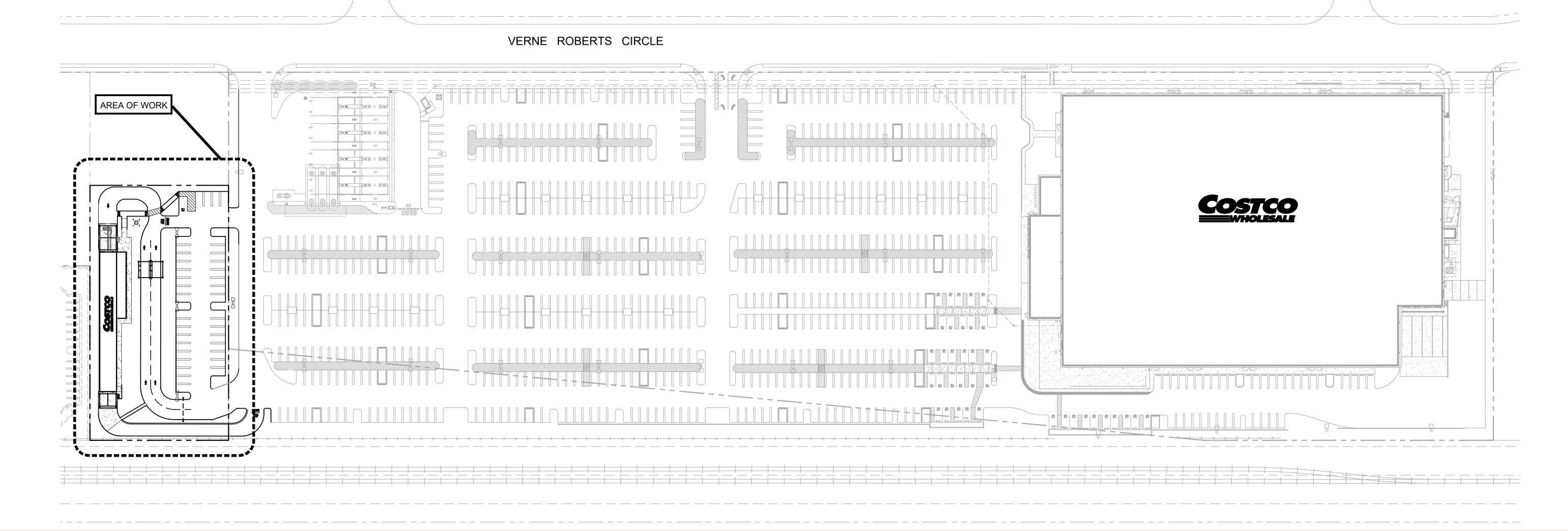
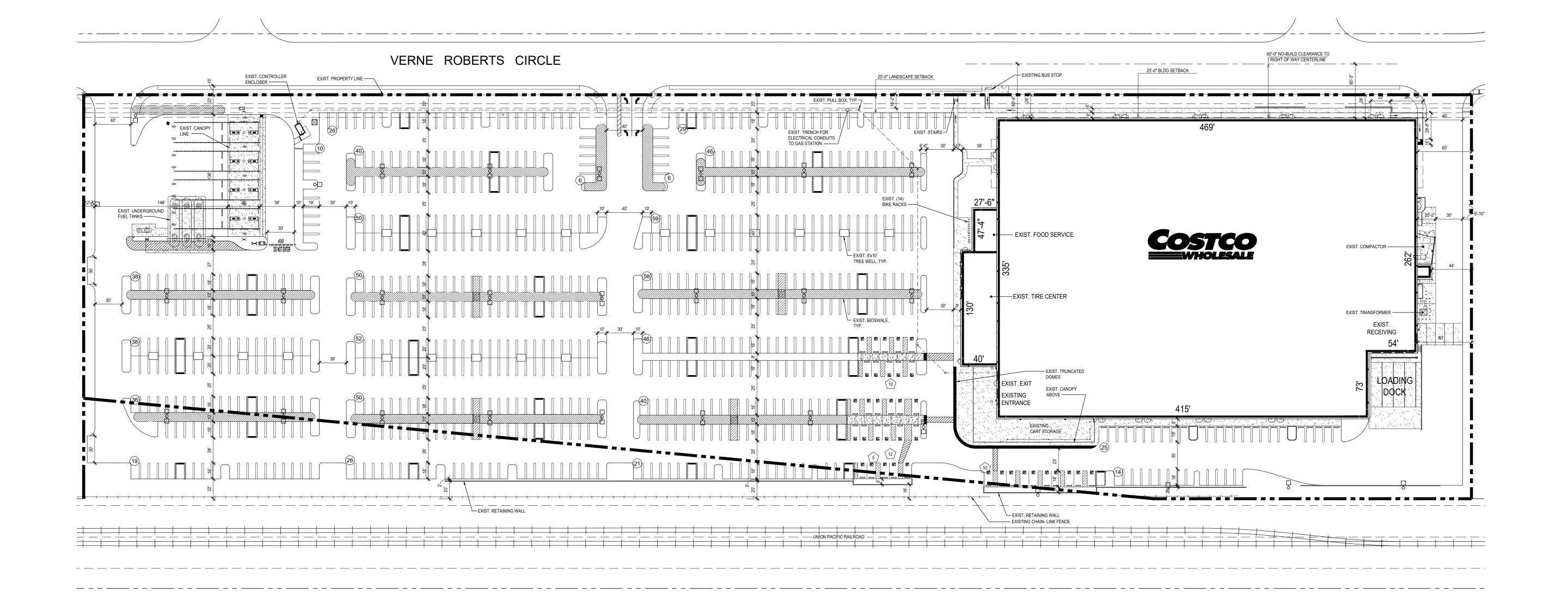
	PROJEC	CT DATA	PROJECT DIRECTO	ORY CODE SUMMARY	REGIONAL MAP	VICINITY MAP
CLIENT:  PROJECT ADDRESS  ASSESSOR'S PARCE NUMBER:  ZONING: SITE AREA: WAREHOUSE CARWASH  JURISDICTION: BOUNDARIES INFORMATION:	COSTCO WHOLESALE 999 LAKE DRIVE ISSAQUAH, WA 98027 S: 2201 VERNE ROBERTS CIRCLE ANTIOCH, CA 94509  EL 074-052-041  PBC  15.23± ACRES (663,419 S.F.) 1.21± ACRES (52,834 S.F.)  CITY OF ANTIOCH  THIS PLAN HAS BEEN PREPAREI BY USING TOPOGRAPHIC SURVEY BY KIER & WRIGHT CIVIL& SURVEYORS DATED OCTOBER 2005.	PARKING DATA:  EXIST. PARKING PROVIDED: ① 10' WIDE STALLS: 785 STALLS ① ACCESSIBLE STALLS 37 (4 VAN) STALLS  TOTAL PARKING 822 STALLS  PROPOSED PARKING PROVIDED: ② 10' WIDE STALLS: 38 STALLS ② ACCESSIBLE STALLS 1 STALL  TOTAL PARKING 861 STALLS  NO. OF STALLS PER 1000 S.F. OF BUILDING AREA: 5.36 STALLS  JURISDICTIONAL PARKING 1 STALLS  BUILDING AREA: 1 STALL 7 200 S.F. 806 STALLS  NOTES:	OWNER  COSTCO WHOLESALE 999 LAKE DRIVE ISSAQUAH, WA 98027 t: 425.313.8100  ARCHITECT  MG2 CORPORATION 1101 SECOND AVENUE SUITE 100 SEATTLE, WA 98101 t: 206.962.6500 f: 206.962.6499 PROJECT MANAGER: JARRED  CIVIL  BARGHAUSEN CONSULTING ENGINEE 18215 72ND AVENUE SOUTH KENT, WA 98032 t: 425.251.6222	2019 CALIFORNIA BUILDING CODE 2019 CALIFORNIA ELECTRICAL CODE, INCLUDING INFORMATIVE ANNEX CHAPTERS A, B, C AND D 2019 CALIFORNIA MECHANICAL CODE, INCLUDING APPENDIX CHAPTERS A, AND B 2019 CALIFORNIA PLUMBING CODE 2019 CALIFORNIA ENERGY CODE, INCLUDING APPENDIX CHAPTERS 2019 CALIFORNIA EXISTING BUILDING CODE, INCLUDING APPENDIX CHAPTERS 2019 CALIFORNIA FIRE CODE 2019 CALIFORNIA GREEN BUILDING STANDARDS CODE, CHAPTERS 1 THROUGH 8 2019 CALIFORNIA REFERENCED STANDARDS CODE, INCLUDING CHAPTERS A  TYPE OF CONSTRUCTION: IIN OCCUPANCY GROUP: GROUP 'B' NUMBER OF STORIES: ONE	Browns Island Winter Island Rimball Island New York Slough PROJECT SITE	PROJECT SITE W 10th St  VERNE ROBERTS CIRCLE
FAR: LOT COVERAGE BUILDING DATA	0.477 S.F 47.7%	EXISTING CONDITIONS TO BE FIELD VERIFIED.     FIRE TRUCK ACCESS TO BE CLEARLY MARKED IN ACCORDANCE WITH CCCFPD.     NO CHANGES TO THE EXISTING WAREHOUSE	DRAWING INDEX	SCOPE OF WORK	Delta Fair Blvd  Antioch	Aster D.
EXIST. WAREHOUSE EXIST. TIRE CENTEL EXIST. OPT. EXAM / EXIST. TOTAL BUILD  FUEL FACILITY CANOPY AREA  CAR WASH DATA CAR WASH TUNNEL MECHANICAL ROON TOTAL CAR WASH	EE AREA 154,648 S.F. 5,200 S.F. 1,302 S.F. 1,302 S.F. 161,150 S.F. 161,150 S.F. 17,200 S.F. 17.200 S.F		ARCHITECTURAL TS101 TITLE SHEET EX-112 EXISTING SITE PLAN DD11-04A ENLARGED SITE PLAN DD21-01 ENLARGED ROOF PLAN & FLOOR PLAN DD31-02 ELEVATIONS DD31-03 SOUTH PERSPECTIVE DD31-04 NORTH PERSPECTIVE  CIVIL C1.1 TOPOGRAPHIC & BOUNDARY SURVEY C1.0 PRELIMINARY GRADING AND DRAINAGE PLAN C2.0 PRELIMINARY STORMWATER CONTROL PLAN C4.0 PRELIMINARY UTILITY PLAN	PARCEL. CAR WASH AS PROPOSED, WILL INCLUDE THE ELECTRICAL, MECHANICAL AND PLUMBING WORK.  ADDITION OF 44 PARKING STALLS ON THE ADJACENT VACANT PARCEL WEST OF THE EXISTING COSTCO DEVELOPMENT	Medanos College Buchanan Rd	Sycamore Dr ougo









# **GENERAL NOTES**

1. PER C.B.C. 505.2 UNLIMITED AREA: "THE AREA OF ANY ONE- OR TWO-STORY BUILDING OF GROUPS B; F, DIVISION 1 OR 2; M; S, DIVISION 1, 2, 3, 4, OR 5; AND H, DIVISION 5 OCCUPANCIES SHALL NOT BE LIMITED IF THE BUILDING IS PROVIDED WITH AN APPROVED AUTOMATIC SPRINKLER SYSTEM THROUGHOUT AS SPECIFIED IN CHAPTER 9, AND ENTIRELY SURROUNDED AND ADJOINED BY PUBLIC WAYS OR YARDS NOT LESS THAN 60 FEET WIDTH."

# PROJECT DATA

CLIENT:

ZONING:

COSTCO WHOLESALE 999 LAKE DRIVE ISSAQUAH, WA 98027

PROJECT ADDRESS: \* 2201 VERNE ROBERTS CIRCLE

\* ANTIOCH CA 94509

\* ANTIOCH,CA 94509
CITY OF ANTIOCH ZONING
ORDINANCE
CURRENT ZONING:

PLANNED BUSINESS CENTER

# PROJECT DATA CONT'D.

SITE AREA: 15.23± ACRES (663,419 S.F.)

JURISDICTION: CONTRA COSTA FIRE DEPT

CONTRA COSTA HEALTH DEPT

BUILDING &

LANDSCAPE

ANTIOCH BUILDING DEPT
FRONT: (VERNE ROBERTS CIRCLE) 25'-0"
SIDES: NONE REQUIRED AT INTERIOR YARDS

SURVEYORS DATED OCTOBER 2005

SETBACKS: REAR: NONE REQUIRED

BOUNDARIES THIS PLAN HAS BEEN PREPARED
INFORMATION: BY USING TOPOGRAPHIC SURVEY
BY KIER & WRIGHT CIVIL &

BUILDING DATA:

BUILDING AREA

TIRE CENTER

FOOD SERVICE

TOTAL BUILDING

154,648 S.F.

5,200 S.F.

1,302 S.F.

161,150 S.F.

# **VICINITY MAP**

PARKING DATA:

PARKING PROVIDED:

# 10' WIDE STALLS

# 9' WIDE STALLS

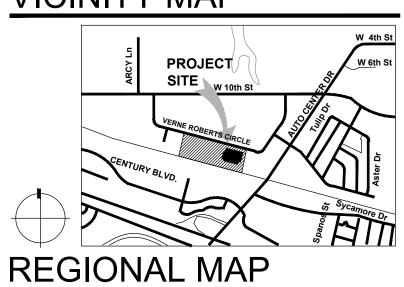
ACCESSIBLE STALLS (INCLUDES 2 VAN)

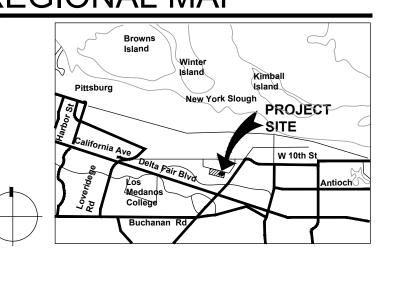
TOTAL PARKING

NO. OF STALLS PER 1000 SF
OF BUILDING AREA:

JURISDICTIONAL PARKING REQUIRED: 806 STALLS

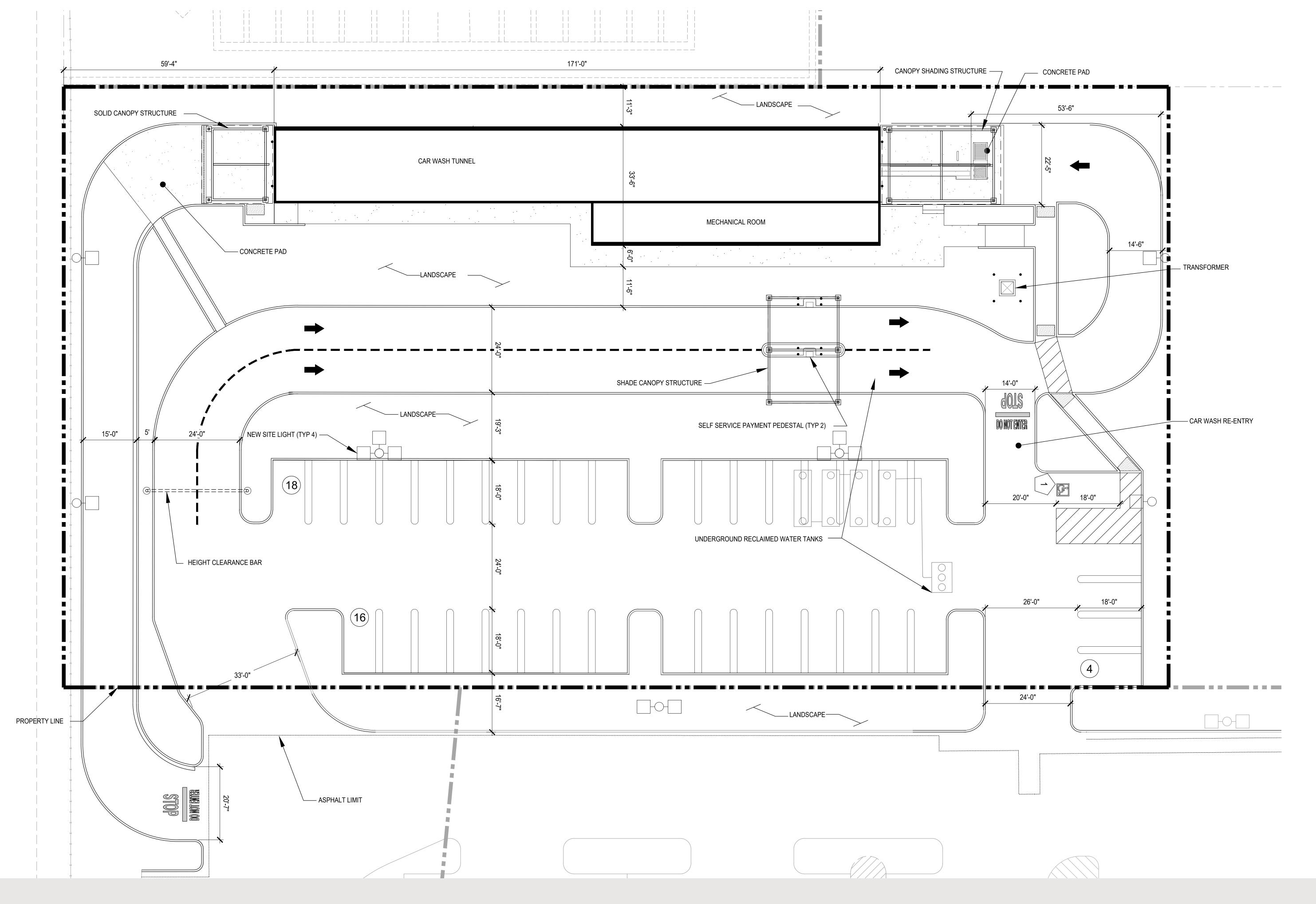
NOTES:
1. EXISTING CONDITIONS TO BE FIELD VERIFIED.
2. FIRE TRUCK ACCESS TO BE CLEARLY MARKED IN ACCORDANCE WITH CCCFPD.





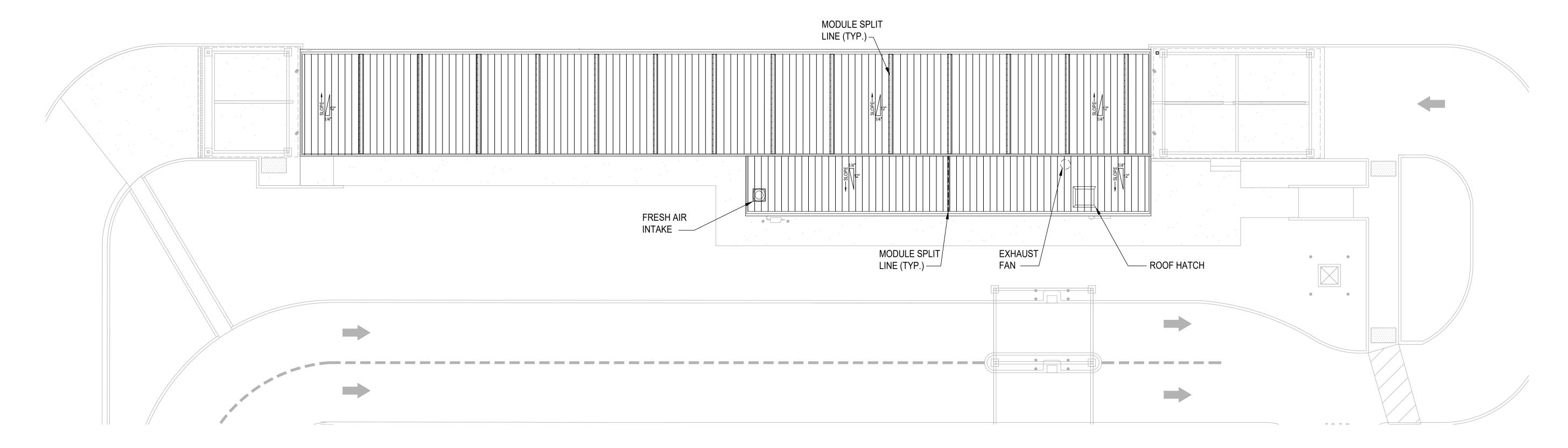






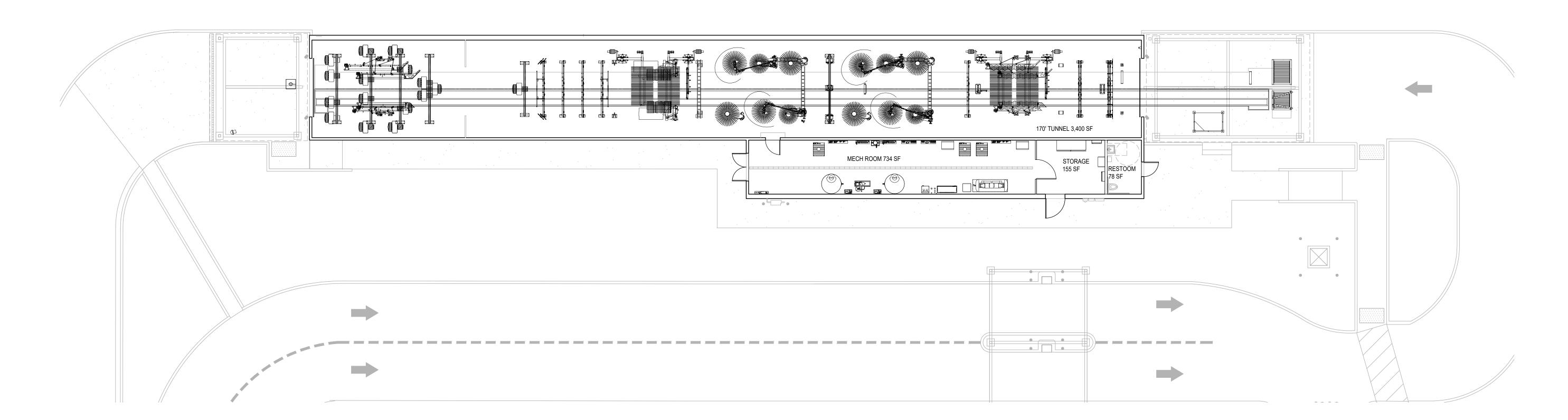






ENLARGED ROOF PLAN

SCALE: 1/8" = 1'

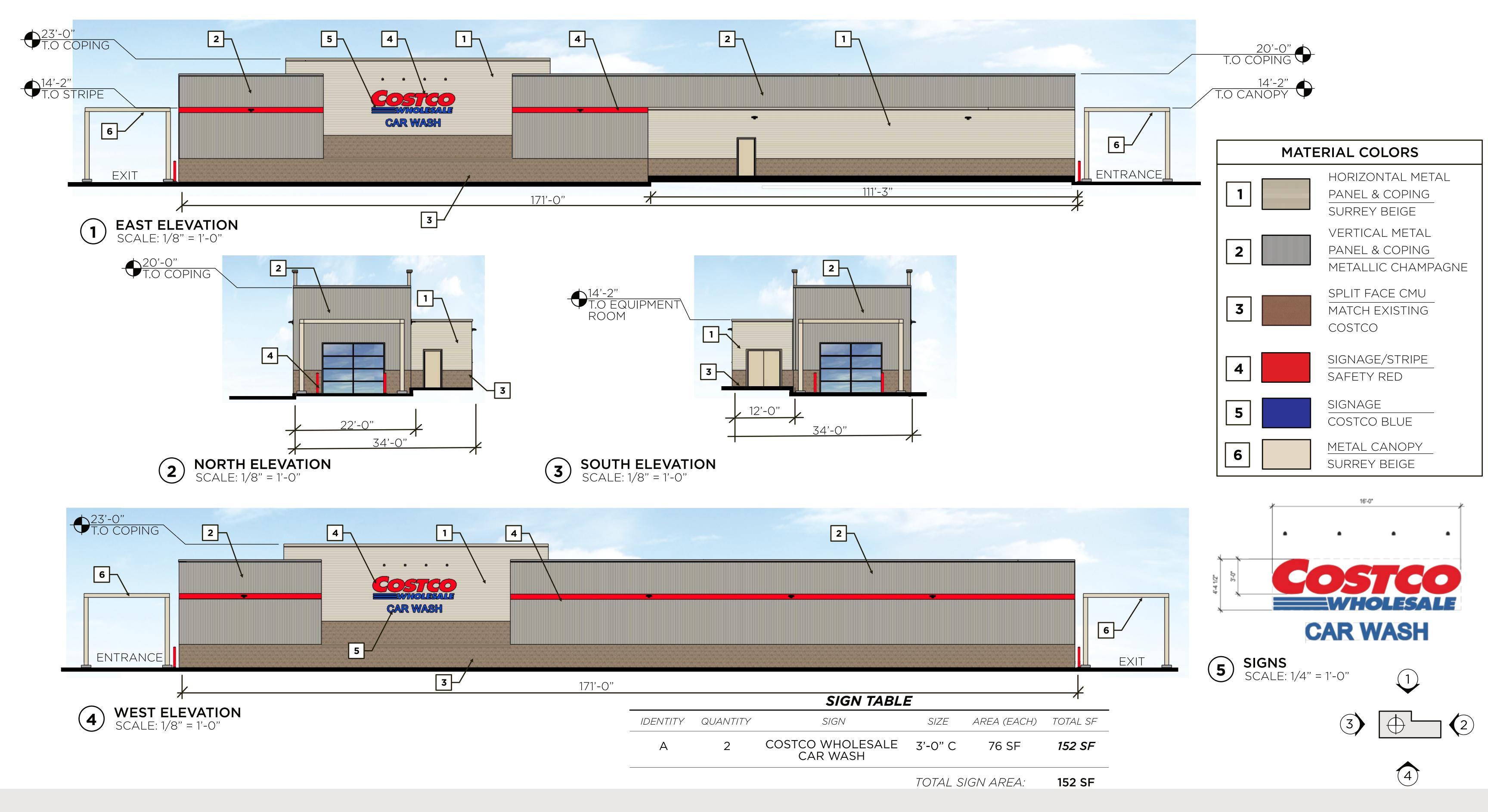


ENLARGED FLOOR PLAN

SCALE: 1/8" = 1'









NOVEMBER 30, 2022 PROJECT # 06-0372-06

ANTIOCH, CA

DD 31-02











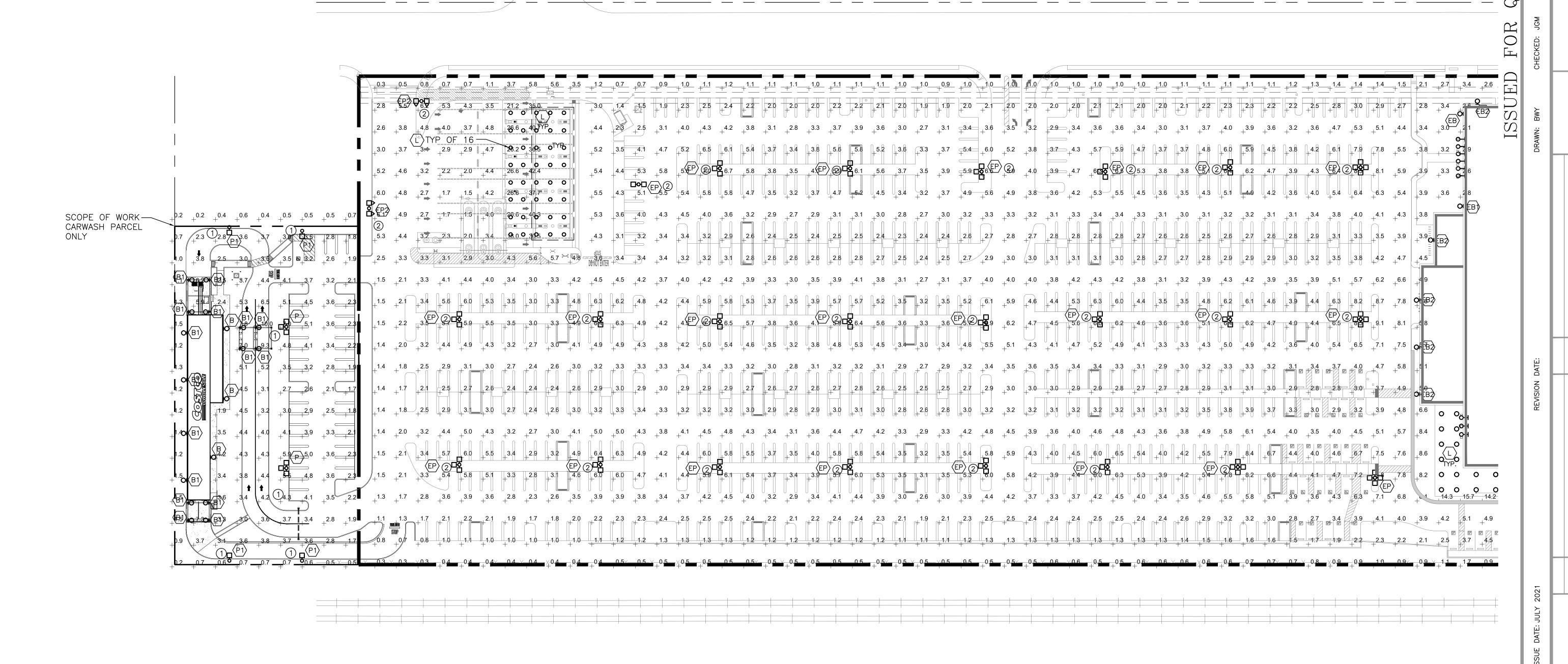












# $\frac{\text{SITE PLAN}}{\text{SCALE: } 1" = 45'-0"}$

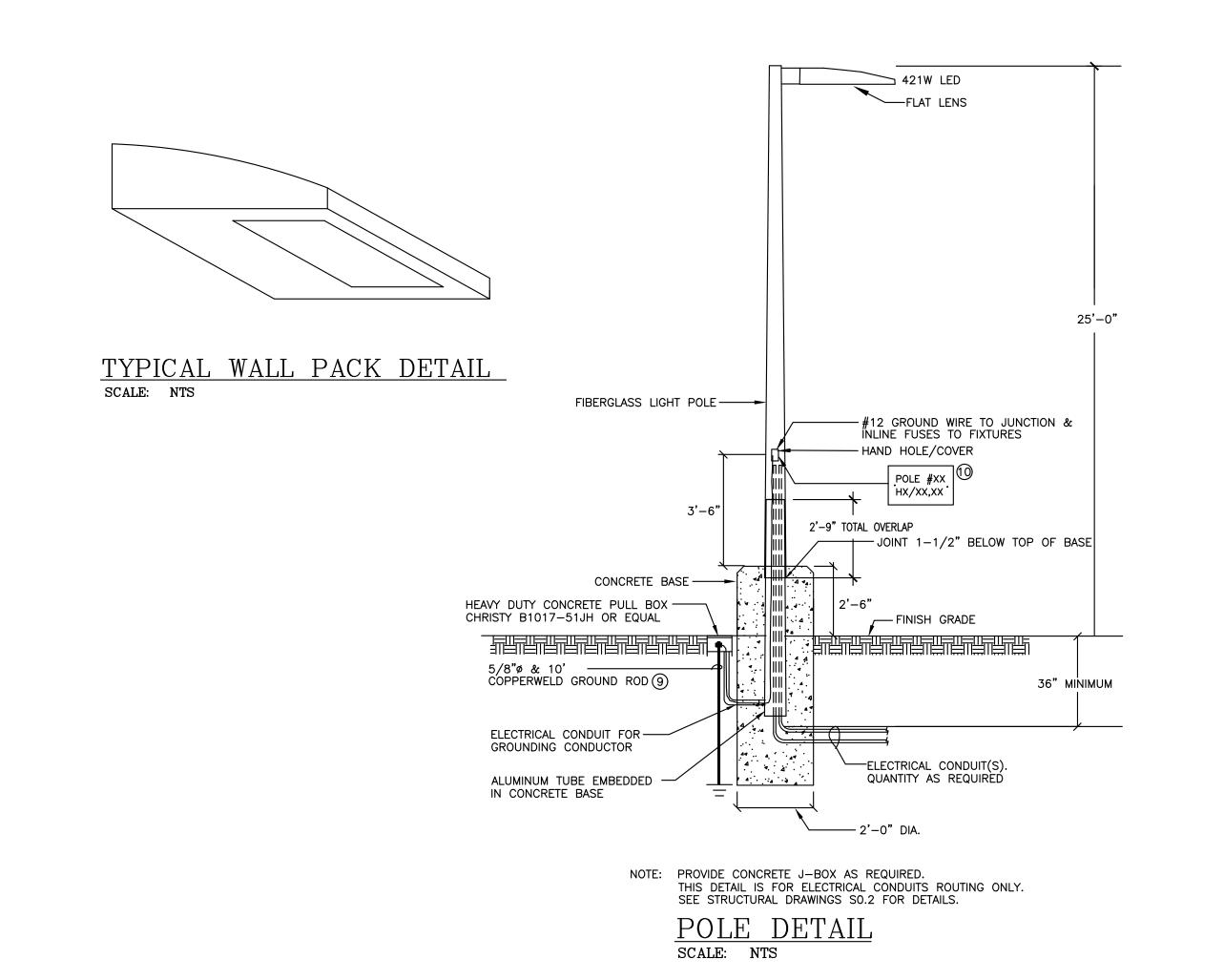
LIGHTING FIXTURE SCHEDULE									
TYPE	MANUFACTURER	NUMBER DIGITITIO	LAMPS	MOUNT	WATT	REMARKS	COLOR		
B	LITHONIA	DSXW2-LED-30C-700-50K-T2M-MVOLT -PIR	LED	WALL	71	INSTALL NEW FIXTURE. TYP. ~10' AT CANOPY OR 18' ON BUILDING ABOVE GRADE.	5000K		
(B1)	LITHONIA	DSXW2-LED-20C-350-50K-T2M-MVOLT -PIR	LED	WALL	25	OR 18 ON BUILDING ABOVE GRADE.			
P	COOPER	GLEON-SA4B-750-U-5WQ-BZ	LED	POLE	171	NEW DIRECT BURY 35' AFG ROUND TAPERED FIBERGLASS / ALUMINUM POLE (MANUFACTURER: VALMONT).			
(P1)	COOPER	GLEON-SA3B-750-U-SL4-HSS-BZ	LED	POLE	124				
(EB)	COOPER	GWC-AF-02-LED-E1-T4W-7050 -MS/DIM-L20-BZ	LED	WALL	113		5000K		
<b>€</b> B)	COOPER	GWC-AF-02-LED-E1-T2-7050 -800-MS/DIM-L20-BZ	LED	WALL	85	EXISTING WALL MOUNT FIXTURE.  TYP. ~20' ABOVE GRADE	5000K		
<b>€</b> B <b>≱</b>	COOPER	GWC-AF-02-LED-E1-T3-7050 -600-MS/DIM-L20-BZ	LED	WALL	66				
L	CREE	CPY250-A-PD-F-B-UL -OSO-WH-5700K	LED	PENDANT	96	EXISTING CANOPY LIGHT	5700K		
(EP)	COOPER	GLEON-AF-04-LED-E1-5WQ-BZ-7050	LED	POLE	225	EXISTING 22'-6" ROUND TAPERED STEEL POLE ON 2'-6" BASE.	5000K		
€P≱	COOPER	GLEON-AF-03-LED-E1-SL4-BZ-7050	LED	POLE	166				

SYMBOL LEGEND

O WALLPACK
O CANOPY LIGHT
O SIGN LIGHT
O POLE LIGHT
O POLE LIGHT
O POLE LIGHT

PLAN NOTES:

1 NEW LIGHT POLE.
2 EXISTING LIGHT POLE TO REMAIN.



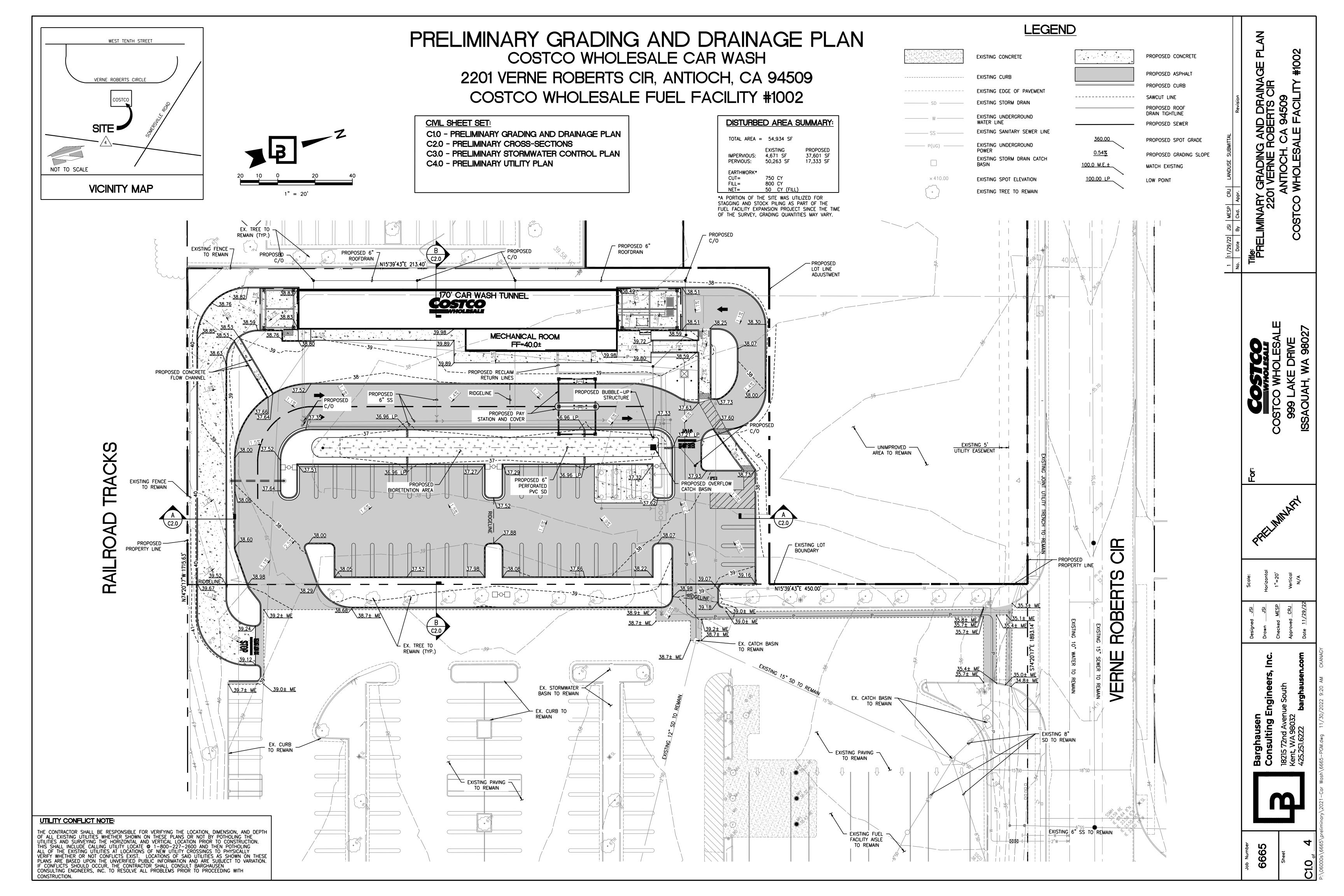
EXTERIOR LED LIGHTING UPGRADE

Project no:21–5556

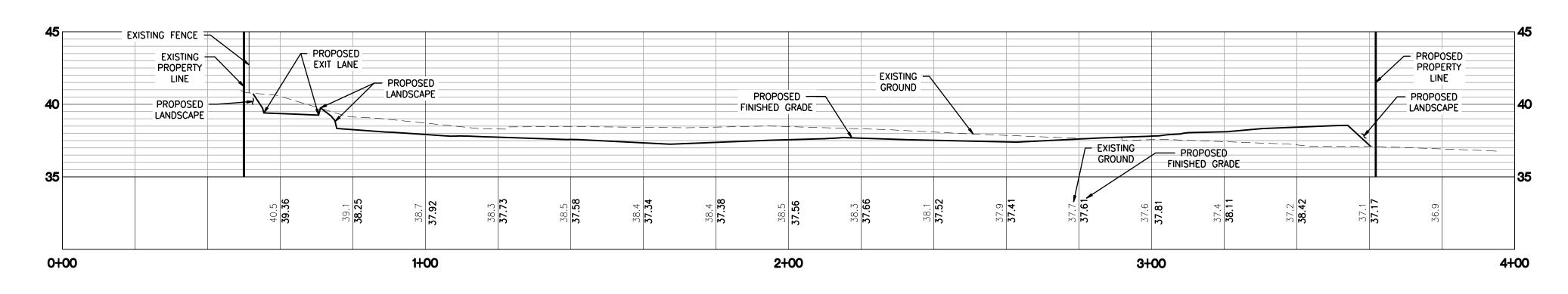
© Or in part without the prior written consent of t.e.ing.

2201

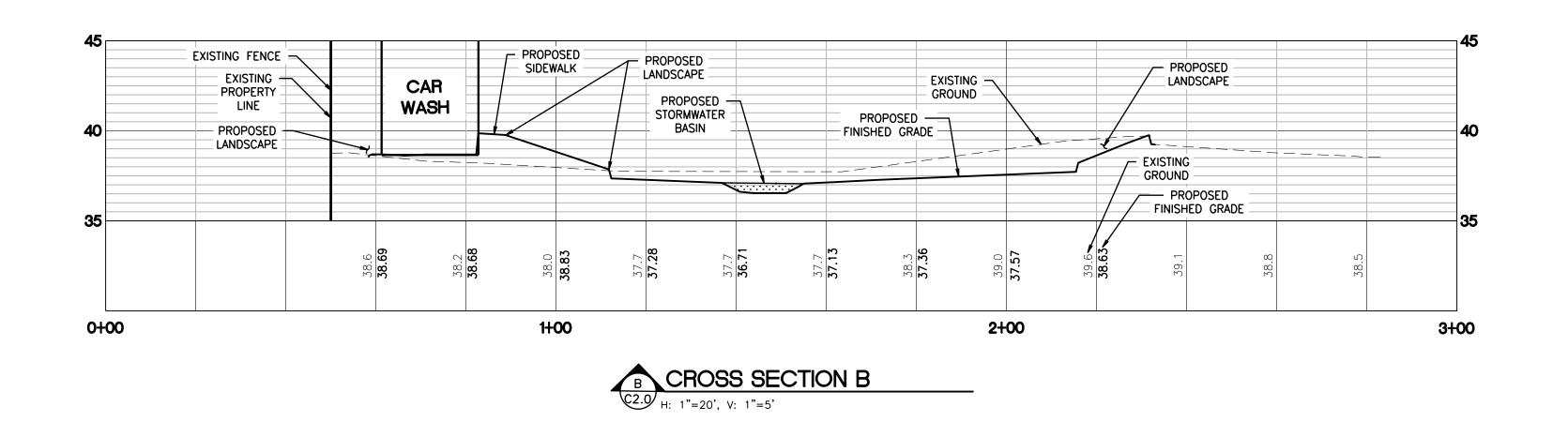
SE-1

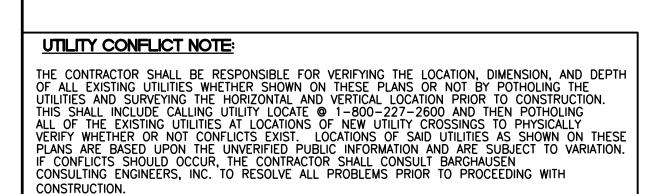


# PRELIMINARY CROSS-SECTIONS COSTCO WHOLESALE CAR WASH 2201 VERNE ROBERTS CIR, ANTIOCH, CA 94509 COSTCO WHOLESALE FUEL FACILITY #1002

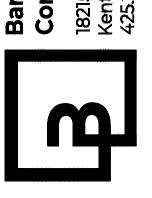




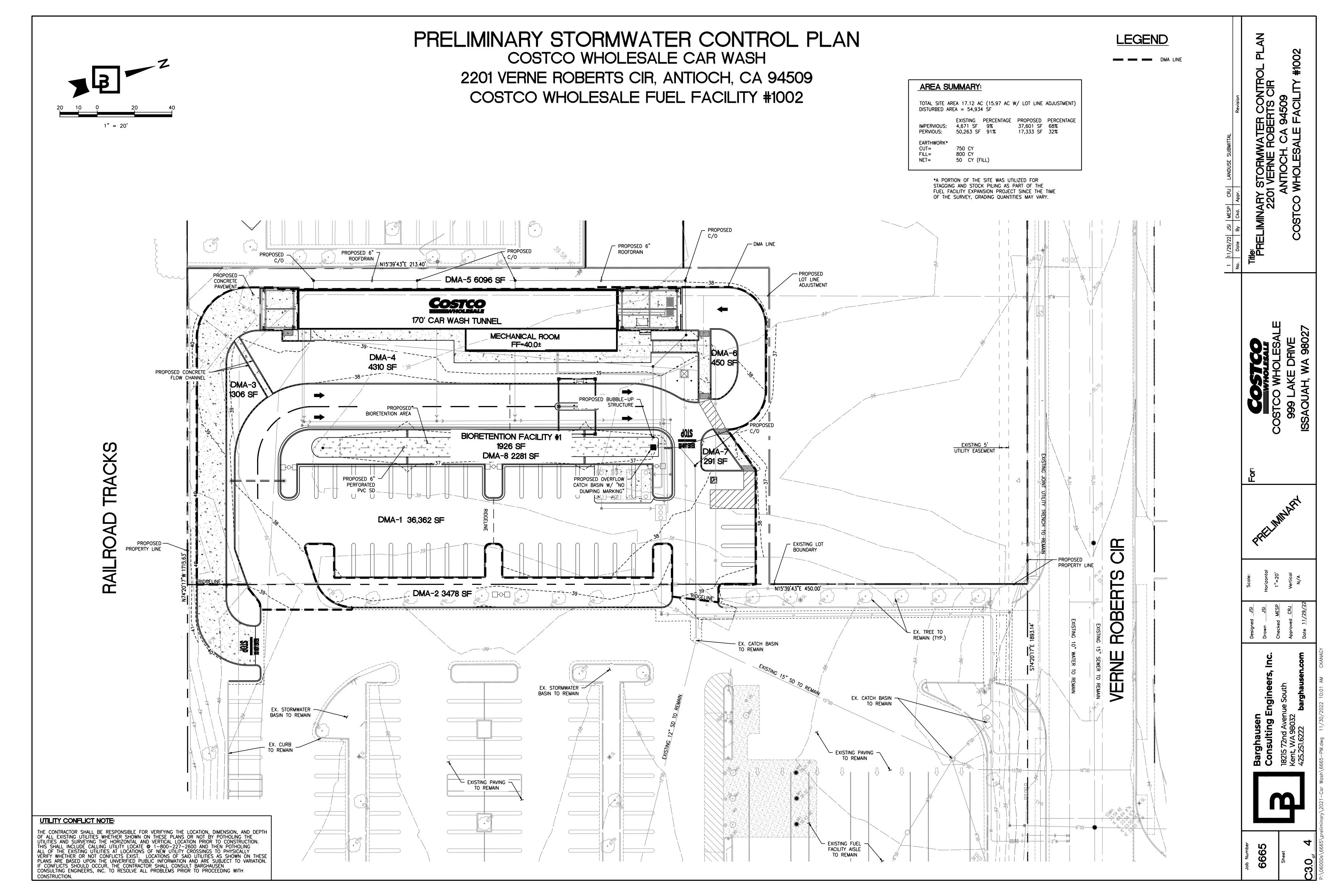




Barghausen Consulting Engine



6665

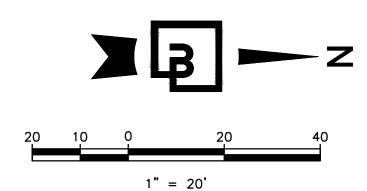


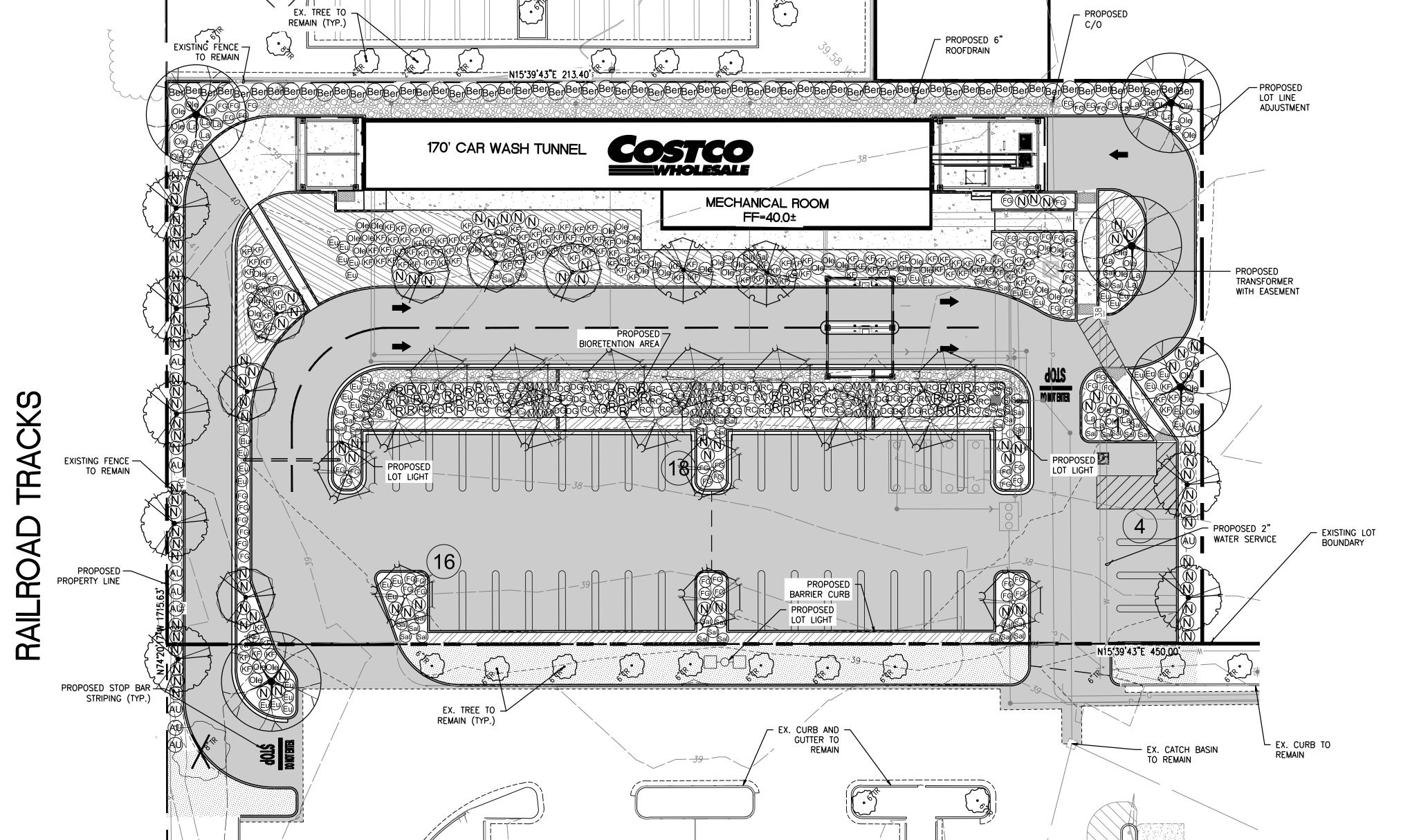
# PRELIMINARY UTILITY PLAN COSTCO WHOLESALE CAR WASH 2201 VERNE ROBERTS CIR, ANTIOCH, CA 94509 COSTCO WHOLESALE FUEL FACILITY #1002 - PROPOSED 6" ROOFDRAIN PROPOSED 6" -ROOFDRAIN PROPOSED — C/O \_\_ N15'39'43"E 213.40' — PROPOSED LOT LINE ADJUSTMENT COSTCO PROPOSED 51 LF OF UNDERGROUND POWER FROM TRANSFORMER 170' CAR WASH TUNNEL MECHANICAL ROOM FF=40.0± PROPOSED GAS CONNECTION TO BUILDING PROPOSED RECLAIM RETURN LINES PROPOSED PAY STATION AND COVER WARNING BAR PROPOŚĘD — PROPOSED LOT LIGHT EXISTING FENCE — TO REMAIN BIORETENTION AREA RAILROAD PROPOSED 2" - EXISTING LOT RECLAIM TANKS WATER SERVICE BOUNDARY OIL/WATER SEPARATOR T C/0 PROPOSED 2" PROPOSED 388 LF OF - UNDERGROUND POWER - PROPOSED WATER LOT LIGHT TO TRANSFORMER ROBERT EXISTING LOT -PROPOSED C/O ~ REMAIN (TYP.) - EX. TREE TO - PROPOSED 6" GUTTER TO REMAIN PROPOSED -REMAIN VERNE EX. CATCH BASIN EXISTING 15" SO TO REMAIN EX. STORMWATER BASIN TO REMAIN EX. CATCH BASIN ∕⊢ PROPOSED 6" EX. CURB TO EX. CURB TO REMAIN Barghausen Consulting SD TO REMAIN CONNECT POWER TO - EXISTING PAVING EXISTING POWER IN TO REMAIN JOINT TRENCH $\subseteq$ EXISTING PAVING -TO REMAIN - CONNECT TO EXISTING PROPOSED 2" WATER METER THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING THE LOCATION, DIMENSION, AND DEPTH OF ALL EXISTING UTILITIES WHETHER SHOWN ON THESE PLANS OR NOT BY POTHOLING THE UTILITIES AND SURVEYING THE HORIZONTAL AND VERTICAL LOCATION PRIOR TO CONSTRUCTION. THIS SHALL INCLUDE CALLING UTILITY LOCATE @ 1-800-227-2600 AND THEN POTHOLING ALL OF THE EXISTING UTILITIES AT LOCATIONS OF NEW UTILITY CROSSINGS TO PHYSICALLY VERIFY WHETHER OR NOT CONFLICTS EXIST. LOCATIONS OF SAID UTILITIES AS SHOWN ON THESE PLANS ARE BASED UPON THE UNVERIFIED PUBLIC INFORMATION AND ARE SUBJECT TO VARIATION. IF CONFLICTS SHOULD OCCUR, THE CONTRACTOR SHALL CONSULT BARGHAUSEN CONSULTING ENGINEERS, INC. TO RESOLVE ALL PROBLEMS PRIOR TO PROCEEDING WITH BACKFLOW DEVICE. CONNECT EXISTING 6" SS TO REMAIN TO EXISTING WATER STUB

CONSTRUCTION.

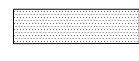
FACILITY AISLE

# PRELIMINARY LANDSCAPE PLAN COSTCO WHOLESALE CAR WASH 2201 VERNE ROBERTS CIR, ANTIOCH, CA 94509 COSTCO WHOLESALE FUEL FACILITY #1002

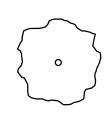




# **LEGEND**



EXISTING LANDSCAPE AND IRRIGATION TO BE RETAINED. SOME MODIFICATIONS TO THE EXISTING IRRIGATION MAY BE NECESSARY. RETURN AREAS TO PRE-CONSTRUCTION



EXISTING TREE TO BE RETAINED, TYPICAL. PROTECT DURING CONSTRUCTION



EXISTING TREE TO BE REMOVED, TYPICAL. WHERE NEW PLANTS ARE SHOWN TO BE INSTALLED WHERE A TREE IS TO BE REMOVED, LANDSCAPE CONTRACTOR TO REMOVE ENOUGH ROOTMASS IN ORDER TO BE ABLE TO INSTALL NEW PLANTS

# GENERAL LANDSCAPE NOTES:

- A. THIS PLAN SET FOR LANDSCAPE IMPROVEMENTS SHALL BE USED IN CONJUNCTION WITH THE FOLLOWING PLANS ALSO TO BE PREPARED FOR THIS PROJECT AND SITE: \* SITE SURVEY
- \* CIVIL ENGINEERING PLANS
- \* ARCHITECTURAL PLANS
- \* ILLUMINATION PLANS
- IF DISCREPANCIES ARE FOUND BETWEEN THIS PLAN SET AND THOSE REFERENCED ABOVE, SUCH DISCREPANCIES SHALL BE COORDINATED WITH BARGHAUSEN CONSULTING ENGINEERS, INC. AND RESOLVED PRIOR TO CONSTRUCTION ACTIVITIES.
- B. GENERAL NOTES ON THE CIVIL ENGINEERING COVER SHEET FOR THIS PROJECT AND SITE ARE APPLICABLE TO THIS LANDSCAPE PLAN SET.
- C. ALL PROPOSED PLANTINGS WILL BE IRRIGATED WITH A WATER-WISE AUTOMATIC IRRIGATION SYSTEM.
- D. LANDSCAPING SHALL COMPLY WITH THE REQUIREMENTS CONTAINED IN "ARTICLE 10: LANDSCAPING AND IRRIGATION" OF THE CITY OF ANTIOCH MUNICIPAL CODE,
- \* A MAINTENANCE PLAN IS REQUIRED AS PART OF THE FINAL SUBMITTAL
- \* NEW (PERMANENT) TURF AREAS SHALL BE SOD \* GRAVEL SURFACING FOR LARGE AREA COVERAGE SHALL BE AVOIDED
- \* 2" MIN. DEPTH OF BARK MULCH IS REQUIRED THROUGHOUT PLANT BEDS
- \* VEGETATION SHALL COVER 75% OF PLANTED AREA AT
- \* EACH ESTABLISHED TREE THAT IS LEGALLY REMOVED SHALL BE REPLACED WITH TWO 24" BOX TREES. IF REMOVED TREES ARE MATURE, REPLACEMENT TREES
- SHALL BE 48" BOX. \* TREES MUST BE MIN. 5 FT. FROM PUBLIC CURBS AND
- PAVEMENTS \* OVER PUBLIC SIDEWALKS, TREES MUST BE BRANCHED TO 7 FT. HT.. OVER PUBLIC STREETS, TREES MUST BE BRANCHED TO 14 FT. HT.
- \* MAX. 3 FT. HT. VEGETATION WITHIN THE VEHICULAR
- CLEAR VISION ZONES / TRIANGLES. E. LANDSCAPING SHALL COMPLY WITH THE CITYWIDE DESIGN GUIDELINES MANUAL, INCLUDING:
- \* PARKING LOT LANDSCAPING SHALL INCLUDE CONTINUOUS LANDSCAPE STRIPS BETWEEN EVERY OTHER ROW OF PARKING; 300 SF AT ENDS OF PARKING ROWS ONE TREE PER 35 FT.; 50% SHADE COVERAGE WITHIN 5 YRS
- THIS PROJECT WILL CONNECT TO THE EXISTING IRRIGATION SYSTEM. PERMANENT IRRIGATION WATER WILL BE PROVIDED TO ALL NEW PLANT MATERIAL



Barghausen Consulting



**UTILITY CONFLICT NOTE:** 

CONSTRUCTION.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING THE LOCATION, DIMENSION, AND DEPTH OF ALL EXISTING UTILITIES WHETHER SHOWN ON THESE PLANS OR NOT BY POTHOLING THE UTILITIES AND SURVEYING THE HORIZONTAL AND VERTICAL LOCATION PRIOR TO CONSTRUCTION. THIS SHALL INCLUDE CALLING UTILITY LOCATE @ 1-800-227-2600 AND THEN POTHOLING ALL OF THE EXISTING UTILITIES AT LOCATIONS OF NEW UTILITY CROSSINGS TO PHYSICALLY VERIFY WHETHER OR NOT CONFLICTS EXIST. LOCATIONS OF SAID UTILITIES AS SHOWN ON THESE PLANS ARE BASED UPON THE UNVERIFIED PUBLIC INFORMATION AND ARE SUBJECT TO VARIATION. IF CONFLICTS SHOULD OCCUR, THE CONTRACTOR SHALL CONSULT BARGHAUSEN CONSULTING ENGINEERS, INC. TO RESOLVE ALL PROBLEMS PRIOR TO PROCEEDING WITH

# PRELIMINARY LANDSCAPE PLAN COSTCO WHOLESALE CAR WASH 2201 VERNE ROBERTS CIR, ANTIOCH, CA 94509 COSTCO WHOLESALE FUEL FACILITY #1002

PLANT SCHEDULE							
TREES	BOTANICAL / COMMON NAME	CONT.	SIZE	WATER USE		<u>QTY</u>	REMARKS
	PISTACIA CHINENSIS 'KEITH DAVEY' / KEITH DAVEY CHINESE PISTACHE	24" BOX		LOW		16	NURSERY GROWN FOR STREET TREE USE, SYMMETRICAL, STAKE AND GUY FOR ONE GROWING SEASON, BRANCHED TO 6 FT. HT.
DECIDUOUS TREES	BOTANICAL / COMMON NAME	CONT.	SIZE	WATER USE		<u>QTY</u>	REMARKS
A CONTRACTOR OF THE PROPERTY O	CERCIDIUM X `DESERT MUSEUM` / DESERT MUSEUM PALO VERDE	15 GAL.		VERY LOW		2	NURSERY GROWN FOR STREET TREE USE, SYMMETRICAL, STAKE AND GUY FOR ONE GROWING SEASON, BRANCHED TO 7 FT. HT.
EVERGREEN TREES	BOTANICAL / COMMON NAME	CONT.	SIZE	WATER USE		QTY	REMARKS
	ACACIA STENOPHYLLA / SHOESTRING ACACIA	15 GAL.		VERY LOW		6	NURSERY GROWN FOR STREET TREE USE, SYMMETRICAL, STAKE AND GUY FOR ONE GROWING SEASON, BRANCHED TO 6 FT. HT.
	OLEA EUROPAEA `WILSONII` / WILSON OLIVE	24" BOX		VERY LOW		7	NURSERY GROWN FOR STREET TREE USE, SYMMETRICAL, STAKE AND GUY FOR ONE GROWING SEASON, BRANCHED TO 5 FT. HT.
	QUERCUS AGRIFOLIA / COAST LIVE OAK	24" BOX		VERY LOW		5	NURSERY GROWN FOR STREET TREE USE, SYMMETRICAL, STAKE AND GUY FOR ONE GROWING SEASON, BRANCHED TO 8 FT HT IF CANOPY IS WITHIN VEHICULAR CLEAR VISION ZONE AS NOTED ON PLAN, BRANCHING SHALL BE AT 7 FT HT OVER CITY SIDEWALKS & 14 FT OVER VEHICULAR AREAS
<u>SHRUBS</u>	BOTANICAL / COMMON NAME	CONT.	WATER USE	<u>ORIGIN</u>	SPACING	QTY	REMARKS
AU	ARBUTUS UNEDO `COMPACTA` / DWARF STRAWBERRY TREE	5 GAL.	LOW		54" o.c.	11	FULL & BUSHY
(Ber	BERBERIS PINNATA / CALIFORNIA BARBERRY	5 GAL.			60" o.c.	59	FULL & BUSHY
<b>€</b> F	CALAMAGROSTIS X ACUTIFLORA / FEATHER REED GRASS	1 GAL.	LOW		42" o.c.	132	FULL TOP GROWTH
(Eu)	EURYOPS PECTINATUS `MUNCHKIN` / DWARF EURYOPS	5 GAL.	LOW		42" o.c.	37	FULL TOP GROWTH
	LAVANDULA STOECHAS `OTTO QUAST` / SPANISH LAVENDER	1 GAL.	LOW		42" o.c.	16	FULL & BUSHY
$\bigcirc$	NANDINA DOMESTICA `FIREPOWER` / FIREPOWER HEAVENLY BAMBOO	5 GAL.	LOW		48" o.c.	97	FULL & BUSHY
(Ole)	NERIUM OLEANDER `PETITE PINK` / PETITE PINK OLEANDER	5 GAL.	LOW		48" o.c.	64	FULL & BUSHY
FG	PENNISETUM ALOPECUROIDES `HAMELN` / HAMELN FOUNTAIN GRASS	5 GAL.	LOW		42" o.c.	60	FULL TOP GROWTH
(Sa)	SALVIA SONOMENSIS / CREEPING SAGE	5 GAL.	LOW		42" o.c.	50	FULL & BUSHY
BIORETENTION PLANTS	BOTANICAL / COMMON NAME	CONT.	WATER USE	ORIGIN	SPACING	QTY	REMARKS
<b>©</b>	CAREX DIVULSA / EUROPEAN GREY SEDGE	1 GAL.	LOW		30" o.c.	24	ZONES A AND B OF THE BIORETENTION CELL
<b>(</b>	MIMULUS AURANTIACUS / STICKY MONKEYFLOWER	1 GAL.	LOW		30" o.c.	36	ZONES A AND B OF THE BIORETENTION CELL
RC	RIBES SANGUINEUM / RED FLOWERING CURRANT	1 GAL.	LOW		48" o.c.	36	ZONE B OF THE BIORETENTION CELL
$^{ m  ext{$\Bbb R$}}$	ROSA CALIFORNICA / CALIFORNIA WILD ROSE	1 GAL.	LOW		42" o.c.	37	ZONES A AND B OF THE BIORETENTION CELL
(S)	SISYRINCHIUM BELLUM / BLUE EYED GRASS	1 GAL.	LOW		30" o.c.	21	ZONES A AND B OF THE BIORETENTION CELL
GRASSES	BOTANICAL / COMMON NAME	CONT.	WATER USE	<u>ORIGIN</u>	SPACING	<u>QTY</u>	REMARKS
(DG)	MUHLENBERGIA RIGENS / DEER GRASS	1 GAL.	LOW		48" o.c.	22	FULL TOP GROWTH, WELL ROOTED
GROUND COVERS	BOTANICAL / COMMON NAME	CONT.	WATER USE	ORIGIN	SPACING	<u>QTY</u>	REMARKS

1 GAL. LOW

990 FULL AND MATCHING

MYOPORUM PARVIFOLIUM 'PINK' / TRAILING MYOPORUM



Barghausen Consulting Enginee



UTILITY CONFLICT NOTE: THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING THE LOCATION, DIMENSION, AND DEPTH OF ALL EXISTING UTILITIES WHETHER SHOWN ON THESE PLANS OR NOT BY POTHOLING THE UTILITIES AND SURVEYING THE HORIZONTAL AND VERTICAL LOCATION PRIOR TO CONSTRUCTION. THIS SHALL INCLUDE CALLING UTILITY LOCATE @ 1-800-227-2600 AND THEN POTHOLING ALL OF THE EXISTING UTILITIES AT LOCATIONS OF NEW UTILITY CROSSINGS TO PHYSICALLY VERIFY WHETHER OR NOT CONFLICTS EXIST. LOCATIONS OF SAID UTILITIES AS SHOWN ON THESE PLANS ARE BASED UPON THE UNVERIFIED PUBLIC INFORMATION AND ARE SUBJECT TO VARIATION. IF CONFLICTS SHOULD OCCUR, THE CONTRACTOR SHALL CONSULT BARGHAUSEN CONSULTING ENGINEERS, INC. TO RESOLVE ALL PROBLEMS PRIOR TO PROCEEDING WITH CONSTRUCTION.

CONSTRUCTION.

FURNISH ALL MATERIALS. LABOR. EQUIPMENT AND RELATED ITEMS NECESSARY TO ACCOMPLISH THE TREATMENT AND PREPARATION OF SOIL, FINISH GRADING, PLACEMENT OF SPECIFIED PLANT MATERIALS, FERTILIZER, STAKING, MULCH, CLEAN-UP, DEBRIS REMOVAL, AND 90-DAY MAINTENANCE.

### **OUALIFICATIONS:**

LANDSCAPE CONTRACTOR TO BE SKILLED AND KNOWLEDGEABLE IN THE FIELD OF WORK. CONTRACTOR TO BE LICENSED TO PERFORM THE WORK SPECIFIED WITHIN THE PRESIDING

### JOB CONDITIONS:

IT IS THE CONTRACTOR'S RESPONSIBILITY TO REVIEW THE SITE AND REPORT ANY DISCREPANCIES TO THE OWNER OR THE OWNER'S REPRESENTATIVES. ALL PLANT MATERIAL AND FINISH GRADES ARE SUBJECT TO APPROVAL BY THE OWNER.

DO NOT PLANT UNTIL OTHER CONSTRUCTION OPERATIONS WHICH CONFLICT HAVE BEEN COMPLETED. AN IRRIGATION SYSTEM IS TO BE INSTALLED. DO NOT PLANT UNTIL THE SYSTEM HAS BEEN TESTED AND APPROVED. HANDLE PLANTS WITH CARE - DO NOT DAMAGE OR BREAK ROOT SYSTEM, BARK, OR BRANCHES. REPAIR AND/OR REPLACE ITEMS DAMAGED AS A RESULT OF WORK, OR WORK NOT IN COMPLIANCE WITH PLANS AND SPECIFICATIONS, AS DIRECTED BY OWNER AT NO ADDITIONAL COST.

GUARANTEE ALL PLANT MATERIAL FOR A PERIOD OF ONE YEAR FROM DATE OF FINAL ACCEPTANCE OF THE JOB BY OWNER.

## 90-DAY MAINTENANCE:

CONTRACTOR TO PROVIDE OWNER WITH A SCOPE OF WORK AT TIME OF INITIAL PROJECT BID TO PROVIDE LANDSCAPE AND IRRIGATION MAINTENANCE FOR 90 DAYS FOLLOWING COMPLETION OF PROJECT (ACCEPTANCE) OF FACILITY BY OWNER. WORK TO INCLUDE MAINTENANCE AS DESCRIBED BELOW. IN PLANTING AND IRRIGATION MAINTENANCE.

### MATERIALS:

PLANT MATERIALS TO BE GRADE NO. 1, SIZED IN ACCORDANCE WITH (AAN) AMERICAN STANDARDS FOR NURSERY STOCK, CURRENT EDITION. PRUNE PLANTS RECEIVED FROM THE NURSERY ONLY UPON AUTHORIZATION BY THE LANDSCAPE ARCHITECT. "B & B" INDICATES BALLED AND BURLAPPED; "CONT." INDICATES CONTAINER; "BR" INDICATES BARE ROOT; "CAL" INDICATES CALIPER AT 6" ABOVE SOIL LINE; "GAL" INDICATES GALLON.

- A) SPECIFIED PLANT CANOPY SIZE OR CALIPER IS THE MINIMUM ACCEPTABLE CONTAINER OR BALL SIZE ESTABLISHES MINIMUM PLANT CONDITION TO BE PROVIDED.
- PLANT MATERIAL TO COMPLY WITH STATE AND FEDERAL LAWS FOR DISEASE INSPECTION, PLANTS TO BE FULLY LIVE, VIGOROUS, WELL FORMED, WITH WELL DEVELOPED FIBROUS ROOT SYSTEMS. ROOT BALLS OF PLANTS TO BE SOLID AND FIRMLY HELD TOGETHER, SECURELY CONTAINED AND PROTECTED FROM INJURY AND PLANTS DETERMINED BY LANDSCAPE ARCHITECT TO HAVE BEEN DAMAGED; HAVE DEFORMITIES OF STEM. BRANCHES. OR ROOTS: LACK SYMMETRY. HAVE MULTIPLE LEADERS OR "Y" CROTCHES LESS THAN 30 DEGREES IN TREES. OR DO NOT MEET SIZE OR ANSI STANDARDS WILL BE REJECTED. PLANT MATERIAL TO BE FROM A SINGLE NURSERY SOURCE FOR EACH SPECIFIED SPECIES/HYBRID. NURSERY SOURCES TO BE THOSE LOCATED IN THE SAME
- C) SUBSTITUTION: NO SUBSTITUTION OF PLANT MATERIAL, SPECIES OR VARIETY, WILL BE PERMITTED UNLESS WRITTEN EVIDENCE IS SUBMITTED TO THE OWNER FROM TWO QUALIFIED PLANT BROKERAGE OFFICES. SUBSTITUTIONS WHICH ARE PERMITTED TO BE IN WRITING FROM THE OWNER AND LANDSCAPE ARCHITECT. THE SPECIFIED SIZE, SPECIES AND NEAREST VARIETY, AS APPROVED, TO BE FURNISHED.

### SOIL PREPARATION:

REGION AS THE JOB SITE.

ARE SPECIFIC TO THIS SITE. THE FOLLOWING: TOPSOIL, AMENTMENT, AND BACKFILL ARE REQUIREMENTS FOR ALL LANDSCAPE AREAS.

AS A MINIMUM SUPPLY TOPSOIL CONSISTING OF LOAM SOIL WITH 5 TO 7 PERCENT ORGANIC MATTER. TOPSOIL TO BE AMENDED WITH SPECIFIC AMENDMENTS IN C)1., 2., 3., AND 4. BELOW, AND BE BLENDED TO SPECIFIED DEPTH IN D.), BELOW. LOAM TO CORRESPOND TO FIELD METHOD OF DETERMINING SOIL TEXTURE CLASSES FOR LOAM AND SILT LOAM, U.S. SOIL CONSERVATION SERVICE. PROVIDE LANDSCAPE ARCHITECT THE TOPSOIL SUPPLIER AND SAMPLE OF TOPSOIL. CONTRACTOR IS RESPONSIBLE FOR ANY NECESSARY WEED CONTROL RESULTING FROM CONTAMINATED OFF-SITE SOURCES.

B) NATIVE SURFACE SOIL INCLUDING STOCKPILED TOPSOIL SURFACE SOIL ON-SITE MAY MEET TEXTURAL CLASSIFICATION AS NOTED IN A), ABOVE. PROVIDE AMENDMENTS IN C)1., 2., 3., AND 4. BELOW, AND EVENLY BLEND AMENDMENTS TO SPECIFIED DEPTH.

1. IMPORTED TOPSOIL FOR PLANTING SHALL CONTAIN A MIMIUM OF 10 PERCENT ORGANIC MATERIAL BY VOLUME.

2. ORGANIC COMPOST USE BULK NITROGEN FORTIFIED GROUND FIR BARK SHALL SATISFY ORGANIC REQUIREMENTS. COMPOST SHALL BE FROM NON-FARM ANIMAL SOURCES, NOR FROM SOCURCES CONTAINING REDWOOD/ CEDAR PRODUCTS.

INSTALLATION FERTILIZER SHALL BE 10-20-10. MAINTENANCE FERTILIZER SHALL BE 21-0-0. AGRIFORM TABLETS SHALL BE 21 AND 5 GRAM SIZE, 20-10-5 BY AGRIFORM INTERNATIONAL CHEMICALS, INC. OR EQUIVALENT.

# 4. SOIL AMENDMENTS

FERTILIZER

SOIL SULFUR 5 POUNDS PER 1,000 SF GYPSUM 25 POUNDS PER 1,000 SF 10 POUNDS PER 1,000 SF FERTILIZER (10-20-10) MANGANESE SULFATE 8 OUNCES PER 1,000 SF ORGANIC COMPOST (2"LAYER) 6 CUBIC YARDS PER 1,000 SF NITROFORM (38-0-0-)

NOTE: IN ORDER TO MORE UNIFORMLY APPLY THE SMALL AMOUNT OF MANGANESE SULFATE REQUIRED, IT SHOULD BE DISSOLVED IN AN APPROPRIATE AMOUNT OF WATER AND SPRAYED TO THE SOIL SURFACE PRIOR TO THE ROTOTILLING PROCEDURE.

18 POUNDS PER 1,000 SF

D) PLANTING BACKFILL BACKFILL MIX FOR TREES, SHRUBS, AND GROUNDCOVERS SHALL BE PREMIXED AND

CONSIST OF: SITE SOIL ORGANIC AMENDMENT 0.2 CUBIC YARDS FERTILIZER 38-0-0 1.0 POUND CALCIUM CARBONATE LIMESTONE

### SLOW RELEASE FERTILIZER TABLETS: CONTAINER SIZE # OF TABLETS

5 GRAM 1 GALLON 3 5 GRAM 5 GALLON 3 21 GRAM 15 GALLON 16 21 GRAM 24" BOX 32 21 GRAM E) SOIL ANALYSIS ADDITIONAL SOIL AMENDMENTS MAY BE REQUIRED IF SOIL TESTING IS REQUIRED FOR

### F) SOIL PREPARATION

REMOVE FROM SITE ALL WEEDS AND DEBRIS WITHIN THE PROPOSED LANDSCAPE AREAS. VERIFY SUB-GRADES AT -5 INCHES BELOW FINISH ELEVATION IN ALL SHRUB AND GROUNDCOVER AREAS. DO NOT WORK SOIL WHEN MOISTURE CONTENT IS SO GREAT THAT EXCESS COMPACTION WILL OCCUR NOR WHEN IT IS SO DRY THAT DUST WILL FORM IN THE AIR OR THAT CLODS WILL NOT BREAK READILY. APPLY WATER IF NECESSARY TO PROVIDE IDEAL MOISTURE CONTENT FOR FILLING AND FOR PLANTING AS SPECIFIED. THOROUGHLY SCARIFY AND RIP ALL LANDSCAPE GRADES WHICH HAVE BECOME COMPACTED TO A DEPTH OF 12 INCHES WITH MULTIPLE PASSES, 90 DEGREES TO EACH OTHER. SCARIFY AREAS INACCESSIBLE TO MECHANIZED EQUIPMENT WITH

- G) REMOVE ALL SURFACE LUMPS. ROCKS. VEGETATION AND/OR DEBRIS LARGER THAN 1-INCH FROM ALL GRADES PRIOR TO ANY SOIL PREPARATION. THOROUGHLY ROTOTILL ALL LANDSCAPE AREAS TO A DEPTH OF 6 INCHES. PLACE ADDITIONAL AMENDED SOIL AS REQUIRED TO MEET FINISH ELEVATIONS. APPLY SOIL PREPARATION MATERIALS TO ALL PLANTING AREAS AND THOROUGHLY INCORPORATE INTO INTO THE TOP 6 INCHES OF SOIL.
- H) WET SOIL THOROUGHLY AND ALLOW TO SETTLE. REPEAT THIS COMPACTING PROCEDURE UNTIL SOIL IS STABLE ENOUGH TO PERMIT AERATION AND DRAINAGE FOR PLANT MATERIAL. FINISH GRADE ALL PLANTING AREAS TO A SMOOTH, UNIFORM SURFACE DRAINING AWAY FROM BUILDINGS AND READY FOR PLANTING. FINISH GRADE TO BE 3 INCHES BELOW FINISH SURFACE OF ADJACENT PAVEMENT IN SHRUB AND GROUNDCOVER AREAS. FINISH GRADES TO BE APPROVED PRIOR TO PLACEMENT OF ANY PLANT MATERIAL. PARKING PLANTER ISLANDS SHALL BE OVER EXCAVATED. REMOVE ALL PAVING WASTE, GRAVEL BASE AND UNDERLYING SUBSOIL TO 18 INCHES BELOW TOP OF THE PAVING. SCARIFY AND OVER EXCAVATE PIT BOTTOM 12 INCHES TO MINIMIZE STRUCTURAL COMPACTION.
- LANDSCAPE BEDS: ONE-QUARTER-INCH (1/4") TO ONE HALF-INCH (1/2") SIZE FINE TEXTURED NITROLIZED BARK MULCH. SHREDDED WOOD WILL NOT BE ALLOWED. BIORETENTION CELLS: AGED MULCH OR COMPOST MULCH. IN GENERAL, A NON-FLOATING
- 2-INCH DIAMETER, BY 10-FOOT MINIMUM TREATED LODGEPOLE PINE TREE STAKE.

### CINCH TYPE TIES. NO WIRE WILL BE ALLOWED.

HERBICIDE IS NOT RECOMMENDED FOR THE FIRST YEAR AFTER INSTALLATION.

## 13. ANTI-DESICCANT:

WILT-PROOF." 48 HOURS PRIOR TO SHIPMENT TO SITE FROM JUNE 1 THROUGH SEPTEMBER. THOROUGHLY ROOT WATER PLANTS PRIOR TO DELIVERY. PLANT MATERIAL DELIVERED TO SITE TO BE KEPT CONTINUALLY MOIST THROUGH INSTALLATION.

### **EXECUTION:**

### 14. FINISH GRADES:

FINE GRADE AND REMOVE ROCKS AND FOREIGN OBJECTS OVER TWO INCHES (2") DIAMETER FROM TOP THREE INCHES (3") OF PREPARED PLANTING BED. ALL FINISH GRADES TO BE SMOOTH EVEN GRADES, LIGHTLY COMPACTED, AS SHOWN ON THE PLAN AND DETAILED. SITE CIVIL DRAWINGS IDENTIFY FINAL ELEVATIONS.

ARRANGE TREES ON SITE IN PROPOSED LOCATIONS PER DRAWINGS. EXCAVATE PIT, PLANT AND STAKE OR GUY, AS CALLED OUT AND DETAILED. ALL TREES AND SUPPORTS TO STAND VERTICAL. TREES TO BE PLACED AS SHOWN ON THE PLANTING PLAN, LOCATED AS DETAILED AND AS CALLED OUT ON PLANT LIST. BACKFILL SHALL BE PIT SPOILS. SETTLE BACKFILL USING WATER ONLY. NO MECHANICAL COMPACTION.

INSTALL SHRUBS AS SPECIFIED FOR TREES.

# 17. GROUNDCOVERS:

EXCAVATE PITS TO A MINIMUM OF THREE INCHES (3") BELOW, AND TWICE THE ROOT BALL DIAMETER. WATER THOROUGHLY AND TAKE CARE TO ENSURE THAT ROOT CROWN IS AT PROPER GRADE, AS DETAILED.

# 18. MULCH:

MULCH ALL LANDSCAPE AND BIORETENTION AREAS WITH A THREE INCH (3") LAYER OF MULCH.

FIELD ADJUST PLANT LOCATIONS FOR 8-FOOT SEPARATION OF TREES/SHRUBS AND 2-FOOT SEPARATION FOR GROUNDCOVER FROM FIRE HYDRANTS AND UTILITY VAULTS.

CONTRACTOR TO MAINTAIN PLANTINGS THROUGH COMPLETED INSTALLATION, AND UNTIL ACCEPTANCE OF LANDSCAPE INSTALLATION. PLANTING MAINTENANCE TO INCLUDE WATERING, WEEDING, CULTIVATING, TIGHTENING AND REPAIRING OF TREE GUYS, RESETTING PLANTS TO PROPER GRADES OR POSITION, AND RE-ESTABLISHING SETTING GRADES. HERBICIDE IS NOT RECOMMENDED FOR ONE YEAR FOLLOWING LANDSCAPE INSTALLATION. INCLUDED IS REPLACEMENT OF DEAD PLANTS AND PLANTS SHOWING LOSS OF 40 PERCENT OR MORE OF CANOPY.

21. FERTILIZATION FOR GROUNDCOVER AREAS: UNIFORMLY BROADCAST SULFUR COATED UREA AT THE RATE OF FIVE (5) LBS. PER 1,000 SQUARE FEET. THE FIRST APPLICATION TO OCCUR APPROXIMATELY FORTY-FIVE (45) DAYS AFTER PLANTING. IN EARLY FALL AND SPRING, SUBSTITUTE A COMPLETE FERTILIZER SUCH AS 16-6-8 OR EQUAL FOR THE SULFUR COATED UREA AT THE RATE OF SIX (6) LBS. PER 1,000 SQUARE FEET. FOLLOW EACH FERTILIZATION WITH A THOROUGH IRRIGATION APPLICATION.

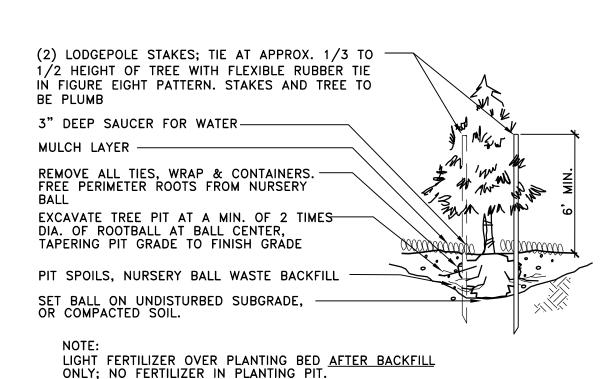
### 22. IRRIGATION MAINTENANCE:

THE IRRIGATION SYSTEM TO BE MAINTAINED INCLUDING ADJUSTMENTS FOR BALANCED WATER DISTRIBUTION & PRECIPITATION. FAILED OR MALFUNCTIONING IRRIGATION EQUIPMENT SHALL BE REPLACED OR CORRECTED. PLANT AND IRRIGATION MAINTENANCE TO INCLUDE THOSE OPERATIONS NECESSARY TO THE PROPER GROWTH AND SURVIVAL OF ALL PLANT MATERIALS. CONTRACTOR TO PROVIDE THIS WORK IN ADDITION TO SPECIFIC WARRANTY/GUARANTEES.

### PRUNE DAMAGED TWIGS AFTER PLANTING PLACE IN VERT. POSITION: DOUBLE LEADERS WILL BE REJECTED-KEEP ROOTBALL MOIST AND PROTECTED AT ALL TIMES. HOLD CROWN OF ROOTBALL AT OR JUST ABOVE FINISH PROTECT TRUNK AND LIMBS FROM INJURY. BACKFILL TO BE SETTLED USING WATER ONLY - NO MECHANICAL COMPACTION. REMOVE ALL WRAP, TIES & CONTAINERS, REGARDLESS OF MATERIAL. (2) LODGEPOLE STAKES, PLUMB WITH ELASTIC CHAIN-LOCK-TYPE OR RUBBER GUYS TIED IN FIGURE EIGHT; REMOVE AFTER ONE GROWING SEASON PROTECTIVE WRAPPING DURING SHIPMENT TO SITE AND -INSTALLATION REMOVE AT COMPLETION OF PLANTING LAWN PLANTING: PROVIDE 3' Ø "NO GRASS" TREE RING AND 2" DEEP MULCH LAYER IN WELL. HOLD BACK FROM FINISH GRADE PREPARE PLANTING BED PER SPEC'S; AT MIN., LOOSEN-AND MIX SOIL TO 18" OR DEPTH OF ROOTBALL AND 2 REMOVE ALL WRAP, TIES, AND CONTAINERS SCORE ROOTBALL AND WORK NURSERY SOIL AWAY FROM PERIMETER ROOTS SET BALL ON UNDISTURBED BASE OR COMPACTED MOUND UNDER BALL

## DECIDUOUS TREE PLANTING/STAKING DETAIL

PENETRATION TO SUBBASE (+) 24"

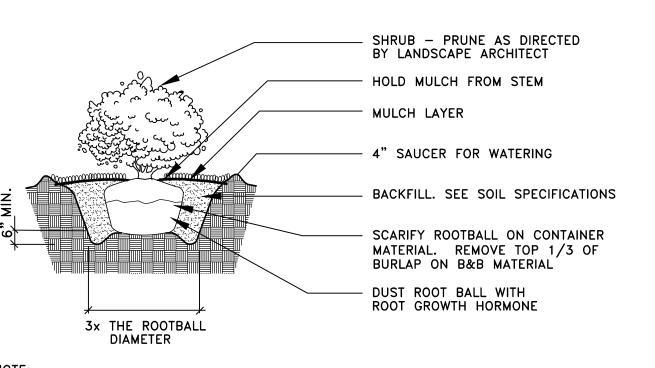


# EVERGREEN TREE PLANTING/STAKING DETAIL

WORK PERIMETER ROOTS FREE OF NURSERY BALL.

BALL & PIT TO BE COURSELY SCARIFIED.

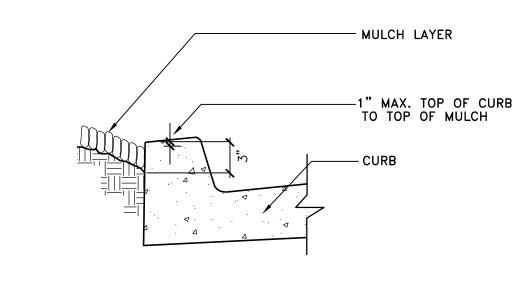
NOT TO SCALE



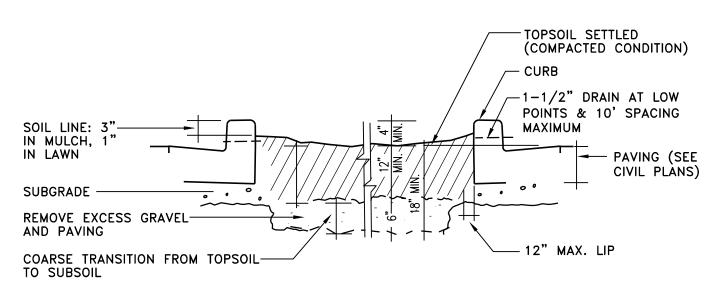
APPLY ADDITIONAL 4 OZ. 8-32-16 FERTILIZER INTO TOP 2" OF PLANTING MIX.

PLANT SHRUB HIGH ENOUGH TO ALLOW POSITIVE DRAINAGE AWAY FROM ROOTBALL. ROUGHEN ALL SURFACES OF PIT.

SHRUB PLANTING DETAIL



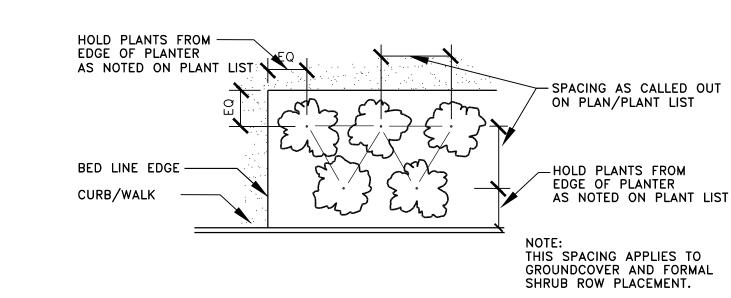
## MULCH AT CURB DETAIL



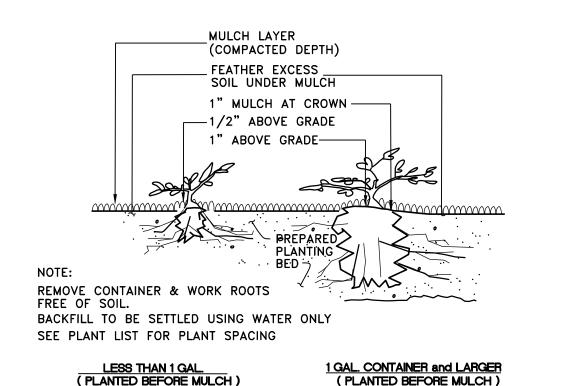
OVER EXCAVATE PARKING LOT PLANTERS TO LOOSEN COMPACTED SUBBASE

### GRADING @ PARKING LOT PLANTERS DETAIL

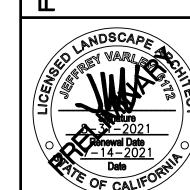
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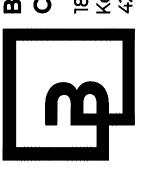
# PLANT MATERIAL SPACING DETAIL



# GROUNDCOVER PLANTING DETAIL



ghauser



2