

# **Council Communication** October 4, 2016, Business Meeting

# **Downtown Beautification Project Update**

# FROM:

Scott A. Fleury, Engineering Services Manager, Public Works/Engineering, fleurys@ashland.or.us

# **SUMMARY**

At the October 20, 2015, Council meeting, Council requested a peer review/second opinion of Kerry KenCairn's design with respect to the beautification project at the corner of Pioneer St. and Lithia Way. The project design called for the removal of mature trees. Staff contacted two local professional landscape architects to perform a peer review of the design work/conditions. One turned down the request and the second, Sager & Associates Landscape Architects, performed the design review. Sager and Associates agrees with the tree removal recommendation as necessary to implement the design developed by KenCairn

# BACKGROUND AND POLICY IMPLICATIONS:

In 2015, landscape architect Kerry KenCairn presented plans for a beautification project at the southeast corner of Lithia Way and Pioneer Street. The project, which had been identified in the Downtown Beautification Plan created by ad hoc Downtown Beautification Committee in 2014, called for the removal of three trees due to poor health and the replacement of two of the trees, along with construction of concrete retaining walls, pavers around the public art, handrail for the walkway and stairs along with ground based plantings in the beds.

KenCairn, at the request of Council, subsequently provided a conceptual alternate design and narrative that kept two of the three trees in place while still providing for pavers around the public art, a new tree grate for the maple planted in the sidewalk area, a small curb/concrete seat wall to retain soil and handrail for the walkway and stairs. Council after discussion requested a second opinion peer review of the design and tree health by a different landscape architect.

Following this request, staff contacted two local professional landscape architects to perform a peer review of KenCairn's original proposed design. Staff first contacted John Galbraith and Associates, who declined to perform a review. Staff then contacted Laurie Sager and Associates. Laurie Sager performed the peer review of the original design for the corner project. The review concurs that the removal and replacement of trees is necessary to support the original design parameters.

The primary design and alternative designs developed by KenCairn are attached for reference. In addition to the primary design, public works staff recommends removal of the adjacent driveway and replacement with accessible sidewalk. There have been numerous trip/fall complaints due to the grade changes along this section of sidewalk.





# **Downtown Beautification Project Status:**

# Plaza:

The free standing planters have been installed and additional plants were added as per the approved design. As requested by Council the perimeter fence was not installed.

# Parking lot at Lithia Way and Pioneer Street:

Landscape Architect Kerry KenCairn presented a comprehensive design for the parking lot landscaping. The original design was not approved by Council as it required removal of a majority of trees throughout the parking lot boundary. Council did recommend implementing the plan with focusing on ground based plantings without tree removal. Without the tree removal, the replacement of the irrigation system to support new ground based planting is problematic. The Parks Department has trimmed tree limbs and vegetation as part of the general maintenance for the parking lot.

# Corner of Winburn Way and North Main:

The seat wall, concrete and landscape improvements have been completed per KenCairn's original design.

# FISCAL IMPLICATIONS:

KenCairn Landscape Architects estimated the Lithia Way and Pioneer project will cost \$50,490.75, including a 15% construction contingency. Money budgeted and available from transient occupancy tax funds that are set aside for downtown beautification projects can be used to fund the construction phase of the Lithia Way and Pioneer corner project.

# **STAFF RECOMMENDATION AND REQUESTED ACTION:**

Move to approve original Lithia Way/Pioneer corner design by KenCairn Landscape Architects.

# **SUGGESTED MOTIONS:**

I move approval of the original Lithia Way/Pioneer corner design created by KenCairn Landscape Architects.

# **ATTACHMENTS:**

- Laurie Sager and Associates Landscape Architects Review Memo
- Tree Commission Letter Dated 8-4-2016
- Lithia Way/Pioneer Corner Triangle Design
- Alternative Design Lithia Way/Pioneer Corner Triangle Design
- Lithia Way/Pioneer Corner Triangle Alternative Narrative
- Canopy Arborists Report





LAURIE SAGER AND ASSOCIATES LANDSCAPE ARCHITECTS INC. 700 Mistletoe Road, Suite 201 Ashland, Oregon 97520

JULY 11, 2016

Julie,

Per our meeting and quick review of the Pioneer at Lithia design by KenCairn, I would recommend approval of the original design, per plan, for the following reasons:

1. Per the tree inventory, KenCairn states that the existing red maples have poor tolerance to construction and that the westerly most Maple is in poor health. With this information and review of the proposed design, I agree that all 3 maples should be removed and replaced per proposed plan.

2. The existing grade changes in this area and the goals of the redesign, make the proposed walls important to the future overall use of this space. Removal of the Maples to allow for the construction of these walls and required excavation and footings appears to be mandatory due to the proximity of the trees to the construction.

3. Warrens Red Maples as replacement trees will provide quick growth and are readily available in large sizes, up to 4" caliper from Northwest Shade Trees.

Let me know if you need any additional information. Thanks.

LAURIE THORNTON

August 4, 2016

Dear Council Members,

On Thursday, August 4<sup>th</sup>, 2016 the City of Ashland Tree Commission met and discussed the reiteration of the Pioneer and Lithia Way project which Laurie Thorton (Laurie Sager and Associates Landscape Architects Inc.) has written a recommendation, drafted July 11th. We would like to formally address the council with an updated recommendation. After hosting the world's foremost expert in urban trees Mr. James Urban, and participating in his workshop it was clear to all us that alternatives to the design of this project exist and need to be further explored.

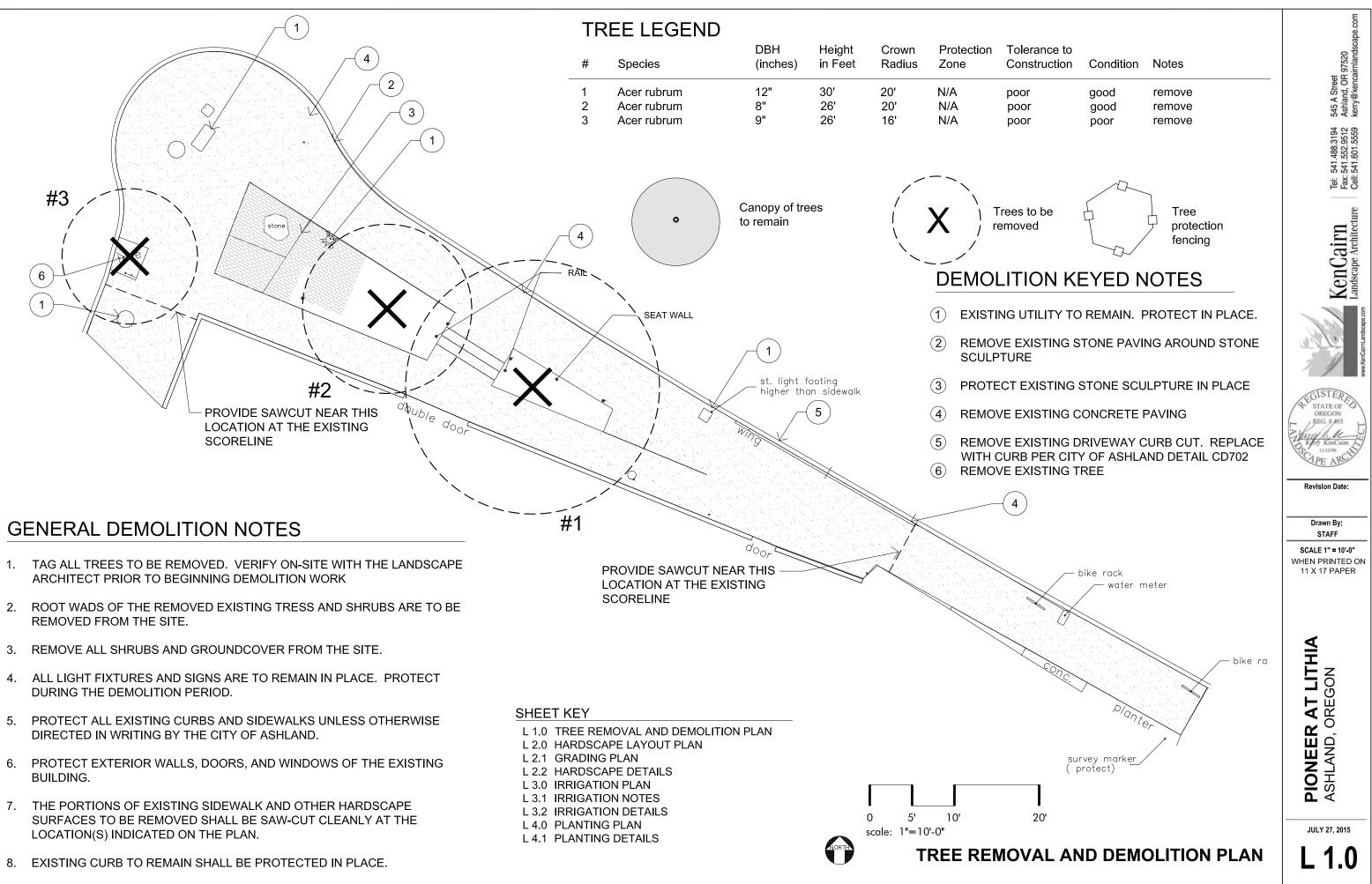
The Tree Commission carefully considered public comment provided by Kathryn Thalden, a retired landscape architect. Her recommendation is a tree-centric design with preservation of trees as one of the main objectives of the project. Another aspect of her recommendation would be to use this project as a showcase for alternatives such as rubber or pervious sidewalks as a way to get more natural water to these existing trees in order to improve their environment.

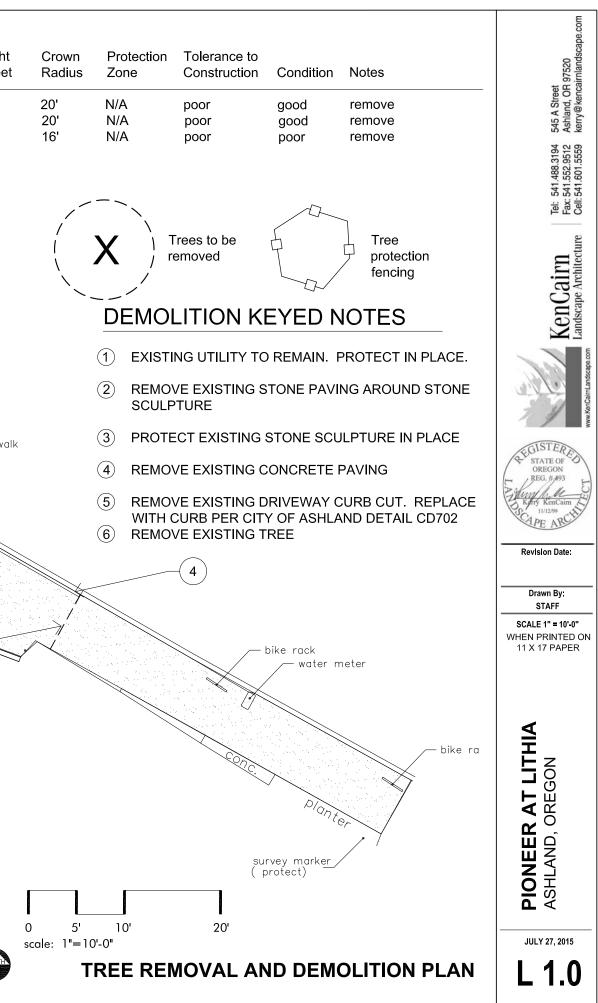
The City of Ashland Street Tree Guide recommends these species of Maple trees as drought resistant and good urban street trees. These existing trees are valuable for numerous reasons including their current size, location, shading, air filtration, canopy coverage, and tolerance to the urban environment. New trees in this location will struggle to establish due to the stressful urban environment of this location. The existing trees have already survived the hardest part of an urban trees life, the establishment period. The Zelkova trees on the north side of Lithia Way near the intersection of 1st and Lithia are a great example of hardy, urban tolerant, fast growing trees have either died or are currently unhealthy).

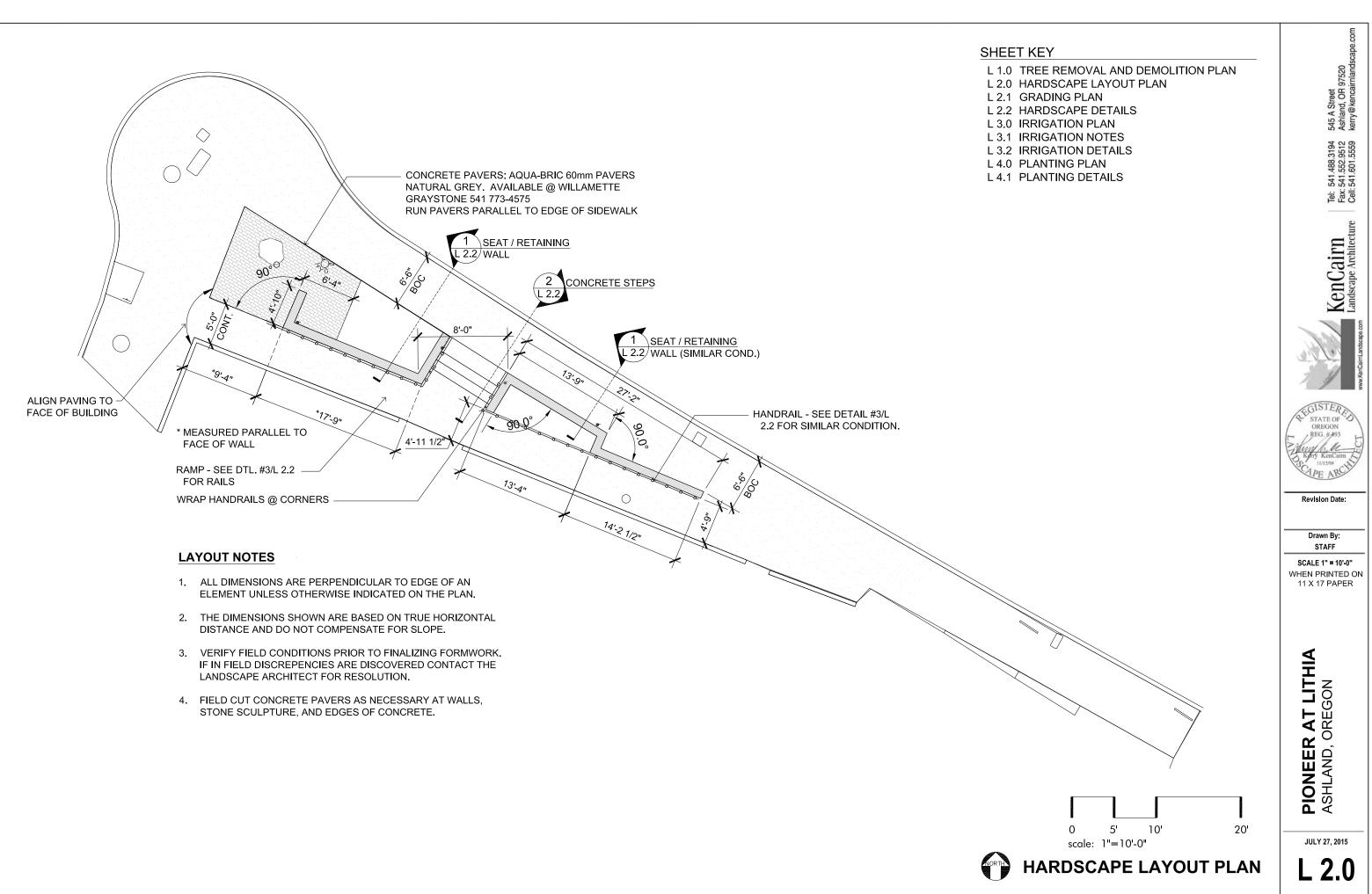
We are requesting that the City Council works to preserve these valuable trees. The Tree Commission would appreciate your consideration of contracting a landscape designer to redesign this landscape. We understand the desire to redesign the current landscape and believe that the goals of the current project can still be met with the preservation of the trees.

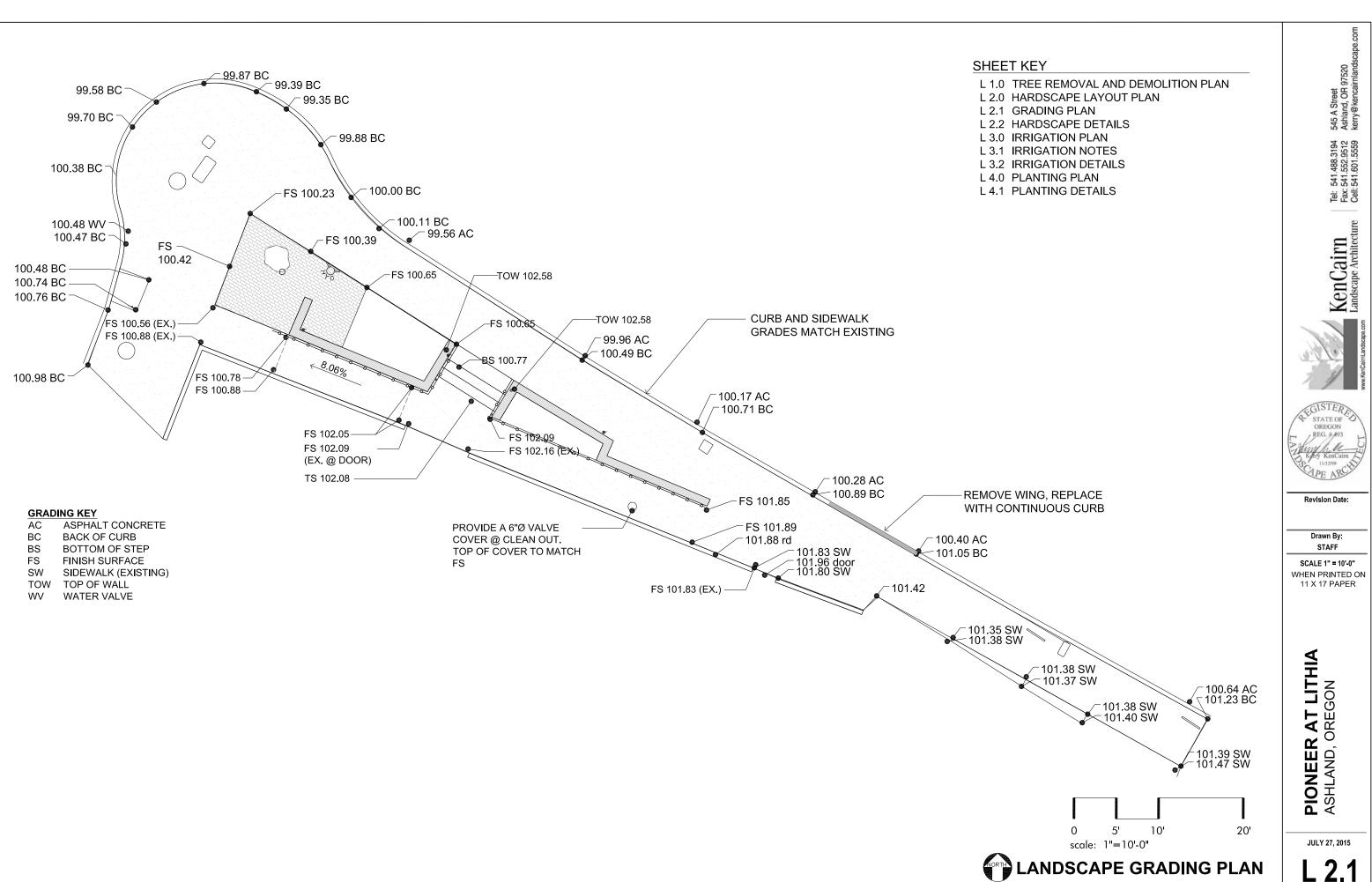
Thank you for your consideration,

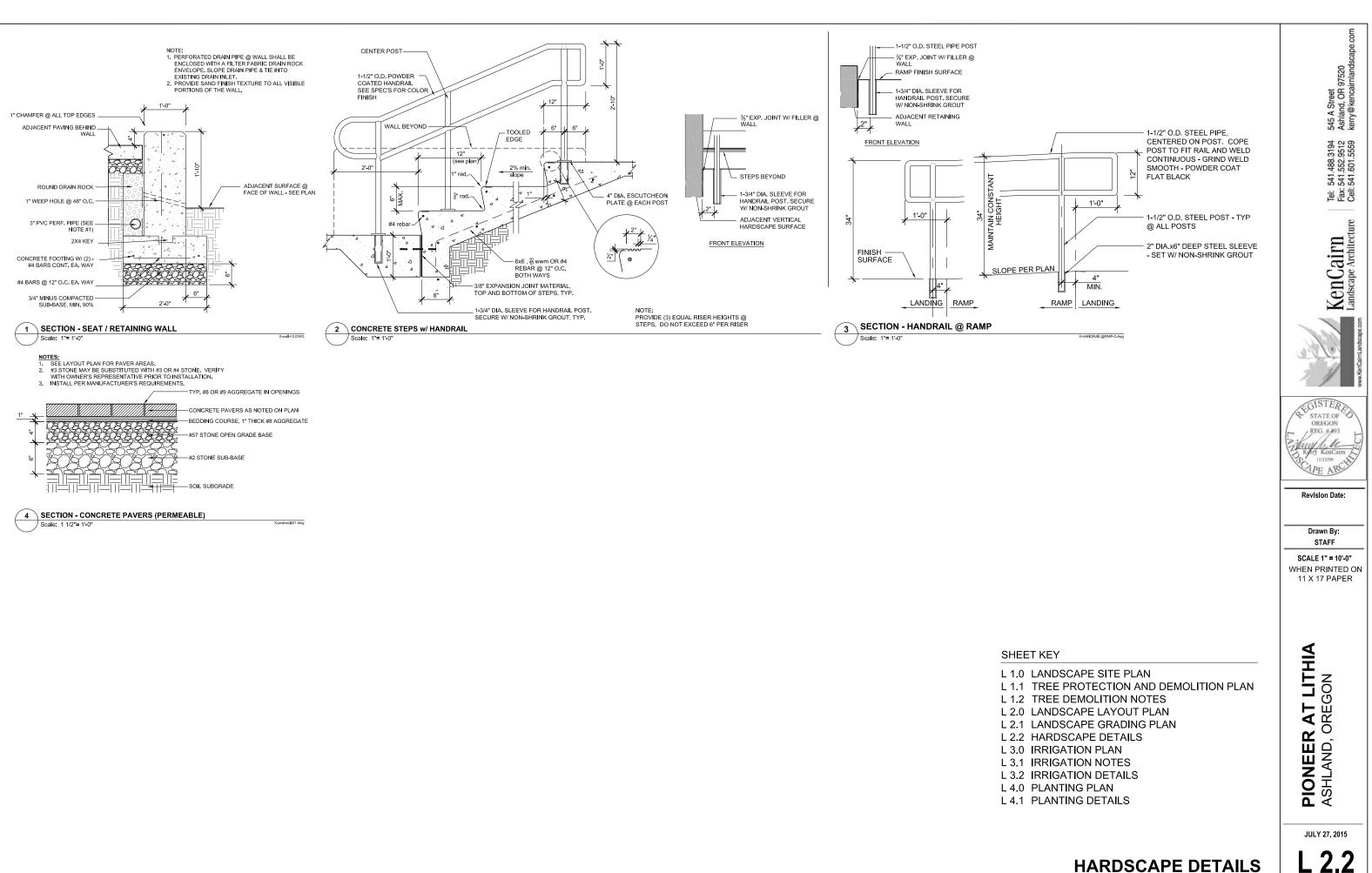
The City of Ashland Tree Commission







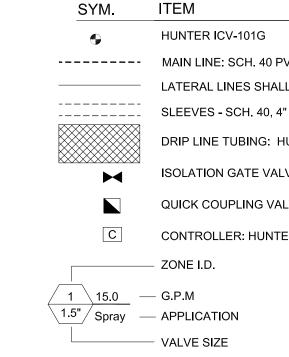






SYMBOL	DESCRIPTION	MODEL (*) (**)	NOZZLE	RAD.	FLOW RATE (GPM)
	END, CENTER	Hunter PRS40	MP-Rotator Strip	Strip	0.19, 0.38
00	1/4, 1/2	Hunter PRS30	Rainbird SQ	4'	0.12, 0.23
$\oplus$	Hunter RZWS-18-2	5-CV			0.25





### SHEET KEY

L 1.0 TREE REMOVAL AND DEMOLITION PLAN L 2.0 HARDSCAPE LAYOUT PLAN L 2.1 GRADING PLAN L 2.2 HARDSCAPE DETAILS L 3.0 IRRIGATION PLAN L 3.1 IRRIGATION NOTES L 3.2 IRRIGATION DETAILS L 4.0 PLANTING PLAN L 4.1 PLANTING DETAILS

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Inni

RZWS

1

1"

1.41

Spray

2 1"

MAIN LINE: SCH. 40 PVC (1")

LATERAL LINES SHALL BE SCHEDULE 40 PVC (1")

DRIP LINE TUBING: HUNTER PLD-04-18 (SPACE @ 18" O.C.)

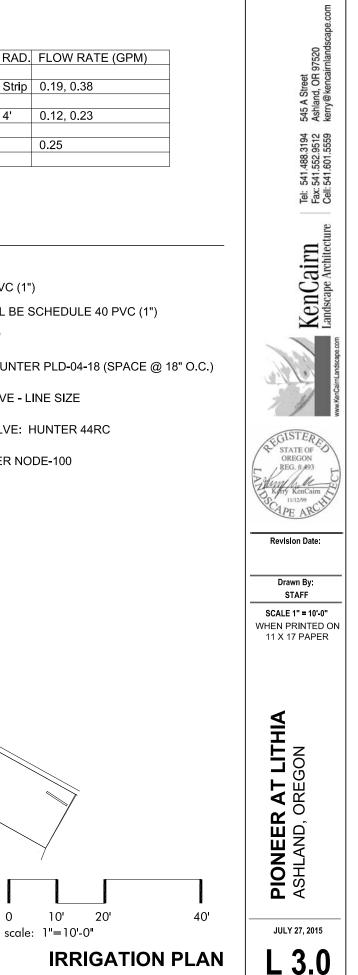
**ISOLATION GATE VALVE - LINE SIZE** 

QUICK COUPLING VALVE: HUNTER 44RC

CONTROLLER: HUNTER NODE-100

0

NORTH



# **IRRIGATION NOTES**

- 1. THE INSTALLING CONTRACTOR SHALL REVIEW AND BE FAMILIAR WITH THE IRRIGATION SPECIFICATIONS (32 84 00) FOR ALL ASPECTS OF IRRIGATION MATERIALS, INSTALLATION, AND ADMINISTRATIVE PROCEDURES.
- MAINTAIN AT JOB SITE ONE (1) COPY OF DRAWINGS, SPECIFICATIONS, ADDENDA, AND APPROVED SHOP DRAWINGS, CHANGE ORDERS, AND OTHER PROJECT DOCUMENTS.
- RECORD ACTUAL LOCATION OF ALL CONCEALED COMPONENTS, PIPING SYSTEM, CONDUIT AND SLEEVE LOCATIONS. KEEP THIS DOCUMENT CURRENT, DO NOT PERMANENTLY CONCEAL ANY WORK UNTIL REQUIRED INFORMATION HAS BEEN RECORDED. FURNISH TWO (2) COPIES OF RECORD DRAWINGS TO THE OWNER. REDUCE ONE COPY OF RECORD DRAWING TO FIT INSIDE CONTROLLER LID. LAMINATE REDUCED COPY.
- ALL WORK SHALL BE INSTALLED BY COMPETENT WORKMEN EXPERIENCED IN TRADE IN A NEAT AND ORDERLY MANNER ACCEPTABLE TO THE OWNER AND LANDSCAPE ARCHITECT.
- CONFORM TO ALL PERTINENT CODES AND REGULATIONS. COMPLY WITH THE LATEST RULES OF THE 5. NATIONAL ELECTRICAL CODE AND THE AMERICAN MASTER PLUMBERS CODE.
- VERIFY FIELD MEASUREMENTS ARE AS INDICATED ON DRAWINGS. 6.
- NOTIFY THE LANDSCAPE ARCHITECT 48 HOURS IN ADVANCE OF ALL SITE OBSERVATION VISITS REQUIRED 7. BY THE LANDSCAPE ARCHITECT. THE CONTRACTOR SHALL BE PRESENT AT EACH SITE OBSERVATION VISIT. REFER TO THE SPECIFICATIONS FOR REQUIRED SITE OBSERVATIONS.
- IRRIGATION PIPE, HEADS, VALVES, BACKFLOW DEVICE AS NOTED ON LEGEND AND SPECIFICATIONS. 8.
- VERIFY LOCATION OF EXISTING UTILITIES. 9.
- 10. INSTALL PRESSURE REDUCING VALVE TO REDUCE PRESSURE TO NO MORE THAN 40 PSI AT THE FURTHEST HEAD ON ANY ZONE ON THE SYSTEM. VERIFY PRESSURE AT P.O.C. BEFORE INSTALLATION. MAXIMUM ZONE - 19.15 GPM.
- 11. PIPING LAYOUT IS DIAGRAMMATIC ONLY. ROUTE PIPING IN PLANTING AREAS AND AVOID PLANTS, UTILITIES, AND STRUCTURES. LAYOUT SHALL FOLLOW AS CLOSELY AS PRACTICAL THE SCHEMATIC DESIGN ON THE DRAWINGS. MAKE NO SUBSTANTIAL CHANGES WITHOUT PRIOR APPROVAL FROM THE LANDSCAPE ARCHITECT.
- 12. ALL LATERAL PIPE SIZES ARE SPECIFIED BY LINE TYPE, REFER TO PLAN FOR PIPE SIZING, REFER TO **IRRIGATION LEGEND FOR PIPE TYPE.**
- 13. COORDINATE ALL IRRIGATION EQUIPMENT LOCATIONS WITH OTHER CONTRACTORS.
- 14. LAYOUT SPRINKLER HEADS AND MAKE ANY MINOR ADJUSTMENTS REQUIRED DUE TO DIFFERENCES BETWEEN SITE AND DRAWINGS. ANY SUCH DEVIATIONS IN LAYOUT SHALL BE WITHIN THE INTENT OF THE ORIGINAL DRAWINGS, AND WITHOUT ADDITIONAL COST TO THE OWNER. LAYOUT SHALL BE APPROVED BY THE LANDSCAPE ARCHITECT.
- 15. ALL SPRINKLER HEADS ALONG SIDEWALKS SHALL BE TWO INCHES FROM SIDEWALKS.
- 16. PIPE DEPTH LATERAL LINES 12 INCH MINIMUM; MAINLINE 18 INCH MINIMUM.
- 17. BOTTOM OF TRENCHES AND BACKFILL MATERIAL SHALL BE FREE OF ROCKS, CLODS, AND OTHER SHARP OBJECTS. SNAKE PIPE FROM SIDE TO SIDE AT TRENCH BOTTOM TO ALLOW EXPANSION.
- 18 DO NOT INSTALL HEADS UNTIL LINES HAVE BEEN THOROUGHLY TESTED AND FLUSHED CLEAN.
- 19. SHUT OFF VALVES ARE REQUIRED AT EACH POINT OF CONNECTION, VALVE BOX, AND AT EVERY LOCATION WHERE THE MAINLINE PASSES UNDER 20 FEET OF PAVEMENT.
- 20. A MANUAL DRAIN MUST BE INSTALLED AT THE LOW SPOT OF EACH ZONE. THE DRAIN SHOULD BE A BRASS MANUAL ANGLE VALVE WITH "T" STEM. DRAINS LOCATED ON LATERAL LINES SHALL BE 1" SIZE.
- INSTALLER MUST VERIFY EACH ZONE'S SPECIFIED PSI AT THE FURTHEST HEAD ON EACH ZONE.
- 22. COORDINATE WIRE AND CONDUIT LOCATIONS BETWEEN ELECTRIC CONTROL VALVES AND THE ELECTRIC CONTROLLER.
- 23. UPON COMPLETION OF ALL SYSTEMS, THE CONTRACTOR SHALL PERFORM A COVERAGE TEST TO DETERMINE THAT WATER IS BEING APPLIED CORRECTLY AND ADEQUATELY TO ALL PLANTINGS. CHANGE ANY HEADS, NOZZLES, OR ORIFICES AS MAY BE REQUIRED TO PROVIDE COVERAGE AS INDICATED ON THE DRAWINGS. PROMPTLY ADJUST HEADS TO KEEP WATER OFF BUILDINGS AND STRUCTURES WITH MINIMAL SPRAY ON PAVED SURFACES.

### SLEEVING:

24. CONTRACTOR SHALL VERIFY SLEEVING LOCATIONS AND COORDINATE WITH THE GENERAL CONTRACTOR. SLEEVES ARE TO BE PROVIDED BY GENERAL CONTRACTOR. THE INSTALLING CONTRACTOR SHALL COORDINATE SLEEVE DEPTHS WITH THE GENERAL CONTRACTOR AND LANDSCAPE CONTRACTOR (IF DIFFERENT).

# IRRIGATION LEGEND

SYM.	ITEM
•	HUNTER ICV-101G
	MAIN LINE: SCH. 40 PVC (1")
	LATERAL LINES SHALL BE SCHEDULE 40 PVC (1")
	SLEEVES - SCH. 40, 4"
	DRIP LINE TUBING: HUNTER PLD-04-18 (SPACE @ 18
	ISOLATION GATE VALVE - LINE SIZE
	QUICK COUPLING VALVE: HUNTER 44RC
С	CONTROLLER: HUNTER NODE-100
	– ZONE I.D.
1 15.0 -	– G.P.M
<u>1.5"</u> ∕ Spray —	- APPLICATION
	- VALVE SIZE

# **IRRIGATION HEAD LEGEND**

SYMBOL	DESCRIPTION	MODEL (*) (**)	NOZZLE	RAD.	FLOW RATE (GPM)
	END, CENTER	Hunter PRS40	MP-Rotator Strip	Strip	0.19, 0.38
$\bigcirc$ $\bigcirc$	1/4, 1/2	Hunter PRS30	Rainbird SQ	4'	0.12, 0.23
$\oplus$	Hunter RZWS-18-2	5-CV			0.25

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L 2.0	H
L 2.1	G
L 2.2	H,
L 3.0	IR
L 3.1	IR
L 3.2	IR
L 4.0	Ы
L 4.1	ΡI

8" O.C.)

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**IRRIGATION NOTES** 

# Drawn By: STAFF SCALE 1" = 10'-0" WHEN PRINTED ON 11 X 17 PAPER LITHIA GON F **A AT** ORE( R **PIONEER** ASHLAND, JULY 27, 2015

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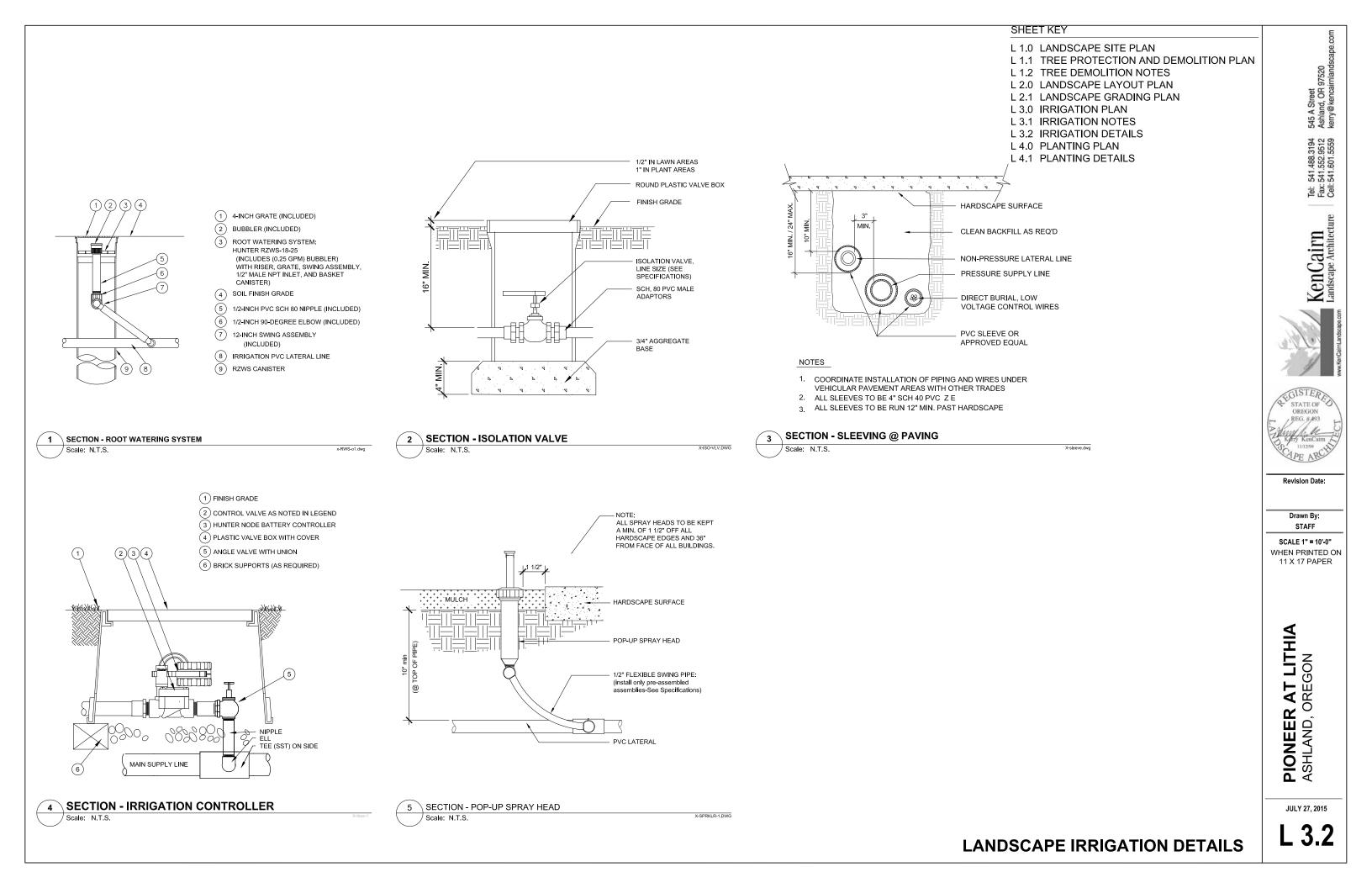
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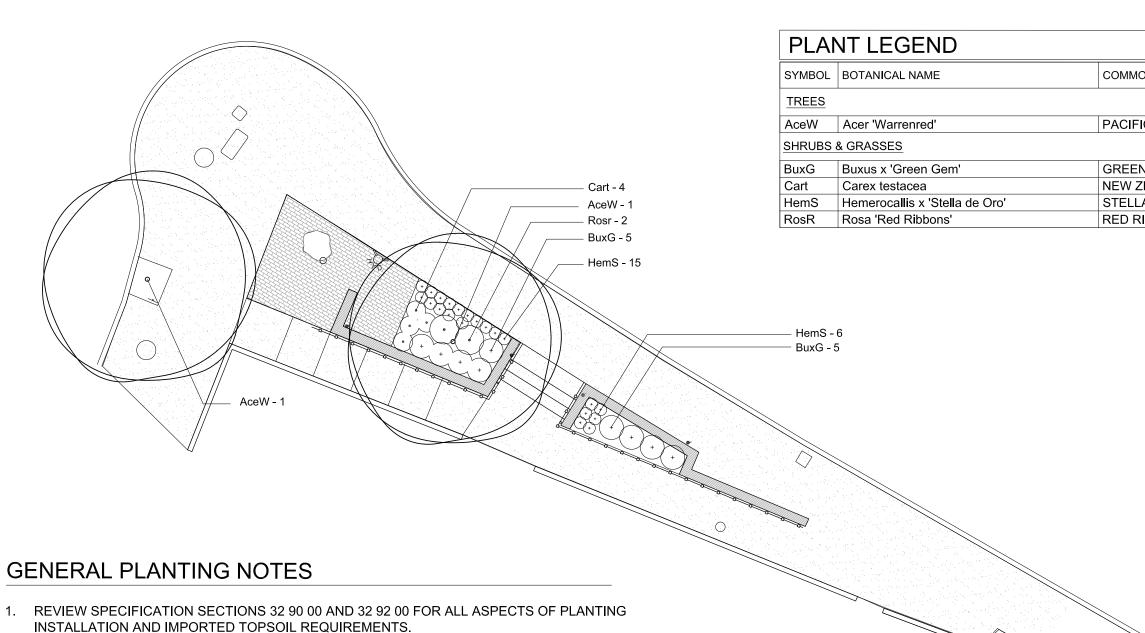
KenCairn Landscape Architect

STATE O

Revision Date:

545 A





- 2. ALL PLANTING AREAS SHALL RECEIVE 3" OF BARK MULCH PER THE SPECIFICATIONS.
- 3. ALL PROPOSED SHRUB PLANTING IN NEW CONSTRUCTION AREAS SHALL RECEIVE A MIN. 18" OF IMPORTED TOPSOIL (INCLUDING 4" OF AGED COMPOST) UNLESS OTHERWISE NOTED. SEE SPECIFICATIONS. PROVIDE SLOPE IN ISOLATED PLANTING AREAS PER THE DETAIL SHEET.
- 4. PRE-EMERGENT HERBICIDE SHALL BE APPLIED TO ALL SHRUB PLANTING AREAS PER THE SPECIFICATIONS.
- 5. THE NUMERICAL TEXT QUANTITIES OF PLANTS SHOWN ON THE PLAN ARE FOR THE CONTRACTOR'S CONVENIENCE ONLY. THE CONTRACTOR IS RESPONSIBLE FOR PROVIDING THE QUANTITY OF PLANT MATERIAL SHOWN GRAPHICALLY ON THE PLAN. QUANTITIES AND SIZES OF PLANTS SHALL NOT BE ALTERED WITHOUT WRITTEN PERMISSION FROM THE OWNER'S REPRESENTATIVE.
- 6. ALL PROPOSED PLANT MATERIAL SHALL BE WARRANTED FOR ONE (1) YEAR FROM THE TIME OF SUBSTANTIAL COMPLETION.

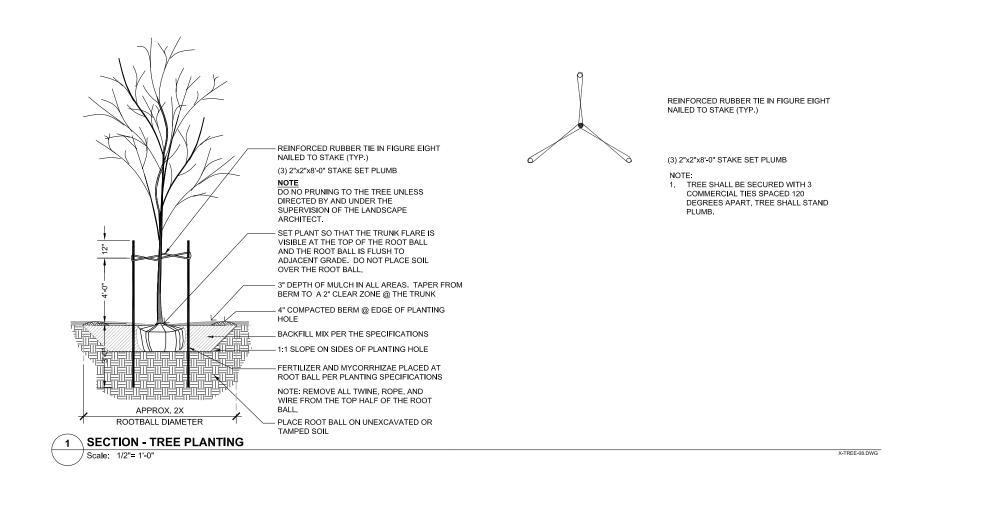
### SHEET KEY

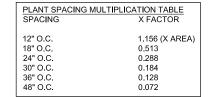
- L 1.0 TREE REMOVAL AND DEMOLITION PLAN
- L 2.0 HARDSCAPE LAYOUT PLAN
- L 2.1 GRADING PLAN
- L 2.2 HARDSCAPE DETAILS
- L 3.0 IRRIGATION PLAN
- L 3.1 IRRIGATION NOTES
- L 3.2 IRRIGATION DETAILS
- L 4.0 PLANTING PLAN
- L 4.1 PLANTING DETAILS

ON NAME	SIZE
IC SUNSET MAPLE	2" cal.
N GEM BOXWOOD	5 gal
EALAND SEDGE	5 gal
A DE ORO DAYLILY	1 gal
IBBONS ROSE	1 gal

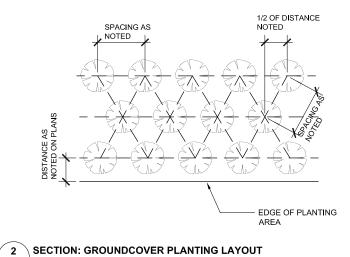
**PLANTING PLAN** 

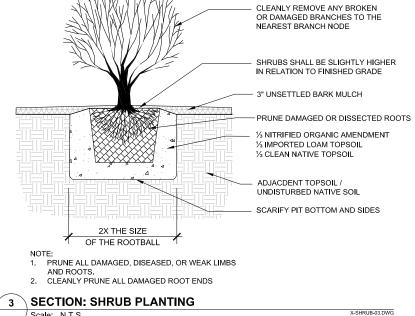






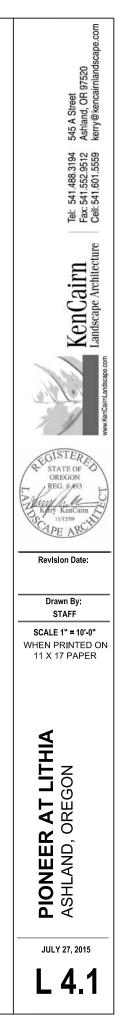
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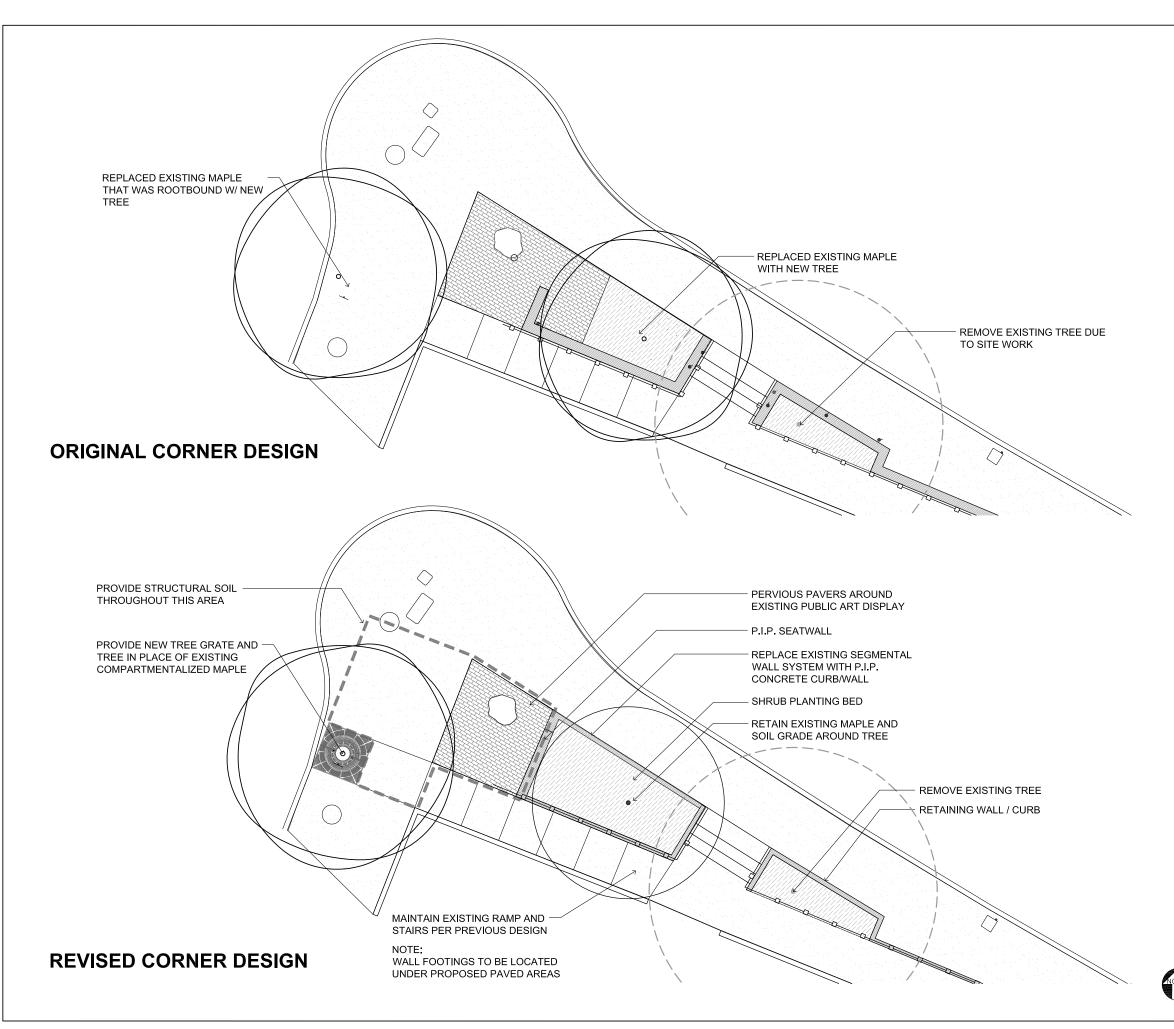


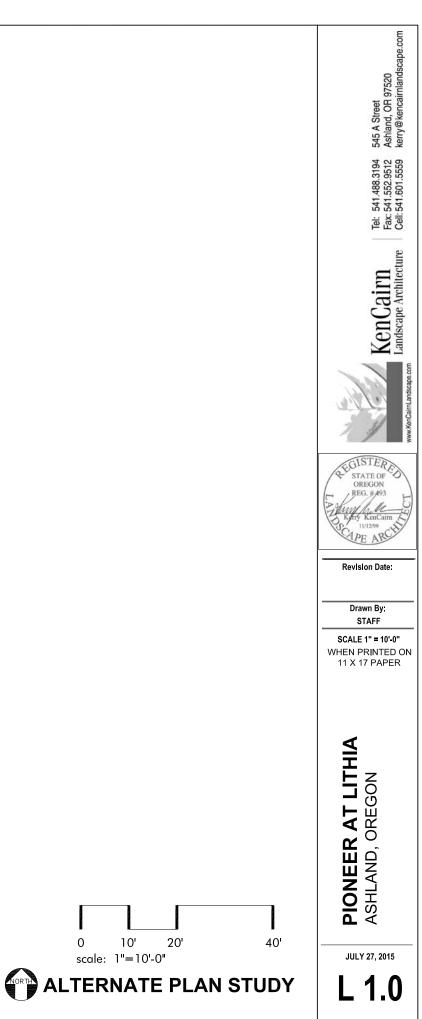
Scale: N.T.S.

X-GRND-01.DWG



# **PLANTING DETAILS**







KenCairn Landscape Architecture

Tel: 541.488.3194 Fax: 541.552.9512 Cell: 541.601.5559

545 A Street Ashland, OR 97520 kerry@kencairnlandscape.com

Date: September 22, 2015

# Revised Landscape @ Pioneer & Lithia Corner

# **Original Project Goals**

The "odd" shaped piece of city owned property had several issues including raised sidewalks due to tree roots, ADA access concerns, irrigation challenges, inconsistent materials, and awkward elevation changes. The original design goal as stated in the RFP was to create a cohesive look while incorporating the public art piece found on the corner.

## **Current Direction**

Following the request of the Ashland City Council, KenCairn Landscape Architecture obtained an Arborist Assessment from Canopy LLC. The assessment is for the existing trees at both Lithia & Pioneer Parking Lot and for the corner of Pioneer & Lithia (convenience store). The assessment concurs with the tree inventory originally prepared by KenCairn. Per the city council's request, KLA has prepared a design alternate for each site with the primary goal of saving as many trees on the two sites as is feasible. The following is a narrative that reflects the revised landscape design at the Pioneer & Lithia Corner:

- The arborist's assessment of the existing red maple tree east of the proposed steps (*Tree #1*) notes the tree as being "in a very restricted root zone and has likely reached its potential growth" and in "moderate health". Currently the tree's roots are beginning to impact the public sidewalk (sidewalk cracks and lifting) just east of the tree. This is viewed as a hazard to pedestrians and should be corrected by removal and replacement of the public and private sidewalks in that vicinity to provide a safe pedestrian zone. Based on our professional experience, the necessary construction in that area will have a negative impact to the tree that will ultimately expedite the tree's decline. The alternate design reflects the original design with this tree being removed.
- The arborist's assessment of Tree #2 (Red Maple tree) along Lithia Way notes the tree as being in good health although it points out that the soil appears compacted and devoid of organic materials. In its current state, the finish grade of the planter around the tree is elevated +/-6" above the adjacent public sidewalk. Per the original design, the tree was removed and the planting area lowered to the sidewalk grade. The alternate design retains the existing red maple (*Tree #2*) and the grade of the planter around the tree. We propose that an application of myccorhizal inoculant be added to the soil. The existing modular block wall/curb adjacent to the sidewalk is removed and replaced with a poured in place concrete curb to retain the grade.

The area of the planter will be slightly decreased from the west to allow for a low seatwall to be installed near the public art display. The proposed steps and ramp adjacent to the building will be retained by a 6" wide poured in place concrete wall. To reduce the impacts to the tree's roots, the wall's footing will be designed so that any spread portion of the footing will be located underneath the paved areas.

- The area around the public art display will remain in permeable pavers although will be slightly smaller than the original design. In order to reduce impacts to the existing planter, the seatwall from the original design was relocated closer to the existing edge of the planter (to the west) and thus the reduction in the area of permeable pavers.
- The arborist's assessment of the existing red maple tree adjacent to Pioneer Street (Tree #3) notes the tree as being "in a severely restricted root zone" and being in "moderate health". Currently the root flare is growing out of the cutout for the tree. Based on our professional experience, we believe this tree has not only reached its maximum potential but is also in decline based on the condition bark on the west side. The alternate design reflects the original design with the removal of this tree. However, KLA is proposing the addition of a tree grate and frame along with the use of structural soils at this location. We believe that the addition of the structural soil will not only aid this new tree in reaching its urban potential but will also allow for the existing tree to remain (*Tree #2*) to increase its rooting area.
- The tree that was selected for the replacement of Tree #3 is an Quercus frainetto 'Schmidt' (Forest Green Oak). This tree has been proven to do well in urban conditions (limited moisture, reflected heat, and compacted soils). With the use of structural soils under the replaced paved areas and the introduction of irrigation at the tree well this tree should develop into a nice sized street tree.



157 Max Loop Talent, OR 97540 (541) 631-8000



September 4, 2015

City of Ashland Planning Division 51 Winburn Way Ashland, OR 97520

Arborist Assessment

**Project ID** Pioneer Parking Lot Pioneer at Lithia

### **Overview**

The following is an assessment of the existing trees for the proposed projects at the parking lot on Pioneer Rd, and the corner of Pioneer and Lithia Way. The tree numbering designation used here coincides with the plan drawings labeled "Pioneer Parking Lot L 1.0" and "Pioneer at Lithia L 1.0." We found the tree legend on these plans to be accurate and so have not here replicated the list of species, their sizes, etc. The assessment has been grouped into smaller sections by location within the project area.

### **Pioneer Parking Lot**

### Trees #1 - #4

*Cupressus sempervirens* (Italian cypress) of good to moderate health growing in restricted root zone. Recommend removal and replacement by a more suitable shade-giving tree such as the Zelcovas proposed in the planting plan.

### Trees #5 - #8

#5: Acer platanoides (Norway maple). Limited root zone may not allow for full growth potential, but otherwise healthy.

#6: Note that L 1.0 designates this to be a *Fraxinus oxycarpa* (Raywood ash), indeed there is a plaque at the base of the tree stating as much, but the tree is a Norway maple. Except for some girdling roots, the tree appears healthy. There is a small Raywood ash between Trees 5 and 6 which is of poor form and vigor for which removal is recommended.

#7 and #8: Raywood ash. Both trees of poor form and limited root zones. Recommend removal and replacement.

### Trees #9 - #18

#9, #10: Raywood ash. Poor form. #9 has limited root zone. #10 has a co-dominate leader growing over road. These leaders are at greater risk of failure. Recommend removal and replacement.

#11, #12, #13: Norway maples. Some minor human-related damage on bark (#13) and a girdling root (#11). Overall of good health.

#14, #15, #16: *Pistachia chinensis* (Chinese pistache). Beginning to interlock canopies with adjacent maples, but overall of good health. #16 appears to be of slightly less heath and may be a candidate for removal if needed from a design perspective.

#17, #18: Raywood ash. Poor form. Limited growth potential and root zone. Slight lean of main trunk (#17). Recommend remove and replace.

### Trees #19-#22

#19, #20, #21: *Cotinus coggygria* (Smoketree). All of good size and health. These are nice small tree specimens. A downside being they do not have as great of shade-giving potential as a full sized tree species. The small boxelder trees (not labeled on plans) of poor form and health existing between the smoketrees are unlikely to fill this role.

#22: Quercus ilex (evergreen oak). Appears healthy. Perhaps a bit out of place from a design perspective.

### Trees #23 - #27

Recommend removing over-crowded Raywood ash (#26) in favor of retaining 4 Carpinus betulus (hornbeams).

Trees #28 - #30 Recommend removing badly damaged red maple (#29) and retaining hornbeams (#28, #30)

Trees #31 - #33

Recommend removing 2 Raywood ash (#31, #32) and replacing with a more suitable species.

## Trees #1-3

### **Pioneer at Lithia**

Overall these 3 trees are of good to moderate health. Their biggest limiting factor is lack of a good growing medium. They all are existing in very restrictive root zones and are most likely reaching, or have reached, the end of their growth potential, which may limit their long-term ecologic and aesthetic value. Replacement done in such a way as to allow for full tree growth potential (ie access to larger root zone) is worth considering.

#1: Acer rubra (red maple). Overall of good health. Contains co-dominate stems characteristic of this species. This tree is growing in a very restricted root zone and has likely reached its growth potential.

#2: Red maple. Good health. Soil appears compacted and devoid of organic materials. Some minor damage to bark.

#3: Red maple. Moderate health. Severely restricted root zone. Very little growth exhibited over the last year (approximately 1").

### **Discussion on Raywood Ash**

*Fraxinus oxycarpa* are characterized by weak wood, poor structure, and relatively common occurrence of failure. Failure occurs from either co-dominate stems or by uprooting when constricted root zones cannot support the weight of the crowns. In operating a tree service in the area, this species is one of the most common trees we are called upon to remove after they have failed. The Rayood ash in this project area are likewise of poor structure and have reached the limit in size of what I would consider safe given their available viable root zones and that they are in a highly trafficked areas.

### Recommendations

Specific recommendations were provided above regarding the removal of the Raywood ash and Italian cypress trees. Few recommendations were given for healthy trees. Most notably the Norway maples and Chinese pistache (#11 - #16). Given that that the trees are healthy, the decision to remove or retain should ultimately be made on through the lens of a design perspective in keeping with the long-term goals the City has for the location.

We would suggest however, that options be explored to leave some healthy trees and/or phase-in some removals and replanting over time. Doing so would greatly soften the visual impact of the transition period as well as allowing the current benefits to continue.

The replacement trees proposed in the plan documents are excellent choices. They make good use of the available space, species selection is suitable for the area, and should provide a net benefit gain over time. Taken as a whole, or in part, they have the potential to provide very good canopy cover, aesthetic enjoyment, and long-term benefits.