

# PROJECT DATA

CLIENT: COSTCO WHOLESAL  
 999 LAKE DRIVE  
 ISSAQUAH, WA 98027

PROJECT ADDRESS: 22330 HATHAWAY AVE.  
 HAYWARD, CA 94541

SITE AREA: 10.87 ACRES (473,566 S.F.)

BOUNDARIES INFORMATION: THIS PLAN HAS BEEN PREPARED BY USING MULVANNY ARCHITECTS SITE PLAN DATED 2/95.

## BUILDING DATA:

TOTAL EXIST. BUILDING	124,287 S.F.
DEMOLISH DETACHED TIRE CENTER	8,580 S.F.
REVISED BUILDING TOTAL	115,707 S.F.
INCLUDING:	
EXIST. UTILITY ROOMS	420 S.F.
EXIST. MECHANICAL ROOM	261 S.F.
EXIST. BALER/COMPACTOR ROOM	972 S.F.
EXIST. ENCLOSED CANOPY	1,831 S.F.
EXIST. MEZZANINE	2,427 S.F.

## EXIST. PARKING DATA:

EXISTING PARKING PROVIDED:

⊕ STANDARD STALLS	435 STALLS
⊕ HANDICAP STALLS (2 VAN STALL)	16 STALLS
⊕ TRUCK STALLS	52 STALLS
TOTAL PARKING	503 STALLS

NO. OF STALLS PER 1000 S.F. OF BUILDING AREA: 4.05 STALLS

(\* ) PARKING NEEDED TO MAINTAIN 4.00 / 1000 S.F.: 463 STALLS

(\* ) 1.0 SPACE / 250 S.F. PER CITY OF HAYWARD MUNICIPAL CODE SECTION 10-2.330.

## PROPOSED PARKING:

⊕ STANDARD STALLS	330 STALLS
⊕ HANDICAP STALLS (2 VAN STALL)	16 STALLS
⊕ TRUCK STALLS	52 STALLS
TOTAL PARKING	398 STALLS

NO. OF STALLS PER 1000 S.F. OF BUILDING AREA: 3.44 STALLS

TOTAL PARKING LOST 105 STALLS

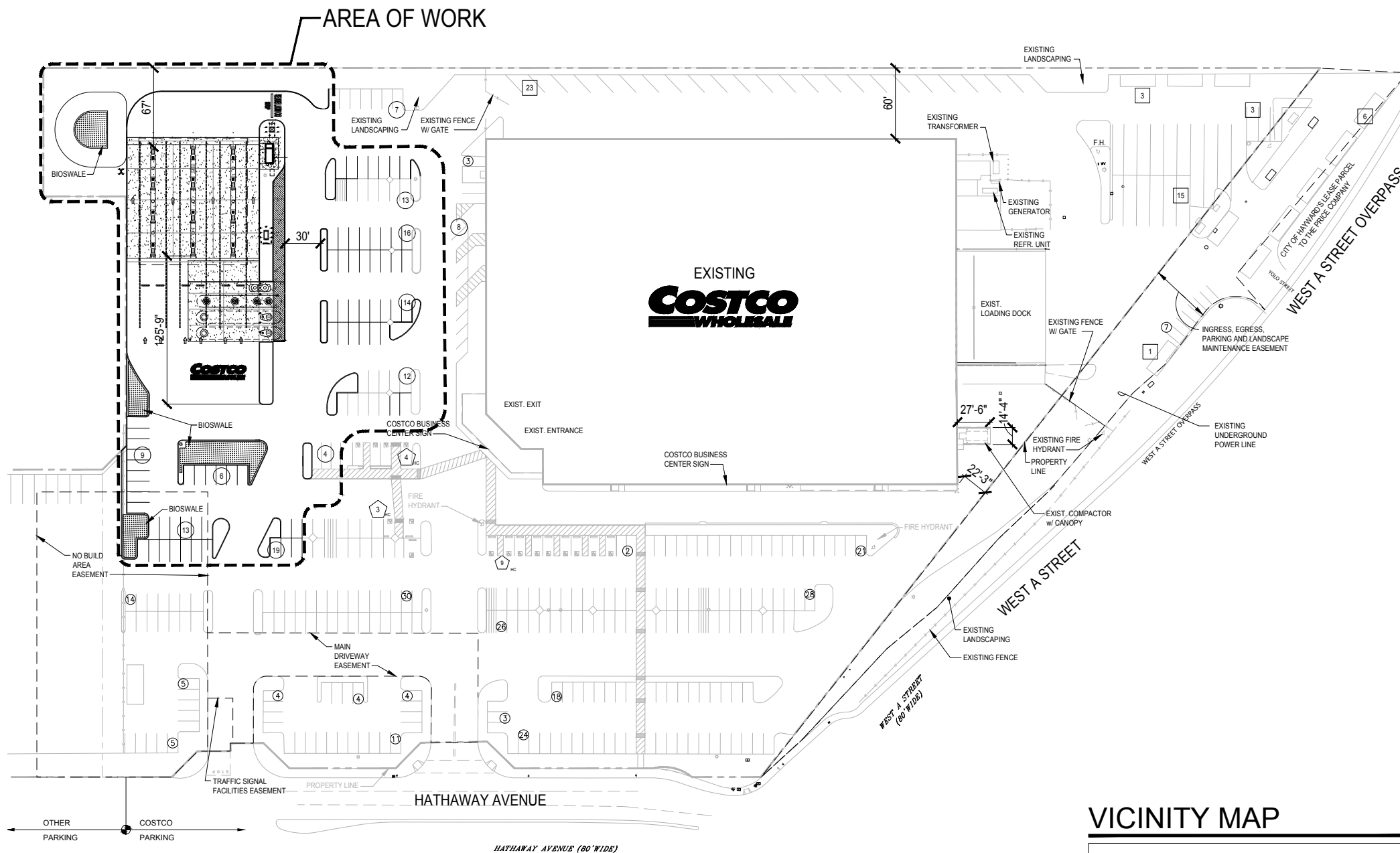
## FUEL FACILITY DATA:

OCCUPANCY GROUP: M (MERCANTILE)

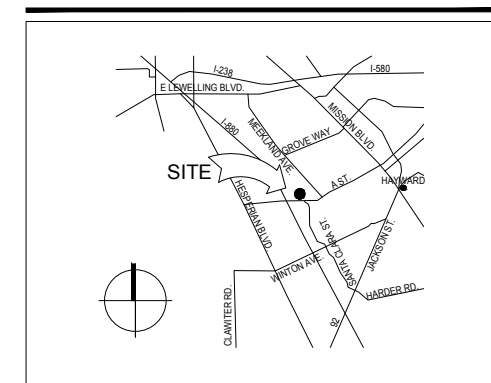
CONSTRUCTION TYPE: II B

FUEL CANOPY AREA: 9,346 SF

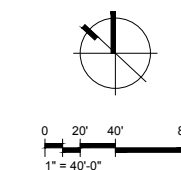
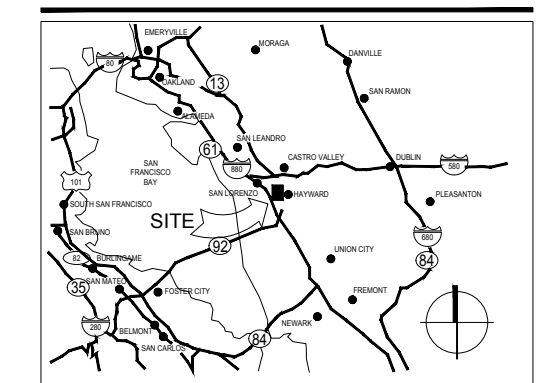
FUEL CANOPY HEIGHT: 17'-6" TO TOP OF CANOPY



## VICINITY MAP



## REGIONAL MAP



22330 HATHAWAY AVE.  
 HAYWARD, CA 94541



94-0360-20  
 SEPTEMBER 21, 2018

CONCEPT SITE PLAN

DD11-16

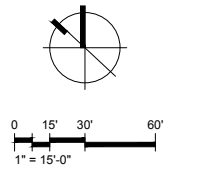
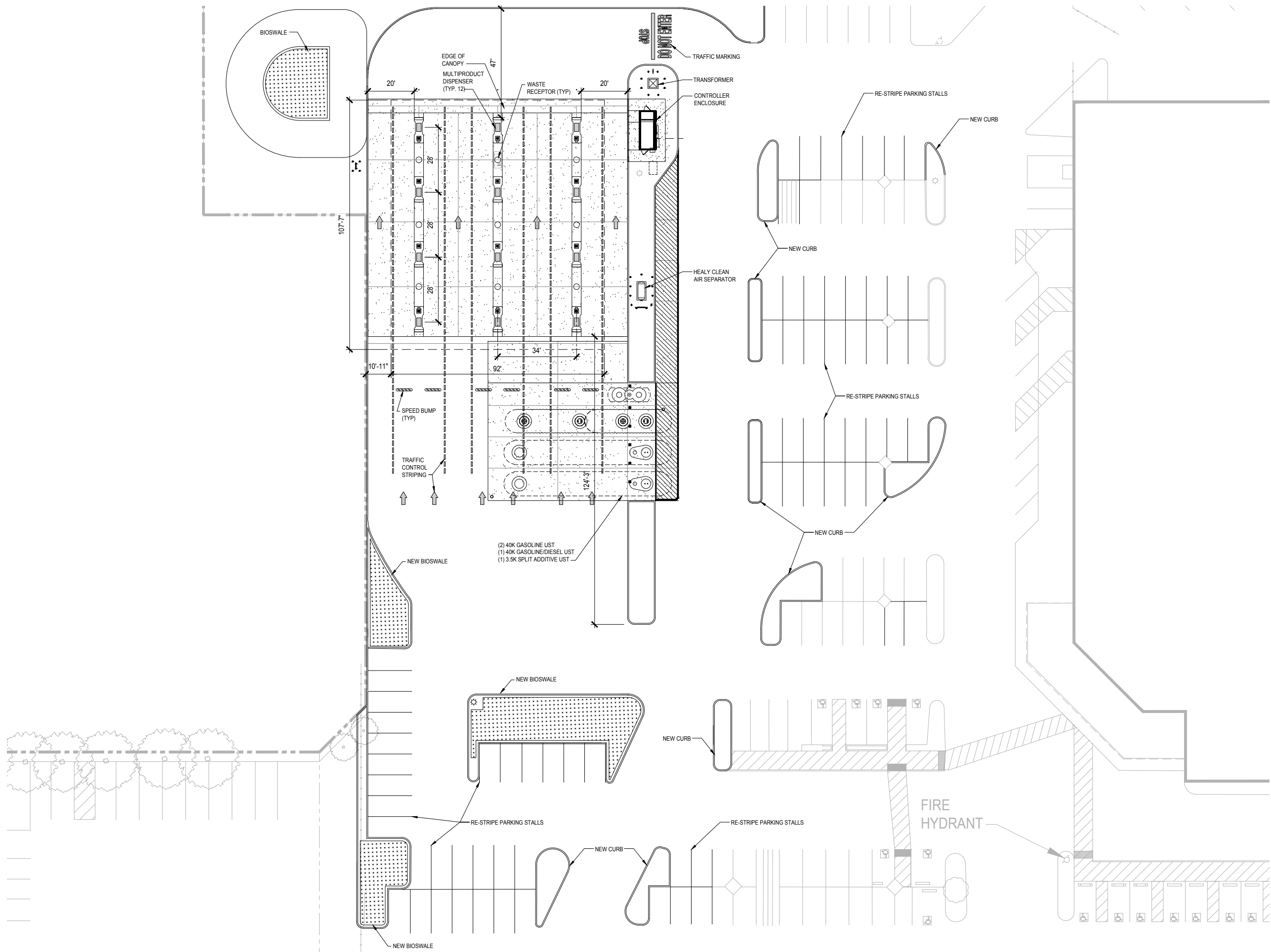
# COSTCO WHOLESAL

HAYWARD, CALIFORNIA

# CONCEPT SITE PLAN

SEPTEMBER 21, 2018

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22330 HATHAWAY AVE. HAYWARD, CA 94541



94-0360-20  
SEPTEMBER 21, 2018

CONCEPT FLOOR PLAN

DD11-16A

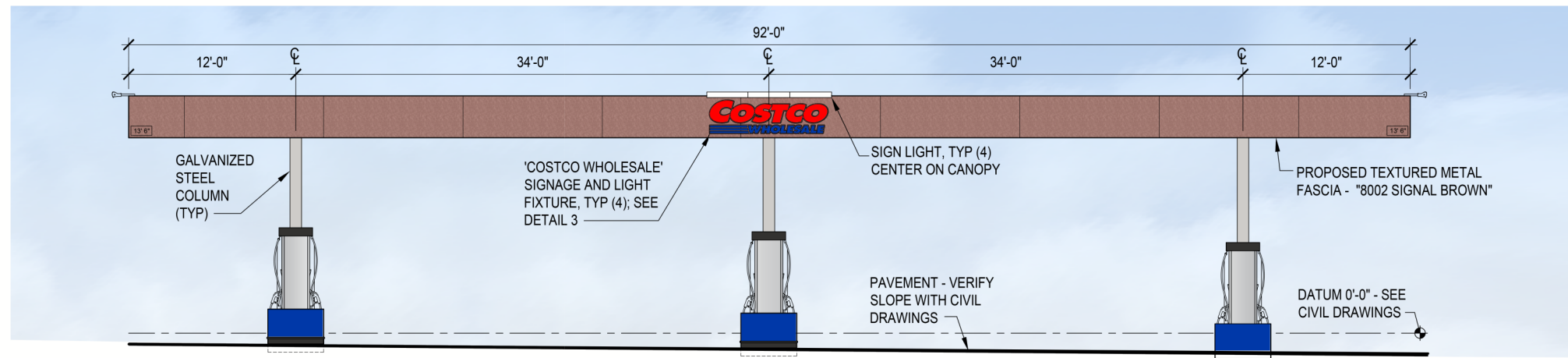
**COSTCO WHOLESALE**

HAYWARD, CALIFORNIA

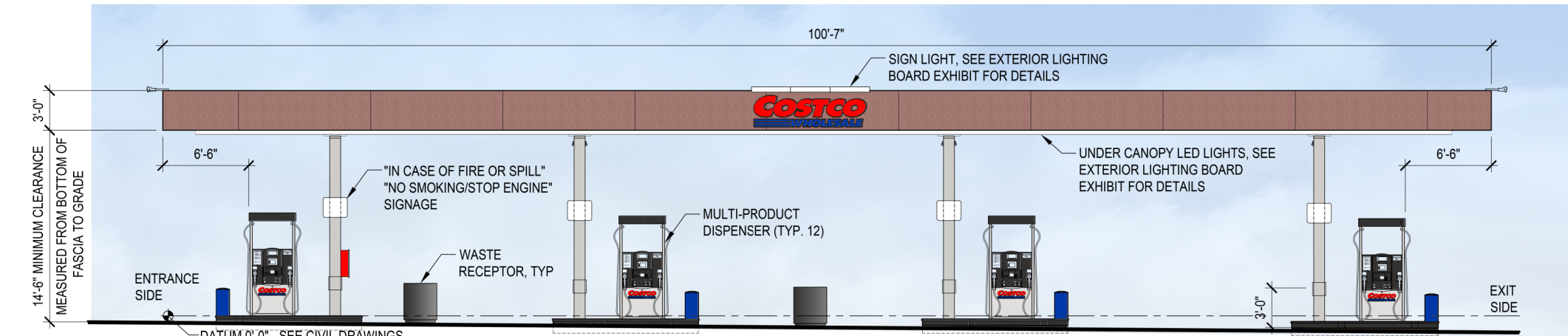
**CONCEPT FLOOR PLAN**

SEPTEMBER 21, 2018

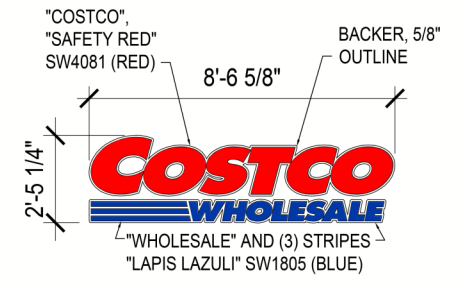
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1 NORTH CANOPY AND DISPENSER ISLANDS (SOUTH ELEV. SIM.)  
SCALE: 1/4" = 1'-0" 0417



2 WEST CANOPY AND DISPENSER ISLANDS (EAST ELEV. SIM.)  
SCALE: 1/4" = 1'-0" 0417



3 CANOPY SIGN  
SCALE: 1/2" = 1'-0" (SUPPLIED AND INSTALLED BY CANOPY SUPPLIER)

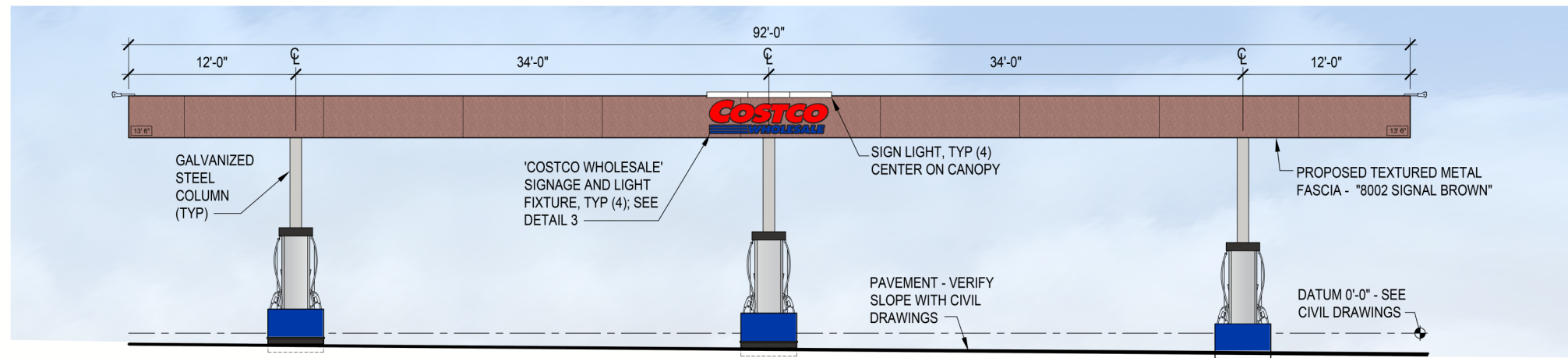
SIGNAGE AREA TABULATION (WALL SIGNS)				
QTY.	SIGN	SIZE	AREA (S.F.) EA.	TOTAL S.F.
4	COSTCO WHOLESALE	2'-6 1/4" x 8'-6 5/8"	20.85 S.F.	82.32 S.F.
TOTAL SIGNAGE AREA				82.32 S.F.

**A** 'COSTCO' SIGNAGE  
SW 4081 - 'SAFETY RED'

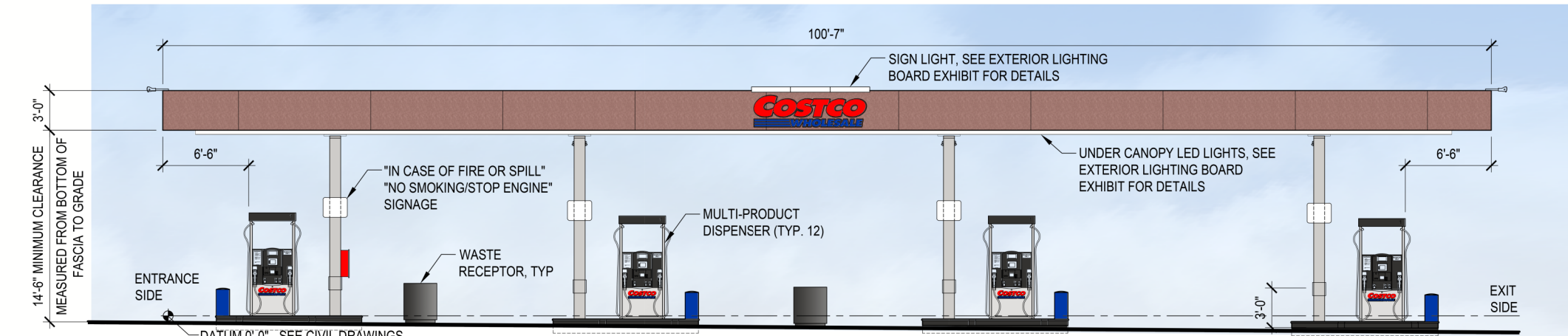
**C** TEXTURED METAL FASCIA PANEL  
SPRAYLAT - 8002 SIGNAL BROWN

**B** 'WHOLESALE' SIGNAGE  
SW 1805 - 'LAPIS LAZULI'

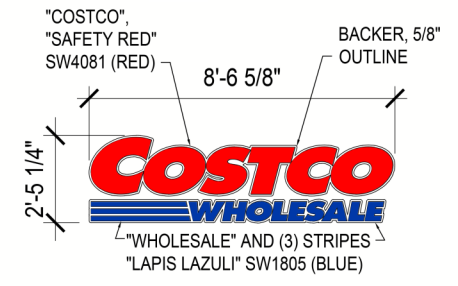
**D** METAL COLUMN WRAP  
SPRAYLAT - 9001 CREAM



1 NORTH CANOPY AND DISPENSER ISLANDS (SOUTH ELEV. SIM.)  
SCALE: 1/4" = 1'-0" 0417



2 WEST CANOPY AND DISPENSER ISLANDS (EAST ELEV. SIM.)  
SCALE: 1/4" = 1'-0" 0417



3 CANOPY SIGN  
SCALE: 1/2" = 1'-0" (SUPPLIED AND INSTALLED BY CANOPY SUPPLIER)

SIGNAGE AREA TABULATION (WALL SIGNS)				
QTY.	SIGN	SIZE	AREA (S.F.) EA.	TOTAL S.F.
4	COSTCO WHOLESALE	2'-5 1/4" x 8'-6 5/8"	20.85 S.F.	82.32 S.F.
TOTAL SIGNAGE AREA				82.32 S.F.

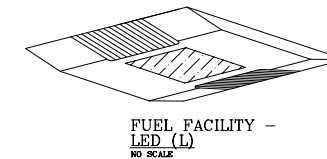
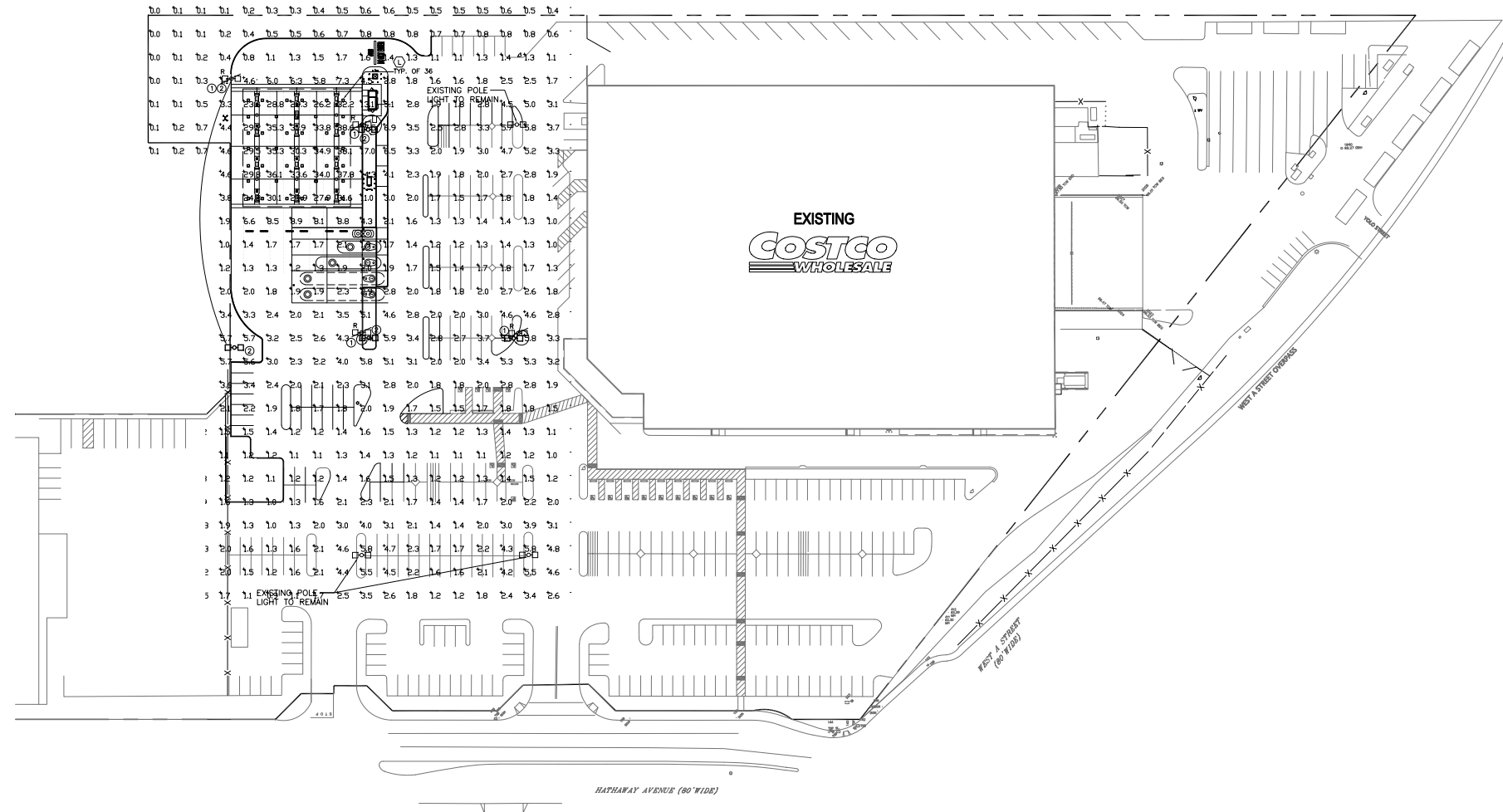
A 'COSTCO' SIGNAGE  
SW 4081 - 'SAFETY RED'

C TEXTURED METAL FASCIA PANEL  
SPRAYLAT - 8002 SIGNAL BROWN

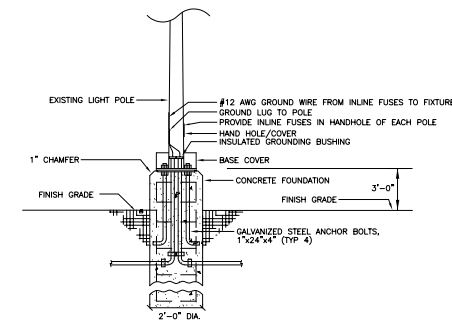
B WHOLESALE SIGNAGE  
SW 1805 - 'LAPIS LAZULI'

D METAL COLUMN WRAP  
SPRAYLAT - 9001 CREAM





**SITE PLAN**  
SCALE: 1" = 50'



NOTE: PROVIDE CONCRETE J-BOX AS REQUIRED.  
THIS DETAIL IS FOR ELECTRICAL CONDUITS ROUTING ONLY.  
SEE STRUCTURAL DRAWINGS FOR CONSTRUCTION DETAIL.

**EXISTING POLE BASE DETAIL**  
NO SCALE

**PLAN NOTES:**

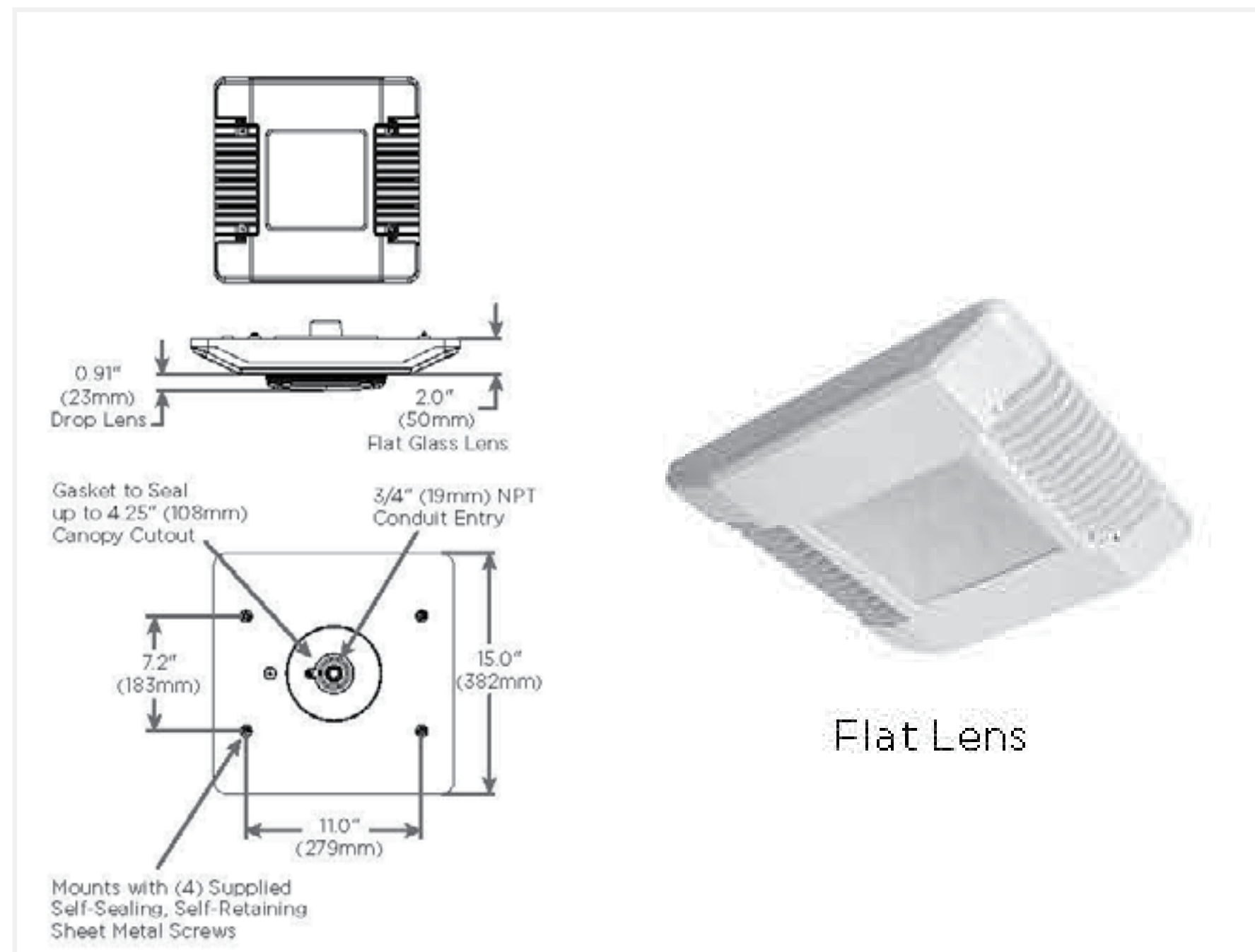
- ① EXISTING FIXTURE TO BE REMOVED AND RELOCATED. RELOCATED EXISTING POLE AND FIXTURES. DEMOLISH EXISTING BASE. PROVIDE NEW BASE AT NEW LOCATION. INTERCEPT EXISTING FEEDER AWAY FROM NEW FUEL FACILITY. PROVIDE HEAVY DUTY TRAFFIC RATED J-BOX AND EXTEND TO NEW LOCATION. FIELD VERIFY. SEAL CONDUITS PER NEC 514.
- ② E.C. TO SEAL UNDERGROUND CONDUITS WITHIN 10' OF ENTERING GROUND ON BOTH ENDS. SEAL POLE AND ASSOCIATED J-BOX. PROVIDE EXPLOSION-PROOF RATED J-BOX AND OTHER ELECTRICAL DEVICES NEAR FUELING FACILITY. REFER TO NEC ARTICLE 514.

**LIGHTING FIXTURE SCHEDULE**

TYPE	MANUFACTURER	NUMBER	LAMPS	MOUNT	HWT	REMARKS
⓪	CREE	CPY250-B-PD-F-B-UL-WH-5000K	LED	SURFACE	96	

**CREE CPY250 WITH FLAT LENS**

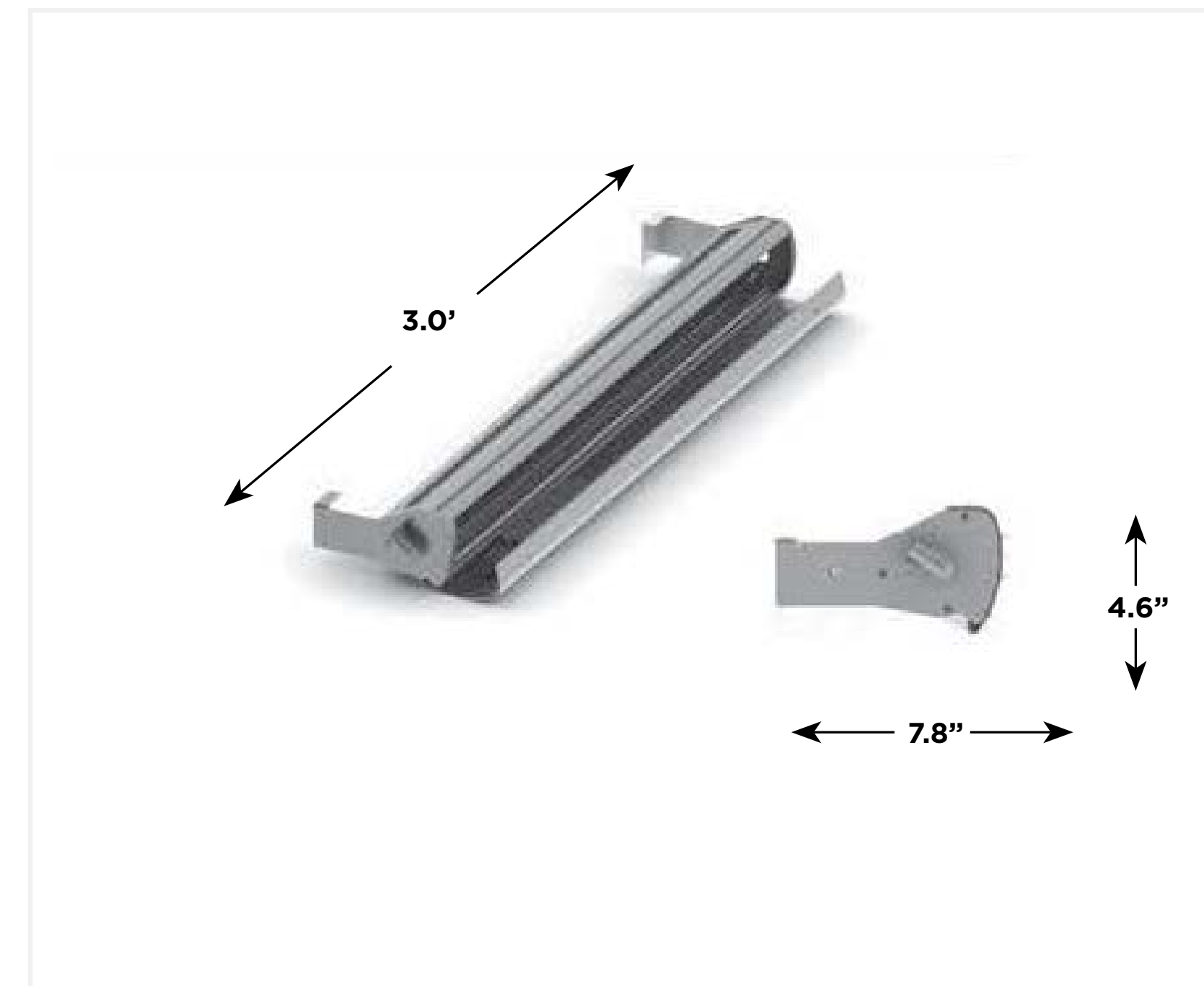
CREE  
MODEL NO. CPY250-A-DM-F-B-UL-WH  
122 WATTS



Flat Lens

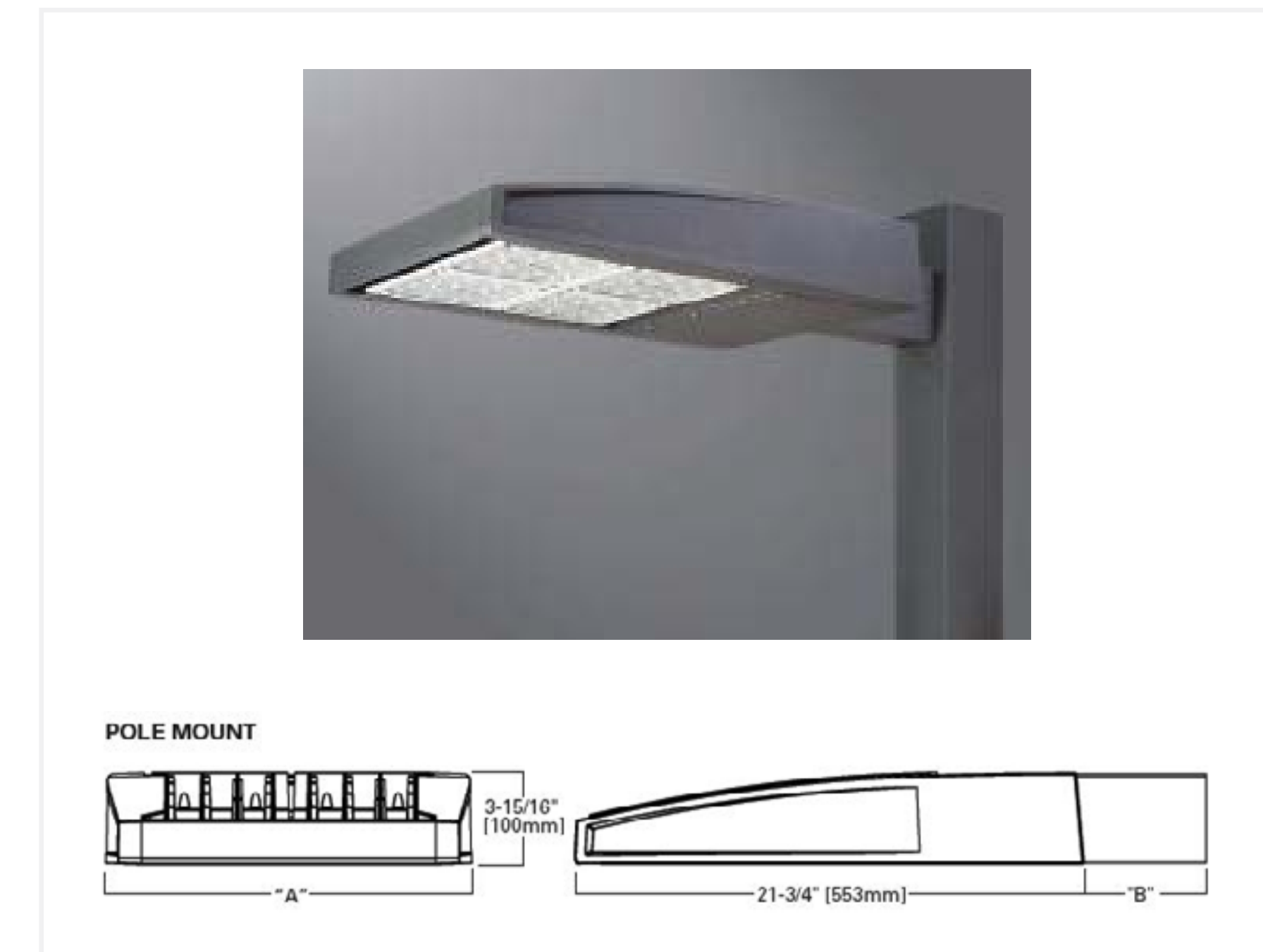
**CREE LINEAR FACADE LIGHTER**

CREE  
MODEL NO. LFL-3-DO-UL-WH  
22 WATTS



**GLEON - GALLEON LED  
EATON COOPER LIGHTING**

POLE MOUNT LED



1

**UNDER CANOPY LIGHTING**

CPY250 WITH FLAT LENS

2

**SIGN LIGHTING**

LFL-3-DO-UL-WH

3

**SITE LIGHTING**















GLEON - GALLEON LED

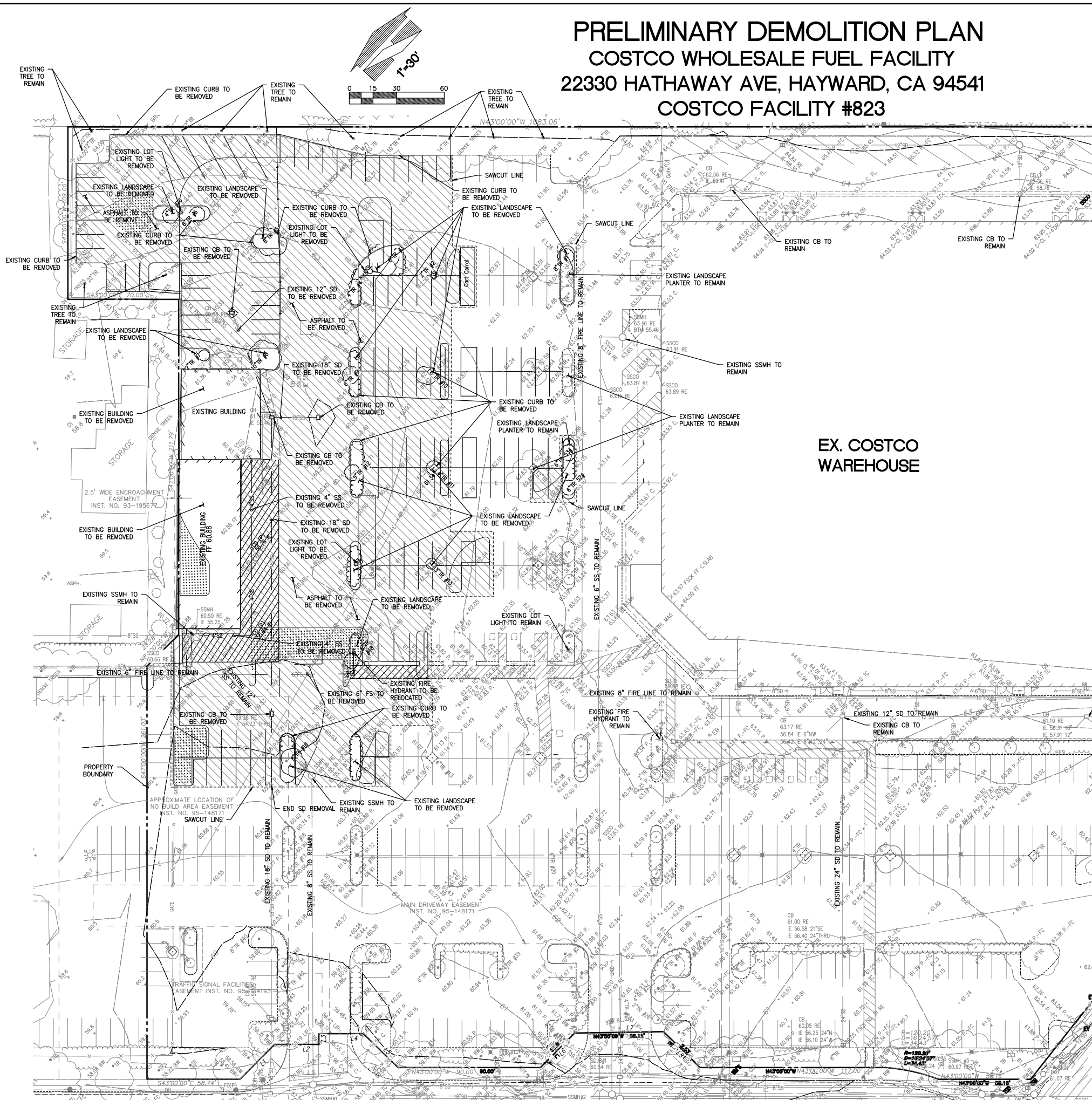




# PRELIMINARY DEMOLITION PLAN COSTCO WHOLESALE FUEL FACILITY 22330 HATHAWAY AVE, HAYWARD, CA 94541 COSTCO FACILITY #823

## LEGEND

-  EXISTING ASPHALT
-  EXISTING CONCRETE
-  ASPHALT TO BE REMOVED
-  EXISTING CURB
-  EXISTING CANOPY DRIPLINE
-  EXISTING EASEMENT
-  EXISTING EDGE OF PAVEMENT
-  EXISTING STORM DRAIN
-  EXISTING UNDERGROUND TELEPHONE LINE
-  EXISTING UNDERGROUND TELEPHONE LINE
-  EXISTING UNDERGROUND POWER
-  EXISTING STORM DRAIN CATCH BASIN
-  EXISTING STORM CLEANOUT
-  EXISTING SPOT ELEVATION

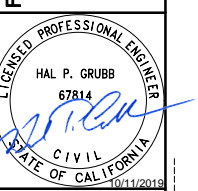


EX. COSTCO WAREHOUSE

Revision	Date	By	Appr.	Description	
1	12/15/19	TR	MESP	CRS	OIL/WATER SEPARATOR REQUEST

**Title:**  
 PRELIMINARY DEMOLITION PLAN  
 22330 HATHAWAY AVE.  
 HAYWARD, CA 94541  
 COSTCO FUEL FACILITY #823

**For:**  
**COSTCO GASOLINE**  
 COSTCO WHOLESALE  
 999 LAKE DRIVE  
 ISSAQUAH, WA 98027



Scale:  
 Horizontal 1"=30'  
 Vertical 1"=12'

Designed: TR  
 Drawn: TR  
 Checked: MESP  
 Approved: JBL  
 Date: 6/5/18

18215 72ND AVENUE SOUTH  
 KENT, WA 98032  
 (425)251-6222  
 (425)251-8782 FAX  
 CIVIL ENGINEERING, LAND PLANNING,  
 SURVEYING, ENVIRONMENTAL SERVICES



Job Number: 6636  
 Sheet: 2 of 6

POTENTIAL UTILITY CONFLICT. CONTRACTOR SHALL FIELD VERIFY ALL EXISTING AND NEW UTILITIES PRIOR TO CONSTRUCTION. SEE UTILITY CONFLICT NOTE. THE EXISTING WATER, STORM, AND SANITARY SEWER SERVICE SHOWN IS APPROXIMATE, BASED ON FIELD SURVEYS AND "AS-BUILT" RECORDS. THE GENERAL CONTRACTOR SHALL "POTHOLE" THE EXISTING UTILITIES TO VERIFY THE DIAMETER AND LOCATION (INCL. ELEVATIONS) PRIOR TO CONSTRUCTION. ANY DISCREPANCIES IN THE LOCATION OF THE EXISTING PIPE OR INCOMPATIBILITY OF THE DESIGN SHALL BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE OWNERS REPRESENTATIVE, AND BARGHAUSEN CONSULTING ENGINEERS (425-251-6222).

THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING THE LOCATION, DIMENSION, AND DEPTH OF ALL EXISTING UTILITIES WHETHER SHOWN ON THESE PLANS OR NOT BY POT-HOLING THE UTILITIES AND SURVEYING THE HORIZONTAL AND VERTICAL LOCATION PRIOR TO CONSTRUCTION. THIS SHALL INCLUDE CALLING UTILITY LOCATE @ 1-800-227-2600 AND THEN POT-HOLING 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. CONSULTING ENGINEERS, INC. TO RESOLVE ALL PROBLEMS PRIOR TO PROCEEDING WITH

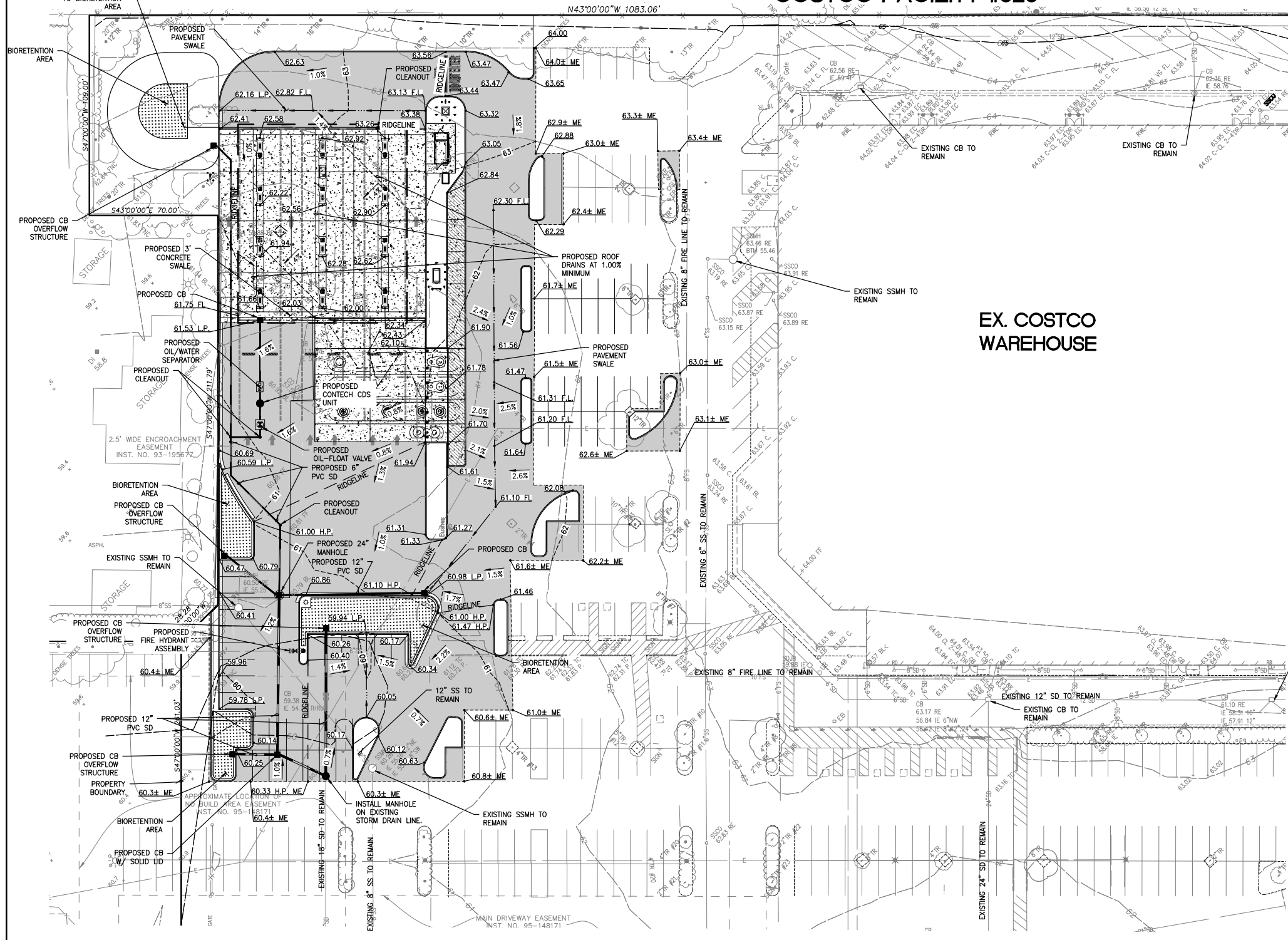
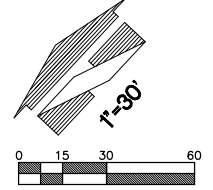


# PRELIMINARY GRADING AND UTILITY PLAN

## COSTCO WHOLESALE FUEL FACILITY

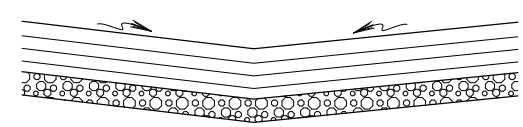
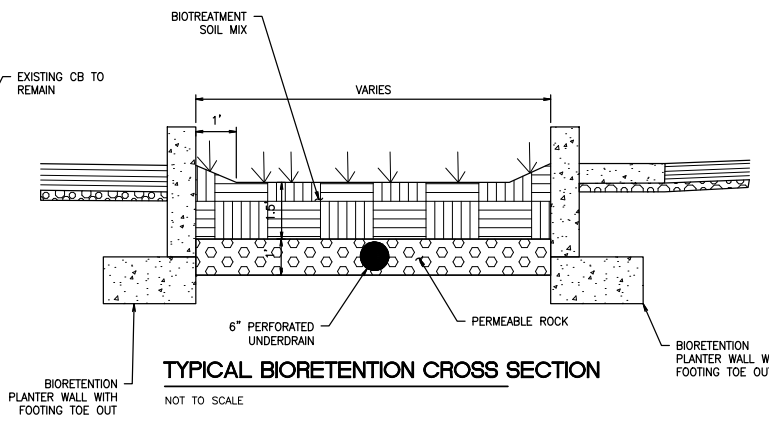
### 22330 HATHAWAY AVE, HAYWARD, CA 94541

### COSTCO FACILITY #823



#### LEGEND

- PROPOSED ASPHALT
- PROPOSED CONCRETE
- SLURRY SEAL
- PROPOSED CURB
- SAWCUT LINE
- PROPOSED PVC (STORM)
- PROPOSED CANOPY DRIPLINE
- PROPOSED PERFORATED PVC
- PROPOSED INLET
- PROPOSED CLEANOUT
- FLOW PATH
- PROPOSED SPOT GRADE
- PROPOSED GRADING SLOPE
- MATCH EXISTING
- EXISTING ASPHALT
- EXISTING CONCRETE
- EXISTING CURB
- EXISTING CANOPY DRIPLINE
- EXISTING EASEMENT
- EXISTING EDGE OF PAVEMENT
- EXISTING STORM DRAIN
- EXISTING WATER LINE
- EXISTING UNDERGROUND TELEPHONE LINE
- EXISTING UNDERGROUND POWER
- EXISTING STORM DRAIN CATCH BASIN
- EXISTING STORM CLEANOUT
- EXISTING SPOT ELEVATION



HYDRANT NUMBER	LOCATION	PRESSURE - PSI			DISCHARGE - GPM		
		STATIC	RESIDUAL	PITOT	ORIFICE	OBSERVED	20 PSI CALC
3529-03	22330 HATHAWAY AVENUE	100	92	X	2.5	1491.5	5171.2
3629-01	22330 HATHAWAY AVENUE	X	X	79	X	X	X

**Title:**  
 PRELIMINARY GRADING AND UTILITY PLAN  
 22330 HATHAWAY AVE.  
 HAYWARD, CA 94541  
 COSTCO FUEL FACILITY #823

**For:**  
**COSTCO GASOLINE**  
 COSTCO WHOLESALE  
 999 LAKE DRIVE  
 ISSAQUAH, WA 98027

**LICENSED PROFESSIONAL ENGINEER**  
 HAL P. GRUBB  
 67814  
 CIVIL  
 STATE OF CALIFORNIA

Scale: Horizontal 1"=30'  
 Vertical Varies  
 Designed: JTR  
 Drawn: JTR  
 Checked: MESP  
 Approved: JBL  
 Date: 6/5/18

18215 72ND AVENUE SOUTH  
 KENT, WA 98032  
 (425)251-6222  
 (425)251-8782 FAX  
 CIVIL ENGINEERING, LAND PLANNING,  
 SURVEYING, ENVIRONMENTAL SERVICES

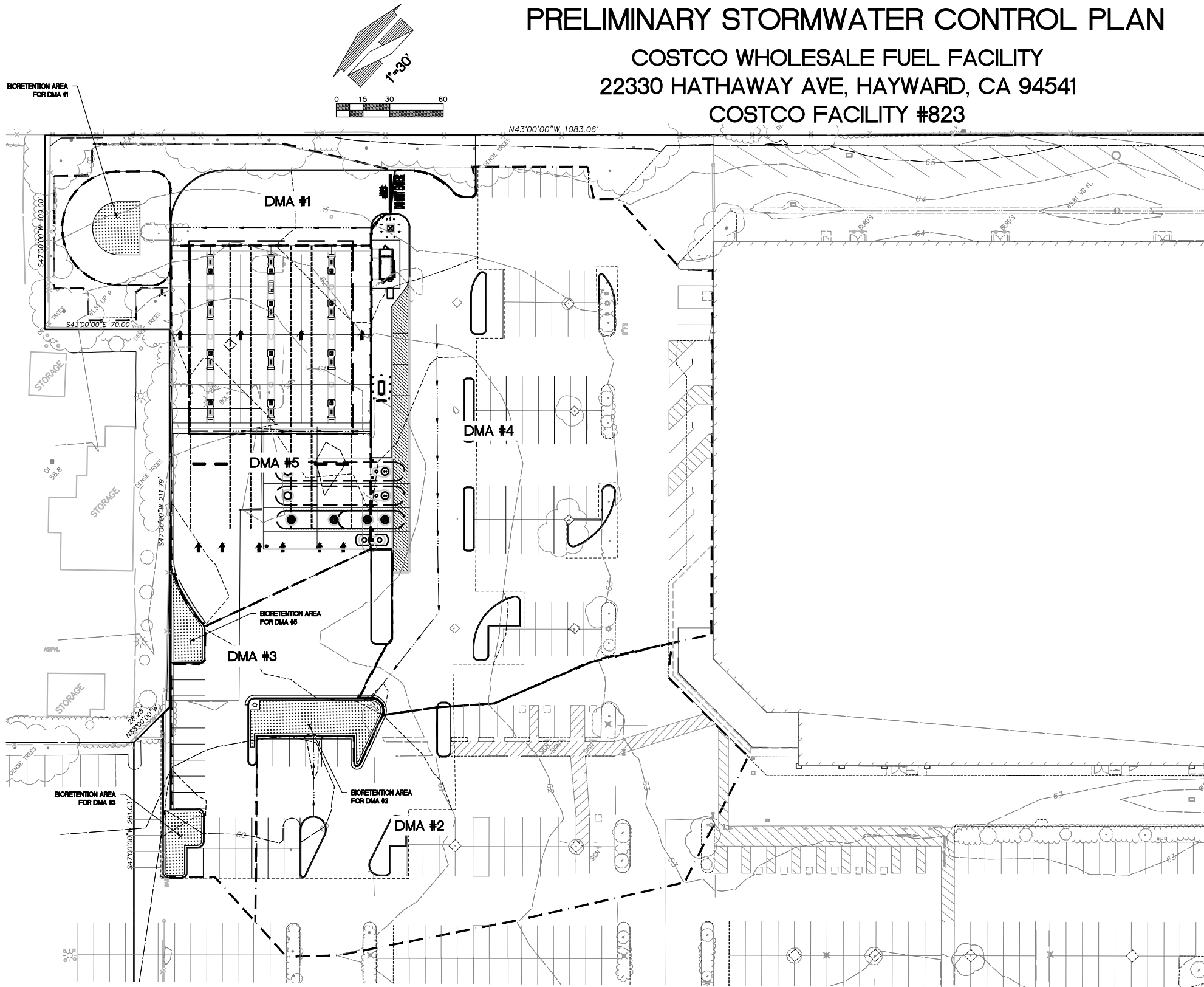


Job Number: 6636  
 Sheet: 3 of 6

File: PA\06000a\6636-Prelim Plans\mesp.dwg Date: Times3/19/2019 4:03 PM Scale: 0.009988  
 TRALPH Xref:

# PRELIMINARY STORMWATER CONTROL PLAN

COSTCO WHOLESALE FUEL FACILITY  
22330 HATHAWAY AVE, HAYWARD, CA 94541  
COSTCO FACILITY #823



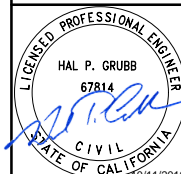
## LEGEND

- PROPOSED ASPHALT
- PROPOSED CONCRETE
- SLURRY SEAL
- PROPOSED CURB
- SAWCUT LINE
- PROPOSED PVC (STORM)
- PROPOSED CANOPY DRIPLINE
- PROPOSED PERFORATED PVC
- PROPOSED INLET
- PROPOSED CLEANOUT
- FLOW PATH
- PROPOSED SPOT GRADE
- PROPOSED GRADING SLOPE
- MATCH EXISTING
- EXISTING ASPHALT
- EXISTING CONCRETE
- EXISTING CURB
- EXISTING CANOPY DRIPLINE
- EXISTING EASEMENT
- EXISTING EDGE OF PAVEMENT
- EXISTING STORM DRAIN
- EXISTING WATER LINE
- EXISTING UNDERGROUND TELEPHONE LINE
- EXISTING UNDERGROUND POWER
- EXISTING STORM DRAIN CATCH BASIN
- EXISTING STORM CLEANOUT
- EXISTING SPOT ELEVATION

No.	Date	By	Check	Appr.	Request
1	12/15/19	TR	MESP	CRS	OIL/WATER SEPARATOR REQUEST

**Title:**  
PRELIMINARY STORMWATER CONTROL PLAN  
22330 HATHAWAY AVE.  
HAYWARD, CA 94541  
COSTCO FUEL FACILITY #823

**For:**  
**COSTCO GASOLINE**  
COSTCO WHOLESALE  
999 LAKE DRIVE  
ISSAQUAH, WA 98027



Scale:	Horizontal	Vertical
	1"=30'	1"=30'
Designed	TR	TR
Drawn	TR	TR
Checked	MESP	MESP
Approved	CRS	CRS
Date	6/5/18	6/5/18

18215 72ND AVENUE SOUTH  
KENT, WA 98032  
(425)251-6222  
(425)251-8782 FAX  
CIVIL ENGINEERING, LAND PLANNING,  
SURVEYING, ENVIRONMENTAL SERVICES



Job Number  
**6636**  
Sheet  
**4** of **6**

STORMWATER TREATMENT MEASURES SUMMARY TABLE

DMA AREA	TREATMENT CONTROL MEASURES	TYPES OF IMPERVIOUS AREA	TOTAL AREA (SF)	PERVIOUS AREA (SF)	IMPERVIOUS AREA (SF)	EFFECTIVE IMPERVIOUS AREA (SF)	EFFECTIVE PERVIOUS AREA (SF)	TREATMENT AREA REQUIRED (SF)	TREATMENT AREA PROVIDED (SF)	DEPTH OF PONDING (INCHES)	TREATMENT TYPE	SIZING METHOD
1	BIORETENTION	ASPHALT PAVEMENT/CANOPY	19208 (9,936 CANOPY)	4408	14800	14800	N/A	636	700	6	BIORETENTION	FLOW BASED (4% METHOD)
2	BIORETENTION	ASPHALT PAVEMENT	34792	1576	33216	33216	N/A	1344	1383	6	BIORETENTION	FLOW BASED (4% METHOD)
3	BIORETENTION	ASPHALT PAVEMENT	11764	566	11198	11198	N/A	453	574	6	BIORETENTION	FLOW BASED (4% METHOD)
4	NO TREATMENT	ASPHALT PAVEMENT	51002	2933	48069	N/A	N/A	N/A	N/A	N/A	N/A	N/A
5	BIORETENTION	CONCRETE/ASPHALT PAVEMENT	11143	0	11143	11143	N/A	445	518	6	BIORETENTION	FLOW BASED (4% METHOD)

## ALTERNATIVE COMPLIANCE NARRATIVE

TREATMENT OF THE ENTIRE PROJECT AREA IS NOT FEASIBLE BECAUSE THE SITE IS ALREADY DEVELOPED. TREATING THE ENTIRE PROJECT AREA WOULD REQUIRE RE-GRADING THAT WOULD SIGNIFICANTLY INCREASE THE LIMITS OF DISTURBANCE. IN ADDITION, SOME AREAS OF THE PROJECT, SUCH AS THE AREA UNDER THE FUEL CANOPY, ARE HYDRAULICALLY ISOLATED BECAUSE OF INCREASED RISK FOR POLLUTANT CONTAMINATION AND CANNOT BE ROUTED THROUGH BIORETENTION.

IN ORDER TO TREAT THE REQUIRED SQUARE FOOTAGE WITH LID BMPs, THE PROJECT PROPOSES TO TREAT AN EQUIVALENT AREA. MUCH OF DMA #2 DOES NOT FALL WITHIN THE PROJECT SITE, BUT WILL BE TREATED WITH BIORETENTION IN THE PROPOSED CONDITION. WE BELIEVE THIS WOULD BRING THE IMPROVEMENTS INTO COMPLIANCE UNDER THE OFFSITE EQUIVALENT TREATMENT PROVISION DESCRIBED IN CHAPTER 9 OF THE 2016 ALAMEDA TGD.

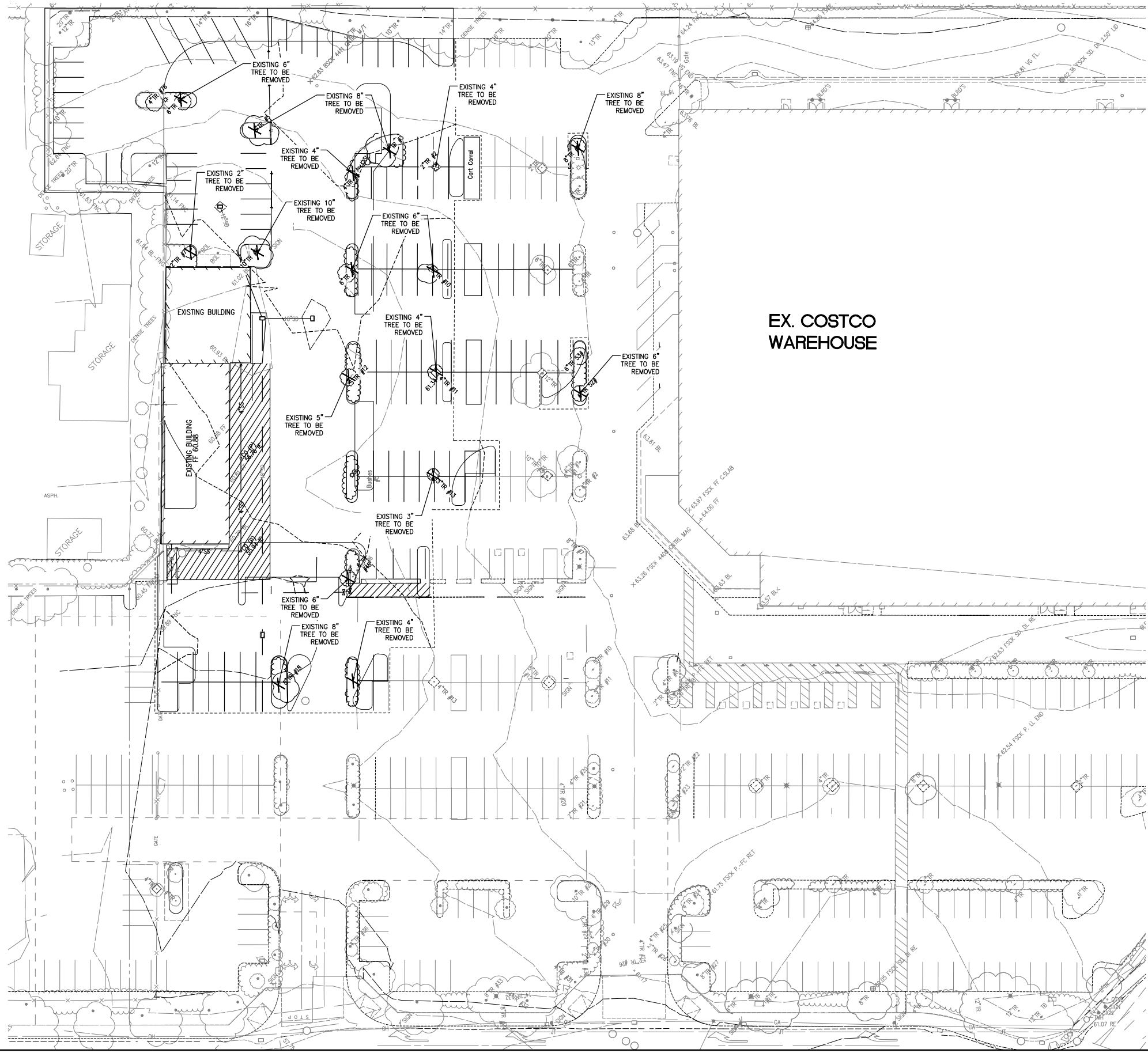
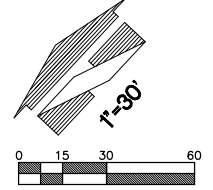


# PRELIMINARY TREE REMOVAL PLAN

## COSTCO WHOLESALE FUEL FACILITY

### 22330 HATHAWAY AVE, HAYWARD, CA 94541

### COSTCO FACILITY #823



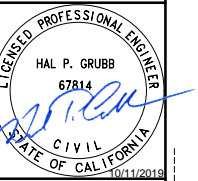
#### LEGEND

- EXISTING ASPHALT
- EXISTING CONCRETE
- EXISTING CURB
- EXISTING CANOPY DRIPLINE
- EXISTING EASEMENT
- EXISTING EDGE OF PAVEMENT
- EXISTING STORM DRAIN
- EXISTING UNDERGROUND TELEPHONE LINE
- EXISTING UNDERGROUND TELEPHONE LINE
- EXISTING UNDERGROUND POWER
- EXISTING STORM DRAIN CATCH BASIN
- EXISTING STORM CLEANOUT
- EXISTING SPOT ELEVATION
- EXISTING TREE TO BE REMOVED

No.	1	13/15/19	TR	MESP	CRJ	OIL/WATER SEPARATOR REQUEST	Revision
Date	By	Clk.	Appr.				

**Title:**  
 PRELIMINARY TREE REMOVAL PLAN  
 22330 HATHAWAY AVE.  
 HAYWARD, CA 94541  
 COSTCO FUEL FACILITY #823

**For:**  
**COSTCO GASOLINE**  
 COSTCO WHOLESALE  
 999 LAKE DRIVE  
 ISSAQUAH, WA 98027



Scale:	Horizontal	Vertical
Designed	TR	
Drawn	TR	
Checked	MESP	
Approved	CRJ	
Date	6/5/18	

18215 72ND AVENUE SOUTH  
 KENT, WA 98032  
 (425)251-6222  
 (425)251-8782 FAX  
 CIVIL ENGINEERING, LAND PLANNING,  
 SURVEYING, ENVIRONMENTAL SERVICES



Job Number	6636
Sheet	5 of 6

**CAUTION:**  
 POTENTIAL UTILITY CONFLICT. CONTRACTOR SHALL FIELD VERIFY ALL EXISTING AND NEW UTILITIES PRIOR TO CONSTRUCTION. SEE UTILITY CONFLICT NOTE. THE EXISTING WATER, STORM, AND SANITARY SEWER SERVICE SHOWN IS APPROXIMATE, BASED ON FIELD SURVEYS AND "AS-BUILT" RECORDS. THE GENERAL CONTRACTOR SHALL "POTHOLE" THE EXISTING UTILITIES TO VERIFY THE DIAMETER AND LOCATION (INCL. ELEVATIONS) PRIOR TO CONSTRUCTION. ANY DISCREPANCIES IN THE LOCATION OF THE EXISTING PIPE OR INCOMPATIBILITY OF THE DESIGN SHALL BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE OWNERS REPRESENTATIVE, AND BARGHAUSEN CONSULTING ENGINEERS (425-251-6222).

**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.

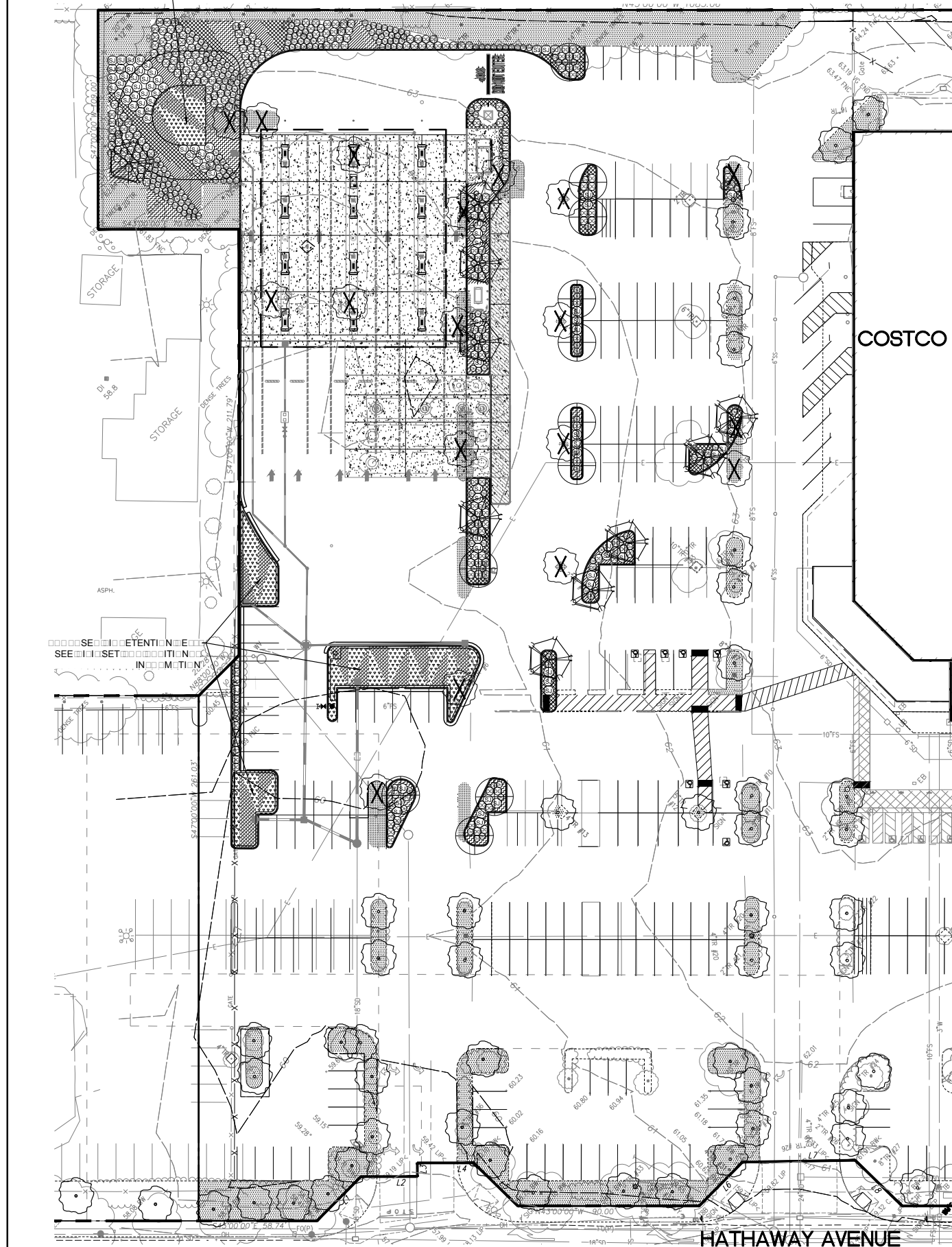
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# PRELIMINARY LANDSCAPE PLAN

## COSTCO WHOLESALE FUEL FACILITY

### 22330 HATHAWAY AVE, HAYWARD, CA 94541

### COSTCO FACILITY #823



#### LEGEND

- EXISTING LANDSCAPE AND IRRIGATION TO BE RETAINED. SOME MODIFICATIONS TO THE EXISTING IRRIGATION MAY BE NECESSARY. RETURN AREAS TO PRE-CONSTRUCTION CONDITION
- EXISTING LANDSCAPE AND IRRIGATION TO BE REMOVED. CAP AND REMOVE PORTIONS OF EXISTING IRRIGATION NO LONGER NEEDED. RE-ROUTE PORTIONS OF EXISTING IRRIGATION SYSTEM AS NEEDED
- 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

#### PLANT SCHEDULE

SYMBOL	BOTANICAL / COMMON NAMES	SIZE	SPACING	QTY.	WUCOLS IV ZONE 1	REMARKS	HT. AT TIME OF INSTALL	MATURE HT. & WIDTH
<b>TREES:</b>								
	PISTACIA CHINENSIS / CHINESE PISTACHE	36" BOX	AS SHOWN	10	LOW	STAKE & GUY ONE GROWING SEASON; NURSERY GROWN, BRANCHED AT 5'	10'-12' HT.	30'-35' HT. x 25'-35' WIDTH
	OLEA EUROPAEA 'WILSONI' / FRUITLESS OLIVE TREE	36" BOX	AS SHOWN	11	LOW	STAKE & GUY ONE GROWING SEASON; NURSERY GROWN, BRANCHED AT 5'	12'-13' HT.	25'-30' HT. x 25'-30' WIDTH
NOTE: FOR DECIDUOUS TREES, AT TIME OF INSTALLATION, BRANCHING HEIGHT TO START AT ABOUT 5' ABOVE FINISH GRADE AND CANOPY TO START AT 7'-8' ABOVE FINISH GRADE								
<b>SHRUBS:</b>								
	MUHLBERGIA RIGENS / DEER GRASS	1 GAL	AS SHOWN	269	LOW	FULL AND BUSHY		4' HT. X 4' W.
	DICLIPTERA SUBERECTA / HUMMINGBIRD PLANT	1 GAL	AS SHOWN	229	LOW	FULL AND BUSHY		2' HT. X 3' W.
	STRELITZIA JUNCEA / NARROW-LEAF BIRD OF PARADISE	2 GAL	AS SHOWN	86	LOW	FULL AND BUSHY		4' HT. X 5' W.
	ANIGOZANTHOS 'AMBER VELVET' / AMBER VELVET KANGAROO PAW	1 GAL	AS SHOWN	231	LOW	FULL AND BUSHY		3' HT. X 3' W.
<b>GROUNDCOVERS:</b>								
	DYMONDIA MARGARETAE / DYMONDIA	1 GAL	18" O.C.	AS REQ'D	LOW	HOLD BACK 16" FROM BORDERS, TREES, AND SHRUBS		
	APTEMIA 'RED APPLE' / BABY SUN ROSE	1 GAL	18" O.C.	AS REQ'D	LOW	HOLD BACK 16" FROM BORDERS, TREES, AND SHRUBS		
	SENECIO SERPENS / BLUE CHALK STICK	1 GAL	18" O.C.	AS REQ'D	LOW	HOLD BACK 16" FROM BORDERS, TREES, AND SHRUBS		
	CHONDROPETALUM TECTORUM / DWARF CAPE RUSH	1 GAL	18" O.C.	AS REQ'D	LOW	HOLD BACK 16" FROM BORDERS, TREES, AND SHRUBS		
	CAREX BARBARAE / BASKET SEDGE	1 GAL	18" O.C.	AS REQ'D	LOW	HOLD BACK 16" FROM BORDERS, TREES, AND SHRUBS		

#### TREE MITIGATION SUMMARY CHART

##### TREES TO BE REMOVED

NUMBER	BOTANICAL NAME	COMMON NAME	VALUE
#1	PYRUS CALLERYANA 'BRADFORD'	ARISTOCRAT PEAR	\$ 980.00
#2	ASH UNKNOWN STOCK		\$ 310.00
#3	FRAXINUS OXYCARPA 'RAYWOOD'	RAYWOOD ASH	\$ 730.00
#4	FRAXINUS OXYCARPA 'RAYWOOD'	RAYWOOD ASH	\$ 660.00
#5	FRAXINUS OXYCARPA 'RAYWOOD'	RAYWOOD ASH	\$ 730.00
#6	FRAXINUS OXYCARPA 'RAYWOOD'	RAYWOOD ASH	\$ 730.00
#7	FRAXINUS OXYCARPA 'RAYWOOD'	RAYWOOD ASH	\$ 510.00
#8	FRAXINUS OXYCARPA 'RAYWOOD'	RAYWOOD ASH	\$ 930.00
#9	FRAXINUS OXYCARPA 'RAYWOOD'	RAYWOOD ASH	\$ 990.00
#10	FRAXINUS OXYCARPA 'RAYWOOD'	RAYWOOD ASH	\$ 990.00
#11	FRAXINUS OXYCARPA 'RAYWOOD'	RAYWOOD ASH	\$ 760.00
#12	FRAXINUS OXYCARPA 'RAYWOOD'	RAYWOOD ASH	\$ 780.00
#13	FRAXINUS OXYCARPA 'RAYWOOD'	RAYWOOD ASH	\$ 670.00
#18	FRAXINUS OXYCARPA 'RAYWOOD'	RAYWOOD ASH	\$ 770.00
#48	FRAXINUS OXYCARPA 'RAYWOOD'	RAYWOOD ASH	\$ 1380.00
#52	PYRUS CALLERYANA 'BRADFORD'	ARISTOCRAT PEAR	\$ 1,150.00
#53	PYRUS CALLERYANA 'BRADFORD'	ARISTOCRAT PEAR	\$ 1,150.00

TOTAL \$ 14,220.00

##### TREES TO BE PLANTED

BOTANICAL NAME	COMMON NAME	SIZE	VALUE
PISTACIA CHINENSIS	CHINESE PISTACHE	36" BOX	\$ 742.00
PISTACIA CHINENSIS	CHINESE PISTACHE	36" BOX	\$ 742.00
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PISTACIA CHINENSIS	CHINESE PISTACHE	36" BOX	\$ 742.00
OLEA EUROPAEA 'WILSONI'	FRUITLESS OLIVE TREE	36" BOX	\$ 742.00
OLEA EUROPAEA 'WILSONI'	FRUITLESS OLIVE TREE	36" BOX	\$ 742.00
OLEA EUROPAEA 'WILSONI'	FRUITLESS OLIVE TREE	36" BOX	\$ 742.00
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OLEA EUROPAEA 'WILSONI'	FRUITLESS OLIVE TREE	36" BOX	\$ 742.00
OLEA EUROPAEA 'WILSONI'	FRUITLESS OLIVE TREE	36" BOX	\$ 742.00

BOTANICAL NAME	COMMON NAME	SIZE	VALUE
OLEA EUROPAEA 'WILSONI'	FRUITLESS OLIVE TREE	36" BOX	\$ 742.00
OLEA EUROPAEA 'WILSONI'	FRUITLESS OLIVE TREE	36" BOX	\$ 742.00
OLEA EUROPAEA 'WILSONI'	FRUITLESS OLIVE TREE	36" BOX	\$ 742.00
OLEA EUROPAEA 'WILSONI'	FRUITLESS OLIVE TREE	36" BOX	\$ 742.00
OLEA EUROPAEA 'WILSONI'	FRUITLESS OLIVE TREE	36" BOX	\$ 742.00

TOTAL \$ 15,380.00

PRELIMINARY LANDSCAPE PLAN  
22330 HATHAWAY AVE.  
HAYWARD, CA 94541  
COSTCO FUEL FACILITY #823

**COSTCO GASOLINE**  
COSTCO WHOLESALE  
999 LAKE DRIVE  
ISSAQUAH, WA 98027



Scale: Horizontal 1"=20', Vertical 1"=20'

Designed: BS, Drawn: BS, Checked: BS, Approved: JMV, Date: 4/28/17

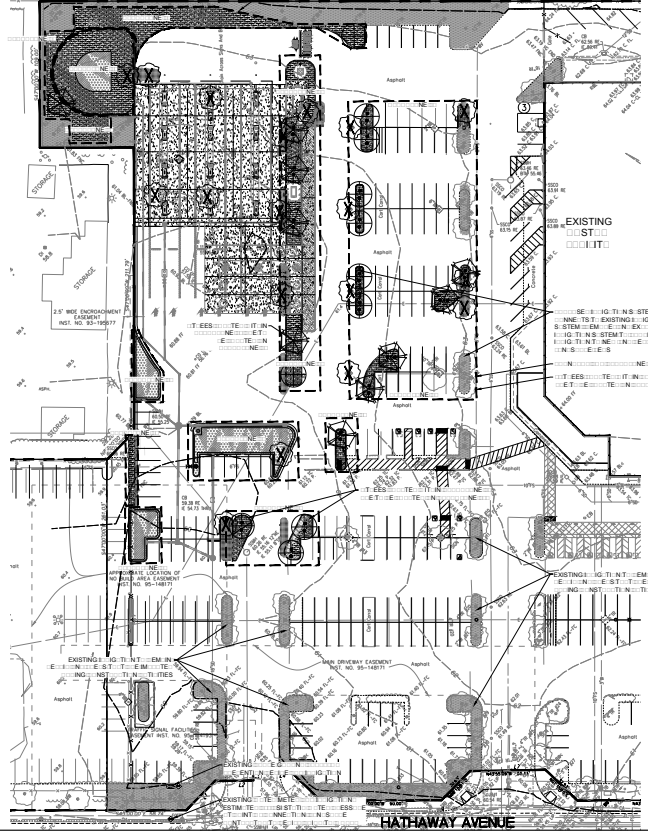
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**PRELIMINARY IRRIGATION PLAN**  
**COSTCO WHOLESALE FUEL FACILITY**  
 22330 HATHAWAY AVE, HAYWARD, CA 94541  
 COSTCO FACILITY #823



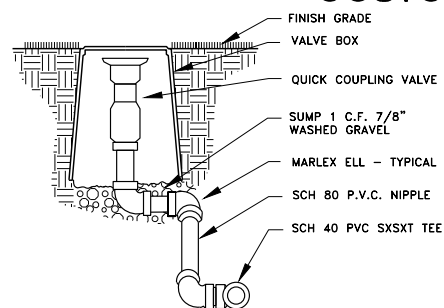
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3	1" PIPING	1000	FT	1000
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20	54" PIPING	1000	FT	1000
21	60" PIPING	1000	FT	1000
22	72" PIPING	1000	FT	1000
23	84" PIPING	1000	FT	1000
24	96" PIPING	1000	FT	1000
25	108" PIPING	1000	FT	1000
26	120" PIPING	1000	FT	1000
27	144" PIPING	1000	FT	1000
28	168" PIPING	1000	FT	1000
29	192" PIPING	1000	FT	1000
30	216" PIPING	1000	FT	1000
31	240" PIPING	1000	FT	1000
32	270" PIPING	1000	FT	1000
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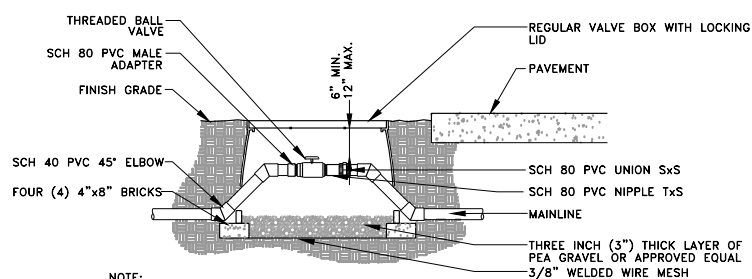
LANDSCAPE IRRIGATION NOTES

- GENERAL CONTRACTOR AND LANDSCAPE CONTRACTOR TO COORDINATE:
  - VERIFICATION OF STATIC WATER PRESSURE AT POINT-OF-CONNECTION (P.O.C.) CONTRACTOR SHALL NOTIFY OWNER AND BARGHAUSEN CONSULTING ENGINEERS, INC. OF ANY VARIATION IN STATIC PRESSURE OVER 5 PSI GREATER/LESS THAN DESIGN PRESSURE.
  - INSTALLATION OF SLEEVING.
- LANDSCAPE CONTRACTOR TO TEST AVAILABLE WATER PRESSURE AND PROVIDE WRITTEN TEST RESULTS TO LANDSCAPE ARCHITECT PRIOR TO BEGINNING ANY WORK.
- ALL WORK PER LOCAL CODE. INSTALLATION PER MANUFACTURER'S WRITTEN SPECIFICATIONS.
- ALL VALVES TO BE PLACED IN "CARSON" GRADE LEVEL BOXES WITH BOLT-LOCK LIDS (OR APPROVED EQUIVALENT). SET BOXES 2 INCHES HIGHER THAN FINISH GRADE IN MULCH AREAS AND FLUSH WITH FINISH GRADE IN LAWN AREAS. JUMBO BOX FOR CHECK VALVE, 10" ROUND BOX FOR GATE/QUICK COUPLER/WIRE SPLICES, AND 12" STANDARD FOR CONTROL VALVES. PROVIDE BOX EXTENSIONS AS REQUIRED.
- MAINLINE PIPE TO BE BURIED 18 INCHES AND LATERALS 12 INCHES BELOW FINISH GRADE. NO ROCK OR DEBRIS TO BE BACKFILLED OVER PIPE.
- IRRIGATION DESIGN SHOWN DIAGRAMMATICALLY FOR PLAN CLARITY. PRIOR TO INSTALLATION OF DRIP IRRIGATION, CONTRACTOR IS REQUIRED TO CONTACT LOCAL NETAJAM REPRESENTATIVE FOR TRAINING ON THE INSTALLATION AND RUN TIME MANAGEMENT OF DRIP SYSTEM AND NOTIFY LANDSCAPE ARCHITECT THAT FACTORY TRAINING HAS OCCURRED PRIOR TO INSTALLATION. CONTACT CALIFORNIA NETAJAM LANDSCAPE & TURF REPRESENTATIVE (888)638-2346. PLEASE GIVE REPRESENTATIVE A MINIMUM TWO WEEK NOTICE.
- DRIP TUBING SHALL BE INSTALLED FOUR (4) INCHES BELOW FINAL GRADE. CONTRACTOR TO RUN EACH ZONE BEFORE COVERING TUBING, TO VERIFY THAT THERE ARE NO CONNECTION LEAKS. TREES TO BE INSTALLED ON A SEPARATE ZONE. SEE IRRIGATION DETAILS FOR ADDITIONAL INFORMATION.
- PROVIDE OWNER WITH TWO (2) SETS "AS-BUILT" DRAWINGS AND (3) SETS OF OPERATOR'S MANUALS UPON COMPLETION. INSTRUCT OWNER AS TO PROPER OPERATION AND WINTERIZATION OF THE IRRIGATION SYSTEM.
- FAMILIARIZE OWNERS FACILITY OPERATOR WITH IRRIGATION SYSTEM FUNCTION, CONTROLLER PROGRAMMING, SYSTEM OPERATION AND MAINTENANCE REQUIREMENTS.
- ALL CONTROL WIRE SPLICES TO BE MADE AT VALVE BOXES WITH WATER TIGHT ELECTRICAL SPLICES, 3M, SCOTT'S LOCK SEAL TACK 3576-78, OR EQUIVALENT.
- EACH VALVE BOX TO CONTAIN A MINIMUM OF TWO (2) SPARE ORANGE CONTROL WIRES JACKETED WIRE. ROUTE SPARE WIRES FROM THE CONTROLLER TO THE LAST VALVE OF EACH MAINLINE BRANCH. COMMON WIRE TO BE WHITE. SINGLE STRAND WIRE TO BE A MINIMUM OF 14 GAUGE.
- ALL ELECTRICAL EQUIPMENT TO BE U.L. TESTED AND APPROVED, AND BEAR THE U.L. LABEL.
- CROSS CONNECTION PROTECTION INSPECTION REQUIRED. THE BACKFLOW DEVICE TO BE TESTED UPON THE ORIGINAL INSTALLATION. THE TESTING TO BE PERFORMED BY A PERSON HOLDING A CURRENT CERTIFICATE AS A BACKFLOW TESTER. THE TEST REPORT TO BE SUBMITTED TO THE LOCAL WATER DISTRICT, OR PURVEYOR, AND OWNER WITH A COPY TO BARGHAUSEN CONSULTING ENGINEERS, INC. CONTRACTOR TO INCLUDE TESTING IN THE SCOPE OF WORK. OWNER IS RESPONSIBLE FOR ANNUAL INSPECTIONS AFTER THE INITIAL INSPECTION.
- CONTRACTOR TO PROVIDE SYSTEM WINTERIZATION/SPRING SERVICE WHEN INSTALLATION HAS BEEN COMPLETED WITHIN 90 DAYS OF NOVEMBER 1 FOR WINTERIZATION, OR MAY 15 FOR SPRING SERVICE. SERVICE TO BE PERFORMED AS NEAR AS PRACTICAL TO THE ABOVE DATES, OR AS FREEZE/PRECIPITATION CONDITIONS DETERMINE SERVICE NEED.
- PROPOSED IRRIGATION SHOWN IN THIS DRAWING SET IS TO CONNECT TO AN EXISTING ESTABLISHED IRRIGATION SYSTEM. LANDSCAPE CONTRACTOR IS TO VERIFY THAT EXISTING SYSTEM, SUCH AS IRRIGATION CONTROLLER AND MAINLINE, HAVE ENOUGH CAPACITY TO HANDLE THE ADDITIONAL COMPONENTS. LANDSCAPE CONTRACTOR TO NOTIFY LANDSCAPE ARCHITECT IF ANY OF THE EXISTING SYSTEM DOES NOT HAVE THE CAPACITY FOR THE PROPOSED ADDITIONS.
- SUBSTITUTION OF IRRIGATION MATERIAL/EQUIPMENT TO BE MADE ONLY UPON WRITTEN APPROVAL OF LANDSCAPE ARCHITECT AND OWNER'S REPRESENTATIVE.
- ALL ZONES TO PASS A MINIMUM DISTRIBUTION UNIFORMITY WATER AUDIT, AS REQUIRED BY THE STATE OF CALIFORNIA'S WATER EFFICIENT LANDSCAPE ORDINANCE, AS ADOPTED BY THE CITY COUNCIL. AN IRRIGATION ASSOCIATION CERTIFIED WATER AUDIT REPORT TO BE PROVIDED TO THE CITY.

PRELIMINARY IRRIGATION NOTES AND DETAILS  
 COSTCO WHOLESALE FUEL FACILITY  
 22330 HATHAWAY AVE, HAYWARD, CA 94541  
 COSTCO FACILITY #823

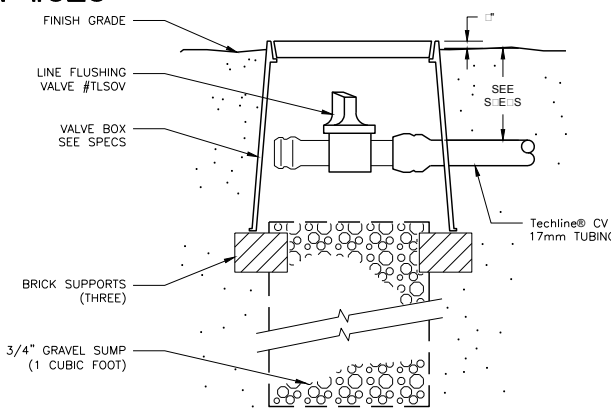


QUICK COUPLING VALVE DETAIL  
 NOT TO SCALE

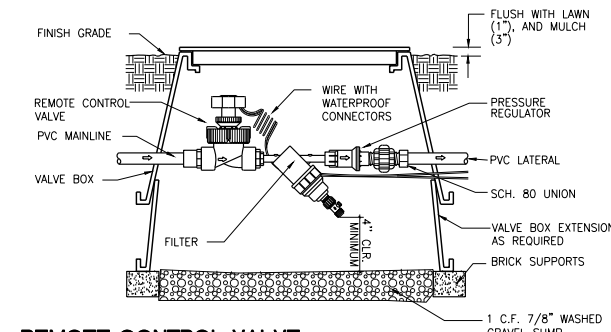


- NOTE:
- LOCATE VALVE BOXES IN PLANTING AREAS.
  - WRAP VALVE BOX WITH A MINIMUM OF 3 MIL THICK PLASTIC AND SECURE IT USING DUCT TAPE OR ELECTRICAL TAPE.
  - ALL THREADED CONNECTIONS TO BE MADE USING TEFLON TAPE.
  - ALL CHANGES IN ELEVATION SHALL BE MADE USING SCH 40 PVC 45° ELBOWS.

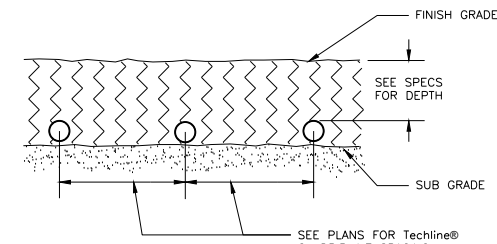
BALL VALVE DETAIL  
 NOT TO SCALE



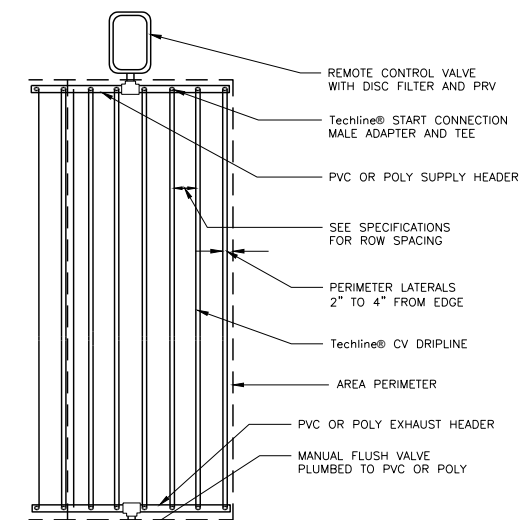
MANUAL LINE FLUSHING VALVE TLISOV PLUMBED TO TUBING  
 NOT TO SCALE



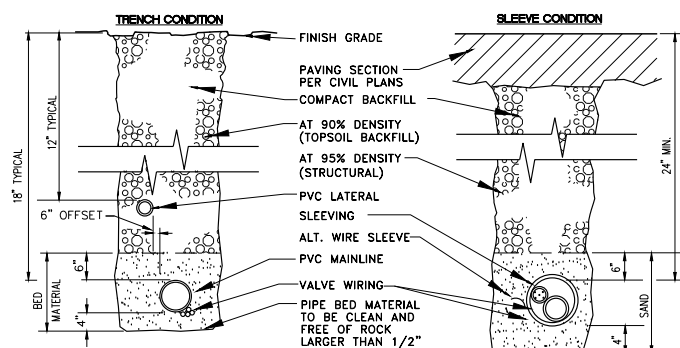
REMOTE CONTROL VALVE, PRESSURE REGULATOR AND FILTER DETAIL  
 NOT TO SCALE



Techline® CV SUBGRADE INSTALLATION  
 NOT TO SCALE

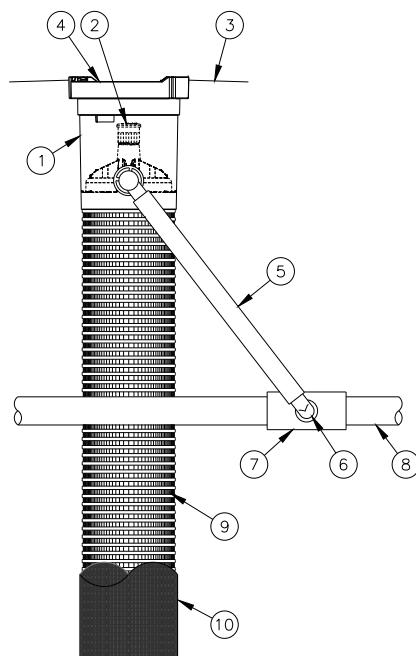


Techline® CV END FEED LAYOUT  
 NOT TO SCALE



- NOTE:
- SLEEVING MATERIAL SHALL BE PVC CLASS 160(SDR-26). DIMENSIONS ARE MIN. CLEARANCES.
  - ALL IRRIGATION SLEEVING TRENCH BACKFILL MATERIAL SHALL BE CLASS "B" OR BETTER (MAX. OF 10% PASSING NO.40 SCREEN) AND BE COMPACTED TO MIN. 95% OPTIMUM DENSITY PER ASTM D-1557-70 (MODIFIED PROCTOR)

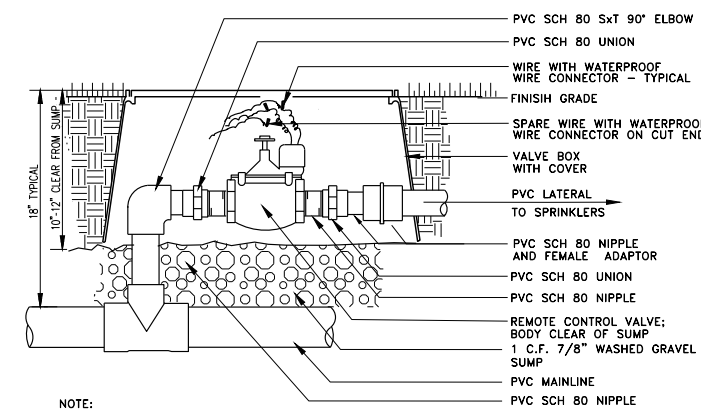
SLEEVE/TRENCHING DETAIL  
 NOT TO SCALE



- NOTES:
- 4" (10,2 CM) GRATE IS ALSO AVAILABLE IN PURPLE (RWS-GRATE-P).
  - INSTALL PRODUCT SO THAT THE GRATE IS EVEN WITH FINISH GRADE OR TOP OF MULCH.
  - OPTIONAL SAND SOCK (RWS-SOCK) IS 34" (86,4 CM) IN LENGTH TO COVER MESH BASKET AREA.
  - WHEN INSTALLING IN EXTREMELY HARD OR CLAY SOILS, ADD 3/4" (1,9 CM) GRAVEL UNDER AND AROUND THE UNIT TO ALLOW FASTER WATER INFILTRATION AND ROOT PENETRATION.
  - ONCE RWS HAS BEEN INSTALLED FILL THE BASKET WITH PEA GRAVEL BEFORE LOCKING LID.

ROOT WATER SYSTEM DETAIL  
 NOT TO SCALE

- ROOT WATERING SYSTEM:  
 RAIN BIRD RWS-B-C-1402 (INCLUDES RETAINER, 36" (91,4 CM) TUBE, 0.5 GPM (1,9 L/M) BUBBLER & INTEGRATED CHECK VALVE, 4" (10,2 CM) GRATE, VERSATILE SWING ASSEMBLY WITH 1/2" (1,3 CM) M NPT INLET)
- BUBBLER: RAIN BIRD 1402 0.5 GPM (1,9 L/M) (INCLUDED)
- FINISH GRADE/TOP OF MULCH
- 4" (10,2 CM) LOCKING GRATE (INCLUDED)
- 12" (30,5 CM) SWING ASSEMBLY (INCLUDED)
- 1/2" (1,3 CM) MALE NPT INLET (INCLUDED)
- PVC SCH 40 TEE OR EL
- PVC OR POLYETHYLENE LATERAL PIPE
- 4" (10,2 CM) WIDE X 36" (91,4 CM) LONG RIGID BASKET WEAVE CANISTER (INCLUDED)
- OPTIONAL SOCK (RWS-SOCK) FOR SANDY SOILS

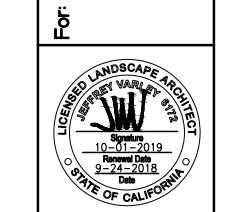


- NOTE:
- ONE VALVE PER BOX. PROVIDE EXTRA COILS (18") OF EACH WIRE IN VALVE BOX. COMPACT SOIL AROUND VALVE BOX.
  - USE TEFLON OR FLOWABLE SEALANT IN ALL THREADED FITTINGS, PER MANUFACTURER'S SPECS.

REMOTE CONTROL VALVE ASSEMBLY  
 NOT TO SCALE

Revision  
 No. Date By Cld. I Apr.  
 Title: PRELIMINARY IRRIGATION NOTES AND DETAILS  
 22330 HATHAWAY AVE.  
 HAYWARD, CA 94541  
 COSTCO FUEL FACILITY #823

For: **COSTCO GASOLINE**  
 COSTCO WHOLESALE  
 999 LAKE DRIVE  
 ISSAQUAH, WA 98027



Scale: Horizontal Vertical 1"=20'  
 Designed: BS  
 Drawn: BS  
 Checked: BS/JM  
 Approved: JM  
 Date: 4/28/17

18215 72ND AVENUE SOUTH  
 KENT, WA 98032  
 (425)251-6222  
 (425)251-8782 FAX  
 CIVIL ENGINEERING, LAND PLANNING,  
 SURVEYING, ENVIRONMENTAL SERVICES



Job Number: 6636  
 Sheet: L4 of 4  
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