



Illustrative Site Plan

STONY OAKS APARTMENTS Santa Rosa, California

L-1.1

MARCH 15, 2021





Preliminary Landscape Plan

STONY OAKS APARTMENTS Santa Rosa, California

L-1.2

MARCH 15, 2021



TREE INVENTORY REPORT

2542 Old Stony Point Road
Santa Rosa, CA

Prepared for:

Meta Housing Corporation
11150 W. Olympic Blvd, Suite 620
Los Angeles, CA90064

Prepared by:

John C. Meserve
ISA Certified Arborist, WE #0478A
ISA Qualified Tree Risk Assessor / TPAQ
ASCA Qualified Tree and Plant Appraiser / TPAQ

October 10, 2020

October 10, 2020

Cricket Cleary
Meta Housing Corporation
11150 W. Olympic Blvd, Suite 620
Los Angeles, CA90064

Re: Completed *Tree Inventory Report*, 2542 Old Stony Point Road in Santa Rosa, California

Cricket,

Attached you will find our completed *Tree Preservation and Mitigation Report* for the above noted site in Sonoma. A total of 114 trees were evaluated and this includes all trees that were 6 inches or larger in trunk diameter.

Each tree is identified in the field with a numbered aluminum tag placed on the trunk at approximately eye level.

All trees in this report was evaluated and documented for species, size, health, and structural condition. The *Tree Inventory Chart* also includes information about expected impacts of the proposed development plan and recommendations for action based on the plan reviewed. The *Tree Location Plan* shows the location and numbering sequence of all evaluated trees. Also included are *Pruning Guidelines*, *Tree Preservation Guidelines*, and a *Fencing Detail*.

This report is intended to be a basic inventory of trees present at this site, which includes a general review of tree health and structural condition. No in-depth evaluation has occurred on any tree, and assessment has included only external visual examination without probing, drilling, coring, root collar examination, root excavation, or dissecting any tree part. Failures, deficiencies, and problems may occur in these trees in the future, and this inventory in no way guarantees or provides a warranty for their health or structural condition. No other trees beyond those listed have been included in this report. If other trees need to be included it is the responsibility of the client to provide that direction.

EXISTING SITE CONDITION SUMMARY

The project site consists of a large infill parcel with no existing development present.

EXISTING TREE SUMMARY

Species native to the site were predominantly Valley Oak with a single Coast Live Oak.

— Voice 707-935-3911

Fax 707-935-7103 —

Paul and Andrea Best
9/5/20
Page 3 of 2

Non-native species included Black Walnut, Ponderosa Pine, Lombardy Poplar, and Incense Cedar.

CONSTRUCTION IMPACT SUMMARY

Based on the conceptual plan that we evaluated that did not include details of grading, underground utilities, or storm drains the following summary of impacts is provided:

(62) Trees that can be preserved

(51) Trees that must be removed due to the expected impacts of development

(1) Trees that must be removed due to poor condition

Please feel free to contact me if you have questions regarding this report, or if further discussion would be helpful.

Regards,

John C. Meserve
ISA Certified Arborist, WE #0478A
ISA Qualified Tree Risk Assessor / TPAQ
ASCA Qualified Tree and Plant Appraiser / TPAQ

TREE INVENTORY CHART

TREE INVENTORY
2542 Old Stony Point Road
Santa Rosa, CA

October 10, 2020

Tree #	Species	Common Name	Trunk (dbh ± inches)	Height (± feet)	Radius (± feet)	Health 1-5	Structure 1-4	Expected Impact	Recommendations	Mitigation Inches
1	<i>Quercus lobata</i>	Valley Oak	21	20	18	4	3	0	1, 6, 7, 8, 9, 11	0
2	<i>Quercus lobata</i>	Valley Oak	6+10	18	15	3	3	0	1, 6, 7, 8, 9, 11	0
3	<i>Quercus lobata</i>	Valley Oak	47	45	30	3	2.5	0	1, 6, 7, 8, 9, 11	0
4	<i>Quercus lobata</i>	Valley Oak	35	40	30	3.5	2.5	2	1, 6, 7, 8, 9, 11	0
5	<i>Quercus lobata</i>	Valley Oak	39	45	30	4	3	0	1, 6, 7, 8, 9, 11	0
6	<i>Quercus lobata</i>	Valley Oak	7	25	20	4	3	3	2	7
7	<i>Quercus lobata</i>	Valley Oak	10	35	16	4	3	2	1, 6, 7, 8, 9, 11	0
8	<i>Quercus lobata</i>	Valley Oak	48	x	x	x	x	3	3	0
9	<i>Quercus lobata</i>	Valley Oak	37	20	40	4	2	3	2	37
10	<i>Quercus lobata</i>	Valley Oak	13	40	20	4	3	2	1, 6, 7, 8, 9, 11	0
11	<i>Quercus lobata</i>	Valley Oak	14	40	25	4	3	2	1, 6, 7, 8, 9, 11	0
12	<i>Quercus lobata</i>	Valley Oak	6	20	12	4	3	3	2	6
13	<i>Quercus lobata</i>	Valley Oak	30	40	30	4	3	2	1, 6, 7, 8, 9, 10, 11	0
14	<i>Quercus lobata</i>	Valley Oak	14	25	21	4	3	3	2	14
15	<i>Quercus lobata</i>	Valley Oak	12+13	20	24	4	3	3	2	25
16	<i>Quercus lobata</i>	Valley Oak	8	30	14	4	3	3	2	8

HORTICULTURAL ASSOCIATES
P.O. Box 1261, Glen Ellen, CA 95442
707.935.3911

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TREE INVENTORY
2542 Old Stony Point Road
Santa Rosa, CA

October 10, 2020

Tree #	Species	Common Name	Trunk (dbh ± inches)	Height (± feet)	Radius (± feet)	Health 1-5	Structure 1-4	Expected Impact	Recommendations	Mitigation Inches
17	<i>Quercus lobata</i>	Valley Oak	10	22	16	4	3	3	2	10
18	<i>Quercus lobata</i>	Valley Oak	10	22	14	4	3	3	2	10
19	<i>Quercus lobata</i>	Valley Oak	22	45	25	4	3	3	2	22
20	<i>Juglans nigra</i>	Black Walnut	9+13	25	15	4	3	0	1, 6, 7, 8, 9, 10, 11	0
21	<i>Quercus lobata</i>	Valley Oak	15	25	15	4	3	0	1, 6, 7, 8, 9, 10, 11	0
22	<i>Populus nigra "Italica"</i>	Lombardy Poplar	48	45	10	4	3	0	1, 6, 7, 8, 9, 10, 11	0
23	<i>Quercus lobata</i>	Valley Oak	17	35	21	4	3	0	1, 6, 7, 8, 9, 11	0
24	<i>Calocedrus decurrens</i>	Incense Cedar	11	30	10	4	3	0	1, 6, 7, 8, 9, 10, 11	0
25	<i>Quercus lobata</i>	Valley Oak	13+16+16	40	28	4	2	3	2	45
26	<i>Quercus lobata</i>	Valley Oak	21	40	25	4	3	2	1, 6, 7, 8, 9, 11	0
27	<i>Quercus lobata</i>	Valley Oak	12	13	40	4	3	2	1, 6, 7, 8, 9, 11	0
28	<i>Quercus lobata</i>	Valley Oak	23	24	40	4	2	3	2	23
29	<i>Quercus lobata</i>	Valley Oak	8	18	14	4	3	3	2	8
30	<i>Quercus lobata</i>	Valley Oak	21	35	15	4	3	0	1, 6, 7, 8, 9, 11	0
31	<i>Quercus lobata</i>	Valley Oak	11+12	20	14	3	3	2	1, 6, 7, 8, 9, 11	0
32	<i>Quercus lobata</i>	Valley Oak	15+10	15	14	3	2	3	2	25

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TREE INVENTORY
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Tree #	Species	Common Name	Trunk (dbh ± inches)	Height (± feet)	Radius (± feet)	Health 1-5	Structure 1-4	Expected Impact	Recommendations	Mitigation Inches
33	<i>Pinus ponderosa</i>	Ponderosa Pine	6	16	6	2	2	2	1, 6, 7, 8, 9, 11	0
34	<i>Quercus lobata</i>	Valley Oak	12	35	14	4	3	0	1, 6, 7, 8, 9, 11	0
35	<i>Quercus lobata</i>	Valley Oak	6	12	6	4	3	0	1, 6, 7, 8, 9, 11	0
36	<i>Quercus lobata</i>	Valley Oak	13	30	15	4	3	0	1, 6, 7, 8, 9, 11	0
37	<i>Quercus lobata</i>	Valley Oak	7	12	5	1	3	0	1, 6, 7, 8, 9, 11	0
38	<i>Quercus lobata</i>	Valley Oak	12	35	14	4	3	0	1, 6, 7, 8, 9, 11	0
39	<i>Quercus lobata</i>	Valley Oak	10+6	30	15	3	3	0	1, 6, 7, 8, 9, 11	0
40	<i>Quercus lobata</i>	Valley Oak	13	40	15	4	3	0	1, 6, 7, 8, 9, 11	0
41	<i>Quercus lobata</i>	Valley Oak	23	40	22	4	3	0	1, 6, 7, 8, 9, 11	0
42	<i>Quercus lobata</i>	Valley Oak	5+12	35	21	4	3	0	1, 6, 7, 8, 9, 11	0
43	<i>Quercus lobata</i>	Valley Oak	6	18	8	3	3	0	1, 6, 7, 8, 9, 11	0
44	<i>Quercus lobata</i>	Valley Oak	8	35	10	4	3	0	1, 6, 7, 8, 9, 11	0
45	<i>Quercus lobata</i>	Valley Oak	7	35	10	4	3	0	1, 6, 7, 8, 9, 11	0
46	<i>Quercus lobata</i>	Valley Oak	10	30	16	3	3	0	1, 6, 7, 8, 9, 11	0
47	<i>Quercus lobata</i>	Valley Oak	13	35	15	4	3	0	1, 6, 7, 8, 9, 11	0
48	<i>Quercus lobata</i>	Valley Oak	11	35	16	3	3	0	1, 6, 7, 8, 9, 11	0

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TREE INVENTORY
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October 10, 2020

Tree #	Species	Common Name	Trunk (dbh ± inches)	Height (± feet)	Radius (± feet)	Health 1-5	Structure 1-4	Expected Impact	Recommendations	Mitigation Inches
49	<i>Quercus lobata</i>	Valley Oak	10	35	15	3	3	0	1, 6, 7, 8, 9, 11	0
50	<i>Quercus lobata</i>	Valley Oak	8	30	14	3	3	0	1, 6, 7, 8, 9, 11	0
51	<i>Quercus lobata</i>	Valley Oak	6	25	8	2	3	0	1, 6, 7, 8, 9, 11	0
52	<i>Quercus lobata</i>	Valley Oak	34	45	32	4	3	3	2	34
53	<i>Juglans nigra</i>	Black Walnut	26	40	28	4	3	2	1, 6, 7, 8, 9, 11	0
54	<i>Quercus agrifolia</i>	Coast Live Oak	7+10	25	14	4	3	2	1, 6, 7, 8, 9, 11	0
55	<i>Quercus lobata</i>	Valley Oak	6	25	10	4	3	3	2	6
56	<i>Quercus lobata</i>	Valley Oak	6	25	10	4	3	3	2	6
57	<i>Quercus lobata</i>	Valley Oak	8	30	12	4	3	0	1, 6, 7, 8, 9, 11	0
58	<i>Quercus lobata</i>	Valley Oak	7	30	12	4	3	3	2	7
59	<i>Quercus lobata</i>	Valley Oak	7	25	12	4	3	3	2	7
60	<i>Quercus lobata</i>	Valley Oak	9	30	12	4	3	3	2	9
61	<i>Quercus lobata</i>	Valley Oak	13	35	15	4	3	3	2	13
62	<i>Quercus lobata</i>	Valley Oak	8	35	16	4	3	3	2	8
63	<i>Quercus lobata</i>	Valley Oak	6	30	14	4	3	3	2	6
64	<i>Quercus lobata</i>	Valley Oak	13	30	14	4	3	3	2	13

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TREE INVENTORY
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October 10, 2020

Tree #	Species	Common Name	Trunk (dbh ± inches)	Height (± feet)	Radius (± feet)	Health 1-5	Structure 1-4	Expected Impact	Recommendations	Mitigation Inches
65	<i>Quercus lobata</i>	Valley Oak	14	35	16	4	3	3	2	14
66	<i>Quercus lobata</i>	Valley Oak	11	35	14	4	3	3	2	11
67	<i>Quercus lobata</i>	Valley Oak	6	18	8	4	3	3	2	6
68	<i>Quercus lobata</i>	Valley Oak	6	35	15	4	3	3	2	6
69	<i>Quercus lobata</i>	Valley Oak	12	40	20	4	3	3	2	12
70	<i>Quercus lobata</i>	Valley Oak	8	35	14	4	3	3	2	8
71	<i>Quercus lobata</i>	Valley Oak	5+8	35	14	4	3	3	2	13
72	<i>Quercus lobata</i>	Valley Oak	15	35	16	4	3	3	2	15
73	<i>Quercus lobata</i>	Valley Oak	21	40	25	4	3	3	2	21
74	<i>Quercus lobata</i>	Valley Oak	6+6+7	40	16	4	3	3	2	19
75	<i>Quercus lobata</i>	Valley Oak	9	40	16	4	3	3	2	9
76	<i>Quercus lobata</i>	Valley Oak	10	45	15	4	3	3	2	10
77	<i>Quercus lobata</i>	Valley Oak	9	25	18	4	3	3	2	9
78	<i>Quercus lobata</i>	Valley Oak	9+9	40	18	4	3	3	2	18
79	<i>Quercus lobata</i>	Valley Oak	10	40	15	4	3	3	2	10
80	<i>Quercus lobata</i>	Valley Oak	6	35	12	4	3	3	2	6

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TREE INVENTORY
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Santa Rosa, CA

October 10, 2020

Tree #	Species	Common Name	Trunk (dbh ± inches)	Height (± feet)	Radius (± feet)	Health 1 - 5	Structure 1 - 4	Expected Impact	Recommendations	Mitigation Inches
81	<i>Quercus lobata</i>	Valley Oak	7	35	15	4	3	3	2	7
82	<i>Quercus lobata</i>	Valley Oak	8	30	14	4	3	3	2	8
83	<i>Quercus lobata</i>	Valley Oak	6	30	12	4	3	3	2	6
84	<i>Quercus lobata</i>	Valley Oak	8	35	15	4	3	3	2	8
85	<i>Quercus lobata</i>	Valley Oak	11	35	15	4	3	0	1, 6, 7, 8, 9, 11	0
86	<i>Quercus lobata</i>	Valley Oak	8	35	15	4	3	0	1, 6, 7, 8, 9, 11	0
87	<i>Quercus lobata</i>	Valley Oak	7	35	14	4	3	0	1, 6, 7, 8, 9, 11	0
88	<i>Quercus lobata</i>	Valley Oak	12+12	35	26	4	3	1	1, 6, 7, 8, 9, 11	0
89	<i>Quercus lobata</i>	Valley Oak	6	40	16	4	3	0	1, 6, 7, 8, 9, 11	0
90	<i>Quercus lobata</i>	Valley Oak	7	35	15	4	3	0	1, 6, 7, 8, 9, 11	0
91	<i>Quercus lobata</i>	Valley Oak	8	30	16	4	3	3	2	8
92	<i>Quercus lobata</i>	Valley Oak	7	35	16	4	3	3	2	7
93	<i>Quercus lobata</i>	Valley Oak	5+11	35	15	4	3	0	1, 6, 7, 8, 9, 11	0
94	<i>Quercus lobata</i>	Valley Oak	6	30	12	4	3	3	2	6
95	<i>Quercus lobata</i>	Valley Oak	6	30	12	4	3	3	2	6
96	<i>Quercus lobata</i>	Valley Oak	6-8+12	35	18	4	3	2	1, 6, 7, 8, 9, 11	0

KEY TO TREE INVENTORY CHART

Tree Number
Each tree has been identified in the field with an aluminum tag and reference number. Tags are attached to the trunk at approximately eye level and the *Tree Location Plan* illustrates the location of each numbered tree.

Species
Each tree has been identified by genus, species and common name. Many species have more than one common name.

Trunk
Each trunk has been measured, to the nearest one half inch, to document its diameter at 4 feet above adjacent grade. Trunk diameter is a good indicator of age, and is commonly used to determine mitigation replacement requirements.

Height
Height is estimated in feet, using visual assessment.

Radius
Radius is estimated in feet, using visual assessment. Since many canopies are asymmetrical, it is not uncommon for a radius estimate to be an average of the canopy size.

Health
The following descriptions are used to rate the health of a tree. Trees with a rating of 4 or 5 are very good candidates for preservation and will tolerate more construction impacts than trees in poorer condition. Trees with a rating of 3 may or may not be good candidates for preservation, depending on the species and expected construction impacts. Trees with a rating of 1 or 2 are generally poor candidates for preservation.

(5) Excellent - health and vigor are exceptional, no pest, disease, or distress symptoms.
(4) Good - health and vigor are average, no significant or specific distress symptoms, no significant pest or disease.
(3) Fair - health and vigor are somewhat compromised, distress is visible, pest or disease may be present and affecting health, problems are generally correctable.
(2) Marginal - health and vigor are significantly compromised, distress is highly visible and present to the degree that survivability is in question.
(1) Poor - decline has progressed beyond the point of being able to return to a healthy condition again. Long-term survival is not expected. This designation includes dead trees.

Structure
The following descriptions are used to rate the structural integrity of a tree. Trees with a rating of 3 or 4 are generally stable, sound trees which do not require significant pruning, although

clearing, thinning, or raising the canopy might be desirable. Trees with a rating of 2 are generally poor candidates for preservation unless they are preserved well away from improvements or active use areas. Significant time and effort would be required to reconstruct the canopy and improve structural integrity. Trees with a rating of 1 are hazardous and should be removed.

(4) Good structure - minor structural problems may be present which do not require corrective action.
(3) Moderate structure - normal, typical structural issues which can be corrected with pruning.
(2) Marginal structure - serious structural problems are present which may or may not be correctable with pruning, cabling, bracing, etc.
(1) Poor structure - hazardous structural condition which cannot be effectively corrected with pruning or other measures, may require removal depending on location and the presence of targets.

Tree Protection Zone (TPZ)
The area to be protected by temporary fencing during construction. Represented by 1 foot of radius for each inch of trunk diameter measured at 4.5 feet above adjacent grade.

Development Impacts
Considering the proximity of construction activities, type of activities, tree species, and tree condition - the following ratings are used to estimate the amount of impact on tree health and stability. Most trees will tolerate a (1) rating, many trees could tolerate a (2) rating with careful consideration and mitigation, but trees with a (3) rating are poor candidates for preservation due to their very close proximity to construction or because they are located within the footprint of construction and cannot be preserved.

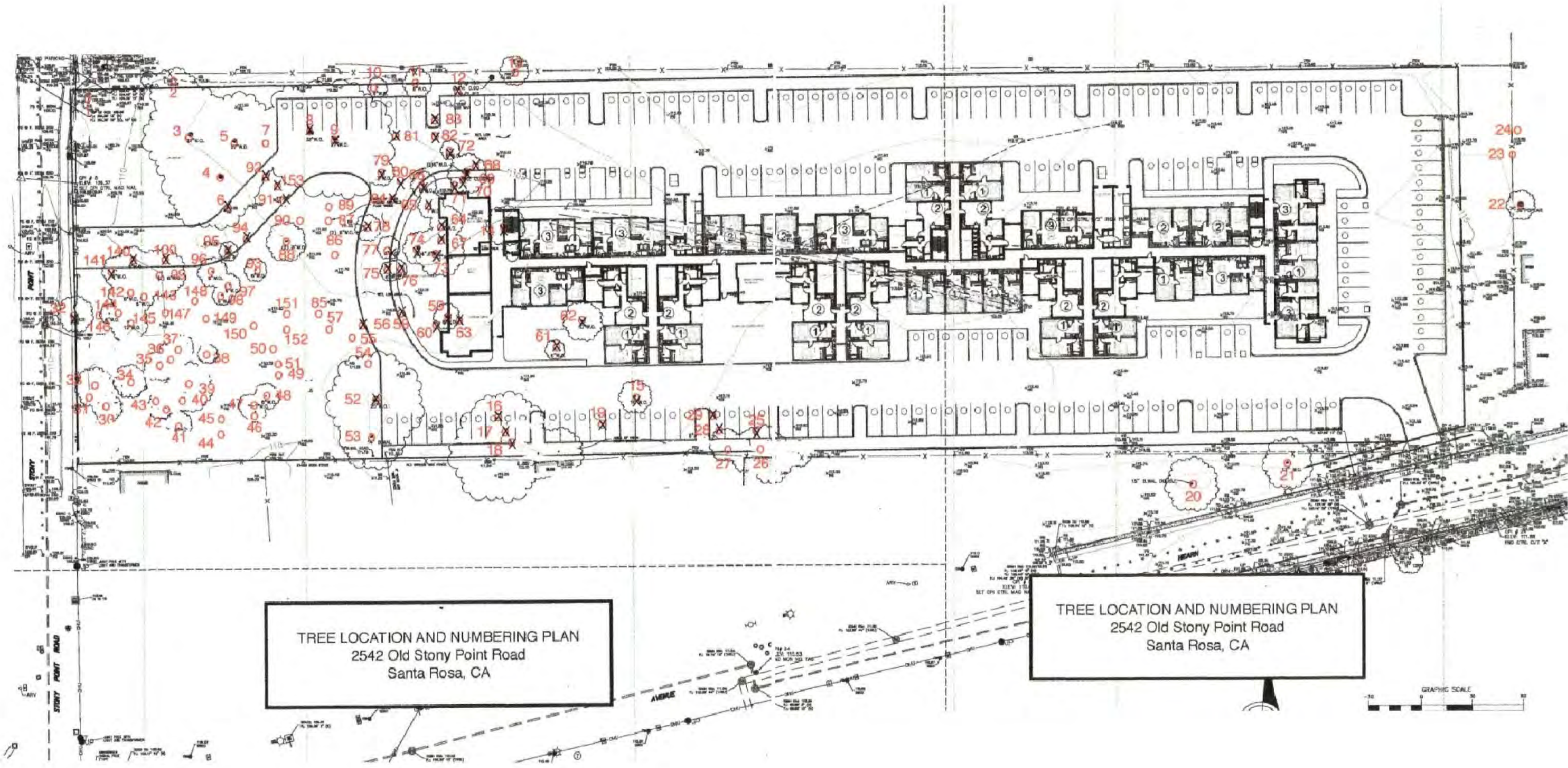
(3) A significant impact on long term tree integrity can be expected as a result of proposed development.
(2) A moderate impact on long term tree integrity can be expected as a result of proposed development.
(1) A very minor or no impact on long term tree integrity can be expected as a result of proposed development.
(0) An unknown impact on long term tree integrity is expected depending on the location of this tree in relationship to actual grading and construction.

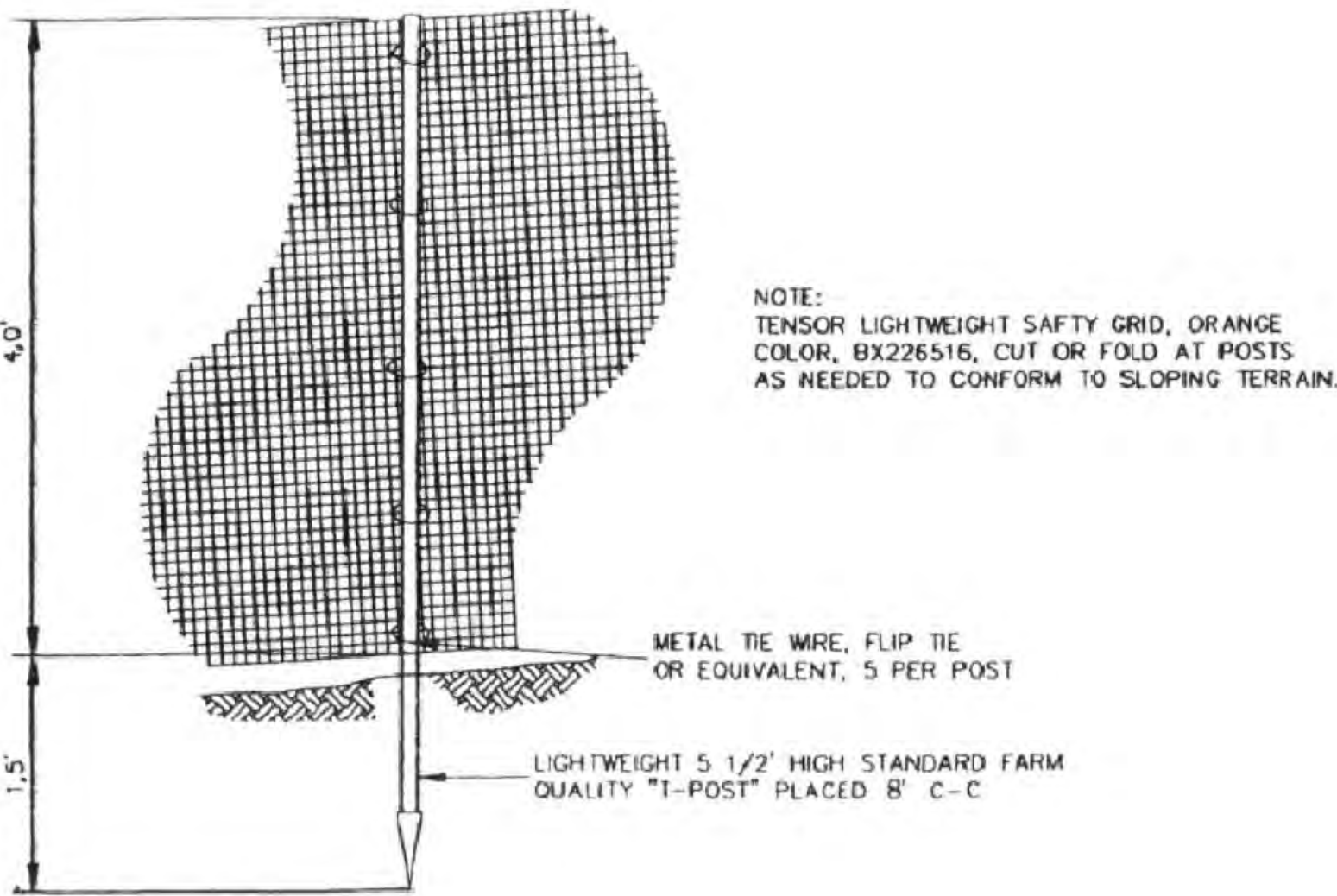
Recommendations
Recommendations are provided for removal or preservation. For those being preserved, protection measures and mitigation procedures to offset impacts and improve tree health are provided.

(1) Preservation appears to be possible.
(2) Removal is required due to significant development impacts.

(3) Removal is recommended due to poor health or hazardous structure.
(4) This tree may or may not be preservable based on information available at this time. Further analyze impacts following completion of a topographic survey to verify exact tree location.
(5) Removal is recommended due to poor species characteristics.
(6) Install temporary protective fencing at the edge of the Tree Protection Zone (TPZ), or edge of approved construction, prior to beginning grading or construction. Maintain fencing in place for duration of all construction activity in the area.
(7) Maintain existing grade within the fenced portion of the TPZ. Route drainage swales and all underground work outside the dripline.
(8) Place a 4" layer of chipped bark mulch over the soil surface within the fenced TPZ prior to installing temporary fencing. Maintain this layer of mulch throughout construction.
(9) Prune to clean, raise, or provide necessary clearance. Prune to reduce branches that are over-loaded, over-extended, largely horizontal, arching, or have foliage concentrated near the branch ends, per International Society of Arboriculture Pruning Standards.
Pruning to occur by, or under the supervision of, an Arborist certified by the International Society of Arboriculture. Pruning Standards are attached to this report.
(10) This is an off-site tree that overhangs the project site and must be protected and preserved.
(11) Where approved excavation, grading, or compaction may be required within the tree protection zone of any preserved tree construction must adhere to the following guidelines:
All roots encountered that are 2 inches or larger in diameter must be cleanly cut as they are encountered by excavating equipment.
Roots may not be ripped from the ground and then trimmed. They must be trimmed as encountered and this will require the use of a ground man working with a suitable power tool.
Pruned and exposed roots greater than 2 inches in diameter must be protected from desiccation if left exposed for more than 24 hours. Cover cut roots with heavy cloth, burlap, used carpeting, or similar material that has been soaked in water, until trench or excavation has been backfilled.
If excavation impacts more than 20% of the defined tree protection zone then supplemental irrigation may be required to offset loss of roots. Excavation in this case should be directed by the project arborist who will determine whether excavation is required, when, and how.
Any excavation within the defined tree protection zone will require that the tree be monitored on a monthly basis by the project arborist for the duration of construction and for one year beyond completion of construction. Monitoring may determine other mitigation measures that may be required to offset root loss or damage.

TREE LOCATION PLAN





TREE PROTECTION FENCING DETAIL

PRUNING STANDARDS

WESTERN CHAPTER
ISA

PRUNING STANDARDS

Purpose:

Trees and other woody plants respond in specific and predictable ways to pruning and other maintenance practices. Careful study of these responses has led to pruning practices which best preserve and enhance the beauty, structural integrity, and functional value of trees.

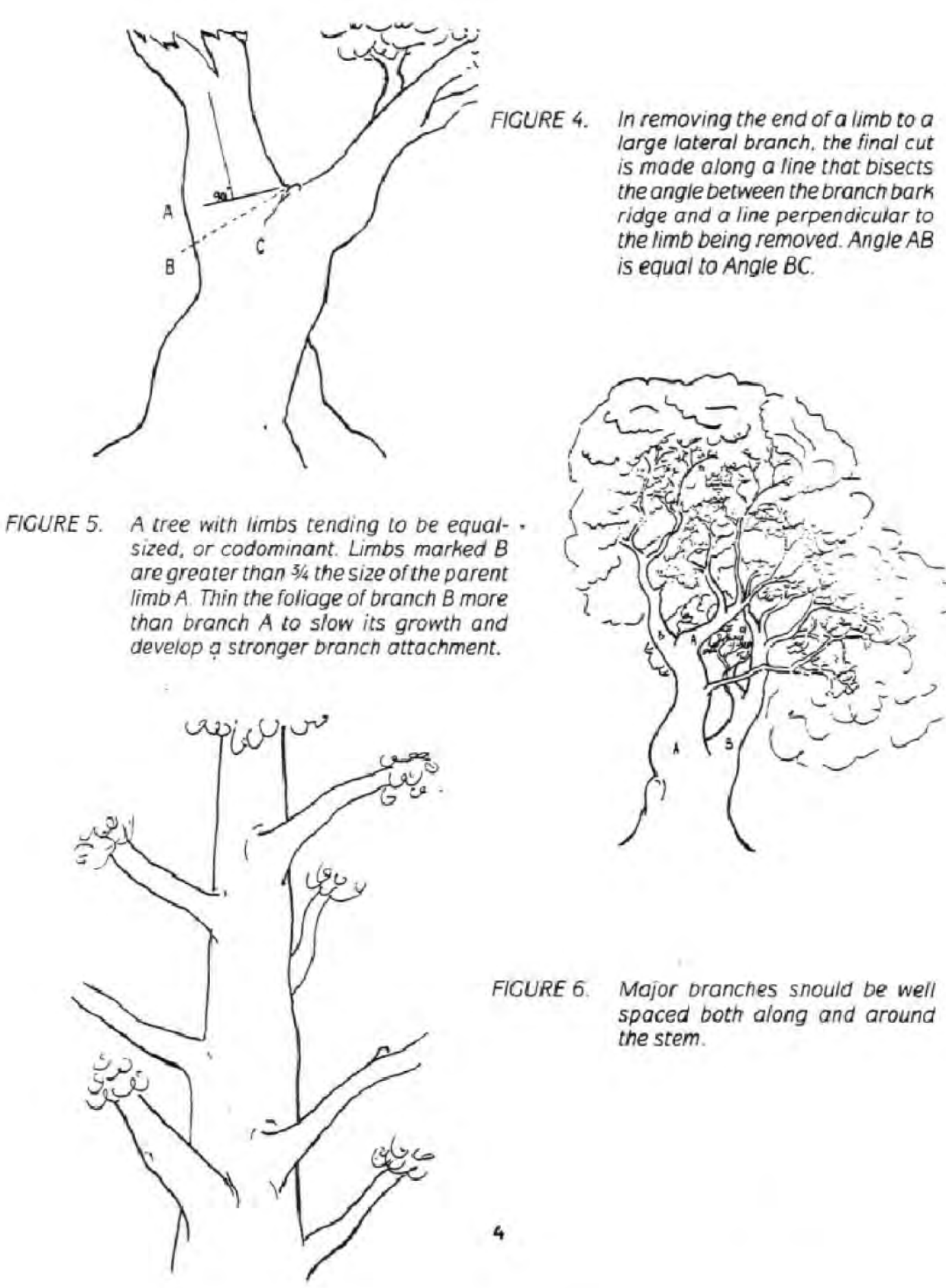
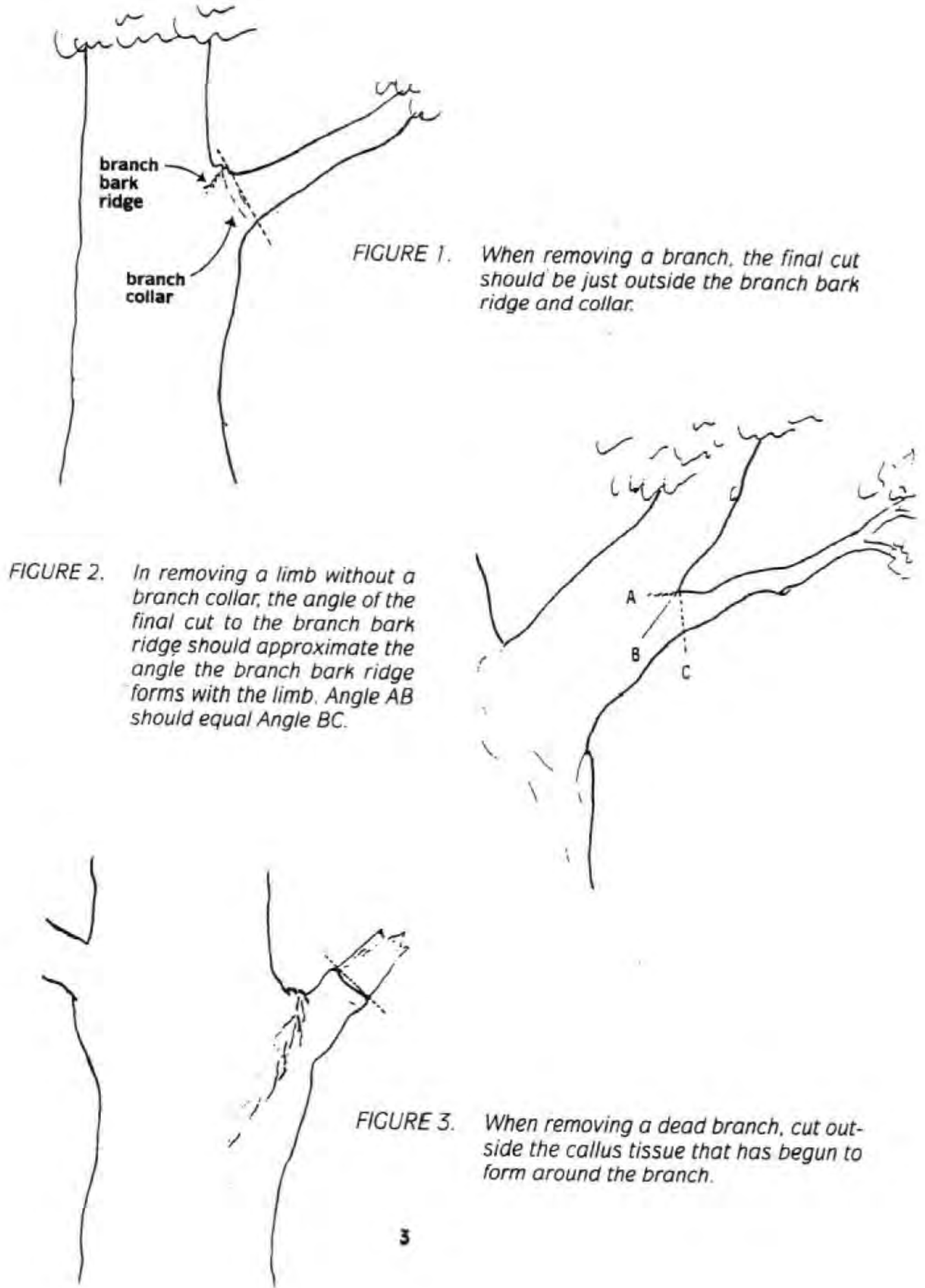
In an effort to promote practices which encourage the preservation of tree structure and health, the W.C. ISA Certification Committee has established the following Standards of Pruning for Certified Arborists. The Standards are presented as working guidelines, recognizing that trees are individually unique in form and structure, and that their pruning needs may not always fit strict rules. The Certified Arborist must take responsibility for special pruning practices that vary greatly from these Standards.

I. Pruning Techniques

- A. A thinning cut removes a branch at its point of attachment or shortens it to a lateral large enough to assume the terminal role. Thinning opens up a tree, reduces weight on heavy limbs, can reduce a tree's height, distributes ensuing invigoration throughout a tree and helps retain the tree's natural shape. Thinning cuts are therefore preferred in tree pruning.
- When shortening a branch or leader, the lateral to which it is cut should be at least one-half the diameter of the cut being made. Removal of a branch or leader back to a sufficiently large lateral is often called "drop crotching."
- B. A heading cut removes a branch to a stub, a bud or a lateral branch not large enough to assume the terminal role. Heading cuts should seldom be used because vigorous, weakly attached upright sprouts are forced just below such cuts, and the tree's natural form is altered. In some situations, branch stubs die or produce only weak sprouts.

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II. Types of Pruning — Mature Trees

- A. CROWN CLEANING
- Crown cleaning or cleaning out is the removal of dead, dying, diseased, crowded, weakly attached, and low-vigor branches and watersprouts from a tree crown.
- B. CROWN THINNING
- Crown thinning includes crown cleaning and the selective removal of branches to increase light penetration and air movement into the crown. Increased light and air stimulates and maintains interior foliage, which in turn improves branch taper and strength. Thinning reduces the wind-sail effect of the crown and the weight of heavy limbs. Thinning the crown can emphasize the structural beauty of trunk and branches as well as improve the growth of plants beneath the tree by increasing light penetration. When thinning the crown of mature trees, seldom should more than one-third of the live foliage be removed.
- At least one-half of the foliage should be on branches that arise in the lower two-thirds of the trees. Likewise, when thinning laterals from a limb, an effort should be made to retain inner lateral branches and leave the same distribution of foliage along the branch. Trees and branches so pruned will have stress more evenly distributed throughout the tree or along a branch.
- An effect known as "lion's-tailing" results from pruning out the inside lateral branches. Lion's-tailing, by removing all the inner foliage, displaces the weight to the ends of the branches and may result in sunburned branches, watersprouts, weakened branch structure and limb breakage.
- C. CROWN REDUCTION
- Crown reduction is used to reduce the height and/or spread of a tree. Thinning cuts are most effective in maintaining the structural integrity and natural form of a tree and in delaying the time when it will need to be pruned again. The lateral to which a branch or trunk is cut should be at least one-half the diameter of the cut being made.
- D. CROWN RESTORATION
- Crown restoration can improve the structure and appearance of trees that have been topped or severely pruned using heading cuts. One to three sprouts on main branch stubs should be selected to reform a more natural appearing crown. Selected vigorous sprouts may need to be thinned to a lateral, or even headed, to control length growth in order to ensure adequate attachment for the size of the sprout. Restoration may require several prunings over a number of years.

5

II. Types of Pruning — Mature Trees (continued)

- E. CROWN RAISING
- Crown raising removes the lower branches of a tree in order to provide clearance for buildings, vehicles, pedestrians, and vistas. It is important that a tree have at least one-half of its foliage on branches that originate in the lower two-thirds of its crown to ensure a well-formed, tapered structure and to uniformly distribute stress within a tree.
- When pruning for view, it is preferable to develop "windows" through the foliage of the tree, rather than to severely raise or reduce the crown.

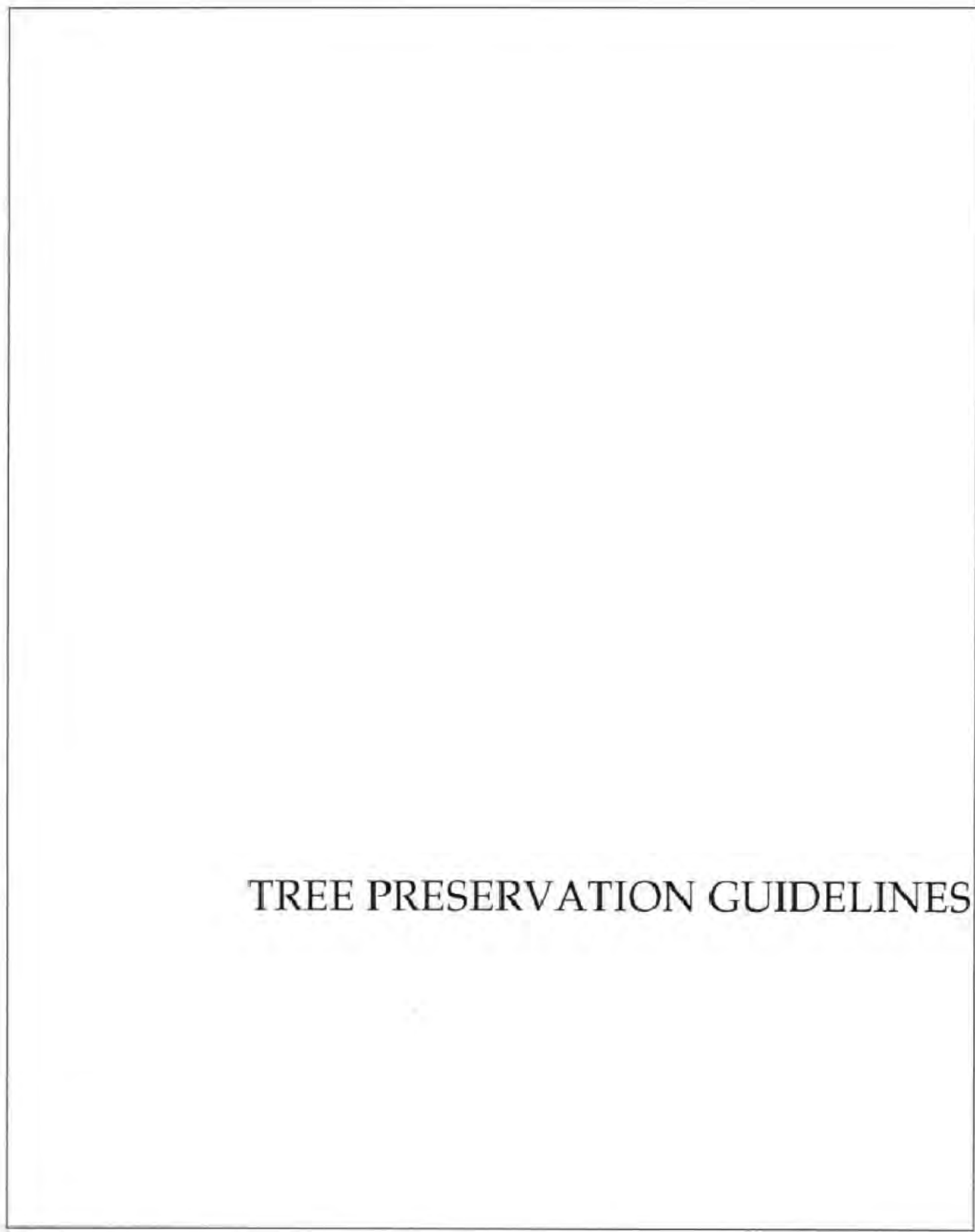
III. Size of Pruning Cuts

Each of the Pruning Techniques (Section I) and Types of Pruning (Section II) can be done to different levels of detail or refinement. The removal of many small branches rather than a few large branches will require more time, but will produce a less-pruned appearance, will force fewer watersprouts and will help to maintain the vitality and structure of the tree. Designating the maximum size (base diameter) that any occasional undesirable branch may be left within the tree crown, such as 1/2", 1" or 2" branch diameter, will establish the degree of pruning desired.

IV. Climbing Techniques

- A. Climbing and pruning practices should not injure the tree except for the pruning cuts.
- B. Climbing spurs or gaffs should not be used when pruning a tree, unless the branches are more than throw-line distance apart. In such cases, the spurs should be removed once the climber is tied in.
- C. Spurs may be used to reach an injured climber and when removing a tree.
- D. Rope injury to thin barked trees from loading out heavy limbs should be avoided by installing a block in the tree to carry the load. This technique may also be used to reduce injury to a crotch from the climber's line.

6



TREE PRESERVATION GUIDELINES

GENERAL TREE PROTECTION GUIDELINES

INTRODUCTION

Great care must be exercised when development is proposed in the vicinity of established trees of any type. The trees present at construction sites require specialized protection techniques during all construction activities to minimize negative impact on their long term health and vigor. The area immediately beneath and around canopy driplines is especially critical, and the requirements and procedures that follow are established to protect short and long term tree integrity. The purpose of this protection guideline is therefore to define the procedures that must be followed during any and all phases of development in the immediate vicinity of designated and protected trees.

Established, mature trees respond in a number of different ways to the disruption of their natural conditions. Change of grade within the root system area or near the root collar, damage to the bark of the trunk, soil compaction above the root system, root system reduction or damage, or alteration of summer soil moisture levels may individually or collectively cause physiological stress leading to tree decline and death. The individual impacts of these activities may cause trees to immediately exhibit symptoms and begin to decline, but more commonly the decline process takes many years, with symptoms appearing slowly and over a period of time. Trees may not begin to show obvious signs of decline from the negative impacts of construction until many years after construction is completed. It is not appropriate to wait for symptoms to appear, as this may be too late to correct the conditions at fault and to halt decline.

It is therefore critical to the long-term health of all protected trees that a defined protection program be established before beginning any construction activity where protected trees are found. Once incorporated at the design level, it is mandatory that developers, contractors, and construction personnel understand the critical importance of these guidelines, and the potential penalties that will be levied if they are not fully incorporated at every stage of development.

The following guidelines are meant to be utilized by project managers and those supervising any construction in the vicinity of protected trees including grading contractors, underground contractors, all equipment operators, construction personnel, and landscape contractors. These protection guidelines are presented in a brief outline form to be applied to each individual activity that occurs during development activities. It is left to project managers to implement these protection measures. Questions which

especially drainage components, should take into consideration that these trees may begin a slow decline if this naturally present association with water is eliminated.

TREE DAMAGE

Any form of tree damage which occurs during the demolition, grading, or construction process shall be evaluated by the project arborist. Specific mitigation measures will be developed to compensate for or correct the damage. Fines and penalties may also be levied.

Measures may include, but are not limited to, the following:

- pruning to remove damaged limbs or wood
- bark scoring to remove damaged bark and promote callous formation
- alleviation of compaction by lightly scarifying the soil surface
- installation of a specific mulching material
- supplemental irrigation during the growing season for up to 5 years
- treatment with specific amendments intended to promote health, vigor, or root growth
- vertical mulching or soil fracturing to promote root growth
- periodic post-construction monitoring at the developer's expense
- tree replacement, or payment of the established appraised value, if the damage is so severe that long term survival is not expected

FERTILIZATION

1. Native trees generally do not require supplemental fertilization unless exhibiting a deficiency symptom. Following completion of construction any tree that exhibits symptoms of a specific nutrient deficiency shall be fertilized to compensate for the deficiency. Soil or tissue analysis may be required to identify the deficiency.
2. Distressed trees, or trees damaged by construction in any way, may be detrimentally affected by supplemental fertilization. The decision to fertilize, and with what fertilizer, shall be made by the project arborist based on conditions and appearance observed at the completion of the project.

arise, or interpretation of guidelines as they apply to specific site activities, must be referred to the designated project arborist as they occur.

TREE PROTECTION ZONE

1. The canopy dripline is illustrated on the Improvement Plans and represents the area around each tree, or group of trees, which must be protected at all times with tree protection fencing. No encroachment into the dripline is allowed at any time, and unauthorized entry may be subject to civil action and penalties.
2. The dripline will be designated by the project arborist at a location determined to be adequate to ensure long term tree viability and health.

TREE PROTECTION FENCING

1. Prior to initiating any construction activity on a construction project, including demolition or grading, temporary protective fencing shall be installed at each site tree. Fencing shall be located at the dripline designated by the project arborist or illustrated on the Improvement Plans.
2. Fencing shall be minimum 4' height at all locations, and shall form a continuous barrier without entry points around all individual trees, or groups of trees. Barrier type fencing such as *Tensar* plastic fencing is recommended, but any fencing system that adequately prevents entry will be considered for approval by the project arborist. The use of post and cable fencing is not acceptable.
3. Fencing shall be installed in a professional manner with steel fence posts (standard quality farm "T" posts work well) placed no more than 8 feet on center. Fencing shall be attached to each post at 5 locations with plastic electrical ties, metal tie wire, or flip tie. See fencing detail.
4. Fencing shall serve as a barrier to prevent encroachment of any type by construction activities, equipment, materials storage, or personnel.
5. All encroachment into the fenced dripline must be approved in writing. Approved dripline encroachment may require additional mitigation or protection measures.
6. Contractors and subcontractors shall direct all equipment and personnel to remain outside the fenced area at all times until project is complete, and shall instruct personnel and sub-contractors as to the purpose and importance of fencing and preservation.

7. Fencing shall be upright and functional at all times from start to completion of project. Fencing shall remain in place and not be moved or removed until all construction activities at the site are completed.

TREE PRUNING AND TREATMENTS

1. All recommendations for pruning or other treatments must be completed prior to acceptance of the project. It is strongly recommended that pruning be completed prior to the start of grading to facilitate optimum logistics and access.
- 2.
3. All pruning shall be conducted in conformance with International Society of Arboriculture pruning standards, and all pruning must occur by, or under the direct supervision of, an arborist certified by the International Society of Arboriculture.

GRADING AND TRENCHING

1. Any construction activity that necessitates soil excavation in the vicinity of preserved trees shall be avoided where possible, or be appropriately mitigated under the guidance of the project arborist. All contractors must be aware at all times that specific protection measures are defined, and non conformance may generate stop-work orders.
2. The designated dripline is defined around all site trees to be preserved. Fences protect the designated areas. No grading or trenching is to occur within this defined area unless so designated by the Improvement Plan, and where designated shall occur under the direct supervision of the project arborist.
3. Trenching should be routed around the dripline whenever possible. Where trenching has been designated within the dripline, utilization of underground technology to bore, tunnel or excavate with high-pressure air or water will be specified. Hand digging will be generally discouraged unless site conditions restrict the use of alternate technology.
4. All roots greater than one inch in diameter shall be cleanly hand-cut as they are encountered in any trench or in any grading activity. The tearing of roots by equipment of any type shall not be allowed. Mitigation treatment of pruned roots shall be specified by the project arborist as determined by the degree of root pruning, location of root pruning, and potential exposure to desiccation. No pruning paints or sealants shall be used on cut roots.
5. Where significant roots are encountered mitigation measures such as supplemental irrigation and/or organic mulches may be specified by the project arborist to offset the reduction of root system capacity.

6. Retaining walls are effective at holding grade changes outside the area of the dripline and are recommended where necessary. Retaining walls shall be constructed in post and beam or drilled pier construction styles where they are necessary near or within a dripline.
7. Placement of fill soils is generally discouraged within the dripline, but in some approved locations may be approved to cover up to 30% of this area. The species and condition of the tree shall be considered, as well as site and soil conditions, and depth of fill. Retaining walls should be utilized to minimize the area of fill within the dripline. Type of fill soil and placement methods shall be reviewed prior to placement.
8. Grade changes outside the dripline, or those necessary in conjunction with retaining walls, shall be designed so that drainage water of any type or source is not diverted toward or around the root crown in any manner. Grade shall drain away from root crown at a minimum of 2%. If grading toward the root collar is unavoidable, appropriate surface and/or subsurface drain facilities shall be installed so that water is effectively diverted away from root collar area.
9. Approved fill soils within the dripline may also be mitigated using aerated gravel layers and/or perforated aeration tubing systems.
10. Tree roots will be expected to grow into areas of soil fill, and quality of imported soil shall be considered. Ideally, fill soil should be site soil that closely matches that present within the root zone area. When import soil is utilized it must be the same or slightly coarser texture than existing site soil, should have a pH range comparable to site soils, and generally should have acceptable chemical properties for appropriate plant growth. A soil analysis is recommended prior to importation to evaluate import soil for these criteria.
11. Grade reduction within the designated dripline shall be generally discouraged, and where approved, shall be conducted only after careful consideration and coordination with the project arborist.
12. Foundations of all types within the dripline shall be constructed using design techniques that eliminate the need for trenching into natural grade. These techniques might include drilled piers, grade beams, bridges, or cantilevered structures. Building footprints should generally be outside the dripline whenever possible.

DRAINAGE

The location and density of native trees on many sites may be directly associated with the presence of naturally occurring water, especially ephemeral waterways. Project design,

PEST CONTROL

A close visual examination for tree pests shall be conducted by the pruning contractor as he completes recommended pruning procedures. If a serious infestation is present, that was not apparent from ground observation, then pest control measures may be considered. However, the simple presence of tree pests does not warrant the use of chemical pesticides. Only a serious infestation, capable of causing tree decline, would warrant pesticide use. The use of organic sprays or pesticidal soaps is the preferred method for treating any serious pest infestation.

WEED CONTROL

No specific measures are recommended for weed control, and the presence of weeds should not be considered problematic in relation to continued tree health. However, use of contact weed killers and pre-emergent weed killers are generally not recommended due to their potential for root system damage if improperly applied.

DISEASE CONTROL

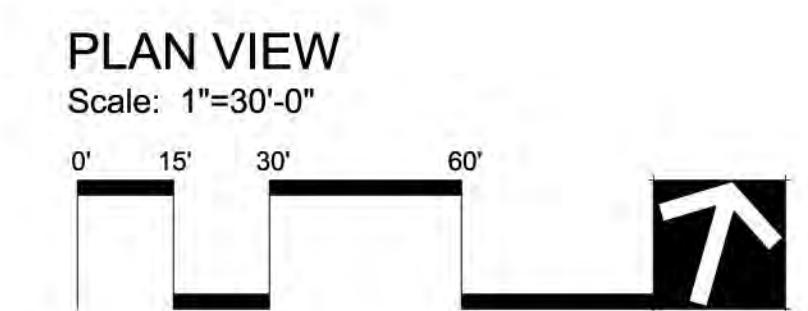
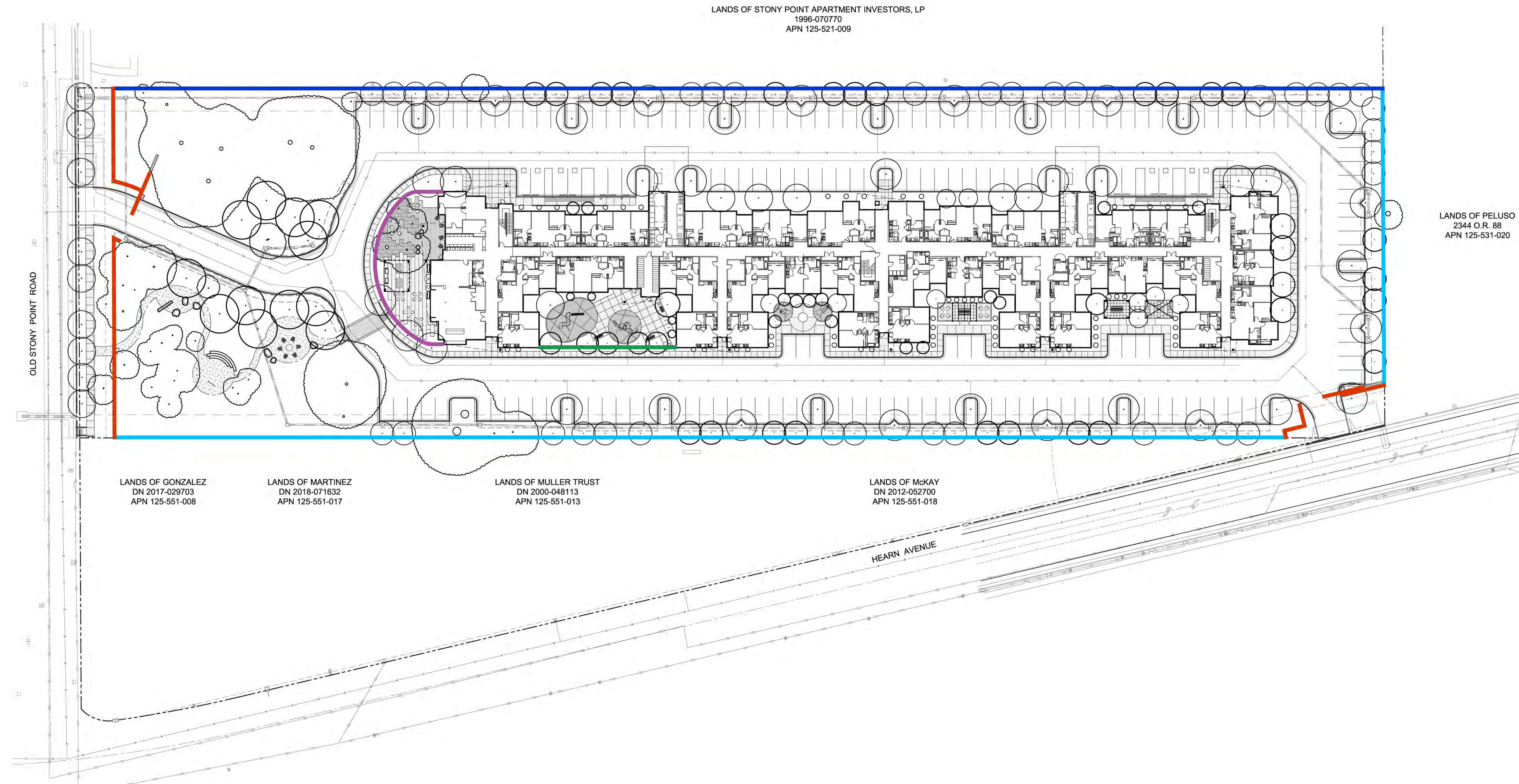
No specific measures are recommended for disease control unless noted in the Tree Protection and Preservation Plan. All disease control measures should be based on observation of actual conditions in the tree canopy.

MULCHING

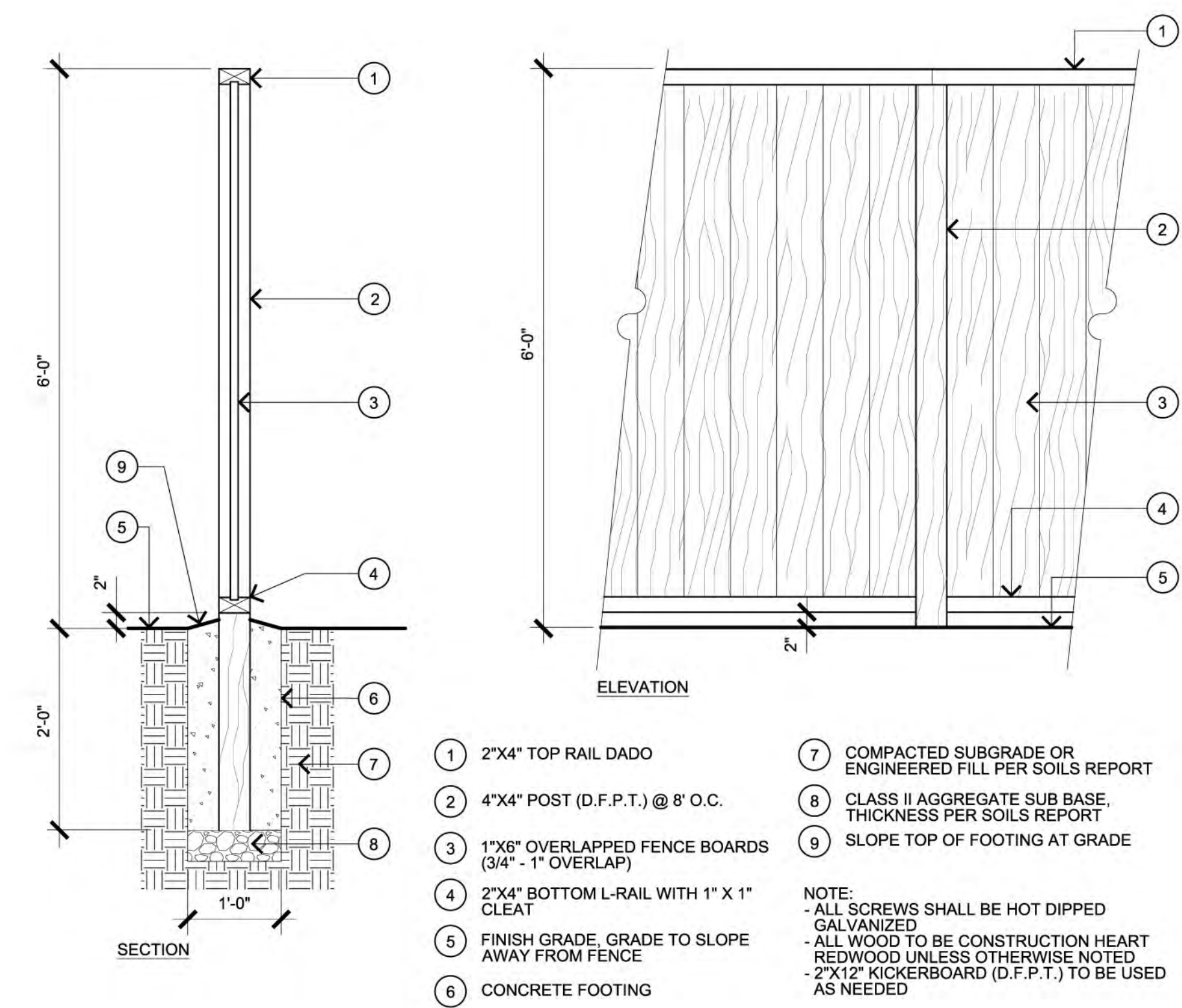
Trees will generally benefit from the application of a 4 inch layer of chipped bark mulch over the soil surface within the greater root zone area. Ideal mulch material is a chipped bark containing a wide range of particle sizes. Bark mulches composed of shredded redwood, bark screened for uniformity of size, or chipped lumber will not function as beneficially. Rock and gravel mulches are generally discouraged due to their minimal benefit.

PLANTING UNDER EXISTING TREES

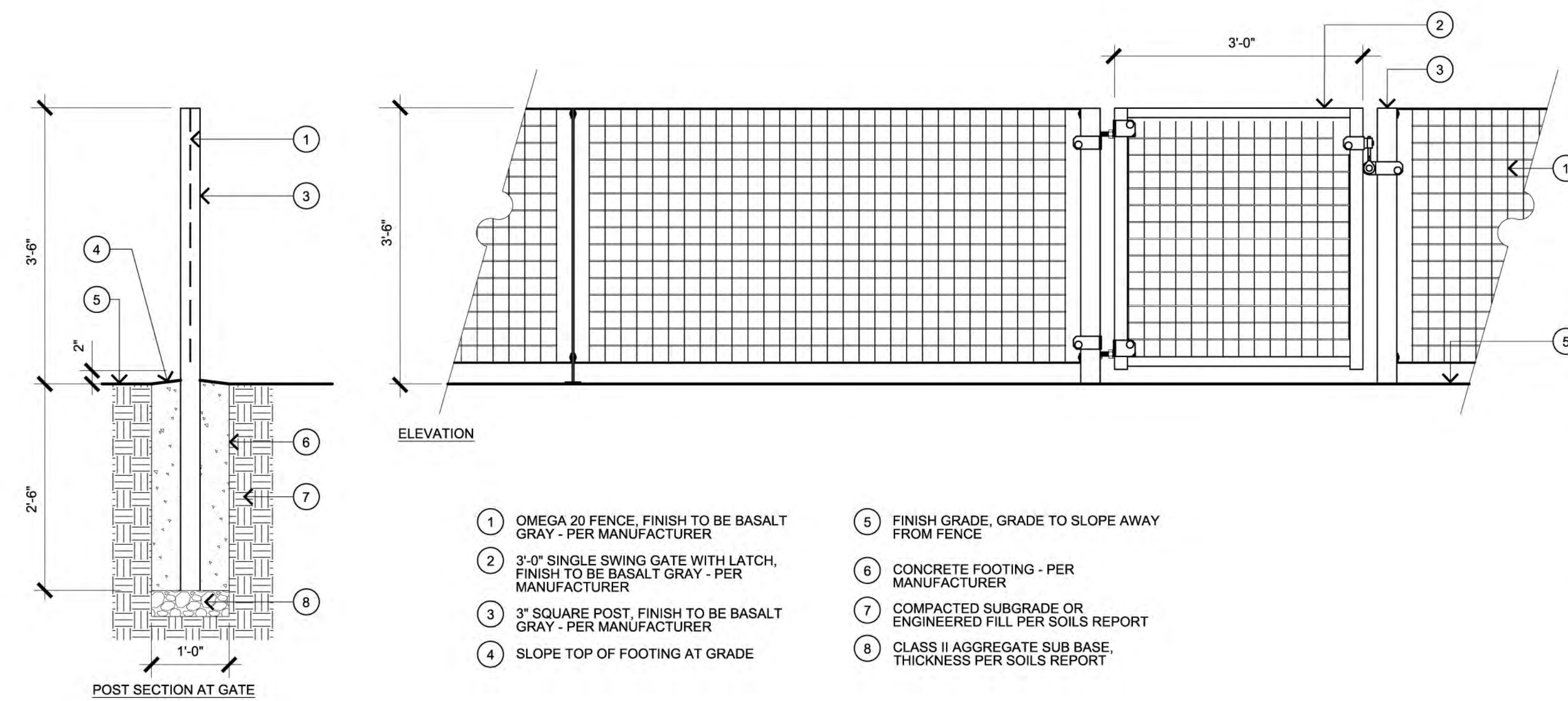
1. The installation of lawn beneath established native trees is strongly discouraged because it has the potential to initiate serious disease. If planting is required for aesthetic or functional purposes, the use of drought tolerant, woody species is most appropriate. Species should be selected for their ability to survive with minimal or no water through the summer months after the initial establishment period. Only drip irrigation should be utilized within the canopy dripline to minimize summer water in the root zone.



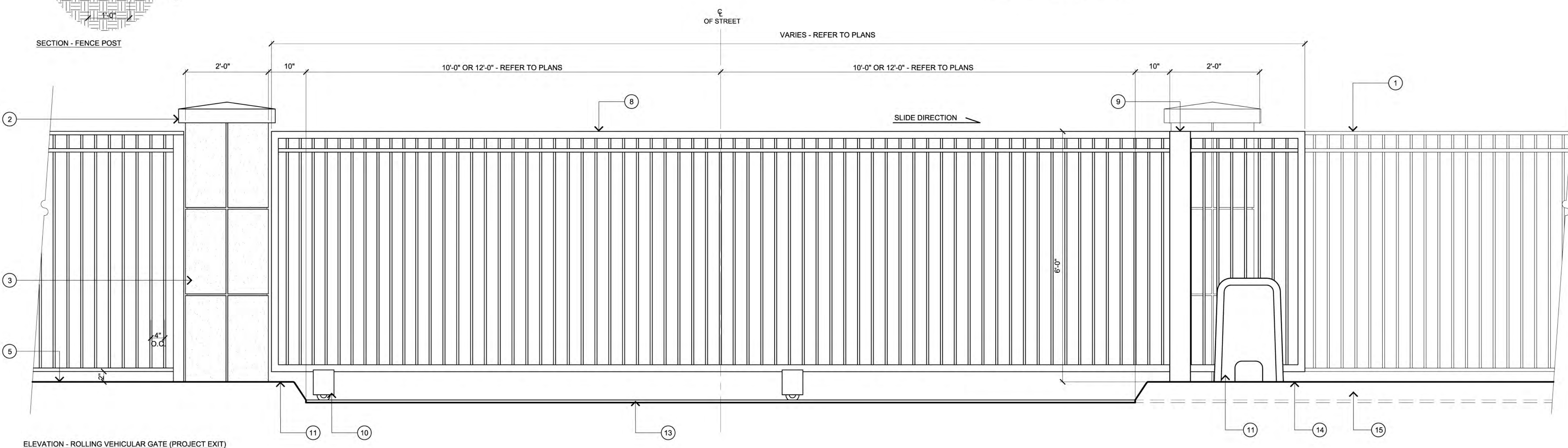
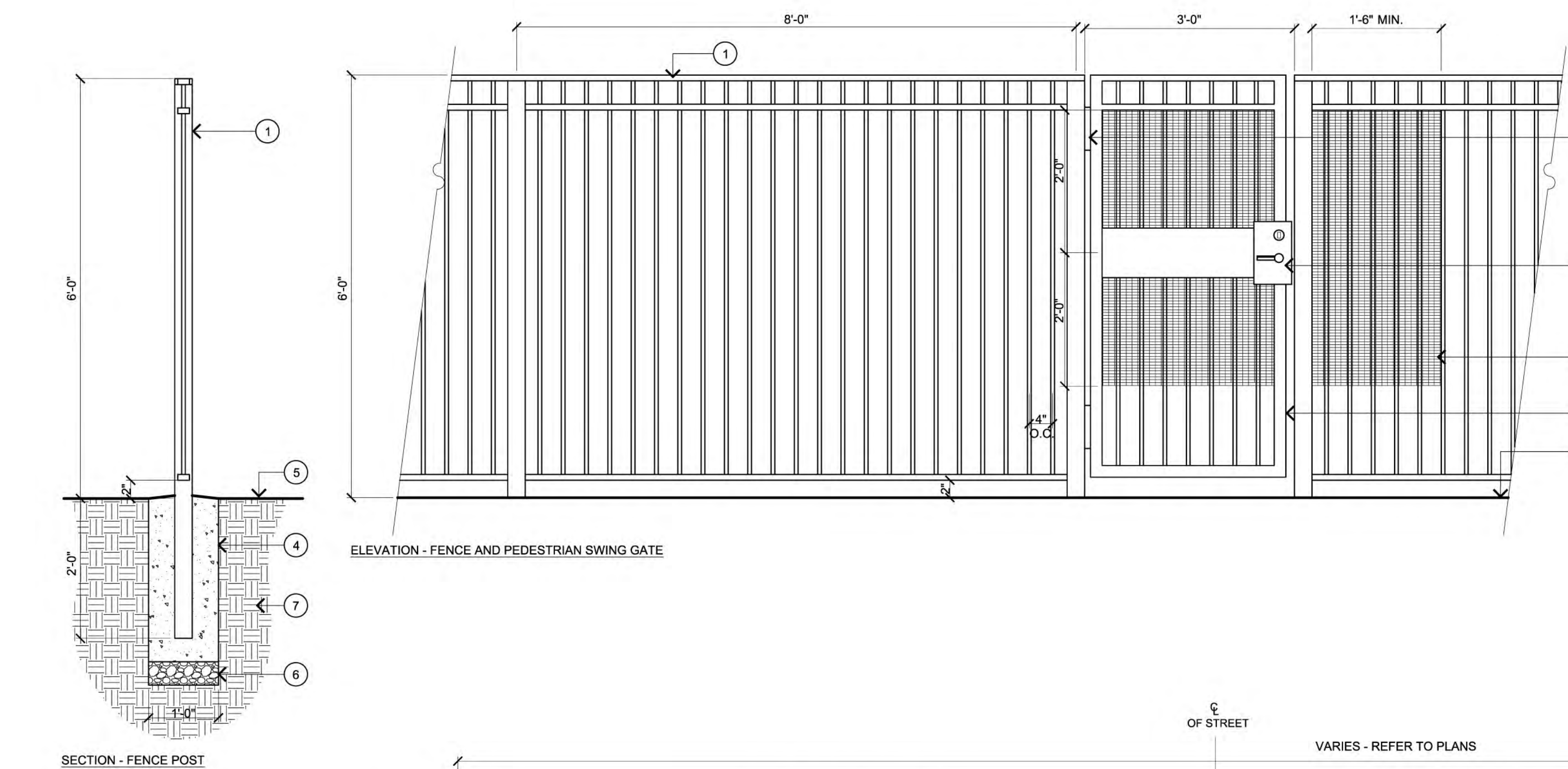
KEY	
	EXISTING 6'-0" HIGH WOOD FENCE TO REMAIN (REMOVE GRAFFITI, IVY, AND PAINT)
	6'-0" HIGH WOOD FENCE - REFER TO ELEVATION/DETAIL 1 SHEET L-3.2
	3'-6" HIGH PLAY AREA FENCE AND GATE - REFER TO ELEVATION/DETAIL 2 SHEET L-3.2
	6'-0" HIGH TUBULAR STEEL FENCE WITH ROLLING VEHICULAR GATES AND PEDESTRAIN SWING GATES - REFER TO ELEVATION/DETAIL 3 SHEET L-3.2
	3'-6" HIGH PATIO FENCE AND GATE - REFER TO IMAGE SHEET L-8.3



1 6'-0" HIGH WOOD FENCE SCALE : 3/4"=1'-0"



2 3'-6" HIGH PLAY AREA FENCE AND GATE SCALE : 3/4"=1'-0"



3 6'-0" HIGH TUBULAR STEEL FENCE WITH ROLLING VEHICULAR GATES AND PEDESTRAIN SWING GATES SCALE : 3/4"=1'-0"

Fence Details and Images



ROLLING VEHICULAR GATE:
REFER TO ELEVATION/DETAIL 3 SHEET L-3.2

ENTRY PILASTER:
REFER TO ELEVATION/DETAIL 3 SHEET L-3.2

EVERGREEN GRASSES IN PARKWAY:
(E.G. LOMANDRA BREEZE)
REFER TO THE PROPOSED PLANT PALETTE
SHEET L-9

STREET TREE:
(E.G. LAGERSTROEMIA xFAUREI MUSKOGEE,
UNDER EXISTING POWER LINES)
REFER TO THE PROPOSED PLANT PALETTE
SHEET L-9

5' WIDE CONCRETE SIDEWALK

NATURALIZED SEATING AREA
• TIMBER BENCH:
REFER TO IMAGE SHEET L8.2 AND IMAGE THIS SHEET
• SPECIMEN STONE:
REFER TO DETAIL 6 SHEET L10.1 AND IMAGE THIS SHEET

6' HIGH TUBULAR STEEL FENCE:
REFER TO ELEVATION/DETAIL 3 SHEET L-3.2

PEDESTRIAN SWING GATE (SECURED):
REFER TO ELEVATION/DETAIL 3 SHEET L-3.2

MEANDERING NATURE PAVE ACCESSIBLE PATH:
REFER TO DETAIL 2 SHEET L10.2 AND IMAGES THIS SHEET

OLD STONY POINT ROAD

6' HIGH WOOD FENCE:
REFER TO ELEVATION/DETAIL 1 SHEET L-3.2

UNDERSTORY TO BE CLEARED OF
EXISTING DOWNED WOOD, POISON OAK,
NATIVE ROSES, AND BLACKBERRY. TO BE
MAINTAINED BY FUTURE HOA

NATURALIZED FITNESS AREA
• FITNESS STATION (PART OF PAR COURSE):
REFER TO IMAGE THIS SHEET
• TIMBER AMPHITHEATER (+2'):
REFER TO IMAGE THIS SHEET
• NATURE PAVE ACCESSIBLE PATH:
REFER TO DETAIL 2 SHEET L10.2 AND IMAGES THIS SHEET

GATHERING CIRCLE
• MODERN ADIRONDACK CHAIRS (SECURED):
REFER TO IMAGE SHEET L8.2 AND IMAGE THIS SHEET
• SPECIMEN STONE:
REFER TO DETAIL 6 SHEET L10.1 AND IMAGE THIS SHEET
• NATURE PAVE ACCESSIBLE PATH:
REFER TO DETAIL 2 SHEET L10.2 AND IMAGES THIS SHEET

FLOWERING ACCENT TREE:
(E.G. CERCIS CANADENSIS)
REFER TO THE PROPOSED PLANT PALETTE SHEET L-9

STAMPED ASPHALT AT PEDESTRIAN CROSSINGS:
REFER TO IMAGE/COLORS SHEET L-8.1

EXISTING TREES TO REMAIN:
REFER TO THE ARBORIST REPORT
SHEETS L-2.1 TO L-2.4

PLAN VIEW
Scale: 1"=10'-0"
0' 5' 10' 20'



KEY MAP NTS

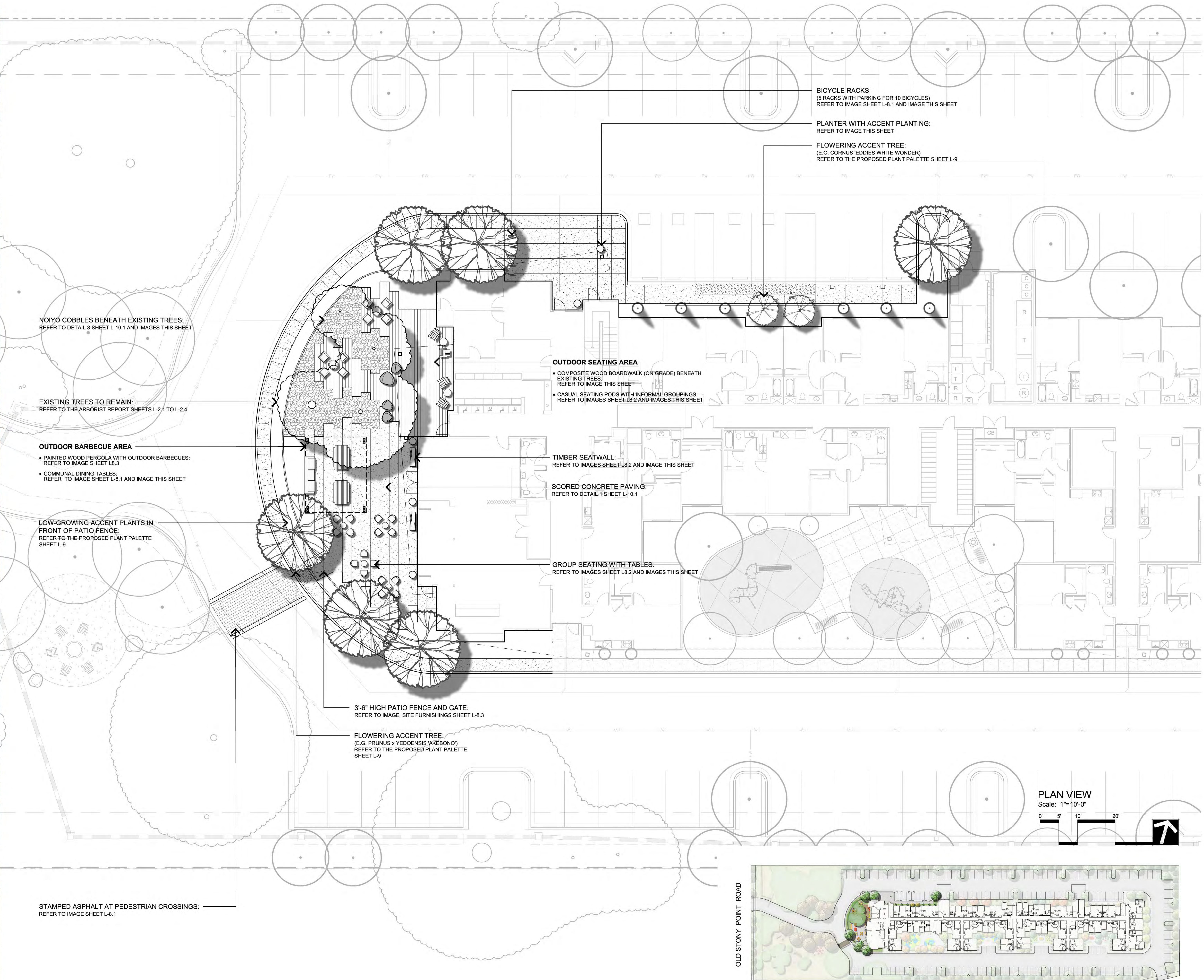
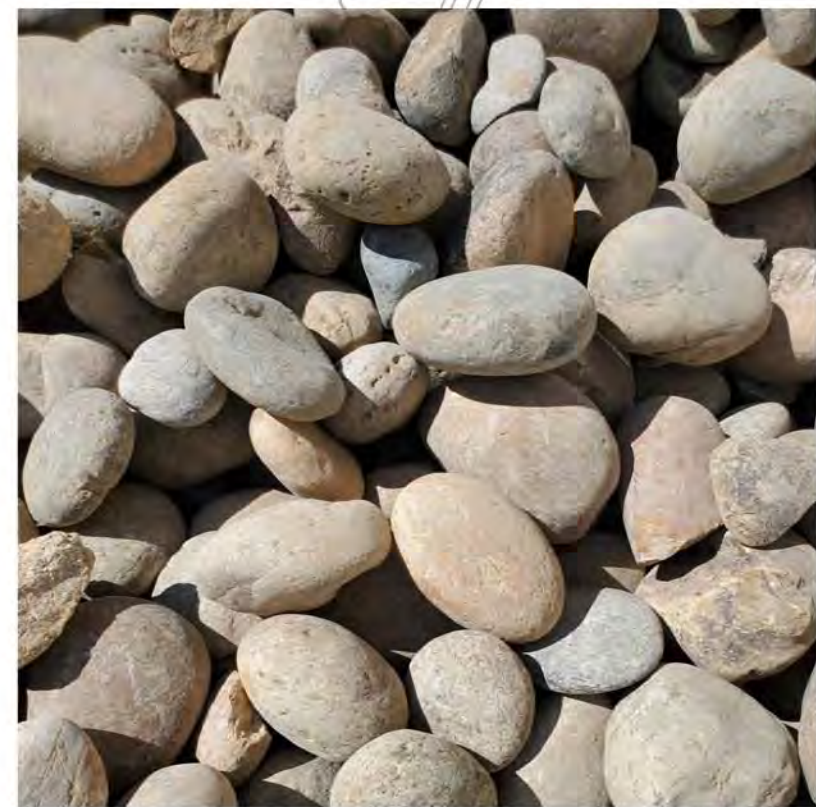
Enlargement A

STONY OAKS APARTMENTS Santa Rosa, California

L-4

MARCH 15, 2021





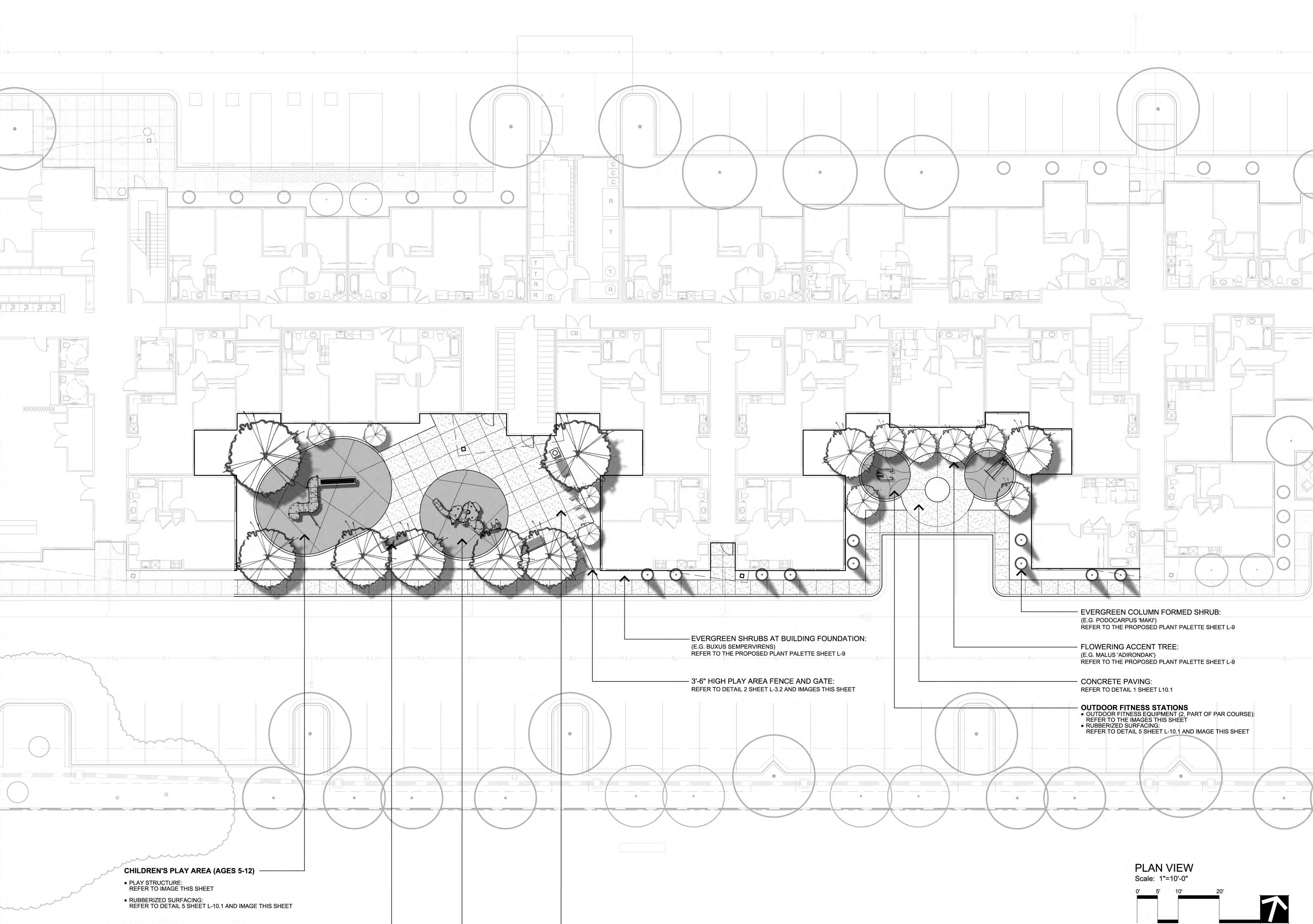
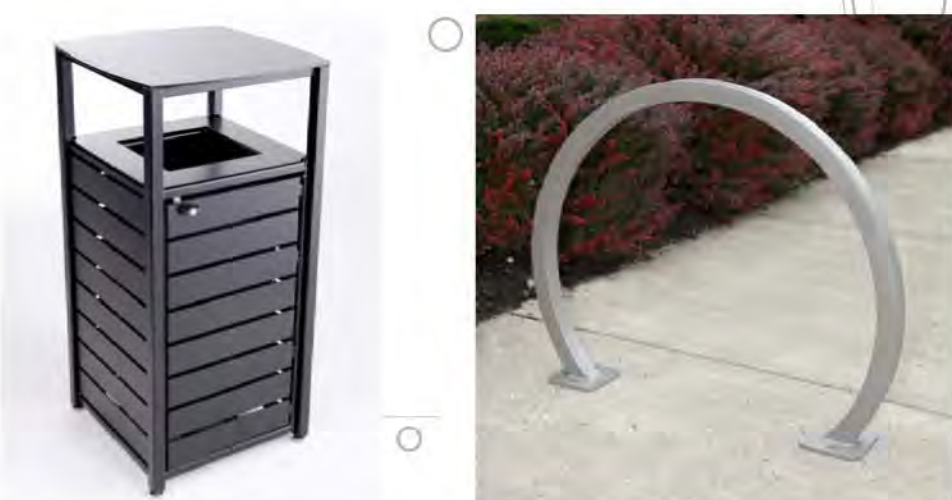
Enlargement B

STONY OAKS APARTMENTS Santa Rosa, California

L-5

MARCH 15, 2021





CHILDREN'S PLAY AREA (AGES 5-12)

- PLAY STRUCTURE:
REFER TO IMAGE THIS SHEET
- RUBBERIZED SURFACING:
REFER TO DETAIL 5 SHEET L-10.1 AND IMAGE THIS SHEET

BACKLESS BENCH:
REFER TO IMAGE SHEET L-8.1 AND IMAGE THIS SHEET

CHILDREN'S PLAY AREA (AGES 2-5)

- PLAY STRUCTURE:
REFER TO IMAGE THIS SHEET
- RUBBERIZED SURFACING:
REFER TO DETAIL 5 SHEET L-10.1 AND IMAGE THIS SHEET

ENTRY PLAZA

- BICYCLE RACKS:
(4 RACKS WITH PARKING FOR 8 BICYCLES)
REFER TO IMAGE SHEET L-8.1 AND IMAGE THIS SHEET
- BENCH:
REFER TO IMAGE SHEET L-8.1 AND IMAGE THIS SHEET
- WASTE RECEPTACLE:
REFER TO IMAGE SHEET L-8.1 AND IMAGE THIS SHEET

EVERGREEN SHRUBS AT BUILDING FOUNDATION:
(E.G. BUXUS SEMPERVIRENS)
REFER TO THE PROPOSED PLANT PALETTE SHEET L-9

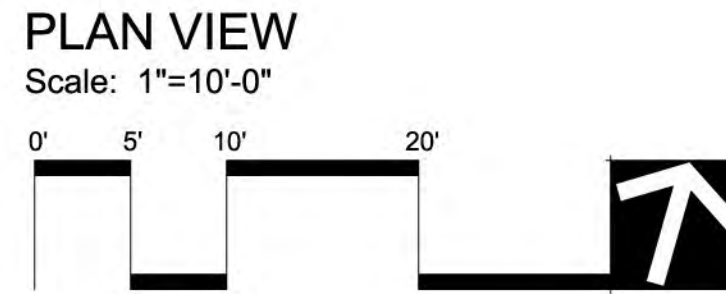
3'-6" HIGH PLAY AREA FENCE AND GATE:
REFER TO DETAIL 2 SHEET L-3.2 AND IMAGES THIS SHEET

EVERGREEN COLUMN FORMED SHRUB:
(E.G. PODOCARPUS 'MAKI')
REFER TO THE PROPOSED PLANT PALETTE SHEET L-9

FLOWERING ACCENT TREE:
(E.G. MALUS 'ADIRONDACK')
REFER TO THE PROPOSED PLANT PALETTE SHEET L-9

CONCRETE PAVING:
REFER TO DETAIL 1 SHEET L10.1

OUTDOOR FITNESS STATIONS
• OUTDOOR FITNESS EQUIPMENT (2, PART OF PAR COURSE):
REFER TO THE IMAGES THIS SHEET
• RUBBERIZED SURFACING:
REFER TO DETAIL 5 SHEET L-10.1 AND IMAGE THIS SHEET



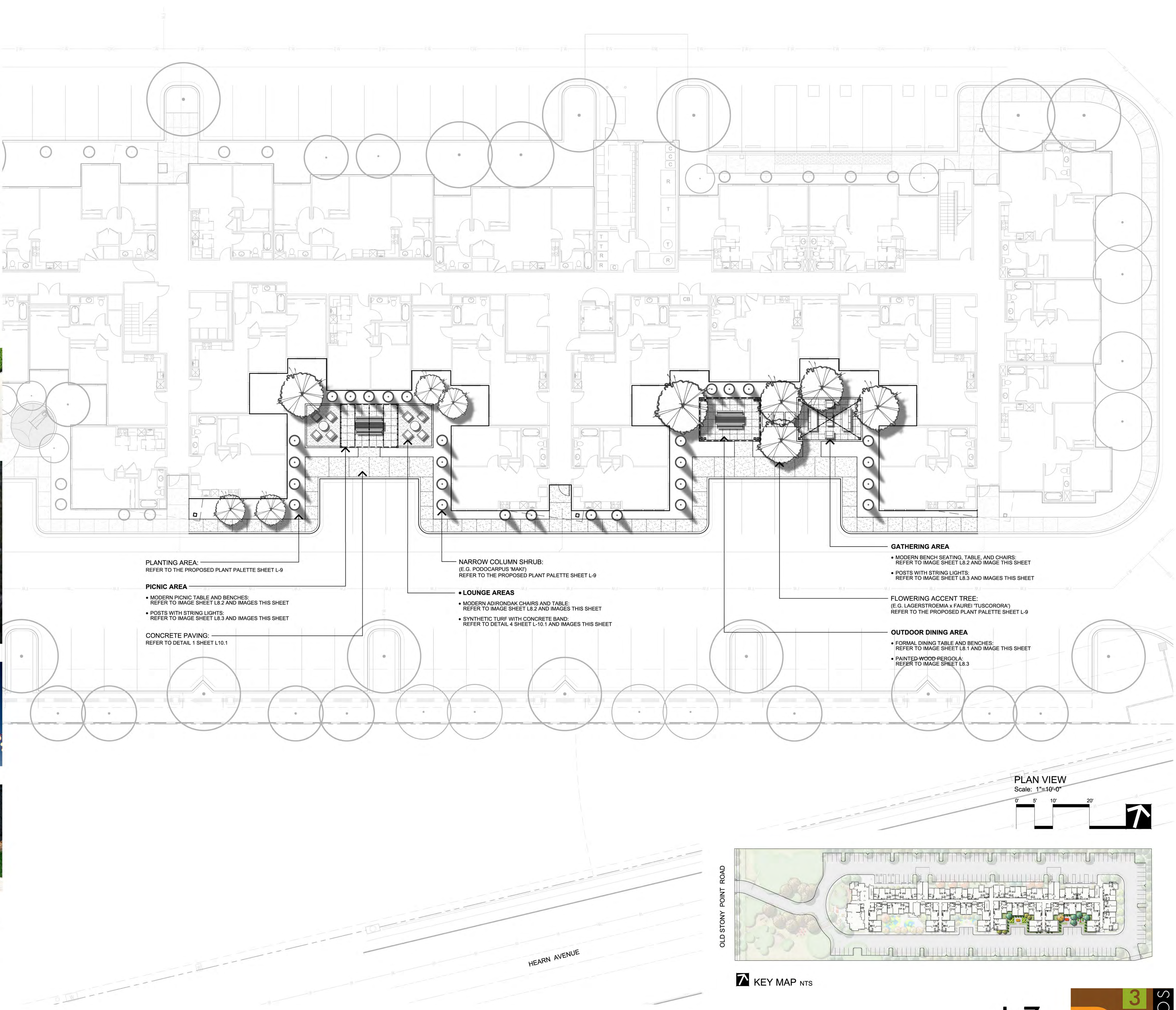
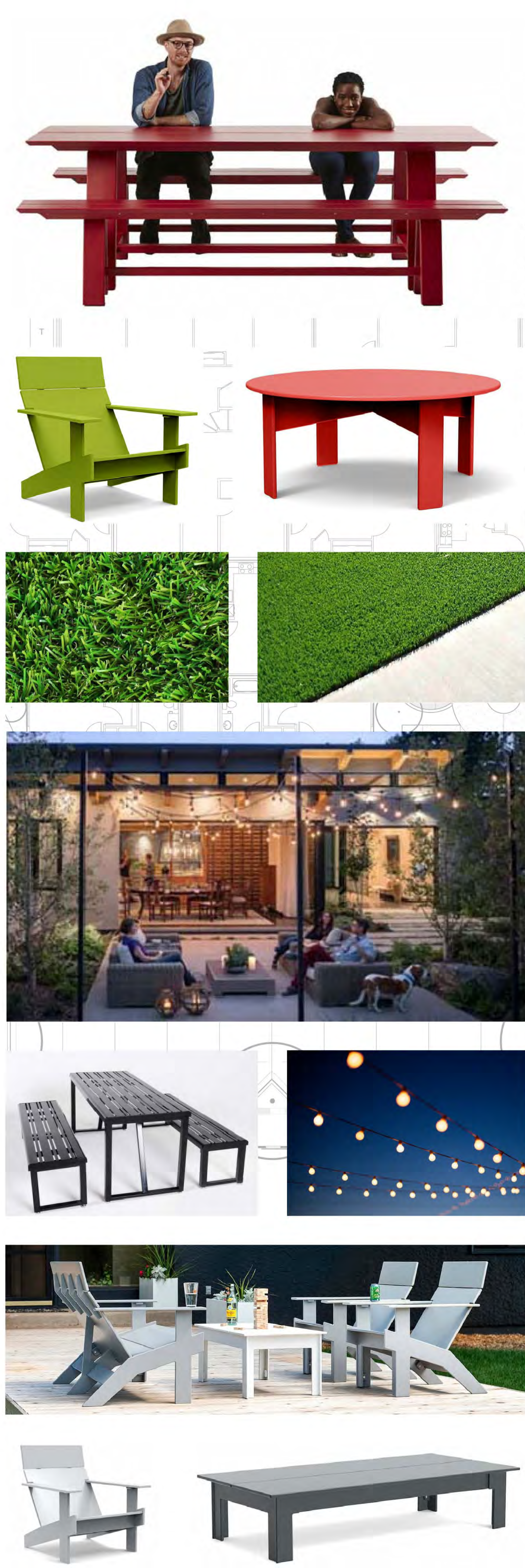
Enlargement C

STONY OAKS APARTMENTS Santa Rosa, California

L-6

MARCH 15, 2021





PLANTING AREA:
REFER TO THE PROPOSED PLANT PALETTE SHEET L-9

PICNIC AREA
• MODERN PICNIC TABLE AND BENCHES:
REFER TO IMAGE SHEET L8.2 AND IMAGES THIS SHEET
• POSTS WITH STRING LIGHTS:
REFER TO IMAGE SHEET L8.3 AND IMAGES THIS SHEET

CONCRETE PAVING:
REFER TO DETAIL 1 SHEET L10.1

NARROW COLUMN SHRUB:
(E.G. PODOCARPUS 'MAKI')
REFER TO THE PROPOSED PLANT PALETTE SHEET L-9

• **LOUNGE AREAS**
• MODERN ADIRONDACK CHAIRS AND TABLE:
REFER TO IMAGE SHEET L8.2 AND IMAGES THIS SHEET
• SYNTHETIC TURF WITH CONCRETE BAND:
REFER TO DETAIL 4 SHEET L-10.1 AND IMAGES THIS SHEET

GATHERING AREA
• MODERN BENCH SEATING, TABLE, AND CHAIRS:
REFER TO IMAGE SHEET L8.2 AND IMAGE THIS SHEET
• POSTS WITH STRING LIGHTS:
REFER TO IMAGE SHEET L8.3 AND IMAGES THIS SHEET

FLOWERING ACCENT TREE:
(E.G. LAGERSTROEMIA x FAUREI 'TUSCORORA')
REFER TO THE PROPOSED PLANT PALETTE SHEET L-9

OUTDOOR DINING AREA
• FORMAL DINING TABLE AND BENCHES:
REFER TO IMAGE SHEET L8.1 AND IMAGE THIS SHEET
• PAINTED WOOD PERGOLA:
REFER TO IMAGE SHEET L8.3

PLAN VIEW
Scale: 1"=10'-0"
0' 5' 10' 20'



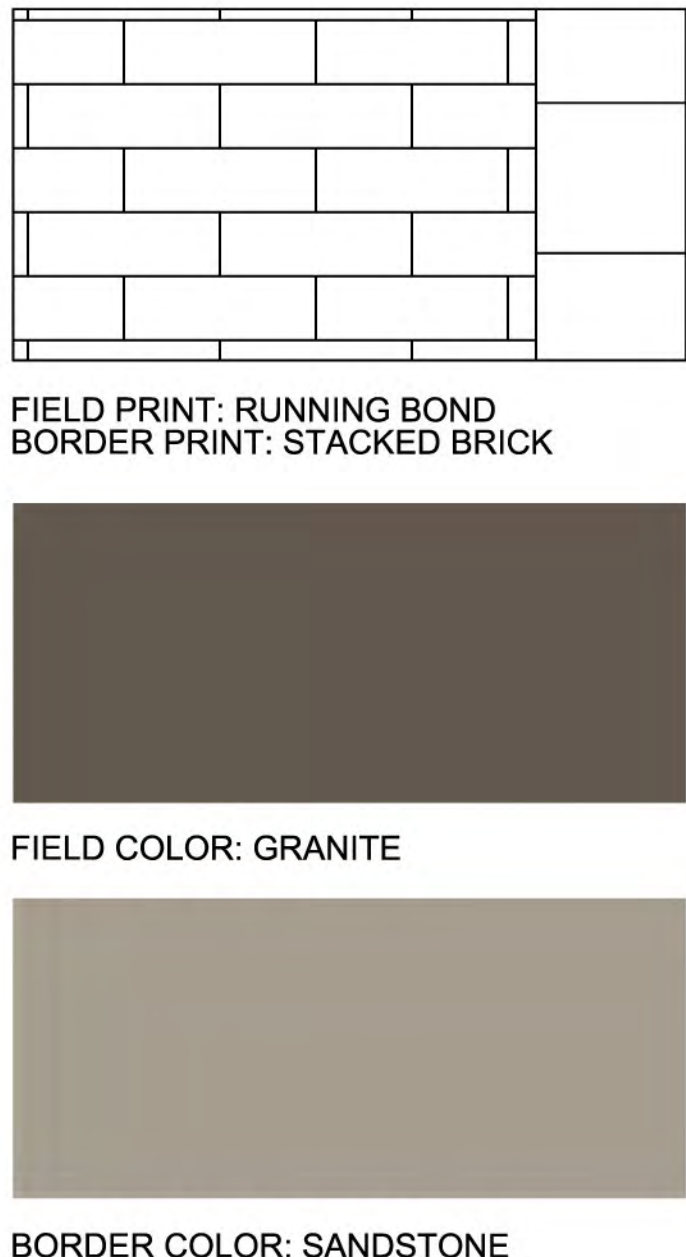
KEY MAP NTS

Enlargement D

STONY OAKS APARTMENTS Santa Rosa, California

MARCH 15, 2021





STAMPED ASPHALT AT PEDESTRIAN CROSSINGS



PERMEABLE PAVERS

80MM THICKNESS, CHARCOAL GRAY FINISH



POLE MOUNTED LIGHT

FINISH TO BE MEDIUM GREY TEXTURED



BENCH

FRAME FINISH TO BE TEXTURED CHARCOAL, SLAT FINISH TO BE REDWOOD RECYCLED PLASTIC



BACKLESS BENCH

FRAME FINISH TO BE TEXTURED CHARCOAL, SLAT FINISH TO BE REDWOOD RECYCLED PLASTIC



WASTE RECEPTACLE

FRAME FINISH TO BE TEXTURED CHARCOAL, SLAT FINISH TO BE REDWOOD RECYCLED PLASTIC



BICYCLE RACK

FRAME FINISH TO BE TEXTURED CHARCOAL



COMMUNAL TABLE

FRAME FINISH TO BE TEXTURED CHARCOAL, SLAT FINISH TO BE REDWOOD RECYCLED PLASTIC



FORMAL DINING TABLE AND BENCHES

FINISH TO BE TEXTURED CHARCOAL

Site Furnishings



TIMBER BENCH



MODERN PICNIC TABLE AND BENCHES

COLOR TO BE LEAF GREEN



MODERN ADIRONDAK CHAIRS AND TABLE

COLOR TO BE DETERMINED



MODERN BENCH SEATING, TABLES, AND CHAIRS

COLOR TO BE DETERMINED



GROUP SEATING WITH TABLES AND CASUAL SEATING PODS

COLOR TO BE DETERMINED



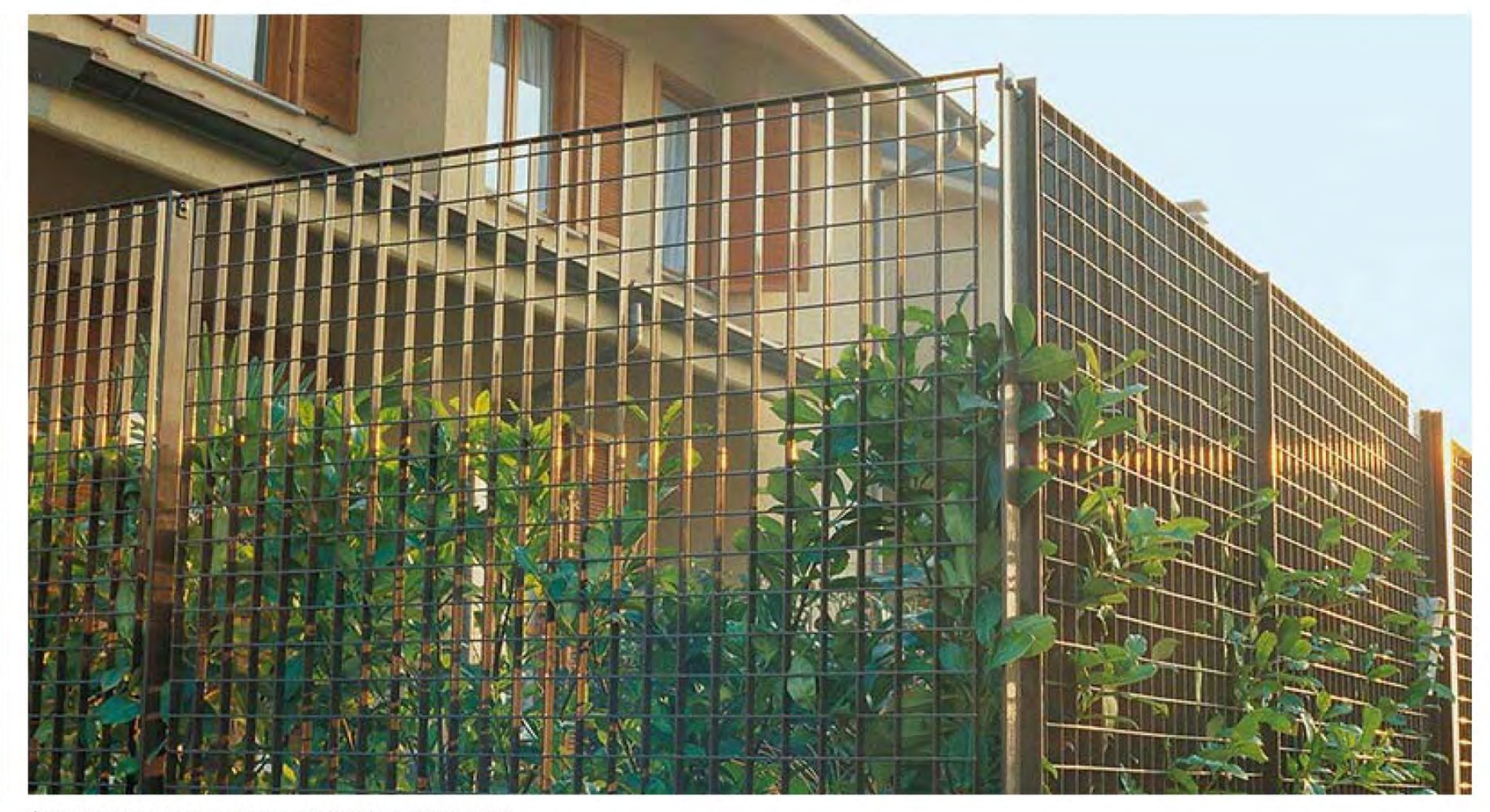
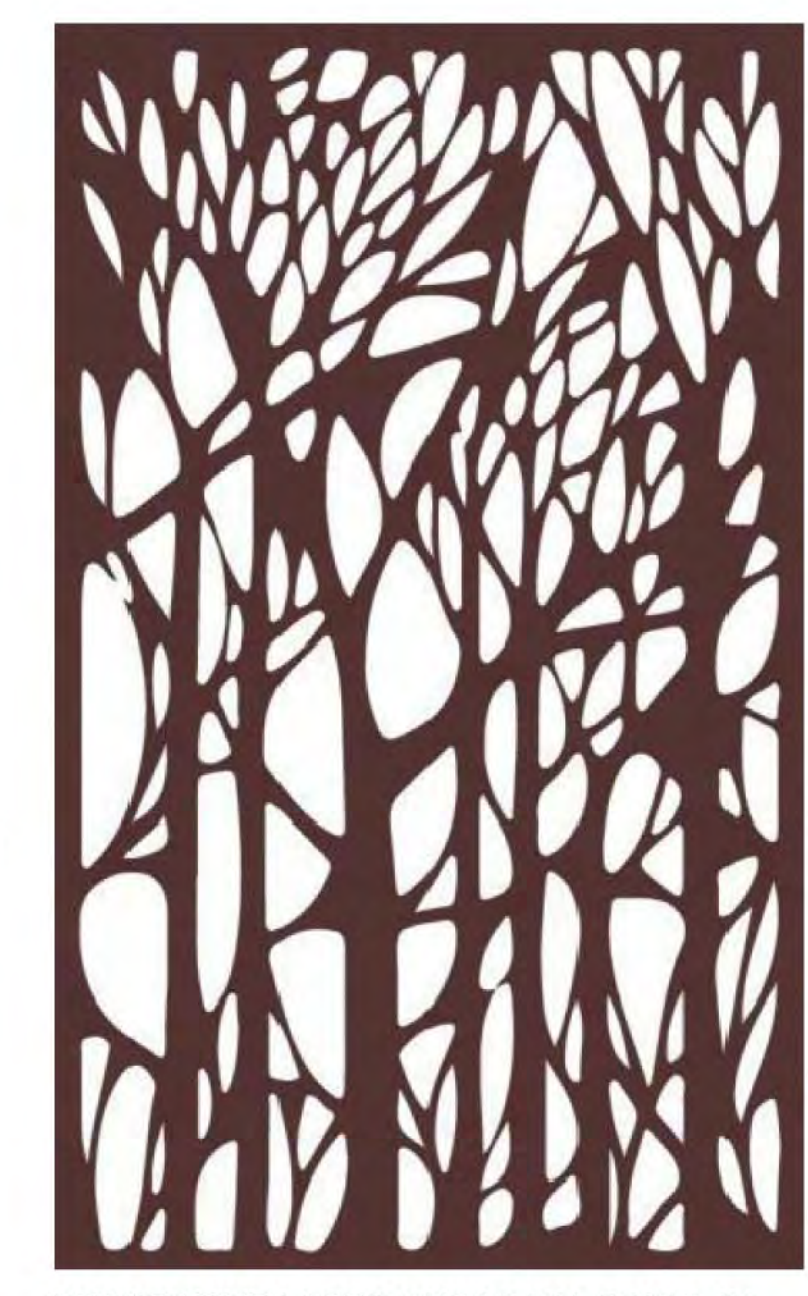
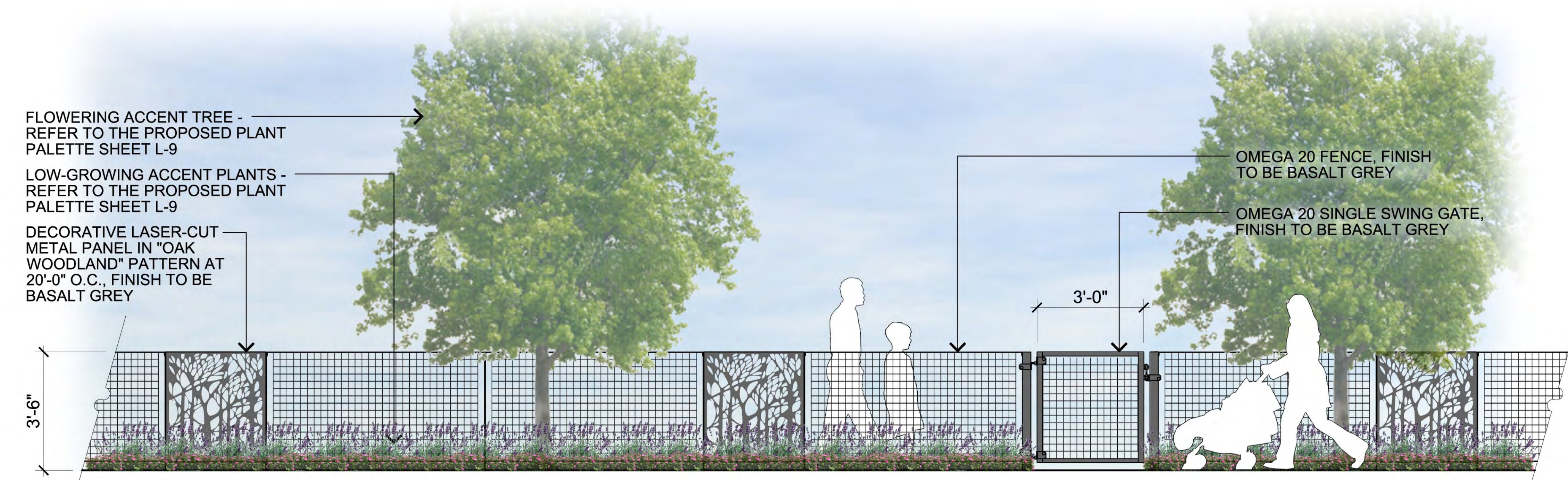
Site Furnishings

STONY OAKS APARTMENTS Santa Rosa, California

L-8.2

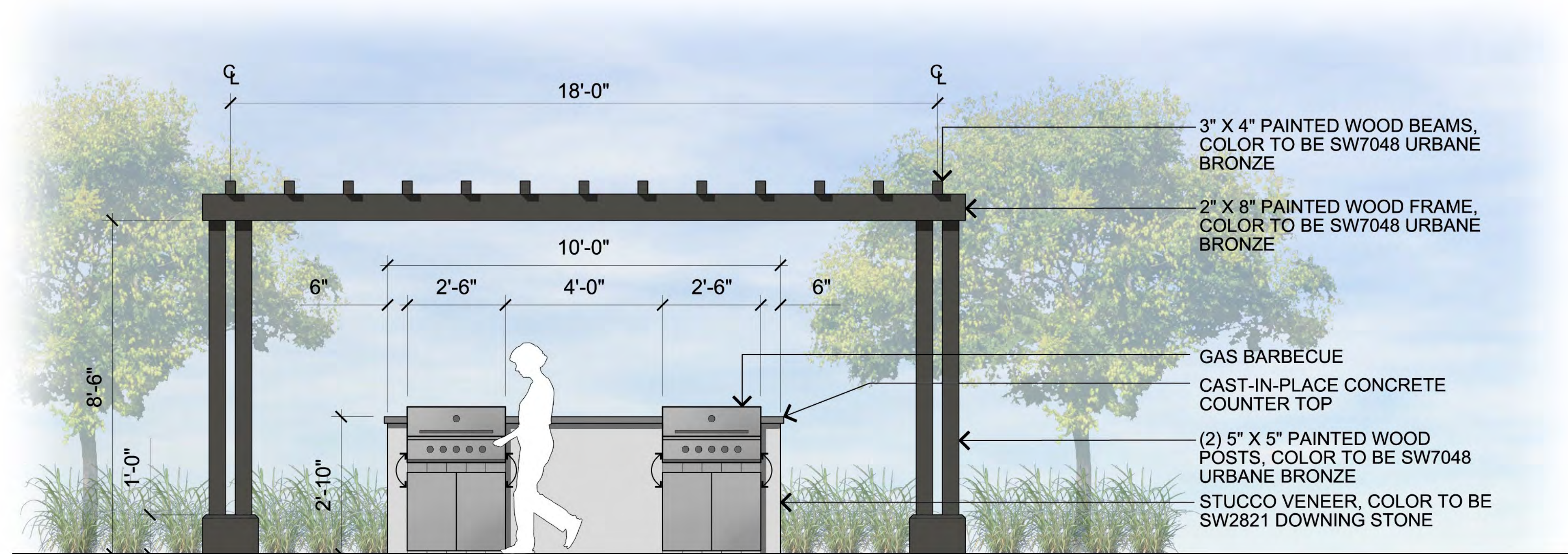
MARCH 15, 2021





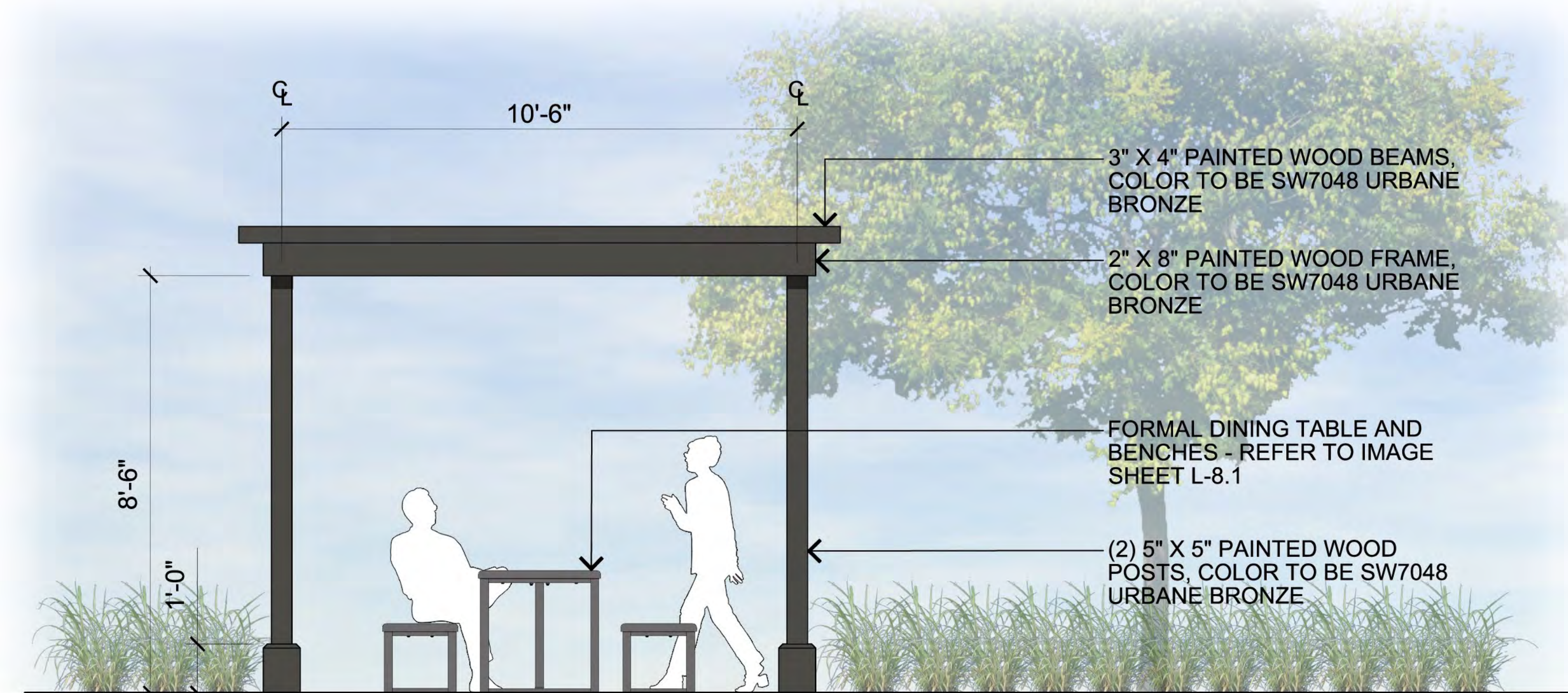
3'-6" HIGH PATIO FENCE AND GATE (WEST ELEVATION)

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



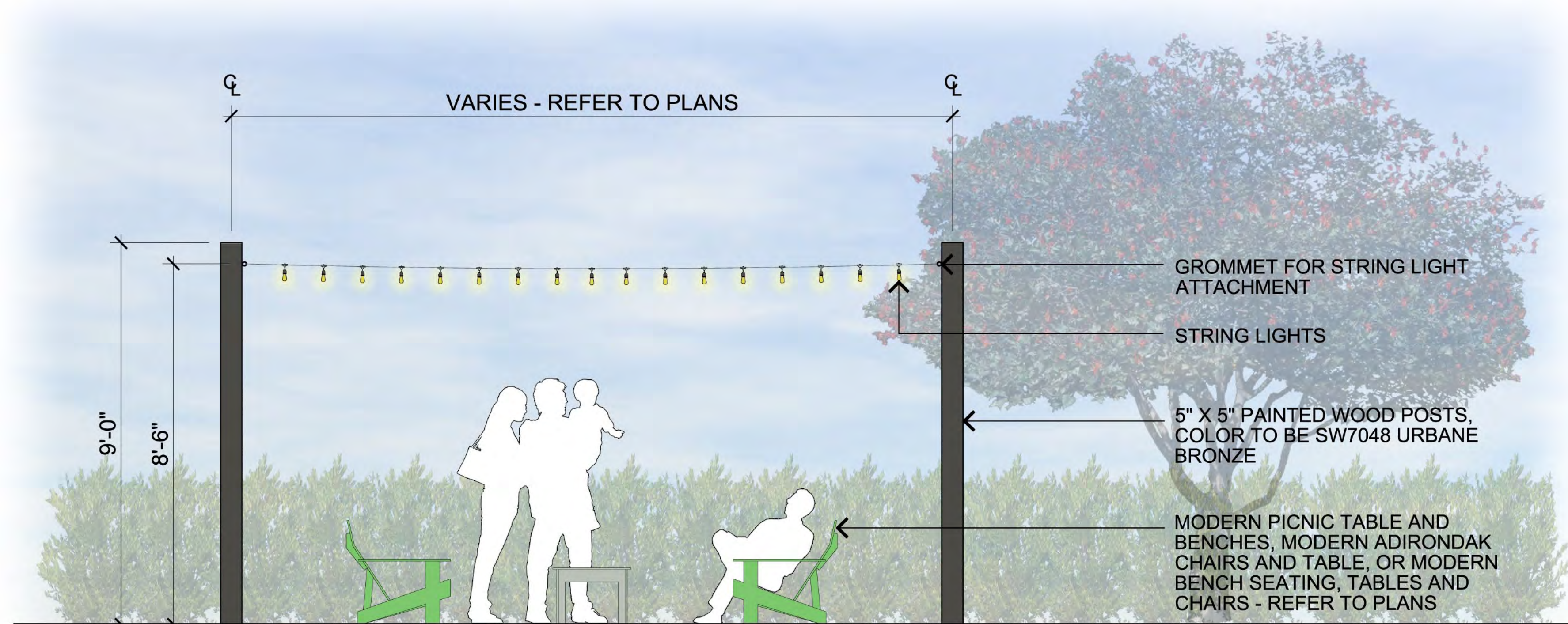
PAINTED WOOD PERGOLA WITH OUTDOOR BARBECUES (EAST ELEVATION)

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



PAINTED WOOD PERGOLA (WEST ELEVATION)

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

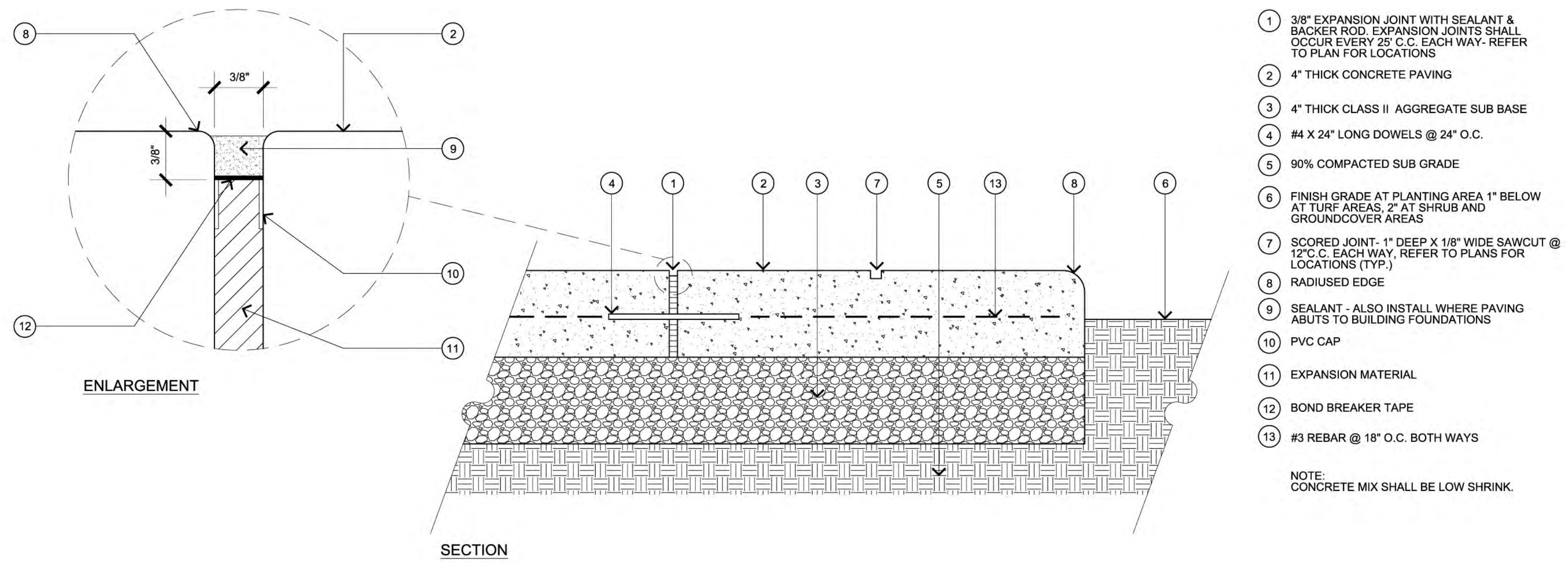


POSTS WITH STRING LIGHTS

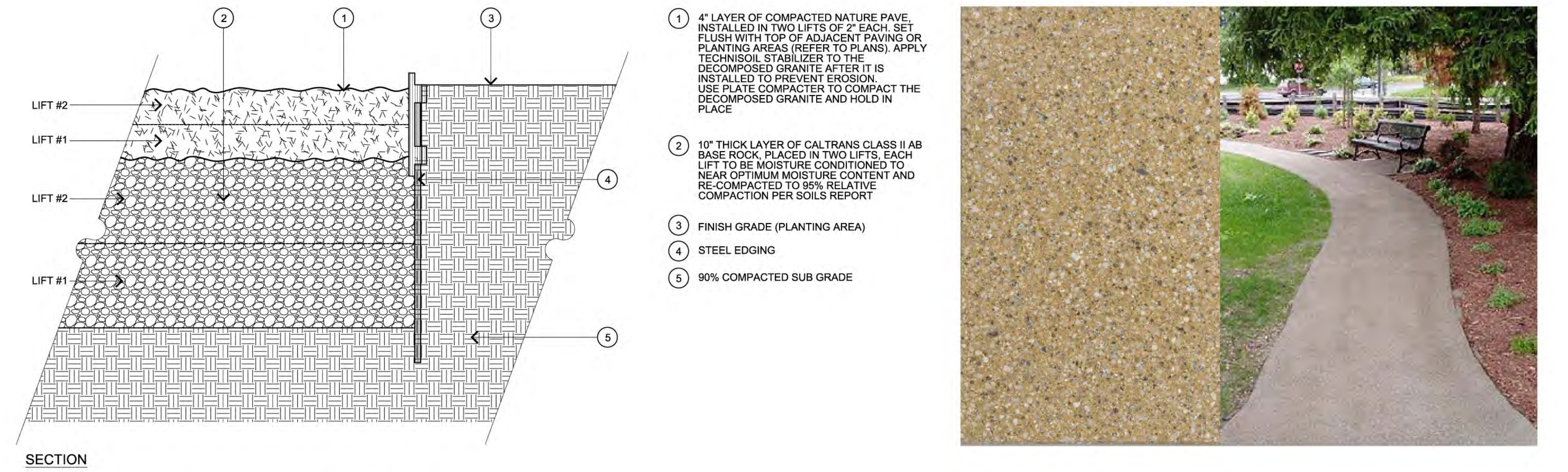
SCALE: 1/2" = 1'-0"

Site Furnishings

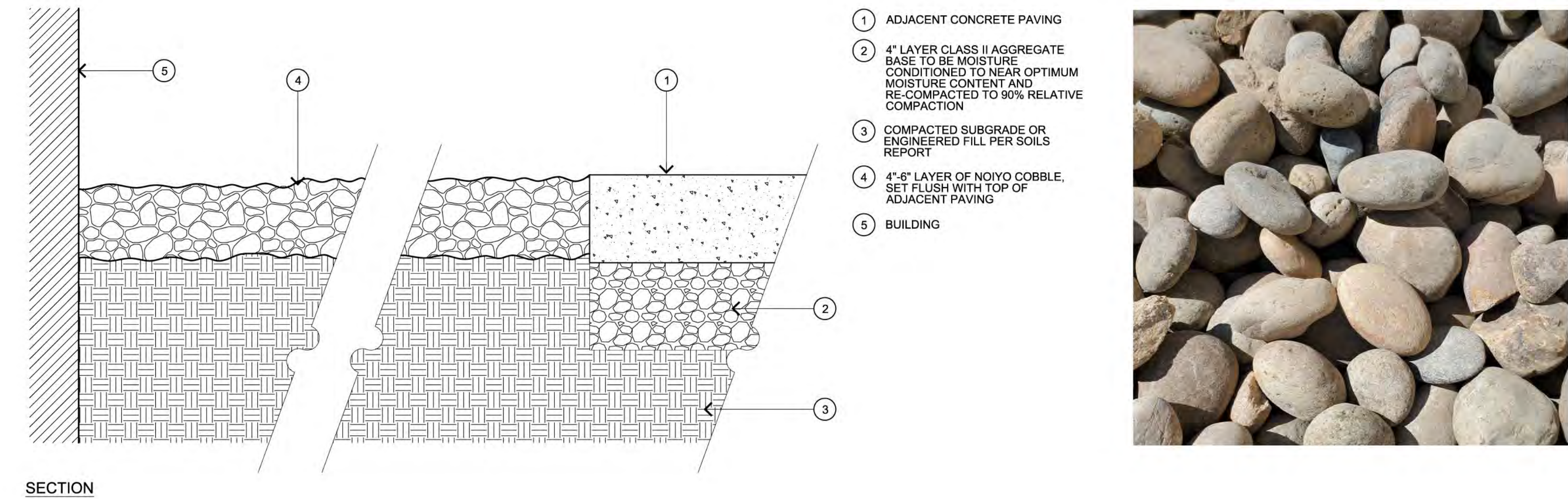
PROPOSED PLANT PALETTE										NOTES
BOTANICAL NAME	COMMON NAME	MINIMUM CONTAINER SIZE	SPACING	WULCOLS	BOTANICAL NAME	COMMON NAME	MINIMUM CONTAINER SIZE	SPACING	WULCOLS	WATER CONSERVATION STATEMENT: PLANT MATERIAL HAS BEEN CHOSEN FOR WATER CONSERVING AND REDUCED MAINTENANCE CHARACTERISTICS. A MAXIMUM OF 25% OF NON-TURF PLANTS WILL HAVE A MODERATE IRRIGATION WATER REQUIREMENT AND A MINIMUM OF 50% OF NON-TURF PLANTS WILL HAVE A LOW TO VERY LOW IRRIGATION WATER REQUIREMENT. IRRIGATION NOTE: A FULLY AUTOMATIC IRRIGATION SYSTEM SHALL BE PROPOSED FOR THE PROJECT UTILIZING WATER CONSERVING METHODS. IRRIGATION SHALL BE INSTALLED THROUGHOUT THE BIO-RETENTION AREAS TO PROVIDE SUPPLEMENTAL IRRIGATION IN THE DRY MONTHS WITH REDUCED IRRIGATION DURING SEASONAL RAINFALL OR WET MONTHS. MINIMUM TREE CLEARANCE NOTE: 1. SMALL TREES (15' TALL/WIDE) SHALL BE PLACED A MINIMUM OF 6' FROM BUILDINGS AND A MINIMUM OF 2' FROM EDGES OF PAVING, CURBS OR WALLS. 2. MEDIUM TREES (25' TALL/WIDE) SHALL BE PLACED A MINIMUM OF 10' FROM BUILDINGS AND A MINIMUM OF 3' FROM PAVING, CURBS OR WALLS. 3. LARGE TREES (ABOVE 25' TALL/WIDE) SHALL BE PLACED A MINIMUM OF 15' FROM BUILDINGS AND A MINIMUM OF 3' FROM PAVING, CURBS OR WALLS. 4. 5' MINIMUM FROM JOINT TRENCH, WATER LINES, WATER METERS AND FIRE HYDRANTS. 5. 8' MINIMUM FROM SANITARY SEWER AND STORM DRAINS. 6. ALL TREES PLANTED WITHIN 5'-0" OF FUTURE CURBS, SIDEWALK, WALLS AND ALL UTILITIES, SHALL INCLUDE A ROOT BARRIER. LANDSCAPE NOTES: PLANT PALETTE IS FOR REFERENCE ONLY, NOT ALL TREES, SHRUBS, GRASSES, AND GROUNDCOVER LISTED WILL BE UTILIZED IN THE PREPARATION OF CONSTRUCTION DOCUMENTS. ADDITIONAL PLANTS MAY BE SUBSTITUTED DUE TO AVAILABILITY AND CONTAINER SIZE. PLANT MATERIAL SHALL BE SELECTED AT THE DISCRETION OF THE LANDSCAPE ARCHITECT. LANDSCAPING SHALL BE OF THE TYPE AND SITUATED IN LOCATIONS TO MAXIMIZE OBSERVATION WHILE PROVIDING THE DESIRED DEGREE OF AESTHETICS. LANDSCAPING SHOULD BE TRIMMED SO AS NOT TO PROVIDE CONCEALMENT OPPORTUNITIES OR MEANS TO ACCESS ROOF. SECURITY PLANTING MATERIALS ARE ENCOURAGED ALONG PROPERTY LINE AND UNDER VULNERABLE WINDOWS. ALL TRANSFORMERS AND UTILITY BOXES TO BE SCREENED WITH EVERGREEN SHRUBS.
<u>OLD STONY OAKS ROAD STREET TREE:</u>					<u>GROUNDCOVER:</u>					
LAGERSTROEMIA xFAUREI 'MUSKOGEE'	CRAPE MYRTLE	24" BOX	SEE PLAN	L	CONVOLVULUS SABATIUS	GROUND MORNING GLORY	1 GALLON	3' O.C.	L	
<u>PARKING LOT CANOPY TREE:</u>					COPROSMA KIRKII 'PROSTATUS'	NCN	1 GALLON	18" O.C.	L	
<u>PISTACHE 'RED PUSH'</u>					CORREA SPECIES	AUSTRALIAN FUCHSIA	1 GALLON	VARIES	L	
<u>FLOWERING ACCENT TREES:</u>					GREVILLEA LANIGERA 'COASTAL GEM'	NCN	1 GALLON	3' O.C.	L	
ACER PLATINUM 'BI HOU'	NCN	24" BOX	N/A	L	MAHONIA REPENS	OREGON GRAPE	1 GALLON	18" O.C.	M	
CERCIS CANADENSIS SPECIES	EASTERN REDBUD	24" BOX	N/A	M	NEPETA SPECIES	CAT MINT	1 GALLON	VARIES	L	
CHIONANTHUS RETUSUS	FRINGE TREE	24" BOX	N/A	M	ROSA SPECIES	GROUND COVER ROSE	2 GALLON	2' O.C.	L	
CORNUS 'EDDIE'S WHITE WONDER'	FLOWERING DOGWOOD	24" BOX	N/A	M	TEUCRIUM SPECIES	GERMANDER	1 GALLON	2' O.C.	L	
LAGERSTROEMIA FAUREI 'ZUNI'	CRAPE MYRTLE	24" BOX	N/A	L	ZAUSCHNERIA SPECIES	CALIFORNIA FUCHSIA	1 GALLON	VARIES	L	
MAGNOLIA 'LITTLE GEM'	MAGNOLIA	24" BOX	N/A	M	<u>GRASSES:</u>					
MALUS SPECIES	FLOWERING CRAB APPLE	24" BOX	N/A	M	CALAMAGROSTIS SPECIES	FEATHER REED GRASS	1 GALLON	VARIES	M	
PRUNUS SPECIES	FLOWERING PLUM/CHERRY	24" BOX	N/A	L	HELICTOTRICHON SEMPERVIRENS	BLUE OAT GRASS	1 GALLON	2' O.C.	L	
<u>EVERGREEN SCREEN TREES:</u>					MUHLENBERGIA SPECIES	DEER GRASS	1 GALLON	4' O.C.	L	
ARBUSUS 'MARINA'	NCN	24" BOX	N/A	L	PENNISSETUM SPECIES	FOUNTAIN GRASS	1 GALLON	3' O.C.	L	
CALOCEDRUS DECURRENS	INCENSE CEDAR	24" BOX	N/A	L	LOMANDRA SPECIES	NCN	1 GALLON	VARIES	L	
ELEOCHARIS DECIPIENS	BLUEBERRY TREE	24" BOX	N/A	L	<u>STORM WATER TREATMENT SHRUBS AND GRASSES:</u>					
LAURUS NOBILIS 'SARATOGA'	SWEET BAY	24" BOX	N/A	L	ARISTIDA PURPUREA	PURPLE THREE-AWN	1 GALLON	MIX EVENLY	L	
LYONOTHAMNUS FLORIBUNDUS	IRONWOOD	24" BOX	N/A	L	BOUJTELOUA GRACIS	BLUE GRAMA	1 GALLON	MIX EVENLY	L	
PODOCARPUS MACROPHYLLA	YEW PINE	24" BOX	N/A	M	CHONDRPETALUM TECTORUM	CAPE RUSH	1 GALLON	MIX EVENLY	L	
PRUNUS CAROLINIANA	NCN	24" BOX	N/A	L	JUNCUS SPECIES	JUNCUS SPECIES	1 GALLON	MIX EVENLY	L	
<u>BACKGROUND/FOUNDATION SHRUBS:</u>					MELICA CALIFORNICA	CALIFORNIA MELIC	1 GALLON	MIX EVENLY	L	
					MIMULUS SPECIES	MONKEY FLOWER	1 GALLON	MIX EVENLY	L	
ABELIA SPECIES	LINNAEA	5 GALLON	N/A	M						
BUXUS SPECIES	BOXWOOD	5 GALLON	3' O.C.	M						
CALLISTEMON 'LITTLE JOHN'	DWARF BOTTLEBRUSH	5 GALLON	3' O.C.	L						
CORREA SPECIES	AUSTRALIAN FUCHSIA	5 GALLON	4' O.C.	L						
COPROSMA SPECIES	NCN	5 GALLON	3' O.C.	L						
ESCALLONIA SPECIES	ESCALLONIA	5 GALLON	3' O.C.	M						
MYRTUS SPECIES	MYRTLE	5 GALLON	3' O.C.	M						
PITTIOSPORUM SPECIES	TOBIRA	5 GALLON	3' O.C.	L						
ROSMARINUS SPECIES	ROSEMARY	5 GALLON	3' O.C.	L						
WESTRINGIA FRUTICOSA	NCN	5 GALLON	3' O.C.	L						
TEUCRIUM CHAMAEDRYS 'COMPACTA'	GERMANDER	5 GALLON	3' O.C.	L						
<u>INTERMEDIATE SHRUBS:</u>										
BERBERIS SPECIES	BARBERRY	1 GALLON	3' O.C.	M						
CORREA SPECIES	AUSTRALIAN FUCHSIA	1 GALLON	VARIES	L						
DIANELLA SPECIES	FLAX LILY	1 GALLON	3' O.C.	L						
DIETES SPECIES	FORTNIGHT LILY	1 GALLON	3' O.C.	L						
LAVANDULA SPECIES	LAVENDER	1 GALLON	3' O.C.	L						
LIRIOPE GIGANTEA	LILY TURF	1 GALLON	2' O.C.	M						
NANDINA SPECIES	HEAVENLY BAMBOO	2' GALLON	2' O.C.	L						
RHAPHIOLEPIS INDICA SPECIES	INDIAN HAWTHORN	1 GALLON	4' O.C.	L						
ROSA SPECIES	SHRUB ROSE	1 GALLON	3' O.C.	M						
SALVIA SPECIES	SAGE	1 GALLON	3' O.C.	L						
ZAUSCHNERIA SPECIES	CALIFORNIA FUCHSIA	1 GALLON	VARIES	L						
<u>FOREGROUND SHRUBS:</u>										
ANIGOZANTHUS SPECIES	DWARF KANGAROO PAWS	1 GALLON	18" O.C.	L						
BULBINE FRUTESCENS	NCN	1 GALLON	30" O.C.	L						
DIANELLA SPECIES	FLAX LILY	1 GALLON	30" O.C.	L						
HEMEROCALLIS SPECIES	EVERGREEN DAYLILY	1 GALLON	2' O.C.	M						
LAVANDULA SPECIES	LAVENDER	5 GALLON	3' O.C.	L						
LIRIOPE SPECIES	BIG BLUE LILY TURF	1 GALLON	18" O.C.	M						
NANDINA SPECIES	HEAVENLY BAMBOO	5 GALLON	3' O.C.	L						
SALVIA SPECIES	SAGE	5 GALLON	3' O.C.	L						
TEUCRIUM SPECIES	GERMANDER	1 GALLON	18" O.C.	L						
ZAUSCHNERIA SPECIES	CALIFORNIA FUCHSIA	1 GALLON	VARIES	L						



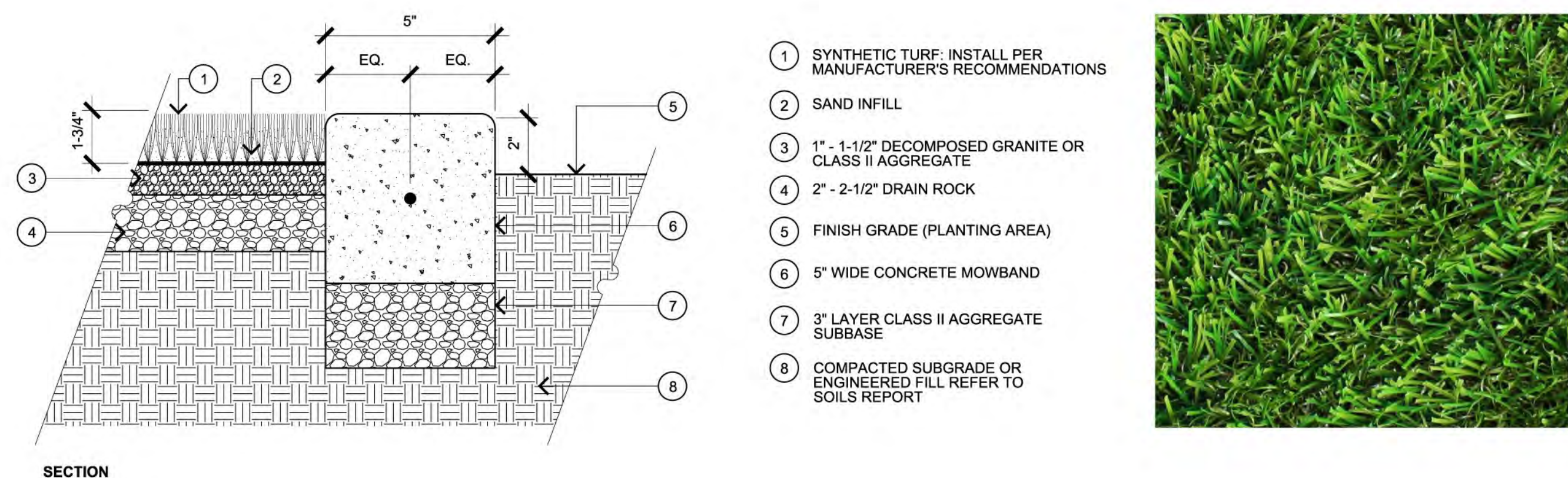
1 CONCRETE PAVING SCALE : 3"=1'-0"



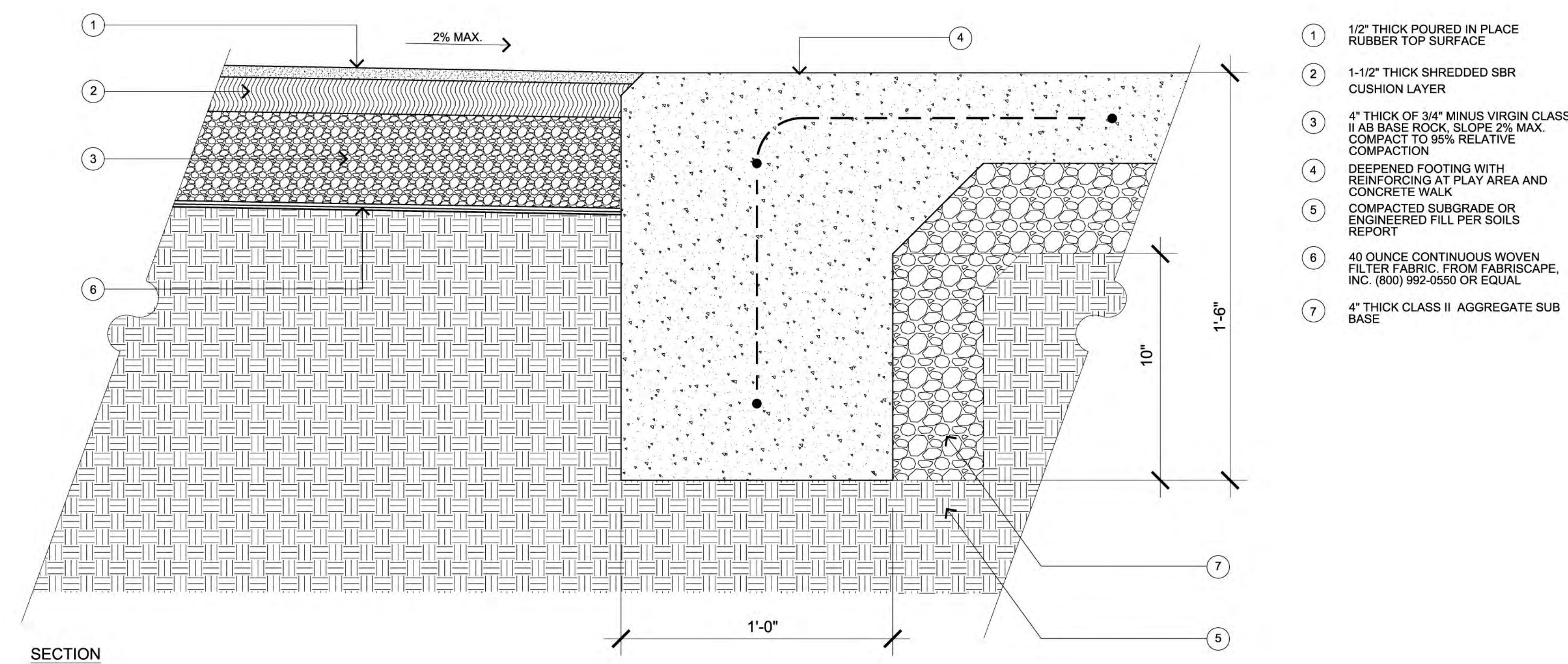
2 NATURE PAVE ACCESSIBLE PATH SCALE : 3"=1'-0"



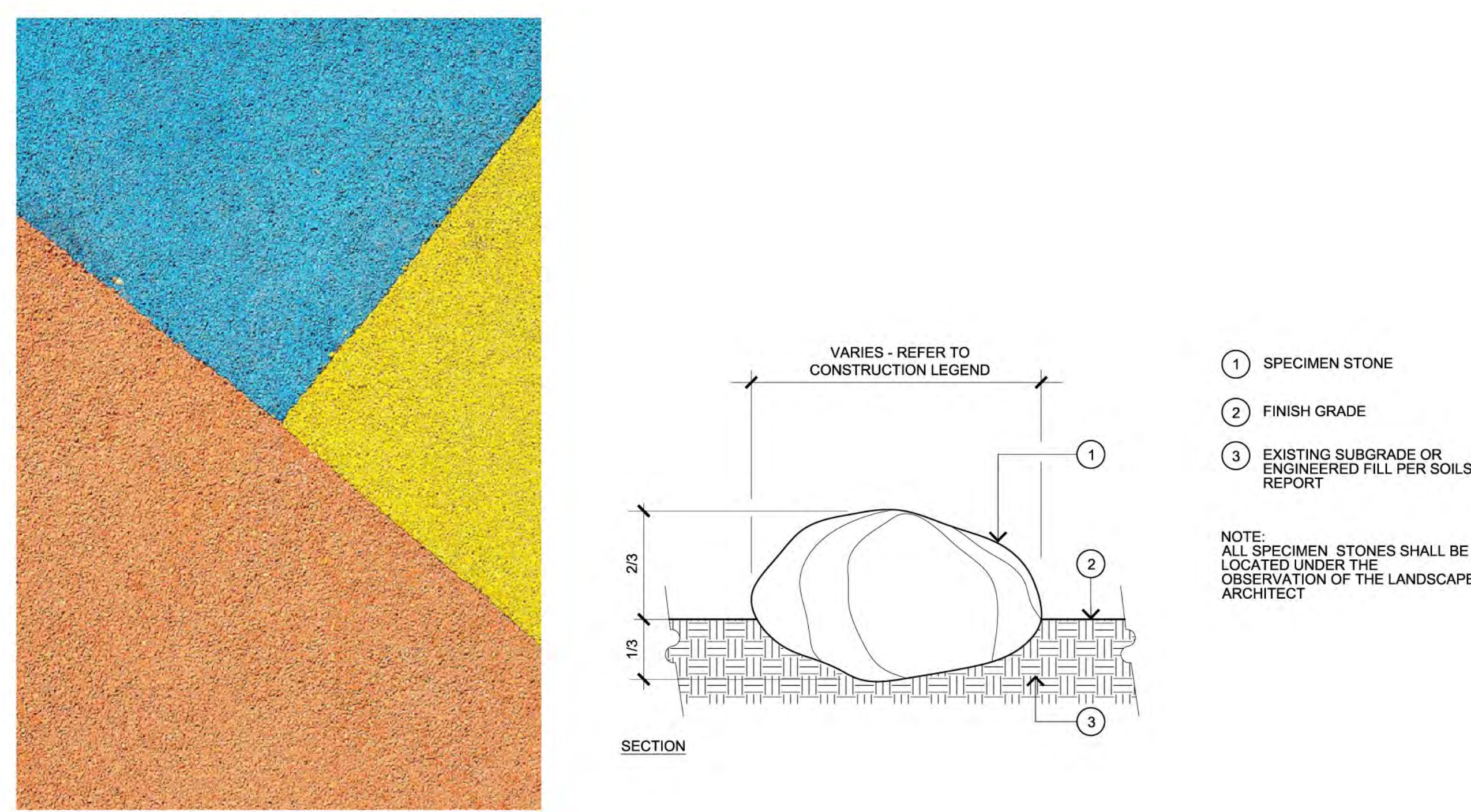
3 NOIYO COBBLE SCALE : 3"=1'-0"



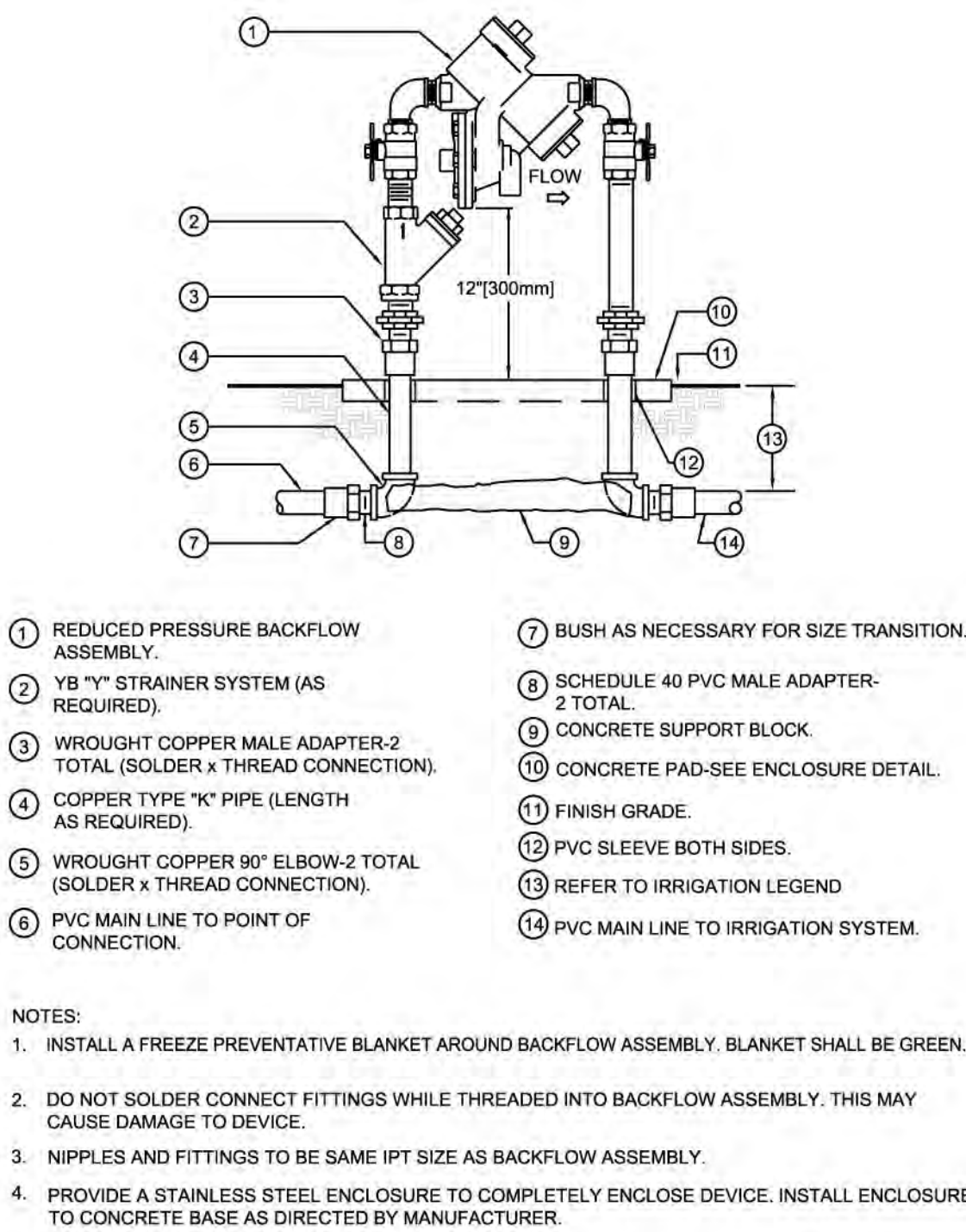
4 SYNTHETIC TURF WITH CONCRETE BAND SCALE : 3"=1'-0"



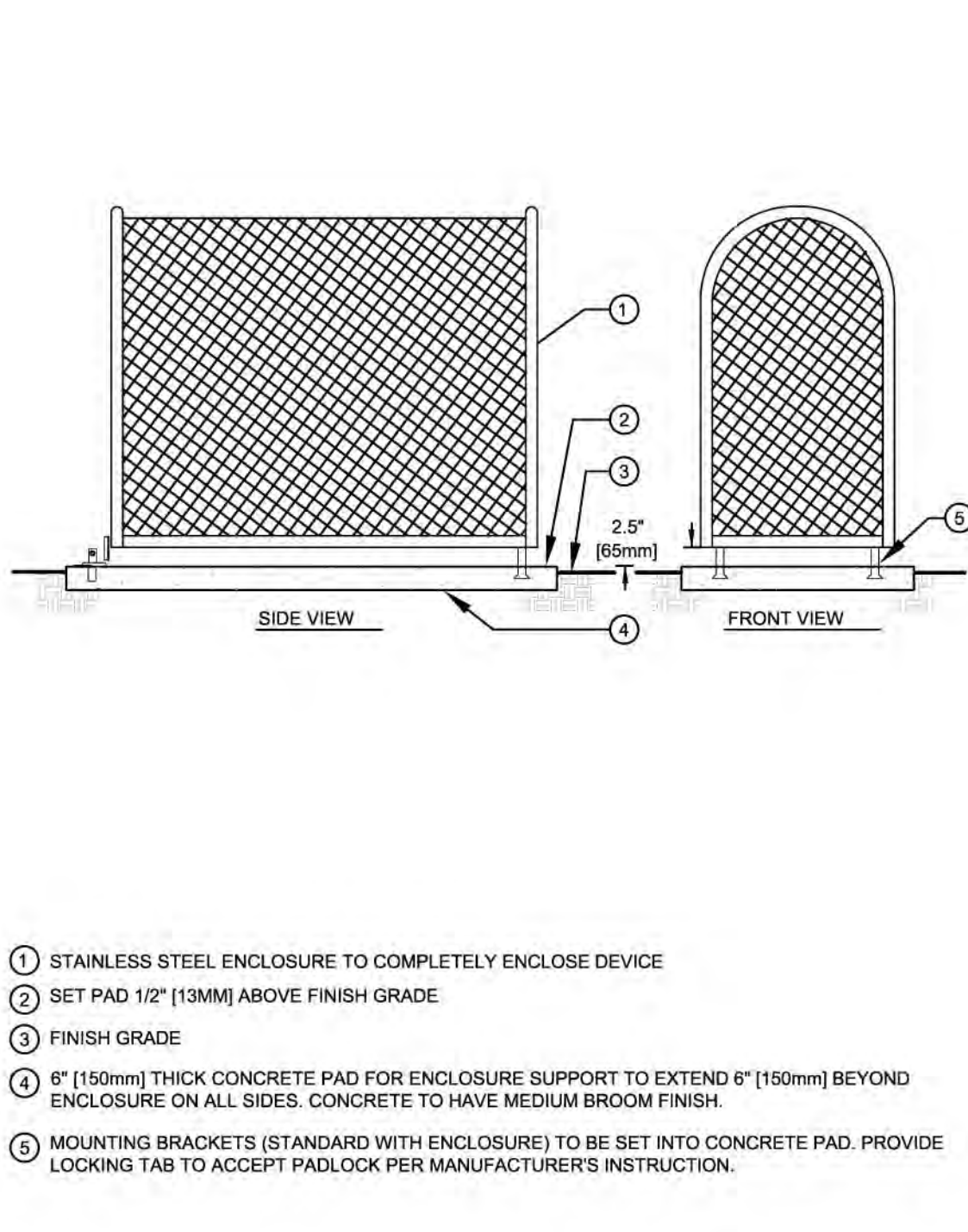
5 RUBBERIZED SURFACING SCALE : 3"=1'-0"



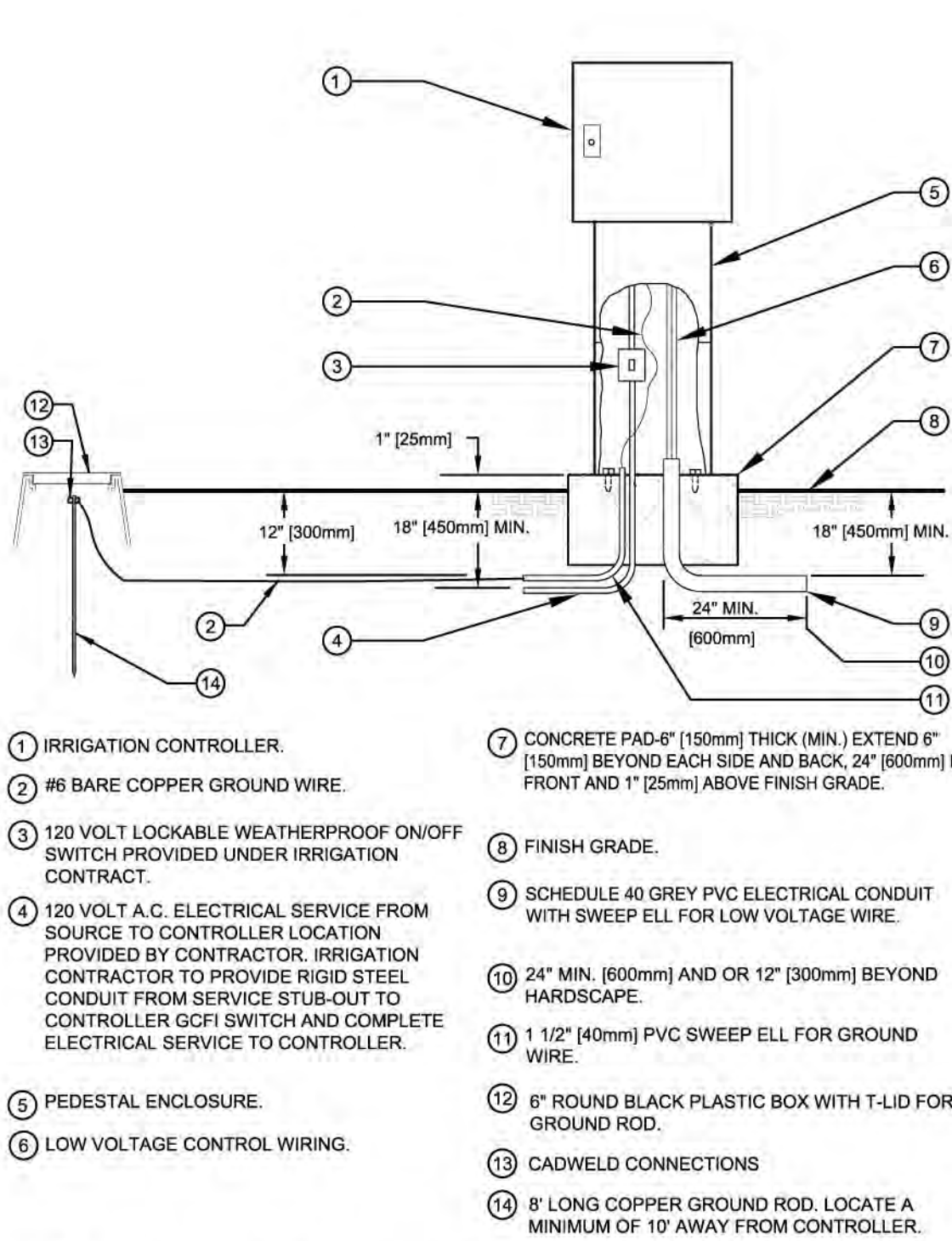
6 SPECIMEN STONE N.T.S.



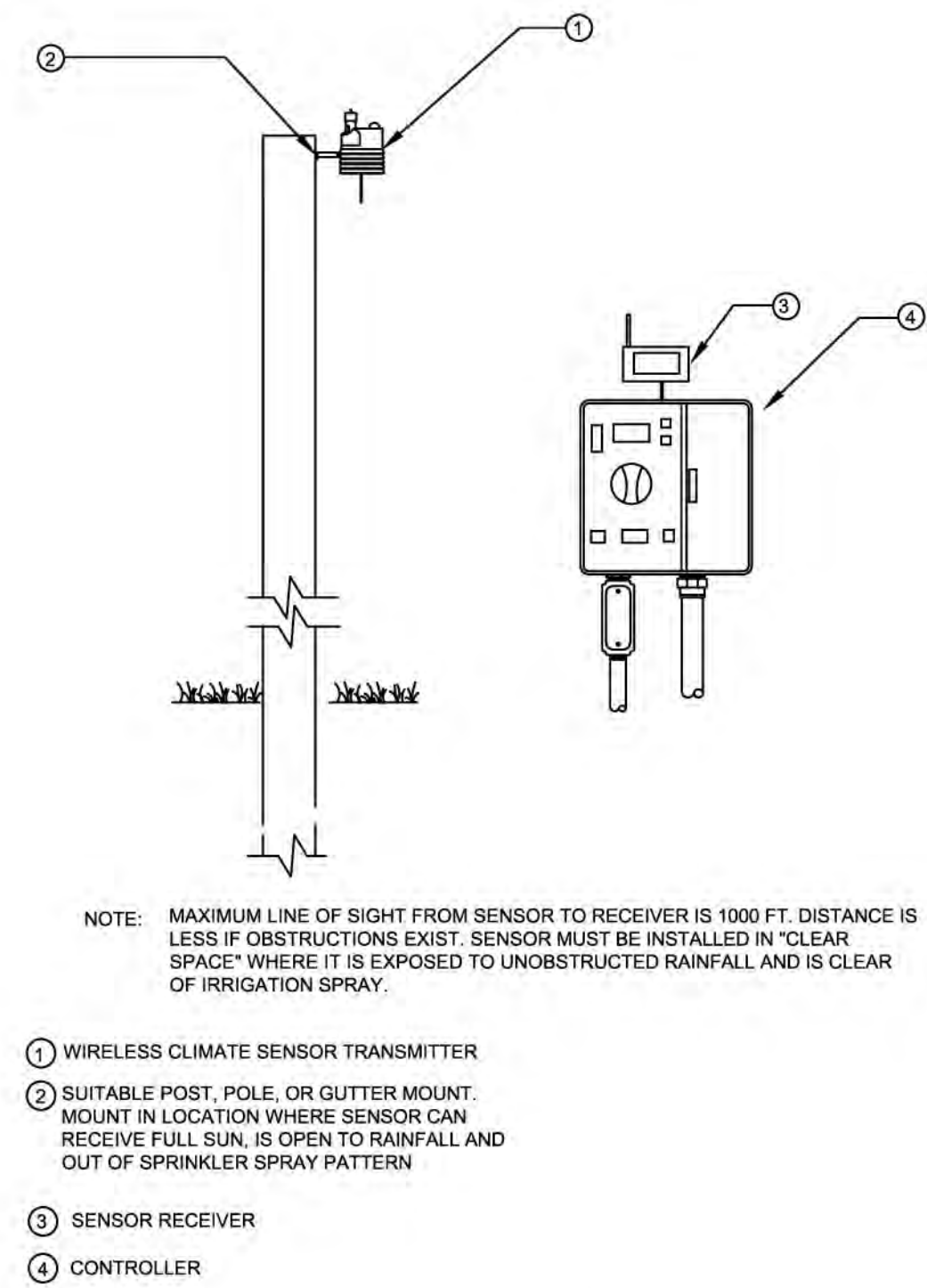
1 REDUCED PRESSURE BACKFLOW ASSEMBLY SCALE: NONE



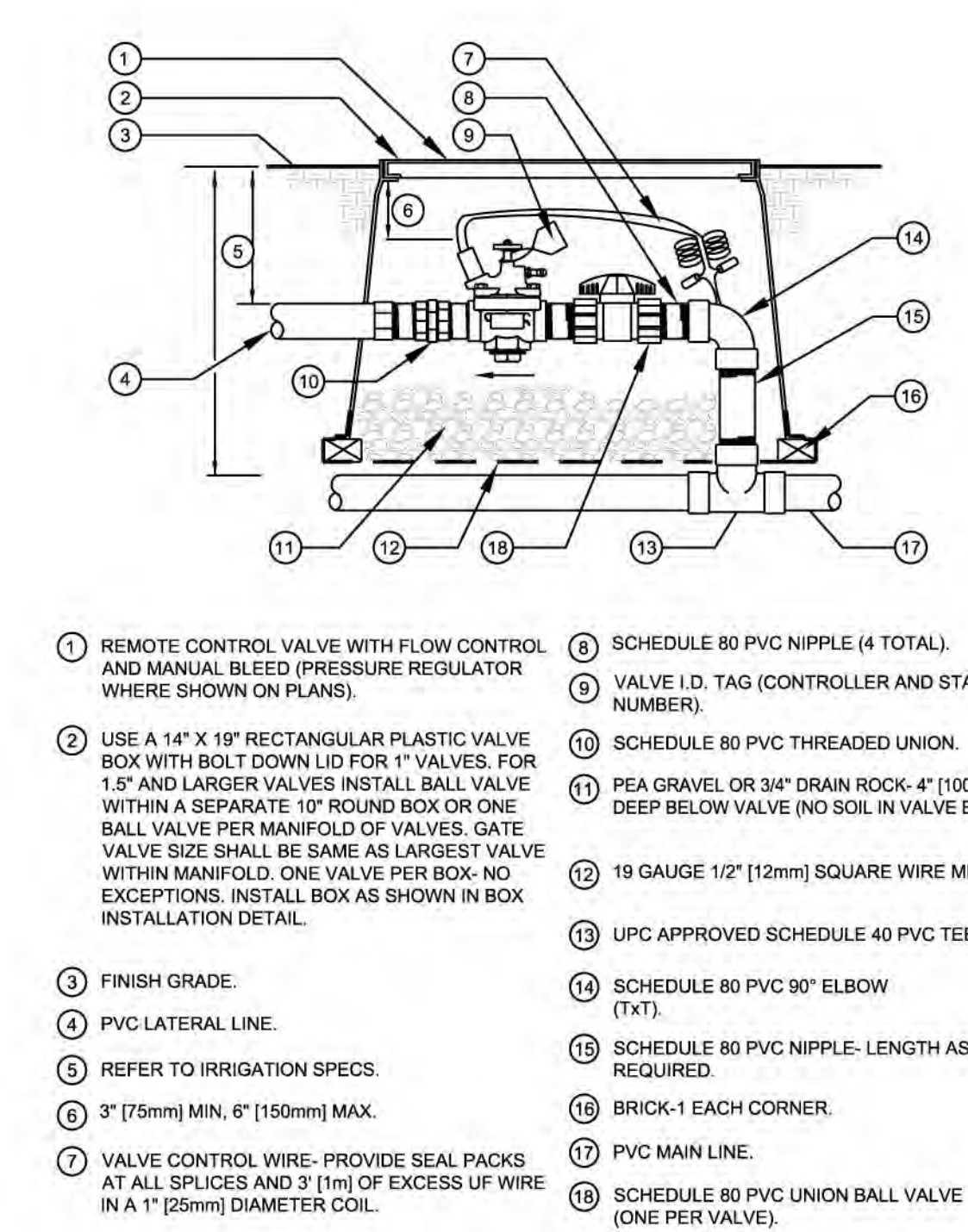
2 BACKFLOW ASSEMBLY ENCLOSURE SCALE: NONE



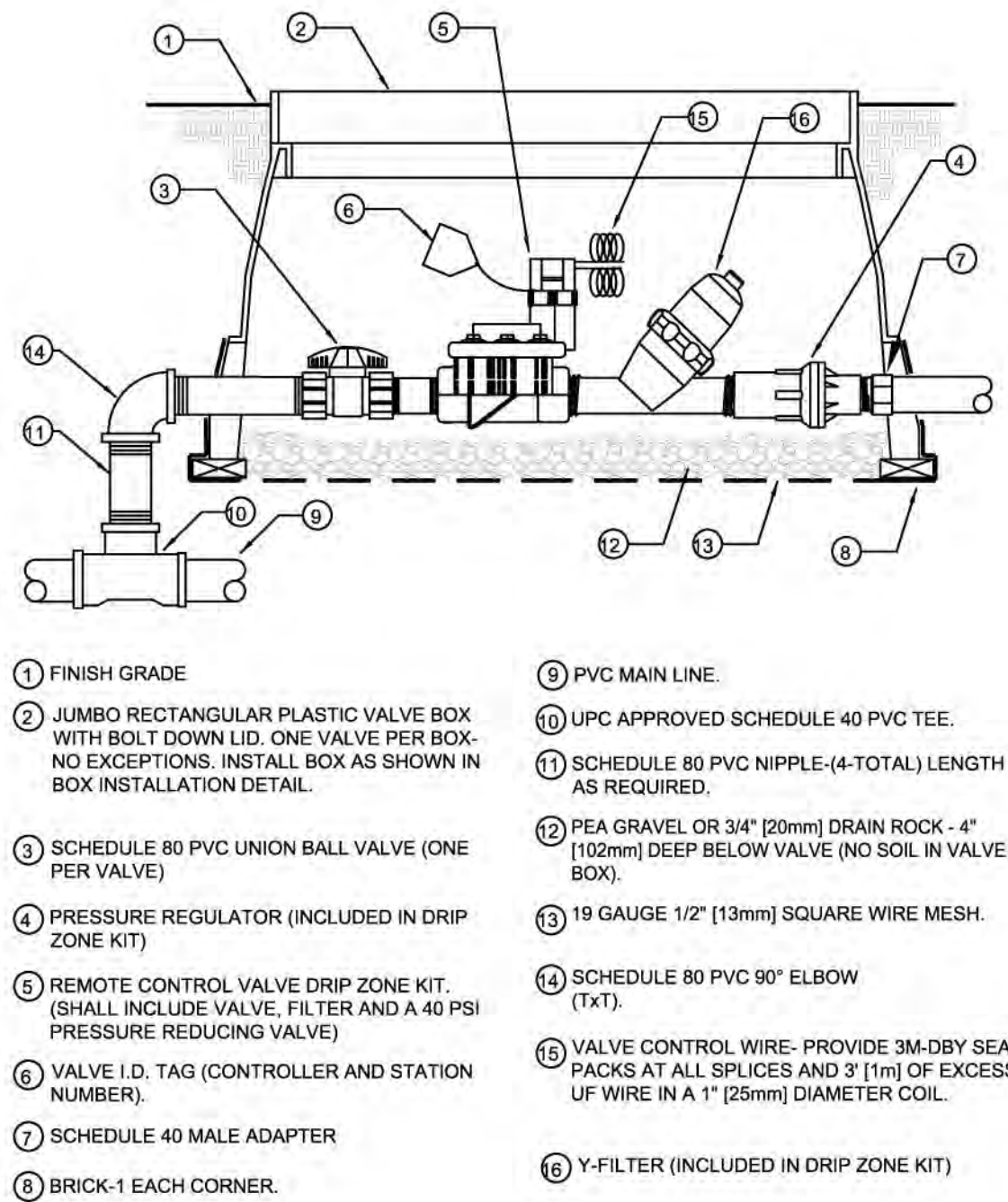
3 CONTROLLER - PEDESTAL MOUNT SCALE: NONE



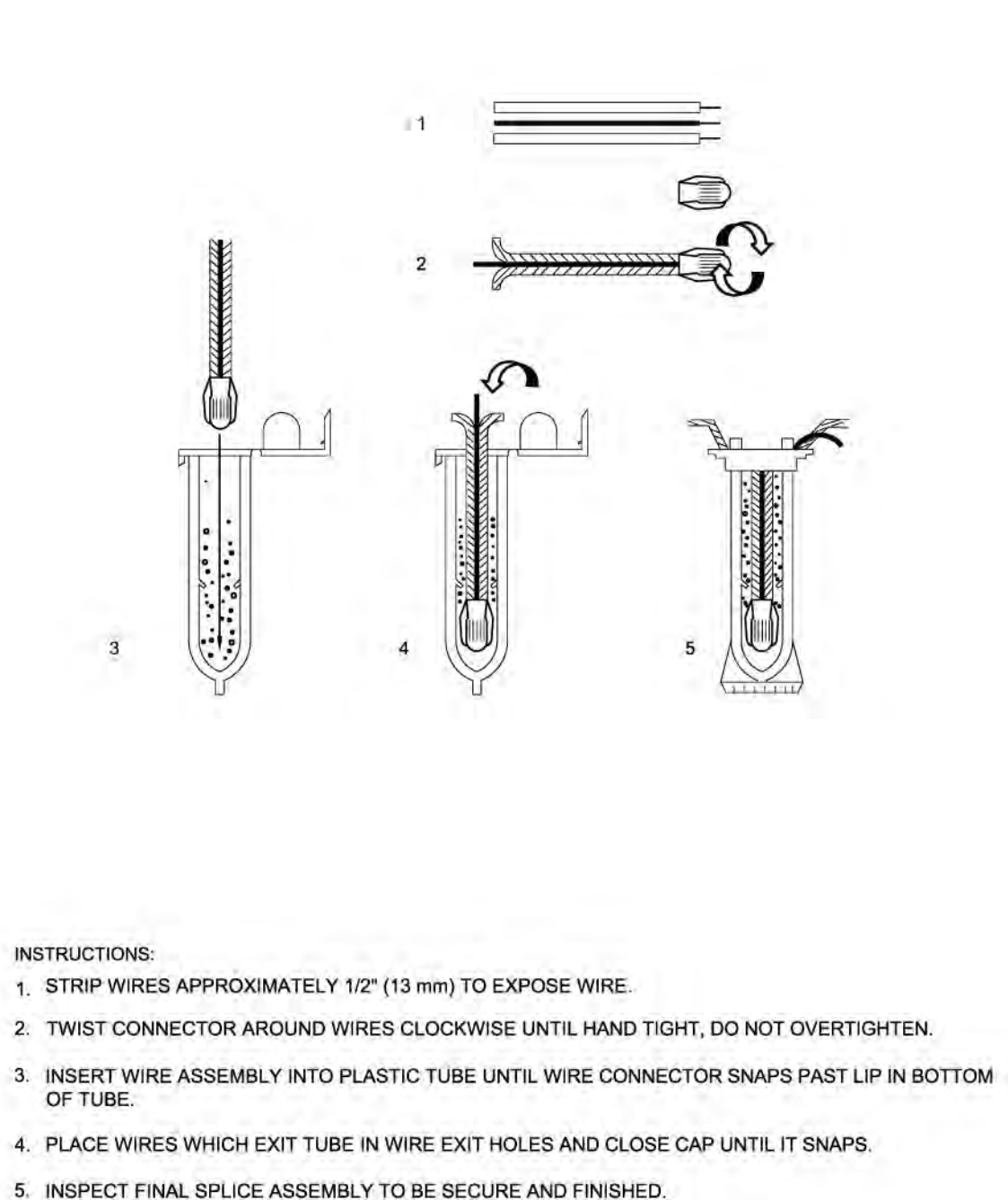
4 WIRELESS WEATHER SENSOR SCALE: NONE



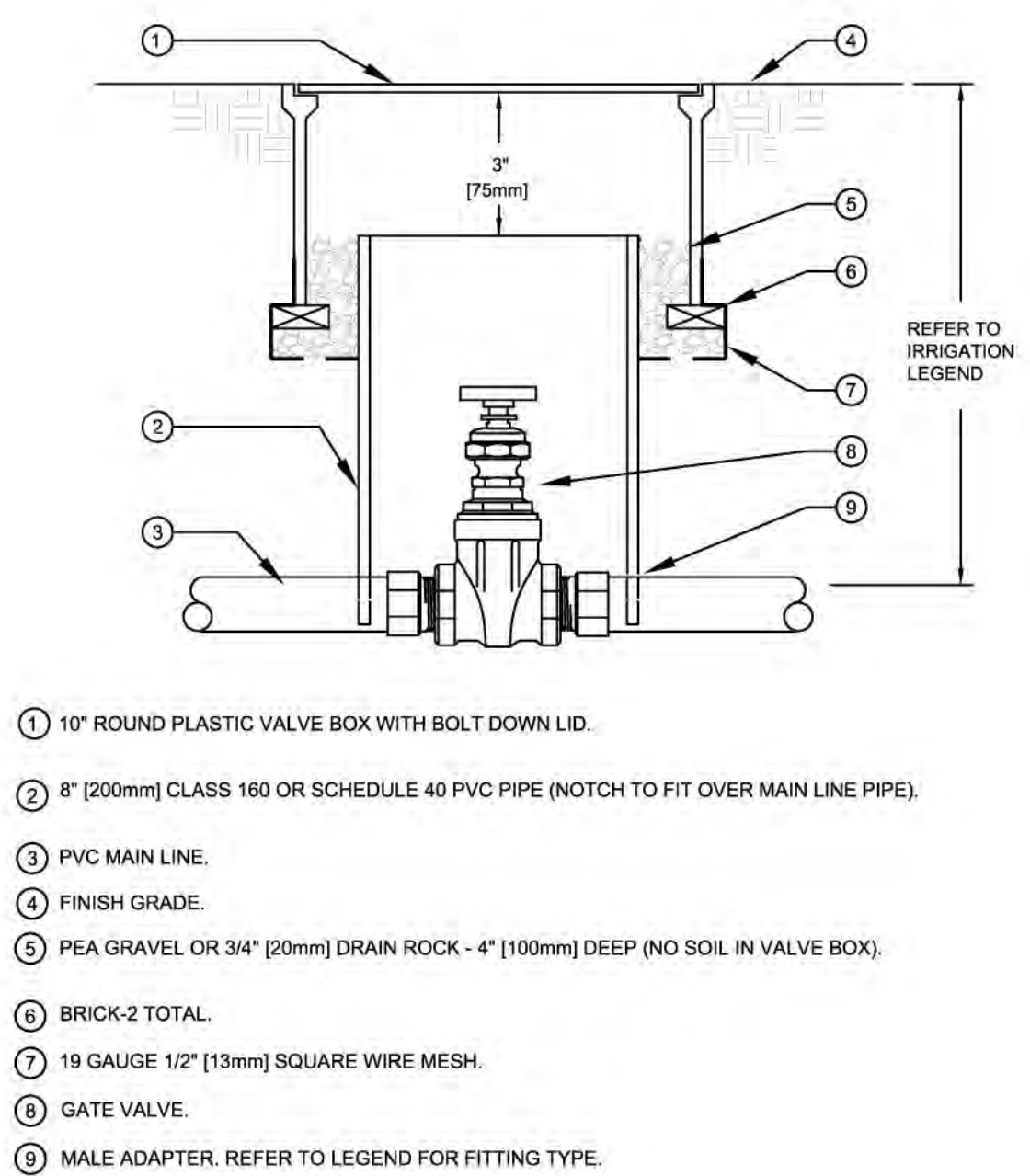
5 REMOTE CONTROL VALVE SCALE: NONE



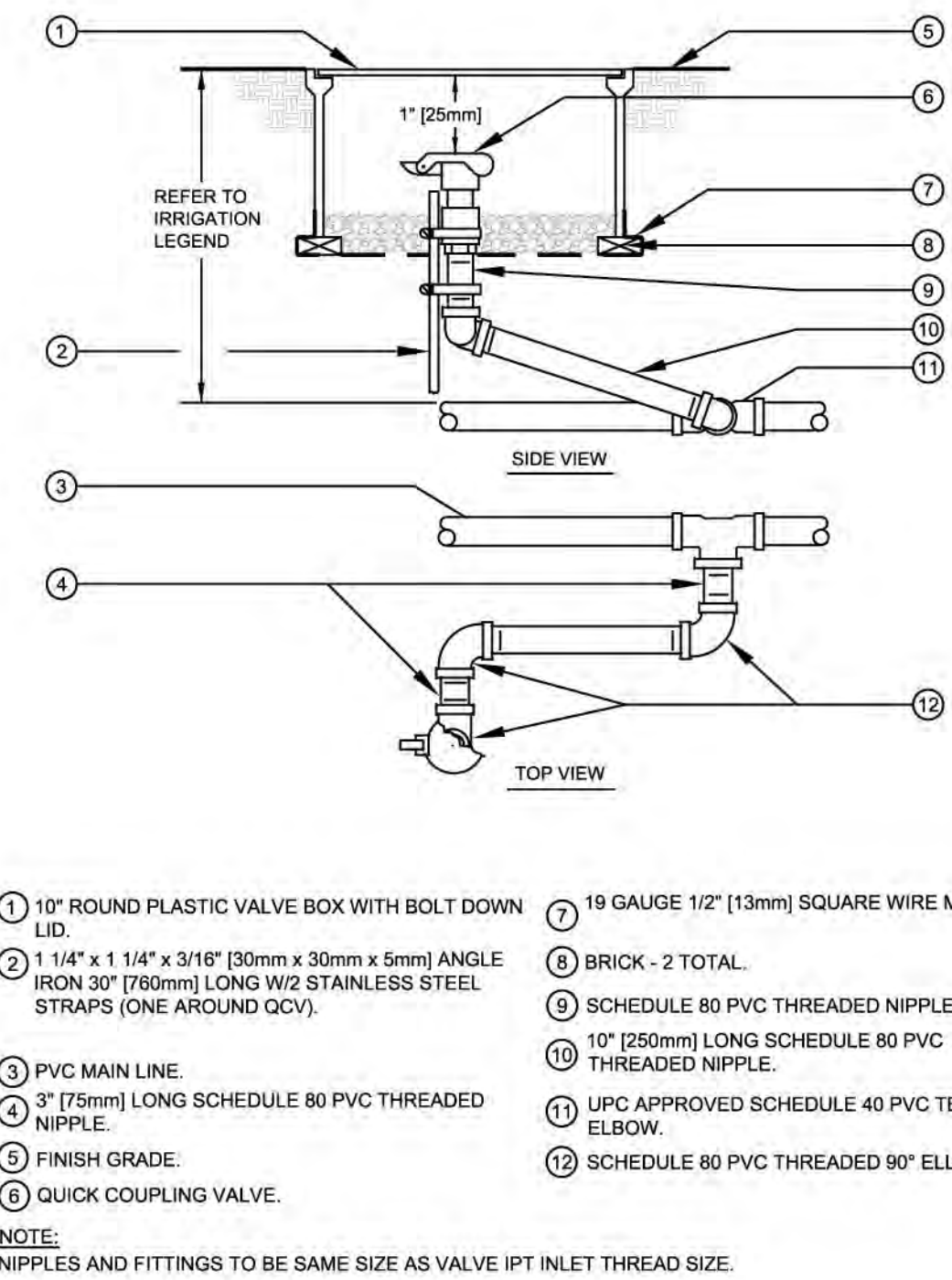
6 REMOTE CONTROL VALVE (DRIPZONE) SCALE: NONE



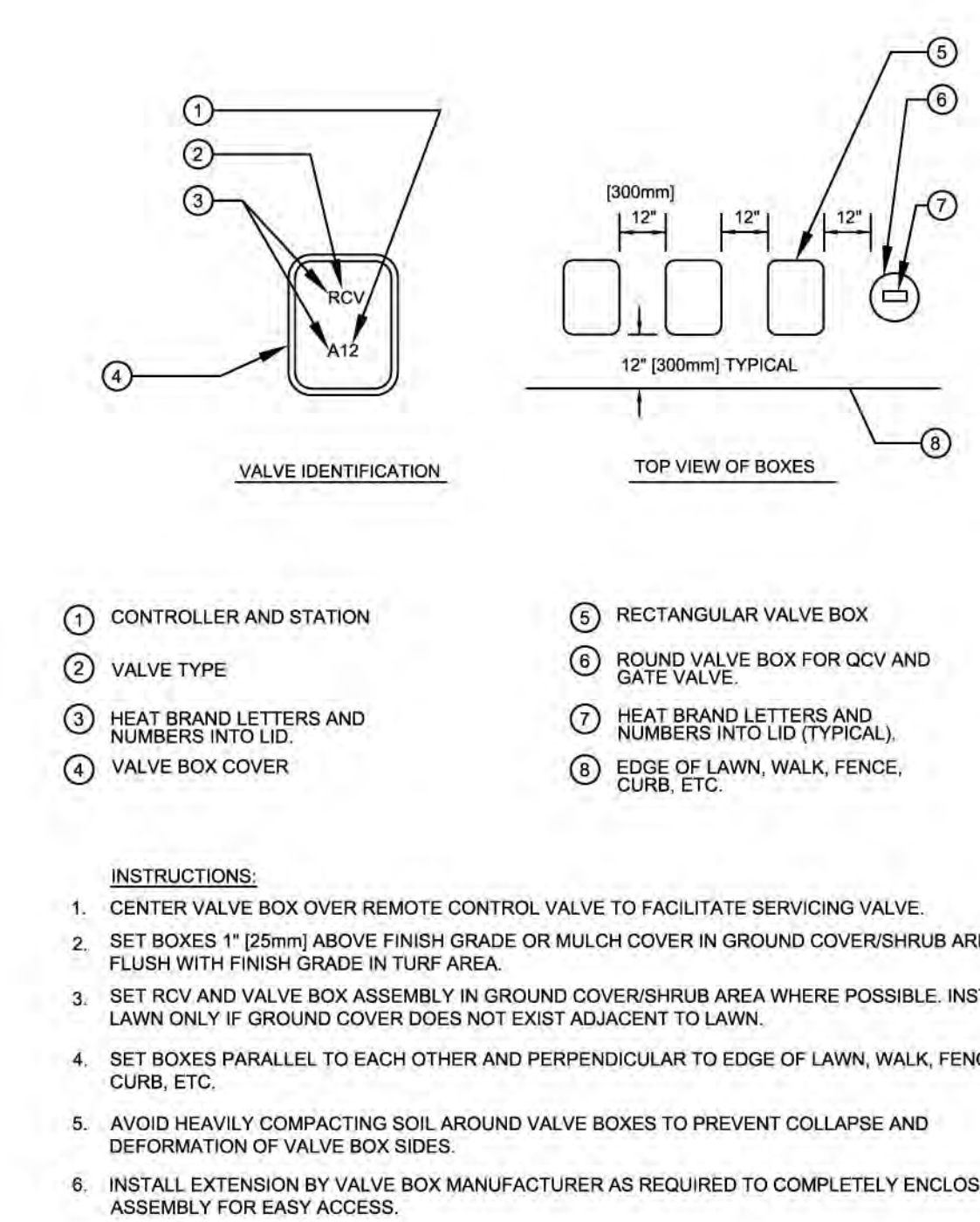
7 WEATHERPROOF WIRE SPLICE ASSEMBLY SCALE: NONE



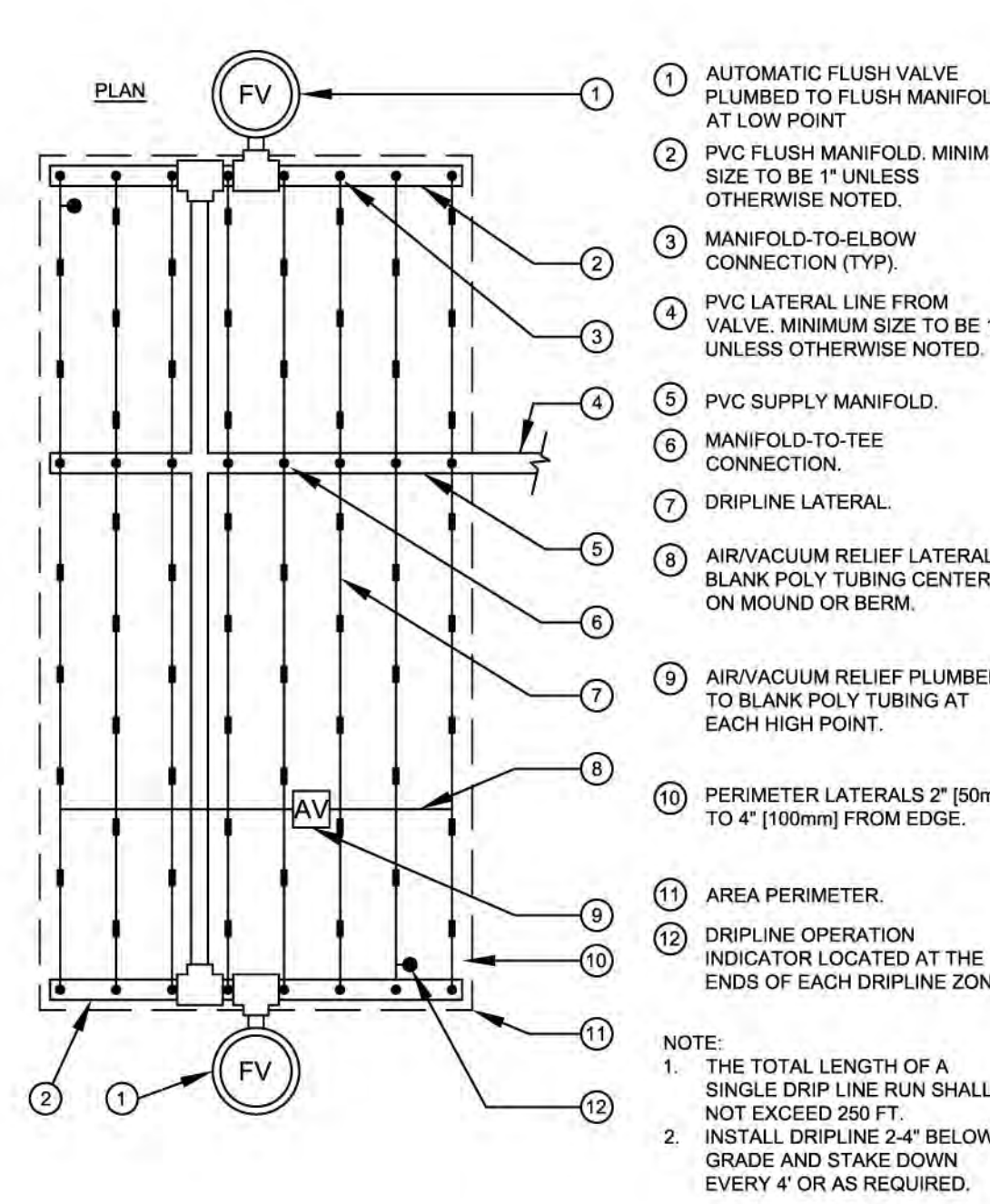
8 GATE VALVE SCALE: NONE



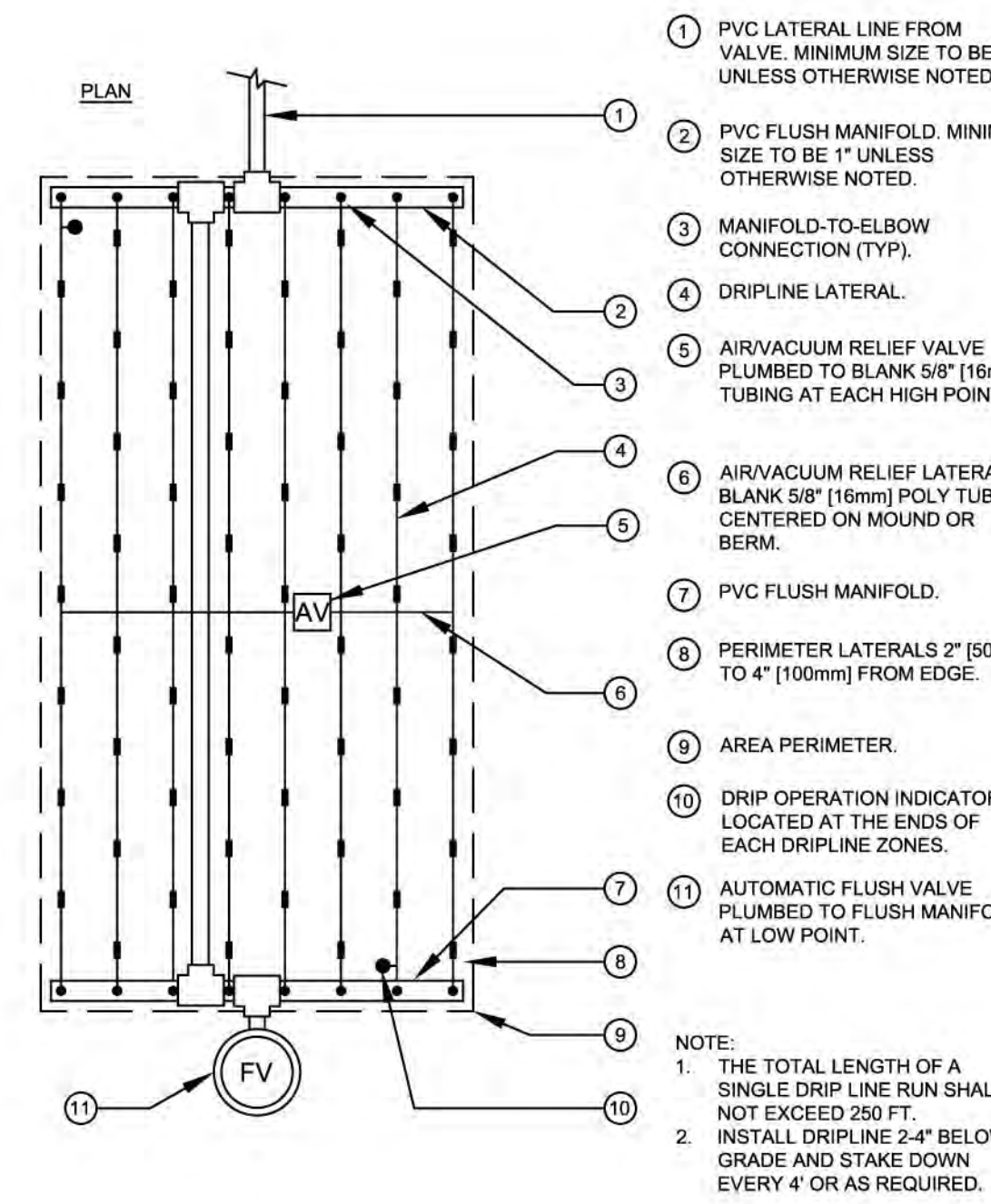
9 QUICK COUPLING VALVE SCALE: NONE



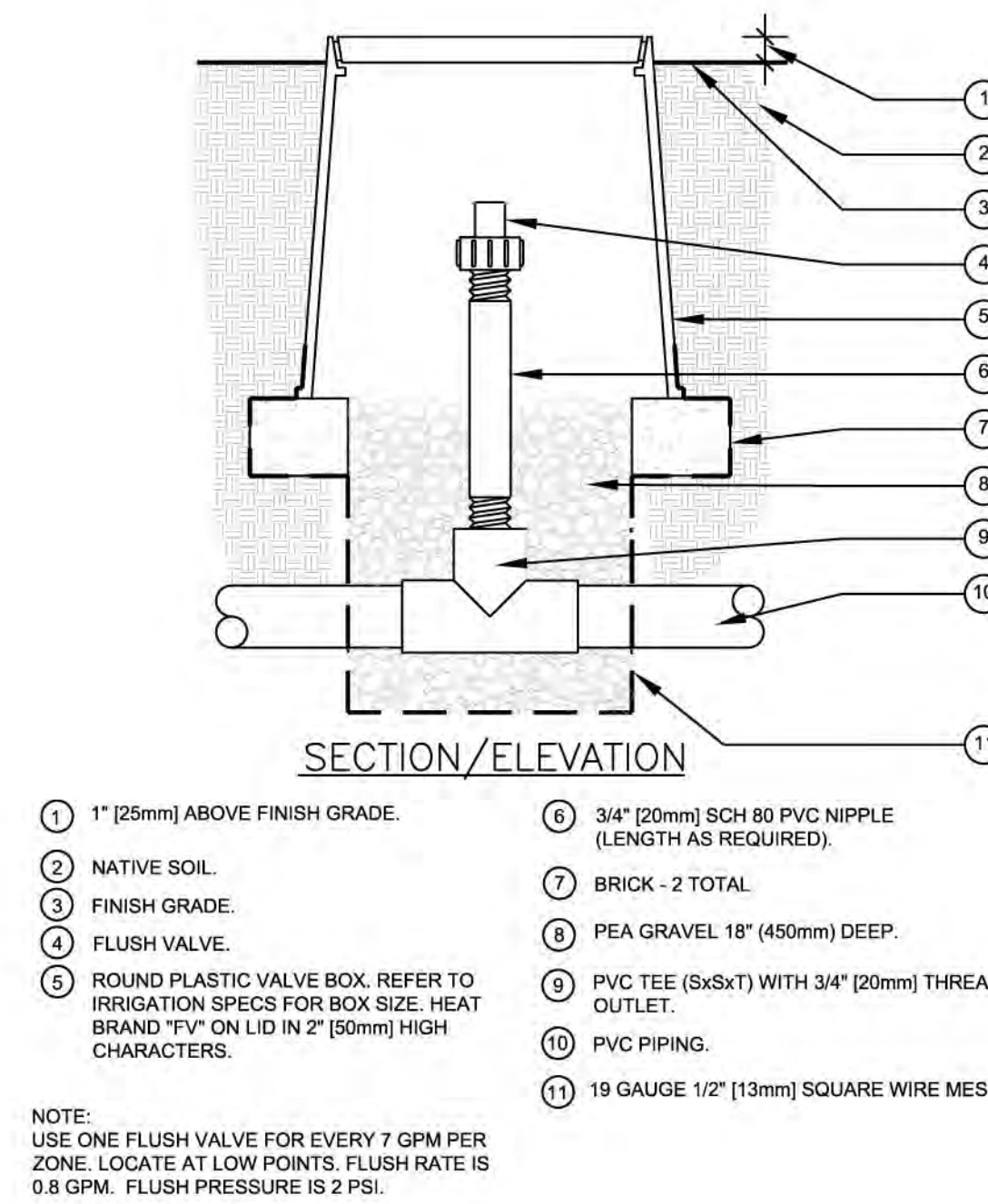
10 VALVE BOX INSTALLATION SCALE: NONE



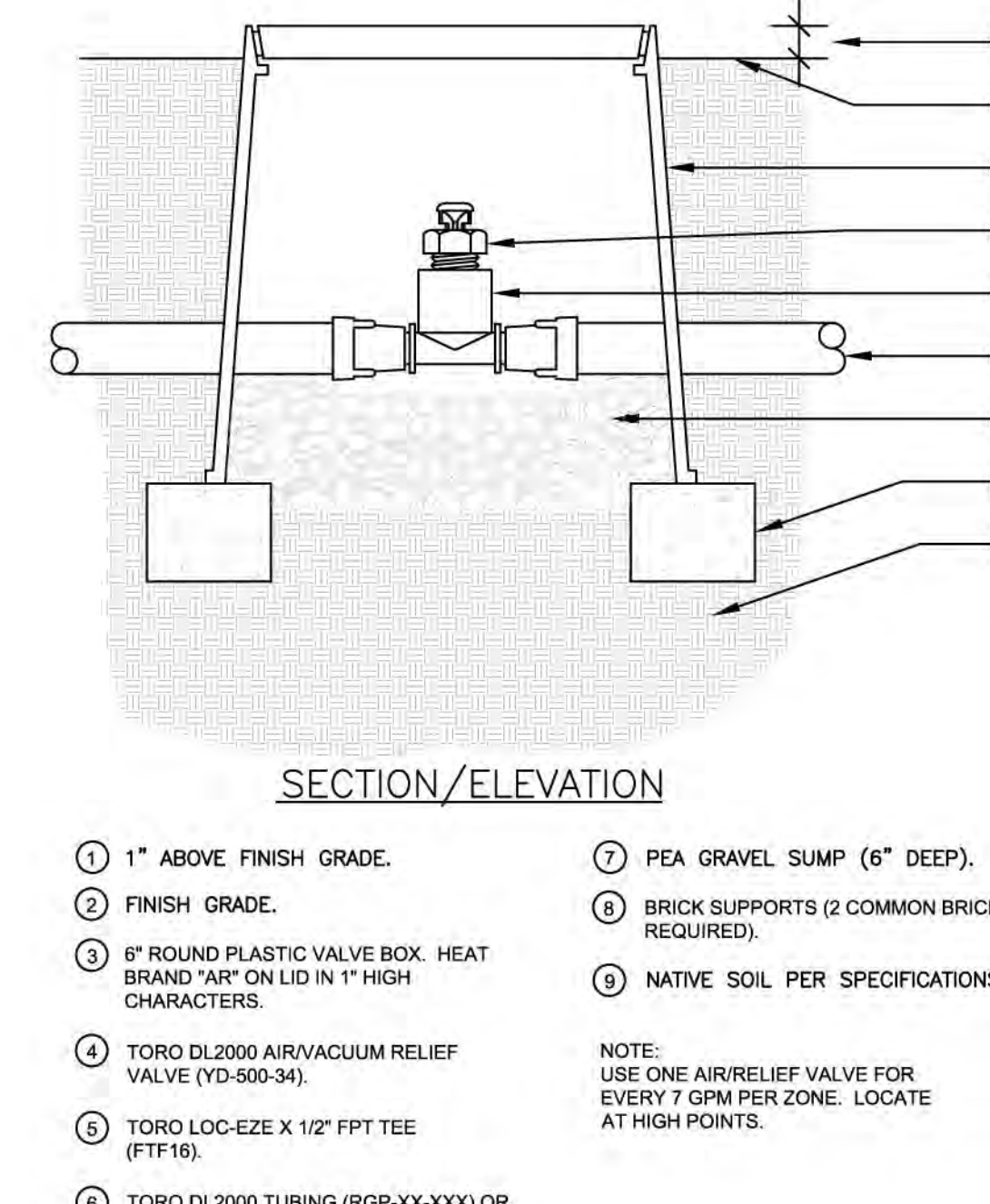
1 TORO DL 2000 CENTER FEED LAYOUT SCALE: NONE



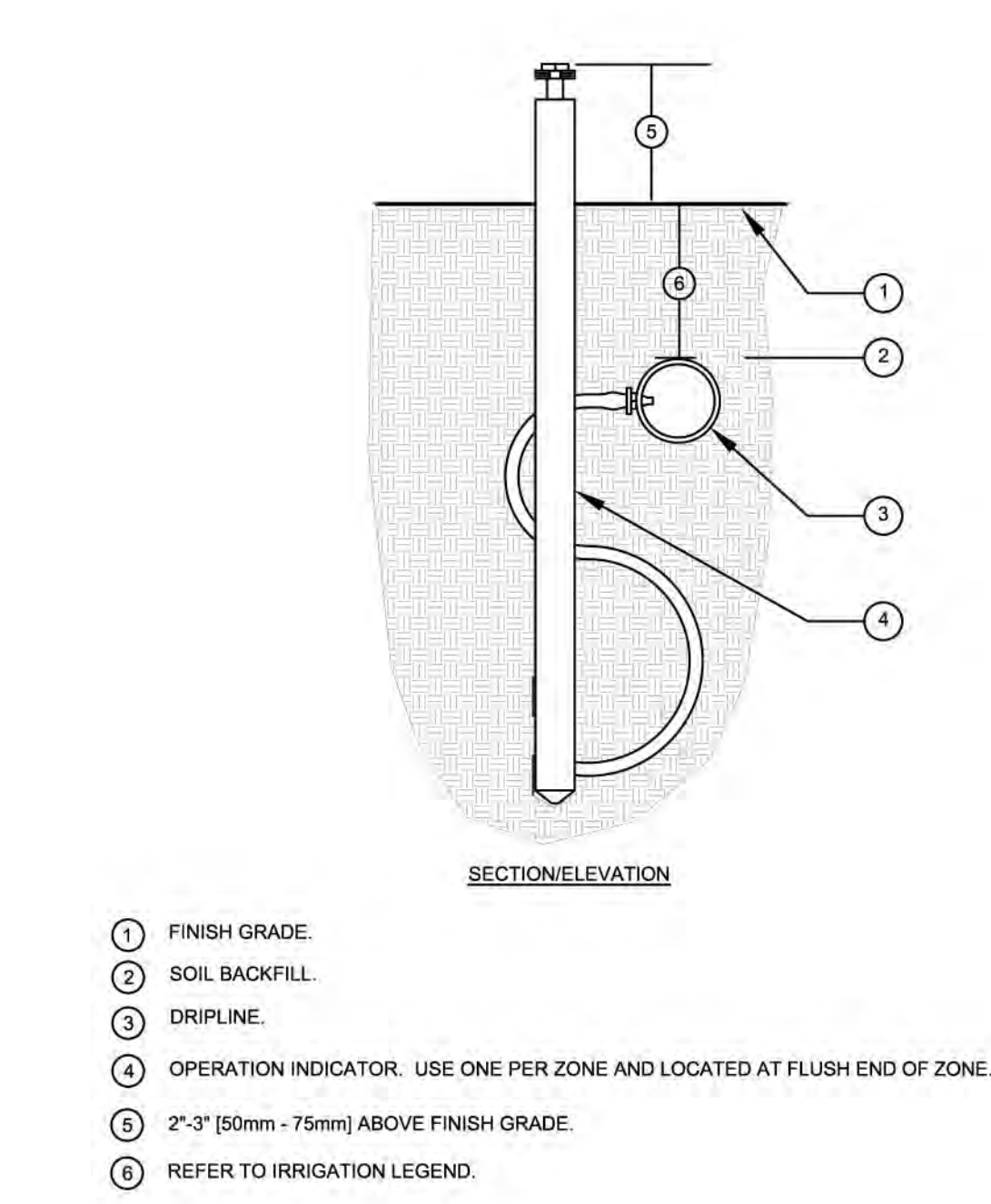
2 TORO DL 2000 END FEED LAYOUT SCALE: NONE



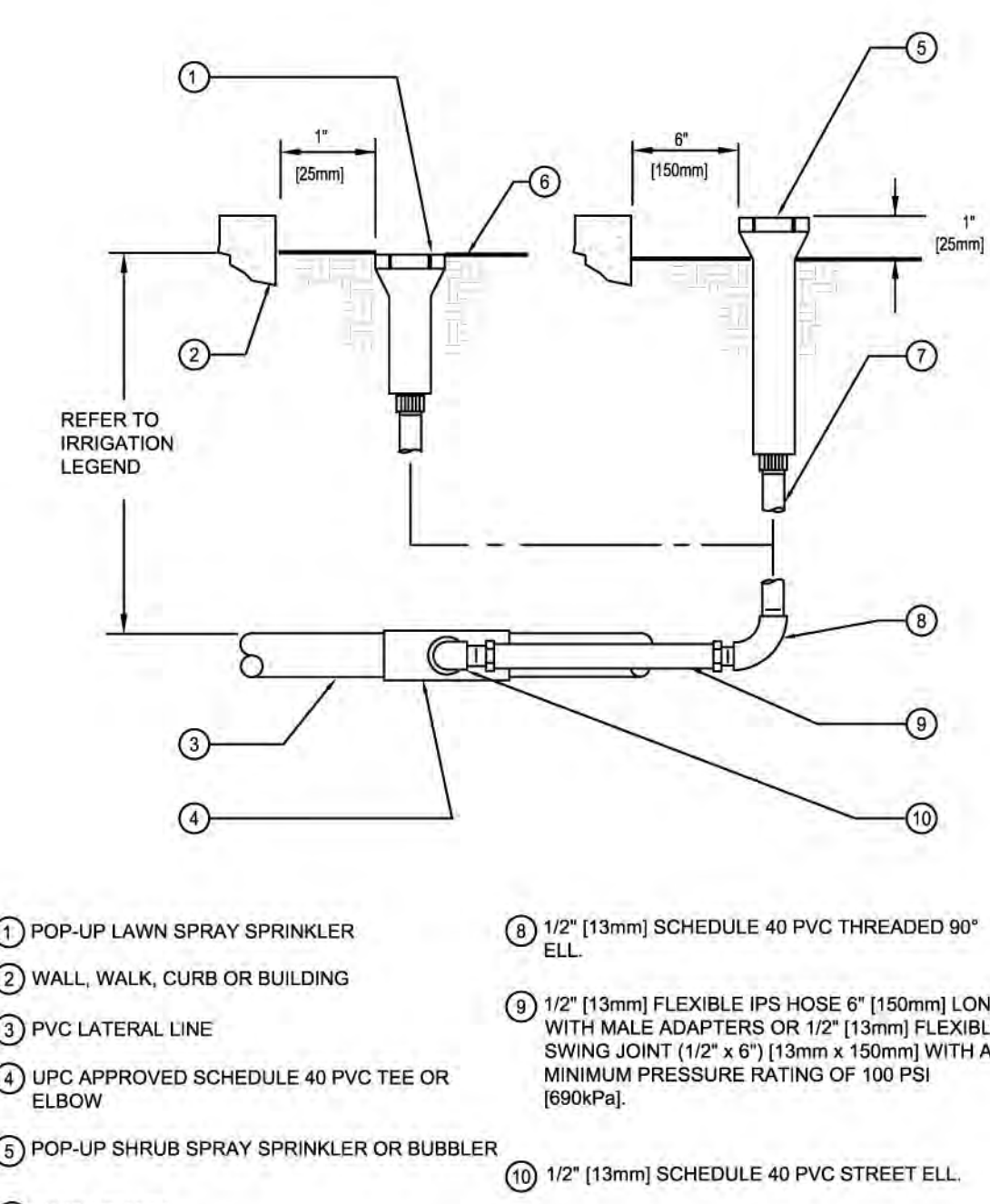
3 TORO DL 2000 FLUSH VALVE (PVC TEE) SCALE: NONE



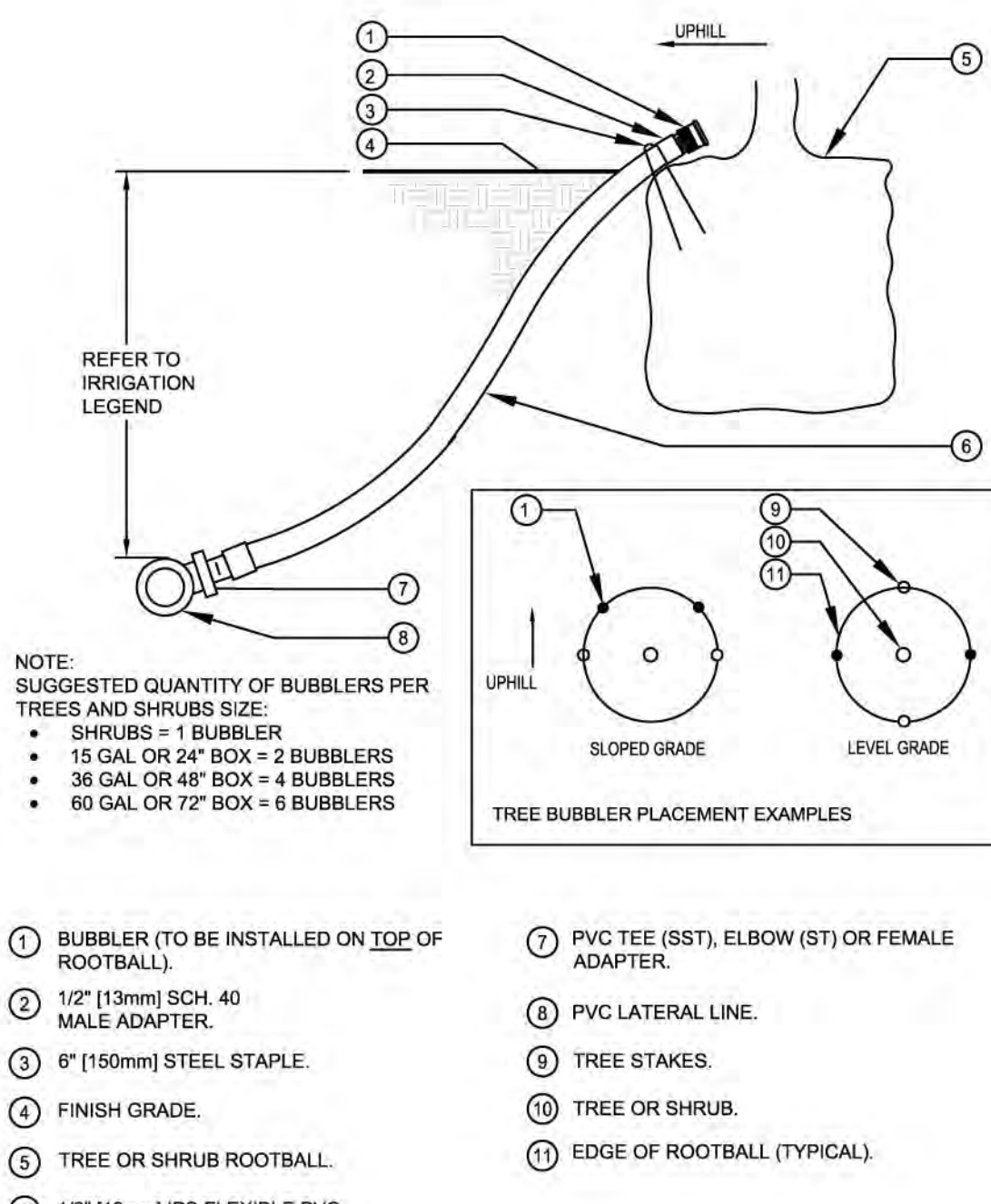
4 TORO DL 2000 AIR VACUUM RELIEF VALVE SCALE: NONE



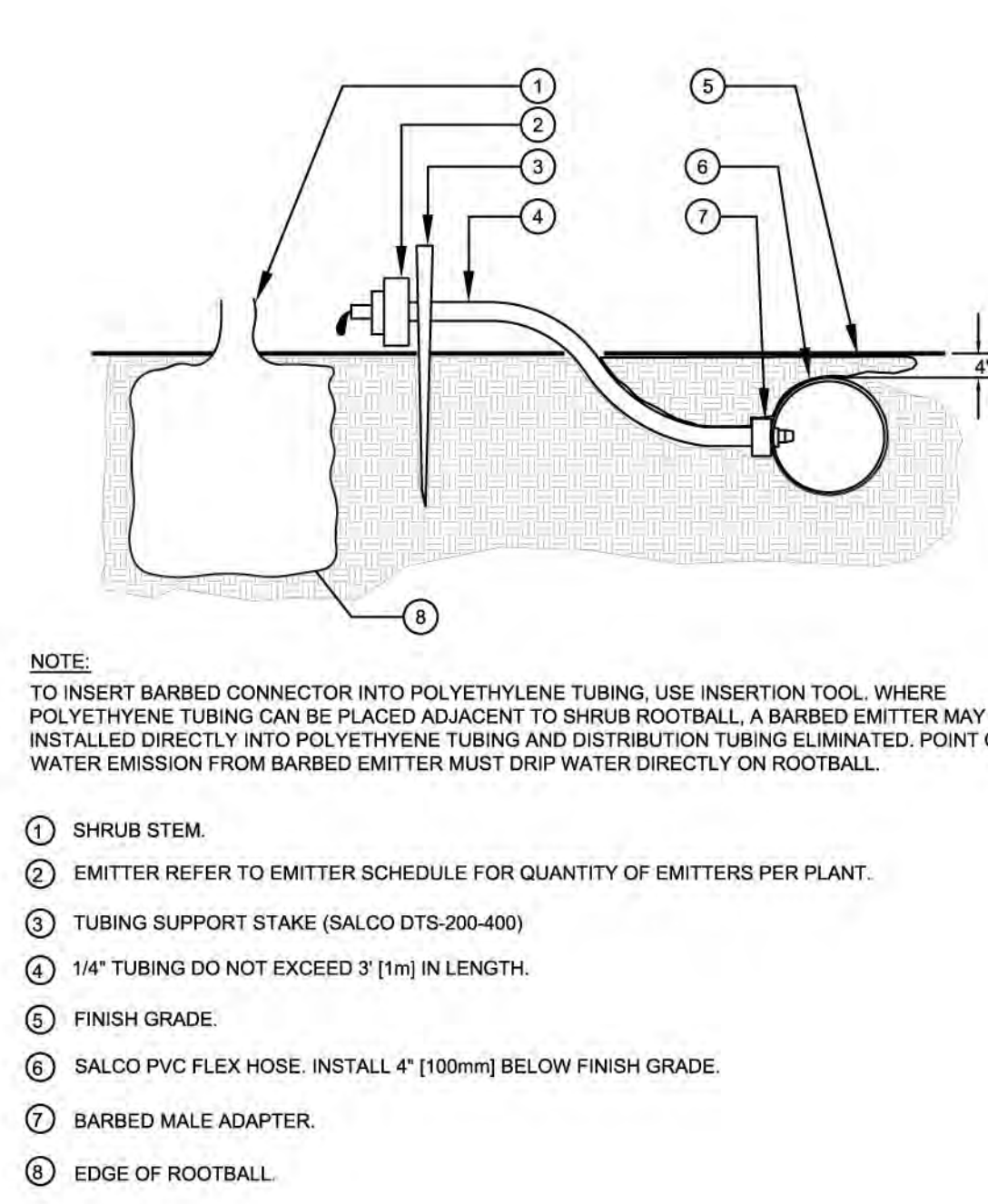
5 TORO DL 2000 OPERATION INDICATOR SCALE: NONE



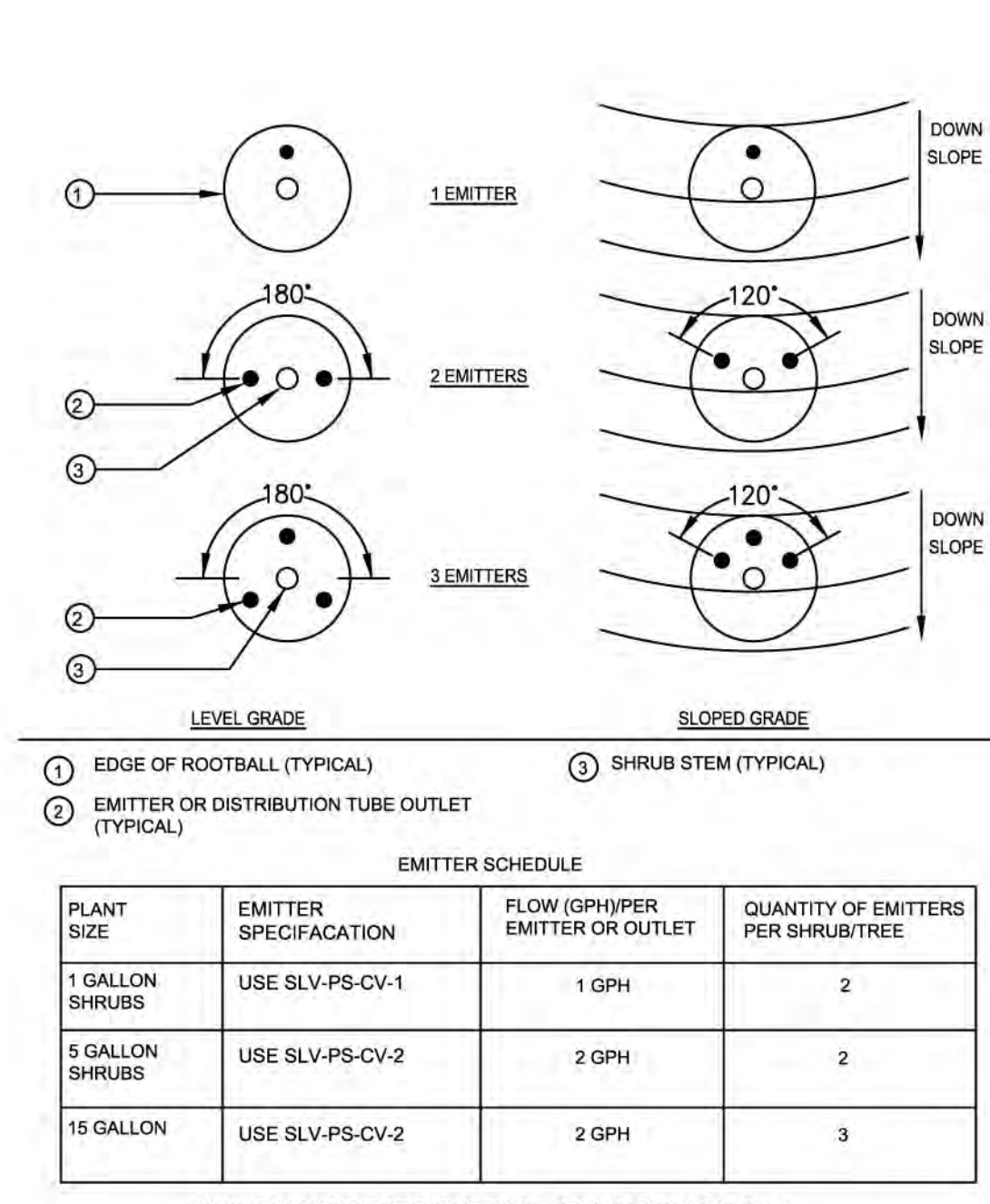
6 POP-UP SPRAY SPRINKLER RISER SCALE: NONE



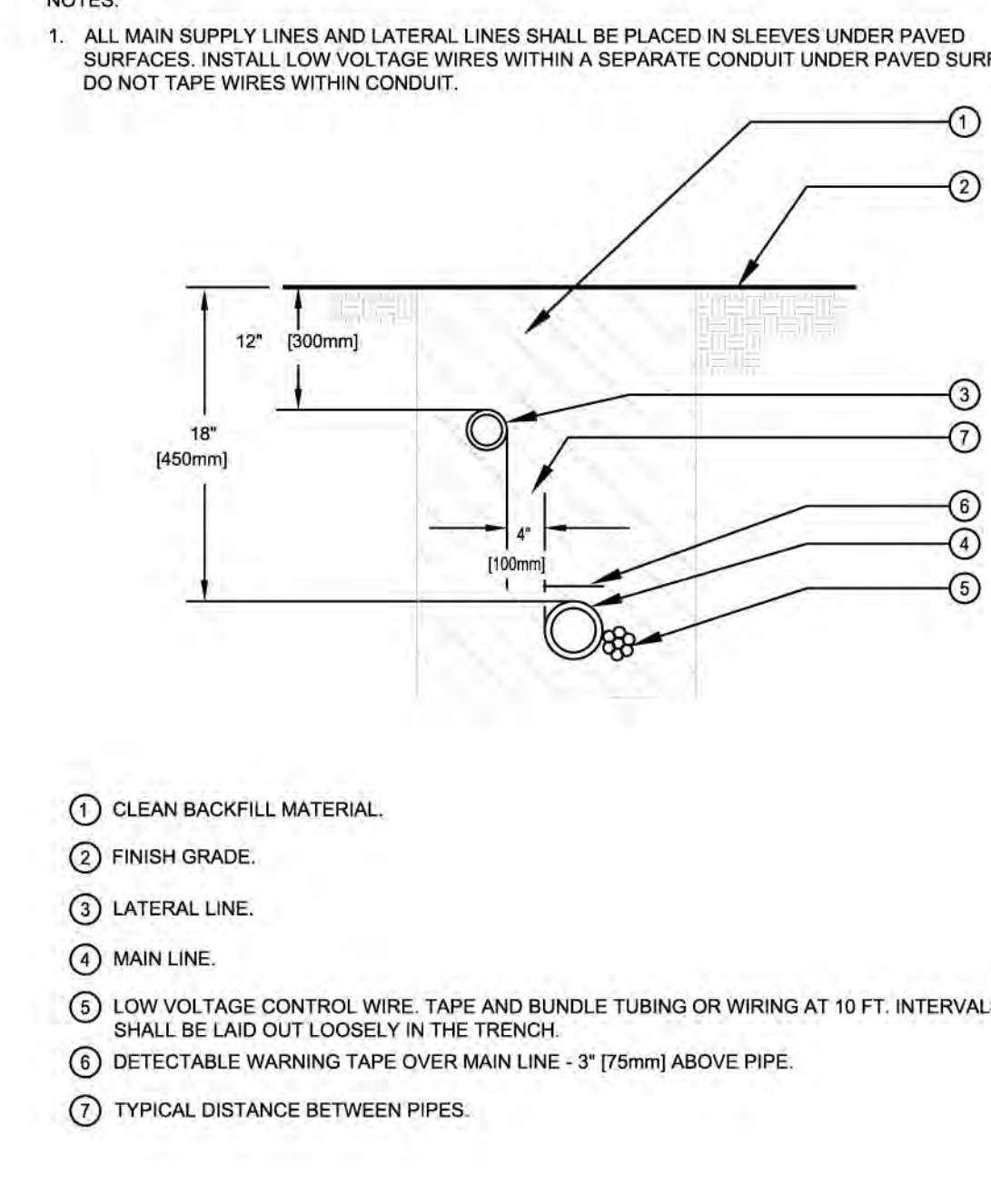
7 TREE AND SHRUB BUBBLER SCALE: NONE



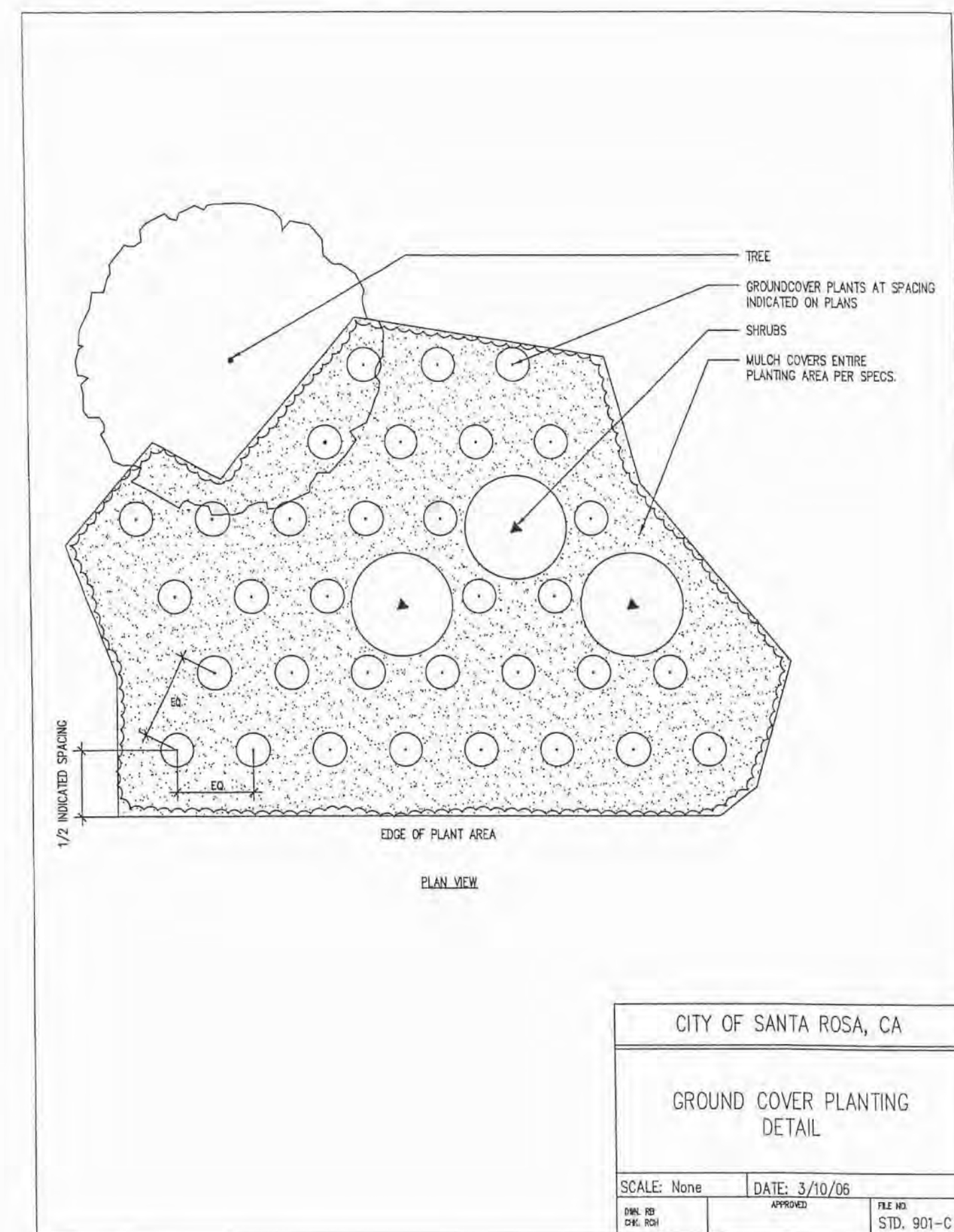
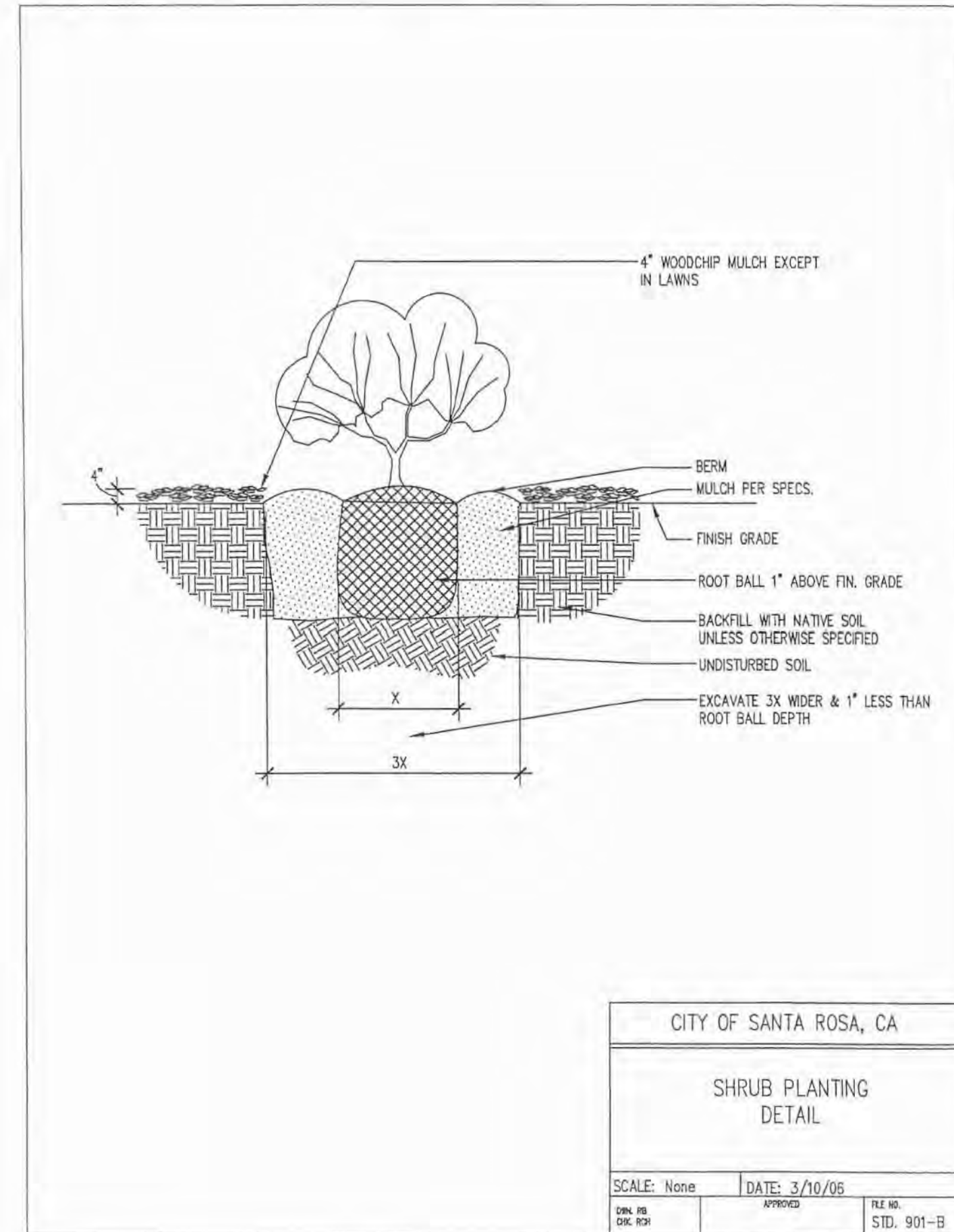
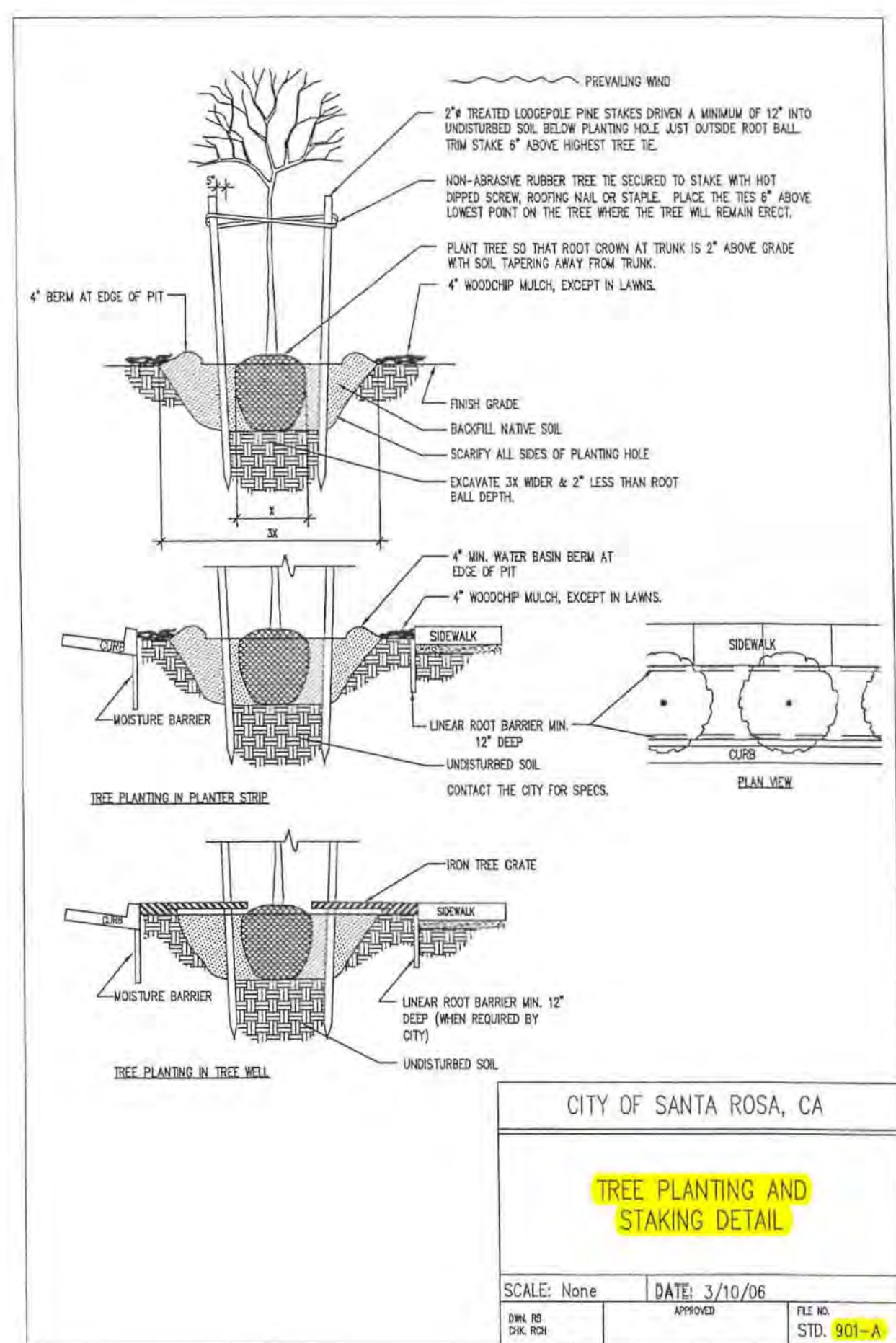
8 SALCO FLEX TUBING EMITTER PLACEMENT SCALE: NONE



9 SALCO EMITTER PLACEMENT AND SCALE: NONE



10 TRENCHING SCALE: NONE



City Of Santa Rosa
Recreation, Parks and Community Services Department

STANDARDS AND SPECIFICATIONS FOR PLANTING PARKWAY TREES

GENERAL REQUIREMENTS

- The developer shall be required to provide and plant street trees per the following standards and specifications and in accordance with all City tree ordinances. Property owners shall maintain the trees in a healthy and non-dangerous condition after the project received final acceptance.
- Approval of tree species is by the Recreation and Parks Department and must be in conformance with the master street tree list approved by the City Council.
- Parks Division will approve the genus, species, material quality and planting location. Notification shall be given five (5) working days in advance for Parks Division crews to schedule and mark tree locations. Call 543-3770 to arrange for field markings.
- To avoid conflicts with public utilities, lines of sight and streetscape features, trees shall be located as follows:
 - 30' back from beginning of curb returns at intersections (visual triangle).
 - 10 - 15' from lamp standards, depending on species size.
 - Minimum of 4' back from driveways for smaller statured street; 6' for mid/large trees.
 - 10' from all utilities, sewer, water, cable, gas lines and fire hydrants.
 - Each residential lot shall have at least one (1) tree, corner lots two (2) trees, except where not possible. Normally there will be a tree every 30' as feasible. In small lot subdivisions the intent is that reasonable concessions should be made regarding these standards to maximize the number of street trees planted.
 - 20' minimum spacing in commercial zones; field marking may have cause to adjust locations.
 - Where there are power lines above planter areas, tree selection must be appropriate for the limited overhead space restrictions. No single leader trees will be accepted except for under very high wires (exceeding 30').

- Trees should have a minimum height of 7' (including root ball), a good height-to-trunk caliper ratio, with a minimum caliper of 1" at 12" above the top of the root ball; and a minimum container size of fifteen (15) gallons.
 - Condition of the plants shall be symmetrical with well-distributed branches, typical for variety and species; structurally sound; healthy; vigorous; free from plant disease, insect pests or their eggs; and shall have a healthy, normal root system, with no girdling or circling roots, filling their containers, but not to the point of being root bound. Trees shall not have leaders cut or be topped prior to delivery. Trees must be able to stand upright when nursery stake is removed.
 - Inspection: All plant material shall be subject to the inspection and approval of the City. The City has the right to reject any item offered.
 - A five (5) working days advance notification shall be given prior to any inspection.
 - Upon initial notification, the contractor shall indicate the number and sequences of planting phases necessary to complete the entire project.
 - At the time of final inspection, the City may select at random one (1) tree from each planting phase to be removed and inspected for compliance to planting specifications.

PARKWAY TREE PLANTING OPERATIONS
(Tree Planting and Staking Detail STD 101-A)

- All holes shall be dug with bottoms level, the width equal to 2-1/2 times the diameter of the root ball, but no deeper than the height of the root ball.
- Holes shall be backfilled with 100% native soil.
- Removal of all nursery training stakes is required at the time of planting. Any tree which cannot stand upright without its nursery stakes will be rejected.
- Turf shall be at least 18" away from the trunk of trees in all directions.
- Set trees in center of hole in vertical position, with the root ball crown at least 1" to 1-1/2" higher than the final grade. Tamp soil or add water halfway through the backfill process to eliminate air pockets and insure good soil contact with the root ball.

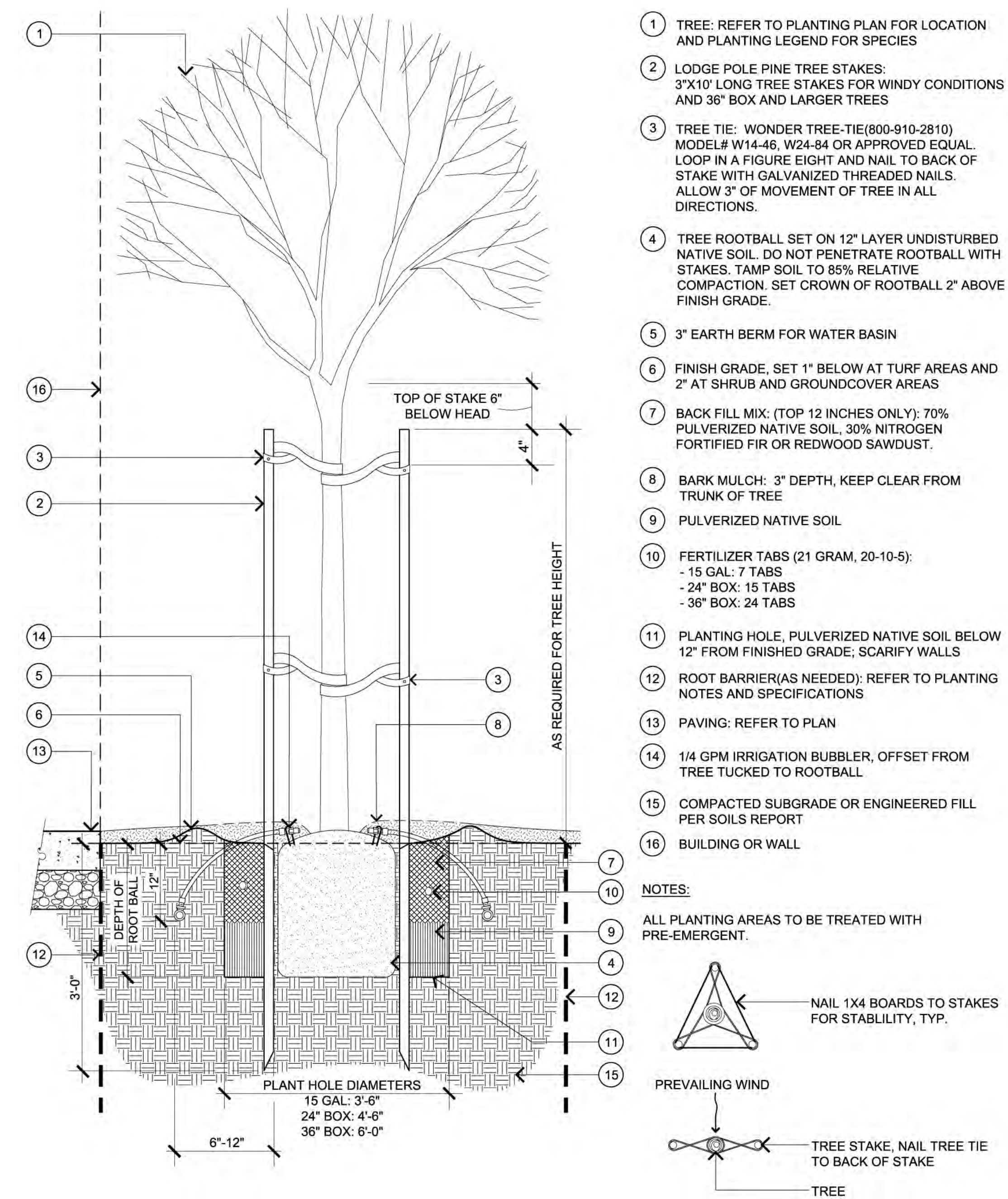
- Construct a 4" high earth water basin capable of holding ten (10) gallons of water just outside the root ball. Water sufficient to fill the basin shall be applied immediately after planting.
- If houses and/or other buildings are not occupied, trees shall be watered by the developer at least twice a week except during rainy season.
- Root barriers are required in cutouts and parkway plantings.
- Each tree must be properly supported by two (2) Lodgepole Pine stakes. Stakes shall be a minimum of 2" diameter and not less than 8' in length. Stake all trees at time of planting by placing stake in prepared hole just outside the root ball and driving stake a minimum of 12" into soil. (See detail for final height of stake and vertical location of tree tie.)
- All trees shall be secured to stakes as detailed (or approved equal).
 - Chain lock plastic or rubber ties screwed or nailed into the stakes.

GUARANTEES

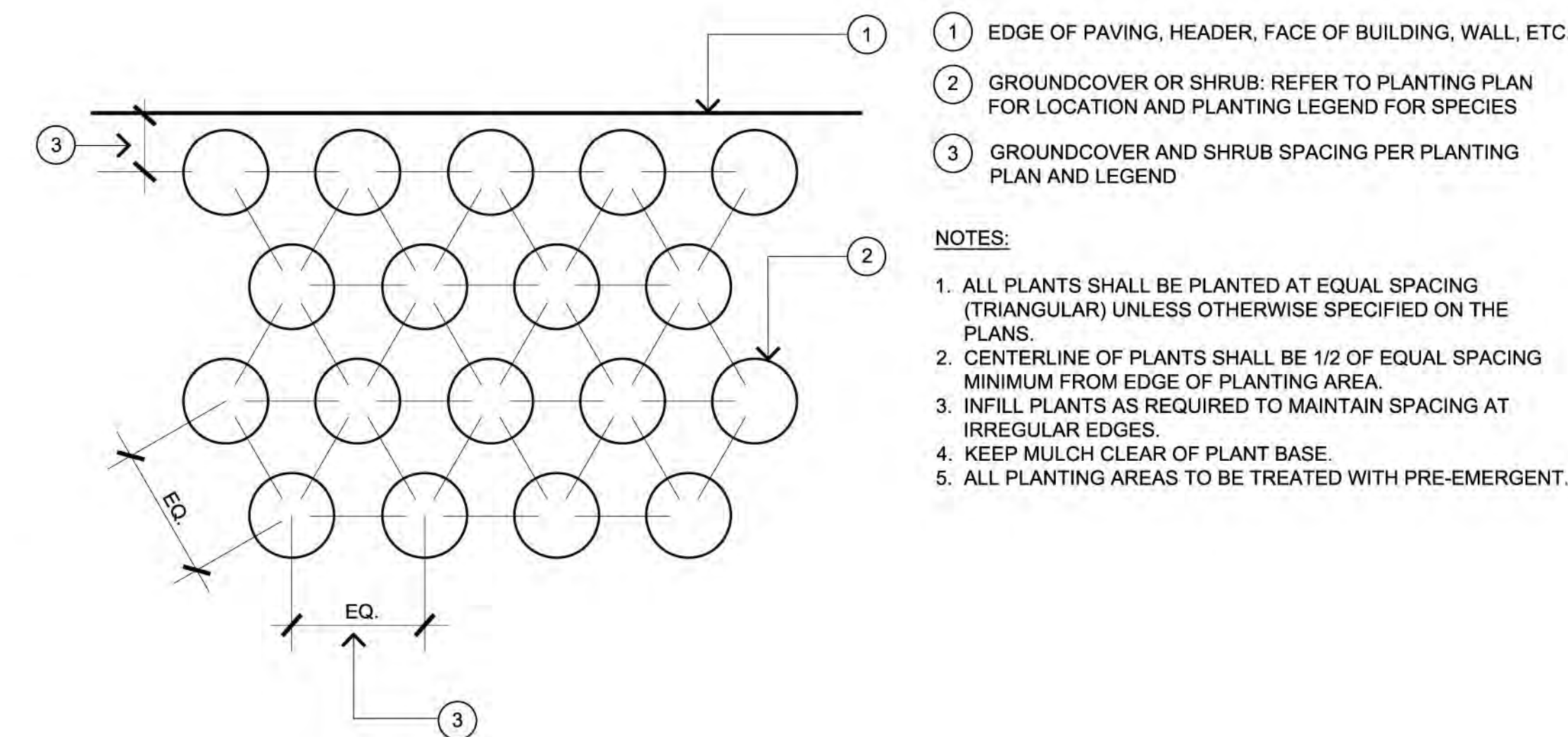
- A fifteen (15) gallon tree shall be guaranteed as to growth and health for a period of ninety (90) days after final acceptance by the City.
- Trees that fail to grow or are injured or damaged during planting operations shall be replaced within fifteen (15) days after notification. Replacement material shall be guaranteed as specified as original material.

TREES NOT INSTALLED ACCORDING TO CITY REQUIREMENTS WILL BE REJECTED BY THE CITY.

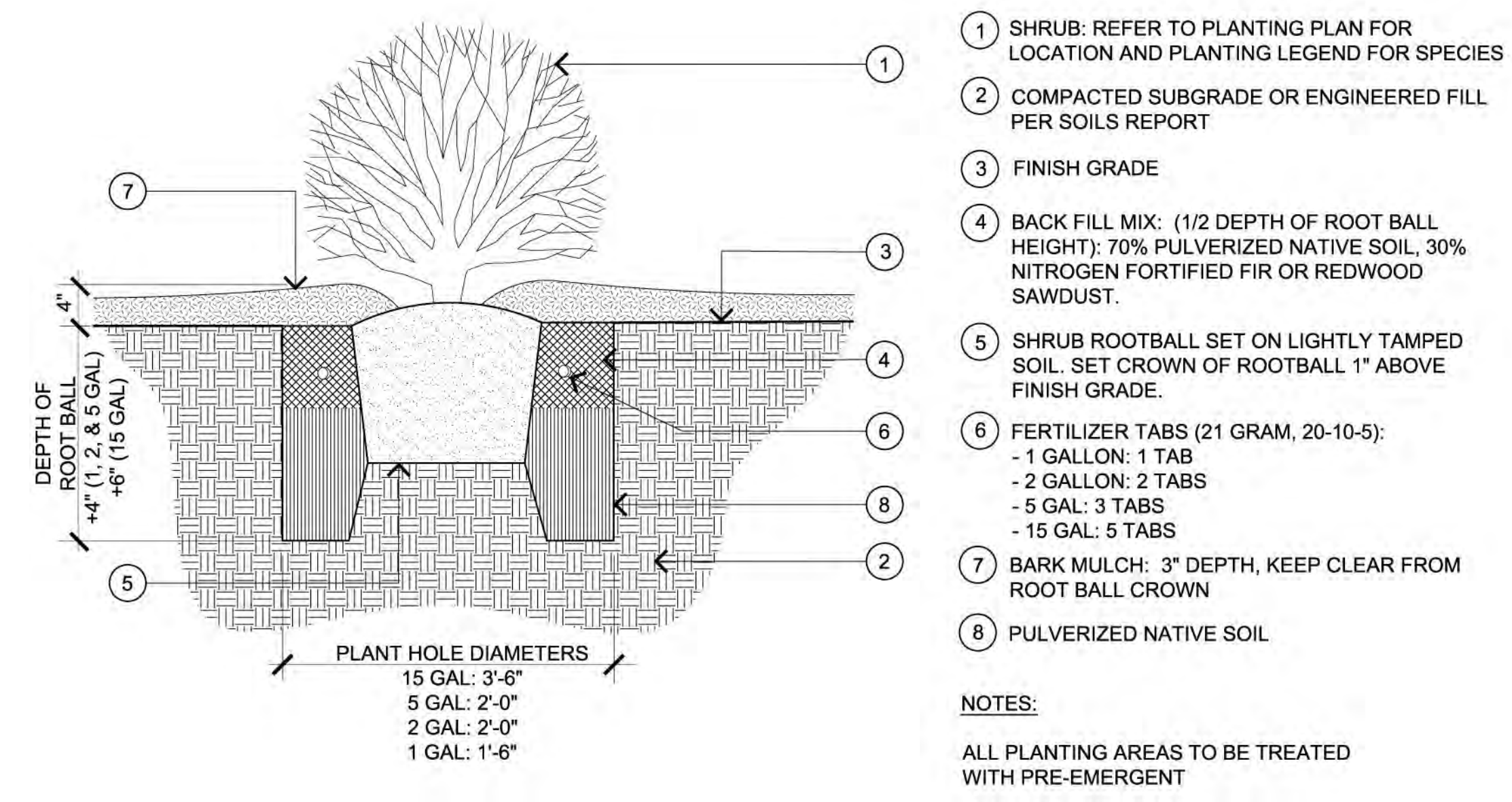
PARKS DIVISION
(707) 543-3770



1 TREE STAKING N.T.S.



2 GROUNDCOVER PLANTING N.T.S.



3 SHRUB PLANTING N.T.S.