



TENANT IMPROVEMENT OF AN EXISTING 10,983 SQ FT COMMERCIAL BUILDING WITH 4700 SQ FT ADDITION INTO A 15,683 SQ FT MARKET.

OCCUPANCY - M "MERCANTILE" CONSTRUCTION - TYPE V NON-RATED, SPRINKLERED NFPA 13 GENERAL PLAN - RETAIL & BUSINESS SERVICES ZONING - CG

THE PROJECT IS A TWO-STORY NON-ELEVATOR BUILDING WITH EQUIVALENT FACILITATION OF MEETING ROOM AND TOILET FACILITIES ON SECOND FLOOR ALSO PROVIDED ON FIRST FLOOR

# Project Team

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# Project Information

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E1.1 SITE PLAN

E1.2 SITE LIGHTING PLAN

# Applicable Codes

- SANTA ROSA CITY CODE

- PRIVATE UNDERGROUND MAIN
- FIRE SPRINKLER SYSTEM
- FIRE SPRINKLER MONITORING
- COUNTY HEALTH DEPARTMENT





Neighborhood Context Map

![](_page_1_Picture_2.jpeg)

![](_page_2_Picture_0.jpeg)

![](_page_2_Picture_1.jpeg)

![](_page_2_Picture_2.jpeg)

![](_page_2_Picture_3.jpeg)

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![](_page_2_Picture_13.jpeg)

![](_page_2_Picture_14.jpeg)

Site Photos G.3

![](_page_3_Figure_0.jpeg)

## CAR PARKING CALCULATIONS:

Minor use permit pursuant to 20-36.050.C.1.c Request Minor Use permit to allow reduction of parking of more than 25% as described below: • Our intended users: The property is located in census tract 1514.05. The census tract is made up of 55% Hispanic community members. This is one of our primary target users and the reason we selected this site.

- use and the market will provide a much needed use to the nearby residents.
- target user and will provide a much needed quality market for these nearby residents.

- community. (25% reduction or 16.75 stalls)
- compatibility of uses and walkability to the intended target users.
- We propose to install 20 bicycle parking spaces; some of which will be designated for employees.
- all weekends and holidays.

parcel map for 2970 Santa Rosa Avenue:

"Lots 1 & 2 are subject to reciprocal easements which include access, parking, water, sewer, utilities, drainage and irrigation as described in the agreements entitled "Grant of Reciprical Easements and Declarations of Covenants and Restrictions for 2970 Santa Rosa Ave." (in the title report number 1992-82353 dated July 7, 1992, and title report number 1992-98739 dated August 12, 1992) recorded contemporaneously with this map."

• There are approximately 900 residential units within 1/4 mile of the site. Therefore the site is very walkable for the target user. This is a unique

• There are several apartment developments within 1 mile of the market such as Santa Rosa Avenue Apartments across the street, Brix 325, Kawana Springs, Los Pinos, Cedar Grove, Quail Run, Vineyard Gardens and Bella Vita Apartments, therefore the site is very bikeable for the

• In addition, there is a hotel next door and numerous businesses surrounding the property, which are also within 1/4 mile of the site.

• The project includes office space intended for the onsite market and quick serve restaurant use. This space will essentially be a shared space as it will be used by the same employees of the facility and therefore would not be an increased demand for parking (10 stalls).

• The storage space is intended as an accessory for the use of the site and therefore does not increase demand for parking. (1 stall).

• The property is surrounded by the target user (hotel, residential, other businesses) There is not a use similar to this that would provide the mix of uses that is highly needed in this neighborhood. For example, the market would be valuable for the surrounding Spanish-speaking

• While the site itself does not have mixed use with on site residential, the residential uses within 1/4 mile provide the mix of uses that allow for

• There is a transit stop within 300 feet of the site. While this is not a major transit stop at this time, this stop provides opportunity for our employees. For this reason we will provide transit cards at a reduced cost to employees to encourage use of transit.

• We will offer delivery service and will partner with a delivery and or ride sharing service to encourage alternate modes of travel.

• Due to the nature of our business, the majority of our busiest hours are after 4pm and our busiest days are on weekends. The adjacent business of which we are subject to reciprocal easements will have operating hours of Monday thru Friday from 8am - 4pm and are closed on

## TOTAL CAR STALLS PROVIDED: 78 (35 stalls on lot + 43 stalls on adjacent property to the north (lot #1) per parking easement) per the recorded

	Anderson Anderson Anderson Anderson Anterture and planning Arst stonehedge drive Santa rosa ca 95405 Jor. 23.7010
11.30° S0°50'20'E	MASAMIGAS MERCADO Banta Rosa, California SALVADOR CRUZ, OWNER PROJECT LOCATION: 2970 SANTA ROSA CA 95407 (707) 568-3482 OFFICE ADDRESS: 348 TODD RD, SANTA ROSA CA 95407
Architectural Site Plan	SHOTTONA CALLED A CHITECTURAL SITE PLAN CALLED A CHITECTURAL SITE A CH

![](_page_4_Figure_0.jpeg)

![](_page_5_Figure_0.jpeg)

![](_page_5_Picture_2.jpeg)

![](_page_6_Figure_0.jpeg)

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![](_page_9_Figure_0.jpeg)

![](_page_9_Figure_1.jpeg)

	PIPE	SCUPPER PIPE
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![](_page_9_Figure_4.jpeg)

![](_page_9_Figure_7.jpeg)

6  $\rightarrow$ OPEN A A3.1 NEW ROOF SCUPPER NEW DOWNSPOUT -PORTION OF (E) NEW ACCENT BAND. MATCH EXISTING 🦳 NEW TRELLIS <u>\_</u> \_ \_\_\_\_ \_ \_ \_ [-----SECTION B

![](_page_10_Figure_1.jpeg)

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![](_page_12_Picture_0.jpeg)

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MASAMIGAS MERCADO Santa Rosa, California

S **3D MODEL IMAGE** 

![](_page_12_Picture_6.jpeg)

Revisions 230331 Plng Sbmt 241122 Rev. Plng Sbmt

Job Number 2127

Project Designer PAUL GILGER

Drawn By PAUL GILGER

CONTRACT: NOV 2021

![](_page_13_Figure_1.jpeg)

![](_page_13_Picture_2.jpeg)

## LEGEND

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RECORD BOUNDARY LINE (E) FLOWLINE WOOD FENCE WIRE FENCE LIMITS OF RESTRIPING LIMITS OF (P) GRADING/SITE FLATWORK (E) STRIPING TO BE REMOVED (E) STRIPING TO REMAIN (P) STRIPING EXISTING MINOR CONTOURS EXISTING MAJOR CONTOURS PROPOSED MINOR CONTOURS PROPOSED MAJOR CONTOURS ACCESSIBLE PATH OF TRAVEL CONTROL POINT W/# FIRE HYDRANT SPOT ELEVATION TREE TYPE & DIA. TREE TYPE & DIA. SHEET FLOW DIRECTION SITE WORK KEYNOTES

## SURFACE LEGEND

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(E) BUILDING (P) TRUNCATED DOMES PER 11B-705 (E) AC SURFACE (P) CONCRETE SURFACE SAD (E) CONCRETE SURFACE (E) LANDSCAPE (P) AC SURFACE

## **ABBREVIATIONS**

NTS NOT TO SCALE

IC	ASPHALT CONCRETE	0/	OVER
D	AREA DRAIN	ОС	ON CENTER
RW	BOTTOM OF WALL	(P)	PROPOSED
B	CATCH BASIN	PERF	PERFORATED
Z	CENTERLINE	POT	PATH OF TRAVEL (ADA)
ĽR	CLEAR	PUE	PUBLIC UTILITY EASEMENT
MP	CORRUGATED METAL PIPE	RC	RELATIVE COMPACTION
0	CLEAN OUT	RCP	REINFORCED CONCRETE PIPE
ΥY	CUBIC YARDS	RET	RETAINED
)/	DRAIN INLET	ROW	RIGHT OF WAY
S	DOWNSPOUTS	SAD	SEE ARCHITECTURAL DRAWINGS
E)	EXISTING	SF	SQUARE FEET
G	EXISTING GRADE	SIM	SIMILAR
LEV	ELEVATION	SLD	SEE LANDSCAPE DRAWINGS
F	FINISHED FLOOR	SPP	SMOOTH PLASTIC PIPE
G	FINISHED GRADE	SS	SANITARY SEWER
Z	FLOW LINE	STA	STATION
5	FINISHED SURFACE	S/B	SETBACK
B	GRADE BREAK	TBR	TO BE REMOVED
EO	GEOTECHNICAL	TFC	TOP FACE OF CURB
IG	HISTORICAL GRADE	TG	TOP OF GRATE
IP	HIGH POINT	ΤΥΡ	TYPICAL
AX	MAXIMUM	UON	UNLESS OTHERWISE NOTED
1/N	MINIMUM	USP	UNDER SEPARATE PERMIT
TS	NOT TO SCALE	VIF	VERIFY IN FEILD

# THE AVENUE MERCADO **PROPOSED SITE PLAN** 2970 SANTA ROSA AVE, SANTA ROSA APN: 044-280-079

GRAPHIC SCALE

	TOTAL NEW/REPLACEN	MENT IMPERVIOUS SURFACE = 9,931 S.F.
-		
	SHEET II	NDEX
	C1	TITLE SHEET
	C2	NOTES
	C3	EXISTING SITE PLAN & UTILITIES
	C4	CIVIL SITE PLAN
	С5	DETAILS

ZONING: CG <u>LOT AREA</u>

SURVEY NOTES:

![](_page_13_Figure_22.jpeg)

## **GENERAL**

- 1. ALL MATERIALS, WORKMANSHIP AND CONSTRUCTION SHALL CONFORM TO THE CURRENT CITY OF SANTA ROSA DESIGN AND CONSTRUCTION STANDARDS AND CONSTRUCT SPECIFICATIONS FOR PUBLIC IMPROVEMENTS.
- 2. CONTRACTOR SHALL OBTAIN AND PAY FOR ALL CONSTRUCTION PERMITS REQUIRED BY THE CITY OF SANTA ROSA (SUCH AS ENCROACHMENT, GRADING, BUILDING, DEMOLIT ETC.) PRIOR TO COMMENCEMENT OF WORK.
- 3. AN ENCROACHMENT PERMIT MUST BE OBTAINED FROM THE DEPARTMENT OF PUBLIC WORKS PRIOR TO BEGINNING ANY WORK WITHIN THE PUBLIC RIGHT-OF-WAY. A CONTROL PLAN MUST BE SUBMITTED FOR APPROVAL PRIOR TO BEGINNING ANY WORK WITHIN THE PUBLIC RIGHT-OF-WAY.
- 4. THE CONTRACTOR SHALL OBTAIN A DE-WATERING PERMIT FROM THE NORTH COAST REGIONAL WATER QUALITY CONTROL BOARD FOR DE-WATERING OPERATIONS THAT USED TO MANAGE THE REMOVAL OF GROUND WATER FROM EXCAVATIONS AND THEIR DISCHARGE TO THE WATERS OF THE STATE OR THE STORM DRAIN SYSTEM. APPI MUST BE OBTAINED FROM THE CITY OF SANTA ROSA ENVIRONMENTAL COMPLIANCE DIVISION PRIOR TO DISCHARGING GROUNDWATER TO THE SEWER.
- 5. TEMPORARY STOCKPILES SHALL NOT BE LOCATED WITHIN CREEK SETBACK AREAS. PROTECTED VEGETATION/TREE AREAS OR WITHIN 10 FEET OF AN ADJACENT RESIDE
- PROPERTY LINE. STOCKPILES TALLER THAN 2.5 FEET SHALL NOT BE WITHIN 50 FEET OF AN ADJACENT RESIDENTIAL PROPERTY LINE. 6. TEMPORARY STOCKPILES MUST BE REMOVED BY COMPLETION OF GRADING ACTIVITIES UNLESS A SEPARATE TEMPORARY USE PERMIT AND GRADING PERMIT IS OBTAINED THE STOCKPILE.
- 7. RAIN WATER LEADERS AND ROOF DRAINS ARE TO BE CONNECTED BY DEVELOPER TO STORM DRAIN SYSTEM OR SPLASH BLOCK. SEE ARCHITECTURAL PLANS FOR
- LOCATIONS AND SIZES. NO CONCENTRATED LOT DRAINAGE SHALL FLOW ACROSS SIDEWALKS. 8. CONTRACTOR SHALL SECURE A TRENCH PERMIT FROM THE CALIFORNIA DIVISION OF INDUSTRIAL SAFETY PRIOR TO EXCAVATION OF ANY TRENCH OVER FIVE FEET IN DEPTH.
- 9. IF CONTAMINATED MATERIAL IS ENCOUNTERED DURING CONSTRUCTION, WORK MUST STOP UNTIL A WORK PLAN HAS BEEN APPROVED IN WRITING BY THE CITY DEPARTMENT AND THE STATE REGIONAL WATER QUALITY CONTROL BOARD (NCRWQCB). HAZARDOUS MATERIAL SHALL BE REMOVED AND DISPOSED OF ACCORDING TO REQUIREMENTS OF THE CITY'S FIRE DEPARTMENT. THE APPLICANT IS REQUIRED TO DEMONSTRATE COMPLIANCE WITH STATE AND LOCAL CODES FOR REMOVAL OF ASBE CONTAINING MATERIALS DURING DEMOLITION OF THE STRUCTURES ON THE PROJECT SITE.
- 10. ALL TRENCH SPOILS SHALL BE REMOVED AS THEY ARE GENERATED OR DISPOSED OF ON SITE AS REQUIRED BY THE GRADING PERMIT. EXCESS/UNSUITABLE MAT. DISPOSED OF OFFSITE AT AN APPROVED LOCATION BY ENGINEERING DEVELOPMENT SERVICES. CONTAIN AND SECURELY PROTECT STOCKPILED TRENCH BACKFILL AND MATERIAL FROM WIND AND RAN AT ALL TIMES UNLESS ACTIVELY BEING USED. DO NOT BLOCK STORM WATER FLOWS.
- 11. ALL UNDERGROUND IMPROVEMENTS INCLUDING SEWER LINES, WATER LINES, STORM DRAINS, PUBLIC UTILITY FACILITIES, AND SERVICES SHALL BE INSTALLED, TESTED, ACCEPTED BY THE UTILITIES AND PUBLIC WORKS DEPARTMENTS PRIOR TO PAVING. TRENCH PAVING FOR ALL UTILITIES SHALL BE COORDINATED AND INSTALLED AT THE
- 12. CONSTRUCTION CONTRACTOR AGREES THAT IN ACCORDANCE WITH GENERALLY ACCEPTED CONSTRUCTION PRACTICES, CONSTRUCTION CONTRACTOR WILL BE REQUIRED ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR JOB SITE CONDITIONS DURING THE COURSE OF CONSTRUCTION OF THE PROJECT, INCLUDING SAFETY OF ALL PER AND PROPERTY. THIS REQUIREMENT SHALL BE MADE TO APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS. THE CONSTRUCTION CONTRAC FURTHER AGREES TO HOLD HARMLESS, INDEMNIFY AND DEFEND THE DESIGN PROFESSIONAL, THE OWNER AND THEIR CONSULTANTS, AND THE CITY OF SANTA ROSA, EACH OF THEIR OFFICERS, EMPLOYEES, AND AGENTS FROM ANY AND ALL LIABILITY, REAL OR ALLEGED, IN CONNECTION WITH THE PERFORMANCE OF WORK ON PROJECT, EXCEPTING LIABILITY ARISING FROM THE SOLE NEGLIGENCE OF THE DESIGN PROFESSIONAL.
- 13. THE LOCATIONS OF UNDERGROUND OBSTRUCTIONS SHOWN ON THE DRAWINGS ARE APPROXIMATE ONLY AND SHOULD NOT BE TAKEN AS FINAL OR ALL INCLUSIVE. CONTRACTOR IS CAUTIONED THAT THE DRAWINGS MAY NOT INCLUDE ALL EXISTING UTILITIES INCLUDING SEWERS AND STORM DRAINS PRIOR TO ANY TRENCHING TO THE ENGINEER TO VERIFY THE GRADE AND ALIGNMENT OF THE UTILITIES, AND VERIFY DESIGN ASSUMPTIONS AND EXACT FIELD LOCATION. EXISTING UTILITIES MAY RE RELOCATION AND /OR PROPOSED IMPROVEMENTS MAY REQUIRE GRADE OR ALIGNMENT REVISION DUE TO FIELD CONDITIONS.
- 14. THE CONTRACTOR SHALL EXPOSE ALL EXISTING UTILITIES INCLUDING SEWERS AND STORM DRAINS PRIOR TO ANY TRENCHING TO ALLOW THE ENGINEER TO VERIFY THE AND ALIGNMENT OF THE UTILITIES, AND TO VERIFY DESIGN ASSUMPTIONS AND EXACT FIELD LOCATION. EXISTING UTILITIES MAY REQUIRE RELOCATION AND/OR PROP IMPROVEMENTS MAY REQUIRE GRADE OR ALIGNMENT REVISION DUE TO FIELD CONDITIONS.
- 15. UNDERGROUND FACILITIES NOT SHOWN ON THESE DRAWINGS SUCH AS PG&E, TELEPHONE, TV, IRRIGATION, ETC. SHALL BE COORDINATED AND CONSTRUCTED PRIOR PLACEMENT OF BASE ROCK AND PAVING.
- 16. CONTRACTOR IS RESPONSIBLE FOR PRESERVATION AND/OR PERPETUATION OF ALL EXISTING SURVEY MONUMENTS (CURB TAGS, IRON PIPES, CENTERLINE WELL DISKS, IF THE CONTRACTOR SUSPECTS THAT WORK WILL BE CONDUCTED IN AN AREA WHICH MAY RESULT IN THE DISTURBANCE OF SURVEY MONUMENTS. THE CONTRACTOR RETAIN THE SERVICES OF A LICENSED PROFESSIONAL AUTHORIZED TO PRACTICE LAND SURVEYING TO LOCATE SAID MONUMENTS PRIOR TO DISTURBANCE, RE-ESTABL MONUMENTS WHICH HAVE BEEN DISTURBED AS A RESULT OF CONSTRUCTION AND FILE THE APPROPRIATE DOCUMENTATION WITH THE COUNTY ONCE THE MONUMENTS RESET. CONTRACTOR SHALL PROVIDE A MINIMUM OF 10 (TEN) WORKING DAYS NOTICE TO THE ENGINEER/SURVEYOR PRIOR TO DISTURBANCE OR REMOVAL OF EXIS MONUMENTS. CONTRACTOR SHALL PROVIDE THE CITY WITH A MONUMENT CERTIFICATION LETTER FROM THE ENGINEER/SURVEYOR STATING THAT THE EXISTING MONUME HAVE BEEN IDENTIFIED AND LOCATED PRIOR TO REMOVAL.
- 17. CONSTRUCTION HOURS SHALL BE LIMITED FROM 7 AM TO 7 PM MONDAY THROUGH SATURDAY, EXCLUDING HOLIDAYS. THIS RESTRICTION INCLUDES THE START UP OF MOTORIZED EQUIPMENT. ALL CONTRACTORS' EQUIPMENT SHALL BE PROPERLY MUFFLED AND SHALL BE SHUT DOWN WHEN NOT IN USE. (HOURS ARE SUBJECT TO CONDITIONS OF APPROVAL)
- 18. THE CONTRACTOR SHALL BE RESPONSIBLE FOR REPAIRING DAMAGE OR DETERIORATION OCCURRING TO EXISTING PUBLIC IMPROVEMENTS AS A DIRECT RESULT CONSTRUCTION ACTIVITY (GRADING, ROAD CONSTRUCTION, UTILITY INSTALLATION, ETC.). REPAIR MAY REQUIRE PATCHING, SEALING OR OVERLAYING AFFECTED AREAS APPROPRIATE TO RETURN THE ROADS TO AT LEAST AS GOOD A CONDITION AS THEY WERE PRIOR TO CONSTRUCTION. IF THE CONTRACTOR DOES NOT ACT IN A MANNER, THE CITY MAY, AT ITS DISCRETION PERFORM THE CORRECTION AND CHARGE THE CONTRACTOR FOR ALL COSTS AND OVERHEAD INCURRED.
- 19. THE CONTRACTOR SHALL KEEP THE WORK SITE, STAGING AREAS AND OTHER AREAS USED BY IT IN A NEAT AND CLEAN CONDITION, AND FREE FROM ANY ACCUMULATIC TRASH. THE CONTRACTOR SHALL DISPOSE OF ALL TRASH. RUBBISH AND WASTE MATERIALS OF ANY KIND GENERATED BY THE CONTRACTOR. SUBCONTRACTOR OR COMPANY HIRED BY THE CONTRACTOR ON A DAILY BASIS. THE CONTRACTOR SHALL ALSO KEEP HAUL ROADS FREE FROM DIRT, RUBBISH, AND UNNECESSARY OBSTRUCT RESULTING FROM SITE OPERATION. DISPOSAL OF ALL TRASH, RUBBISH AND DEBRIS MATERIALS SHALL BE IN A COVERED WASTE RECEPTACLE OR HAULED OFF SIT ACCORDANCE WITH LOCAL CODES AND ORDINANCES GOVERNING LOCATIONS AND METHODS OF DISPOSAL, AND IN CONFORMANCE WITH ALL APPLICABLE LAWS REGULATIONS. WASTE RECEPTACLES SHALL BE COVERED AT THE END OF EVERY DAY AND DURING RAIN EVENTS.
- 20. ENSURE THE CONTAINMENT OF SANITATION FACILITIES (E.G., PORTABLE TOILETS) TO PREVENT DISCHARGES OF POLLUTANTS TO THE STORM WATER DRAINAGE SYSTEM, OR RECEIVING WATERS. SANITATION FACILITIES MUST BE MAINTAINED PERIODICALLY BY A LICENSED SERVICE COMPANY TO KEEP THEM IN GOOD WORKING ORDET PREVENT OVERFLOWS. PORTABLE TOILETS ARE REQUIRED TO HAVE SECONDARY CONTAINMENT.
- 21. EQUIPMENT AND MATERIALS NECESSARY FOR CONTROL OF SPILLS SHALL BE AVAILABLE ON SITE AT ALL TIMES. SPILLS AND LEAKS SHALL BE STOPPED AND THE MAX CLEANED UP IMMEDIATELY AND DISPOSED OF PROPERLY. USE PROPER BEST MANAGEMENT PRACTICES (BMPS) TO PREVENT OIL, GREASE, OR FUEL FROM LEAKING ON GROUND, INTO THE STORM DRAINS OR SURFACE WATERS.
- 22. CONTAIN CONCRETE WASHOUT AREAS AND SIMILAR AREAS THAT MAY CONTAIN POLLUTANTS TO PREVENT DISCHARGE INTO THE UNDERLYING SOIL OR ONTO THE SURROU AREAS.
- 23. ESTABLISH AND MAINTAIN EFFECTIVE SITE PERIMETER CONTROLS AND STABILIZE ALL CONSTRUCTION ENTRANCES AND EXITS TO SUFFICIENTLY CONTROL EROSION SEDIMENT DISCHARGES AND TRACKED MATERIALS FROM LEAVING THE SITE. AT A MINIMUM DAILY AND PRIOR TO ANY RAIN EVENT, THE CONTRACTOR SHALL REMOVE SEDIMENT OR OTHER CONSTRUCTION ACTIVITY RELATED MATERIALS THAT ARE DEPOSITED ON THE ROADS (BY VACUUMING OR SWEEPING).
- 24. PLACE EQUIPMENT OR VEHICLES, WHICH ARE BEING FUELED, MAINTAINED AND STORED, IN A DESIGNATED AREA FITTED WITH APPROPRIATE BMPS.
- 25. AT A MINIMUM, ALL BMPS WILL BE INSPECTED EACH WORKING DAY AND BEFORE ALL RAIN EVENTS. BMPS THAT REQUIRE MAINTENANCE OR REPLACEMENT TO FUNC PROPERLY SHALL BE COMPLETED BEFORE THE NEXT FORECASTED RAIN, OR WITHIN THE NEXT 3 WORKING DAYS IF NO RAIN IS PREDICTED. MAINTENANCE INCLUDES REM OF ACCUMULATED SEDIMENT AND TRASH.
- 26. THE CONTRACTOR SHALL IMPLEMENT AND MAINTAIN ALL APPLICABLE BMPS LISTED IN THE EROSION CONTROL AND /OR STORM WATER POLLUTION PREVENTION PLAN.
- 27. ADA COMPLIANCE: CONSTRUCTION CONTRACTOR MUST COMPLY WITH THE REQUIREMENTS OF THE AMERICAN WITH DISABILITIES ACT (ADA) WHILE WORKING IN THE PUBLIC RIGHT-OF-WAY. IF CONSTRUCTION CONTRACTOR'S WORK IN THE PUBLIC RIGHT-OF-WAY WILL AFFECT PEDESTRIAN ACCESS, THE CONSTRUCTION CONTRACTOR IS REQUIRED TO PROVIDE A PROPERLY SIGNED ACCESSIBLE ROUTE OF TRAVEL. THIS REQUIREMENT SHALL APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS. 28. SECTION 39 ASPHALT CONCRETE OF THE CITY CONSTRUCTION SPECIFICATIONS FOR PUBLIC IMPROVEMENTS SHALL INCLUDE THE FOLLOWING:
- 29. LIQUID ANTI-STRIPPING AGENT (LAS) SHALL BE ADDED TO THE ASPHALT BINDER AT A RATE OF 0.5% BY WEIGHT OF ASPHALT BINDER. THE LAS SHALL BE AD-HERE LOF 65-00 OR EQUIVALENT, AND SHALL BE STORED, MEASURED AND BLENDED IN ACCORDANCE WITH THE LAS MANUFACTURER'S RECOMMENDED PRACTICE. THE LAS CAN BE ADDED TO THE ASPHALT BINDER AT THE ASPHALT PLANT OR AT THE REFINERY. WHEN ADDED AT THE ASPHALT PLANT, THE EQUIPMENT SHALL INDICATE AND RECORD THE AMOUNT OF LAS ADDED. IF ADDED AT THE REFINERY, THE SHIPPING TICKET FROM THE REFINERY SHALL CERTIFY THE TYPE AND AMOUNT OF LAS ADDED.
- 30. THE ASPHALT CONCRETE MIXTURE FOR ASPHALT CONCRETE SURFACE AND ASPHALT CONCRETE BASE SHALL CONFORM TO THE FOLLOWING REQUIREMENTS:
- 31. MINIMUM TENSILE STRENGTH RATIO (TSR) OF 70, AND A MINIMUM DRY TENSILE STRENGTH OF 65 POUNDS PER SQUARE INCH, BASED ON AASHTO T 283–07.
- 32. AT ANY TIME DURING THE FIRST 12 MONTHS FROM THE TIME OF PLACEMENT OF THE ASPHALT CONCRETE, THE SURFACE SHALL BE VISUALLY INSPECTED BY THE CITY. IF SIGNS OF STRIPPING OF BINDER FROM AGGREGATE OR LOSS OF AGGREGATE IS APPARENT, THE CITY SHALL CORE THE ASPHALT CONCRETE SURFACE. THE CORE SAMPLES SHALL BE PREPARED PER THE METHOD FOR FIELD-MIXED, LABORATORY-COMPACTED SPECIMENS AND TESTED FOR TSR. ASPHALT CONCRETE WITH A TSR LESS THAN 70 SHALL BE REMEDIATED AS REQUIRED BY THE CITY ENGINEER.
- 33. PERMANENT MONUMENTS AS SHOWN ON THE PLANS SHALL BE FURNISHED AND INSTALLED BY THE CONTRACTOR IN ACCORDANCE WITH THE STANDARD PLANS AFTER COMPLETION OF THE STREET IMPROVEMENTS AND STAKED IN THE FIELD BY THE ENGINEER OR SURVEYOR.
- 34. ENGINEER/SURVEYOR SHALL COORDINATE WITH THE CONTRACTOR TO RESET MONUMENTS OR PROVIDE PERMANENT WITNESS MONUMENTS AND FILE THE REQUIRED DOCUMENTATION WITH THE COUNTY SURVEYOR, PURSUANT TO BUSINESS AND PROFESSIONS CODE SECTION 8771.
- 35. IN THE EVENT THAT ANY REMAINS OF PREHISTORIC OR HISTORIC HUMAN ACTIVITIES ARE ENCOUNTERED DURING PROJECT—RELATED ACTIVITIES, WORK IN THE IMMEDIATE VICINITY OF THE FINDS SHALL HALT AND THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE PROJECT SUPERINTENDENT AND THE CITY OF SANTA ROSA INSPECTOR. WORK SHALL NOT RESUME UNTIL A QUALIFIED ARCHAEOLOGIST OR HISTORIC ARCHAEOLOGIST, AS APPROPRIATE, APPROVED BY THE CITY OF SANTA ROSA, HAS EVALUATED THE SITUATION AND MADE RECOMMENDATIONS FOR TREATMENT OF THE RESOURCE, AND WHOSE RECOMMENDATIONS ARE CARRIED OUT. IF HUMAN BURIAL REMAINS ARE ENCOUNTERED, THE CONTRACTOR MUST ALSO CONTACT THE COUNTY CORONER.

### GRADING

- 1. NO GRADING, CLEARING OR GRUBBING SHALL BE PERFORMED PRIOR TO ISSUANCE OF A BUILDING PERMIT BY THE CITY OF SANTA ROSA.
- 2. DUST CONTROL SHALL BE PROVIDED BY CONTRACTOR DURING ALL PHASES OF CONSTRUCTION.
- 3. SITE GRADING SHALL BE IN COMPLIANCE WITH CHAPTER 18 APPENDIX J, MOST RECENT EDITION OF THE CALIFORNIA BUILDING CODE.
- 4. DRAINAGE FROM UPSTREAM PROPERTIES SHALL NOT BE BLOCKED BY GRADING OR CONSTRUCTION OF IMPROVEMENTS.
- 5. THE CONTRACTOR SHALL PROTECT EXISTING DRAINAGE FACILITIES FROM SEDIMENTATION DURING ALL PHASES OF CONSTRUCTION.
- 6. HAZARDOUS MATERIAL SHALL BE REMOVED AND DISPOSED OF ACCORDING TO THE REQUIREMENTS OF THE CITY'S FIRE DEPARTMENT. THE APPLICANT IS REQUIRED TO DEMONSTRATE COMPLIANCE WITH STATE AND LOCAL CODES FOR REMOVAL OF ASBESTOS CONTAINING MATERIALS DURING DEMOLITION OF ANY STRUCTURES ON THE PROJECT SITE.
- 7. PRIOR TO ANY GRADING OPERATION, THE CONTRACTOR SHALL INSTALL PROTECTIVE FENCING AROUND THE DRIP LINE OF TREES TO BE SAVED IN COMPLIANCE WITH THE CITY TREE ORDINANCE. THE CUTTING, FILLING, PAVING OR TRENCHING WITHIN ROOT ZONES OF TREES TO BE SAVED MUST BE REVIEWED AND APPROVED BY A CITY APPROVED ARBORIST AND PERFORMED UNDER THEIR ON SITE SUPERVISION.
- 8. DRIP-LINES OF TREES OVERHANGING THE PROPERTY LINE SHALL BE AFFORDED THE SAME LEVEL OF PROTECTION AS TREES ON SITE THAT ARE TO REMAIN.

	VERTICAL CHANGES IN LEVEL ALONG AN ACCESSIBLE PATH SHALL NOT EXCEED ¼" FOR A SHARP EDGE, AND ½" FOR A BEVELED EDGE. 11B-30
B	ABRUPT CHANGES IN LEVEL ALONG AND ACCESSIBLE PATH EXCEEDING 4" IN VERTICAL DIMENSION BETWEEN THE WALK AND ADJACENT SURFACE SHALL BE IDENTIFIED BY WARNING CURBS AT LEAST 6" IN HEIGHT ABOVE THE WALK OR SIDEWALK SURFACE. WALKS ADJACENT TO DRIVEWAYS
Ċ	OR PROTECTED BY A GUARD ARE EXEMPT PER TTB-303.5. CIRCULATION PATHS CONTIGUOUS WITH AREAS OF VEHICULAR TRAFFIC SHALL BE PHYSICALLY SEPARATED FROM VEHICULAR TRAFFIC. PHYSICAL SEPARATION SHALL BE PROVIDED WITH CIRCULATION PATHS RAISED 4" MINIMUM ABOVE THE AREAS WHERE VEHICULAR TRAFFIC OCCURS. 11R-250
Ø	THE RUNNING SLOPE ALONG AN ACCESSIBLE PATHS SHALL NOT EXCEED 1:20 (5%) UNLESS ALONG A SPECIFIED RAMP. THE CROSS SLOPE OF AN ACCESSIBLE PATH SHALL NOT EXCEED 1:48 (2.083%) (11B-403)
$\widehat{E}$	WALKING SURFACES ALONG AN ACCESSIBLE PATH SHALL BE STABLE, FIRM, AND NON-SLIP (11B-403)
$\overleftarrow{F}$	CLEAR WIDTH OF SIDEWALK/WALKS ALONG AND ACCESSIBLE PATH SHALL BE 48" MINIMUM UNLESS REDUCED IN ACCORDANCE WITH 11B-403.5.1
<i>C</i>	RAMPS: RUNNING SLOPES OF RAMPS SHALL NOT EXCEED 1:12 (8.3%) WITH A CROSS SLOPE NOT TO EXCEED 1:48 (2.08%). CLEAR WIDTH OF RAMPS SHALL BE 48" WHERE HANDRAILS MAY PROJECT INTO THE REQUIRED WIDTH BY 3.5" ON EACH SIDE. (11B-405) A.THE MAXIMUM RISE FOR ANY SINGLE RAMP RUN IS 30". B.RAMPS MUST HAVE A LANDING AT THE TOP AND BOTTOM WITH A SLOPE NOT EXCEEDING 1:48. C.THE BOTTOM LANDING SHALL BE 72" IN LENGTH AND 48" WIDE. THE TOP LANDING SHALL BE 60" LONG BY 60" WIDE. D.RAMPS THAT CHANGE IN DIRECTION BETWEEN RUNS AT LANDINGS SHALL HAVE A CLEAR LANDING 60" BY 72" MINIMUM IN THE DIRECTION OF DOWNWARD TRAVEL FROM THE UPPER RAMP. E.RAMP RUNS SHALL INCLUDE HANDRAILS PER 11B-405
H	VERIFY ALL EXISTING AND PROPOSED SURFACES WITHIN THE PATH OF TRAVEL MEET ADA STANDARDS LISTED ABOVE. VERIFY PROPOSED HARDSCAPE CONFIRMING TO EXISTING HARDSCAPE MEETS ADA STANDARDS LISTED WITHIN THESE ASSESIBILITY NOTES. HOGAN LAND SERVICES IS NOT A CERTIFIED ACCESS SPECIALIST (CASP) AND ALL EXISTING SURFACES HAVE NOT BEEN VERIFIED. PLEASE CONTACT THIS OFFICE IMMEDIATEL SHOULD A DEFICIENCY BE DISCOVERED DURING CONSTRUCTION.
	PARKING STALL DETAILS: <u>VEHICLE SPACES</u> – CAR PARKING SINGLE SPACES SHALL BE 14 FEET WIDE MINIMUM. AND PROVIDE A 9–FOOT WIDE PARKING AREA AND A 5–FOOT WIDE ACCESS AISLE. WHEN MORE THAN ONE NON–VAN SPACE IS PROVIDED, TWO 9–FOOT WIDE SPACES MAY BE ON EACH SIDE AS A 5–FOOT WIDE LOADING AND UNLOADING ACCESS AISLE. <u>ACCESS AISLE LOCATION</u> – FOR SINGLE SPACES, ACCESS AISLES SHALL BE PERMITTED TO BE LOCATED ON EITHER SIDE OF THE VEHICLE. <u>VEHICLE SPACES – VAN PARKING (\$1109A.8.6)</u> – VAN–ACCESSIBLE PARKING SPACES SHALL BE 17 FEET WIDE MINIMUM, AND SHALL PROVIDE EITHER OF THE FOLLOWING:
	<ul> <li>A 12-FOOT WIDE MINIMUM PARKING AREA AND A 5-FOOT WIDE MINIMUM ACCESS AISLE.</li> <li>A 9-FOOT WIDE MINIMUM PARKING AREA AND AN 8-FOOT WIDE MINIMUM ACCESS AISLE.</li> <li><u>ACCESS AISLE LOCATION - VAN SPACES</u></li> </ul>
	ACCESS AISLES SHALL BE LOCATED ON THE PASSENGER SIDE OF THE VEHICLE WITH THE VEHICLE PARKED IN THE FORWARD POSITION. <u>ACCESS AISLE MARKINGS (\$1109A8.5.)</u>
	ACCESS AISLES SHALL BE MARKED BY A BLUE PAINTED BORDER WITH HATCHED LINES A MAXIMUM OF 36 INCHES ON CENTER PAINTED A COLOR CONTRASTING WITH
	THE PARKING SURFACE, PREFERABLY BLUE OR WHITE. THE WORDS "NO PARKING" SHALL BE PAINTED AN THE GROUND IN WHITE LETTERS NO LESS THAN 12 INCHES
	HIGH WITHIN EACH 5-FOOT WIDE ACCESS AISLE. <u>SLOPE OF PARKING SPACE:</u> SURFACE SLOPES OF DISABLED PARKING SPACES SHALL BE THE MINIMUM POSSIBLE AND SHALL NOT EXCEED 1 UN VERTICAL TO 50 UNITS HORIZONTAL (2% SLOPE) IN ANY DIRECTION.
	MARKINGS (GT1 U9A.8.8.2) THE PARKING SPACE SHALL BE MARKED WITH THE "INTERNATIONAL SYMBOL OF ACCESSIBILITY", IN WHITE ON A BLUE BACKGROUND, 36 INCHES
	WIDE BY 36 INCHES HIGH MINIMUM IN SIZE. THE CENTERLINE SHALL BE 6 INCHES MAXIMUM FROM THE CENTERLINE OF THE PARKING SPACE, ITS SIDES SHAL BE PARALLEL TO
	THE PARKING SPACE AND ITS LOWER SIDE SHALL BE ALIGNED WITH THE END OF THE PARKING SPACE.
$\bigcup$	<u>11B-705.1.1 GENERAL:</u> DETECTABLE WARNINGS SHALL CONSIST OF A SURFACE OF TRUNCATED DOMES AND SHALL COMPLY WITH SECTION 11B-705. CURB RAMPS, BLENDED TRANSITIONS, PLATFORM EDGES, AND CIRCULATION PATHS INTERSECTING WITH AREAS OF VEHICULAR TRAFFIC SHALL BE PROVIDED WITH DETECTIBLE WARNINGS PER 11B-247 AND 11B-25
	TTB-705.1.1.1 DOME SIZE: TRUNCATED DOMES IN A DETECTABLE WARNING SURFACE SHALL HAVE A BASE DIAMETER OF 0.9" (22.9MM) MINIMUM AND 0.92" (23.4MM) MAXIMUM, A TOP DIAMETER OF 0.45" (11.4MM) MINIMUM AND 0.47" (11.9MM) MAXIMUM, AND A HEIGHT OF 0.2" (5.1MM). 11B-705.1.1.2 DOME SPACING:
	TRUNCATED DOMES IN A DETECTABLE WARNING SURFACE SHALL HAVE A CENTER—TO—CENTER SPACING OF 2.3" (58MM) MINIMUM AND 2.4" (61MM) MAXIMUM, AND A BASE—TO—BASE SPACING OF 0.65" (16.5MM) MINIMUM, MEASURED BETWEEN THE MOST ADJACENT DOMES ON A SQUARE GRID.
K	<u>VERTICAL CLEARANCE:</u> A MINIMUM OF UNOBSTRUCTED CLEARANCE HEIGHT OF 14' SHALL BE MAINTAINED ABOVE AREAS ACCESSIBLE TO VEI IN NON-RESIDENTIAL PARKING FACILITIES.

[M] <u>SURFACING</u>: PARKING SPACES, DRIVEWAYS, AND MANEUVERING AND STORAGE AREAS SHALL BE PAVED AND PERMANENTLY MAINTAINED IN A GOOD DUST-FREE CONDITION WITH CITY DEVELOPMENT STANDARDS.

## STANDARD SITE IMPROVEMENT NOTES

1. ENCROACHMENT PERMIT: ANY IMPROVEMENTS, PROPOSED OR REQUIRED, WITHIN THE PUBLIC WAY OR ANY EXISTING PUBLIC SEWER OR WATER EASEMENTS SHALL BE REVIEWED AND APPROVED WITH AN ENCROACHMENT PERMIT APPLICATION. ONLY CONSTRUCTION PLANS SUBMITTED WITH THE ENCROACHMENT PERMIT APPLICATION ARE FINAL PLANS AND WILL BE APPROVED FOR CONSTRUCTION. SUBMIT PLANS SHOWING ALL WORK IN THE PUBLIC RIGHT OF WAY, OR IN PUBLIC EASEMENTS, INCLUDING ALL WORK ON PUBLIC UTILITIES (WATER METER BOXES, SEWER LATERAL CLEANOUTS, BACKFLOW DEVICES, ETC.) TO THE CITY OF SANTA ROSA FOR PERMIT PRIOR TO THE BEGINNING OF ANY WORK. NO WORK SHALL BE PERFORMED IN THE PUBLIC RIGHT-OF-WAY WITHOUT AN ENCROACHMENT PERMIT.

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THIS PLAN WAS PREPARED BY ME OR UNDER MY DIRECTION AT THE REQUEST OF		JAMES E. RENFRO RCE 72009	
WG/AC	AC	:: 11/5/24 t: 5869	
DRN:	<b>JGANDSERVICES</b>	A CALIFURNIA CURPURATION A HIGHWAY , CA 95409 www.hoganls.com FAX (707) 522-2105	
	I	4780 SONOM SANTA ROSA	
THE AVENUE MERCADO	NOTES	SANTA ROSA AVENUE 'A ROSA, CALIFORNIA APN: 044-280-079	
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WATER SERVICE EXHIBIT NTS

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![](_page_15_Picture_11.jpeg)

![](_page_15_Picture_12.jpeg)

![](_page_16_Figure_0.jpeg)

SITE WORK KEYNOTES		ENG RI JAPI	INEER	* SIADE
(P) ACCESSIBLE PATH FROM EXISTING SIDEWALK.		RECOUL	, 7200	51/12
(P) NEW ACCESSIBLE PATHWAY STRIPING WITH DETECTABLE WARNING.			NI	
(P) ACCESSIBLE CURB RAMP.	ЦЦ С	5	► REGIS	K 3
(P) ACCESSIBLE PARKING STALL PER DETAIL 1 SEE SHEET A1.3. (3 TOTAL ACCESSIBLE STALLS)	E OR	22.		022
( <i>P) PARKING STALL RE–STRIPING PER PLAN AND CURRENT SANTA ROSA CITY CODE SPECIFICATIONS.</i>	ВY MI HF RFO	Υ, 202 Υ		l'a
6 (P) ACCESSIBLE PATH OF TRAVEL SIDEWALK TO EMPLOYEE ENTRY DOOR, 4" CONCRETE WITH #3 @ 16" E.W. TYPICAL. ALL FLATWORK OVER CRUSHED ROCK BASE AND COMPACTED SUBGRADE.	PREPARED	N JANUAF	C	ي م
7) (P) ACCESSIBLE CURB RAMP. 1:12 MAX SLOPE.	AS F	SUZ I		3
8) (P) ACCESSIBLE PATH OF TRAVEL SIDEWALK (<5%) CONFORM TO (E) AC AT (P) CURB CUT.		OR CR		, C
9 (P) "NO PARKING" STRIPING ON PATH OF TRAVEL TO TRASH ENCLOSURE AREA ON REAR EMPLOYEE ENTRY DOOR.	THIS F	SALVAD	6	
10 (E) WHEEL STOPS TO BE REMOVED.	/AC	ц	AC	6/24
1) (P) ACCESSIBLE STALL SIGNAGE PER DETAIL 3 ON SHEET A1.3	ŊĞ			11/5
12 (P) WHEEL STOP (ACCESSIBLE STALLS ONLY).	ORN:	CHK:	:Mo	DATE:
13) (E) CONCRETE RAMP TO BE REMOVED & REPLACED @ 1% WITH INFILL CURB TO MATCH (E).			<b>IN</b> :	Z
14 SEE ARCHITECTURAL & LANDSCAPE PLANS FOR ADDITION INFORMATION REGARDING TREE REMOVAL, PLANTING, IRRIGATION ETC.				RATIC
$\sim$				

[15] INSTALL CURB BREAKS OR WEEP HOES @ 12' MAX O/C TO ALLOW WALKWAY TO DRAIN. INSTALL FLUSH WITH FINISHED SURFACE, VIF.

![](_page_16_Figure_6.jpeg)

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CONTRACTION OF CONTRACTION OF CONTRACTOR DATE 115/24 D	Pierror	4					CHK:	R SALVADOR CRUZ IN JANUARY, 2022.	
Gr       2970 SANTA ROSA AVENUE       DATE: 115/24       DATE: 115/24 <th< th=""><th>G     2970 SANTA ROSA AVENUE     DATE: 115/24     Owner Mathematical       ABN: 044-280-079     4780 SONOMA HIGHWAY     TEL (707) 544-2104     Date: 115/24     Owner Mathematical       SANTA ROSA, CALIFORNIA     APN: 044-280-079     SANTA ROSA, CA 95409     www.hoganls.com     TEL (707) 522-2105     JOB #: 5869     Owner Fax (707) 522-2105</th><th>OF</th><th>CIVIL SITE PLAN</th><th></th><th></th><th>SERVICES</th><th>A :Mc</th><th></th><th></th></th<>	G     2970 SANTA ROSA AVENUE     DATE: 115/24     Owner Mathematical       ABN: 044-280-079     4780 SONOMA HIGHWAY     TEL (707) 544-2104     Date: 115/24     Owner Mathematical       SANTA ROSA, CALIFORNIA     APN: 044-280-079     SANTA ROSA, CA 95409     www.hoganls.com     TEL (707) 522-2105     JOB #: 5869     Owner Fax (707) 522-2105	OF	CIVIL SITE PLAN			SERVICES	A :Mc		
SANTA ROSA, CALIFORNIA APN: 044-280-079 SANTA ROSA, CA 95409 www.hoganis.com FAX (707) 522-2105 JOB #: 5869 JAMES E. RENFRO RCE 72004	SANTA ROSA, CALIFORNIA APN: 044-280-079 SANTA ROSA, CA 95409 www.hoganls.com FAX (707) 522-2105 JOB #: 5869 JAMES E. RENFRO RCE 72009 SANTA ROSA, CA 95409 www.hoganls.com FAX (707) 522-2105 JOB #: 5869 JAMES E. RENFRO RCE 72009 SANTA ROSA, CA 95409 www.hoganls.com FAX (707) 522-2105 JOB #: 5869 JAMES E. RENFRO RCE 72009 SANTA ROSA, CA 95409 www.hoganls.com FAX (707) 522-2105 JOB #: 5869 JAMES E. RENFRO RCE 72009 SANTA ROSA, CA 95409 www.hoganls.com FAX (707) 522-2105 JOB #: 5869 JAMES E. RENFRO RCE 72009 SANTA ROSA, CA 95409 www.hoganls.com FAX (707) 522-2105 JOB #: 5869 JAMES E. RENFRO RCE 72009 SANTA ROSA, CA 95409 www.hoganls.com FAX (707) 522-2105 JOB #: 5869 JAMES E. RENFRO RCE 72009 SANTA ROSA, CA 95409 www.hoganls.com FAX (707) 522-2105 JOB #: 5869 JAMES E. RENFRO RCE 72009 SANTA ROSA, CA 95409 www.hoganls.com FAX (707) 522-2105 JOB #: 5869 JAMES E. RENFRO RCE 72009 SANTA ROSA, CA 95409 www.hoganls.com FAX (707) 522-2105 JOB #: 5869 JAMES E. RENFRO RCE 72009 SANTA ROSA, CA 95409 www.hoganls.com FAX (707) 522-2105 JOB #: 5869 JAMES E. RENFRO RCE 72009 SANTA ROSA, CA 95409 www.hoganls.com FAX (707) 522-2105 JOB #: 5869 JAMES E. RENFRO RCE 72009 SANTA ROSA, CA 95409 www.hoganls.com FAX (707) 522-2105 JOB #: 5869 JAMES E. RENFRO RCE 72009 PATA ROSA, CA 95409 www.hoganls.com FAX (707) 522-2105 JAMES E. RENFRO RCE 72009 PATA ROSA, CA 95409 www.hoganls.com FAX (707) 522-2105 JAMES E. RENFRO RCE 72009 PATA ROSA, CA 95409 www.hoganls.com FAX (707) 522-2105 JAMES E. RENFRO RCE 72009 PATA ROSA, RO	с <mark>л</mark> 2970	SANTA ROSA AVENUE		AUALIT		DATE: 11/5/	4 Vames Kerker	9
		SAN	FA ROSA, CALIFORNIA APN: 044-280-	079 SANTA ROSA, CA 95409	www.hoganls.com	FAX (707) 522-2105 -	JOB #: 58(	9 JAMES E. RENFRO RCE 72009	

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![](_page_17_Figure_2.jpeg)

![](_page_17_Figure_4.jpeg)

**INTERNATIONAL SYMBOL OF ACCESSIBILITY** NTS STANDARDS AND SPECIFICATIONS PER CALIFORNIA BUILDING CODE SECTION 1109A.8.8.2 PARKING SIGNAGE

![](_page_17_Figure_7.jpeg)

U.S.A NOTE U.S.A NOTE IT IS THE RESPONSIBILITY OF THE LANDSCAPE CONTRACTOR TO BE FAMILIAR WITH ALL GRADE DIFFERENCES, LOCATION OF WALLS, STRUCTURES, AND UTILITIES. THE IRRIGATION CONTRACTOR SHALL EXERCISE EXTREME CARE, AND BE RESPONSIBLE FOR ANY DAMAGE IN EXCAVATING AND WORKING NEAR UTILITIES. THE LANDSCAPE CONTRACTOR SHALL COORDINATE ALL WORK WITH THE OTHER SUB-CONTRACTORS FOR THE LOCATION OF UTILITIES AND THE INSTALLATION OF PIPE SLEEVES THROUGH WALLS, UNDER ROADWAYS, AND NEAR STRUCTURES. PRIOR TO CONSTRUCTION, CONTACT ALL APPLICABLE AGENCIES AND U.S.A. AT 1-800-642-2444 OR 1-800-227-2600 TO FIELD LOCATE ALL EXISTING UTILITIES.

![](_page_18_Figure_1.jpeg)

GENERAL IRRIGATION NOTES

- 1. THE LOCATION OF THE CONTROLLER TO BE VERIFIED BY OWNER. LANDSCAPE CONTRACTOR SHALL BE RESPONSIBLE FOR CONNECTING ALL PROPOSED STATIONS TO THE CONTROLLER. CONTROLLER TO BE CONFIGURED TO OPERATE 16 STATIONS. CONTROLLER SHALL BE HUNTER 12C WITH 2 WIRE DECODER CAPABILITY AND ICM-800, 8 STATION EXPANSION MODULE.
- 2. ALL CONSTRUCTION IS TO BE PER THE LATEST EDITION OF THE UNIFORM BUILDING CODE. 3. THIS DESIGN IS DIAGRAMMATIC. ALL PIPING, VALVES, ROOT BARRIERS, ETC. SHOWN WITHIN PAVED AREAS ARE FOR DESIGN CLARIFICATION ONLY. INSTALL PIPING AND VALVES IN PLANTING AREAS WHERE POSSIBLE, AND LOCATE ELECTRIC CONTROL AND QUICK COUPLING VALVES IN GROUND COVER/SHRUB AREAS, 6" TO 12" AWAY FROM HARDSCAPE OR TURF AREA FOR EASY ACCESS.
- 4. THE IRRIGATION CONTRACTOR SHALL FLUSH ALL IRRIGATION LINES AND EQUIPMENT. THIS SHALL INCLUDE THROTTLING THE FLOW CONTROL AT EACH VALVE TO OBTAIN THE OPTIMUM OPERATING PRESSURE FOR EACH SYSTEM.
- 5. IT IS THE RESPONSIBILITY OF THE IRRIGATION CONTRACTOR TO BEOME FAMILIAR WITH ALL GRADE DIFFERENCES, LOCATION OF WALLS, STRUCTURES, AND UTILITIES. THE IRRIGATION CONTRACTOR SHALL EXERCISE EXTREME CARE, AND BE RESPONSIBLE FOR ANY DAMAGE IN EXCAVATING AND WORKING NEAR UTILITIES. CONTRACTOR SHALL COORDINATE ALL WORK WITH THE GENERAL CONTRACTOR AND OTHER SUB-CONTRACTORS FOR THE LOCATION OF UTILITIES AND THE INSTALLATION OF PIPE SLEEVES THROUGH WALLS, UNDER ROADWAYS, AND NEAR STRUCTURES. PRIOR TO CONSTRUCTION, CONTACT ALL APPLICABLE AGENCIES AND U.S.A. AT 1-800-642-2444 TO FIELD LOCATE ALL EXISTING UTILITIES.
- 6. FIELD ADJUSTMENTS MAY BE REQUIRED TO PROVIDE OPTIMUM OPERATING EFFICIENCY. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONTACTING THE LANDSCAPE ARCHITECT TO REVIEW FIELD ADJUSTMENTS PRIOR TO INSTALLATION. IN THE EVENT THAT NO CONTACT IS MADE WITH THE LANDSCAPE ARCHITECT, THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY REVISIONS.
- SLEEVE ALL IRRIGATION PIPE AND CONTROL WIRES UNDER STREETS AND CONCRETE WALKWAYS WITH THE PROPER SIZE CLASS 200 PVC PIPE TO DEPTH AS SPECIFIED. SIZE SLEEVE TO CONTAIN PIPE AND WIRE PER DETAIL; MINIMUM SIZE NO LESS THAN 2" DIAMETER 8. FOR ADDITIONAL INFORMATION, SEE PROJECT DETAILS AND SPECIFICATIONS.
- 9. ALL WORK SHALL CONFORM TO ALL APPLICABLE CITY OF SANTA ROSA CONSTRUCTION
- STANDARDS. 10. NO GALVANIZED IRON PIPE OR FITTINGS SHALL BE ALLOWED.
- 11. A BALL VALVE IN A SEPARATE ROUND VALVE BOX IS TO BE INSTALLED IMMEDIATELY UPSTREAM FROM EACH REMOTE CONTROL VALVE OR GROUP OF VALVES. VALVE SHALL BE SIZED TO MAINLINE SUPPLY AT THE RC VALVE. SEE DETAIL.
- 12. INSTALL 3" WIDE DETECTABLE TAPE (#3" DTP, AS MANUFACTURED BY T. CHRISTY). TAPE SHALL BE INSTALLED 6" ABOVE THE IRRIGATION MAIN. 13. INSTALL ALL LANDSCAPE DRIPLINE BENEATH MULCH, 2" BELOW GRADE, PARALLEL AT SPACING INDICATED. USE LANDSCAPE STAPLES IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS TO SECURE TUBING TO GROUND.
- 14. CONTRACTOR TO PROVIDE DEDICATED, NON-SWITCHED, GFI PROTECTED,120 VOLT CIRCUIT FOR IRRGATION CONTROLLER. LOCATION OF CONTROLLER SHALL BE SUBJECT TO OWNER APPROVAL.
- 15. CONTRACTOR SHALL BE RESPONSIBLE FOR TEMPORARY SUPPLEMENTAL IRRIGATION OF TREES. METHOD OF IRRIGATION APPLICATION IS DISCRETIONARY AND MAY INCLUDE HAND WATERING OR INSTALLATION OF A TEMPORARY, ABOVE GRADE CIRCUIT. ANY REPLACEMENT NECESSARY FOR LOSS OR DAMAGE TO TREES DUE TO LACK OF WATER SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR AT CONTRACTOR'S EXPENSE.
- 16. A SIGNED CERTIFICATE OF COMPLETION IS REQUIRED PRIOR TO FINAL ACCEPTANCE BY THE CITY OF SANTA ROSA. IF THE INSTALLATION OF THE LANDSCAPE DOES NOT MEET OR SUBSTANTIALLY COMPLY WITH THE APPROVED LANDSCAPE CONSTRUCTION DOCUMENTS, THE CERTIFICATE OF COMPLETION WILL NOT BE SIGNED OR APPROVED BY THE LANDSCAPE ARCHITECT OF RECORD.

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EQUIPMENT	MANUFACTURER	MODEL		REMARKS
OT WATERING SYSTEM	HUNTER	RZNS-18-25-CV	PR05-00	
REAM BUBBLER: 6" POP-UP	HUNTER	PR05-06-CV-R-PR530-M5BN-25Q	PROS-06-PRS30-CV	
ndscape Dripline	Rain Bird	XF5-06-12	18" OC	Row spacing varies, see plan for spacing
ipline in Narrow Areas	Rain Bird	XF5-06-12	12" OC	
ipline in Containers	Rain Bird	LDQ0806	6" 00	
ly to PVC Header				See Detail G/L3
comatic Line Flush Valve	Hunter	AFV-T		Install in 6" Valve Box @ end of circuit
Relief Valve	Hunter	AVR-075		Install in 6" Valve Box @ high point(s) of circuit
ne Control Valve	Hunter	ICV-101G-AS-ADJ		
p Zone Control Valve	Hunter	ICZ-101-25		
tts 1" Ball Valve	Matts	B6400		
iter ICV 1" Master Valve	Hunter	ICV-101G		
Flow Sensor	CST	ELF-T10-NO1		
Natts Reduced Pressure Backflow Preventer	Matts	LF009M2-PC-QT 1		Required
inbird 1" Quick Coupling Valve	Rainbird	44-NP		Use with Reclaimed Water
gation Submeter	Netafim	36M251T.0021		
gation Controller - 4 Station, Hybrid	Hunter	PCC-400		Install per manufacturer's specifications
Decoder Output Module-2 Wire System	Hunter	EZ-DM		Install in #1 slot for two wire, next available slot for Hybrid
Decoder - 1 Station	Hunter	EZ-1		Quantity as needed
ar Sync Weather Sensor	Hunter	MSS-SEN		Roof mount with clear view of sky
inline	PVC	Sch 40	0	0
eral	PVC	Sch 40	0	0
gation Sleeves		PVC Schedule 40		Size by pipe load; 2" PVC minimum
ve Station and Sequence				
ve Size				
llons Per Minute				

# THESE DRAWINGS COMPLY WITH THE CRITERIA OF THE ORDINANCE. ORDINANCE REQUIREMENTS HAVE BEEN APPLIED FOR THE EFFICIENT USE OF WATER IN THE IRRIGATION DESIGN PLAN AND THE LANDSCAPE DESIGN PLAN."

### IRRIGATION KEYNOTES

- TYPICAL IRRIGATION SLEEVE BENEATH PAVEMENT; SIZE SLEEVE TO CONTAIN PIPE AND 1. WIRE PER DETAIL; MINIMUM SIZE NO LESS THAN 3" DIAMETER
- 2. INSTALL DRIPLINE 3" BELOW GRADE IN ALL PLANTING AREAS AT 18" OC TYPICAL; ALL DRIPLINE SHALL BE INSTALLED PARALLEL GENERALLY FOLLOWING CONTOURS. HOLD DRIPLINE BACK FROM EDGE 6".
- INSTALL DRIPLINE 2" BELOW GRADE IN ALL PLANTING AREAS AT 12" OC TYPICAL; ALL DRIPLINE SHALL BE INSTALLED PARALLEL GENERALLY FOLLOWING CONTOURS. HOLD З. DRIPLINE BACK 6" FROM EDGE OF LANDSCAPE AREA.
- 4. INSTALL 1/4" DRIPLINE IN CONTAINERS AT GRADE 6" OC, TYPICAL TREE BUBBLERS, TWO PER TREE , TYPICAL. ONE ABOVE GRADE STREAM BUBBLER AND ONE SUB-SUFACE BUBBLER 5.
- 6. POC AT EXISTING MAIN LINE (VERIFY SIZE AND LOCATION)
- 7. CUT AND CAP EXISTING MAIN LINE 8.
- EXISTING MAIN LINE TO REMAIN INTACT; VERIFY LOCATION AND INTEGRITY OF PIPE; REPAIR AS NECESSARY.
- 9. WHERE FEASIBLE, INSTALL NEW VALVES AT THE EXISTING VALVE LOCATIONS.
- 10. CONTROLLER LOCATION: MOUNT AT EYE LEVEL; SUBJECT TO OWNER APPROVAL 11. SOLAR SYNC SENSOR, ROOF MOUNT WITH CLEAR ACCESS TO SKY
- 12. POLY TUBING TO PVC CONNECTION, TYPICAL
- 13. TRANSFORMER
- 14. BIKE RACK, TYP.
- 15. MINIMIZE TRENCHING IN ROOT ZONE OF TREE TO REMAIN TO PREVENT ROOT DAMAGE IRRIGATION LAYOUT IS DIAGRAMMATIC. INSTALL ALL MAIN LINES, LATERALS, AND CONTROL WIRES IN LANDSCAPE AREAS. DO NOT INSTALL IN PUBLIC RIGHT OF WAY. 16. WHEN THE LAYOUT REQUIRES INSTALLATION UNDER PAVING, USE IRRIGATION SLEEVES PER DETAIL SHEET L-4.

	1	MAMA AN	D ETWU CALC	ULATIONS
1)	Maximum App	olied Water Allowance (Mr	AMA)	
	MAWA = (ETC	o) (0.62) [(0.55 X LA) + (0	0.45 X SLA)]	
	Where:           ETo = Annual           0.45 = ET Ac           0.55 = ET Ac           LA = Landsca           0.62 = Conve           SLA = Portic           0.45 = the ac           0.55 = the ac	Net Reference Evapotra Ijustment Factor (Comme Ijustment Factor (Reside aped Area (square feet) ersion factor (to gallons n of the landscape area dditional ET adjustment fa dditional ET adjustment fa	anspiration (Inches) ercial) Intial) per square foot) identified as Special Landscape Area actor for Special Landscape Area (1. actor for Special Landscape Area (1.	a (square feet) .0 - 0.55 = 0.45) (Commercial) .0 - 0.45 = 0.55) (Residential)
	Comme	rcial (C) or Residential (F	R) C	
	A)	Net Evapotranspiration	Calculation	
		Local Reference ET	o 46.51	
		25.36"/yr (Annual Rainfall)	X .25 = 6.34 (Effective F	Rainfall <i>)</i>
		Net Evapotranspiration	Calculation = Annual ETo - Effective	R = 40.17
	B)	Adjusted Landscape Ar	rea Calculation	
		5,520 sf (Landscape Area)	X 0.45 Adjustment Factor	= 2,483.99 sf
		0.00 sf (Special Landscape Are	X 0.55 ea, Adjustment Factor	= 0.00 sf
			Sum of Adjusted Landscape Are	a = 2,483.99 sf
	MANA=	40.17	( .62 ) 2,484 sf	= 61,865 gal∕yr
2)	Estimated To	otal Mater Use (ETMU)		
	A)	Net Evapotranspiration	Calculation	= 40.17 sf
		Net Evapotranspiration	Calculation = Annual ETO - Effective	Rainfall
	B)	Adjusted Landscape Ar	rea Calculation	
		0.00 sf Very Low Water Use	X .1	0.00 sf
		5,407 sf Low Water Use	Х.З	1,622.06 sf
		113 sf Moderate Water Use	6. X	67.86 sf
		0.00 sf High Water Use	Х. <i>В</i>	0.00 sf
			Sum of Adjusted Landscape Are	a = 1,689.91 sf
	ETMU =	40.17	.62 1,690 sf /	# = 52,610 gal/yr
		Irrigation Efficienc	y Factor	
	Sq	uare Footage of Landsca	<b>pe on Drip</b> 5,519.97 sf	
	Squa	are Footage of Landscap	e on Spray 0.00 sf	
	A	djusted Irrigation Efficie	ncy Factor 0.81	
		J. J	9B : Watering Sy: 113.09 sf 10C Prip-Containe 39.23 sf	X 1.8 : X 6.75 :
			10 rip-coritairie 56.4/5f	^ 1.1 :

DETAIL HYDROZONE TABLE								
Name	Method	Water Use	Mater Use ∨alue	Hydrozone Area in SF	% of Landscape			
1D	Sub-Surface Dripline	Low	0.3	2,428.21 sf	44.0%			
2B	Root Watering System	Moderate	0.6	113.09 sf	2.0%			
ЗD	Sub-Surface Dripline	Low	0.3	563.88 sf	10.2%			
4D	Sub-Surface Dripline	Low	0.3	755.77 sf	13.7%			
5D	Root Watering System	Low	0.3	948.30 sf	17.2%			
6B	Root Watering System	LOW	0.3	56.55 sf	1.0%			
70	Drip-Container	LOW	0.3	76.77 sf	1.4%			
8D	Sub-Surface Dripline	LOW	0.3	368.61 sf	6.7%			
۹B	Root Watering System	Low	0.3	113.08 sf	2.0%			
100	Drip-Container	Low	0.3	39.22 sf	0.7%			

SUMMARY HYDROZONE TABLE						
Plant Type	Water Use By Area	% of Landscape				
Very Low	0.00	0%				
Low	5,406.86	98%				
Moderate	113.09	2%				
High	0.00	0%				
Total	5,519.95	100%				

0.3 56.47 sf 1.0%

5,520 sf

100%

11C Drip-Container Low

PRECIPITATION RATES BY VALVE							
∨alve ID	Hydrozone Area	Flow in GPM	Precipitation Rate in Inches Per Hour				
1D	2428.21	15.2 GPM	0.60				
2B	113.09	2.0 GPM	1.68				
3D	563.88	7.3 GPM	1.24				
4D	755.77	4.7 GPM	0.60				
5D	948.3	6.5 GPM	0.66				
6B	56.55	1.0 GPM	1.70				
70	76.77	4.8 GPM	6.00				
8D	368.61	2.5 GPM	0.65				
٩B	113.08	2.0 GPM	1.69				
100	39.22	1.9 GPM	4.55				
110	56.47	3.7 GPM	6.27				

![](_page_18_Picture_37.jpeg)

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![](_page_18_Picture_40.jpeg)

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DATE: 10/2/24 MLA JOB #: 2022-33 SCALE: 1" = 20' DRAMN:

DM

![](_page_19_Figure_0.jpeg)

L A N D S C A P E A R C H I T E C T U R E POST OFFICE BOX 251 KENWOOD, CALIFORNIA 95452 TEL (707) 833-2288 RLA #2800 don@macnairlandscapes.com Λ  $\mathbb{V}$  $\overline{\mathbf{W}}$ 

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MACNAIR

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MASAMIGAS

10/2/24 DATE: MLA JOB #: 2022-33 SCALE: 1" = 20' DRAMN: DM

![](_page_19_Picture_8.jpeg)

![](_page_20_Figure_0.jpeg)

		EXISTING	S TRE	E INVI	ENTORY	
Ð	Botanical Name	Common Name	DBH	No. of Trunks	Significance	Action
EO1	Acer rubrum	Red Maple	4"	1		Retain
E02	Acer rubrum	Red Maple	4"	1		Retain
E04	Platanus acerifolia	London Plane Tree	12"	1		Retain
E05	Celtis sinensis	Chinese Hackberry	12"	1		Retain
E06	Platanus acerifolia	London Plane Tree	12"	1		Retain
E07	Celtis sinensis	Chinese Hackberry	4"	1		Retain
EOB	Celtis sinensis	Chinese Hackberry	4"	1		Retain
E10	Celtis sinensis	Chinese Hackberry	8"	1		Retain
E20	Sequoia sempervirens	Coast Redwood	20"	1		Retain
R03	Platanus acerifolia	London Plane Tree	12 1/2"	1		Remove - Constructio Impacts
R09	Sequoia sempervirens	Coast Redwood	28"	1	Heritage	Remove - Undesirable
<b>R</b> 11	Lagerstroemia indica	Crepe Myrtle	15 1/2"	г		Remove
R12	Lagerstroemia indica	Crepe Myrtle	4 1/2"	1		Remove
R13	Lagerstroemia indica	Crepe Myrtle	6"	1		Remove
R14	Sequoia sempervirens	Coast Redwood	20"	1		Remove – Undesirable species
R15	Sequoia sempervirens	Coast Redwood	22 1/2"	1		Remove - Undesirable
R16	Sequoia sempervirens	Coast Redwood	8"	1		Remove - Undesirable
R17	Sequoia sempervirens	Coast Redwood	17 1/2"	1		Remove - Undesirable
R18	Sequoia sempervirens	Coast Redwood	26 1/2"	1	Heritage	Remove - Undesirable
R19	Celtis sinensis	Chinese Hackberry	5 1/2"	1		Remove - Constructio
Mitig	ation Trees (2–15 gallon tree	Total Mitigation Inche s for each six inches of trunk DBH	25 166 1/2" 	1	<u> </u>	
	Less three 24" box mitig	ation trees per landscape plar	n*: <i>O</i>			
L	ess eight 36" box mitigation.	trees per the landscape plan'	*: 40			

Less one 48" box mitigation trees per the landscape plan\*: 7 Total #15 Size Mitigation Trees Required: 8

Mitigation costs for in-lieu fees @ \$100.00 per #15 size tree = \$800.00

\*One 24" box tree is equal to three 15-gallon trees.

One 36" box tree is equal to five 15-gallon trees. One 48" box tree is equal to eight 15-gallon trees

REFER TO SHEET L3 FOR PROPOSED TREE SIZES

![](_page_20_Picture_8.jpeg)

![](_page_20_Picture_9.jpeg)

![](_page_20_Picture_11.jpeg)

![](_page_21_Picture_0.jpeg)

DEPARTMENT WITH THE LANDSCAPE DOCUMENTATION PACKAGE.

(6) THE PROJECT APPLICANT, OR HIS/HER DESIGNEE, SHALL SUBMIT DOCUMENTATION VERIFYING IMPLEMENTATION OF SOIL ANALYSIS REPORT RECOMMENDATIONS TO THE CITY WITH CERTIFICATE OF COMPLETION."

### CITY REQUIRED NOTES

1. UPON COMPLETION OF INSTALLATION, CONTRACTOR SHALL SUBMIT TO THE ENGINEERING DEVELOPMENT SERVICES INSPECTOR A COMPLETED AND SIGNED "CERTIFICATE OF COMPLETION" STATING THE PROJECT HAS BEEN INSTALLED AS DESIGNED.

2. THE CERTIFICATE OF COMPLETION SHALL BE ACCOMPANIED BY AN IRRIGATION AUDIT, IRRIGATION SCHEDULE AND A MAINTENANCE SCHEDULE, AS DESCRIBED IN THE CITY ORDINANCE.

3. A FINAL CITY INSPECTION SHALL BE PERFORMED. THE INSTALLATION CONTRACTOR SHALL ATTEND THIS INSPECTION AND MAKE ALL REQUIRED REPAIRS AND ADJUSTMENTS TO ACHIEVE APPROVAL AND COMPLETION FROM THE CITY. TO SCHEDULE AN INSPECTION, CONTACT ENGINEERING DEVELOPMENT SERVICES AT (707) 543-4611.

4. A MINIMUM OF 8" OF NON-MECHANICALLY COMPACTED SOIL SHALL BE AVAILABLE FOR WATER ABSORPTION AND ROOT GROWTH IN PLANTED AREAS.

5. INCORPORATE COMPOST OR NATURAL FERTILIZER INTO THE SOIL TO A MINIMUM DEPTH OF 8" AT A MINIMUM RATE OF & CUBIC YARDS PER 1000 SQUARE FEET OR PER SPECIFIC AMENDMENT RECOMMENDATIONS FROM A SOILS LABORATORY REPORT.

6. A MINIIMUM 3" LAYER OF MULCH SHALL BE APPLIED ON ALL EXPOSED SOIL SURFACES OF PLANTING AREAS EXCEPT IN TURF AREAS, CREEPING OR ROOTING GROUNDCOVERS OR DIRECT SEEDING APPLICATIONS.

### CITY REQUIREMENT OF DOCUMENT OF COMPLIANCE (ITEMS TO BE INCLUDED WITH CERTIFICATE OF COMPLETION)

A. PROJECT APPLICANT MUST SUBMIT DOCUMENTATION VERIFYING IMPLEMENTATION OF SOIL ANALYSIS REPORT RECOMMENDATIONS TO THE CITY WITH CERTIFICATE OF COMPLETION B. THE CERTIFICATE OF COMPLETION MUST BE ACCOMPANIED BY AN IRRIGATION AUDIT THAT CONTAINS THE FOLLOWING:

- ♦ 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 INCLUDING:
- 1. PLANT ESTABLISHMENT IRRIGATION SCHEDULE 2. REGULAR IRRIGATION SCHEDULE BY MONTH (SEE ORDINANCE FOR DETAILS)
- 3. VERIFICATION THAT A DIAGRAM OF THE IRRIGATION PLAN SHOWING HYDROZONES IS KEPT WITH THE IRRIGATION CONTROLLER FOR SUBSEQUENT MANAGEMENT PURPOSES
- ◆ ALL LANDSCAPE IRRIGATION AUDITS MUST BE CONDUCTED BY A CITY CERTIFIED LANDSCAPE IRRIGATION AUDITOR OR A THIRD PARTY CERTIFIED LANDSCAPE IRRIGATION AUDITOR.
- ♦ AN IRRIGATION MAINTENANCE SCHEDULE TIMELINE MUST BE ATTACHED TO THE

CERTIFICATE OF COMPLETION (SEE ORDINANCE FOR DETAILS) C. IRRIGATION AUDIT: AN IN-DEPTH EVALUATION OF THE PERFORMANCE OF AN IRRIGATION SYSTEM CONDUCTED BY A CERTIFIED LANDSCAPE IRRIGATION AUDITOR (SEE ORDINANCE FOR DETAILS). THE AUDIT MUST BE CONDUCTED IN A MANNER CONSISTENT WITH THE IRRIGATION ASSOCIATION'S LANDSCAPE IRRIGATION AUDITOR CERTIFICATION PROGRAM OR OTHER U.S. EPA "WATERSENSE" LABELED AUDITING PROGRAM.

SYMBOL	SIZE	BOTANICAL NAME	COMMON NAME	MATER USE PER MUCOLS	QUANTITY	COMMENTS
ees	L	L	I	l		L
ARA	#36	Acer rubrum 'Armstrong'	Armstrong Maple	.6	з	
CSI	#24	Celtis sinensis	Chinese Hackberry	.3	1	
CHU	#48	Chamaerops humilis	Mediterranean Fan Palm	.3	2	Muilti Trunk
PRO	#24	Phoenix roebelinii	Pygmy Date Palm	.3	2	Single Trunk
PCK	#24	Pistacia chinensis 'Keith Davey'	Chinese pistache	.3	2	
rubs						
AHA	#5	Arctostaphylos densiflora 'Harmony'	Harmony Manzanita	.3	20	
LEB	#5	Leucadendron 'Ebonu'	Ebonu Conebush	.3	1	
LSH	#5	Leucadendron salianum 'Hawaii Maaic'	Roual Hawaijan' Conebush	.3	16	
LSW	#5	Leucadendron salignum 'Winter Red'	Winter Red Conebush	.3	5	
	#5	Loropetalum chinense 'Razzleberri'	Razzleberri Fringe Flower	3	16	
	#5	Nandina domestica	Heavenlu Bamboo	 	7	
RIC	#5	Rhaphiolenis indica 'Clara'	Clara Indian Hauthorn	 a	1a	
		Sarcococca ruscitolia	Eragrant Gueet Box	د. م	a)	
	יש <del>יי</del> עיי		I I AYI AND JUCCL DOX	ن.		
ctus-Succulen	l					
AAV	#5	Agave attenuata 'Varieoata'	Variegated Fox Tail Agave	.3	6	
ABS	#5	Agave bracteosa 'Stingrau'	Stingrau Agave	.3	10	
	#5	Adave victoriae-reginae	Queen Victoria Adave		1	
GAF	#1	Sedum x 'Autumn Fire'	Autumn Fire Stonecron	 a		
551	±1	Senecia 'Skuechaner'	Guiarranan Generia	 	10	
	#1	Conocio borbortariano		с. с		
	#1 #4		Blue Firser	د.	> -	
ษาм	#1	Seriecio talinoides var. mandraliscae	Blue Finger	.3	7	
ntainer Plants						
AJG	#1	Aeonium 'Jolly Green'	Jolly Green Aeonium	.3	1	Quantity & placement to be determined
ABS	#5	Agave bracteosa 'Stingray'	Stingray Agave	.3	1	Quantity & placement to be determined
AGS	#5	Agave guinata 'Soledad'	Soledad Agave	.3	1	Quantity & placement to be determined
AVR	#5	Agave victoriae-reginae	Queen Victoria Agave	.3	1	Quantity & placement to be determined
AEL	#1	Aspidistra elatior	Cast Iron Plant	.3	1	Quantity & placement to be determined
CRE	#15	Cycas revoluta	Sago Palm	.3	1	Multi-Trunk
KAL	#1	Kalanchoe luciae	Red Margined Paddle Plant	.3	1	Quantity & placement to be determined
SFF	#1	Sedum 'Frosted Fire'	Frosted Fire Autumn Stonecrop	.З	1	Quantity & placement to be determined
SRA	#1	Sedum rupestre 'Angelina'	Stonecrop	.3	1	Quantity & placement to be determined
SRG	#1	Sedum x 'Ruby Glow'	Ruby Glow Stonecrop	.3	1	Quantity & placement to be determined
oundcover						
	#1	Epilobium canum 'Calistoga'	Calistoga California Fuscia	0.3	19	3' OC, Triangular Spacing
	#1	Festuca mairei	Atlas Fescue	0.3	56	3' OC, Triangular Spacing
	#1	Helianthemum 'Wisley Primrose'	Wisley Primrose Sunrose	0.3	12	3' OC, Triangular Spacing
	#1	Muhlenbergia dubia	Pine Muhly	0.3	28	4' OC, Triangular Spacing
namental Gras	55					
BGB	#1	Bouteloua gracilis 'Blonde Ambition'	Blonde Ambition Ornamental Grass	.3	٩	
LLB	#1	Lomandra longifolia 'Breeze'	Breeze™ Dwarf Mat Rush	.3	8	
rennials						
BGB	#1	Bouteloua gracilis 'Blonde Ambition'	Blonde Ambition Ornamental Grass	.3	10	
AEL	#1	Aspidistra elatior	Cast Iron Plant	.3	10	Quantity & placement to be determined
1er						
		Mulch: Fir Bark 1-1/2" Minus	Medium Walk-On Bark			3" Depth, All Landscape Areas
See Detail		Linear Root Barrier	Root Solutions or Equal			24" Depth Continuous
			L'ELE CENDICINE, CI EQUUI	1		

REFER TO SHEET L2 FOR LANDSCAPE LAYOUT AND TREE REMOVAL MITIGATION.

GENERAL PLANTING NOTES

- 1. A MINIMUM OF 8" OF NON-MECHANICALLY COMPACTED SOIL SHALL BE AVAILABLE FOR WATER ABSORPTION AND ROOT GROWTH IN PLANTED AREAS.
- 2. INCORPORATE COMPOST OR NATURAL FERTILIZER INTO THE SOIL TO A MINIMUM DEPTH OF 8" AT A MINIMUM RATE OF 8 CUBIC YARDS PER 1,000 SQUARE FEET OR PER SPECIFIC AMENDMENT RECOMMENDATIONS FROM A SOILS LABORATORY REPORT.
- 3. THE FINISH GRADE SHALL BE 3" BELOW THE TOP OF ADJACENT CURBS, WALKS, OR PAVED AREAS. FINISH GRADE SHALL BE SMOOTH AND EVEN.
- 4. A MINIMUM 3" LAYER OF MULCH SHALL BE APPLIED ON ALL EXPOSED SOIL SURFACES OF PLANTING AREAS EXCEPT IN BIORETENTION AREAS, TURF AREAS, CREEPING OR ROOTING GROUNDCOVERS, OR DIRECT SEEDING APPLICATIONS. ON SLOPES GREATER THAN 6:1, INSTALL JUTE NETTING IN CONJUNCTION WITH THE MULCH APPLICATION. INSTALL NETTING PER MANUFACTURER'S SPECIFICATIONS. 5. ALL GROUND COVER TO BE SPACED IN A TRIANGULAR PATTERN. CONTRACTOR RESPONSIBLE FOR COMPLETE COVERAGE.
- 6. UNLESS OTHERWISE SPECIFIED, WEED BARRIER FABRIC IS NOT PERMITTED.
- 1. SUPPLY AGRIFORM 21 GRAM TABLETS AS FOLLOWS: 5-15 GAL., 3-5 GAL., 1-1 GAL.
- 8. BACKFILL PITS WITH 2/3 EXISTING SOIL, 1/3 ORGANIC AMENDMENT.
- 9. ALL PLANTS TO BE SPOTTED IN THE FIELD BY LANDSCAPE ARCHITECT PRIOR TO PLANTING.
- 10. WHEN LANDSCAPING IN EXISTING PLANTED AREAS, CONTRACTOR SHALL TAKE CARE NOT TO DAMAGE OR DESTROY ANY EXISTING PLANT MATERIAL OR IRRIGATION. EXISTING PLANT MATERIAL AND IRRIGATION THAT IS DAMAGED SHALL BE REPLACED WITH LIKE, SIZE, QUALITY, ETC. BY THE CONTRACTOR AT THEIR EXPENSE.
- 11. SPECIAL ATTENTION IS TO BE PAID TO THE PLANTING AREAS SURROUNDING THE BUILDINGS. COMPACTED SOIL IS TO BE SUFFICIENTLY EXCAVATED TO ALLOW FOR PROPER ROOT GROWTH AND DRAINAGE OF ALL AREAS. CHECK SOIL FOR PROPER DRAINAGE BEFORE PLANTING. AUGER THROUGH COMPACTED SOIL WHERE NECESSARY. DO NOT PLANT IN THE DRAINAGE SWALES.
- 12. LIME-TREATED SOIL SHALL BE REMOVED FROM LANDSCAPE AREAS PER SPECIFICATION. THE CONTRACTOR SHALL PROVIDE A DIAGRAM INDICATING THE DEPTHS AND LIMITS OF LIMED SOIL AREAS.
- 13. A SOIL REPORT SHALL BE PROVIDED FOR ALL IMPORTED TOP SOILS. REFER TO SPECIFICATIONS. 14. SOIL SAMPLE REPORTS AND IRRIGATION WATER SUITABILITY REPORTS SHALL BE REVIEWED BY THE LANDSCAPE ARCHITECT BEFORE AMENDING SOILS PER SPECIFICATIONS.
- 15. ALL CONSTRUCTION IS TO BE PER ALL APPLICABLE AND PREVAILING CITY OF SANTA ROSA CONSTRUCTION STANDARDS.
- 16. A SIGNED CERTIFICATE OF COMPLETION IS REQUIRED BEFORE FINAL ACCEPTANCE BY THE COUNTY OF SONOMA. IF THE INSTALLATION OF THE LANDSCAPE DOES NOT MEET OR SUBSTANTIALLY COMPLY WITH THE APPROVED LANDSCAPE CONSTRUCTION DOCUMENTS, THE CERTIFICATE OF COMPLETION WILL NOT BE SIGNED OR APPROVED BY THE LANDSCAPE ARCHITECT OF RECORD.

# THESE DRAWINGS COMPLY WITH THE CRITERIA OF THE ORDINANCE. ORDINANCE REQUIREMENTS HAVE BEEN APPLIED FOR THE EFFICIENT USE OF WATER IN THE IRRIGATION DESIGN PLAN AND THE LANDSCAPE DESIGN PLAN."

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![](_page_21_Picture_41.jpeg)

![](_page_21_Picture_42.jpeg)

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DATE: 10/2/24 MLA JOB #: 2022-33 SCALE: 1" = 20' DRAWN: DM

![](_page_21_Picture_47.jpeg)

![](_page_22_Figure_0.jpeg)

![](_page_23_Picture_0.jpeg)

![](_page_23_Picture_1.jpeg)

![](_page_23_Picture_2.jpeg)

![](_page_23_Picture_3.jpeg)

![](_page_23_Picture_4.jpeg)

![](_page_23_Picture_5.jpeg)

![](_page_23_Picture_6.jpeg)

![](_page_23_Picture_7.jpeg)

![](_page_23_Picture_8.jpeg)

**Cycas revoluta** Sago palm

![](_page_23_Picture_10.jpeg)

![](_page_23_Picture_11.jpeg)

![](_page_23_Picture_12.jpeg)

10/2/24 DATE: MLA JOB #: 2022-33 SCALE: 1" = 20' DRAWN: DM

![](_page_23_Picture_14.jpeg)

SHEET L3.3 OF 8

![](_page_24_Figure_0.jpeg)

### **DIVISION 2 SITE WORK** SECTION 02750

### UNDERGROUND IRRIGATION SYSTEM

PART 1 GENERAL 1.01 SCOPE

A. Work Included: perform all work necessary and required for the construction of the project as indicated. Such work includes but is not limited to the following:

1. Furnish and install complete irrigation system. Trenching and backfilling. 3. Sleeves for irrigation piping and remote control valve wiring under

pavements and walls as noted. B. Related Work in Other Sections: The following items of associated work are included in other sections of these specifications:

1. Landscaping, Section 02800

C. By Others: The following items of work will be performed by others and are not included in the contract.

1. Electrical stub-out for irrigation controller.

2. Irrigation water meter Water stub-out(s) for irrigation system.

1.02 INSPECTION OF CONDITIONS: Examine related work and surfaces before starting work of this section. Report to the landscape architect, in writing, conditions which will prevent the proper provision of this work. Beginning the work of this section without reporting unsuitable conditions to the landscape architect constitutes acceptance of conditions by the contractor. Any required removal, repair, or replacement of this work caused by unsuitable conditions to be done at no additional cost to the owner.

### 1.03 CODES, RULES AND SAFETY ORDERS

instructions before proceeding with the work affected.

A. All work and materials to be in full accordance with the latest rules and regulations of safety orders of Division of Industrial Safety: the Uniform Plumbing Code published by the Western Plumbing Officials' Association: and other applicable laws or regulations, including the presiding local plumbing code. Nothing in these drawings or specifications is to be construed to permit work not conforming to these codes. Should the construction documents, or instructions, be at variance with the aforementioned rules and regulations, notify the landscape architect and get

B. Furnish and maintain all warning signs, shoring, barricades, red lanterns etc., as required by the Safety Orders of the Division of Industrial Safety and local ordinances.

C. Contact U.S.A. for location of underground utilities. 1.04 STANDARDS: American Society of Testing and Materials

1.05 PERMITS AND FEES: Obtain all permits and pay required fees to any governmental agency having jurisdiction over the work. Arrange inspections required by local agencies and ordinances during the course of construction as required.

1.06 APPROVAL: Wherever the terms "approve", "approval", or "approved" are used in the specifications, they mean approval of landscape architect in writing.

1.07 WORK SCHEDULE: Submit a proposed work schedule to landscape architect at least 5 days prior to start of work under this Section. After approval, no modification shall be made to this schedule with out written authorization by the landscape architect.

1.08 OBSERVATION SCHEDULE

Schedule a job start meeting with the landscape architect at least 5 days before beginning work under this Section. All requests for observation must be made 72 hours in advance.

A. Job start meeting

(ASTM).

The purpose of this conference is to review questions the contractor may have regarding the work, administrative procedures during construction and project work schedule.

B. Irrigation installation and hydrostatic tests

Observation of installation and hydrostatic test results to be made by the landscape architect prior to backfilling of trenches.

### C. Pre-maintenance

When all work has been completed a pre-maintenance walk-through will be conducted. If approved, the 90 calendar day maintenance period will begin. D. Final Observation

Final Observation will be after the 90 calendar day maintenance period and

all required work is completed. Please give 1 week notice for this observation meeting.

1.09 SUBSTITUTIONS

A. Specific reference to manufacturer's names and products specified in this Section are used as standards, but this implies no right to substitute other material or methods without written approval of the landscape architect.

B. Installation of any approved substitution is contractor's responsibility. Any changes required for installation of any approved substitution must be made to the satisfaction of the landscape architect and without additional cost to the owner.

1.10 PROTECTION OF EXISTING CONDITIONS

A. Contractor shall acquaint themself with all site conditions. Should utilities or other work not shown on the plans be found during excavations. contractor shall promptly notify landscape architect for instructions as to further action Failure to do so will make contractor liable for any and all damage thereto arising from their operations subsequent to discovery of such utilities not shown on plans.

1.11 COORDINATION: Coordinate and cooperate with other contractors to enable the work to proceed as rapidly and efficiently as possible.

1.12 PRODUCT HANDLING: Protect work and materials under this Section from damage during construction and storage. Protect polyviny chloride (PVC) pipe and fittings from direct sunlight. Beds on which PVC is stored must be full length of pipe. Do not use any pipe or fitting that has been damaged or dented.

1.13 SAMPLES: Landscape architect reserves the right to take and analyze samples of materials for conformity to specifications at any time. Contractor shall furnish samples upon request by the landscape architect. Rejected material shall be removed from the site immediately and replaced at the contractors expense. Cost of testing materials not meeting specifications shall be paid by contractor.

1.14 HYDROSTATIC TESTS A. Make hydrostatic tests when welded PVC joints have cured at least 24 hours. Apply continuous static water pressure of 100 psi as follows:

1. All piping on the pressure side of control valves shall be tested for two 2. At completion of hydrostatic test, mainline shall be opened at farthest most point from the location of the pump to verify continuity of the mainline.

B. Leaks resulting from tests shall be repaired and tests repeated until system passes tests.

1.15 "AS-BUILT" IRRIGATION DRAWINGS: Contractor shall furnish Record Drawings of the complete irrigation system. Procure from the landscape architect full sized sepias of Contract Drawings. Construction drawings shall be on the construction site at all times while the irrigation system is being installed. Actual location of valves and all irrigation and drainage piping shall be shown on the prints by dimensions from easily identified permanent features, such as buildings, curbs, fences, walks or property lines. Drawings shall show approved substitutions, if any, of material including manufacturer's name and catalog number. The drawings shall be at scale and all indications shall be neat. All information noted or the print shall be transferred to the prints by contractor and all indications shall be recorded in a neat, orderly way. The record drawings shall be turned over to the landscape architect at or before the Final Acceptance of the project.

1.16 CONTROLLER CHARTS

1. As-built drawings shall be approved by the landscape architect before charts are prepared.

2. Provide one controller chart for each controller supplied. 3. The chart shall show the area controlled by automatic controller and shall be the maximum size controller door will allow. 4. The chart is to be reduced drawing of the actual as-built system. However, in the event the controller sequence is not legible when the drawing is reduced, it shall be enlarged to a size that will be readable when 5. Chart shall be black line print and a different color shall be used to show area of coverage for each station 6. The chart shall be mounted using Velcro, or an approved equal

When completed and approved, the chart shall be hermetically sealed between two pieces of plastic, each piece being a minimum 20 mils. thick 8. These charts shall be completed and approved prior to final inspection of the irrigation system.

1.17 MATERIALS TO BE FURNISHED A. Prior to final inspection the contractor shall furnish the following materials

to the owner:

Two wrenches for disassembling and adjusting each type of sprinkler head supplied. 2 Two keys for each automatic controller

3. Four keys for loose key hose bibs and/or hose bibs. 4. Twelve 12 inch pop-up sprinkler bodies.

1.18 CLEAN-UP: Keep all areas of work clean, neat and orderly at all times. Keep paved areas clean during installation. Clean up and remove all debris from the entire work area prior to Final Acceptance to satisfaction of landscape architect.

1.19 FINAL ACCEPTANCE: Work under this Section will be accepted by landscape architect upon satisfactory completion of all work. Upon Final Acceptance, owner will assume responsibility for maintenance of the work. Said assumption does not relieve contractor of obligations under Warranty.

1.20 WARRANTY: In addition to manufacturer's guarantees or warranties, all work shall be warranted for one year from the date of Final Acceptance against defects in material, equipment and workmanship by contractor. Warranty shall also cover repair of damage to any part of the premises resulting from leaks or other defects in materials, equipment and

### PART 2 MATERIALS

2.01 GENERAL: Materials throughout the system shall be new and in perfect condition. At least 14 days prior to beginning work, submit for approval 2 copies of manufacturer's catalog cuts, specifications, and operating instructions of the complete list of materials and assemblies to be installed. Quantities of materials and equipment need not be included. No deviations from the specifications shall be allowed. The decision of the landscape architect shall be final in the determination of the quality of materials and equipment.

2.02 WATER METERS: Shall be provided by others.

2.03 PIPE

workmanship to the satisfaction of the owner.

Mainline piping on pressure side of irrigation control valves: 1. 2" size and greater to be Polyvinyl Chloride (P.V.C.) 1120-1220. Class 315 and shall conform to ASTM D 2241-73 and D 2672-73. Up to and including 1-1/2" size to be Polyvinyl Chloride (P.V.C.) 1120-1220, Schedule 40 and shall conform to ASTM D 1785-73.

3. Galvanized Steel: Standard wall, Schedule 40, capable of working pressure up to 600 psi shall run from the point of connection to back flow prevention device. 4. Piping from the point of connection to the back flow prevention

device shall be as approved by local code. Lateral line piping on non-pressure side of irrigation control

1. 2" size and greater to be Polyvinyl Chloride (P.V.C.) 1120-1220. Class 315 and shall conform to ASTM D 2241-73 and D 2672-73. 2. Up to and including 1-1/2" size to be Polyvinyl Chloride (P.V.C.) 1120-1220, Schedule 40 and shall conform to ASTM D 1785-73.

2.04 FITTINGS

A. PVC Fittings: Schedule 40, Polyvinyl Chloride, high impact weight, as manufactured by Sloane, Lasco, medium or approved equal. B. Fittings for Galvanized Steel Pipe: Schedule 40, standard weight as

manufactured by Grinnell, or approved equal. C. Connections between main and valves shall be PVC Schedule 80 nipples and fittings.

2.05 SLEEVE MATERIALS

A. For Control Wires: PVC 1120-1220, Class 200 pipe or heavy wall galvanized steel conduit.

B. For Water Lines: PVC 1120-1220, Class 200 pipe or heavy wall aalvanized steel conduit.

2.06 IRRIGATION CONTROLLERS

2.07 IRRIGATION CONTROL VALVES

A. Controller to be as shown on plans and is to be installed as per detail and manufacturer's specifications.

A. Remote Control Valves: Valves to be as shown on plans and installed per details and manufacturer's specifications.

2.08 CONTROL WIRE

A. Wire: Solid copper wire, U.L. approved for direct burial in ground. Minimum gauge: #14. Common ground wire shall be white. B. Splicing Materials: Wire connectors shall be Pentite or snap connectors.

C. All wires shall be labeled with the valve number at the controller and

D. 120 wiring shall be as required by local code and installed by an electrician. It shall not be on a switched circuit.

E. Common wire shall be white. Control wires shall be other than white. Use a different color control wire for each controller. 2.09 VALVE BOXES

A. Remote Control Valves: To be Brooks, Green or approved equal, one per valve.

B Gate Valves and Control Wire Stub-out Locations: To be Brooks, Green or approved equal, one per valve or stub-out location 2.10 QUICK-COUPLING VALVES

A. Quick coupling valves to be as per plans and details.

B. Furnish 2 valve keys fitted with hose valve assembly

C. All valve boxes shall be purple in color or clearly labeled by the manufacturer to designate reclaimed water.

2.11 LANDSCAPE DRIP-LINE: Tubing as shown in legend and drawings

Install in parallel and consistent rows at spacing indicated in all specified areas.

- Install 3" below grade.
- 2.12 SPRINKLER HEADS
- Heads as shown in legend and drawings.
- 2.13 BACK-FLOW PREVENTION ASSEMBLIES
- A. Back-flow prevention device as shown in legend and drawings

PART 3 EXECUTION 3.01 LAYOUT

A. Layout work as accurately as possible to drawings. Drawings are diagrammatic to the extent that swing joints, offsets and all fittings are not

B. Full and complete coverage is required. Contractor shall make any necessary minor adjustments to layout required to achieve full coverage of irrigated areas at no additional cost to owner.

### C. Dig trenches wide enough to allow a minimum of 6 in. between parallel pipe lines. Trenches shall be of sufficient depth to provide minimum cover from finish grade as follows:

control wires and guick coupling valves: 18 inches. 2. Over pipe on non-pressure side of irrigation control valve: 12 inches

3.03 BACK FLOW PREVENTION DEVICE INSTALLATION A. Install according to local code and manufacturer's instructions. B. Install with union on discharge side for servicing, or with flanges, as

required. 3.04 SLEEVING

A. Where pipes or wires must be installed under paving place them in sleeves with a 24" minimum depth and sufficient size to accommodate irrigation lines and/or wires

B. Lack of pipe chase coordination does not relieve the contractor from installing the pipes and control wire shown on the drawing. In the event pipe chases were not installed prior to paving the contractor shall bore

under the paving to accommodate pipes and wires. C. All control wire shall be in Schedule 40 conduit from trench to controller. When valves are grouped together allow 12" between valve boxes, each valve in a separate box, (not to be placed in drainage swales, but kept in ground cover areas.)

pipe manufacturer's specifications and shall be of an adequate size

rest on any part of valve and valves must not be buried too deep for

B. Grounding of Irrigation controller shall be as per manufacturer's

A. Thoroughly flush out all water lines before installing heads, valves

and so placed as to take all thrust created by the maximum internal

3.05 PIPE LINE ASSEMBLY

A. Install pipe in accordance with manufacturer's instructions.

B. Solvent weld all PVC pipe and fittings using solvents (including primer) and methods as recommended by the manufacturer, except where screw connections are required. Clean pipe and fittings of dirt and moisture before assembly. PVC pipe may be assembled on ground surface beside trench. Snake pipe from side to side of trench bottom to allow for expansion and contraction. Make all connections between PVC pipe and metal valves or pipe with threaded fittings using PVC male adapters.

C. Use Teflon tape on all threaded fittings.

3.06 IRRIGATION CONTROL VALVES:

1. 1" above grade when no mulch is used

relation to finish grade as follows:

2. 1/2" with seeded lawn

1 1/2" with sod lawr

4. 2" with plant beds

convenient access.)

a minimum of 3".

box must not rest on the piping.)

3.07 SPRINKLER HEADS

with approval from the landscape architect.

3.09 AUTOMATIC CONTROLLER

recommendations and as per local code.

3.10 CONTROL WIRING

A. Install heads as per details.

installed as per detail.

valve box.

and other hydrants.

B. Test as specified

before testing.

rock free backfill.

planted areas.

**SECTION 02800** 

LANDSCAPING

1.01 SCOPE

PART 1 GENERAL

limited to the following:

5. Soil amendment.

6. Planting.

2. Laboratory soil analysis.

3. Furnishing and spreading topsoil.

4. Finish grading of planted areas.

in other sections of these specifications.

3.12 PRESSURE TESTS

pressure and visually check all fittings.

D. Dress off all areas to finish grades.

END OF SECTION 02750

3.13 BACKFILL AND COMPACTING

water pressure.

1. Over PVC pipe on pressure side of irrigation control valve,

D. Thrust blocks shall be installed where the irrigation main changes direction as at ells and tees and where the irrigation main terminates Pressure tests shall not be made for a period of 36-48 hours following the completion of pouring of the thrust blocks. Concrete thrust blocks for supply mains shall be sized and placed in strict accordance with the

A. Install control valves in valve boxes where shown and group together where practical. Place no closer than 18 in. to walk edges,

buildings and walls and other valves. Valve boxes shall be placed in

B. The contractor shall paint on the cover of each valve box in 2" white stenciled letters with the value number as designated on the plan. C. Clearance between the highest part of the valve and the bottom of the valve box lid shall be 2" minimum and 4" maximum. (Lid must not

D. Clearance between the top of the piping and the bottom of the valve box and/or the valve box knock outs, shall be a minimum of 2". (The

E. Clearance between the valve and the sides of the valve box shall be

B. Nozzles may be changed to control precipitation rate and G.P.M.

3.08 QUICK COUPLING VALVES: Quick coupling valves to be

A. Install per local code and manufacturer's instructions.

A. Install control wires with sprinkler mains and laterals in common trenches wherever possible. Lay to the side of pipe line. Provide looped slack at valves of 18" and snake wires in trench to allow for contraction of wires. Tie wires in bundles at 10 ft. intervals. Provide expansion loop at all 90 degree angles, and every 100' of straight wire

B. Control wire splices at remote control valves to be crimped and sealed with specified splicing materials. Line splices will be allowed only on runs of more than 500 ft. All line splices to be in separate

C. Install one continuous ground wire and one extra wire to all valves. 3.11 CLOSING OF PIPE AND FLUSHING OF LINES

A. The contractor shall partially backfill, leaving all fittings exposed

B. Cap all valve openings and test the mainline pipe at full line working

A. After system is operating and required tests and inspections have been made, backfill excavations and trenches with clean soil, free of rubbish. All pipe shall have a bedding of 2" under and 4" over of select,

B. Backfill for all trenches, regardless of the type of pipe covered, shall be compacted to minimum 95% density under pavements, 85% under

C. Compact trenches in areas to be planted by thoroughly flooding the backfill. Jetting process may be used in those areas.

E. Any settling more than 1" which may occur during the guarantee period shall be brought to finish grade by the contractor at his expense.

A. Work Included: Perform all work necessary and required for the construction of the project as indicated. Such work includes but is not

1. Site preparation including weed and rubble removal.

B. Related Work: The following items of associated work are included

1. Section 02750: Underground Irrigation System.

C. Use Teflon tape on all threaded fittings.

D. Thrust blocks shall be installed where the irrigation main changes direction as at ells and tees and where the irrigation main terminates. Pressure tests shall not be made for a period of 36-48 hours following the completion of pouring of the thrust blocks. Concrete thrust blocks for supply mains shall be sized and placed in strict accordance with the pipe manufacturer's specifications and shall be of an adequate size and so placed as to take all thrust created by the maximum internal B. Related Work: The following items of associated work are included in other sections of these specifications.

1. Section 02750: Underground Irrigation System.

C. By Others: The following items of work will be performed by others and are not included in the contract.

1.02 REQUIREMENTS OF REGULATORY AGENCIES

A. Perform work in accordance with all applicable laws, codes, and regulations required by authorities having jurisdiction over such work and provide for all inspections and permits required by federal, state, and local authorities in furnishing, transporting and installing materials.

B. Certificates of inspection required by law for transportation shall accompany the invoice for each shipment of plants. File copies of certificates with landscape architect after acceptance of material. nspections of federal and state governments at place of growth does not preclude rejection of plants at project site.

1.03 SELECTION, TAGGING AND ORDERING OF PLANT MATERIAL A. Submit documentation to landscape architect at least 7 days prior to start of work under this section that all plant material has been ordered. Arrange

procedure for observation with landscape architect at time of submission.

B. Plants shall be subject to observation and approval by landscape architect at place of growth or upon delivery for conformity to specifications. Such approval shall not impair the right of observation and rejection during progress of the work. Submit written request for observation of plant material at place of growth to landscape architect. Written request shall state the place of growth and the quantity and variety of plants to be observed. Landscape architect reserves the right to refuse observation at this time if in his judgment a sufficient number of plants are not available for observation or not in the landscape architect's contract.

C Substitution of plant material will not be permitted unless authorized in writing by landscape architect. If proof is submitted that any plant specified is not obtainable, a proposal will be considered for use of the nearest equivalent size or variety with corresponding adjustment of contract price.

1.04 COORDINATION: Contractor shall coordinate and cooperate with other contractors to enable the work to proceed as rapidly and efficiently as possible

1.05 INSPECTION OF SITE: Contractor shall visit site and inspect conditions as they exist prior to submitting bid. Site dimensions, water pressure and general conditions shall be verified prior to beginning of any

1.06 INTENT OF DRAWINGS AND SPECIFICATIONS: It is the intent of the drawings and specifications to provide planting with plants in vigorous growth, ready for owner's use. Any items not specifically shown in the Irawings or called for in the specifications, but normally required to conforn with such intent, are to be considered as part of the work. Written dimensions take precedence over scale dimensions.

1 07 APPROVAL: Wherever the terms "approve", "approval" or "approved" are used herein, they mean approval of landscape architect in

1.08 PRODUCT HANDLING

A. Furnish standard products in manufacturer's standard containers bearing original labels showing quantity, analysis and name of manufacturer.

B. Store products with protection from weather or other conditions which would damage or impair the effectiveness of the product.

PROTECTION OF EXISTING PLANTS TO REMAIN

A. Do not store materials or equipment, permit burning, or operate or park equipment within designated plant protection zones as specified on the plans.

B. Notify landscape architect in any case where contractor feels grading or other construction called for by Contract Documents may damage existing plants to remain. Do not proceed with such work until directed by landscape

C. If existing plants are damaged during construction, contractor shall replace such plants of the same species and size as those damaged at no ge and value of damageo plant shall rest solely with landscape architect.

1.10 GRADING

A. Prior to planting grading will be brought to within .10 + foot of finish grade with soil suitable for planting by the landscape contractor. It is the responsibility of the landscape contractor to verify that no conflict exists with the grading plan. Fine finish grading will be done by the landscape

B. Finish grade in ground cover areas shall be 2 inches below surrounding concrete or asphalt. In lawn areas, sodded areas shall be 2 inches and seeded areas shall be 1 inch below sidewalks, header boards, or mow strips and examined by the landscape architect, owner, or his representative.

CLEAN-UP: Keep all areas of work clean, neat and orderly at all times. Keep all paved areas clean during planting and maintenance operations. Clean up and remove all deleterious materials and debris from the entire work area prior to Final Acceptance to the satisfaction of landscape architect. The landscape contractor shall bear final responsibility for proper surface drainage of planted areas. Any prior work done by another party or obstructions on the site which the contractor feels precludes establishing proper drainage shall be brought to the attention of the landscape architect, owner or his representative for correction or the

1.12 SAMPLES, TESTS AND SUBMITTALS: Landscape architect reserves the right to take and analyze samples of materials for conformity to specifications at any time. Contractor shall furnish samples and/or manufacturer's specification sheets for any construction material or item upon request by the landscape architect. Rejected materials shall be immediately removed from the site at contractor's expense. The cost of

testing materials not meeting specifications shall be paid by the contractor. 1.13 PROJECT SCHEDULE: Contractor shall submit for approval a complete work schedule indicating tentative dates for inspections. This schedule is to be submitted prior to the job start meeting.

1.14 OBSERVATION SCHEDULE: Schedule a job start meeting with the landscape architect at least 5 days before beginning work under this Section. All requests for observation must be made 72 hours in advance.

A. Job Start Meeting The purpose of this conference is to review questions the contractor may have regarding the work, administrative procedures during construction and

relief of responsibility.

project work schedule 3. Planting - Fine Grading and Soil Preparation The fine grading and soil preparation of all planting areas must be observed

prior to installation of plant material. C. Plant Material Landscape architect shall observe plant material for quality prior to planting.

Plants shall be subject to observation and approval at place of growth or upon delivery for quality, size and variety; such approval shall not impair the right of inspection and condition of ball and roots, latent defects or injuries. Rejected plants shall be removed immediately from site. D. Plant Layout

Layout plants (in containers) in locations shown on drawings. Landscape architect will check location of plants in the field and adjust to exact position before planting begins. Landscape architect reserves the right to refuse inspection if, in his opinion, an insufficient quantity of plants is available for lavout check. E. Pre-maintenance

When all work has been completed a pre-maintenance walk-through will be conducted. If approved, the 90 calendar day maintenance period will begin. F. Final Observation Final Observation will be after the 90 calendar day maintenance period and all required work is completed. Please give 1 week notice for this observation meeting.

1.15 MAINTENANCE

A. All landscape areas shall be substantially weed free at beginning of maintenance period and at final acceptance.

B. Begin maintenance after each plant and each portion of lawn or ground cover is installed and continue until Final Acceptance

C. Maintenance Period shall begin upon inspection and approval by landscape architect and shall be for 90 calendar days.

2.07 ROOT BARRIERS

D. Maintenance of new planting shall consist of watering, cultivating, weeding, fertilizing, mulching, re-staking, tightening and repairing of guys, resetting plants to proper grades or upright position, restoration of the plant saucer, and furnishing and applying such sprays and fertilizers as are necessary to keep the plants free of insects and disease and in thriving

F Protect planting areas and plants at all times against damage of all kinds for duration of maintenance period Maintenance includes temporary protection fences barriers and signs as required for protection. If any plants become damaged or injured, treat or replace as directed by landscape architect at no additional cost to owner.

1.16 FINAL ACCEPTANCE: Work under this Section will be accepted by landscape architect upon satisfactory completion of all work, including maintenance, but exclusive of replacement of plant materials under the Warranty Period. Upon Final Acceptance, the owner will assume responsibility for maintenance of the work.

1.17 WARRANTY PERIOD AND REPLACEMENTS

A. Contractor shall warrant that all plant material except annual color planted under this contract will be healthy and in flourishing condition of active growth one year from date of Final Acceptance.

B. Any delay in completion of planting operations which extends the planting period shall extend the Maintenance and Warranty Periods correspondingly

C. Replace, without cost to owner, and as soon as weather conditions permit, all dead plants and all plants not in vigorous, thriving condition, as determined by landscape architect during and at the end of Warranty Period. Plants shall be free of dead or dying branches and branch tips, and shall bear foliage of a normal density, size and color. Replacements shall closely match adjacent specimens of the same species and shall be subject to all requirements of this specification.

D. Contractor shall not be held responsible for failures due to neglect by owner, vandalism, or acts of god, etc., during Warranty Period. Report such conditions to landscape architect in writing.

PART 2 MATERIALS

2.01 PLANTS

parameters

A. Plant Quality: Plants shall be fresh, well established, vigorous, of norma habit of growth free of disease insects insect eggs and larvae Roots shall be healthy and extend to the bottom and sides of the container, and rooting shall be extensive enough to hold the rood ball together during planting, but not so dense as to discourage root establishment into surrounding soils. Roots shall not show any signs of restriction due to kinked, circular, or distorted growth. No trees will be accepted that will not stand on their own trunks after the nursery stakes have been removed. All plants will be inspected prior to planting and may be rejected if noted quality standards are not met.

B. Plant Quantity: Plant materials shall be furnished in size, quantities. species and at the spacing indicated or as noted on the plans. Ground cover material shall be provided in quantity adequate to fill the entire ground cover areas at the spacing shown.

C. Plant Spacing: No planting, except for ground covers, espaliers and vines shall be placed closer than two feet to pavement, structures or other landscape edges. Ground covers adjacent to pavement, structures or landscape edges shall be no closer to these than 75% of their spacing. No plants that would obstruct the sprinkler coverage shall be placed closer than 30% of the radius of the sprinkler throw as specified by the sprinkler manufacturer at the optimum operating pressure unless approved by the landscape architect.

2.02 LANDSCAPE AREA PLANTING SOILS

A. Soil to be tested by testing agency as per specifications.

B. All landscape area planting soils shall be equal or coarser in texture to the original on-site topsoil. All landscape area soils shall be free from stones larger than 1 in. in size, sub-soil, refuse, plants or roots, clods, weeds, sticks, or other extraneous material. All landscape area soils shall be tested by an approved soils laboratory for horticultural suitability and verified to be capable of sustaining healthy plant life. Landscape area planting soils may be obtained through stockpiling of existing topsoil or imported soil of equa texture and quality as determined by approved soil laboratory analysis. C. Soil Chemistry: All planting soils shall meet the following soil chemistry

> Reaction - pH of saturated paste = 5.5 to 7.5Salinity (Electrical conductivity in mmho/cm) = <4.0Sodium Adsorption Ratio (SAR) = <6.0Sodium = <5.0 milliequivalents per liter Chloride = <5.0 milliequivalents per liter Boron (Parts Per Million in extract) = <1.0

D. Soil Fertility: Ade calcium, and magnesium shall be available to support healthy plant growth Soil shall be analyzed for fertility and any deficiencies shall be treated with inorganic fertilizer amendments prior to planting.

E. Lime Treated Soil: If lime is used for soil compaction in landscape areas, all lime treated soil shall be removed to a depth equal or more to the depth of the treated soil. Soil shall be replaced with import soil as described in the landscape specifications.

2.03 PREPARATION OF LANDSCAPE AREA PLANTING SOILS

A. Prior to any work in planting areas all construction debris shall be

B. Structural fill and/or compacted engineered fill and/or any other soil deemed unsuitable for horticultural use as defined by Sections 2.02-A, 2.02-B, and 2.02-C shall be excavated and removed to a depth of 12 inches in landscape planting areas by the landscape contractor. Replacement planting soil shall be equal or coarser to the on-site soil in texture. This may be obtained through stockpiling of existing topsoil or imported soil of equal guality as determined by approved soil laboratory analysis. It shall be free from stones larger than 1 in in size sub-soil refuse plants or roots clods weeds, sticks, or other extraneous material. It shall be capable of sustaining healthy plant life.

C All landscape area soils shall be ripped in two directions to a depth of 12 inches. In areas not accessible by large equipment, ripping shall be accomplished by small backhoe or manually to thoroughly cultivate the soil to a depth of 12 inches.

D. Landscape area planting soil, imported or otherwise, shall be spread evenly over the site. Minimum depth of friable soil shall be 12 inches deep in all landscape planting areas and finish surface shall be within one inch of finish grade.

If imported topsoil is needed, it shall be supplied by the landscape contractor to meet this requirement and shall meet all specifications as defined Sections 2.02-A, 2.02-B, and 2.02-C. Imported landscape area planting soils shall be compacted to 85%± relative compaction. Never apply the topsoil when the site or the topsoil is wet.

2.04 COMMERCIAL FERTILIZER

A. Pre-plant fertilizer for soil incorporation shall consist of the following percent by weight

> 6% Nitrogen 20% Phosphoric Acid

20% Potash B. Post Planting/Surface Application Fertilizer:

> 16% Nitrogen 8% Phosphoric Acid 8% Potash

C. Fertilizer requirement is subject to change based on soil testing for horticultural suitability.

Organic Amendment: Shall be nitrolized and derived from fir wood

Physical Properties: 1/2" minus fir bark, nitrolized fortified or

Contractor shall use staking materials necessary to meet

requirements of specifications, subject to approval of landscape architect.

B. Tree Stakes: 2" x 2" X 8' lodgepole pine pressure treated stakes.

A. "Root Solutions" control planter, or equal. Install according to local code

Tree Ties: Corded rubber tree ties, 18" without wire.

and manufacturer's instructions. Use in all areas where tree is

Chemical Amendments: As required by soil analysis with approval

Construction heart grade. (Do not drive

2.05 SOIL AMENDMENTS

2.06 STAKING MATERIALS

stakes through the rootball). Use 2 stakes per tree.

residuals.

entranced

of landscape architect.

### within 7 feet of any walkway, wall, building or other structural edge. Linear type barrier shall be used in all cases. Linear barriers shall be installed a

## minimum of 7 feet to either side of tree's relative position to sidewalk or

C. All root barriers shall be installed 4" from the back of curb or other hardscape edge with 4" of 3/4" gravel drain rock 24" deep on the root barrier

### 2.08 WATER: Furnished by owner. Transport as required.

structural edge.

side away from the tree.

manufacturers instructions carefully

by tops, stems, or trunks at any time.

3 03 SPREADING OF TOPSOIL

topsoil when the site or the topsoil is wet.

per 1,000 sq.ft. at zero to eight inches depth:

b. 20 pounds pre-plant fertilizer

3.06 EXCAVATION OF PLANTING AREAS

3.08 PLANTING OPERATIONS

protected, and shall be kept well watered.

2/3 Existing Soil

1/3 Organic Amendments

B. Planting Soil (excluding trees):

eliminating all air pockets.

wider that the root ball diameter.

C. Attach tree straps as per details.

3.11 GROUND COVER PLANTING

G. Water all plants immediately after planting.

has occurred.

3.09 STAKING

plumb after staking.

or equal.

material.

Avoid air pockets.

approved equal.

friable condition

from leaves of plant materials.

3.12 SOD BED PREPARATION

A. Roll amended soil with 200 lb. water ballast roller.

3.11 BIOSWALE SOD

Scarify all sides of planting hole. Auger through structural fill,

3.04 AMENDMENT OF SOIL

3.01 HANDLING OF PLANT MATERIAL

PART 3 EXECUTION

backhoe or manually.

grade.

responsibility.

dimensions:

architect

B. All root barriers to be 24" deep, interlocking linear panels.

planted or in annual beds. Shredded bark mulch shall be used in

2.09 MULCH: Fir bark 1" to 2", free of sticks, dirt, dust and other debris, as approved, to a depth of 3" to be placed in all landscaped areas except where flats have been planted or annual beds and drainage swales Fir bark, 1/2" minus, free of sticks, dirt, dust and other debris, as approved, to a depth of 1" to be placed in all landscaped areas where flats have been

conjunction with jute netting on all slopes greater than 6:1. 2.10 PRE-EMERGENT WEED CONTROL: All herbicides used to control weeds shall comply with all governmental regulations and shall be appropriate to weed species. Contact the local county agricultural agent or pest control advisor for proper herbicide recommendations. Follow

A. Canned stock shall be removed carefully after cans have been cut on two sides. Do not use spade to cut cans. Do not lift or handle container plants

3.02 PREPARATION OF SUB-GRADE AND/OR EXISTING SOILS A. Prior to any work in planting areas by landscape contractor, the general

contractor shall clear all construction debris from planting areas. B. Soil shall be ripped in two directions to a depth of 12". In areas not accessible by large equipment, ripping shall be accomplished by small

A. After sub-grade has been prepared, the landscape contractor shall be responsible for furnishing and installing topsoil to within (1) inches of finish

B. Topsoil should be spread evenly over the site. Minimum depth of friable to be 12 inches within five feet of all structures and 24 inches deep in all other areas. If this condition does not exist on the site, the balance of topsoi shall be imported by the landscape contractor to meet this requirement. Import soil shall be compacted to 85% relative compaction. Never apply the

A. Apply amendments to all planting and lawn areas at the following rates

a. 8 cubic yards organic amendment as specified.

c. Additional amendments as determined from soil test B. Incorporate thoroughly with top 8 in. soil layer and remove stones over 1 in. in diameter, roots, clods, weeds, and other extraneous material. Bring amended soil to finish grades and elevations shown on Contract

Documents. Do not work soils under frozen or muddy conditions 3.05 SURFACE DRAINAGE OF PLANTED AREAS: Landscape Contractor shall bear final responsibility for proper surface drainage of planted areas. Any discrepancy in the drawings or specifications, obstructions on the site, or prior work done by another party, which

contractor feels precludes establishing proper drainage shall be bought t the attention of landscape architect in writing for correction or relief of said

A. Excavate container grown tree, shrub, and vine pits to the following

1. Two times as large in diameter as the original growing container (Rhododendron and azaleas 3 times the diameter) The depth should be equal to the root ball height.

compacted soil or hardpan if encountered or as directed by landscape 3.07 DRAINAGE, DETRIMENTAL SOIL AND OBSTRUCTIONS

A. Notify landscape architect in writing of all soil or drainage conditions contractor considers detrimental to growth of plant material. State condition and submit proposal and cost estimate for correcting condition.

A. Protect plants at all times from sun or drying winds. Plants that cannot be planted immediately on delivery shall be kept in the shade, well

C. Prior to planting test hole for drainage by filling with water, if hole does not drain within four hours, do not plant. Contact landscape architect. D. Use planting soil to backfill plant pits. Crown of root ball shall be 1" above

finished grade. Set plant plumb and brace rigidly in position until planting soil has been tamped solidly around the ball and roots. When plant pits have been backfilled approximately 2/3 full, water thoroughly, saturating rootball, before installing remainder of the planting soil to top of pit,

E. Smooth planting areas to conform to specified grades after full settlement

F. Form saucer with 4 in. high berm around tree and shrub pits 12 inches

A. Staking shall be completed immediately after planting. Plants shall stand

B. Locate stakes in position relative to the prevailing wind as shown on

D. Need for auxiliary stake shall be determined in the field by the landscape architect and shall only be used when trees are exceptionally spindly. If necessary, place auxiliary stake adjacent to tree leader and tie with polyethylene nursery tape at 10 inch intervals. Auxiliary stake to be bamboo

3.10 PRUNING: Prune plants only at the time of planting and according to standard horticultural practices to preserve the natural character of the plant. Trees shall be pruned at the direction of the

landscape architect in accordance with current I.S.A. Standards. Remove all dead wood, suckers and broken or badly bruised branches. Use only clean sharp tools. Do not prune to compensate for root loss. Landscape contractor is responsible for replacement of all improperly pruned plant

A. Plant ground cover plant at optimum depth for proper growth. Do not bury deeper than the original soil level which was established in the nursery can.

B. Apply post plant or surface application fertilizer at the rate of 5 lbs. per 1000 sq.ft. Water bed thoroughly after fertilizer application. Wash all fertilizer

A. To be "Biofiltration Sod" as produced by Delta Bluegrass Company, or

B. Sod immediately thereafter, provided the sod bed has remained in a

3.13 SODDING OPERATIONS

A. Sod must be delivered to site within 24 hours of cutting. Lay sod so that adjacent strips butt tightly with no spaces between strips. Lay sod on slopes and mounds with strips parallel to contours. Stagger joints and do not overlap seams. Sodded areas shall be flush with adjoining seeded areas.

B. Tamp and roll sod thoroughly to make contact with sod bed. C. Apply post planting fertilizer at a rate of 5 lbs. per 1000 s.f.

D. Water sod thoroughly.

E. No portion of the sod lawn will be allowed to dry out until the sod is well

F. Supplemental Temporary Irrigation: Contractor shall be responsible for temporary supplemental irrigation of all bio-retention areas through the sod establishment period. Method of irrigation application is discretionary and may include hand watering or installation of a temporary, above grade overhead spray circuit. Any replacement of sod necessary for loss or damage to sod due to lack of water shall be the responsibility of the contractor at contractor's expense.

PART 4 TREE PRESERVATION

4.01 CONSTRUCTION IMPACT: The impact of construction within the project area will be minimal when appropriate protection measures are implemented. The following specifications have been developed to minimize impact on the area.

A. The landscape architect shall be called to inspect and verify staked location of trenches within the project zone. No trenching, pruning or tree removal shall take place without the approval of the landscape architect.

B. The smallest possible equipment shall be used for all construction work to minimize damage to the existing trees.

C. If the installation of storm drains or irrigation lines is to occur within the drip line of any major tree, a professional arborist shall be called upon to inspect the tree and determine whether head pruning will be necessary to balance the projected loss of roots.

D. Following completion of grading, all soil shall be brought back to original grade. No additional soil shall be allowed to remain at the base of any shrub or tree, and grade shall not be changed to allow collection of surface drainage at the base of any shrub or tree.

E. Minimal disturbance to the natural setting is to occur during trenching and installation of pipe lines. The mainlines are to be set 18" below grade. F. Trenches shall be the minimum width possible to accommodate the

specified diameter of pipe. G. Existing foliage shall be preserved wherever possible. When it becomes

necessary to remove any limbs from remaining trees the following quidelines shall be followed: No branches shall be damaged or broken. Prior to installation of lines it shall be determined what foliage

needs to be removed and pruning shall be done using a sharp saw. 3. Limbs shall be removed back to the nearest lateral branch or trunk, using a flush cut 4. All cuts shall be painted with a commercial asphaltic compound designed

specifically for covering pruning wounds.

H. No roots over 2" in diameter shall be torn or damaged. When it becomes necessary to remove any major roots over 2" in diameter, a sharp saw shall be used and the wound treated as described in G-4 above.

I. Following the installation of the pipelines all soil from the trenches shall be brought back to the original grade. No soil shall be allowed to remain at the base of any tree or shrub, and grade shall not be changed to allow collection of surface drainage at the base of any tree or shrub.

J. All pruning and plant debris associated with the installation shall be removed from the site and disposed in an appropriate manner.

4.02 IMPACT OF GRADING :Protection of all existing trees within the construction zone is to be given the highest priority. As described in the following section, the trees within the project area will be protected by a temporary construction fence during all construction phases, including rough and final grading. Grade changes will be prevented around the base of these trees by this fence, and the impact of grading will be negligible as it will occur outside the drip line of all trees.

4.03 MEASURES TO PROTECT VEGETATION FROM CONSTRUCTION ACTIVITIES: A minimum six foot cyclone fence shall be erected aRound the drip line of all trees located within the project area prior to the beginning of any construction activities, including grading. General Contractor shall direct all equipment, subcontractors and personnel to remain outside the fenced area. Warning signs shall be posted on the fence indicating a protected area. As shown on the irrigation plan the cyclone fence will be placed around all existing trees to be saved. The purpose of this fence is to discourage the parking of vehicles under the trees and prevent grading or storage of material too close to the tree trunks.

END OF SECTION 02800

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RLA #2800

don@macnairlandscapes.com

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10/2/24 DATE: MLA JOB #: 2022-33 SCALE: 1" = 20'

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	LIGHTING SCHEDULE					
TYPE	TYPE SYMBOL LIGHT FIXTURE DESCRIPTION					
A	Ø	4" RECESSED DOWNLIGHT				
В	Q	7" W X 6 7/8" D LED WALL WASHER				
С	Q	4 3/4" W X 4 3/8" D LED WALL MOUNTED FIXTURE				
D	Q	12" W X 6" D LED WALL MOUNTED FIXTURE				
E	¤	43 7/8" L X 10 3/8" W LED BOLLARD				

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