

**PROJECT NAME:**  
**DUCKY'S CAR WASH**

**PROJECT ADDRESS:**

LONE TREE WAY & COUNTRY HILLS DRIVE,  
 ANTIOCH CA 94509

**APN:**  
 APN: 055-071-113 IS PART OF THE ACCESS ROADWAY RELATED TO THE CAR WASH DEVELOPMENT ON PARCELS 055-071-1554 AND 055-071-114-7

**PROJECT DESCRIPTION**

NEW SINGLE STORY CAR WASH TUNNEL W/ OFFICE SPACE AND CUSTOMER LOUNGE & RESTROOMS. INCLUDES PARKING AREAS FOR EMPLOYEES AND CUSTOMERS W/ COVERED SELF SERVICE VACUUM STALLS.

THE CAR WASH PROJECT TO BE LOCATED AT THE CORNER OF LONE TREE WAY AND COUNTRY HILLS DRIVE BY DUCKY'S CAR WASH WILL BE A MODERN, CLEAN AND EFFICIENT CAR WASHING SOLUTION.

**BUILDING DESIGN:**

The car wash building is designed to have a modern, clean, and fresh look, with white and light grey neutral colors, and straight lines and edges. Design concept is a transition out of traditional look for car wash design, and provide something that will stand out with other structures around the commercial neighborhood. This will attract local and transient customers around the area. It will keep the business going and will be generating profit which will be in favor for both the business owner, the community, and the City of Antioch.

The building is designed with durable materials such as at the base which is a CMU ground face block walls wainscoting, and wall steel-framed above it. Supported by metal stud framing are the main exterior finish materials called phenolic panels. These materials are easy to clean. It is extremely weather resistant, and does not melt with fire, extremely durable, and modern looking. Roofing material will be standing seam metal roof, in light bluish-grey neutral color that blends with the color of the walls, and the rest of the building materials used.

Diagonal windows and lines is introduced in the façade to create accent and interesting design feature of the building. Wood textured phenolic panels were also placed continuously from the end corner wall up to the roof, then tapering to the other end then down wall. Another design feature of the car wash that provided mass and accent to the design of the structure.

**CONDITION:**  
 ANY DEVELOPMENT ON THE ADJACENT PARCEL WILL NEED TO BE ARCHITECTURALLY COMPATIBLE WITH THE CAR WASH DESIGN.

**PROPOSED OFF-SITE IMPROVEMENTS:**  
 Scope of work for the proposed off-site improvements include the following:

1. Construction of deceleration lane (right-turn) to site.
2. Construction of new driveway.
3. Striping and Signage.
4. The above works requires right-of-way dedication to the City.

**SITE DESIGN AND LANDSCAPE:**

Enhanced landscaping is provided along all the perimeters at a low level height of less than 32 inches in height. This allows a view to the Car Wash and at the same time is used as buffer to minimize noise that is coming from car washing and vacuum equipment.

The site is designed to allow efficient traffic flow of incoming and outgoing vehicles. Cars that need to be serviced for car washing has been provided with access road on the perimeter of the lot so that cars will go around the property without interrupting the vehicles inside the lot that is serviced to operate the vacuum equipment.

**MONUMENT SIGN:**  
 The monument sign is composed of Lexan-polycarbonate faces and translucent vinyl graphics with aluminum frame and backlit with LED strip lights. The base is made out of Aluminum cladding with Tex coat finish painted "Cityscape" MA

**1 AERIAL VIEW**

**SHEET INDEX**

A-0	COVER SHEET
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C-3.1	GRADING PLAN
C-3.2	CONTROL PLAN
C-4.1	UTILITY PLAN
C-5.1	STORM WATER CONTROL PLAN
L-1	IRRIGATION PLAN
L-2	PLANTING PLAN
L-3	PLANT PALETTE
DTL-1	LANDSCAPE DETAILS
DTL-2	LANDSCAPE DETAILS
A-1	SITE PLAN
A-2	FLR. PLAN & ROOF PLAN
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A-4	PERSPECTIVES
EO.01	SYMBOL LIST AND CUTSHEETS
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E1.01	SITE LIGHTING CALCULATIONS

**OPERATION:**  
 Ducky's Express Car Wash will be a car wash business providing fast, efficient services to car wash customers at a very reasonable price. The Express Car Wash differs from a traditional "Full Service Car Wash" in that the customer is given the option of using the sites vacuum systems themselves versus paying the business for that portion of a traditional full serve car wash.

Our new car wash facility will utilize the newest in car wash technology. The process starts when a customer pulls onto our "Dual Belt Conveyor" system. Think of the conveyor as a moving carpet as opposed to the traditional steel rail conveyor. Below is a picture of such a Dual Belt Conveyor.

As you can see, the car rides through the car wash tunnel on a flush mounted, user-friendly belt system. This provides a much safer manner in which to move the car along the wash process both for the customer and the employees of the business.

After emerging from the tunnel, customers will have the option to utilize an array of free vacuums provided to the customer for their convenience. In addition to the vacuum system, each vacuum station will offer the customer an air nozzle for getting into the hard to reach area behind the vehicle side mirrors, clean towels and convenient garbage bins at each station. The end result is a vehicle washing experience that takes less than five minutes to deliver and results in a very CLEAN, SHINY AND DRY car.

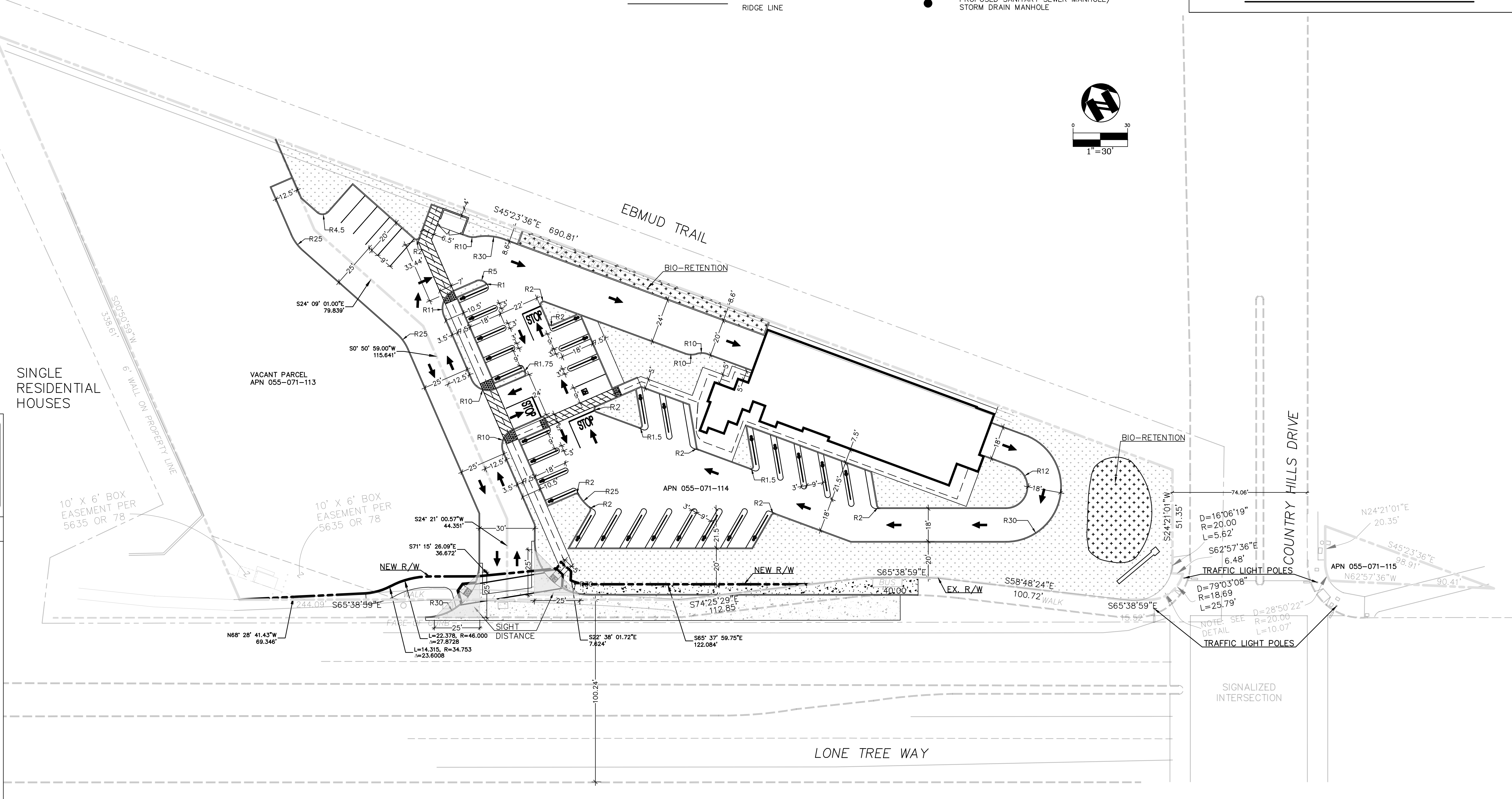
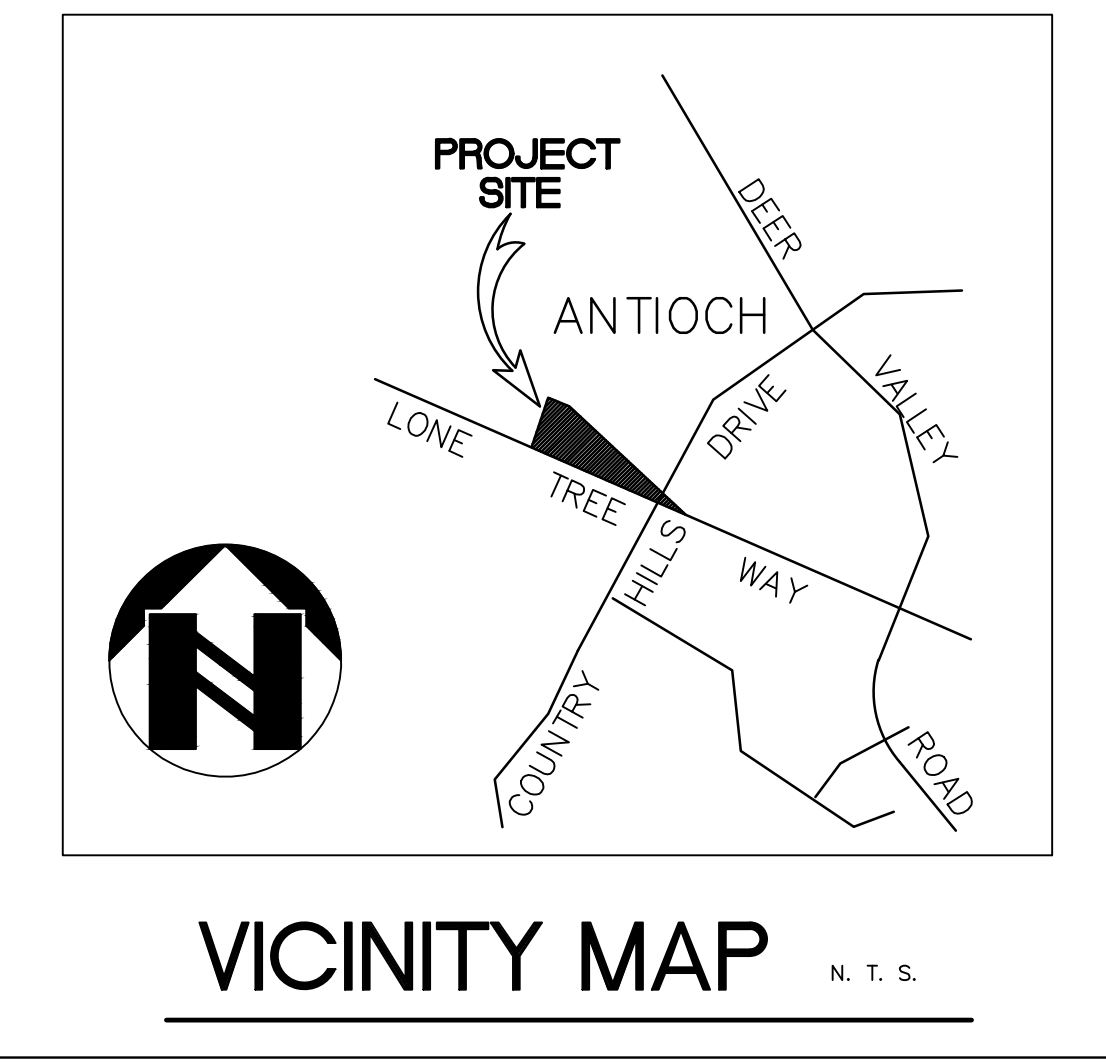
Customers will also like the lower prices that come with the Express Exterior Car Wash process, with prices starting at about \$12.00 for a base wash. Customers will also have the option to join our "Monthly Unlimited Wash Club", where one can wash as many times as convenient in a 30 day period of time. The Ducks Unlimited Monthly Wash Plans start at \$24.99.

Our car wash will meet and exceed all standards for water conservation, and energy efficiency. This location will join our other Bay Area Car Wash locations as a Member of the Bay Area Green Business Coalition and we support and offer discounts to alternative energy vehicles.

The business will be open seven days a week from 8am to 6pm from March through October and from 8am to 5pm from November through February.

# GENERAL ABBREVIATIONS / LEGEND

BFP BACKFLOW PREVENTER	JP JOINT POLE	SSCO SANITARY SEWER CLEANOUT	STREET SIGN	STORM DRAIN MANHOLE	PROPOSED FIRE LANE	PROPOSED FENCE
CB CATCH BASIN	JT JOINT TRENCH	SSMH SANITARY SEWER MANHOLE	STREET LIGHT	EXISTING WATER VALVE	HANDICAP RAMP	PROPERTY LINE
CL CENTERLINE	LF LINEAR FEET	SW SIDEWALK	WATER VALVE	EXISTING GAS VALVE	EXISTING WATER LINE	MATCH LINE
DCV DETECTOR CHECK VALVE	MW MONITORING WELL	T TELEPHONE LINE	TREE WITH SIZE	EXISTING CONTOUR	2" G EXISTING GAS LINE	LIMIT OF DEMOLITION
DE DIRT ELEVATION	OHE OVERHEAD ELECTRIC	TH TOP OF CONCRETE HEADER	TREE REMOVAL	EXISTING ELEVATION	8" SSS EXISTING SANITARY SEWER LINE	GRADE BREAK
DWY DRIVEWAY	OHT OVERHEAD TELEPHONE	TORW TOP OF RETAINING WALL	TRANSFORMER	TC - TOP OF CURB ELEVATION	SD EXISTING STORM DRAIN LINE	PROPOSED CONTOUR
E ELECTRICAL LINE	PAE PUBLIC ACCESS EASEMENT	TP TELEPHONE POLE	BARBED WIRE FENCE	FS - FINISHED SURFACE	E EXISTING ELECTRICAL LINE	SLOPE
EB ELECTRIC BOX	PB PULL BOX	TS TRAFFIC SIGNAL	CHAIN-LINKED FENCE	2" G EXISTING ELECTRICAL LINE	TEL EXISTING TELEPHONE LINE	PROPOSED GAS VALVE
EP EDGE OF PAVEMENT	PCC PORTLAND CEMENT CONCRETE	TSB TRAFFIC SIGNAL BOX	WOOD FENCE	6" FS PROPOSED FIRE SERVICE	W PROPOSED WATER LINE	OVERLAND RELEASE
EX EXISTING	PG&E PACIFIC GAS & ELECTRIC	VG VALLEY GUTTER	SAWCUT LINE	2" G PROPOSED GAS LINE	S PROPOSED SANITARY SEWER LINE	CONTROLLER CABINET
FDC FIRE DEPARTMENT CONNECTION	PIV POST INDICATOR VALVE	W WATER PIPE	EXISTING STORM DRAIN CATCH BASIN	S PROPOSED STORM DRAIN LINE	E PROPOSED STORM DRAIN LINE	FIRE HYDRANT
FF FINISHED FLOOR	PUE PUBLIC UTILITY EASEMENT	WM WATER METER	EXISTING WATER METER / GAS METER	E PROPOSED ELECTRICAL LINE	TEL PROPOSED TELEPHONE LINE	GUY POLE
FL FLOWLINE	PVC POLYVINYL CHLORIDE PIPE	WMW MONITORING WELL	EXISTING SANITARY SEWER CLEANOUT	S PROPOSED TELEPHONE LINE	JUT PROPOSED JOINT UTILITY TRENCH	HANDICAP SPACE
FS FINISHED SURFACE/FIRE SERVICES	R RIDGE LINE	WMW MONITORING WELL	EXISTING FIRE HYDRANT	RIDGE LINE		PROPOSED STORM DRAIN CATCH BASIN
G GAS PIPE	RCP REINFORCED CONCRETE PIPE	WMW MONITORING WELL	EXISTING SANITARY SEWER MANHOLE			PROPOSED WATER METER / GAS METER
GB GRADE BREAK	RPP REDUCED PRESSURE PRINCIPLE BACKFLOW	WMW MONITORING WELL				PROPOSED SANITARY SEWER CLEANOUT
GM GAS METER	SD STORM DRAIN PIPE	WMW MONITORING WELL				PROPOSED STORM DRAIN CLEANOUT
GP GUARD POST	SDCB STORM DRAIN CATCH BASIN	WMW MONITORING WELL				PROPOSED FIRE HYDRANT
GR GRATE	SDCO STORM DRAIN CLEANOUT	WMW MONITORING WELL				PROPOSED SANITARY SEWER MANHOLE / STORM DRAIN MANHOLE
HCR HANDICAP RAMP	SDMH STORM DRAIN MANHOLE	WMW MONITORING WELL				
INV INVERT	SS SANITARY SEWER PIPE	WMW MONITORING WELL				



APN 055-071-113  
 APN 055-071-114  
 APN 055-071-115



## PROJECT DATA

**BASIS OF BEARINGS:**  
 ALL BEARINGS ARE BASED ON THE CALIFORNIA COORDINATE SYSTEM ZONE III, ESTABLISHED FROM THE EXISTING MONUMENTAL LINE OF LONE TREE WAY AS SHOWN ON CONTRA COSTA COUNTY PRECISE SECTION OF THE STREETS AND HIGHWAYS PLANS NO. 6971 FILED IN BOOK 5708 OF OFFICIAL RECORDS, AT PAGE 456, BEARING SHOWN AS SOUTH 73° 10' 52" EAST. FOR GROUND DISTANCES, MULTIPLY EXPRESSED DISTANCES BY 1.00007.

**BENCHMARK:**  
 BM IS CCCO.#3061 ELEVATION= 150.131'. IS EBMUD DISK SET IN EAST SIDE OF CONCRETE M.H. OVER THE NORTHERN EBMUD AQUADUCT 75'+- NORTH OF LONE TREE WAY 325'+- WEST OF LONE TREE WAY. DISK STAMPED (P185+26.97 P185+62.80 ELEV. 149.871).

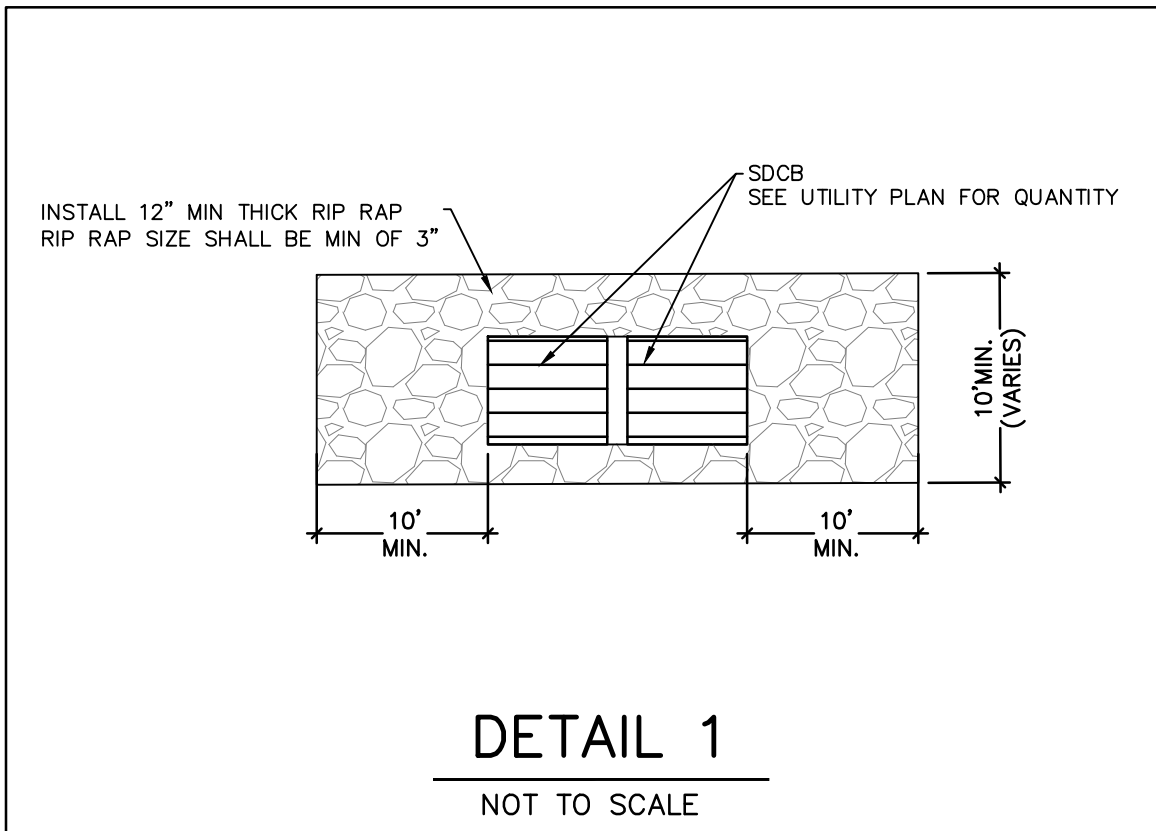
**UTILITY NOTES:**  
 1. ALL UTILITIES SHOWN HEREON ARE BASED ON USA MARKINGS IN THE FIELD, FIELD APPURTENANCES, AND MAPS THAT WERE OBTAINED FROM THE LOCAL AGENCIES.  
 2. THE EXISTENCE AND LOCATION OF ANY UNDERGROUND UTILITIES, PIPE SIZES AND/OR STRUCTURES SHOWN ON THIS SURVEY WERE OBTAINED BY A SEARCH OF AVAILABLE RECORDS. THE CONTRACTOR SHALL ASCERTAIN THE TRUE LOCATION OF ANY UNDERGROUND UTILITIES AND SHALL BE RESPONSIBLE FOR DAMAGE TO ANY PUBLIC OR PRIVATE UTILITIES, SHOWN OR NOT SHOWN HEREON.

**HORIZONTAL CONTROL PLAN**  
 C-2.1  
 05-1930  
 March 23, 2020

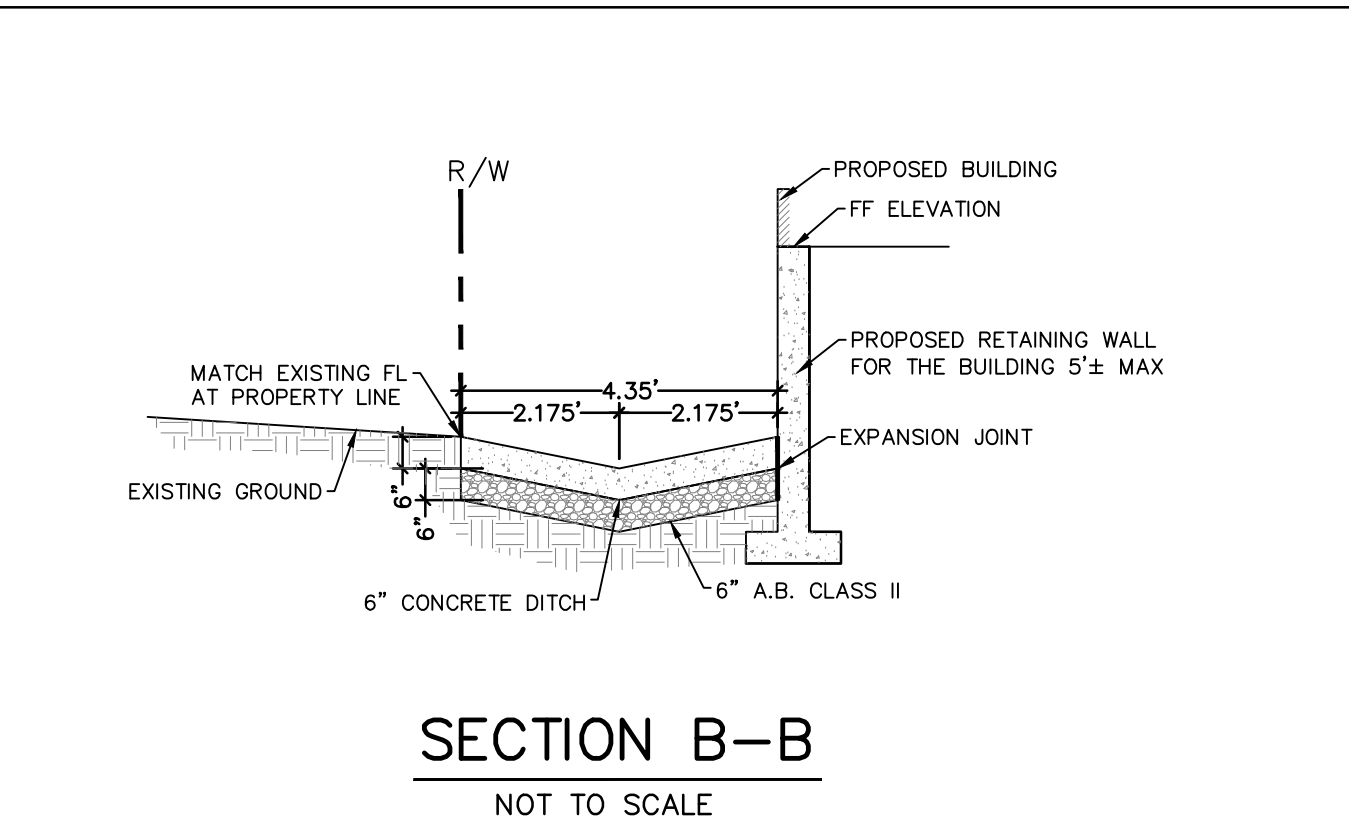
**DUCKY'S CAR WASH**  
 Richard Miller  
 Lone Tree Way cor. Country Hills Drive  
 Antioch, Contra Costa County, California

**ams**  
 associates, inc. PLANNING ENGINEERING SURVEYING  
 801 YGNACIO VALLEY ROAD  
 SUITE 220  
 WALNUT CREEK, CA 94596  
 925-943-2777 FAX 925-943-2778

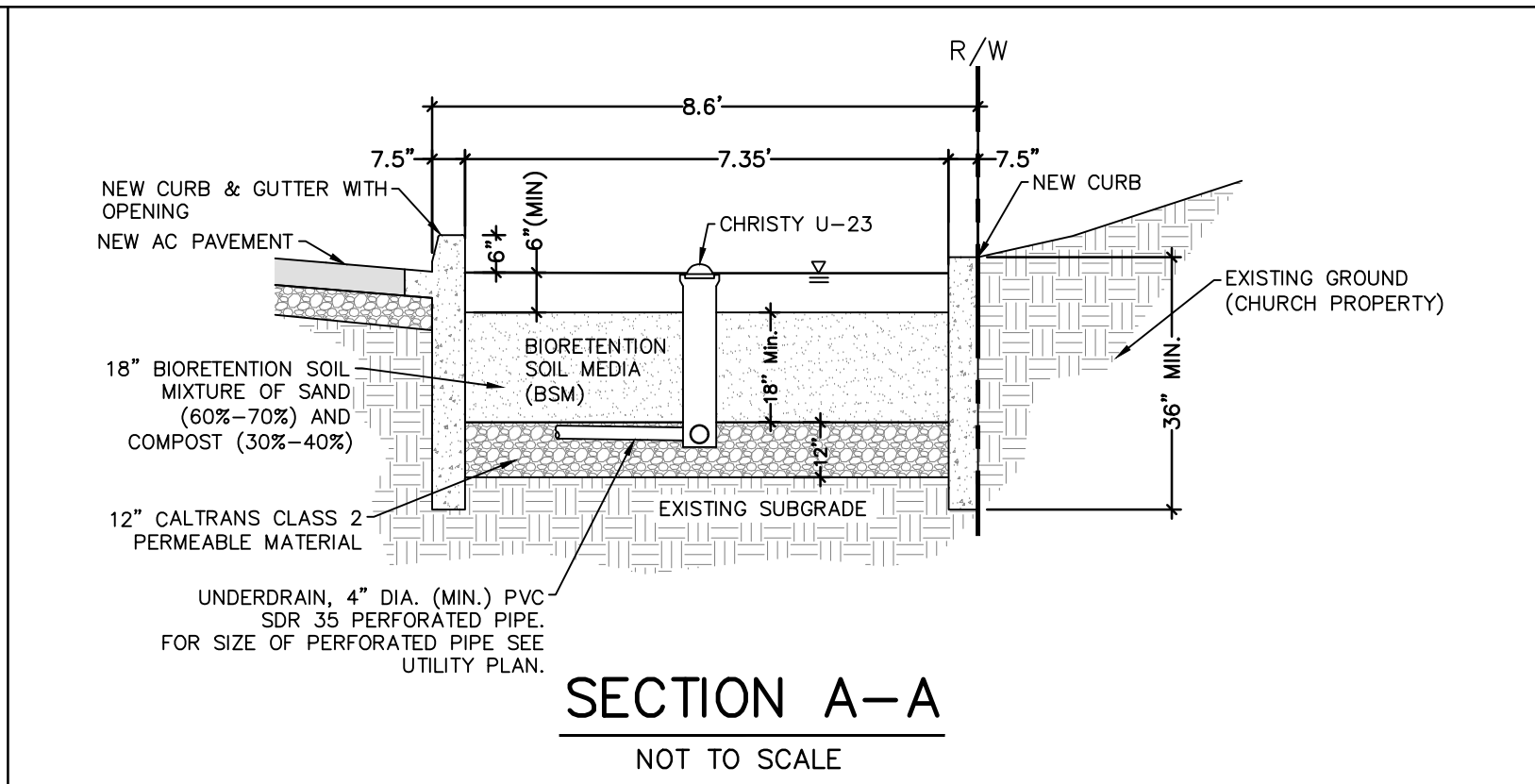
**LDA Partners**  
 DESIGNERS & ARCHITECTS



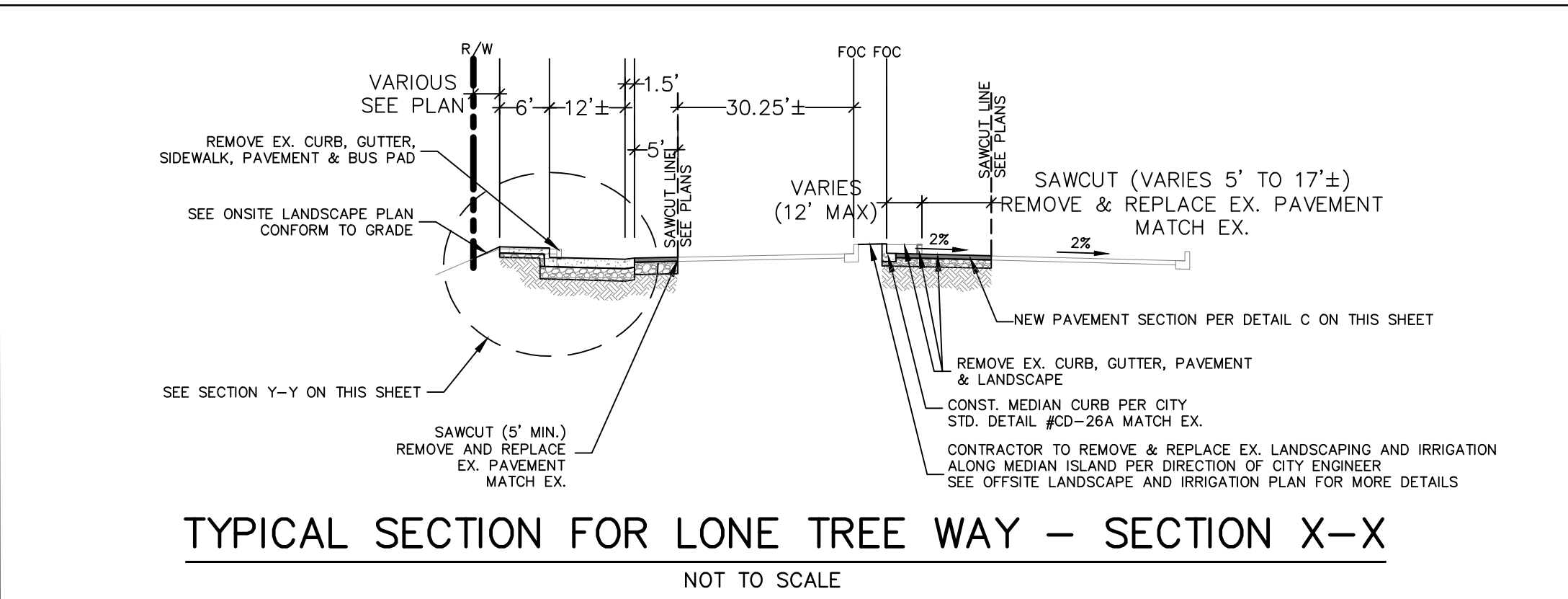
**DETAIL 1**  
NOT TO SCALE



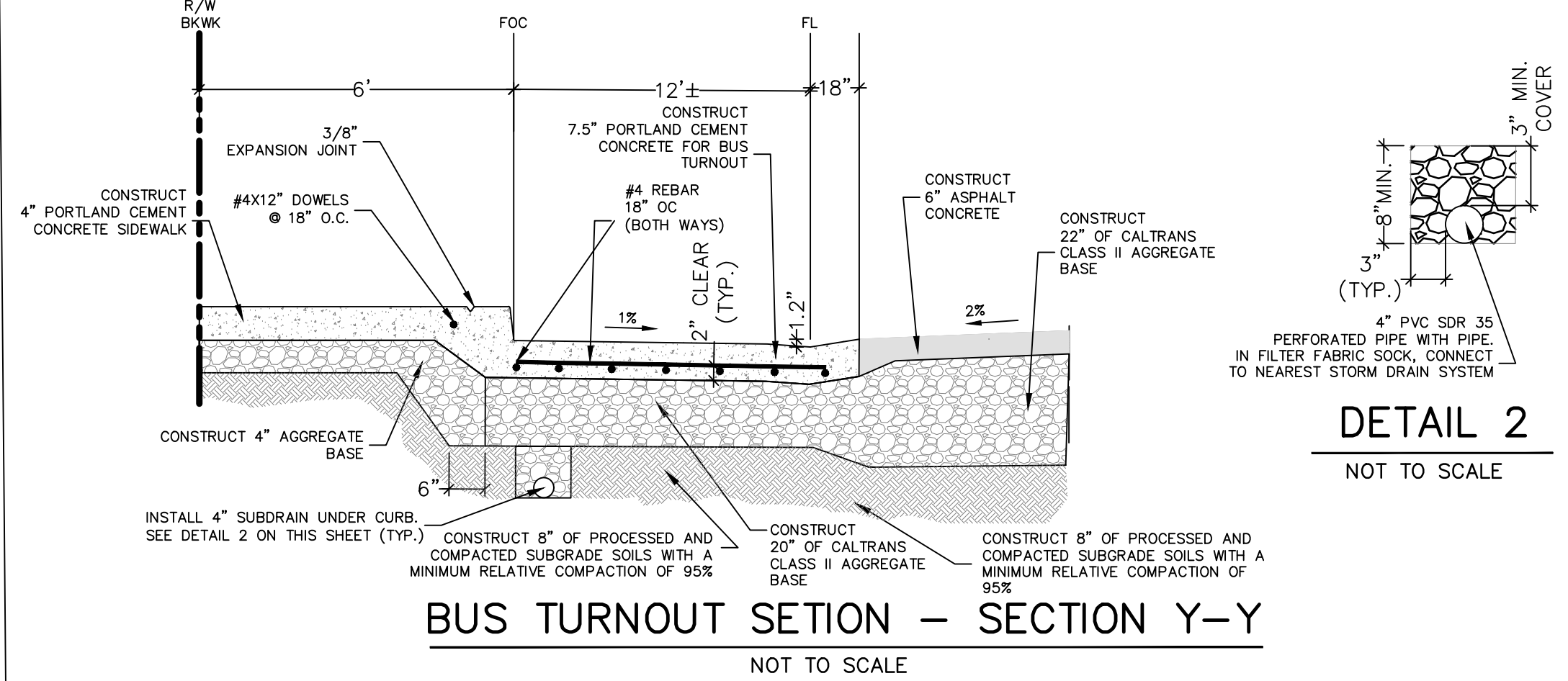
**SECTION B-B**  
NOT TO SCALE



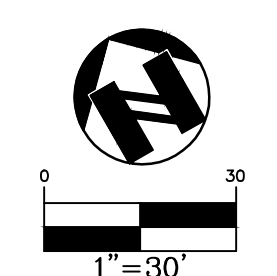
**SECTION A-A**  
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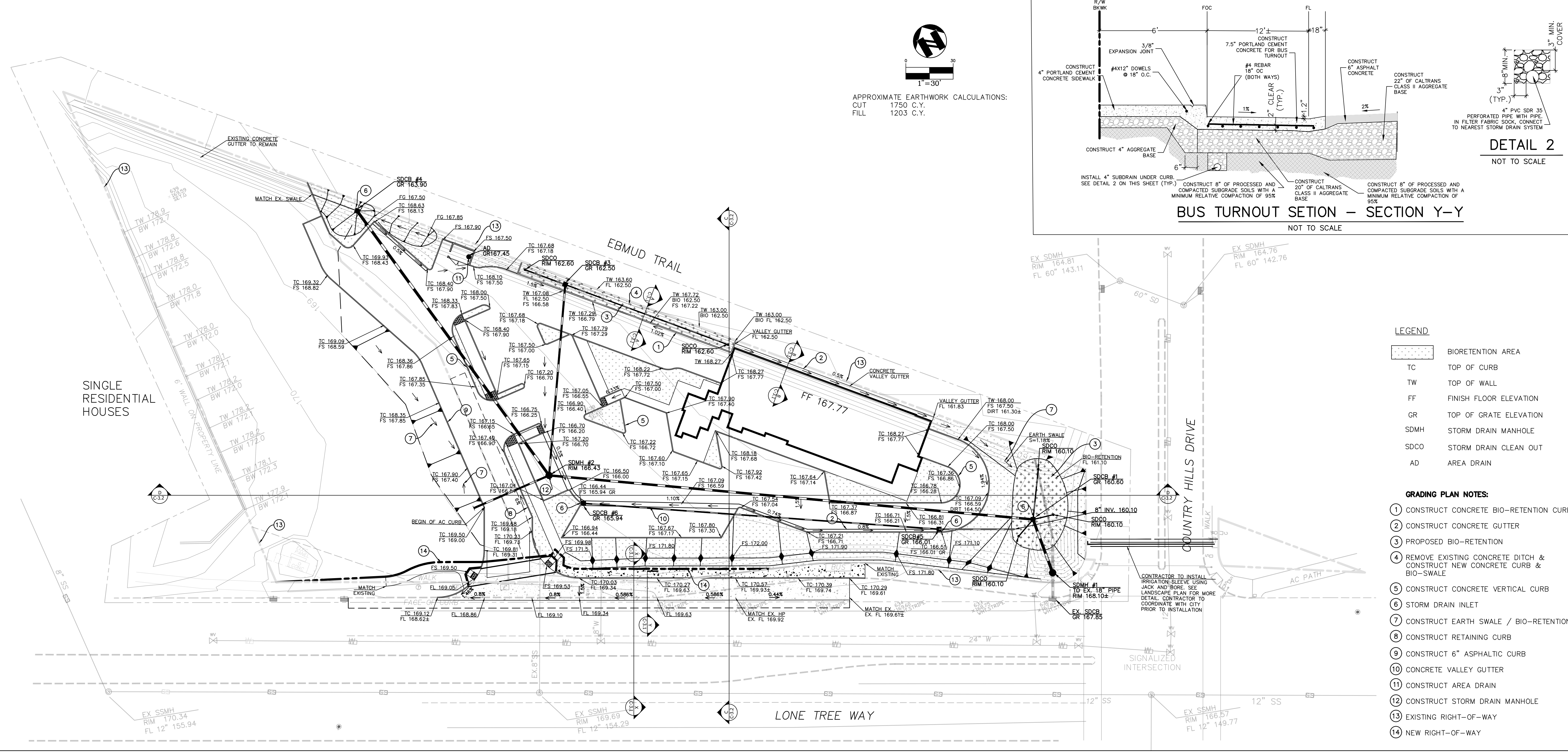
**TYPICAL SECTION FOR LONE TREE WAY - SECTION X-X**  
NOT TO SCALE



**BUS TURNOUT SECTION - SECTION Y-Y**  
NOT TO SCALE



APPROXIMATE EARTHWORK CALCULATIONS:  
CUT 1750 C.Y.  
FILL 1203 C.Y.



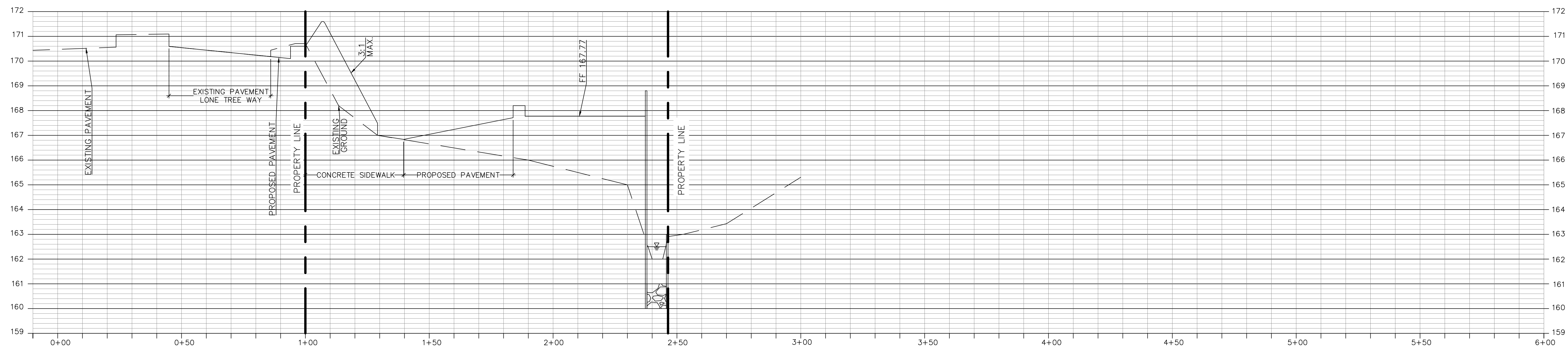
- LEGEND**
- BIORETENTION AREA
  - TC TOP OF CURB
  - TW TOP OF WALL
  - FF FINISH FLOOR ELEVATION
  - GR TOP OF GRATE ELEVATION
  - SDMH STORM DRAIN MANHOLE
  - SDCO STORM DRAIN CLEAN OUT
  - AD AREA DRAIN
- GRADING PLAN NOTES:**
- 1 CONSTRUCT CONCRETE BIO-RETENTION CURB
  - 2 CONSTRUCT CONCRETE GUTTER
  - 3 PROPOSED BIO-RETENTION
  - 4 REMOVE EXISTING CONCRETE DITCH & CONSTRUCT NEW CONCRETE CURB & BIO-SWALE
  - 5 CONSTRUCT CONCRETE VERTICAL CURB
  - 6 STORM DRAIN INLET
  - 7 CONSTRUCT EARTH SWALE / BIO-RETENTION
  - 8 CONSTRUCT RETAINING CURB
  - 9 CONSTRUCT 6" ASPHALTIC CURB
  - 10 CONCRETE VALLEY GUTTER
  - 11 CONSTRUCT AREA DRAIN
  - 12 CONSTRUCT STORM DRAIN MANHOLE
  - 13 EXISTING RIGHT-OF-WAY
  - 14 NEW RIGHT-OF-WAY

**GRADING PLAN**  
C-3.1  
March 23, 2020

05-1930

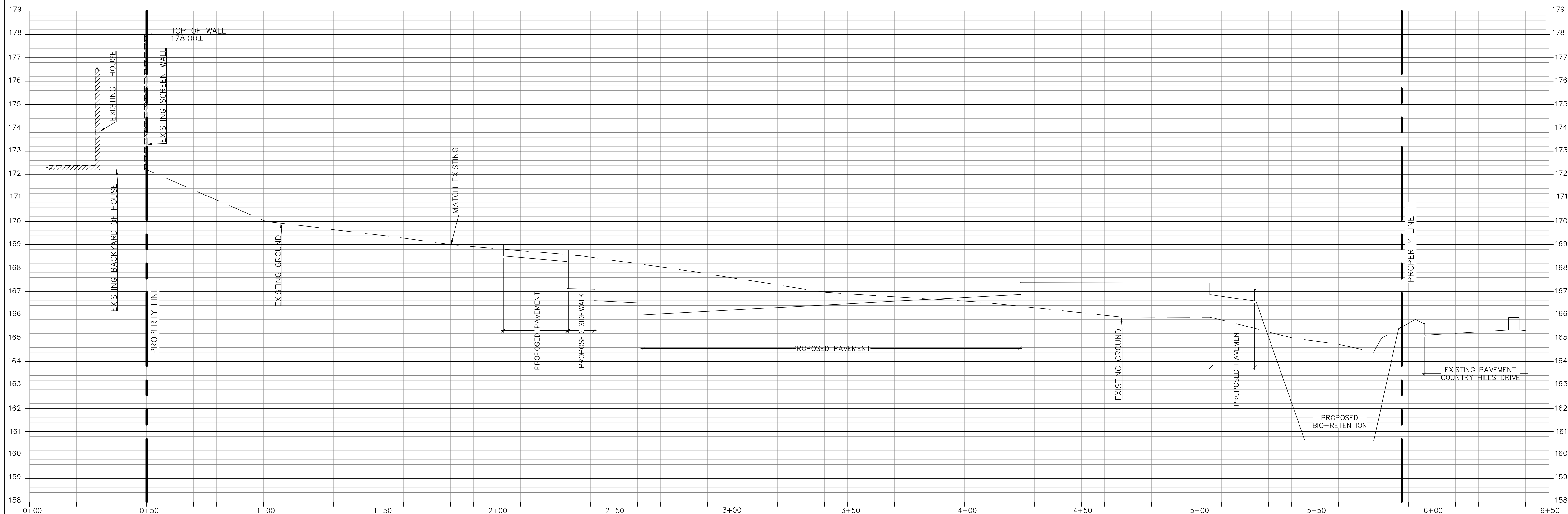
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NOTE: FOR LOCATION OF CROSS SECTIONS, SEE GRADING PLAN SHEET C-3.1.

HORIZONTAL SCALE 1"=20'  
VERTICAL SCALE 1"=2'  
SECTION C-C



NOTE: FOR LOCATION OF CROSS SECTIONS, SEE GRADING PLAN SHEET C-3.1.

HORIZONTAL SCALE 1"=20'  
VERTICAL SCALE 1"=2'  
SECTION D-D

# CROSS SECTIONS

C-3.2

March 23, 2020

05-1930

# DUCKY'S CAR WASH

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**STORM DRAIN NOTES**

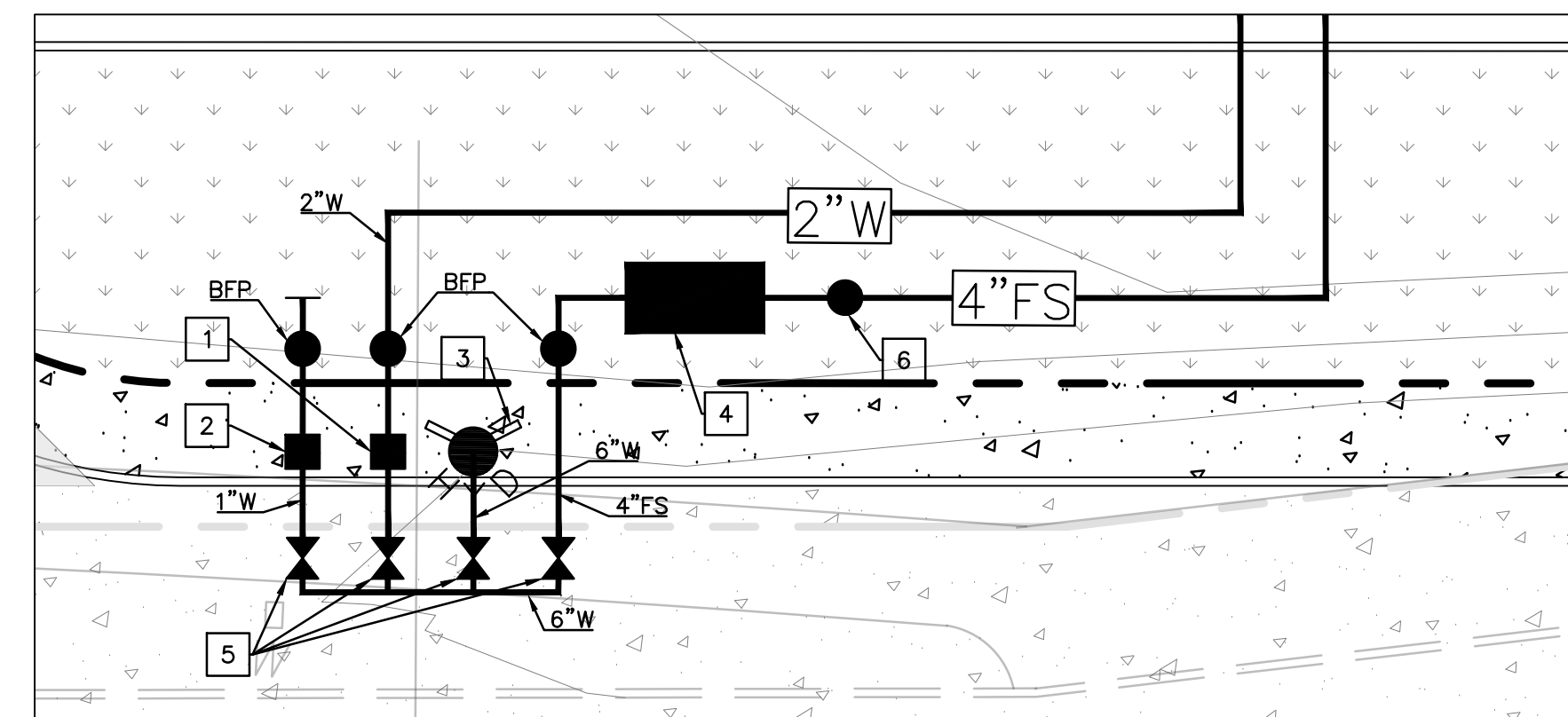
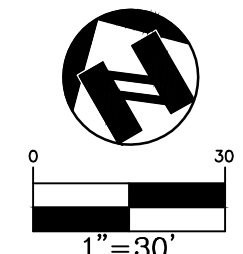
- ① INSTALL 36 LF 18" STORM DRAIN PIPE @ S=0.007
- ② INSTALL 308 LF 18" STORM DRAIN PIPE @ S=0.005
- ③ INSTALL 207 LF 18" STORM DRAIN PIPE @ S=0.003
- ④ INSTALL 121 LF 12" STORM DRAIN PIPE @ S=0.005
- ⑤ INSTALL 27 LF 6" PERFORATED PIPE
- ⑥ INSTALL 110 LF 6" PERFORATED PIPE
- ⑦ INSTALL 52 LF 12" PVC PIPE @ S=0.020
- ⑧ INSTALL 226 LF 8" PVC PIPE @ S=0.005
- ⑨ INSTALL 48 LF 8" PVC PIPE @ S=0.010
- ⑩ INSTALL 13 LF 6" PERFORATED PIPE
- ⑪ INSTALL 14 LF 6" PERFORATED PIPE
- ⑫ INSTALL 32 LF 6" PERFORATED PIPE
- ⑬ EXISTING 16 LF 10" STORM DRAIN PIPE @ S=0.005
- ⑭ REMOVE THE EXISTING STORM DRAIN PIPE

**SANITARY SEWER NOTES**

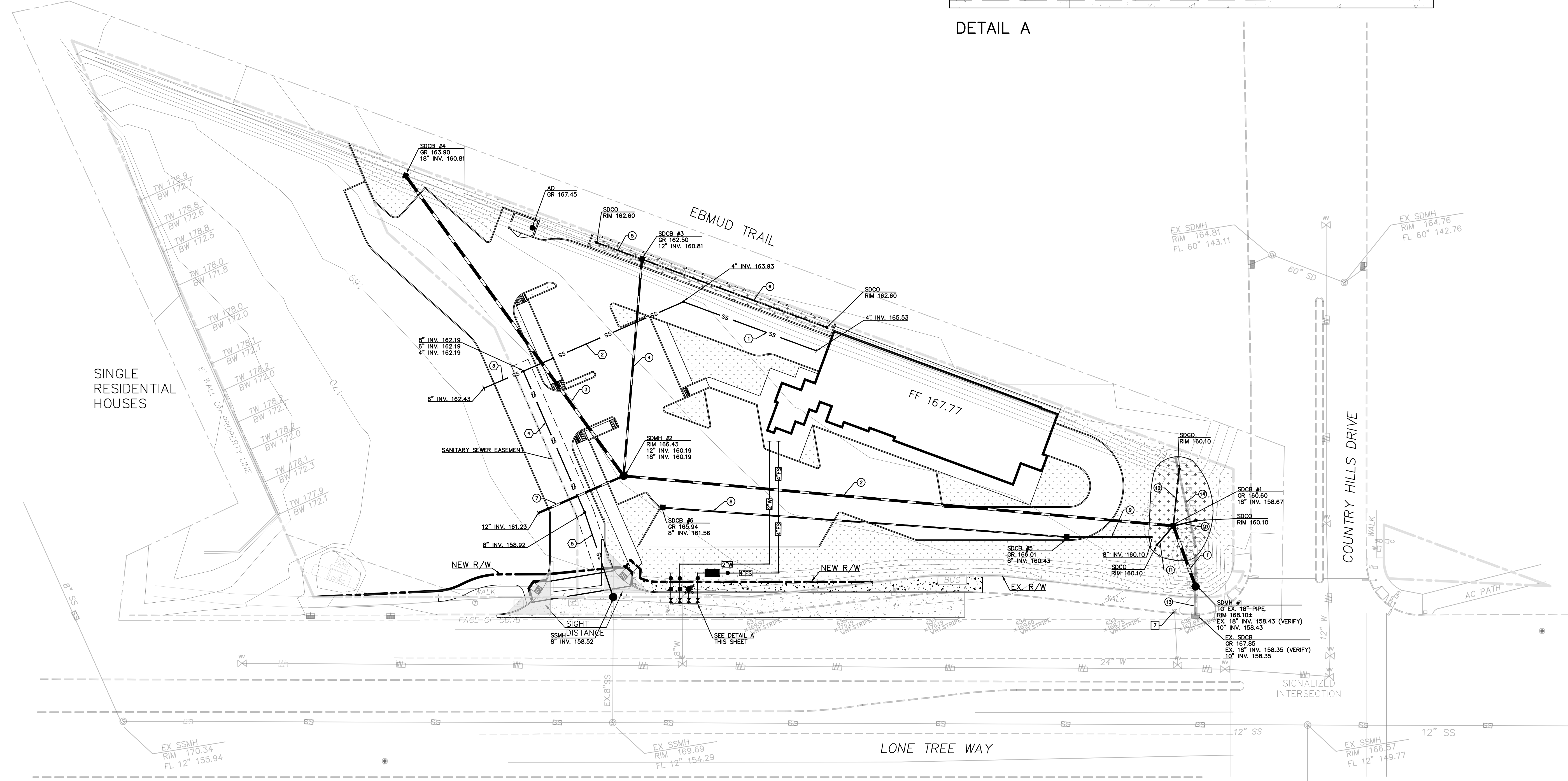
- ① INSTALL 79 LF 4" SANITARY SEWER PVC PIPE @ S=0.0202
- ② INSTALL 97 LF 4" SANITARY SEWER PVC PIPE @ S=0.0179
- ③ INSTALL 24 LF 6" SANITARY SEWER PIPE @ S=0.0100
- ④ INSTALL 86 LF 8" SANITARY SEWER VCP PIPE @ S=0.0380
- ⑤ INSTALL 50 LF 8" SANITARY SEWER VCP PIPE @ S=0.0080

**WATER NOTES**

- ① INSTALL 2" WATER METER WITH 2" BACKFLOW PREVENTER
- ② INSTALL 1" WATER METER WITH 2" BACKFLOW PREVENTER
- ③ INSTALL FIRE HYDRANT
- ④ INSTALL DOUBLE DETECTOR CHECK VALVE
- ⑤ INSTALL WATER VALVE
- ⑥ INSTALL FIRE DEPARTMENT CONNECTION
- ⑦ EXISTING FIRE HYDRANT TO REMAIN



DETAIL A



**UTILITY PLAN**

C-4.1

March 23, 2020

05-1930

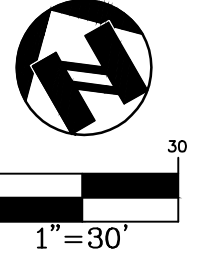
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**Project Name:** Ducky's Carwash  
**Project Type:** Treatment Only  
**Location:** Lone Tree Way/Country hills Drive, Antioch, Contra Costa , California  
**APN:**  
**Drainage Area:** 63305 sf  
**Mean Annual Precipitation:** 13.28 in

**IV. Areas Draining to IMPs**

**IMP Name: IMP1 (Soil Type: D)**  
 IMP Type: Bioretention Facility  
 Soil Type: D

DMA Name	DMA Area (sq ft)	Post-Project Surface Type	DMA Runoff Factor	DMA Area x Runoff Factor	IMP Sizing		
					IMP Sizing Factor	Rain Adjust-ment Factor	Proposed Area or Volume
DMA 1A	8,916	Concrete or Asphalt	1.00	8,916	0.10	51	
DMA 1B	505	Landscape	0.10	51			
<b>Total</b>				<b>8,967</b>	<b>0.040</b>	<b>1,000</b>	<b>359</b>

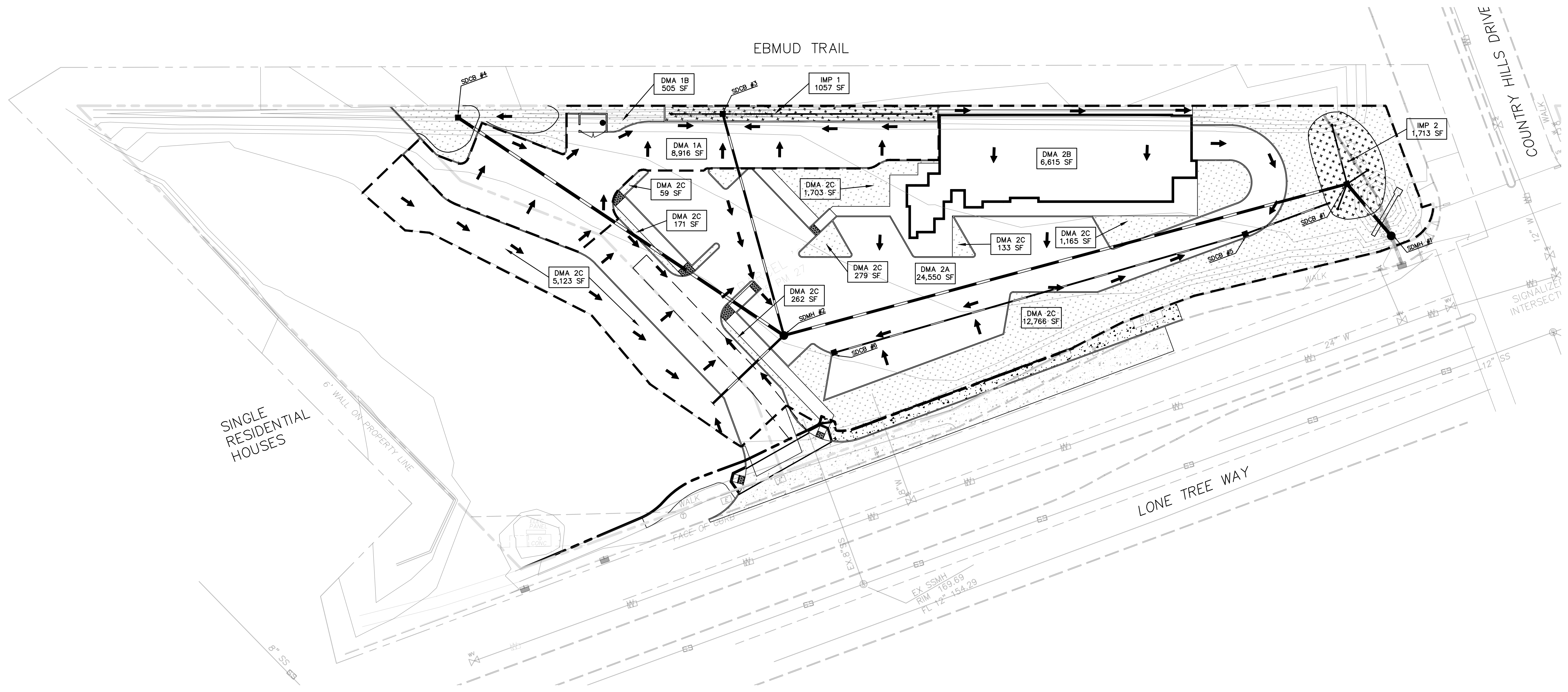
**IMP Name: IMP2 (Soil Type: D)**  
 IMP Type: Bioretention Facility  
 Soil Type: D

DMA Name	DMA Area (sq ft)	Post-Project Surface Type	DMA Runoff Factor	DMA Area x Runoff Factor	IMP Sizing		
					IMP Sizing Factor	Rain Adjust-ment Factor	Proposed Area or Volume
DMA 2A	24,550	Concrete or Asphalt	1.00	24,550	0.10	6,615	
DMA 2B	6,615	Conventional Roof	1.00	6,615			
DMA 2C	19,949	Landscape	0.10	1,995			
<b>Total</b>				<b>33,164</b>	<b>0.040</b>	<b>1,000</b>	<b>1,326</b>

**Software Tool Warnings**  
 No warnings to report.

Report generated on 10/15/2019 12:00:00 AM by the Contra Costa Clean Water Program IMP Sizing Tool software (version 1.3.1.0).

- LEGEND**
- DMA DRAINAGE MANAGEMENT AREA
  - IMP INTEGRATED MANAGEMENT PRACTICE
  - DRAINAGE AREA
  - ← DRAINAGE ARROW
  - + + + + BIO-RETENTION AREA
  - IMPERVIOUS AREA
  - ▨ PREVIOUS AREA



**STORMWATER CONTROL PLAN**  
 C-5.1  
 March 23, 2020

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THE IRRIGATION PLAN WILL BE IN COMPLIANCE WITH THE WATER EFFICIENT LANDSCAPE ORDINANCE AND THE REQUIRED DOCUMENTATION WILL BE INCLUDED.

### IRRIGATION LEGEND

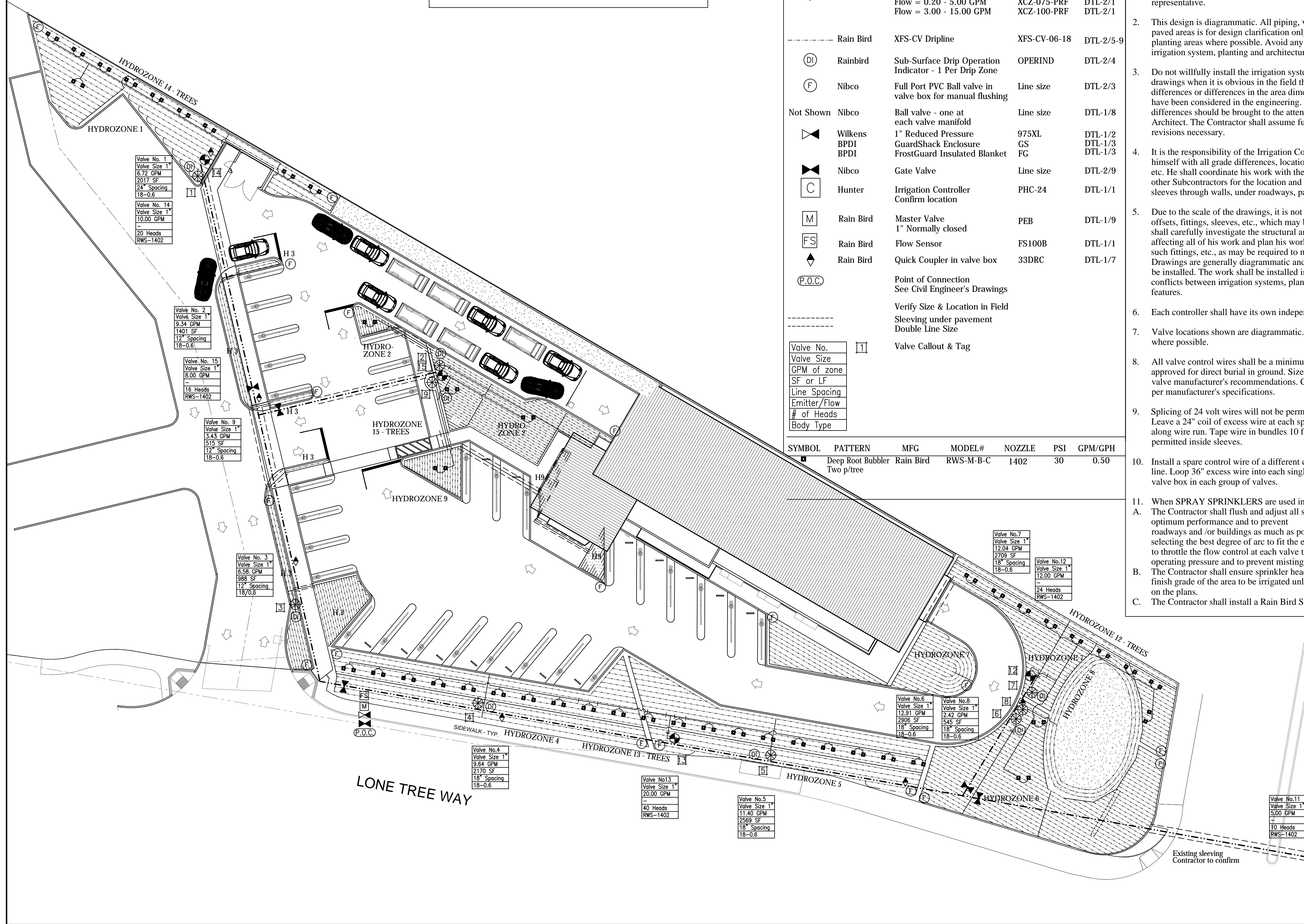
SYMBOL	MFG	DESCRIPTION	MODEL NO.	DETAIL
	Rain Bird	Remote Control Valve	PEB	DTL-1/5
	Rain Bird	Drip Control Zone Kit Flow = 0.20 - 5.00 GPM Flow = 3.00 - 15.00 GPM	XCZ-075-PRF XCZ-100-PRF	DTL-2/1 DTL-2/1
	Rain Bird	XFS-CV Dripline	XFS-CV-06-18	DTL-2/5-9
	Rain Bird	Sub-Surface Drip Operation Indicator - 1 Per Drip Zone	OPERIND	DTL-2/4
	Nibco	Full Port PVC Ball valve in valve box for manual flushing	Line size	DTL-2/3
	Nibco	Ball valve - one at each valve manifold	Line size	DTL-1/8
	Wilkins BPD1	1" Reduced Pressure GuardShack Enclosure FrostGuard Insulated Blanket	975XL GS FG	DTL-1/2 DTL-1/3 DTL-1/3
	Nibco	Gate Valve	Line size	DTL-2/9
	Hunter	Irrigation Controller Confirm location	PHC-24	DTL-1/1
	Rain Bird	Master Valve 1" Normally closed	PEB	DTL-1/9
	Rain Bird	Flow Sensor	FS100B	DTL-1/1
	Rain Bird	Quick Coupler in valve box	33DRC	DTL-1/7
		Point of Connection See Civil Engineer's Drawings		
		Verify Size & Location in Field Sleeving under pavement Double Line Size		

SYMBOL	PATTERN	MFG	MODEL#	NOZZLE	PSI	GPM/GPH
		Rain Bird	RWS-M-B-C	1402	30	0.50

### IRRIGATION NOTES

- THE IRRIGATION SYSTEM IS DESIGNED FOR 20 GPM WITH A MINIMUM OPERATING PRESSURE OF 40 PSI.**  
The Irrigation Contractor shall verify water pressure prior to construction. Report any difference between the water pressure indicated on the drawings and the actual pressure reading at the irrigation point of connection to the Owner's authorized representative.
- This design is diagrammatic. All piping, valves, etc. shown within paved areas is for design clarification only and shall be installed in areas where possible. Avoid any conflicts between the irrigation system, planting and architectural features.
- Do not willfully install the irrigation system as shown on the drawings when it is obvious in the field that obstructions, grade differences or differences in the area dimensions exist that might not have been considered in the engineering. Such obstructions or differences should be brought to the attention of the Landscape Architect. The Contractor shall assume full responsibility for any revisions necessary.
- It is the responsibility of the Irrigation Contractor to familiarize himself with all grade differences, location of walls, retaining walls, etc. He shall coordinate his work with the General Contractor and other Subcontractors for the location and the installation of pipe sleeves through walls, under roadways, paving, structures, etc.
- Due to the scale of the drawings, it is not possible to indicate all offsets, fittings, sleeves, etc., which may be required. The Contractor shall carefully investigate the structural and finished conditions affecting all of his work and plan his work accordingly, furnishing such fittings, etc., as may be required to meet such conditions. Drawings are generally diagrammatic and indicative of the work to be installed. The work shall be installed in such a manner as to avoid conflicts between irrigation systems, planting, and architectural features.
- Each controller shall have its own independent ground wire.
- Valve locations shown are diagrammatic. Install in planting areas where possible.
- All valve control wires shall be a minimum No. 14 AWG copper UL approved for direct burial in ground. Size wiring per controller and valve manufacturer's recommendations. Connect wires as detailed per manufacturer's specifications.
- Splicing of 24 volt wires will not be permitted except in valve boxes. Leave a 24" coil of excess wire at each splice and 100 feet of center along wire run. Tape wire in bundles 10 feet on center. No taping permitted inside sleeves.
- Install a spare control wire of a different color along the entire main line. Loop 36" excess wire into each single valve box and into one valve box in each group of valves.
- When SPRAY SPRINKLERS are used in the project:
  - The Contractor shall flush and adjust all sprinkler heads for optimum performance and to prevent over spray onto walks, roadways and/or buildings as much as possible. This shall include selecting the best degree of arc to fit the existing site conditions and to throttle the flow control at each valve to obtain the optimum operating pressure and to prevent misting for each system.
  - The Contractor shall ensure sprinkler heads are set perpendicular to finish grade of the area to be irrigated unless otherwise designated on the plans.
  - The Contractor shall install a Rain Bird SAM pop-up body (integral

- check valve) or a King Bros. CV series check valve on shrub risers in lieu of Schedule 80 coupling at locations where low head drainage will cause erosion and excess water use.
- The Contractor shall make field adjustments to the system at locations of vertical obstructions (street lights, trees, fire hydrants, etc.) that interfere with the spray pattern of sprinkler heads so as to prevent proper coverage. Adjustments shall be made by installing a quarter, third or half circle head at the sides of the obstruction so as to provide proper coverage. The contractor shall not use variable arc nozzles. All adjustments shall be made at no additional cost to the owner.
- In planting areas 4'-0" wide and narrower, and in all lawn areas, 6" pop-up bodies shall be used. In all other spray zones use 12" pop-up bodies. Bubblers are to be installed on Sch. 80 risers.
- When DRIPLINE is used in the project:
  - The Contractor shall install as indicated on the drawings.
  - Use only Teflon tape on all threaded locations.
  - Dripline can be installed with the emitters facing up, down or sideways.
  - Cap or plug all openings as lines have been installed to prevent intrusion of materials that would obstruct the pipe and leave in place until removal is necessary for completion of installation.
  - Thoroughly flush all water lines before installing Air Relief Valves.
- Notify Architect of any aspects of layout which will provide incomplete or insufficient water coverage of plant material and do not proceed until his instructions are obtained.
- In addition to the sleeves and conduits shown on the drawings, the Irrigation Contractor shall be responsible for the installation of sleeves and conduits of sufficient size under all paved areas.
- All lateral piping beneath paved areas shall be Schedule 40 PVC pipe.
- Where it is necessary to excavate adjacent to existing trees, the Contractor shall use all possible care to avoid injury to trees, and tree roots. Excavation in areas where two (2) inch and larger roots occur shall be done by hand. Roots two (2) inches and larger in diameter shall be wrapped in a plastic bag and secured with a rubber band. Trenches adjacent to tree should be closed within twenty-four (24) hours; where this is not possible, the side of the trench adjacent to the tree shall be kept shaded with burlap or canvas.
- Install valve boxes 12" from and perpendicular to walk, curb, lawn, building or landscape feature. At multiple valve box groups, each box shall be an equal distance from the walk, curb, lawn, etc. and each box shall be 12" apart. Short side of valve box shall be parallel to walk, curb, lawn, etc.
- All wire connections to be made in valve box with water tight connectors per manufacturers directions. Wire splices shall not be permitted unless approved by the Owners Representative or the Landscape Architect. Wire splice locations must be indicated on "As-Builts" per the Specifications.
- Irrigation Contractor to notify all local jurisdictions for inspection and testing of installed back flow prevention device.
- Prior to trenching, call Underground Service Alert, (1-800) 227-2600.
- Remote Control Legend: attach a laminated, typewritten legend inside each controller door stating the areas covered by each remote control valve. Valves, or adjacent piping in the valve box are to be labeled with an indelible marker with the appropriate number corresponding to the controller legend for easy identification.



### PIPE SIZING LEGEND

SYMBOL	DESCRIPTION	MODEL NO.	G.P.M.
	Main Line	SCH 40 PVC 1.5" size unless otherwise noted	
	Lateral Line	3/4" SCH 40 PVC Pipe	0 - 8 GPM
	Lateral Line	1" SCH 40 PVC Pipe	8 - 12
	Lateral Line	1-1/4" SCH 40 PVC Pipe	12 - 22
	Lateral Line	1-1/2" SCH 40 PVC Pipe	22 - 30
	Lateral Line	2" SCH 40 PVC Pipe	30 - 50
	Lateral Line	2-1/2" SCH 40 PVC Pipe	50 - 75
	Lateral Line	3" SCH 40 PVC Pipe	75 - 110

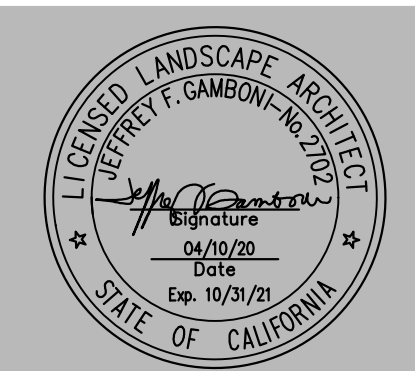
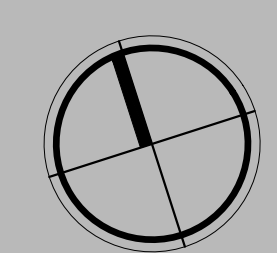
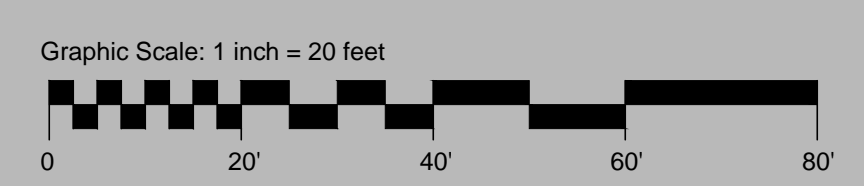
## IRRIGATION PLAN

L-1

APRIL 10, 2020

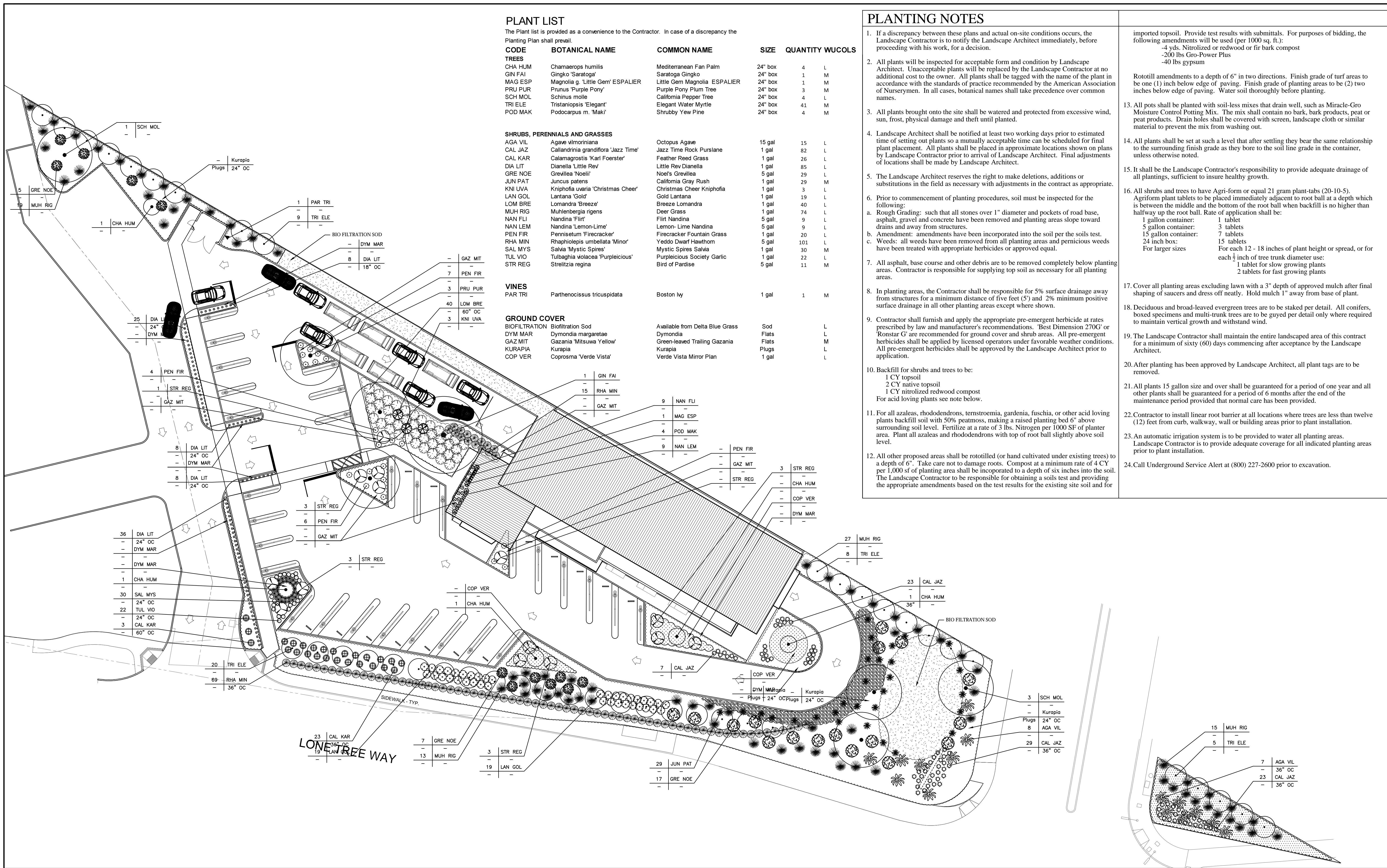
## DUCKY'S CAR WASH

Richard Miller  
Lone Tree Way cor. Country Hills Drive



THE OFFICE OF  
**JEFFREY F. GAMBONI**  
LANDSCAPE ARCHITECT 2702  
3012 PACIFIC AVENUE  
STOCKTON 95204  
209 948 8335

**LDA Partners**  
DESIGNERS & ARCHITECTS



**PLANT LIST**

The Plant list is provided as a convenience to the Contractor. In case of a discrepancy the Planting Plan shall prevail.

CODE	BOTANICAL NAME	COMMON NAME	SIZE	QUANTITY	WUCOLS
<b>TREES</b>					
CHA HUM	Chamaerops humilis	Mediterranean Fan Palm	24" box	4	L
GIN FAI	Ginkgo 'Saratoga'	Saratoga Ginkgo	24" box	1	M
MAG ESP	Magnolia g. 'Little Gem'	Little Gem Magnolia	24" box	1	M
PRU PUR	Prunus 'Purple Pony'	Purple Pony Plum Tree	24" box	3	M
SCH MOL	Schinus molle	California Pepper Tree	24" box	4	L
TRI ELE	Tristanopsis 'Elegant'	Elegant Water Myrtle	24" box	41	M
POD MAK	Podocarpus m. 'Maki'	Shrubby Yew Pine	24" box	4	M
<b>SHRUBS, PERENNIALS AND GRASSES</b>					
AGA VIL	Agave vilmoriniana	Octopus Agave	15 gal	15	L
CAL JAZ	Callandrinia grandiflora 'Jazz Time'	Jazz Time Rock Purslane	1 gal	82	L
CAL KAR	Calamagrostis 'Karl Foerster'	Feather Reed Grass	1 gal	26	L
DIA LIT	Dianella 'Little Rev'	Little Rev Dianella	1 gal	85	L
GRE NOE	Grevillea 'Noeli'	Noel's Grevillea	5 gal	29	L
JUN PAT	Juncus patens	California Gray Rush	1 gal	29	M
KNI UVA	Kniphofia uvaria 'Christmas Cheer'	Christmas Cheer Kniphofia	1 gal	3	L
LAN GOL	Lantana 'Gold'	Gold Lantana	1 gal	19	L
LOM BRE	Lomandra 'Breeze'	Breeze Lomandra	1 gal	40	L
MUH RIG	Muhlenbergia rigens	Deer Grass	1 gal	74	L
NAN FLI	Nandina 'Flirt'	Flirt Nandina	5 gal	9	L
NAN LEM	Nandina 'Lemon-Lime'	Lemon-Lime Nandina	5 gal	9	L
PEN FIR	Pennisetum 'Firecracker'	Firecracker Fountain Grass	1 gal	20	L
RHA MIN	Rhapidoelis umbellata 'Minor'	Yeddo Dwarf Hawthorn	5 gal	101	L
SAL MYS	Salvia 'Mystic Spires'	Mystic Spires Salvia	1 gal	30	M
TUL VIO	Tulbaghia violacea 'Purpleicious'	Purpleicious Society Garlic	1 gal	22	L
STR REG	Strelitzia regina	Bird of Paradise	5 gal	11	M
<b>VINES</b>					
PAR TRI	Parthenocissus tricuspidata	Boston Ivy	1 gal	1	M
<b>GROUND COVER</b>					
BIOFILTRATION	Biofiltration Sod	Available from Delta Blue Grass	Sod	L	L
DYM MAR	Dymondia margaretae	Dymondia	Flats	L	L
GAZ MIT	Gazania 'Mitsuwa Yellow'	Green-leaved Trailing Gazania	Flats	L	M
KURAPIA	Kurapia	Kurapia	Plugs	L	L
COP VER	Coprosma 'Verde Vista'	Verde Vista Mirror Plan	1 gal	L	L

**PLANTING NOTES**

- If a discrepancy between these plans and actual on-site conditions occurs, the Landscape Contractor is to notify the Landscape Architect immediately, before proceeding with his work, for a decision.
- All plants will be inspected for acceptable form and condition by Landscape Architect. Unacceptable plants will be replaced by the Landscape Contractor at no additional cost to the owner. All plants shall be tagged with the name of the plant in accordance with the standards of practice recommended by the American Association of Nurserymen. In all cases, botanical names shall take precedence over common names.
- All plants brought onto the site shall be watered and protected from excessive wind, sun, frost, physical damage and theft until planted.
- Landscape Architect shall be notified at least two working days prior to estimated time of setting out plants so a mutually acceptable time can be scheduled for final plant placement. All plants shall be placed in approximate locations shown on plans by Landscape Contractor prior to arrival of Landscape Architect. Final adjustments of locations shall be made by Landscape Architect.
- The Landscape Architect reserves the right to make deletions, additions or substitutions in the field as necessary with adjustments in the contract as appropriate.
- Prior to commencement of planting procedures, soil must be inspected for the following:
  - Rough Grading: such that all stones over 1" diameter and pockets of road base, asphalt, gravel and concrete have been removed and planting areas slope toward drains and away from structures.
  - Amendment: amendments have been incorporated into the soil per the soils test.
  - Weeds: all weeds have been removed from all planting areas and pernicious weeds have been treated with appropriate herbicides or approved equal.
- All asphalt, base course and other debris are to be removed completely below planting areas. Contractor is responsible for supplying top soil as necessary for all planting areas.
- In planting areas, the Contractor shall be responsible for 5% surface drainage away from structures for a minimum distance of five feet (5') and 2% minimum positive surface drainage in all other planting areas except where shown.
- Contractor shall furnish and apply the appropriate pre-emergent herbicide at rates prescribed by law and manufacturer's recommendations. 'Best Dimension 270G' or 'Ronstar G' are recommended for ground cover and shrub areas. All pre-emergent herbicides shall be applied by licensed operators under favorable weather conditions. All pre-emergent herbicides shall be approved by the Landscape Architect prior to application.
- Backfill for shrubs and trees to be:
  - 1 CY topsoil
  - 2 CY native topsoil
  - 1 CY nitrolized redwood compost
 For acid loving plants see note below.
- For all azaleas, rhododendrons, ternstroemia, gardenia, fuschia, or other acid loving plants backfill soil with 50% peatmoss, making a raised planting bed 6" above surrounding soil level. Fertilize at a rate of 3 lbs. Nitrogen per 1000 SF of planter area. Plant all azaleas and rhododendrons with top of root ball slightly above soil level.
- All other proposed areas shall be rototilled (or hand cultivated under existing trees) to a depth of 6". Take care not to damage roots. Compost at a minimum rate of 4 CY per 1,000 sf of planting area shall be incorporated to a depth of six inches into the soil. The Landscape Contractor to be responsible for obtaining a soils test and providing the appropriate amendments based on the test results for the existing site soil and for

- Imported topsoil. Provide test results with submittals. For purposes of bidding, the following amendments will be used (per 1000 sq. ft.):
  - 4 yds. Nitrolized or redwood or fir bark compost
  - 200 lbs Gro-Power Plus
  - 40 lbs gypsum
 Rototill amendments to a depth of 6" in two directions. Finish grade of turf areas to be one (1) inch below edge of paving. Finish grade of planting areas to be (2) two inches below edge of paving. Water soil thoroughly before planting.
- All pots shall be planted with soil-less mixes that drain well, such as Miracle-Gro Moisture Control Potting Mix. The mix shall contain no bark, bark products, peat or peat products. Drain holes shall be covered with screen, landscape cloth or similar material to prevent the mix from washing out.
- All plants shall be set at such a level that after settling they bear the same relationship to the surrounding finish grade as they bore to the soil line grade in the container, unless otherwise noted.
- It shall be the Landscape Contractor's responsibility to provide adequate drainage of all plantings, sufficient to insure healthy growth.
- All shrubs and trees to have Agri-form or equal 21 gram plant-tabs (20-10-5). Agriform plant tablets to be placed immediately adjacent to root ball at a depth which is between the middle and the bottom of the root ball when backfill is no higher than halfway up the root ball. Rate of application shall be:
  - 1 gallon container: 1 tablet
  - 3 gallon container: 3 tablets
  - 15 gallon container: 7 tablets
  - 24 inch box: 15 tablets
 For larger sizes For each 12 - 18 inches of plant height or spread, or for each 1/2 inch of tree trunk diameter use:
  - 1 tablet for slow growing plants
  - 2 tablets for fast growing plants
- Cover all planting areas excluding lawn with a 3" depth of approved mulch after final shaping of saucers and dress off neatly. Hold mulch 1" away from base of plant.
- Deciduous and broad-leaved evergreen trees are to be staked per detail. All conifers, boxed specimens and multi-trunk trees are to be guyed per detail only where required to maintain vertical growth and withstand wind.
- The Landscape Contractor shall maintain the entire landscaped area of this contract for a minimum of sixty (60) days commencing after acceptance by the Landscape Architect.
- After planting has been approved by Landscape Architect, all plant tags are to be removed.
- All plants 15 gallon size and over shall be guaranteed for a period of one year and all other plants shall be guaranteed for a period of 6 months after the end of the maintenance period provided that normal care has been provided.
- Contractor to install linear root barrier at all locations where trees are less than twelve (12) feet from curb, walkway, wall or building areas prior to plant installation.
- An automatic irrigation system is to be provided to water all planting areas. Landscape Contractor is to provide adequate coverage for all indicated planting areas prior to plant installation.
- Call Underground Service Alert at (800) 227-2600 prior to excavation.

**PLANTING PLAN**

L-2

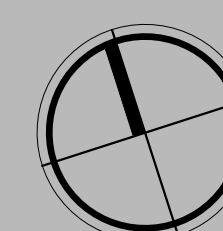
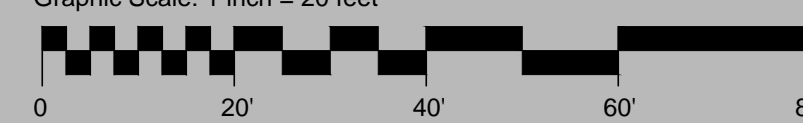
APRIL 10, 2020

**DUCKY'S CAR WASH**

Richard Miller

Lone Tree Way cor. Country Hills Drive

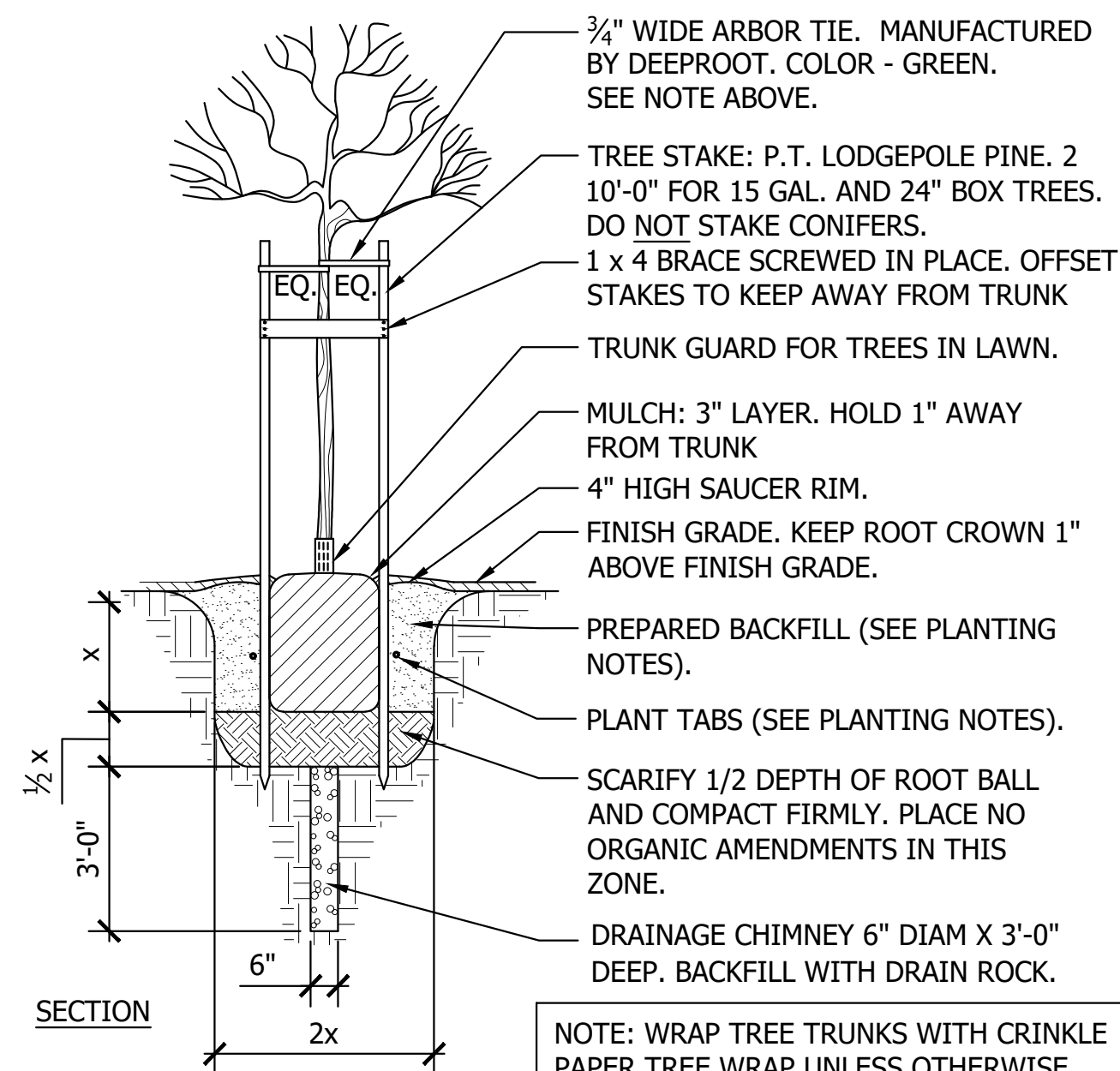
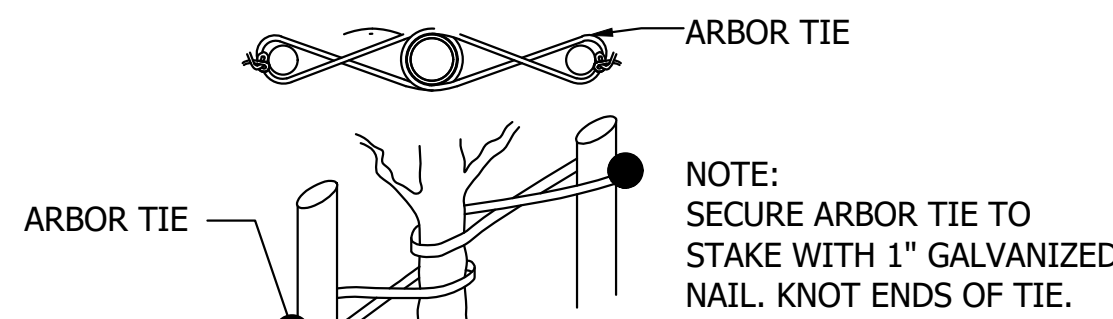
Graphic Scale: 1 inch = 20 feet



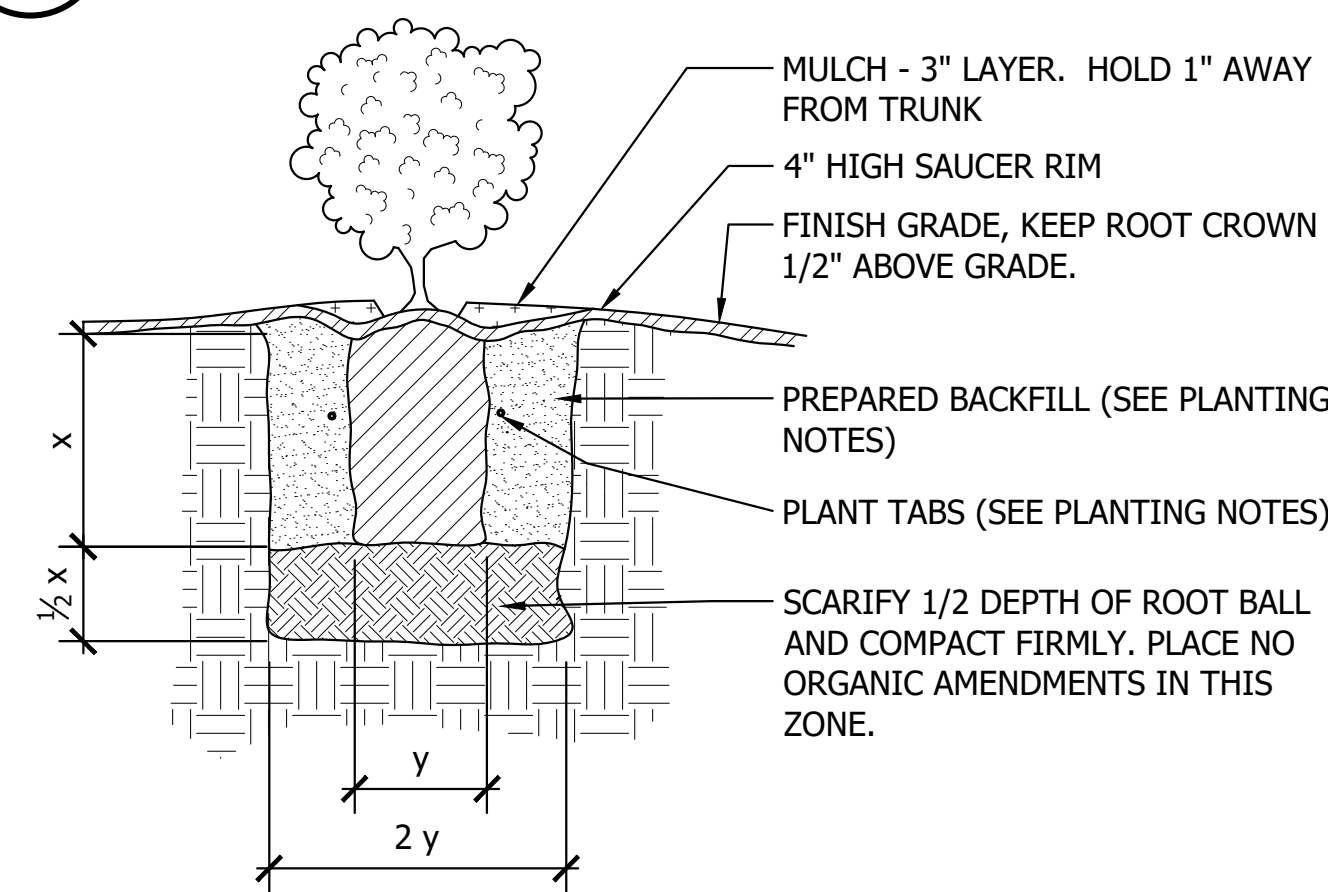
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 STOCKTON 95204  
 209 948 8335

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 DESIGNERS & ARCHITECTS





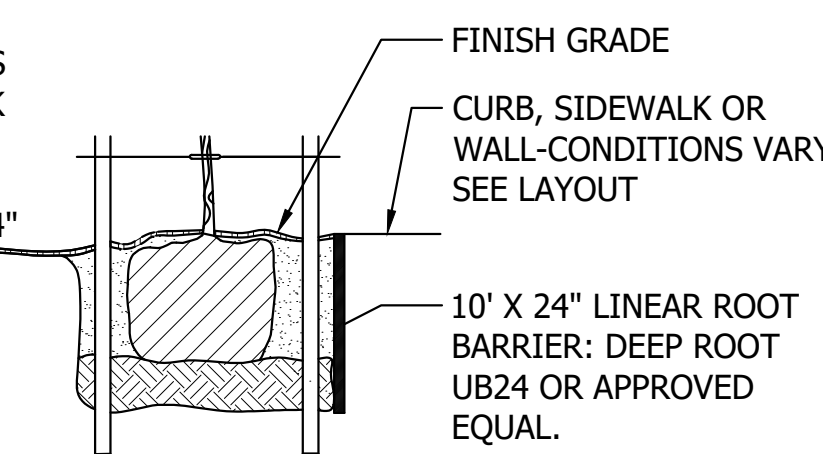
**10 TREE PLANTING**  
NO SCALE



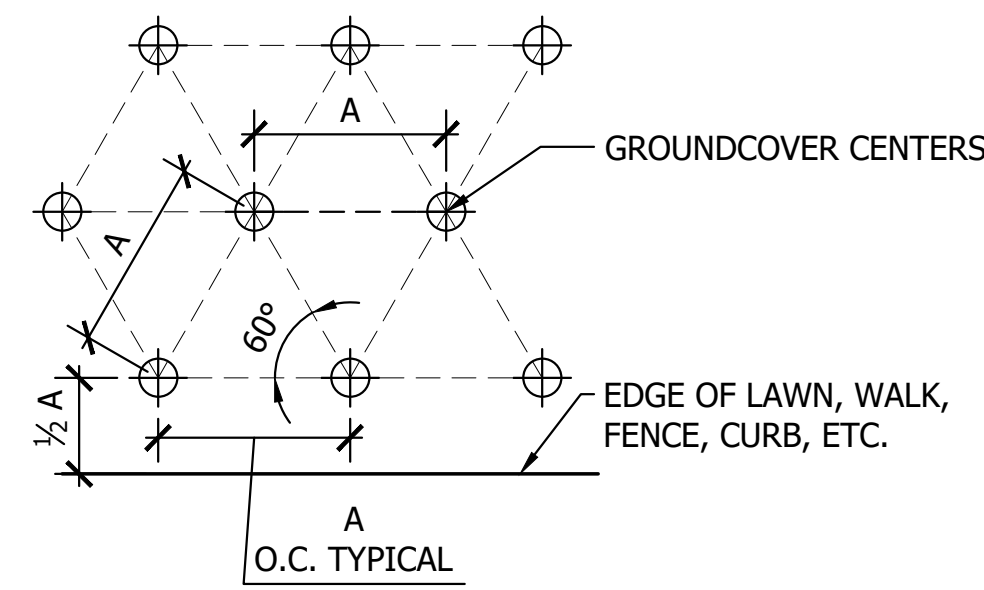
**11 SHRUB PLANTING**  
NO SCALE

**NOTES:**

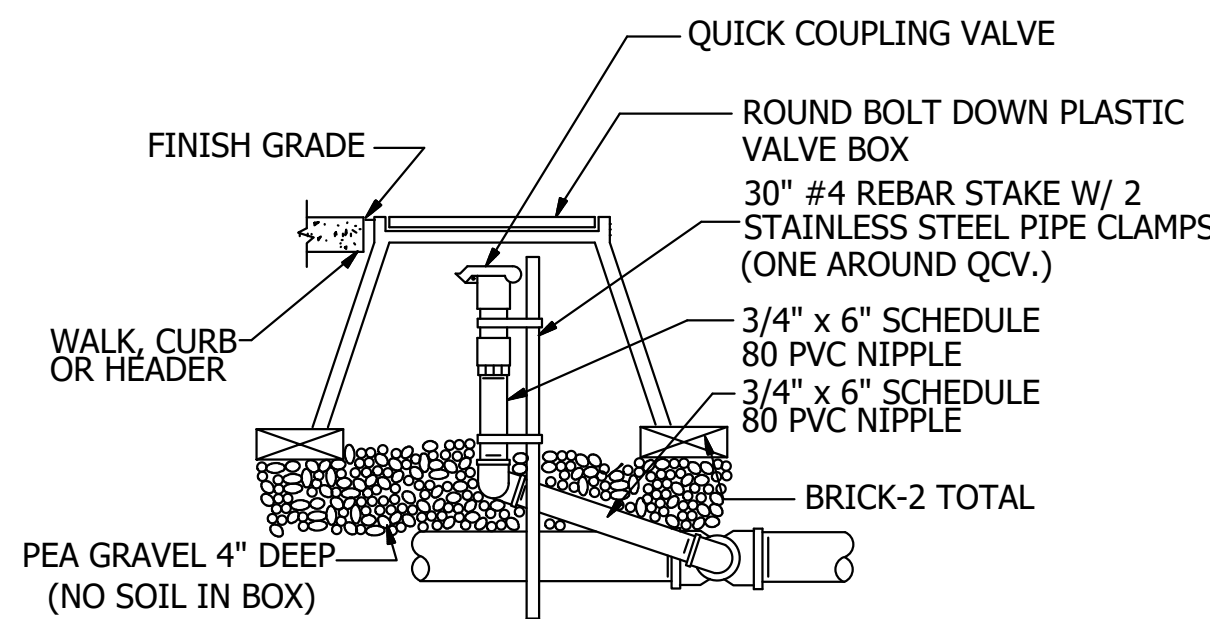
1. ROOT BARRIER TO BE INSTALLED AT LOCATIONS WHERE TREES ARE 12' OR LESS FROM CURB, SIDEWALK OR WALL. INSTALL AT WALL LOCATIONS UNLESS WALL HAS A 24" DEEP CONTINUOUS FOOTING.
2. SEE TREE PLANTING DETAIL FOR ADDITIONAL INFORMATION.



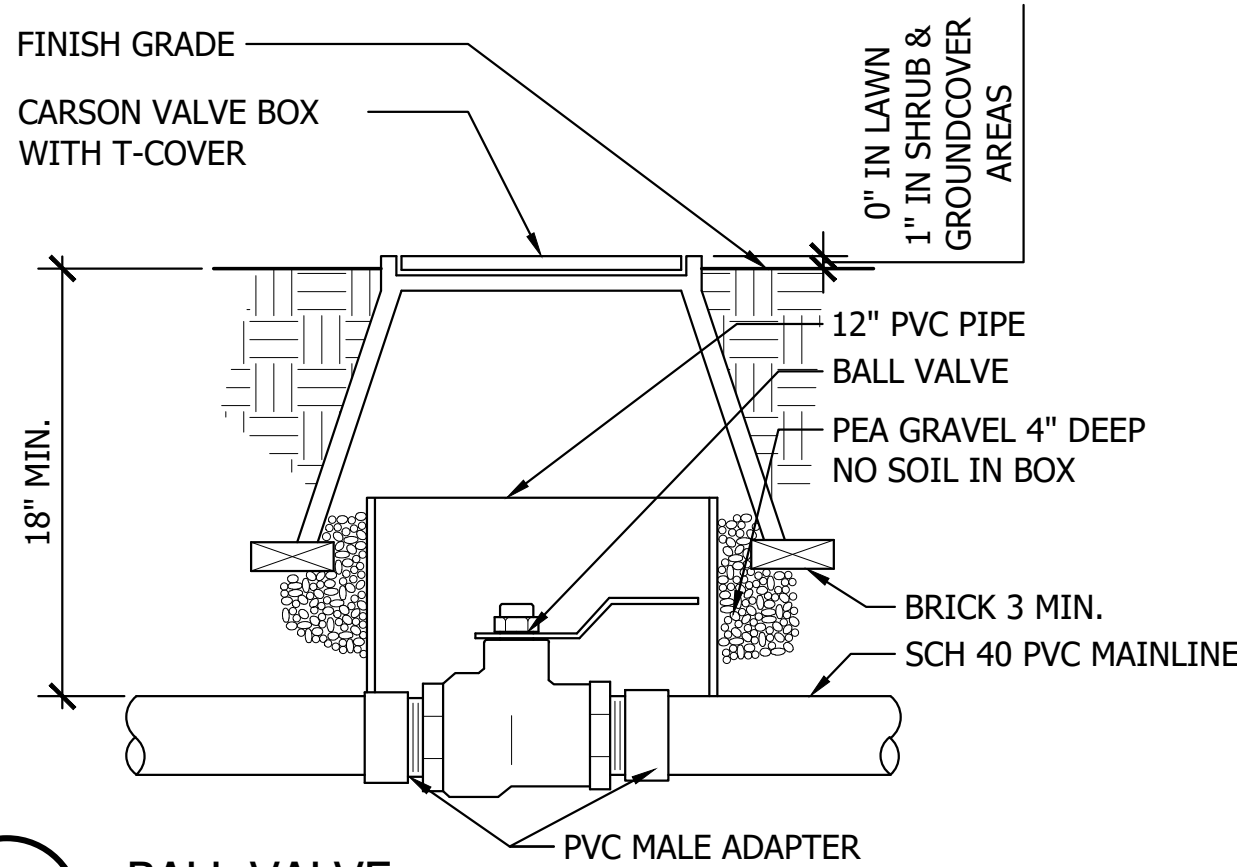
**12 ROOT BARRIER DETAIL**  
NO SCALE



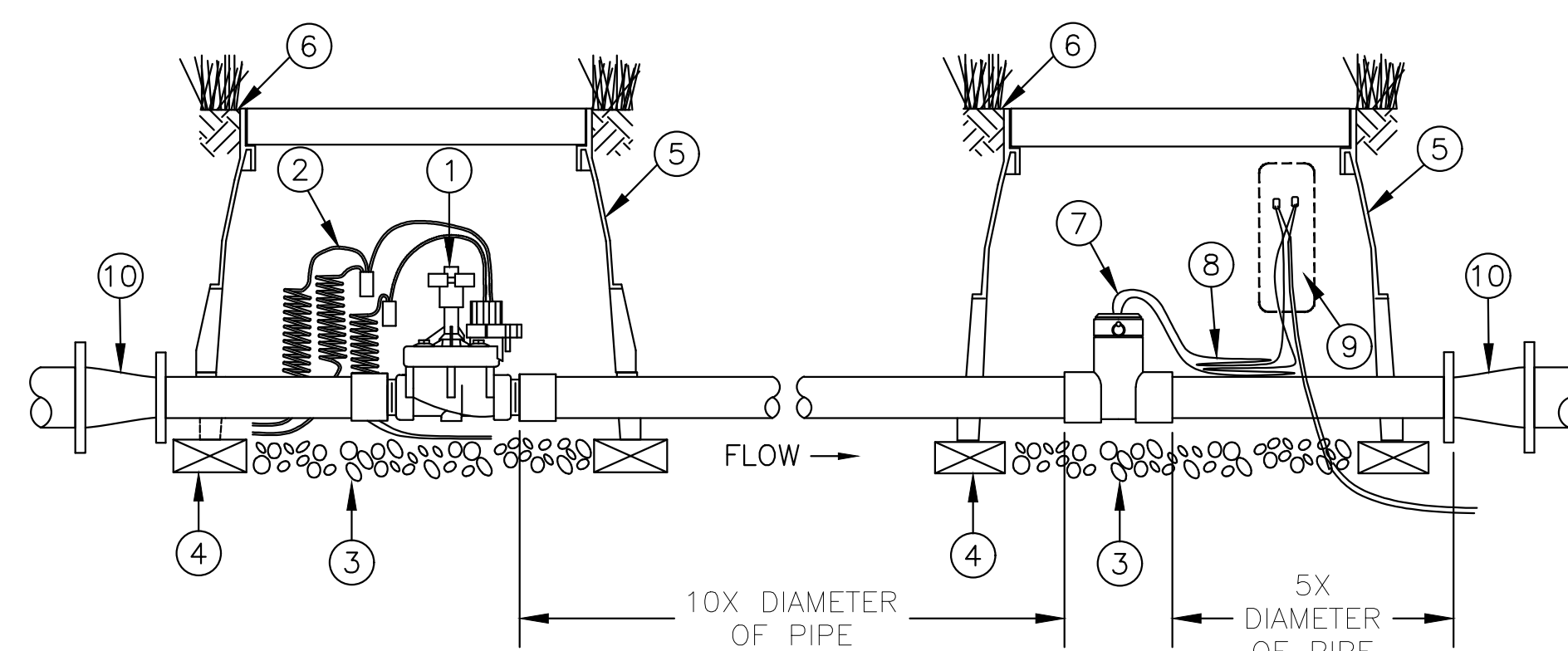
**6 GROUND COVER SPACING**  
NO SCALE



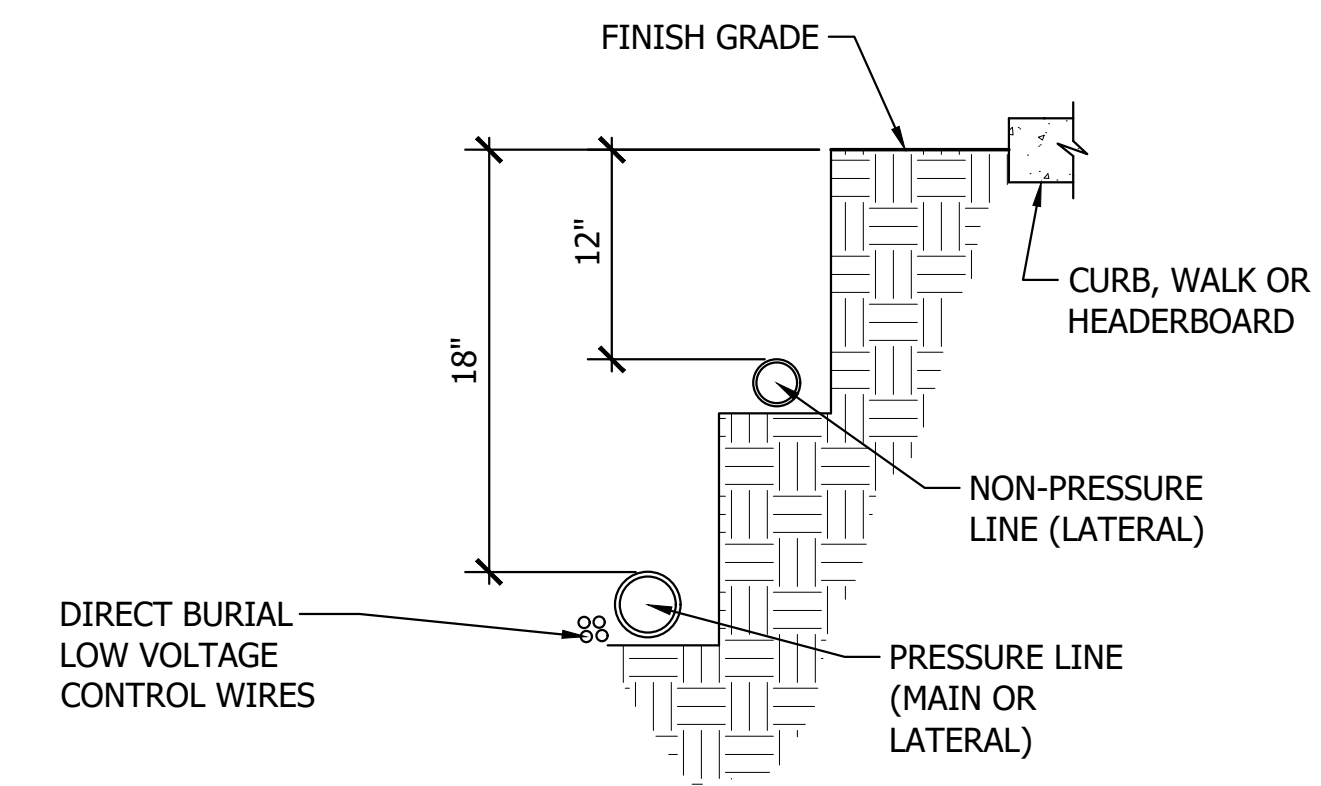
**7 QUICK COUPLER**  
NO SCALE



**8 BALL VALVE**  
NO SCALE

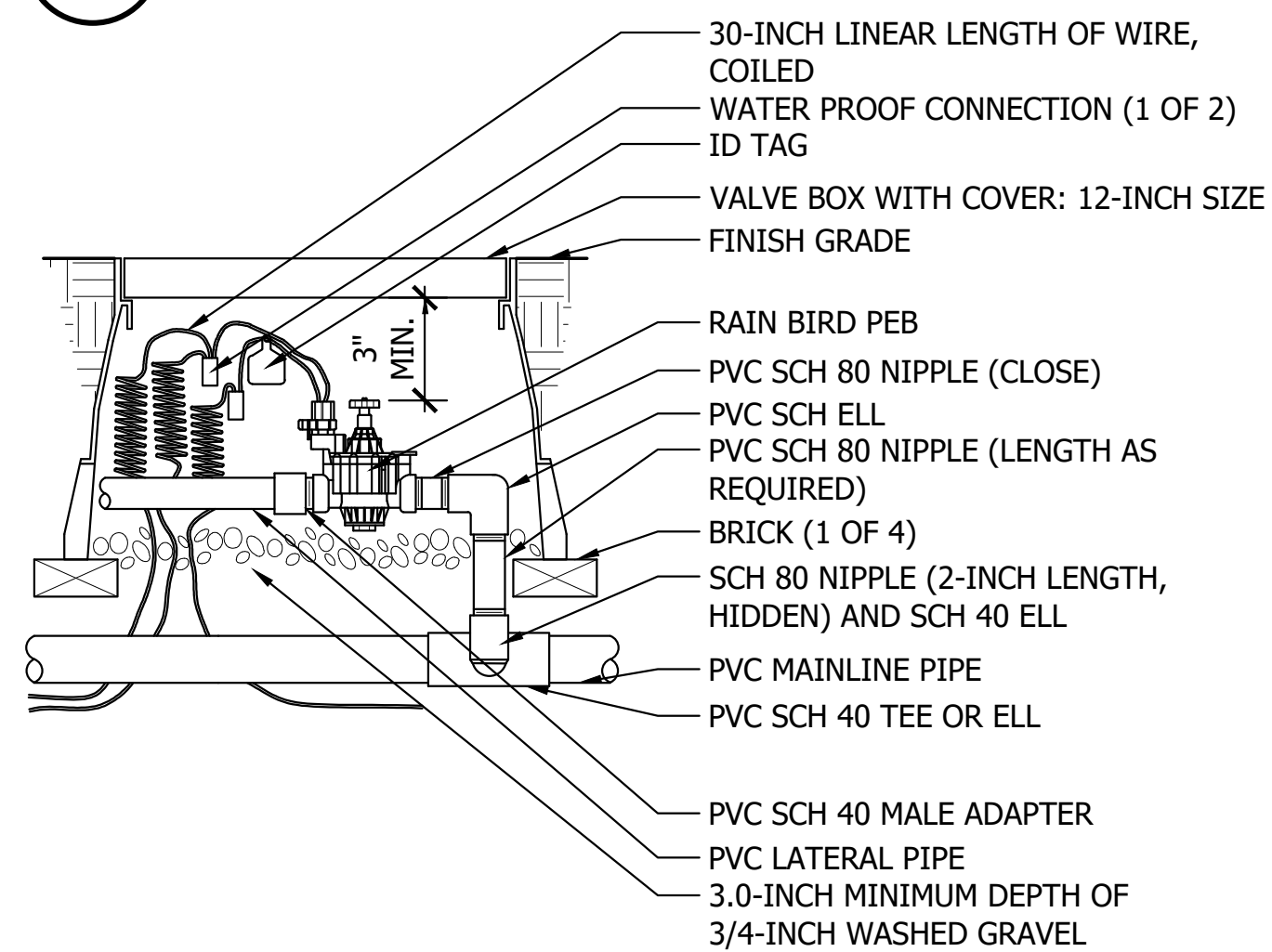


**9 MASTER VALVE/FLOW SENSOR**  
NO SCALE



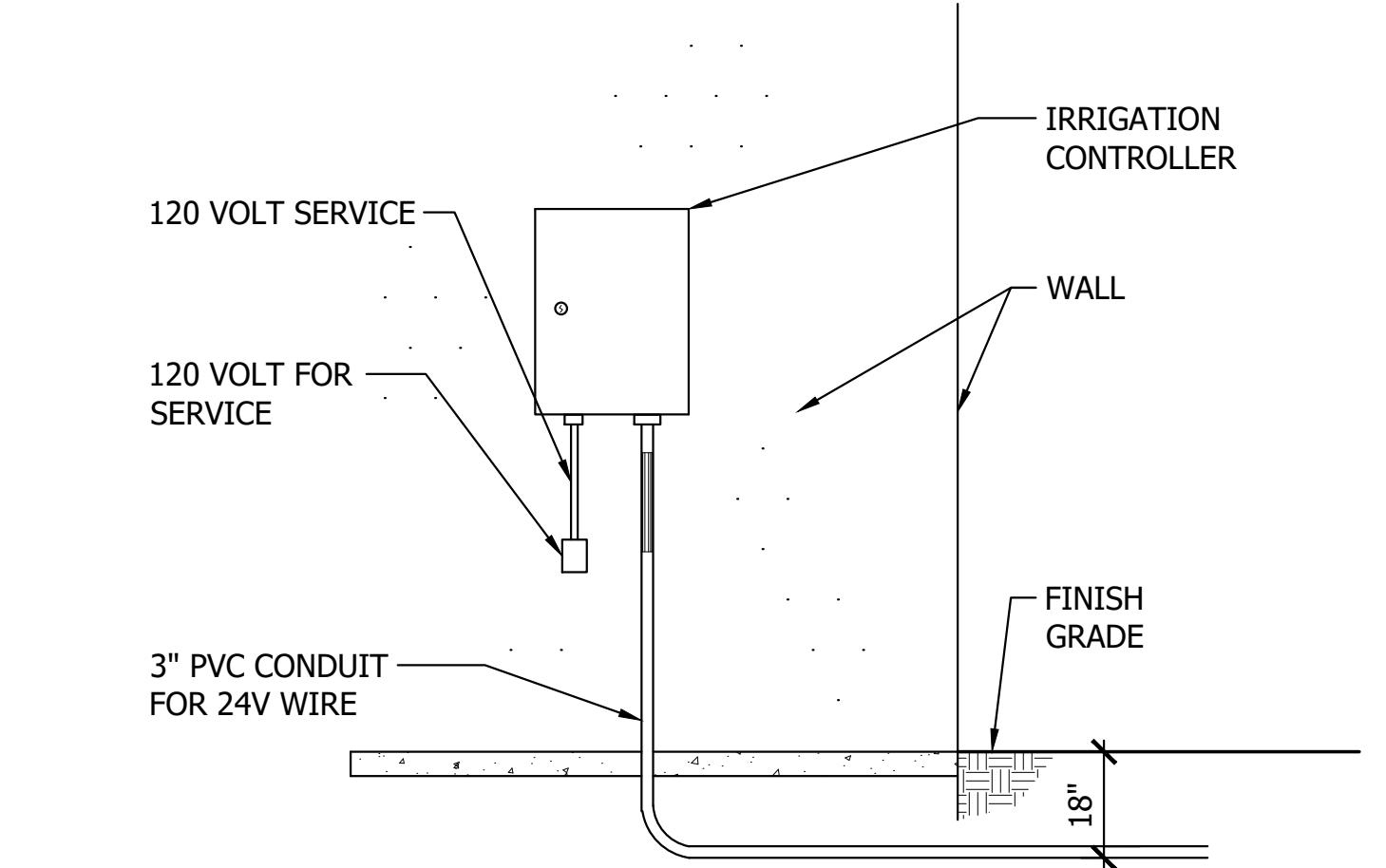
- NOTES:**
1. TRENCHING AND BACKFILLING SHALL BE PER STANDARD SPECIFICATIONS.
  2. MINIMUM BACKFILL RELATIVE COMPACTION SHALL BE 90%.
  3. BUNDLE CONTROL WIRES TOGETHER AND TAPE TO PIPE AT 10' INTERVALS.

**4 IRRIGATION LINE TRENCHING**  
NO SCALE

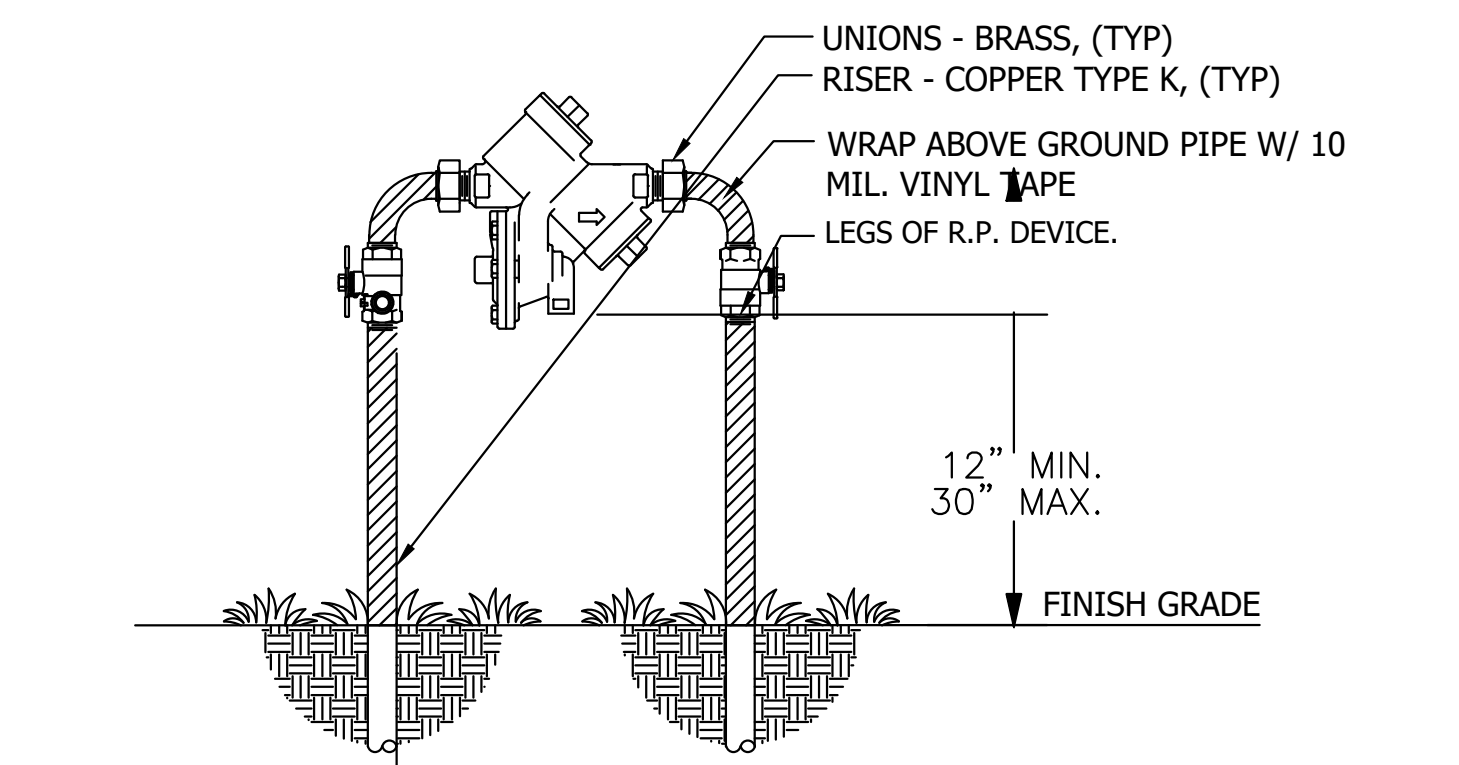


**5 RAIN BIRD REMOTE CONTROL VALVE**  
NO SCALE

1. RAIN BIRD PEB SERIES MASTER VALVE(S)
2. WIRE TO CONTROLLER MASTER VALVE CIRCUIT. LEAVE EXTRA 36-INCH LENGTH, COILED.
3. 3.0-INCH MINIMUM DEPTH OF 3/4-INCH WASHED GRAVEL
4. BRICK (1 OF 4)
5. VALVE BOX WITH COVER - 12-INCH SIZE
6. FINISH GRADE
7. RAIN BIRD FS SERIES 100B FLOW SENSOR. SEE LEGEND.
8. PE-CABLE TO FLOW SENSING EQUIPMENT AT CONTROLLER ASSEMBLY. LEAVE EXTRA 36-INCH LENGTH, COILED.
9. SEE FLOW SENSING WIRING DETAIL FOR WIRING DIAGRAM.
10. CONCENTRIC REDUCER.

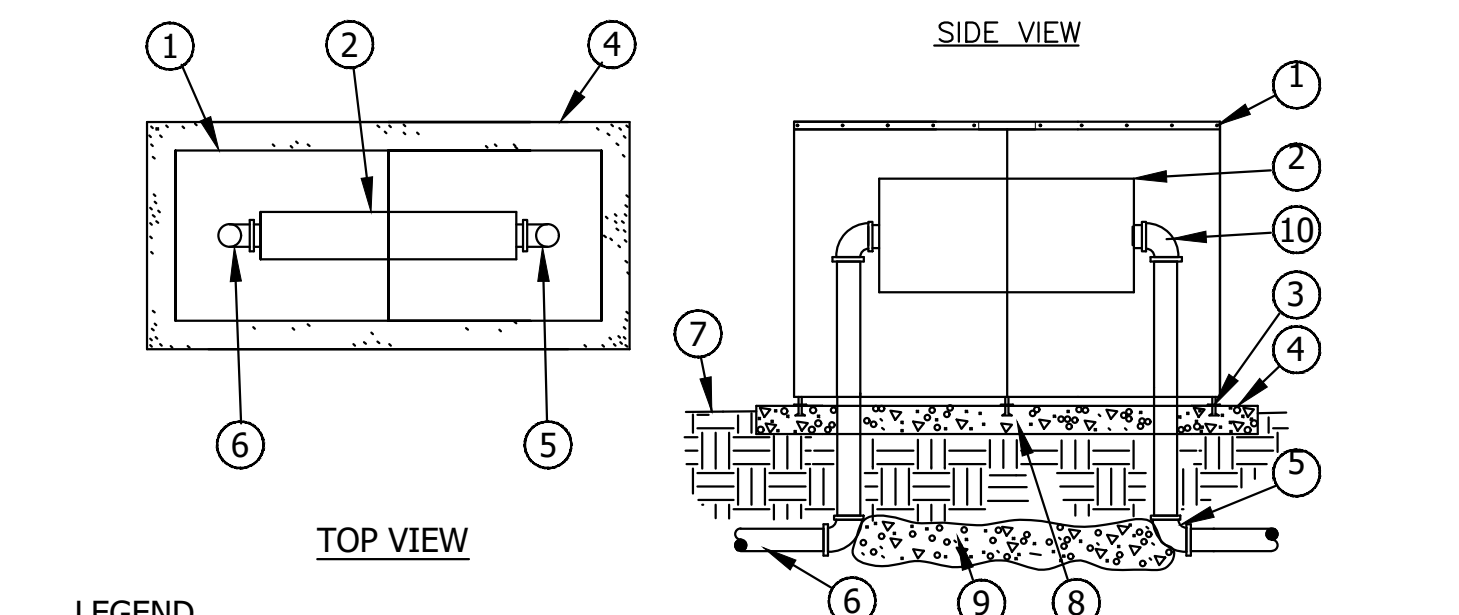


**1 WALL MOUNTED CONTROLLER**  
NO SCALE



- NOTES:**
1. INSTALL BACKFLOW PREVENTER AS REQUIRED BY LOCAL CODES AND HEALTH DEPARTMENT. VERIFY LOCAL REQUIREMENTS PRIOR TO INSTALLATION.
  2. PROVIDE REINFORCED CONCRETE SLAB AND THRUST BLOCKS AT BASE AND AS NECESSARY TO STABILIZE
  3. WRAP ABOVE GROUND PIPE W/ 10 MIL. VINYL TAPE.
  4. SEE RPVB ENCLOSURE DETAIL BELOW FOR ADDITIONAL INFORMATION.

**2 REDUCED PRESSURE VACUUM BREAKER**  
NOT TO SCALE



**LEGEND**

1. REDUCED PRESSURE VACUUM BREAKER ENCLOSURE BOLTED TO CONCRETE PAD. SEE LEGEND
2. INSULATED BLANKET AT RPVB. SEE LEGEND
3. ANCHOR ROD (TYPICAL).
4. POURED CONCRETE BASE, - 6" MINIMUM THICKNESS - EXTEND 4" BEYOND OUTSIDE DIMENSIONS OF ENCLOSURE.
5. WATER SERVICE INLET PIPING.
6. WATER SERVICE OUTLET PIPING.
7. FINISH GRADE.
8. SUPPORT ROD (TYPICAL).
9. CONCRETE SUPPORT BLOCK.
10. BRASS UNIONS (TYPICAL).

**3 RPVB ENCLOSURE**  
NO SCALE

**DETAILS**

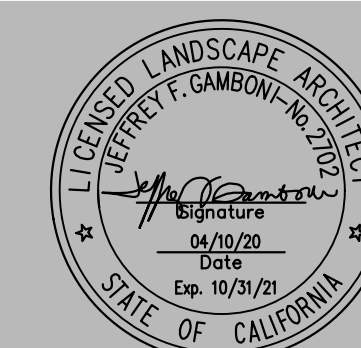
DTL-1

April 10, 2020

**DUCKY'S CAR WASH**

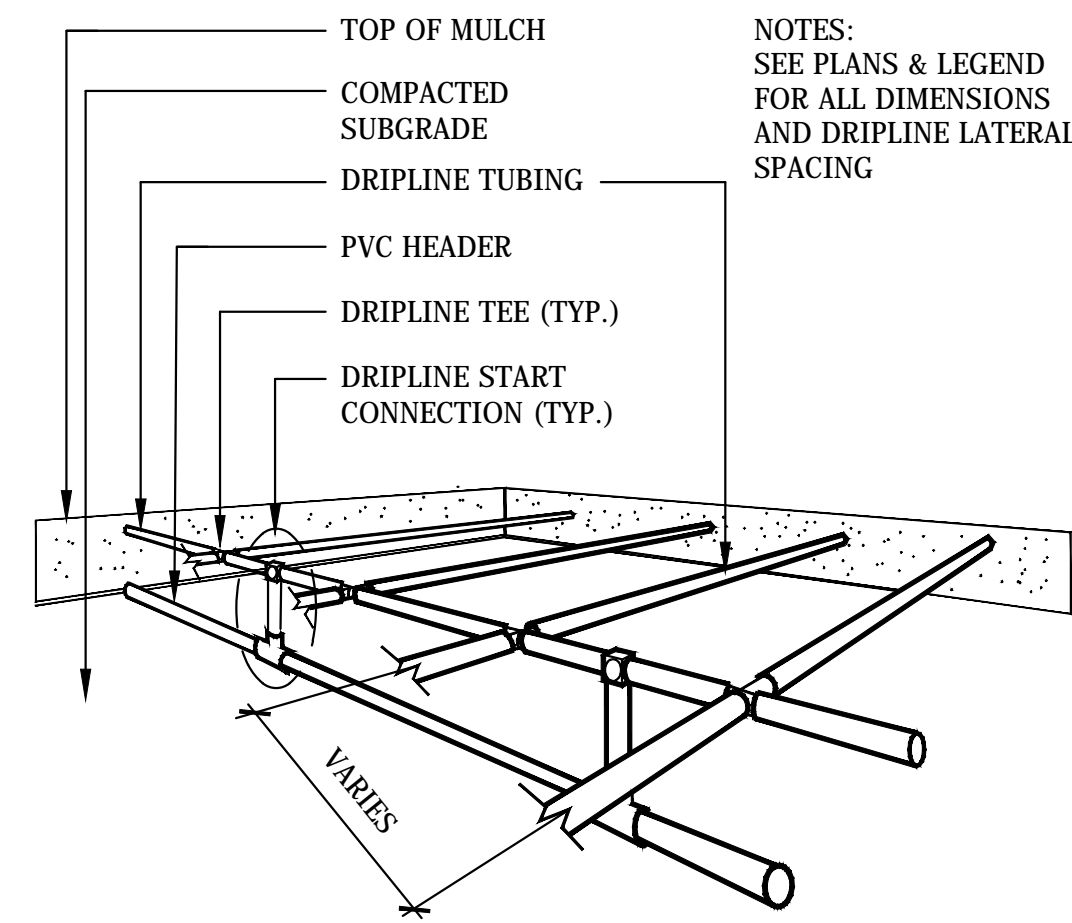
Richard Miller

Lone Tree Way cor. Country Hills Drive

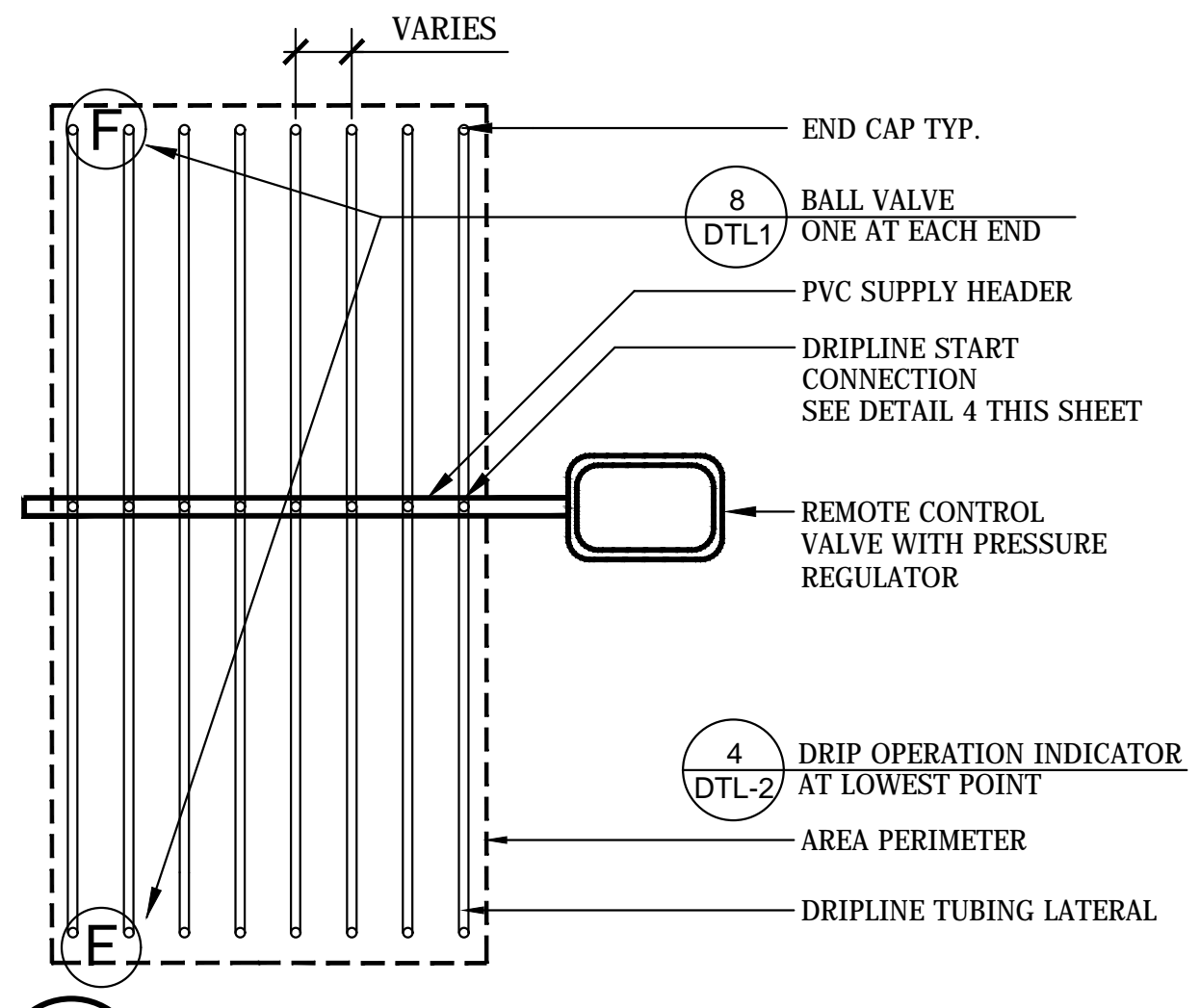


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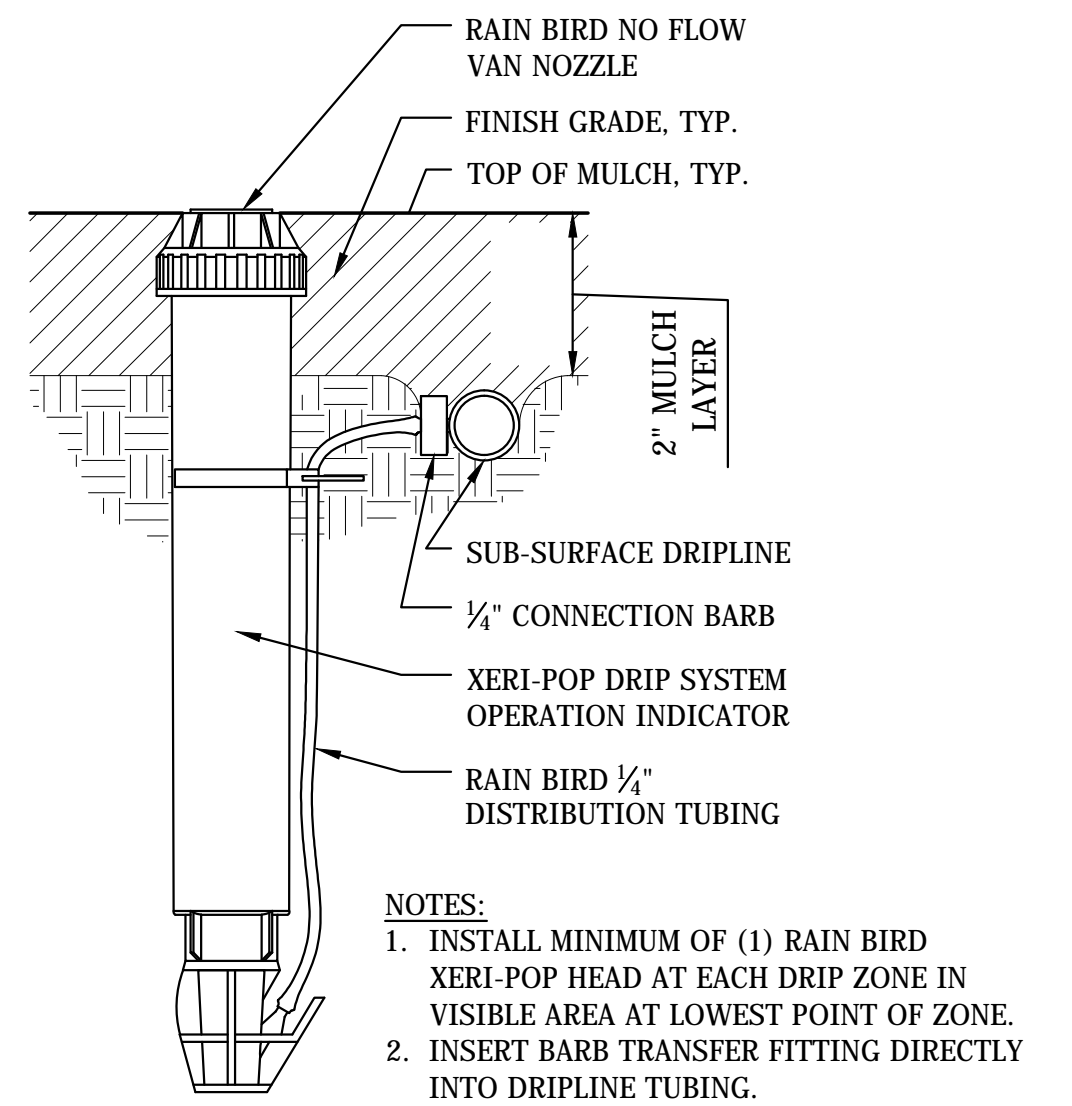
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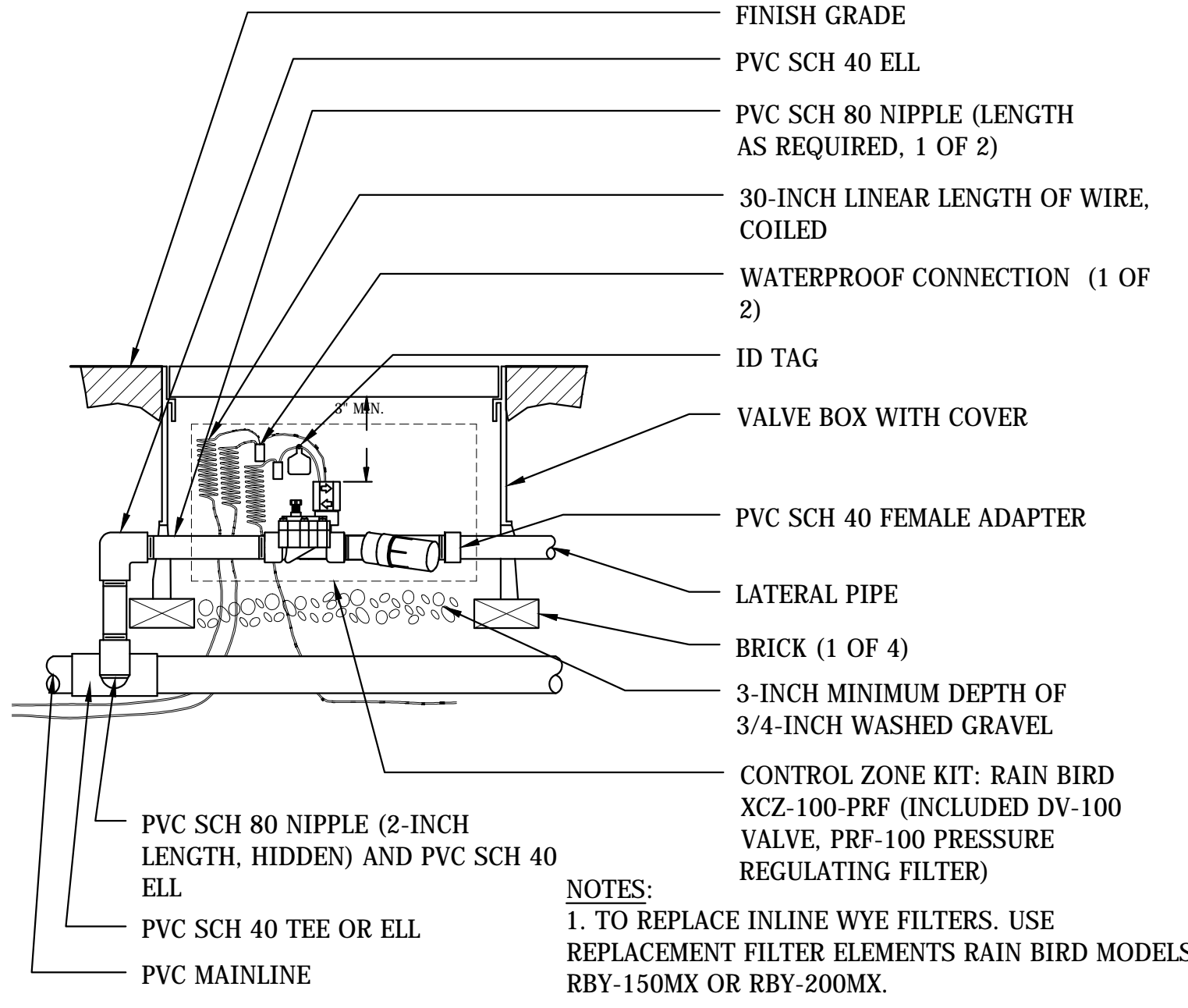
**8 DRIPLINE SUB HEADER INSTALLATION**  
NO SCALE



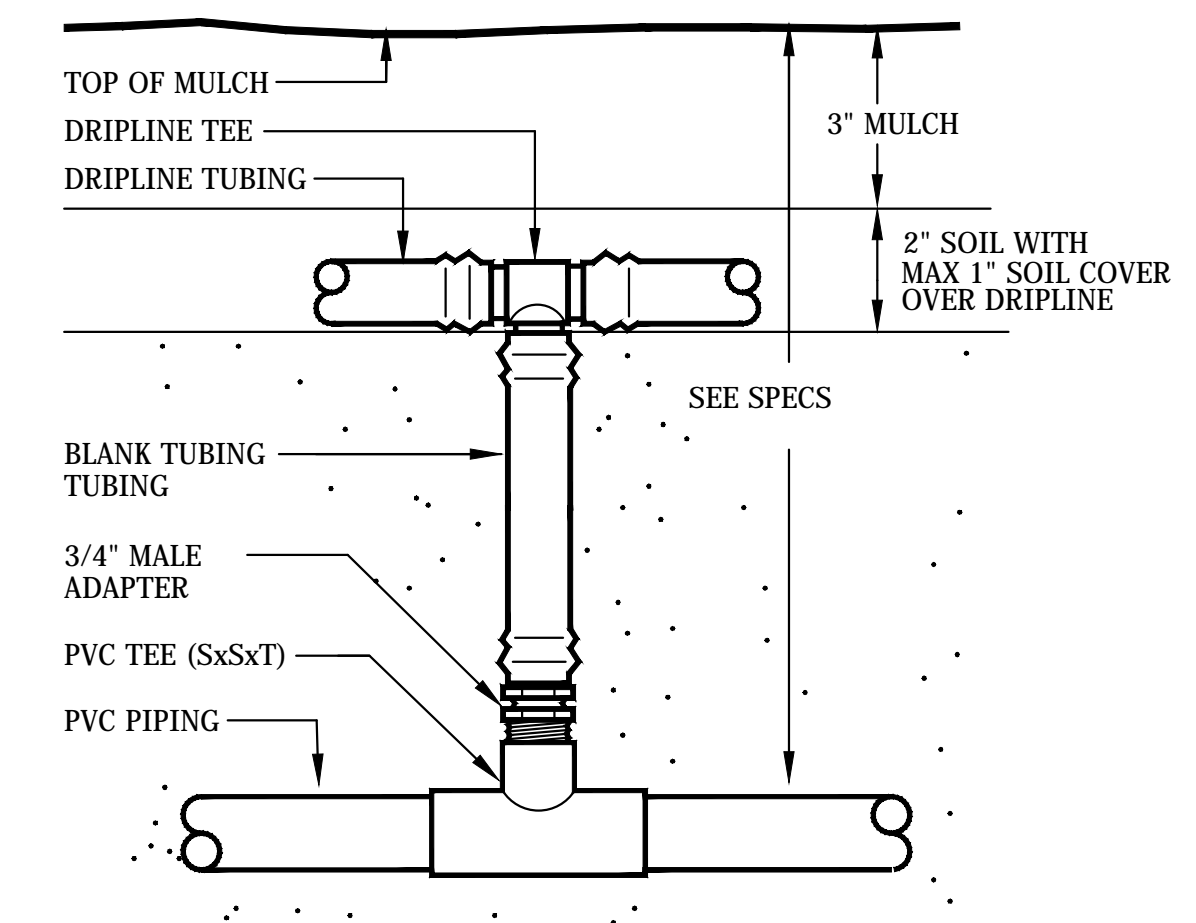
**6 DRIPLINE CENTER FEED LAYOUT**  
NO SCALE



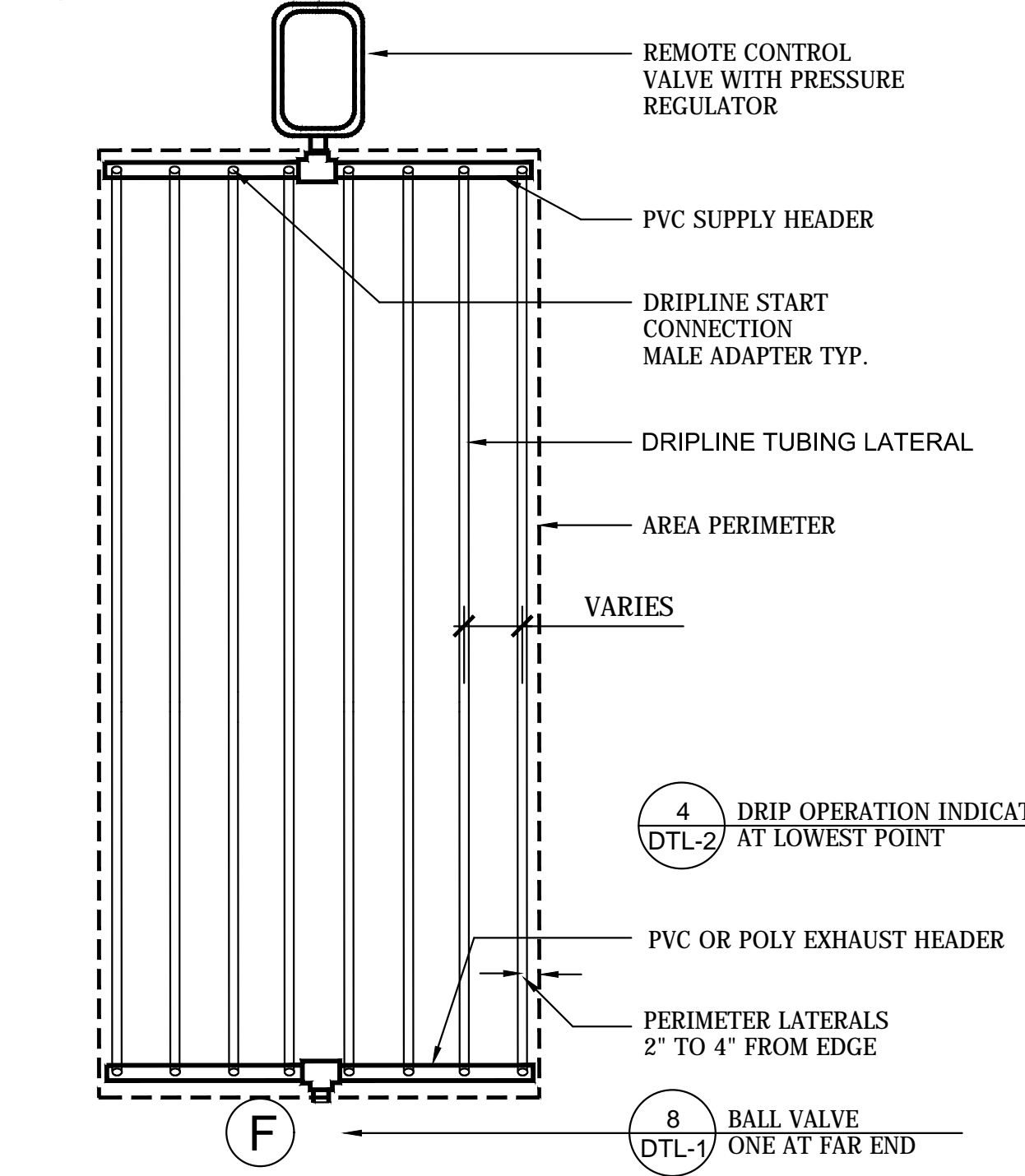
**4 RAIN BIRD SUB-SURFACE DRIP OPERATION INDICATOR**  
NO SCALE



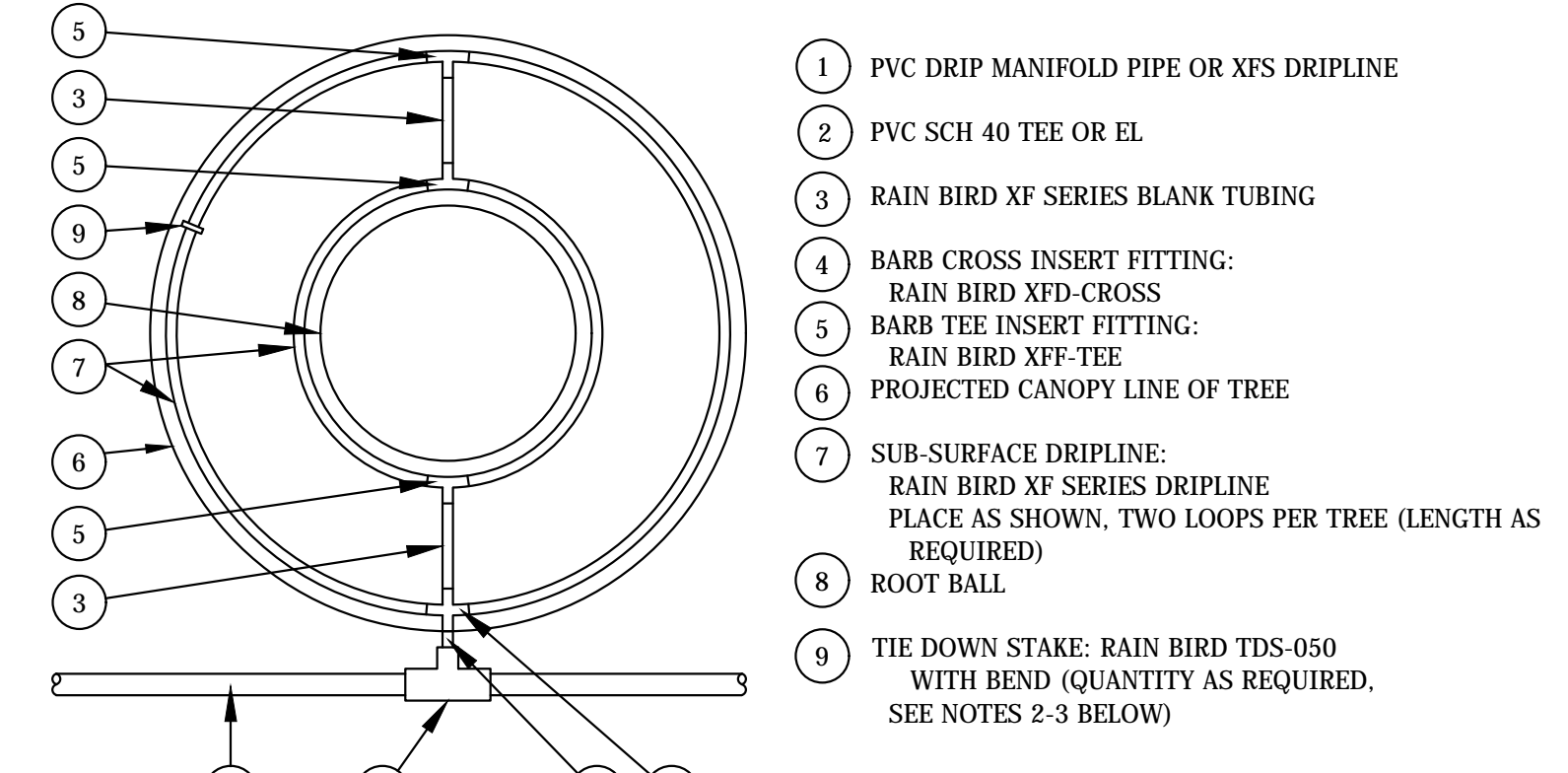
**1 RAIN BIRD Xcz-100-PRF REMOTE CONTROL VALVE**  
NO SCALE



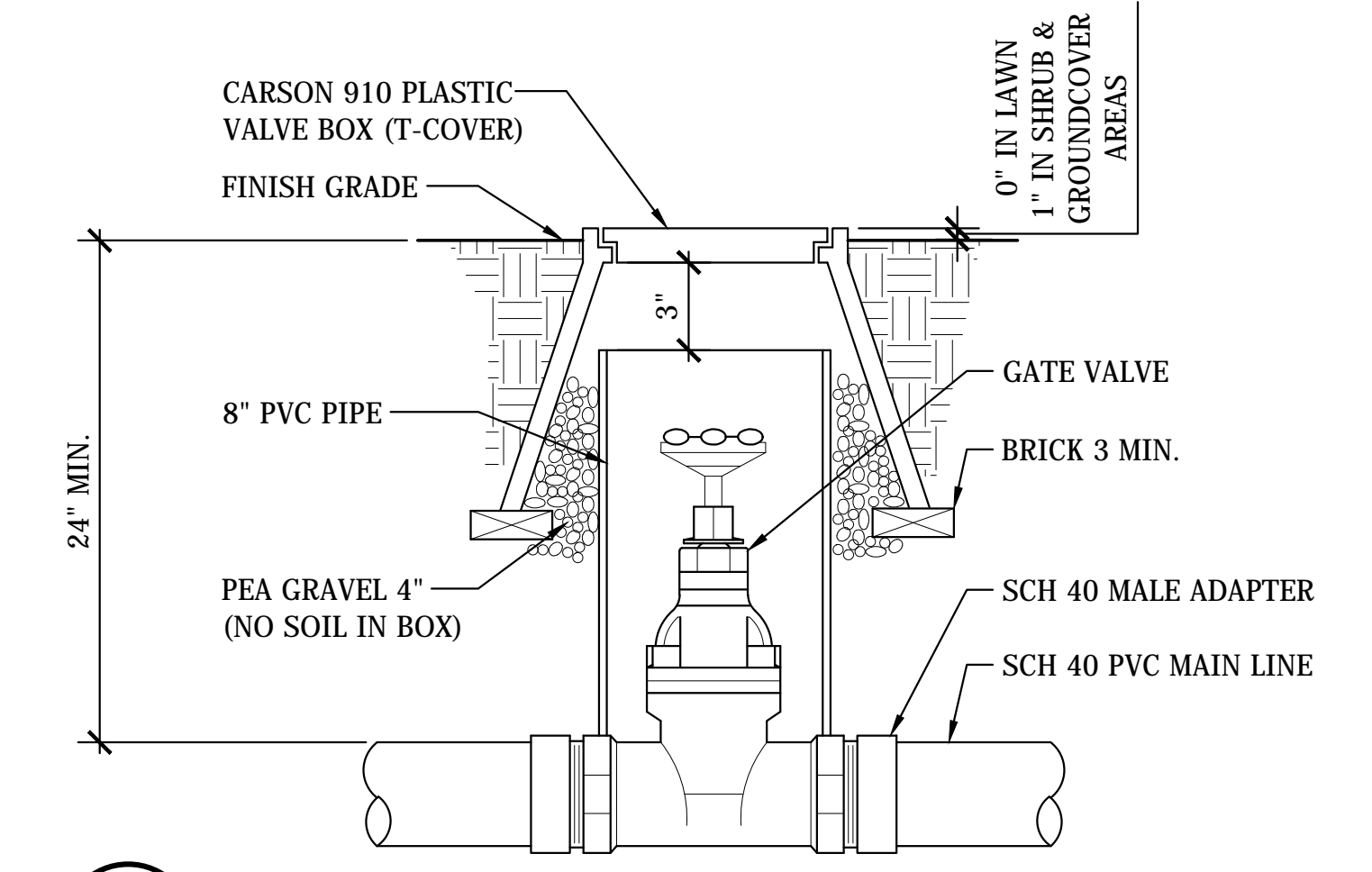
**9 DRIPLINE START CONNECTION (PVC TO TEE)**  
NO SCALE



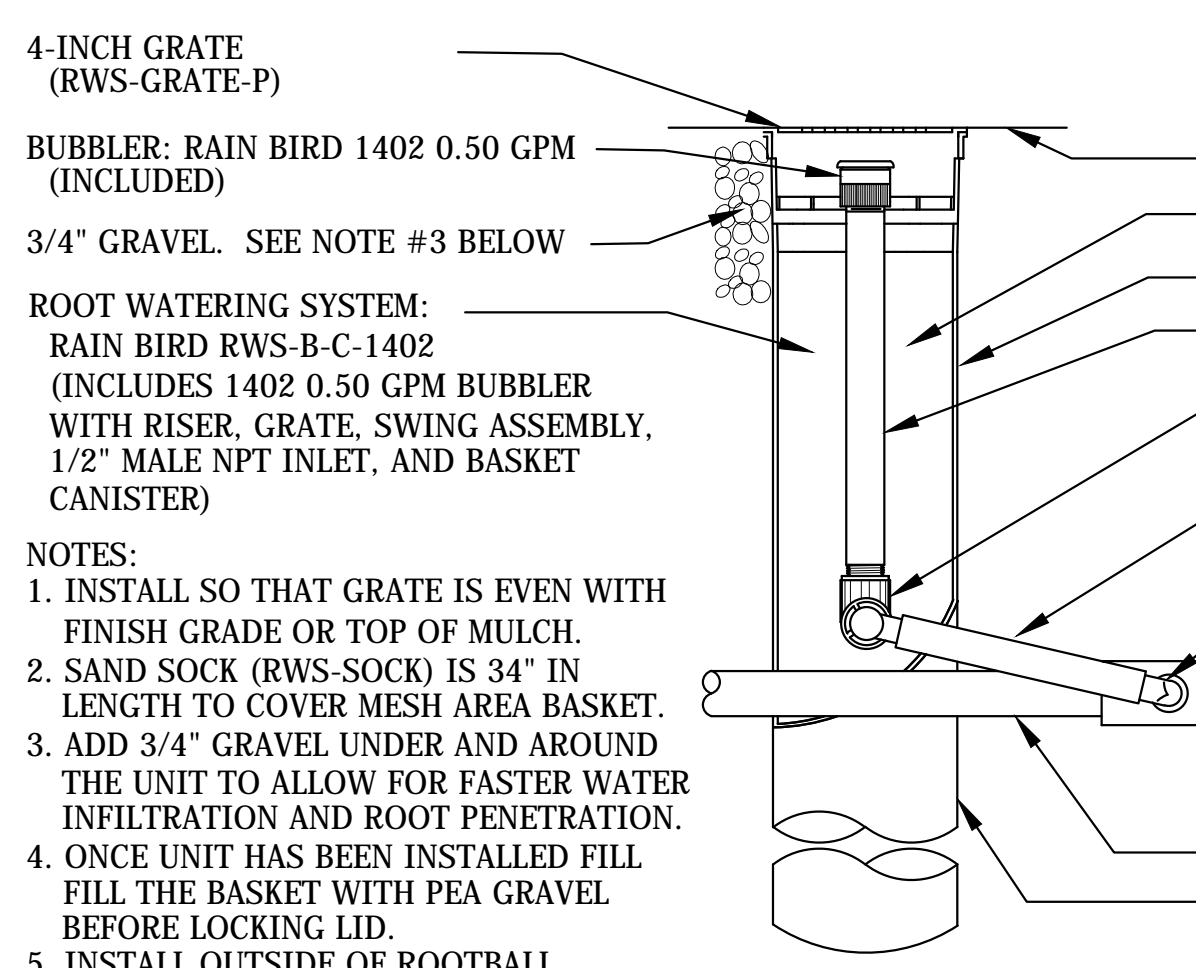
**7 DRIPLINE END FEED LAYOUT**  
NO SCALE



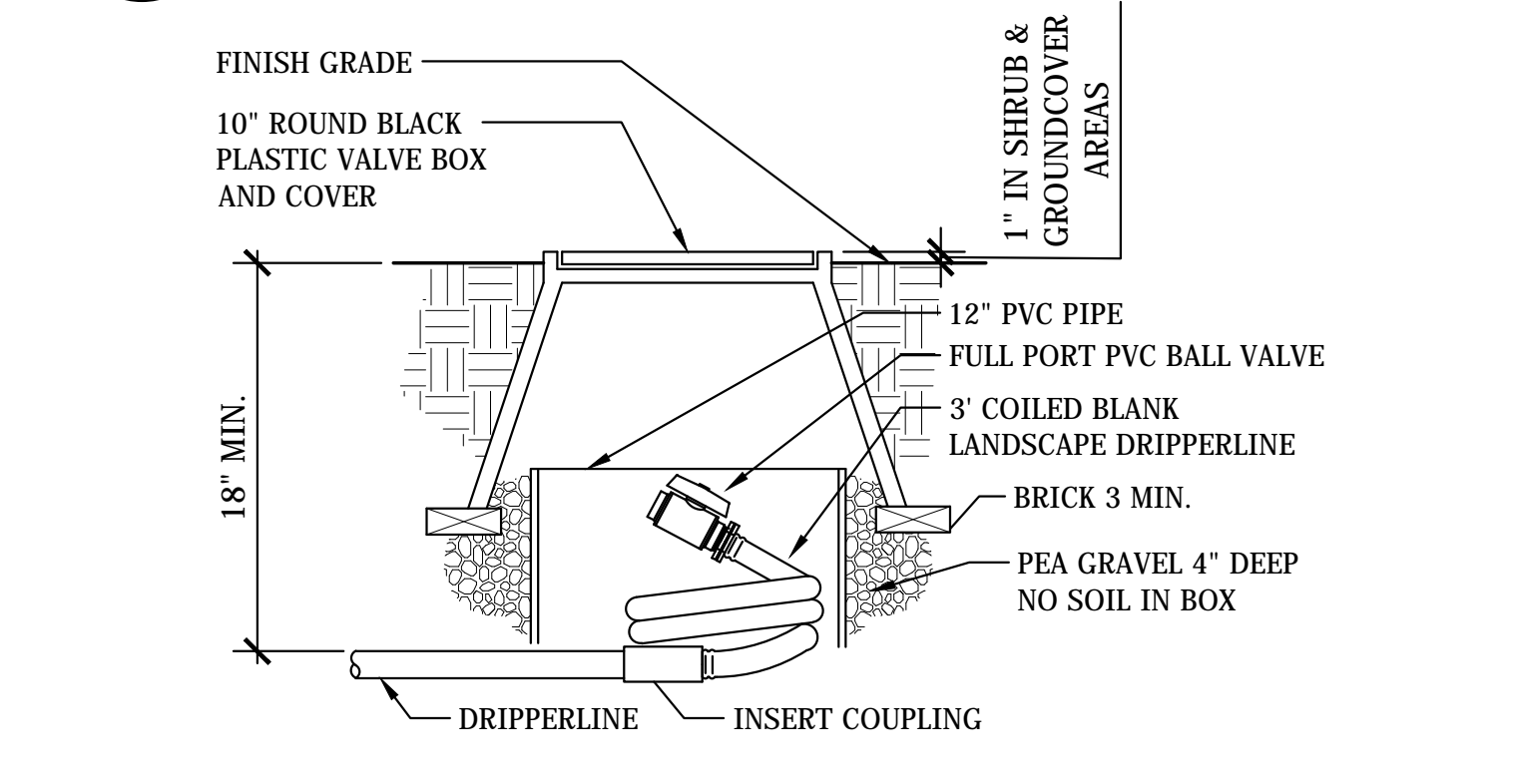
**5 XFS SUB-SURFACE DRIPLINE AROUND TREE**  
NO SCALE



**2 GATE VALVE**  
NO SCALE



**10 DEEP ROOT BUBBLER**  
NO SCALE



**3 BALL VALVE AT FLUSHING LOCATION**  
NO SCALE

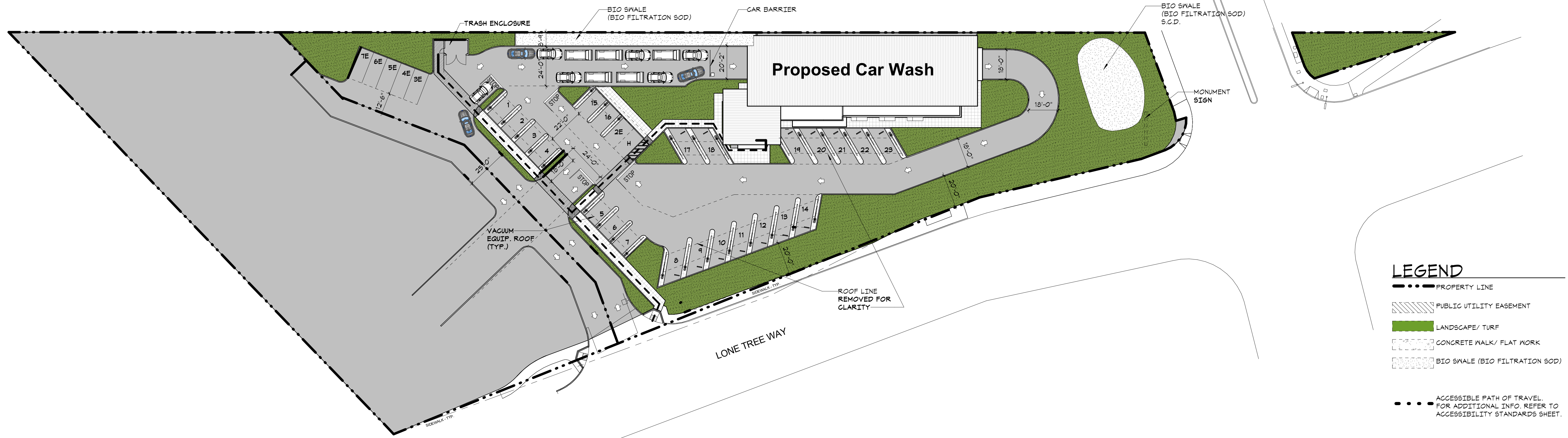
**DETAILS**  
DTL-2  
April 10, 2020

**DUCKY'S CAR WASH**  
Richard Miller  
Lone Tree Way cor. Country Hills Drive



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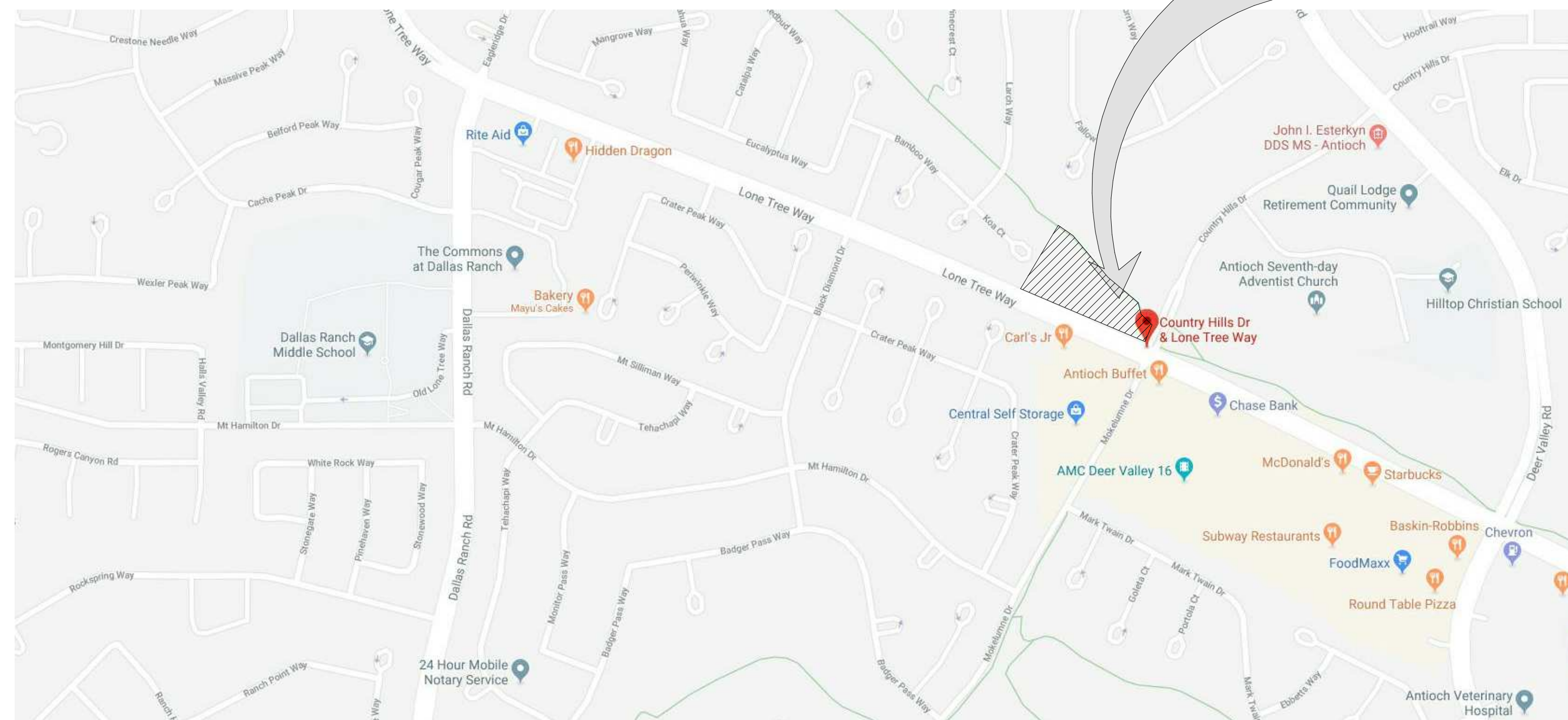
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- LEGEND**
- PROPERTY LINE
  - Public Utility Easement
  - LANDSCAPE/ TURF
  - CONCRETE WALK/ FLAT WORK
  - BIO SWALE (BIO FILTRATION SOD)
  - ACCESSIBLE PATH OF TRAVEL. FOR ADDITIONAL INFO, REFER TO ACCESSIBILITY STANDARDS SHEET.

1 SITE PLAN  
1" = 30'-0"

**PROJECT AREA**



2 VICINITY MAP  
1 1/2" = 1'-0"

**SITE DATA**

APN : 055-071-113  
 ZONING: F-D  
 SITE AREA: 39,204 SF (0.90 AC)  
 BUILDING AREA: 6,498 SF

FAR = Gross Flr. Area/Lot Area = 0.17  
 LANDSCAPE AREA : 19,313 SF = 49%  
 PARKING REQUIRED: 4 STALLS (MAX. EMPLOYEES WORKING AT ANY ONE TIME)  
 PARKING PROVIDED: 7 STALLS (FOR EMPLOYEES)  
 VACUUM PARKING PROVIDED: 23 STALLS

**SITE PLAN**

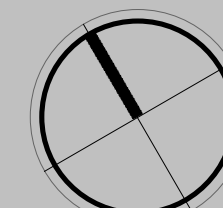
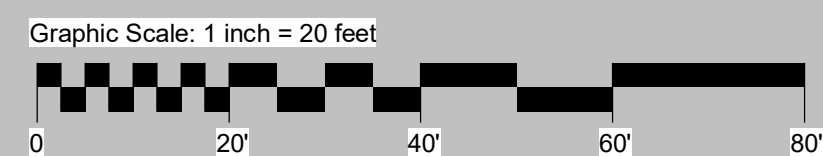
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04/10/2020

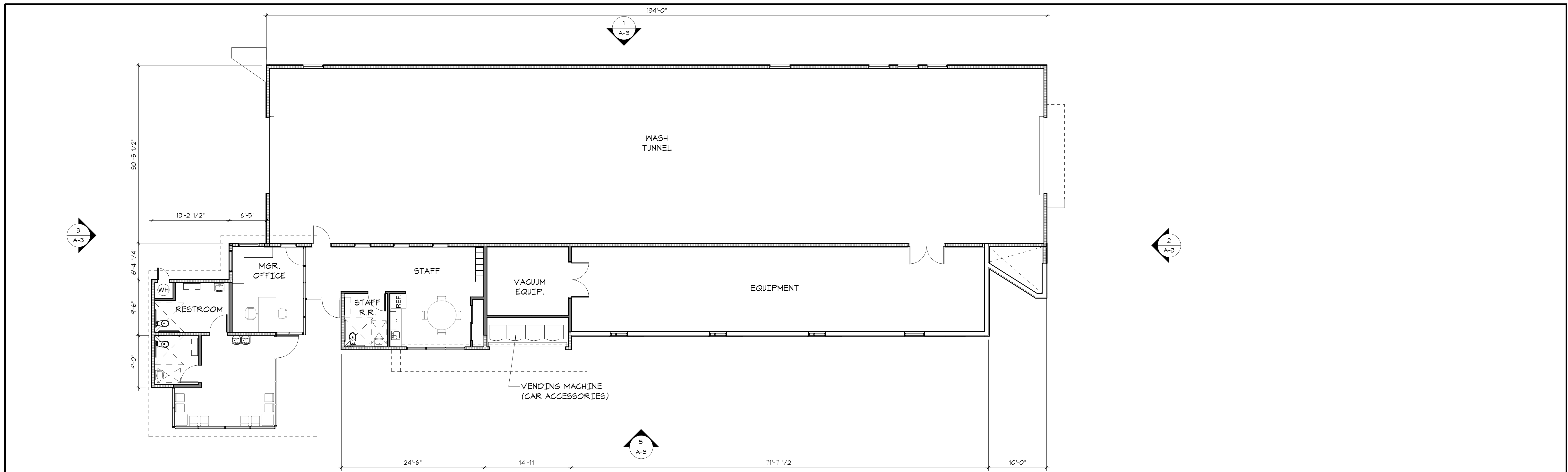
**DUCKY'S CAR WASH**

Richard Miller

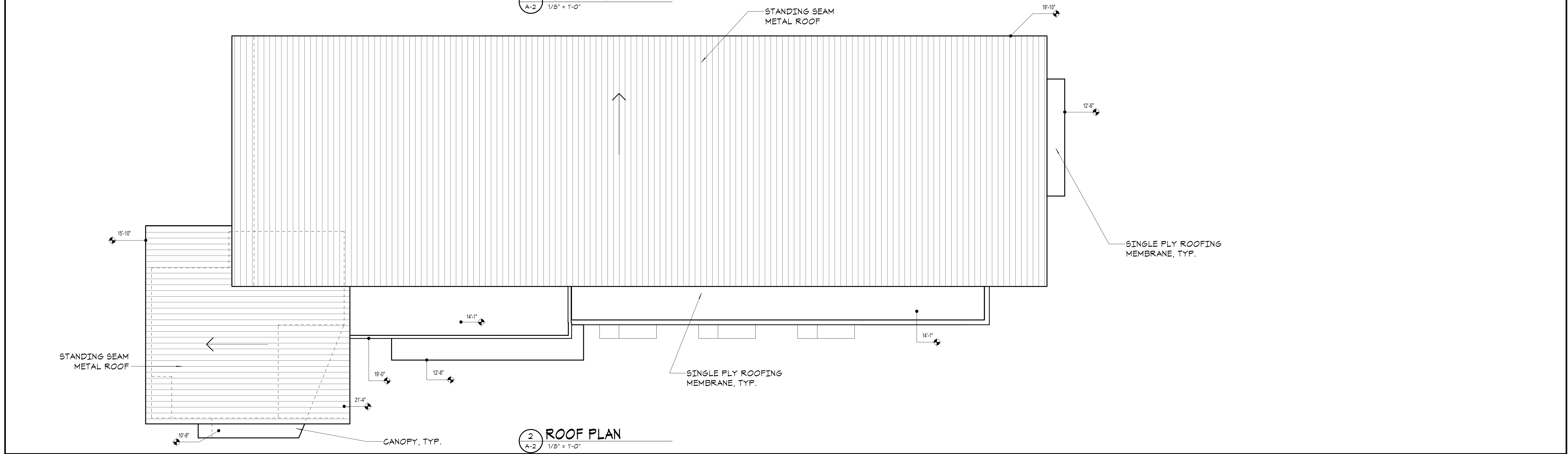
Lone Tree Way Cor. Country Hills Drive  
 Antioch CA 94509



**LDA Partners**  
 DESIGNERS & ARCHITECTS



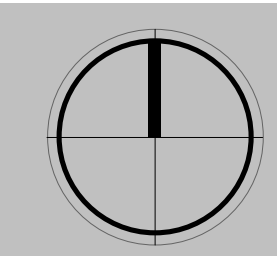
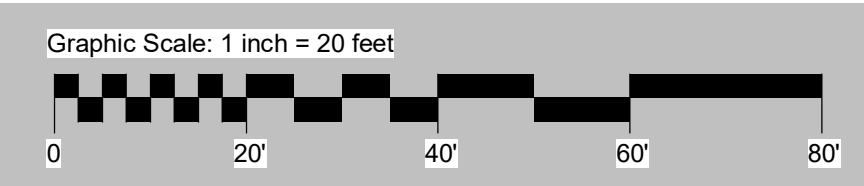
1 FLOOR PLAN  
1/8" = 1'-0"



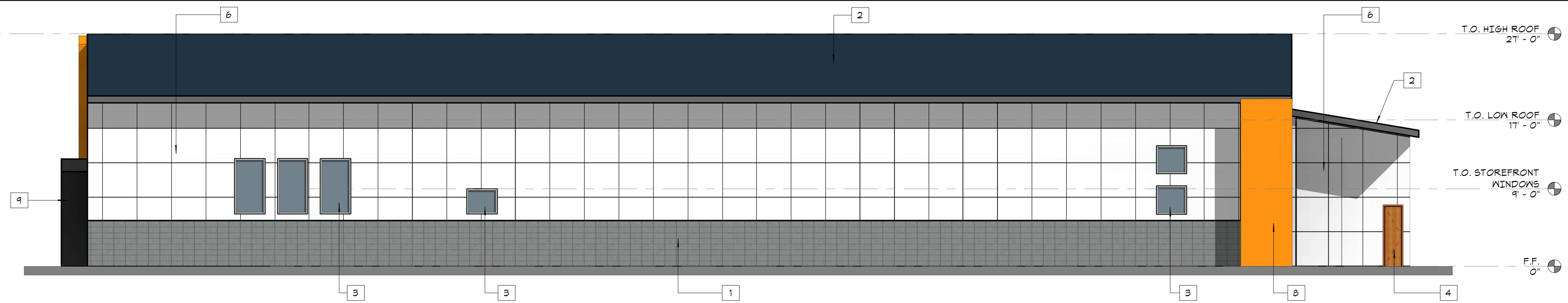
2 ROOF PLAN  
1/8" = 1'-0"

FLOOR PLAN  
A-2  
04/10/2020

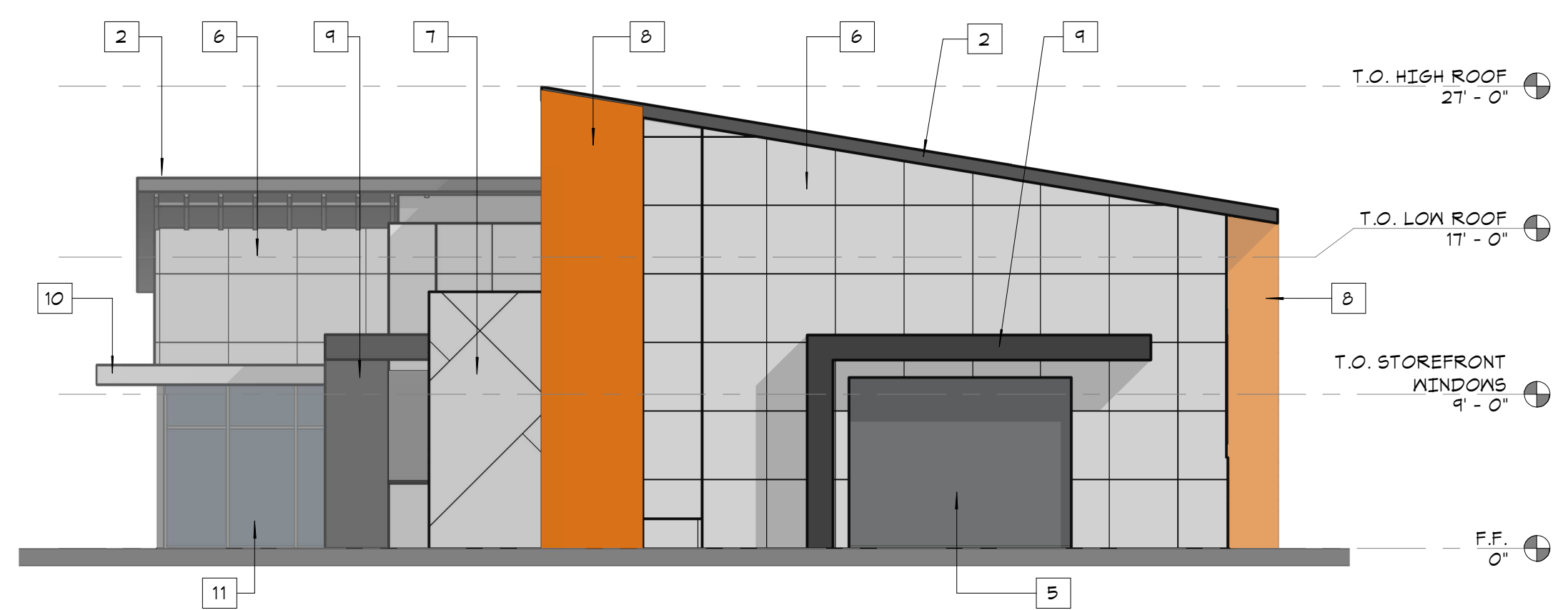
DUCKY'S CAR WASH  
Richard Miller  
Lone Tree Way Cor. Country Hills Drive  
Antioch CA94509



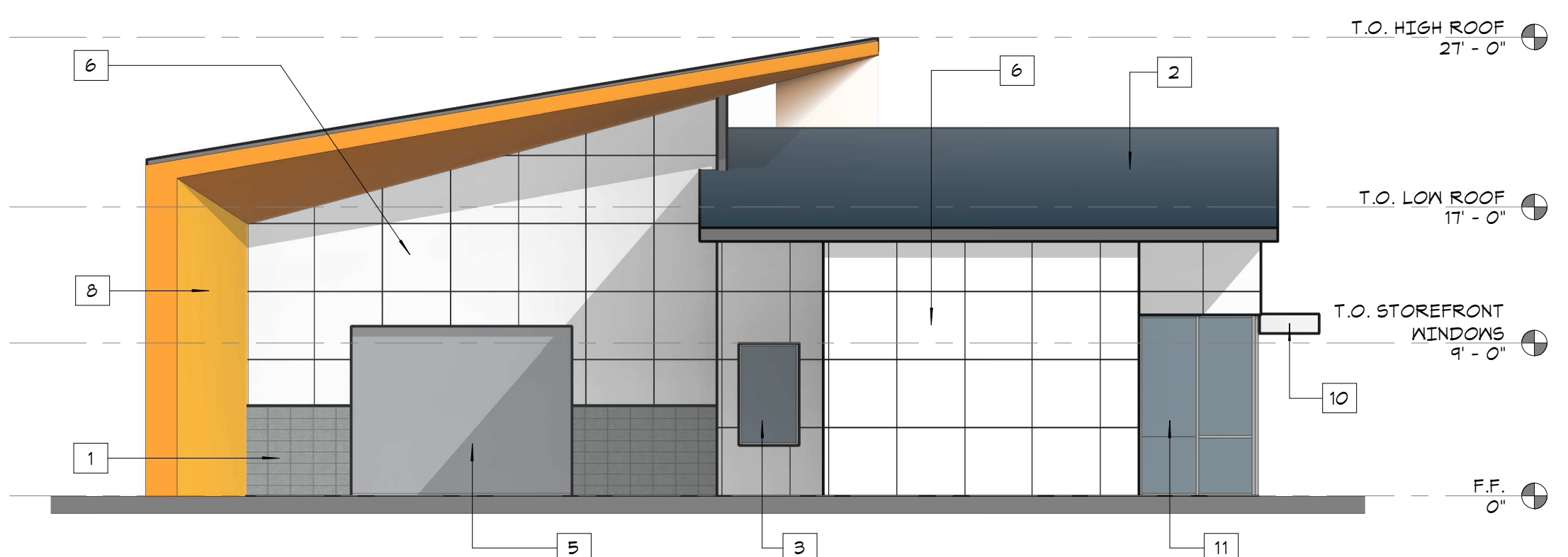
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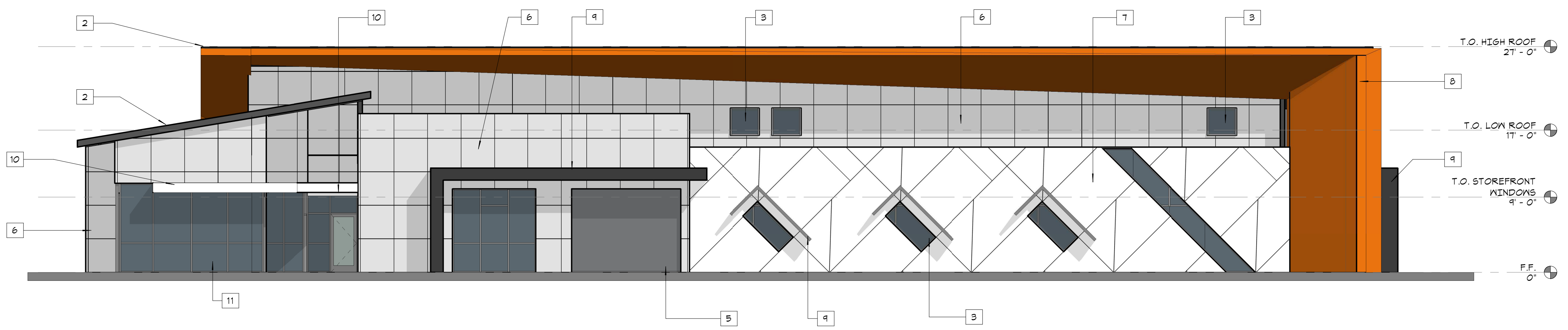
1 EXTERIOR ELEVATION - NORTH  
A-3 1/8" = 1'-0"



2 EXTERIOR ELEVATION - EAST  
A-3 1/8" = 1'-0"



3 EXTERIOR ELEVATION - WEST  
A-3 1/8" = 1'-0"



5 EXTERIOR ELEVATION - SOUTH  
A-3 1/8" = 1'-0"

**KEYNOTES**

- 1 8x8x16 CMU, GROUND FACE - BASALITE - COLOR 490
- 2 PREFINISHED STANDING SEAM METAL ROOF - AEP SPAN TAHOE BLUE' OR EQUAL
- 3 ALUMINUM FRAMED WINDOWS, CLR, ANODIZED
- 4 HOLLOW METAL DOOR, PAINTED OVERHEAD COILING DOOR, POWDER COAT FINISH
- 5 PREFINISHED EXTERIOR PHENOLIC GLADDING PANELS - ABET LAMINATI - MEG COLOR: 480-GRIGIO PLOMO OR EQUAL
- 6 PREFINISHED EXTERIOR PHENOLIC GLADDING PANELS(DIAGONAL) - ABET LAMINATI COLOR: 854 - SILVER BLEU OR EQUAL
- 7 PREFINISHED EXTERIOR PHENOLIC GLADDING PANELS(TAPERED) - ABET LAMINATI - MEG COLOR: 149-BAMBOO GOLD OR EQUAL
- 8 PREFINISHED EXTERIOR PHENOLIC GLADDING PANELS - ABET LAMINATI COLOR: 854 - SILVER BLEU OR EQUAL
- 9 SUN BAFFLES - ABET LAMINATI - MEG COLOR: 545-VOLCANO OR EQUAL
- 10 STEEL FRAMED CANOPY WITH PREFINISHED EXTERIOR PHENOLIC GLADDING PANELS - ABET LAMINATI COLOR: 854 - SILVER BLEU OR EQUAL
- 11 STOREFRONT SYSTEM 1" TEMPERED DOUBLE-GLAZING

1 - CMU GROUND FACE  
BASALITE  
COLOR : 490



2 - STANDING SEAM MTL. ROOF  
AEP SPAN - DESIGN SPAN  
COLOR : TAHOE BLUE



6 - PHENOLIC WALL PANELS  
ABET LAMINATI - MEG  
COLOR : 480-GRIGIO PLOMO



7 - PHENOLIC WALL PANELS  
ABET LAMINATI  
COLOR : 854 - SILVER BLEU



9 - PHENOLIC WALL PANELS  
ABET LAMINATI - MEG  
COLOR : 545-VOLCANO



8 - PHENOLIC WALL PANELS  
ABET LAMINATI - MEG  
COLOR : 149-BAMBOO GOLD



**EXTERIOR ELEVATIONS**

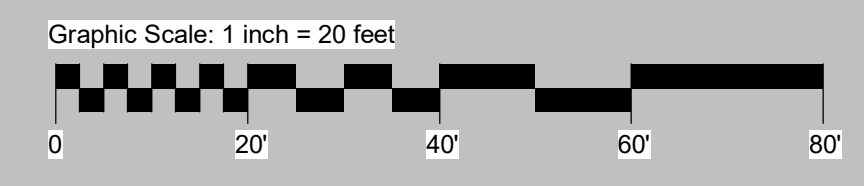
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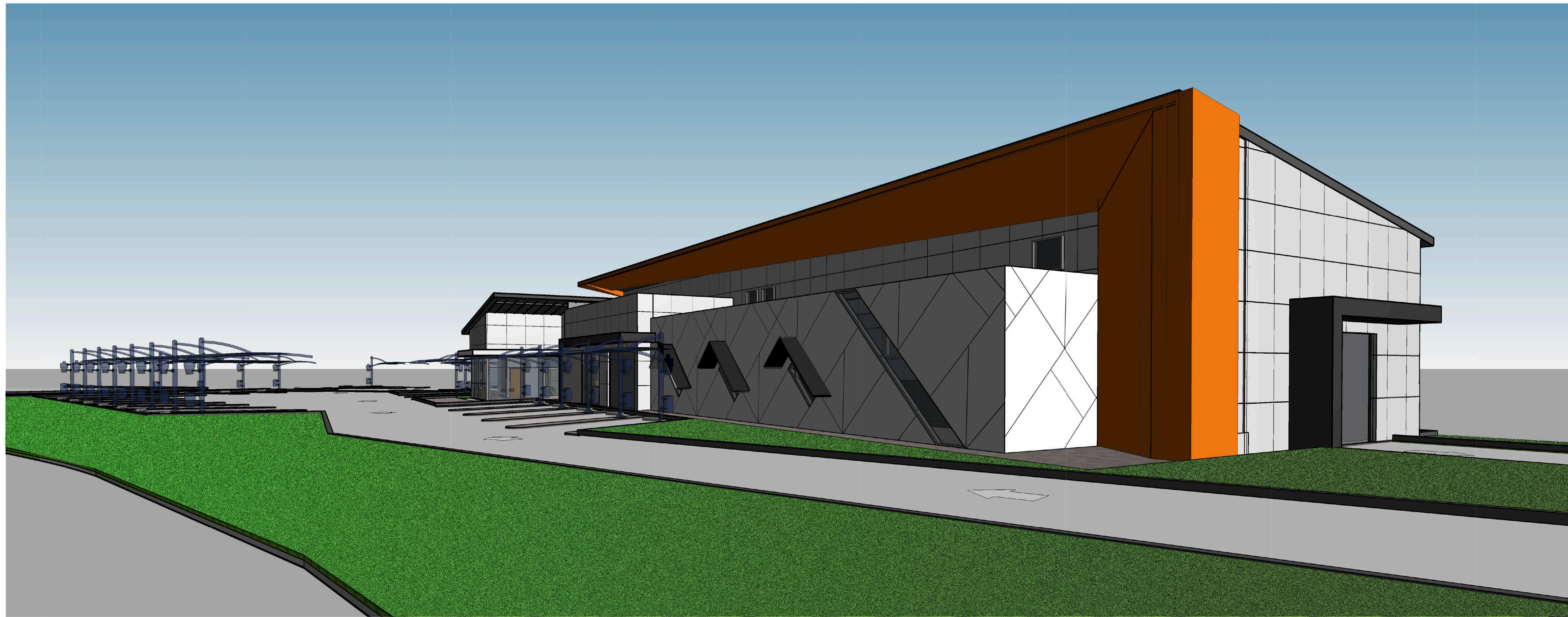
04/10/2020

**DUCKY'S CAR WASH**

Richard Miller

Lone Tree Way Cor. Country Hills Drive  
Antioch CA94509





1 3D View A  
A-4



2 3D View B  
A-4



3 3D View C  
A-4

## Perspectives

A-4

04/10/20

## DUCKY'S CAR WASH

Richard Miller

Lone Tree Way Cor. Country Hills Drive  
Antioch CA 94509

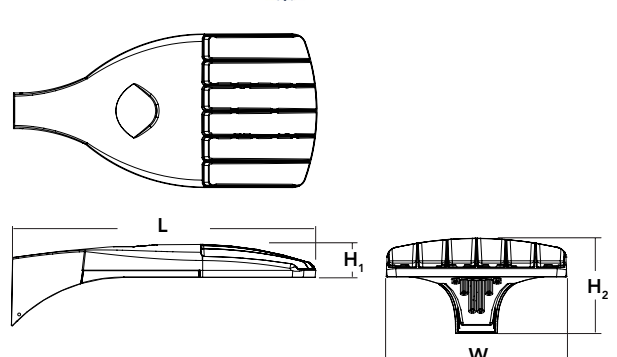
**LDA** Partners  
DESIGNERS & ARCHITECTS



## D-Series Size 0 LED Area Luminaire

### Specifications

EPA: 0.95 ft<sup>2</sup> (0.09 m<sup>2</sup>)  
 Length: 26" (66.0 cm)  
 Width: 13" (33.0 cm)  
 Height: 3" (7.6 cm)  
 Height: 7" (17.8 cm)  
 Weight (max): 16 lbs (7.3 kg)



Category Number	Notes	Type

### Introduction

The modern styling of the D-Series is striking yet unobtrusive - making a bold, progressive statement even as it blends seamlessly with its environment. The D-Series distills the benefits of the latest in LED technology into a high performance, high efficacy, long-life luminaire. The outstanding photometric performance results in sites with excellent uniformity, greater pole spacing and lower power density. It is ideal for replacing up to 400W metal halide with typical energy savings of 70% and expected service life of over 100,000 hours.

A+ Capable options indicated by this color background.

### Ordering Information

EXAMPLE: DSX0 LED P6 40K T3M MVOLT SPA NILAIR2 PIRHN DBXB

Series	LEDs	Color Temperature	Distribution	Voltage	Mounting
DSX0 LED	Forward optics	30K 3000 K	T15 Type I short	MVOLT <sup>1</sup>	Shipped included
	P1 P4 P7	40K 4000 K	T25 Type II short	120V <sup>2</sup>	SPA Square pole mounting
	P2 P5	50K 5000 K	T2M Type II medium	208V <sup>3</sup>	RPA Round pole mounting
	P3 P6		T35 Type III short	240V <sup>4</sup>	WBA Wall bracket
	Related optics		T3M Type III medium	277V <sup>5</sup>	SPHBA Square pole universal mounting adapter <sup>6</sup>
P10 <sup>7</sup> P12 <sup>8</sup> P13 <sup>9</sup>		RCO Right corner cut-off	347V <sup>10</sup>	RPMBA Round pole universal mounting adapter <sup>6</sup>	
		FTM Forward throw medium	480V <sup>11</sup>	Shipped separately	
		T3VS Type V very short		KMAB DDBXD U Must arm mounting bracket adapter (specify head) <sup>12</sup>	

### Control options

Shipped installed	Shipped separately <sup>1</sup>	DOBX Dark bronze	DSXD Sandstone	DWNGD Textured white
Nilair2 Night All-glass 2 enabled <sup>13</sup>	BSW Bid-dimmer optics	DBXD Black	DOBTD Textured dark bronze <td>DSSTD Textured sandstone</td>	DSSTD Textured sandstone
PIRIR Network, high/low motion/ambient sensor <sup>14</sup>	WB Wire guard	DNXD Natural aluminum	DNBDD Natural aluminum	
PIRIR Motion (auto recess only (control recessed separate) <sup>15</sup>	VG Vandal guard	DWDX White	DNDXD Textured natural aluminum	
PIRIR Auto recess (auto recess only (control recessed separate) <sup>16</sup>	DDL Diffused diffusers			
PIRIS Five-pin receptacle only (control recessed separate) <sup>17</sup>				
PIRST Seven-pin receptacle only (leads-out fixture) (control recessed separate) <sup>18</sup>				
DWG 0-10V dimming (recessed back of housing for external control (control recessed separate)				



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DSX0 LED Rev. 05/15/19 Page 1 of 8



## LIL LED LED Wall Luminaire

### Specifications

Standard Width: 5" (12.7 cm)  
 With Battery Pack(EL) Width: 5-7/8" (14.9 cm)  
 Height: 5-1/8" (13.3 cm) / 6-1/8" (15.8 cm)  
 Depth: 2-3/4" (7.0 cm) / 4-1/4" (11.1 cm)  
 Weight: 1.5 lbs (0.7 kg) / 3 lbs (1.4 kg)

### Ordering Information

Category Number	Notes	Type

### Introduction

LIL LED is a compact and energy efficient wall luminaire ideal for replacing small incandescent and CFL luminaires. Photocell and battery pack options make LIL LED great for installations above doors, balconies, garage or warehouse entrances, and security applications. Whether directly mounting to a recessed junction box, or using the back box accessory for conduit entry through wiring, LIL LED has you covered!

### Accessories

LIL LED BB DOBTD	Back box for conduit entry applications, dark bronze - (1 Code *349W1)
LIL LED BB WH	Back box for conduit entry applications, white - (1 Code *349W2)

### NOTES

- MVOLT driver operates on 120V and 277V (50/60Hz).
- PE and EL cannot be ordered together.
- Optional accessory for conduit entry wiring. Can be ordered with the luminaire or separately. Shipped separately. BB option is not available with emergency battery pack (EL) version.

### FEATURES & SPECIFICATIONS

**INTENDED USE**  
 The versatility of LIL LED combines a sleek, compact profile with photocell and emergency battery pack options to provide a great solution for wall mount applications. LIL LED is ideal for replacing up to 100W incandescent or 30W CFL luminaires in installations above doors, balconies, garage or warehouse entrances, and security applications. It can also be used for decorative and general lighting in outdoor environments.

**CONSTRUCTION**  
 Available housing with white or textured dark bronze paint for lasting durability. The polycarbonate lens creates uniform light distribution, and it is UV resistant - great for outdoor environments!

**OPTICS**  
 Light engines are available in 3000K and 4000K CCTs. See Lighting Facts label and photometry reports for specific fixture performance.

**ELECTRICAL**  
 LED technology provides long operating life (50,000 hours at 25°C). Electronic drivers have a power factor >0.95 and THD <20% and a maximum 2.0W surge rating.

**INSTALLATION**  
 Easily mounts to recessed junction boxes or for surface mounting and conduit entry — with the back box with two 1/2" threaded conduit entry tubes.  
 This luminaire is mounted with the lens facing down. Neutral wire is required for three phase applications.

**LISTINGS**  
 UL Listed to U.S. and Canadian safety standards for wet locations. Rated for -40° C minimum to 40° C maximum ambient temperature. Battery pack versions are listed to 0° C minimum. Tested in accordance with IESNA LM-79 and LM-80 standards.  
 DesignLights Consortium® (DLC) qualified product. Not all versions of this product may be DLC qualified. Please check the DLC Qualified Products List at [www.designlights.org/DLP/](http://www.designlights.org/DLP/) to confirm which versions are qualified.  
 Eligible to be submitted for Title 24 and Title 24 compliance.

**WARRANTY**  
 5-year limited warranty. Complete warranty terms located at [www.lithonia.com/CustomerResource/terms\\_and\\_conditions.aspx](http://www.lithonia.com/CustomerResource/terms_and_conditions.aspx).  
 Note: Actual performance may differ as a result of end-user environment and application. All values are design or typical values, measured under laboratory conditions at 25°C. Specifications subject to change without notice.



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LIL LED Rev. 05/15/19



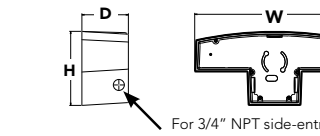
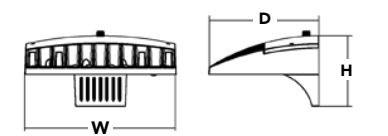
## D-Series Size 1 LED Wall Luminaire



### Specifications

Width: 13.34" (34.0 cm)  
 Depth: 10" (25.4 cm)  
 Height: 6.31" (16.2 cm)

Weight: 12 lbs (5.4 kg)  
 Back Box (BBW, ELCW)  
 Width: 13.34" (34.0 cm)  
 Depth: 4" (10.2 cm)  
 Height: 6.31" (16.2 cm)



### Ordering Information

EXAMPLE: DSXW1 LED 20C 1000 40K T3M MVOLT DDBTXD

Series	LEDs	Drive Current	Color Temperature	Distribution	Voltage	Mounting	Control Options
DSXW1 LED	10C 10 LEDs (one exposed)	350 350 mA	30K 3000 K	T25 Type II Short	MVOLT <sup>1</sup>	Shipped included	
	20C 20 LEDs (two exposed)	700 700 mA	40K 4000 K	T35 Type III Short	120V <sup>2</sup>	(black) Surface mounting bracket	
	30C 30 LEDs (three exposed)	1000 1000 mA (1 A)	50K 5000 K	T3M Type III Medium	208V <sup>3</sup>	BBW Surface-mounted back box (for conduit entry)	

### Other Options

Shipped installed	Shipped separately <sup>1</sup>	DOBX Dark bronze	DSXD Sandstone	DWNGD Textured white
SF Single face (120, 277 or 347V) <sup>10</sup>	BSW Bid-dimmer optics	DBXD Black	DOBTD Textured dark bronze <td>DSSTD Textured sandstone</td>	DSSTD Textured sandstone
DF Double face (208, 240 or 480V) <sup>11</sup>	WB Wire guard	DNXD Natural aluminum	DNBDD Natural aluminum	
HS House-side shield <sup>12</sup>	VG Vandal guard	DWDX White	DNDXD Textured natural aluminum	
SPD Separate surge protection <sup>13</sup>	DDL Diffused diffusers			

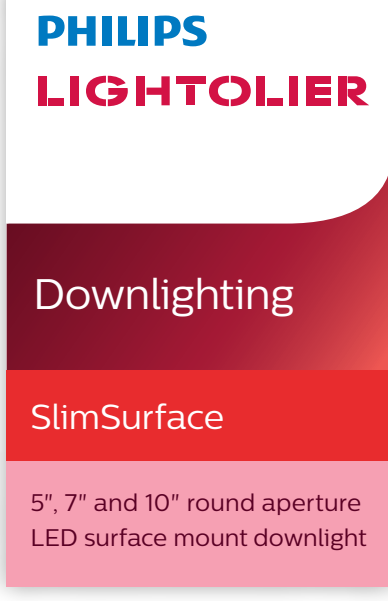
### Accessories

1. 20C, 3000 K not available with PIR, PIRHCIV or PIRHCIVC.  
 2. MVOLT driver operates on any line voltage from 120-277V (50/60 Hz).  
 3. Single face (SF) requires 120, 277 or 347 voltage option. Double face (DF) requires 208, 240 or 480 voltage option.  
 4. Only available with 20C, 700mA or 1000mA. Not available with PIR or PIRIS.  
 5. Back box (BB) required for fixture. Cannot be ordered as an accessory.  
 6. Photocell (PI) requires 12C, 20C, 24C, 27C or 34C voltage option. Not available with motion/ambient light sensors (PIR or PIRIS).  
 7. Reference Material Series table on page 3.  
 8. Cold weather (<20°C) rated. Not compatible with conduit entry applications. Not available with BBW mounting option. Not available with 347 or 480 voltage options. Emergency components located in back box housing. Emergency mode ES is located on product page at [www.lithonia.com](http://www.lithonia.com).  
 9. Not available with SPD.  
 10. Not available with ELWC.  
 11. Also available as a separate accessory, see Accessories information.  
 12. Not available with ELWC.



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DSXW1 LED Rev. 3/26/19



### Ordering guide

Family	CRI	CCT	Lumens	Finish	Dimming
SSR SlimSurface 5" Round	8 90	27K 2700K 30K 3000K 35K 3500K 40K 4000K	7 650lm	blank White AL Aluminum BK Black W White AL Aluminum BK Black	blank ELV / Triac (120V) Z10U 0-10V (120V-277V)
S7R SlimSurface 7" Round	8 90	27K 2700K 30K 3000K 35K 3500K 40K 4000K	10 1000lm	blank White AL Aluminum BK Black W White AL Aluminum BK Black	blank ELV / Triac (120V) Z10U 0-10V (120V-277V)
S10R SlimSurface 10" Round	8 90	27K 2700K 30K 3000K 35K 3500K 40K 4000K	22 2200lm	blank White AL Aluminum BK Black MT Metal W White AL Aluminum BK Black	blank ELV / Triac (120V) Z10U 0-10V (120V-277V)

1. Configurations using 90 CRI are only available with 2700K & 3000K CCT.

### Features

- Flange: One piece plastic flange. Injection molded white, applied aluminum or black.
- Lens: High transmittance lens allowing for smooth, comfortable light pattern.
- Power supply: Integral class 2 driver. Factory wired electronic LED driver (see Electrical section for specifications)
- LED Strip: Utilizes Philips LEDs.
- Lifetime: Expected lifetime 50,000 hours and backed by a 5-year warranty (see Philips.com/warranties for details).
- Compliance: Non-conductive fixture for shower light application.

### Dimming

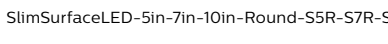
Intended for ELV/Triac (120V) or 0-10V dimming (120V-277V) based on the configuration. Min 90°C supply conductors.

### Electrical

Electronic power supply: RoHS compliant. Class 2 power unit. Unit tolerates sustained open circuit and short circuit output conditions without damage.

Electrical specifications	Dimming	Input volts	Input frequency	Input current	Input Power	THD Factor	Power Factor	Minimum Operating Temp.
Slim 5" 650lm	Triac	120V	50/60Hz	0.08A	9.5W	<15%	>0.9	-20°C
		120V	50/60Hz	0.09A	10.1W	<20%	>0.9	-20°C
		277V	50/60Hz	0.04A	10.2W	<20%	>0.9	-20°C
Slim 7" 1000lm	Triac	120V	50/60Hz	0.13A	14.2W	<15%	>0.9	-20°C
		120V	50/60Hz	0.12A	14.4W	<20%	>0.9	-20°C
		277V	50/60Hz	0.06A	14.7W	<20%	>0.9	-20°C
Slim 10" 2200lm	Triac	120V	50/60Hz	0.20A	23.2W	<20%	>0.9	-20°C
		120V	50/60Hz	0.20A	23.2W	<10%	>0.95	-20°C
		277V	50/60Hz	0.09A	24.6W	<15%	>0.95	-20°C

For more details, please see LED-DIM-DL spec sheet.



SlimSurface. LED-5in-7in-10in-Round-SSR-S7R-S10R 03/18 page 1 of 8

## DUCKY'S CAR WASH LIGHTING FIXTURE SCHEDULE

TYPE	MANUFACTURER/CATALOG NUMBER	LIGHT SOURCE	BALLAST/DRIVER	WATTS	VOLTAGE	DESCRIPTION
SF1	LITHONIA LIGHTING DSX0-LED-P4-30K-T4M-MVOLT-RPA-DMG-HS-DBLX	LED 3000K/70 CRI 5,384 LUMENS	0-10V DIMMING LED	49 W	120 V	25' POLE MOUNTED AREA LIGHT FIXTURE. MOUNTED ON A ROUND 2-7/8" DIAMETER POLE. PROVIDE HOUSE-SIDE SHIELD.
SF1A	LITHONIA LIGHTING DSX0-LED-P4-30K-T4M-MVOLT-RPA-DMG-HS-DBLX	LED 3000K/70 CRI 5,384 LUMENS	0-10V DIMMING LED	49 W	120 V	SAME AS FIXTURE SF1, BUT WITH TWO HEADS.
SF2	LITHONIA LIGHTING DSXW1-LED-10C-350-30K-T3M-MVOLT-P4E-DMG-DBL-DBLX-D	LED 3000K/70 CRI 2,010 LUMENS	0-10V DIMMING LED	13 W	120 V	EXTERIOR LED WALL PACK.
SF3	LITHONIA LIGHTING LIL-LED-30K-MVOLT	LED 3000K 800 LUMENS	LED	8 W	120 V	EXTERIOR KED WALL PACK.
SF4	PHILIPS LIGHTING S7R-830K-10-BK-Z10U	LED 3000K/80 CRI 1000 LUMENS	0-10V DIMMING LED	14 W	120 V	7' SURFACE MOUNTED DOWNLIGHT.

## LIGHTING SYMBOLS

	ROUND DOWNLIGHT LUMINAIRE, RECESSED IN CEILING.
	SINGLE-HEAD AREA LUMINAIRE WITH BRACKET ARM AND POLE, MOUNTED TO CONCRETE BASE.
	TWO-HEAD AREA LUMINAIRE WITH BRACKET ARMS AND POLE, MOUNTED TO CONCRETE BASE.
	AREA LUMINAIRE, SURFACE OR RECESSED MOUNTED TO WALL.

## ELECTRICAL SHEET INDEX

SHEET NO.	SHEET NAME	SCHEMATIC DESIGN	DESIGN DEVELOPMENT	CONSTRUCTION DOCUMENTS	SUBMITTAL 04
E0.01	SYMBOLS LIST AND CUTSHEETS				
E1.00	SITE LIGHTING PLAN				
E1.01	SITE LIGHTING CALCULATIONS				

## SYMBOLS LIST AND CUTSHEETS

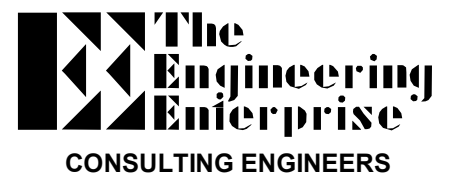
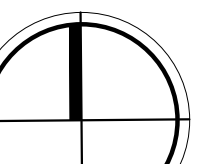
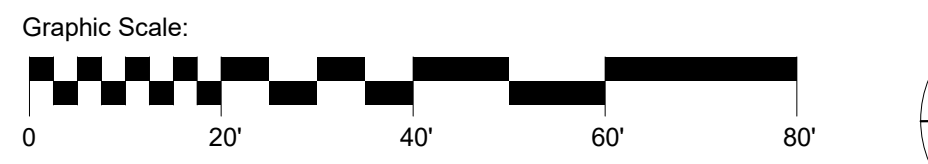
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5/16/2019

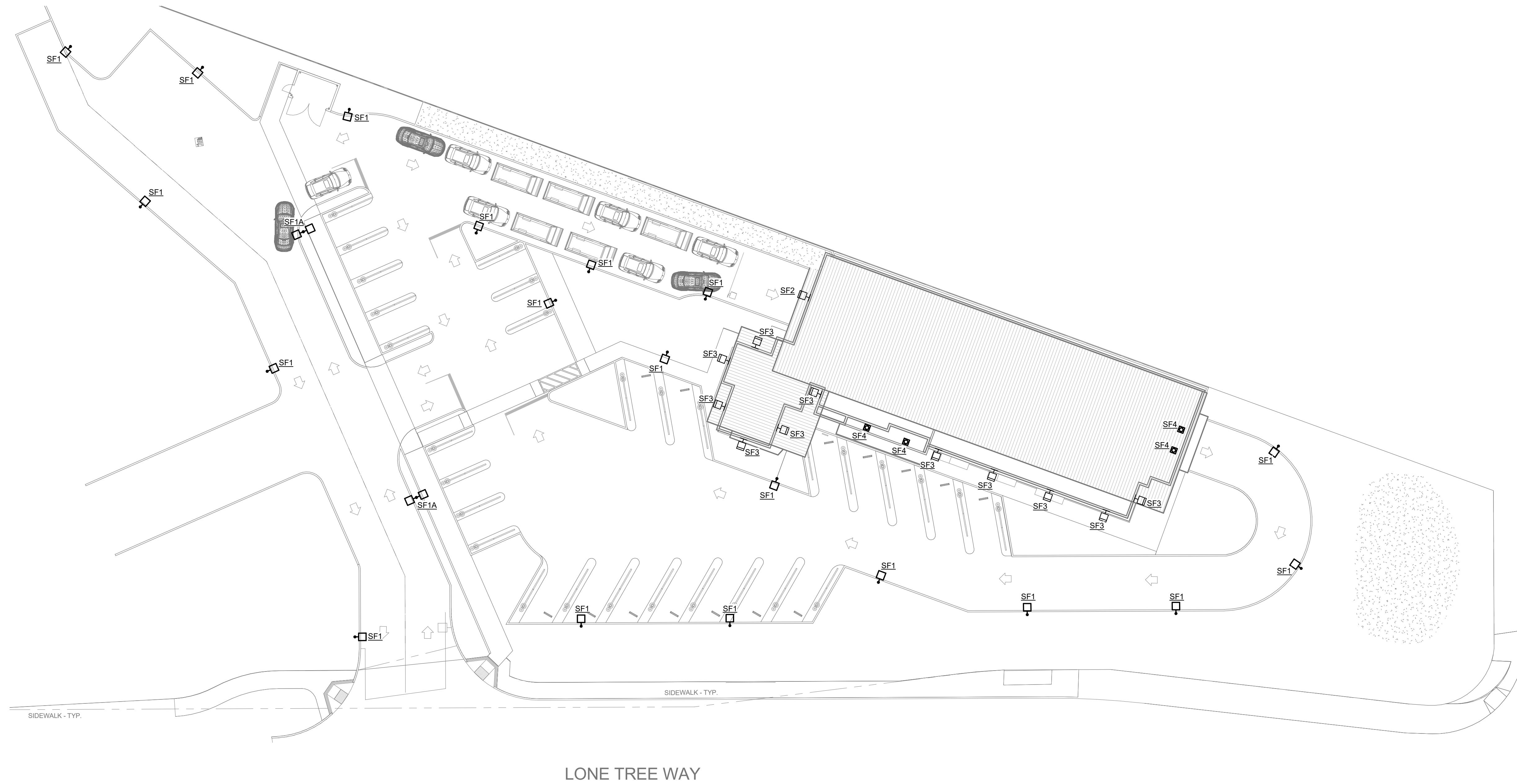
## DUCKY'S CAR WASH

Richard Miller

LONE TREE WAY & COUNTRY HILLS DRIVE, ANTIOCH, CA 94509



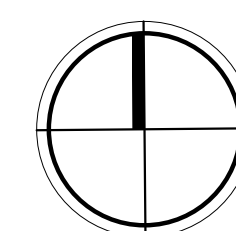
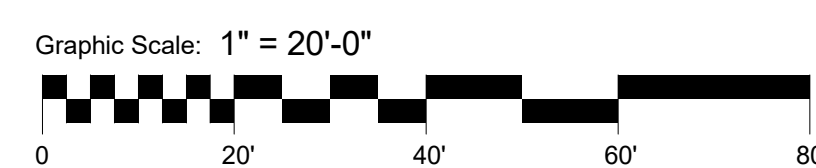
CONSULTING ENGINEERS  
 1125 HIGH STREET  
 AUBURN, CA 95603  
 (530) 886-8556



**1** SITE LIGHTING PLAN  
SCALE: 1" = 20'-0"

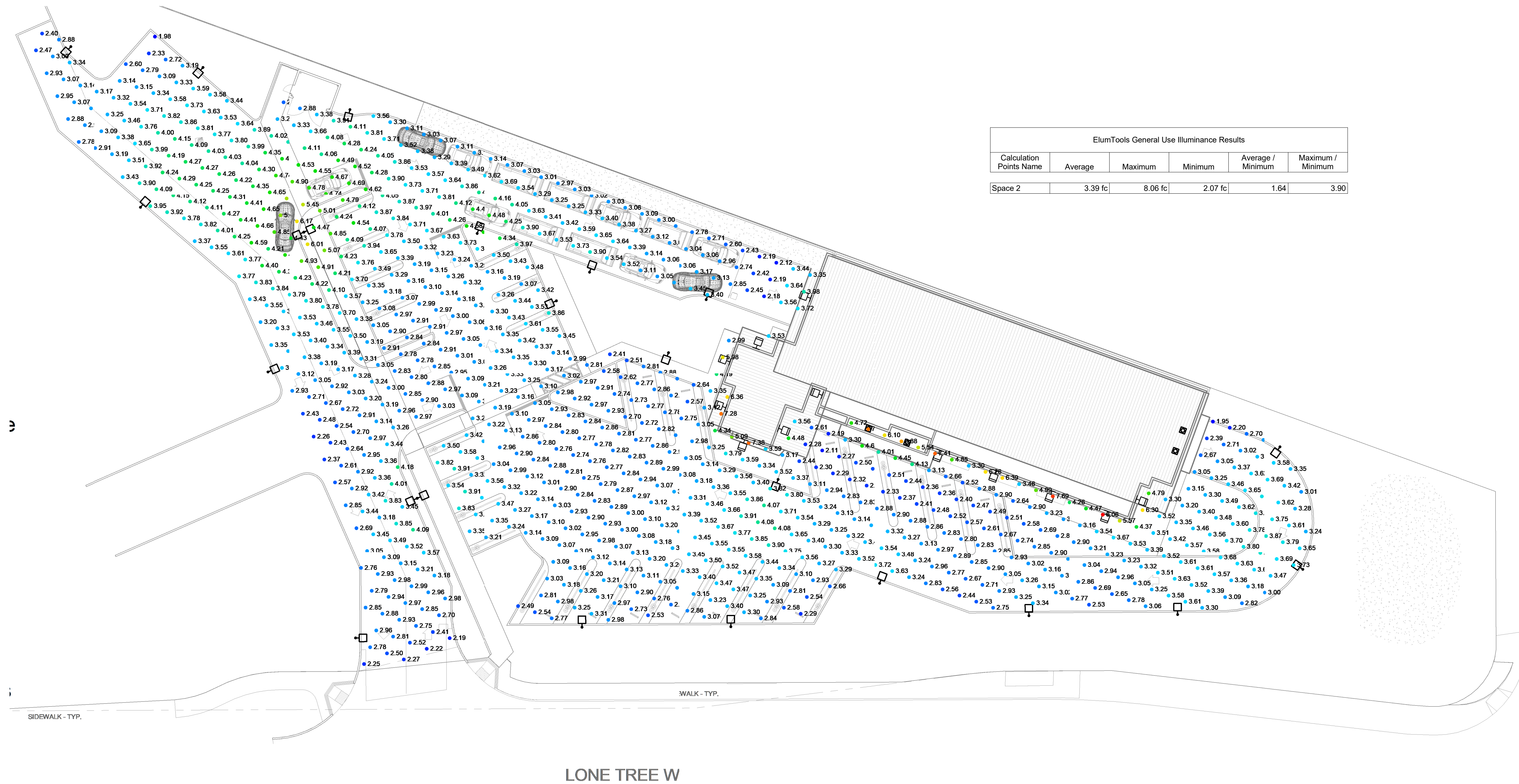
**SITE LIGHTING PLAN**  
E1.00  
5/16/2019

**DUCKY'S CAR WASH**  
Richard Miller  
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ANTIOCH, CA 94509



**The Engineering Enterprise**  
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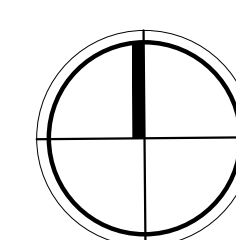
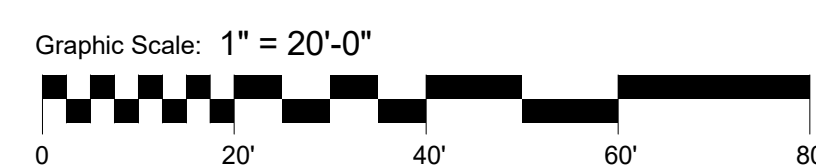




**1 SITE LIGHTING CALCULATIONS**  
SCALE: 1" = 20'-0"

**SITE LIGHTING CALCULATIONS**  
E1.01  
5/16/2019

**DUCKY'S CAR WASH**  
Richard Miller  
LONE TREE WAY & COUNTRY HILLS DRIVE,  
ANTIOCH, CA 94509



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