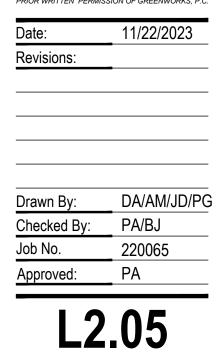


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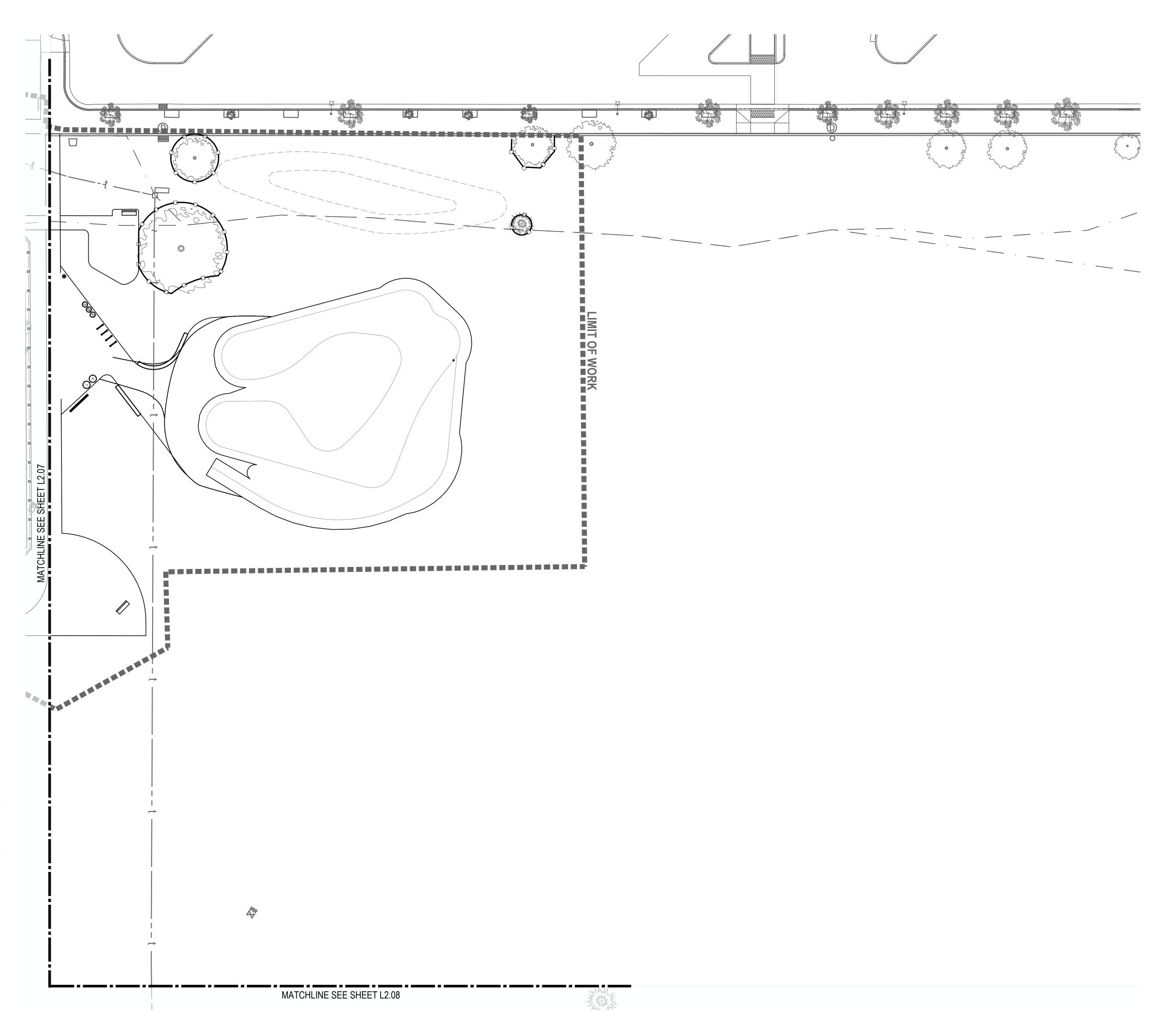
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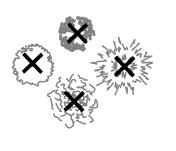
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TREE PROTECTION LEGEND



EXISTING REDWOOD TREES TO REMAIN

EXISTING DECIDUOUS TREES

EXISTING PINE TREES

EXISTING CYPRESS TREES

EXISTING TREES TO BE REMOVED

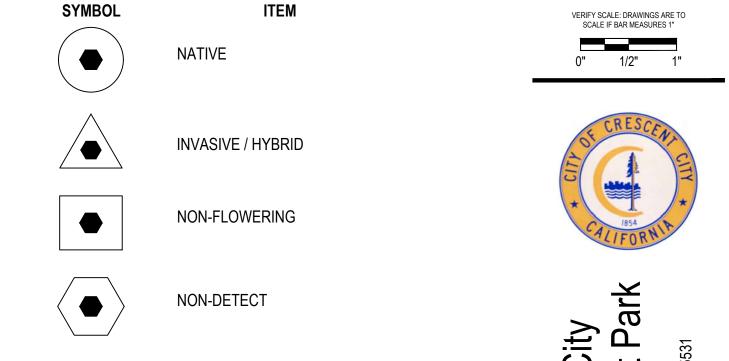
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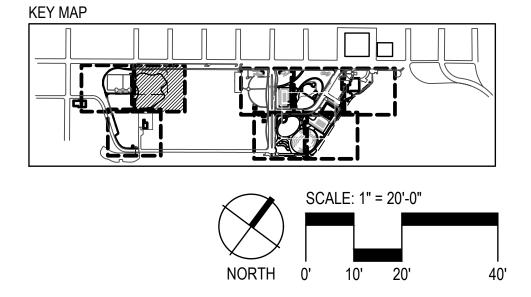


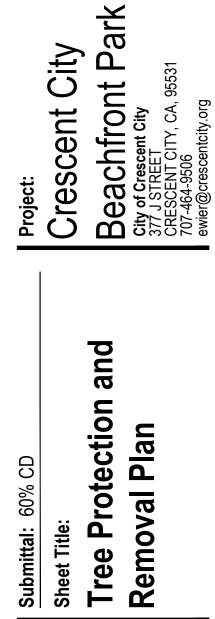
WOLF'S EVENING PRIMROSE LEGEND



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- 4. NO PARKING, EXCAVATION, TRENCHING, GRADING, ROOT PRUNING, STOCKPILING OF ANY MATERIALS OR OTHER ACTIVITIES SHALL OCCUR WITHIN THE TREE PROTECTION FENCING UNLESS APPROVED BY THE OWNER'S REPRESENTATIVE.
- 5. TREE PROTECTION FENCING NOT TO BE MOVED WITHOUT PRIOR APPROVAL OF THE OWNER'S REPRESENTATIVE.





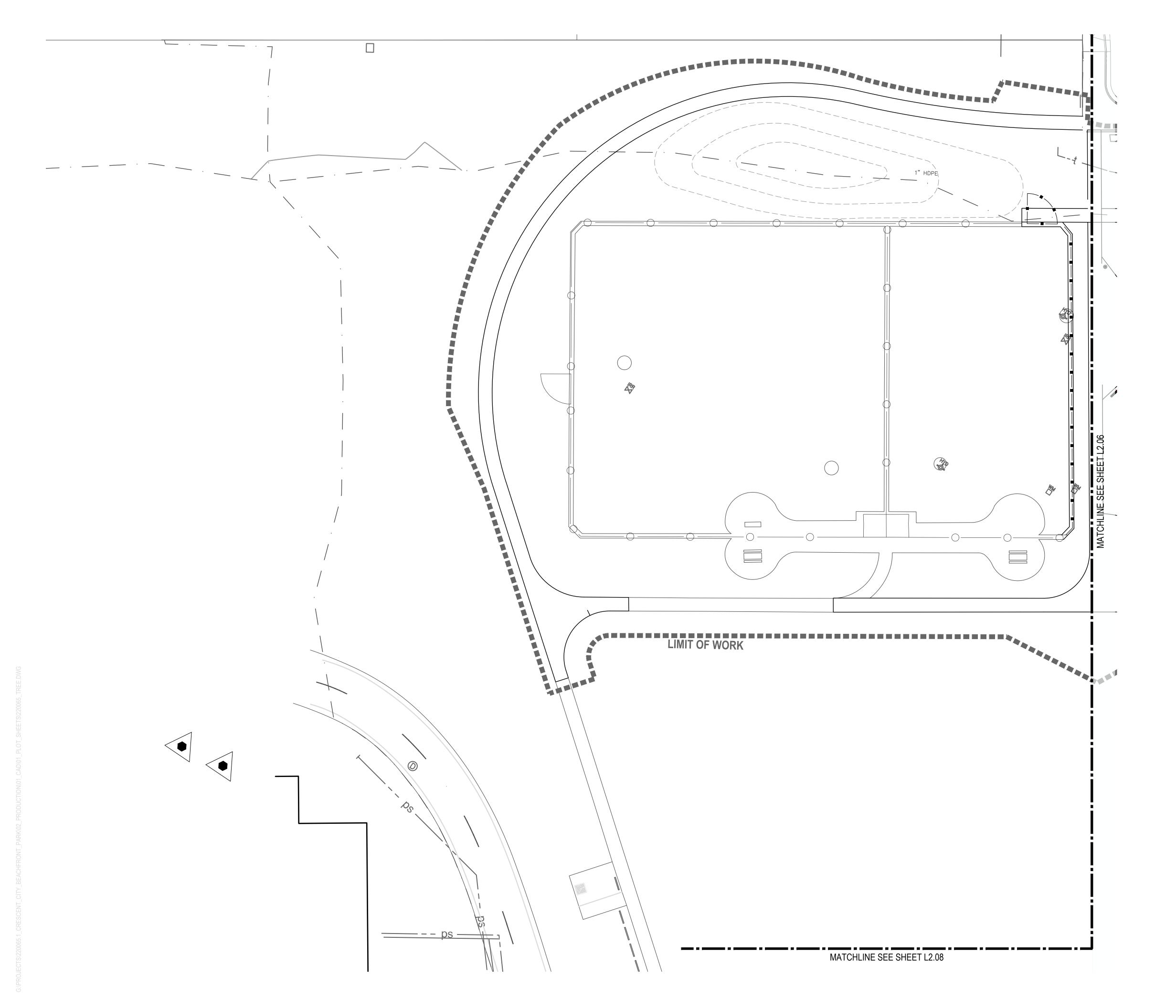
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Job No.	220065
Checked By:	PA/BJ
Drawn By:	DA/AM/JD/PG
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Date:	11/22/2023

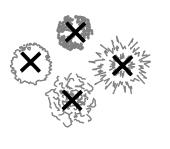
Sheet No. 21 of X



TREE PROTECTION LEGEND SYMBOL

ITEM

~~/ WN



EXISTING REDWOOD TREES TO REMAIN

EXISTING DECIDUOUS TREES

EXISTING PINE TREES

EXISTING CYPRESS TREES

EXISTING TREES TO BE REMOVED

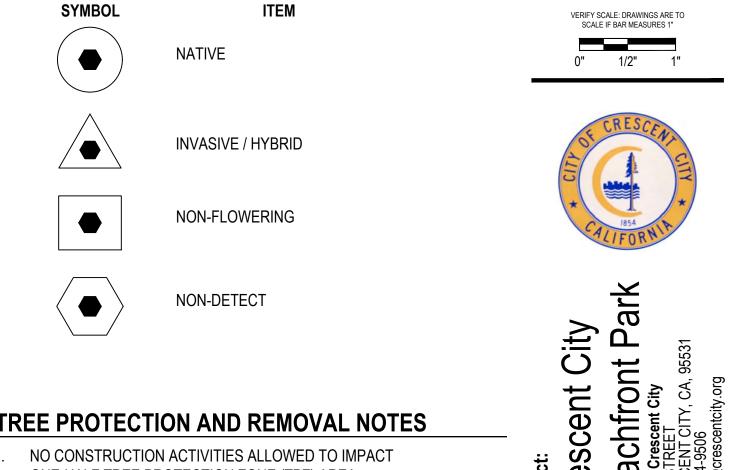
TREE PROTECTION FENCING



110 SE Main St., Suite 100 Portland, OR 97214 Ph: 503 222 5612 Fax: 503 222 2283 Email: info@greenworkspc.com

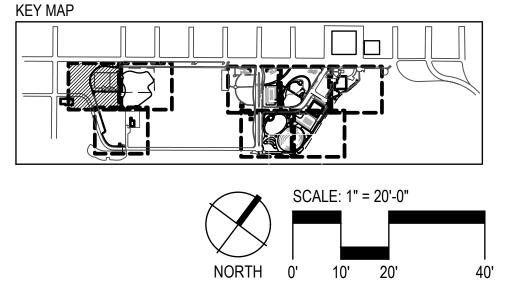


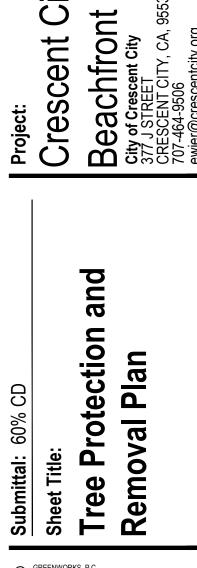
WOLF'S EVENING PRIMROSE LEGEND



TREE PROTECTION AND REMOVAL NOTES

- 1. NO CONSTRUCTION ACTIVITIES ALLOWED TO IMPACT ONE-HALF TREE PROTECTION ZONE (TPZ) AREA.
- 2. TRUNK PROTECTION AND SUPPLEMENTAL WATERING MAY BE REQUIRED AT THE DISCRETION OF THE PROJECT ARBORIST.
- 3. ANY CONSTRUCTION WORK INCLUDING BUT NOT LIMITED TO DEMOLITION, GRADING AND TRENCHING IN ANY TPZ SHALL ONLY BE DONE WITH WRITTEN APPROVAL FROM THE OWNER'S REPRESENTATIVE. CUT AND GRIND ALL STUMPS EXCEPT AS NOTED.
- 4. NO PARKING, EXCAVATION, TRENCHING, GRADING, ROOT PRUNING, STOCKPILING OF ANY MATERIALS OR OTHER ACTIVITIES SHALL OCCUR WITHIN THE TREE PROTECTION FENCING UNLESS APPROVED BY THE OWNER'S REPRESENTATIVE.
- 5. TREE PROTECTION FENCING NOT TO BE MOVED WITHOUT PRIOR APPROVAL OF THE OWNER'S REPRESENTATIVE.

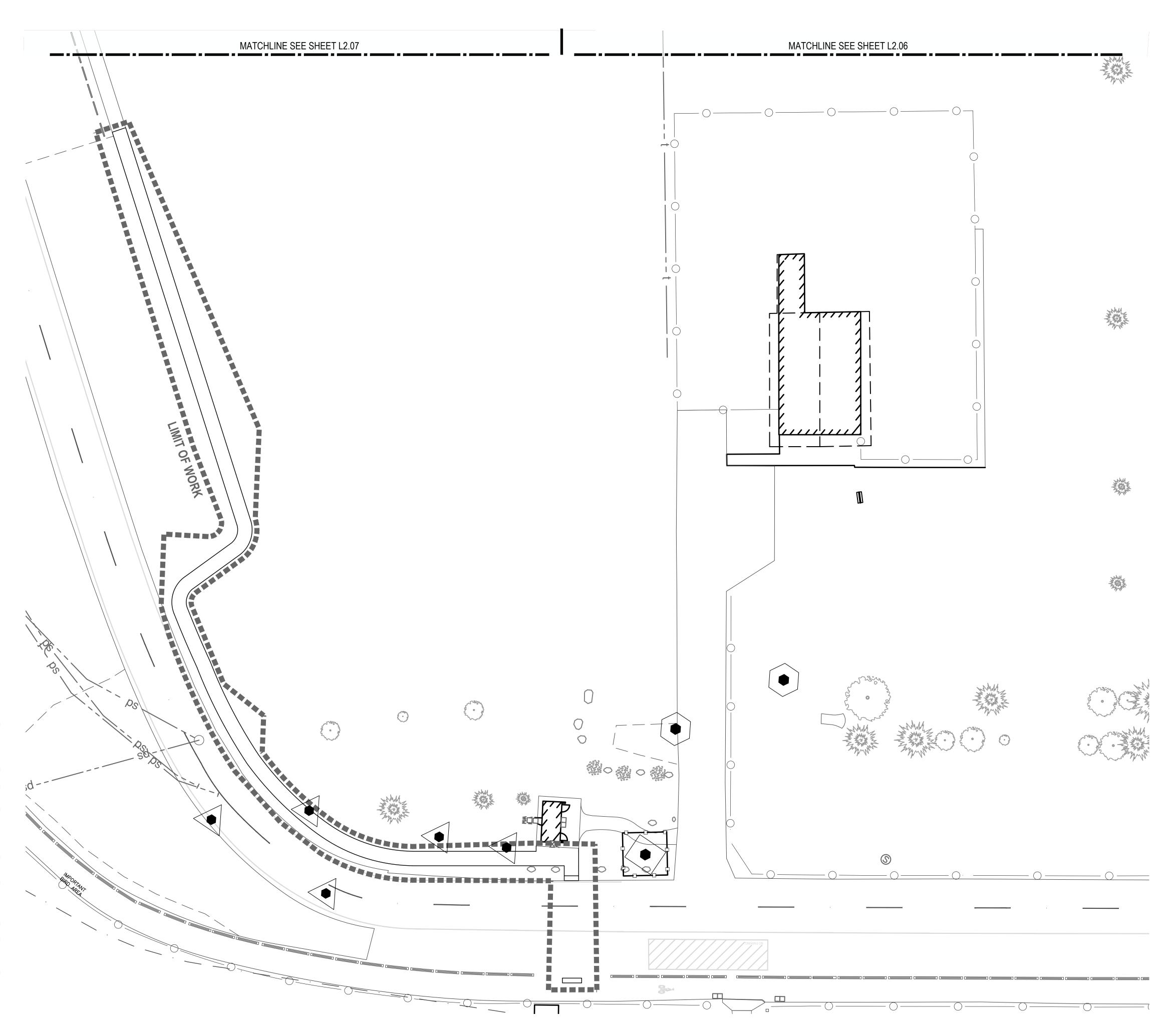




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Date:	11/22/2023
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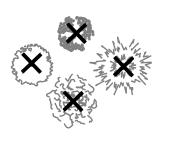
Sheet No. 22 of X



TREE PROTECTION LEGEND SYMBOL

ITEM

CY E ~7/ 4/ V



EXISTING REDWOOD TREES TO REMAIN

EXISTING DECIDUOUS TREES

EXISTING PINE TREES

EXISTING CYPRESS TREES

EXISTING TREES TO BE REMOVED

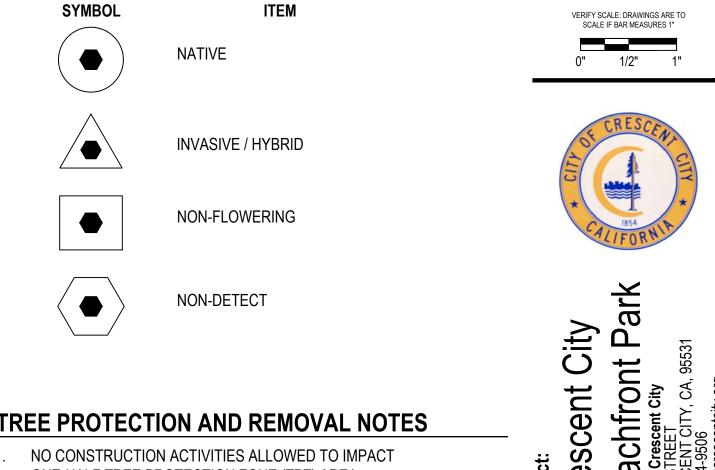
TREE PROTECTION FENCING



110 SE Main St., Suite 100 Portland, OR 97214 Ph: 503 222 5612 Fax: 503 222 2283 Email: info@greenworkspc.com

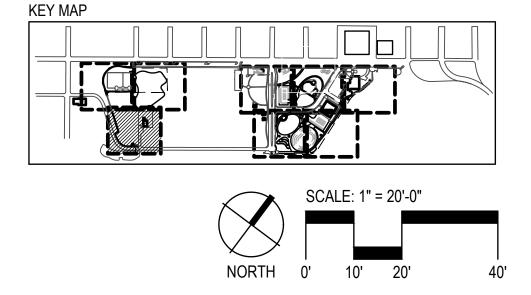


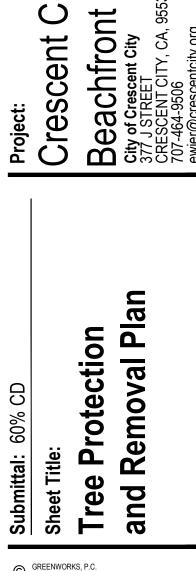
WOLF'S EVENING PRIMROSE LEGEND



TREE PROTECTION AND REMOVAL NOTES

- 1. NO CONSTRUCTION ACTIVITIES ALLOWED TO IMPACT ONE-HALF TREE PROTECTION ZONE (TPZ) AREA.
- 2. TRUNK PROTECTION AND SUPPLEMENTAL WATERING MAY BE REQUIRED AT THE DISCRETION OF THE PROJECT ARBORIST.
- 3. ANY CONSTRUCTION WORK INCLUDING BUT NOT LIMITED TO DEMOLITION, GRADING AND TRENCHING IN ANY TPZ SHALL ONLY BE DONE WITH WRITTEN APPROVAL FROM THE OWNER'S REPRESENTATIVE. CUT AND GRIND ALL STUMPS EXCEPT AS NOTED.
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- TREE PROTECTION FENCING NOT TO BE MOVED WITHOUT 5. PRIOR APPROVAL OF THE OWNER'S REPRESENTATIVE.



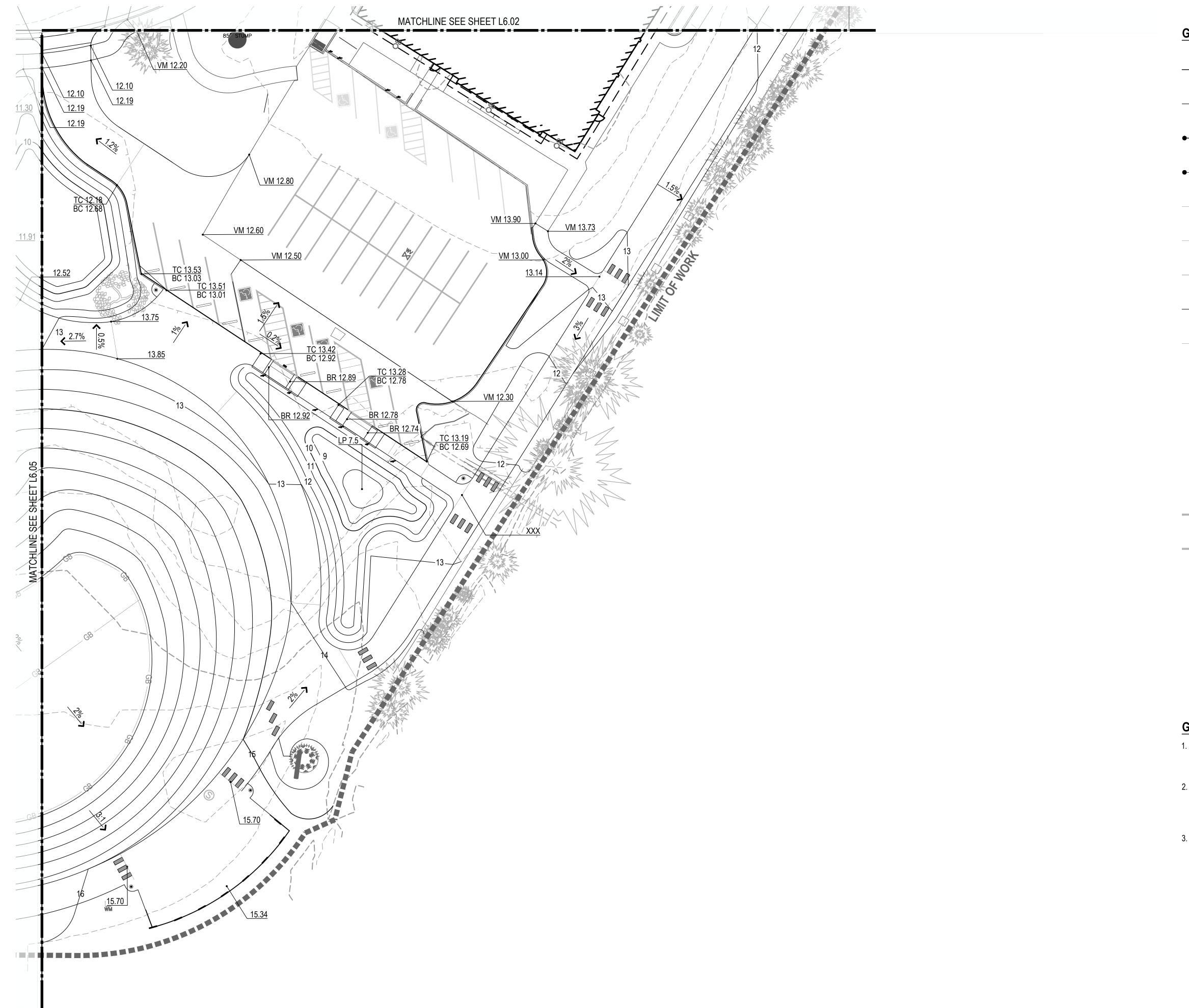


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Approved:	PA
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Revisions:	
Date:	11/22/2023

Sheet No. 23 of X

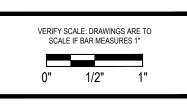
Appendix D: Amphitheater Design



GRADING AND DF	RAINAGE LEGEND
SYMBOL	ITEM
205	EXISTING MAJOR CONTOUR
203	EXISTING MINOR CONTOUR
•	PROPOSED MAJOR CONTOUR
•	PROPOSED MINOR CONTOUR
GB	GRADE BREAK
	TOPOGRAPHIC DEPRESSION
· ·	TOE OF SLOPE
· ·	GRADING LIMITS
<	DRAINAGE FLOW LINE
FS XXX.XX	SPOT ELEVATION
TW XXX.XX BW XXX.XX	SPOT ELEVATION (DOUBLE)
<u>XX%</u> ►	SURFACE SLOPE PERCENTAGE
<u>(XX)</u> %►	SUBGRADE SLOPE PERCENTAGE
SD	STORM DRAIN PIPE
— — — — PSD —	PERFORATED STORM DRAIN PIPE
12	AREA DRAIN
۲	BEEHIVE OVERFLOW INLET
● ^{co}	CLEANOUT

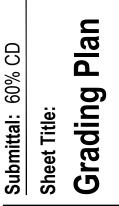












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11/22/2023 Date: Revisions: DA/AM/JD/PG Drawn By: PA/BJ Checked By: Job No. 220065 PA Approved: L6.04

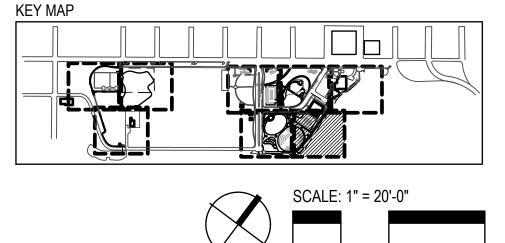
Sheet No. 53 of X

GRADING NOTES

1. VERIFY ALL EXISTING GRADES IN THE FIELD PRIOR TO COMMENCING WORK AND REPORT ANY DISCREPANCIES TO THE OWNER'S REPRESENTATIVE IMMEDIATELY.

2. MAXIMUM SLOPES FOR WALKWAYS AND SIDEWALKS (WITHOUT HANDRAILS) TO BE 2% (CROSS SLOPE) AND 5% (LONGITUDINAL SLOPE). MAXIMUM SLOPES FOR RAMPS SHALL NOT BE GREATER THAN 1V:12H (8.33%) AND RAMP RUNS TO HAVE A LANDING EVERY 30" RISE IN ELEVATION.

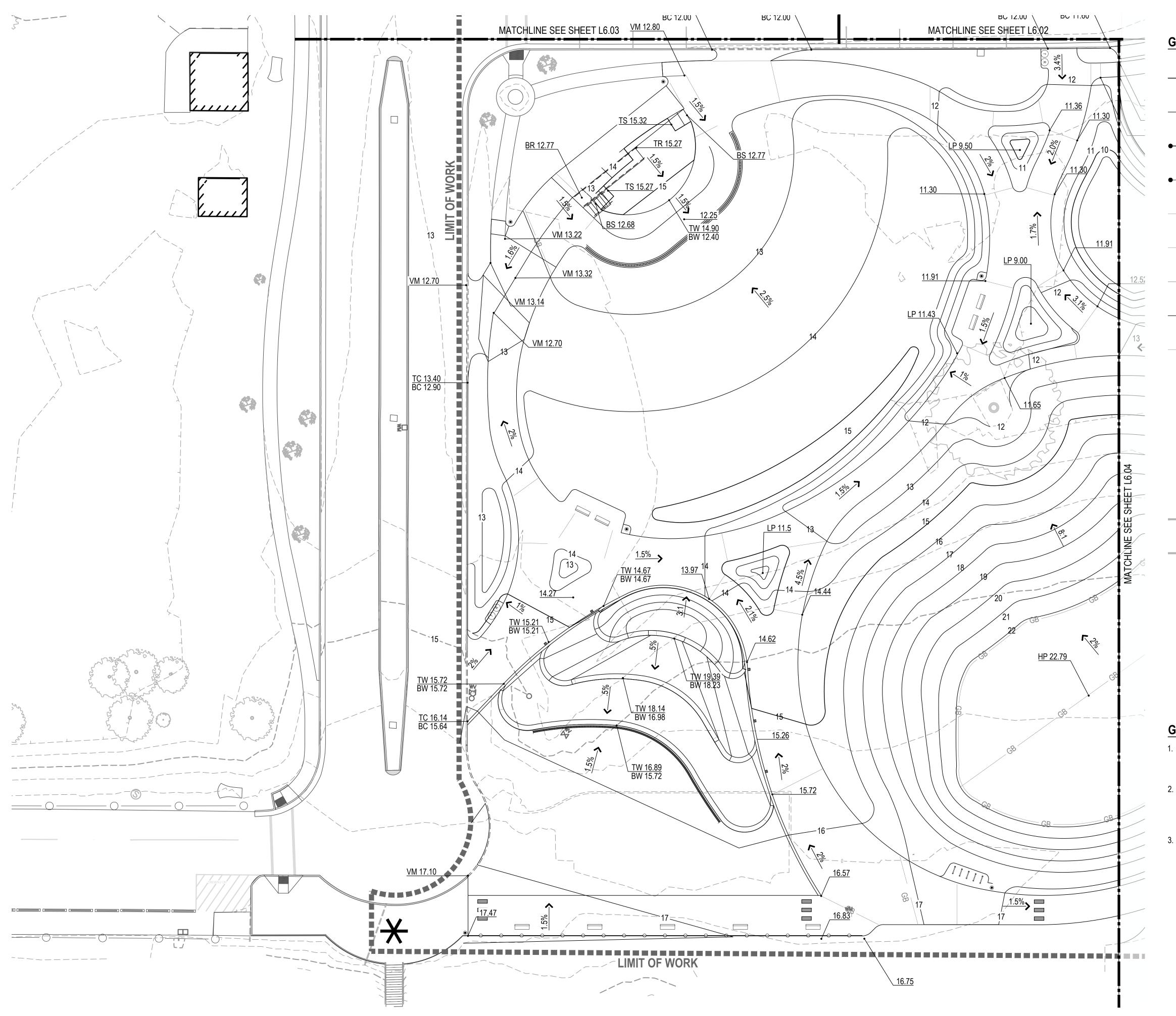
3. WHERE NEW FINISH GRADES TIE INTO EXISTING GRADES, EARTHWORK SHALL BE BLENDED SMOOTHLY WITH ROUNDED AND SEAMLESS TRANSITIONS.



NORTH

0' 10' 20'

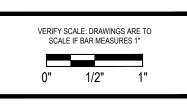
40'



GRADING AND DF	RAINAGE LEGEND
SYMBOL	ITEM
205	EXISTING MAJOR CONTOUR
203	EXISTING MINOR CONTOUR
•	PROPOSED MAJOR CONTOUR
•203•	PROPOSED MINOR CONTOUR
GB	GRADE BREAK
⊥	TOPOGRAPHIC DEPRESSION
	TOE OF SLOPE
· ·	GRADING LIMITS
<	DRAINAGE FLOW LINE
FS XXX.XX	SPOT ELEVATION
TW XXX.XX BW XXX.XX	SPOT ELEVATION (DOUBLE)
<u>XX%</u>	SURFACE SLOPE PERCENTAGE
<u>(XX)</u> %►	SUBGRADE SLOPE PERCENTAGE
SD	STORM DRAIN PIPE
— — — — PSD —	PERFORATED STORM DRAIN PIPE
B	AREA DRAIN
۲	BEEHIVE OVERFLOW INLET
● ^{co}	CLEANOUT

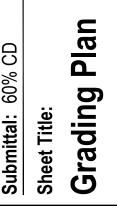












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Date: 11/22/2023 Revisions: Drawn By: DA/AM/JD/PG Checked By: PA/BJ Job No. 220065 Approved: PA L6.05

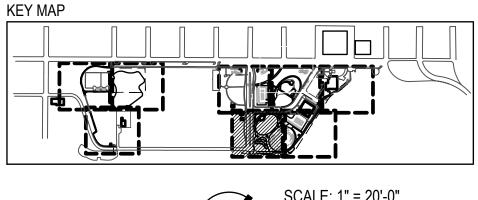
Sheet No. 54 of X

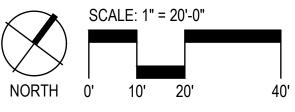
GRADING NOTES

1. VERIFY ALL EXISTING GRADES IN THE FIELD PRIOR TO COMMENCING WORK AND REPORT ANY DISCREPANCIES TO THE OWNER'S REPRESENTATIVE IMMEDIATELY.

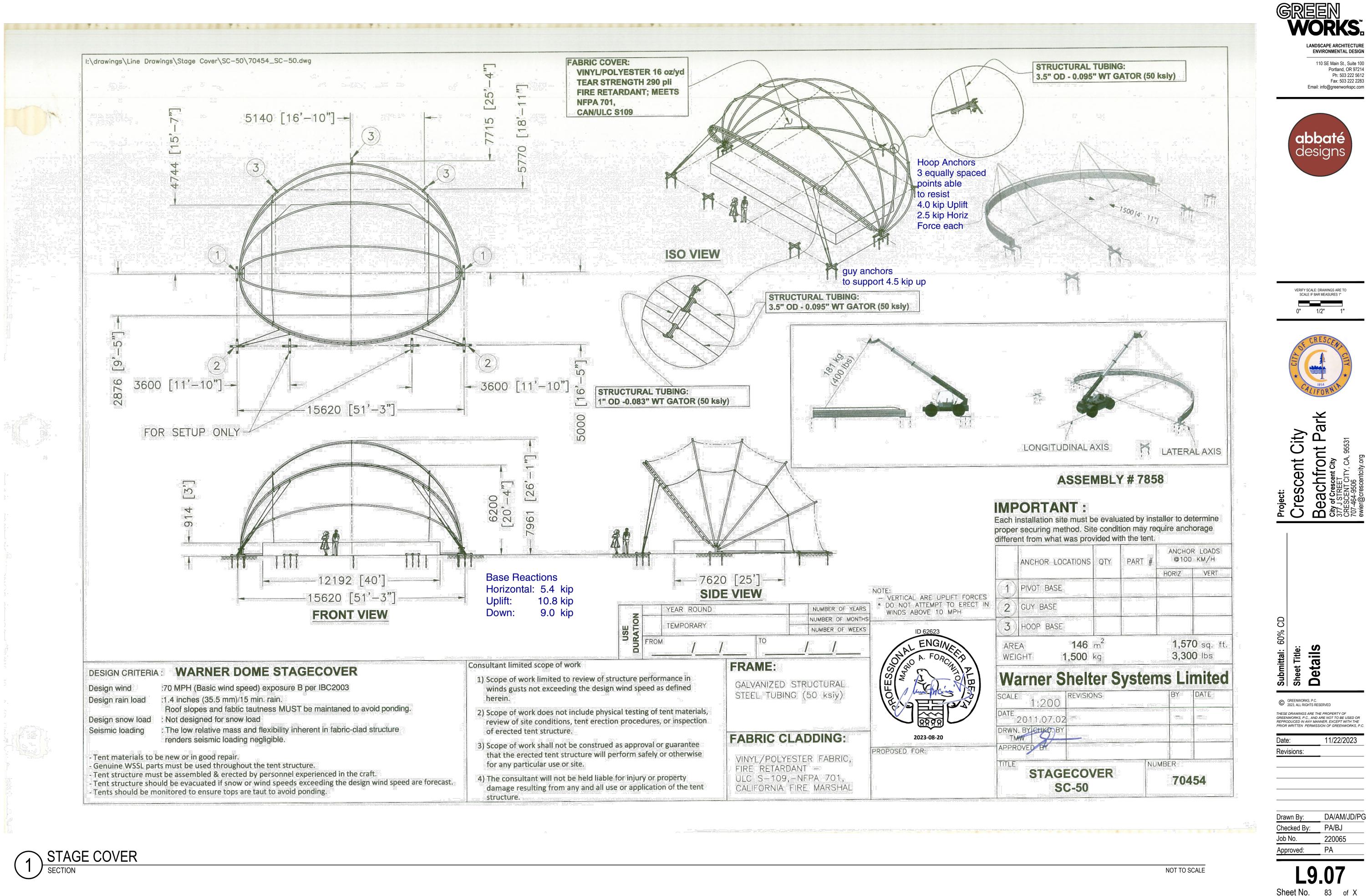
 MAXIMUM SLOPES FOR WALKWAYS AND SIDEWALKS (WITHOUT HANDRAILS) TO BE 2% (CROSS SLOPE) AND 5% (LONGITUDINAL SLOPE). MAXIMUM SLOPES FOR RAMPS SHALL NOT BE GREATER THAN 1V:12H (8.33%) AND RAMP RUNS TO HAVE A LANDING EVERY 30" RISE IN ELEVATION.

WHERE NEW FINISH GRADES TIE INTO EXISTING GRADES, EARTHWORK SHALL BE BLENDED SMOOTHLY WITH ROUNDED AND SEAMLESS TRANSITIONS.













Appendix E: AB-52 Outreach

From:	Campagne, Cody@NAHC
То:	ewier@crescentcity.org
Cc:	Alex Wolk
Subject:	Beachfront Park Project
Date:	Monday, January 22, 2024 10:51:33 AM
Attachments:	AB52 All Beachfront Park Project 1.22.2024.pdf
	Beachfront Park Project 1.22.2024.xlsx

Good Morning,

Attached is the response to the project referenced above. If you have any additional questions, please feel free to contact our office email at nahc@nahc.ca.gov.

In our ongoing effort to enhance your user experience and increase functionality, we have transitioned from distributing data in PDF Format to Excel Format. This change allows you to take full advantage of features such as searching, filtering, and mail-merging, making it easier for you to handle and utilize the data provided. If you encounter any technical difficulties, or if you have any questions regarding this new format, please do not hesitate to reach out to me directly.

Regards,

Cody Campagne

Native American Heritage Commission 1550 Harbor Blvd., Suite 100 West Sacramento, CA 95691 <u>Cody.Campagne@nahc.ca.gov</u> Direct Line: (916) 573-1033 Office: (916) 373-3710



CHAIRPERSON Reginald Pagaling Chumash

VICE-CHAIRPERSON **Buffy McQuillen** Yokayo Pomo, Yuki, Nomlaki

SECRETARY Sara Dutschke Miwok

Parliamentarian Wayne Nelson Luiseño

COMMISSIONER Isaac Bojorquez Ohlone-Costanoan

COMMISSIONER Stanley Rodriguez Kumeyaay

Commissioner Laurena Bolden Serrano

Commissioner **Reid Milanovich** Cahuilla

COMMISSIONER Vacant

Executive Secretary Raymond C. Hitchcock Miwok, Nisenan

NAHC HEADQUARTERS

1550 Harbor Boulevard Suite 100 West Sacramento, California 95691 (916) 373-3710 nahc@nahc.ca.gov NAHC.ca.gov STATE OF CALIFORNIA

NATIVE AMERICAN HERITAGE COMMISSION

January 22, 2024

Eric Weir Crecent City

Via Email to: <u>ewier@crescentcity.org</u>

Re: Native American Tribal Consultation, Pursuant to the Assembly Bill 52 (AB 52), Amendments to the California Environmental Quality Act (CEQA) (Chapter 532, Statutes of 2014), Public Resources Code Sections 5097.94 (m), 21073, 21074, 21080.3.1, 21080.3.2, 21082.3, 21083.09, 21084.2 and 21084.3, Beachfront Park Project, Del Norte County

To Whom It May Concern:

Pursuant to Public Resources Code section 21080.3.1 (c), attached is a consultation list of tribes that are traditionally and culturally affiliated with the geographic area of the above-listed project. Please note that the intent of the AB 52 amendments to CEQA is to avoid and/or mitigate impacts to tribal cultural resources, (Pub. Resources Code §21084.3 (a)) ("Public agencies shall, when feasible, avoid damaging effects to any tribal cultural resource.")

Public Resources Code sections 21080.3.1 and 21084.3(c) require CEQA lead agencies to consult with California Native American tribes that have requested notice from such agencies of proposed projects in the geographic area that are traditionally and culturally affiliated with the tribes on projects for which a Notice of Preparation or Notice of Negative Declaration or Mitigated Negative Declaration has been filed on or after July 1, 2015. Specifically, Public Resources Code section 21080.3.1 (d) provides:

Within 14 days of determining that an application for a project is complete or a decision by a public agency to undertake a project, the lead agency shall provide formal notification to the designated contact of, or a tribal representative of, traditionally and culturally affiliated California Native American tribes that have requested notice, which shall be accomplished by means of at least one written notification that includes a brief description of the proposed project and its location, the lead agency contact information, and a notification that the California Native American tribe has 30 days to request consultation pursuant to this section.

The AB 52 amendments to CEQA law does not preclude initiating consultation with the tribes that are culturally and traditionally affiliated within your jurisdiction prior to receiving requests for notification of projects in the tribe's areas of traditional and cultural affiliation. The Native American Heritage Commission (NAHC) recommends, but does not require, early consultation as a best practice to ensure that lead agencies receive sufficient information about cultural resources in a project area to avoid damaging effects to tribal cultural resources.

The NAHC also recommends, but does not require that agencies should also include with their notification letters, information regarding any cultural resources assessment that has been completed on the area of potential effect (APE), such as:

1. The results of any record search that may have been conducted at an Information Center of the California Historical Resources Information System (CHRIS), including, but not limited to:

- A listing of any and all known cultural resources that have already been recorded on or adjacent to the APE, such as known archaeological sites;
- Copies of any and all cultural resource records and study reports that may have been provided by the Information Center as part of the records search response;
- Whether the records search indicates a low, moderate, or high probability that unrecorded cultural resources are located in the APE; and
- If a survey is recommended by the Information Center to determine whether previously unrecorded cultural resources are present.

2. The results of any archaeological inventory survey that was conducted, including:

• Any report that may contain site forms, site significance, and suggested mitigation measures.

All information regarding site locations, Native American human remains, and associated funerary objects should be in a separate confidential addendum, and not be made available for public disclosure in accordance with Government Code section 6254.10.

3. The result of any Sacred Lands File (SLF) check conducted through the Native American Heritage Commission was <u>positive</u>. Please contact the tribes on the attached list for more information.

- 4. Any ethnographic studies conducted for any area including all or part of the APE; and
- 5. Any geotechnical reports regarding all or part of the APE.

Lead agencies should be aware that records maintained by the NAHC and CHRIS are not exhaustive and a negative response to these searches does not preclude the existence of a tribal cultural resource. A tribe may be the only source of information regarding the existence of a tribal cultural resource.

This information will aid tribes in determining whether to request formal consultation. In the event that they do, having the information beforehand will help to facilitate the consultation process.

If you receive notification of change of addresses and phone numbers from tribes, please notify the NAHC. With your assistance, we can assure that our consultation list remains current.

If you have any questions, please contact me at my email address: <u>Cody.Campagne@nahc.ca.gov</u>.

Sincerely,

Cody Campagne

Cody Campagne Cultural Resources Analyst

Attachment

From:	Northwest Information Center
To:	Alex Wolk
Subject:	Results Beachfront Park Improvements
Date:	Wednesday, January 24, 2024 8:45:28 AM
Attachments:	NWIC File # 23-0898 Crescent City Beachfront Park Improvements Results.pdf

Attached please find NWIC's response letter to your request on the proposed project above (23-0898). Unless you need a hard copy of our recommendations, distribution will be by email only. Contact our office with any further questions or comments regarding this project.

Thanks,

Dana

Northwest Information Center

1400 Valley House Drive, Suite 210, Rohnert Park, CA 94928

T: (707) 588-8455 nwic@sonoma.edu www.nwic.sonoma.edu California Historical Resources Information System



HUMBOLDT SAN FRANCISCO LAKE SAN MATEO MARIN SANTA CLARA MENDOCINO SANTA CRUZ MONTEREY SOLANO NAPA SONOMA SAN BENITO YOLO Northwest Information Center

Sonoma State University 1400 Valley House Drive, Suite 210 Rohnert Park, California 94928-3609 Tel: 707.588.8455 nwic@sonoma.edu https://nwic.sonoma.edu

January 22, 2024

Alex Wolk Camas, LLC 680 G Street, Suite C Jacksonville, CA 97530

Re: Record search results for the proposed Crescent City Beachfront Park Improvements

Dear Alex Wolk:

Per your request received by our office on the 2nd of January, 2024, a records search was conducted for the above referenced project by reviewing pertinent Northwest Information Center (NWIC) base maps that reference cultural resources records and reports, historic-period maps, and literature for Del Norte County. Please note that use of the term cultural resources includes both archaeological resources and historical buildings and/or structures.

The City of Crescent City is proposing improvements to Beachfront Park, a 35-acre public recreational and open space situated along Crescent Harbor, to implement elements of the City's Beachfront Park Master Plan. Implementation of the Master Plan is intended to activate underutilized portions of the park to better serve local residents and establish the park as destination for the region, while conserving the parks natural setting and establishing visual connections with Crescent Harbor and Elk Creek. Proposed elements include a new entry plaza, children's play area, soccer fields, courts for basketball, tennis, pickleball and volleyball, a bicycle pump track, a running/walking loop, labyrinth, food truck stations, and new restrooms. The park will host recurring farmers' markets as well as seasonal outdoor performances in a new outdoor amphitheater and plaza area. Park redevelopment will also include enhancement of the California Coastal Trail by incorporating stories of the Tolowa Dee-Ni' Nation using interpretive nodes along the portion of the trail that runs through the park.

Existing park elements include the Kid Town playground, Crescent city Dog Town (dog park), Fred Endert Municipal Pool (indoor public pool), Crescent City Cultural Center & Chamber of Congress, Northcoast Marine Mammal Center, picnic shelter and picnic tables, gazebo, soccer fields, disc golf course, historical markers for the S.S. Emidio and Billy Boone Square, and two restrooms. The park also has two parking lots – one adjacent to the Kid Town playground (corner of Stamps Way and Play Street), and the other serving the Fred Endert Municipal Pool. On-street parking exists along Howe Drive, Stamps Way, and Play Street. Perimeter sidewalks and paths provide pedestrian and bicycle access to the park, and the California Coastal Trail runs from Elk Creek and continues along the beachfront. While not within its limits, the Crescent City Waste Water Treatment Facility, updated in 2009-10, sits adjacent to the southwest corner of the park.

NWIC File No.: 23-0898

Beachfront Park was established on the remnant debris from the 1964 Tsunami that covered the underlying mudflats. Approximately 18 inches of sandy fill were placed over the debris (i.e., building rubble pushed over the original sea wall at the edge of Front Street). Currently, large concrete boulders and riprap provide shoreline armoring along the beach and the Elk Creek Estuary.

Review of the information at our office indicates that there has been seven cultural resource studies that in total cover approximately 100% of the Beachfront Park Improvements project area; Reuter 1980: S-2008, Moratto 1971: S-5039, Moratto 1972: S-5040, Douglas 1984: S-6429, Taylor 2007: S-41641, Eidsness 2004: S-42505, Roscoe 2015: S-47316. The three newer cultural resource studies cover approximately 10% of the Beachfront Park Improvements project area. See enclosed Report List for extended bibliographic information.

This Beachfront Park Improvements project area contains no recorded archaeological resources, however it does contain one Informal Resource, C-470, a memorial to the torpedoed S.S. Emilio, an oil tanker, and one of first ships to be torpedoed by the Imperial Japanese Navy's Submarine Force Action on the California Coast during WWII. Informal Resources are those resources not recorded on DPR 523A primary record forms and not submitted in CHRIS standard format to an IC by OHP. This memorial is associated with the nearby archaeological site of the former location of S.S. Emidio, P-08-000468. Informal Resources are those resources not recorded on DPR 523A primary record forms and not submitted in CHRIS standard format to an IC by OHP. This memorial is associated with the nearby archaeological site of the former location of S.S. Emidio, P-08-000468. Informal Resources are those resources not recorded on DPR 523A primary record forms and not submitted in CHRIS standard format to an IC by OHP.

The State Office of Historic Preservation Built Environment Resources Directory (OHP BERD) dated September 23, 2022, which includes listings of the California Register of Historical Resources, California State Historical Landmarks, California State Points of Historical Interest, and the National Register of Historic Places, lists no recorded buildings or structures within or adjacent to the proposed Beachfront Park Improvements project area. In addition to these inventories, the NWIC base maps show no recorded buildings or structures within the proposed Beachfront Park Improvements project area.

At the time of Euroamerican contact, the Native Americans that lived in the area were speakers of the Tolowa language, which is part of the Smith River Athapaskan language family (Gould 1978:128). There are Native American resources within or adjacent to the proposed Beachfront Park Improvements project area that are referenced in the ethnographic literature [the village of Tatatun (Drucker 1937)].

Based on an evaluation of the environmental setting and features associated with known sites, Native American resources in this part of Del Norte County have been found in areas marginal to the Pacific Coast, and inland near intermittent and perennial watercourses. The Beachfront Park Improvements project area is located in Del Norte County, in Crescent City along the beachfront between the area behind Flat Rock extending east to the head of Elk Creek. Aerial maps indicate a large open flat area with some landscaped trees, a couple of buildings, structures, and associated paved parking areas. Given the similarity of these environmental factors, and the ethnographic and archaeological sensitivity of the area, there is a high potential for unrecorded Native American resources to be within the proposed Beachfront Park Improvements project area. Review of historical literature and maps indicated historic-period activity within the Beachfront Park Improvements project area. Early Sanborn Fire Insurance Maps indicate the project area contained a portion of the Crescent City & Smith River Railroad Spur, three warehouses, and a portion of the Crescent City Wharf and Dock Co (1903, 1915, 1935). The 1929 Crescent City USGS 30-minute topographic quadrangle depicts a long wharf at end of C Street extending into the project area. With this information in mind, there is a high potential for unrecorded historicperiod archaeological resources to be within the proposed Beachfront Park Improvements project area.

The 1966 photo revised 1978 Crescent City USGS 15-minute topographic quadrangle depicts three buildings or structures, a portion of a long wharf, and the S.S. Emidio Memorial within the Beachfront Park Improvements project area. If present, any unrecorded buildings or structures meet the Office of Historic Preservation's minimum age standard that buildings, structures, and objects 45 years or older may be of historical value.

RECOMMENDATIONS:

1) There is one Informal Resource within the proposed Beachfront Park Improvements project area, C-470, a memorial to the torpedoed S.S. Emidio. The associated shipwreck, P-08-000468, State Historic Landmark #497 was formerly located adjacent to the current project area. It is recommended that a professional archaeologist assess the Informal Resource and provide project-specific recommendations. Please refer to the list of consultants who meet the Secretary of Interior's Standards at http://www.chrisinfo.org.

2) There is a high potential for Native American archaeological resources and a high potential for historic-period archaeological resources to be within the project area. Three newer reports cover approximately 10% of the proposed project area, Taylor 2007: S-41641, Eidsness 2004: S-42505, Roscoe 2015: S-47316. Given the potential for archaeological resources in the proposed Beachfront Park Improvements project area, and due to the passage of time since the previous surveys that cover larger portions of the project area, and the changes in archaeological theory and method since that time, our usual recommendation would include archival research and a field examination. The proposed project area, however, has been partially developed and is presently covered with asphalt, buildings, and fill that obscures the visibility of original surface soils, which negates the feasibility of an adequate surface inspection.

Therefore, prior to demolition or other ground disturbance, we recommend a qualified archaeologist conduct further archival and field study to identify archaeological resources, including a good faith effort to identify archaeological deposits that may show no indications on the surface, and provide project specific recommendations. Field study may include, but is not limited to, hand auger sampling, shovel test units, or geoarchaeological analyses as well as other common methods used to identify the presence of buried archaeological resources. Please refer to the list of consultants who meet the Secretary of Interior's Standards at http://www.chrisinfo.org.

3) We recommend the lead agency contact the local Native American tribe(s) regarding traditional, cultural, and religious heritage values. For a complete listing of tribes in the vicinity of the project, please contact the Native American Heritage Commission at 916/373-3710.

4) The 1966 photo revised 1978 Crescent City USGS 15-minute topographic quadrangle depicts three buildings or structures, a portion of a long wharf, and the S.S. Emidio Memorial within the Beachfront Park Improvements project area. If the proposed project area contains buildings or structures that meet the minimum age requirement, prior to commencement of project activities, it is recommended that this resource be assessed by a professional familiar with the architecture and history of Del Norte County. Please refer to the list of consultants who meet the Secretary of Interior's Standards at http://www.chrisinfo.org.

5) Review for possible historic-period buildings or structures has included only those sources listed in the attached bibliography and should not be considered comprehensive.

6) If archaeological resources are encountered <u>during construction</u>, work should be temporarily halted in the vicinity of the discovered materials and workers should avoid altering the materials and their context until a qualified professional archaeologist has evaluated the situation and provided appropriate recommendations. <u>Project personnel should not collect cultural resources</u>. Native American resources include chert or obsidian flakes, projectile points, mortars, and pestles; and dark friable soil containing shell and bone dietary debris, heat-affected rock, or human burials. Historic-period resources include stone or adobe foundations or walls; structures and remains with square nails; and refuse deposits or bottle dumps, often located in old wells or privies.

7) It is recommended that any identified cultural resources be recorded on DPR 523 historic resource recordation forms, available online from the Office of Historic Preservation's website: <u>https://ohp.parks.ca.gov/?page_id=28351</u>

Due to processing delays and other factors, not all of the historical resource reports and resource records that have been submitted to the Office of Historic Preservation are available via this records search. Additional information may be available through the federal, state, and local agencies that produced or paid for historical resource management work in the search area. Additionally, Native American tribes have historical resource information not in the California Historical Resources Information System (CHRIS) Inventory, and you should contact the California Native American Heritage Commission for information on local/regional tribal contacts.

The California Office of Historic Preservation (OHP) contracts with the California Historical Resources Information System's (CHRIS) regional Information Centers (ICs) to maintain information in the CHRIS inventory and make it available to local, state, and federal agencies, cultural resource professionals, Native American tribes, researchers, and the public. Recommendations made by IC coordinators or their staff regarding the interpretation and application of this information are advisory only. Such recommendations do not necessarily represent the evaluation or opinion of the State Historic Preservation Officer in carrying out the OHP's regulatory authority under federal and state law.

Thank you for using our services. Please contact this office if you have any questions, (707) 588-8455.

Sincerely,

filian and aber -

Jillian Guldenbrein Researcher

LITERATURE REVIEWED

In addition to archaeological maps and site records on file at the Northwest Information Center of the Historical Resources Information System, the following literature was reviewed:

Baumhoff, Martin A.

1958 *California Athabascan Groups*. University of California Publications, Anthropological Records 16(5):157-237. Berkeley and Los Angeles. (Reprint by Kraus Reprint Corporation, New York, 1976).

Cook, S.F.

1956 *The Aboriginal Population of the North Coast of California*. University of California Anthropological Records 16(3):81-130. Berkeley and Los Angeles.

Drucker, Philip

1937 *The Tolowa and their Southerwest Oregon Kin.* University of California Publications in American Archaeology and Ethnology 36(4):221-300. Berkeley.

Fickewirth, Alvin A.

1992 California Railroads. Golden West Books, San Marino, CA.

Gates, Thomas M.

1995 Along the Ridgelines: A History of the Yurok Trail Systems. UMI Company, Chapel Hill.

General Land Office

1856 Survey Plat for Township 16 North/Range 1 West HB&M.

Gould, Richard A.

1978 Tolowa. In *California*, edited by Robert F. Heizer, pp. 128-136. Handbook of North American Indians, vol. 8, William C. Sturtevant, general editor. Smithsonian Institution, Washington, D.C.

Gudde, Erwin G.

1969 *California Place Names: The Origin and Etymology of Current Geographical Names.* Third Edition. University of California Press, Berkeley and Los Angeles.

Hart, James D.

1987 A Companion to California. University of California Press, Berkeley and Los Angeles.

Hoover, Mildred Brooke, Hero Eugene Rensch, and Ethel Rensch, revised by William N. Abeloe 1966 *Historic Spots in California*. Third Edition. Stanford University Press, Stanford, CA.

Hoover, Mildred Brooke, Hero Eugene Rensch, and Ethel Rensch, William N. Abeloe, revised by Douglas E. Kyle

1990 Historic Spots in California. Fourth Edition. Stanford University Press, Stanford, CA.

Hope, Andrew

2005 *Caltrans Statewide Historic Bridge Inventory Update*. Caltrans, Division of Environmental Analysis, Sacramento, CA.

Kroeber, A.L.

1925 Handbook of the Indians of California. Bureau of American Ethnology, Bulletin 78, Smithsonian Institution, Washington, D.C. (Reprint by Dover Publications, Inc., New York, 1976)

Moratto, Michael J.

1973 An Archaelogical Overview of Redwood National Park. Publications in Anthropology, Number 8. Cultural Resources Management Division, Western Archaeological Center, National Park Sevice, Tucson, AZ.

Roberts, George, and Jan Roberts

1988 Discover Historic California. Gem Guides Book Co., Pico Rivera, CA.

Sanborn Map Company

1898, 1903, 1915 Crescent City, California.

State of California Department of Parks and Recreation

- 1976 *California Inventory of Historic Resources*. State of California Department of Parks and Recreation, Sacramento.
- State of California Department of Parks and Recreation and Office of Historic Preservation 1988 *Five Views: An Ethnic Sites Survey for California.* State of California Department of Parks and Recreation and Office of Historic Preservation, Sacramento.

State of California Office of Historic Preservation **

2022 *Built Environment Resources Directory*. Listing by City (through September 23, 2022). State of California Office of Historic Preservation, Sacramento.

Thornton, Mark V.

1993 An Inventory and Historical Significance Evaluation of CDF Fire Lookout Stations. CDF Archaeological Reports No. 12.

Woodbridge, Sally B.

1988 *California Architecture: Historic American Buildings Survey.* Chronicle Books, San Francisco.

Works Progress Administration

1984 The WPA Guide to California. Reprint by Pantheon Books, New York. (Originally published as California: A Guide to the Golden State in 1939 by Books, Inc., distributed by Hastings House Publishers, New York.)

**Note that the Office of Historic Preservation's *Historic Properties Directory* includes National Register, State Registered Landmarks, California Points of Historical Interest, and the California Register of Historical Resources as well as Certified Local Government surveys that have undergone Section 106 review.

Report List	Report List NWIC File # 23-0898 Crescent City Beachfront Par	Beachfr	ont Park Improvements		
Report No.	Other IDs	Year	Author(s)	Title	Affiliation
S-002008		1980	Priscilla Reuter	An Archaeological Investigation of a Proposed Harbor Expansion in Crescent City, Del Norte County, California.	Sonoma State University; Northwest Indian Cemetery Protective Association
S-005039	Other - YT-119-71	1971	Michael J. Moratto	An Archaeological Study of Selected Areas Within Redwood National Park, California	San Francisco State College
S-005040		1972	1972 Michael J. Moratto	Archaeological Investigations in the Redwood National Park Region, California	California State University, San Francisco
S-006429	Caltrans - 01802- 182100	1984	Barry K. Douglas	Archaeological Survey Report, Curve Correction at Front Street in Crescent City, 01-DNO-101 P.M. 25.9/26.3 01802-182100	California Department of Transportation
S-041641		2007	Eric Taylor	A Cultural Resources Investigation for the Harbor Trail North Project Located on Parcels 118-020-31, 118-380-28, 118-380-32, and 118-380-09 in Crescent City, Del Norte County, California	The City of Crescent City
S-042505	Voided - NCoIC S- 24687	2004	2004 Janet P. Eidsness	Initial Cultural Resources Study for Proposed Crescent City Wastewater Treatment Plant Improvements and Outfall Replacement	
S-042505a		2005	Janet P. Eidsness	Preliminary Report, Archaeological Sensitivity of Wastewater Collection System Locations in Crescent City, Del Norte County, California	
S-047316	OHP PRN - HUD 2015_0629_002	2015	James Roscoe	A Cultural Resources Investigation of B Street Sanitary Sewer Rehabilitation Project, Crescent City, Del Norte County, California	Roscoe and Associates, Cultural Resources Consultants
S-047316a		2015	2015 Julianne Polanco	HUD 2015_0629_002; B Street Sewer Main Replacement Project Located at Crescent City	Office of Historic Preservation

NWIC 1/19/2024 1:49:35 PM

Page 1 of 1



February 23, 2024

Garth Sundberg, Chairperson Cher-Ae Heights Indian Community of the Trinidad Rancheria P.O. Box 630 Trinidad, CA, 95570-0630

RE: Beachfront Park Improvements Project, Crescent City, California – Tribal Consultation

Dear Honorable Chairperson Sundberg:

We would like to provide notification that the City of Crescent City is proposing improvements to Beachfront Park implementing elements of the Beachfront Park General Development Plan and is intended to activate underutilized portions of the park to better serve the local community and establish the park as destination for the region, while conserving the parks natural setting and maintaining or establishing visual connections with Crescent Harbor and Elk Creek. Below, please find a project summary, project location, and name of District point of contact (pursuant to PRC § 21080.3.1 (d))

Project Summary:

Proposed project elements include an amphitheater, waterfront plaza, waterfront overlook, interpretive trail and garden (i.e., Tolowa Paths of Culture and Botanical Garden), updated entryway and signage, expansion of the children's play area with inclusive play features, bicycle pump track, 1-mile running/walking loop, new restrooms, landscape and irrigation improvements, various site furnishings (e.g., benches, bike racks, signage, etc.), parking lot upgrades, limited new lighting, and various subsurface utilities. The waterfront plaza and amphitheater will host recurring farmers' markets as well as seasonal outdoor performances. Park redevelopment will enhance the California Coastal Trail by incorporating stories of the Tolowa People using interpretive nodes along the portion of the trail running parallel to Elk Creek. Future elements may include gateway features along Front Street, planted berms in CalTrans Right-of-Way features (i.e., S-Curves), reconfiguration of the of the entry to the Del Norte County Cultural Center, and a potential remodel of the Cultural Center itself.

Project Location:

Beachfront Park, a 35-acre waterfront community park and open space situated along Crescent Harbor, southwest of Elk Creek, and south of Front Street.

Project Contact:

Eric Wier, City Manager (ewier@crescentcity.org) 707.464.7483.

A Sacred Lands and Files Search request at the Native American Heritage Commission (NAHC) was positive and recommended further outreach with local tribes for more information, and your contact information was provided on the NAHC Native American Contact List for the area as a

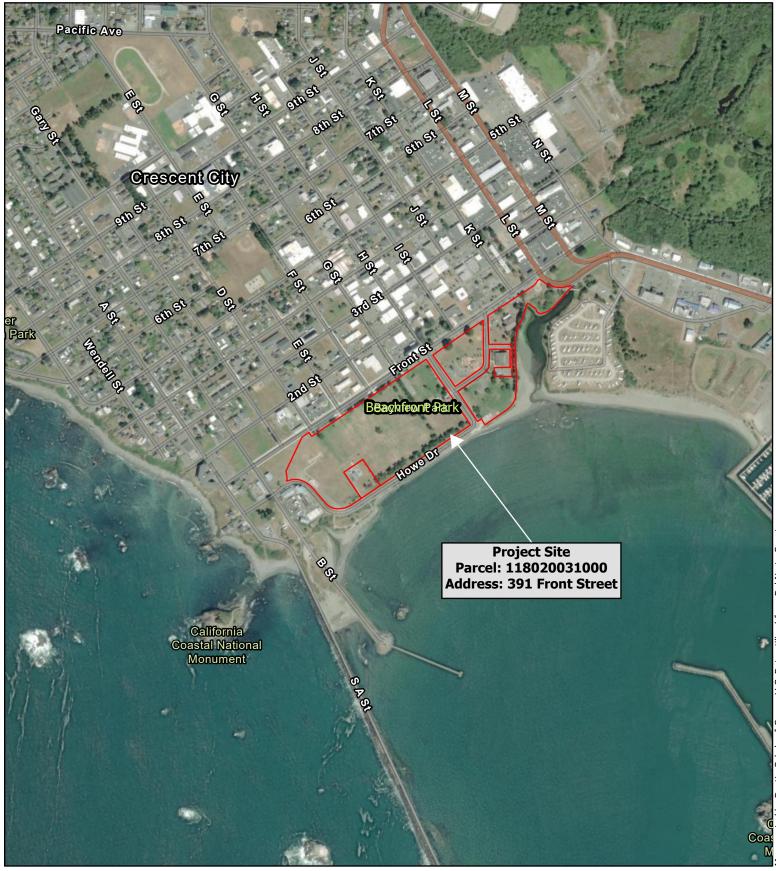
The City of Crescent City is writing to invite the Tribe to formal Consultation regarding the proposed project, any potential impacts to Cultural Resources and Tribal Cultural Resources, and any proposed mitigation measures (PRC §21080.3.1). The City of Crescent City respectfully requests a written response from the Tribe within 30 days from receipt of this letter (PRC §21080.3.1(b)).

Please contact me if you have any questions, would like to request additional information, or would like to schedule a meeting to discuss this project. We look forward to hearing from you.

Sincerely,

Eric Wier City Manager City of Crescent City (707) 464-7483 ewier@crescentcity.org

- 1. Figure 1 Project Location Map
- 2. NWIC Response to Non-Confidential Extended Records Search



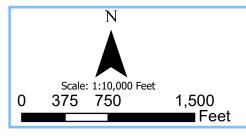


Figure 1: Project Location



Map created by Dustin Cokely of Camas LLC. Data utilized from Del Norte County

<u>Sundberg</u>
Leighton
eager; Eric Wier; Bridget Lacey; CR Technician
NAL] RE: Beachfront Park Tribal Consultation Cher-Ae
r, February 26, 2024 9:51:17 AM

You don't often get email from rsundberg@trinidadrancheria.com. Learn why this is important

CAUTION: This email originated from outside of the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

-

Good morning,

This project is outside of the Tribe's area of concern. We have no comment and do not wish to consult.

Thank you,

Rachel Sundberg Tribal Programs Director Tribal Historic Preservation Officer 707-834-1169 – cell 707-825-2726 – desk

From: Andrew Leighton <aleighton@crescentcity.org>
Sent: Monday, February 26, 2024 8:39 AM
To: Rachel Sundberg <rsundberg@trinidadrancheria.com>
Cc: David Yeager <dyeager@crescentcity.org>; Eric Wier <ewier@crescentcity.org>; Bridget Lacey
<blacey@crescentcity.org>
Subject: Beachfront Park Tribal Consultation Cher-Ae

CAUTION: This email originated from Outside the TrinidadRancheria.com mail system.

Hello Rachel,

Attached please find the Tribal Consultation notification of the proposed improvements to Beachfront Park. Please feel free to contact me with any questions or would like to provide any information pertinent to the proposed project. Thank you for your time and attention.

Sincerely, Mit Freundlichen Grüßen, Saludos,

Andrew Leighton Engineering Project Manager 377 J Street Crescent City, CA 95531 Mobile: (707) 458-8617 Phone: (707) 464-9506 x229 Fax: (707) 465-4405 Email: <u>aleighton@crescentcity.org</u>

This communication, including any attachments, may contain privileged or confidential information intended for a specific individual(s) and purpose, and is protected by law. The information may not be disclosed to anyone other than the intended recipient(s), or a person authorized to receive the communication on behalf of the intended recipient(s). If you are not the intended recipient, you should delete this communication and/or shred the materials and any attachments and are hereby notified that any disclosure, copying, or distribution of this communication, or the taking of any action based on it, is strictly prohibited.



Kevin Mealue, Cultural Resource Specialist Elk Valley Rancheria 2332 Howland Hill Road Crescent City, CA, 95531

RE: Beachfront Park Improvements Project, Crescent City, California – Tribal Consultation

Dear Cultural Resource Specialist Mealue:

We would like to provide notification that the City of Crescent City is proposing improvements to Beachfront Park implementing elements of the Beachfront Park General Development Plan and is intended to activate underutilized portions of the park to better serve the local community and establish the park as destination for the region, while conserving the parks natural setting and maintaining or establishing visual connections with Crescent Harbor and Elk Creek. Below, please find a project summary, project location, and name of District point of contact (pursuant to PRC § 21080.3.1 (d))

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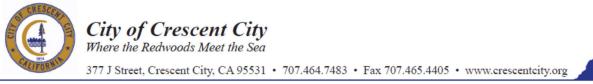
The City of Crescent City is writing to invite the Tribe to formal Consultation regarding the proposed project, any potential impacts to Cultural Resources and Tribal Cultural Resources, and any proposed mitigation measures (PRC §21080.3.1). The City of Crescent City respectfully requests a written response from the Tribe within 30 days from receipt of this letter (PRC §21080.3.1(b)).

Please contact me if you have any questions, would like to request additional information, or would like to schedule a meeting to discuss this project. We look forward to hearing from you.

Sincerely,

Eric Wier City Manager City of Crescent City (707) 464-7483 ewier@crescentcity.org

- 1. Figure 1 Project Location Map
- 2. NWIC Response to Non-Confidential Extended Records Search





LaWanda Green, THPO Elk Valley Rancheria 2332 Howland Hill Road Crescent City, CA, 95531

RE: Beachfront Park Improvements Project, Crescent City, California – Tribal Consultation

Dear THPO Green:

We would like to provide notification that the City of Crescent City is proposing improvements to Beachfront Park implementing elements of the Beachfront Park General Development Plan and is intended to activate underutilized portions of the park to better serve the local community and establish the park as destination for the region, while conserving the parks natural setting and maintaining or establishing visual connections with Crescent Harbor and Elk Creek. Below, please find a project summary, project location, and name of District point of contact (pursuant to PRC § 21080.3.1 (d))

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Sincerely,

Eric Wier City Manager City of Crescent City (707) 464-7483 ewier@crescentcity.org

- 1. Figure 1 Project Location Map
- 2. NWIC Response to Non-Confidential Extended Records Search



Dale Miller, Chairperson Elk Valley Rancheria 2332 Howland Hill Road Crescent City, CA, 95531

RE: Beachfront Park Improvements Project, Crescent City, California – Tribal Consultation

Dear Honorable Chairperson Miller:

We would like to provide notification that the City of Crescent City is proposing improvements to Beachfront Park implementing elements of the Beachfront Park General Development Plan and is intended to activate underutilized portions of the park to better serve the local community and establish the park as destination for the region, while conserving the parks natural setting and maintaining or establishing visual connections with Crescent Harbor and Elk Creek. Below, please find a project summary, project location, and name of District point of contact (pursuant to PRC § 21080.3.1 (d))

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Sincerely,

Eric Wier City Manager City of Crescent City (707) 464-7483 ewier@crescentcity.org

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- 2. NWIC Response to Non-Confidential Extended Records Search



Crista Stewart, Tribal Administrator Elk Valley Rancheria 2332 Howland Hill Road Crescent City, CA, 95531

RE: Beachfront Park Improvements Project, Crescent City, California – Tribal Consultation

Dear Tribal Administrator Stewart:

We would like to provide notification that the City of Crescent City is proposing improvements to Beachfront Park implementing elements of the Beachfront Park General Development Plan and is intended to activate underutilized portions of the park to better serve the local community and establish the park as destination for the region, while conserving the parks natural setting and maintaining or establishing visual connections with Crescent Harbor and Elk Creek. Below, please find a project summary, project location, and name of District point of contact (pursuant to PRC § 21080.3.1 (d))

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Eric Wier City Manager City of Crescent City (707) 464-7483 ewier@crescentcity.org

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Russell Attebery, Chairperson Karuk Tribe P.O. Box 282 Orleans, CA, 95556

RE: Beachfront Park Improvements Project, Crescent City, California – Tribal Consultation

Dear Honorable Chairperson Attebery:

We would like to provide notification that the City of Crescent City is proposing improvements to Beachfront Park implementing elements of the Beachfront Park General Development Plan and is intended to activate underutilized portions of the park to better serve the local community and establish the park as destination for the region, while conserving the parks natural setting and maintaining or establishing visual connections with Crescent Harbor and Elk Creek. Below, please find a project summary, project location, and name of District point of contact (pursuant to PRC § 21080.3.1 (d))

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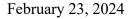
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Sincerely,

Eric Wier City Manager City of Crescent City (707) 464-7483 ewier@crescentcity.org

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Bill Tripp, Dept of Natural Resources Karuk Tribe P.O. Box 282 Orleans, CA, 95556

RE: Beachfront Park Improvements Project, Crescent City, California – Tribal Consultation

Dear Dept of Natural Resources Tripp:

We would like to provide notification that the City of Crescent City is proposing improvements to Beachfront Park implementing elements of the Beachfront Park General Development Plan and is intended to activate underutilized portions of the park to better serve the local community and establish the park as destination for the region, while conserving the parks natural setting and maintaining or establishing visual connections with Crescent Harbor and Elk Creek. Below, please find a project summary, project location, and name of District point of contact (pursuant to PRC § 21080.3.1 (d))

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Eric Wier City Manager City of Crescent City (707) 464-7483 ewier@crescentcity.org

- 1. Figure 1 Project Location Map
- 2. NWIC Response to Non-Confidential Extended Records Search



Melochundum Band of Tolowa Indians P.O. Box 388 Fort Dick, CA, 95538

RE: Beachfront Park Improvements Project, Crescent City, California – Tribal Consultation

Dear Melochundum Band of Tolowa Indians:

We would like to provide notification that the City of Crescent City is proposing improvements to Beachfront Park implementing elements of the Beachfront Park General Development Plan and is intended to activate underutilized portions of the park to better serve the local community and establish the park as destination for the region, while conserving the parks natural setting and maintaining or establishing visual connections with Crescent Harbor and Elk Creek. Below, please find a project summary, project location, and name of District point of contact (pursuant to PRC § 21080.3.1 (d))

Project Summary:

Proposed project elements include an amphitheater, waterfront plaza, waterfront overlook, interpretive trail and garden (i.e., Tolowa Paths of Culture and Botanical Garden), updated entryway and signage, expansion of the children's play area with inclusive play features, bicycle pump track, 1-mile running/walking loop, new restrooms, landscape and irrigation improvements, various site furnishings (e.g., benches, bike racks, signage, etc.), parking lot upgrades, limited new lighting, and various subsurface utilities. The waterfront plaza and amphitheater will host recurring farmers' markets as well as seasonal outdoor performances. Park redevelopment will enhance the California Coastal Trail by incorporating stories of the Tolowa People using interpretive nodes along the portion of the trail running parallel to Elk Creek. Future elements may include gateway features along Front Street, planted berms in CalTrans Right-of-Way features (i.e., S-Curves), reconfiguration of the of the entry to the Del Norte County Cultural Center, and a potential remodel of the Cultural Center itself.

Project Location:

Beachfront Park, a 35-acre waterfront community park and open space situated along Crescent Harbor, southwest of Elk Creek, and south of Front Street.

Project Contact:

Eric Wier, City Manager (ewier@crescentcity.org) 707.464.7483.

A Sacred Lands and Files Search request at the Native American Heritage Commission (NAHC) was positive and recommended further outreach with local tribes for more information, and your contact information was provided on the NAHC Native American Contact List for the area as a traditionally and culturally affiliated California Native American tribal representative.

Additionally, a request to the Northwest Information Center (NWIC) for a Non-Confidential Extended Records Search for the proposed project resulted in several recommendations and are attached for your reference.

The City of Crescent City is writing to invite the Tribe to formal Consultation regarding the proposed project, any potential impacts to Cultural Resources and Tribal Cultural Resources, and any proposed mitigation measures (PRC §21080.3.1). The City of Crescent City respectfully requests a written response from the Tribe within 30 days from receipt of this letter (PRC §21080.3.1(b)).

Please contact me if you have any questions, would like to request additional information, or would like to schedule a meeting to discuss this project. We look forward to hearing from you.

Sincerely,

Eric Wier City Manager City of Crescent City (707) 464-7483 ewier@crescentcity.org

- 1. Figure 1 Project Location Map
- 2. NWIC Response to Non-Confidential Extended Records Search



Kathy Dowd, THPO Resighini Rancheria/ Coast Indian Community P.O. Box 529 Klamath, CA, 95548

RE: Beachfront Park Improvements Project, Crescent City, California – Tribal Consultation

Dear THPO Dowd:

We would like to provide notification that the City of Crescent City is proposing improvements to Beachfront Park implementing elements of the Beachfront Park General Development Plan and is intended to activate underutilized portions of the park to better serve the local community and establish the park as destination for the region, while conserving the parks natural setting and maintaining or establishing visual connections with Crescent Harbor and Elk Creek. Below, please find a project summary, project location, and name of District point of contact (pursuant to PRC § 21080.3.1 (d))

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Project Contact:

Eric Wier, City Manager (ewier@crescentcity.org) 707.464.7483.

The City of Crescent City is writing to invite the Tribe to formal Consultation regarding the proposed project, any potential impacts to Cultural Resources and Tribal Cultural Resources, and any proposed mitigation measures (PRC §21080.3.1). The City of Crescent City respectfully requests a written response from the Tribe within 30 days from receipt of this letter (PRC §21080.3.1(b)).

Please contact me if you have any questions, would like to request additional information, or would like to schedule a meeting to discuss this project. We look forward to hearing from you.

Sincerely,

Eric Wier City Manager City of Crescent City (707) 464-7483 ewier@crescentcity.org

- 1. Figure 1 Project Location Map
- 2. NWIC Response to Non-Confidential Extended Records Search



Shaunna McCovey, Director of Governmental Affairs Resighini Rancheria/ Coast Indian Community P.O. Box 529 Klamath, CA, 95548

RE: Beachfront Park Improvements Project, Crescent City, California – Tribal Consultation

Dear Director of Governmental Affairs McCovey:

We would like to provide notification that the City of Crescent City is proposing improvements to Beachfront Park implementing elements of the Beachfront Park General Development Plan and is intended to activate underutilized portions of the park to better serve the local community and establish the park as destination for the region, while conserving the parks natural setting and maintaining or establishing visual connections with Crescent Harbor and Elk Creek. Below, please find a project summary, project location, and name of District point of contact (pursuant to PRC § 21080.3.1 (d))

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Project Contact:

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Please contact me if you have any questions, would like to request additional information, or would like to schedule a meeting to discuss this project. We look forward to hearing from you.

Sincerely,

Eric Wier City Manager City of Crescent City (707) 464-7483 ewier@crescentcity.org

- 1. Figure 1 Project Location Map
- 2. NWIC Response to Non-Confidential Extended Records Search



Moonchay Dowd, Natural Resource Manager Resighini Rancheria/ Coast Indian Community P.O. Box 529 Klamath, CA, 95548

RE: Beachfront Park Improvements Project, Crescent City, California – Tribal Consultation

Dear Natural Resource Manager Dowd:

We would like to provide notification that the City of Crescent City is proposing improvements to Beachfront Park implementing elements of the Beachfront Park General Development Plan and is intended to activate underutilized portions of the park to better serve the local community and establish the park as destination for the region, while conserving the parks natural setting and maintaining or establishing visual connections with Crescent Harbor and Elk Creek. Below, please find a project summary, project location, and name of District point of contact (pursuant to PRC § 21080.3.1 (d))

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Project Contact:

Eric Wier, City Manager (ewier@crescentcity.org) 707.464.7483.

The City of Crescent City is writing to invite the Tribe to formal Consultation regarding the proposed project, any potential impacts to Cultural Resources and Tribal Cultural Resources, and any proposed mitigation measures (PRC §21080.3.1). The City of Crescent City respectfully requests a written response from the Tribe within 30 days from receipt of this letter (PRC §21080.3.1(b)).

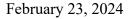
Please contact me if you have any questions, would like to request additional information, or would like to schedule a meeting to discuss this project. We look forward to hearing from you.

Sincerely,

Eric Wier City Manager City of Crescent City (707) 464-7483 ewier@crescentcity.org

- 1. Figure 1 Project Location Map
- 2. NWIC Response to Non-Confidential Extended Records Search





Fawn Murphy, Chairperson Resighini Rancheria/ Coast Indian Community P.O. Box 529 Klamath, CA, 95548

RE: Beachfront Park Improvements Project, Crescent City, California – Tribal Consultation

Dear Honorable Chairperson Murphy:

We would like to provide notification that the City of Crescent City is proposing improvements to Beachfront Park implementing elements of the Beachfront Park General Development Plan and is intended to activate underutilized portions of the park to better serve the local community and establish the park as destination for the region, while conserving the parks natural setting and maintaining or establishing visual connections with Crescent Harbor and Elk Creek. Below, please find a project summary, project location, and name of District point of contact (pursuant to PRC § 21080.3.1 (d))

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Project Contact:

Eric Wier, City Manager (ewier@crescentcity.org) 707.464.7483.

The City of Crescent City is writing to invite the Tribe to formal Consultation regarding the proposed project, any potential impacts to Cultural Resources and Tribal Cultural Resources, and any proposed mitigation measures (PRC §21080.3.1). The City of Crescent City respectfully requests a written response from the Tribe within 30 days from receipt of this letter (PRC §21080.3.1(b)).

Please contact me if you have any questions, would like to request additional information, or would like to schedule a meeting to discuss this project. We look forward to hearing from you.

Sincerely,

Eric Wier City Manager City of Crescent City (707) 464-7483 ewier@crescentcity.org

- 1. Figure 1 Project Location Map
- 2. NWIC Response to Non-Confidential Extended Records Search





Megan Rocha, Executive Director Resighini Rancheria/ Coast Indian Community P.O. Box 529 Klamath, CA, 95548

RE: Beachfront Park Improvements Project, Crescent City, California – Tribal Consultation

Dear Executive Director Rocha:

We would like to provide notification that the City of Crescent City is proposing improvements to Beachfront Park implementing elements of the Beachfront Park General Development Plan and is intended to activate underutilized portions of the park to better serve the local community and establish the park as destination for the region, while conserving the parks natural setting and maintaining or establishing visual connections with Crescent Harbor and Elk Creek. Below, please find a project summary, project location, and name of District point of contact (pursuant to PRC § 21080.3.1 (d))

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Project Contact:

Eric Wier, City Manager (ewier@crescentcity.org) 707.464.7483.

The City of Crescent City is writing to invite the Tribe to formal Consultation regarding the proposed project, any potential impacts to Cultural Resources and Tribal Cultural Resources, and any proposed mitigation measures (PRC §21080.3.1). The City of Crescent City respectfully requests a written response from the Tribe within 30 days from receipt of this letter (PRC §21080.3.1(b)).

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Sincerely,

Eric Wier City Manager City of Crescent City (707) 464-7483 ewier@crescentcity.org

- 1. Figure 1 Project Location Map
- 2. NWIC Response to Non-Confidential Extended Records Search



Leann McCallum, Chairperson Tolowa Dee-ni' Nation 140 Rowdy Creek Road Smith River, CA, 95567

RE: Beachfront Park Improvements Project, Crescent City, California – Tribal Consultation

Dear Honorable Chairperson McCallum:

We would like to provide notification that the City of Crescent City is proposing improvements to Beachfront Park implementing elements of the Beachfront Park General Development Plan and is intended to activate underutilized portions of the park to better serve the local community and establish the park as destination for the region, while conserving the parks natural setting and maintaining or establishing visual connections with Crescent Harbor and Elk Creek. Below, please find a project summary, project location, and name of District point of contact (pursuant to PRC § 21080.3.1 (d))

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Project Contact:

Eric Wier, City Manager (ewier@crescentcity.org) 707.464.7483.

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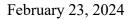
Please contact me if you have any questions, would like to request additional information, or would like to schedule a meeting to discuss this project. We look forward to hearing from you.

Sincerely,

Eric Wier City Manager City of Crescent City (707) 464-7483 ewier@crescentcity.org

- 1. Figure 1 Project Location Map
- 2. NWIC Response to Non-Confidential Extended Records Search





Joe James, Chairperson Yurok Tribe PO Box 1027 Klamath, CA, 95548

RE: Beachfront Park Improvements Project, Crescent City, California – Tribal Consultation

Dear Honorable Chairperson James:

We would like to provide notification that the City of Crescent City is proposing improvements to Beachfront Park implementing elements of the Beachfront Park General Development Plan and is intended to activate underutilized portions of the park to better serve the local community and establish the park as destination for the region, while conserving the parks natural setting and maintaining or establishing visual connections with Crescent Harbor and Elk Creek. Below, please find a project summary, project location, and name of District point of contact (pursuant to PRC § 21080.3.1 (d))

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Eric Wier, City Manager (ewier@crescentcity.org) 707.464.7483.

The City of Crescent City is writing to invite the Tribe to formal Consultation regarding the proposed project, any potential impacts to Cultural Resources and Tribal Cultural Resources, and any proposed mitigation measures (PRC §21080.3.1). The City of Crescent City respectfully requests a written response from the Tribe within 30 days from receipt of this letter (PRC §21080.3.1(b)).

Please contact me if you have any questions, would like to request additional information, or would like to schedule a meeting to discuss this project. We look forward to hearing from you.

Sincerely,

Eric Wier City Manager City of Crescent City (707) 464-7483 ewier@crescentcity.org

- 1. Figure 1 Project Location Map
- 2. NWIC Response to Non-Confidential Extended Records Search

From:	Eric Wier
То:	Paul Agrimis; Mike Abbate; Anya Moucha; Ethan Lawton; David Yeager; Andrew Leighton; Ashley Taylor; Matt
	Robart
Subject:	RE: [EXTERNAL] Re: [EXTERNAL] RE: Beachfront Park Improvements Project, Crescent City, California – Tribal Consultation
Date:	Friday, March 22, 2024 10:16:58 AM
Attachments:	image001.png

All,

Please be aware last week the Yurok Tribe did respond to our Beachfront Park Notice and did request consultation. I have been in communication with Magan Siaosi trying to coordinate a time for this meeting. Today I sent her another email basically stating I understand how hard it can be trying to coordinate a council and told her I would arrange my schedule around a date and time that works for them.

I will let you know as the proposed date becomes clear.

Thank you

Eric

From: Megan Siaosi <msiaosi@yuroktribe.nsn.us>
Sent: Wednesday, March 13, 2024 9:09 AM
To: Eric Wier <ewier@crescentcity.org>; Amanda Ammon <aclark@yuroktribe.nsn.us>
Subject: [EXTERNAL] Re: [EXTERNAL] RE: Beachfront Park Improvements Project, Crescent City, California – Tribal Consultation

CAUTION: This email originated from outside of the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Thank you Erik,

If you could please provide me with a few dates that you are available it would be easier for me to coordinate with the Tribal Council and the Yurok team.

I am looking forward to hearing from you, Megan

From: Eric Wier <<u>ewier@crescentcity.org</u>>

Sent: Tuesday, March 12, 2024 5:55 PM

To: Amanda Ammon <<u>aclark@yuroktribe.nsn.us</u>>

Cc: Megan Siaosi <<u>msiaosi@yuroktribe.nsn.us</u>>

Subject: RE: [EXTERNAL] RE: Beachfront Park Improvements Project, Crescent City, California – Tribal Consultation

Ms. Siaosi,

Thank you for accepting our invitation to discuss this very important project. We are excited about the proposed future improvements to the area and look forward to meeting with you.

Please let me know some dates and times next week or the following and I can schedule with our team. We would be happy to meet in person or virtual (zoom or teams) just let me know your preference.

Thank you

Eric M. Wier, PE City Manager



City of Crescent City 377 J Street Crescent City, CA 95531

PH: 707.464.7483

From: Amanda Ammon <<u>aclark@yuroktribe.nsn.us</u>>
Sent: Tuesday, March 12, 2024 4:55 PM
To: Eric Wier <<u>ewier@crescentcity.org</u>>
Cc: Megan Siaosi <<u>msiaosi@yuroktribe.nsn.us</u>>
Subject: [EXTERNAL] RE: Beachfront Park Improvements Project, Crescent City, California – Tribal Consultation

You don't often get email from aclark@yuroktribe.nsn.us. Learn why this is important

CAUTION: This email originated from outside of the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Good afternoon Honorable Eric Wier,

On behalf of the Yurok Tribe, we appreciate your notice to consultation. The attached letter is formal acceptance of your invitation to meet with the Tribe to discuss the project and any potential impacts to cultural resources. We look forward to meeting with you. Please, contact Mrs. Megan Siaosi, OSG Director, for scheduling. Thank you. To' kee kem tey-ge-rue-pew.

Amanda C. Ammon

Assistant Director

Yurok Tribe Self-Governance

190 Klamath Blvd.

Klamath, CA 95548

707.482.1350 x 1369

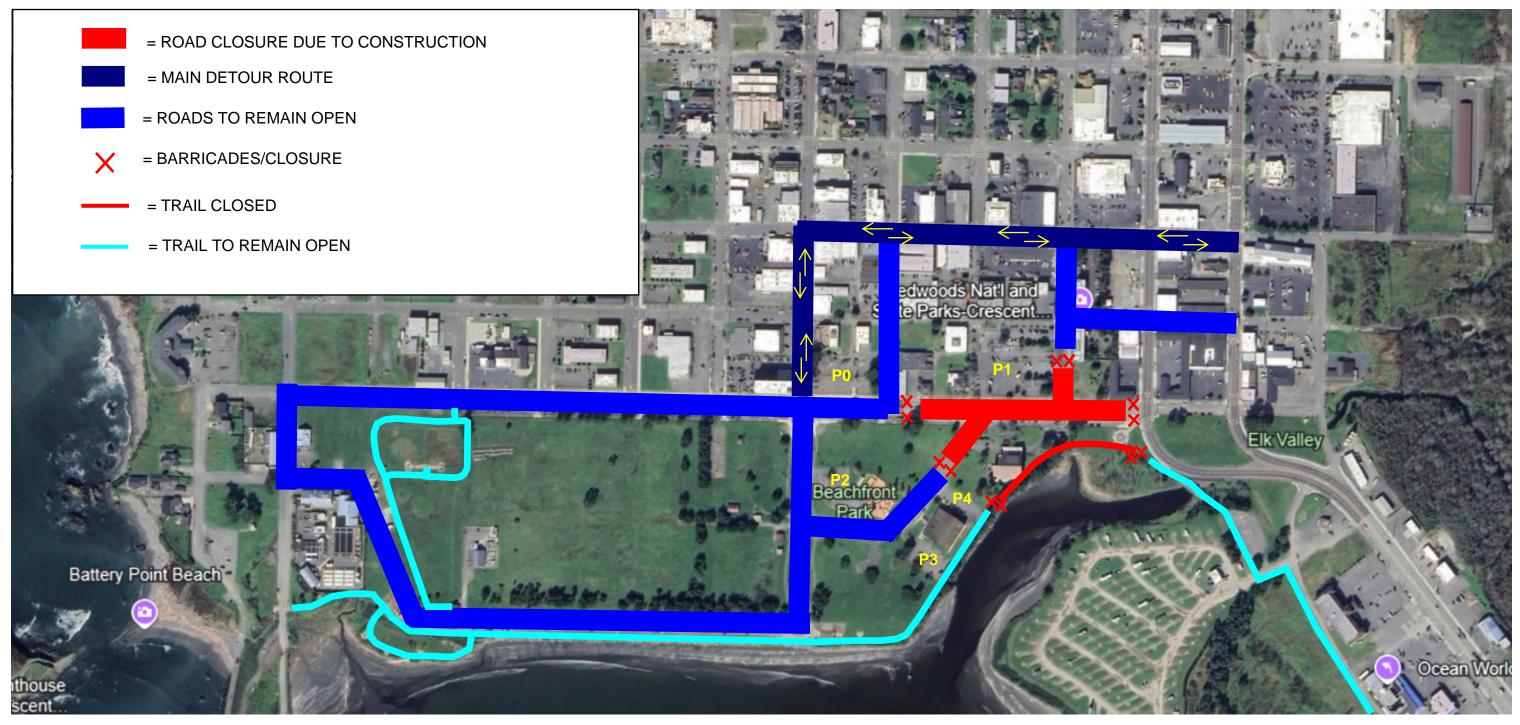
Cell: 707.954.5798

Email: aclark@yuroktribe.nsn.us

PRIVILEGED AND CONFIDENTIAL COMMUNICATION This message is intended for only the individual(s) to whom it was addressed and may contain privileged and confidential communications. If the recipient is not the intended recipient you are hereby notified that any distribution, dissemination, copying or storing of this message by any means is strictly prohibited. You are further notified that this message should be immediately deleted.

Appendix F: Public Access Plan

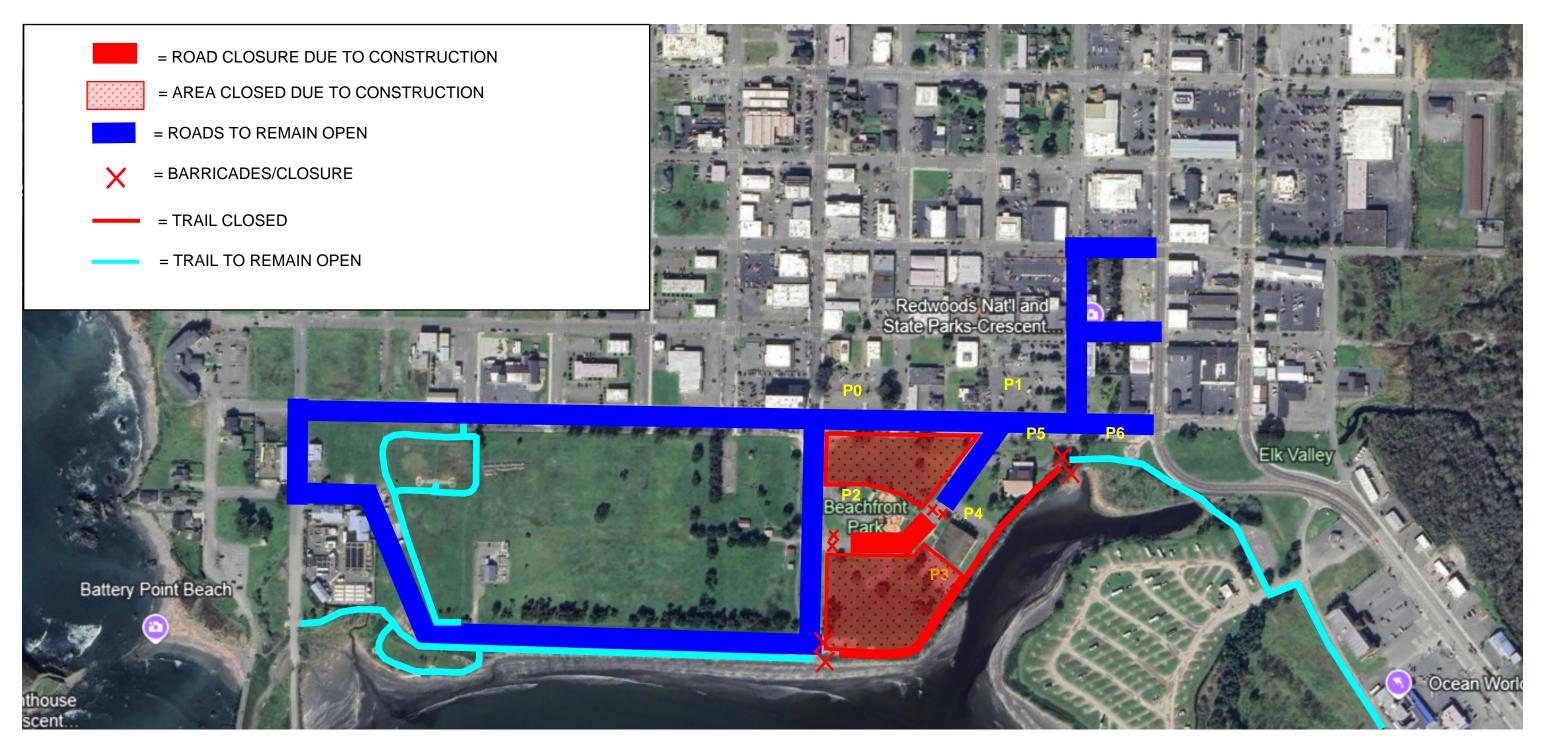
City of Crescent City - 2025 Public Access Plan



CITY PARKING LOTS: P0 - DOWNTOWN, PARK P1 - NATIONAL/STATE PARKS, LIBRARY, CULTURAL CENTER P2 - PLAYGROUND P3 - POOL, TRAIL P4 - POOL, CULTURAL CENTER



City of Crescent City - 2026 Public Access Plan



CITY PARKING LOTS:

- **P0 DOWNTOWN, PARK**
- P1 NATIONAL/STATE PARKS, LIBRARY, CULTURAL CENTER
- P2 PLAYGROUND (PARTIALLY OPEN)
- P3 CLOSED

P4 - POOL, CULTURAL CENTER **P5 - CULTURAL CENTER P6 - VETERANS MEMORIAL**

Appendix G: Construction Staging Areas

Beachfront Park Construction Staging Areas – 2025 & 2026



A – Material Storage – Dry good lay down area – Playground Equipment, Piping, Inlets, Signage

B – Amphitheater Fill Soil Storage – Store excavated material, sod, trench excavation, allowable fill material until construction of landscape mound for Amphitheater grass seating.

All excavated waste material – broken asphalt, concrete, demolition waste, to be hauled directly to proper disposal location.

Appendix H: Mitigation Monitoring and Reporting Plan

Appendix F: Beachfront Park Improvements Project IS/MND: Mitigation Monitoring and Reporting Plan

Impacts Being Mitigated	Mitigation Measure	Responsible for Implementation	Responsible for Monitoring and/or Enforcement	Timing of Implementation	Applicable Location
Air Quality					
 b) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard? 	 Mitigation Measure AQ-1 To reduce potential impacts from fugitive dust generation during construction activity, the construction contractor will employ the following dust control measures: Apply water to active construction areas to minimize fugitive dust. Cover trucks hauling soil, sand, and other loose material. Apply water on unpaved access roads and parking areas utilized for Project construction. Sweep paved access roads and parking areas and sweep streets if visible material is carried onto adjacent public streets. Hydroseed or apply erosion control as appropriate for inactive construction areas. Enclose, cover, or water to open materials stockpiles. Limit traffic speeds to 15 mph on unpaved access roads. Install erosion control measures to prevent silt runoff onto public roadways. Seed or replant appropriate vegetation in disturbed areas within 30 days after project completion. 	City of Crescent City to include requirements in bid documents and monitor throughout construction activities	City of Crescent City Public Works Dept.	Before the release of bid documents and during construction activities	All construction areas
 c) Expose sensitive receptors to substantial pollutant concentrations? Biological Resources 	Mitigation Measure AQ-1 (see description above)				
a) Have a substantial adverse impact, either directly or through habitat modifications on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations or by the California Dept. of Fish & Wildlife or U.S. Fish & Wildlife Service?	Mitigation Measure BIO-1 The Project will follow Local Coastal Plan policy 6.B.6 for the protection of Environmentally Sensitive Habitat Areas (ESHAs). Prior to Project implementation, any ground disturbing activities or staging of equipment, riparian areas will receive a 100- foot protection buffer and be fenced off to prevent disturbance, where feasible. All areas containing Wolf's evening primrose will be protected by a 100-foot buffer and fenced off to prevent trampling or disturbance. For areas within the 100-foot buffer that require construction actions, the qualified biologist will recommend additional protective measures or monitoring in coordination with CDFW. In addition, to preserve any potential existing Wolf's evening-primrose seedbank in the Project area, the construction contractor will scrape the topsoil from areas of ground disturbance with potential to contain seeds and place the topsoil in areas identified for their suitability as potential habitat (i.e., well-drained, sandy soils). The qualified biologist, in coordination with CDFW, will determine the areas of topsoil to be relocated, if any.	City of Crescent City to include requirements in bid documents and monitor throughout construction activities	City of Crescent City Public Works Dept.	Before the release of bid documents and during construction activities	All construction areas and specifically project elements within 100 feet of ESHAs, waterbodies and/or identified Wolf's evening primrose
	Mitigation Measure BIO-2 To prevent any sediment from Project construction activities from impacting rare plant and riparian Environmentally Sensitive Habitat Areas (ESHAs), the Project's construction contractor will implement best management practices (BMPs) for controlling stormwater runoff and maintaining water quality, including the development of a Storm Water Pollution Prevention Plan (SWPPP), as required under the under the NPDES permit for Discharges of Storm Water Runoff Associated with Construction Activity (Order No. 2009-009-DWQ) for ground disturbing activities on sites greater than one acre. The SWPPP will meet all requirements set forth in the Crescent City Local Coastal Plan, in addition to all federal and state requirements. This will include erosion control measures to prevent sediment from migrating off-site through installation of sediment controls such as fiber rolls, silt fences or sediment basins, establishing effective perimeter controls and stabilizing construction entrances/exits to	City of Crescent City to include requirements in bid documents and monitor throughout construction activities	City of Crescent City Public Works Dept.	Before the release of bid documents and during construction activities	All construction areas

Impacts Being Mitigated	Mitigation Measure	Responsible for Implementation	Responsible for Monitoring and/or Enforcement	Timing of Implementation	Applicable Location			
	control sediment discharges, and stabilizing exposed soils within the work area immediately after completion of earthmoving activities.							
	See also Mitigation Measure HAZ-1 and WATER-1 for additional BMPs that would be implemented as part of a SWPPP.							
	Mitigation Measure BIO-3	City of Crescent City	City of Crescent City	Before the release of	Project elements			
	To protect Elk Creek wetlands from general ground disturbance, staging areas will be established upland to the extent possible, on paved or graveled areas or ruderal habitat. For work occurring adjacent to Elk Creek wetlands, limits of work will be clearly marked with exclusionary fencing, and silt fences may be installed as needed. Stockpiled soils will be located away from Elk Creek wetlands (by at least 100 feet) and straw wattle (or similar material) will be placed around the stockpile until disposed. Additionally, any activities that increase the potential for erosion shall be restricted to the relatively dryer summer months and early fall period, to the maximum extent practicable, to avoid or minimize sediment transport during rain events to sensitive areas, including Wolf's evening primrose habitat and Elk Creek and surrounding wetlands.	to include requirements in bid documents and monitor throughout construction activities	Public Works Dept.	bid documents and during construction activities	adjacent to Elk Creek and/or within 100 feet of identified Wolf's evening primrose			
	For construction activities that must take place during the late-fall, winter, or spring, particularly those within 100-feet of Wolf's evening primrose habitat or Elk Creek and surrounding wetland areas, temporary erosion and sediment control structures shall be in place and operational at the end of each construction day and maintained until permanent erosion control structures are in place. Exclusionary fencing will be installed around environmentally sensitive areas and other areas that do not need to be disturbed.							
	Within 10 days of completion of construction, in those areas where subsequent ground disturbance will not occur for 10 calendar days or more, weed-free mulch shall be applied to disturbed areas to reduce the potential for short-term erosion.							
	Finally, the City of Crescent City will conduct regular inspections to ensure construction stays within the limits of work. In such cases where construction activity may exceed project limits, the City will work in consultation with CDFW and/or USFWS to immediately restore any sensitive habitat outside the limits of work.							
b) Have a substantial adverse	Mitigation Measure BIO-1 (see description above)							
effect on any riparian habitat or other sensitive	Mitigation Measure BIO-2 (see description above)							
natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?	Mitigation Measure BIO-3 (see description above)							
 c) Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means? 	Mitigation Measure BIO-3 (see description above)							
 d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with 	Mitigation Measure BIO-3 (see description above)							

Impacts Being Mitigated	Mitigation Measure	Responsible for Implementation	Responsible for Monitoring and/or Enforcement	Timing of Implementation	Applicable Location
established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?					
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	 Mitigation Measure BIO-4 Where a landmark tree is proposed for removal by the public agency which owns it, replacement shall be provided as follows: a) When removed because it is found that the landmark tree is a hazard or is dying, one tree of the same species shall be planted in the same vicinity as the removed tree within thirty days of the removal. b) When removed for the purpose of establishment, expansion or maintenance of a public facility, two trees of the same species shall be planted in the same vicinity as the removed tree within thirty days of completion of construction. 	City of Crescent City to include requirements in bid documents and monitor throughout construction activities	City of Crescent City Public Works Dept.	Before the release of bid documents and during construction activities	Areas will tree removal will occur
Cultural Resources					
a), b) Cause a substantial adverse change in the significance of a unique historical and/or archaeological resource pursuant to Section 15064.5?	Mitigation Measure CULT-1 At least 72 hours in advance of any ground disturbing activities or excavation, the City shall contact the THPO for the Tolowa Dee-ni' Nation to facilitate access for Tribal staff monitoring of such ground disturbing activities or excavation at the Project site.	City of Crescent City to include requirements in bid documents and monitor throughout construction activities	City of Crescent City Public Works Dept. Tolowa Dee-ni' Nation THPO	Before the release of bid documents and during construction activities	All construction areas
	 Mitigation Measure CULT-2 Ground disturbing construction activities to implement the Project have the potential to inadvertently uncover subsurface archaeological material or human remains. If materials or remains are unearthed during Project construction, the following mitigation measures would reduce the impact on cultural resources to a less-than-significant level by assuring proper protocols are in place for inadvertent discovery of potential cultural resources disturbed during construction. Inadvertent Discovery of Archaeological Material If cultural materials (for example: chipped or ground stone, historic debris, building foundations, or bone) are discovered during ground-disturbance activities, work shall be stopped within 20 meters (66 feet) of the discovery, per the requirements of CEQA (Title 14 CCR 15064.5 (f)). Crescent City representatives shall be immediately notified and work near the archaeological finds shall not resume until a professional archaeologist, who meets the Secretary of the Interior's Standards and Guidelines, has evaluated the materials and offered recommendations for further action. Inadvertent Discovery of Human Remains If human remains are discovered during project construction, work will stop at the discovery location, within 20 meters (66 feet), and any nearby area reasonably suspected to overlie adjacent to human remains (PRC, Section 7050.5). The Del Norte County Coroner shall be immediately notified. If the coroner determines that the remains are of Native Americane or earby with total low or earby with total low or earbiting to the discovery location are a reasonable with total low or earbiting to the discovery location are applied or ground. 	City of Crescent City to include requirements in bid documents and monitor throughout construction activities	City of Crescent City Public Works Dept. Del Norte County Coroner, NAHC	Before the release of bid documents and during construction activities	All construction areas
	of Native American origin, it is necessary to comply with state laws relating to the disposition of Native American burials, which fall within the jurisdiction of the NAHC (PRC, Section 5097). The coroner will contact the NAHC. The descendants or most likely descendants of the deceased will be contacted, and work will not resume until they have made a recommendation to the landowner or the person responsible for the excavation work for means of treatment and disposition, of the human remains and any associated grave items, as provided in PRC, Section 5097.98.				

Impacts Being Mitigated	Mitigation Measure	Responsible for Implementation	Responsible for Monitoring and/or Enforcement				
a) Disturb any human remains,	Mitigation Measure CULT-1 (see description above)						
including those interred outside of formal cemeteries?	Mitigation Measure CULT-2 (see description above)						
Geology and Soils							
f) Directly or indirectly destroy	Mitigation Measure CULT-1 (see description above)						
a unique paleontological resource or site or unique geologic feature?							
Hazards and Hazardous Mater	ials						
a) Create a significant hazard	Mitigation Measure HAZ-1	City of Crescent City	City of Crescent City				
to the public or the environment through the routine transport, use, or disposal of hazardous materials?	Proper equipment maintenance and fueling procedures will be implemented to ensure that no fluids are discharged into streams, water bodies, wetlands or drainage facilities, and that any spills are promptly cleaned up, documented, and reported (if necessary). A separate area will be designated for equipment maintenance and fueling, at least 150 feet or more from any stream, water body, or wetland, as feasible. Cleanup materials and tools will be kept nearby and available for immediate use and equipment will not be stored in areas that will potentially drain to watercourses. If this is not feasible, drip pans, berms, sandbags, or absorbent booms should be employed to contain any leaks or spills. No vehicle or equipment cleaning will be done on-site.	to include requirements in bid documents and monitor throughout construction activities	Public Works Dept.				
	Mitigation Measure HAZ-2 The construction Contractor will develop a Spill Prevention and Response Plan. Equipment and materials for cleanup will be available on site, and spills and leaks will be cleaned up immediately and disposed of according to guidelines stated in the Spill Prevention and Response Plan. Spill response kits will always be in close proximity when using hazardous materials (e.g., at crew trucks and other logical locations). Absorbent materials will be maintained at the Project site in sufficient quantity to effectively immobilize the volume of petroleum-based fluids contained in the largest tank present at the site. For spills on impervious surfaces, absorbent materials will be used to remove the spill. For spills on pervious surfaces such as soil, the spill will be excavated and properly disposed of rather than buried. Absorbent materials will be collected and disposed of properly and promptly. Petroleum products and contaminated soil will be disposed of according to Federal, State, and local regulations.	City of Crescent City to include requirements in bid documents and monitor throughout construction activities	City of Crescent City Public Works Dept.				
	Mitigation Measure HAZ-3	City of Crescent City					
	All hazardous materials and hazardous wastes (such as pesticides, paints, solvents, fuel, and oil) will be labeled in accordance with city, state, and federal regulations. Storage tanks over 55 gallons or more would require secondary containment. Any hazardous materials and waste will be stored in watertight containers and manufacturer's application instructions for hazardous materials followed, and no chemicals will be applied outdoors when rain is forecast within 24 hours. Public notification of the use of any such materials (e.g., herbicide or pesticide use) will be posted via signage.	to include requirements in bid documents and monitor throughout construction activities	Public Works Dept.				
b) Create a significant hazard	Mitigation Measure HAZ-1 (see description above)						
to the public or the environment through reasonably foreseeable upset and accident conditions involving the likely release of hazardous	Mitigation Measure HAZ-2 (see description above)						

for d/or nt	Timing of Implementation	Applicable Location
t City Dept.	Before the release of bid documents and during construction activities	All construction areas
t City Dept.	Before the release of bid documents and during construction activities	All construction areas
t City Dept.	Before the release of bid documents and during construction activities	All construction areas

Impacts Being Mitigated	Mitigation Measure	Responsible for Implementation	Responsible for Monitoring and/or Enforcement	Timing of Implementation	Applicable Location
materials into the environment?					
Hydrology and Water Quality					
a) Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?	Mitigation Measure WATER-1 ¹ Storm drain inlets and drainage courses will be protected with appropriate BMPs, such as gravel bags, fiber rolls, berms, etc. Off-site sediment migration will be avoided by installing and maintaining sediment controls, such as fiber rolls, silt fences, or sediment basins. Erosion control fabrics will with plastic monofilament netting, which can ensare wildlife will be prohibited, and will consist of loose-weave mesh made of biodegradable fibers, such as jute, coconut, or hemp, unless otherwise authorized by CDFW. Suitable BMPs shall be placed below all construction activities at the edge of surface water features to intercept sediment before it reaches surface waters. These structures shall be installed prior to any clearing or grading activities. Further, sediment built up at the base of BMPs will be removed before BMP removal to avoid any accumulated sediments from being mobilized post-construction. During transport, haul trucks will be covered carrying soil, sand, or other loose materials off-site. Effective perimeter controls will be maintained and construction entrances and exits stabilized to control erosion and sediment discharges from the construction work areas including staging areas. Street tracking will be swept or vacumed, and all exposed soils within work areas will be stabilized immediately following the completion of earthmoving activities to prevent erosion into adjacent wetlands and channels. When rain is forecasted or at the onset of unanticipated precipitation, Project personnel	City of Crescent City to include requirements in bid documents and monitor throughout construction activities	City of Crescent City Public Works Dept.	Before the release of bid documents and during construction activities	All construction areas
Tribal Cultural Resources					
 a) Cause a substantial adverse change in the significance of a tribal cultural resource listed or eligible for listing in the California Register of Historic Resources, or in a local register of historic resources as defined in Public Resources Code section 5020.1(k)? 	Mitigation Measure CULT-1 (see description above) Mitigation Measure CULT-2 (see description above)				
 b) Cause a substantial adverse change in the significance of a tribal cultural resource that is a resource determined by the lead agency, in its discretion and supported by substantial 	Mitigation Measure CULT-1 (see description above) Mitigation Measure CULT-2 (see description above)				

¹ See also list of California Stormwater BMPs that are typically included in City of Crescent City construction projects, attached.

Impacts Being Mitigated	Mitigation Measure	Responsible for Implementation	Responsible for Monitoring and/or Enforcement	Timing of Implementation	Applicable Location
evidence, to be significant					
pursuant to the criteria set					
forth in subdivision (c) of the					
Public Resources Code section					
5024.1? In applying the criteria					
set forth in subdivision (c) of					
the Public Resources Code					
section 5024.1, the lead agency					
shall consider the significance					
of the resource to a California					
Native American Tribe.					

Street Sweeping and Vacuuming



Description and Purpose

Street sweeping and vacuuming includes use of self-propelled and walk-behind equipment to remove sediment from streets and roadways, and to clean paved surfaces in preparation for final paving. Sweeping and vacuuming prevents sediment from the project site from entering storm drains or receiving waters.

Suitable Applications

Sweeping and vacuuming are suitable anywhere sediment is tracked from the project site onto public or private paved streets and roads, typically at points of egress. Sweeping and vacuuming are also applicable during preparation of paved surfaces for final paving.

Limitations

Sweeping and vacuuming may not be effective when sediment is wet or when tracked soil is caked (caked soil may need to be scraped loose).

Implementation

- Controlling the number of points where vehicles can leave the site will allow sweeping and vacuuming efforts to be focused, and perhaps save money.
- Inspect potential sediment tracking locations daily.
- Visible sediment tracking should be swept or vacuumed on a daily basis.

Categories

EC	Erosion Control	
SE	Sediment Control	×
тс	Tracking Control	\checkmark
WE	Wind Erosion Control	
NS	Non-Stormwater Management Control	
WM	Waste Management and Materials Pollution Control	
Leg	end:	
\checkmark	Primary Objective	

Secondary Objective

Targeted Constituents

Sediment	V
Nutrients	
Trash	\checkmark
Metals	
Bacteria	
Oil and Grease	\square
Organics	

Potential Alternatives

None

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- Do not use kick brooms or sweeper attachments. These tend to spread the dirt rather than remove it.
- If not mixed with debris or trash, consider incorporating the removed sediment back into the project

Costs

Rental rates for self-propelled sweepers vary depending on hopper size and duration of rental. Expect rental rates from \$58/hour (3 yd³ hopper) to \$88/hour (9 yd³ hopper), plus operator costs. Hourly production rates vary with the amount of area to be swept and amount of sediment. Match the hopper size to the area and expect sediment load to minimize time spent dumping.

Inspection and Maintenance

- Inspect BMPs in accordance with General Permit requirements for the associated project type and risk level. It is recommended that at a minimum, BMPs be inspected weekly, prior to forecasted rain events, daily during extended rain events, and after the conclusion of rain events.
- When actively in use, points of ingress and egress must be inspected daily.
- When tracked or spilled sediment is observed outside the construction limits, it must be removed at least daily. More frequent removal, even continuous removal, may be required in some jurisdictions.
- Be careful not to sweep up any unknown substance or any object that may be potentially hazardous.
- Adjust brooms frequently; maximize efficiency of sweeping operations.
- After sweeping is finished, properly dispose of sweeper wastes at an approved dumpsite.

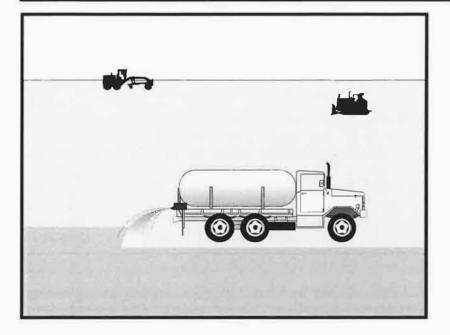
References

Stormwater Quality Handbooks - Construction Site Best Management Practices (BMPs) Manual, State of California Department of Transportation (Caltrans), November 2000.

Labor Surcharge and Equipment Rental Rates, State of California Department of Transportation (Caltrans), April 1, 2002 – March 31, 2003.

Wind Erosion Control

WE-1



Description and Purpose

Wind erosion or dust control consists of applying water or other chemical dust suppressants as necessary to prevent or alleviate dust nuisance generated by construction activities. Covering small stockpiles or areas is an alternative to applying water or other dust palliatives.

California's Mediterranean climate, with a short "wet" season and a typically long, hot "dry" season, allows the soils to thoroughly dry out. During the dry season, construction activities are at their peak, and disturbed and exposed areas are increasingly subject to wind erosion, sediment tracking and dust generated by construction equipment. Site conditions and climate can make dust control more of an erosion problem than water based erosion. Additionally, many local agencies, including Air Quality Management Districts, require dust control and/or dust control permits in order to comply with local nuisance laws, opacity laws (visibility impairment) and the requirements of the Clean Air Act. Wind erosion control is required to be implemented at all construction sites greater than 1 acre by the General Permit.

Suitable Applications

Most BMPs that provide protection against water-based erosion will also protect against wind-based erosion and dust control requirements required by other agencies will generally meet wind erosion control requirements for water quality protection. Wind erosion control BMPs are suitable during the following construction activities:

Categories

		_
EC	Erosion Control	
SE	Sediment Control	×
тс	Tracking Control	
WE	Wind Erosion Control	\checkmark
NS	Non-Stormwater Management Control	
WM	Waste Management and Materials Pollution Control	
Leg	end:	
\checkmark	Primary Category	

Secondary Category

Targeted Constituents

Sediment	\checkmark
Nutrients	
Trash	
Metals	
Bacteria	
Oil and Grease	
Organics	

Potential Alternatives

EC-5 Soil Binders

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- Construction vehicle traffic on unpaved roads
- Drilling and blasting activities
- Soils and debris storage piles
- Batch drop from front-end loaders
- Areas with unstabilized soil
- Final grading/site stabilization

Limitations

- Watering prevents dust only for a short period (generally less than a few hours) and should be applied daily (or more often) to be effective.
- Over watering may cause erosion and track-out.
- Oil or oil-treated subgrade should not be used for dust control because the oil may migrate into drainageways and/or seep into the soil.
- Chemical dust suppression agents may have potential environmental impacts. Selected chemical dust control agents should be environmentally benign.
- Effectiveness of controls depends on soil, temperature, humidity, wind velocity and traffic.
- Chemical dust suppression agents should not be used within 100 feet of wetlands or water bodies.
- Chemically treated subgrades may make the soil water repellant, interfering with long-term infiltration and the vegetation/re-vegetation of the site. Some chemical dust suppressants may be subject to freezing and may contain solvents and should be handled properly.
- In compacted areas, watering and other liquid dust control measures may wash sediment or other constituents into the drainage system.
- If the soil surface has minimal natural moisture, the affected area may need to be pre-wetted so that chemical dust control agents can uniformly penetrate the soil surface.

Implementation

Dust Control Practices

Dust control BMPs generally stabilize exposed surfaces and minimize activities that suspend or track dust particles. The following table presents dust control practices that can be applied to varying site conditions that could potentially cause dust. For heavily traveled and disturbed areas, wet suppression (watering), chemical dust suppression, gravel asphalt surfacing, temporary gravel construction entrances, equipment wash-out areas, and haul truck covers can be employed as dust control applications. Permanent or temporary vegetation and mulching can be employed for areas of occasional or no construction traffic. Preventive measures include minimizing surface areas to be disturbed, limiting onsite vehicle traffic to 15 mph or less, and controlling the number and activity of vehicles on a site at any given time.

Chemical dust suppressants include: mulch and fiber based dust palliatives (e.g. paper mulch with gypsum binder), salts and brines (e.g. calcium chloride, magnesium chloride), non-petroleum based organics (e.g. vegetable oil, lignosulfonate), petroleum based organics (e.g. asphalt emulsion, dust oils, petroleum resins), synthetic polymers (e.g. polyvinyl acetate, vinyls, acrylic), clay additives (e.g. bentonite, montimorillonite) and electrochemical products (e.g. enzymes, ionic products).

Site Condition	Dust Control Practices									
	Permanent Vegetation	Mulching	Wet Suppression (Watering)	Chemical Dust Suppression	Gravel or Asphalt	Temporary Gravel Construction Entrances/Equipment Wash Down	Synthetic Covers	Minimize Extent of Disturbed Area		
Disturbed Areas not Subject to Traffic	x	x	x	x	x			х		
Disturbed Areas Subject to Traffic			x	x	x	x		x		
Material Stockpiles		x	x	x			x	x		
Demolition			х		_	х	х			
Clearing/ Excavation			x	x				х		
Trnck Traffic on Unpaved Roads			x	x	x	x	x			
Tracking					х	x				

Additional preventive measures include:

- Schedule construction activities to minimize exposed area (see EC-1, Scheduling).
- Quickly treat exposed soils using water, mulching, chemical dust suppressants, or stone/gravel layering.
- Identify and stabilize key access points prior to commencement of construction.
- Minimize the impact of dust by anticipating the direction of prevailing winds.
- Restrict construction traffic to stabilized roadways within the project site, as practicable.
- Water should be applied by means of pressure-type distributors or pipelines equipped with a spray system or hoses and nozzles that will ensure even distribution.
- All distribution equipment should be equipped with a positive means of shutoff.
- Unless water is applied by means of pipelines, at least one mobile unit should be available at all times to apply water or dust palliative to the project.
- If reclaimed waste water is used, the sources and discharge must meet California Department of Health Services water reclamation criteria and the Regional Water Quality

Control Board (RWQCB) requirements. Non-potable water should not be conveyed in tanks or drain pipes that will be used to convey potable water and there should be no connection between potable and non-potable supplies. Non-potable tanks, pipes, and other conveyances should be marked, "NON-POTABLE WATER - DO NOT DRINK."

- Pave or chemically stabilize access points where unpaved traffic surfaces adjoin paved roads.
- Provide covers for haul trucks transporting materials that contribute to dust.
- Provide for rapid clean up of sediments deposited on paved roads. Furnish stabilized construction road entrances and wheel wash areas.
- Stabilize inactive areas of construction sites using temporary vegetation or chemical stabilization methods.

For chemical stabilization, there are many products available for chemically stabilizing gravel roadways and stockpiles. If chemical stabilization is used, the chemicals should not create any adverse effects on stormwater, plant life, or groundwater and should meet all applicable regulatory requirements.

Costs

Installation costs for water and chemical dust suppression vary based on the method used and the length of effectiveness. Annual costs may be high since some of these measures are effective for only a few hours to a few days.

Inspection and Maintenance

- Inspect and verify that activity-based BMPs are in place prior to the commencement of associated activities.
- BMPs must be inspected in accordance with General Permit requirements for the associated project type and risk level. It is recommended that at a minimum, BMPs be inspected weekly, prior to forecasted rain events, daily during extended rain events, and after the conclusion of rain events.
- Check areas protected to ensure coverage.
- Most water-based dust control measures require frequent application, often daily or even multiple times per day. Obtain vendor or independent information on longevity of chemical dust suppressants.

References

Best Management Practices and Erosion Control Manual for Construction Sites, Flood Control District of Maricopa County, Arizona, September 1992.

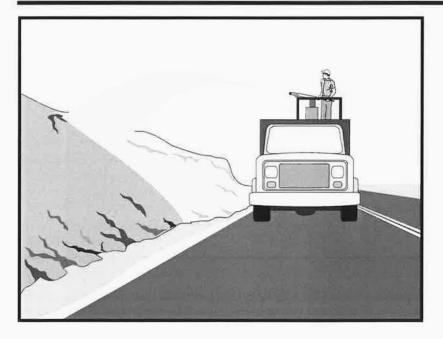
California Air Pollution Control Laws, California Air Resources Board, updated annually.

Construction Manual, Chapter 4, Section 10, "Dust Control"; Section 17, "Watering"; and Section 18, "Dust Palliative", California Department of Transportation (Caltrans), July 2001.

Prospects for Attaining the State Ambient Air Quality Standards for Suspended Particulate Matter (PM10), Visibility Reducing Particles, Sulfates, Lead, and Hydrogen Sulfide, California Air Resources Board, April 1991.

Stormwater Quality Handbooks Construction Site Best Management Practices (BMPs) Manual, State of California Department of Transportation (Caltrans), March 2003.

Straw Mulch



Description and Purpose

Straw mulch consists of placing a uniform layer of straw and incorporating it into the soil with a studded roller or crimper, or anchoring it with a tackifier or stabilizing emulsion. Straw mulch protects the soil surface from the impact of rain drops, preventing soil particles from becoming dislodged.

Suitable Applications

Straw mulch is suitable for disturbed areas requiring temporary protection until permanent stabilization is established. Straw mulch can be specified for the following applications:

- As a stand-alone BMP on disturbed areas until soils can be prepared for permanent vegetation. The longevity of straw mulch is typically less than six months.
- Applied in combination with temporary seeding strategies
- Applied in combination with permanent seeding strategies to enhance plant establishment and final soil stabilization
- Applied around containerized plantings to control erosion until the plants become established to provide permanent stabilization

Limitations

• Availability of straw and straw blowing equipment may be limited just prior to the rainy season and prior to storms due to high demand.

Categories

_		_	
EC	Erosion Control		
SE	Sediment Control		
TC	Tracking Control		
WE	Wind Erosion Control	×	
NS	Non-Stormwater		
	Management Control		
WM	Waste Management and		
	Materials Pollution Control		
Legend:			
Primary Category			
_			

Secondary Category

Targeted Constituents

Sediment	
Nutrients	
Trash	
Metals	
Bacteria	
Oil and Grease	
Organics	

Potential Alternatives

- EC-3 Hydraulic Mulch
- EC-4 Hydroseeding
- EC-5 Soil Binders
- EC-7 Geotextiles and Mats
- EC-8 Wood Mulching
- EC-14 Compost Blanket



- There is a potential for introduction of weed seed and unwanted plant material if weed-free agricultural straw is not specified.
- Straw mulch applied by hand is more time intensive and potentially costly.
- Wind may limit application of straw and blow straw into undesired locations.
- May have to be removed prior to permanent seeding or prior to further earthwork.
- "Punching" of straw does not work in sandy soils, necessitating the use of tackifiers.
- Potential fugitive dust control issues associated with straw applications can occur. Application of a stabilizing emulsion or a water stream at the same time straw is being blown can reduce this problem.
- Use of plastic netting should be avoided in areas where wildlife may be entrapped and may be prohibited for projects in certain areas with sensitive wildlife species, especially reptiles and amphibians.

Implementation

- Straw should be derived from weed-free wheat, rice, or barley. Where required by the plans, specifications, permits, or environmental documents, native grass straw should be used.
- Use tackifier to anchor straw mulch to the soil on slopes.
- Crimping, punch roller-type rollers, or track walking may also be used to incorporate straw mulch into the soil on slopes. Track walking can be used where other methods are impractical.
- Avoid placing straw onto roads, sidewalks, drainage channels, sound walls, existing vegetation, etc.
- Straw mulch with tackifier should not be applied during or immediately before rainfall.
- Additional guidance on the comparison and selection of temporary slope stabilization methods is provided in Appendix F of the Handbook.

Application Procedures

- When using a tackifier to anchor the straw mulch, roughen embankment or fill areas by rolling with a crimping or punching-type roller or by track walking before placing the straw mulch. Track walking should only be used where rolling is impractical.
- Apply straw at a rate of between 3,000 and 4,000 lb/acre, either by machine or by hand distribution and provide 100% ground cover. A lighter application is used for flat surfaces and a heavier application is used for slopes.
- Evenly distribute straw mulch on the soil surface.
- Anchoring straw mulch to the soil surface by "punching" it into the soil mechanically (incorporating) can be used in lieu of a tackifier.

- Methods for holding the straw mulch in place depend upon the slope steepness, accessibility, soil conditions, and longevity.
 - A tackifier acts to glue the straw fibers together and to the soil surface. The tackifier should be selected based on longevity and ability to hold the fibers in place. A tackifier is typically applied at a rate of 125 lb/acre. In windy conditions, the rates are typically 180 lb/acre.
 - On very small areas, a spade or shovel can be used to punch in straw mulch.
 - On slopes with soils that are stable enough and of sufficient gradient to safely support construction equipment without contributing to compaction and instability problems, straw can be "punched" into the ground using a knife blade roller or a straight bladed coulter, known commercially as a "crimper."

Costs

Average annual cost for installation and maintenance is included in the table below. Application by hand is more time intensive and potentially more costly.

BMP	Unit Cost per Acre
Straw mulch, crimped or punched	\$2,458-\$5,375
Straw mulch with tackifier	\$1,823-\$4,802

Source: Caltrans Soil Stabilization BMP Research for Erosion and Sediment Controls, July 2007

Inspection and Maintenance

- BMPs must be inspected in accordance with General Permit requirements for the associated project type and risk level. It is recommended that at a minimum, BMPs be inspected weekly, prior to forecasted rain events, daily during extended rain events, and after the conclusion of rain events.
- Areas where erosion is evident should be repaired and BMPs re-applied as soon as possible. Care should be exercised to minimize the damage to protected areas while making repairs, as any area damaged will require re-application of BMPs.
- The key consideration in inspection and maintenance is that the straw needs to last long enough to achieve erosion control objectives. Straw mulch as a stand-alone BMP is temporary and is not suited for long-term erosion control.
- Maintain an unbroken, temporary mulched ground cover while disturbed soil areas are inactive. Repair any damaged ground cover and re-mulch exposed areas.
- Reapplication of straw mulch and tackifier may be required to maintain effective soil stabilization over disturbed areas and slopes.

References

Soil Stabilization BMP Research for Erosion and Sediment Controls: Cost Survey Technical Memorandum, State of California Department of Transportation (Caltrans), July 2007.

Erosion and Sediment Control Manual, Oregon Department of Environmental Quality, February 2005.

Controlling Erosion of Construction Sites, Agricultural Information Bulletin #347, U.S. Department of Agriculture (USDA), Natural Resources Conservation Service (NRCS) (formerly Soil Conservation Service – SCS).

Guides for Erosion and Sediment Control in California, USDA Soils Conservation Service, January 1991.

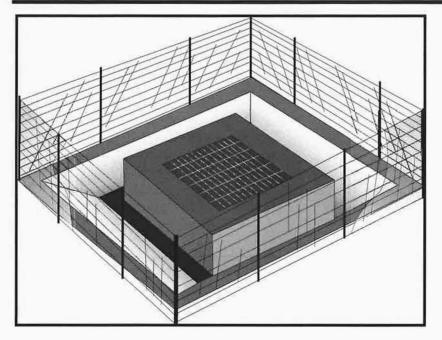
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Description and Purpose

Storm drain inlet protection consists of a sediment filter or an impounding area in, around or upstream of a storm drain, drop inlet, or curb inlet. Storm drain inlet protection measures temporarily pond runoff before it enters the storm drain, allowing sediment to settle. Some filter configurations also remove sediment by filtering, but usually the ponding action results in the greatest sediment reduction. Temporary geotextile storm drain inserts attach underneath storm drain grates to capture and filter storm water.

Suitable Applications

Every storm drain inlet receiving runoff from unstabilized or otherwise active work areas should be protected. Inlet protection should be used in conjunction with other erosion and sediment controls to prevent sediment-laden stormwater and non-stormwater discharges from entering the storm drain system.

Limitations

- Drainage area should not exceed 1 acre.
- In general straw bales should not be used as inlet protection.
- Requires an adequate area for water to pond without encroaching into portions of the roadway subject to traffic.

Categories

EC	Erosion Control			
SE	Sediment Control	\checkmark		
тс	Tracking Control			
WE	Wind Erosion Control			
NS	Non-Stormwater Management Control			
WM	Waste Management and Materials Pollution Control			
Legend:				
\checkmark	Primary Category			
×	Secondary Category			

Targeted Constituents

Sediment	V
Nutrients	
Trash	×
Metals	
Bacteria	
Oil and Grease	
Organics	

Potential Alternatives

SE-1 Silt Fence SE-5 Fiber Rolls SE-6 Gravel Bag Berm SE-8 Sandbag Barrier SE-14 Biofilter Bags



- Sediment removal may be inadequate to prevent sediment discharges in high flow conditions or if runoff is heavily sediment laden. If high flow conditions are expected, use other onsite sediment trapping techniques in conjunction with inlet protection.
- Frequent maintenance is required.
- Limit drainage area to 1 acre maximum. For drainage areas larger than 1 acre, runoff should be routed to a sediment-trapping device designed for larger flows. See BMPs SE-2, Sediment Basin, and SE-3, Sediment Traps.
- Excavated drop inlet sediment traps are appropriate where relatively heavy flows are expected, and overflow capability is needed.

Implementation

General

Inlet control measures presented in this handbook should not be used for inlets draining more than one acre. Runoff from larger disturbed areas should be first routed through SE-2, Sediment Basin or SE-3, Sediment Trap and/or used in conjunction with other drainage control, erosion control, and sediment control BMPs to protect the site. Different types of inlet protection are appropriate for different applications depending on site conditions and the type of inlet. Alternative methods are available in addition to the methods described/shown herein such as prefabricated inlet insert devices, or gutter protection devices.

Design and Layout

Identify existing and planned storm drain inlets that have the potential to receive sedimentladen surface runoff. Determine if storm drain inlet protection is needed and which method to use.

- The key to successful and safe use of storm drain inlet protection devices is to know where runoff that is directed toward the inlet to be protected will pond or be diverted as a result of installing the protection device.
 - Determine the acceptable location and extent of ponding in the vicinity of the drain inlet. The acceptable location and extent of ponding will influence the type and design of the storm drain inlet protection device.
 - Determine the extent of potential runoff diversion caused by the storm drain inlet protection device. Runoff ponded by inlet protection devices may flow around the device and towards the next downstream inlet. In some cases, this is acceptable; in other cases, serious erosion or downstream property damage can be caused by these diversions. The possibility of runoff diversions will influence whether or not storm drain inlet protection is suitable; and, if suitable, the type and design of the device.
- The location and extent of ponding, and the extent of diversion, can usually be controlled through appropriate placement of the inlet protection device. In some cases, moving the inlet protection device a short distance upstream of the actual inlet can provide more efficient sediment control, limit ponding to desired areas, and prevent or control diversions.

- Six types of inlet protection are presented below. However, it is recognized that other effective methods and proprietary devices exist and may be selected.
 - Silt Fence: Appropriate for drainage basins with less than a 5% slope, sheet flows, and flows under 0.5 cfs.
 - Excavated Drop Inlet Sediment Trap: An excavated area around the inlet to trap sediment (SE-3).
 - Gravel bag barrier: Used to create a small sediment trap upstream of inlets on sloped, paved streets. Appropriate for sheet flow or when concentrated flow may exceed 0.5 cfs, and where overtopping is required to prevent flooding.
 - Block and Gravel Filter: Appropriate for flows greater than 0.5 cfs.
 - Temporary Geotextile Storm drain Inserts: Different products provide different features. Refer to manufacturer details for targeted pollutants and additional features.
 - Biofilter Bag Barrier: Used to create a small retention area upstream of inlets and can be located on pavement or soil. Biofilter bags slowly filter runoff allowing sediment to settle out. Appropriate for flows under 0.5 cfs.
- Select the appropriate type of inlet protection and design as referred to or as described in this fact sheet.
- Provide area around the inlet for water to pond without flooding structures and property.
- Grates and spaces around all inlets should be sealed to prevent seepage of sediment-laden water.
- Excavate sediment sumps (where needed) 1 to 2 ft with 2:1 side slopes around the inlet.

Installation

- DI Protection Type 1 Silt Fence Similar to constructing a silt fence; see BMP SE-1, Silt Fence. Do not place fabric underneath the inlet grate since the collected sediment may fall into the drain inlet when the fabric is removed or replaced and water flow through the grate will be blocked resulting in flooding. See typical Type 1 installation details at the end of this fact sheet.
 - 1. Excavate a trench approximately 6 in. wide and 6 in. deep along the line of the silt fence inlet protection device.
 - 2. Place 2 in. by 2 in. wooden stakes around the perimeter of the inlet a maximum of 3 ft apart and drive them at least 18 in. into the ground or 12 in. below the bottom of the trench. The stakes should be at least 48 in.
 - 3. Lay fabric along bottom of trench, up side of trench, and then up stakes. See SE-1, Silt Fence, for details. The maximum silt fence height around the inlet is 24 in.
 - 4. Staple the filter fabric (for materials and specifications, see SE-1, Silt Fence) to wooden stakes. Use heavy-duty wire staples at least 1 in. in length.

- 5. Backfill the trench with gravel or compacted earth all the way around.
- **DI Protection Type 2 Excavated Drop Inlet Sediment Trap** Install filter fabric fence in accordance with DI Protection Type 1. Size excavated trap to provide a minimum storage capacity calculated at the rate 67 yd³/acre of drainage area. See typical Type 2 installation details at the end of this fact sheet.
- DI Protection Type 3 Gravel bag Flow from a severe storm should not overtop the curb. In areas of high clay and silts, use filter fabric and gravel as additional filter media. Construct gravel bags in accordance with SE-6, Gravel Bag Berm. Gravel bags should be used due to their high permeability. See typical Type 3 installation details at the end of this fact sheet.
 - 1. Construct on gently sloping street.
 - 2. Leave room upstream of barrier for water to pond and sediment to settle.
 - 3. Place several layers of gravel bags overlapping the bags and packing them tightly together.
 - 4. Leave gap of one bag on the top row to serve as a spillway. Flow from a severe storm (e.g., 10 year storm) should not overtop the curb.
- DI Protection Type 4 Block and Gravel Filter Block and gravel filters are suitable for curb inlets commonly used in residential, commercial, and industrial construction. See typical Type 4 installation details at the end of this fact sheet.
 - 1. Place hardware cloth or comparable wire mesh with 0.5 in. openings over the drop inlet so that the wire extends a minimum of 1 ft beyond each side of the inlet structure. If more than one strip is necessary, overlap the strips. Place woven geotextile over the wire mesh.
 - 2. Place concrete blocks lengthwise on their sides in a single row around the perimeter of the inlet, so that the open ends face outward, not upward. The ends of adjacent blocks should abut. The height of the barrier can be varied, depending on design needs, by stacking combinations of blocks that are 4 in., 8 in., and 12 in. wide. The row of blocks should be at least 12 in. but no greater than 24 in. high.
 - 3. Place wire mesh over the outside vertical face (open end) of the concrete blocks to prevent stone from being washed through the blocks. Use hardware cloth or comparable wire mesh with 0.5 in. opening.
 - 4. Pile washed stone against the wire mesh to the top of the blocks. Use 0.75 to 3 in.
- DI Protection Type 5 Temporary Geotextile Insert (proprietary) Many types of temporary inserts are available. Most inserts fit underneath the grate of a drop inlet or inside of a curb inlet and are fastened to the outside of the grate or curb. These inserts are removable and many can be cleaned and reused. Installation of these inserts differs between manufacturers. Please refer to manufacturer instruction for installation of proprietary devices.

- **DI Protection Type 6 Biofilter bags** Biofilter bags may be used as a substitute for gravel bags in low-flow situations. Biofilter bags should conform to specifications detailed in SE-14, Biofilter bags.
 - 1. Construct in a gently sloping area.
 - 2. Biofilter bags should be placed around inlets to intercept runoff flows.
 - 3. All bag joints should overlap by 6 in.
 - 4. Leave room upstream for water to pond and for sediment to settle out.
 - 5. Stake bags to the ground as described in the following detail. Stakes may be omitted if bags are placed on a paved surface.

Costs

- Average annual cost for installation and maintenance of DI Type 1-4 and 6 (one year useful life) is \$200 per inlet.
- Temporary geotextile inserts are proprietary and cost varies by region. These inserts can often be reused and may have greater than 1 year of use if maintained and kept undamaged. Average cost per insert ranges from \$50-75 plus installation, but costs can exceed \$100. This cost does not include maintenance.

Inspection and Maintenance

- BMPs must be inspected in accordance with General Permit requirements for the associated project type and risk level. It is recommended that at a minimum, BMPs be inspected weekly, prior to forecasted rain events, daily during extended rain events, and after the conclusion of rain events.
- Silt Fences. If the fabric becomes clogged, torn, or degrades, it should be replaced. Make sure the stakes are securely driven in the ground and are in good shape (i.e., not bent, cracked, or splintered, and are reasonably perpendicular to the ground). Replace damaged stakes. At a minimum, remove the sediment behind the fabric fence when accumulation reaches one-third the height of the fence or barrier height.
- Gravel Filters. If the gravel becomes clogged with sediment, it should be carefully removed from the inlet and either cleaned or replaced. Since cleaning gravel at a construction site may be difficult, consider using the sediment-laden stone as fill material and put fresh stone around the inlet. Inspect bags for holes, gashes, and snags, and replace bags as needed. Check gravel bags for proper arrangement and displacement.
- Sediment that accumulates in the BMP should be periodically removed in order to maintain BMP effectiveness. Sediment should be removed when the sediment accumulation reaches one-third of the barrier height.
- Inspect and maintain temporary geotextile insert devices according to manufacturer's specifications.
- Remove storm drain inlet protection once the drainage area is stabilized.

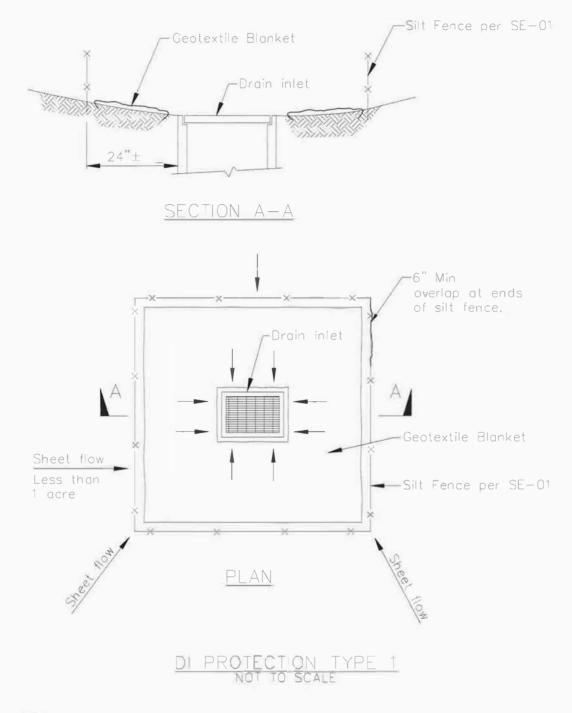
- Clean and regrade area around the inlet and clean the inside of the storm drain inlet, as it should be free of sediment and debris at the time of final inspection.

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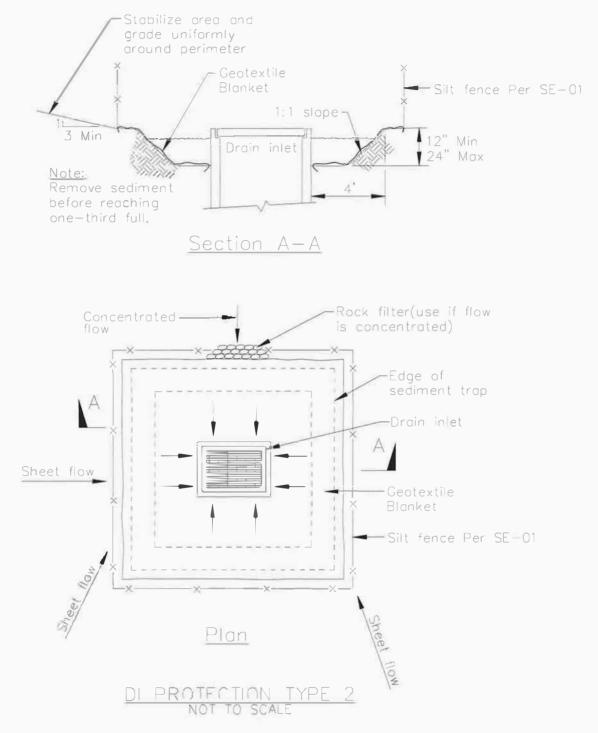
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NOTES:

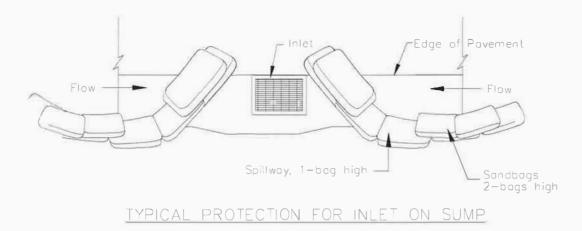
- 1. For use in areas where grading has been completed and final soil stabilization and seeding are pending.
- 2 Not applicable in paved areas.
- 3. Not applicable with concentrated flows.

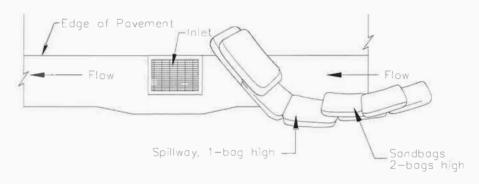
SE-10



Notes

- 1, For use in cleared and grubbed and in graded areas.
- Shape basin so that longest inflow area faces longest length of trap.
 For concentrated flows, shape basin in 2:1 ratio with length oriented
- towards direction of flow





TYPICAL PROTECTION FOR INLET ON GRADE

NOTES:

- 1. Intended for short-term use
- 2 Use to inhibit non-storm water flow
- 3 Allow for proper maintenance and cleanup.
- 4. Bags must be removed after adjacent operation is completed
- 5 Not applicable in areas with high silts and clays without filter fabric.



