

LANDSCAPE ARCHITECTURE PLANS

NORTH RIVER APARTMENTS - N. Water St., Oak St., & Petaluma Blvd. North

By THE SPANOS COMPANIES
Location: Petaluma, CA

GENERAL LANDSCAPE NOTES

1. See landscape irrigation and planting specifications contained within this set of drawings. The contractor shall conform to all conditions and requirements contained within. The contractor shall have available on the job site at all times the construction issue drawings and specifications for inspection by the Landscape Architect or Owner's representative. The contractor shall attach to the drawings all official / approved addendum and / or change orders relative to the landscape installation in chronological order.
2. The contractor shall examine the site, compare it with the plans and specifications and satisfy himself as to the conditions under which the work is to be performed before entering into this contract. Contractor shall also familiarize himself with the project site improvement plans (under separate cover by others) in order to coordinate landscape issues with various features planned for the project. Allowance shall be subsequently made on behalf of the contractor on account of an error on his part and/or negligence and/or failure to familiarize himself with the conditions of the site.
3. The location of existing underground utilities shown on these plans is approximate or per the proposed site improvement plans. A reasonable effort has been made to locate and delineate all underground facilities. However, GHD assumes no liability for the accuracy or completeness of the facilities shown here or for the existence of other underground utilities or objects which may be discovered but are not shown on these plans. The Contractor shall determine the exact location of any existing utilities before commencing work. It shall be the responsibility of the contractor to "pothole" all existing facilities as needed to determine the depth and direction of underground facilities. It shall also be the contractor's responsibility to "pothole" all existing facilities far enough ahead of construction (300 ft. min.) to allow for vertical adjustments in grade to avoid conflicts with existing facilities. All field adjustments shall be accomplished at the sole expense of the contractor. Contractor shall also notify underground service alert prior to beginning any work on site.
4. The contractor shall establish the limit of work and clearly stake the area in the field.
5. The contractor shall be responsible for any damage to existing sidewalks, streets, signs, etc. associated with this project and shall repair such damage to the satisfaction of the government agency, or Owner, at no extra cost to the Owner.
6. The Contractor shall make arrangements with utility companies, and the contractor is responsible for all costs associated with temporary utilities necessary during construction and during the maintenance period.
7. The Contractor is responsible for keeping the site and the associated streets clean and free from rubbish and debris. the contractor shall also abate dust nuisance by cleaning, sweeping, and sprinkling with water, or other means as necessary. The use of water resulting in mud on public streets will not be permitted as a substitute for sweeping or other methods.
8. The Contractor shall comply with Caltrans standard specifications for traffic control/construction area signage, if needed for this project.
9. Coordinate electrical needs for booster pump and controller. See Civil and Architectural Site Improvement plans for coordination.

LANDSCAPE DOCUMENTATION PACKAGE

PROJECT INFORMATION:

1. Project Site / Location is south east corner Petaluma Blvd. / Oak Street, and the new Water Street extension to Washington Street.
2. Total landscape area: 3,399 sf
3. Project type: Roadway
4. Irrigation water supply type:
 - 4.1. Within Property Boundary (POC1&2) - Potable Water Supplemented by Recycled Water from Rain Collection
 - 4.2. South of Property on Water Street (M3) - Potable Water
5. Documents in this package include:
 - Irrigation specifications and plans / details
 - Planting specifications and plans / details
 - MAWA water budget calculations
 - ETWU water budget calculations
 - See Civil plans for grading information
 - Soils management report of site soil conditions to be PROVIDED BY CONTRACTOR after site grading completion, but prior to landscape planting.
 - Contractor to provide soil analysis certification of all imported soil used for back fill in planter areas.
 - The project applicant / or his/her designee, shall submit documentation verifying implementation of soil analysis report recommendations with the certificate of completion.

DESIGNERS STATEMENT

I agree to comply with the requirements of the Landscape Water Efficiency Standards and submit a complete Landscape Documentation Package.

Statement Prepared by



Scott A. Robertson, CALLA 4271
 Landscape Architect

GHD, Inc.
 916-918-0632
 scott.robertson@ghd.COM

CERTIFICATE OF COMPLIANCE

Upon completion of the installation of the landscaping, the Contractor shall notify the Landscape Architect so that the designer can certify that the landscape complies with all City water conserving landscape requirements. Certification shall be accomplished by completion of a certificate of compliance on a form approved by the City of Petaluma (see Sheet L-602).

SHEET INDEX

L-000	Cover Sheet
L-001	Irrigation Specifications
L-002	Grey Water Notes
L-003	Planting Specifications
L-101	Irrigation Plan
L-102	Irrigation Plan
L-103	Planting Plan
L-104	Planting Plan
L-105	Site Furniture Layout Plan
L-106	Site Furniture Layout Plan
L-501	Irrigation Details
L-502	Irrigation Details
L-503	Planting Details
L-504	Construction Details
L-601	Irrigation Schedules
L-602	Irrigation Schedules
L-603	Plant Schedule

CONTACTS


OWNER / APPLICANT
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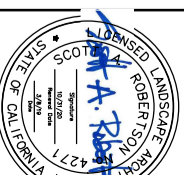


Know what's below.
Call before you dig.
 Contractor shall call Underground Service Alert at 811 two working days prior to excavation.

No.	REVISION	DATE	BY

 943 Reserve Drive, Suite 100
 Roseville, CA 95678 USA
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 GHD Inc.

COVER SHEET
 Landscape Architecture - N.Water St., Oak St., & Petaluma Blvd.
NORTH RIVER APARTMENTS
 The Spanos Companies
 Petaluma, California



SCALE	AS NOTED
JOB NO.	1114480Z
DESIGNED	SAB
DRAWN	SAB
FILE	2000LSP001.dwg
DRAWN	SAB
CHECKED	SAB
DATE	3-8-19

L-000	OF
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PLANTING

PART 1 - GENERAL

1.01 SECTION INCLUDES

A. The work included under this Section consists of providing all necessary soil preparation and amending, finish on fine grading, furnishing and planting of all trees, shrubs, and ground cover, application of pre-emergent, herbicide, mulching, maintenance, and all other materials, labor, and equipment required to complete the work indicated on the Planting Plans.

1.02 RELATED SECTIONS:

A. Section - Irrigation System: Provision of automatic irrigation system.

1.03 QUALITY ASSURANCE

- A. Alternates: Verify whether alternates as specified affect the work of this Section.
B. Contractor is to provide the Owner's Representative with copies of all Project material invoices and retain all empty material containers for count.
C. The Contractor shall furnish, without any extra charge, any additional material and labor when required by the Owner's Representative to complete the work.
D. The Contractor shall submit and maintain a log of all materials used, including quantities, dates, and locations.
E. Any existing buildings, equipment, piping, sewers, sidewalks, landscaping or other site improvements damaged by the Contractor during the course of his work shall be repaired or replaced by the Contractor in a manner satisfactory to the Engineer and at the Contractor's own expense, and before the final payment is made.
F. Contractor shall obtain and pay all fees, licenses, and permits required for this portion of the Project work.
G. Before making bid, examine the Site carefully, verifying dimensions and other site conditions in relation to the Plans. The Contractor is responsible for informing himself of all conditions under which work is to be done before submitting his Bid.
H. When conditions detrimental to planting of trees, shrubs, and ground cover are encountered notify Owner's Representative before proceeding with work.
I. Contractor shall submit and maintain a log of all materials used, including quantities, dates, and locations.
J. For standard products, the manufacturer's analysis certificates will be accepted. For all other materials, analysis will be a recognized laboratory as required by the Owner's Representative.
K. All plants shall be true to type and name in accordance with the current edition of Standardized Plant Names, Second Edition, and of size and caliper as shown in the Plant List.
L. Provide trees, shrubs, and other plants of size, genus, species and variety shown on Project Plant List and complying with recommendations and requirements of ANSI-2601-90 American Standard for Nursery Stock.
M. Plantings shall be performed by personnel familiar with planting procedures and under the supervision of a qualified planting foreman. The planting foreman shall be on the job Site whenever planting is in progress.
N. No extra work shall be done without prior written approval of the Owner's Representative.
O. Contractor shall coordinate his work with that of any other Contractors working in, and adjacent to, the areas included in the Project work, and coordinate with the Contractor in performance of this work.
P. The Contractor shall be responsible for obtaining all necessary permits for the work.
Q. Keep the job Site free from accumulations of waste material or rubbish resulting from this work. At the completion of the work, the Contractor shall remove all rubbish tools, and surplus materials, and shall leave the completed project neat and orderly.

1.04 JOB CONDITIONS

- A. Proceed with and complete planting work as portions of Site become available, working with seasonal limitations. Locations of underground utilities and perform work in a manner which will avoid possible damage.
B. Maintain grade stakes set by other until removal is mutually agreed on by parties concerned.
C. Contractor shall verify the extent that the Project engineer's fill extends into the planting areas. Where the engineer's fill material is in conflict with sound horticultural practice, the contractor is to confer with the Owner's Representative to ascertain to what extent the engineered fill, in the planting areas, can be removed. The Landscape Representative will be responsible for the removal of whatever engineered fill that is a problem and is agreed to by the Owner's Representative.
E. Before making bid, examine the Site carefully, verifying dimensions and other site conditions in relation to the Plans. The Contractor is responsible for informing himself of all conditions under which work is to be done before submitting his bid.

PART 2 - PRODUCTS

2.01 TREES, SHRUBS, AND GROUND COVER

- A. Plant materials shall be supplied in sizes as indicated in the Plant List. Container stock shall be well established in the container, showing the beginning of the growth habit of the species. Plants shall be free of pests and diseases and their species in the appearance of healthy, vigorous growth. Plants shall be free of frost and diseases and disfiguring injury. Trees shall be select and choice material, with symmetrical and full rounded heads appropriate for the species.
B. All plant materials delivered to the Site must conform to the Specifications of Federal, State and County laws, requiring inspection for plant diseases and insect infestations. Any inspection certificates required by law must accompany each shipment when plant materials arrive at the Site.
C. Plants delivered to the Site shall be adequately protected from the sun and wind during delivery and then stockpiled on the Site prior to planting. They shall be watered adequately. Containers shall be free of weeds or grasses.
D. Substitutions are not permitted except on proof that plant specified is not available. Request for substitution must be made in writing to the Landscape Architect. No additional charge shall be made for substitutions except by the written authorization of the Landscape Architect.
E. The Landscape Architect shall be notified in writing, one week prior to planting, to inspect all or major portions of the plant materials to be used in the Project.
F. The Landscape Architect shall be the final contractor in decisions regarding identification and nomenclature.
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Y. The Landscape Architect shall be the final contractor in decisions regarding identification and nomenclature.
Z. The Landscape Architect shall be the final contractor in decisions regarding identification and nomenclature.

2.02 SOIL AMENDMENTS

- A. Fir Bark soil amendment:
1. Physical properties: 0 inches to 1/4 inches
2. Source: Fir or Pine bark
3. Nitrogen content (dry weight basis): minimum 0.5%
4. Dry bulk density: 450-580 #/ cubic yards
5. Iron content (dry weight basis): minimum 0.08% dilute acid soluble iron
6. Solidity (ECe) maximum 4.0 millimhos 1 centimeter @ 25 degrees C.
7. Organic content: Minimum 90% of dry weight by ash method
8. Reaction (pH) minimum 4.0
9. Pelletized fertilizer 6-20-20
C. Soil Sulfur
D. Dolomite Lime

2.03 FERTILIZERS

- A. Agriflour planting cables, as manufactured by Sierra Chemical, 21 gram size with 20-10-5 analysis.
B. Commercial fertilizer, as manufactured by Best Fertilizer Co. with a 16-6-8 + from analysis.

2.04 EXISTING TOPSOIL

A. It will be the Landscape Contractor's responsibility to provide all labor and equipment to remove all site topsoil spoils and dig-out as may be required to complete the finish the fine grading work.

2.05 TREE STAKES, TIES and ROOT BARRIERS

A. Tree stakes shall be 2 inches diameter x 8 feet long, treated lodge pole stakes, free from knots and splits.
B. Tree ties shall be "Chinch-Ties", length as required, as manufactured by V.L.I. Products, Inc. or equal.
C. All trees planted within 8' of paving and 5' of water meters / joint trenches shall receive high impact root barriers per detail this plan set.

2.06 PRE-EMERGENT HERBICIDE(S)

A. The pre-emergent herbicide is to be one that has proven successful in the local area, is recommended by a license Pest Control Advisor and has the approval of the Owner's Representative.

2.07 FIR BARK MULCH

A. Bark mulch shall be wood residual derived and manufactured from Pine, White and/or Red Fir Tree bark. The material shall be equal to that referred to as "Walk on Bark" in the Trade.
B. Install 3" depth fir bark mulch on all shrubs and ground cover planting areas

PART 3 - EXECUTION

3.01 SOIL PREPARATION AND AMENDING

- A. Thoroughly cultivate all planting areas to a depth of eight (8) inches.
B. Rough finish grade all areas.
C. Broadcast the following soil amendments: Quantities given are per 1,000 square feet of area.
1. Nitrogen stabilized and iron fortified compost: 6 cubic yards
2. Pelletized fertilizer (6-20-20): 20 lb.
3. Soil Sulfur: 1 lb.
4. Dolomite Lime: 27 lb.
D. Cultivate and thoroughly incorporate the amendments into the top eight (8) inches of soil.
E. Be-rock area to be planted by using a mechanical rock picker. All rocks larger than 1-inch in diameter are to be removed.

3.02 FINISH GRADING

- A. Fine grade areas to a smooth even surface, with loose uniform texture. Roke and drog areas to remove ridges and fill depressions as required to meet finish grades. Limit fine grading to areas which can be planted immediately after grading.
B. The finish grade of all shrubs and/or ground cover planting areas is to be 2 1/2 inches below the top of all removed concrete walks, curbs, and asphalt paving.
C. Remove all debris, exposed rocks, and compacted soil clods 1 inch in diameter or larger, from all planting areas. Use a mechanical rock picker for this work. All finish grades shall be subject to the approval of the Engineer.

3.03 PLANTING OF TREES AND SHRUBS

- A. The planting work shall be deferred until earthwork, construction, irrigation, soil preparation and finish grading work has been completed.
B. No planting shall occur during unfavorable weather conditions or when the soil is excessively wet, as determined by the Owner's Representative.
C. Stakes or spot all plant locations, as shown on the Planting Plans. Obtain approval of plant locations, by the Owner's Representative or Landscape Architect, prior to commencement of planting.
D. Planting Procedure:
1. Excavate plant holes to the dimensions indicated on Planting Plans. Refer to Planting Details. Planting areas are not to be over compacted after cultivation shall be free of deleterious material, including construction debris, rock sticks and dirt clods larger than 1-inch. Scuffly all plant hole sides. Plant hole back fill mix shall consist of pulverized native soil free of roots, sticks, and stones larger than 1-inch in diameter, mixed with 1-CY of compost.
2. Excavated pits (2-times the container size) shall have positive drainage within 2-hours when fully flooded with water. Contractor to demonstrate to Owner's Representative that plant holes drain in 2-hours before planting may commence. Contractor shall correct deficient drainage utilizing drilled drain holes filled with 3/4" drain rock. Depth of drain holes as needed.
3. Add and firm backfill soil to bring the plant root ball to the proper planting elevation. The backfill soil is to consist of the excavated site topsoil with all rocks larger than 1 inch diameter removed from backfill soil. Use unconditioned site topsoil for backfill below.
4. All plant material is to be removed from containers by approved methods. Loosen the bottom and sides of root ball and firm backfill soil.
5. Place plant in the center of the excavation and adjust root ball elevation so that top of root ball is one (1) inch above the level of the surrounding soil grade.
6. Complete the backfilling of the root ball with light tamping as the backfill soil is placed.
7. Add 21 gram size Agriflour (20-10-5) planting cables to the backfill of all plant material. Reference planting details on Planting Plans.
8. Construct a water retention basin around each plant, 4" high for trees and 3" high for shrubs. Water newly installed plant immediately / thoroughly to settle the backfill soil. Add backfill as required by setting.
9. After planting is complete, spread weed mulch to a minimum depth of 3-inches. Weed mulch shall be aged nitrogen fortified redwood, cedar, or fir wood chips and bark, three-inch (3") minus in size, and shall contain a minimum of one percent (1%) available nitrogen. Contractor shall submit a sample of the bark mulch to the Owner and Landscape Architect for review and approval.

3.04 TREE STAKING AND GRASS-FREE AREA

- A. All trees are to be staked as per the Tree Staking Details occurring on the Planting Plans.
B. Care is to be exercised to maintain tree stakes in the proper horizontal alignment, and vertically to be set depth layer of bark mulch.

3.05 PLANT MATERIAL GUARANTEE

- A. The Contractor shall guarantee all plant material from latent defects, disease or death, and injury for a period of twelve (12) months after final acceptance of the total Project by the Owner's Representative.
B. The Contractor shall promptly replace, at no additional cost, plants that are not in a vigorous, healthy, growing condition. Replacement shall be of the same kind and size as originally specified and shall be planted as described on the Planting Plans and in these Specifications.
C. This guarantee does not include plant loss, due to physical damage or neglect during normal maintenance, by others, subsequent to the end of the Project contract maintenance period.

3.06 OBSERVATION AND ACCEPTANCE

- A. After all plants have been installed, the Owner's Representative will make a preliminary observation.
1. Upon preliminary observation and approval of the work, a ninety (90) day calendar day maintenance period will begin.
2. If any plants or work are not approved, immediate replacement and/or repair will be made and regular maintenance then continued for ninety (90) days after replacement.
B. Final observation will be made at the end of the ninety (90) day maintenance period.
C. Submit written notice requesting this observation at least one week in advance.
1. Plant bags shall be repaired, all plantings given a final watering, and the job cleared of all weeds and debris and presented in a neat and orderly fashion.
2. The work, exclusive of the replacement of plant materials, shall be accepted by the Owner's Representative upon completion of the ninety (90) day maintenance period and upon written approval of the work by the Owner's Representative.
3. Clean paved areas by sweeping and/or washing. Remove any detachment or stains caused by work of this Section.

4. Remove construction equipment, excess materials, tools, debris, and rubbish.
5. Repair any existing property damaged or areas altered due to work of the landscape planting.

3.07 INSTRUCTIONS TO THE OWNER

A. Full and complete typewritten instructions for long term maintenance of the landscaping are to be furnished to the Owner's Representative at least 10 days prior to the end of the Contractor's maintenance period. The Owner may retain final payment if this item is not completed.

3.12 GENERAL CLEAN-UP

A. During the process of the work, the Site shall be kept in a reasonably neat and clean condition, free from the accumulation of cans, surplus materials, and waste materials.
B. Upon completion of the work, remove all equipment, dispose of all waste, refuse, or debris resulting from this work, and leave the premises in a neat and clean condition.
C. All planting areas shall be neatly dressed and finished and all walks, paved areas, curbs, and gutters flushed clean to the satisfaction of the Owner's Representative.

3.08 PLANTING MAINTENANCE

- A. Provide all necessary maintenance during specified maintenance period, including but not limited to, watering, weeding, repotting, fertilizing, treatment of diseases and pests, and protection from rodents, and people.
1. Check all tree ties and adjust if too tight or too loose. Remove all nursery stakes and ties.
2. Provide supplementary deep watering for trees at one month intervals during maintenance period, using a slowly trickling water hose. Fill planting basins, let water soak in, and refill.
3. Replace any plants not in a healthy and thriving condition.
4. Arrange watering schedule to avoid wetting of foliage when exposed to hot sunlight.
5. Keep planting basins in good repair and free of weeds.
6. Plants blown over shall be replanted and re-staked, or replaced if damaged.
7. Protect all plants against damage from any source. Treat or replace all damaged trees during the maintenance period.
8. Reset any plants where root crowns have settled below adjacent finish grade or where tree trunks are leaning from vertical position.
9. Prune only to remove broken limbs, unbalanced branching conditions or suckers.
10. At conclusion of maintenance period, re-surface planting beds as needed with a fresh layer of mulch to maintain the required depth.

PART 4 - CLOSEOUT PROCEDURES

4.1 DESCRIPTION

A. The work includes, but is not necessarily limited to, performing all operations necessary for and properly incidental to closing out the project and assisting in Owner's final inspection as hereinafter specified.

4.2 FINAL COMPLETION

A. When the Contractor considers the work or a designated portion of the work complete, submit written request to Owner's Representative for inspection. By substantial of request, Contractor certifies that:
1. Contract Documents have been reviewed.
2. Work has been completed in accordance with the Contract Documents and is ready for inspection.
3. Equipment systems have been tested, adjusted, balanced and is fully operational.
B. Submit request for review a minimum of five (5) working days in advance of requested inspection date. Contractor shall be responsible for allowing sufficient time during contract period to complete inspection and any correction.

4.3 RE-INSPECTIONS

A. Should status of completion of work require re-inspection(s) by Owner due to failure of work to comply with Contractor's claim on initial inspection, Owner may deduct the amount of compensation for re-inspection services from final payment to Contractor. Observed deficiencies in excess of ten (10) will be reason for re-inspection. B. Inspection initiated at the request of the Owner will not be subjected to the provisions of this Article.

4.4 CLOSE-OUT SUBMITTALS

- A. Project Record Documents
B. Operation and Maintenance Data
C. Warranties and Guarantees
D. Spare Parts and Maintenance Materials
E. Evidence of Payment and Lien Releases along with a list of all subcontractors which contributed labor or other data and material as may be required in individual Sections of the Specifications.
F. Other data and material as may be required in individual Sections of the Specifications.

4.5 APPLICATION FOR FINAL PAYMENT

A. Submit application for final payment in accordance with provisions of the contract for Construction. Inspection Schedule

The Owner's representative or Landscape Architect (if requested by the Owner) shall accomplish the following inspections in concert with the Project Coordinator, and the Landscape Contractor. Call at least 48 hours in advance of the requested inspection:

- A. Pre-Landscape Construction Meeting with Owner's / Landscape Architect, Landscape Contractor and Construction Site Supervisor
B. Owner's representative or Landscape Architect inspection:
1. Irrigation System Layout and Coverage Inspection, including:
a. Irrigation Mainline and Lateral Pressure Check Layout Inspection or deviation from
b. Irrigation system as per plans
4. Installation inspection of main lines
5. Installation inspection of lateral and non-pressure system trenches
C. Owner's representative or Landscape Architect inspection:
1. Plant inspection. Verify finish grade Plant material quality Layout in conformance with Project plans/specification
D. Owner's representative or Landscape Architect inspection:
1. Final Landscape Improvements inspection and approval
E. Commencement of Maintenance Period with letter of approval from the Owner's representative. All punch list items from previous inspection must be complete
F. Requests for progress payments must include approved inspection reports authorized by the Owner's representative.

END OF SECTION.

Table with 4 columns: No., REVISION, DATE, BY. Contains a grid for tracking changes.

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PLANTING SPECIFICATIONS
Landscape Architecture - N. Water St., Oak St., & Petaluma Blvd.
NORTH RIVER APARTMENTS
The Spanos Companies
Petaluma, California

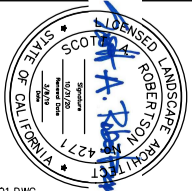


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RECYCLED WATER NOTES

- PRIOR TO RECEIVING RECYCLED WATER, THE SITE MUST BE PERMITTED BY THE CITY OF PETALUMA. PERMIT REQUIREMENTS INCLUDE:
 - INSPECTION BY THE CITY OF PETALUMA TO CONFIRM CONFORMANCE WITH THE CITY OF PETALUMA RULES AND REGULATIONS;
 - A FINAL ON-SITE INSPECTION TO CONFIRM THAT ALL REQUIREMENTS HAVE BEEN MET;
 - SITE MUST PASS REQUIRED CROSS-CONNECTION TEST PERFORMED BY A CERTIFIED AWWA CROSS CONNECTION CONTROL SPECIALIST (IF NO POTABLE WATER LINES CROSS THE SITE, THEN REQUIRED CROSS-CONNECTION TEST IS WAIVED);
 - THE USER'S DESIGNATED SITE SUPERVISOR MUST COMPLETE THE SITE SUPERVISOR TRAINING OFFERED BY THE CITY OF PETALUMA AS A CONDITION OF THE PERMIT. FAILURE TO COMPLETE MAY RESULT IN TERMINATION OF RECYCLED WATER SERVICE.
 - CONTACT THE CITY OF PETALUMA FOR FURTHER INFORMATION.
- ALL WORK SHALL CONFORM TO EXISTING REGULATIONS INCLUDING BUT NOT LIMITED TO:
 - CITY OF PETALUMA RECYCLED WATER USER GUIDE
 - CITY OF PETALUMA WATER CODE
 - STATE DPH REGULATIONS
- CHANGES MADE TO THE APPROVED IRRIGATION PLANS SHALL BE SUBMITTED TO CITY OF PETALUMA FOR REVIEW AND APPROVAL AT LEAST 2 WEEKS PRIOR TO START OF CONSTRUCTION.
- AT LEAST TWO DAYS PRIOR TO START OF CONSTRUCTION, CONTRACTOR AND THE CITY OF PETALUMA INSPECTOR SHALL HOLD A PRE-CONSTRUCTION MEETING. TO SCHEDULE MEETING, CONTACT THE CITY OF PETALUMA.
- NOTIFY THE CITY OF PETALUMA INSPECTOR A MINIMUM OF 48 HRS BEFORE WORK BEGINS. THE CITY OF PETALUMA INSPECTOR MAY INSPECT AND/OR VERIFY:
 - PRESENCE OF PROPER BACKFLOW PREVENTION AT ALL POTABLE POINTS OF CONNECTION;
 - NEW UNDERGROUND PIPING (LABELING, CLEARANCES, BURIAL DEPTH, SLEEVING);
 - INSTALLATION OF SIGNS, TAGS, AND CONTROLLER DECALS;
 - REQUIRED TEMPORARY CONNECTION TO POTABLE WATER SERVICE. IN MOST CASES, THE SITE'S IRRIGATION SYSTEM MUST BE CONNECTED TO A TEMPORARY SOURCE OF POTABLE WATER IN ORDER TO CONDUCT REQUIRED CROSS-CONNECTION TESTS;
 - SITE PASSED REQUIRED CROSS-CONNECTION TEST PERFORMED BY A CERTIFIED AWWA CROSS-CONNECTION CONTROL SPECIALIST (IF APPLICABLE).
- NEW METER INSTALLATION - PRIOR TO RECEIVING RECYCLED WATER, THE CITY OF PETALUMA INSPECTOR MUST INSPECT THE DISCONNECTION OF THE SITE'S IRRIGATION SYSTEM FROM THE TEMPORARY POTABLE WATER SUPPLY, AND THEN INSPECT THE CONNECTION OF THE SYSTEM TO THE RECYCLED WATER METER.
- PRIOR TO THE CROSS-CONNECTION TEST, NOTIFY THE CITY OF PETALUMA AND STATE DEPARTMENT OF DRINKING WATER AT LEAST 48 HOURS PRIOR TO THE CROSS CONNECTION SO THAT THE CITY AND STATE MAY BE PRESENT.
- NO CROSS-CONNECTIONS BETWEEN THE POTABLE AND ANY OTHER WATER SYSTEM AND RECYCLED WATER SYSTEMS ARE PERMITTED.
- ALL ON-SITE BURIED RECYCLED WATER PIPING SHALL BE IDENTIFIED BY ONE OF THE FOLLOWING METHODS:
 - USING PURPLE-COLORED PVC PIPE WITH CONTINUOUS WORDING: "CAUTION - RECYCLED WATER" PRINTED ON OPPOSITE SIDES OF THE PIPE; PIPE SHALL BE LAID WITH WORDING FACING UPWARDS.
 - WARNING TAPE WITH A MINIMUM WIDTH OF 3 INCHES READING: "CAUTION - RECYCLED WATER" (IN BLACK OR WHITE LETTERING ON PURPLE BACKGROUND) SHALL RUN CONTINUOUSLY ON TOP OF PIPING AND SHALL BE ATTACHED TO PIPING WITH PLASTIC TAPE BANDED AROUND THE WARNING TAPE AND THE PIPE EVERY 5 FEET ON CENTER.
- PVC PIPE- CONSTANT-PRESSURE MAINLINE PIPING 1½ INCHES AND SMALLER SHALL BE SCHEDULE 40; CONSTANT-PRESSURE MAINLINE PIPING 2 INCHES AND LARGER SHALL BE CLASS 15; INTERMITTENT-PRESSURE LATERAL PIPING SHALL BE CLASS 200 OR SCHEDULE 40. COPPER PIPE SHALL BE TYPE K.
- ALL ON-SITE RECYCLED WATER PIPING SHALL BE BURIED TO A MINIMUM DEPTH FROM FINISHED GRADE TO TOP OF PIPE (MINIMUM COVER) OF:
 - PRESSURIZED LINES 3 INCHES AND LARGER 24 INCHES
 - PRESSURIZED LINES 2 ½ INCHES AND SMALLER 18 INCHES
 - INTERMITTENT-PRESSURE LINES 12 INCHES
- ALL RECYCLED WATER PIPING OTHER THAN PVC PIPING WITH SOLVENT WELDED JOINTS SHALL BE PROTECTED AGAINST MOVEMENT WITH THRUST BLOCKS OR RESTRAINED JOINTS OR OTHER APPROVED METHOD PER CITY OF PETALUMA DETAILS.

11. MAINTAIN A 10-FOOT HORIZONTAL SEPARATION AND 1-FOOT VERTICAL SEPARATION BETWEEN BURIED PRESSURIZED RECYCLED WATER IRRIGATION PIPING AND BURIED POTABLE WATER PIPING UNLESS OTHERWISE NOTED. AT PIPE CROSSINGS, BURIED PRESSURIZED RECYCLED WATER IRRIGATION PIPING MUST BE 12 INCHES BELOW POTABLE WATER LINES. PRESSURIZED RECYCLED WATER PIPE LINES ARE ALLOWED OVER POTABLE WATER PIPELINES WITH A MINIMUM OF 12 INCHES VERTICAL SEPARATION IF A FULL STANDARD PIPE LENGTH IS CENTERED OVER THE CROSSING. OR THE RECYCLED WATER PIPELINE IS INSTALLED IN A PIPE SLEEVE WHICH EXTENDS A MINIMUM OF 10 FEET ON EITHER SIDE OF THE POTABLE WATER PIPING. INTERMITTENTLY PRESSURIZED IRRIGATION LATERALS MAY BE LOCATED A MINIMUM OF 12 INCHES ABOVE POTABLE WATER PIPELINES WITHOUT SLEEVING.

12. ALL RECYCLED WATER SYSTEM REMOTE CONTROL VALVES, ISOLATION VALVES, QUICK COUPLING VALVES, STRAINERS, AND PRESSURE-REGULATING VALVES SHALL BE INSTALLED BELOW GRADE IN VALVE BOXES. GREEN, BLACK, OR PURPLE COLORED BOXES AND LIDS ARE ACCEPTABLE FOR EXISTING CUSTOMERS. NEW CUSTOMERS ARE REQUIRED TO INSTALL PURPLE-COLORED BOXES AND LIDS. VALVE BOXES SHALL HAVE A WARNING LABEL OR NAMEPLATE PERMANENTLY MOLDED INTO OR ATTACHED ONTO THE LID WITH RIVETS, SCREWS, OR BOLTS. WARNING LABELS SHALL BE PER CITY OF PETALUMA STANDARD DETAILS.

13. RECYCLED WATER QUICK-COUPLING VALVES SHALL HAVE A PURPLE COVER AND BE IDENTIFIED PER CITY OF PETALUMA STANDARD DETAILS.

14. NO HOSE BIBS ARE ALLOWED ON THE RECYCLED WATER IRRIGATION SYSTEM. ANY EXTERIOR HOSE BIBS SERVED WITH POTABLE WATER MUST BE LABELED PER CITY OF PETALUMA STANDARD DETAILS.

15. ALL RECYCLED WATER METERS, DEVICES, AND VALVES - E.G. ISOLATION VALVES, IRRIGATION CONTROLLERS, REMOTE CONTROL VALVES, PRESSURE REGULATING VALVES, QUICK COUPLING VALVES, ETC. - SHALL BE TAGGED PER CITY OF PETALUMA STANDARD DETAILS.

16. LABEL ALL POTABLE WATER METERS AND ABOVE GROUND POTABLE WATER PIPES/DEVICES (BACKFLOW PREVENTERS, HOSE BIBS, ETC.) WITH TAGS OR LABELS READING: "POTABLE WATER" IN BLACK LETTERS ON BLUE BACK GROUND, PER CITY OF PETALUMA DETAILS.

17. ALL RECYCLED WATER IRRIGATION SYSTEMS SHALL HAVE THE FOLLOWING:

- A WYE STRAINER (WITH A 20-MESH OR FINER SCREEN) INSTALLED AS CLOSE AS PRACTICABLE TO THE RECYCLED WATER METER BOX.
- A PRESSURE-REGULATING VALVE INSTALLED IMMEDIATELY DOWNSTREAM OF THE STRAINER (UNLESS OTHERWISE DIRECTED BY THE CITY OF PETALUMA).
- THESE COMPONENTS SHALL BE INSTALLED WITH ISOLATION VALVES TO FACILITATE MAINTENANCE.

18. RECYCLED WATER ADVISORY SIGNS CONFORMING TO THE DETAILS AND SPECIFICATIONS ON THE CITY OF PETALUMA-APPROVED IRRIGATION PLANS SHALL BE POSTED PER LOCATIONS SHOWN ON THOSE IRRIGATION PLANS.

19. INSTALLATION OF DIRECT INJECTION SYSTEMS ON THE RECYCLED WATER IRRIGATION SYSTEM IS ONLY PERMITTED IF A REDUCED PRESSURE BACKFLOW PREVENTION DEVICE IS ALSO INSTALLED ON THE SYSTEM.

20. NO DRINKING FOUNTAINS OR EATING AREAS ARE ALLOWED IN THE APPROVED RECYCLED WATER USE AREA UNLESS ADEQUATELY PROTECTED FROM OVER-SPRAY.

SUPPLEMENTAL IRRIGATION WATER FROM STORM WATER COLLECTION

- Irrigation water is from two sources: a) Potable water from a public source; b) Grey water from roof drain storm water collection.
- Supplemental irrigation water will be collected in tanks located in each building (see building plumbing plans) and connected to the irrigation system.
- As collection water depletes the irrigation system will shift over to using potable water.



STICKER TO INDICATE "City of Petaluma" - NOT Santa Rosa.

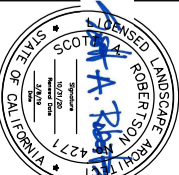


EXAMPLE RECYCLED WATER STICKERS AND TAGS

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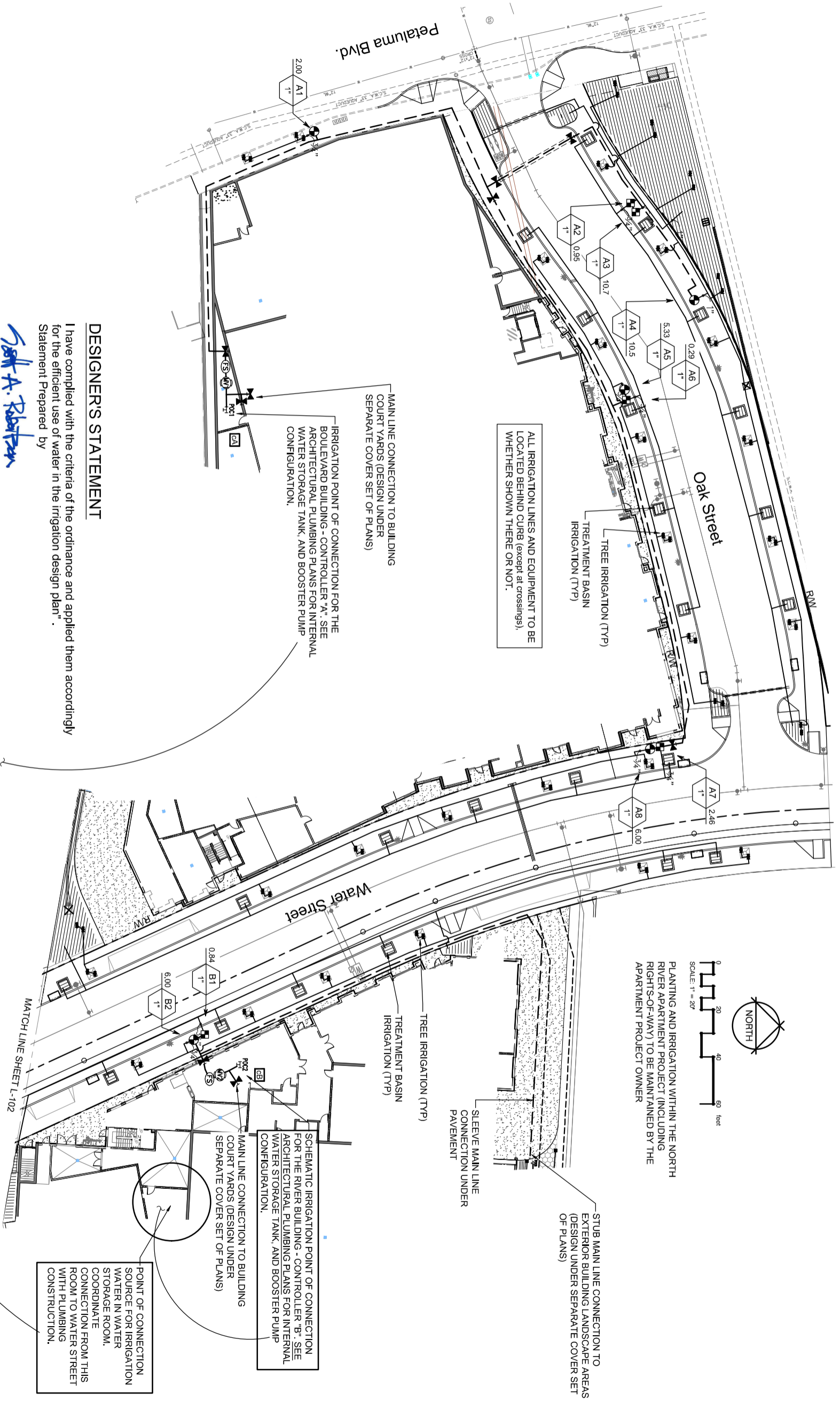
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GREY WATER NOTES
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 The Spanos Companies
 Petaluma, California



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DESIGNED	SAB
DRAWN	SAB
FILE	2000LSP001.dwg
DRAWN	SAB
DATE	3-8-19

L-003
 - OF -



ALL IRRIGATION LINES AND EQUIPMENT TO BE LOCATED BEHIND CURB (EXCEPT AT CROSSINGS), WHETHER SHOWN THERE OR NOT.

MAIN LINE CONNECTION TO BUILDING COURT YARDS (DESIGN UNDER SEPARATE COVER SET OF PLANS)

IRRIGATION POINT OF CONNECTION FOR THE BOULEVARD BUILDING - CONTROLLER "A". SEE ARCHITECTURAL PLUMBING PLANS FOR INTERNAL WATER STORAGE TANK, AND BOOSTER PUMP CONFIGURATION.

PLANTING AND IRRIGATION WITHIN THE NORTH RIVER APARTMENT PROJECT (INCLUDING RIGHTS-OF-WAY) TO BE MAINTAINED BY THE APARTMENT PROJECT OWNER



STUB MAIN LINE CONNECTION TO EXTERIOR BUILDING LANDSCAPE AREAS (DESIGN UNDER SEPARATE COVER SET OF PLANS)

SLEEVE MAIN LINE CONNECTION UNDER PAVEMENT

TREE IRRIGATION (TYP)
TREATMENT BASIN IRRIGATION (TYP)

SCHEMATIC IRRIGATION POINT OF CONNECTION FOR THE RIVER BUILDING - CONTROLLER "B". SEE ARCHITECTURAL PLUMBING PLANS FOR INTERNAL WATER STORAGE TANK, AND BOOSTER PUMP CONFIGURATION.

MAIN LINE CONNECTION TO BUILDING COURT YARDS (DESIGN UNDER SEPARATE COVER SET OF PLANS)

POINT OF CONNECTION SOURCE FOR IRRIGATION WATER IN WATER STORAGE ROOM. COORDINATE CONNECTION FROM THIS ROOM TO WATER STREET WITH PLUMBING CONSTRUCTION.

MATCH LINE SHEET L-102

DESIGNER'S STATEMENT

I have complied with the criteria of the ordinance and applied them accordingly for the efficient use of water in the irrigation design plan".
Statement Prepared by

Scott A. Robertson
Scott A. Robertson, CA LLA 4271
Landscape Architect

GHD, Inc.
916-918-0632
scott.robertson@ghd.com

DURING CONSTRUCTION OF BUILDINGS, PLUMBER SHOULD PROVIDE A POINT OF CONNECTION THROUGH THE OUTSIDE WALL FOR THE IRRIGATION CONTRACTOR TO CONNECT EXTERIOR IRRIGATION SYSTEM.

SEE MATERIAL AND VALVE SCHEDULES SHEET L-601

IRRIGATION PLAN
Landscape Architecture - N.Water St., Oak St., & Petalumna Blvd.
NORTH RIVER APARTMENTS
The Spanos Companies
Petaluma, California

GHD
GHD Inc.
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Roseville, CA 95678 USA
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No.	REVISION	DATE	BY

LANDSCAPE ARCHITECT
SCOTT A. ROBERTSON
4271
STATE OF CALIFORNIA
LLA 4271

SCALE: AS NOTED
JOB NO. 1114480Z
DESIGNED: SAG
DRAWN: SAG
FILE: 20001.SPO01.dwg
CHECKED: SAG
DATE: 3-8-19

L-101

- OF -

SCALE AS NOTED
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 DATE 3-8-19

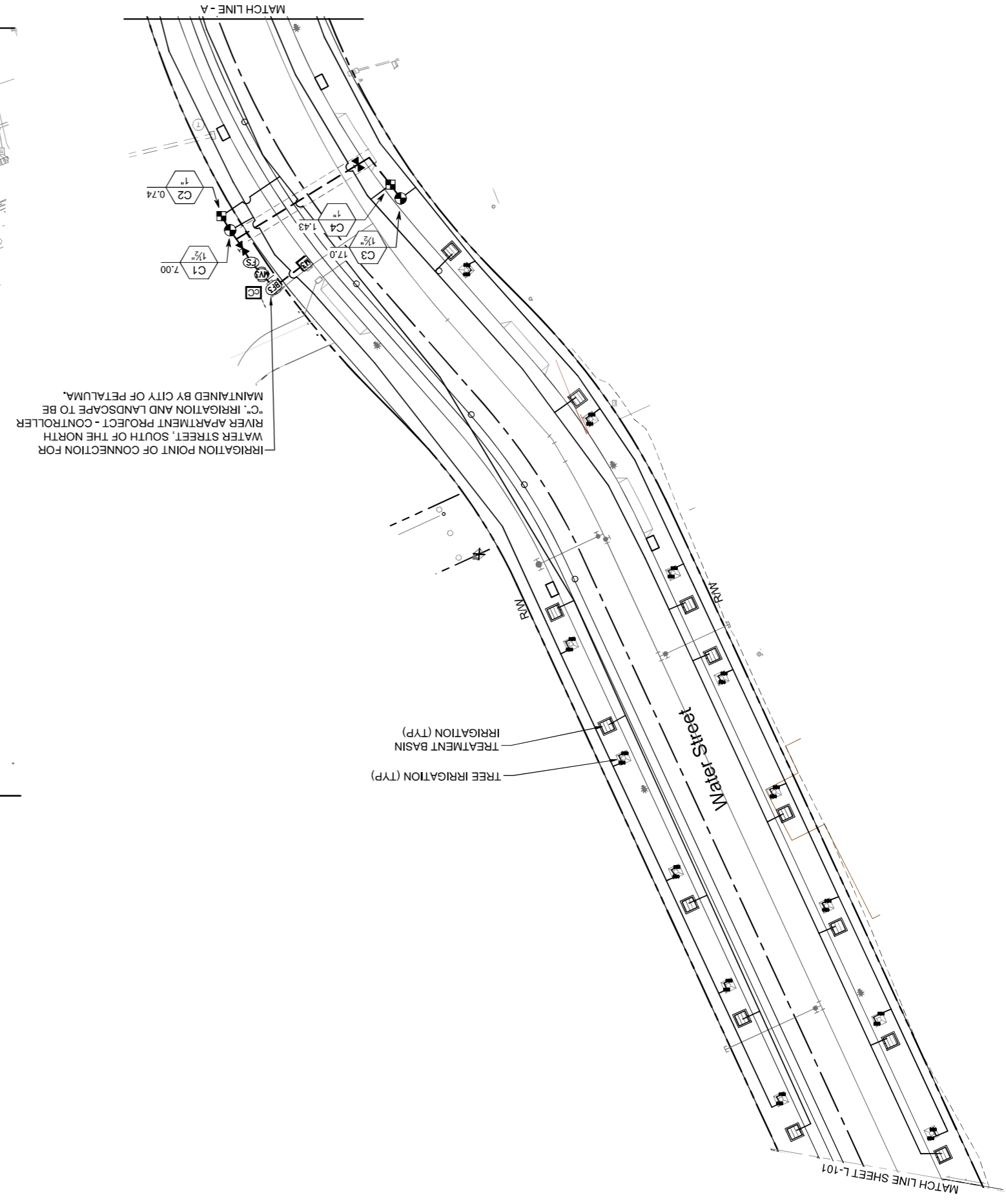
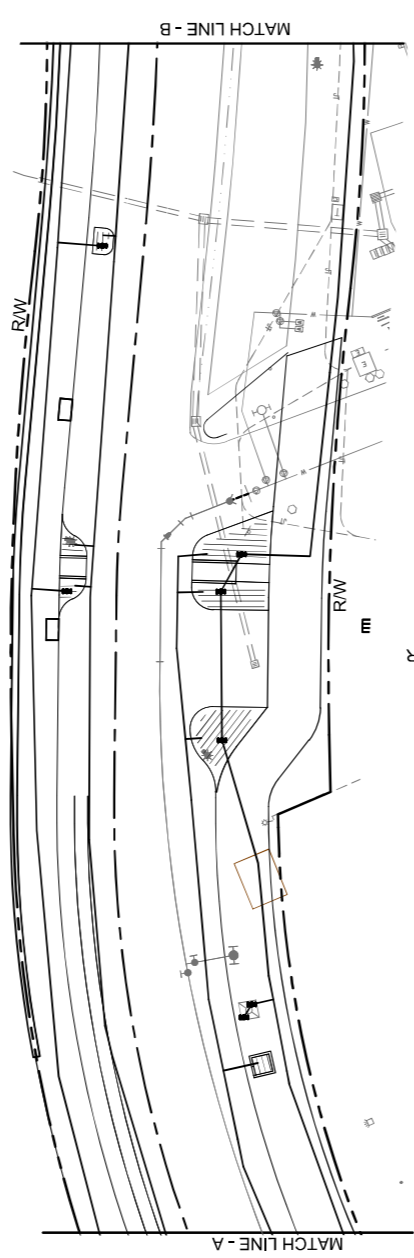
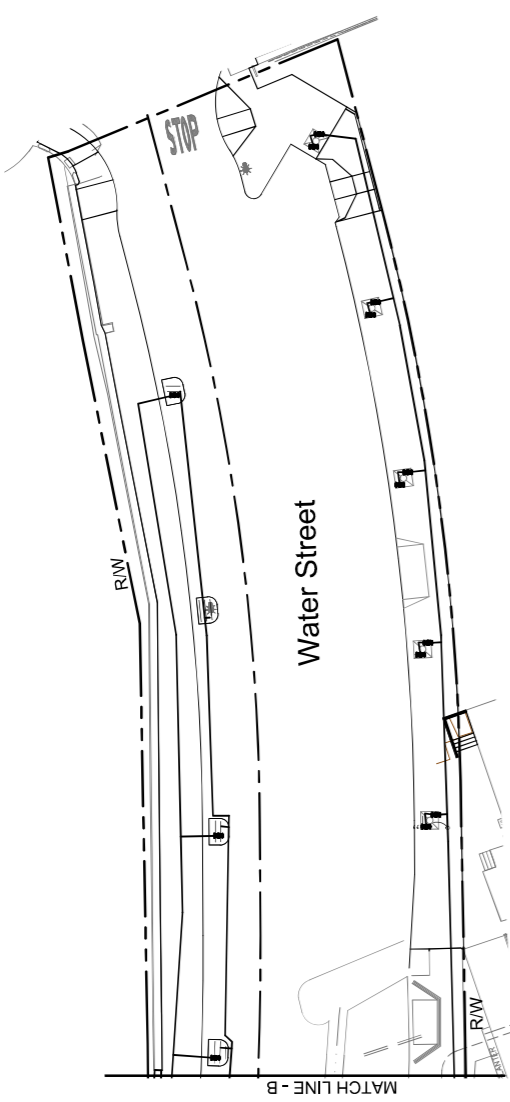


IRRIGATION PLAN
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 The Spanos Companies
 Petaluma, California

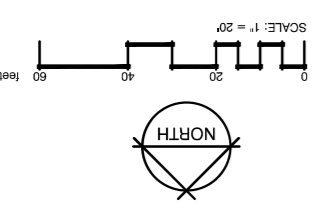
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SEE MATERIAL AND VALVE SCHEDULES SHEET L-601

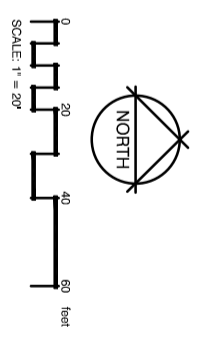
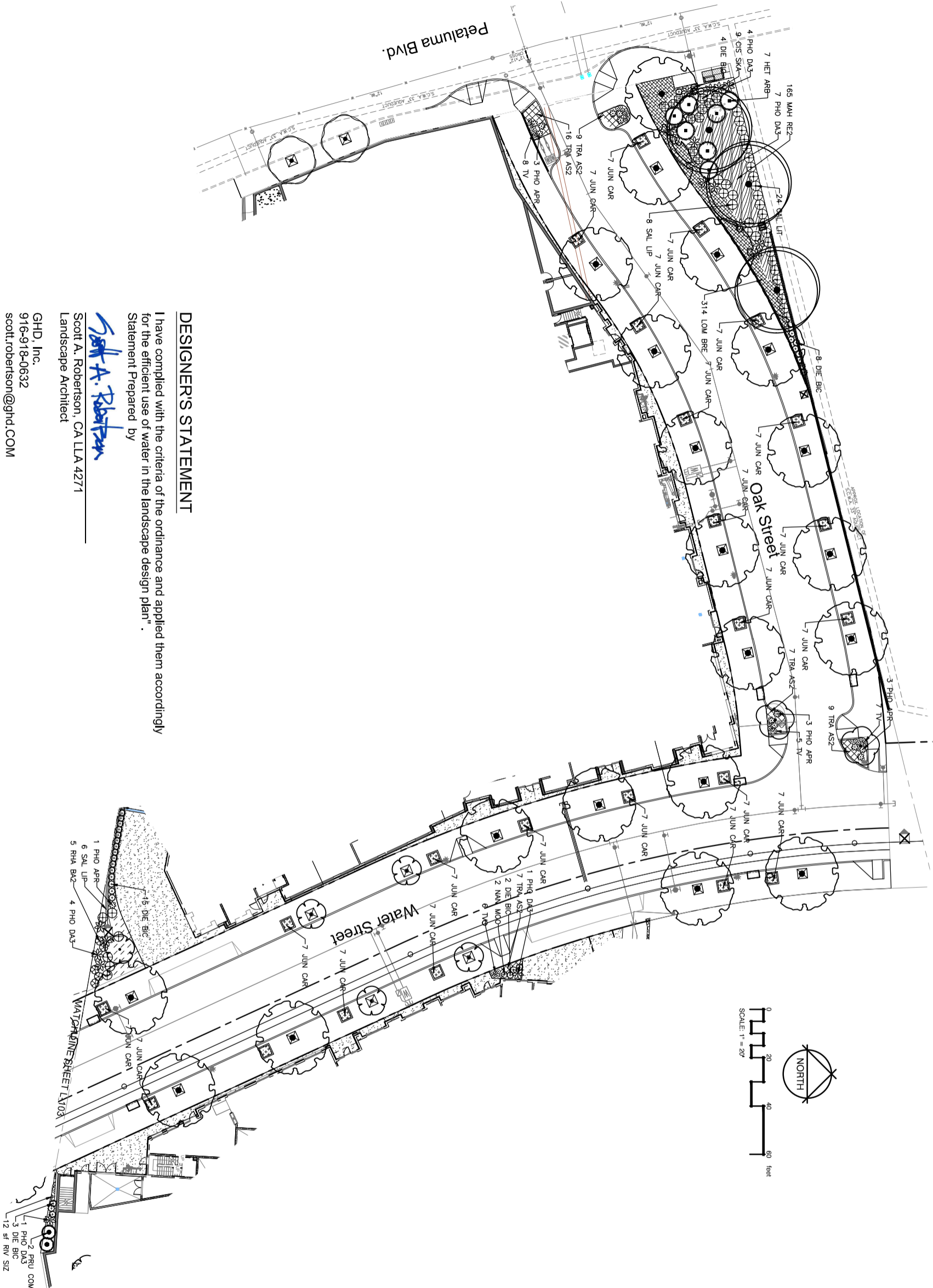


ALL IRRIGATION LINES AND EQUIPMENT TO BE LOCATED BEHIND CURB (except at crossings), WHETHER SHOWN THERE OR NOT.



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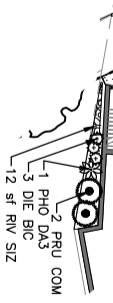
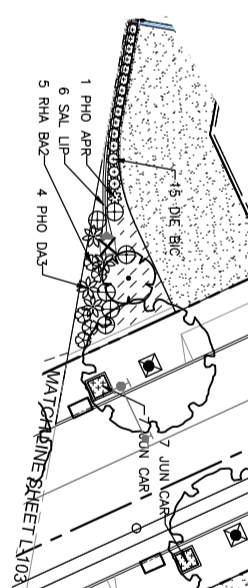
DESIGNER'S STATEMENT

I have complied with the criteria of the ordinance and applied them accordingly for the efficient use of water in the landscape design plan".

Statement Prepared by

Scott A. Robertson, CA LLA 4271
Landscape Architect

GHD, Inc.
916-918-0632
scott.robertson@ghd.COM



SEE PLANT SCHEDULES SHEET L-602

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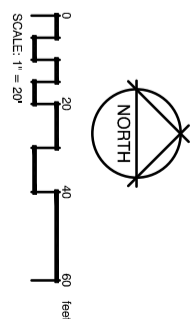
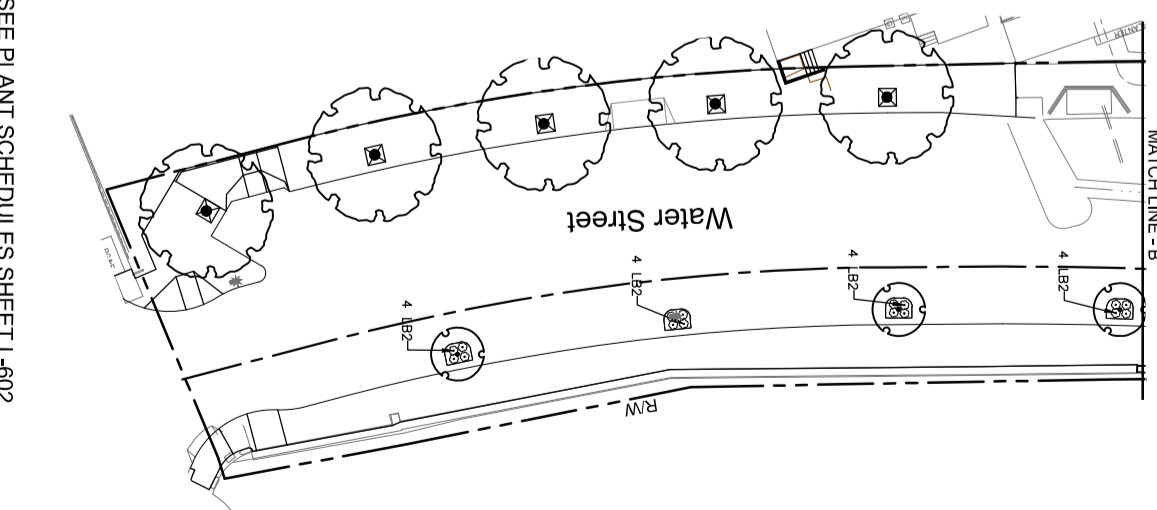
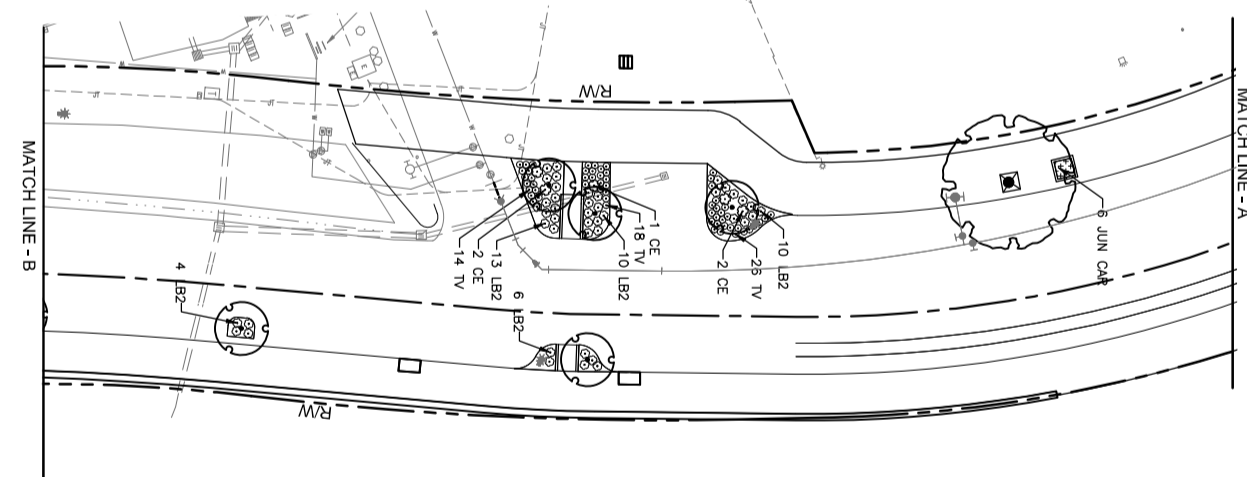
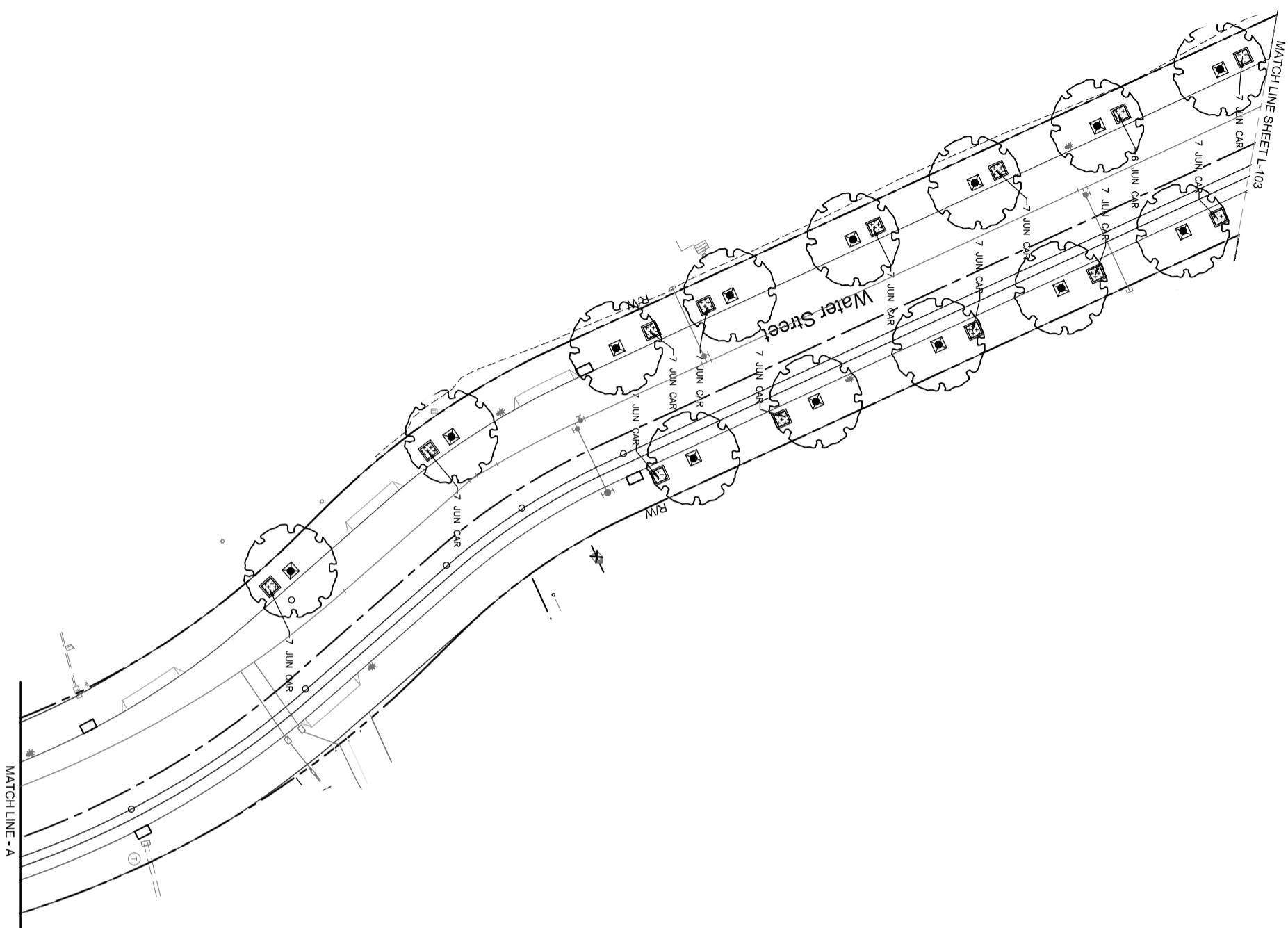
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PLANTING PLAN
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Petaluma, California

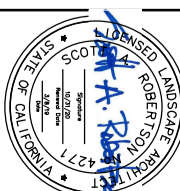
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SEE PLANT SCHEDULES SHEET L-602

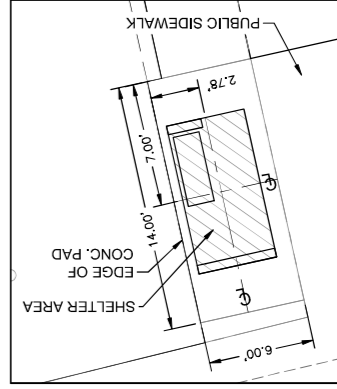
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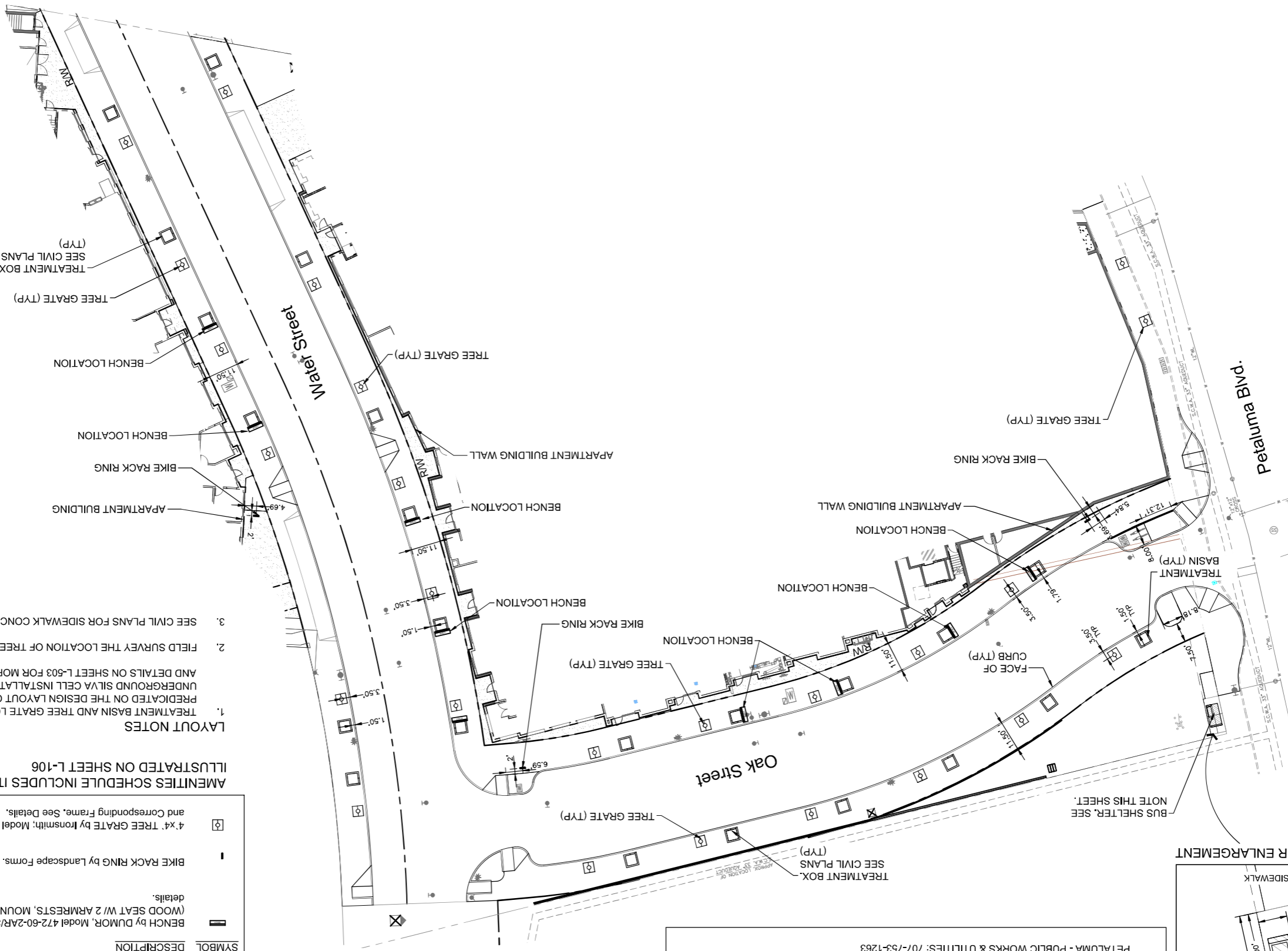
Scale: 1"=5'

- BUS SHELTER NOTE**
1. INSTALL ONE "PETALUMA, CA 12224" 9-FT. LOW DOME W/ FLAT AD BOX BUS SHELTER, BENCH, & TRASH RECEPTACLE FROM "TOLAR MANUFACTURING COMPANY", CORONA, CA 800-339-6165
 2. INCLUDE "URBAN SOLARS" - RMS60F SOLAR POWERED LED LIGHTING SYSTEM OPTION
 3. INSTALL SHELTER, ETC. PER MANUFACTURER'S SPECIFICATIONS
 4. PROVIDE MANUFACTURER'S DETAILS AND SPECIFICATIONS TO CITY ENGINEER FOR APPROVAL.
 5. BEFORE ORDERING, VERIFY MODEL TYPE WITH JARED HALL, TRANSIT MANAGER, CITY OF PETALUMA - PUBLIC WORKS & UTILITIES: 707-753-1263

AMENITIES SCHEDULE INCLUDES ITEMS ILLUSTRATED ON SHEET L-106

SYMBOL	DESCRIPTION	QTY
	BENCH by DUMOR, Model 472-60-2AR/S-2 (WOOD SEAT W/ 2 ARMRESTS, MOUNTED). See details.	9
	BIKE RACK RING by Landscape Forms. See details	3
	4'x4' TREE GRATE by Ironsmith; Model #M4840 and Corresponding Frame. See Details.	46

- LAYOUT NOTES
1. TREATMENT BASIN AND TREE GRATE LOCATIONS ARE PREDICATED ON THE DESIGN LAYOUT OF THE UNDERGROUND SILVA CELL INSTALLATION. SEE CIVIL PLANS AND DETAILS ON SHEET L-503 FOR MORE INFORMATION.
 2. FIELD SURVEY THE LOCATION OF TREE GRATES.
 3. SEE CIVIL PLANS FOR SIDEWALK CONCRETE.



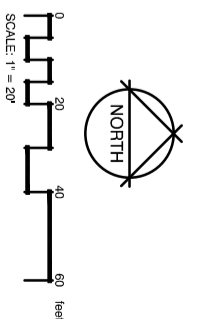
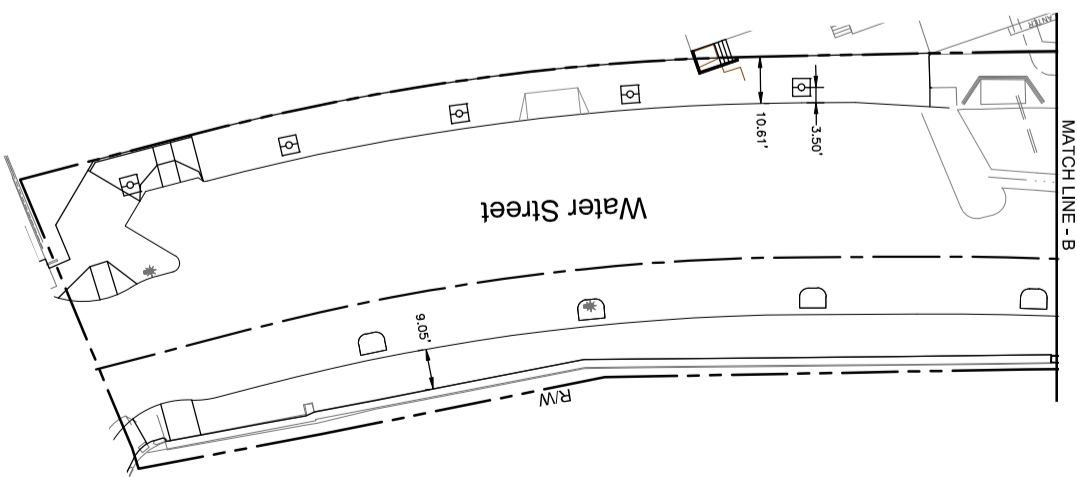
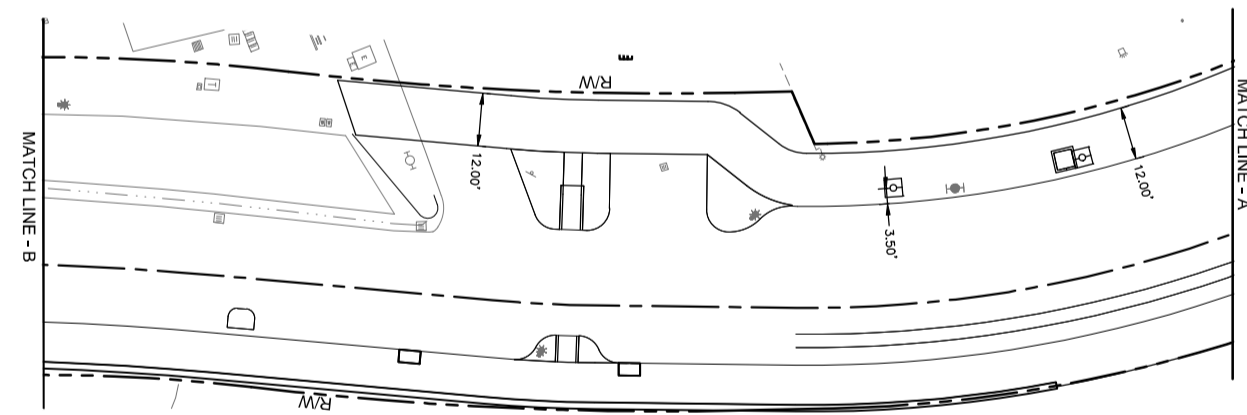
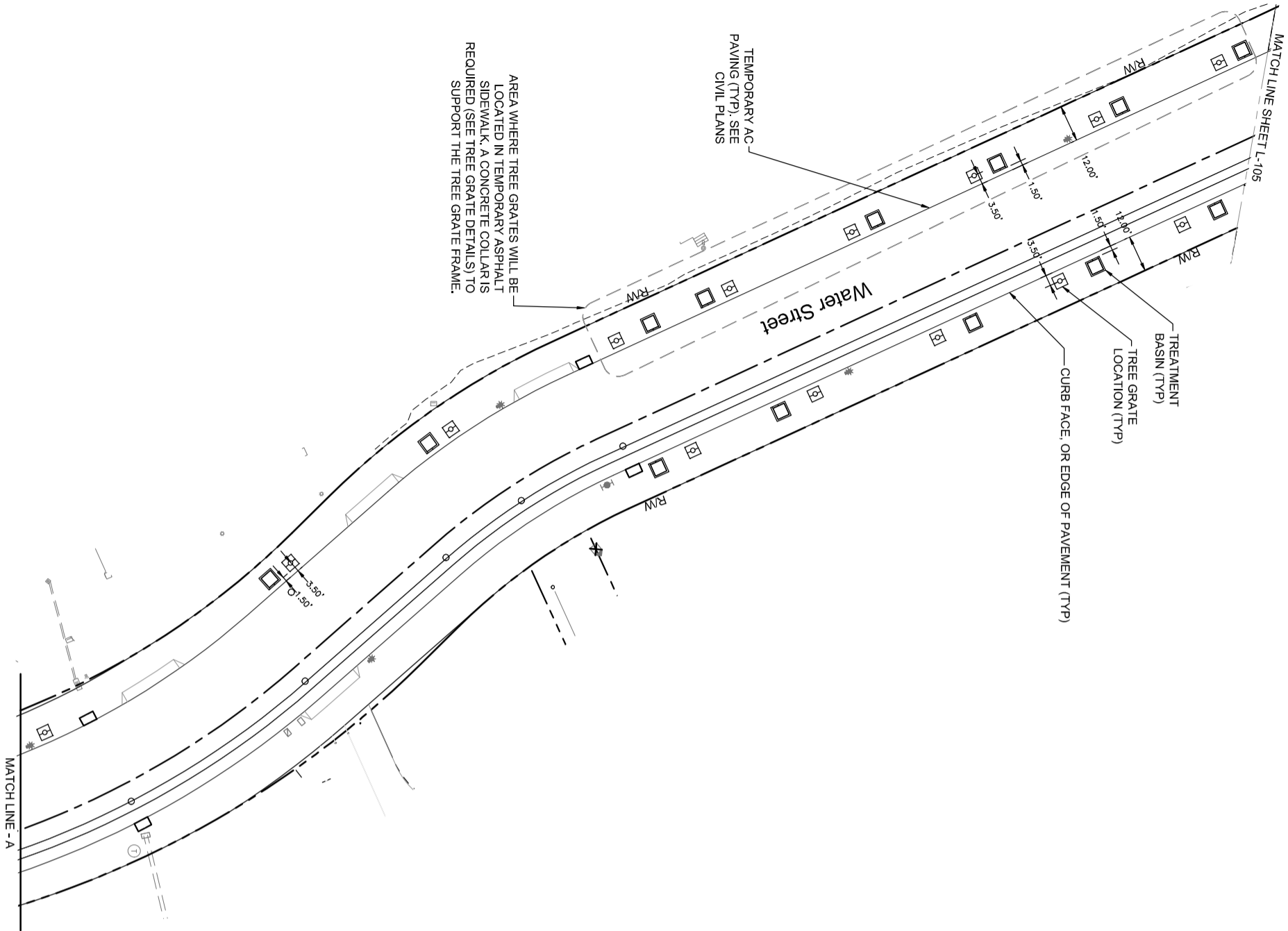
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SITE FURNITURE LAYOUT PLAN
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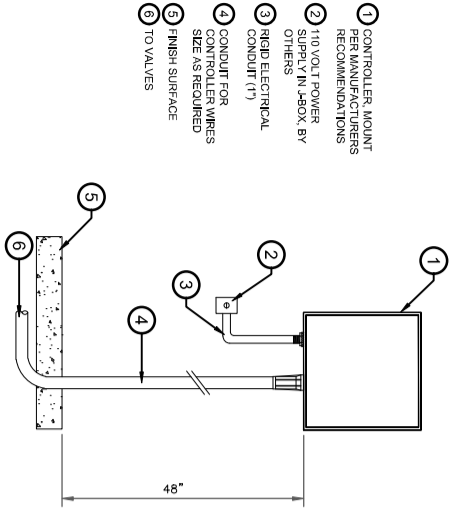
SITE FURNITURE LAYOUT PLAN
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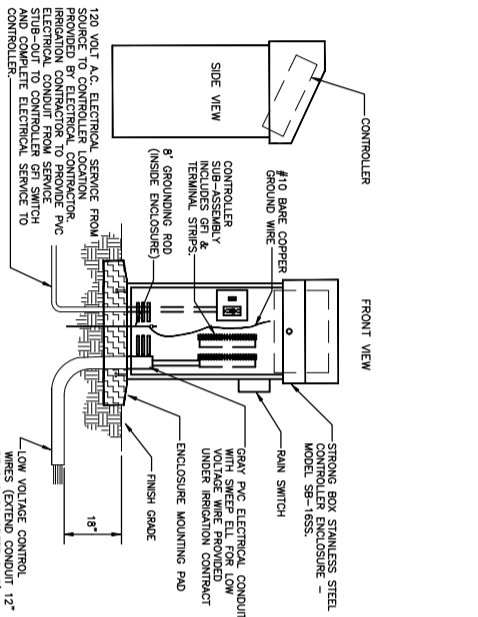
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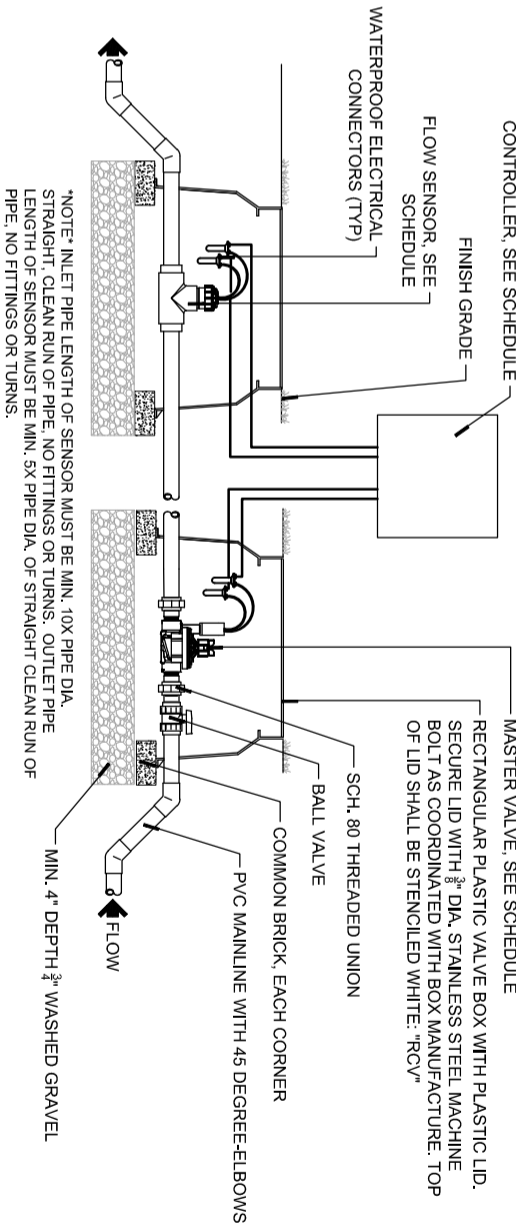


1 CONTROLLER WALL MOUNT
NOT TO SCALE
P-NO-18

NOTE:
• ROUTE WIRES AND SLEEVE THROUGH WALL / FOUNDATION SLAB TO OUTSIDE LANDSCAPE AREAS
• MUST CHECK INTEGRITY OF TRANSMISSION WIRE PRIOR TO WIRING INLET PORTS TO CONTROLLER

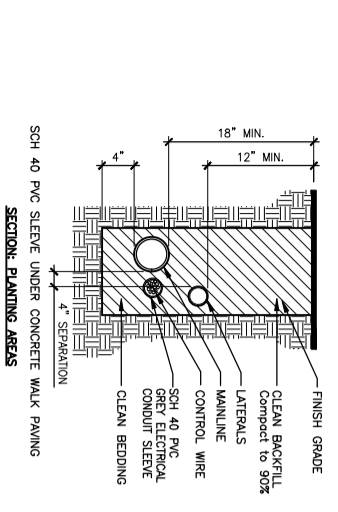


2 TOP OPENING PEDESTAL MOUNT CONTROLLER
NOT TO SCALE
P-NO-28



3 MASTER VALVE AND FLOW SENSOR ASSEMBLY
1 1/2" = 1'-0"
P-NO-11

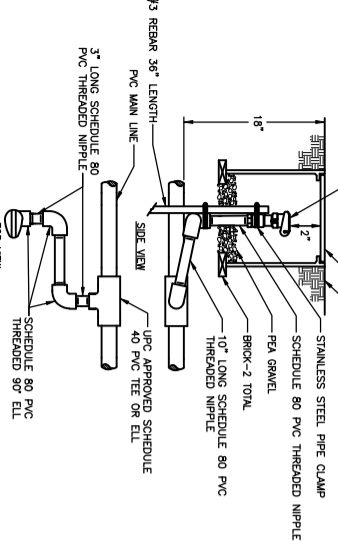
NOTE: INLET PIPE LENGTH OF SENSOR MUST BE MIN. 10X PIPE DIA. STRAIGHT. CLEAN RUN OF PIPE. NO FITTINGS OR TURNS. OUTLET PIPE LENGTH OF SENSOR MUST BE MIN. 5X PIPE DIA. OF STRAIGHT CLEAN RUN OF PIPE. NO FITTINGS OR TURNS.



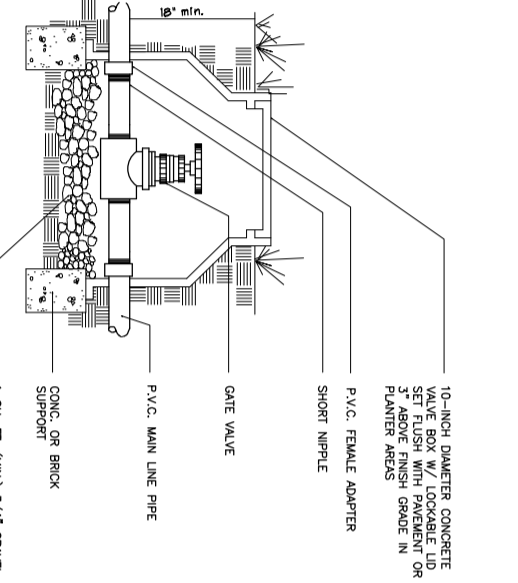
4 IRRIGATION PIPE AND CONTROL WIRE TRENCHING
NOT TO SCALE
P-NO-13

1. ALL PIPE, WIRE, &/OR SLEEVES TO GO UNDER SIDEWALK PAVEMENT TO BE INSTALLED PRIOR TO PAVING BEING INSTALLED. BUNDLE AND TAPE ALL CONTROL WIRE AT 10' INTERVALS. 2. TO MAINLINE AT 20' INTERVALS. 3. TIE A LOOSE 2' LOOP IN WIRE AT CHANGES IN DIRECTION OF 30 DEG. OR GREATER. 4. INSTALL LOCATOR WIRE ALONGSIDE MAINLINE WHERE THERE IS NO CONTROL WIRE. 5. SEE CALTRANS STANDARD PLANS FOR IRRIGATION CROSSOVERS AND CONDUIT DETAILS BELOW STREET PAVING.

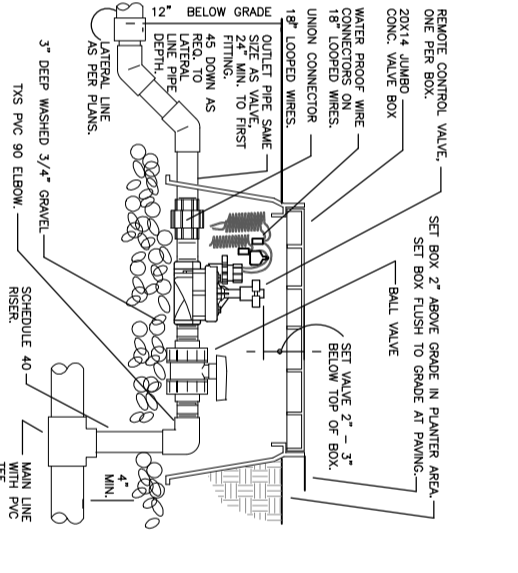
NOTE: WIRE(S) AND FITTINGS TO BE SAME SIZE AS VALVE INLET THREADS SIZE



5 GATE VALVE
NOT TO SCALE
P-NO-30



6 REMOTE CONTROL VALVE WITH A UNION
NOT TO SCALE
P-NO-14



7 DRIP MANIFOLD KIT
NOT TO SCALE
P-NO-31

3. 10 TAD
4. WATER PROOF CONNECTION
5. 30-INCH LINEAR LENGTH OF WIRE, COILED (1' OF 3)
6. FINISH GRADE
7. TOP OF MALCH
8. PVC SCH 40 MALE ADAPTER (1' OF 2) OR NIPPLE (LENGTH AS REQUIRED)
9. PVC SCH 40 EL.
10. PVC SCH 80 NIPPLE (2-INCH LENGTH, HIDDEN) AND PVC SCH 40 TEE OR EL.
11. PVC BALL VALVE, RAIN BRD MODEL BXWVFF (MATCH LINE SIZE)
12. FILTER, SEE IRRIGATION EQUIPMENT
13. MULTIPRESSURE REGULATOR: 1/2\"/>

8 QUICK COUPLING VALVE
NOT TO SCALE
P-NO-29

NOTE: WIRE(S) AND FITTINGS TO BE SAME SIZE AS VALVE INLET THREADS SIZE



8 QUICK COUPLING VALVE
NOT TO SCALE
P-NO-29

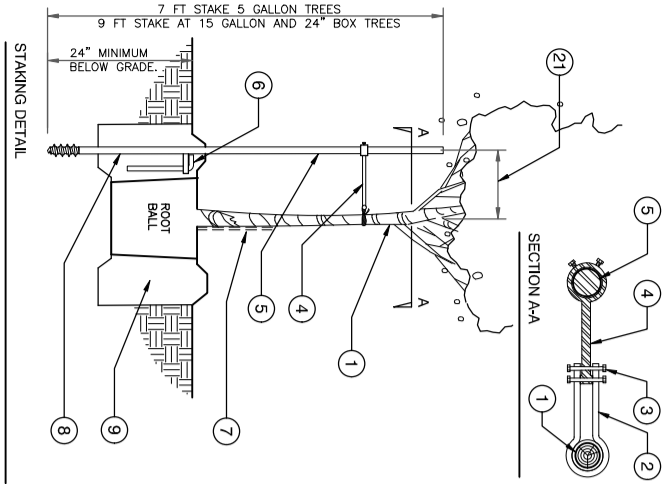
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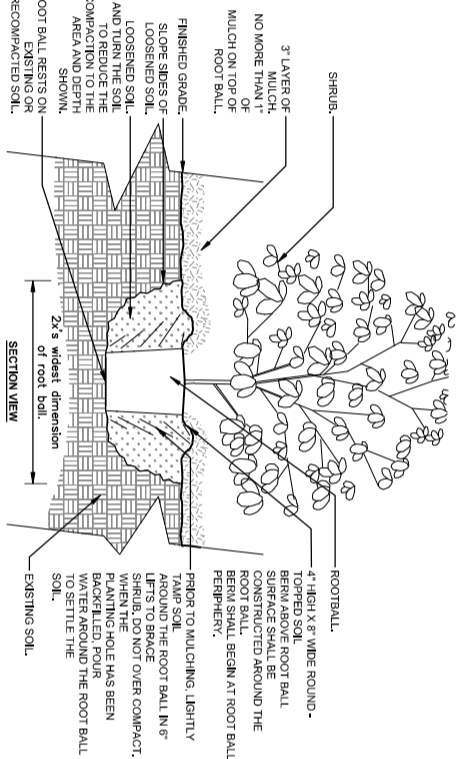
IRRIGATION DETAILS
Landscape Architecture - N.Water St., Oak St., & Petaluma Blvd.
NORTH RIVER APARTMENTS
The Spanos Companies
Petaluma, California

LANDSCAPE ARCHITECT
ROBERTSON
4271
STATE OF CALIFORNIA
3-8-19

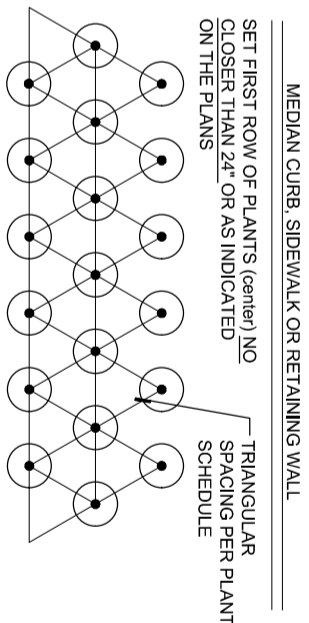
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DATE: 3-8-19



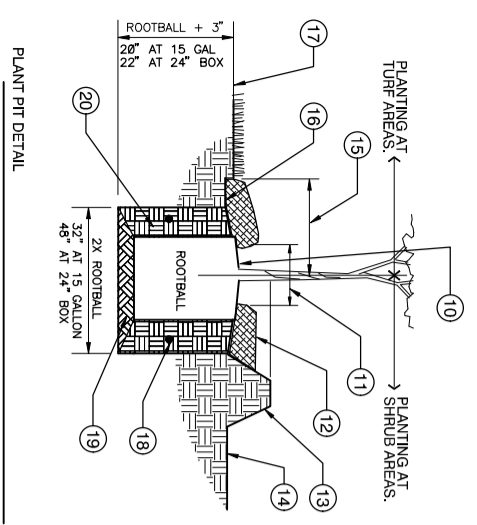
- 1 TREE TRUNK, TREE AS SPECIFIED.
- 2 1/2" PRESTAIN INVT. STRAP FOLD AND SECURE AS SHOWN.
- 3 1/4" BOLTS/INVT. WASHERS, REQUIRED.
- 4 STRAP-BAR, HEIGHT AS REQUIRED.
- 5 THE R2 STAKE METAL POLE SYSTEM AS MANUFACTURED BY J.R. PARTNERS, TEL (888) 200-9000. TO BE LOCATED ON PREVAILING WIND SIDE WHEN TREE IS IN LEAF. REVIEW AND FOLLOW MANUFACTURER'S INSTALLATION DIRECTIONS.
- 6 R2 STAKE TAB AND ANTI-ROTATION PIN, INSTALL TAB 2"-4" BELOW GRADE.
- 7 REMOVE NURSERY STAKE BY PERIOD.
- 8 AVOID DAMAGE TO THE ROOT BALL WITH THE SUPPORT STAKE.
- 9 BACKFILL PLANTING AS PER PLANTING DETAIL.
- 10 SET ROOTBALL CROWN 1-1/2" TO 2" HIGHER THAN THE SURROUNDING FINISHED GRADE. SET ROOTBALL FAVORITIVE DRAINAGE.
- 11 KEEP MULCH 6" TO 8" FROM THE BASE OF THE TREE.
- 12 MULCH WATER WELL AREA TO 3" DEPTH.
- 13 4" HIGH EARTH WATER WELL AT TREE AREAS.
- 14 FINISHED GRADE AT SHRUBS.
- 15 FINISHED GRADE AT SHRUB AREAS.
- 16 FINISHED GRADE AT SHRUBS.
- 17 FINISHED GRADE AT LAWN SPECIFIED.
- 18 PLANT TABLETS AS NOTED OR SPECIFIED.
- 19 NATIVE SOIL, MIX FINALLY COMPACTED FOR BASE OF PLANT ROOTBALL.
- 20 BACKFILL MIX, SEE NOTES AND SPECIFICATIONS.
- 21 INSTALL R2 STAKE APPROX. 16" AWAY ON THE PREVAILING WIND SIDE OF THE TREE.



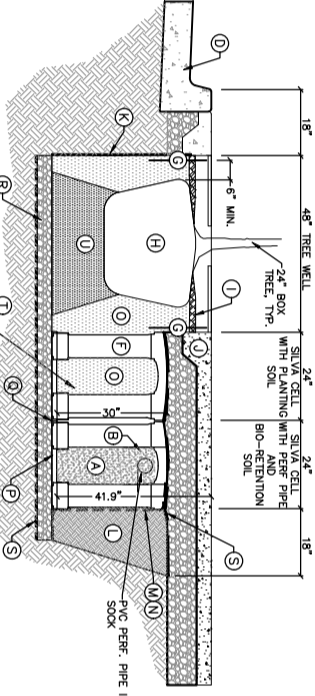
- 1 DETAIL FOR REFERENCE ONLY - SEE CIVIL PLANS FOR SILVA CELL SIZE AND LAYOUT (CONFIGURATION VARIES THROUGHOUT THE PROJECT DUE TO CONSTRAINTS)
- 2 DO NOT COMPACT SOIL WITHIN SILVA CELL
- 3 DO NOT IRRIGATE DETAILS FOR TREE WATERING SYSTEM



- 1 SET FIRST ROW OF PLANTS (center) NO CLOSER THAN 24" OR AS INDICATED ON THE PLANS
- 2 TRIANGULAR SPACING PER PLANT SCHEDULE
- 3 MEDIAN CURB, SIDEWALK OR RETAINING WALL
- 4 12" BENCH COMPACTED NATIVE SOIL FOR SIDEWALK SUPPORT, TYP.
- 5 SILVA CELL SYSTEM (DECK, BASE AND POSTS)
- 6 DEEPROOT UB12-2 ROOT BARRIER, SEE LANDSCAPE PLANS
- 7 ROOT BALL
- 8 3" WOOD MULCH, PLACED IN TREE OPENING
- 9 4" P.C. SIDEWALK WITH THICKENED EDGE AT TREE WELL
- 10 TO MIL. NON-PERMEABLE LINER ENCLOSED PRE-TREATMENT BASIN, AND ALONG THE FACE OF THE SILVA CELLS/TREE WELL ADJACENT TO THE CURB & GUTTER.
- 11 BACKFILL, TO WITHIN 4-6" BELOW TOP OF SILVA CELL DECKS, INSTALL IN 8" LIFTS, EACH COMPACTED TO 95% R.C. (OUTWARD FROM BASE) AND 12" EXCESS (OVER TOP OF DECK)
- 12 3/16" x 1/4" ZIP TIES, SECURING GEORGRID TO SILVA CELLS
- 13 AMENDED NATIVE BACKFILL
- 14 SILVA CELL BASE SLOPE, 5% MAX
- 15 0" TO 4" SPACING BETWEEN SILVA CELLS AT BASE
- 16 4" MIN. AGGREGATE SUB BASE, COMPACTED TO 95% R.C.
- 17 PERMEABLE, NON-WOVEN FILTER FABRIC
- 18 SUBGRADE, COMPACTED TO 95% R.C.
- 19 AMENDED NATIVE BACKFILL

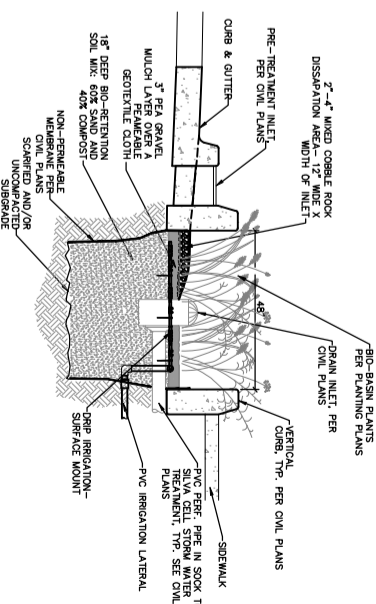


1 15 GAL AND 24" BOX R2 STAKE SYSTEM
NTS

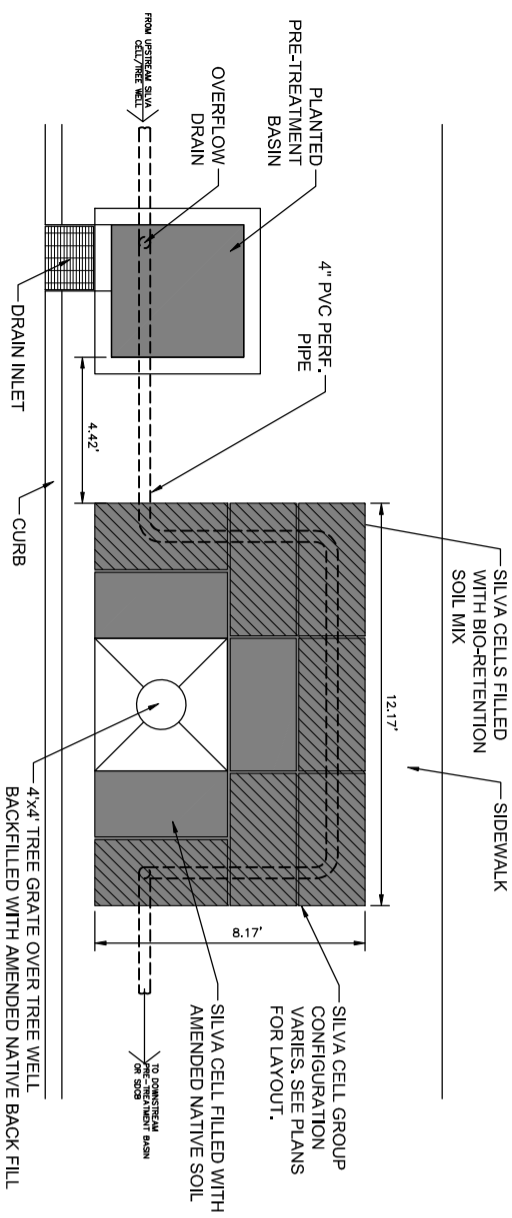


4 TYPICAL SILVA CELL INSTALLATION DETAIL
NOT TO SCALE

- 1 48" TREE WELL
- 2 24" BOX WITH PLANTING WITH PERF PIPE AND BIO-RETENTION
- 3 4" BIO-RETENTION SOIL WITH PERFORATED PIPE
- 4 4" MIN. AGGREGATE SUB BASE, COMPACTED TO 95% R.C.
- 5 PERMEABLE, NON-WOVEN FILTER FABRIC
- 6 SUBGRADE, COMPACTED TO 95% R.C.
- 7 AMENDED NATIVE BACKFILL
- 8 3" WOOD MULCH, PLACED IN TREE OPENING
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- 17 PERMEABLE, NON-WOVEN FILTER FABRIC
- 18 SUBGRADE, COMPACTED TO 95% R.C.
- 19 AMENDED NATIVE BACKFILL



5 BIO-BASIN PLANTER
3/8" = 1'-0"



6 SILVA CELL AND WATER TREATMENT DETAIL
3/8" = 1'-0"

ILLUSTRATED FOR REFERENCE ONLY. REFER TO CIVIL PLANS FOR DRAINAGE / SILVA CELL INSTALLATION DETAILS

PAN-037

No.	REVISION	DATE	BY

GHD
943 Reserve Drive, Suite 100
Roseville, CA 95678 USA
T 1 916 782 8688 W www.ghd.com

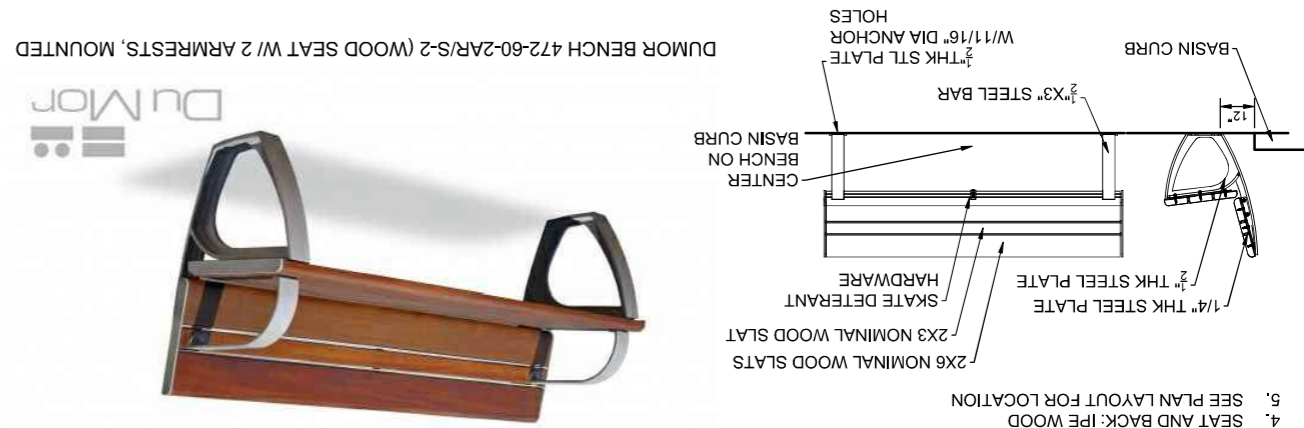
PLANTING DETAILS
Landscape Architecture - N.Water St., Oak St., & Petaluma Blvd.
NORTH RIVER APARTMENTS
The Spanos Companies
Petaluma, California



SCALE	AS NOTED
JOB NO.	1114480Z
DESIGNED	SA8
DRAWN	SA8
FILE	2000LSP001.dwg
DRAWN	SA8
DATE	3-8-19

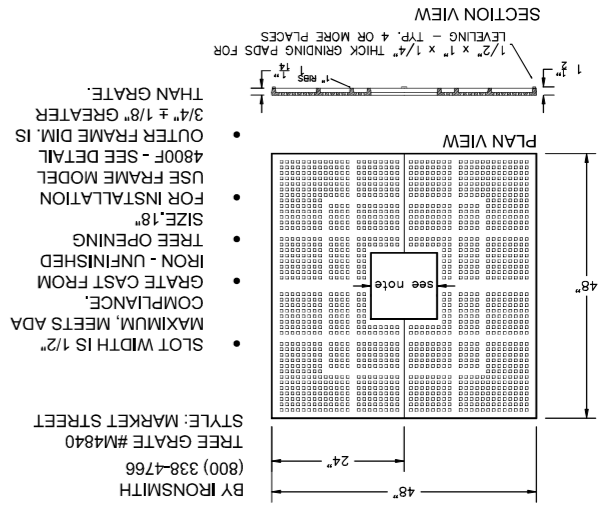
L-503
- OF -

4 DUMOR BENCH - 6' LONG WITH BACK AND ARM RESTS



- NOTES:
1. REFER TO MANUFACTURER'S INSTALLATION GUIDE FOR MORE DETAILS
 2. MATERIAL: POWDER COATED METAL
 3. COLOR: ARGENTO
 4. SEAT AND BACK: IPE WOOD
 5. SEE PLAN LAYOUT FOR LOCATION

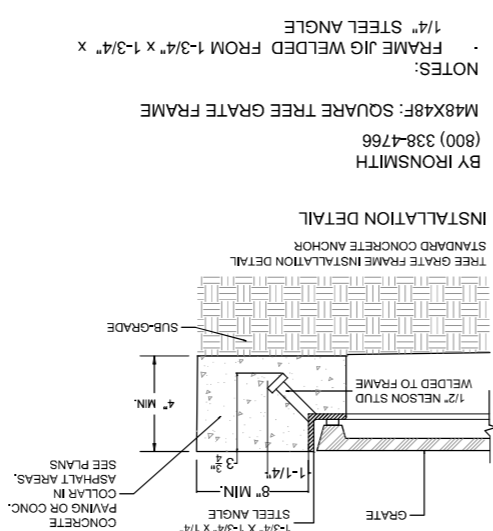
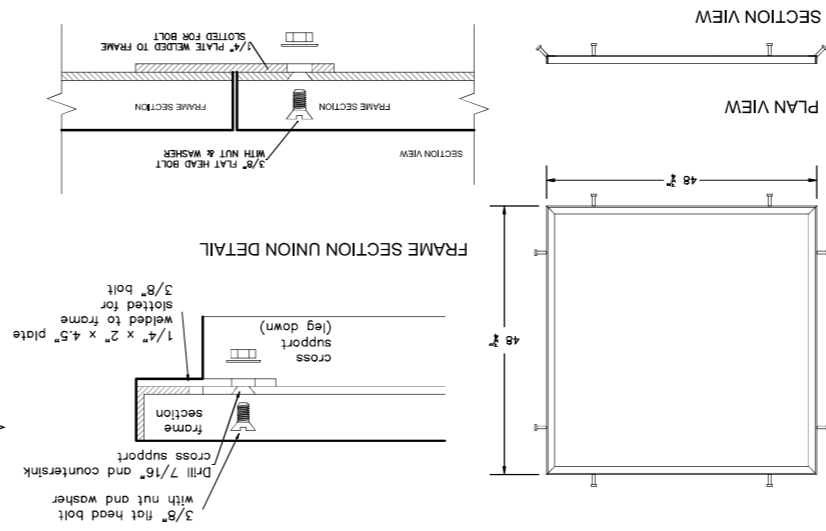
1 4'X4' TREE GRATE



- SLOT WIDTH IS 1/2"
- COMPLIANCE: MAXIMUM, MEETS ADA
- GRATE CAST FROM IRON - UNFINISHED
- TREE OPENING SIZE: 18"
- FOR INSTALLATION USE FRAME MODEL 4800F - SEE DETAIL
- OUTER FRAME DIM. IS 3/4" ± 1/8" GREATER THAN GRATE.

BY IRONSMITH
(800) 338-4766
TREE GRATE #M4840
STYLE: MARKET STREET

2 4'X4' TREE GRATE FRAME

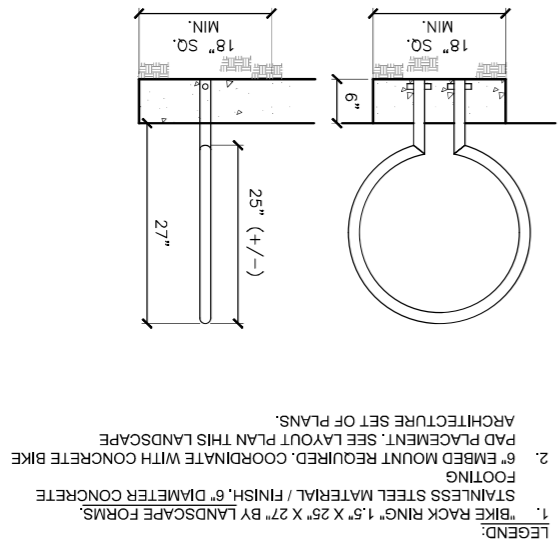


BY IRONSMITH
(800) 338-4766
M48X48F: SQUARE TREE GRATE FRAME

NOTES:

- FRAME JIG WELDED FROM 1-3/4" x 1-3/4" x 1/4" STEEL ANGLE

3 BIKE RACK RING BY LANDSCAPE FORMS



- LEGEND:
1. BIKE RACK RING 1.5" X 25" X 27" BY LANDSCAPE FORMS. STAINLESS STEEL MATERIAL / FINISH: 6" DIAMETER CONCRETE FOOTING
 2. 6" EMBED MOUNT REQUIRED. COORDINATE WITH CONCRETE BIKE PAD PLACEMENT. SEE LAYOUT PLAN THIS LANDSCAPE ARCHITECTURE SET OF PLANS.

SCALE	AS NOTED
JOB NO.	11144902
DESIGNED	SAR
DRAWN	SAR
FILE	2000LSP001.dwg
CHECKED	SAR
DATE	3-8-19
L-504	



STREET FURNITURE DETAILS
Landscape Architecture - N. Water St., Oak St., & Petaluma Blvd.
NORTH RIVER APARTMENTS
The Spanos Companies
Petaluma, California



NO.	REVISION	DATE

VALVE SCHEDULE CONTROLLER A

NUMBER	MODEL	SIZE	TYPE	GPM	PSI	PRECIP
A1	Rain Bird PESBR	1"	Bubbler	2.00	32.14	2.09 in/h
A2	Rain Bird XCZ-100-PRB-R	1"	Area for Dripline	0.95	21.63	0.43 in/h
A3	Rain Bird XCZ-100-PRB-R	1"	Area for Dripline	10.68	28.91	0.43 in/h
A4	Rain Bird PESBR	1"	Bubbler	10.50	34.82	1.89 in/h
A5	Rain Bird PESBR	1"	Bubbler	5.33	33.76	0.43 in/h
A6	Rain Bird XCZ-100-PRB-R	1"	Area for Dripline	0.29	21.00	0.43 in/h
A7	Rain Bird XCZ-100-PRB-R	1"	Area for Dripline	2.46	23.62	0.43 in/h
A8	Rain Bird PESBR	1"	Bubbler	6.00	35.76	1.99 in/h

VALVE SCHEDULE CONTROLLER B

NUMBER	MODEL	SIZE	TYPE	GPM	PSI	PRECIP
B1	Rain Bird XCZ-100-PRB-R	1"	Area for Dripline	0.84	21.42	0.43 in/h
B2	Rain Bird PESBR	1"	Bubbler	6.00	35.60	2.01 in/h

VALVE SCHEDULE CONTROLLER C

NUMBER	MODEL	SIZE	TYPE	GPM	PSI	PRECIP
C1	Rain Bird PESBR	1-1/2"	Bubbler	7.00	39.02	1.87 in/h
C2	Rain Bird XCZ-100-PRB-R	1"	Area for Dripline	0.74	21.42	0.43 in/h
C3	Rain Bird PESBR	1-1/2"	Bubbler	17.00	38.64	1.99 in/h
C4	Rain Bird XCZ-100-PRB-R	1"	Area for Dripline	1.43	21.86	0.43 in/h

IRRIGATION SCHEDULE FOR P.O.C. #1 (A)

SYMBOL	MANUFACTURER/MODEL/DESCRIPTION	QTY
1-601 1-602	Rain Bird RWS-MB-C-P-SOCK Mini Root Watering System with 4.0" diameter x 18.0" long with locking grate, semi-rigid mesh tube and Rain Bird 1401 0.25 gpm or 1402 0.5 gpm bubbler as indicated. With Check Valve, Purple Grate, and Sand Sock for sandy soil.	52

IRRIGATION SCHEDULE FOR P.O.C. #2 (B)

SYMBOL	MANUFACTURER/MODEL/DESCRIPTION	QTY
1-601 1-602	Rain Bird RWS-MB-C-P-SOCK Mini Root Watering System with 4.0" diameter x 18.0" long with locking grate, semi-rigid mesh tube and Rain Bird 1401 0.25 gpm or 1402 0.5 gpm bubbler as indicated. With Check Valve, Purple Grate, and Sand Sock for sandy soil.	12

IRRIGATION SCHEDULE FOR P.O.C. #3 (C)

SYMBOL	MANUFACTURER/MODEL/DESCRIPTION	QTY
1-601 1-602	Rain Bird RWS-MB-C-P-SOCK Mini Root Watering System with 4.0" diameter x 18.0" long with locking grate, semi-rigid mesh tube and Rain Bird 1401 0.25 gpm or 1402 0.5 gpm bubbler as indicated. With Check Valve, Purple Grate, and Sand Sock for sandy soil.	46

SYMBOL	MANUFACTURER/MODEL/DESCRIPTION	QTY
■	Rain Bird XCZ-100-PRB-R Wide Flow Drip Control Kit for Commercial Applications. Purple Cap designates for Reclaimed Water, Non-Potable Use. 1" PESBR Valve and 1" Pressure Regulating 40psi Basket Filter. 0.3gpm to 20gpm.	4

SYMBOL	MANUFACTURER/MODEL/DESCRIPTION	QTY
■	Rain Bird XCZ-100-PRB-R Wide Flow Drip Control Kit for Commercial Applications. Purple Cap designates for Reclaimed Water, Non-Potable Use. 1" PESBR Valve and 1" Pressure Regulating 40psi Basket Filter. 0.3gpm to 20gpm.	1

SYMBOL	MANUFACTURER/MODEL/DESCRIPTION	QTY
■	Rain Bird XCZ-100-PRB-R Wide Flow Drip Control Kit for Commercial Applications. Purple Cap designates for Reclaimed Water, Non-Potable Use. 1" PESBR Valve and 1" Pressure Regulating 40psi Basket Filter. 0.3gpm to 20gpm.	2

SYMBOL	MANUFACTURER/MODEL/DESCRIPTION	QTY
☛	Area to Receive Dripline Rain Bird XFS-06-18-NP XFS Non Potable Sub-Surface Pressure Compensating Dripline w/Copper Shield Technology. 0.6 GPH emitters at 18" O.C. Laterals spaced at 18" apart, with emitters offset for triangular pattern. UV Resistant. Specify XF insert fittings.	2,157 l.f.

SYMBOL	MANUFACTURER/MODEL/DESCRIPTION	QTY
☛	Area to Receive Dripline Rain Bird XFS-06-18-NP XFS Non Potable Sub-Surface Pressure Compensating Dripline w/Copper Shield Technology. 0.6 GPH emitters at 18" O.C. Laterals spaced at 18" apart, with emitters offset for triangular pattern. UV Resistant. Specify XF insert fittings.	126.5 l.f.

SYMBOL	MANUFACTURER/MODEL/DESCRIPTION	QTY
☛	Area to Receive Dripline Rain Bird XFS-06-18-NP XFS Non Potable Sub-Surface Pressure Compensating Dripline w/Copper Shield Technology. 0.6 GPH emitters at 18" O.C. Laterals spaced at 18" apart, with emitters offset for triangular pattern. UV Resistant. Specify XF insert fittings.	362.8 l.f.

SYMBOL	MANUFACTURER/MODEL/DESCRIPTION	QTY
☛	Rain Bird PESBR 1" 1-1/2", and 2" Durable Chlorine-Resistant Valves for Reclaimed Water Applications. With Scrubber Mechanism Technology, and Purple Flow Control Handle.	4

SYMBOL	MANUFACTURER/MODEL/DESCRIPTION	QTY
☛	Rain Bird PESBR 1" 1-1/2", and 2" Durable Chlorine-Resistant Valves for Reclaimed Water Applications. With Scrubber Mechanism Technology, and Purple Flow Control Handle.	1

SYMBOL	MANUFACTURER/MODEL/DESCRIPTION	QTY
☛	Rain Bird PESBR 1" 1-1/2", and 2" Durable Chlorine-Resistant Valves for Reclaimed Water Applications. With Scrubber Mechanism Technology, and Purple Flow Control Handle.	2

SYMBOL	MANUFACTURER/MODEL/DESCRIPTION	QTY
☛	Nibco T-113 Class 125 bronze gate shut off valve with wheel handle, same size as mainline pipe diameter at valve location. Size Range - 1/4" - 3"	6

SYMBOL	MANUFACTURER/MODEL/DESCRIPTION	QTY
☛	Nibco T-113 Class 125 bronze gate shut off valve with wheel handle, same size as mainline pipe diameter at valve location. Size Range - 1/4" - 3"	2

SYMBOL	MANUFACTURER/MODEL/DESCRIPTION	QTY
☛	Nibco T-113 Class 125 bronze gate shut off valve with wheel handle, same size as mainline pipe diameter at valve location. Size Range - 1/4" - 3"	2

SYMBOL	MANUFACTURER/MODEL/DESCRIPTION	QTY
☛	Rain Bird EFB-CP 1-1/2" 1" 1-1/4", 1-1/2", 2" Brass Master Valve, that is Contamination Proof w/Self-Flushing Filter Screen, Globe Configuration, Reclaimed Water Compatible, and Purple Handle Cover Designates Non-Potable Water Use.	1

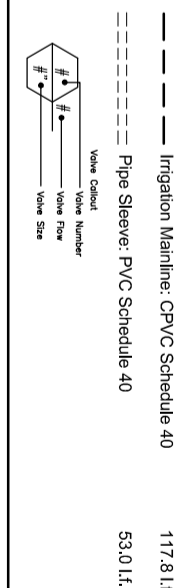
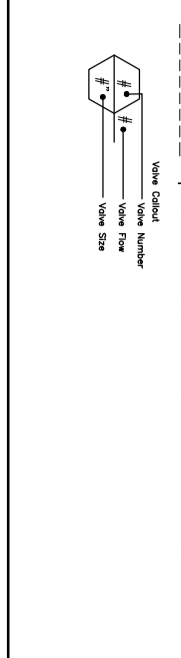
SYMBOL	MANUFACTURER/MODEL/DESCRIPTION	QTY
☛	Rain Bird EFB-CP 1-1/2" 1" 1-1/4", 1-1/2", 2" Brass Master Valve, that is Contamination Proof w/Self-Flushing Filter Screen, Globe Configuration, Reclaimed Water Compatible, and Purple Handle Cover Designates Non-Potable Water Use.	1

SYMBOL	MANUFACTURER/MODEL/DESCRIPTION	QTY
☛	Rain Bird EFB-CP 1-1/2" 1" 1-1/4", 1-1/2", 2" Brass Master Valve, that is Contamination Proof w/Self-Flushing Filter Screen, Globe Configuration, Reclaimed Water Compatible, and Purple Handle Cover Designates Non-Potable Water Use.	1

SYMBOL	MANUFACTURER/MODEL/DESCRIPTION	QTY
☛	Rain Bird FS-150-B 1-1/2" Flow Sensor for use with Rain Bird Maxicom, SiteControl, and ESP-LXD Central Control Systems. Brass Model. Suggested Operating Range of 2.0 GPM to 82.6 GPM. Sensors should be sized for flow rather than pipe size.	1

SYMBOL	MANUFACTURER/MODEL/DESCRIPTION	QTY
☛	Rain Bird FS-150-B 1-1/2" Flow Sensor for use with Rain Bird Maxicom, SiteControl, and ESP-LXD Central Control Systems. Brass Model. Suggested Operating Range of 2.0 GPM to 82.6 GPM. Sensors should be sized for flow rather than pipe size.	1

SYMBOL	MANUFACTURER/MODEL/DESCRIPTION	QTY
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NO.	REVISION	DATE	BY

GHD
943 Reserve Drive, Suite 100
Roseville, CA 95678 USA
T 1 916 782 8688 W www.ghd.com

IRRIGATION SCHEDULES
Landscape Architecture - N.Water St., Oak St., & Petaluma Blvd.
NORTH RIVER APARTMENTS
The Spanos Companies
Petaluma, California

L-601
SCALE: AS NOTED
JOB NO. 1114480Z
DESIGNED: SAK
DRAWN: SAK
FILE: 2000LSP001.049
CHECKED: SAK
DATE: 3-8-19

IRRIGATION WATER USE CALCULATIONS

MAWA (Maximum Allowed Water Allowance) Calculation
 Formula per State = $(E_{10}(0.62)(E_{TAF}+L_A) + (E_{TAF}^2)S_{LA})$
Annual Gallons Allowed = 37,553.51
 MAWA Criteria Petaluma, CA
 E₁₀ = 99.6
 E_{TAF} = 0.45
 L_A = 3,399.00
 S_{LA} = 0.00

ETWU (Estimated Total Water Use) Calculation

Hydro Zone	Valve Zones	PF	Irr Method	E	ETAF (F/E)	Landscape Area	ETAF x Area	ETWU (gal/yr)	
Water Feature	na	1	NA	1.00	0.00	0.00	0.00	0.00	
Vary Low	na	0.1	Drip	0.81	0.12	0.00	0.00	0.00	
Low	(A2,A3,A6,A7,B1,C2,C4)	0.3	Drip	0.81	0.37	2,663.00	986.30	24,215.55	
Medium	(A1,A4,A5,A8,B2,C1,C3)	0.5	Bubbler	0.81	0.62	736.00	454.32	11,154.49	
High	na	0.7	NA	0.81	0.85	0.00	0.00	0.00	
Totals							3,399.00	1,440.62	

SPECIAL LANDSCAPE AREAS

1	0	0.00	0.00
Totals	0	0.00	0.00

ETWU Total **35,370.04**
 MAWA **37,553.51**
 (ETWU should be less than MAWA)

ETAF Calculations

Total (ETAF x Area) / Total **0.42** Average ETAF should be below 0.45 for non-residential areas

REFERENCE FACTORS

ET o Rate	(Evaporation temperature rate for area)	(Petalsum)
ETAF	(factor from state for non-residential - used for MAWA)	0.45
	(factor from state for residential - used for MAWA)	0.55
CF (conversion factor)	(used to convert acre-inches/year to gal/yr per year)	0.62
IE (Irrigation Efficiency)	(from state - efficiency for drip)	0.81
PF (Plant Factor) High	(factor range from state or jurisdiction)	0.7-1.0
PF (Plant Factor) Medium	(factor range from state or jurisdiction)	0.4-0.9
PF (Plant Factor) Low	(factor range from state or jurisdiction)	0.1-1.3
PF (Plant Factor) Very Low	(factor range from state or jurisdiction)	0-1

CERTIFICATE OF COMPLETION FORM (to be completed by the landscape contractor)

CITY OF PETALUMA, CA
CERTIFICATE OF COMPLETION
 This certificate is filed out by the project applicant upon completion of the landscape project.

PART 1. PROJECT INFORMATION SHEET

Date	
Project Name	
Name of Project Applicant	
Telephone No.	
Fax No.	
Title	
Company	
Street Address	
City	
State	
Zip Code	

Project Address and Location:

Street Address	
City	
State	
Zip Code	

Property Owner or his/her designee:

Name	
Telephone No.	
Fax No.	
Email Address	
Company	
Street Address	
City	
State	
Zip Code	

Property Owner: I have reviewed copies of all the documents within the Landscape Documentation Package and the Certificate of Completion and that I am responsible to see that the project is maintained in accordance with the Landscape and Irrigation Maintenance Schedule.

Property Owner Signature _____ Date _____
 Please answer the questions below:
 1. Date the Landscape Documentation Package was submitted to the local agency: _____
 2. Date the Landscape Documentation Package was approved by the local agency: _____
 3. Date that a copy of the Water Efficient Landscape Worksheet (including the Water Budget Calculation) was submitted to the local water purveyor: _____

CERTIFICATE OF COMPLETION REQUIREMENTS (per City of Petaluma Code Section 15.17.050)
 Prior to the final city permit being issued, the project applicant or applicant shall submit a completed certificate of completion on a form prepared by the director of public works.

- The certificate of completion form shall include the following elements:
 - Project information.
 - Date.
 - Project name.
 - Project applicant name, telephone, and mailing address.
 - Project address and location.
 - Property owner name, telephone, and mailing address.
- Certification by either the signer of the landscape design plan, the signer of the irrigation design plan, or the licensed landscape contractor that the landscape project has been installed per the approved landscape documentation package.
- The certificate of completion shall be submitted to the city for review with the following attachments:
 - Irrigation Schedule.** All irrigation schedules shall be developed, managed and evaluated to utilize the minimum amount of water required to maintain plant health. Irrigation schedules shall meet the following criteria:
 - Irrigation scheduling shall be regulated by automatic irrigation controllers.
 - For implementation of the irrigation schedule, particular attention must be paid to irrigation run times, emission device, flow rate, and current reference evapotranspiration, so that applied water meets the ETWU. Total annual applied water shall be less than or equal to MAWA. Actual irrigation schedules shall be regulated by automatic irrigation controllers using current reference evapotranspiration data or soil moisture sensor data.
 - Parameters used to set the automatic controller shall be developed and submitted for each of the following:
 - Plant establishment period.
 - The established landscape.
 - Temporarily irrigated areas.
 - Each irrigation schedule shall consider for each station all of the following that apply:
 - Irrigation interval (days between irrigation).
 - Irrigation run times (hours or minutes per irrigation event) to avoid runoff.
 - Number of cycle starts required for each irrigation event to avoid runoff.
 - Amount of applied water scheduled to be applied on a monthly basis.
 - Application rate setting.
 - Root depth setting.
 - Plant type.
 - Slope factor setting.
 - Shade factor setting.
 - Irrigation uniformity or efficiency setting.
 - Landscape and Irrigation Maintenance Schedule.** A regular maintenance schedule shall be developed, which meets the following criteria:
 - Landscape shall be maintained to ensure water use efficiency.
 - The schedule shall include, but not be limited to, routine inspection; auditing, adjustment and repair of the irrigation system and its components; aerating and dethatching turf areas; topdressing with compost; replenishing mulch; fertilizing; pruning; weeding in all landscape areas; and removing any obstructions to emission devices.
 - Operation of the irrigation system outside the normal watering window is allowed for auditing and system maintenance.
 - Repair of all irrigation equipment shall be done with the originally installed components or their equivalents or with components with greater efficiency.
 - An irrigation maintenance schedule timeline that includes routine inspections, adjustments and repairs to the irrigation system, aerating and dethatching turf areas, replenishing mulch, fertilizing, pruning and weeding.
 - Landscape Irrigation Audit Report.** An audit report shall be developed which meets the following criteria:
 - Operating pressure of the irrigation system.
 - Distribution uniformity of overhead irrigation.
 - Precipitation rate of overhead irrigation.
 - Report of any overspray or broken irrigation equipment.
 - Irrigation schedule, plant establishment, irrigation schedule, and regular irrigation schedule by month that includes plant type, root depth, soil type, slope factor, shade factor, irrigation interval, irrigation runtimes, number of start times per irrigation day, gallons per minute for each valve, precipitation rate, distribution uniformity and monthly estimated water use calculations.
 - Verification that a diagram of the irrigation plan showing hydro-zones is kept with the irrigation controller for subsequent management purposes.
 - All landscape irrigation audits shall be conducted by a certified landscape irrigation auditor. Landscape audits shall not be conducted by the person who designed the landscape or installed the landscape.
 - In large projects or projects with multiple landscape installations an auditing rate of fifteen percent is required.
 - Soil management report.** If not submitted with the landscape documentation package, and documentation verifying implementation of soil report recommendations.
 - Copies of the approved certificate of completion shall be provided to the property owner or his or her designee.

PART 2. CERTIFICATION OF INSTALLATION ACCORDING TO THE LANDSCAPE DOCUMENTATION PACKAGE

The contractor shall certify that the irrigation schedule, site observations, the work has been completed in accordance with the ordinance and that the landscape planting and irrigation installation conform with the criteria and specifications of the approved Landscape Documentation Package.

PART 3. IRRIGATION SCHEDULING

Attach parameters for setting the irrigation schedule on controller per ordinance Section 15.17.050.

PART 4. SCHEDULE OF LANDSCAPE AND IRRIGATION MAINTENANCE

Attach schedule of Landscape and Irrigation Maintenance per ordinance Section 15.17.050.

PART 5. LANDSCAPE IRRIGATION AUDIT REPORT

Attach Landscape Irrigation Audit Report per ordinance Section 15.17.050.

PART 6. SOIL MANAGEMENT REPORT

Attach soil analysis report, if not previously submitted with the Landscape Documentation Package per ordinance Section 15.17.050.

PART 7. CITY OF PETALUMA STAFF APPROVAL

Is the above box checked? If yes, City staff gave final building permit approval. If no, the applicant must provide information to the project applicant regarding explication, appeal, or other assistance.

City of Petaluma Staff Signature	Date
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IRRIGATION SCHEDULES

Landscape Architecture - N. Water St., Oak St., & Petaluma Blvd.

NORTH RIVER APARTMENTS

The Spanos Companies
 Petaluma, California



943 Reserve Drive, Suite 100
 Roseville, CA 95678 USA
 T 1 916 782 8688 W www.ghd.com

No.	REVISION	DATE	BY



SCALE	AS NOTED
JOB NO.	1114480Z
DESIGNED	SAB
DRAWN	SAB
FILE	2000LSP001.dwg
DRAWN	SAB
DATE	3-8-19

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 or

PLANT SCHEDULE OAK AND WATER ST NORTH

TREES	QTY	BOTANICAL NAME	COMMON NAME	CONT
	2	Acer rubrum 'Armstrong' Medium Water Use	Armstrong Red Maple	24" Box
	2	Arbutus x 'Marna' Low Water Use	Strawberry Tree - Standard	24" Box
	20	Platanus x acerifolia 'Columbia' Medium Water Use	Columbia London Plane Tree	24" Box
	3	Quercus agrifolia Oak Tree Mitigation Tree - Low Water Use	Coast Live Oak	48"box
	5	Rhaphtolepis indica 'Majestic Beauty' TM Low Water Use	Majestic Beauty Indian Hawthorn	36" Box

SHRUBS	QTY	BOTANICAL NAME	COMMON NAME	CONT
	24	Callistemon citrinus 'Little John' Low Water Use	Dwarf Bottle Brush	5 gal
	32	Dielsia vegeta 'Johnsoni' Low Water Use	Fortnight Lily	5 gal
	2	Nandina domestica 'Moon Bay' TM Low Water Use	Moon Bay Nandina	5 gal
	13	Phoridium tenax 'Apricot Queen' Low Water Use	New Zealand Flax	5 gal
	17	Phoridium tenax 'Dark Delight' Low Water Use	Dark Delight Flax	5 gal
	2	Prunus caroliniana 'Compacta' Low Water Use	Carolina Cherry	15 gal
	5	Rhaphtolepis indica 'Ballena' Low Water Use	Indian Hawthorne	5 gal
	35	Tulbaghia violacea Low Water Use	Society Garlic	1 gal

NATIVE SHRUBS	QTY	BOTANICAL NAME	COMMON NAME	CONT
	12	Cistus x skanbergii Low Water Use	Coral Rockrose	5 gal
	7	Heteromeles arbutifolia Low Water Use	Toyon	5 gal
	14	Salvia greggii 'Lipstick' Low Water Use	Autumn Sage	5 gal

GROUND COVERS	CODE	QTY	BOTANICAL NAME	COMMON NAME	CONT	SPACING
	LOM BRE	314	Lomandra longifolia 'Breeze' Low Water Use	Dwarf Mat Rush	1 gal	18" o.c.
	MAH RE2	165	Mahonia repens Low Water Use	Creeping Mahonia	1 gal	24" o.c.
	RIV SIZ	20 sf	ROCK MULCH GROUND COVER Includes Filter Fabric	3-6" WASHED RIVER RUN COBBLE	SF	
	TRA AS2	48	Trachelospermum asiaticum 'Asiatic' Medium Water Use	Asian Dwarf Star Jasmine	1 gal	24" o.c.

CALIFORNIA NATIVE	CODE	QTY	BOTANICAL NAME	COMMON NAME	CONT	SPACING
	EC	50	Epilobium canum 'Schierlein's Choice' Low Water Use	Prostrate California Fuchsia	1 gal	24" o.c.

PRE-TREATMENT PLANT	CODE	QTY	BOTANICAL NAME	COMMON NAME	CONT	SPACING
	JUN CAR	161	Juncus patens 'Carmen's Grey' Medium Water Use, used in storm water pre-treatment basin.	Spreading Rush	1 gal	18" o.c.

PLANT SCHEDULE WATER STREET SOUTH

TREES	QTY	BOTANICAL NAME	COMMON NAME	CONT
	8	Lagerstroemia x 'Tuscarora' Low Water Use	Crape Myrtle Coral Pink	24" Box
	19	Platanus x acerifolia 'Columbia' Medium Water Use	Columbia London Plane Tree	24" Box

SHRUBS	QTY	BOTANICAL NAME	COMMON NAME	CONT
	5	Cordylone x 'Electric Pink' Low Water Use	Pink Cordylone	5 gal
	59	Lomandra longifolia 'Breeze' Low Water Use	Dwarf Mat Rush 'Breeze'	1 gal
	58	Tulbaghia violacea Low Water Use	Society Garlic	1 gal

PRE-TREATMENT PLANT	CODE	QTY	BOTANICAL NAME	COMMON NAME	CONT	SPACING
	JUN CAR	96	Juncus patens 'Carmen's Grey' Medium Water Use, used in storm water pre-treatment basin.	Spreading Rush	1 gal	18" o.c.

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