REDUCED PRESSURE BACKFLOW PREVENTION UNIT

1. REDUCED PRESSURE BACKFLOW PREVENTION UNIT
2. BRONZE SHUT-OFF VALVE
3. BRASS NIPPLE
4. BRONZE UNION
5. BRONZE WYE STRAINER W/40 MESH SCREEN
6. COPPER PIPE (TYPE K HARD)
   EXTEND 12" BELOW CONCRETE PAD AND
   WRAP WITH 1" ANTI-CORROSION TAPE
7. PVC SLEEVES
8. BRASS OR COPPER 90 DEGREE ELBOW
9. CONC. METER BOX, INSTALLED BY THE
   CITY OF PHOENIX
10. SCH. 80 PVC TOE NIPPLE
11. ½ CUBIC FOOT (MIN) CONC.
    THRUST BLOCK
12. PVC SCH 80 COUPLING
13. PVC MAINLINE PIPE (SEE IRRIGATION SCHEDULE)

NOTE:
1. ON UNITS 3’’ AND LARGER, ALL COPPER AND BRASS PIPE FITTINGS SHALL BE FLANGED
   DUCTILE IRON
2. WRAP ALL BURIED COPPER AND BRASS PIPE AND FITTINGS WITH 1’’ MIN. ANTI-CORROSION
   TAPE TO A HEIGHT OF 6’’ ABOVE CONCRETE
3. OBTAIN REQUIRED CERTIFICATIONS PER AGENCY REQUIREMENTS
BACKFLOW SECURITY ENCLOSURE

NOTES

1. AFTER ALL WELDING, ENTIRE UNIT SHALL BE PROCESSED WITH IRON PHOSPHATE PRE-TREATMENT.
2. ELECTROSTATIC APPLICATION OF POWDERCOAT SHALL BE FUSION BONDED - PRS-B-4004-C (BEIGE) OR COLOR SELECTION TO BE APPROVED BY OWNER
3. ALL BOLTS FOR HINGES & HASPS SHALL BE ZINC PLATED & TAMPER PROOF
4. ALL WELDED AREAS SHALL BE A MINIMUM OF 1/4" WIDTH BEAD EVERY 4"
5. GS = POWDERCOATED STEEL GUARD SHACK

COVER FOR LOCKING MECHANISM

KEY NOTES

1. 3/8"-16-2 1/2" FORGED EYEBOLT (QTY 2)
2. 3/8"-16 HEX NUT (QTY 4)
3. 3/8" X 1/2" FENDER WASHER (QTY 2)
4. PADLOCK BY OWNER
BALL VALVE

BRONZE, 2-PIECE BALL PORT

NOTES:
1. COMPACT SOIL AROUND VALVE BOX TO SAME DENSITY AS UNDISTURBED
   ADJACENT SOIL.
2. VALVE BOX SHALL BE SET LEVEL AND PARALLEL TO GRADE.
BUBBLER IN SLEEVE

NOTES:
1. FURNISH NOMINAL FITTING SIZES IDENTICAL TO NOMINAL INLET DIAMETER OF BUBBLER.
2. INSTALL TWO BUBBLERS PER TREE ON OPPOSITE SIDES OF THE ROOT BALL WHERE INDICATED.
NOTES:
1. FURNISH NOMINAL FITTING SIZES TO CORRELATE WITH INLET DIAMETER OF BUBBLER.
2. INSTALL TWO BUBBLERS PER TREE ON OPPOSITE SIDES OF THE ROOT BALL.
3. INSTALL ONE BUBBLER PER SHRUB OR AS NOTED.
EMITTER-MULTI OUTLET IN BOX

1. 10" ROUND BOX
2. MULTI OUTLET Emitter with 6 PORTS OPEN
3. ½" THREAD SCH 40 MALE ADAPTER
4. ½" SCH 80 FLEX HOSE
5. ½" PVC SCH 80 90-DEGREE ELL
6. ½" PVC CL 315 PIPE 12" MIN
7. ½" PVC SCH 80 FITTING
8. LATERAL IRRIGATION LINE
9. 3" MIN DEPTH OF WASHED PEA GRAVEL
10. FILTER FABRIC
11. BRICK SUPPORTS FOR BOX (2)

NOTES:

1. MULTI-OUTLET EMITTER ONE PER TREE (OR AS SHOWN ON DRAWINGS). USE GLUE SPECIFIC FOR CONNECTIONS.
2. MAINTAIN MINIMUM 3’ DISTANCE FROM TREE TRUNK TO Emitter BOX.
3. PLACE ENDS OF SPAGHETTI TUBING NO CLOSER THAN 2’ TO TRUNK AND AT EDGE OF ROOTBALL.
4. SPAGHETTI TUBING LENGTH SHALL NOT EXCEED 5’.
EMITTER PLACEMENT

NOTES:
1. PLACE EMITTERS AT EDGE OF ROOTBALL
2. PLACE EMITTER OUTLET AT UPHILL SIDE OF PLANT IF ON A SLOPE
3. SPAGHETTI TUBING NO LONGER THAN 5’

MULTI-PORT EMITTER
1 PER TREE
WITH 6 OUTLETS

EDGE OF ROOTBALL

TREE TRUNK

TUBING PLACEMENT
PLACE BELOW GRADE AND AROUND ENTIRE CIRCUMFERENCE OF ROOTBALL

MULTI-PORT EMITTER
1 PER 5 AGAVE (5 OPEN)

TUBING PLACEMENT

PLACE UPHILL AND 2” AWAY FROM ROOTBALL

MULTI-PORT EMITTER
1 PER 6 SHRUBS OR AS SPECIFIED

AGAVE

SHRUB

TREE
NOTES:
1. SCH 40 PVC SOLVENT WELD—INSTALLED 12–14” DEPTH PARALLEL PIPES SHOULD HAVE MIN. 2” HORIZONTAL SPREAD
2. PLACE_EMITTER_AT_UPHILL_SIDE_OF_PLANT_OUTSIDE_ROOTBALL_BY_2”
NOTES:
1. INLET PIPE LENGTH TO FLOW SENSOR MUST BE MIN. 10X PIPE DIA. IN STRAIGHT, UNOBSERVED PIPE, NO FITTINGS OR TURNS.
2. OUTLET PIPE LENGTH FROM SENSOR MUST BE MIN. 5X PIPE DIA. IN STRAIGHT, UNOBSERVED RUN OF PIPE, NO FITTINGS OR TURNS.
3. VERIFY MANUFACTURER SPECIFICATIONS ON DISTANCE REQUIRED BETWEEN MASTER VALVE AND FLOW SENSOR.
LARGE SPRINKLER ROTOR

NOTE:
SCH. 40 PVC SOLVENT WELD—INSTALLED 12–14” DEPTH. PARALLEL PIPES SHOULD HAVE MIN. 2” HORIZONTAL SPREAD
LEACH LINE

SOLVENT WELD 2½” O.D. DRINKING FTN. DRAINLINE TO 6” PERFORATED DRAINLINE W/ REDUCER FITTING

FILTER FABRIC

10’ LONG 6” DIA. PERFORATED PVC DRAINLINE CAP END PVC SET LEVEL

6”

2’

10’

NO. 2 PVC WASTELINE

6”

6”

NO. 4 AGGREGATE BASE COURSE
1. AMBIENT LIGHT POWERED IRRIGATION CONTROLLER
2. TERMINAL STRIP.
3. 12 OR 14 GAUGE WIRE
4. PROGRAMMING KEY
5. 35" HIGH X 31 CM WIDE STEEL MOUNTING COLUMN
6. FINISH GRADE
7. 6-1/2" OF BACKFILL SOIL
8. Poured concrete base 1-1/2 cu.ft. Install per manufacturer’s installation guide
9. DIRECT BURIAL CONTROL WIRES TO CONTROL VALVES
10. SLOPE TOP OF FOOTING AWAY FROM CENTER POST (MIN. 1% = ½")
MANUAL FLUSH CAP

10” ROUND VALVE BOX
1/2” F.I.P X 3/4” M.H.A (BRASS)
1/2” SCH 80 MALE ADAPTER
SUPPORT BRICK (1 OF 4 REQD.)
1/2” SCH 80 NIPPLE (LENGTH AS REQUIRED)
12” DEPTH PEA GRAVEL

BRASS HOSE CAP
1” - 1-1/2” MAX
SET TOP OF BOX 1” ABOVE DG
OR 1-1/2” ABOVE TURF
AFTER COMPACTION

PVC LATERAL
SCH 80 90° PVC ELL
## IRRIGATION PIPE AND SLEEVE SCHEDULE

<table>
<thead>
<tr>
<th>PIPE SIZE</th>
<th>GPM</th>
</tr>
</thead>
<tbody>
<tr>
<td>1/2”</td>
<td>0–5</td>
</tr>
<tr>
<td>3/4”</td>
<td>6–10</td>
</tr>
<tr>
<td>1”</td>
<td>11–15</td>
</tr>
<tr>
<td>1–1/4”</td>
<td>16–25</td>
</tr>
<tr>
<td>1–1/2”</td>
<td>26–35</td>
</tr>
</tbody>
</table>

## SLEEVE SCHEDULE

<table>
<thead>
<tr>
<th>PIPE SIZE</th>
<th>MINIMUM SLEEVE SIZE</th>
</tr>
</thead>
<tbody>
<tr>
<td>1/2” – 3/4”</td>
<td>3”</td>
</tr>
<tr>
<td>1” – 2”</td>
<td>4”</td>
</tr>
</tbody>
</table>

**NOTE:**
For multiple pipes in one sleeve minimum, 3” or larger so pipes move freely in both directions.
BALL VALVE
PLASTIC, 2-PIECE BALL PORT
NOTES

12” X 17 LOCKING VALVE BOX AND COVER W/EXTENSION AS NEEDED FOR DEPTH

PLASTIC BALL VALVE
SET TOP OF BOX 1” ABOVE FINISH GRADE

1” DG LAYER

2” DG LAYER

MAIN SUPPLY LINE

SCH 80 PVC COUPLING
BRICK SUPPORT (1 OF 4 REQ’D)
SCH 80 PVC NIPPLE

4’-6” DEPTH
PEA GRAVEL

1-1/2” TURF

18”

NOTES:
1. COMPACT SOIL AROUND VALVE BOX TO SAME DENSITY AS UNDISTURBED ADJACENT SOIL.
2. VALVE BOX SHALL BE SET LEVEL AND PARALLEL TO GRADE.
3. HARDWARE SHALL BE STAINLESS STEEL BOLTS WITH STAINLESS STEEL WASHERS.
**QUICK COUPLER ASSEMBLY**

**MAINLINES 2 ½” AND SMALLER**

1. 10” ROUND VALVE BOX W/T—STYLE, LOCKING BOLT COVER O.A.E. SET TOP OF VALVE BOX, 1” ABOVE TURF or 1-½” ABOVE DG AFTER COMPACTION.
2. BRASS QUICK COUPLER VALVE WITH LOCKING RUBBER COVER
3. UNITIZED SWING JOINT W/STABILIZED BRASS NIPPLE
4. PVC SCH 40 SLIP TEE
5. PVC SCH 40 MAINLINE PIPE
6. 6” LAYER PEA GRAVEL. (MIN 1 C.F.) EXTEND BEYOND BOX EDGES 4”x8” STANDARD BRICK
7. 1/2” WIDE STAINLESS STEEL STRAP (2)
8. #4 MIN. REBAR 36” LONG

**NOTE:**
1. ¾”-2.5” PVC SCH. 40 MAINLINE SOLVENT WELD—INSTALLED 18-20” DEEP
2. SET PIPES PARALLEL IN TRENCH WITH 2” SPACE BETWEEN THEM.
REMOTE CONTROL BRASS VALVE, PRESSURE REGULATOR AND WYE STRAINER

JUMBO 14X19 VALVE BOX WITH LID—WITH BOLT DOWN OPTION, INSTALL 1" ABOVE FINISH GRADE FOR DG OR 1-1/2" FOR TURF. INCLUDE STAINLESS STEEL HARDWARE.

4" MINIMUM CLEARANCE FROM BOTTOM OF VALVE BOX LID TO TOP OF HIGHEST PART

BRONZE WYE STRAINER, BRONZE PRESSURE REGULATOR WITH PRESSURE GAUGE AND BRASS 3" NIPPLES

ELECTRIC BRASS SOLENOID VALVE

FINISH GRADE.

MAINLINE TEE 2.5" AND SMALLER USE SCH 80 PVC, 3" AND LARGER USE DUCTILE IRON GXCXFPT TEE

NOTES:

1. SCHEDULE 40 PVC SOLVENT WELD—INSTALLED 12–14" DEPTH PARALLEL PIPES SHOULD HAVE A MIN. OF 2" HORIZONTAL SEPARATION

2. VALVE BOX TO INCLUDE STAINLESS STEEL BOLT AND WASHER.

EXCAVATE TO ALLOW FOR 6" DEPTH 3/8" PEA GRAVEL
4"X8"BRICK, SET LEVEL AT EACH CORNER FOR SUPPORT

PVC SCH 80 T.O.E NIPPLE (ON MAINLINES 3" AND LARGER USE EXTRUDED TOE NIPPLE)

PVC SCH 80 T.O.E NIPPLE

SCH 80 PVC T.O.E NIPPLE 4" LENGTH

SCH 80 PVC 48" ELL(TYP)

PVC SCH 40 PIPE

SCH 80 T.O.E NIPPLE
NOTES:
1. TOP OF ROOT CONTROL BARRIER MUST BE AT GRADE
2. POSITION OF ROOT CONTROL BARRIER SHALL BE ADJACENT TO CURBS
3. RAISED ROOT DEFLECTORS MUST BE FACING PLANTED AREA
4. PROVIDE A MINIMUM LENGTH 12 FEET OF ROOT BARRIER PER TREE. CENTER ON TREE TRUNK.
5. PROVIDE 6 CONTINUOUS FEET PER SIDE OF TREE.
6. ROOT BARRIER SHALL BE A MINIMUM OF 24 INCHES BELOW GRADE ON CURBSIDE.
7. LOCATION OF H2O LINE ON SOUTH SIDE OF ROOT BARRIER BETWEEN ROOTBALL AND WIRE.
REDUCED PRESSURE BACKFLOW

1. REDUCED PRESSURE BACKFLOW PREVENTION UNIT (BRASS)
2. CONC. METER BOX, INSTALLED BY CITY OF PHOENIX
3. PROVIDE CMB MODEL 3131
   BRONZE "Y" STRAINER
   W/ 40 MESH SCREEN
4. COPPER PIPE (TYPE K HARD)
5. SCH. 80 PVC TOE NIPPLE
6. ½ CUBIC FOOT (MIN) CONC. THRUST BLOCK
7. BRASS OR COPPER 90 DEGREE ELBOW
8. BRONZE UNION
9. PVC SCH 80 COUPLING
10. PVC MAINLINE PIPE (SEE IRRIGATION SCHEDULE)
11. PVC SLEEVES

ON UNITS 3” AND LARGER, ALL COPPER AND BRASS PIPE FITTINGS SHALL BE FLANGED DUCTILE IRON

WRAP ALL BURIED COPPER AND BRASS PIPE AND FITTINGS WITH PLASTIC SAFETY CLAD TAPE TO A HEIGHT OF 6” ABOVE CONCRETE.
IRRIGATION SLEEVE UNDER PAVEMENT

1. Finish grade beyond curb on pavement edge, set 1-1/2" below top of curb.

2. Mark sleeve location with 6" pull box and vertical SCH 40 PVC pipe.

3. MIN. 24" cover under pavement.

4. SLEEVE PIPE

5. 12"

6. SEPARATE SLEEVE MUST BE USED FOR WIRING.

7. EXTEND SLEEVE 12" BEYOND CURB EDGE

NOTE:
ALTERNATIVE METHODS FOR MARKING SLEEVE LOCATIONS:
1. Stamp back of curb with an 'S' for new concrete
2. Retrofit will require 'S' to be etched back of curb

MARKED
SMALL SPRINKLER ROTOR

1. FINISH GRADE
2. MODEL ROTOR HEAD
3. PREFABRICATED DOUBLE SWING JOINT (SCH 40 PVC)
4. LATERAL TEE OR ELL
5. LATERAL PIPE
6. RECLAIMED RUBBER COVER

NOTE:
SCH 40 PVC SOLVENT WELD—INSTALLED 12—14” DEPTH. PARALLEL PIPES SHOULD HAVE MIN. 1” HORIZONTAL SPREAD

(TORD S700C, HUNTER IS—20&IS—25 STAINLESS STEEL)
SOIL MOISTURE PROBE

ELECTRICAL DRY BOX
INSTALL FOR WIRE
SPlice, COIL EXCESS
WIRE IN BOX

1" CONDUIT

Belden Wire
19509 B$9250

1.25" DIA PROBE

1.27" AUGER HOLE

SOIL SLURRY MIX

MOUNT TO GREEN HALF
SLOT CHANNEL UNISTRUT
1 5/8" X 1 5/8"

MAXIMUM 5 PROBES PER RADIO

150’ FT MAX
STAINLESS STEEL CONTROLLER CABINET

NOTES:
1. CONTRACTOR TO CONFIRM WIRING CONFIGURATION PER THIS PROJECT AND PROVIDE ADEQUATE CONDUIT FOR WIRES TO MOVE FREELY WITHIN CONDUIT FOR COMPLETE AND CLEAN INSTALLATION INTO CABINET.
2. BUNDLE WIRES WITH PLASTIC WIRE TIE TO PROVIDE NEAT AND ORGANIZED INSTALL. CABINET DIMENSIONS: 16"W X 38"H X 15.5"D
3. CONTRACTOR TO COORDINATE AND ASSURE POWER TO CONTROLLER LOCATION AS SHOWN ON DRAWINGS.

ALSO INCLUDE:
1. HAND HELD REMOTES - QTY PER BID - MIN 1 PER SPECIFICATION
2. APPROPRIATE AIR CARD & COMMUNICATIONS
SECTION "A"
ALL PIPE INSTALLATION. TRENCH EXCAVATION, BEDDING, BACK FILL AND COMPACTION SHALL CONFORM TO CDP SUPPLEMENT SEC. 440

LATERAL LINE – SCH. 40 PVC SOLVENT WELD INSTALLED 12–14” DEPTH. PARALLEL PIPES SHALL HAVE MIN. 2” HORIZONTAL SPREAD

MAINLINE – ¾”–2.5” SCH. 40 PVC SOLVENT WELD 18–20” DEPTH. 3” AND LARGER CLASS 200 "O"–RING PIPE. PARALLEL PIPES SHOULD HAVE A MIN. OF 2” HORIZONTAL SEPARATION

ADD 2” LAYER OF FINELY GRADED NATIVE SOIL OR BEDDING SAND AND BACK FILL

NOTES:
1. TOP OF WIRE BUNDLE SHOULD BE 2” BELOW TOP OF PIPE.
2. HORIZONTAL DISTANCE BETWEEN ALL PIPE MIN. 2”
3. ALL PIPING 3” AND LARGER SHALL HAVE 24”–26” OF COVER
TURF SPRAY

NOTES:
1. TURF SPRAY
   W/ PRESSURE
   REGULATION AND
   CHECK VALVE
   (ALL NOZZLES
   SHOULD BE
   FIXED, USE
   ADJUSTABLE
   ONLY WHEN
   NECESSARY)
2. SCH. 40 PVC
   SOLVENT
   WELD—INSTALLED
   12-14" DEPTH.
3. PARALLEL PIPES SHOULD HAVE MIN. 2" HORIZONTAL SPREAD

FINISH GRADE

SPRAY HEAD

½" STREET ELLS

½" SCH 80 NIPPLE

SCH 40 PVC TEE

SWING JOINT

PVC LATERAL LINE
TWO-WIRE STRAIGHT CONFIGURATION

NOTES:
1. NO MORE THAN ONE DECODER PER VALVE.
2. EACH DECODER HAS A UNIQUE ADDRESS.
3. DECODERS WILL AUTOMATICALLY SHUT-OFF IF CONNECTION IS LOST WITH THE INTERFACE MODULE.
4. AN OPEN CIRCUIT OR SHORT WILL SHUT OFF THE VALVE.
5. ELECTRICAL CONNECTION REQUIREMENTS: WATER TIGHT CONNECTORS.
VALVE BOX MARKING

FLUSH ASSEMBLY

W - WIRE SPlice
F - FLUSH VALVE
S - SHRUB
T - TREE

IRRIGATED BY VALVE:
PLANT MATERIAL BEING
LETTER INDICATING TYPE OF
CONTROL VALUE LID

STATION NO.

CONTROLLER

MIN 1 1/2
WALL MOUNT CONTROLLER

Provide laminated controller schedule inside controller cabinet.

Controller in weatherproof locking cabinet. Mount securely to wall surface with appropriate hardware.

120 V power and ground source to be provided by electrical contractor.

Steel conduit (to remote control valves)

Sweep ELLS
SCH. 40

NOTE:
All wiring to be installed as per local code: see manual for mounting instructions.
WATER SYSTEM SCHEMATIC

1. WATER SUPPLY LINE
2. WATER TAP
3. WATER MAIN
4. CURB STOP
5. WATER METER
6. CONCRETE WATER METER VAULT PER MAG SPECIFICATIONS TYPE "K" COPPER
7. PIPE TO BACKFLOW PREVENTION UNIT (B.F.P.U.)
8. BACKFLOW PREVENTION UNIT
9. MASTER VALVE
10. FLOW SENSOR
11. PVC MAINLINE PIPE
12. VALVE BOX PER SPECIFICATIONS
13. REMOTE CONTROL VALVE
14. PRESSURE REGULATOR
15. WYE STRAINER
16. PVC LATERAL
17. SPRINKLER, BUBBLER OR EMITTER OUTLET PER PLAN
NOTES:
1. IF A SPlice IS NOT NEEDED AT BOX LOCATION, CONTRACTOR SHALL PROVIDE A 12" COILED LOOP OF EXTRA WIRE IN BOX FOR FUTURE USE.

ALTERNATIVE METHODS FOR MARKING SLEEVE LOCATION:
1. STAMP BACK OF CURB WITH AN 'S' FOR NEW CONCRETE
2. RETROFIT PROJECT WILL REQUIRE 'S' TO BE ETCHED BACK OF CURB
WIRELESS VALVE ASSEMBLY

SIDE VIEW:
- STANDARD VALVE BOX
- SOLENOID VALVE
- 3M DBY SPLICE KITS (1)
- 3M DBY SPLICE KITS (2)
- ANTENNA
- 12-3/4"
- 14 5/8"
- COIL 12" EXTRA WIRE IN VALVE BOX
- 12" RND DRY BOX

TOP VIEW:
- STANDARD VALVE BOX
- SOLENOID VALVE
- 3M DBY SPLICE KITS (2)
- DISTANCE PER MANUF. SPECIFICATIONS
- ANTENNA
CACTUS PLANTING

1. ROOT PRUNE ALL SHREDDED OR DAMAGED ROOTS.
2. ENSURE ALL WOUNDS TO THE ROOT SYSTEM ARE CLEAN CUT BEFORE PLANTING. APPLY DUSTING SULFUR TO ALL AREAS BELOW GRADE.
3. PLANT PIT SHALL BE 3 TIMES THE DIAMETER OF ROOTS AND NO DEEPER THAN THE EXTENSION OF THE ROOTS.
   BACKFILL PIT WITH 6” LAYERS OF RODDED, COMPACTED 1/3 GOLF SAND AND 2/3 DRY SITE SOIL MIX.
4. USE 3”–4” ROCKS/RIP RAP TO ANCHOR ROOTS.
5. PLANTING DEPTH SHALL BE THE DEPTH AT WHICH PLANT WAS GROWN OR DEEPER BUT THE TAPERING OF THE ROOT COLLAR MUST BE VISIBLE.
6. ENSURE SURFACE WATER CAN NOT STAND AGAINST THE ROOT COLLAR. SLOPE GRADE AWAY FROM BASE OF CACTUS.
7. ALL CACTUS PLACEMENT SHALL MATCH ORIGINAL ORIENTATION W/ORIGINAL NORTH SIDE FACING NORTH.
8. DO NOT WATER FOR THREE WEEKS FOLLOWING PLANTING.
9. WATER WEEKLY THROUGHOUT THE SUMMER. MAINTAIN ORIGINAL GROWING ORIENTATION.
NOTES:
1. DECOMPOSED GRANITE FINISH GRADE TO BE RAKED SMOOTH. DG FINISH GRADE SHALL BE 1–1/2” BELOW ALL ADJACENT PAVING/CURBS.
2. SUBMIT CERTIFIED PESTICIDE APPLICATOR’S LICENSE PRIOR TO CONSTRUCTION. SUBMIT PRODUCT LABEL FOR APPROVAL.
3. APPLY PRE-EMERGENT HERBICIDE PER MANUFACTURER INSTRUCTIONS. TWO (2) APPLICATIONS ARE REQUIRED. ONE BEFORE PLACEMENT OF D.G. (AFTER SUBGRADE HAS BEEN APPROVED) AND ONE AFTER SPREADING D.G. CERTIFIED PESTICIDE APPLICATOR SHALL CONDUCT APPLICATION. LICENSE AND NOTIFICATION OF APPLICATION SHALL BE PROVIDED MIN. 48 HOURS IN ADVANCE OF APPLICATION. WATER IN EACH APPLICATION PER MANUFACTURER’S INSTRUCTIONS.
4. D.G. SIZE/STYLE AS SPECIFIED ON PLANT LEGEND.
ALL GROUNDCOVERS TO BE PLANTED ON CENTER (SEE PLANT LEGEND) IN A TRIANGULAR PATTERN.

X = O.C. DIMENSION AS NOTED ON PLAN
Y = 0.86 OF DIMENSION "X"

PREPARE SOIL PER SPECIFICATIONS AND ROTOTILL TO A DEPTH OF 6" PRIOR TO ANY SPRINKLER WORK.

BACKFILL WITH NATIVE SOIL. APPLY FERTILIZER TO SURFACE AWAY FROM TRUNK PER SPECIFICATIONS.

MULCH SOIL TO A DEPTH OF 2", 1’ IN DIAMETER. KEEP MULCH 2” AWAY FROM PLANT BASE.
Palm Tree Planting

NTS

2" x 4" Wooden Brace
Trunk
Metal Strap

2" x 4" Stake
Wooden Brace

2" x 4" Stake
Toenail together

Depth of Pit
Equal to Depth of Rootball

Plating Pit
Min. 2x Dia of Rootball

Top of Rootball to be at Top of Subgrade, Just Below D.G.

Maintain Min 4" - 6" Soil Lip Beyond Trunk on all Sides.
Irrigation shall be placed directly over this lip to evenly distribute water to rootball.

Base Meristem to be present in all imported palms protect during planting--do not cut rootball.

Backfill to be clean sand.

* Sub grade to be 3" below top of walk before installation of decomposed granite. Place top of rootball at sub grade level.

Notes:

Transporting and Setting:
1. 4" Min Width Nylon Straps to be used for transporting, moving and setting palms. If improper straps are used, contractor shall be responsible to replace tree if scarring on trunk occurs.
2. Place straps at minimum two points along trunk to evenly support weight and prevent trunk from bending or bowing during setting and transport if trunks are deformed due to imbalanced support, contractor shall be responsible to replace trees.
3. Palms shall be gently set into planting pit and not be dropped at any time during the transporting and setting process. If palms are dropped they will be rejected and replaced by contractor.

Planting:
1. If matched trunk heights are needed, purchase matching trunk heights. Do not over bury palms to achieve matching trunk heights.
2. Protect apical and base meristem throughout transporting and planting process.
3. Do not bury aerial root zone.

Irrigation:
1. Place irrigation directly over root ball soil, evenly space around base.
2. Water so that 80% of field capacity is maintained. Adjust for soil type.
3. Adjust watering for seasonal needs.
4. Do not use vertical PVC and pea gravel.
SHRUB PLANTING

NOTES:
1. PLANT PITS SHALL NOT BE AUGER DUG. SIDES OF PIT SHALL BE RAKED TO LOOSEN PRIOR TO SETTING TREE IN PITS.
2. GENTLY LOOSEN ROOTS AROUND EXTERIOR OF ROOTBALL.
3. DO NOT PLANT ROOT BOUND PLANTS. NOTIFY LANDSCAPE ARCHITECT IMMEDIATELY TO VERIFY CONDITION OF PLANT IF ANY QUESTION.
4. REMOVE ENTIRE CONTAINER FROM ALL PLANTS PRIOR TO PLANTING.
5. DO NOT PRUNE NEW PLANTS WITHOUT LANDSCAPE ARCHITECT APPROVAL/DIRECTION.

PLANTING PIT TO BE 3X THE WIDTH OF THE ROOT BALL. CENTER SHRUB IN PLANTING PIT. DO NOT OVER-EXCAVATE FOR DEPTH OF PLANTING PIT TO AVOID SETTLING.
FERTILIZER: 16:20:0 AMMONIUM PHOSPHATE FOR NON DESERT PLANTS. MIX INTO BACKFILL. DO NOT SPREAD ON TOP OF SOIL.
**TREE PLANTING & STAKING**

**PLANTING NOTES:**
1. Sides of planting pits are to be loosened or raked before setting tree in pit.
2. Excavate depth of planting pit to the same depth as the rootball.
3. The width of the planting pit shall be 2 x the width of the rootball gently loosen roots around exterior of rootball. Center tree in planting pit.
4. Inspect root balls at point of purchase to avoid purchase of root-bound materials. Remove entire container from all plants prior to planting.
5. New trees shall not be pruned unless directed by owner. Form swale around each tree as shown for water collection. Remove all nursery stakes.

**BACKFILL NOTES:**
1. Provide mulch amendment with backfill for non-desert trees.
2. Backfill mix shall consist of 3 parts native soil to 1 part mulch.
3. Provide 1 cup gypsum in bottom of planting pit.

**STAKING NOTES:**
1. Use 2-2” dia. lodge pole stakes—Douglas fir, or approved hardwood.
2. Drive stake min. 12” into firm undisturbed soil below the excavated depth.
3. Place stakes outside the rootball.
4. Height of stake may vary depending on need for support.
5. Place the top tie for maximum support. The bottom tie should be approximately ½ way between the top tie and ground.
6. Always place stake to prevent damage to tree and cambium.

**MISC. NOTES:**
1. Remove all plastic tree tie tape. Bamboo nursery stakes, wire ties, and labels from trees after they have been approved.
2. Backfill any holes left in rootball left from nursery stakes. Backfill shall be clean soil, not D.G.
3. Swale shall be a smooth transition—no abrupt grade changes.
4. Swale shall be water tested for water holding capacity prior to placing D.G.
5. Provide additional wire hose tie when the tree is not rigidly supported by the two required supports.
6. 2-3” mulch top layer, not around base. 1” D.G. top layer also suitable.
SINGLE-TRUNK TREE PLANTING & STAKING

PLANTING NOTES:
1. Sides of planting pits are to be loosened or raked before setting tree in pit.
2. Excavate depth of planting pit to the same depth as the rootball.
3. The width of the planting pit shall be 2X the width of the rootball.
5. Center tree in planting pit.
6. Inspect root balls at point of purchase to avoid purchase of root bound materials.
7. Remove entire container from all plants prior to planting.
8. New trees shall be pruned unless directed by owner.
9. Form swale around each tree as shown for water collection.
10. Remove all nursery stakes.

BACKFILL NOTES:
1. Provide mulch amendment with backfill for non-desert trees.
2. Backfill mix shall consist of 3 parts native soil to 1 part mulch. Provide 1 cup gypsum in bottom of planting pit.

STAKING NOTES:
1. Use 2-2" dia. lodge pole stakes--Douglas fir or approved hardwood.
2. Drive stake min 12" into firm undisturbed soil below the excavated depth.
3. Place stakes outside the rootball.
4. Height of stake may vary depending on need for support.
5. Place the top tie for maximum support. The bottom tie should be approximately halfway between the top tie and ground.
6. Always place stake to prevent damage to tree and cambium.

MISC. NOTES:
1. Remove all plastic tree tie tape, bamboo nursery stake, wire ties, and labels from trees after they have been approved.
2. Backfill any holes left in rootball left from nursery stakes. Backfill shall be clean soil, not D.G.
3. Swale shall be a smooth transition--no abrupt grade changes.
4. Swale shall be water tested for water holding capacity prior to placing D.G.
5. Provide additional wire hose tie when the tree is not rigidly supported by the two required supports.
6. 2-3" mulch top layer, not around base. 1" D.G. top layer also suitable.
PLANTING ON SLOPE

NOTES:

1. PLANT PITS SHALL NOT BE AUGER DUG. SIDES OF PIT SHALL BE RAKED TO LOOSEN PRIOR TO SETTING TREE IN PITS.
2. GENTLY LOOSEN ROOTS AROUND EXTERIOR OF ROOTBALL.
3. DO NOT PLANT ROOT BOUND PLANTS. NOTIFY LANDSCAPE ARCHITECT IMMEDIATELY TO VERIFY CONDITION OF PLANT IF ANY QUESTION.
4. REMOVE ENTIRE CONTAINER FROM ALL PLANTS PRIOR TO PLANTING.
5. DO NOT PRUNE NEW PLANTS WITHOUT LANDSCAPE ARCHITECT APPROVAL/DIRECTION.
NOTES:

1. ROUGH GRADE, REMOVE ALL DEBRIS AND UNDESIRABLE VEGETATION CHEMICALLY AND PHYSICALLY USING APPROVED CHEMICALS AND LICENSED APPLICATORS.
2. PROVIDE SOILS TEST FROM CERTIFIED LAB TO INCLUDE PH, AND ELEMENTS IN SOIL. FURNISH TEST RESULTS TO OWNER REPRESENTATIVE.
3. PROVIDE SOIL ADDITIVES AS RECOMMENDED BY SOILS TEST, INCLUDE IN SUBMITTAL REVIEW FOR PROJECT.
4. APPLY GYPSUM UNIFORMLY OVER IMPORTED TOP SOIL AT A RATE OF 10 POUNDS PER 100 SQUARE FT OF TURF AREA.
5. ROTOTILL GYPSUM, FERTILIZER, AND CLEAN TOPSOIL MIX TO MINIMUM 6" DEPTH INTO EXISTING SOIL. LEVEL GRADE, RAKE SMOOTH, REMOVE ROCK OR OTHER DEBRIS PARTICLES LARGER THAN 1 1/2" FROM SITE. COMPACT AND TO 80%.

6. GRADE TO BE APPROVED BY CLIENT REPRESENTATIVE.
7. THOROUGHLY WATER THE PLANTING AREA WITHIN 2 HOURS OF LAYING SOD. LAY SOD IN MORNING HOURS AND WITHIN 1 DAY OF ARRIVAL ON SITE. KEEP STACKED SOIL MOIST.
8. LAY SOD END TO END AND STAGGERED BETWEEN ROWS, WATER THOROUGHLY AND ROLL WITH WATER FILLED ROLLER.
9. WATER SOD TO MAINTAIN MOISTURE AND PROMOTE ROOTING.
10. REPLACE SOD THAT HAS DRIED OUT, DISCOLORED, OR DIED, IMMEDIATELY. MAINTAIN MOISTURE ON ALL SOD AND ADJUST FOR SEASON.
11. REFER TO RETENTION BASIN NOTES IF INSTALLING LANDSCAPING OR SOD IN RETENTION BASINS.
STEEL HEADER

D.G. PLANTING AREA

1/16" X 4" STEEL EDGE

1" TURF

16" LONG STEEL STAKES

TYPICAL JOINT
WELD ALL JOINTS

16" LONG STEEL STAKES AT ALL JOINTS, CORNERS AND 4'-0" O.C. ON STRAIGHT RUNS
SWALE - BACK OF SIDEWALK

FINE GRADE TO CREATE RETENTION SWALE. SWALE TO BE APPROVED PRIOR TO PLANTING AND/OR PLACING TURF OR D.G.

6-8' WIDE UNLESS SPECIFIED OTHERWISE ON PLAN

TOP OF PAVEMENT OR CURB

6" LEVEL

1-1/2"

4"

SLOPE NOT TO EXCEED 4:1 TO BLOCK WALLS