LANDSCAPE & EXTERIOR IMPROVEMENTS COLLEGE & DESERT



IMAGE 8.3.2 | Agave americana- Century Plant

- 1. Use sparingly, will expire after blooming
- 2. Avoid planting near walkways
- 3. Up to about 6 feet tall without flower stalk
- 4. Makes a great landscape focal point or accent
- 5. Needs annual insecticide treatment
- 6. Minimum irrigation near the base of the plant



IMAGE 8.3.3 | Agave americana 'Mediopicta'-Mediopicta Variegata

- 1. Use sparingly, will expire after blooming
- 2. Avoid planting near walkways
- 3. Grows up to 2-3 feet tall and 2-4 feet wide
- 4. Needs annual insecticide treatment
- 5. Minimum irrigation near the base of the plant



IMAGE 8.3.1 | Agave 'Blue Glow'- Blue Glow Agave

- 1. Avoid planting near walkways
- 2. Succulent that forms clumps with rosettes
- 3. Grows up to 2-3 feet tall and 3-4 feet wide
- 4. Needs annual insecticide treatment
- 5. Ensure adquate spacing for maintenance personnel
- 6. Minimum irrigation near the base of the plant



IMAGE 8.3.3 | Agave biovicornuta - Cow Tounge

- 1. Use sparingly, will expire after blooming
- 2. Avoid planting near walkways
- 3. Grows up to 2-3 feet tall and 2-4 feet wide
- 4. Needs annual insecticide treatment
- 5. Minimum irrigation near the base of the plant





IMAGE 8.3.4 | Agave parryi - Parry's Agave

- 1. Avoid planting near walkways
- 2. Low growing
- 3. Succulent that forms clumps with rosettes
- 4. Needs annual insecticide treatment
- 5. Minimum irrigation near the base of the plant



IMAGE 8.3.6 | Agave vilmoriniana - Octopus Agave

- 1. Large specimen plant
- 2. Keep space along walkways for mature growth
- 3. No spines or sharp edges
- 4. Needs annual insecticide treatment
- 5. Minimum irrigation near the base of the plant



IMAGE 8.3.6 | Agave weberi - Weber's Agave

- 1. Large specimen plant
- 2. Keep space along walkways for mature growth
- 3. No spines or sharp edges
- 4. Needs annual insecticide treatment
- 5. Minimum irrigation near the base of the plant



IMAGE 8.3.5 | Agave victoriae-reginae -Queen Victoria Agave

- 1. Avoid planting near walkways
- 2. Has small spines
- 3. Use plant in masses
- 4. Needs annual insecticide treatment
- 5. Ensure adquate spacing for maintenance personnel
- 6. Minimum irrigation near the base of the plant







IMAGE 8.3.7 | Anisacanthus spp. -Desert Honeysuckle

- 1. Accent planting
- 2. Mexican Fire or Mexican Flame as acceptable varieites
- 3. Plant sparingly, use in low maintannce areas
- 4. Keep space along walkways for mature growth



IMAGE 8.3.7 | Bougainvillea spectabilis 'Torchglow'-Torchglow Bougainvillea

- 1. Large specimen plant
- 2. Avoid planting near walkways
- 3. Small thorns
- 4. Do not use vining Bougainvillea spp. (only shrub varieities)



IMAGE 8.3.43 | Buchloe dactyloides 'UC Verde' -**UC Verde Buffalo Grass**

- 1. Use as Turf alternative
- 2. Use sparingly for recreation areas or community gathering spaces



IMAGE 8.3.10 | Caesalpinia mexicana-**Mexican Bird of Paradise**

- 1. Large specimen plant
- 2. Keep space along walkways for mature growth
- 3. Summer bloom/ winter dormant





IMAGE 8.3.13 | Cassia armata- Desert Senna

- 1. Plant in large masses
- 2. Keep space along walkways for mature growth
- 3. Flowering spring through summer



IMAGE 8.3.13 | Cassia artemisioides - Feathery Cassia

- 1. Plant in large masses
- 2. Keep space along walkways for mature growth
- 3. Flowering spring through summer



IMAGE 8.3.13 | Cassia didymobotrya- Popcorn Cassia

- 1. Plant in large masses
- 2. Keep space along walkways for mature growth
- 3. Flowering spring through summer



IMAGE 8.3.13 | Cassia nemophilla- Green Feathery Cassia

- 1. Plant in large masses
- 2. Keep space along walkways for mature growth
- 3. Flowering spring through summer





IMAGE 8.3.15 | Convolvulus cneorum- Silver Bush Morning

- 1. Use as a groundcover
- 2. Plant in large masses
- 3. Flowering spring through summer



IMAGE 8.3.15 | Convolvulus maurianticus -**Ground Morning Glory**

- 1. Use as a groundcover
- 2. Plant in large masses
- 3. Flowering spring through summer



IMAGE 8.3.16 | Dalea capitata - Golden Dalea

- 1. Use as a groundcover
- 2. Plant in large masses
- 3. Flowering spring through summer
- 4. Requires partial shade



IMAGE 8.3.16 | Dalea frutescens- Bush Dalea

- 1. Sierra Negra and other varieties are acceptable
- 2. Plant in large masses
- 3. Flowering spring through summer





IMAGE 8.3.22 | Eremophila hygrophana - Blue Bells

- 1. Plant in large masses
- 2. Keep space along walkways for mature growth
- 3. Flowering spring through summer



IMAGE 8.3.22 | Eremophila maculata 'Valentine' -Valentine Emu Bush

- 1. Plant in large masses
- 2. Keep space along walkways for mature growth
- 3. Flowering spring through summer



IMAGE 8.3.22 | Eremophila racemosa-Easter Egg Emu Bush

- 1. Plant in large masses
- 2. Keep space along walkways for mature growth
- 3. Flowering spring through summer



IMAGE 8.3.25 | Euphorbia ingens- Candelabra Tree

- 1. Specimen plant
- 2. Plant away from walkways
- 3. Grows up to 25 feet
- 4. Requires partial shade







IMAGE 8.3.27 | Hesperaloe-parviflora -Redflower false yucca

- 1. Accent plant
- 2. Keep space along walkways for mature growth
- 3. Use plant as a massing
- 4. Flowering spring to summer



IMAGE 8.3.28 | Hesperaloe-parviflora-Brakelights -

Red Yucca

- 1. Accent plant
- 2. Use plant as a massing
- 3. Flowering spring to summer



IMAGE 8.3.32 | Lantana x 'New Gold' - New Gold Lantana

- 1. Use as a groundcover
- 2. Plant in large masses
- 3. Keep space along walkways for mature growth
- 4. Flowering spring to summer



IMAGE 8.1.5 | Lantana montevidensis-Purple Lantana

- 1. Use as groundcover
- 2. Plant in large masses
- 3. Use sparilngly, looks dead and scraggly in summer
- 4. Flowering winter through spring







IMAGE 8.3.36 Leucophyllum 'Sierra Bouquet'-Sierra Bouquet Sage

- 1. Plant in large masses
- 2. Keep space along walkways for mature growth
- 3. Flowering spring to summer



IMAGE 8.3.36 Ligustrum japonicum **Wax Leaf Privet**

- 1. Large screen shrub
- 2. Keep space along walkways for mature growth
- 3. Flowering spring to summer
- 4. Requires partial shade
- 5. Can use texanum or other varieities



IMAGE 8.3.37 Nolina parryi - Parry's Beargrass

- 1. Large specimen plant
- 2. Avoid planting near walkways
- 3. Ensure adquate spacing for maintenance personnel
- 4. Minimum irrigation near the base of the plant



IMAGE 8.3.37 Phyla nodiflora- Lippia

- 1. Use as Turf alternative
- 2. Can be mowed and take high traffic







IMAGE 8.3.39 Pedilanthus bracteatus - Tall Slipper Plant

- 1. Accent Plant
- 2. Keep space along walkways for mature growth



IMAGE 8.3.40 Pedilanthus macrocarpus - Slipper Plant

- 1. Accent Plant
- 2. Keep space along walkways for mature growth



IMAGE 8.1.4 | Ruellia peninsularis Desert Ruellia

- 1. Plant in masses
- 2. Goes semi dormant and leggy use sparingly
- 3. Keep space along walkways for mature growth



IMAGE 8.1.8 | Russellia equisetiformis -Coral Fountain

- 1. Plant in large masses
- 2. Keep space along walkways for mature growth
- 3. Flowering spring to summer



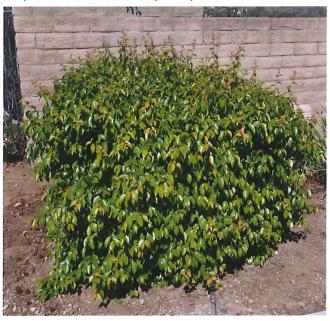


IMAGE 8.3.44 | Xylosma congestum- Shiny Xylosma

- 1. Large screen shrub
- 2. Keep space along walkways for mature growth



IMAGE 8.3.45 Yucca gloriosa var. recurvifolia 'Walbristar' -**Bright Star Yucca**

- 1. Large specimen plant
- 2. Avoid planting near walkways
- 3. Ensure adquate spacing for maintenance personnel
- 4. Minimum irrigation near the base of the plant



IMAGE 8.3.44 | Yucca gloriosa - Spanish Dagger

- 1. Large specimen plant
- 2. Avoid planting near walkways
- 3. Ensure adquate spacing for maintenance personnel
- 4. Minimum irrigation near the base of the plant

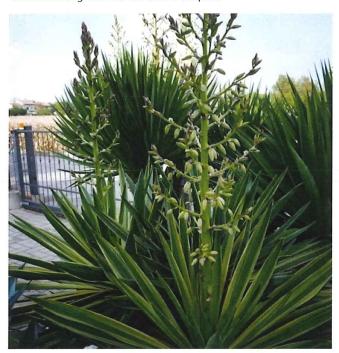


IMAGE 8.3.46 | Yucca recurvifolia - Soft Leaf Yucca

- 1. Large specimen plant
- 2. Avoid planting near walkways
- 3. Ensure adquate spacing for maintenance personnel
- 4. Minimum irrigation near the base of the plant





IMAGE 8.4.6 Bismarckia nobilis - Bismarck Palm Tree

- 1. Palm Tree
- 2. Accent Tree



IMAGE 8.4.7 | Brahea edulis- Guadalupe Island Palm

- 1. Palm Tree
- 2. Accent Tree



IMAGE 8.4.7 | Brahea armata - Mexican Blue Palm

- 1. Palm Tree
- 2. Accent Tree

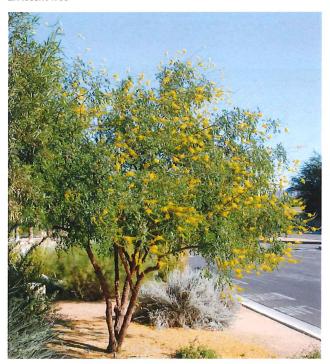


IMAGE 8.4.8 | Caesalpinia cacalaco - Thornless Cascalote

- 1. Small Tree
- 2. Accent Tree
- 3. Semi Deciduous
- 4. Flowering spring to summer







IMAGE 8.2.2 | Cycas revoluta-Sego Palm

- 1. Thirsty plant, use sparingly
- 2. Use near water features
- 3. Requires afternoon shade



IMAGE 8.2.4 | Callistemon viminalis- Weeping Bottle Brush

- 1. Thirsty and messy plant, use sparingly
- 2. Large Tree
- 3. Evergreen



IMAGE 8.2.4 | Dalbergia sisso- Sisso Tree

- 1. Large Canopy
- 2. Shade Tree
- 3. Evergreen
- 4. Use a parking lot tree



IMAGE 8.6.5 | Eysenhardtia texana- Texas Kidneywood

- 1. Small canopy
- 2. Semi-Deciduous





IMAGE 8.2.4 | Lysiloma microphylla var thornberi-**Feather Tree**

- 1. Small Tree
- 2. Dapple shade
- 3. Semi Deciduous



IMAGE 8.4.12 | Olea Europaea 'Swan Hill' -Swan Hill Olive Tree

- 1.Shade tree
- 2. Large canopy
- 3. Evergreen
- 4. Only plant fruitless varieties



IMAGE 8.4.13 | Olneya tesota - Desert Ironwood

- 1. Large canopy
- 2. Semi Deciduous
- 3. Use sparingly, has large thorns and messy



IMAGE 8.4.14 | Phoenix dactylifera - Date Palm

- 1. Plant in Rows
- 2. Palm Tree
- 3. Seasonal fruit treatment in high traffic areas.







IMAGE 8.4.19 | Quercus fusiformis - Texas Live Oak

- 1.Shade Tree
- 2.Medium canopy
- 3. Evergreen
- 4. Use as parking lot tree



IMAGE 8.4.19 | Washingtonia x filibusta- Hybrid Fan Palm

- 1. Replace all W. robusta with hybrid
- 2. Palm Tree
- 3. Plant in Rows along entries
- 4. Must trim skirt when near buildings and walkways





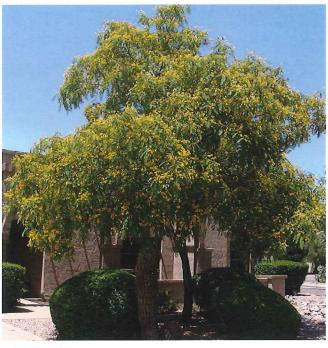


IMAGE 8.4.20 | Tipuana tipu - Tipu Tree

- 1.Shade Tree
- 2. Large canopy
- 3. Evergreen
- 4. Use a parking lot tree
- 5. Anticipate final size near buildings



IMAGE 8.5.4 | Baccharis x 'Starn Thompson' -**Prostrate Coyote Bush**

- 1. Habitat plant
- 2. Plant as a massing groundcover
- 3. Keep space along walkways for mature growth
- 4. Larger varieties tend to get overgrown and leggy



IMAGE 8.5.5 | Baileya multiradiata - Desert Marigold

- 1.Habitat plant
- 2. Biennial Plant growth will reseed use in designated areas
- 3. Biennial lifespan use sparingly
- 4. Flowering spring to summer



IMAGE 8.5.14 | Encelia farinosa - Brittlebush

- 1. Habitat Butterfly plant
- 2. Plant in large masses
- 3. Keep space along walkways for mature growth
- 4. Flowering spring to summer



IMAGE 8.5.17 | Ericameria laricifolia Aguirre -**Turpentine Bush**

- 1. Habitat Butterfly plant
- 2. Plant sparingly, use in low maintannce areas
- 3. Keep space along walkways for mature growth
- 4. Flowering spring to summer





IMAGE 8.3.29 Hesperoyucca whipplei - Our Lord's Candle

- 1. Large specimen plant
- 2. Avoid planting near walkways
- 3. Sharp leaves
- 4. Ensure adquate spacing for maintenance personnel
- 5. Minimum irrigation near the base of the plant



IMAGE 8.5.25 | Larrea tridentata - Creosote Bush

- 1. Habitat plant
- 2. Plant in large masses
- 3. Keep space along walkways for mature growth



IMAGE 8.5.24 | Justicia californica - Chuparosa

- 1. Habitat plant
- 2. Plant in large masses
- 3. Keep space along walkways for mature growth
- 4. Flowering spring to summer



IMAGE 8.5.29 | Nolina bigelovii - Bigelow Nolina

- 1. Avoid planting near walkways
- 2. Large Specimen Plant
- 3. Flowering in spring
- 4. Ensure adquate spacing for maintenance personnel
- 5. Minimum irrigation near the base of the plant





IMAGE 8.5.37 | Penstemon Parryi - Parry's Penstemon

- 1. Habitat plant
- 2.Accent plant
- 3. Keep space along walkways for mature growth
- 4. Flowering in spring
- 5. Short bloom time, use sparingly



IMAGE 8.5.40 | Peritoma Arborea - Bladderpod

- 1. Habitat plant
- 2. Plant sparingly, use in low maintannce areas
- 3. Keep space along walkways for mature growth
- 4. Flowering in spring



IMAGE 8.5.47 | Salvia clevelandii- Cleveland Sage

- 1. Habitat plant
- 2.Plant in large masses
- 3. Keep space along walkways for mature growth
- 4. Flowering in spring



IMAGE 8.5.47 | Salvia leucophylla - Purple Sage

- 1. Habitat plant
- 2.Plant in large masses
- 3. Keep space along walkways for mature growth
- 4. Flowering in spring





IMAGE 8.5.52 | Yucca pallida - Pale-Leaf Yucca

- 1. Avoid planting near walkways
- 2. Specimen Plant
- 3. Ensure adquate spacing for maintenance personnel
- 4. Minimum irrigation near the base of the plant



IMAGE 8.5.55 | Yucca Baccata - Banana Yucca

- 1. Large spines
- 2. Avoid planting near walkways
- 3. Large Specimen Plant
- 4. Ensure adquate spacing for maintenance personnel
- 5. Minimum irrigation near the base of the plant



IMAGE 8.5.53 | Yucca rigida - Blue Yucca

- 1. Large spines
- 2. Avoid planting near walkways
- 3. Large Specimen Plant
- 4. Ensure adquate spacing for maintenance personnel
- 5. Minimum irrigation near the base of the plant



IMAGE 8.5.56 | Yucca Rostrata - Beaked Yucca

- 1. Large spines
- 2. Plant away from walkways
- 3. Large Specimen Plant
- 4. Ensure adquate spacing for maintenance personnel
- 5. Minimum irrigation near the base of the plant



8A | PLANTING PALETTE

II.PLANTS TO AVOID

This section identifies plant materials, including groundcover, shrubs, and trees, which the District and College has deemed inappropriate for future projects at College of the Desert campuses. Architects, Designers, Landscape Architects, and Builders are instructed to refrain from using these materials. Any deviation from this directive would require written approval from District Leadership; no other individuals or entities associated with the college or private industry have the authority to alter this direction.

5. SHRUBS TO AVOID (THIRSTY INVASIVE MESSY)



IMAGE 8.1.1 | Nassella tenuissima-**Mexican Feather Grass**

- 1. A highly invasive species
- 2. Spreads threough seed heads
- 3. Messy, overgrown and will naturalize in open space.



IMAGE 8.1.2 | Oenothera speciosa-**Evening Primrose**

- 4. A highly invasive species
- 5. Spreads by stoloniferous rootstocks and seeds forming a groundcover.
- 6. Goes dormant in the Summer



IMAGE 8.1.3 | Pennisetum spp.- Fountain Grass

- 1. A highly invasive species
- 2. Spreads through seed heads
- 3. Messy, overgrown and will naturalize in open space.



IMAGE 8.1.6 | Strelitzia reginae - Bird of Paradise

- 1. Thirsty Plant
- 2. Leaves get burned in summer







IMAGE 8.3.20 | Deschampsia cespitosa - Tufted hairgrass

- 1. Messy plant
- 2. Invasive plant, seed spread through wind



IMAGE 8.3.23 | Euphorbia milii - Crown-of-thorns

- 1. Large thorns
- 2. Poisonous sap
- 3. Grows leggy over time



IMAGE 8.5.2 | Aristida purpurea - Purple Threeawn

- 1. Messy plant
- 2. Invasive plant, seed spread through wind



IMAGE 8.3.26 | Euphorbia tirucalli

- 1. Poisonous Sap
- 2. Overgrown and messy plant





6. TREES TO AVOID (THIRSTY, INVASIVE, MESSY)

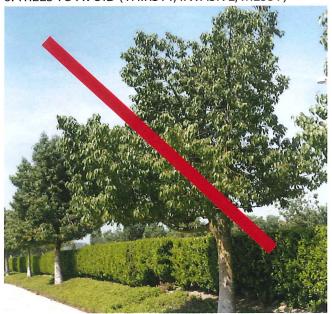


IMAGE 8.4.6 Brachychiton populneus- Kurrajong Bottle Tree

- 1. Messy Tree
- 2. Overgrown

IMAGE 8.6.5 | Eucalyptus microtheca- Coolibah

1. Messy Tree, sap damages walkways 2. Overgrown



IMAGE 8.2.1 | Cocculus laurifolius - Hindu Laurel

1. Thirsty Plant

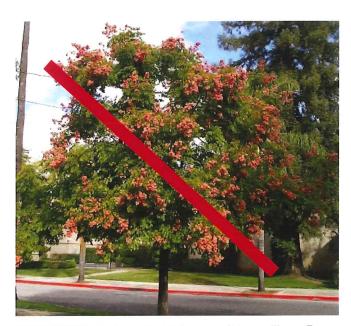


IMAGE 8.2.3 | Koelreuteria bipinnata - Chinese Flame Tree

1. Messy Plant, Flowers and leaves are excessive





8B | IRRIGATION STANDARDS

This section within the Design Standards serves as a collaboration of both current and future campus strategies regarding the installation of diverse irrigation systems and planting applications. College of the Desert prioritizes sustainability and the utilization of native materials, emphasizing low water usage and minimal maintenance requirements. A selection of acceptable reference details is provided to reflect these principles.

I. Irrigation Details

1. Standard Mainline/ Sleeving/ Trenching

PIGTAIL AND LOOP CONTROL WIRE AT ALL 90° CHANGES IN DIRECTION. WHEN NEEDED PROVIDE A MINIMUM 10 FEET SEPARATION BETWEEN POTABLE AND RECLAIMED MAINLINE PIPING 24" MINIMUM COVER ON 3" MAINLINE AND LARGER DIMENSION 2 CLEAN BACKFILL - 90% 1/2" TO 2-1/2" IN SIZE 18" 12" COMPACTION REQUIRED 3" TO 6" IN SIZE 24" 3 NON-PRESSURE LATERAL LINE. SNAKE PIPE IN TRENCH 1 FOR DOMESTIC SYSTEMS - INSTALL 3" WIDE BLUE I- POTABLE WATER DETECTABLE UNDERGROUND TRENCH MARKING TAPE SHALL BE RUN WITH ALL MAINLINE RUNS AND MUST BE INSTALLED AT LEAST 6' ABOVE TOP OF PIPE. FOR RECYCLED SYSTEMS - INSTALL 3" WIDE PURPLE I- RECYCLED WATER DETECTABLE (3) UNDERGROUND TRENCH MARKING TAPE AND MUST BE INSTALLED AT LEAST 6' ABOVE TOP OF PIPE. (5) PRESSURE SUPPLY LINE SNAKE 6 PIPE IN TRENCH

NOTES:

- PVC SLEEVES TO BE TWICE THE DIAMETER OF THE PIPE OR WIRE BUNDLE CARRIED. DETAIL ALSO FOR PIPE INSTALLED IN ROCK SOIL.
- ALL SLEEVES TO BE SCHEDULE 40 PVC
- EXTEND ALL SLEEVES 12" BEYOND EDGE OF HARDSCAPING AT BOTH ENDS. 24" MINIMUM COVER ON MAINLINE 3" AND LARGER.
- 1 FINISH SURFACE 2 CLEAN SAND BAC CLEAN SAND BACKFILL
- MINIMUM 90% COMPACTION
- FOR DOMESTIC SYSTEMS INSTALL 3" WIDE BLUE I- POTABLE WATER
 DETECTABLE UNDERGROUND TRENCH MARKING TAPE SHALL BE RUN WITH ALL AT LEAST 6" ABOVE TOP OF PIPE.

FOR RECYCLED SYSTEMS - INSTALL 3" WIDE PURPLE I- RECYCLED WATER MARKING TAPE SHALL BE RUN WITH ALL MAINLINE RUNS AND MUST BE INSTALLED AT LEAST 6" ABOVE TOP OF PIPE.

PRESSURE MAINLINE IN SCHEDULE 40 SLEEVE - SIZE SLEEVE TWICE DIAMETER OF PRESSURE SUPPLY LINE

- CONTROL WIRES IN SLEEVE SIZE PER PLAN, INSTALL ADJACENT TO PRESSURE SUPPLY LINE
- NON-PRESSURE LATERAL LINE IN SLEEVE TWICE DIAMETER OF LATERAL LINE

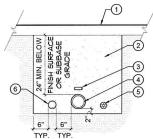




IMAGE 8.4.3 MAINLINE TRENCHING

TYPICAL TRENCHING

6 CONTROL WIRES - BUNDLE AND TAPE

SCALE: NTS

AT 10' O.C. AND INSTALL ADJACENT TO PRESSURE SUPPLY LINE

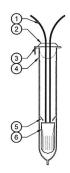
IMAGE 8.4.3 | SLEEVING

a. Product Recomendation- NDS: Pipe and Pipe fittings

8B | IRRIGATION STANDARDS

NOTES

- KIT SHALL INCLUDE A SCOTCHLOK Y SPRING CONNECTOR, A POLYPROPYLENE TUBE AND A WATERPROOF SEALING GEL. TUBE SHALL BE SUPPLIED PRE-FILLED WITH GEL. DIRECT BURY SPLICE KIT SHALL BE USED TO ELECTRICALLY CONNECT 2-3 #14 OR OF WIRES SHALL REQUIRE A LARGER APPROVED WIRE CONNECTION.
- 1) LOW VOLTAGE WIRES, THREE (3) MAXIMUM 2) WIRES PASS THROUGH GROOVES IN TUBE WIRES PASS THROUGH GROOVES IN TUBE LID TO
- ALLOW LID TO CLOSE
 CLOSE TUBE LID AFTER WIRE IS INSERTED INTO TUBE
- POLY TUBE PRE-FILLED WITH WATERPROOF GEL
- LOCK TABS PREVENTS WIRE REMOVAL ONCE CONNECTOR IS INSERTED
- (6) SCOTCHLOK ELECTRICAL SPRING CONNECTOR WIRES SHALL BE PRE-STRIPPED OF 1/2" OF THE INSULATION PRIOR TO INSERTION INTO THE CONNECTOR. TWIST CONNECTOR ONTO WIRES TO SEAT FIRMLY, SCOTCHLOK CONNECTOR AND WIRES INSERTED INTO TUBE UNTIL THE CONNECTOR PASSES LOCK TABS



- NOTES:

 1. TWO-WIRE PATH IN CONDUIT ONLY IF SPECIFIED ON LEGEND, SEE LEGEND.
- FINISHED GRADE IN TURF AREA
 PLASTIC RECTANGULAR VALVE II PLASTIC RECTANGULAR VALVE BOX WITH A TAN COLORED LID AND LOCK KIT. INSTALL BOX AT RIGHT ANGLE TO THE ADJACENT HARDSCAPE EDGE. HEAT BRAND "PB" ONTO LID FINISHED GRADE IN SHRUB AREA
- 3M DBR/Y-6 WATERPROOF WIRE CONNECTORS
- PROVIDE A 48" LONG COIL OF THE TWO WIRE PATH (FOR CONTROL VALVES, MASTER VALVE/FLOW SENSOR OR COMMUNICATION CABLE) IN EACH PULL BOX USED. PULL BOXES FOR SLEEVE CROSSING DO NOT REQUIRE WATERPROOF CONNECTORS UNLESS SPLICES ARE REQUIRE
- BRICK SUPPORTS, FOUR (4) REQUIRED
- TWO-WIRE PATH (CABLE) BETWEEN THE CONTROLLER AND ALL FIELD EQUIPMENT AND CONTROL VALVES
- 3/4" CRUSHED GRAVEL, 4" MINIMUM DEPTH
- LANDSCAPE FARRIC TO SIDES OF VALVE BOX

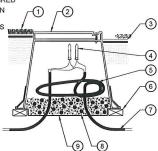






IMAGE 8.4.3 PULL BOX

IMAGE 8.4.3 WIRE CONNECTION

SCALE: NTS

c. Product Recomendation-Wire Connection: GPH Irrigation (GDBRY 6), In-ground Box: Christy's

Standard Auxillary Equipment 3.

TYP. WIRE CONNECTION

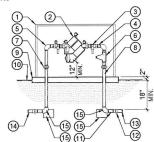
- IF WYE STRAINER OR PRESSURE REGULATOR IS SPECIFIED, INSTALL ON EITHER THE
- HORIZONTAL PIPING OR ON THE DOWNSTREAM LEG AS SPACE PERMITS.

 2. CONCRETE SLAB SHALL BE MINIMUM 4"THICK, 18" WIDE AND EXTEND AT LEAST 8" PAST
- THE BACKELOW ASSEMBLY PIPING IF BACKELOW ENCLOSURE IS SPECIFIED IN THE LEGEND, THE CONCRETE SLAB SHALL BE THE SIZE REQUIRED BY THE MANUFACTURER
- R/P DEVICE SEE LEGEND FOR SPECIFICATIONS
- BRASS BALL VALVE (TYP.)
- BACKFLOW ENCLOSURE
 RP DEVICE SEE LEGEND
 BRASS BALL VALVE (TYP.)
 BRASS NIPPLES MINIMUM
 BRASS ELL, 4 REQUIRED BRASS NIPPLES MINIMUM 4"
- PRESSURE REGULATOR OR WYE
- BRASS UNION, 2 REQUIRED
- BRASS RISERS, LENGTH AS REQUIRED

- BRASS RISERS, LENGTH AS REI
 CONCRETE SLAB, SEE NOTES
 FINISH GRADE
 SCH 80 PVC NIPPLE 6" MINIMUM
 SCH 80 PVC FEMALE ADAPTER SCH 80 PVC NIPPLE 6" MINIMUM
- PVC MAINLINE TO MASTER VALVE
- PVC MAINLINE FROM METER

SCALE: NTS

- 12"x12"x12"x CONCRETE THRUST BLOCK FOR 3" DIA. PIPE OR SMALLER AND SMALLER



REDUCED PRESSURE BACKFLOW

- 1. USE 45 DEGREE ELLS TO ACHIEVE MAINLINE DEPTH FROM UP-STREAM SIDE OF THE
- MASTER VALVE ASSEMBLY
- TOP OF BOX: 1" ABOVE FINISH SURFACE IN TURF AND 2" ABOVE IN NON-TURF AREAS.
- PLASTIC RECTANGULAR VALVE BOX WITH BOLT DOWN COVER, USE STAINLESS BOLT, NUT, AND WASHER BOX TO BE PLACED AT RIGHT ANGLE TO HARDSCAPE EDGE. LABEL "MV" ONTO LID
- FINISH GRADE
- MASTER CONTROL VALVE
- 24" WIRE LOOPS WITH WATERPROOF WIRE CONNECTORS
- VALVE ID TAG
- PVC SCH 40 FEMALE ADAPTER, 2 REQUIRED
- 7 PVC MAINLINE TO FLOW SENSOR, PIPE PER SPECS
- (8) BRICK SUPPORTS (4 TOTAL)
 (9) BRASS UNION
 (10) BRASS NIPPLE TYP.

- 3/4" CRUSHED GRAVEL, 2 CUBIC FEET
- 12 LANDSCAPE FABRIC TO COVER BOTTOM
- AND ALL SIDES OF VALVE BOX
 PVC MAINLINE PIPE FROM BASKET
 STRAINER PER SPECS

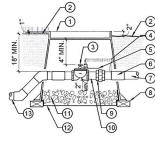




IMAGE 8.4.3 BACKFLOW DEVICE

IMAGE 8.4.3 MASTER CONTROL VALVE

a. Product Recomendation- Backflow Device: FEBCO, In-ground Box: Christy's, Master Control Valve: Rainbird





Recycled Water Labeling/Auxillary Equipment



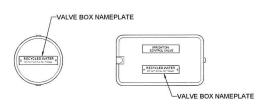




IMAGE 8.4.3 RECYCLED WATER LABELING

a. Product Recomendation-Labels and tags: Christy's

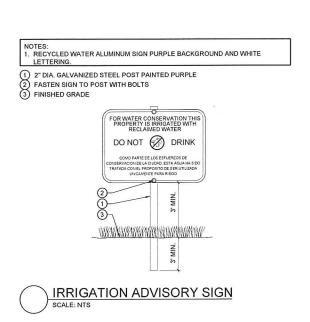


IMAGE 8.4.3 RECYCLED WATER SIGNAGE



RECYCLED WATER WARNING TAG

REFERENCE: T. CHRISTY ENTERPRISES, INC. CATALOG PART NO. 3800 OR EQUAL

IMAGE 8.4.3 RECYCLED WATER LABELING

BASKET STRAINER. REFER TO LEGEND FOR TYPE.

- LOCKABLE ENCLOSURE, REFER TO LEGEND FOR TYPE. 3 FLANGED, (SIZE VARIES). 4 BRASS NIPPLES (LENGTH AS REQUIRED, 3 REQUIRED, LINE SIZE. (5) BRASS / BRONZE BALL
- VALVE. 2 6 FINISH GRADE
- 8 BRASS ELBOWS (TxT, 2 REQUIRED, LINE SIZE.
- CONCRETE THRUST BLACK 3 CUBIC FEET EACH, TWO REQUIRED
- 10 PVC MAINLINE TO MASTER VALVE
- (11) 6" THICK CONCRETE PAD. SIZE TO ACCOMMODATE **ENCLOSURE**
- (12) PLASTIC LABEL ATTACHED WITH NYLON TIE. LABEL TO READ "RECYCLED WATER - DO NOT DRINK" IN ENGLISH AND SPANISH.
- (13) 1/2 " MPT DRAIN VALVE.

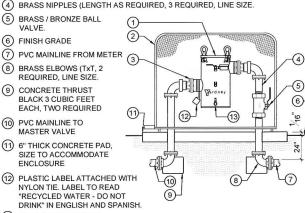




IMAGE 8.4.3 BASKET STRAINER

b. Product Recomendation- Signage: Christy's, Basket Strainer: Yardney





- Standard Inline Irrigation for Natural Turf near Hardscape
 - 1 REMOTE CONTROL VALVE WITH FILTER AND PRESSURE REGULATOR REFER TO LEGEND AND PLANS FOR SPECIFRICATIONS
 - POINT OF CONNECTION, REFER TO PLANS BACKFLOW PREVENTER, REFER TO LEGEND AND

 - PERIMETER LATERALS 2" TO 4" FROM EDGE

 - PLANS FOR SPECIFICATIONS

 4 LATERAL LINE TO NEXT PLANTER BED

 5 MANIFOLD-TO-ELBOW CONNECTION

 6) PVC SUPPLY MANIFOLD

 7 AREA PERIMETER

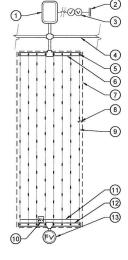
 8) PERIMETER LATERALS 2" TO 4" FROM BE

 9 DRIPLINE

 10 AIRVACUUM RELIEF VALVE (PLUMBED

 AT FACT HIGH POINT) REFER TO LEGE AIR/VACUUM RELIEF VALVE (PLUMBED TO TUBING AT EACH HIGH POINT) REFER TO LEGEND FOR **SPECIFICATIONS**
 - (1) AIR/RELIEF LATERAL BLANK TUBING CENTERED ON MOUND OR BERM

 - (12) PVC FLUSH MANIFOLD
 (13) FLUSH VALVE, PER LEGEND, PLUMB TO EXHAUST HEADER



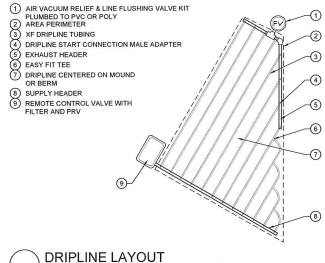




IMAGE 8.4.3 INLINE DRIP LAYOUT

IMAGE 8.4.3 INLINE DRIP LAYOUT

a. Product Recomendation-Inline Drip: Rainbird

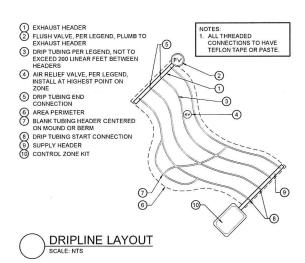


IMAGE 8.4.3 INLINE DRIP LAYOUT

b. Product Recomendation-Inline Drip: Rainbird

ZONE FLUSH VALVE PLUMBED TO PVC (TYP) MANIFOLD CONNECTION (PVC TO ELL) PVC EXHAUST HEADER PVC SUPPLY HEADER MANIFOLD CONNECTION (PVC TO TEE) REMOTE CONTROL VALVE WITH FILTER AND INTERPRET TO LEGEND AND DI MANE FOR 2 -3 REMOTE CONTROL VALVE WITH FILTER AND PRV. REFER TO LEGEND AND PLANS FOR SPECIFICATIONS AREA PERIMETER 4 (8) DRIPLINE LATERAL (9) AIR/VACUUM RELIEF LATERAL BLANK TUBING CENTERED ON MOUND OR BERM -(5) 6 (1) AIR/VACUUM RELIEF VALVE (PLUMBED TO TUBING AT EACH HIGH POINT) (1) PERIMETER LATERALS 2"-4" FROM EDGE (TYPICAL) 7 (2) FLUSH VALVE, PER LEGEND, PLUMB TO EXHAUST HEADER (8) 10 9 11 12 CENTER FEED INLINE DRIP

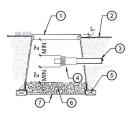
IMAGE 8.4.3 INLINE DRIP LAYOUT

- 6" ROUND PLASTIC VALVE BOX, BRAND "FV" ONTO LID, 1 1/2"-2" HIGH LETTERING
- (2) FINISH GRAUE
 (3) 3/4" PLOY TUBE.
 (4) 3/4" FPT ACTUATED PRESSURE SELF FLUSHING VALVE
- (5) BRICK SUPPORTS
 (6) 3/4" WASHED CRUSHED GRAVEL, 1/2
 CUBIC FEET
- (7) LANDSCAPE FABRIC TO COVER BOTTOM AND ALL SIDES OF VALVE BOX

NO IES:

1. TOP OF BOX: 1" ABOVE FINISH SURFACE IN TURF AND 2" ABOVE IN NON-TURF AREAS.

2. INSTALL AT THE LOWEST POINT AND/ OR AT THE END OF LATERAL PIPING AS NEEDED.



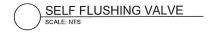


IMAGE 8.4.3| FLUSH VALVE

d. Product Recomendation-Flush Valve: Toro

7. Standard Point Source irrigation

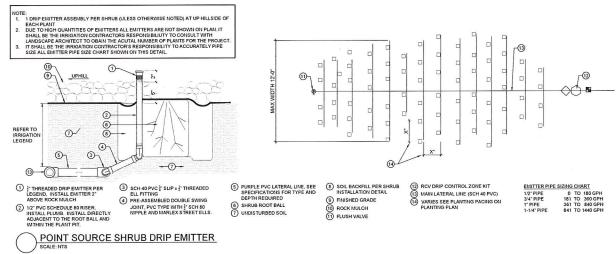


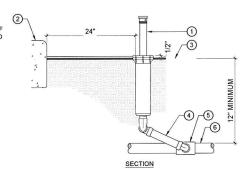
IMAGE 8.4.3 POINT SOURCE DRIP

a. Product Recomendation-Point Source Drip Emitters: Rainbird

10. Standard Match Precipitation Spray irrigation (Native Plants or Small Turf areas)

- LOCATE SPRINKLER HEADS 24" FROM WALKS, CURBS, MOWSTRIP AND HEADER BOARDS EDGE IN TURE AND GROUNDCOVER AREAS.
 INSTALL SPRINKLER HEADS PLUMB, ADJUST SPRAYS OR NOZZLE STREAM TO COVER LANDSCAPE AREA WITHOUT OVERSPRAY ONTO PAVING, FENCES, WALLS OR BUILDINGS.
- SPRAY OR ROTOR REFER TO
- LEGEND FOR SPECIFICATIONS

 (2) INSTALL POP-UP INDICATOR HEAD 24" OFF OF PAVEMENT OR THE EDGE OF PLANTED AREA SERVED BY DRIP TUBING
- (3) INSTALL SPRINKLER HEAD 1/2" ABOVE FINISHED GRADE IN SHRUB AREAS
- (4) PRE-ASSEMBLED TRIPLE SWING JOINT (REFER TO LEGEND), LAY LENGTH TO BE 6" MINIMUM SIZE AS PER SPRINKLER OUTLET
- 5 SCH 40 PVC SXSXT TEE FITTING LATERAL x SPRINKLER INLET SIZE
- LATERAL LINE, REFER TO SPECIFICATIONS FOR TYPE AND DEPTH REQUIRED





POP-UP SPRAY HEAD

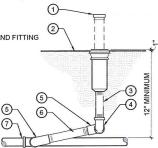
IMAGE 8.4.3 | SPRAY HEAD

a. Product Recomendation-Spray head: Rainbird

NOTES

- 1. LOCATE HEAD 24" FROM HARDSCAPING, PLANTING BEDS AND EDGE OF LAWN.
- 2. LOCATE HEAD 24" FROM ALL STRUCTURES.
- 1 POP-UP TURF ROTOR MANUFACTURER AND MODEL AS INDICATED IN LEGEND OR APPROVED EQUAL
- FINISH GRADE
- SCH 80 PVC NIPPLE (MINIMUM 4" LONG)

- 3 SCH 80 PVC NIPPLE (MINIMUM 4" LONG)
 4 SCH 40 PVC TXT 90' ELL
 5 MARLEX 90' STREET ELL
 6 SCH 80 PVC NIPPLE
 7 NON-PRESSURE LATERAL LINE AND FITTING





TURF ROTOR HEAD ASSEMBLY SCALE: NTS

IMAGE 8.4.3 ROTOR HEAD

b. Product Recomendation-Rotor Head: Rainbird



8C | PLANTING AND INERT MATERIAL STANDARDS (CONT)

3. Multi-trunk Tree Planting

- NOTES: 1. CROWN OF ROOTBALL TO BE 1" ABOVE FINISH GRADE CROWN OF ROOTBALL TO BE 1" ABOVE FINISH STORES
 FOR ADDITIONAL INFORMATION REFER TO PLANTING NOTES AND SPECIFICATIONS.
- 1/2" DIAMETER WHITE PVC, OR APPROVED EQUAL
- A SHALLOW BASIN 2" DEEP SHALL BE FORMED AROUND ROOT BALL BELOW FINISH GRADE. TREES PLANTED IN TURF AREAS SHALL NOT HAVE BASINS
- APPROPRIATE METAL OR PVC ANCHOR
- TURNBUCKLE, TYPICAL
-) GUY WIRES (3 TOTAL) TO BE OF #9 GAUGE DURABLE ZINC COATED IRON, OR EQUAL EQUALLY SPACED AROUND THE TREE. FINISH GRADE

- 7 TREES INSTALLED WITHIN TURF AREAS SHALL BE INSTALLED WITH 'ARBOR-GARD', OR EQUAL, AT BASE OF TRUNK

 (B) ROOTBALL

 (B) BACKFILL

- 10 2-PLY REINFORCED RUBBER OR PLASTIC
- GARDEN HOSE 1/2"-3/4" DIAMETER, OR EQUAL (11) ADJACENT HARDSCAPE WHERE OCCURS PER PLAN
- 24" DEEP ROOT BARRIER INSTALLED ALONG INSIDE OF TREE PIT FOR ALL NEW TREES AND WHERE TREES ARE WITHIN 5 FEET OF HARDSCAPE & STRUCTURES.
- 3" DEEP LAYER OF WOOD MULCH IN SHRUB AREAS HOLD BACK 6" FROM TREE TRUNK.
- (4) 2-4" OBSERVATION TUBES WITH \$\frac{3}{4}" GRAVEL AT BASE-INSTALL OPPOSITE SIDES OF THE TREE.

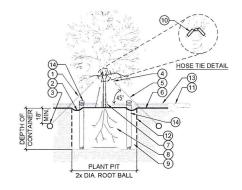


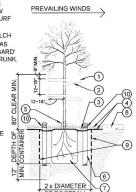


IMAGE 8.4.3 MULTI-TRUNK TREE PLANTING

Standard Trunk Tree Planting/ staking 4.

- (1) Z'Ø MIN. x 10' LODGE POLE STAKE BOTH SIDES, OR 'TOMAHAWK TREE STABILIZER SYSTEM' (800) 845-3343, or Approved Equal
- CINCH TIE, ARBOR TIE, or Approved Equal A SHALLOW BASIN 2" DEEP SHALL BE FORMED AROUND ROOT BALL BELOW FINISH GRADE. TREES PLANTED IN TURF AREAS SHALL NOT HAVE BASINS.
- FINISH GRADE w/ 3" DEEP WOOD MULCH TREES INSTALLED WITHIN TURF AREAS SHALL BE INSTALLED WITH 'ARBOR-GARD' OR APPROVED EQUAL AT BASE OF TRUNK.
- 6 BACKFILL IN ACCORDANCE WITH PROJECT AGRICULTURAL SUITABILITY SOILS REPORT 7 ROOTBALL TO BE 1" ABOVE FINISH GRADE.

- ADJACENT HARDSCAPE WHERE OCCURS PER PLAN
 24" DEEP ROOT BARRIER INSTALLED 24 DEEP ROOI BARRIER INSTALLED
 AROUND ALL NEW TREES AT OUTSIDE
 EDGE OF PLANTING PIT, OR ALONG
 PAVING OR STRUCTURE IF CLOSER
 THAN 5. EXTEND 8' IN BOTH
 DIRECTIONS FROM TREE TRUNK.
- 2- 4" OBSERVATION TUBES WITH 3" GRAVEL AT BASE INSTALL ON OPPOSITE SIDES OF TREE.



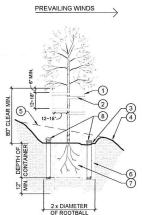
NOTE: FOR ADDITIONAL INFORMATION REFER TO PLANTING NOTES AND SPECIFICATIONS.

TREE PLANTING & STAKING

IMAGE 8.4.3 TREE PLANTING & STAKING

NOTE: FOR ADDITIONAL INFORMATION REFER TO PLANTING NOTES AND SPECIFICATIONS.

- (1) 2'Ø MIN. x 10' LODGE POLE STAKE BOTH SIDES, OR 'TOMAHAWK TREE STABILIZER SYSTEM' (800) 845-3343, OR APPROVED EQUAL
- 2 CINCH TIE, ARBOR TIE, OR APPROVED EQUAL 3 A SHALLOW BASIN 2" DEEP SHALL BE FORMED AROUND BALL BELOW FINISH GRADE ON DOWNWARD SIDE
- 4 FINISH GRADE
 5 EDGE OF SLOPE
 BACKFILL IN ACC EDGE OF SLOPE BEYOND BACKFILL IN ACCORDANCE WITH PROJECT AGRICULTURAL SUITABILITY SOILS REPORT
 - ROOTBALL
- 2 4" OBSERVATION TUBES WITH 3" GRAVEL AT BASE INSTALL ON OPPOSITE SIDES OF TREE.



TREE PLANTING ON SLOPE

IMAGE 8.4.3 TREE PLANTING & STAKING ON SLOPE



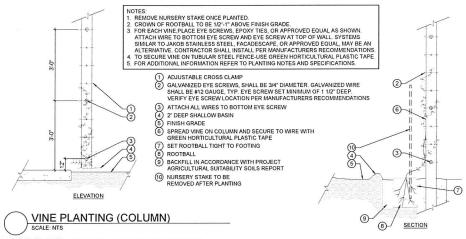


IMAGE 8.4.3 | VINE PLANTING (COLUMN)

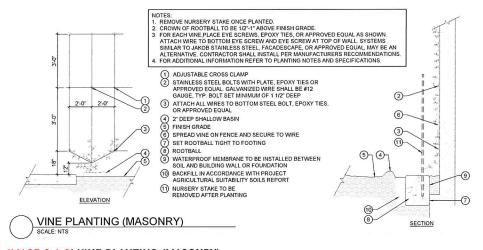


IMAGE 8.4.3 VINE PLANTING (MASONRY)

8C | PLANTING AND INERT MATERIAL STANDARDS

II. Inert Materials

Boulder Installation

NOTES:

- NOTES:

 1. ALL BOULDERS SHALL BE BURIED 30% OF OVERALL HEIGHT, WIDTH AND LENGTH.

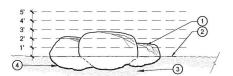
 2. FINAL LOCATION OF ALL BOULDERS SHALL BE PER THE ENGINEER.

 3. CONTRACTOR TO PROVIDE SAMPLE BOULDER FOR REVIEW AND APPROVAL BY ENGINEER PRIOR TO PURCHASE.

 4. BOULDERS SHALL BE DISTRICT SELECTED BOULDERS

BOULDER MEASUREMENT CHART:
APPROX. SIZE:
A: 48"x48"x48"
B: 36"x36"x36"
C: 24"x24"x24"
BOULDER: AVAILABLE AT SOUTHWEST BOULDER AND STONE PHONE: (714) 882-1010 OR APPROVED EQUAL

- REFER TO NOTES FOR SIZES
 - FINISH GRADE
- UNDISTURBED NATIVE GRADE OR 95% CERTIFIED COMPACTED SUBGRADE.
- WEED FABRIC BARRIER BENEATH BOULDER - MIRAFI MSCAPE WEED FABRIC OR AN APPROVED EQUAL

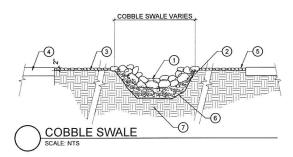


BOULDER INSTALLATION

Large Diameter Cobble and Rock Groundcover 3.

- COBBLE SWALE SHALL RECEIVE SELECTED TYPE FROM SOUTHWEST BOULDER AND STONE. COBBLE SIZES SHALL BE 3"-5". COBBLE SHALL BE DRY SET WITH IN GRAVEL AND SAND.
- 1 COBBLE SWALE REFER TO NOTES AND CONSTRUCTION PLAN FOR
- LOCATIONS 4" MIN. SAND AND GRAVEL FOR CLAY SOILS LESS THAN 4" FOR WELL DRAINED SOILS PLANTING AREA FINISH GRADE

- ADJACENT HARDSCAPE VARIOUS COBBLE SIZES AND TYPES
- WEED FABRIC BARRIER MIRAFI MSCAPE WEED FABRIC OR AN APPROVED
- 7 UNDISTURBED NATIVE SOIL



- ① FINISH GRADE
 ② COMPACTED BASE & SUBGRADE PER GEOTECH'S REC.'S
 ③ WEED BARRIER FABRIC
 ④ 2'-4'~ BOULDERS SELECTED BOULDER
 ⑤ 4"-8"~ STREAM BED ROCK SELECTED COBBLE

- 6 1"-3"~ STREAM BED ROCK SELECTED COBBLE

BOULDERS & ROCK AVAILABLE AT: SOUTH WEST BOULDER & STONE, 1-877-792-7625

SEE PLAN (5) 6 4 3 DRY CREEK

