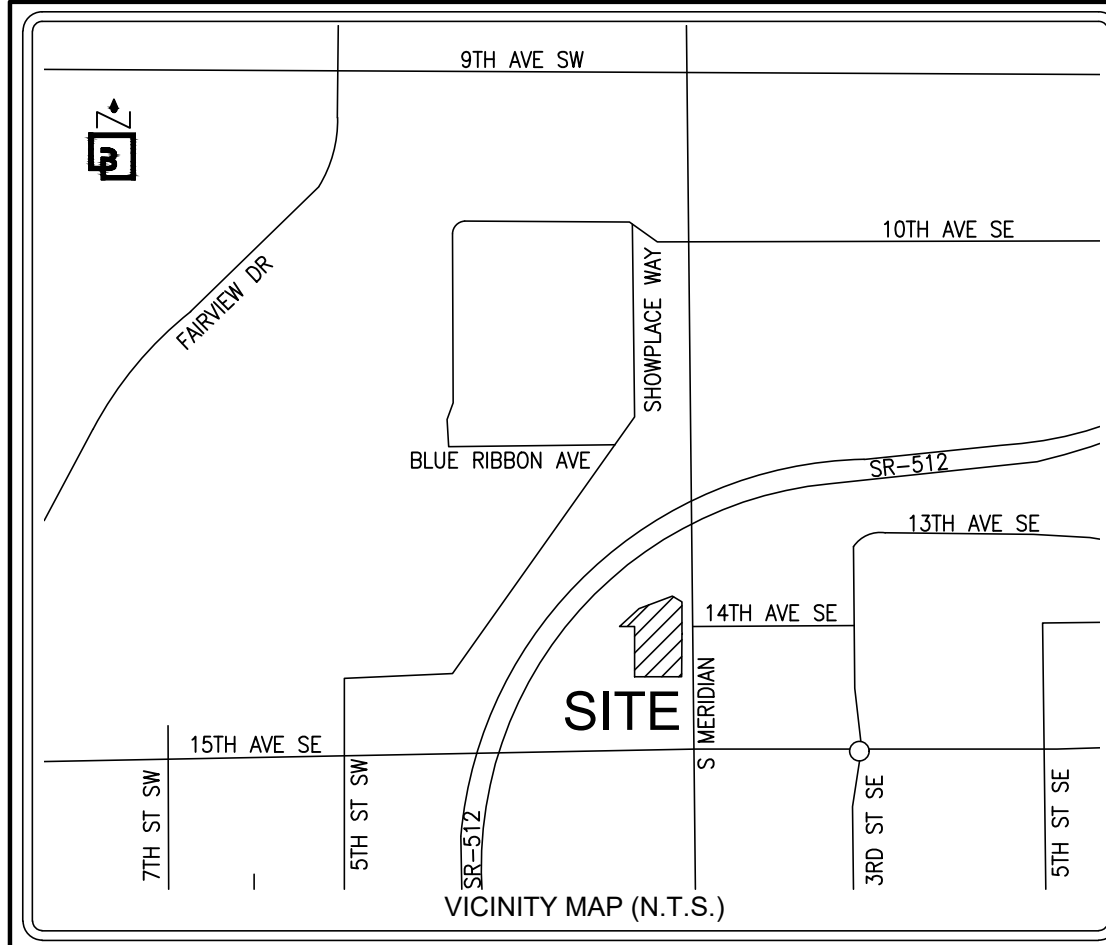




# ALTA/NSPS LAND TITLE SURVEY



## SURVEY INFORMATION:

**HORIZONTAL DATUM – BASIS OF BEARINGS:**  
 NAD 83/2011 WASHINGTON STATE COORDINATE SYSTEM, SOUTH ZONE, ESTABLISHED BY GPS OBSERVATION UTILIZING THE WASHINGTON STATE REFERENCE NETWORK. THE BASIS OF BEARINGS IS N 00°33'46" E BETWEEN THE FOUND 2" BRASS DISK AT THE INTERSECTION OF S. MERIDIAN ST. & 15TH AVE SW AND THE FOUND 2" IRON PIPE W/TACK IN MONUMENT CASE AT THE INTERSECTION OS S. MERIDIAN ST. & THE ON/OFF RAMP TO SR 512.

**VERTICAL DATUM**  
 VERTICAL DATUM FOR THIS SURVEY IS NAVD88 ESTABLISHED FROM WSDOT MONUMENT ID NO. 247. ELEVATION = 80.449' (NAVD88)

**LOT AREA**  
 52,078± SF (1.20± AC)

**ADDRESS**  
 1402 S. MERIDIAN, PUYALLUP, WA 98371

**TAX PARCEL NUMBER**  
 773000-028-1 & 773000-028-8: TITLE PARCEL A  
 773000-003-1 & 773000-002-1: TITLE PARCEL B

### REFERENCE SURVEYS:

- PIERCE COUNTY SHORT PLAT OF MERIDIAN CENTER – AFN 77-315 (1977)
- PLAT OF SOURWINE'S ACRE LOTS – VOL 8 PLATS, PAGE 10 (1905)
- PIERCE COUNTY SHORT PLAT – AFN 8706010381 (1987)
- WSDOT SR 512 96TH ST TO JCT. SR 167, DATED MAY 23, 1968

### DATE OF SURVEY:

THIS SURVEY REPRESENTS VISIBLE PHYSICAL IMPROVEMENT CONDITIONS EXISTING ON MARCH 22, 2022 & JULY 14, 2023. ALL SURVEY CONTROL INDICATED AS "FOUND" WAS RECOVERED FOR THIS PROJECT IN MARCH OF 2022 & JULY OF 2023.

### FLOOD INFORMATION:

FEDERAL EMERGENCY MANAGEMENT AGENCY (FEMA) INFORMATION: FIRM (FLOOD INSURANCE RATE MAP) MAP NO. 53053C0341E PANEL 341 OF 1375, DATED MARCH 7, 2017. THE SUBJECT PROPERTY IS IN ZONE X, AREAS DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOODPLAIN.

### ZONING INFORMATION:

(A ZONING REPORT WAS NOT FURNISHED FOR THIS SITE)

### SURVEYOR'S NOTES:

- ALL DISTANCES SHOWN HEREON ARE GROUND MEASUREMENTS IN U.S. SURVEY FEET.
- THE BOUNDARY CORNERS AND LINES DEPICTED ON THIS MAP REPRESENT DEED LINES ONLY, AND DON'T PURPORT TO SHOW OWNERSHIP LINES THAT MAY OTHERWISE BE DETERMINED BY A COURT OF LAW. NO GUARANTEE OF OWNERSHIP IS EXPRESSED OR IMPLIED.
- UNDERGROUND UTILITIES AND FEATURES DEPICTED HEREON ARE BASED ON FIELD OBSERVATION, MARKINGS, DEVELOPMENT PLANS, AND/OR AVAILABLE RECORD DOCUMENTS ONLY. THE TRUE LOCATION, NATURE AND/OR EXISTENCE OF BELOW GROUND FEATURES, DETECTED OR UNDETECTED, SHOULD BE VERIFIED.
- THE LEGAL DESCRIPTION AND SPECIAL EXCEPTIONS SHOWN HEREON ARE PER THE ABOVE REFERENCED TITLE REPORT UNLESS OTHERWISE NOTED.
- THIS SURVEY HAS DEPICTED ALL VISIBLE OCCUPATIONAL INDICATORS (I.E. FENCE LINES, BUILDINGS, WALLS, ETC. – SEE MAP FOR PARTICULARS) PER W.A.C. 332-130. LINES OF OCCUPATION, AS DEPICTED, MAY INDICATE AREAS OF POTENTIAL CLAIMS OF UNWRITTEN OWNERSHIP. THIS SURVEY HAS ONLY DEPICTED THE RELATIONSHIP BETWEEN LINES OF OCCUPATION AND DEEDED LINES OF RECORD. NO RESOLUTION OF OWNERSHIP BASED ON UNWRITTEN RIGHTS HAS BEEN MADE BY THIS SURVEY OR BY ANY PERSONNEL OF BARGHAUSEN CONSULTING ENGINEERS, INC.
- THIS IS A FIELD TRAVERSE SURVEY. TOPCON GT AND TOPCON HYPER HR GPS AND DELL TABLET DATA COLLECTOR WERE USED TO MEASURE THE ANGULAR AND DISTANCE RELATIONSHIPS BETWEEN THE CONTROLLING MONUMENTATION AS SHOWN. CLOSURE RATIOS OF THE TRAVERSE MET OR EXCEEDED THOSE SPECIFIED IN W.A.C. 332-130-090. ALL INSTRUMENTS AND EQUIPMENT HAVE BEEN MAINTAINED IN ADJUSTMENT ACCORDING TO MANUFACTURERS' SPECIFICATIONS AND USED BY APPROPRIATELY TRAINED PERSONNEL.
- THIS SURVEY MEETS OR EXCEEDS THE "RELATIVE POSITIONAL PRECISION" REQUIREMENTS SET FORTH IN THE 2021 MINIMUM STANDARD DETAIL REQUIREMENTS FOR ALTA/NSPS LAND TITLE SURVEYS IN SECTION 3(E).
- THE RECORD DESCRIPTION FOR THE SUBJECT PROPERTY MATHEMATICALLY CLOSES.
- ELEMENTS AND FEATURES DEPICTED HEREON SATISFY THE REQUIREMENTS STATED WITHIN W.A.C. 332-130-145 FOR TOPOGRAPHIC MAPS, INCLUDING THE FOLLOWING: THE SOURCE OF THE CONTOURS SHOWN HEREON ARE BASED UPON DIRECT FIELD OBSERVATIONS. THE CONTOUR ACCURACY IS PER NATIONAL MAPPING STANDARDS, ONE HALF OF THE CONTOUR INTERVAL (1'). THE PURPOSE OF THIS SURVEY IS TO MAP THE CURRENT CONDITIONS FOR ENGINEERING DESIGN.
- BARGHAUSEN CONSULTING ENGINEERS, INC. SURVEY CREWS DETECTED NO OBSERVABLE EVIDENCE OF RECENT EARTH MOVING WORK, BUILDING CONSTRUCTION OR BUILDING ADDITIONS ON THE SUBJECT PROPERTY.
- BARGHAUSEN CONSULTING ENGINEERS, INC. SURVEY CREWS DETECTED NO OBSERVABLE EVIDENCE OF SITE USE AS A SOLID WASTE DUMP, SUMP OR SANITARY LANDFILL.
- THERE IS NO VISIBLE EVIDENCE OF ANY CEMETERIES OR BURIAL GROUNDS.
- THERE IS EVIDENCE OF PHYSICAL ACCESS TO PUBLIC RIGHT-OF-WAY.

## TITLE INFORMATION:

**TITLE COMMITMENT:**  
 ALL TITLE INFORMATION SHOWN ON THIS MAP HAS BEEN EXTRACTED FROM STEWART TITLE GUARANTY COMPANY COMMITMENT NO. 2100020719, DATED JULY 29, 2021 AT 8:00 AM. INCLUDED ARE APPURTENANT EASEMENTS AND ADJOINING DEEDS FOR UNPLATTED LOTS, IF ANY. IN PREPARING THIS MAP, BARGHAUSEN CONSULTING ENGINEERS, INC. HAS CONDUCTED NO INDEPENDENT TITLE SEARCH NOR IS BARGHAUSEN CONSULTING ENGINEERS, INC. AWARE OF ANY TITLE ISSUES AFFECTING THE SURVEYED PROPERTY OTHER THAN THOSE SHOWN ON THE MAP AND DISCLOSED BY SAID COMMITMENT. BARGHAUSEN CONSULTING ENGINEERS, INC. HAS RELIED WHOLLY ON SAID TITLE COMPANY'S REPRESENTATIONS OF THE TITLE'S CONDITION TO PREPARE THIS SURVEY AND THEREFORE BARGHAUSEN CONSULTING ENGINEERS, INC. QUALIFIES THE MAP'S ACCURACY AND COMPLETENESS TO THAT EXTENT.

### LEGAL DESCRIPTION

(PER ABOVE REFERENCED TITLE REPORT)  
 PARCEL A: (773000-028-1 & 773000-028-8)  
 LOT 1 AND THE NORTH 15 FEET OF THE EAST 178.33 FEET OF "COMMON ACCESS TRACT A", OF PIERCE COUNTY SHORT PLAT RECORDED UNDER RECORDING NO. 77-315, RECORDS OF PIERCE COUNTY WASHINGTON, FORMERLY BEING DESCRIBED AS THE NORTH 161.5 FEET OF THE WEST 178.33 FEET OF THE EAST 188.33 FEET OF LOT 20, SOURWINE'S ACRE LOTS, ACCORDING TO THE PLAT THEREOF RECORDED IN VOLUME 8 OF PLATS, PAGE 10, RECORDS OF PIERCE COUNTY, WASHINGTON; TOGETHER WITH THAT PORTION OF 14TH AVENUE SW, VACATED BY ORDINANCE NO. 2304 ABUTTING THEREON AND ATTACHED THERETO, RECORDED UNDER RECORDING NO. 9206040385.  
 PARCEL A1:  
 RIGHTS TO USE THAT PORTION OF THE WITHIN DESCRIBED PROPERTY LYING WITHIN COMMON ACCESS TRACT "A" OF SIDE SHORT PLAT, FOR INGRESS, EGRESS, AND INSTALLATION AND MAINTENANCE OF UTILITIES, AS SET FORTH AND DELINEATED ON PIERCE COUNTY SHORT PLAT NO. 77-315;  
 EXCEPT ANY PORTION LYING WITHIN PARCEL A ABOVE.  
 PARCEL A2:  
 AN EASEMENT FOR INGRESS AND EGRESS AS SET FORTH IN DOCUMENTS ENTITLED "STATUTORY WARRANTY DEED" AS RECORDED UNDER RECORDING NUMBERS 2741876 AND 2792268.  
 PARCEL B: (773000-003-1 & 773000-002-1)  
 LOT 2, SOURWINE'S ACRE LOTS, ACCORDING TO THE PLAT THEREOF RECORDED IN VOLUME 8 OF PLATS, PAGE 10, RECORDS OF PIERCE COUNTY, WASHINGTON; EXCEPT THAT PORTION LYING WITHIN STATE HIGHWAY NO. SR-512, 96TH STREET TO JUNCTION SR-167;  
 TOGETHER WITH THAT PORTION OF 14TH AVENUE SW, VACATED BY ORDINANCE NO. 2304 ABUTTING THEREON AND ATTACHED THERETO, RECORDED UNDER RECORDING NO. 9206040385.  
 SITUATE IN THE COUNTY OF PIERCE, STATE OF WASHINGTON.

### SPECIAL EXCEPTIONS:

(PER ABOVE REFERENCED TITLE REPORT)

ITEMS 1 THROUGH 18 ARE NOT SURVEY RELATED.

19. TEMPORARY RIGHT, PERMIT, LICENSE AND EASEMENT TO USE AND OCCUPY A PORTION OF SAID LOT 20 FOR THE PURPOSE OF CONSTRUCTING HIGHWAY SLOPES AND OPERATING ALL NECESSARY MACHINERY AND EQUIPMENT THEREON AT ANY AND ALL TIMES UNTIL COMPLETION OF CONSTRUCTION FOR STATE ROAD NO. 512 AS APPROPRIATED BY THE STATE OF WASHINGTON IN PIERCE COUNTY SUPERIOR COURT CAUSE NO. 198127. AFTER COMPLETION OF CONSTRUCTION, ALL RIGHTS OF EASEMENT SHALL BE EXTINGUISHED.  
 AFFECTS: PARCEL A  
**(BLANKET IN NATURE)(POTENTIALLY EXTINGUISHED)**

20. RELINQUISHMENT OF ACCESS TO STATE HIGHWAY AND OF LIGHT, VIEW AND AIR BY DEED TO THE STATE OF WASHINGTON:  
 GRANTEE: PARCEL A  
 PURPOSE: NOVEMBER 19, 1966  
 AFFECTS: PARCEL A  
 RECORDED NO.: 2321816  
**(APPLIES TO OFFSITE ADJACENT PROPERTY)**

21. RELINQUISHMENT OF ACCESS TO STATE HIGHWAY AND OF LIGHT, VIEW AND AIR BY DEED TO THE STATE OF WASHINGTON:  
 GRANTEE: OCTOBER 20, 1975  
 PURPOSE: 2632004  
 AFFECTS: PARCEL B  
 RECORDED NO.: 2321816  
**(BLANKET IN NATURE)**

22. EASEMENT AND THE TERMS AND CONDITIONS THEREOF:  
 GRANTEE: PUGET SOUND POWER AND LIGHT COMPANY  
 PURPOSE: ELECTRIC TRANSMISSION AND/OR DISTRIBUTION SYSTEM  
 AFFECTS: EAST 10 FEET OF PARCEL A AND INCLUDES OTHER PROPERTY  
 RECORDED: MAY 26, 1976  
 RECORDED NO.: 2667305  
**(PLOTTED HEREON)**

23. EASEMENT AND THE TERMS AND CONDITIONS THEREOF:  
 GRANTEE: PUGET SOUND POWER AND LIGHT COMPANY  
 PURPOSE: ELECTRIC TRANSMISSION AND/OR DISTRIBUTION SYSTEM  
 AFFECTS: PORTION OF PARCEL A AND INCLUDES OTHER PROPERTY  
 RECORDED: MAY 26, 1976  
 RECORDED NO.: 2667306  
**(BLANKET IN NATURE)**

24. COVENANTS, CONDITIONS AND RESTRICTIONS AND EASEMENTS CONTAINED IN SHORT PLAT:  
 RECORDED: MAY 25, 1977  
 RECORDING NO.: 77-315  
**(PLOTTED HEREON)(COMMON ACCESS TRACT "A")**

25. EASEMENT AND THE TERMS AND CONDITIONS THEREOF:  
 PURPOSE: INGRESS, EGRESS AND UTILITIES  
 AFFECTS: PORTION OF TRACT A LYING WITHIN PARCEL A  
 RECORDED: JANUARY 16, 1958  
 RECORDED NO.: 2792268  
**(PLOTTED HEREON)**

26. EASEMENT AND THE TERMS AND CONDITIONS THEREOF:  
 PURPOSE: INGRESS AND EGRESS  
 AFFECTS: TRACT A OF SHORT PLAT 77-315  
 RECORDED: JUNE 8, 1977  
 RECORDED NO.: 2741876  
**(PLOTTED HEREON)**

27. EASEMENT AND THE TERMS AND CONDITIONS THEREOF:  
 GRANTEE: CITY OF PUYALLUP  
 PURPOSE: CONSTRUCTING, INSTALLING, REPAIRING AND MAINTAINING STREET IMPROVEMENTS ACCORDING TO THE PLAN ENTITLED "SOUTH MERIDIAN STREET IMPROVEMENTS"  
 AFFECTS: PARCEL A  
 RECORDED: JUNE 10, 1987  
 RECORDED NO.: 8706100397  
**(PLOTTED HEREON)**

28. MUTUAL MAINTENANCE AGREEMENT AND THE TERMS AND CONDITIONS THEREOF:  
 RECORDED: MAY 17, 1991  
 AFFECTS: 9105170239  
 RECORDED NO.: PARCEL A  
**(NOT SURVEY RELATED)**

29. EASEMENT AND THE TERMS AND CONDITIONS THEREOF:  
 GRANTEE: WASHINGTON NATURAL GAS  
 PURPOSE: GAS PIPELINE OR PIPELINES  
 AFFECTS: NORTHERLY PORTION OF PARCEL A  
 RECORDED: MARCH 30, 1992  
 RECORDED NO.: 9203300111  
**(PLOTTED HEREON)**

30. EASEMENT AND THE TERMS AND CONDITIONS THEREOF:  
 GRANTEE: CITY OF PUYALLUP  
 PURPOSE: STORMWATER, SANITARY AND WATERMAIN PIPE LINE AND APPURTENANCES  
 AFFECTS: SOUTH 30 FEET OF PARCEL B  
 RECORDED: JUNE 4, 1992  
 RECORDED NO.: 9206040382  
**(PLOTTED HEREON)**

31. EASEMENT AND THE TERMS AND CONDITIONS THEREOF:  
 GRANTEE: CITY OF PUYALLUP  
 PURPOSE: STORMWATER, SANITARY AND WATERMAIN PIPE LINE AND APPURTENANCES  
 AFFECTS: NORTH 30 FEET OF PARCEL A  
 RECORDED: JUNE 4, 1992  
 RECORDED NO.: 9206040383  
**(PLOTTED HEREON)(OFFSITE ADJACENT EASEMENT)**

32. EASEMENT AND THE TERMS AND CONDITIONS THEREOF:  
 GRANTEE: CITY OF PUYALLUP  
 PURPOSE: STORMWATER, SANITARY AND WATERMAIN PIPE LINE AND APPURTENANCES  
 AFFECTS: NORTH 30 FEET OF PARCEL A  
 RECORDED: JUNE 4, 1992  
 RECORDED NO.: 9206040384  
**(PLOTTED HEREON)**

33. EASEMENT AND THE TERMS AND CONDITIONS THEREOF:  
 GRANTEE: PUGET SOUND POWER AND LIGHT COMPANY  
 PURPOSE: ELECTRIC TRANSMISSION AND/OR DISTRIBUTION SYSTEM  
 AFFECTS: PORTION OF PARCEL B  
 RECORDED: JULY 28, 1992  
 RECORDED NO.: 9207280563  
**(PLOTTED HEREON)(OFFSITE ADJACENT EASEMENT)**

34. EASEMENT AND THE TERMS AND CONDITIONS THEREOF:  
 GRANTEE: PUGET SOUND POWER AND LIGHT COMPANY  
 PURPOSE: ELECTRIC TRANSMISSION AND/OR DISTRIBUTION SYSTEM  
 AFFECTS: PORTION OF PARCEL A  
 RECORDED: JULY 28, 1992  
 RECORDED NO.: 9207280564  
**(PLOTTED HEREON)**

## SURVEYOR'S CERTIFICATION:

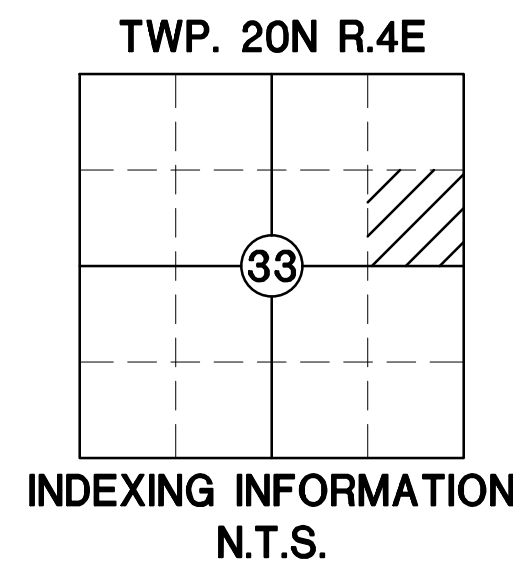
TO: BP PRODUCTS NORTH AMERICA INC., A MARYLAND CORPORATION AND STEWART TITLE GUARANTY COMPANY

THIS IS TO CERTIFY THAT THIS MAP OR PLAT AND THE SURVEY ON WHICH IT IS BASED WERE MADE IN ACCORDANCE WITH THE 2021 MINIMUM STANDARD DETAIL REQUIREMENTS FOR ALTA/NSPS LAND TITLE SURVEYS, JOINTLY ESTABLISHED AND ADOPTED BY ALTA AND NSPS AND INCLUDES ITEMS 2, 3, 4, 7(a), 7(b)(1), 7(c), 8, 9, 11, 13, 14, 16, 17, 18, AND 19 OF TABLE A THEREOF. THE FIELDWORK WAS COMPLETED ON MARCH 22, 2022.

DATE OF PLAT OR MAP: JULY 19, 2023.

*Matthew K. Abbas*  
 MATTHEW K. ABBAS, PLS  
 WASHINGTON REGISTRATION NO. 20109892  
 MABBAS@BARGHAUSEN.COM

7/19/2023  
 DATE



No.	Date	By	Clkd.	Appr.	Revision
1	7/18/23	KJR	MKA	MKA	ADDED TOPO AND UTILITIES TO THE ROAD SOUTH OF THE SITE TO 15TH AVE SE

Title: **ALTA/NSPS LAND TITLE SURVEY**  
 PTN OF THE SE1/4, OF THE NE1/4 OF SEC. 33,  
 TWP. 20 N., RGE 4 E., W. M.  
 CITY OF PUYALLUP, PIERCE COUNTY,  
 WASHINGTON STATE

For: **BP FUELS NA**

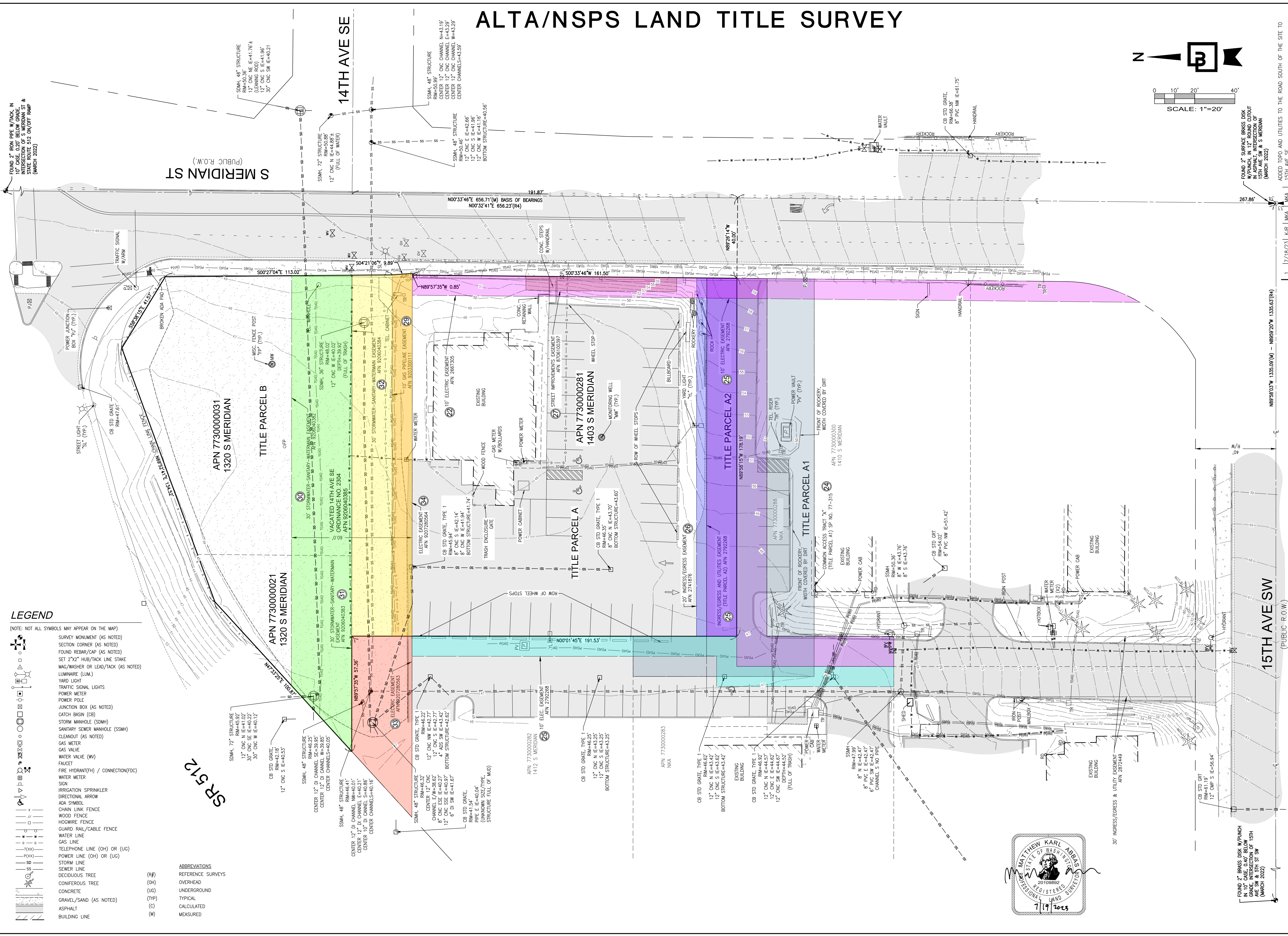
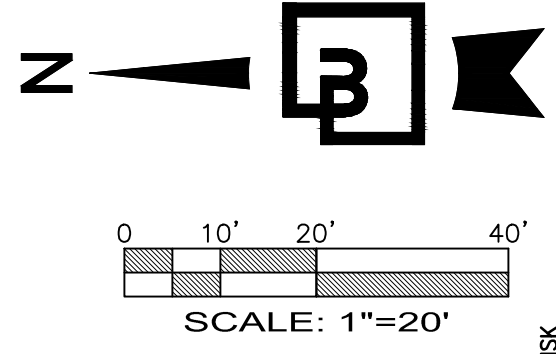
Designed	Drawn	Checked	Approved	Date
	NEF	MKA	MKA	7/19/23

Scale: Horizontal N/A, Vertical

Job Number: **21730**  
 Sheet: **1** of **2**

**Barghausen Consulting Engineers, Inc.**  
 18215 72nd Avenue South  
 Kent, WA 98032  
 425.251.6222  
 barghausen.com

# ALTA/NSPS LAND TITLE SURVEY



**LEGEND**  
(NOTE: NOT ALL SYMBOLS MAY APPEAR ON THE MAP)

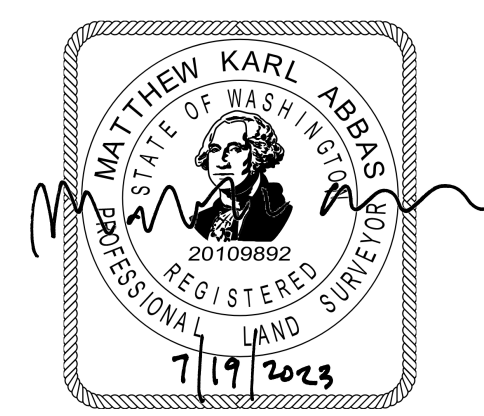
	SURVEY MONUMENT (AS NOTED)
	SECTION CORNER (AS NOTED)
	FOUND REBAR/CAP (AS NOTED)
	SET 2"x2" HUB/TACK LINE STAKE
	MAG/WASHER OR LEAD/TACK (AS NOTED)
	LUMINAIRE (LUM.)
	YARD LIGHT
	TRAFFIC SIGNAL LIGHTS
	POWER METER
	POWER POLE
	JUNCTION BOX (AS NOTED)
	CATCH BASIN (CB)
	STORM MANHOLE (SDMH)
	SANITARY SEWER MANHOLE (SSMH)
	CLEANOUT (AS NOTED)
	GAS METER
	GAS VALVE
	WATER VALVE (WV)
	FAUCET
	FIRE HYDRANT (FH) / CONNECTION (FDC)
	WATER METER
	SIGN
	IRRIGATION SPRINKLER
	DIRECTIONAL ARROW
	ADA SYMBOL
	CHAIN LINK FENCE
	WOOD FENCE
	HOSIWIRE FENCE
	GUARD RAIL/CABLE FENCE
	WATER LINE
	GAS LINE
	TELEPHONE LINE (OH) OR (UG)
	POWER LINE (OH) OR (UG)
	STORM LINE
	SEWER LINE
	DECIDUOUS TREE
	CONIFEROUS TREE
	CONCRETE
	GRAVEL/SAND (AS NOTED)
	ASPHALT
	BUILDING LINE

**ABBREVIATIONS**

(R#)	REFERENCE SURVEYS
(OH)	OVERHEAD
(UG)	UNDERGROUND
(TYP)	TYPICAL
(C)	CALCULATED
(M)	MEASURED

SR 512

Job Number <b>21730</b>	Title: <b>ALTA/NSPS LAND TITLE SURVEY</b>	
Sheet <b>2</b> of <b>2</b>	For: <b>BP FUELS NA</b>	
Scale: Horizontal: 1"=20' Vertical:		
Designed: [initials] Drawn: [initials] Checked: [initials] Approved: [initials] Date: 7/19/23		
Barchausen Consulting Engineers, Inc. 18215 72nd Avenue South Kent, WA 98032 425.251.6222 <a href="http://barchausen.com">barchausen.com</a>		
Title: <b>ALTA/NSPS LAND TITLE SURVEY</b> PTN OF THE SE1/4, OF THE NE1/4 OF SEC. 33, TWP. 20 N., RGE 4 E., W. M. CITY OF PUYALLUP, PIERCE COUNTY, WASHINGTON STATE		
No. 1 Date 7/18/23 By: [initials] Ckd: [initials] Appr: [initials]		



FOUND 2" BRASS DISK W/PUNCH IN 10" CASE, 0.40' BELOW SURFACE OF 15TH AVE SW & 5TH ST SW (MARCH 2022)

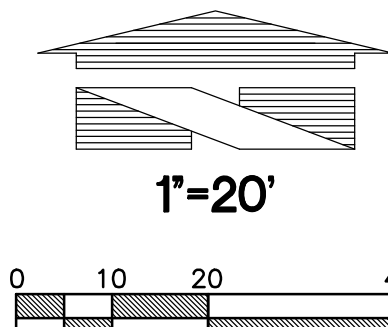
ADDED TOPO AND UTILITIES TO THE ROAD SOUTH OF THE SITE TO 15TH AVE SE

FOUND 2" SURFACE BRASS DISK W/PUNCH, IN 12" ROUND CUTOUT IN ASPHALT, INTERSECTION OF 15TH AVE SW & S MERIDIAN (MARCH 2022)

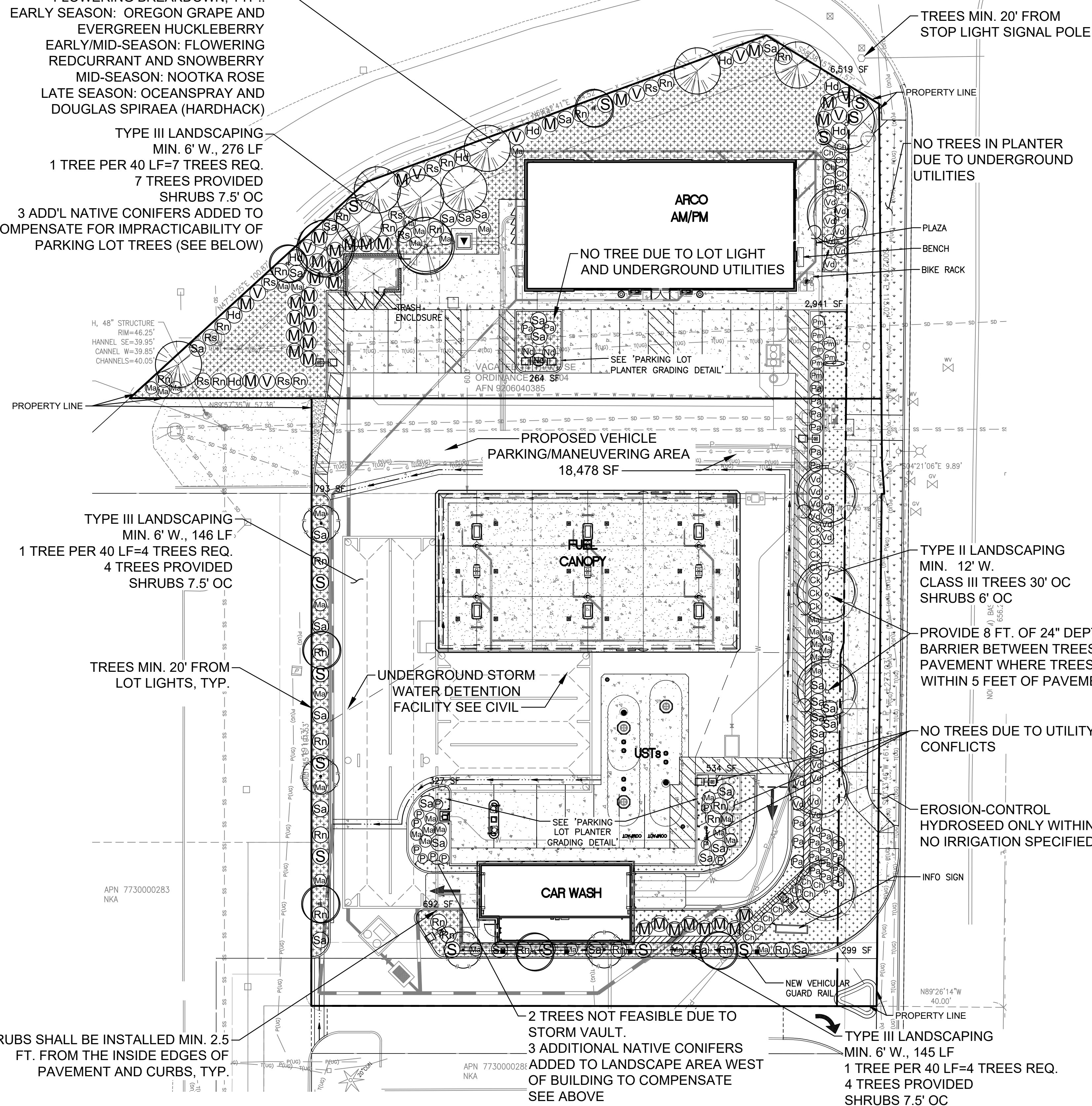
FOUND 2" IRON PIPE W/TACK, IN INTERSECTION OF S MERIDIAN ST & STATE ROUTE 512 ON/OFF RAMP (MARCH 2022)

# LANDSCAPE PLAN

FOR  
**ARCO ampm PUYALLUP**  
 SEC. 33, TWN. 20 N, RGE. 4 E, W.M.  
 CITY OF PUYALLUP, PIERCE COUNTY



LANDSCAPE BUFFER SEASONAL  
 FLOWERING BREAKDOWN, TYP.:  
 EARLY SEASON: OREGON GRAPE AND  
 EVERGREEN HUCKLEBERRY  
 EARLY/MID-SEASON: FLOWERING  
 REDCURRANT AND SNOWBERRY  
 MID-SEASON: NOOTKA ROSE  
 LATE SEASON: OCEANSPRAY AND  
 DOUGLAS SPIRAEA (HARDHACK)  
 TYPE III LANDSCAPING  
 MIN. 6' W., 276 LF  
 1 TREE PER 40 LF=7 TREES REQ.  
 7 TREES PROVIDED  
 SHRUBS 7.5' OC  
 3 ADD'L NATIVE CONIFERS ADDED TO  
 COMPENSATE FOR IMPRACTICABILITY OF  
 PARKING LOT TREES (SEE BELOW)

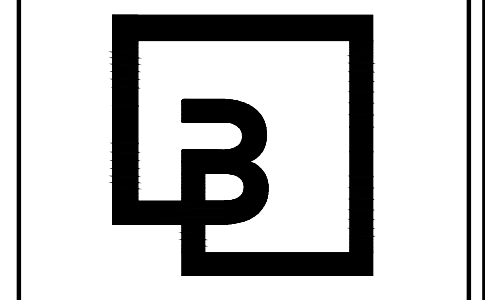
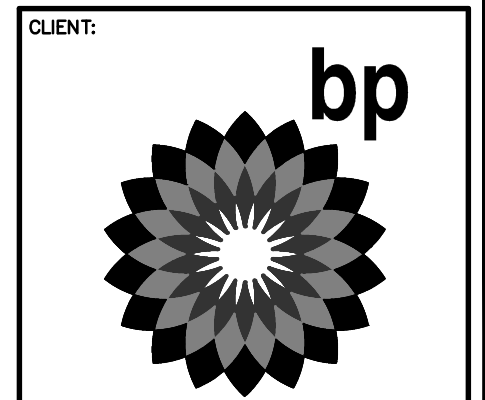


PAVED AREA 18,478 SF  
 18,478 X 0.05 = 924 SF INTERIOR PARKING  
 LOT LANDSCAPING REQUIRED  
 1,125 SF PROVIDED

PLANT BED AREA: 12,412 SF  
 8" TOPSOIL MINIMUM DEPTH FOR THIS AREA  
 = 345 CUBIC YARDS

**REQUIRED TREE CLEARANCES**  
 FOR CLASS III TREES, PER PUYALLUP VMS 12.4

BUILDINGS	10'
UTILITY AND STREET LIGHT POLES	10'
FIRE HYDRANTS	5'
DRIVEWAY (OUTER PAVING EDGE)	7.5'
STOP LIGHT SIGNAL POLES	20'
UNDERGROUND WATER, SANITARY SEWER OR STORM SEWER LINES	10'
UNDERGROUND GAS, POWER OR OTHER CONDUIT	3'
INTERSECTION (FACE OF CURB LINE CORNER AT INTERSECTION)	30'
STREET SIGNS (EXCL. PARKING SIGNS)	30' LEADING SIDE, 10' TRAILING SIDE



**Barghausen Consulting Engineers, Inc.**  
 18215 72nd Avenue South  
 Kent, WA 98032  
 425.251.6222  
 barghausen.com

NO.	DATE	REVISION DESCRIPTION



DEVELOPMENT INFORMATION:  
**ARCO NTI**  
 3400 am/pm  
 FUEL CANOPY w/ 6 MPD's

SITE ADDRESS:  
**SWC S MERIDIAN**  
 @ HIGHWAY 512  
 PUYALLUP, WASHINGTON

FACILITY #TBD

DESIGNED BY: ALLIANCE Z&M  
 CHECKED BY: BP REP  
 DRAWN BY: ALLIANCE PM  
 VERSION: PROJECT NO: 21730

CITY OF PUYALLUP  
 Planning Division  
 Approved Landscape Plan  
 (253) 864-4165

Staff:  
 Date:

THIS APPROVAL IS VOID AFTER 180 DAYS FROM APPROVAL DATE. THE CITY WILL NOT BE RESPONSIBLE FOR ERRORS AND/OR OMISSIONS ON THESE PLANS. FIELD CONDITIONS MAY DICTATE CHANGES TO THESE PLANS AS DETERMINED BY THE PLANNING MANAGER, DESIGNER, OR PROJECT PLANNER.

NOTE: If street trees are required, Call Planning Division for final inspection: (253) 864-4165 (Option 3). Root Barriers are required around street trees in accordance with city standard detail. Top soil shall be installed in accordance with city standards - field verification required. Failure to install top soil and root barriers in accordance with city standard may result in rejection of installation.

**APPROVED**

BY: CITY OF PUYALLUP  
 WATER PURVEYOR

DATE:

NOTE: THIS APPROVAL IS VOID AFTER 180 DAYS FROM APPROVAL DATE. THE CITY WILL NOT BE RESPONSIBLE FOR ERRORS AND/OR OMISSIONS ON THESE PLANS. FIELD CONDITIONS MAY DICTATE CHANGES TO THESE PLANS AS DETERMINED BY THE WATER PURVEYOR.

**LANDSCAPE PLAN**

SHEET NO: **L-1**

**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 POT-HOLING THE UTILITIES AND SURVEYING THE HORIZONTAL AND VERTICAL LOCATION PRIOR TO CONSTRUCTION. THIS SHALL INCLUDE CALLING UTILITY LOCATE AT 811 48 HOURS IN ADVANCE 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. IF CONFLICTS SHOULD OCCUR, THE CONTRACTOR SHALL NOTIFY BARGHAUSEN CONSULTING ENGINEERS, INC. TO RESOLVE ALL PROBLEMS PRIOR TO PROCEEDING WITH CONSTRUCTION.

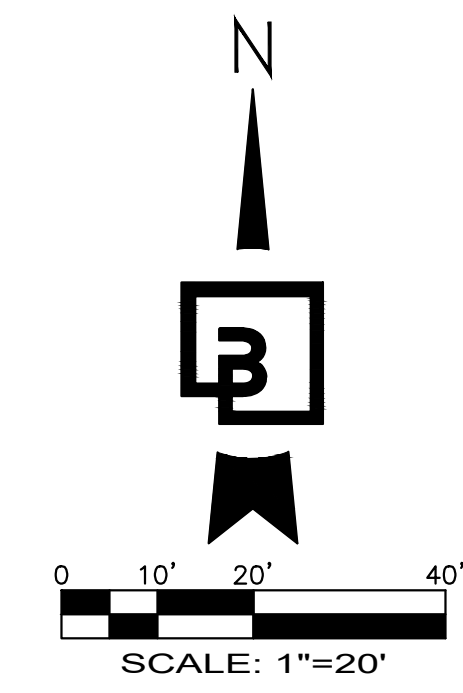


PW: 21730-0005-01-1500 (engineering) 21730-L-Draw 10/13/2023 4:51 PM JVARLEY

**CONSTRUCTION NOTES:**

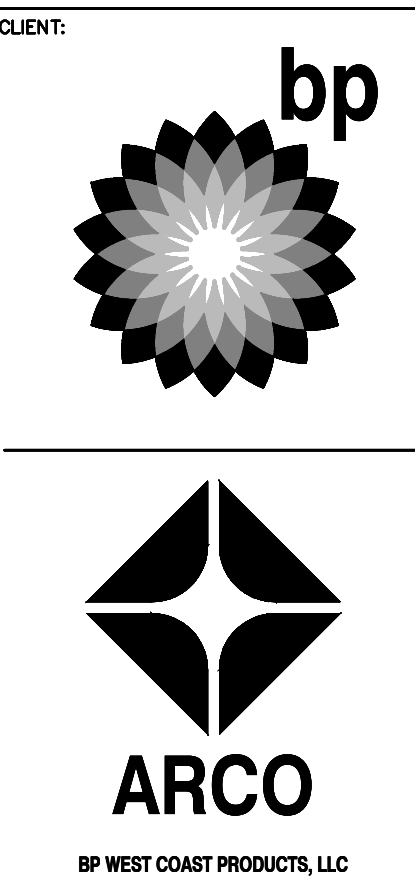
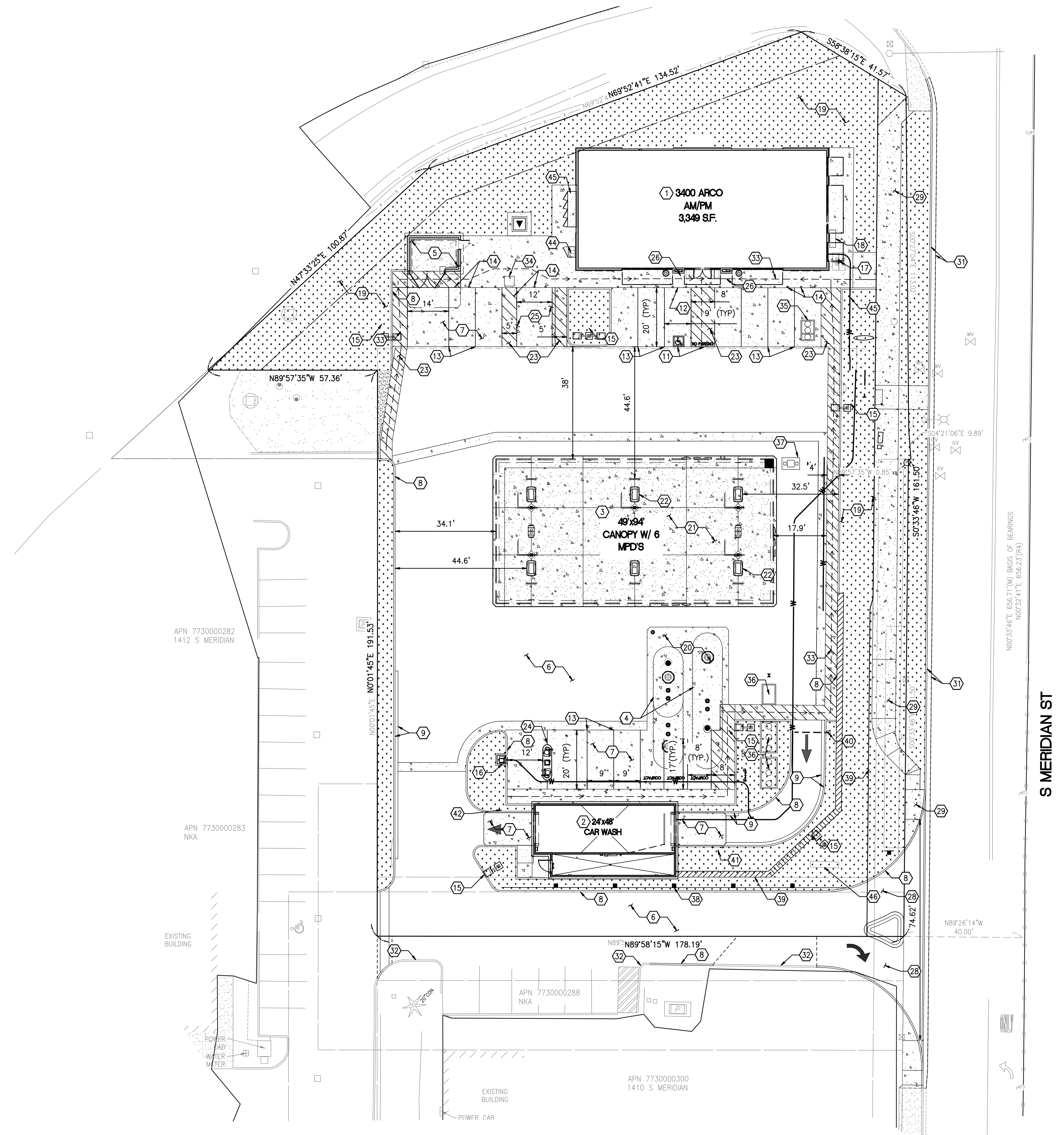
1. CONVENIENCE STORE.
2. CAR WASH.
3. FUEL CANOPY.
4. UNDERGROUND STORAGE TANKS. SEE FUEL PLANS FOR DETAILS.
5. TRASH ENCLOSURE AND CONCRETE TRASH ENCLOSURE SLAB. REFER TO G1.4 AND G1.5
6. ON-SITE ASPHALT PAVEMENT. SEE CIVIL DRAWINGS.
7. ON-SITE CONCRETE PAVEMENT. SEE CIVIL DRAWINGS. PROVIDE EXPANSION AND CONTROL JOINTS PER CIVIL DRAWINGS.
8. BARRIER CURB. SEE CIVIL DRAWINGS.
9. CURB AND GUTTER. SEE CIVIL DRAWINGS.
10. CONCRETE SIDEWALK, WIDTH VARIES. SEE CIVIL DRAWINGS.
11. ACCESSIBLE PARKING STALL AND AISLE. SEE CIVIL DRAWINGS.
12. BOLLARD MOUNTED ACCESSIBLE PARKING STALL SIGNAGE. SEE CIVIL DRAWINGS.
13. PARKING STALL WITH 4" WIDE WHITE REFLECTIVE PAINT STRIPE (TYP.). SEE CIVIL DRAWINGS.
14. BOLLARD (TYP.). SEE CIVIL DRAWINGS.
15. LOT LIGHT. SEE DETAIL ON-SITE PHOTOMETRIC PLANS FOR MORE DETAILS. COORDINATE ALL CONDUIT RUNS, WIRING REQUIREMENTS, LOT LIGHT BASE, ETC. WITH ELECTRICAL PLANS. SEE CIVIL DRAWINGS.
16. AIR/WATER UNIT. ARCHITECTURAL PLANS FOR MORE DETAILS.
17. BICYCLE STORAGE. SEE CIVIL DRAWINGS.
18. SEATING BENCH.
19. LANDSCAPING. SEE LANDSCAPE PLANS.
20. CONCRETE TANK FUEL SLAB. SEE FUEL PLANS FOR DESIGN.
21. UNDER CANOPY CONCRETE SLAB. SEE ARCHITECTURAL PLANS FOR DETAILS.
22. FUEL DISPENSERS WITH HOOP BOLLARDS (TYP.). SEE FUEL PLANS FOR DETAILS.
23. PAVEMENT MARKINGS - 4" WIDE WHITE PAINTED STRIPES @ 2' O.C./45° ANGLE. SEE CIVIL DRAWINGS.
24. VACUUM UNIT. REFER TO ARCHITECTURAL CAR WASH DRAWINGS, 01/CWA4.2.
25. VAN ACCESSIBLE AND STANDARD EV CHARGING STATION, SEE CIVIL DRAWINGS.
26. TRASH RECEPTACLE (TYP.).
27. CONCRETE DRIVEWAY PER CITY OF PUYALLUP STANDARD DRAWING NO. 01.02.17. CIVIL DRAWINGS.
28. CONCRETE DRIVEWAY PER CITY OF PUYALLUP STANDARD DRAWING NO. 01.02.16. CIVIL DRAWINGS.
29. CONCRETE SIDEWALK PER CITY OF PUYALLUP STANDARD DRAWING NO. 01.02.01. SEE CIVIL DRAWINGS.
30. TYPE I CURB RAMP PER CITY OF PUYALLUP STANDARD DRAWING NO. 01.02.19. SEE CIVIL DRAWINGS.
31. OFF-SITE CURB AND GUTTER PER CITY OF PUYALLUP STANDARD DRAWING NO. 01.02.09. SEE CIVIL DRAWINGS.
32. PROTECT EXISTING CURB/CURB AND GUTTER TO REMAIN.
33. ACCESSIBLE PATH. REFER TO CIVIL GRADING PLAN FOR SLOPE REQUIREMENTS.
34. FREEWIRE EV CHARGING STATION TO BE INSTALLED
35. GREASE INTERCEPTOR. REFER TO CIVIL AND PLUMBING DRAWINGS.
36. WATER RECLAIM TANKS AND SEPARATOR. REFER TO CAR WASH, PLUMBING AND CIVIL DRAWINGS FOR CONTINUATION
37. SAND-OIL-WATER SEPARATOR. REFER TO CIVIL DRAWINGS.
38. VEHICLE GUARD RAIL. REFER TO CIVIL AND STRUCTURAL DRAWINGS.
39. RETAINING WALL. REFER TO CIVIL AND STRUCTURAL DRAWINGS.
40. CAR WASH OVERHEAD HEIGHT WARNING BAR. REFER TO ARCHITECTURAL CAR WASH DRAWINGS AND STRUCTURAL DETAILS.
41. CAR WASH PAY STATION. REFER TO ARCHITECTURAL CAR WASH DRAWINGS.
42. DRYER COUNT DOWN DISPLAY. REFER TO CAR WASH DRAWINGS.
43. PROPANE EXCHANGE CAGE
44. ELECTRICAL SWITCHGEAR. REFER TO ELECTRICAL DRAWINGS.
45. PROPOSED NEW MONUMENT SIGN. PERMITTED SEPARATELY.
46. EXISTING POLE SIGN TO BE RESURFACED WITH ARCO/AMP SIGNAGE. PERMITTED SEPARATELY.

**ARCHITECTURAL SITE PLAN**



**GENERAL NOTES**

1. SEE CIVIL FOR ADDITIONAL INFO
2. SEE ELECTRICAL FOR ADDITIONAL INFO



**Barghausen Consulting Engineers, Inc.**  
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 Kent, WA 98032  
 425.251.6222  
 barghausen.com

NO.	DATE	REVISION DESCRIPTION

10697 REGISTERED ARCHITECT  
 DANIEL B. COLEMAN  
 STATE OF WASHINGTON  
 EXP: 08/05/24

**DEVELOPMENT INFORMATION:**  
**ARCO NTI**  
**3400 am/pm**  
**FUEL CANOPY w/ 6 MPD's**

**SITE ADDRESS:**  
**1402 S MERIDIAN**  
**PUYALLUP, WA 98711**

**FACILITY #7184**  
 DESIGNED BY: ALLIANCE ZBDK  
 CHECKED BY: BP REPM  
 DRAWN BY: ALLIANCE PM  
 VERSION: PROJECT NO: **21730**

**ARCHITECTURAL SITE PLAN**

SHEET NO:  
**AS1.0**





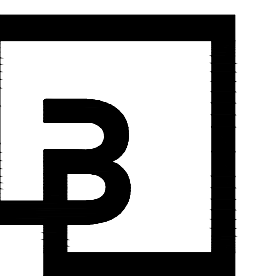
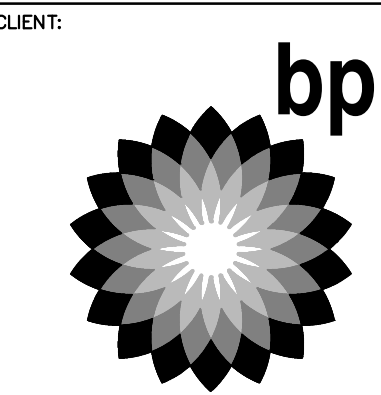






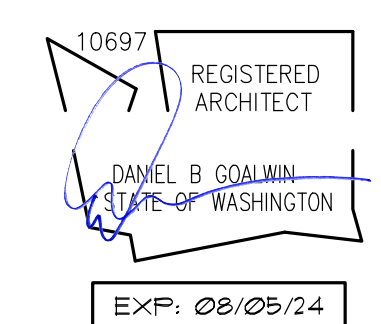






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NO.	DATE	REVISION DESCRIPTION
1		
2		
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DEVELOPMENT INFORMATION:  
**ARCO NTI**  
**3400 am/pm**  
**FUEL CANOPY w/ 6 MPD's**

SITE ADDRESS:  
**1402 S MERIDIAN**  
 PUYALLUP, WA 98571

**FACILITY #7184**

DESIGNED BY:	ALLIANCE ZADM:
CHECKED BY:	BP REP:
DRAWN BY:	ALLIANCE PM:
VERSION:	PROJECT NO: <b>21730</b>

DRAWING TITLE:  
**CARWASH CODE PLAN**

SHEET NO:

**CWA0.1**

**CODE INFORMATION:**

APPLICABLE CODES:  
 2018 INTERNATIONAL BUILDING CODE W/WASHINGTON STATE AMENDMENTS  
 2018 INTERNATIONAL MECHANICAL CODE W/WASHINGTON STATE AMENDMENTS  
 2018 UNIFORM PLUMBING CODE W/WASHINGTON STATE AMENDMENTS  
 2018 WASHINGTON STATE ENERGY CODE  
 ICC/ANSI A117.1 2009 ACCESSIBILITY

SCOPE OF WORK:  
 REMODEL OF AN EXISTING BANK BUILDING INTO A CAR WASH WITH AN EQUIPMENT/MECHANICAL ROOM, A UNISEX BATHROOM, AN OFFICE AND A BREAK ROOM

USE AND OCCUPANCY CLASSIFICATION:  
 IBC SECTION 304.1, BUSINESS GROUP 'B'  
 MERCANTILE GROUP 'B' INCLUDES THE USE OF A BUILDING, OR PORTION THEREOF, FOR OFFICE, PROFESSIONAL SERVICE TYPE TRANSACTIONS ETC. THESE INCLUDE A CAR WASH.  
 \*RESTROOMS AND WASH TUNNEL ARE NON-OCCUPIED SPACES PER SECTION 202 DEFINITION OF AN OCCUPIABLE SPACE.

PROPOSED BUILDING - CAR WASH:  
 CONSTRUCTION TYPE: V-B  
 USE GROUP: "B", BUSINESS  
 PROPOSED BUILDING AREA:  
 GROUP B OCCUPANCY (CAR WASH W/ THE FOLLOWING):  
 CAR WASH BUILDING: 2,652 SQ. FT.  
 TOTAL AREA: 2,652 SQUARE FEET  
 SPRINKLERS: NONE (NOT REQUIRED)

**CODE ANALYSIS:**

IBC SECTION 504.1, BUILDING HEIGHT AND NUMBER OF STORIES  
 ALLOWABLE BUILDING HEIGHT AND NUMBER OF STORIES SHALL BE DETERMINED BASED ON THE TYPE OF CONSTRUCTION, OCCUPANCY CLASSIFICATION AND AUTOMATIC SPRINKLERS.

\* ASSUME GROUP "B", BUSINESS, WITH TYPE VB CONSTRUCTION AND NON-SPRINKLERED

IBC TABLE 504.3, ALLOWABLE BUILDING HEIGHT  
 MAXIMUM ALLOWABLE HEIGHT, GROUP B: 40 FEET

\*PROPOSED HEIGHT: 18'-11"; COMPLIES

IBC TABLE 504.4, ALLOWABLE STORIES  
 MAXIMUM NUMBER OF STORIES, GROUP B: 2 STORIES

\*PROPOSED STORIES: 1; COMPLIES

IBC SECTION 506.1, BUILDING AREA  
 ALLOWABLE BUILDING AREA SHALL BE DETERMINED BASED ON THE TYPE OF CONSTRUCTION, OCCUPANCY CLASSIFICATION, AUTOMATIC SPRINKLERS AND THE AMOUNT OF BUILDING FRONTAGE ON A PUBLIC WAY.

IBC TABLE 506.2, ALLOWABLE BUILDING AREA  
 MAXIMUM ALLOWABLE AREA, GROUP B: 9,000 SQUARE FEET

\*TOTAL PROPOSED BUILDING AREA: 2,652 SQUARE FEET; COMPLIES

IBC SECTION 508.3, NON-SEPARATED OCCUPANCIES  
 BUILDINGS OR PORTIONS OF BUILDINGS THAT COMPLY WITH THE PROVISIONS OF THIS SECTION SHALL BE CONSIDERED NON-SEPARATED OCCUPANCIES.

IBC SECTION 508.3.2 ACCESSIBLE BUILDING AREA, HEIGHT & STORIES  
 THE ACCESSIBLE AREA, HEIGHT & STORIES OF THE BUILDING SHALL BE BASED ON THE MOST RESTRICTED ALLOWANCES FOR THE OCCUPANCY GROUPS CONSIDERED

IBC SECTION 508.3.3 SEPARATION  
 NO SEPARATION IS REQUIRED BETWEEN NON-SEPARATED OCCUPANCIES

IBC SECTION 602.5, TYPE V  
 TYPE V CONSTRUCTION IS THAT TYPE OF CONSTRUCTION IN WHICH THE STRUCTURAL ELEMENTS, EXTERIOR WALLS AND INTERIOR WALLS ARE OF ANY MATERIALS PERMITTED BY THIS CODE.

TABLE 601, FIRE RESISTANCE RATING FOR BUILDING ELEMENTS  
 FOR TYPE V-B CONSTRUCTION IN HOURS  
 PRIMARY STRUCTURAL FRAME: 0  
 EXTERIOR BEARING WALLS: 0  
 INTERIOR BEARING WALLS: 0  
 EXTERIOR NON-BEARING WALLS: SEE TABLE 602  
 INTERIOR NON-BEARING WALLS: 0  
 FLOOR CONSTRUCTION: 0  
 ROOF CONSTRUCTION: 0

TABLE 602, FIRE RESISTANCE FOR EXTERIOR WALLS BASED ON FIRE SEPARATION DISTANCE

DISTANCE	CONST. TYPE	OCC. GROUP	RATING
X<5	VB	B	1
5</= X <10	VB	B	1
10</=X<30	VB	B	0
X>/=30	VB	B	0

\*ALL EXTERIOR WALLS HAVE A FIRE SEPARATION DISTANCE OF AT LEAST 10'-0"

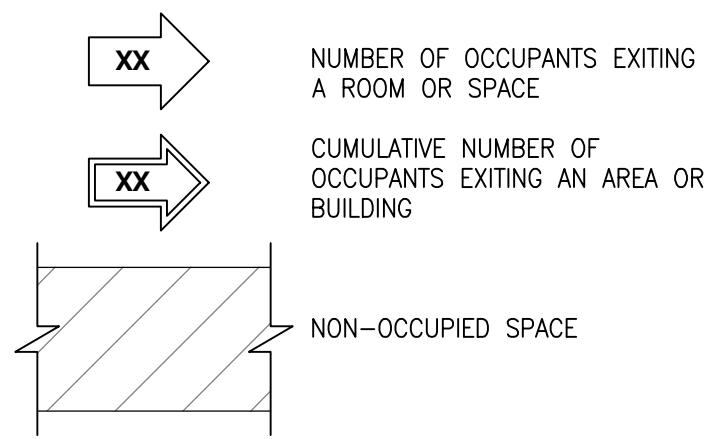
IBC TABLE 1004.5, FLOOR AREAS PER OCCUPANT  
 SEE PLAN BELOW FOR OCCUPANCY CALCULATIONS.

IBC SECTION 1006.2.1, EGRESS BASED ON OCCUPANT LOAD  
 TWO EXITS OR EXIT ACCESS DOORWAYS SHALL BE PROVIDED WHERE THE DESIGN OCCUPANT LOAD OR COMMON PATH OF EGRESS TRAVEL EXCEEDS THE VALUES IN TABLE 1006.2.1.

IBC SECTION 1008.2.1, ILLUMINATION LEVEL UNDER NORMAL POWER  
 THE MEANS OF ILLUMINATION LEVEL SHALL NOT BE LESS THAN 1 FOOT CANDLE AT THE WALKING SURFACE.

IBC SECTION 1008.3.1, EMERGENCY POWER FOR ILLUMINATION  
 IN THE EVENT OF POWER FAILURE, AN EMERGENCY ELECTRICAL SYSTEM SHALL ILLUMINATE THE FOLLOWING AREAS:  
 AISLES, CORRIDORS, EXIT ACCESS STAIRWAYS AND RAMPS.

**CODE PLAN LEGEND**



**CODE PLAN KEYED NOTES**

1 EMERGENCY EXIT LIGHTING PER ELECTRICAL

**CODE ANALYSIS cont.:**

IBC SECTION 1009.1, ACCESSIBLE MEANS OF EGRESS  
 ACCESSIBLE SPACES SHALL BE PROVIDED WITH NOT LESS THAN ONE ACCESSIBLE MEANS OF EGRESS. WHERE MORE THAN ONE MEANS OF EGRESS ARE REQUIRED, EACH ACCESSIBLE PORTION OF THE SPACE SHALL HAVE NOT LESS THAN TWO ACCESSIBLE MEANS OF EGRESS.

IBC SECTION 1010.1.1, SIZE OF DOORS  
 THE MINIMUM WIDTH OF EACH DOOR OPENING SHALL BE SUFFICIENT FOR THE OCCUPANT LOAD AND SHALL PROVIDE A CLEAR WIDTH OF 32 INCHES MINIMUM.

IBC SECTION 1010.1.2.1, DIRECTION OF SWING  
 DOORS SHALL SWING IN THE DIRECTION OF TRAVEL WHERE SERVING A ROOM OR AREA CONTAINING AN OCCUPANT LOAD OF 50 OR MORE PERSONS.

IBC SECTION 1010.1.9, DOOR OPERATIONS  
 EGRESS DOORS SHALL BE READILY OPENABLE FROM THE EGRESS SIDE WITHOUT THE USE OF A KEY OR SPECIAL KNOWLEDGE OR EFFORT.

IBC SECTION 1013.1, EXIT SIGNS, WHERE REQUIRED  
 EXITS AND EXIT ACCESS DOORS SHALL BE MARKED BY AN APPROVED EXIT SIGN READILY VISIBLE FROM ANY DIRECTION OF TRAVEL.

EXCEPTION 1: EXIT SIGNS ARE NOT REQUIRED IN ROOMS OR AREAS THAT REQUIRE ONLY ONE EXIT OR EXIT ACCESS.

IBC SECTION 1013.4, RAISED CHARACTER AND BRAILLE EXIT SIGNS  
 A SIGN STATING "EXIT" IN RAISED CHARACTERS AND BRAILLE AND COMPLYING WITH ICC ANSII A117.1 SHALL BE PROVIDED ADJACENT TO EACH EXIT DISCHARGE DOOR.

IBC SECTION 1103.2.9, EQUIPMENT SPACES  
 SPACES FREQUENTED ONLY BY SERVICE PERSONNEL FOR MAINTENANCE, REPAIR OR OCCASIONAL MONITORING OF EQUIPMENT ARE NOT REQUIRED TO COMPLY WITH THIS CHAPTER

IBC TABLE 2902.1, MINIMUM NUMBER OF REQUIRED PLUMBING FIXTURES

OCCUPANCY	WATER CLOSETS UNISEX	LAVATORIES UNISEX
B	1/500	1/750

OCCUPANTS:  
 B 6 OCCUPANTS

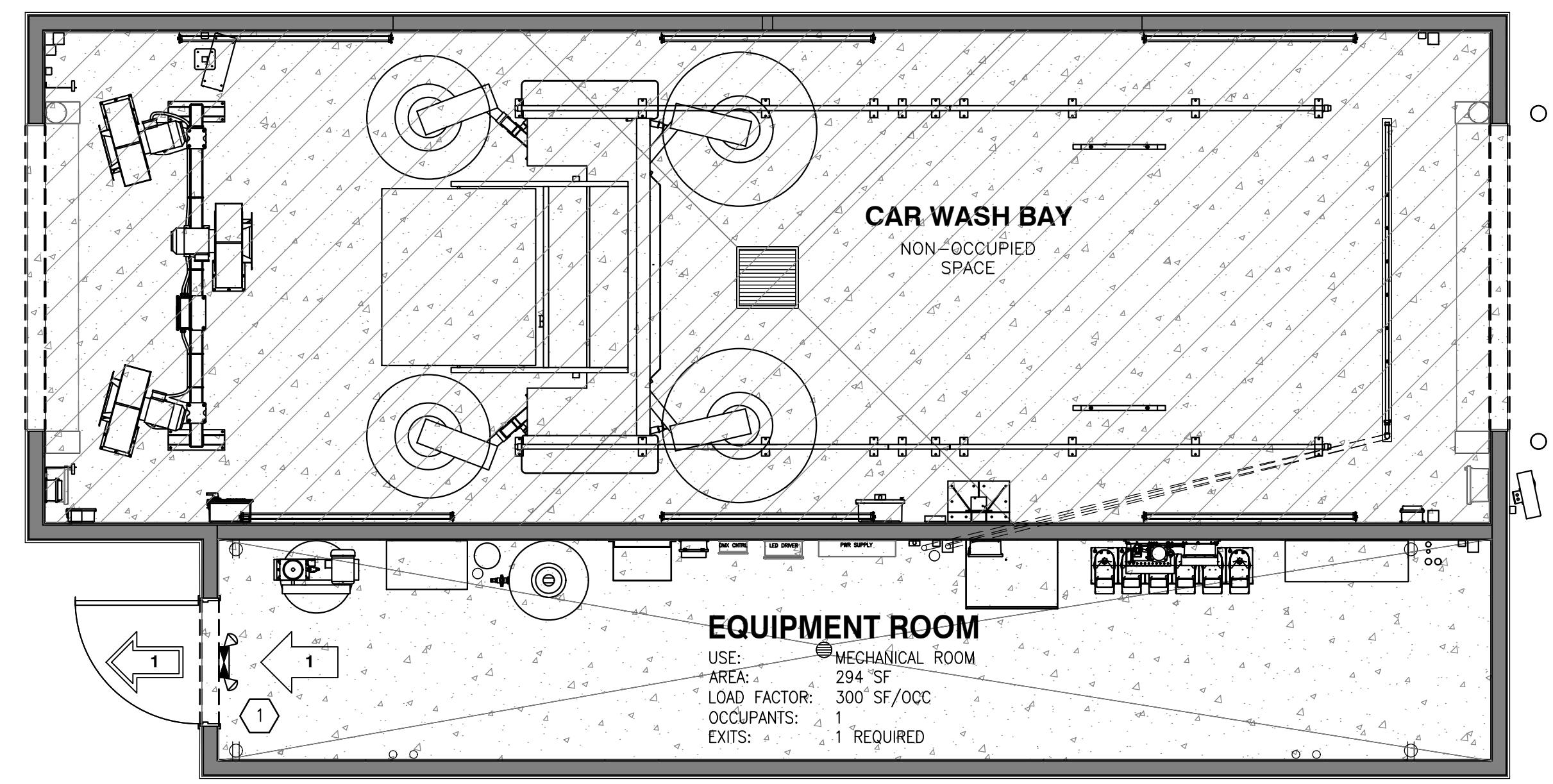
TOTAL REQUIRED PLUMBING FIXTURES:  
 UNISEX = 1 WATER CLOSET AND 1 LAV

PLUMBING FIXTURES PROVIDED:  
 0 WATER CLOSET AND 0 LAV, URINAL NOT PROVIDED  
 ADJACENT C-STORE HAS (2) UNISEX WATER CLOSETS AND (2) LAVS

WSEC 402.1.1.2, SEMI-HEATED BUILDINGS  
 THE CAR WASH BUILDING IS CONSIDERED SEMI-HEATED AND IS TO MEET THE REQUIREMENTS OF THIS SECTION

WSEC C402.5.1, AIR BARRIER  
 A CONTINUOUS AIR BARRIER SHALL BE PROVIDED THROUGHOUT THE BUILDING THERMAL ENVELOPE (CONDITIONED SPACE)

WSEC C402.5.1.2, BUILDING TEST  
 THE BUILDING SHALL BE TESTED AND MEET THE AIR LEAKAGE RATES REQUIRED



01 CONSTRUCTION FLOOR PLAN  
 SCALE: 1/4"=1'-0"

## DOOR NOTES / HARDWARE

- (1) EQUIPMENT EXTERIOR DOOR:
- 1-1/2" PAIR FULL MORTISED STAINLESS STEEL BUTT HINGES (4-1/2"x4-1/2" NRP)
  - KICK DOWN DOOR HOLDER, HAGER 270C S1
  - 12"x40" EXTERIOR STAINLESS STEEL KICK PLATE
  - 30"x40" INTERIOR STAINLESS STEEL KICK PLATE
  - LEVER HANDLE WITH KEY OUTSIDE AND PUSH BUTTON INSIDE
  - LOCKSET (ANSI F82/SCHLAGE D50BD LESS CORE, RHODES LEVER 625, BEST CORE W/ 625 FINISH)

## DOOR SCHEDULE

TYPE	SIZE	QTY	MFR/MODEL	MATERIAL	FRAME	RATING	HARDWARE	REMARKS
①	4'-0"x7'-0"x1-3/4"	1		18 GA. INSULATED METAL	16 GA. INSULATED METAL	N/A	1	DOOR AND FRAME FACTORY PRIMED

## GENERAL NOTES

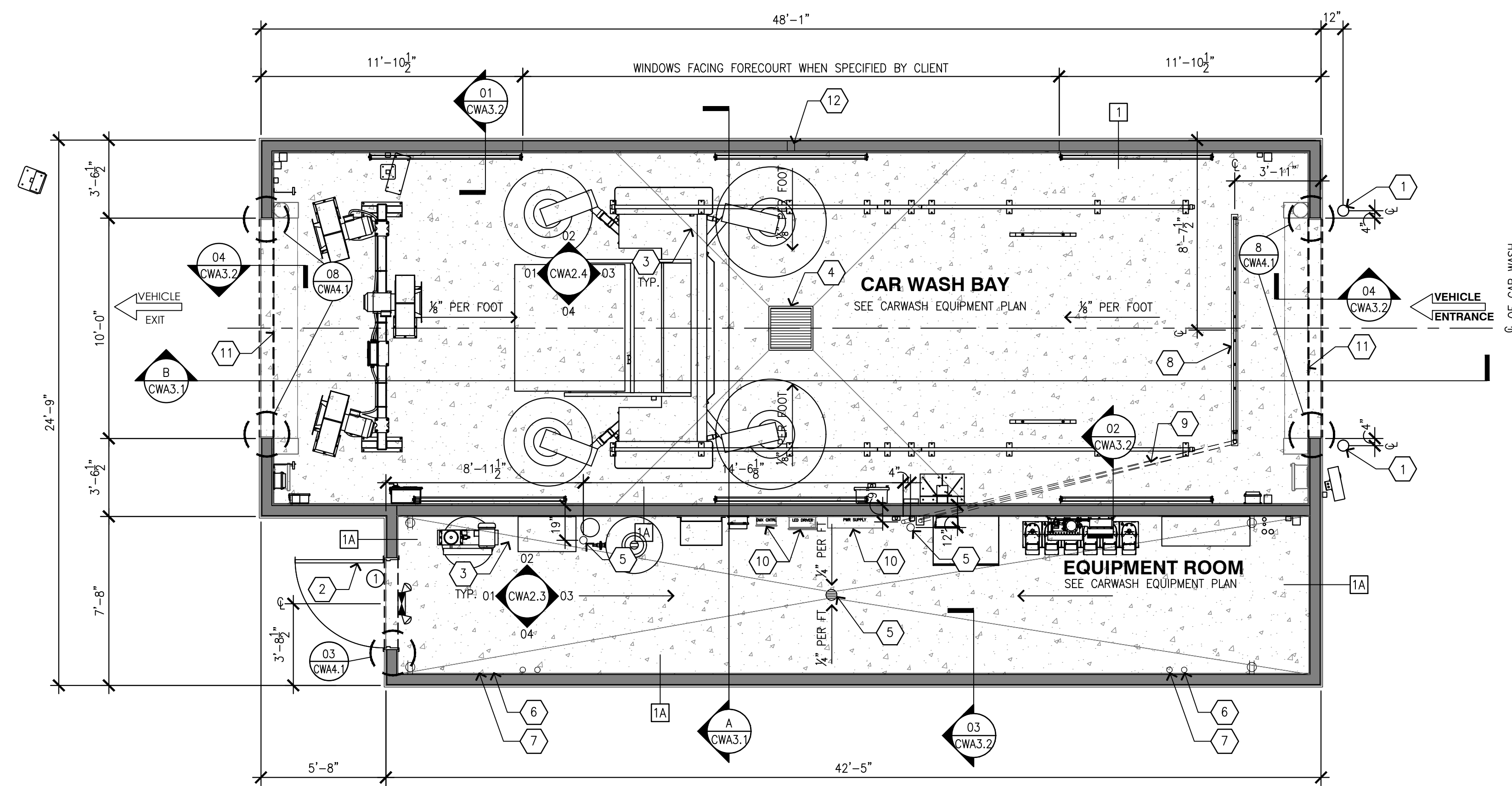
- ALL DIMENSIONS ARE TO FACE OF PLYWOOD/FOUNDATION UNLESS NOTED OTHERWISE.
- ALL DENOTED DIMENSIONS ARE TO BE USED. PLANS SHALL NOT BE SCALED.
- EXTERIOR AND INTERIOR WALLS ARE 2x6. SEE STRUCTURAL PLANS FOR FRAMING REQUIREMENTS.
- REFER TO SHEET CWA01.1 FOR THE CAR WASH EQUIPMENT PLAN AND SCHEDULE.
- ALL CONDUITS SHALL BE CONCEALED IN THE WALL AND TERMINATIONS SHALL BE PER THE DIMENSIONED PLAN AND ELEVATIONS. CONFIRM TERMINATION LOCATIONS WITH CAR WASH EQUIPMENT INSTALLER PRIOR INSTALLING THE CONDUITS.
- TERMINATIONS SHALL BE AT THE BACK OF SURFACE MOUNTED BOXES AND EQUIPMENT IF FEASIBLE.
- ALL PIPING SHALL BE CONCEALED IN THE WALL.
- ALL WALL & CEILING PENETRATIONS IN THE CAR WASH BAY SHALL BE SEALED.
- FLAME SPREAD CLASSIFICATIONS FOR INTERIOR WALLS SHALL COMPLY WITH LOCAL CODES.
- FIRE EXTINGUISHERS (2A-10B:C) SHALL BE INSTALLED AT CAR WASH BAY AND MECHANICAL ROOM. CONFIRM FINAL DETAILS WITH LOCAL FIRE INSPECTOR.

## KEYED NOTES

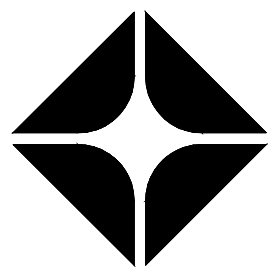
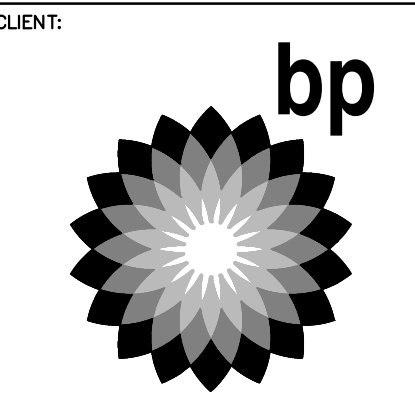
- 6" x 48" HIGH BOLLARD FILLED WITH CONCRETE, REFER TO DETAIL ON CIVIL PLANS
- EQUIPMENT ROOM DOOR, REFER TO DOOR SCHEDULE
- DEPRESSED SLAB, REFER TO STRUCTURAL SLAB PLAN
- CATCH BASIN, REFER TO PLUMBING PLANS
- FLOOR DRAIN, REFER TO PLUMBING PLANS
- ROOF DRAIN, REFER TO PLUMBING PLANS AND CIVIL PLANS FOR CONTINUATION.
- ROOF OVERFLOW DRAIN, REFER TO PLUMBING PLANS
- 3-1/2" WIDE x 1-1/2" DEEP x 10'-6" LENGTH TRENCH BY GC FOR UNDERCAR MANIFOLD, REFER TO DETAIL 12/CWA4.1 & STRUCTURAL PLANS
- 2" ABS SCH 40 SLEEVE WITH 90 DEGREE SWEEPS AT BOTH ENDS WITH A MODULAR PIPE SEALING SYSTEM FOR THE UNDER CAR MANIFOLD HIGH PRESSURE HOSE
- POWER SUPPLY, LED DRIVER AND DMX CONTROLLER PLACED NEAR CENTER OF BAY FOR CABLE REACH.

## WALL LEGEND

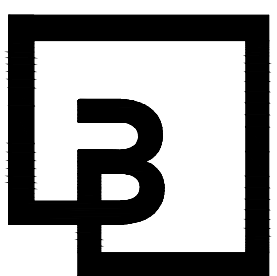
- WOOD FRAMED WALL
- 1 2x6 STUDS @ 16" o.c.
- 1A 2x6 STUDS @ 16" o.c. W/ R-21 BATT INSULATION



01 CONSTRUCTION FLOOR PLAN  
SCALE: 1/4"=1'-0"

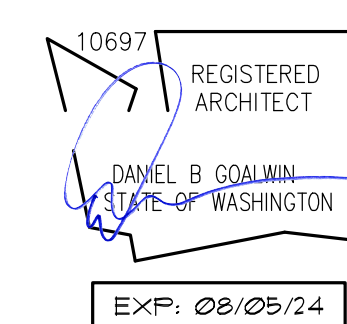


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NO.	DATE	REVISION DESCRIPTION



DEVELOPMENT INFORMATION:  
**ARCO NTI**  
3400 am/pm  
FUEL CANOPY w/ 6 MPD's

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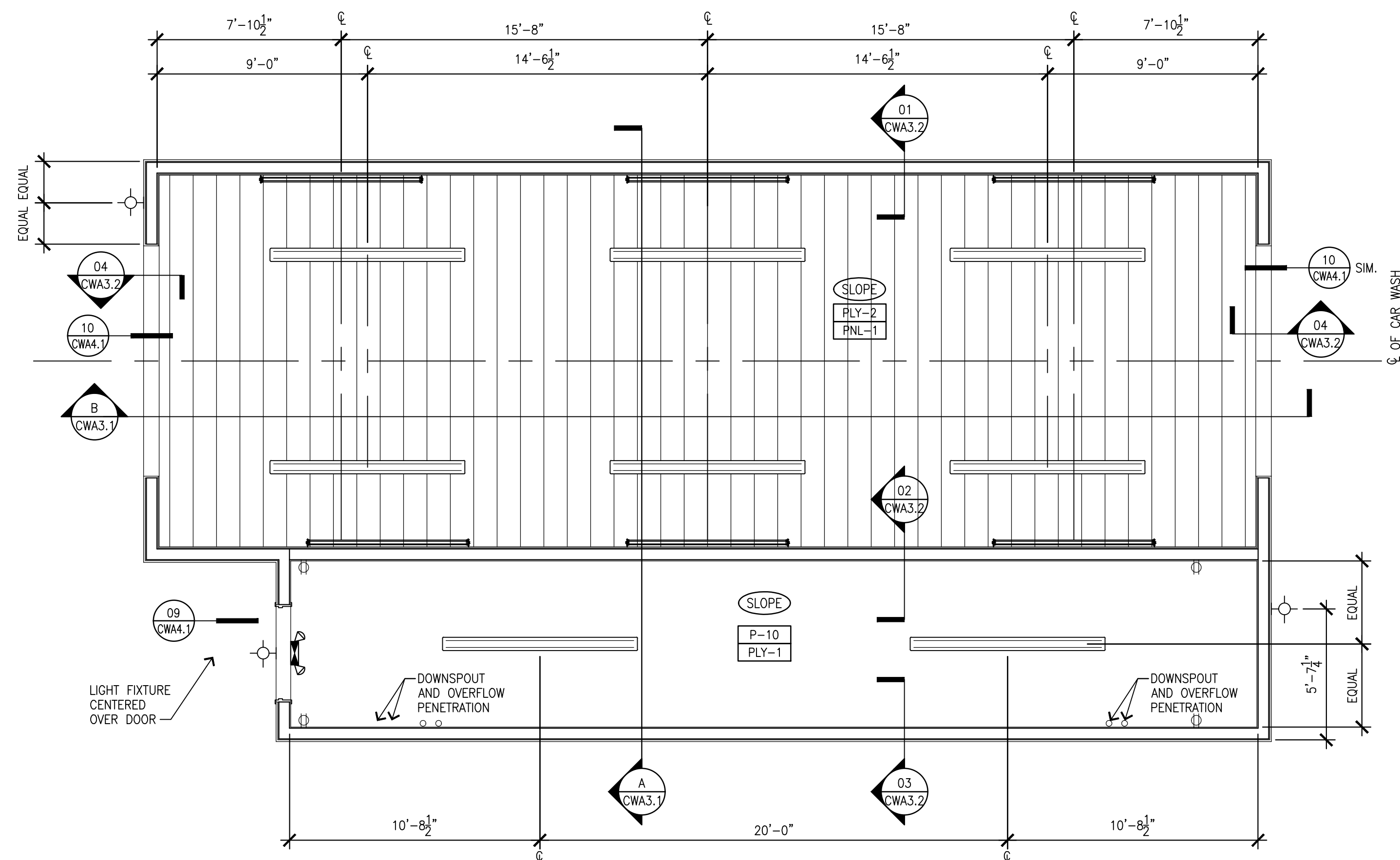
**FACILITY #7184**

DESIGNED BY:	ALLIANCE ZADN:
CHECKED BY:	BP REPM:
DRAWN BY:	ALLIANCE PK:
VERSION:	PROJECT NO: <b>21730</b>

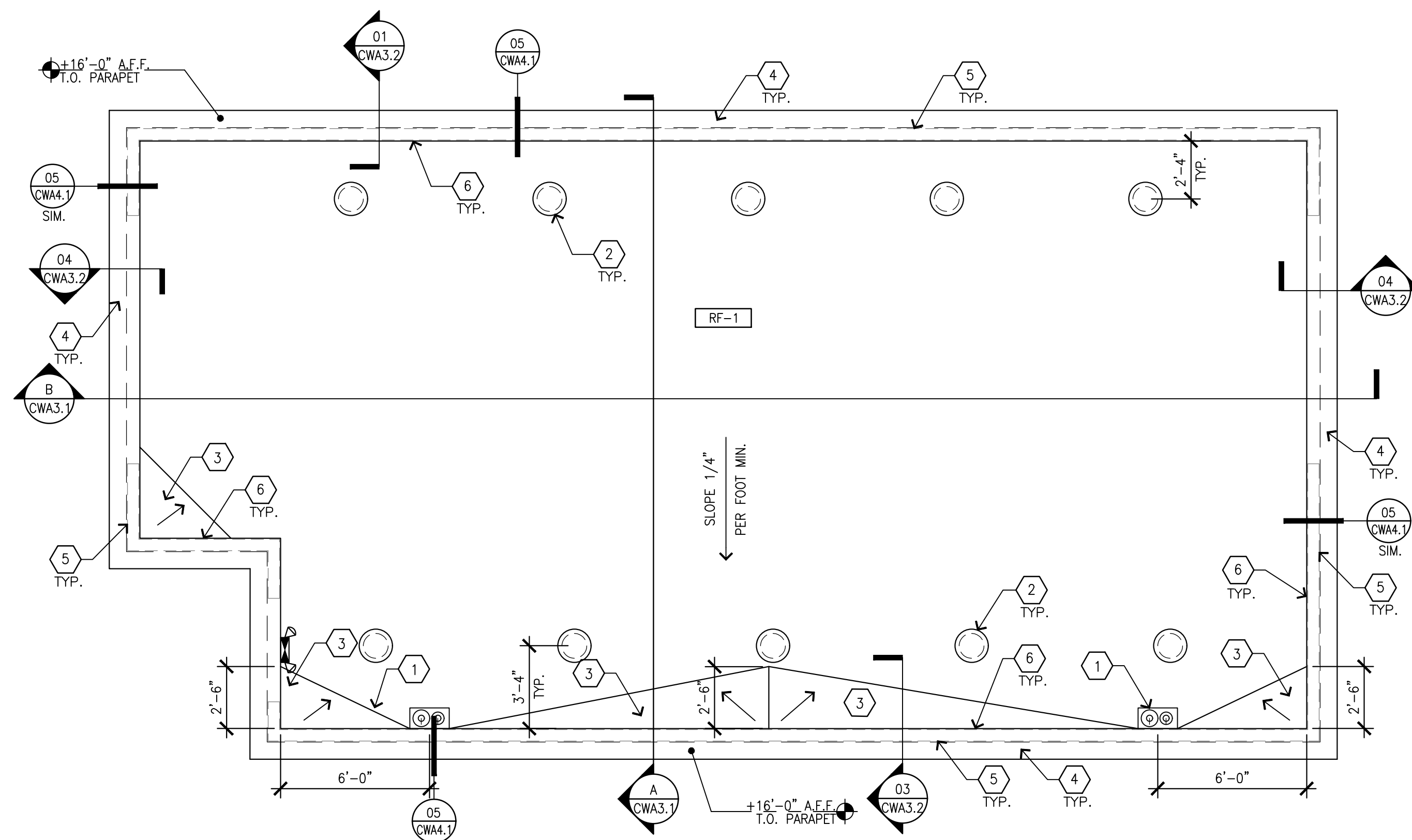
## CONSTRUCTION FLOOR PLAN

SHEET NO:

# CWA1.1



01 REFLECTED CEILING PLAN  
SCALE: 1/4"=1'-0"



02 ROOF PLAN  
SCALE: 1/4"=1'-0"

### CEILING GENERAL NOTES

- ALL DIMENSIONS SHOWN ON REFLECTED CEILING PLAN ARE FROM FACE OF PLYWOOD, UNLESS NOTED OTHERWISE.
- ALL DENOTED DIMENSIONS ARE TO BE USED. PLANS SHALL NOT BE SCALED.
- ALL CONDUITS SHALL BE CONCEALED IN THE WALL & CEILING. TERMINATIONS SHALL BE PER THE DIMENSIONED PLAN.
- LIGHT FIXTURE CONDUIT TERMINATIONS SHALL BE AT THE BACK OF THE FIXTURE. REFER TO ELECTRICAL LIGHTING PLAN FOR LIGHTING SPECIFICATIONS AND FIXTURE MOUNTING HEIGHTS.
- ALL PIPING SHALL BE CONCEALED IN THE WALL & CEILING.
- ALL WALL & CEILING PENETRATIONS IN THE CAR WASH BAY SHALL BE SEALED.
- REFER TO SYMBOL (X-X) FOR ALL CEILING HEIGHTS ON PLAN.

### FINISH SYMBOLS

#### SUBSTRATE

- PLY-1 5/8" PLYWOOD, REFER TO STRUCTURAL FOR SPECIFICATION
- PLY-2 5/8" PLYWOOD (CDX), REFER TO STRUCTURAL FOR SPECIFICATION
- PNL-1 1/2" EXTRUTECH PANELS, #P1300-WHITE

#### PAINT COLOR

- P-10 BENJAMIN MOORE, PM-28, "LINEN WHITE", SEMI-GLOSS FINISH

### CEILING LEGEND

(EM) - DENOTES EMERGENCY BACKUP LIGHTING

- LED SURFACED MOUNTED LINEAR FIXTURE
- LED WALL MOUNTED LINEAR FIXTURE
- LED EXTERIOR WALL MOUNTED FIXTURE
- EXIT SIGN W/ EMERGENCY LIGHTING
- OVERHEAD WALL RECEPTACLES

### ROOF GENERAL NOTES

- REFER TO SPECIFICATIONS BOOK FOR ROOF SYSTEM, INCLUDING GUARANTEES, CURBS, FLASHING, AND ECT.
- REFER TO ROOFING MANUFACTURERS WRITTEN INSTRUCTIONS AND DETAILS FOR ROOFING SYSTEM INSTALLATION. CONTRACTOR TO PROVIDE COMPLETE ROOFING PACKAGE PER MANUFACTURERS RECOMMENDATIONS.
- ROOF ASSEMBLY SHALL COMPLY WITH U.L. I-90 AND FM CLASS "B" RATINGS INCLUDING COPING, FLASHING, PARAPET WALL, AND ROOF SYSTEM.
- DO NOT STOCKPILE EQUIPMENT OR MATERIALS ON THE ROOF STRUCTURE, UNLESS APPROVED IN WRITING BY THE ARCHITECT, STRUCTURAL ENGINEER, AND THE TRUSS MANUFACTURER.
- GENERAL CONTRACTOR IS TO PROVIDE TEMPORARY CONSTRUCTION PERIMETER GUARDRAIL TO COMPLY WITH CODE OF FEDERAL REGULATIONS 29 CFR 1926, SUBPART M (OSCA), GUARDRAIL TO BE 42" HEIGHT AND BE ABLE TO WITHSTAND 200 POUNDS AT TOP EDGE.
- ALL DIMENSIONS SHOWN ON ROOF PLAN ARE FROM FACE OF PLYWOOD, UNLESS NOTED OTHERWISE.
- REFER TO PLUMBING PLANS FOR VENT PIPE PENETRATION AND CURB DETAILS. ALL ROOF PENETRATIONS SHALL BE THROUGH THE CURBS, UNLESS NOTED OTHERWISE.

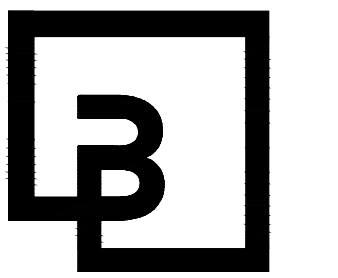
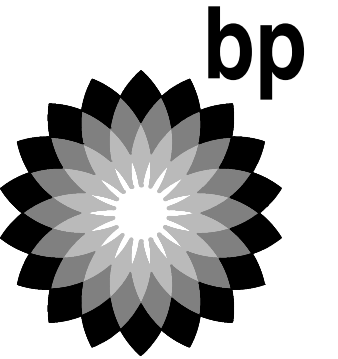
### KEYED NOTES

- 1 ROOF DRAIN AND OVERFLOW PER DETAIL 04/CWA4.1
- 2 ROOF VENT PER DETAIL 11/CWA4.1. VENTS SHALL BE CENTERED BETWEEN JOISTS
- 3 TAPERED INSULATION CRICKET @ 1" PER FOOT
- 4 SHOP FORMED PRE-FINISHED METAL COPING, REFER TO DETAIL 05/CWA4.1
- 5 FACE OF EXTERIOR WALL BELOW
- 6 FACE OF PARAPET WALL

### ROOFING

- RF-1 TPO ROOFING MEMBRANE WITH PROTECTION BOARD AND 3" EXPANDED POLYSTYRENE RIGID INSULATION

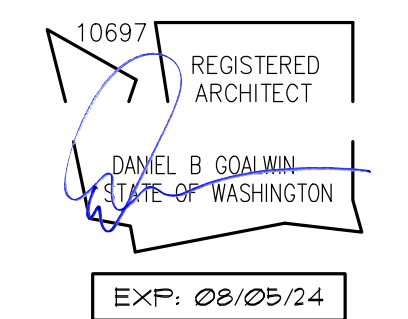
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Kent, WA 98032  
425.251.6222  
barghausen.com

NO.	DATE	REVISION DESCRIPTION
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SEAL:



DEVELOPMENT INFORMATION:

**ARCO NTI**  
3400 am/pm  
FUEL CANOPY w/ 6 MPD's

SITE ADDRESS:

1402 S MERIDIAN  
PUYALLUP, WA 98571

FACILITY #7184

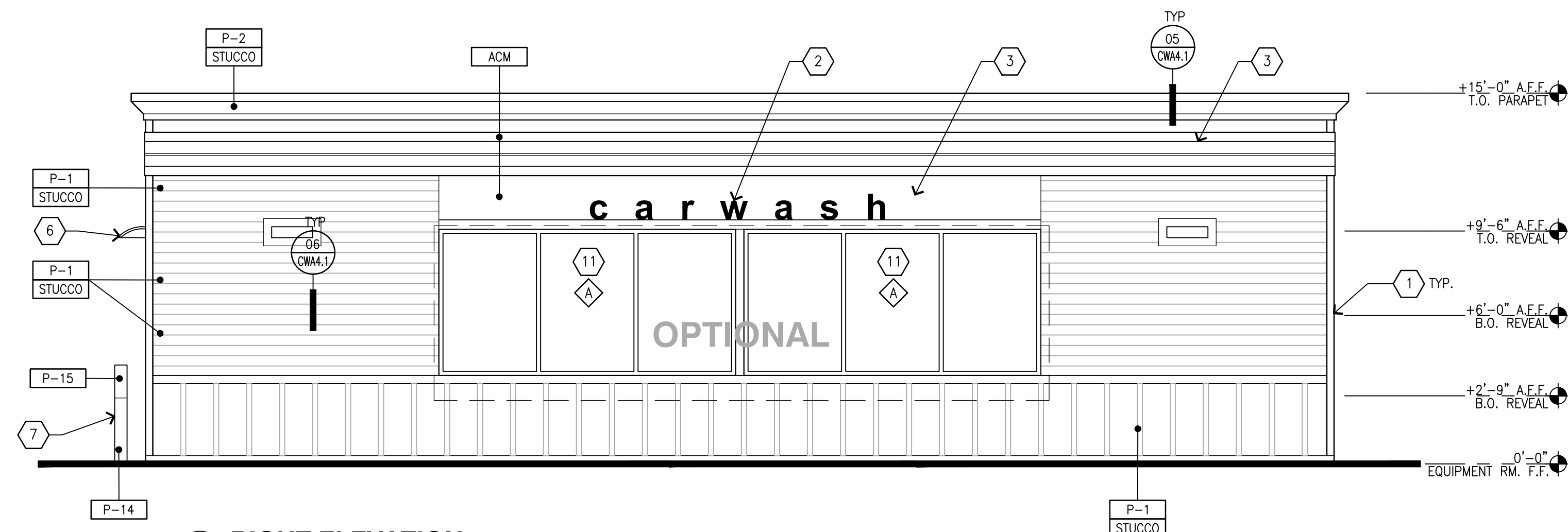
DESIGNED BY: ALLIANCE ZADM  
CHECKED BY: BP REP:  
DRAWN BY: ALLIANCE PM:  
VERSION: PROJECT NO:  
21730

DRAWING TITLE:

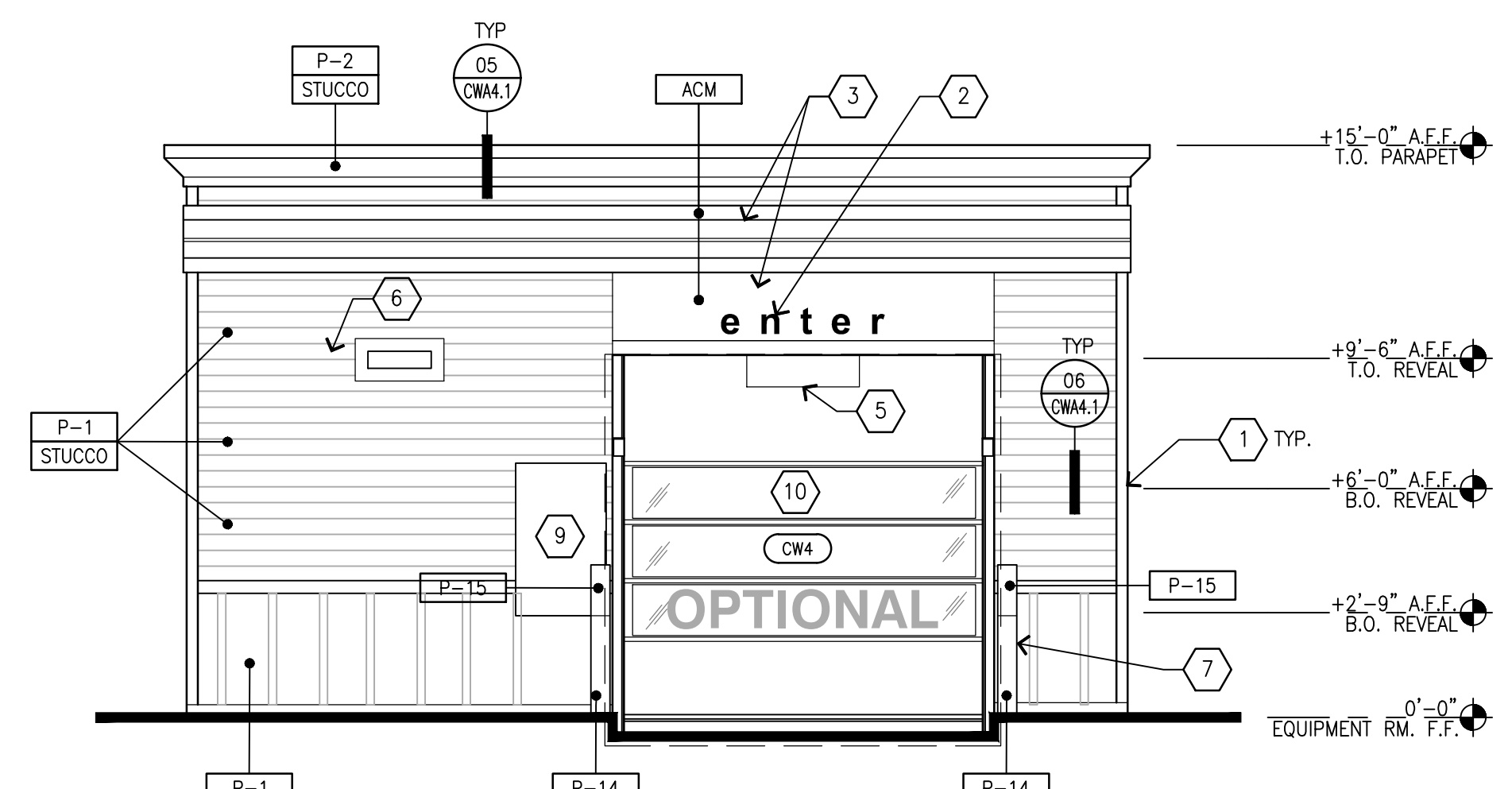
REFLECTED CEILING PLAN  
AND ROOF PLAN

SHEET NO:

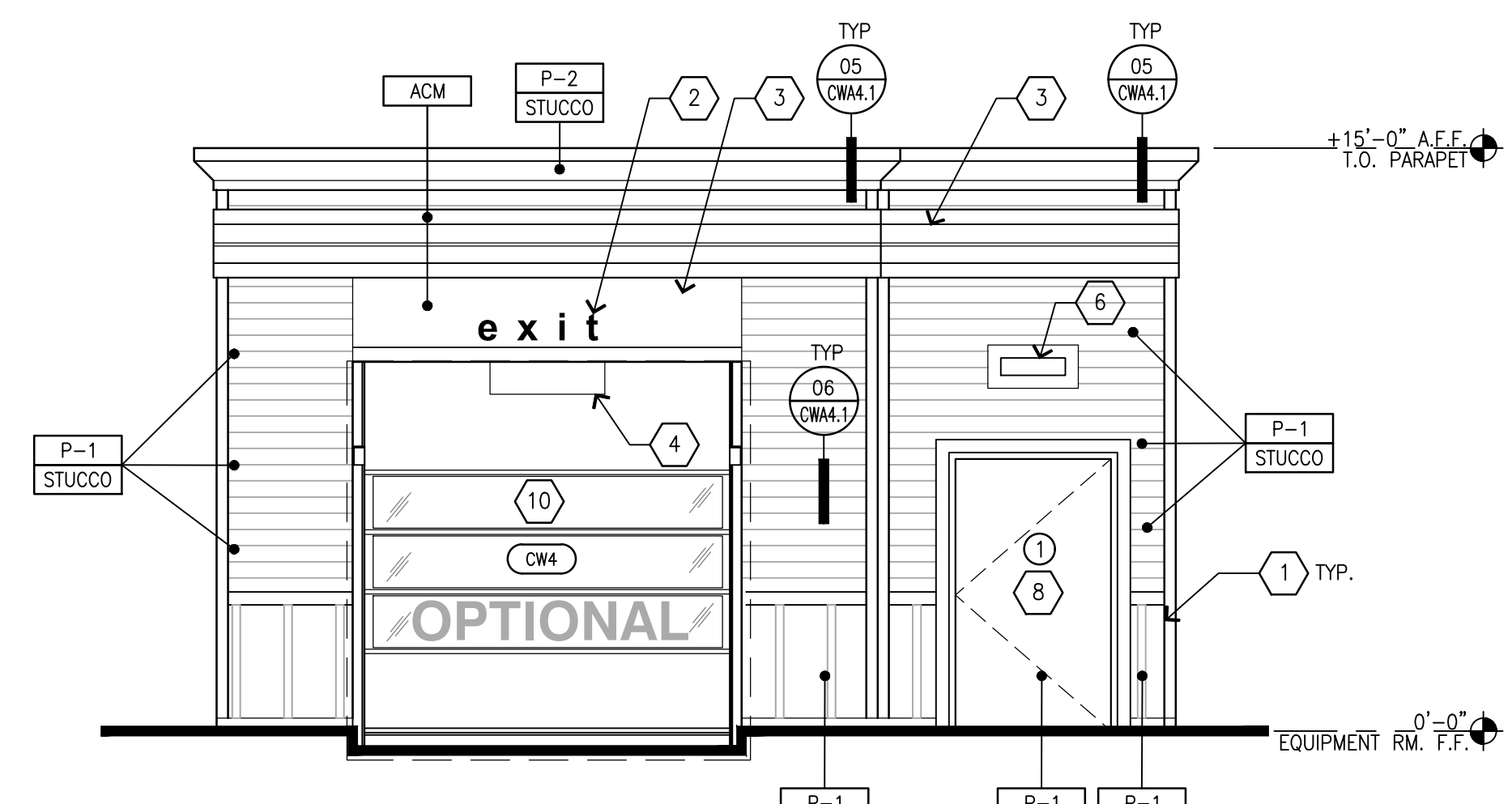
CWA1.2



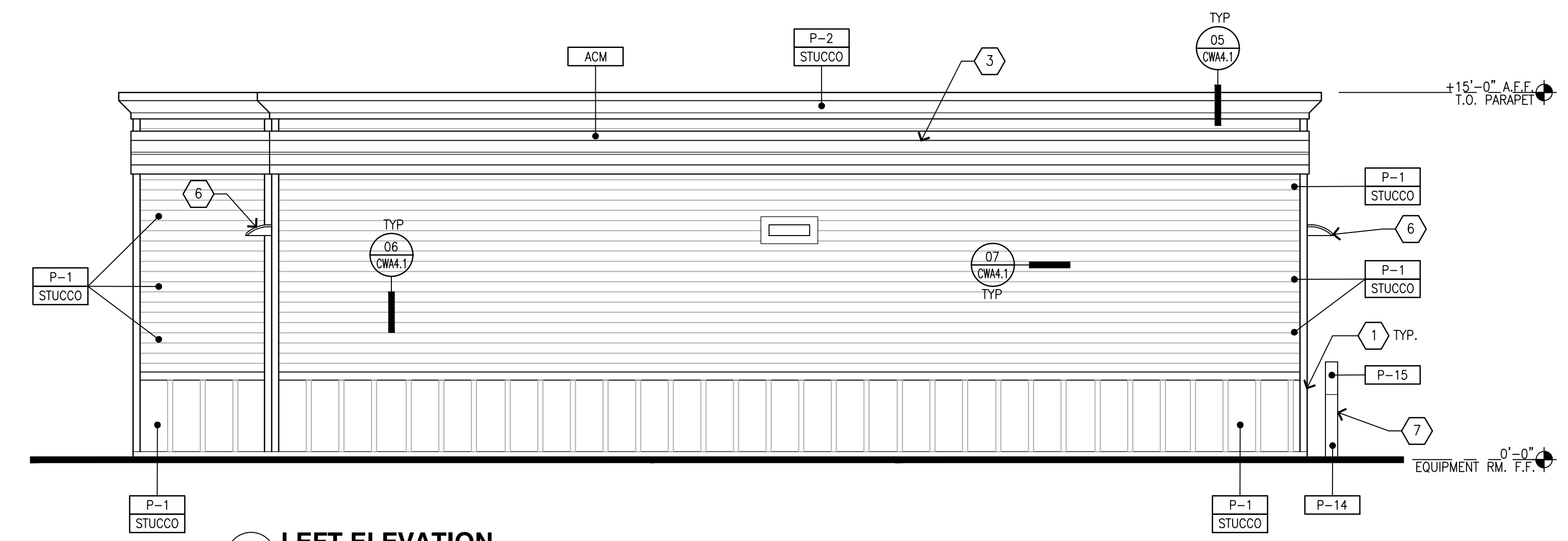
01 RIGHT ELEVATION  
SCALE: 1/4"=1'-0"



02 FRONT ELEVATION  
SCALE: 1/4"=1'-0"



03 REAR ELEVATION  
SCALE: 1/4"=1'-0"



04 LEFT ELEVATION  
SCALE: 1/4"=1'-0"

**KEYED NOTES**

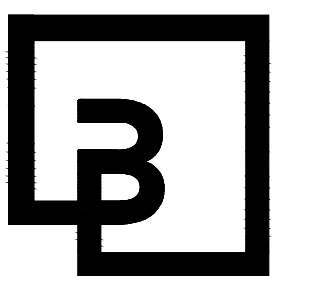
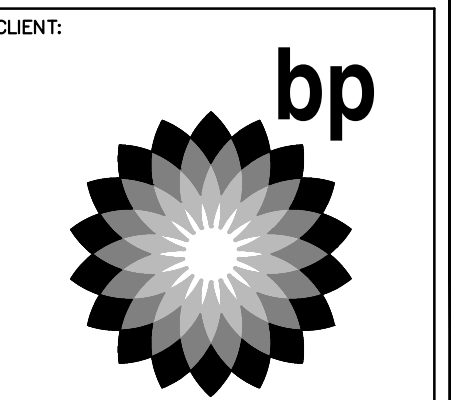
- 1 1" REVEAL
- 2 VINYL LETTERS APPLIED TO ACM
- 3 VINYL DECAL APPLIED TO ACM
- 4 "NO ENTRY" SIGN
- 5 OVERHEAD CLEARANCE BAR
- 6 WALL MOUNTED LED FIXTURE
- 7 CONCRETE FILLED BOLLARD, REFER TO DETAIL 5/CWA4.2
- 8 METAL DOOR & FRAME
- 9 INSTRUCTIONAL SIGN PANEL

**COLOR LEGEND**

- P-1 BENJAMIN MOORE, 1030, "BRANDY CREAM", SATIN FINISH
- P-2 BENJAMIN MOORE, 2121-30, "PEWTER", HIGH GLOSS
- P-14 BP PEARL - BENJAMIN MOORE, OC-8, "ELEPHANT TUSK"
- P-15 BP YELLOW - BENJAMIN MOORE, 2022-10, "YELLOW"

**MATERIAL LEGEND**

- STUCCO 3/8" CEMENT PLASTER, INSTALLED PER MFG. SPECIFICATIONS; TEXTURE: FINE SAND FINISH
- ACM ALUMINUM COMPOSITE MATERIAL



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NO.	DATE	REVISION DESCRIPTION

10697 REGISTERED ARCHITECT  
DANIEL B. GOALMIN  
STATE OF WASHINGTON  
EXP: 08/08/24

DEVELOPMENT INFORMATION:  
**ARCO NTI**  
3400 am/pm  
FUEL CANOPY w/ 6 MPD's

SITE ADDRESS:  
1402 S MERIDIAN  
PUYALLUP, WA 98871

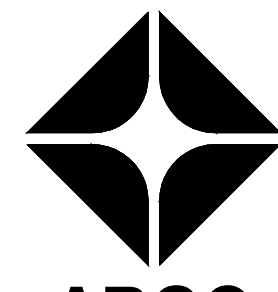
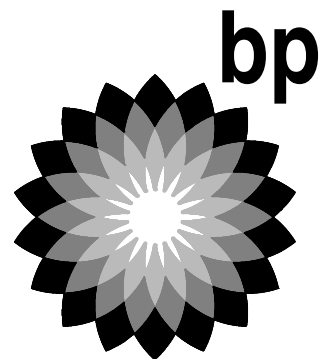
FACILITY #7184

DESIGNED BY: ALLIANCE ZADM  
CHECKED BY: BP REP:  
DRAWN BY: ALLIANCE PM:  
VERSION: PROJECT NO:  
21730

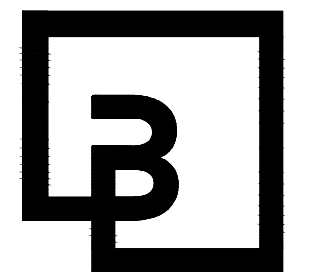
DRAWING TITLE:  
**EXTERIOR ELEVATIONS**

SHEET NO:  
**CWA2.1**

CLIENT:



BP WEST COAST PRODUCTS, LLC



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Kent, WA 98032  
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NO.	DATE	REVISION	DESCRIPTION
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10697 REGISTERED ARCHITECT  
 DANIEL B. GOALMIN  
 STATE OF WASHINGTON  
 EXP: 08/05/24

DEVELOPMENT INFORMATION:  
**ARCO NTI**  
**3400 am/pm**  
**FUEL CANOPY w/ 6 MPD's**

SITE ADDRESS:  
**1402 S MERIDIAN**  
**PUYALLUP, WA 98371**

**FACILITY #7184**

DESIGNED BY: ALLIANCE ZADM:  
 CHECKED BY: BP REPM:  
 DRAWN BY: ALLIANCE PM:  
 VERSION: PROJECT NO:  
 - 21730

### INTERIOR ELEVATIONS

SHEET NO: **CWA2.3**

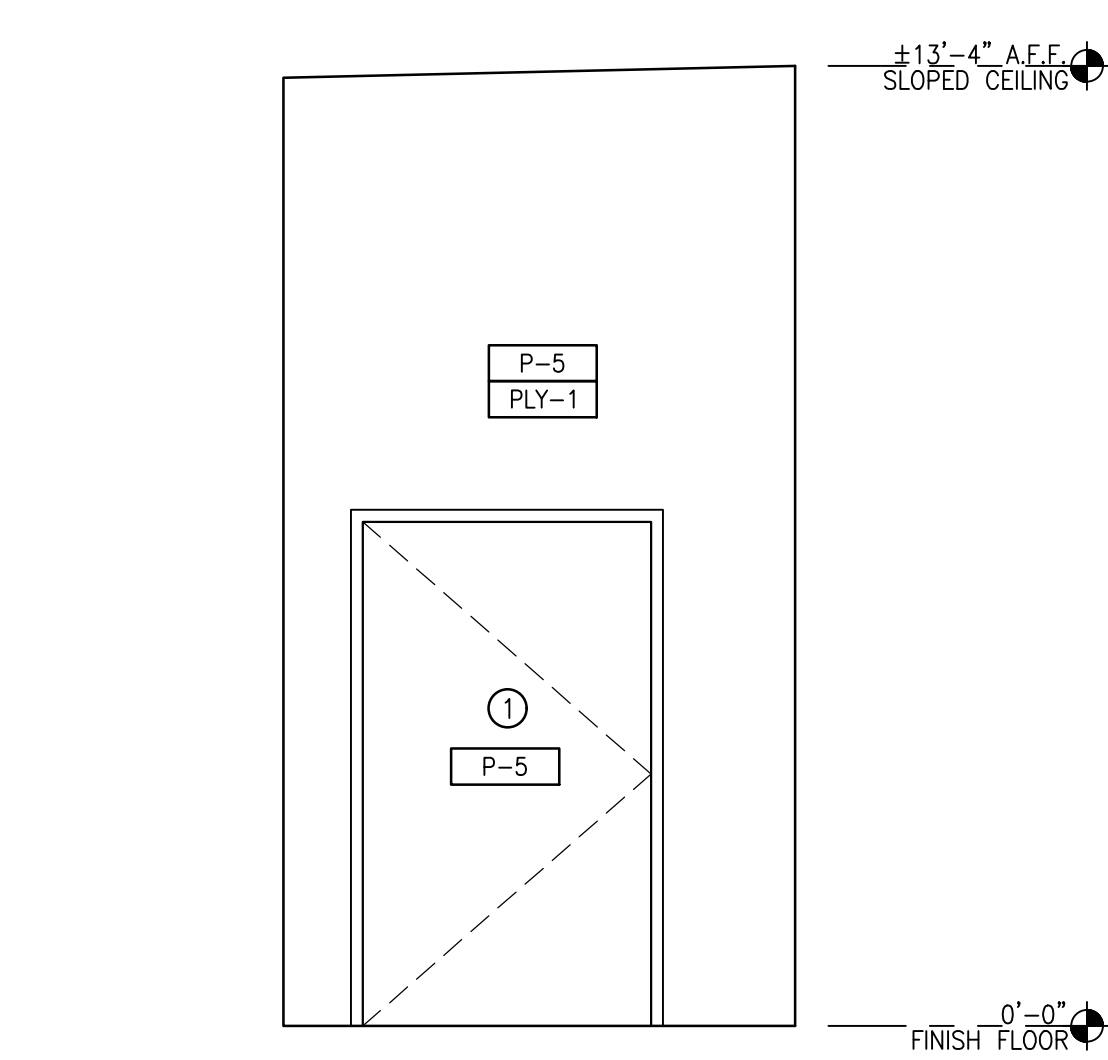
### GENERAL NOTES

- A. REFER TO SHEET CWQ1.1 FOR EQUIPMENT PLAN AND SCHEDULE.
- B. ALL CONDUITS SHALL BE CONCEALED IN THE WALL AND TERMINATIONS SHALL BE PER THE DIMENSIONED PLAN AND ELEVATIONS. CONFIRM TERMINATION LOCATIONS WITH CAR WASH EQUIPMENT INSTALLER PRIOR INSTALLING THE CONDUITS.
- C. TERMINATIONS SHALL BE AT THE BACK OF SURFACE MOUNTED BOXES AND EQUIPMENT IF FEASIBLE.

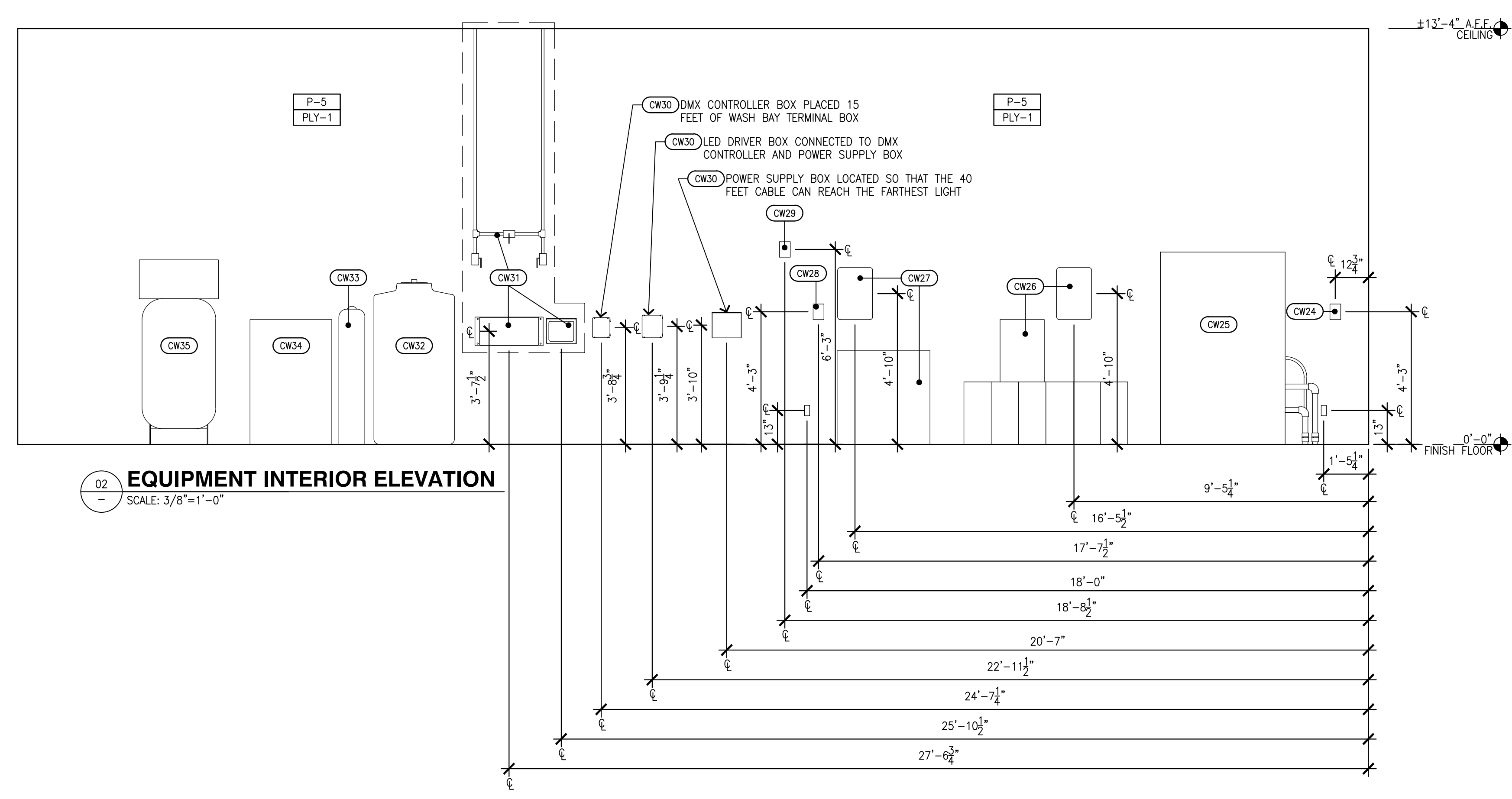
### FINISH SYMBOLS

**PAINT COLOR**  
 P-5 BENJAMIN MOORE, 2121-70, "CHANTILLY LACE"  
 SEMI-GLOSS FINISH

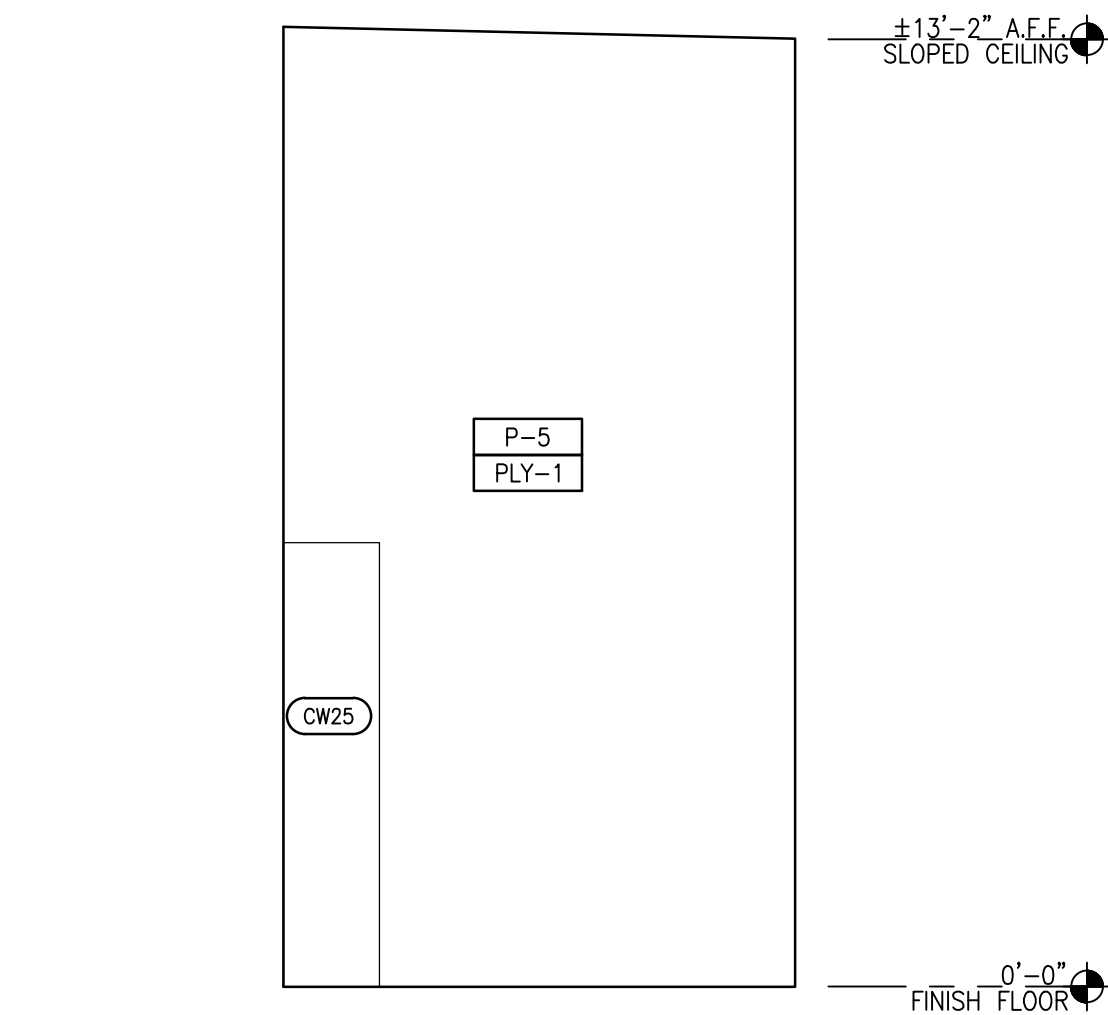
**SUBSTRATE**  
 PLY-1 TYPE: 5/8" PLYWOOD



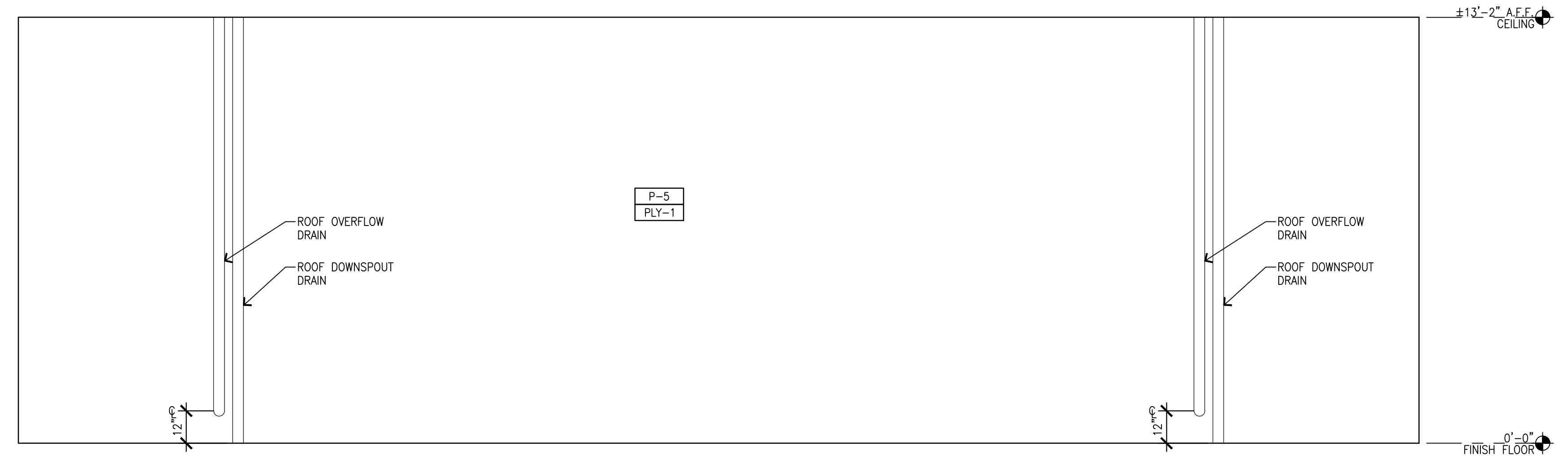
01 EQUIPMENT INTERIOR ELEVATION  
 SCALE: 3/8"=1'-0"



02 EQUIPMENT INTERIOR ELEVATION  
 SCALE: 3/8"=1'-0"



03 EQUIPMENT INTERIOR ELEVATION  
 SCALE: 3/8"=1'-0"



04 EQUIPMENT INTERIOR ELEVATION  
 SCALE: 3/8"=1'-0"



**GENERAL NOTES**

- A. REFER TO SHEET CW01.1 FOR EQUIPMENT PLAN AND SCHEDULE.
- B. ALL CONDUITS SHALL BE CONCEALED IN THE WALL AND TERMINATIONS SHALL BE PER THE DIMENSIONED PLAN AND ELEVATIONS. CONFIRM TERMINATION LOCATIONS WITH CAR WASH EQUIPMENT INSTALLER PRIOR INSTALLING THE CONDUITS.
- C. TERMINATIONS SHALL BE AT THE BACK OF SURFACE MOUNTED BOXES AND EQUIPMENT IF FEASIBLE.
- D. ALL PIPING SHALL BE CONCEALED IN THE WALL.
- E. ALL WALL & CEILING PENETRATIONS IN THE CAR WASH BAY SHALL BE SEALED.

**KEY NOTES**

- ① WASH BAY WINDOWS

**FINISH SYMBOLS**

**PAINT COLOR**

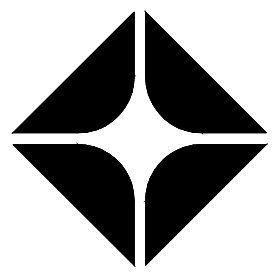
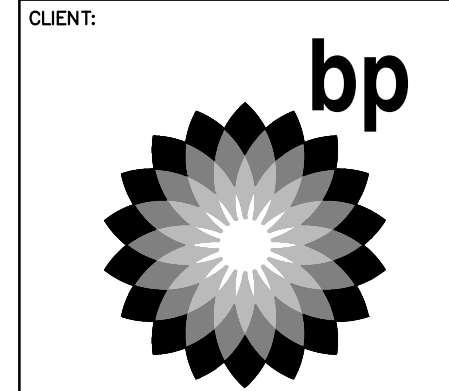
- P-5 BENJAMIN MOORE, 2121-70, "CHANTILLY LACE" SEMI-GLOSS FINISH

**WALL PANEL**

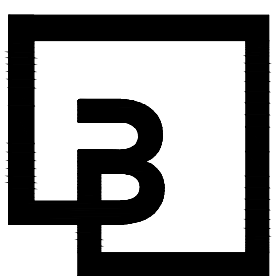
- VP-1 PVC 12" FLAT PANEL  
MFR: EXTRUTECH PLASTICS, INC.  
PRODUCT: P1300 PANEL  
COLOR: WHITE

**SUBSTRATE**

- PLY-1 TYPE: 5/8" PLYWOOD
- PLY-2 TYPE: 5/8" PLYWOOD (CDX)



ARCO  
BP WEST COAST PRODUCTS, LLC



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NO.	DATE	REVISION DESCRIPTION

10697 REGISTERED ARCHITECT  
DANIEL B. COALMIN  
STATE OF WASHINGTON  
EXP: 08/08/24

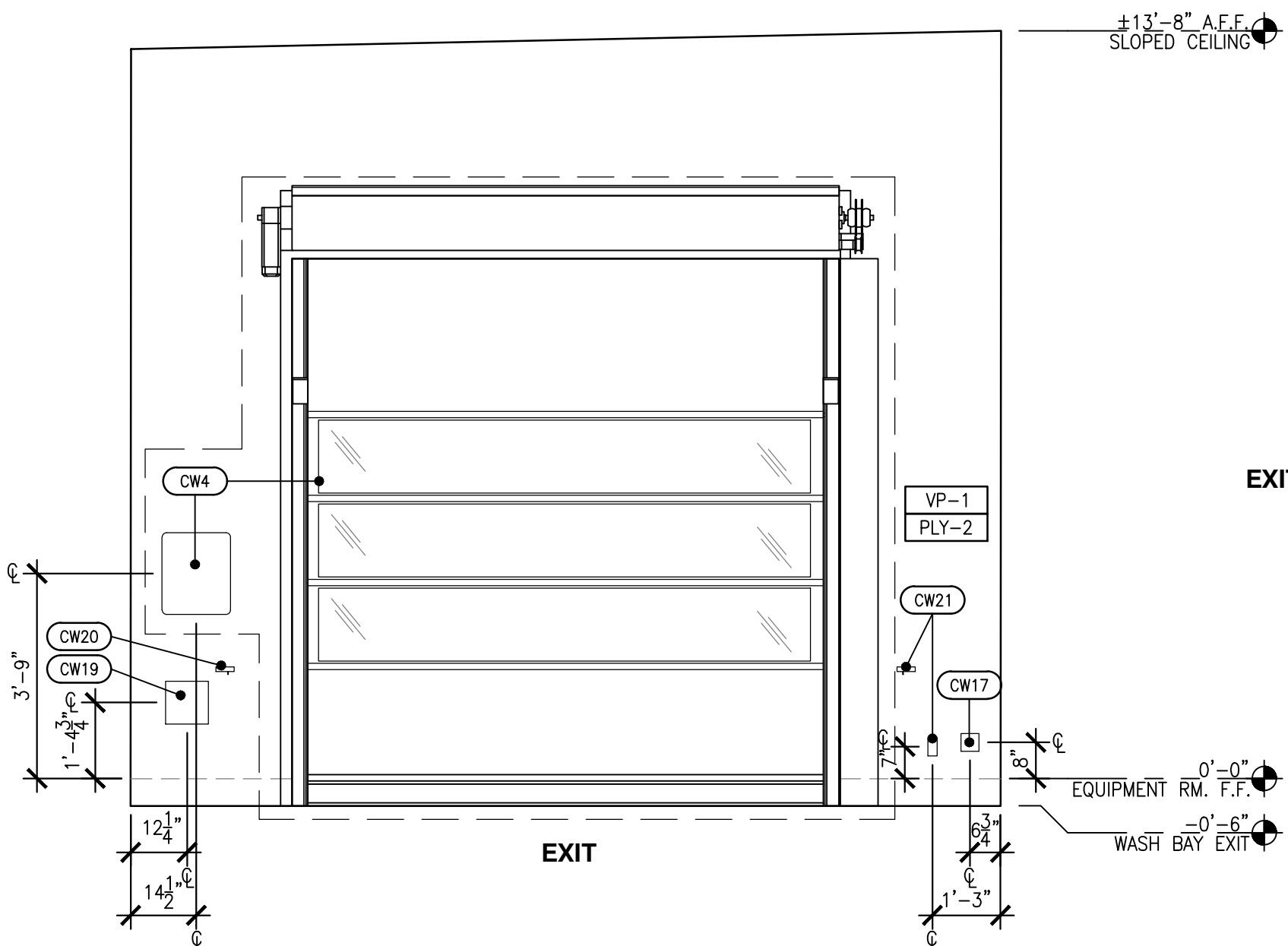
DEVELOPMENT INFORMATION:  
**ARCO NTI**  
3400 am/pm  
FUEL CANOPY w/ 6 MPD's

SITE ADDRESS:  
1402 S MERIDIAN  
PUYALLUP, WA 98571

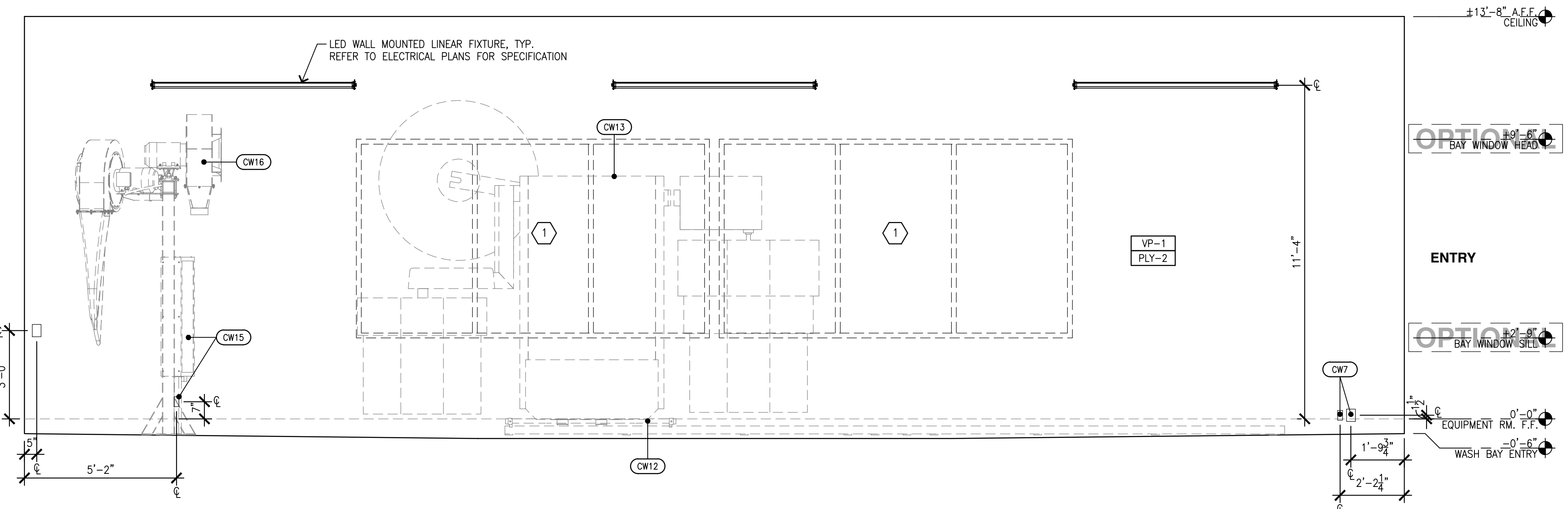
**FACILITY #7184**  
DESIGNED BY: ALLIANCE ZADN  
CHECKED BY: BP REP:  
DRAWN BY: ALLIANCE PM:  
VERSION: PROJECT NO:  
  21730

**INTERIOR ELEVATIONS**

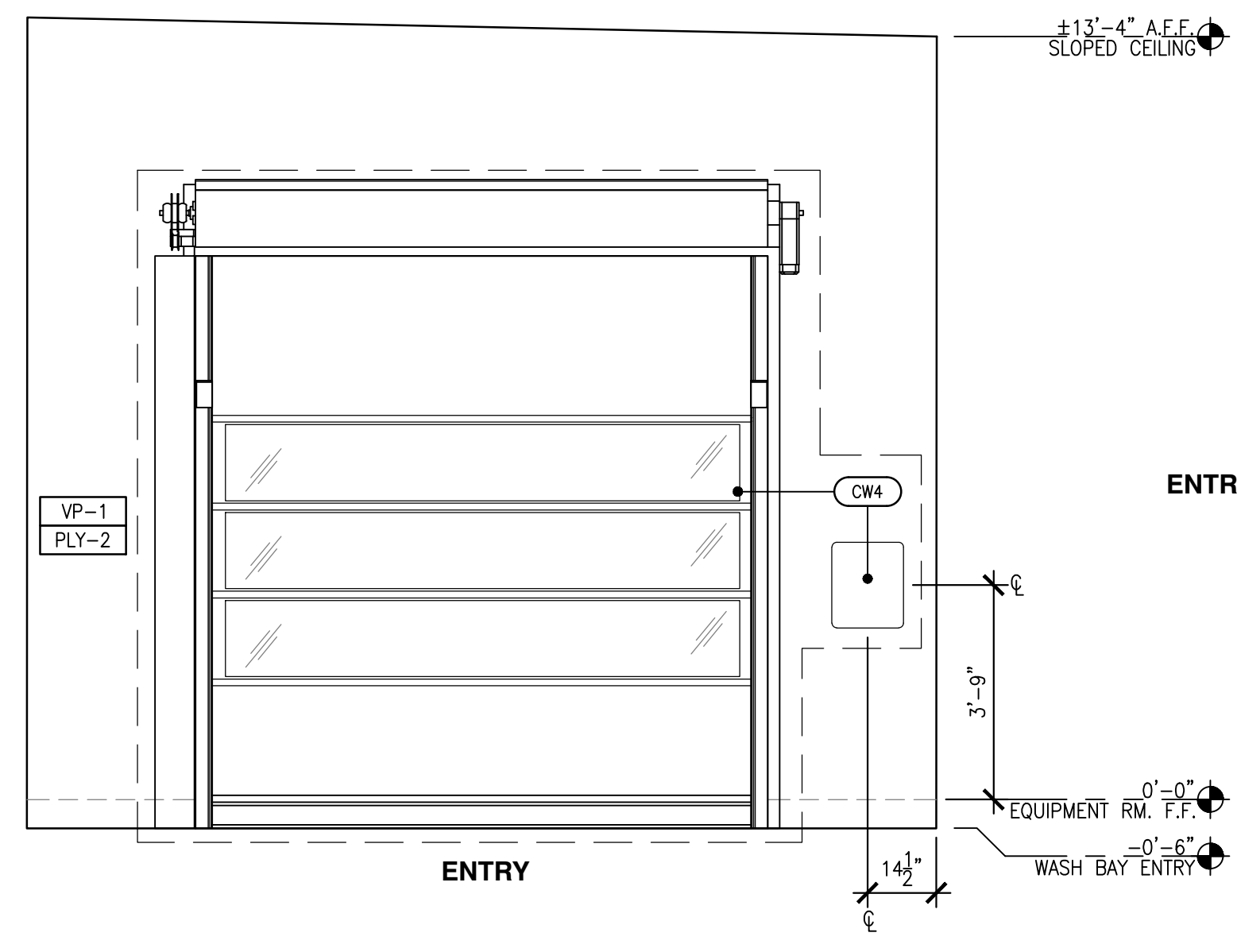
SHEET NO:  
**CWA2.4**



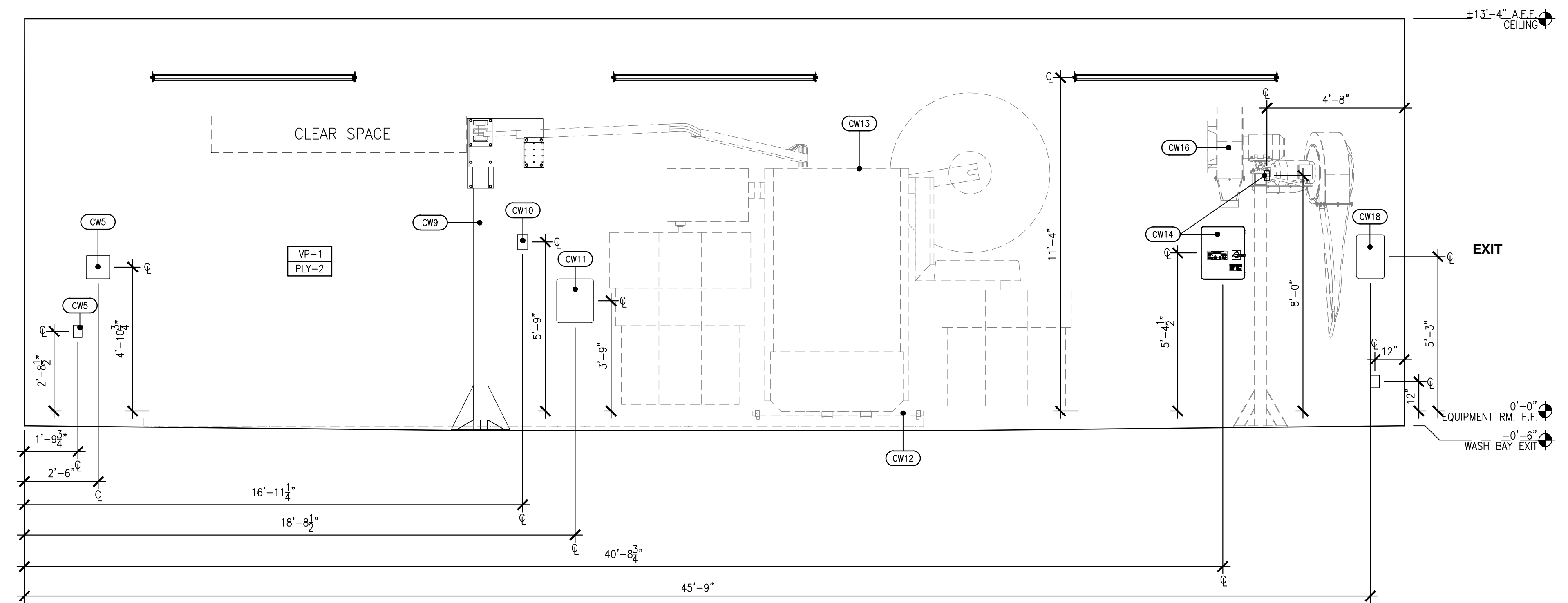
**01 WASH BAY INTERIOR ELEVATION**  
SCALE: 3/8"=1'-0"



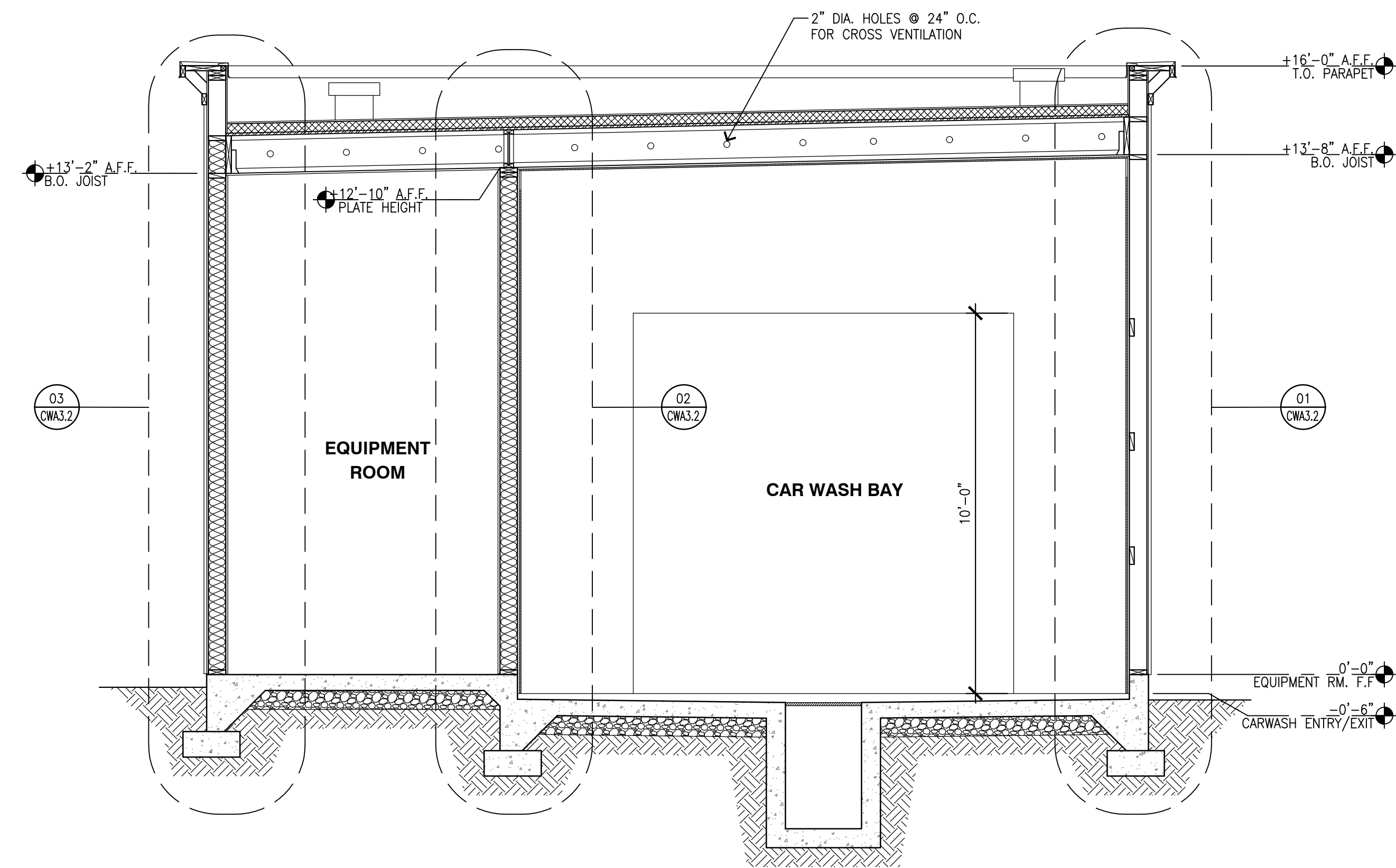
**02 WASH BAY INTERIOR ELEVATION**  
SCALE: 3/8"=1'-0"



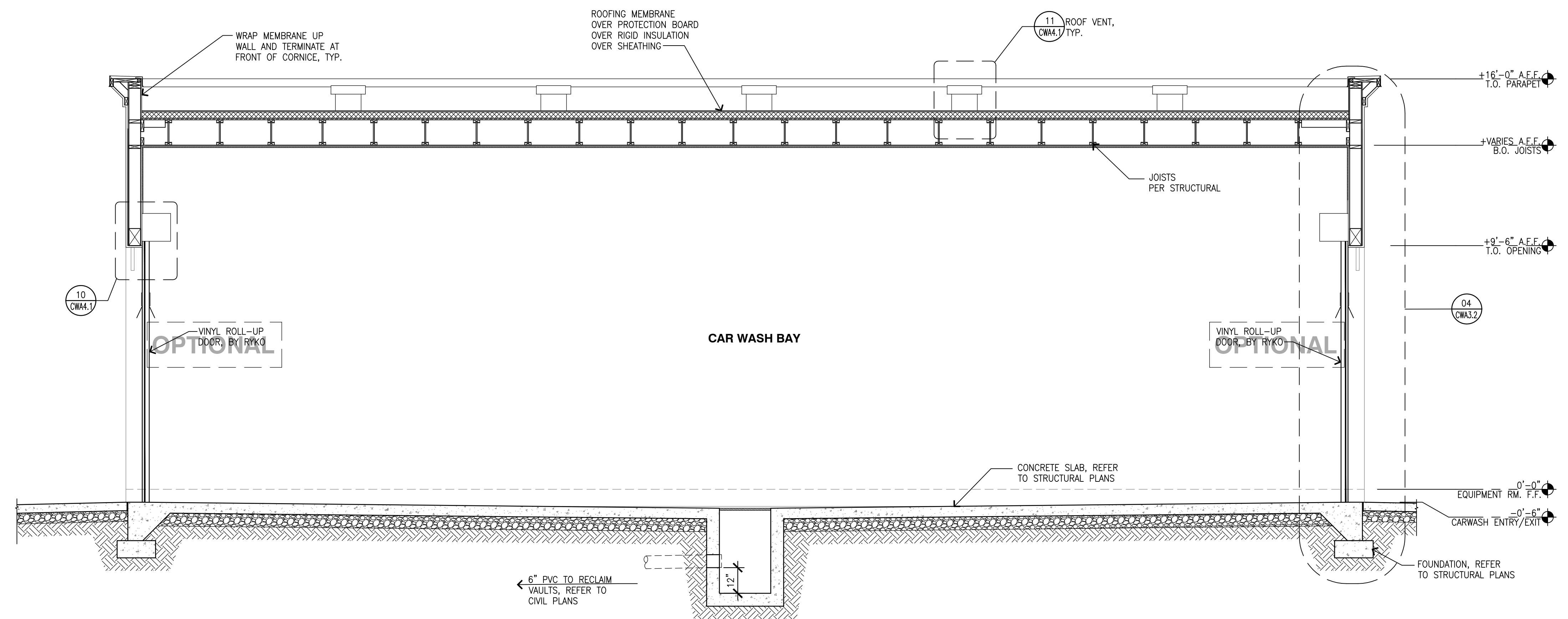
**03 WASH BAY INTERIOR ELEVATION**  
SCALE: 3/8"=1'-0"



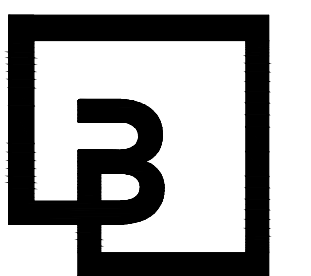
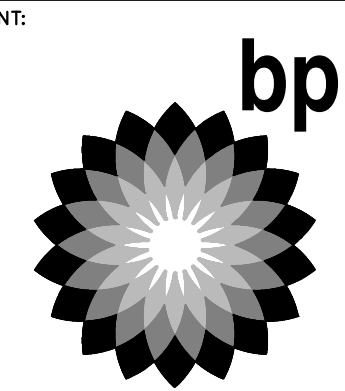
**04 WASH BAY INTERIOR ELEVATION**  
SCALE: 3/8"=1'-0"



**A BUILDING SECTION**  
SCALE: 3/8"=1'-0"



**B BUILDING SECTION**  
SCALE: 3/8"=1'-0"



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NO.	DATE	REVISION DESCRIPTION

10697 REGISTERED ARCHITECT  
DANIEL B. COALMIN  
STATE OF WASHINGTON  
EXP: 08/08/24

DEVELOPMENT INFORMATION:  
**ARCO NTI**  
**3400 am/pm FUEL CANOPY w/ 6 MPD's**

SITE ADDRESS:  
**1402 S MERIDIAN**  
PUYALLUP, WA 98571

**FACILITY #7184**

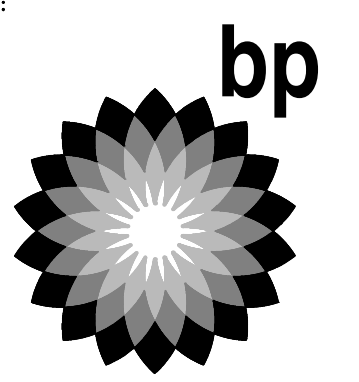
DESIGNED BY: ALLIANCE ZADM;  
CHECKED BY: BP REP;  
DRAWN BY: ALLIANCE PM;  
VERSION: PROJECT NO:  
21730

DRAWING TITLE:  
**BUILDING SECTIONS**

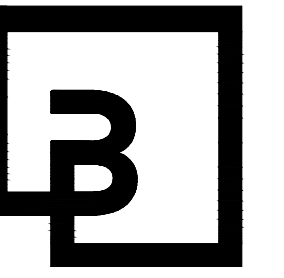
SHEET NO:  
**CWA3.1**

**GENERAL NOTES**

- A. SEE GENERAL PROJECT NOTES T1.1
- B. CONTRACTOR RESPONSIBLE FOR INSTALLATION OF ALL FLASHING AND FOR ALL ROOF EQUIPMENT CURBS.
- C. GENERAL CONTRACTOR RESPONSIBLE FOR FURNISHING AND LOCATING ROOF TOP EQUIPMENT.
- D. SEE STRUCTURAL DRAWINGS FOR COMPLETE NOTES AND STRUCTURAL FRAMING DETAILS.
- E. REFER TO TYPICAL WALL SECTIONS FOR DIMENSIONS AND MATERIALS.



BP WEST COAST PRODUCTS, LLC



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10697 REGISTERED ARCHITECT  
 PANEL B GOVERNOR  
 STATE OF WASHINGTON  
 EXP: 08/05/24

DEVELOPMENT INFORMATION:  
**ARCO NTI**  
 3400 am/pm  
 FUEL CANOPY w/ 6 MPD's

SITE ADDRESS:  
 1402 S MERIDIAN  
 PUYALLUP, WA 98571

**FACILITY #7184**

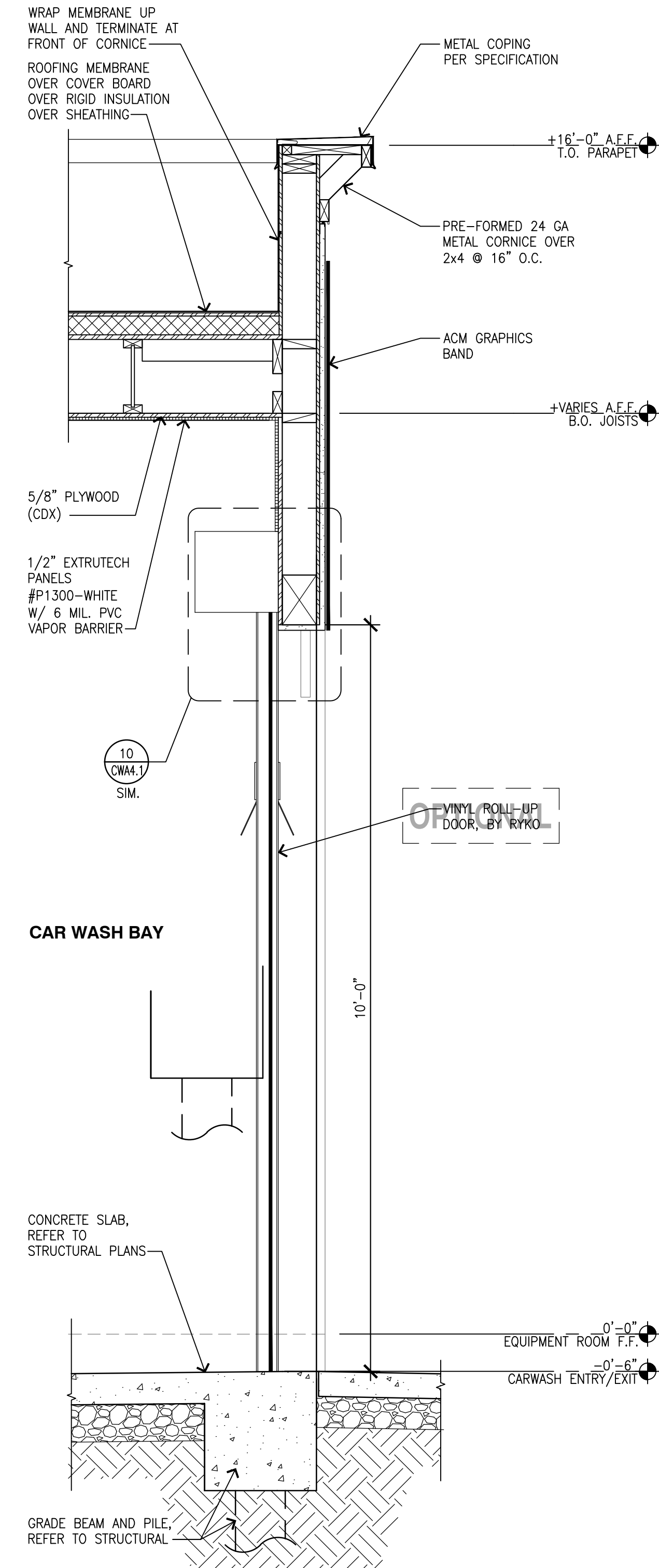
DESIGNED BY:	ALLIANCE ZADM:
CHECKED BY:	BP REPM:
DRAWN BY:	ALLIANCE PM:
VERSION:	PROJECT NO: <b>21730</b>

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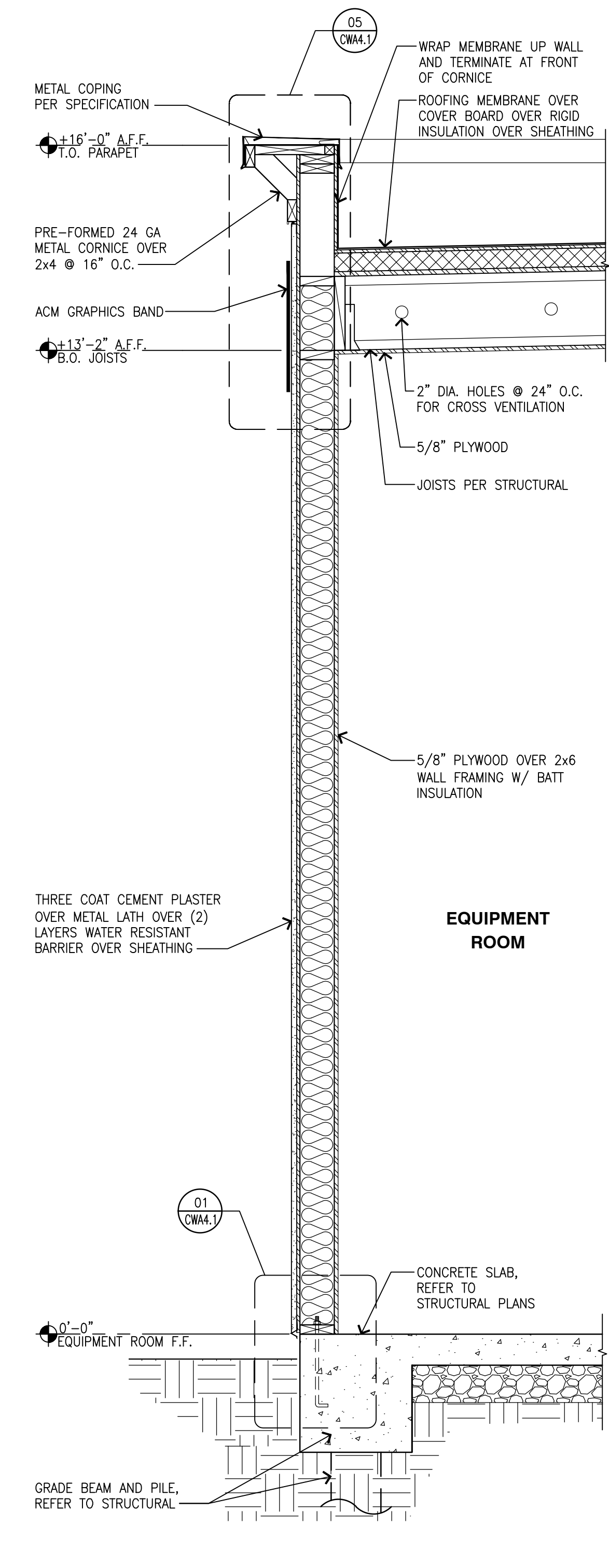
**WALL SECTIONS**

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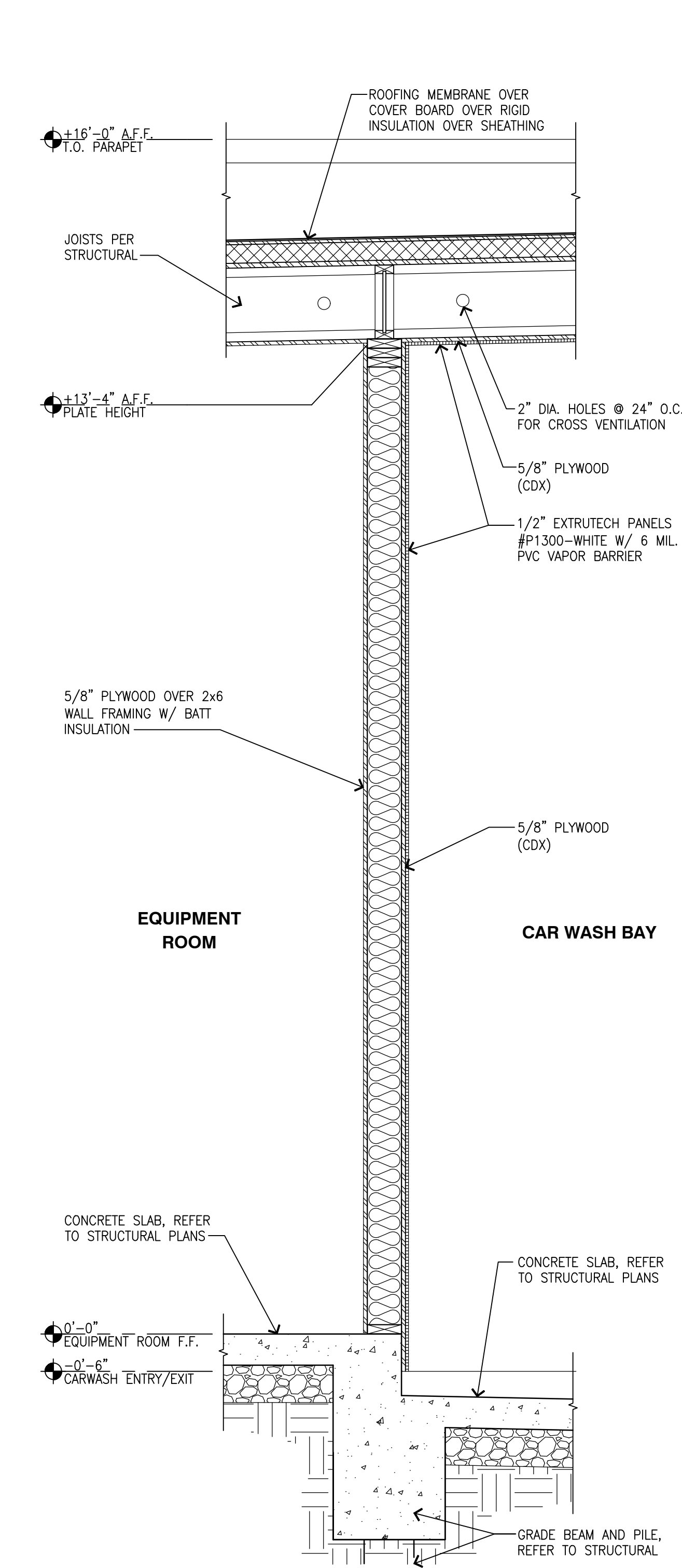
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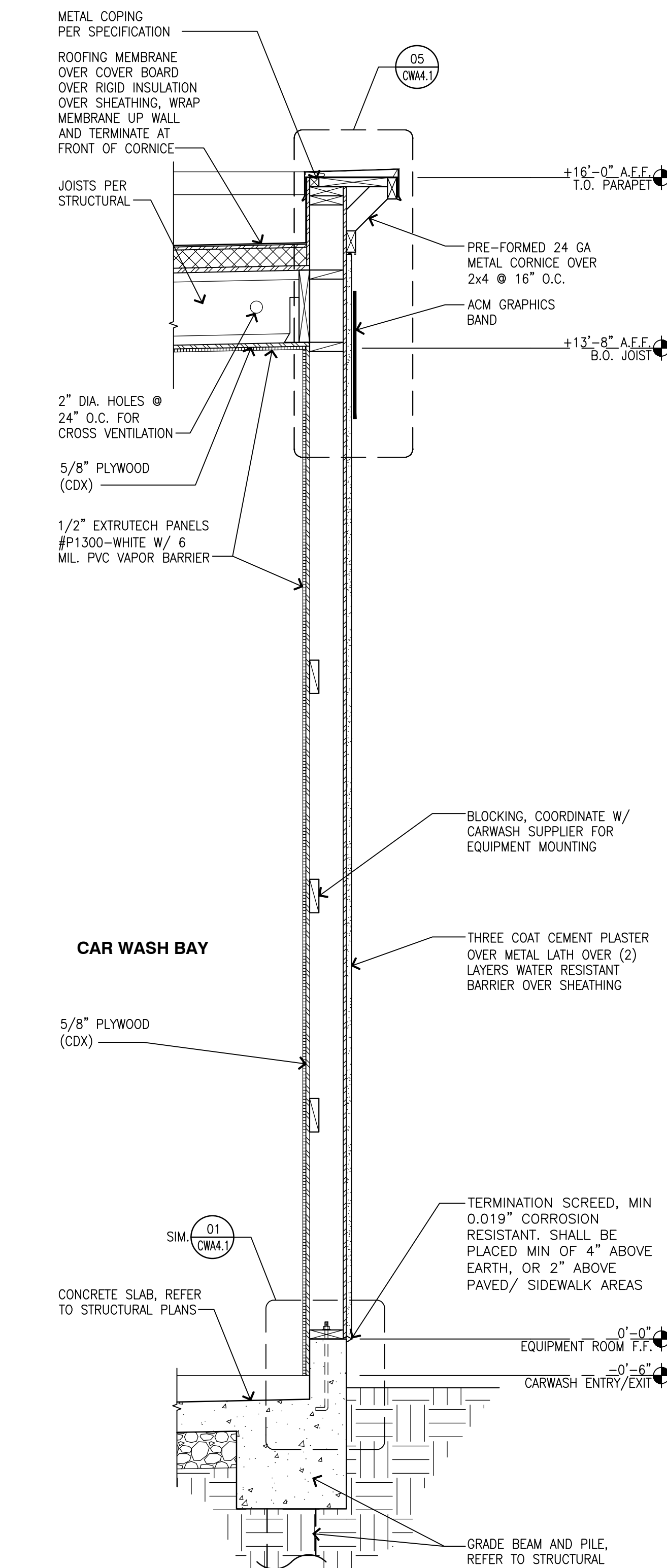
**04 WALL SECTION**  
 SCALE: 3/4"=1'-0"



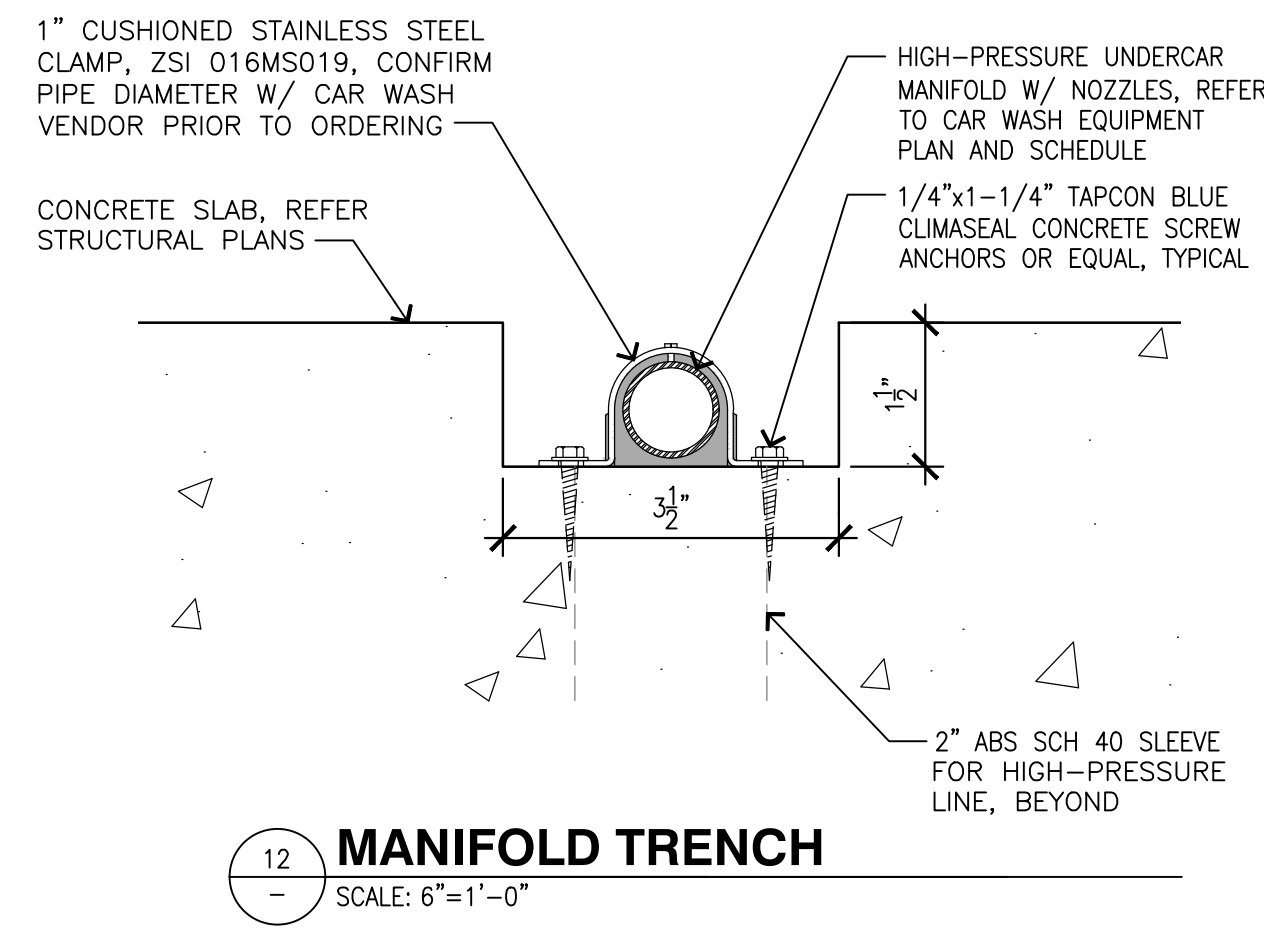
**03 WALL SECTION**  
 SCALE: 3/4"=1'-0"



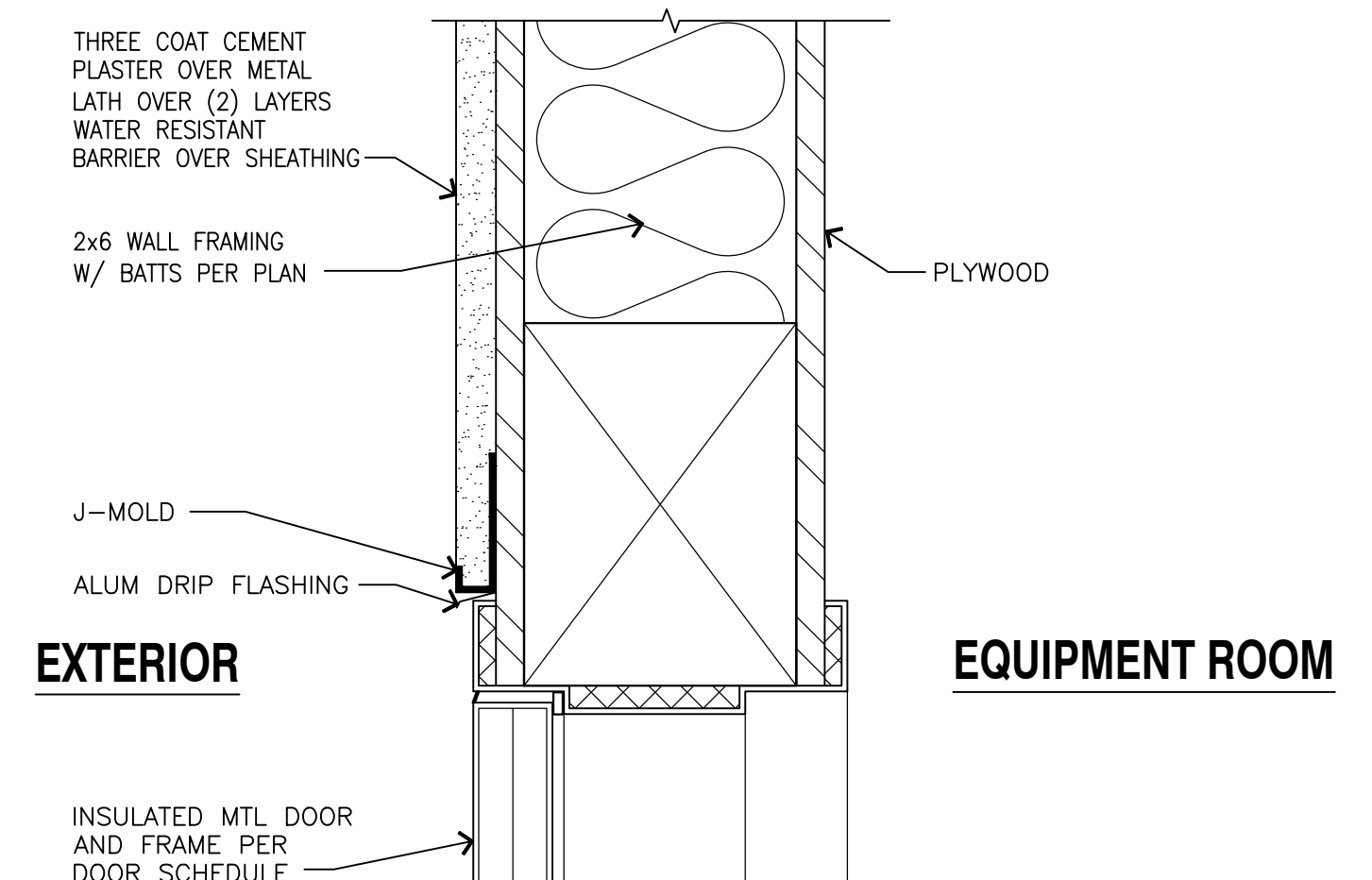
**02 WALL SECTION**  
 SCALE: 3/4"=1'-0"



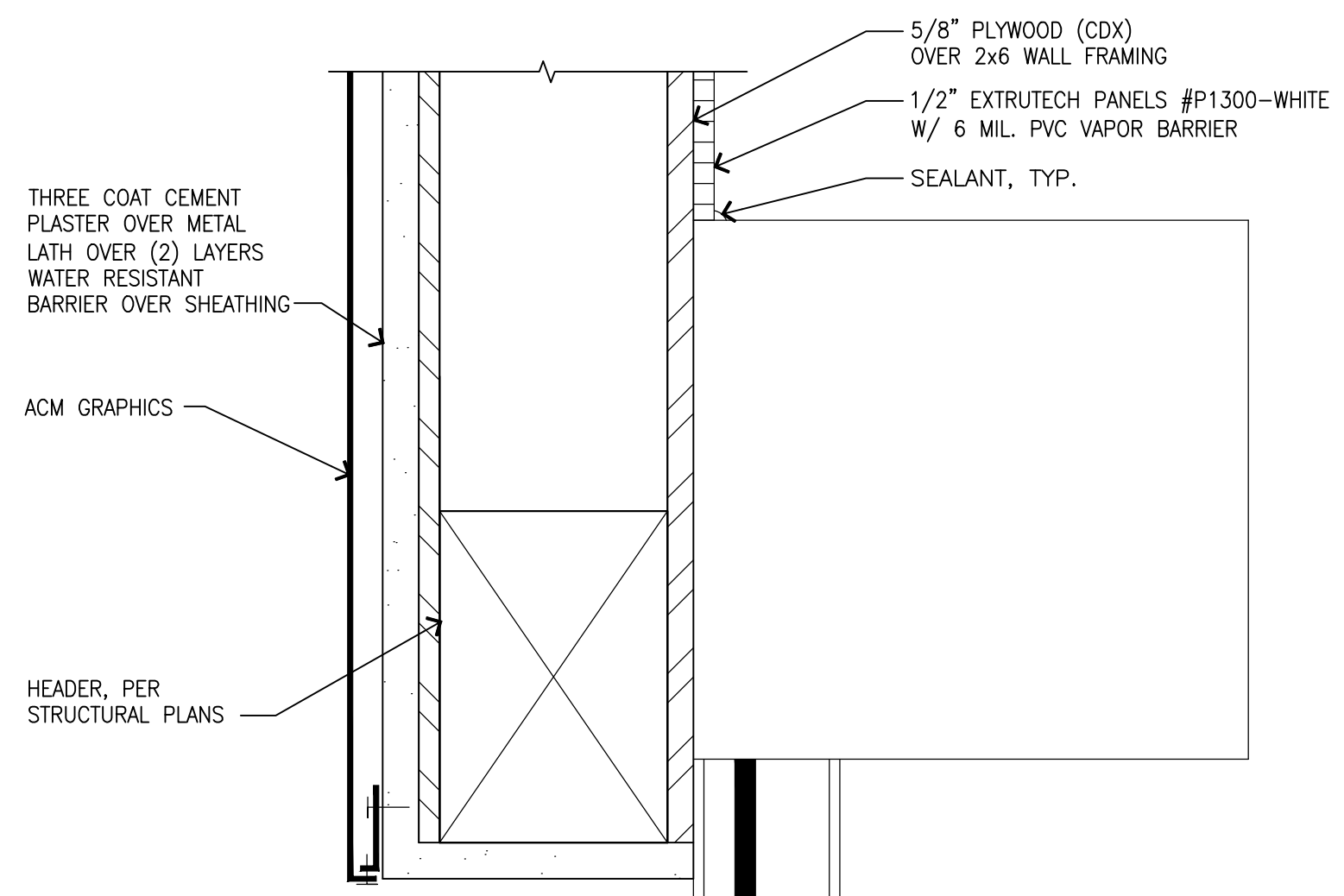
**01 WALL SECTION**  
 SCALE: 3/4"=1'-0"



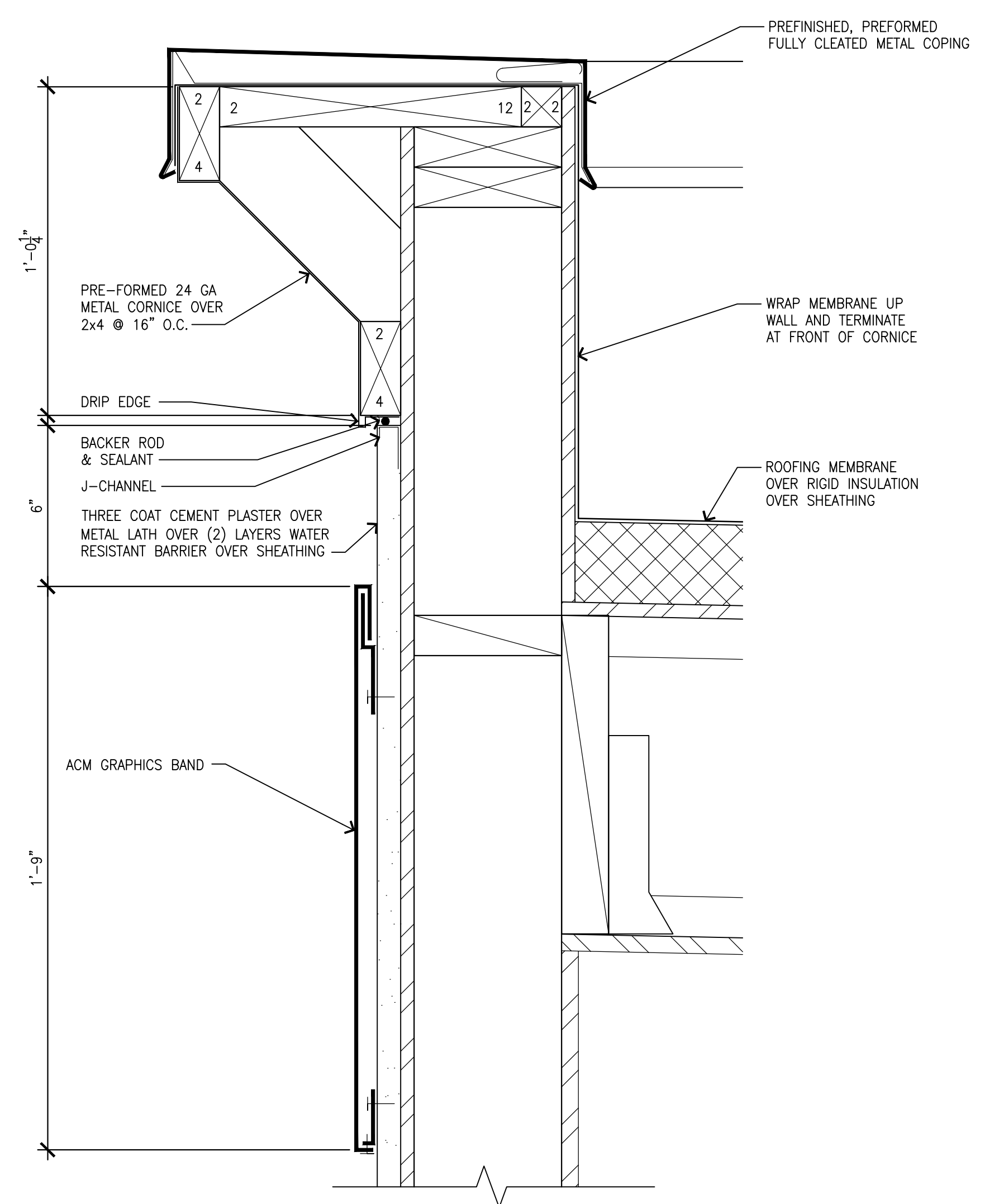
12 MANIFOLD TRENCH  
SCALE: 6"=1'-0"



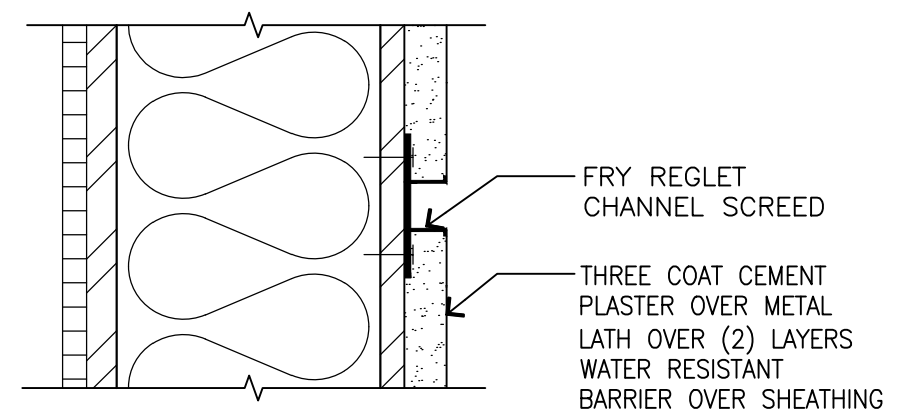
09 EXTERIOR DOOR HEADER  
SCALE: 3"=1'-0"



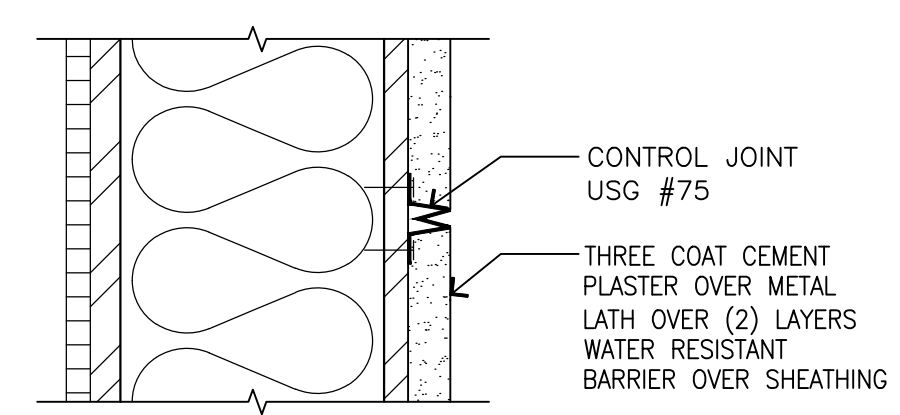
10 EXTERIOR ROLL UP DOOR HEADER  
SCALE: 3"=1'-0"



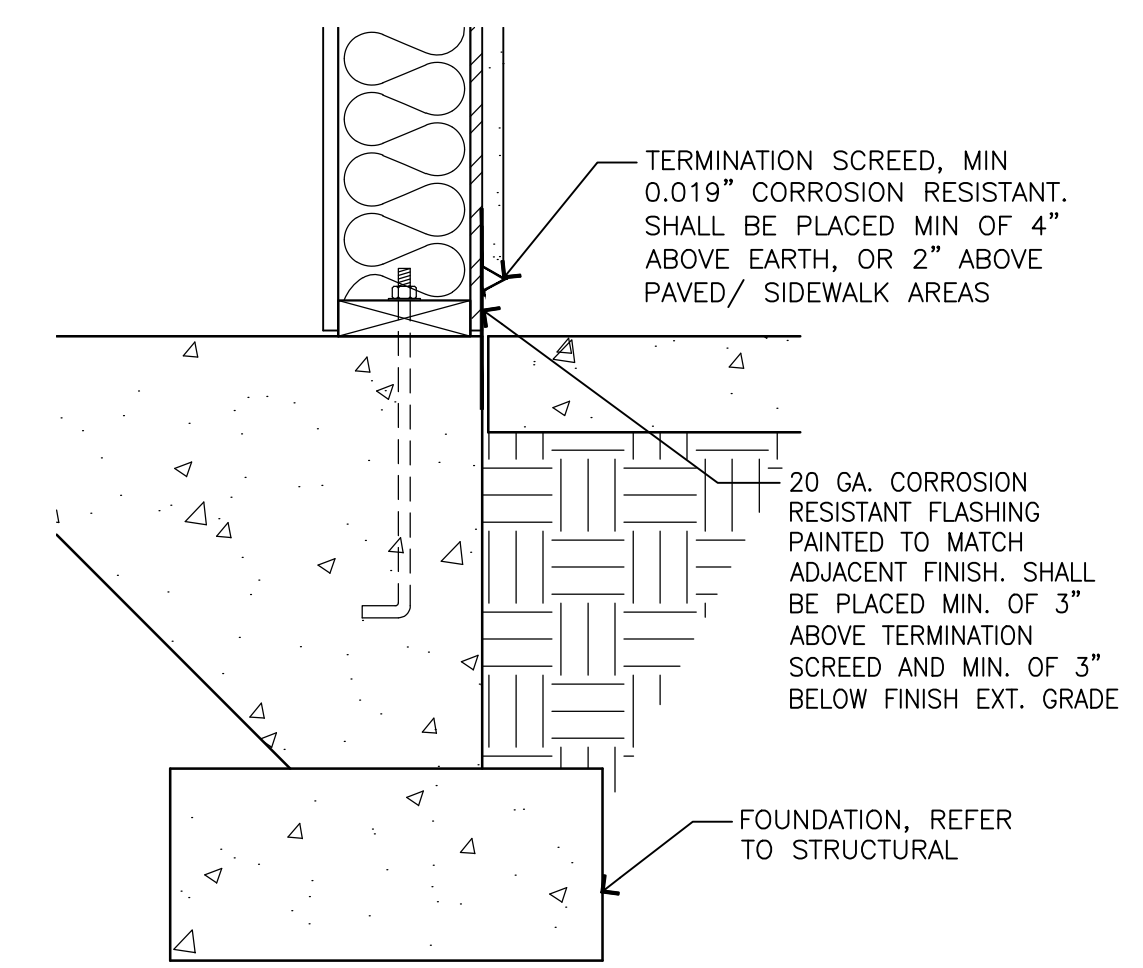
05 CORNICHE DETAIL  
SCALE: 3"=1'-0"



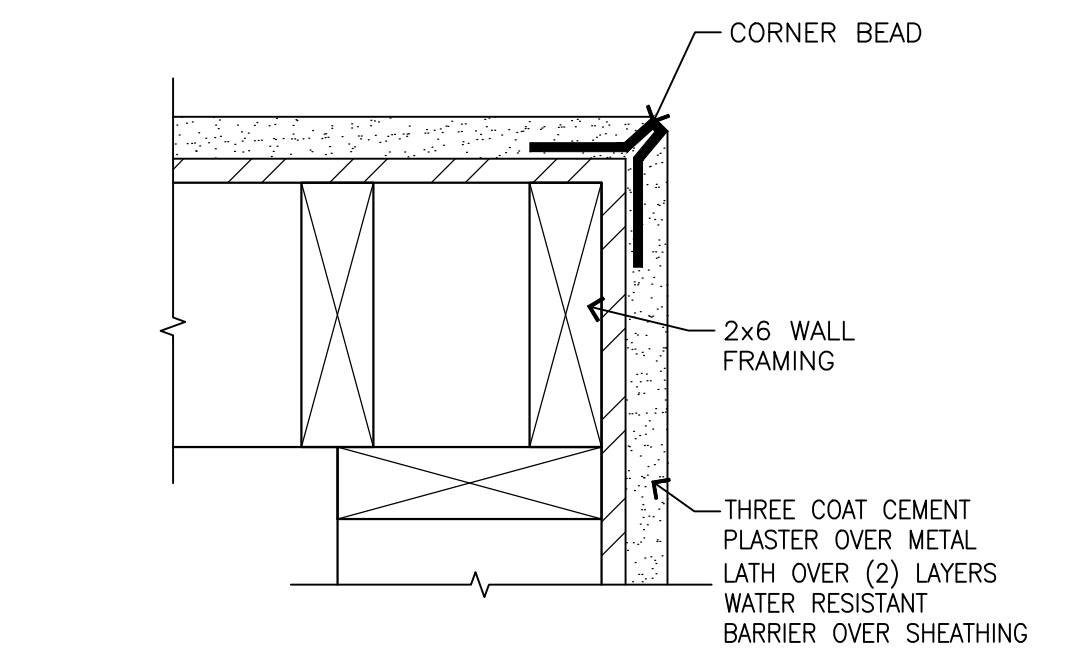
06 HORIZONTAL REVEAL  
SCALE: 3"=1'-0"



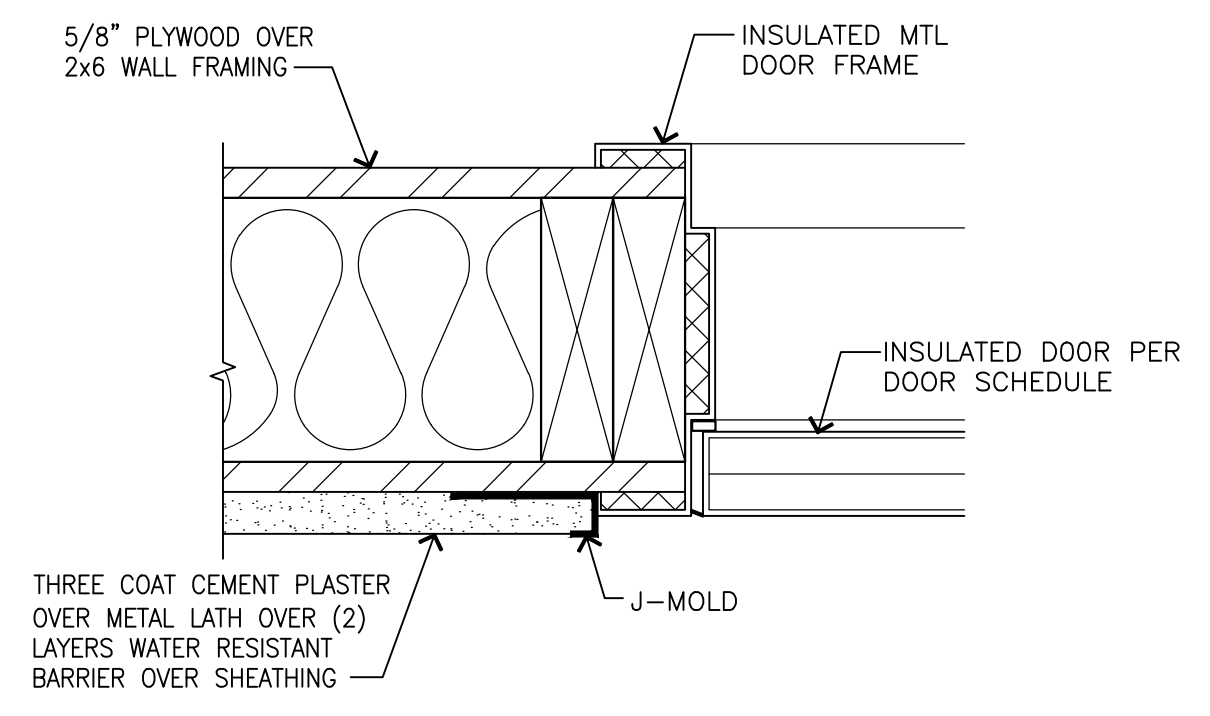
07 VERTICAL CONTROL JOINT  
SCALE: 3"=1'-0"



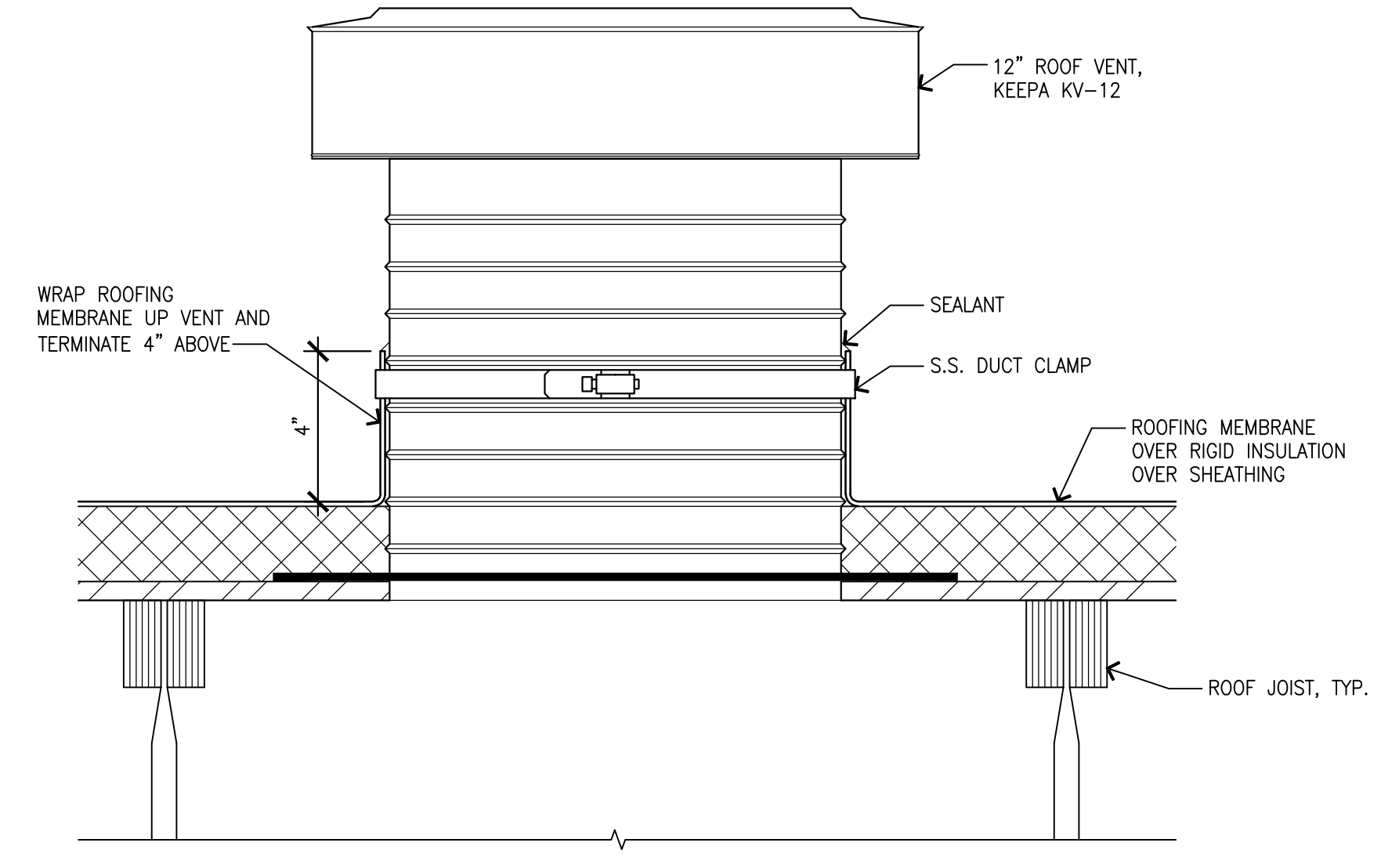
01 TERMINATION SCREED  
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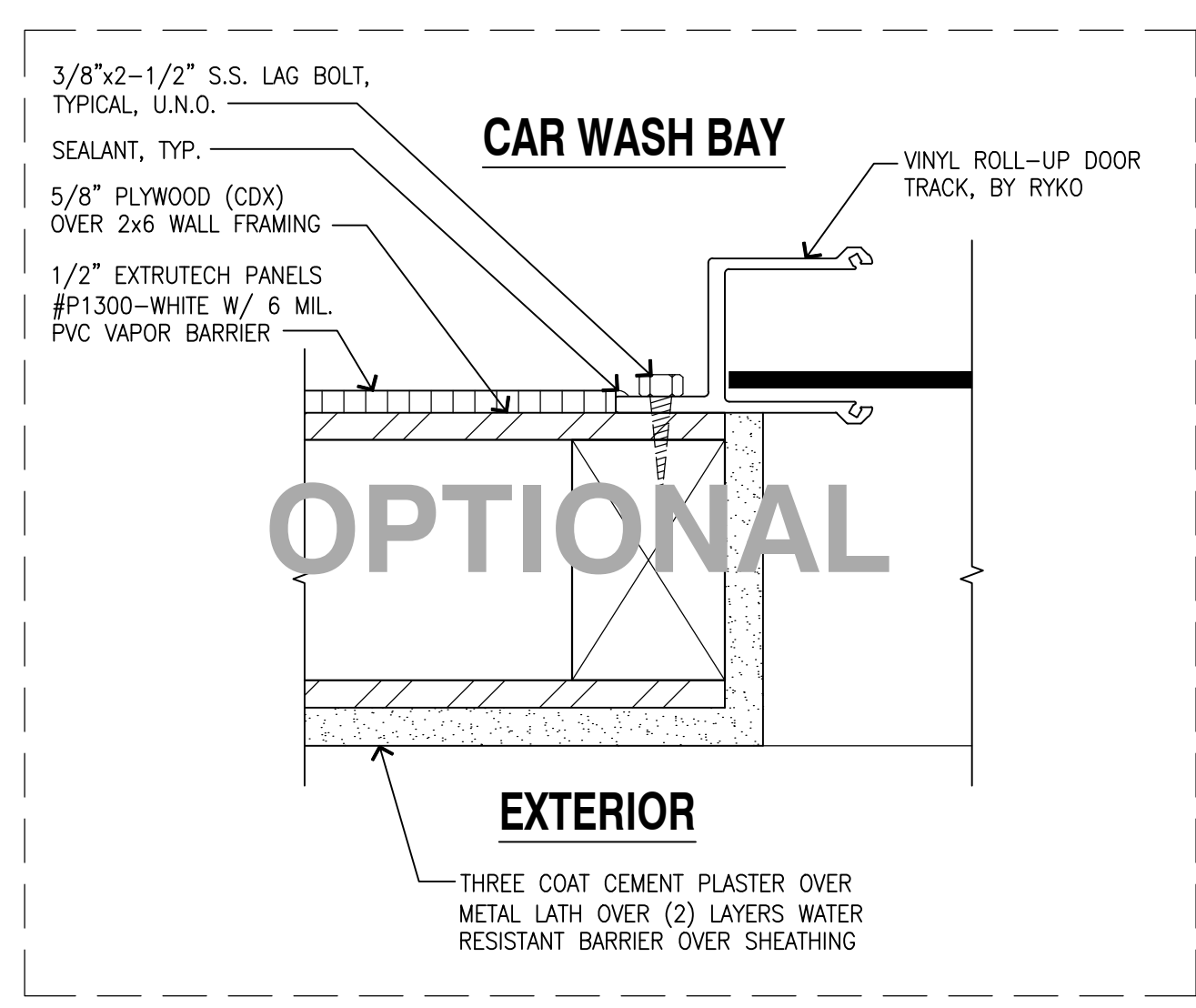
02 CORNER DETAIL  
SCALE: 3"=1'-0"



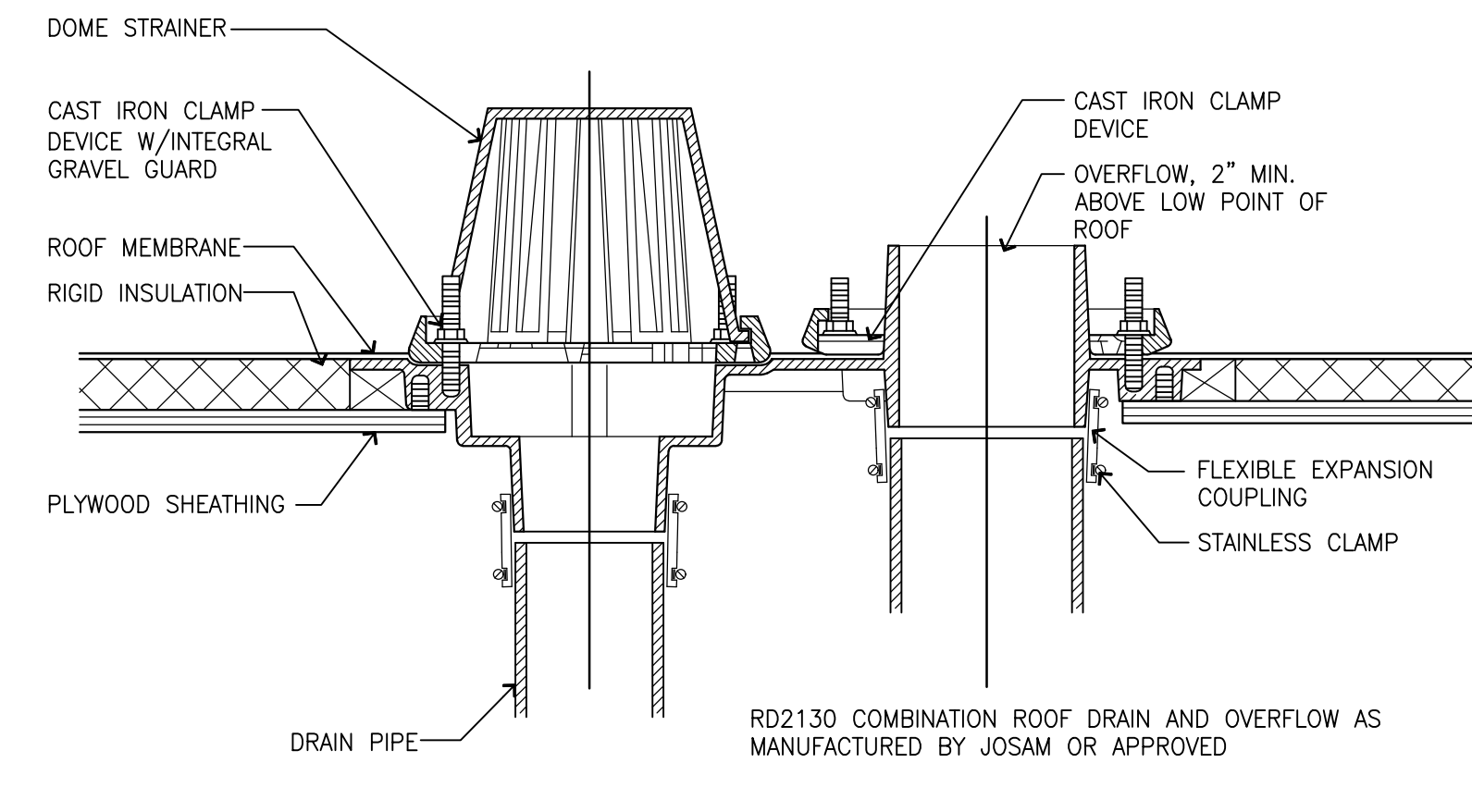
03 EXTERIOR DOOR JAMB  
SCALE: 3"=1'-0"



11 ROOF VENT  
SCALE: 3"=1'-0"



08 ROLL-UP DOOR JAMB  
SCALE: 3"=1'-0"



04 COMBINATION ROOF DRAIN  
SCALE: NTS

CLIENT:

BP WEST COAST PRODUCTS, LLC

**Barghausen Consulting Engineers, Inc.**  
18215 72nd Avenue South  
Kent, WA 98032  
425.251.6222  
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NO.	DATE	REVISION	DESCRIPTION

SEAL:

10697 REGISTERED ARCHITECT

PANEL B GOALMIN STATE OF WASHINGTON

EXP: 08/05/24

DEVELOPMENT INFORMATION:

**ARCO NTI**  
3400 am/pm  
FUEL CANOPY w/ 6 MPD's

SITE ADDRESS:

1402 S MERIDIAN  
PUYALLUP, WA 98871

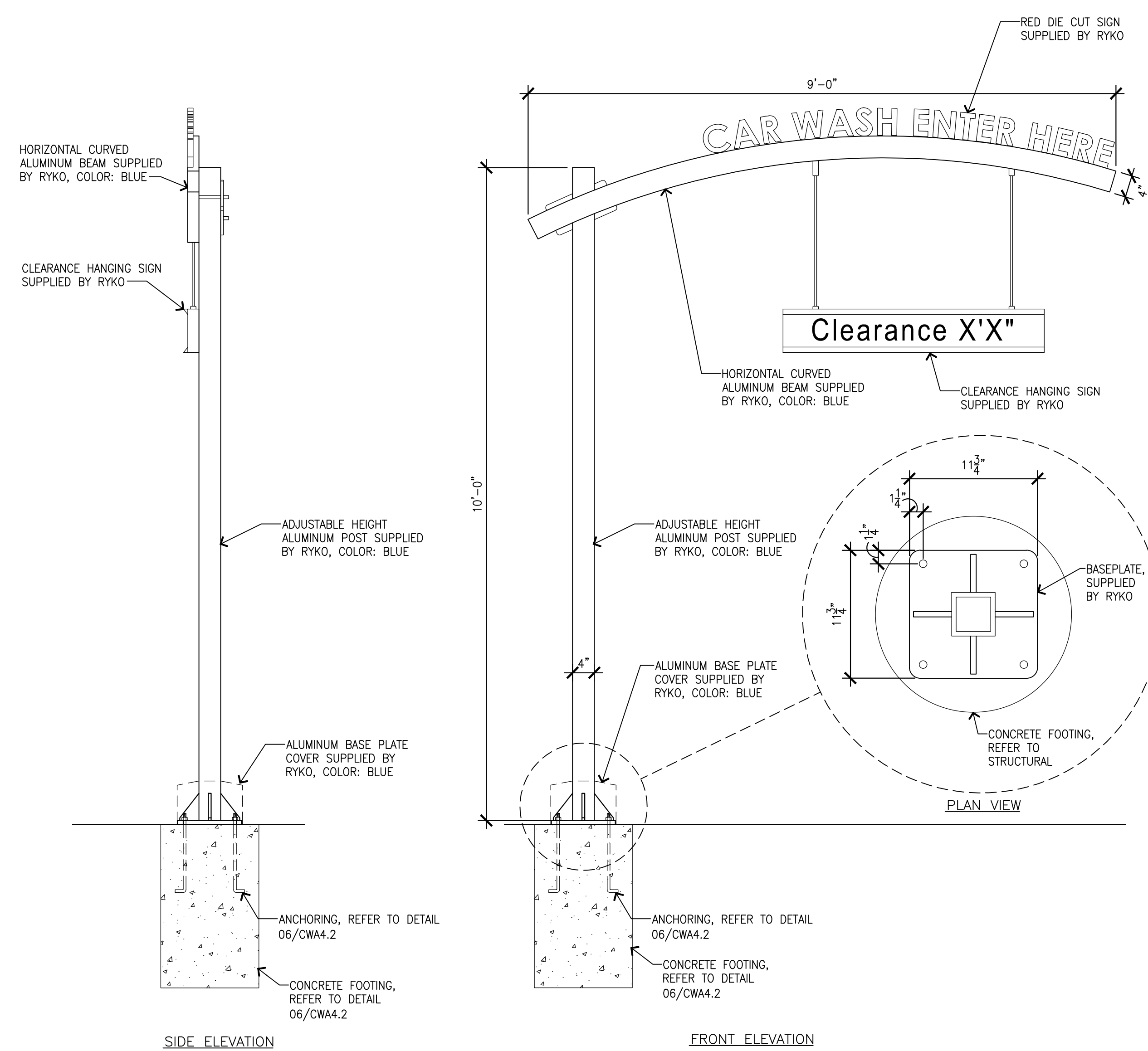
FACILITY #7184

DESIGNED BY:	ALLIANCE TADM:
CHECKED BY:	BP REP:
DRAWN BY:	ALLIANCE PM:
VERSION:	PROJECT NO: 21730

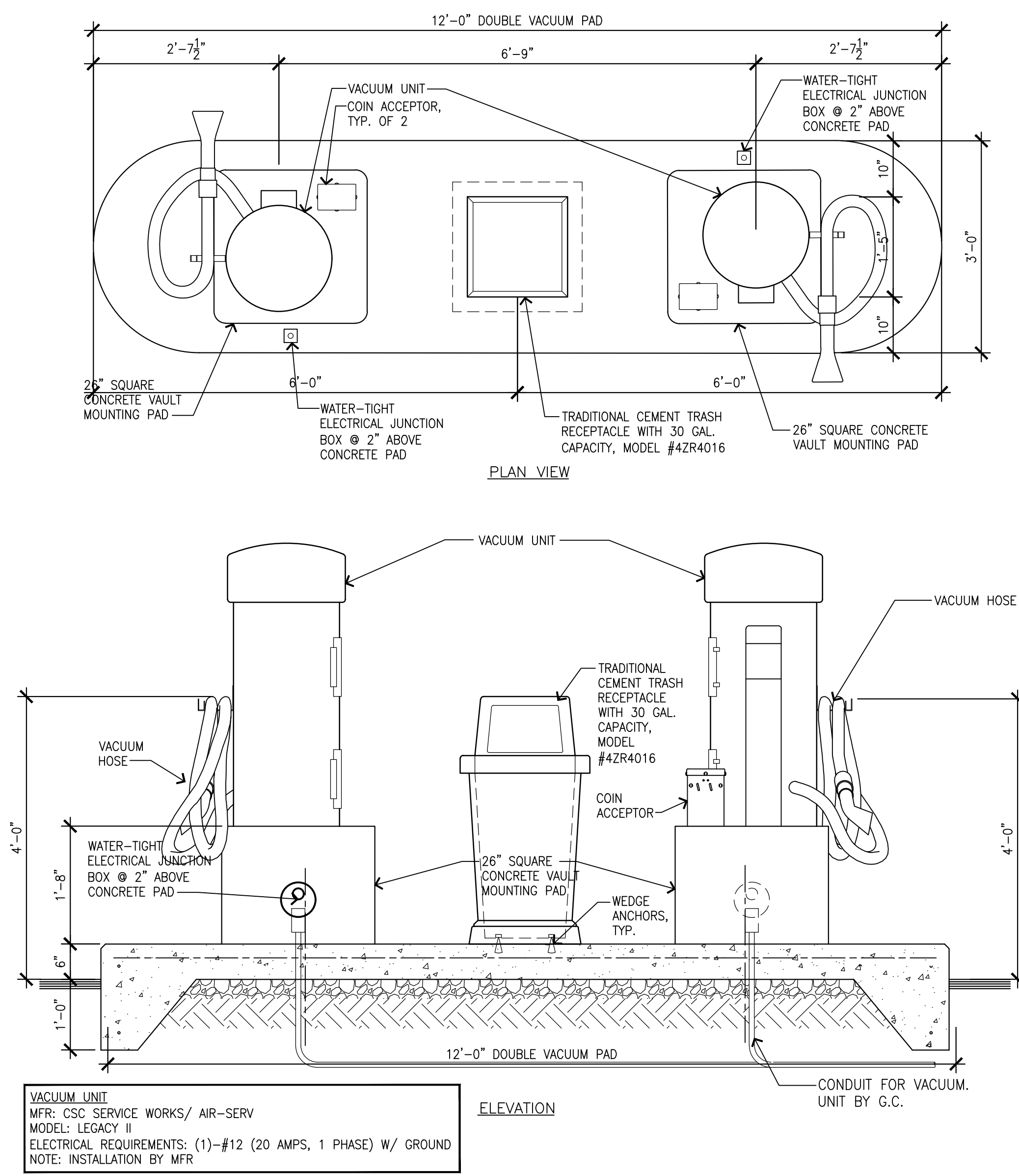
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SHEET NO:

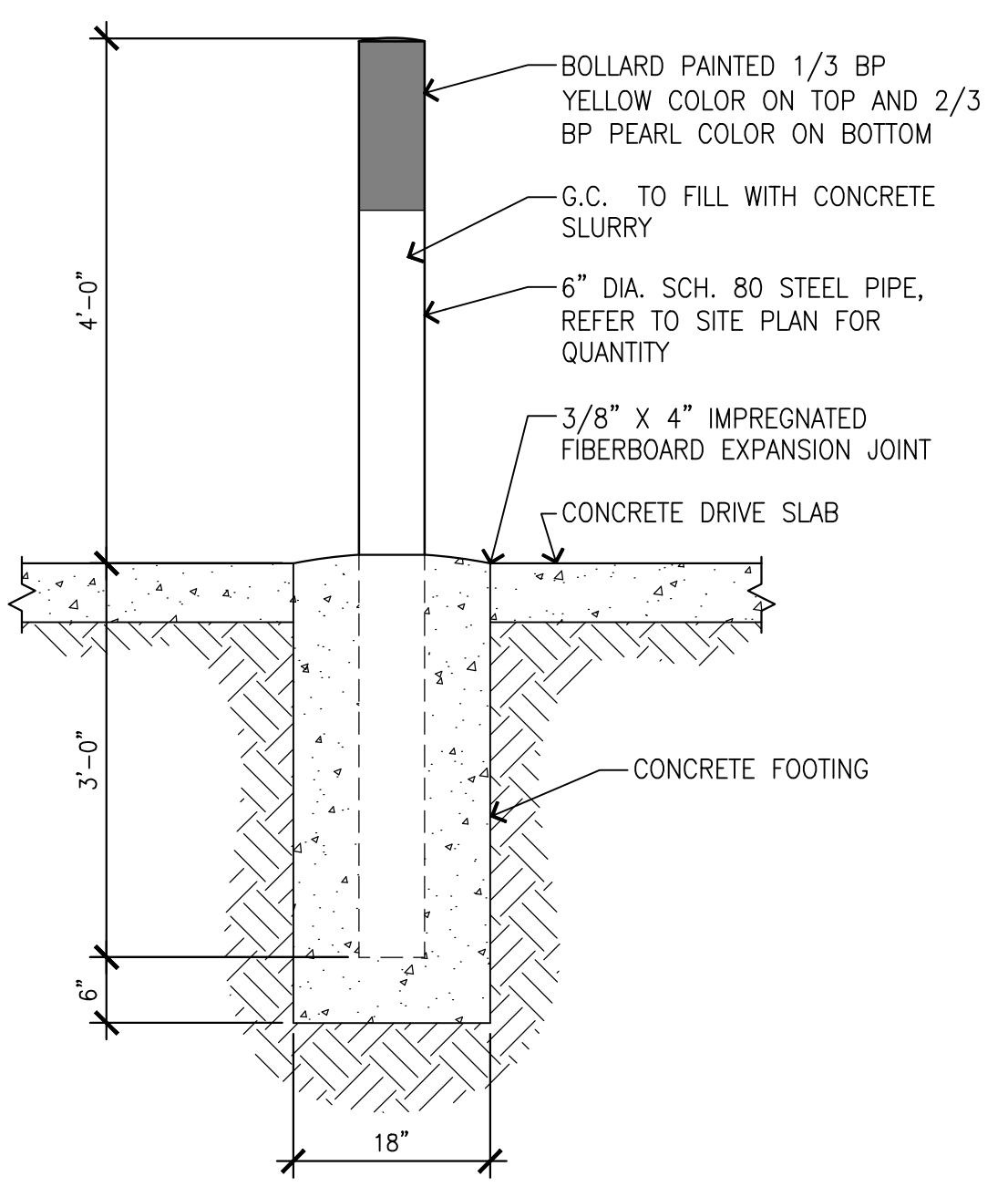
**CWA4.1**



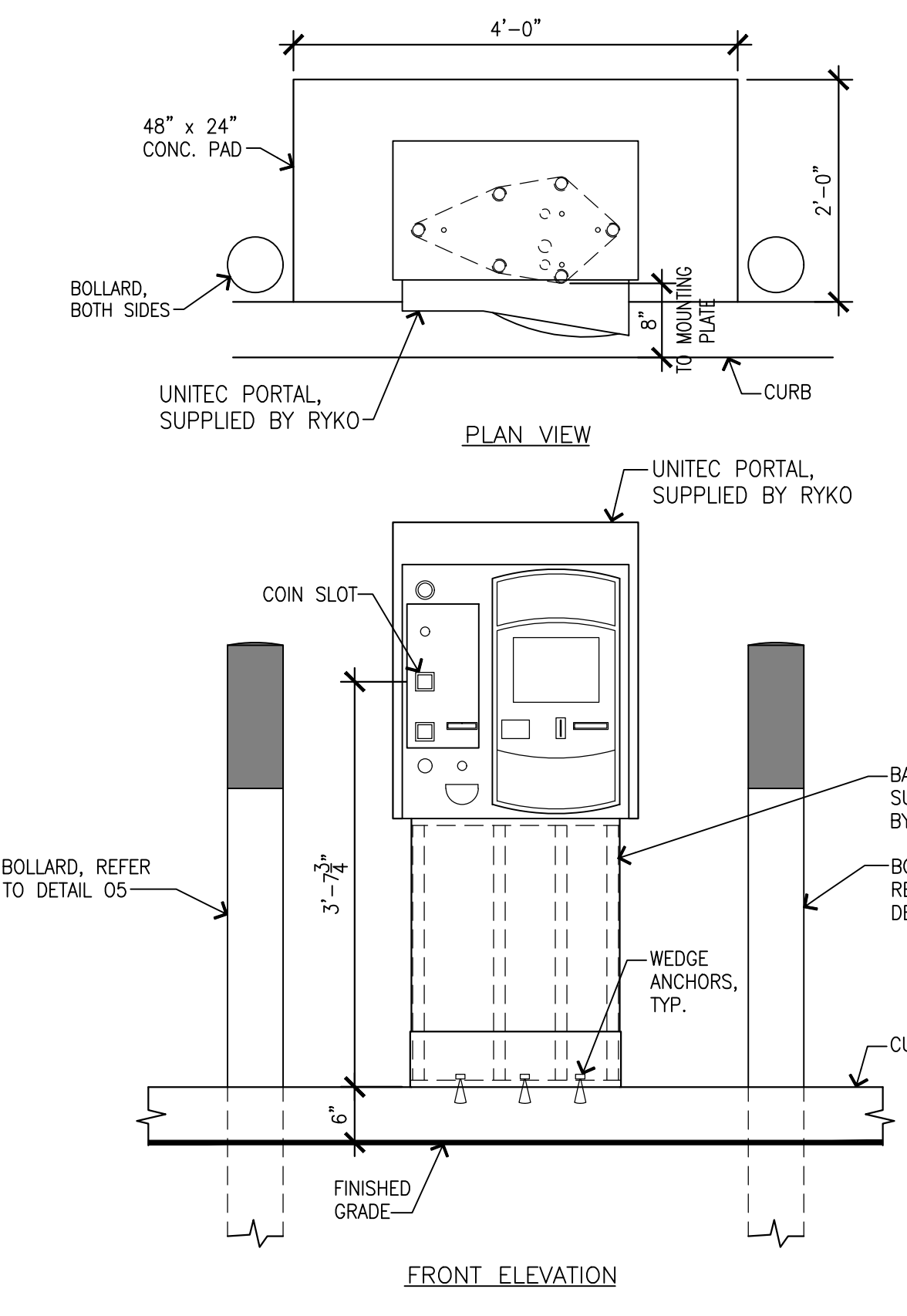
03 CLEARANCE SIGN  
SCALE: 3/4"=1'-0"



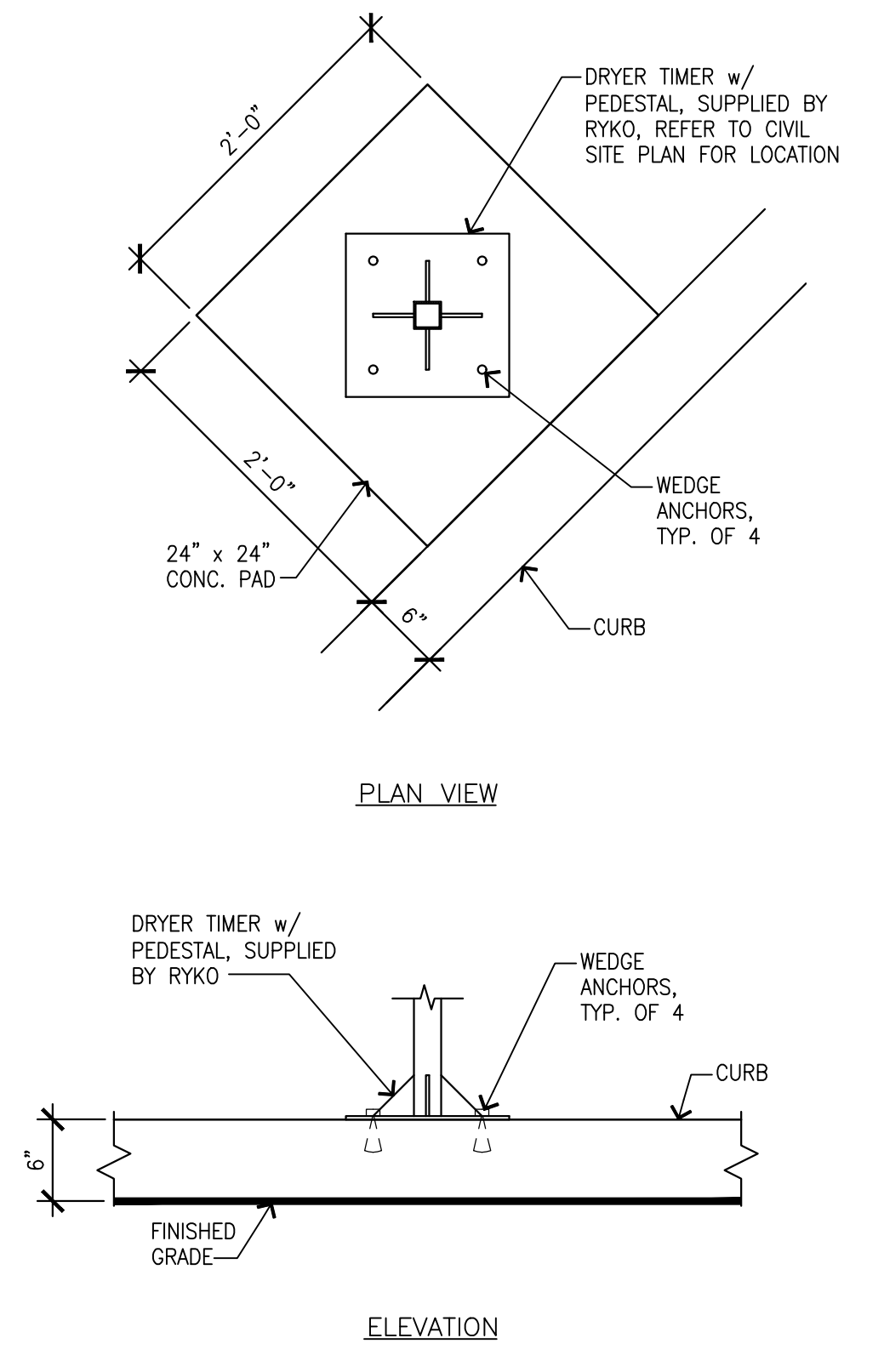
01 VACUUM UNIT DETAIL  
SCALE: 3/4"=1'-0"



05 BOLLARD DETAIL  
SCALE: 3/4"=1'-0"



04 PORTAL TI ACTIVATION UNIT  
SCALE: 3/4"=1'-0"



02 DRYER TIMER PEDESTAL  
SCALE: 1"=1'-0"

CLIENT:

BP WEST COAST PRODUCTS, LLC

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DANIEL B. COALMIN  
STATE OF WASHINGTON  
EXP: 08/05/24

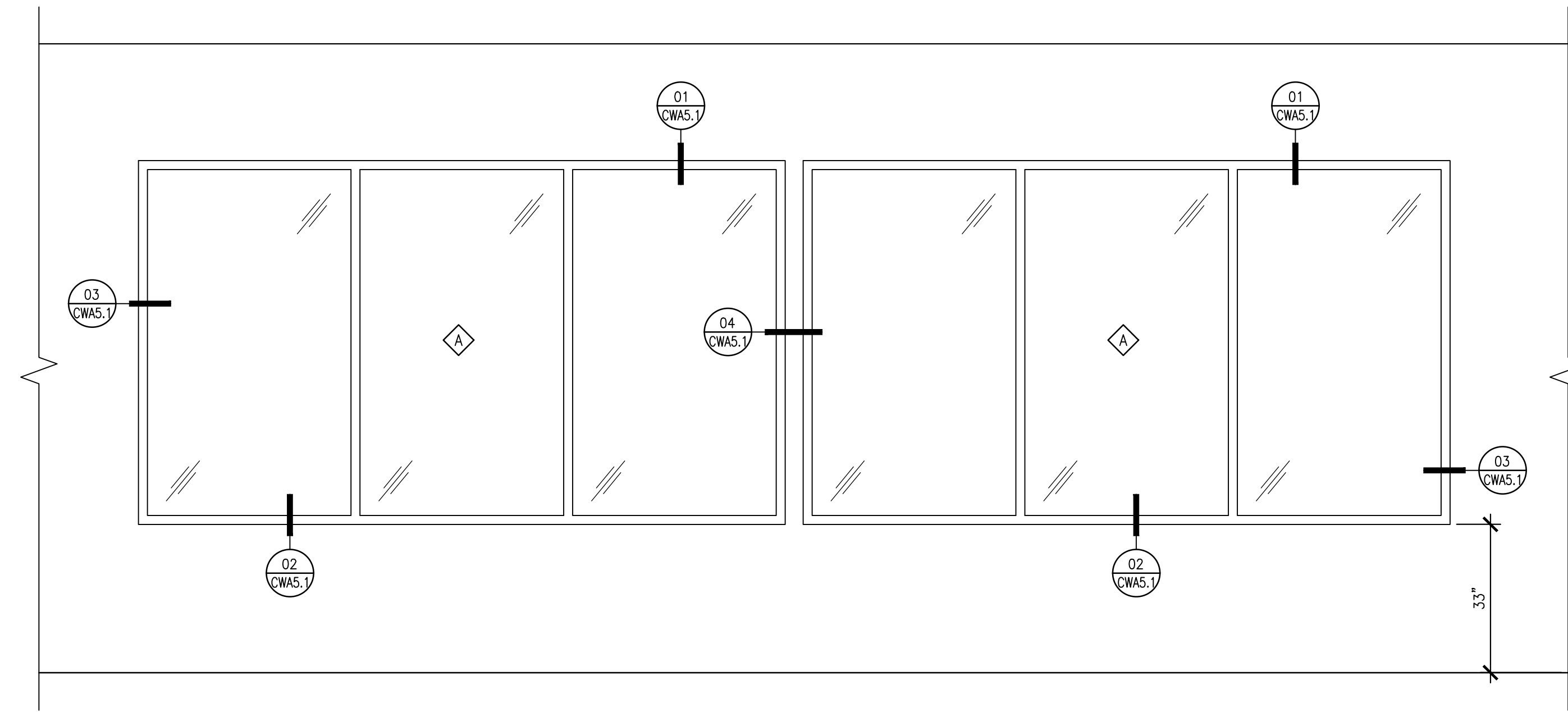
DEVELOPMENT INFORMATION:  
**ARCO NTI**  
**3400 am/pm**  
**FUEL CANOPY w/ 6 MPD's**

SITE ADDRESS:  
**1402 S MERIDIAN**  
**PUYALLUP, WA 98711**

**FACILITY #7184**  
DESIGNED BY: ALLIANCE ZADM  
CHECKED BY: BP REPM  
DRAWN BY: ALLIANCE PM  
VERSION: PROJECT NO: **21730**

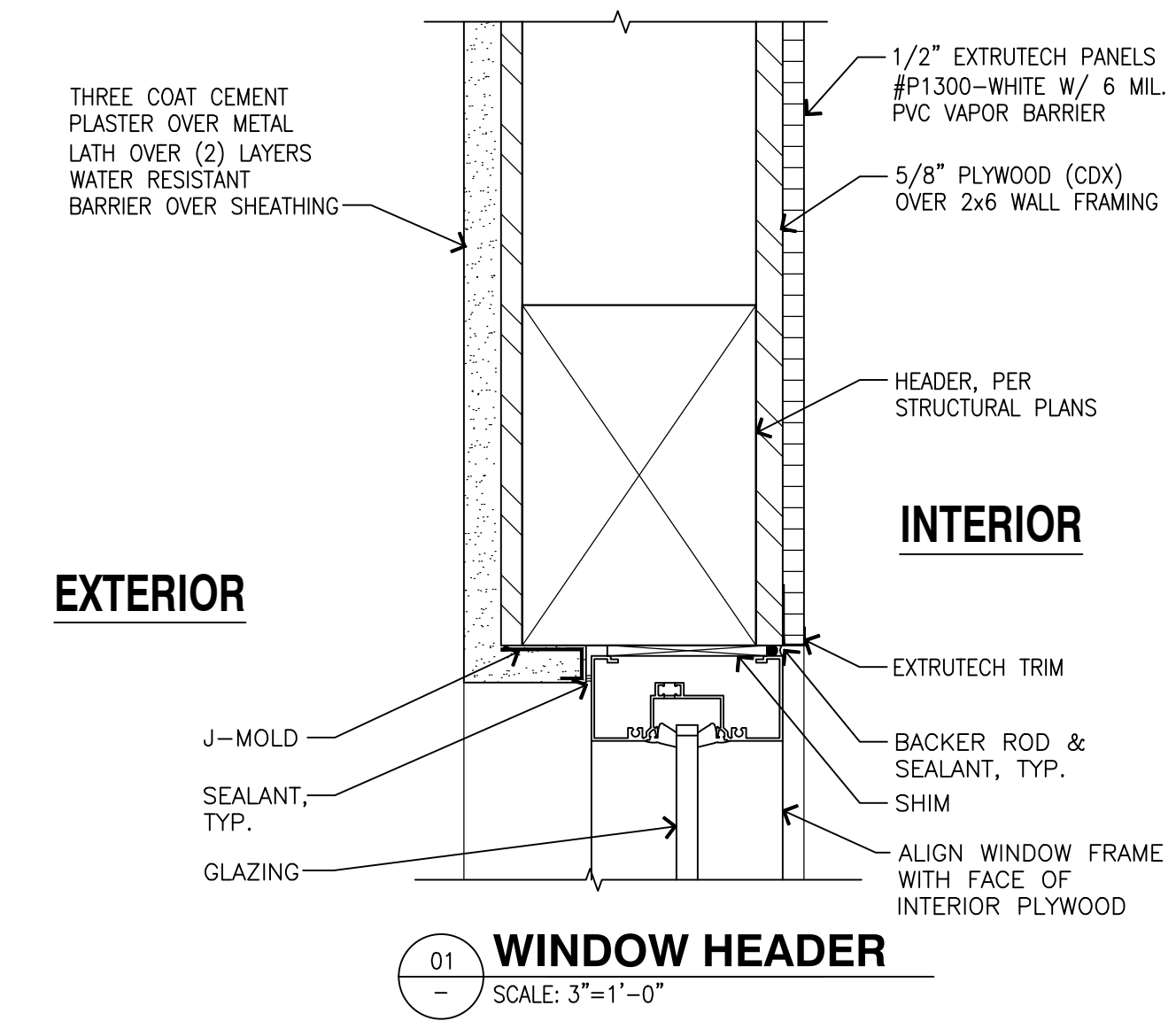
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**SITE DETAILS**

SHEET NO:  
**CWA4.2**

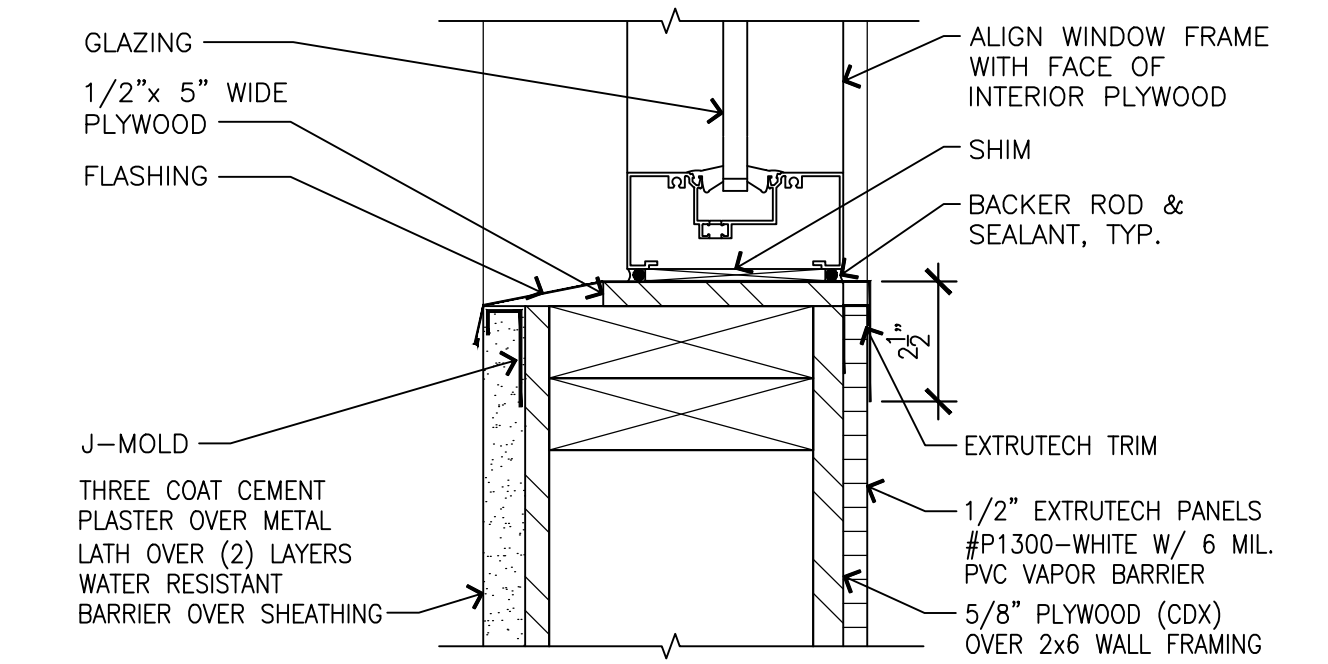


05 WINDOW ELEVATION  
SCALE: 1/2"=1'-0"

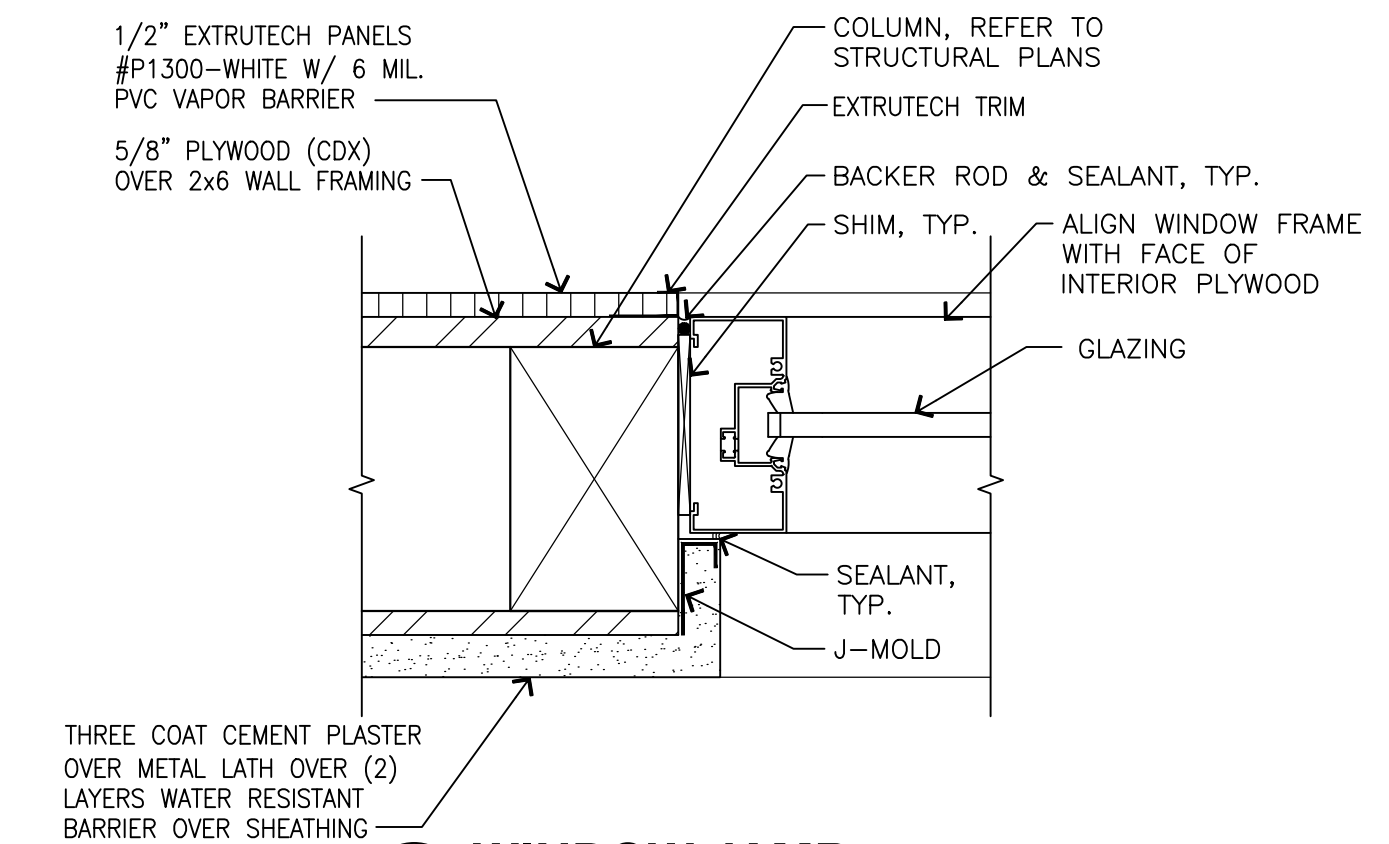
WINDOW SCHEDULE						
TYPE	SIZE	QTY	MFR/MODEL	GLAZING	FRAME	REMARKS
A	12'-0"W x 6'-9"H	2	KAWNEER TRIFAB 451 FRAMING	1/4" TEMPERED GLAZING	CLEAR ANODIZED ALUMINIUM	G.C. SHALL VERIFY ROUGH OPENING SIZE PRIOR TO ORDERING



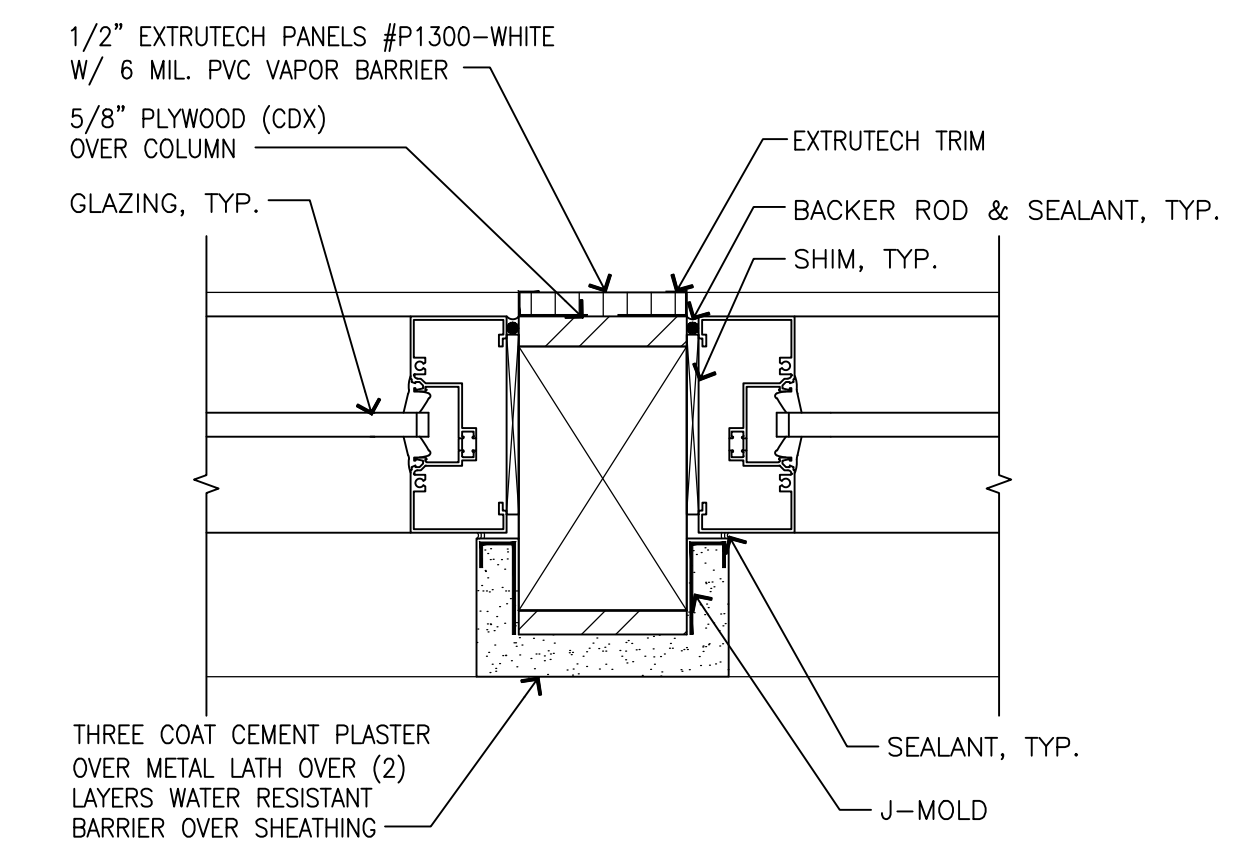
01 WINDOW HEADER  
SCALE: 3"=1'-0"



02 WINDOW SILL  
SCALE: 3"=1'-0"



03 WINDOW JAMB  
SCALE: 3"=1'-0"



04 WINDOW COLUMN/MULLION DETAIL  
SCALE: 3"=1'-0"

CLIENT:

BP WEST COAST PRODUCTS, LLC

**Borghausen Consulting Engineers, Inc.**  
18215 72nd Avenue South  
Kent, WA 98032  
425.251.6222  
borghausen.com

NO.	DATE	REVISION	DESCRIPTION

10697 REGISTERED ARCHITECT  
PANEL B QUALIFIED ARCHITECT  
STATE OF WASHINGTON  
EXP: 08/05/24

DEVELOPMENT INFORMATION:  
**ARCO NTI**  
3400 am/pm  
FUEL CANOPY w/ 6 MPD's

SITE ADDRESS:  
1402 S MERIDIAN  
PUYALLUP, WA 98571

FACILITY #7184

DESIGNED BY:	ALLIANCE ZADM:
CHECKED BY:	BP REPM:
DRAWN BY:	ALLIANCE PM:
VERSION:	PROJECT NO: 21730

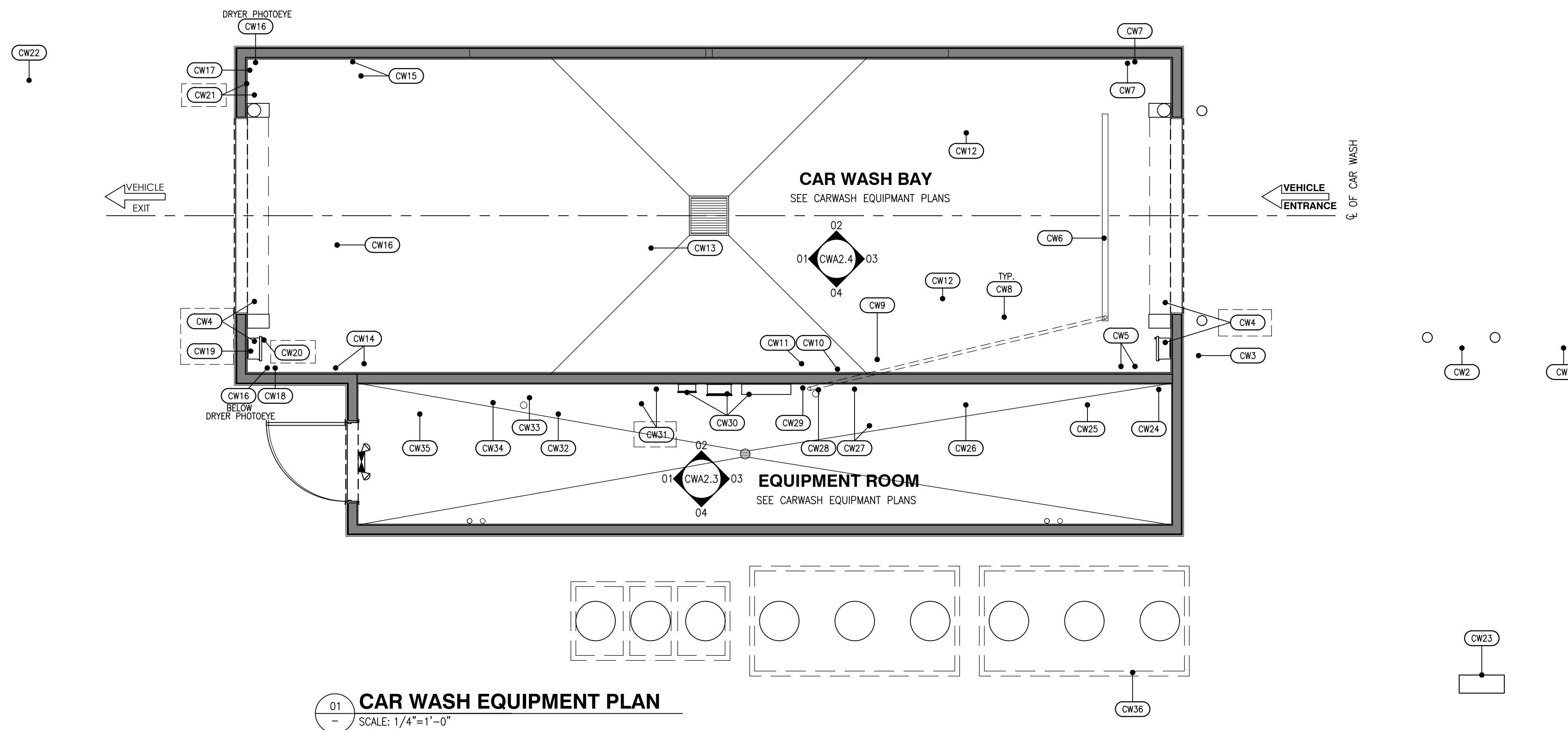
DRAWING TITLE:  
**WINDOW DETAILS (OPTIONAL)**

SHEET NO:  
**CWA5.1**

# EQUIPMENT SCHEDULE

NO.	ITEM / DESCRIPTION	REMARKS	NO.	ITEM / DESCRIPTION	REMARKS
CW1	ENTRANCE ARCH WITH CLEARANCE BAR	REFER TO SITE PLAN FOR LOCATION	CW18	COMMUNICATION INTERFACE BOX (WITH TOUCH SCREEN AND E-STOP)	
CW2	UNITEC PORTAL TI ACTIVATION		CW19	AUTO DOOR RELAY BOX	
CW3	3 MESSAGE LIGHTED ENTRANCE SIGN	J-BOX FURNISHED AND INSTALLED BY G.C.	CW20	AUTO DOOR PHOTOEYE W/ BRACKET	
CW4	AIRLIFT AIR PREMIUM PLUS VINYL ROLL UP DOOR WITH CONTROL BOX (2 PLACES)	ELECTRIC OPERATOR, COLOR: BEIGE IF REQUIRED	CW21	AUTO DOOR PHOTOEYE W/ BRACKET	J-BOX FURNISHED AND INSTALLED BY G.C.
CW5	UNDERCAR ENTRANCE ACTIVATION WALL MOUNT PHOTOEYE AND RELAY BOX	J-BOX FURNISHED AND INSTALLED BY G.C.	CW22	SUMLINE DRYER COUNT DOWN TIMER SIGN	
CW6	HIGH PRESSURE TRENCH MOUNTED UNDERCAR MANIFOLD (Z1000)	REFER TO SHEET CWA1.1 FOR TRENCH LOCATION AND SIZE	CW23	UNITEC P.O.S. INTERFACE	ACTUAL LOCATION OF ITEM WILL BE NEAR POINT OF SALE IN C-STORE.
CW7	UNDERCAR ENTRANCE ACTIVATION BOX WITH WALL MOUNT PHOTOEYE		CW24	FRESH WATER BACKUP VALVE ASSY	J-BOX FURNISHED AND INSTALLED BY G.C.
CW8	SOFTGLOSS FLOOR TRACKS		CW25	EV ULTRACLEAR RECLAIM SYSTEM 40 GPM W/ OZONE	
CW9	SOFTGLOSS FLOOR MOUNT BOOM STAND		CW26	OFFBOARD CHEMICAL INJECTION PUMP/ WITH CHEMICAL CONTAINERS	
CW10	SOFTGLOSS CABLE MOUNT BRACKET		CW27	ONBOARD HP PUMP W/ CONTROL BOX	
CW11	WASH BAY TERMINAL BOX WITH REMOTE BAY BUZZER KIT		CW28	HP DIVERTER VALVES	
CW12	LOW PROFILE GUIDE RAILS (2 PLCS)		CW29	OFFBOARD RINSE VALVE/R.O.	J-BOX FURNISHED AND INSTALLED BY G.C.
CW13	SOFTGLOSS WASH MACHINE		CW30	TSS DMX CONTROLLER-LED DRIVER-POWER SUPPLY LED LIGHTS	POSITIONED NEAR CENTER OF BAY FOR CABLE REACH
CW14	AIR KNIFE DRYER CONTROL CABINET	J-BOX FOR DRYER CONNECTION BE FURNISHED AND INSTALLED BY G.C.	CW31	BOOST PUMP SYSTEM	IF REQUIRED
CW15	WALL MOUNTED 8 SEGMENT LIGHTED SIGN	J-BOX FURNISHED AND INSTALLED BY G.C.	CW32	165 GALLON R.O. STORAGE TANK	
CW16	AIR KNIFE DRYER (30HP) WITH WALL MOUNT PHOTOEYE	J-BOX FACTORY INSTALLED AT CENTER DRYER FACING DOOR	CW33	CARBON FILTER	
CW17	DUAL THERMOSTAT ASSY	LOCATE THE THERMOSTAT BULBS ON THE OUTSIDE OF THE NORTH WALL OUT OF DIRECT SUNLIGHT. THIS WILL THEN LOCATE THE POSITION OF THE THERMOSTAT ASSY APPROXIMATELY 4 FT AWAY. TAKE CARE NOT TO CRIMP CAPILLARY TUBES LEADING TO THE THERMOSTAT BULBS.	CW34	RAINMAKER III R.O. SYSTEM	
			CW35	AIR COMPRESSOR, 5 HP, 3 PH	
			CW36	UNDERGROUND RECLAIM TANKS	REFER TO SITE PLAN FOR LOCATION

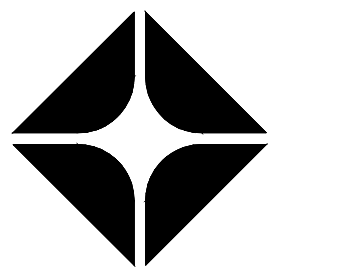
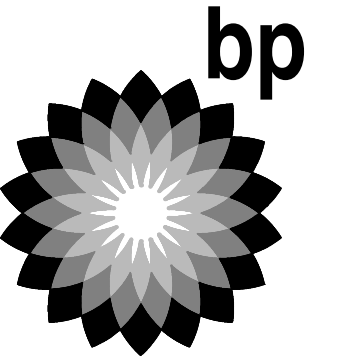
- CONTRACTOR SHALL RESPONSIBLE TO HARD PIPE PLUMBING AND ELECTRICAL TO ALL CAR WASH EQUIPMENT. ALL CONDUITS AND PIPING SHALL BE CONCEALED IN THE WALLS AND ALL PENETRATIONS IN CAR WASH BAY SHALL BE SEALED. VERIFY SCOPE OF WORK WITH RYKO PRIOR TO CONSTRUCTION.
- VINYL ROLL UP DOORS NOT REQUIRED IN CALIFORNIA, UNLESS REQUIRED BY THE AUTHORITY HAVING JURISDICTION OR, IF NEEDED FOR SECURITY PURPOSES.
- BOOSTER PUMP IS ONLY REQUIRED WHEN THE WATER PRESSURE TO THE SITE IS LESS THAN 40 PSI. CONFIRM WATER PRESSURE WITH WATER DISTRICT PRIOR TO REQUESTING PLANS FROM RYKO. REFER TO THE WATER REQUIREMENTS NOTED ON THIS SHEET AND PLUMBING SHEET CWP2.0



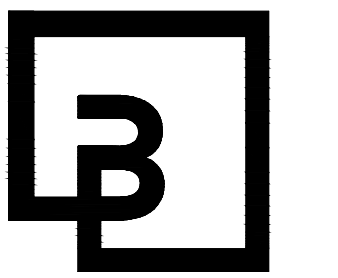
## WATER REQUIREMENTS

MINIMUM 1" SERVICE AT 40 PSI WITH 35 GPM FLOW RATE.  
MAXIMUM 1" SERVICE AT 150 PSI WITH 40 GPM FLOW RATE.

CLIENT:



BP WEST COAST PRODUCTS, LLC

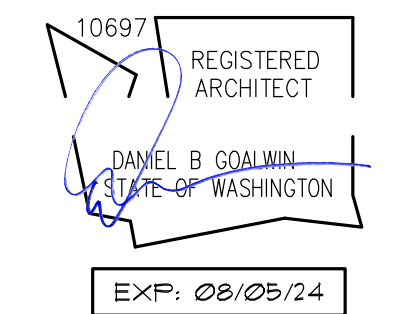


**Barghausen Consulting Engineers, Inc.**

18215 72nd Avenue South  
Kent, WA 98032  
425.251.6222  
barghausen.com

NO.	DATE	REVISION DESCRIPTION
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DEVELOPMENT INFORMATION:

**ARCO NTI**  
3400 am/pm  
FUEL CANOPY w/ 6 MPD's

SITE ADDRESS:

1402 S MERIDIAN  
PUYALLUP, WA 98711

FACILITY #7184

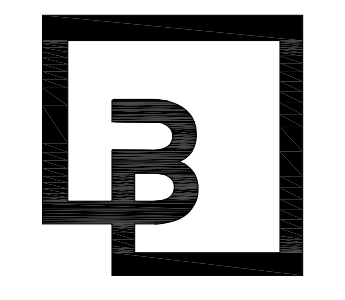
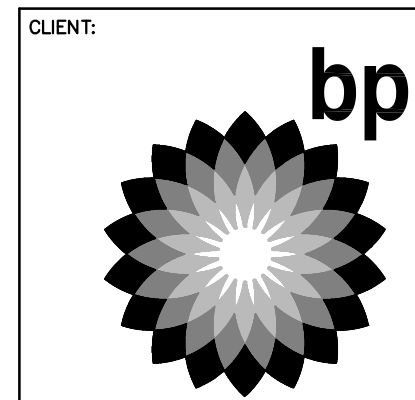
DESIGNED BY: ALLIANCE ZADM:  
CHECKED BY: BP REP:  
DRAWN BY: ALLIANCE PM:  
VERSION: PROJECT NO:  
21730

DRAWING TITLE:

**CAR WASH EQUIPMENT PLAN**

SHEET NO:

**CWQ1.1**



**Barghausen Consulting Engineers, Inc.**  
 18215 72nd Avenue South  
 Kent, WA 98032  
 425.251.6222  
 barghausen.com

NO.	DATE	REVISION	DESCRIPTION
-	10/04/23	BD	SET
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DEVELOPMENT INFORMATION:  
**ARCO NTI**  
**3400 am/pm**  
**FUEL CANOPY w/ 6 MPD's**

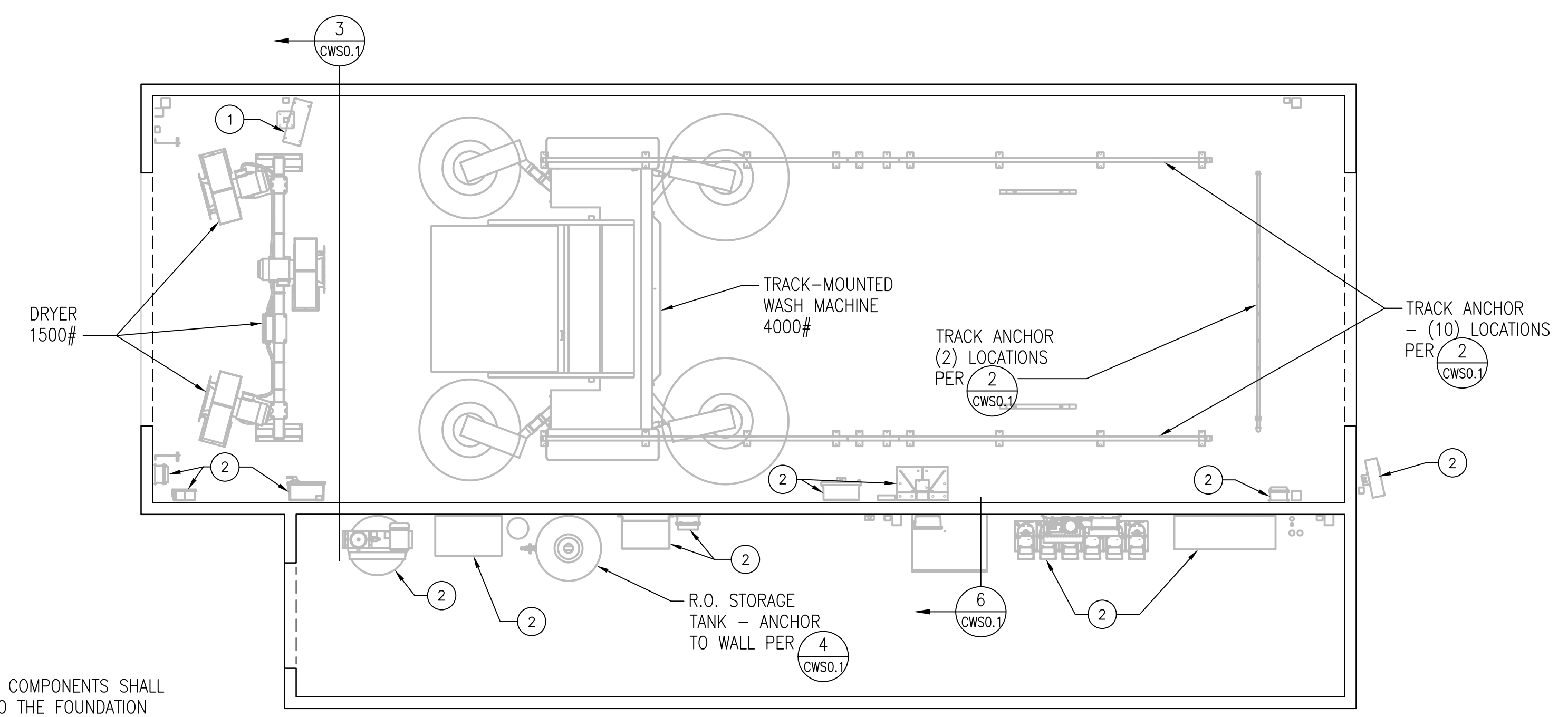
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**1402 S MERIDIAN**  
**PUYALLUP, WA 98371**

**FACILITY #7184**

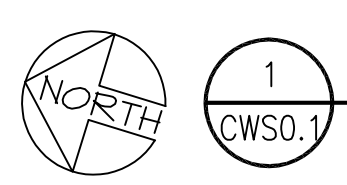
DESIGNED BY: JJP ALLIANCE ZADM:  
 CHECKED BY: JJP BP REPM:  
 DRAWN BY: MCS ALLIANCE PM:  
 VERSION: - PROJECT NO: **21730**

DRAWING TITLE:  
**CAR WASH EQUIPMENT ANCHORAGE**

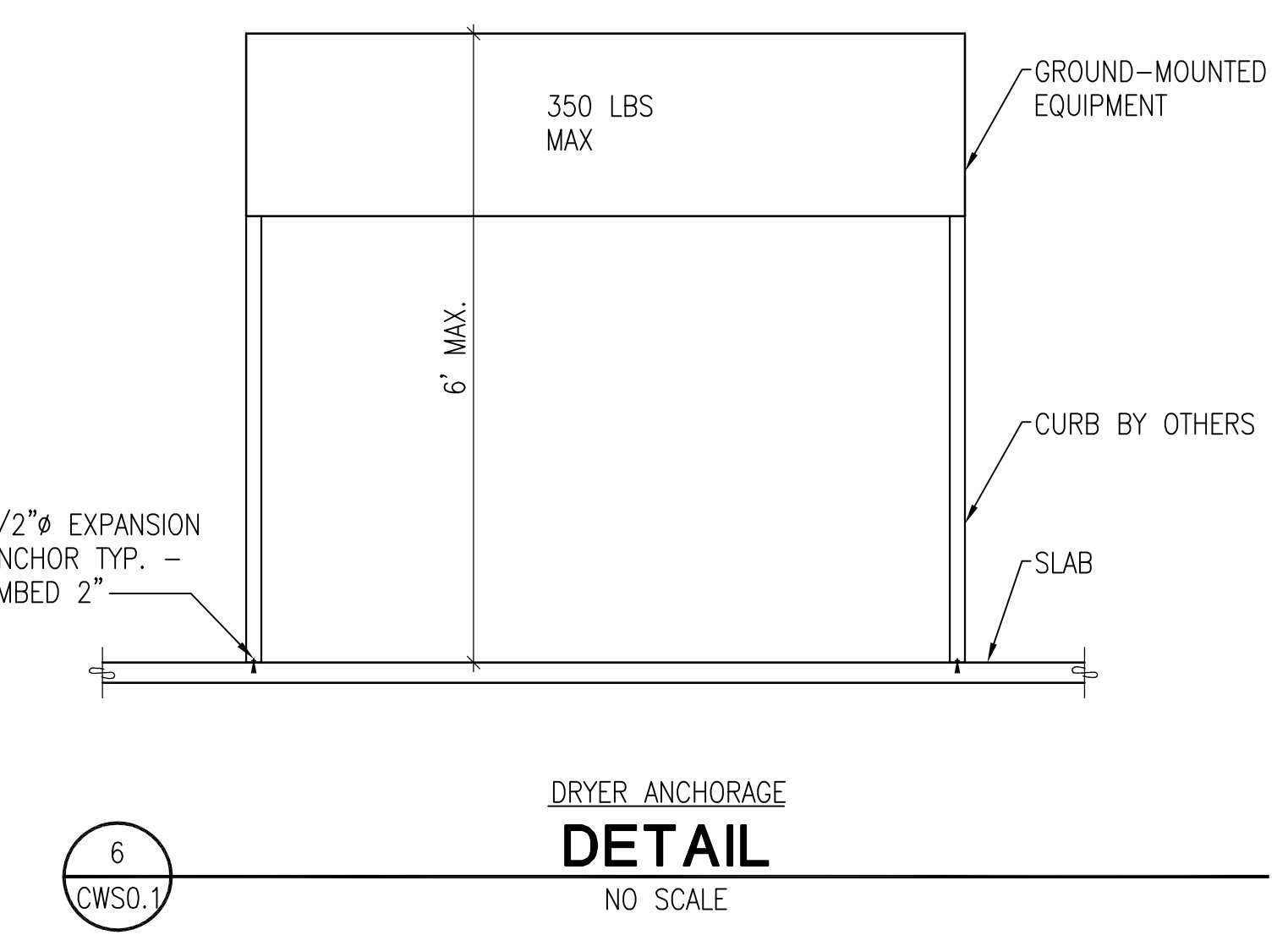
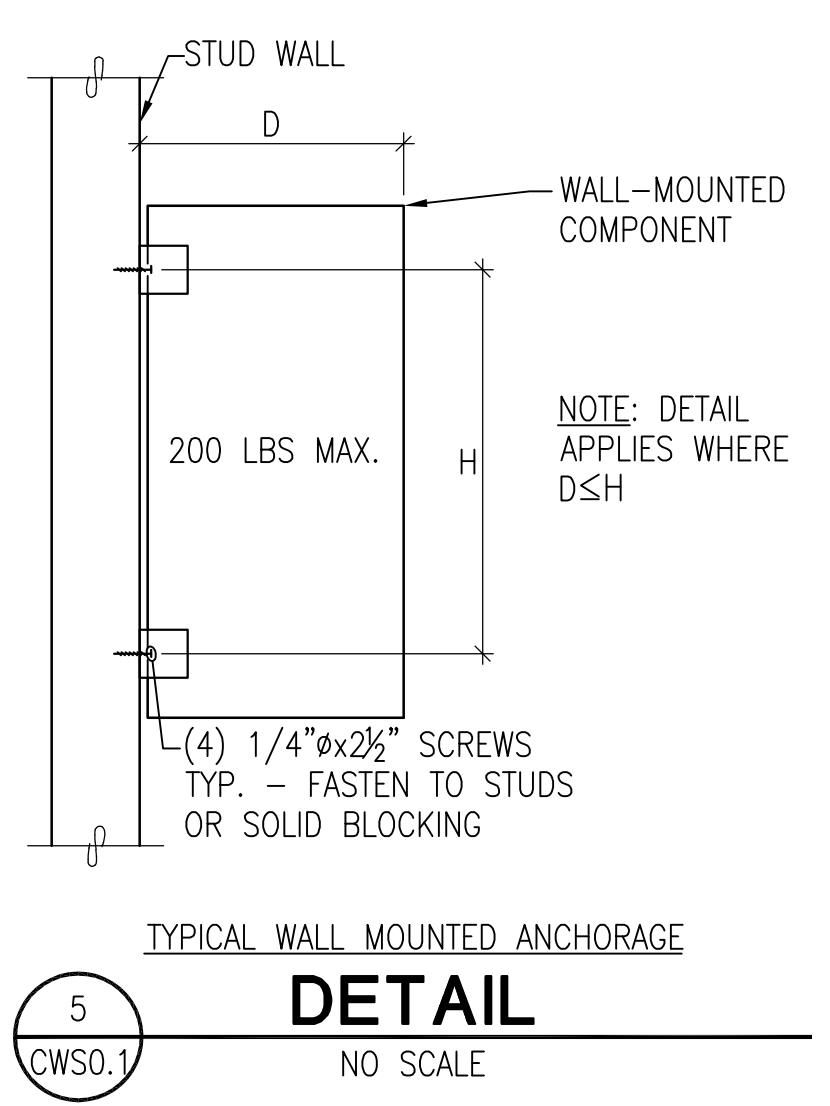
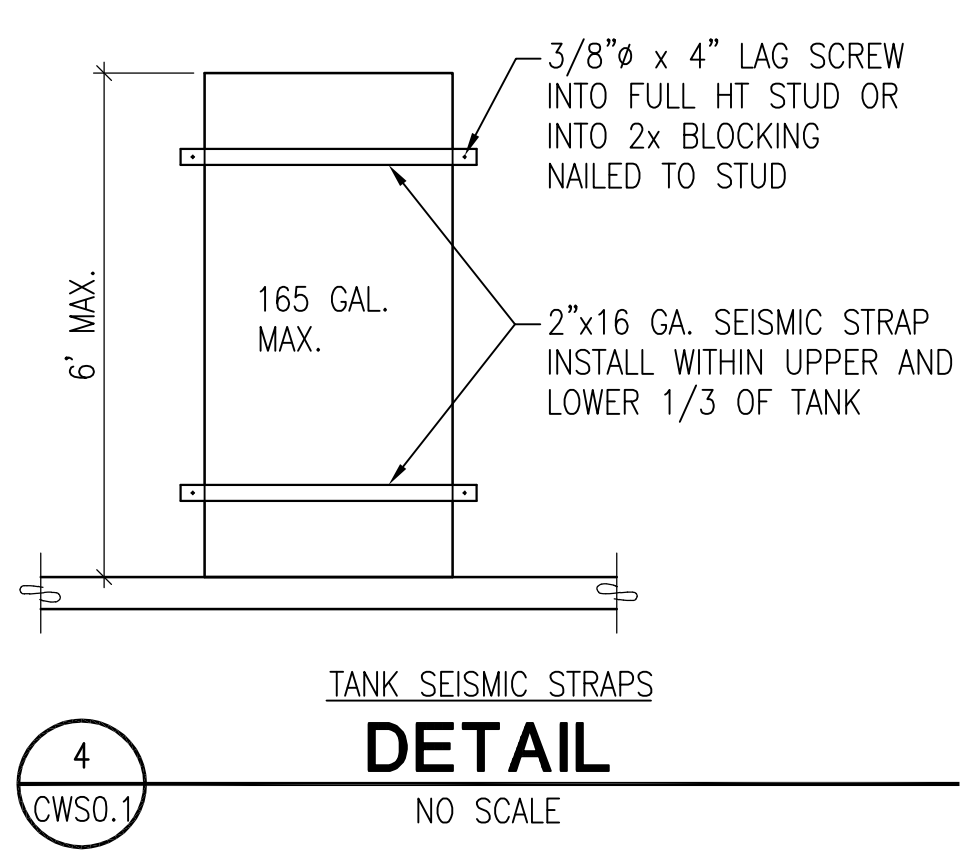
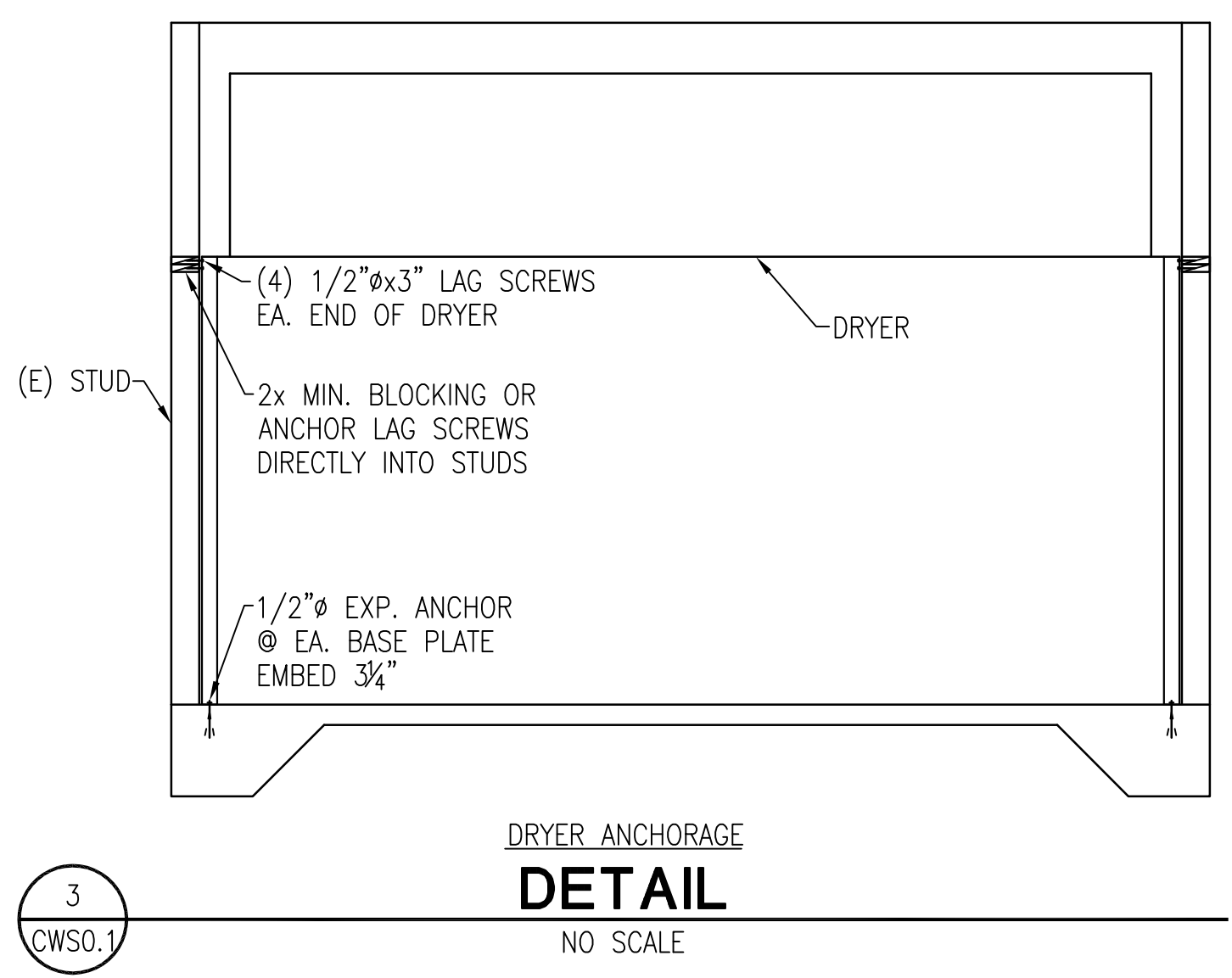
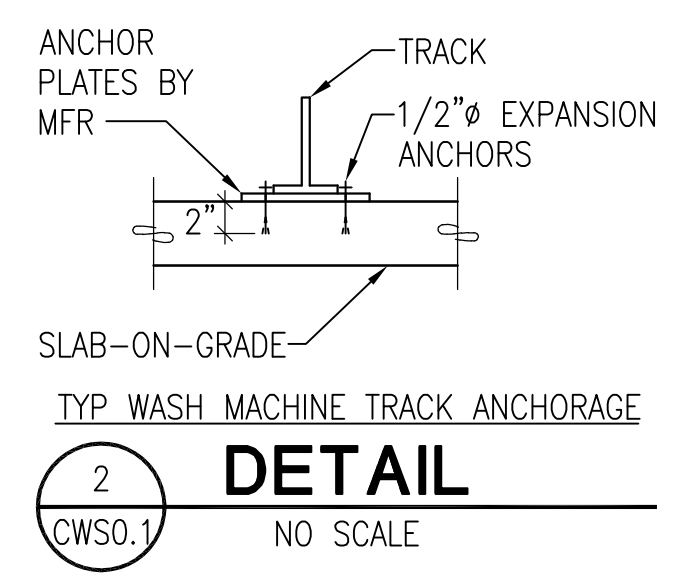
SHEET NO:  
**CWS0.1**



- NOTES:
- 1 FLOOR MOUNTED COMPONENTS SHALL BE ANCHORED TO THE FOUNDATION THROUGH MANUFACTURER PROVIDED BASE PLATES. USE ALL HOLES AND ANCHOR WITH 1/2" EXPANSION ANCHORS - EMBED 2".
  - 2 WALL MOUNTED COMPONENTS SHALL BE ANCHORED TO THE STUD WALLS PER 5 CWS0.1



**CAR WASH EQUIPMENT ANCHORAGE PLAN**  
 1/4"=1'-0"



DRAWING INDEX		
1	CWS0.1	CAR WASH EQUIPMENT ANCHORAGE
2	CWS0.2	GENERAL NOTES AND HEIGHT BAR FOUNDATION DETAIL
3	CWS1.1	CAR WASH PLANS
4	CWS2.1	DETAILS
5	CWS2.2	DETAILS
6	CWS2.3	DETAILS
7	CWS2.4	DETAILS
8	CWS3.1	GENERAL NOTES
9	CWS3.2	GENERAL NOTES
10	CWS3.3	GENERAL NOTES
11	CWS3.4	GENERAL NOTES



**GENERAL NOTES**

THE FOUNDATION HAS BEEN DESIGNED TO RESIST CODE REQUIRED VERTICAL AND LATERAL FORCES AFTER THE CONSTRUCTION OF ALL STRUCTURAL ELEMENTS HAS BEEN COMPLETED. STABILITY OF THE STRUCTURE PRIOR TO COMPLETION IS THE SOLE RESPONSIBILITY OF THE GENERAL CONTRACTOR. THIS RESPONSIBILITY INCLUDES BUT IS NOT LIMITED TO JOB SITE SAFETY; ERECTION MEANS, METHODS, AND SEQUENCES; TEMPORARY SHORING, FORMWORK, AND BRACING; USE OF EQUIPMENT AND CONSTRUCTION PROCEDURES. PROVIDE ADEQUATE RESISTANCE TO LOADS ON THE STRUCTURES DURING CONSTRUCTION PER SEI/ASCE STANDARD NO. 37-02 "DESIGN LOADS ON STRUCTURES DURING CONSTRUCTION." ANY DISCREPANCIES FOUND AMONG THE DRAWINGS, THESE GENERAL NOTES AND THE SITE CONDITIONS SHALL BE REPORTED TO THE ARCHITECT, WHO SHALL CORRECT SUCH DISCREPANCY IN WRITING. ANY WORK DONE BY THE GENERAL CONTRACTOR AFTER DISCOVERY OF SUCH DISCREPANCY SHALL BE DONE AT THE GENERAL CONTRACTOR'S RISK. THE GENERAL CONTRACTOR SHALL VERIFY AND COORDINATE DIMENSIONS AMONG ALL DRAWINGS PRIOR TO PROCEEDING WITH ANY WORK OR FABRICATION.

**STANDARDS**

ALL METHODS, MATERIALS AND WORKMANSHIP SHALL CONFORM TO THE 2018 INTERNATIONAL BUILDING CODE (IBC) AS AMENDED AND ADOPTED BY THE LOCAL BUILDING OFFICIAL OR APPLICABLE JURISDICTION.

**DESIGN CRITERIA**

**VERTICAL LOADS:** ACTUAL DEAD LOAD OF COMPONENT

**LATERAL FORCES**

**WIND:** 97 MPH EXP. B

$F = qzGC_fA_f$

- VELOCITY PRESSURE,  $qz = 18.4$  psf
- GUST EFFECT FACTOR,  $G = 0.9$
- EXTERNAL PRESSURE COEFFICIENT,  $C_f = 1.75$
- $A_f =$  AREA OF COMPONENT

**SEISMIC:**  $V = C_sW$

$$C_s = 0.14 S_{ps} I_e \leq \frac{S_{ps}}{\left(\frac{R}{I_e}\right)} \leq \frac{S_{p1}}{\left(\frac{R}{I_e}\right)^T}$$

- $C_s$  MIN. FROM SEI/ASCE 7-10 SECTION 15.4
- SEISMIC IMPORTANCE FACTOR,  $I_e = 1.0$
- OCCUPANCY CATEGORY = I
- SPECTRAL RESPONSE ACCELERATIONS  $S_s = 1.27$  &  $S_1 = 0.44$
- SITE CLASS PER TABLE 1615.1 = D
- SPECTRAL RESPONSE COEFFICIENTS  $S_{ps} = 0.85$  &  $S_{p1} = 0.54$  - SEISMIC DESIGN CATEGORY = D
- $W =$  DEAD LOAD OF COMPONENT
- ANALYSIS PROCEDURE USED = EQUIVALENT LATERAL FORCE ANALYSIS
- RESPONSE MODIFICATION FACTOR PER SEI/ASCE 7-16 TABLE 15.4-2  $R = 2.0$
- $C_s = 0.42$

**CONCRETE**

**CONCRETE:** SHALL BE MADE WITH PORTLAND CEMENT ASTM C-150 TYPE II OR TYPE I AND SHALL BE READY MIXED PER ASTM C-94.

**MIX DESIGNS:** THE CONTRACTOR SHALL DESIGN CONCRETE MIXES THAT, MEET OR EXCEED THE REQUIREMENTS OF THE CONCRETE MIX TABLE. THE MIX DESIGNS SHALL FACILITATE ANTICIPATED PLACEMENT METHODS, WEATHER, REBAR CONGESTION, ARCHITECTURAL FINISHES, CONSTRUCTION SEQUENCING, STRUCTURAL DETAILS, AND ALL OTHER FACTORS REQUIRED TO PROVIDE A STRUCTURALLY SOUND, AESTHETICALLY ACCEPTABLE FINISHED PRODUCT. WATER REDUCING ADMIXTURES MAY BE USED TO MEET THESE REQUIREMENTS. MAXIMUM SLUMP SHALL BE 5".

**ADMIXTURES:** ADMIXTURES SHALL BE BY MASTER BUILDERS, W.R. GRACE, OR PRE-APPROVED EQUAL. ALL MANUFACTURERS RECOMMENDATIONS SHALL BE FOLLOWED.

**WATER:** SHALL BE CLEAN AND POTABLE.

ITEM	DESIGN f'c (PSI) (1)	MAX. W/C RATIO	MIN. (3) FLYASH (PCY)	MAX. AGGREGATE SIZE (IN)	NOTES	MIN. CEMENTITIOUS (2) MATERIAL (SACKS/YARD)
FOUNDATIONS	2500 @ 28 DAYS	0.45	--	3/4	--	5-1/2"

**CONCRETE MIX NOTES:**

1. CONCRETE SHALL BE AIR ENTRAINED. TOTAL AIR CONTENT (PERCENT BY VOLUME OF CONCRETE) SHALL NO BE LESS THAN 5% OR MORE THAN 7%.

2. TOTAL CEMENTITIOUS MATERIAL IS THE SUM OF ALL CEMENT PLUS FLYASH.

3. AT THE CONTRACTORS OPTION FLYASH MAY BE SUBSTITUTED FOR CEMENT BUT SHALL NOT EXCEED 25% BY WEIGHT OF TOTAL CEMENTITIOUS MATERIAL.

**NON-SHRINK GROUT:** MASTER BUILDERS "MASTERFLOW 555" OR PRE-APPROVED EQUAL. GROUT SHALL CONFORM TO CRD-C621 AND ASTM C1107 GRADE B WHEN TESTED AT A FLUID CONSISTENCY PER CRD- C611-85 FOR 30 MINUTES. GROUT MAY BE PLACED FROM A 25 SECOND FLOW TO A STIFF PACKING CONSISTENCY. FILL OR PACK ENTIRE SPACE UNDER PLATES OR SHAPES. NO GROUTING SHALL BE DONE BELOW 40' F.

**METAL REINFORCEMENT (CONCRETE):**

REINFORCING STEEL SHALL CONFORM TO ASTM A-615, GRADE 40 OR 60. PLACE PER ACI 315 AND ACI 318. LAP SPLICES SHALL BE 48 BAR DIAMETERS UNLESS NOTED OTHERWISE.

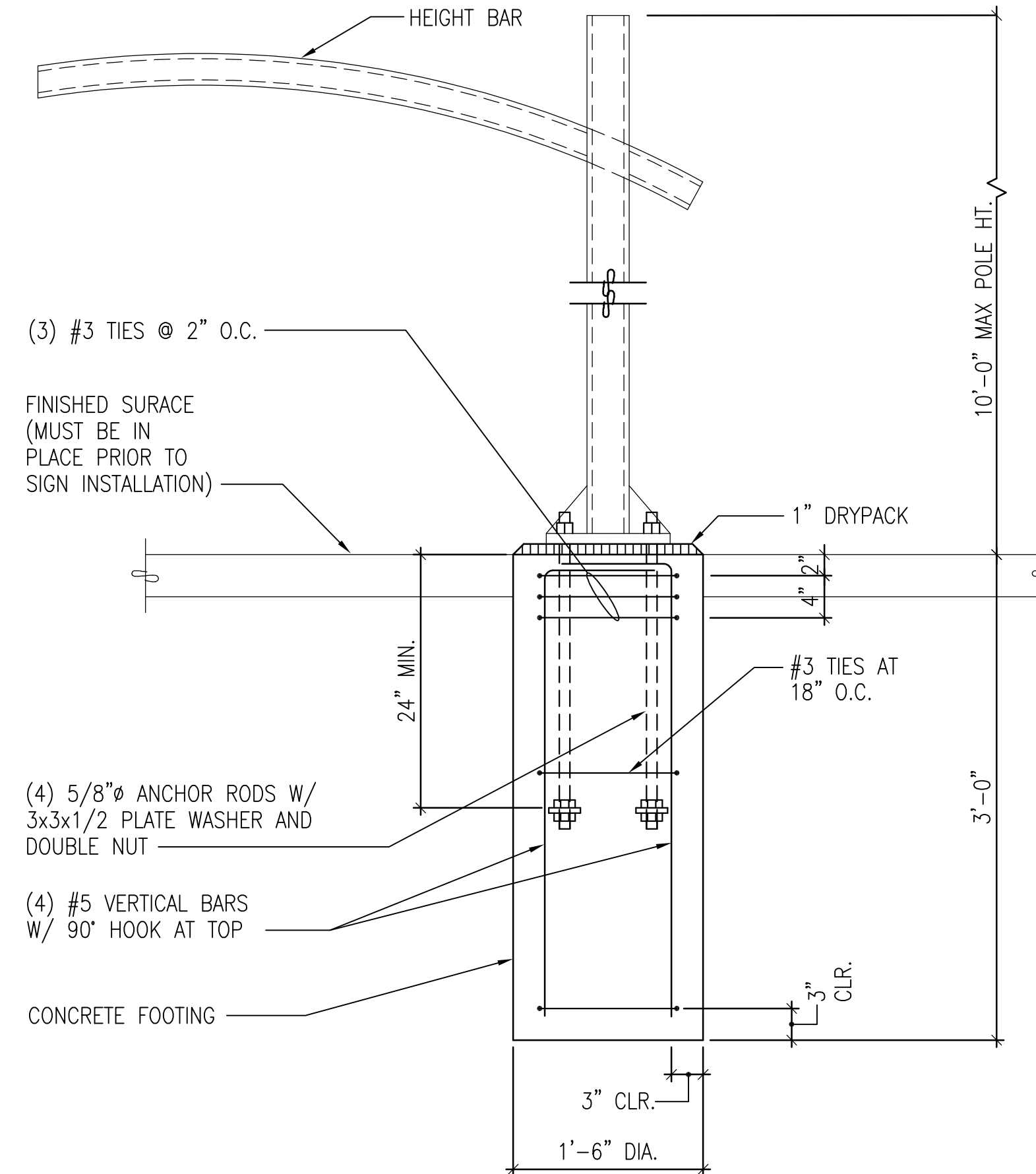
**STRUCTURAL STEEL**

**DETAILING, FABRICATION AND ERECTION**

**MATERIAL PROPERTIES**

**OTHER SHAPES AND PLATES:** ASTM A36 ( $F_y = 36$  KSI)

**ANCHOR RODS (A.B.):** ASTM F1554, GRADE 36, CLASS 2A



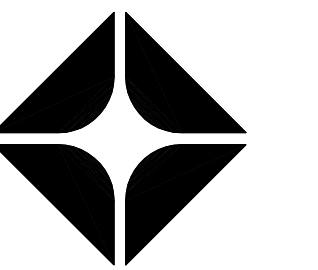
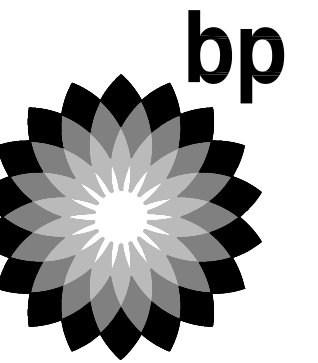
HEIGHT BAR FOUNDATION

1  
CWS0.2

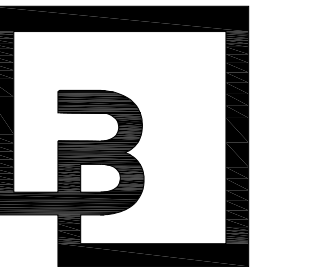
**SECTION**

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CLIENT:



ARCO  
BP WEST COAST PRODUCTS, LLC

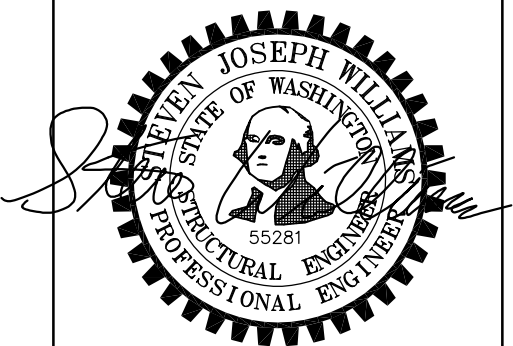


**Barghausen Consulting Engineers, Inc.**

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Kent, WA 98032  
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**DEVELOPMENT INFORMATION:**

**ARCO NTI**  
**3400 am/pm**  
**FUEL CANOPY w/ 6 MPD's**

SITE ADDRESS:

**1402 S MERIDIAN**  
PUYALLUP, WA 98371

**FACILITY #7184**

DESIGNED BY: JPP ALLIANCE ZADM:

CHECKED BY: BAM BP REPM:

DRAWN BY: MCS ALLIANCE PM:

VERSION: - PROJECT NO:

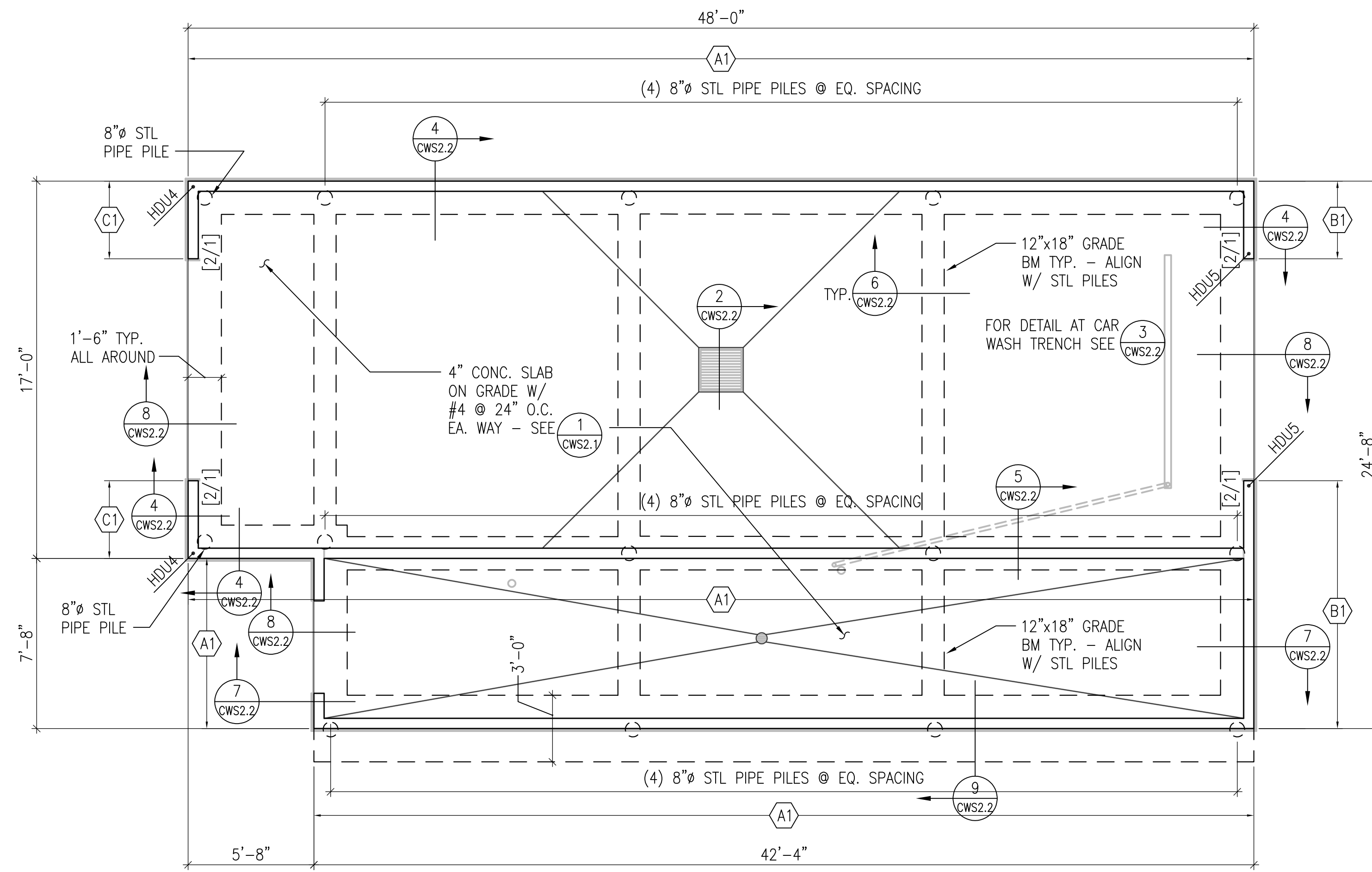
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**GENERAL NOTES AND HEIGHT BAR FOUNDATION DETAIL**

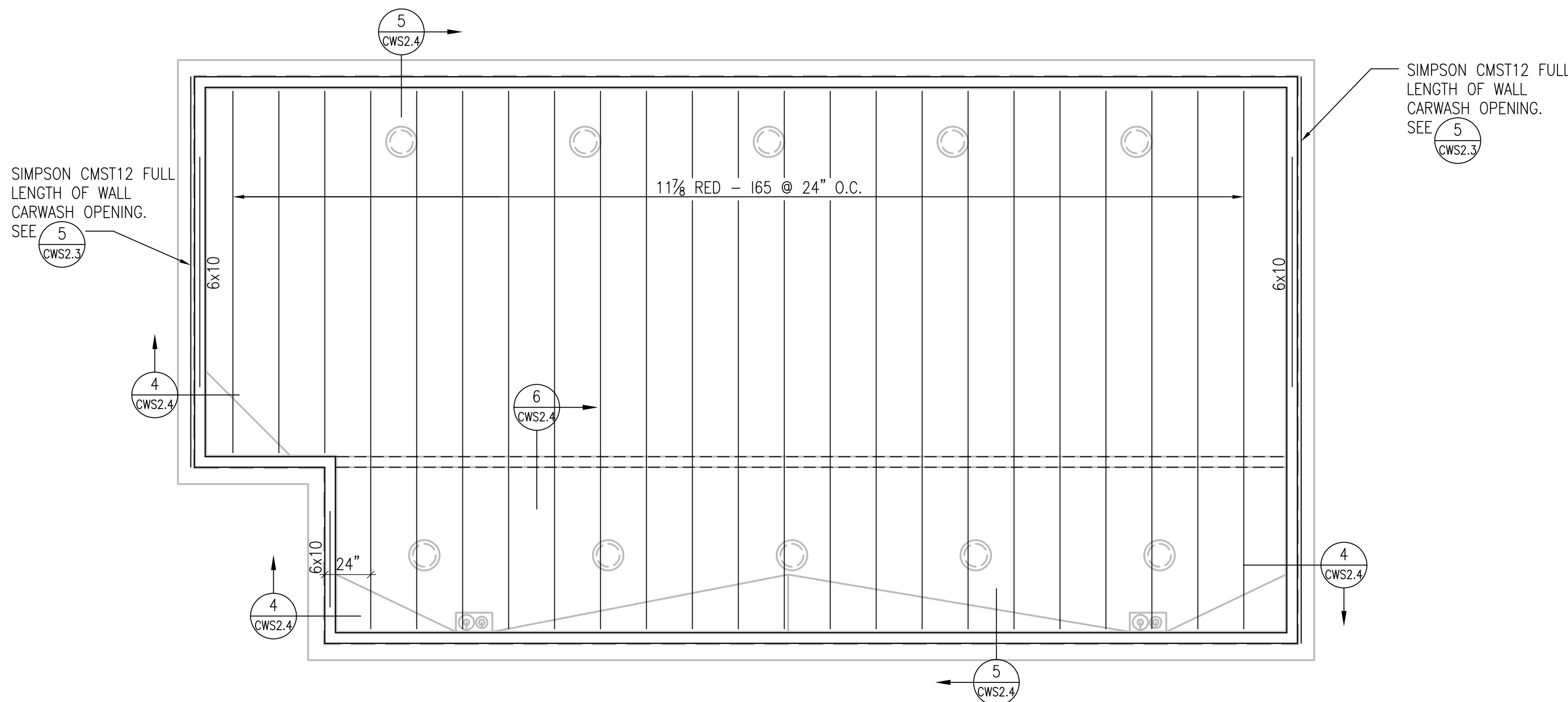
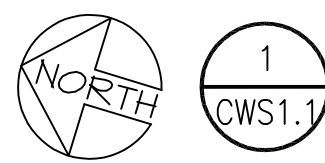
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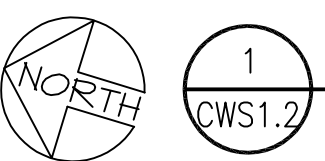
**CAR WASH FOUNDATION PLAN**

1/4"=1'-0"



**CAR WASH ROOF FRAMING PLAN**

1/4"=1'-0"

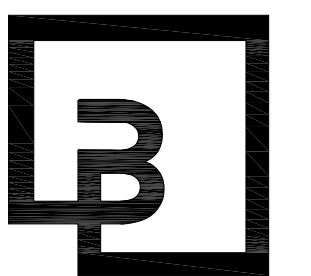
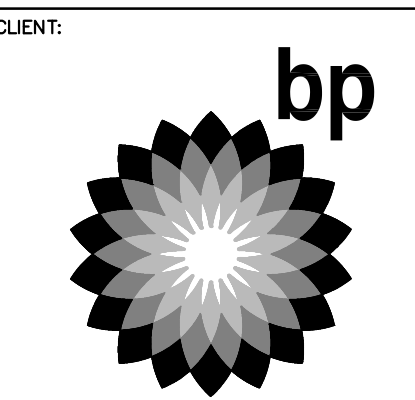


**FOUNDATION NOTES**

- COORDINATE ALL DIMENSIONS WITH ARCHITECTURAL DRAWINGS. FINISH FLOOR = 0'-0" A.F.F. UNLESS NOTED OTHERWISE.
- INDICATES WOOD STUD WALL. WOOD STUDS SHOULD BE SPACED @ 16" O.C. MAXIMUM UNLESS NOTED OTHERWISE. PROVIDE 1 5/32" WOOD SHEATHING AT ALL EXTERIOR WALLS NAILED WITH 10d @ 6" O.C. AT ALL PANEL EDGES (PROVIDE 2x BLOCKING AT UNSUPPORTED PANEL EDGES) AND 10d @ 12" O.C. AT INTERMEDIATE FRAMING TYPICAL UNLESS NOTED OTHERWISE. SEE NOTE 11 FOR ADDITIONAL SHEAR WALL NAILING.
- INDICATES CONCRETE WALL GRADE BEAM 1'-6" UNLESS NOTED OTHERWISE. SEE CWS2.1 FOR TYPICAL FOUNDATION DETAILS.
- INDICATES HOLDDOWN. SEE 1/CWS2.2, AND 4/CWS2.3.
- INDICATES DEPRESSED OR SLOPED SLABS. FOR SLOPE AND EXACT LOCATION SEE ARCHITECTURAL DRAWINGS.
- FOR TYPICAL CONCRETE SLAB-ON-GRADE DETAILS SEE CWS2.1.
- FOR TYPICAL STEPS IN FOOTING AND FOUNDATION CONSTRUCTION JOINTS SEE DETAILS 4/CWS2.1 AND 1/CWS2.1.
- FOR TYPICAL EXCAVATION LIMITATIONS IN THE PROXIMITY OF FOUNDATIONS SEE 5/CWS2.1.
- INDICATES SPECIAL WOOD STUD SHEAR WALL. SEE 6/CWS2.3 FOR SCHEDULE.
- INDICATES 8" STEEL PIPE PILE BELOW. SEE GENERAL NOTES FOR PILE DETAILS AND INSTALLATION REQUIREMENTS.

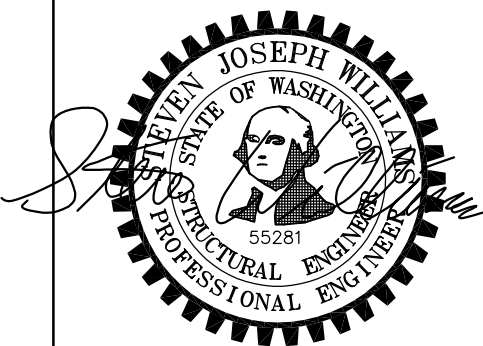
**ROOF FRAMING NOTES**

- COORDINATE ALL DIMENSIONS WITH ARCHITECTURAL DRAWINGS. FINISH FLOOR = 0'-0" A.F.F. UNLESS NOTED OTHERWISE.
- INDICATES STRUCTURAL WALL EXTENDING TO ROOF STRUCTURE.
- INDICATES HEADER IN WALL BELOW SEE 5/CWS2.3.
- INDICATES PENETRATION IN ROOF STRUCTURE.
- PROVIDE 23/32" T&G WOOD SHEATHING OVER ENTIRE ROOF STRUCTURE. NAIL WOOD ROOF SHEATHING WITH 10d @ 6" O.C. AT ALL SUPPORTED PANEL EDGES AND 10d @ 10" O.C. AT INTERMEDIATE FRAMING. TYPICAL UNLESS NOTED OTHERWISE.
- FOR SUPPORT OF MISCELLANEOUS MECHANICAL EQUIPMENT AND PIPES FROM ROOF STRUCTURE SEE CWS2.4.
- ROOF TRUSSES ARE A DEFERRED SUBMITTAL ITEM, SHALL BE DESIGNED BY A PROFESSIONAL ENGINEER LICENSED IN THE PROJECT STATE, AND THE PACKAGE SHALL BE REVIEWED AND APPROVED BY THE ENGINEER OF RECORD. SEE GENERAL NOTES FOR ADDITIONAL REQUIREMENTS.



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DEVELOPMENT INFORMATION:  
**ARCO NTI**  
3400 am/pm  
FUEL CANOPY w/ 6 MPD's

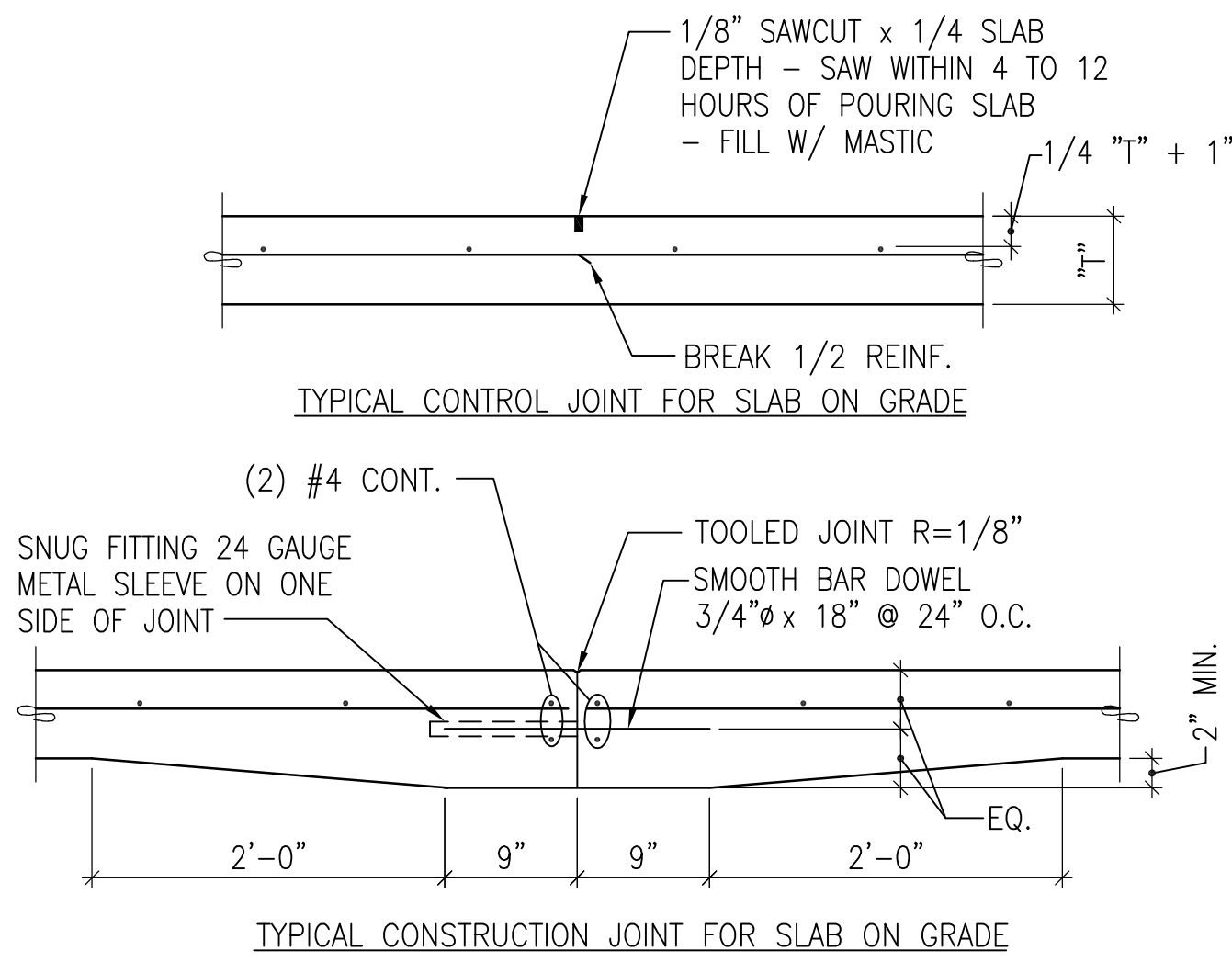
SITE ADDRESS:  
1402 S MERIDIAN  
PUYALLUP, WA 98371

FACILITY #7184

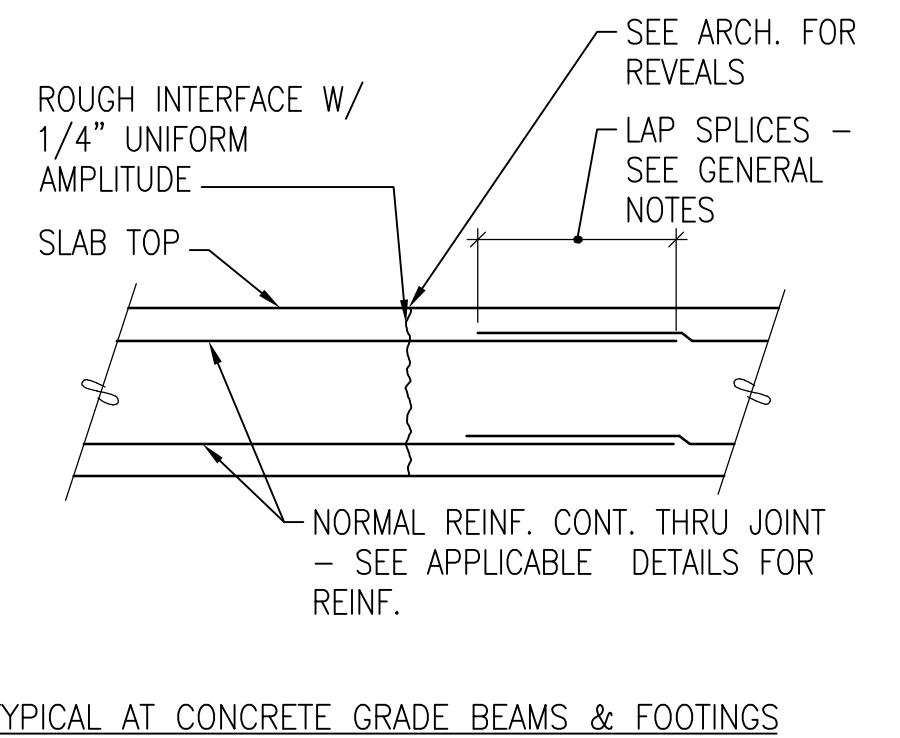
DESIGNED BY: JJP ALLIANCE ZADM:  
CHECKED BY: JJP BP REPM:  
DRAWN BY: RSC ALLIANCE PM:  
VERSION: - PROJECT NO:  
- 21730

DRAWING TITLE:  
**CAR WASH PLANS**

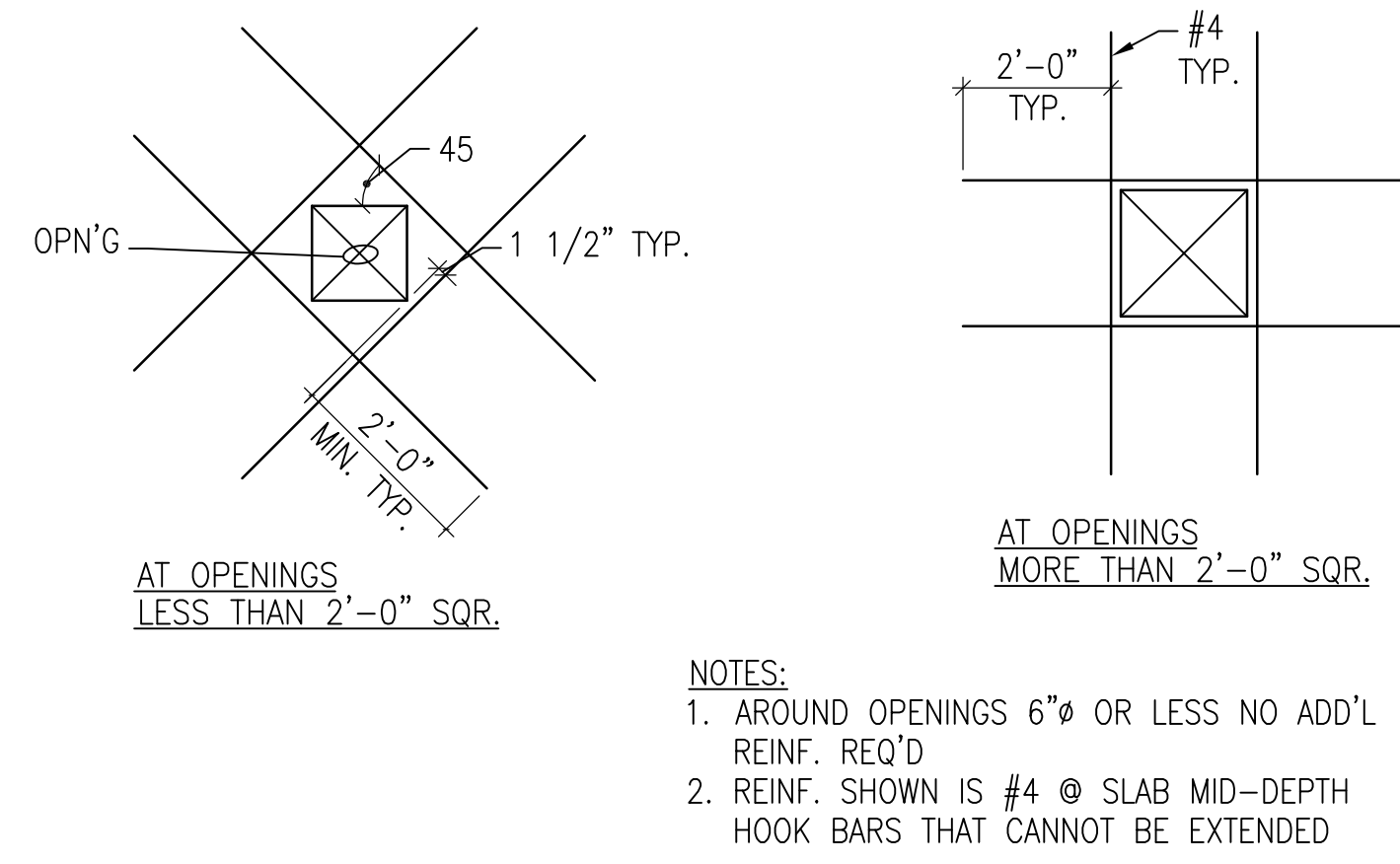
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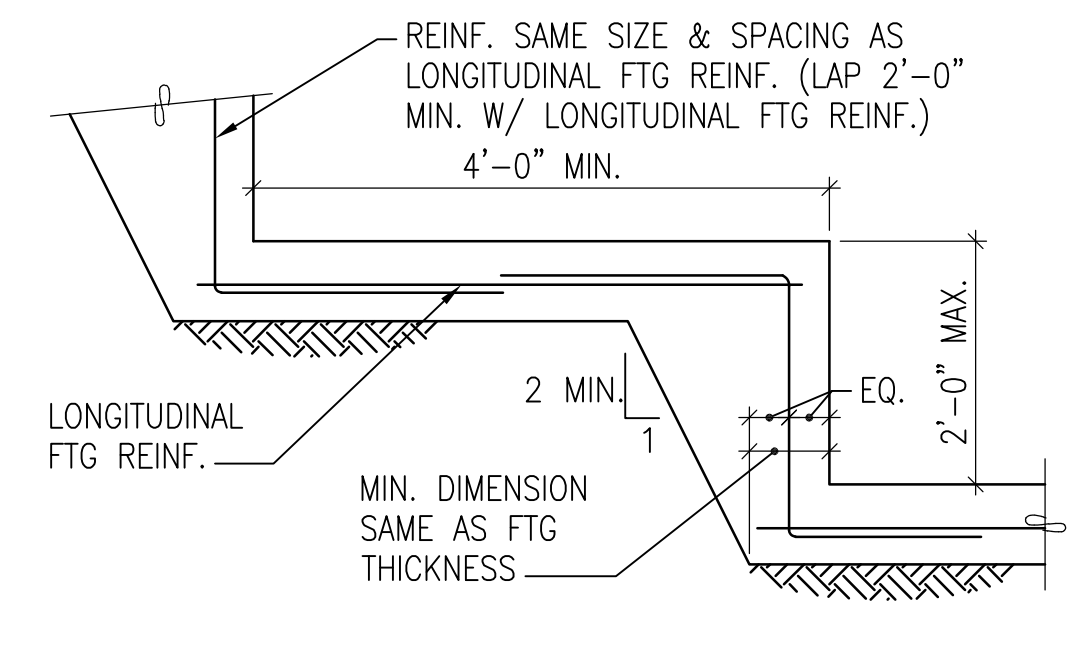
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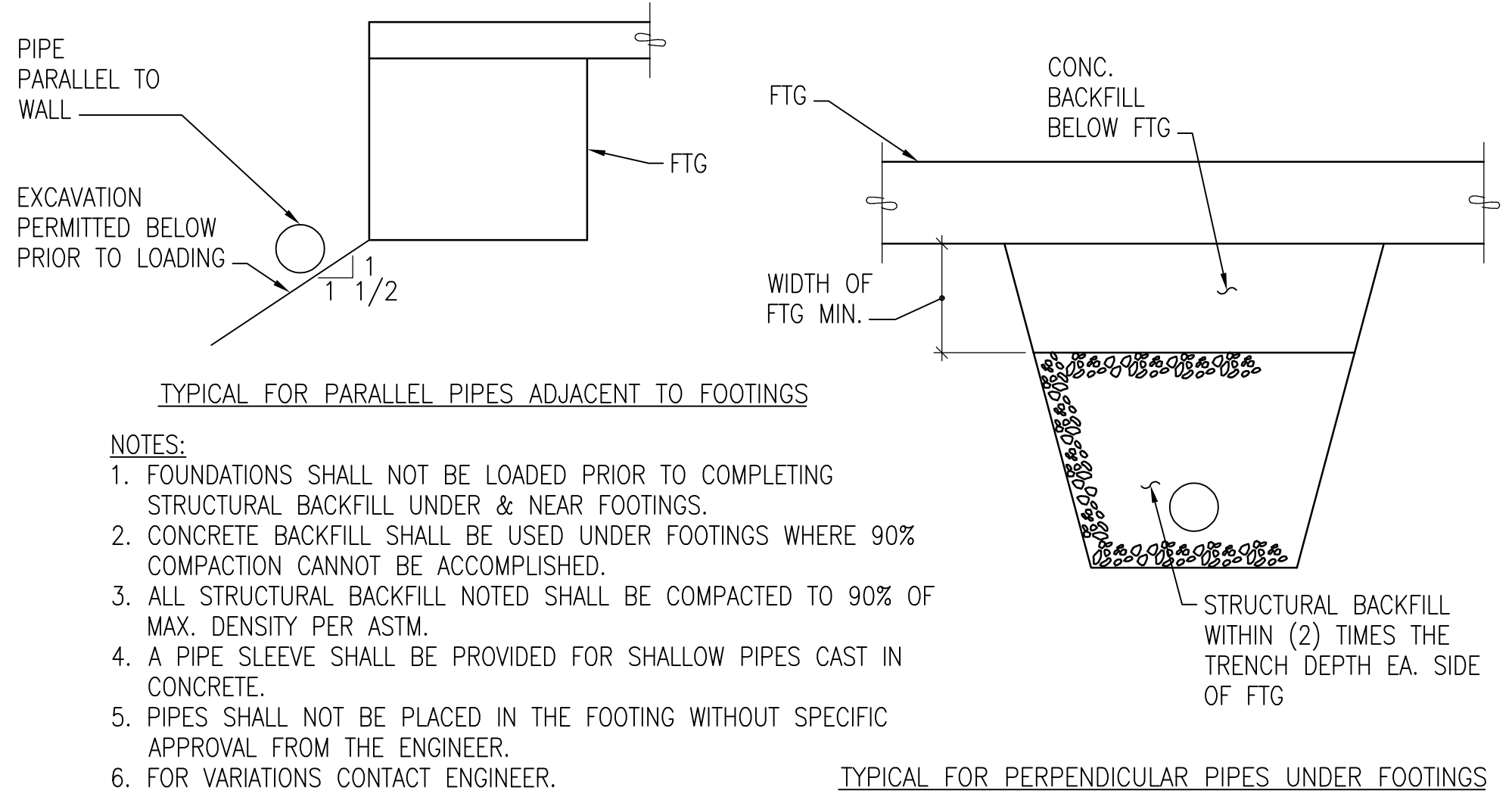
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**3 PLAN DETAILS**  
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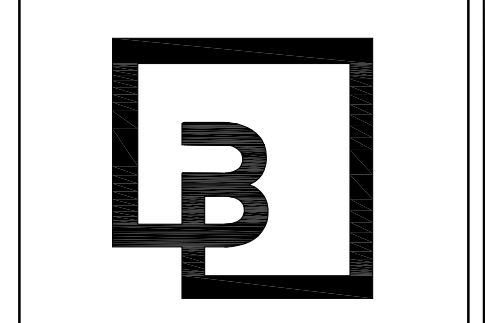


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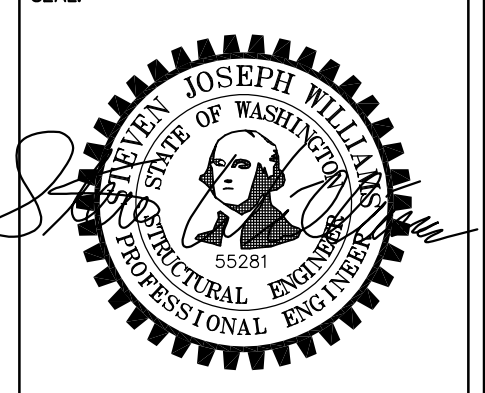
**5 SECTION**  
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CWS2.1

- NOTES:**
- FOUNDATIONS SHALL NOT BE LOADED PRIOR TO COMPLETING STRUCTURAL BACKFILL UNDER & NEAR FOOTINGS.
  - CONCRETE BACKFILL SHALL BE USED UNDER FOOTINGS WHERE 90% COMPACTION CANNOT BE ACCOMPLISHED.
  - ALL STRUCTURAL BACKFILL NOTED SHALL BE COMPACTED TO 90% OF MAX. DENSITY PER ASTM.
  - A PIPE SLEEVE SHALL BE PROVIDED FOR SHALLOW PIPES CAST IN CONCRETE.
  - PIPES SHALL NOT BE PLACED IN THE FOOTING WITHOUT SPECIFIC APPROVAL FROM THE ENGINEER.
  - FOR VARIATIONS CONTACT ENGINEER.



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DEVELOPMENT INFORMATION:  
**ARCO NTI**  
3400 am/pm  
FUEL CANOPY w/ 6 MPD's

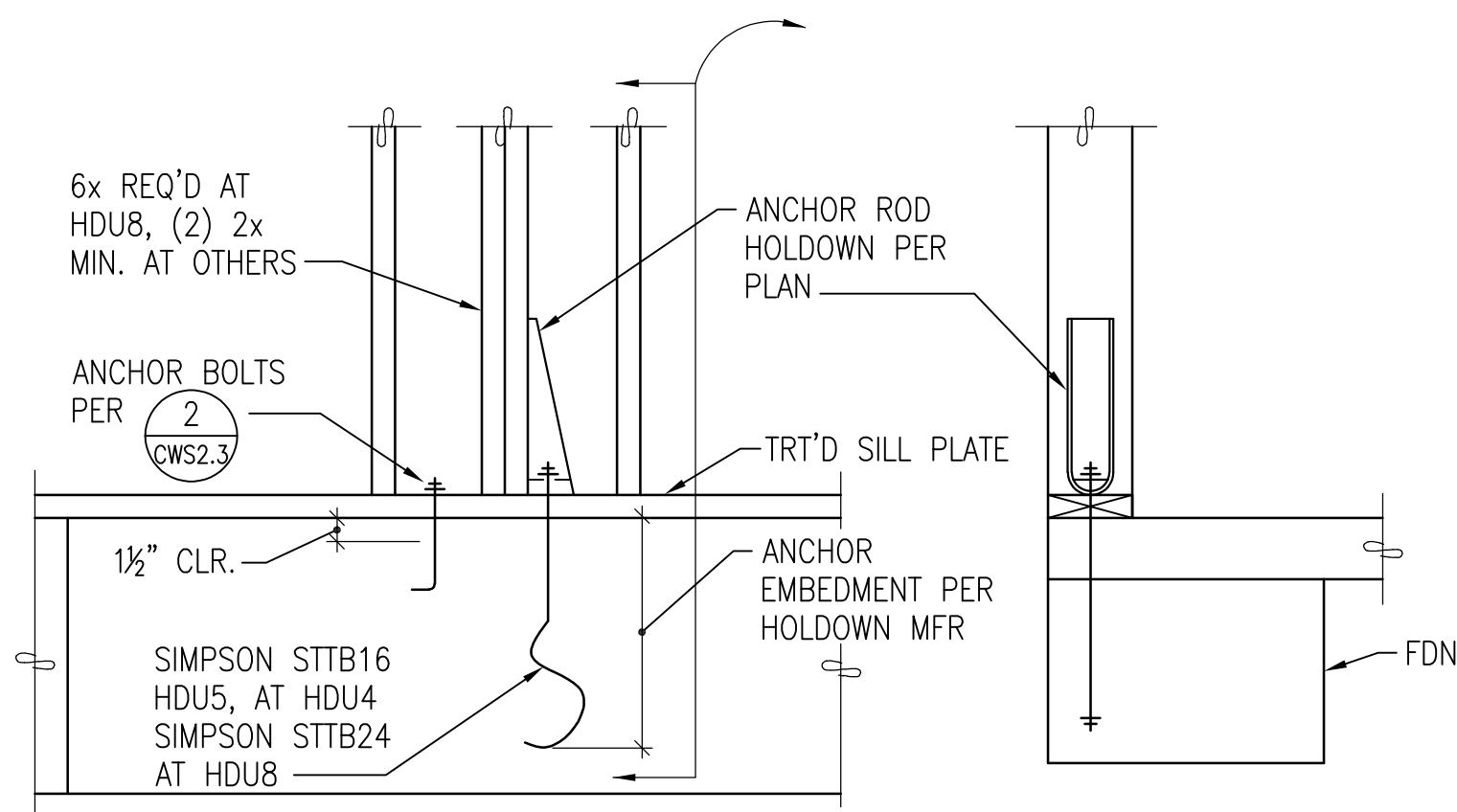
SITE ADDRESS:  
**1402 S MERIDIAN**  
PUYALLUP, WA 98371

**FACILITY #7184**

DESIGNED BY:	ALLIANCE ZADM:
CHECKED BY:	BP REPM:
DRAWN BY:	ALLIANCE PM:
VERSION:	PROJECT NO: 21730

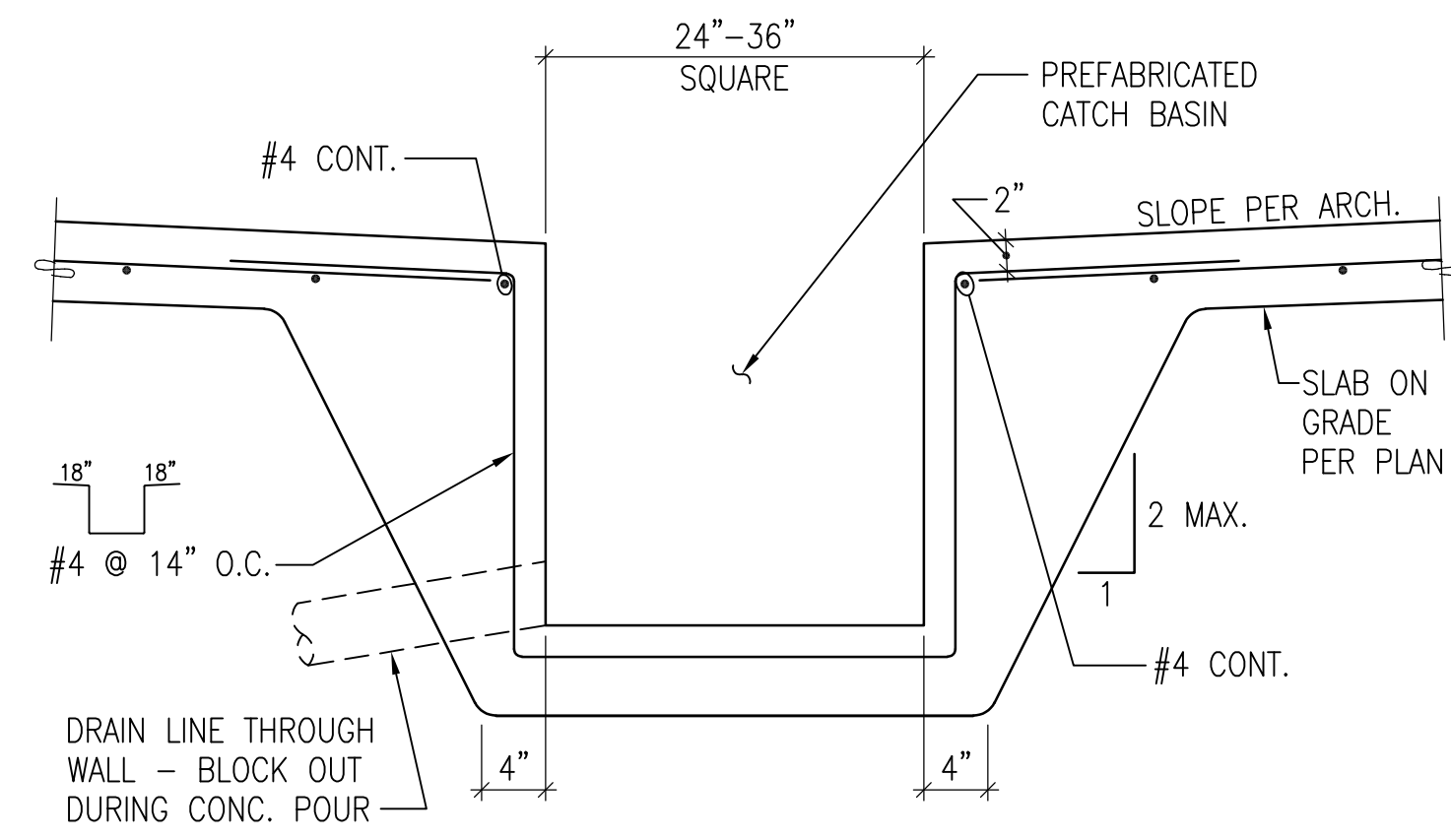
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**DETAILS**

SHEET NO:  
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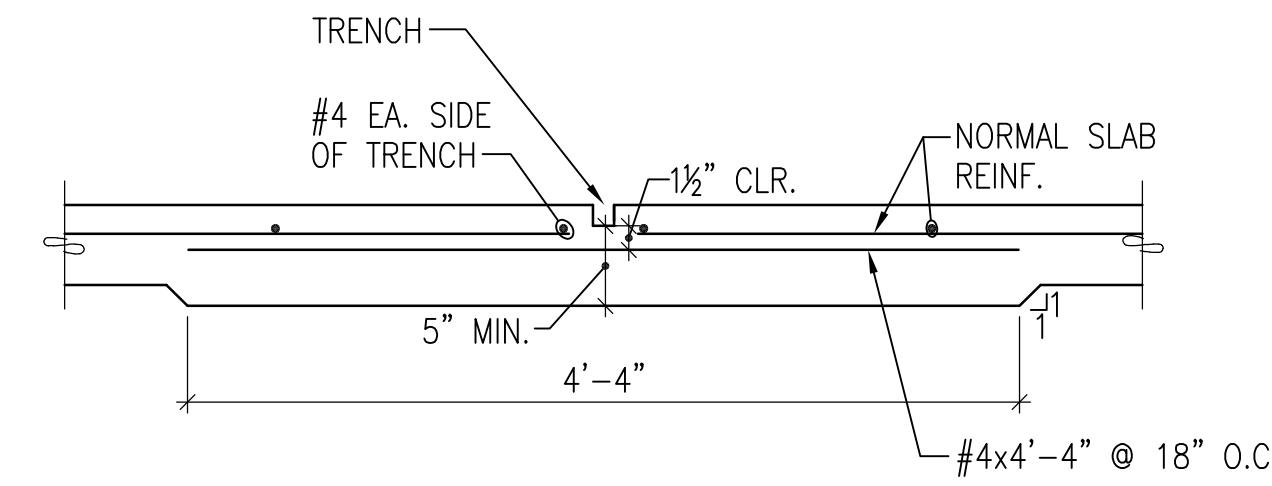


TYPICAL FOUNDATION ANCHOR ROD HOLDDOWN

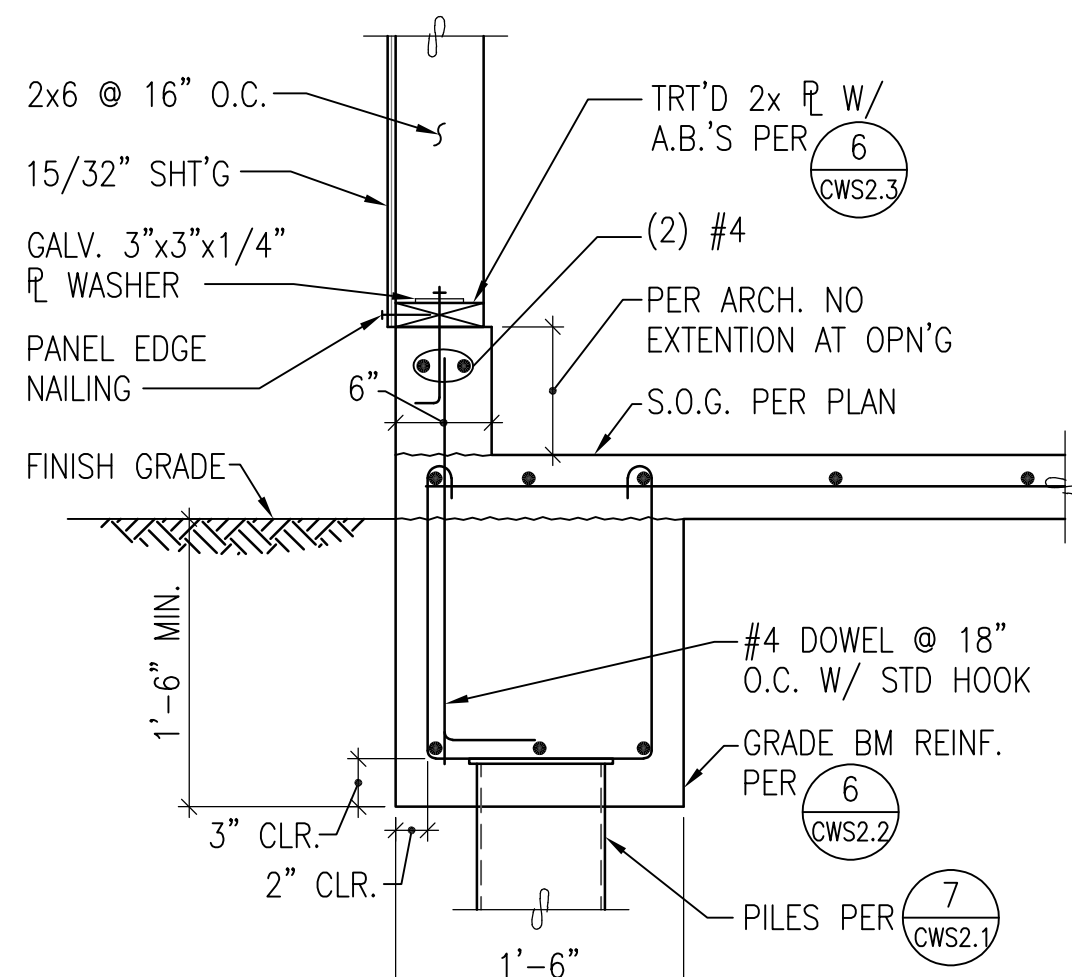
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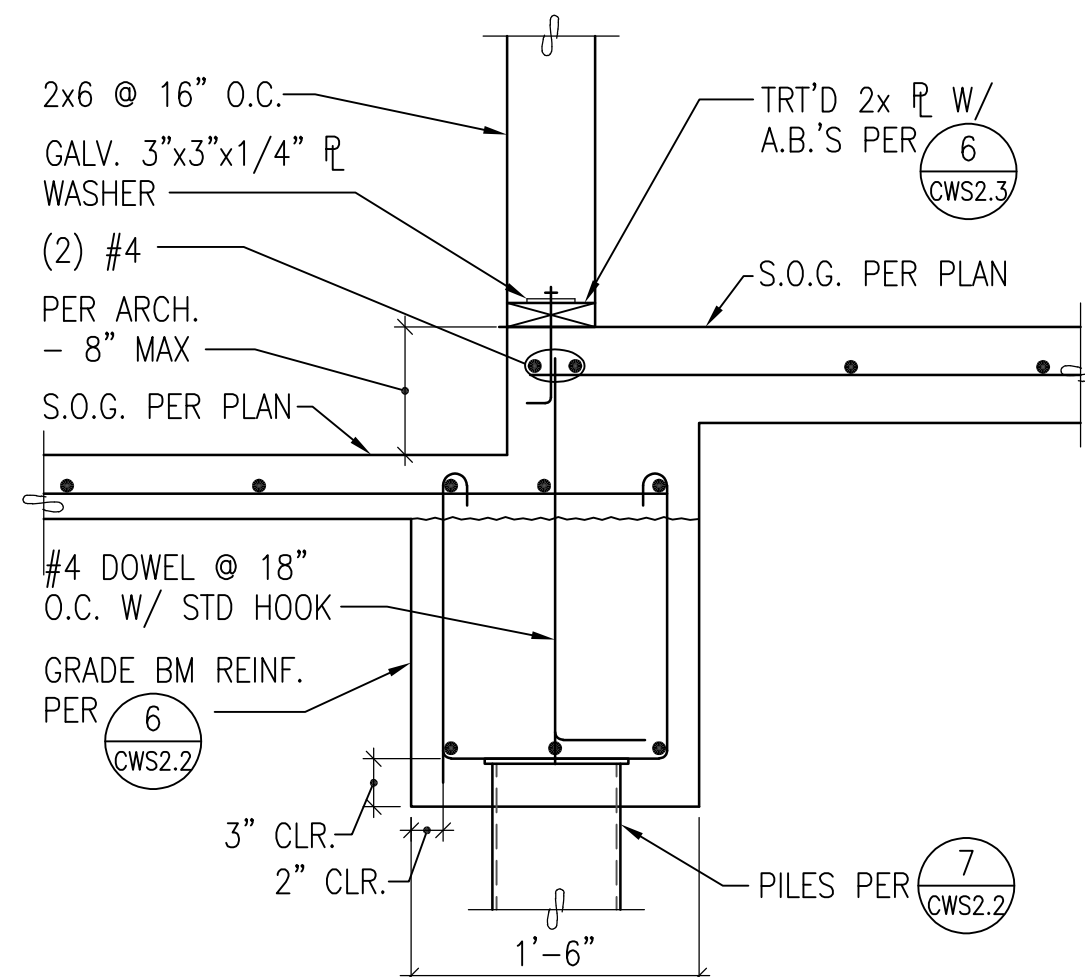
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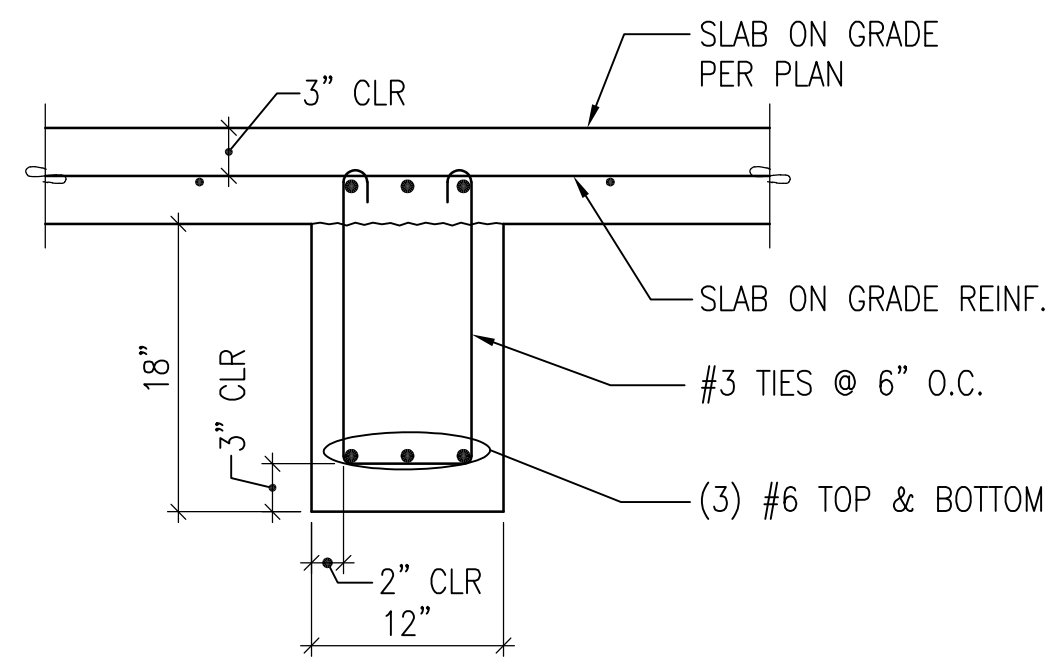
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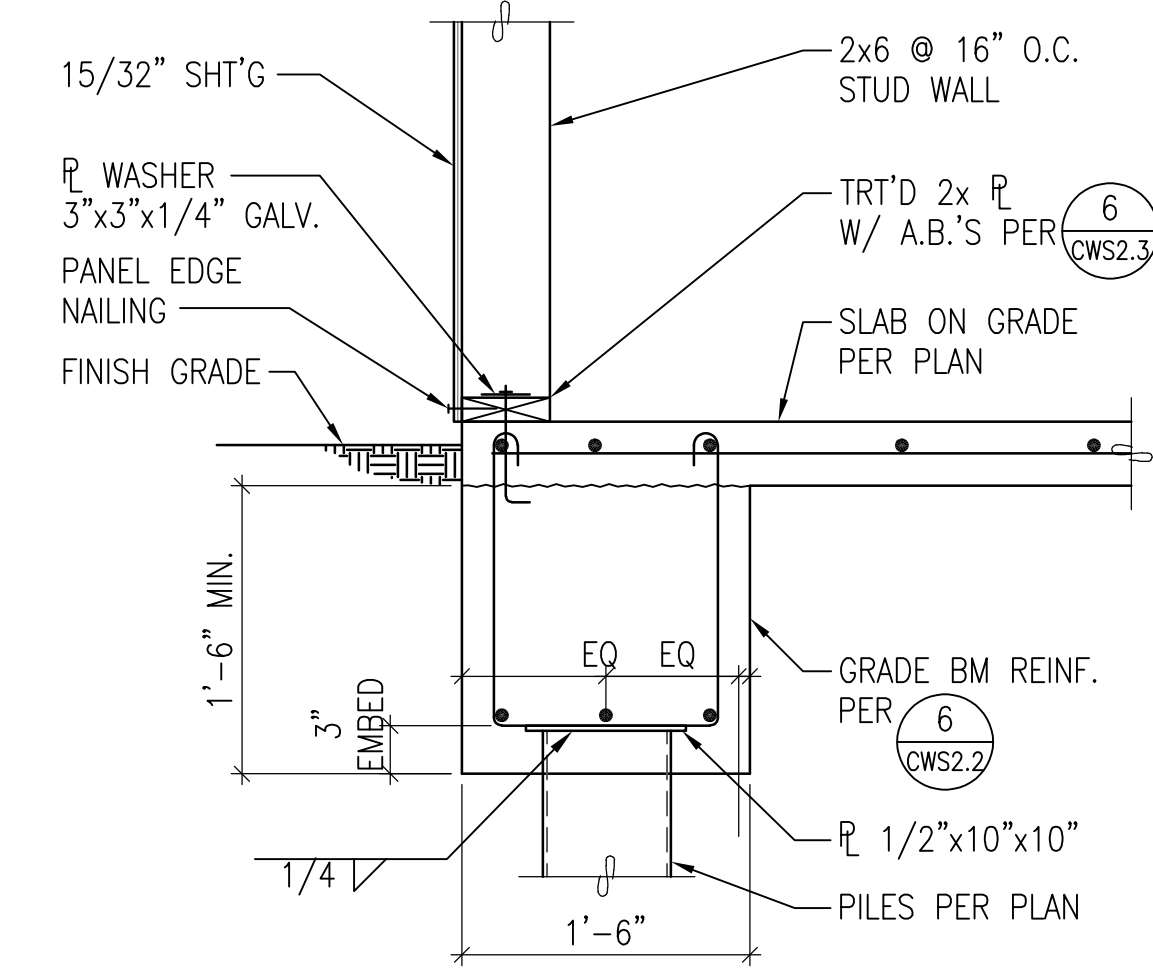
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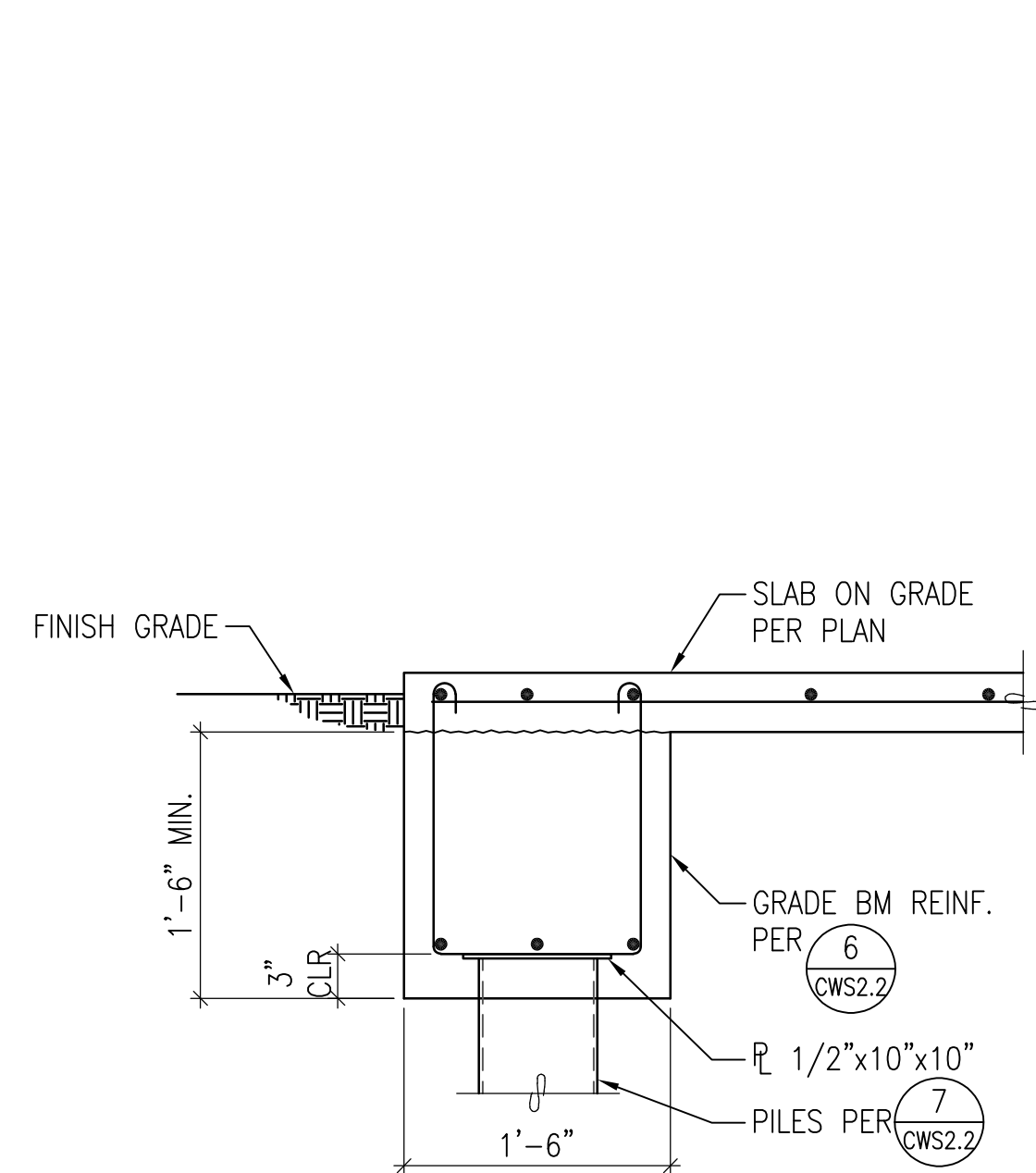
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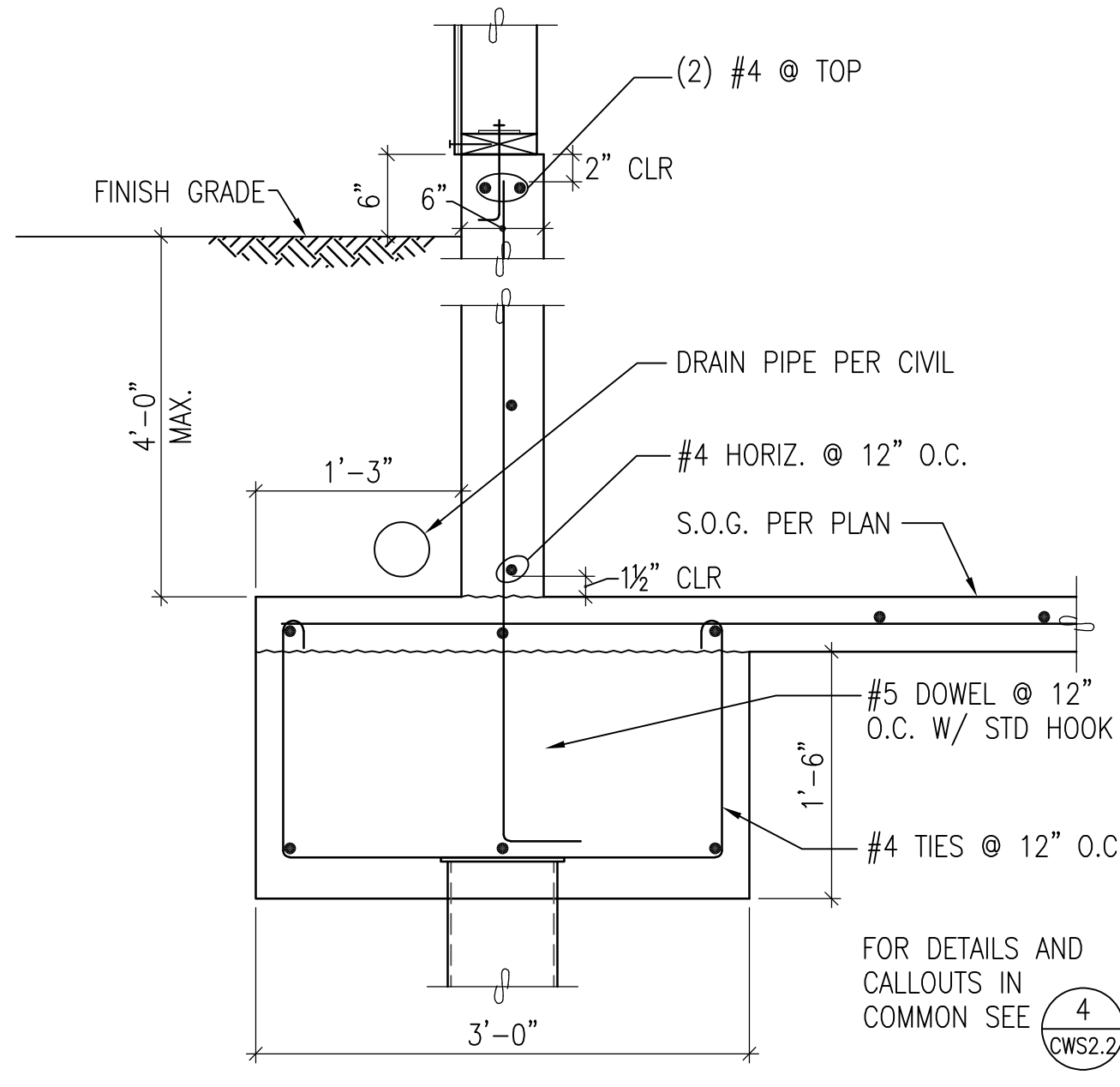
6  
CWS2.2  
1"=1'-0"



7  
CWS2.2  
1"=1'-0"

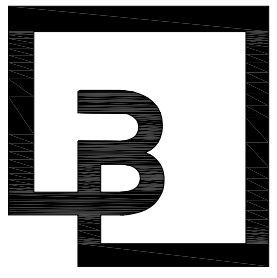
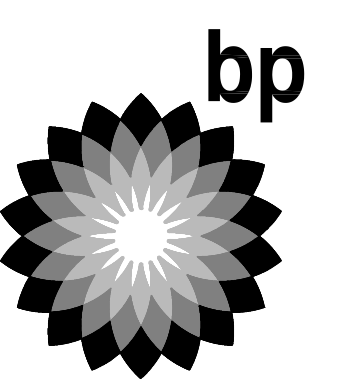


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1"=1'-0"



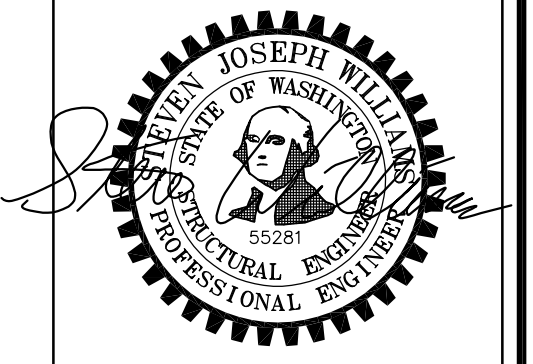
9  
CWS2.2  
NO SCALE

FOR DETAILS AND CALLOUTS IN COMMON SEE 4 CWS2.2



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DEVELOPMENT INFORMATION:  
**ARCO NTI**  
3400 am/pm  
FUEL CANOPY w/ 6 MPD's

SITE ADDRESS:  
**1402 S MERIDIAN**  
PUYALLUP, WA 98371

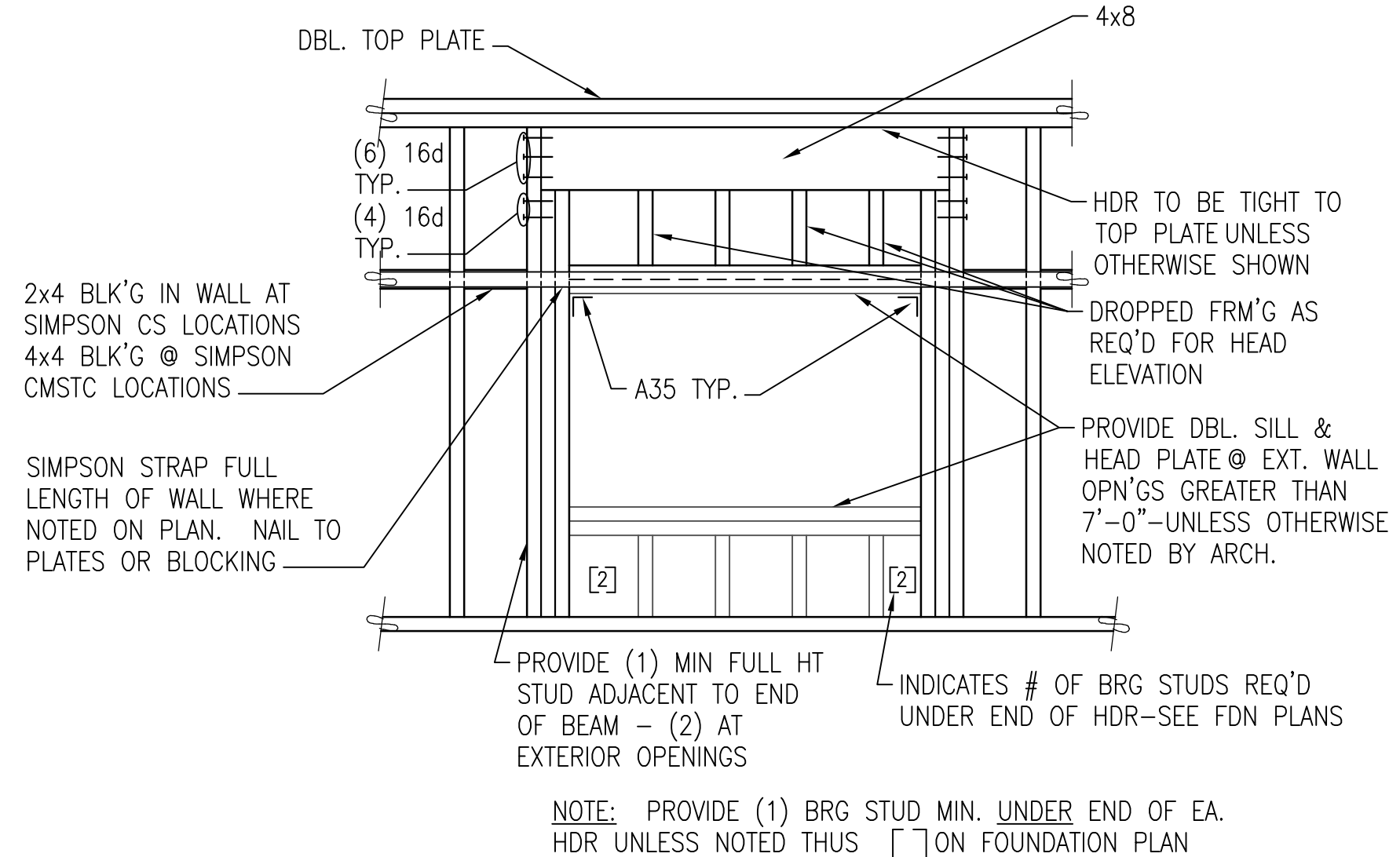
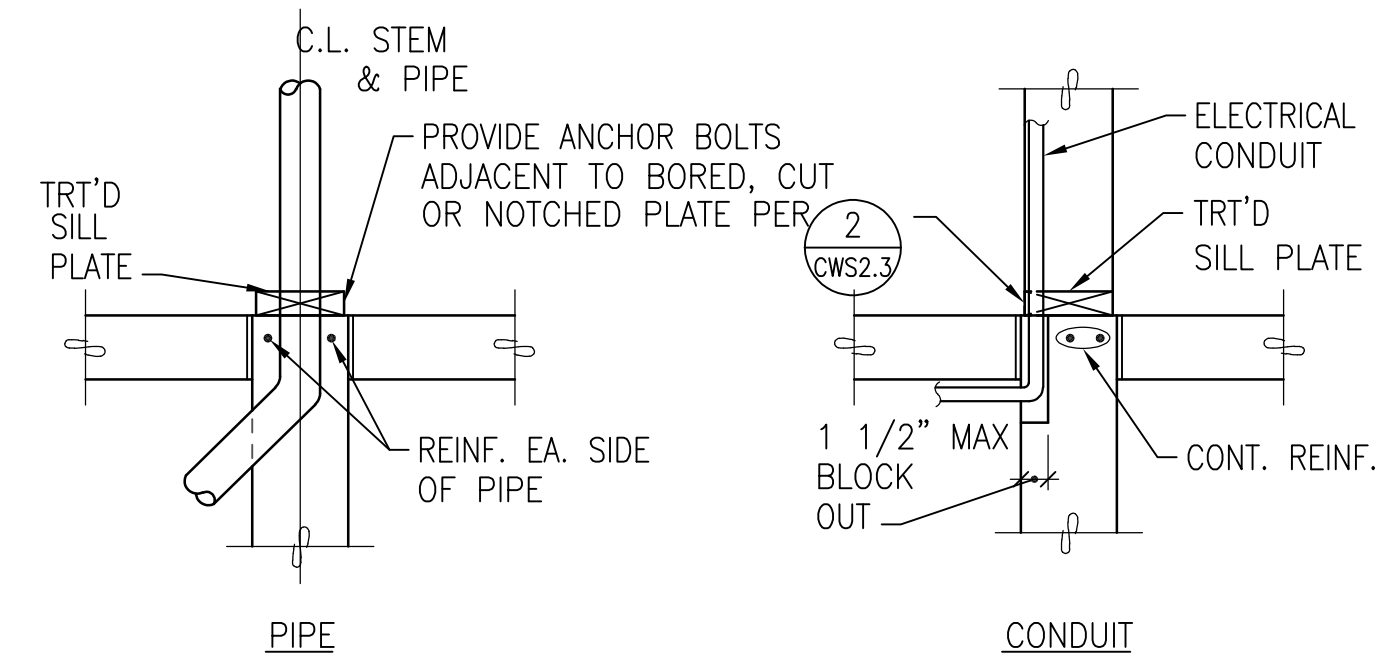
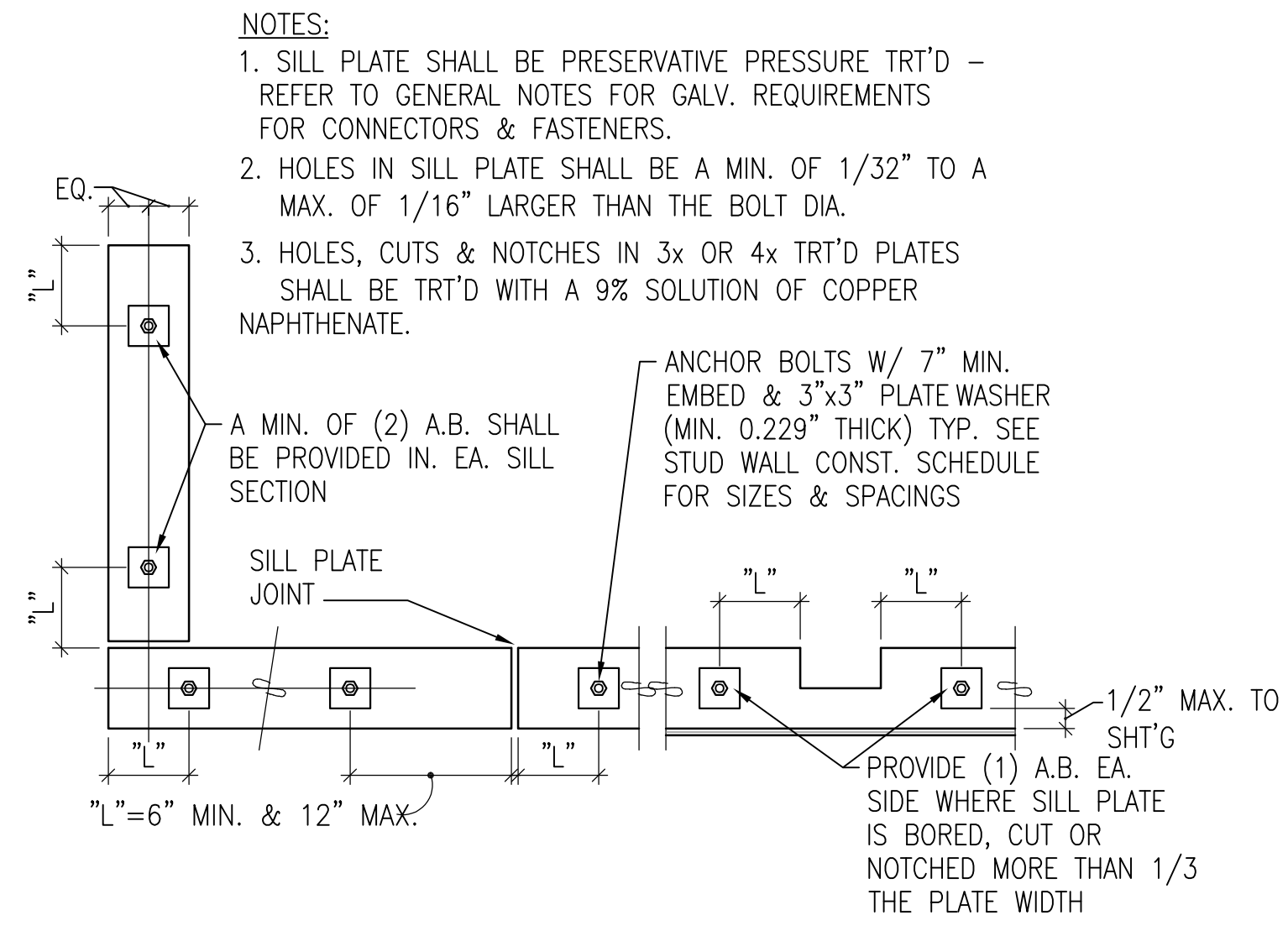
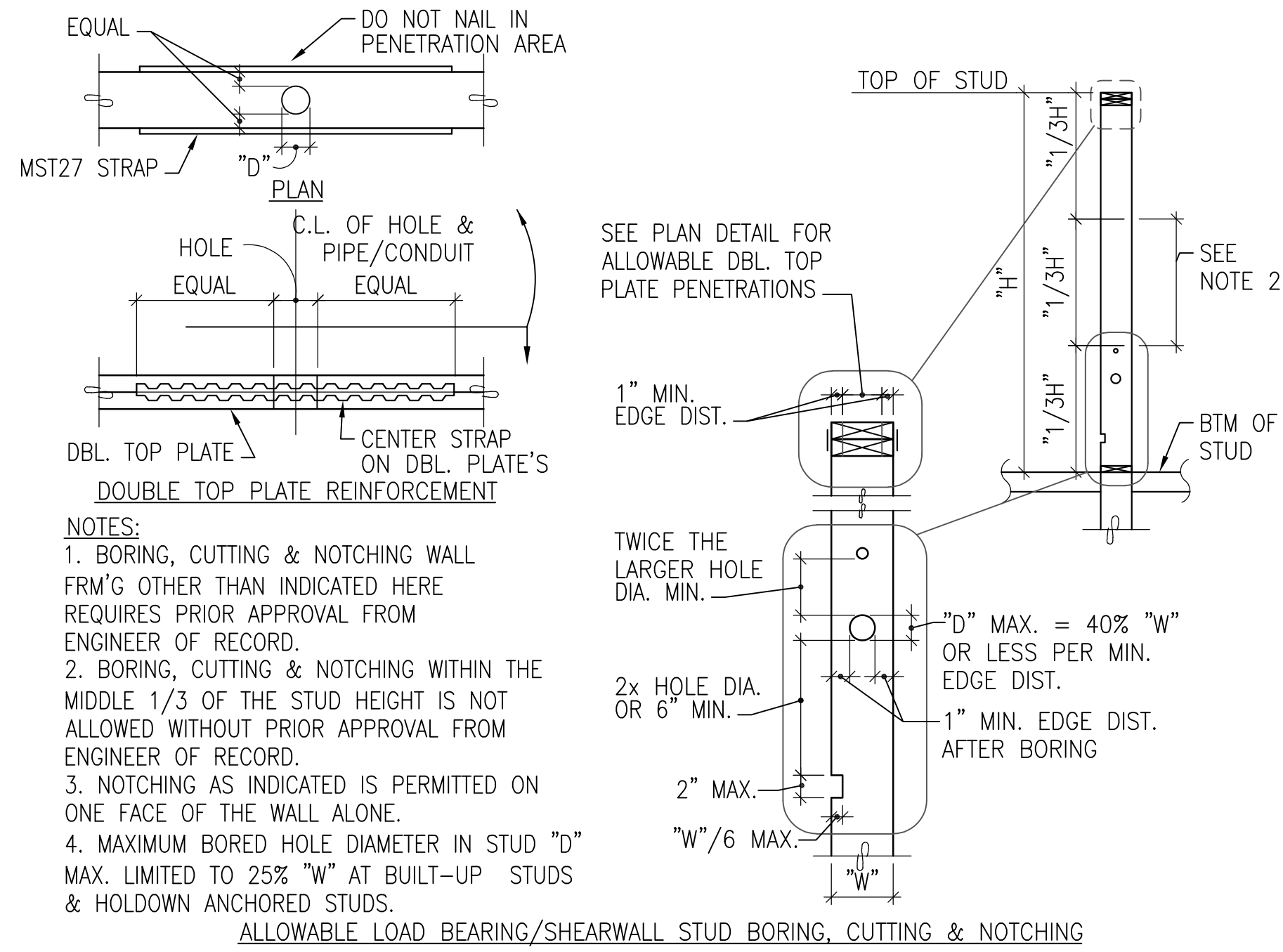
**FACILITY #7184**

DESIGNED BY: ALLIANCE ZADM;  
CHECKED BY: BP REPM;  
DRAWN BY: ALLIANCE PKM;  
VERSION: PROJECT NO:  
- 21730

DRAWING TITLE:  
**DETAILS**

SHEET NO:

**CWS2.2**



**SPECIAL SHEAR WALL CONSTRUCTION SCHEDULE**

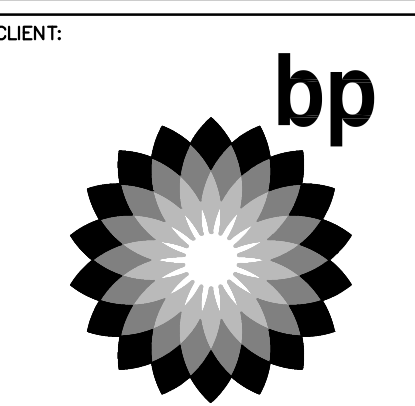
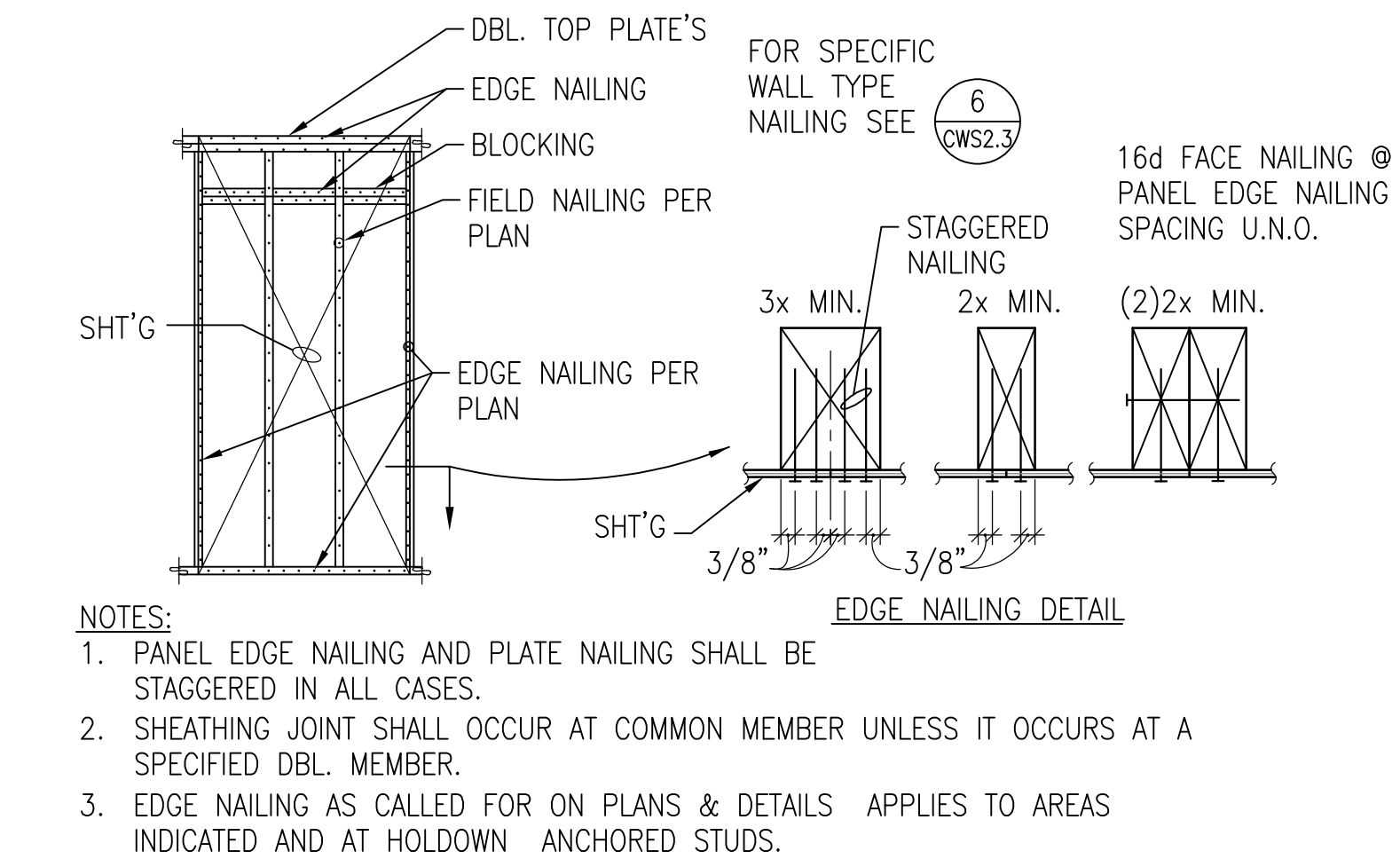
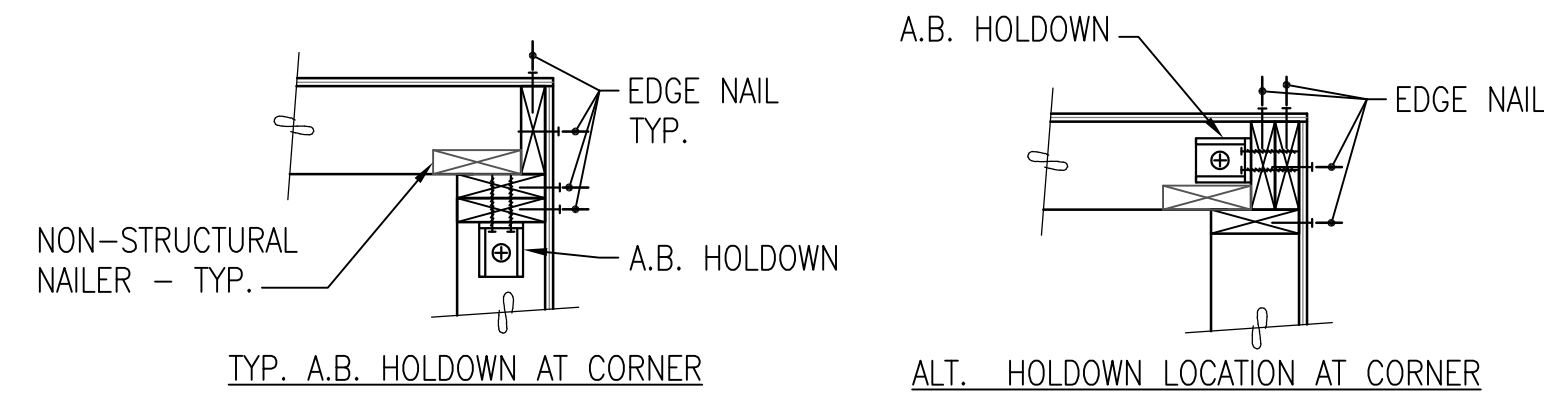
TABLE 1 - SHEAR WALL REQUIREMENTS

MARK	SHEATHING REQUIREMENTS	EDGE NAILING	FIELD NAILING	SOLE NAILING	5/8" ANCHOR BOLT SPACING (7" EMBED)
A	15/32"	10d @ 6" O.C.	10d @ 12" O.C.	16d @ 6" O.C.	48" O.C.
B	15/32"	10d @ 4" O.C.	10d @ 12" O.C.	1/4" SDS SCREWS @ 3" O.C.	16" O.C.
C	15/32"	10d @ 3" O.C.	10d @ 12" O.C.	1/4" SDS SCREWS @ 3" O.C.	16" O.C.

TABLE 2 - STUD SPACING REQUIREMENTS

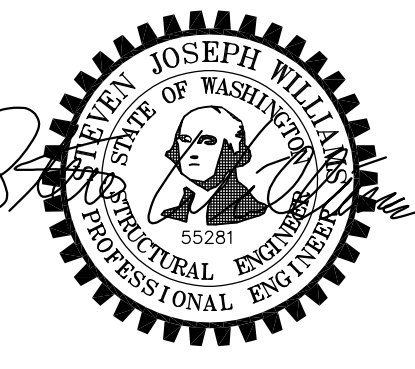
MARK	STUD SIZE & SPACING	# STUDS REQ'D AT MEMBER BRG
1	2x6 @ 16" O.C.	(1)

**NOTES:**  
 1. (XX) INDICATES SPECIAL STRUCTURAL WALL TYPE. ALL WALLS SHOWN ON STRUCTURAL DRAWINGS ARE 2x6 AT 16" O.C. UNLESS DESIGNATED SPECIAL. STUD LAYOUT SHALL MATCH FRM'G MEMBER LAYOUT ABOVE WHERE APPLICABLE. ALL EXTERIOR WALLS SHALL HAVE 15/32" WOOD SHEATHING AND BE NAILED WITH 10d AT 6" O.C. AT EDGES AND 12" O.C. IN FIELD UNLESS DESIGNATED SPECIAL.  
 2. ALL EXTERIOR WALLS AND ALL DESIGNATED SHEAR WALLS SHALL BE BLOCKED AT ALL SHEATHING EDGES, EDGE NAILING APPLIES TO ALL TOP AND BOTTOM PLATES, VERTICAL JOINTS, HORIZONTAL BLOCKED JOINTS, WALL CORNERS, AND HOLDOWN ANCHORED STUDS.  
 3. WHERE BEAMS OR HEADERS FRAME INTO WALLS AND A COLUMN IS NOT CALLED OUT, PROVIDE BUILT-UP COLUMN  
 4. PROVIDE 3x OR DOUBLE 2x MEMBERS FACE NAILED PER 7/CWS2.3 AT ALL ABUTTING PANEL EDGES WHERE INDICATED.  
 5. WHERE SOLID SAWN STUD LENGTH CANNOT BE OBTAINED, SCL STUDS MAY BE SUBSTITUTED. SOLID SAWN FRAMING MAY NOT BE SUBSTITUTED FOR SPECIFIED SCL FRAMING.



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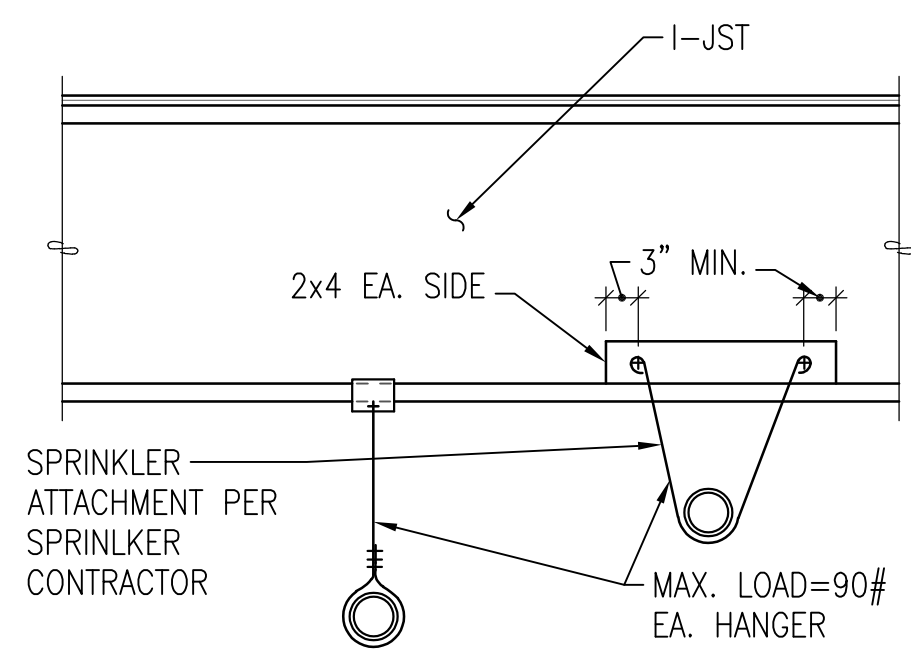


**ARCO NTI**  
 3400 am/pm  
 FUEL CANOPY w/ 6 MPD's

**1402 S MERIDIAN**  
 PUYALLUP, WA 98711

**FACILITY #7184**  
 DESIGNED BY: ALLIANCE TEAM  
 CHECKED BY: BP REPM  
 DRAWN BY: ALLIANCE PM  
 VERSION: PROJECT NO: 21730

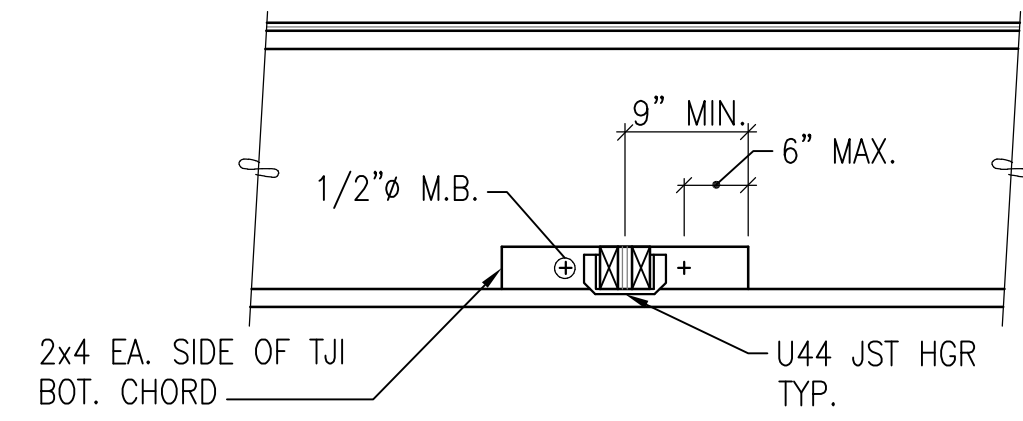
**DETAILS**  
 SHEET NO:  
**CWS2.3**



NOTE: FOR LINES GREATER THAN 3" HANG FROM GLULAM BEAMS OR STUD WALL OR HANG PER DETAIL OR SUPPORT OFF WALLS WHEN SPECIFICALLY APPROVED BY STRUCTURAL ENGINEER.

TYPICAL SPRINKLER LINE ATTACHMENT FOR LINES 3" Ø OR SMALLER

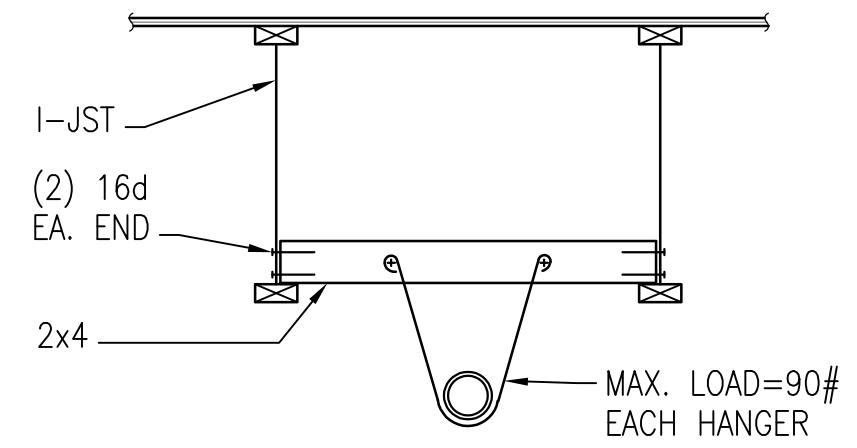
1 SECTION NO SCALE CWS2.4



NOTES:  
 1. ALL FRAMING SHOWN BY GENERAL CONTRACTOR (EXCEPT BY SPRINKLER CONTRACTOR IF USED FOR SPRINKLER LINES.)  
 2. DO NOT CUT OR DRILL THRU JOIST.  
 3. MAX. SUPPORT LOAD = 500#.

TYPICAL DETAIL FOR HANGING LOADS FROM I-JOIST (ALL HEAT PUMPS, R FANS OR F FANS OVER 90#)

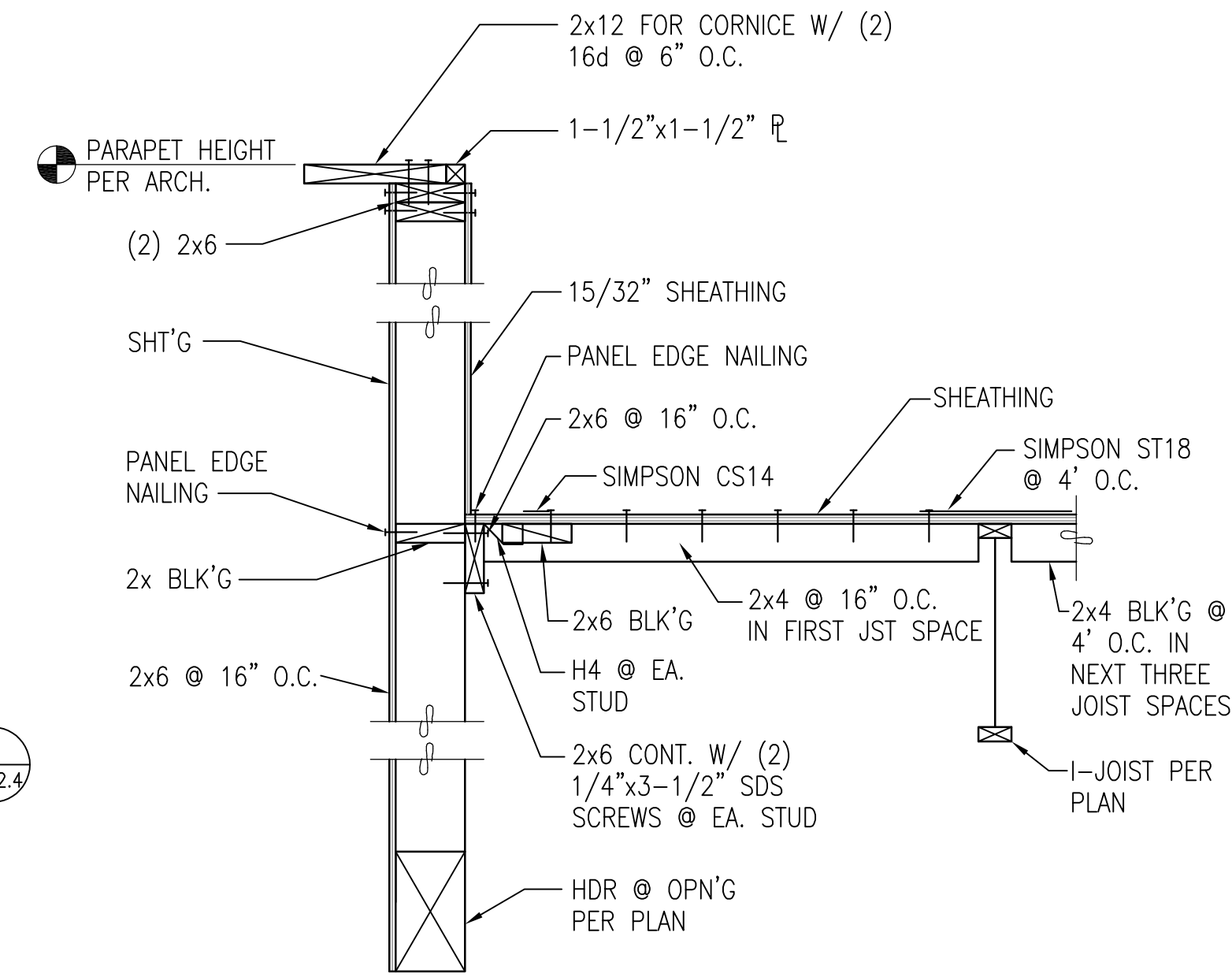
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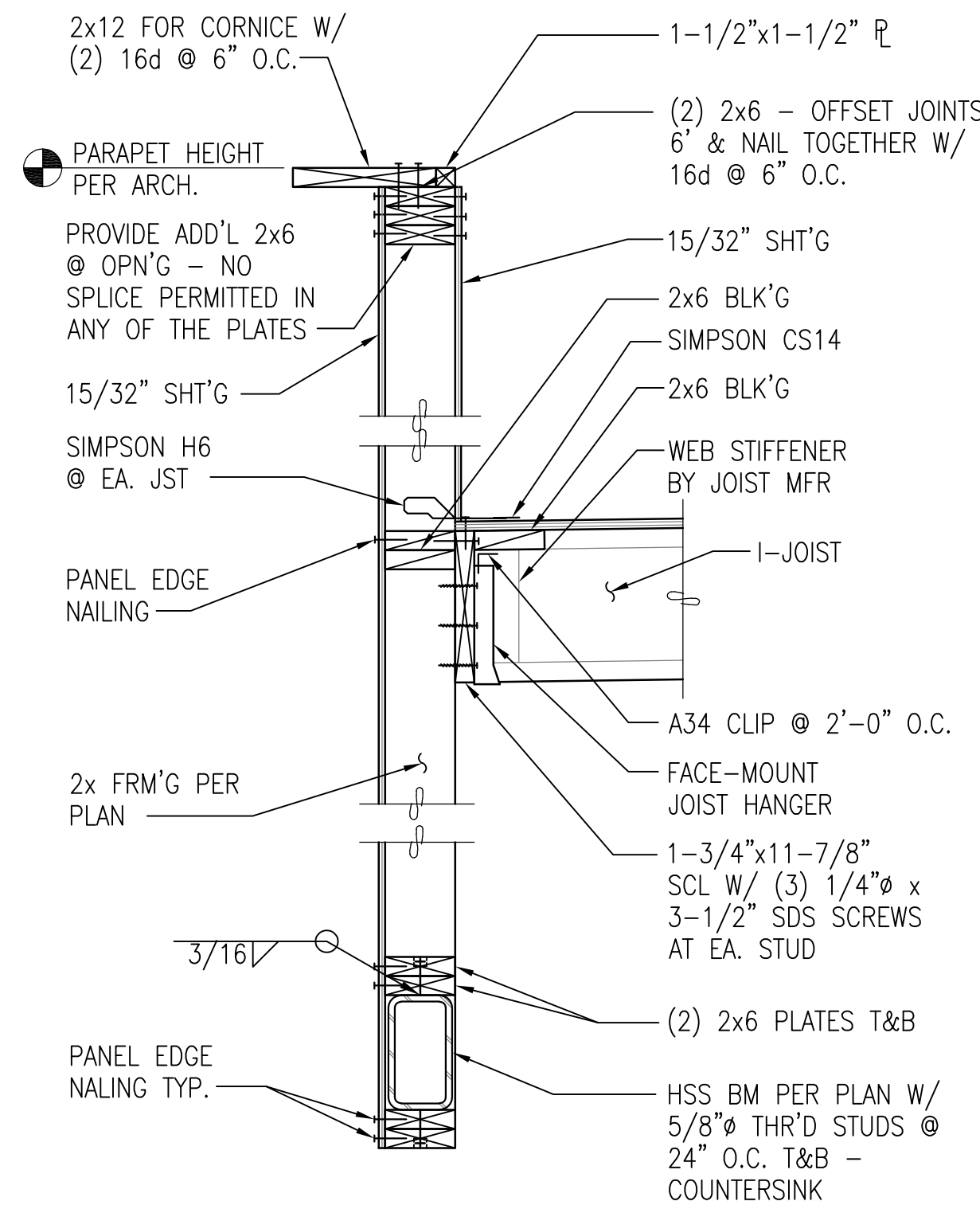
NOTE: FOR LINES GREATER THAN 3" HANG FROM GLULAM BEAMS OR STUD WALL OR HANG PER DETAIL OR SUPPORT OFF WALLS WHEN SPECIFICALLY APPROVED BY STRUCTURAL ENGINEER

TYPICAL SPRINKLER LINE ATTACHMENT FOR LINES 3" Ø OR SMALLER

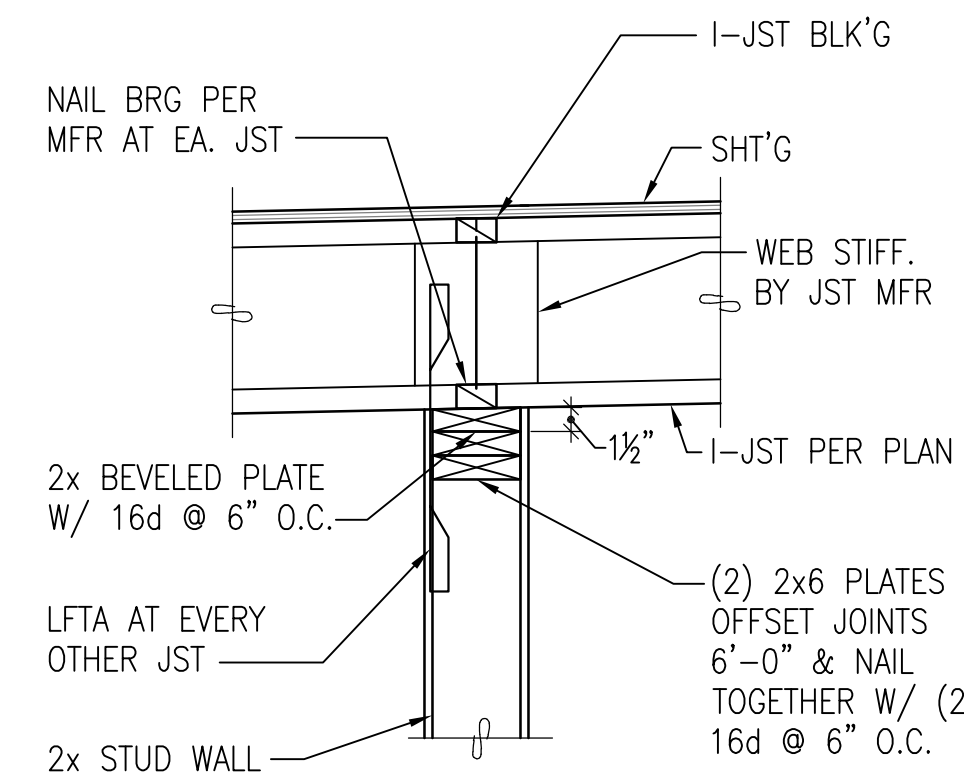
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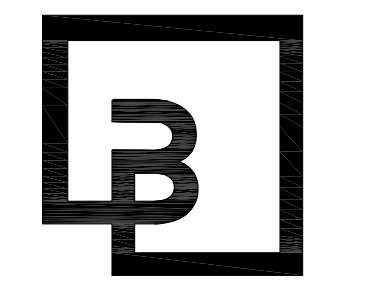
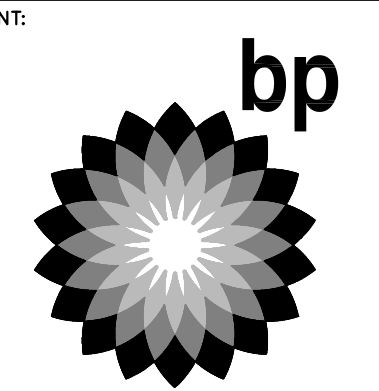
4 SECTION 1"=1'-0" CWS2.4



5 SECTION NO SCALE CWS2.4



6 SECTION NO SCALE CWS2.4



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DEVELOPMENT INFORMATION:  
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DRAWN BY:	RSC ALLIANCE PM:
VERSION:	PROJECT NO: 21730

DRAWING TITLE:  
**DETAILS**

SHEET NO:  
**CWS2.4**









**STATEMENT OF SPECIAL INSPECTIONS:**

**SPECIAL INSPECTION:** SPECIAL INSPECTION SHALL BE PROVIDED PER THE REQUIREMENTS OF IBC SECTION 1704 AND 1705 AND AS NOTED HEREIN.

STRUCTURAL SYSTEM	VERIFICATION AND INSPECTION	CONTINUOUS	PERIODIC	COMMENTS	REFERENCES	
SOILS	VERIFY MATERIALS BELOW SHALLOW FOUNDATIONS ARE ADEQUATE TO ACHIEVE THE DESIGN BEARING CAPACITY		X		IBC 1705.6	
	VERIFY EXCAVATIONS ARE EXTENDED TO PROPER DEPTH AND HAVE REACHED PROPER MATERIAL		X			
	PERFORM CLASSIFICATION AND TESTING OF CONTROLLED FILL MATERIALS		X			
	VERIFY USE OF PROPER MATERIALS, DENSITIES AND LIFT THICKNESSES DURING PLACEMENT AND COMPACTION OF COMPACTED FILL	X				
	PRIOR TO PLACEMENT OF COMPACTED FILL, OBSERVE SUBGRADE AND VERIFY THAT SITE HAS BEEN PREPARED PROPERLY		X			
STRUCTURAL STEEL	MATERIAL VERIFICATION OF HIGH-STRENGTH BOLTS, NUTS AND WASHERS		X		AISC 360 CHAPTER N5	
	HIGH-STRENGTH BOLTING A. SNUG-TIGHT JOINTS		X		AISC 360 CHAPTER N5	
	MATERIAL VERIFICATION OF STRUCTURAL STEEL A. FOR STRUCTURAL STEEL, IDENTIFICATION MARKINGS TO CONFORM TO AISC 360 B. MANUFACTURER'S CERTIFIED MILL TEST REPORTS		X	MANUFACTURER TO PROVIDE CERTIFIED MILL TEST REPORTS	AISC 360 CHAPTER N5 AISC 341 CHAPTER J6	
	MATERIAL VERIFICATION OF WELD FILLER MATERIALS A. IDENTIFICATION MARKINGS TO CONFORM TO AWS SPECIFICATIONS LISTED IN GENERAL NOTES B. MANUFACTURER'S CERTIFICATE OF COMPLIANCE		X	MANUFACTURER TO PROVIDE CERTIFICATE OF COMPLIANCE	AISC 360 CHAPTER N5	
	INSPECTION OF WELDING A. COMPLETE AND PARTIAL JOINT PENETRATION GROOVE WELDS B. MULTI-PASS FILLET WELDS C. SINGLE-PASS FILLET WELDS > 5/16" D. PLUG AND SLOT WELDS E. SINGLE-PASS FILLET WELDS ≤ 5/16" F. FIELD-INSTALLED WELDED STUDS G. WELDING OF STAIRS AND RAILING SYSTEMS	X X X X		X X X	SPECIAL INSPECTIONS IN THIS SECTION ARE WAIVED WHERE FABRICATION IS PERFORMED ON THE PREMISES OF A FABRICATOR REGISTERED AND APPROVED IN ACCORDANCE WITH IBC SECTION 1704.2.5	AISC 360 CHAPTER N5 AISC 341 CHAPTER J6 AWS D1.1
	INSPECTION OF STEEL FRAME JOINT DETAILS FOR COMPLIANCE WITH APPROVED CONSTRUCTION DOCUMENTS			X		
	STEEL PIPE PILES	GEOTECHNICAL ENGINEER TO MONITOR INSTALLATION AND LOAD TESTING.	X			
CONCRETE	INSPECT REINFORCEMENT, INCLUDING PRE-STRESSING TENDONS, AND VERIFY PLACEMENT		X		ACI 318: CH 20, 25.2, 25.3, 26.6-1 TO 26.6-3, IBC 1908.4	
	ANCHORS CAST IN CONCRETE-PRIOR TO AND DURING PLACEMENT OF CONCRETE		X		ACI 318: 17.8.2 AISC 360 SECTION N7	
	VERIFY USE OF REQUIRED DESIGN MIX		X		ACI 318, CH 19	
	PRIOR TO CONCRETE PLACEMENT, FABRICATE SPECIMENS FOR STRENGTH TESTS, PERFORM SLUMP AND AIR CONTENT TESTS, AND DETERMINE THE TEMPERATURE OF THE CONCRETE	X			ASTM C172, C31 ACI 318: 26.4, 26.12 IBC 1908.10	
	MAINTENANCE OF SPECIFIED CURING TEMPERATURE AND TECHNIQUES		X		ACI 318: 26.5.3 TO 26.5.5 IBC 1908.9	
	MATERIAL VERIFICATION OF REINFORCEMENT STEEL FOR ASTM A615 REINFORCING		X		MANUFACTURER SHALL PROVIDE MILL TEST REPORTS. CONTINUOUS INSPECTION FOR ALL WELDS GREATER THAN 5/16" FILLET. PERIODIC INSPECTION FOR FILLET WELD 5/16" AND SMALLER	ACI 318: 26.6.4 AWS D1.4 IBC 1705.3.1
	ANCHORS POST-INSTALLED IN HARDENED CONCRETE (MECHANICAL ANCHORS INSTALLED IN ANY DIRECTION AND ADHESIVE ANCHORS INSTALLED DOWNWARD)		X		PERIODIC INSPECTION TO INCLUDE A QUANTITY OF 10% WITH A MINIMUM OF (5) ANCHORS INSPECTED PER INSTALLER ON A DAILY BASIS	ACI 318: 17.8.2 MFR EVAL REPORT MFR PUBLISHED INSTALLATION INSTRUCTIONS
	ANCHORS POST-INSTALLED IN HARDENED CONCRETE (ADHESIVE ANCHORS INSTALLED HORIZONTAL OR UPWARDLY INCLINED)	X				ACI 318: 17.8.2 MFR EVAL REPORT MFR PUBLISHED INSTALLATION INSTRUCTIONS
	TESTING OF MATERIALS		X			IBC 1705.3.2
WOOD FRAMING	SHEAR WALL NAILING		X	SPECIAL INSPECTION NOT REQUIRED FOR FASTENER SPACING > 4" O.C.	IBC 1705.11.1, 1705.12.2, 1705.5	
	DIAPHRAGM NAILING		X	SPECIAL INSPECTION NOT REQUIRED FOR FASTENER SPACING > 4" O.C.	IBC 1705.11.1, 1705.12.2, 1705.5	
	NAILING, BOLTING, AND ANCHORAGE OF COMPONENTS THAT ARE PART OF DRAG STRUTS, BRACES AND HOLD-DOWNS THAT ARE PART OF THE SEISMIC RESISTING SYSTEM		X		IBC 1705.11.1, 1705.12.2	

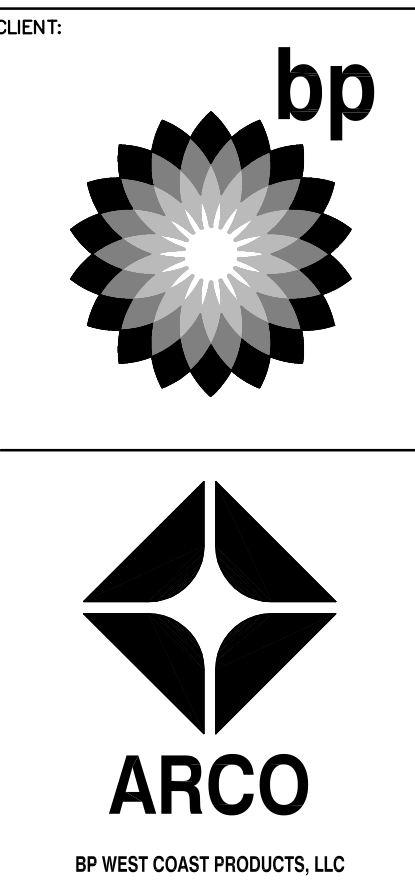
TESTING AND SPECIAL INSPECTION REPORTS SHALL BE PREPARED FOR EACH INSPECTION ITEM ON A DAILY BASIS WHENEVER WORK IS PERFORMED ON THAT ITEM. REPORTS SHALL BE DISTRIBUTED TO OWNER, CONTRACTOR, BUILDING OFFICIAL, ARCHITECT AND STRUCTURAL ENGINEER.

STRUCTURAL OBSERVATIONS SHALL BE PERFORMED BY THE STRUCTURAL ENGINEER OF RECORD OR DESIGNATED REPRESENTATIVE IN ACCORDANCE WITH IBC 1704.6. STRUCTURAL OBSERVATION SHALL BE PERFORMED AS FOLLOWS:

- » PERIODIC VISUAL OBSERVATION OF STRUCTURAL SYSTEMS FOR GENERAL CONFORMANCE TO CONSTRUCTION DOCUMENTS AT SIGNIFICANT CONSTRUCTION STAGES.
- » REVIEW OF TESTING AND INSPECTION REPORTS.
- » REPORTS SHALL BE PREPARED FOR EACH SITE VISIT AND SHALL BE DISTRIBUTED TO ARCHITECT.

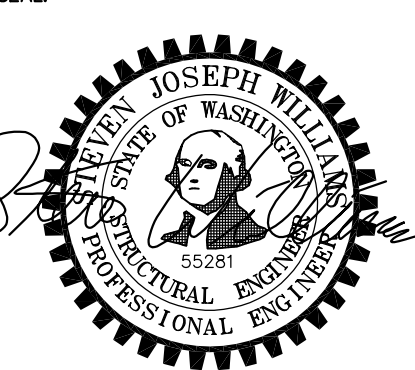
GENERAL CONTRACTOR SHALL SUBMIT A WRITTEN CONTRACTOR'S STATEMENT OF RESPONSIBILITY TO THE BUILDING OFFICIAL AND OWNER PRIOR TO COMMENCEMENT OF WORK. THE CONTRACTOR'S STATEMENT OF RESPONSIBILITY SHALL INCLUDE ACKNOWLEDGMENT OF AWARENESS OF THE SPECIAL INSPECTION REQUIREMENTS CONTAINED IN THE STATEMENT OF SPECIAL INSPECTION.

ABBREVIATION LIST					
SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION
@	AT	ELEV.	ELEVATOR	MTL	METAL
A.B.	ANCHOR BOLT	ENGR.	ENGINEER	N.F.	NEAR FACE
ADD'L	ADDITIONAL	EQ.	EQUAL	N.S.	NEAR SIDE
A.F.F.	ABOVE FINISH FLOOR	E.W.	EACH WAY	NTS	NOT TO SCALE
ALT.	ALTERNATE	EXP.	EXPANSION	O.C.	ON CENTER
ARCH.	ARCHITECTURAL	EXT.	EXTERIOR	OPN'G	OPENING
BLD'G	BUILDING	FDN	FOUNDATION	OPP.	OPPOSITE
BLK'G	BLOCKING	F.F.	FAR FACE	P.A.F.	POWDER ACTUATED FASTENER
BM	BEAM	FLR	FLOOR	PERP.	PERPENDICULAR
B.O.F.	BOTTOM OF FOOTING	F.O.M.	FACE OF MASONRY	PL	PLATE
B.O.T.	BOTTOM	F.O.S.	FACE OF STUD	P.P.	PARTIAL PENETRATION
BRG	BEARING	FRM'G	FRAMING	P.P.T.	PRESERVATIVE PRESSURE TREATED
BTWN	BETWEEN	F.R.T.	FIRE RETARDANT TREATED	P.S.F.	POUNDS PER SQUARE FOOT
B.U.	BUILT UP	F.S.	FAR SIDE	PSL	PARALLAM
(C=)	CAMBER	FTG	FOOTING	P.T.	POST TENSION
CANT.	CANTILEVER	GA.	GAGE/GAUGE	PW.	PLYWOOD
C.F.S.	COLD-FORMED STEEL	GALV.	GALVANIZED	REINF.	REINFORCING
C.J.	CONTROL/CONSTRUCTION JOINT	GL.	GLULAM	REQ'D	REQUIRED
CL	CENTERLINE	GR.	GRADE	SCHED.	SCHEDULE
CLR.	CLEARANCE	GWB	GYPSPUM WALL BOARD	S.C.L.	STRUCTURAL COMPOSITE LUMBER
CMU	CONCRETE MASONRY UNIT	HDR	HEADER	SHT'G	SHEATHING
COL.	COLUMN	HGR	HANGER	SIM.	SIMILAR
CONC.	CONCRETE	HORIZ.	HORIZONTAL	S.O.G.	SLAB ON GRADE
CONN.	CONNECTION	HSS	HOLLOW STRUCTURAL SECTION	SQ.	SQUARE
CONST.	CONSTRUCTION	HT	HEIGHT	STD	STANDARD
CONT.	CONTINUOUS	INT.	INTERIOR	STIFF.	STIFFENER
CONTR.	CONTRACTOR	JST	JOIST	STL	STEEL
COORD.	COORDINATE	JT	JOINT	STRUCT.	STRUCTURAL
C.P.	COMPLETE PENETRATION	L	ANGLE	T&B	TOP & BOTTOM
CTR'D	CENTERED	L.L.	LIVE LOAD	T&G	TONGUE AND GROOVE
C.Y.	CUBIC YARD	LLH	LONG LEG HORIZONTAL	THR'D	THREADED
DBL.	DOUBLE	LLV	LONG LEG VERTICAL	T.O.F.	TOP OF FOOTING
D.F.	DOUGLAS FIR	LOC.	LOCATION	T.O.S.	TOP OF STEEL
DIA. OR Ø	DIAMETER	LSL	LAMINATED STRAND LUMBER	TRT'D	TREATED
DIAG.	DIAGONAL	LVL	LAMINATED VENEER LUMBER	TYP.	TYPICAL
DIM.	DIMENSION	MAX.	MAXIMUM	U.N.O.	UNLESS NOTED OTHERWISE
D.L.	DEAD LOAD	M.B.	MACHINE BOLT	U.T.	ULTRASONIC TESTED
DWG	DRAWING	MECH.	MECHANICAL	VERT.	VERTICAL
DWL	DOWEL	MEZZ.	MEZZANINE	W/	WITH
(E)	EXISTING	MFR	MANUFACTURER	W.P.	WORK POINT
EA.	EACH	MIN.	MINIMUM	WT	WEIGHT
E.F.	EACH FACE	MISC.	MISCELLANEOUS	W.W.R.	WELDED WIRE REINFORCING
EL.	ELEVATION				



**Barghausen Consulting Engineers, Inc.**  
 18215 72nd Avenue South  
 Kent, WA 98032  
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 barghausen.com

NO.	DATE	REVISION DESCRIPTION
-	10/04/23	BD SET
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**DEVELOPMENT INFORMATION:**  
**ARCO NTI**  
 3400 am/pm  
 FUEL CANOPY w/ 6 MPD's

**SITE ADDRESS:**  
 1402 S MERIDIAN  
 PUYALLUP, WA 98371

**FACILITY #7184**

DESIGNED BY: ALLIANCE ZADM;  
 CHECKED BY: BP REPM;  
 DRAWN BY: ALLIANCE PM;  
 VERSION: PROJECT NO: 21730

**DRAWING TITLE:**  
 GENERAL NOTES

SHEET NO:  
**CWS3.4**



**GENERAL NOTES:**

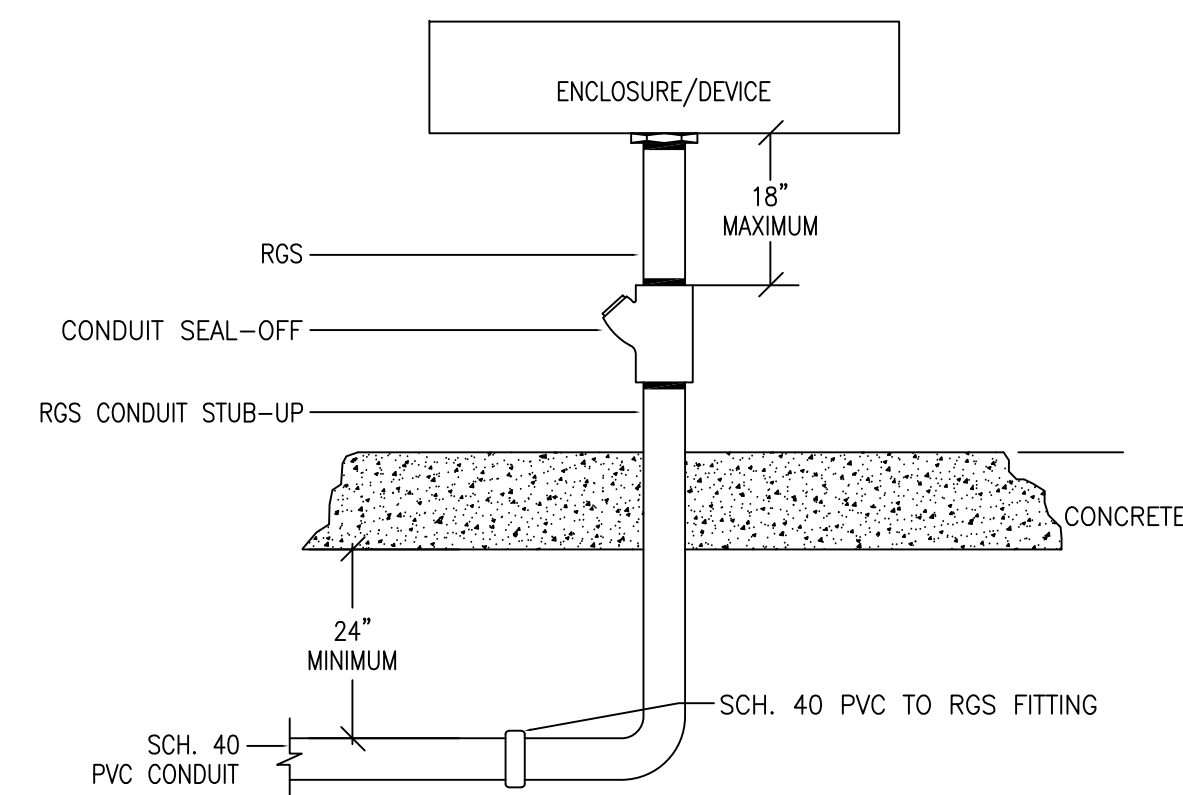
1. ELECTRICAL CONTRACTOR SHALL COORDINATE WITH POWER COMPANY FOR EXACT SERVICE CONNECTION REQUIREMENTS AND INCLUDE ALL NECESSARY COST IN BID.
2. ELECTRICAL CONTRACTOR SHALL COORDINATE WITH TELEPHONE COMPANY FOR EXACT SERVICE CONNECTION REQUIREMENTS AND INCLUDE ALL NECESSARY COST IN BID.
3. ALL ELECTRICAL EQUIPMENT SHALL HAVE AIC RATINGS EQUIVALENT OR HIGHER THAN AVAILABLE FAULT CURRENTS PROVIDED BY POWER COMPANY.
4. A UTILITY LOCATE SHALL BE PERFORMED PRIOR TO COMMENCEMENT OF TRENCHING.
5. LIGHTING CONTACTOR (INTERIOR LIGHTING ONLY) IS LOCATED WITHIN CPI CABINET.
6. ALL LIGHTING FIXTURES TO BE FURNISHED AND INSTALLED BY CONTRACTOR.
7. "EM" AT LIGHT FIXTURE INDICATES LIGHT FIXTURE WITH EMERGENCY BACK UP. ALL EMERGENCY LIGHT FIXTURES SHALL BE SERVED FROM BATTERY BACKUP. EMERGENCY AND EXIT LIGHTS SHALL BE INSTALLED AND CIRCUITED PER THE LATEST CALIFORNIA ELECTRICAL CODE AND ALL LOCAL CODES (INSTALL A CENTRAL BATTERY SYSTEM WHERE THE USE OF INDIVIDUAL BATTERY UNITS ARE PROHIBITED BY LOCAL CODES). ALL EMERGENCY FIXTURES AND EXIT SIGNS SHALL BE CONNECTED TO UN-SWITCHED HOT LEG OF THE LOCAL LIGHTING CIRCUIT.
8. ALL EXTERIOR LIGHT FIXTURES TO BE CONTROLLED THROUGH THE LSI AIRLINK BLUE COMPLETE OUTDOOR LIGHTING WIRELESS MESH SYSTEM. AIRLINK BLUE SYSTEM INCLUDES DAYLIGHT AND MOTION SENSORS WITH DIMMING CONTROL CAPABLE OF AUTOMATICALLY SHUTTING OFF OUTDOOR LIGHTING WHEN DAYLIGHT IS AVAILABLE, EMPLOY AUTO FUNCTIONALITY WHEN AREA BECOMES OCCUPIED, AND CAPABLE OF PROVIDING CONTINUOUS DIMMING THROUGH A 50%-90% RANGE PER 2018 WSEC REQUIREMENTS. AIRLINK BLUE SYSTEM TO INCLUDE ASTRONOMICAL CLOCK AND TIME KEEPER AIRLINK BLUE COMPONENT FOR SCHEDULING CONTROLS SET PER 2018 WSEC REQUIREMENTS. ALL EXTERIOR LUMINAIRES TO INCLUDE FACTORY INTEGRATED BLUETOOTH RADIO/SENSOR CONTROLLERS. AIRLINK BLUE SYSTEM TO BE INITIALIZED VIA WEB APP AND FIELD COMMISSIONED VIA MOBILE APP TO THE OWNER'S REQUIREMENTS. ANY CHANGES OR UPDATES TO BE ACCOMPLISHED ON SITE VIA MOBILE APP.

**SHEET NOTES:**

- 1 PROVIDE NEW LIGHT FIXTURE. INSTALL 3/4" PVC UNDERGROUND CONDUIT CONTAINING: (2) #10 THWN CU. AND (1) #10 CU EGC. FOR PARKING LOT LIGHTING. EXTEND CONDUIT BACK TO AIRLINK BLUE CONTROLS.
- 2 PROVIDE AND INSTALL ESO SWITCH. INCLUDE ALL ASSOCIATED CONDUIT AND WIRE FOR COMPLETE INSTALLATION PER CEC 514.11 AND NFPA 30A SECTION 6.7. RUN WIRE IN 1" PVC-COATED RGS CONDUIT AND STUB UP WITH RGS. SEE DETAIL 3/E2.3. COORDINATE EXACT LOCATION WITH OWNER PRIOR TO INSTALLATION. SEE DETAIL IN TANK DRAWINGS FOR ELEVATION.
- 3 PROVIDE AND INSTALL ESO SWITCH. COORDINATE EXACT LOCATION(S) WITH OWNER PRIOR TO INSTALLATION.
- 4 PROVIDE 3/4" PVC UNDERGROUND CONDUIT AND (3) #10 THWN CU. WIRE (U.O.N.) FOR NEW AIR STATION. MAKE CONNECTION WITH WATER TIGHT FLEX, BOXES AND COVERS AS REQUIRED BY MANUFACTURER. FIELD VERIFY EXACT LOCATION WITH OWNER PRIOR TO INSTALLATION.
- 5 PROVIDE (1) 3" PVC CONDUIT WITH 1/4" PULL STRING FOR TELEPHONE. FIELD VERIFY EXACT VAULT LOCATION WITH SERVICE PROVIDER PRIOR TO INSTALLATION.
- 6 PROVIDE (1) 1-1/2" CONDUIT FOR INSTALLATION OF ELECTRIC VEHICLE CHARGING STATION. 100A 208 VOLT 3Ø MIN. CAP AND MARK CONDUIT AS REQUIRED FOR ACCESS.
- 7 PROVIDE (2) 1" PVC-COATED RGS SPARE UNDERGROUND CONDUITS TO FOR FUTURE VENT DIAGNOSTICS TO INTRINSICALLY SAFE AND POWER WIREWAYS INSIDE STORE (NEXT TO EPC CABINET).
- 8 ALL SITE LIGHT POLE FIXTURES TO INCLUDE LSI AIRLINK BLUE LIGHTING SYSTEM MOTION DETECTOR MOUNTED ON LIGHT POLE. UPON ACTIVATION OF EITHER MOTION DETECTOR, ALL SITE POLE LIGHTS TO TRIGGER AT FULL BRIGHTNESS AND RETURN TO 50% BRIGHTNESS AFTER 15 MINUTES OF VACANCY.
- 9 60W HEAT TRACER LOCATED IN RPBA HOT BOX, REFER TO CIVIL UTILITY PLANS FOR EXACT LOCATION.
- 10 PROPOSED SOLAR ZONE PER 2018 WSEC REQUIREMENTS.
- 11 PROVIDE (1) 3/4" CONDUIT AND CONTROL WIRE TO CLOSEST EMERGENCY STOP BUTTON FOR CONNECTION TO VEHICLE CHARGING STATION.
- 12 PROPOSED UTILITY TRANSFORMER EXACT LOCATION TO BE VERIFIED.

**N.E.C HAZARDOUS AREA NOTES**

- ◇ TYPICAL N.E.C. ARTICLE 514 CLASS 1 LOCATION (UNDERGROUND TANK - FILL OPENING)  
EXTENT OF CLASS 1, GROUP D, DIVISION 1 LOCATION:  
Any pit, box, or space below grade level, any part of which is within the Division 1 or 2 classified location.  
EXTENT OF CLASS 1, GROUP D, DIVISION 2 LOCATION:  
Up to 18 inches above grade level within a horizontal radius of 10 feet from a loose fill connection and within a horizontal radius of 5 feet from a tight fill connection.
- ◇ TYPICAL N.E.C. ARTICLE 514 CLASS 1 LOCATION (UNDERGROUND TANK VENT DISCHARGING UPWARD)  
EXTENT OF CLASS 1, GROUP D, DIVISION 1 LOCATION:  
Within 3 feet of open end of vent, extending in all directions.  
EXTENT OF CLASS 1, GROUP D, DIVISION 2 LOCATION:  
Space between 3 feet and 5 feet of open end of vent, extending in all directions.
- ◇ TYPICAL N.E.C. ARTICLE 514 CLASS 1 LOCATION (REMOTE PUMP - OUTDOOR)  
EXTENT OF CLASS 1, GROUP D, DIVISION 1 LOCATION:  
Any pit, box, or space below grade level if any part is within a horizontal distance of 10 feet from any edge of pump.  
EXTENT OF CLASS 1, GROUP D, DIVISION 2 LOCATION:  
Within 3 feet of any edge of pump, extending in all directions. Also up to 18 inches above grade level within 10 feet horizontally from any edge of pump.
- ◇ TYPICAL N.E.C. ARTICLE 514 CLASS 1 LOCATION (DISPENSING DEVICE - PITS)  
EXTENT OF CLASS 1, GROUP D, DIVISION 1 LOCATION:  
Any pit, box, or space below grade level, any part of which is within the Division 1 or 2 classified location.
- ◇ TYPICAL N.E.C. ARTICLE 514 CLASS 1 LOCATION (DISPENSING DEVICE - DISPENSER)  
EXTENT OF CLASS 1, GROUP D, DIVISION 1 LOCATION:  
Space classification inside the dispenser enclosure is covered in ANSI/UL 87, "Power Operated Dispensing Devices for Petroleum Products."
- ◇ TYPICAL N.E.C. ARTICLE 514 CLASS 1 LOCATION (DISPENSING DEVICE - DISPENSER)  
EXTENT OF CLASS 1, GROUP D, DIVISION 2 LOCATION:  
Within 18 inches horizontally in all directions extending to grade from (1) the dispenser enclosure or (2) that portion of the dispenser enclosure containing liquid handling components. Space classification inside the dispenser enclosure is covered in ANSI/UL 87, "Power Operated Dispensing Devices for Petroleum Products."
- ◇ TYPICAL N.E.C. ARTICLE 514 CLASS 1 LOCATION (DISPENSING DEVICE - OUTDOOR)  
EXTENT OF CLASS 1, GROUP D, DIVISION 2 LOCATION:  
Up to 18 inches above grade level within 20 feet horizontally of any edge of enclosure.

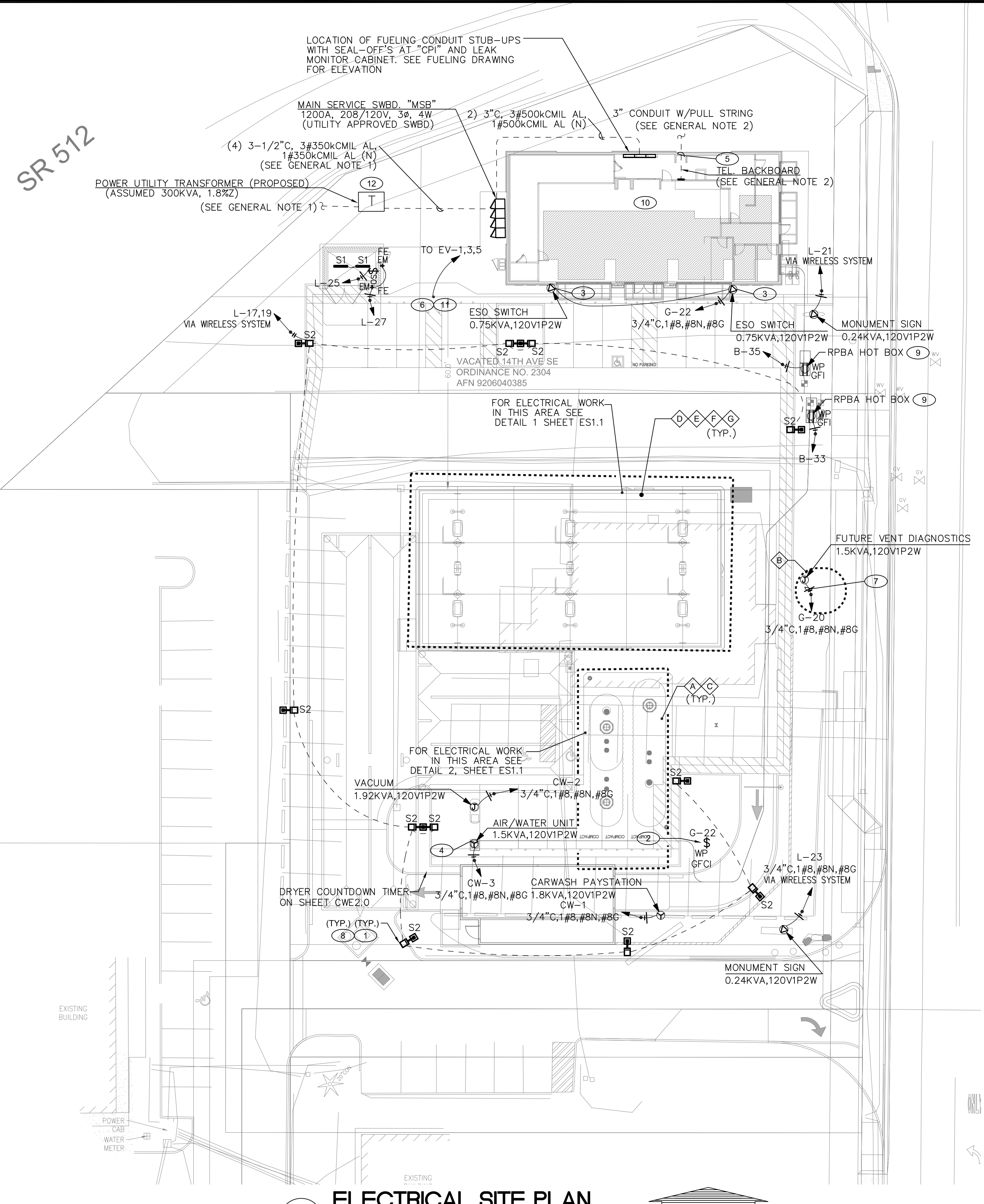


**2 TYPICAL RGS STUB-UP W/ SEAL OFF**

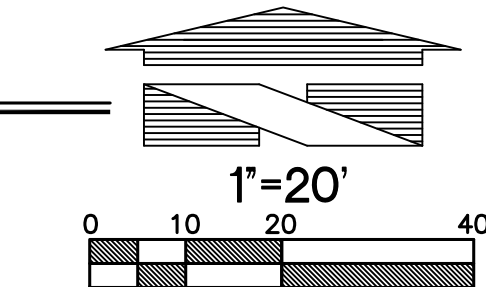
SCALE: NTS

**SITE LUMINAIRE SCHEDULE**

CALLOUT	SYMBOL	LAMP	DESCRIPTION	BALLAST	MOUNTING	MODEL	INPUT VA	TOTAL VA	LUMENS / LAMP	VOLTS	NOTES	QUANTITY
S1	—	(1) 31.59W LED	SURFACE MOUNTED STRIP LIGHT	0-10V DIMMABLE	SURFACE	LSI EG3-4-LED-4L-DA-S-UNV-DIM-50-80	31.59	31.59	4508	120V 1P 2W	TRASH/RECYCLE ROOM W/ EMERGENCY BATTERY PACK FOR 90 MINUTE ILLUMINATION, 4508 LUMENS, 143.42 LUMENS/WATT	2
S2	□	(1) 63W LED	LED POLE LIGHT	ELECTRONIC	POLE	LSI SLM-LED-09L-SIL-FT-50-70CRI-SINGLE-16"POLE+2"BASE	63	63	9657	208V 2P 2W	PARKING LOT, INCLUDE LSI AIRLINK BLUE SENSOR.	6



**1 ELECTRICAL SITE PLAN**



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REDMOND, WA 98052  
PH: (425) 462-9441  
FAX: (425) 462-9451  
E-Mail: cservice@abossein.com  
www.abossein.com

CLIENT:

BP WEST COAST PRODUCTS, LLC

**Borghausen Consulting Engineers, Inc.**  
18215 72nd Avenue South  
Kent, WA 98032  
425.251.6222  
borghausen.com

NO.	DATE	REVISION DESCRIPTION



DEVELOPMENT INFORMATION:  
**ARCO NTI**  
3400 am/pm  
FUEL CANOPY w/ 6 MPD's

SITE ADDRESS:  
**SWC S MERIDIAN**  
@ HIGHWAY 512  
PUTALLUP, WASHINGTON

FACILITY #7184  
DESIGNED BY: ALLIANCE ZADM  
CHECKED BY: BP REPA  
DRAWN BY: ALLIANCE PM  
VERSION: PROJECT NO.: 21730

DRAWING TITLE:  
**ELECTRICAL SITE PLAN**

SHEET NO:  
**ES1.0**

## CARWASH LUMINAIRE SCHEDULE

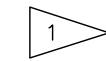
CALLOUT	SYMBOL	LAMP	DESCRIPTION	BALLAST	MOUNTING	MODEL	INPUT VA	TOTAL VA	VOLTS	NOTES	QUANTITY
CW1		(1) 75W LED	ENCLOSED AND GASKETED LED FIXTURE	0-10V DIMMABLE	CEILING	LSI EG3-8-LED-11L-DA-S-UNV-DIM-50-80-OMSWL-STANDARD MOUNTING-STANDARD LATCHING	75	75	120V 1P 2W	CARWASH BAY, 10650 LUMENS, 74.25 LUMENS/WATT	4
CW1E		(1) 75W LED	ENCLOSED AND GASKETED LED FIXTURE	BATTERY	CEILING	LSI EG3-8-LED-11L-DA-S-UNV-DIM-50-80-OMSWL-EM-STANDARD MOUNTING-STANDARD LATCHING	75	75	120V 1P 2W	CARWASH BAY, 10650 LUMENS, 74.25 LUMENS/WATT, INCLUDES 1400 LUMEN EMERGENCY BATTERY BACKUP FOR 90 MINUTES OF EMERGENCY ILLUMINATION.	4
CW2		(1) 47W LED	WALL MOUNTED LED LIGHT	0-10V DIMMABLE	WALL	LSI XWM-3-LED-06L-50-UE-MSV-IMSBT1	47	47	120V 1P 2W	EXTERIOR SIDE & REAR WALLS, INCLUDES INTEGRAL MOTION AND PHOTOCELL SENSOR, 142 LUMENS/WATT EFFICACY	1
CW2E		(1) 47W LED	WALL MOUNTED LED LIGHT	BATTERY	WALL	LSI XWM-3-LED-06L-50-UE-MSV-IMSBT1-BB	47	47	120V 1P 2W	EXTERIOR SIDE & REAR WALLS, INCLUDES INTEGRAL MOTION AND PHOTOCELL SENSOR, 142 LUMENS/WATT EFFICACY	2
X		(1) 0.7W LED	EXIT SIGN W/ BATTERY BACKUP	BATTERY	UNIVERSAL	LSI EX-R-U-WB-WH-SD2	0.7	0.7	120V 1P 2W	CARWASH MECHANICAL ROOM EGRESS, W/EMERGENCY BATTERY PACK FOR 90 MINUTE ILLUMINATION	1

ALL EQUIPMENT IN CARWASH SHALL BE RATED FOR WET LOCATION. CONDUITS USED IN WET LOCATION TO BE PVC SCHEDULE 40. BOXES USED IN WET LOCATIONS TO BE THREADED HUBS. ALL CONDUCTORS TO BE RATED FOR WET LOCATION.

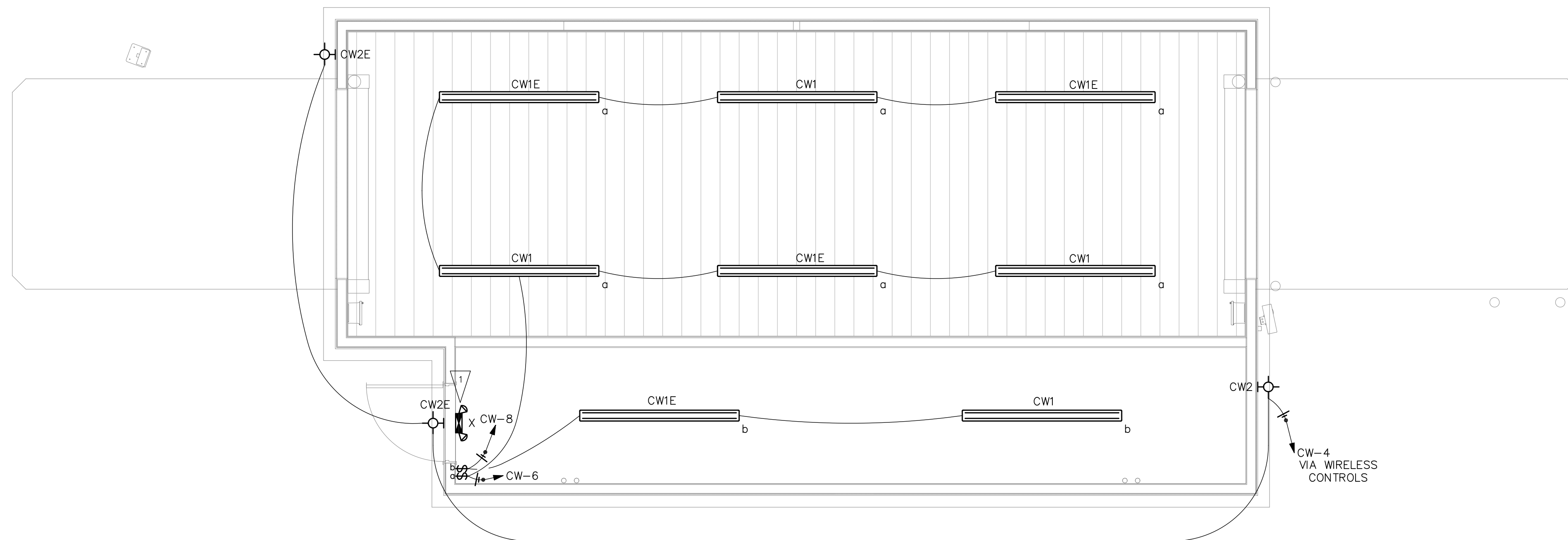
### NOTES:

- REFER TO CARWASH DRAWINGS, CARWASH VENDOR TO FURNISH & CONNECT ALL CARWASH LIGHTING SHOWN.
- REFER TO LIGHTING SHEET E1.0 FOR LOCATION AND INFORMATION ON ALL EXTERIOR BUILDING MOUNTED FIXTURES.
- 'EM' AT LIGHT FIXTURE INDICATES LIGHT FIXTURE WITH EMERGENCY BACK UP. ALL EMERGENCY LIGHT FIXTURES SHALL BE SERVED FROM BATTERY BACKUP. EMERGENCY AND EXIT LIGHTS SHALL BE INSTALLED AND CIRCUITED PER THE LATEST CALIFORNIA ELECTRICAL CODE AND ALL LOCAL CODES (INSTALL A CENTRAL BATTERY SYSTEM WHERE THE USE OF INDIVIDUAL BATTERY UNITS ARE PROHIBITED BY LOCAL CODES). ALL EMERGENCY FIXTURES AND EXIT SIGNS SHALL BE CONNECTED TO UN-SWITCHED HOT LEG OF THE LOCAL LIGHTING CIRCUIT.
- ALL EXTERIOR LIGHT FIXTURES TO BE CONTROLLED THROUGH THE LSI AIRLINK BLUE COMPLETE OUTDOOR LIGHTING WIRELESS MESH SYSTEM. AIRLINK BLUE SYSTEM INCLUDES DAYLIGHT AND MOTION SENSORS WITH DIMMING CONTROL CAPABLE OF AUTOMATICALLY SHUTTING OFF OUTDOOR LIGHTING WHEN DAYLIGHT IS AVAILABLE, EMPLOY AUTO FUNCTIONALITY WHEN AREA BECOMES OCCUPIED, AND CAPABLE OF PROVIDING CONTINUOUS DIMMING THROUGH A 50%-90% RANGE PER TITLE 24 130.2 (c). AIRLINK BLUE SYSTEM TO INCLUDE ASTRONOMICAL CLOCK AND TIME KEEPER AIRLINK BLUE COMPONENT FOR SCHEDULING CONTROLS SET PER TITLE 24 130.2 (c) 2. ALL EXTERIOR LUMINAIRES TO INCLUDE FACTORY INTEGRATED BLUETOOTH RADIO/SENSOR CONTROLLERS. AIRLINK BLUE SYSTEM TO BE INITIALIZED VIA WEB APP AND FIELD COMMISSIONED VIA MOBILE APP TO THE OWNER'S REQUIREMENTS. ANY CHANGES OR UPDATES TO BE ACCOMPLISHED ON SITE VIA MOBILE APP.

### FLAG NOTES

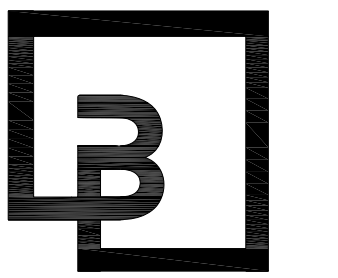
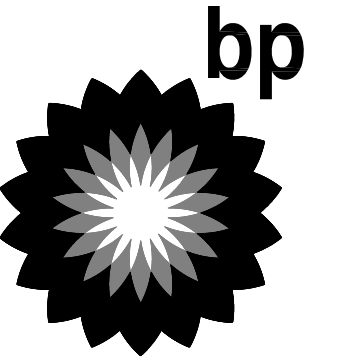


EMERGENCY PATHWAY AND EXIT LIGHTS SHALL BE CONNECTED TO LOCAL LIGHTING CIRCUIT AHEAD OF ALL SWITCHES AND TIMERS.



1 CARWASH LIGHTING PLAN  
1/4" = 1'-0"

CLIENT:



**Barghausen Consulting Engineers, Inc.**  
18215 72nd Avenue South  
Kent, WA 98032  
425.251.6222  
barghausen.com

NO.	DATE	REVISION DESCRIPTION
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SEAL:



DEVELOPMENT INFORMATION:  
**ARCO NTI**  
3400 am/pm  
FUEL CANOPY w/ 6 MPD's

SITE ADDRESS:  
**SWC S MERIDIAN**  
@ HIGHWAY 512  
PUTALLUP, WASHINGTON

**FACILITY #7184**

DESIGNED BY:	ALLIANCE ZADN:
CHECKED BY:	BP REPR:
DRAWN BY:	ALLIANCE PM:
VERSION:	PROJECT NO: 21730

DRAWING TITLE:  
**CARWASH LIGHTING PLAN**

SHEET NO:

**CWE1.0**

ABOSSEIN #223054

Abossein  
Engineering,  
L.L.C.

MECHANICAL - ELECTRICAL  
CIVIL - LEED  
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**FLAG NOTES**

1 COORDINATE HEAT TAPE LOCATION WITH PLUMBING. FINAL CONNECTION TO OCCUR AFTER LOCATION AND COORDINATION WITH PLUMBING. PER NEC 426.28, HEAT TAPE TO BE EQUIPMENT GROUND FAULT PROTECTED AS PART OF DEICING OR SNOW MELTING EQUIPMENT THAT IS SENSITIVE TO LEAKAGE CURRENTS OF 6mA TO 50mA, AND IS NOT THE SAME AS GFCI USED FOR PERSONAL PROTECTION THAT TRIPS AT 5mA(+1mA)

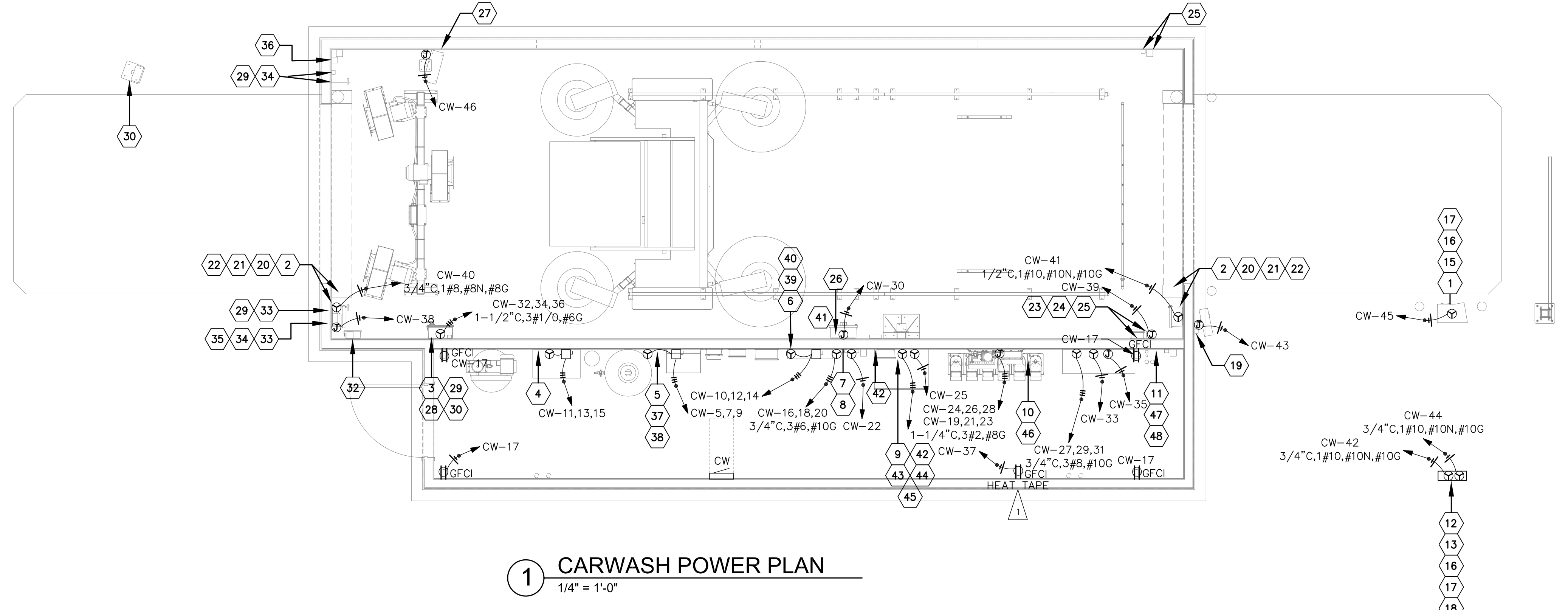
**GENERAL NOTES**

- A. ALL ELECTRICAL FITTINGS TO BE WATERTIGHT. ANY FIXTURES IN THE VICINITY OF WASH UNIT TO BE WATER TIGHT INCLUDING LIGHTS. BOXES USED IN WET LOCATIONS TO BE THREADED HUBS. ALL CONDUCTORS TO BE RATED FOR WET LOCATIONS.
- B. DRILL A 1/4" DIAMETER DRAIN HOLE IN THE BOTTOM OF ALL JUNCTION BOXES THAT ARE LOCATED IN THE WASH BAY.
- C. NO CONDUITS MAY ENTER THE TOP OF ANY ENCLOSURE.
- D. ELECTRICAL CONTRACTOR SHALL MAKE ALL FINAL CONNECTIONS AS REQUIRED FOR A FULLY COMPLETE AND OPERABLE SYSTEM.
- E. ELECTRICAL CONTRACTOR TO FIELD VERIFY ALL CONDITIONS PRIOR TO BID.
- F. REFER TO RYKO ELECTRICAL DESIGN DRAWINGS FOR LOW-VOLTAGE COMMUNICATION AND CONTROL WIRING.
- G. REFER TO CARWASH DRAWINGS FROM CARWASH VENDOR TO FURNISH & CONNECT ALL CARWASH EQUIPMENT.
- H. ALL EQUIPMENT IN CARWASH SHALL BE RATED FOR WET LOCATION. CONDUITS USED IN WET LOCATION TO BE PVC SCHEDULE 40. BOXES USED IN WET LOCATIONS TO BE THREADED HUBS. ALL CONDUCTORS TO BE RATED FOR WET LOCATION.
- I. WITHIN THE CARWASH BAY, ALL CONDUITS ARE TO BE CONCEALED WITHIN THE WALL AND ARE NOT TO BE SURFACE MOUNTED/EXPOSED.
- J. MINIMIZE THE USAGE OF JUNCTION BOXES THROUGHOUT THE CARWASH TUNNEL.

NOTE:  
REFER TO CARWASH DRAWINGS, CARWASH VENDOR TO FURNISH & CONNECT ALL CARWASH EQUIPMENT.

ALL EQUIPMENT IN CARWASH SHALL BE RATED FOR WET LOCATION. CONDUITS USED IN WET LOCATION TO BE PVC SCHEDULE 40. BOXES USED IN WET LOCATIONS TO BE THREADED HUBS. ALL CONDUCTORS TO BE RATED FOR WET LOCATION.

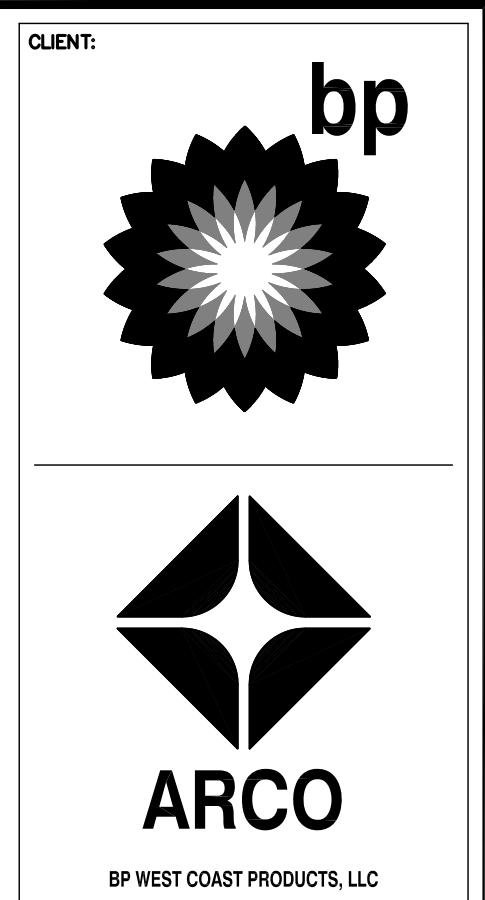
CALLOUT	SYMBOL	VOLTS	VOLTS AND PHASE	AMPS	MCA	MOCP	KVA	HP	LOAD TYPE	CIRCUIT	WIRE CALLOUT	DISCONNECT
19 - 3-MESSAGE LIGHTED ENTRANCE SIGN JBOX	⊕	120V 1P 2W	120V 1-PH 2W	1.5	1.9	20	0.18		LIGHTING	CW-43	1/2"C,1#12,#12N,#12G	JUNCTION BOX
27 - 8 SEGMENT LIGHTED SIGN JBOX	⊕	120V 1P 2W	120V 1-PH 2W	1.5	1.9	20	0.18		LIGHTING	CW-46	1/2"C,1#12,#12N,#12G	JUNCTION BOX
4 - AIR COMPRESSOR 5HP 3PH	⊕	208V 3P 3W	208V 3-PH 3W	17.54	20	20	6.32	5 HP	MOTOR	CW-11,13,15	1/2"C,3#12,#12G	NON-FUSED
3 - AIR KNIFE DRYER/CONTROL CABINET	⊕	208V 3P 3W	208V 3-PH 3W	92.31	115.5	120	33.26	30 HP	MOTOR	CW-32,34,36	1-1/2"C,3#1/0,#6G	HARDWIRED CONNECTION
2 - AIRLIFT DOORS CONTROL BOX	⊕	120V 1P 2W	120V 1-PH 2W	20	25	30	2.4	1.5 HP	MOTOR	CW-41	1/2"C,1#10,#10N,#10G	HARDWIRED CONNECTION
2 - AIRLIFT DOORS CONTROL BOX	⊕	120V 1P 2W	120V 1-PH 2W	20	25	30	2.4	1.5 HP	MOTOR	CW-40	3/4"C,1#8,#8N,#8G	HARDWIRED CONNECTION
33 - AUTO DOOR RELAY JBOX	⊕	120V 1P 2W	120V 1-PH 2W	1.5	1.9	20	0.18		NONCONTINUOUS	CW-38	1/2"C,1#12,#12N,#12G	JUNCTION BOX
6 - BOOST PUMP SYSTEM CONTROL BOX	⊕	208V 3P 3W	208V 3-PH 3W	14.99	19	20	5.4		NONCONTINUOUS	CW-10,12,14	1/2"C,3#12,#12G	NON-FUSED
CARWASH PAYSTATION	⊕	120V 1P 2W	120V 1-PH 2W	15	15	20	1.8		NONCONTINUOUS	CW-1	3/4"C,1#8,#8N,#8G	HARDWIRED CONNECTION
11 - EV ULTRACLEAR RECLAIM SYSTEM 120V	⊕	120V 1P 2W	120V 1-PH 2W	15	19	20	1.8		NONCONTINUOUS	CW-33	1/2"C,1#12,#12N,#12G	HARDWIRED CONNECTION
11 - EV ULTRACLEAR RECLAIM SYSTEM 208V	⊕	208V 3P 3W	208V 3-PH 3W	24.98	31.25	40	9		NONCONTINUOUS	CW-27,29,31	3/4"C,3#8,#10G	HARDWIRED CONNECTION
11 - EV ULTRACLEAR RECLAIM SYSTEM JBOX	⊕	120V 1P 2W	120V 1-PH 2W	1.5	1.9	20	0.18		NONCONTINUOUS	CW-35	1/2"C,1#12,#12N,#12G	JUNCTION BOX
25 - FLOOR MOUNT PHOTOEYE	⊕	120V 1P 2W	120V 1-PH 2W	1.5	1.9	20	0.18		NONCONTINUOUS	CW-39	1/2"C,1#12,#12N,#12G	JUNCTION BOX
10 - OFFBOARD CHEMICAL INJECTION PUMP	⊕	208V 3P 3W	208V 3-PH 3W	7.85	10	20	2.83	2 HP	MOTOR	CW-24,26,28	1/2"C,3#12,#12G	JUNCTION BOX
9 - ONBOARD H.P. PUMP CONTROL BOX 120V	⊕	120V 1P 2W	120V 1-PH 2W	15	19	20	1.8		NONCONTINUOUS	CW-25	1/2"C,1#12,#12N,#12G	HARDWIRED CONNECTION
9 - ONBOARD H.P. PUMP CONTROL BOX 208V	⊕	208V 3P 3W	208V 3-PH 3W	59.96	75	80	21.6		NONCONTINUOUS	CW-19,21,23	1-1/4"C,3#2,#8G	HARDWIRED CONNECTION
5 - RAINMAKER III R.O. SYS W/REPRESSURIZATION	⊕	208V 3P 3W	208V 3-PH 3W	14.99	19	20	5.4		NONCONTINUOUS	CW-5,7,9	1/2"C,3#12,#12G	NON-FUSED
26 - REMOTE BAY BUZZER KIT JBOX	⊕	120V 1P 2W	120V 1-PH 2W	1.5	1.9	20	0.18		NONCONTINUOUS	CW-30	1/2"C,1#12,#12N,#12G	JUNCTION BOX
13 - ROUTER	⊕	120V 1P 2W	120V 1-PH 2W	15	19	20	1.8		NONCONTINUOUS	CW-44	3/4"C,1#10,#10N,#10G	HARDWIRED CONNECTION
1 - UNITEC PORTAL TI ACTIVATION	⊕	120V 1P 2W	120V 1-PH 2W	8	10	20	0.96		NONCONTINUOUS	CW-45	1/2"C,1#12,#12N,#12G	HARDWIRED CONNECTION
12 - UNITED POS INTERFACE	⊕	120V 1P 2W	120V 1-PH 2W	15	19	20	1.8		NONCONTINUOUS	CW-42	3/4"C,1#10,#10N,#10G	HARDWIRED CONNECTION
VACUUM	⊕	120V 1P 2W	120V 1-PH 2W	16	20	20	1.92		MOTOR	CW-2	3/4"C,1#8,#8N,#8G	JUNCTION BOX
8 - WASH BAY TERMINAL BOX 120V	⊕	120V 1P 2W	120V 1-PH 2W	15	19	20	1.8		NONCONTINUOUS	CW-22	1/2"C,1#12,#12N,#12G	HARDWIRED CONNECTION
7 - WASH BAY TERMINAL BOX 208V	⊕	208V 3P 3W	208V 3-PH 3W	34.97	44	50	12.6		NONCONTINUOUS	CW-16,18,20	3/4"C,3#6,#10G	HARDWIRED CONNECTION



ABOSSEIN #223054

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**B**

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425.251.6222  
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NO.	DATE	REVISION DESCRIPTION



DEVELOPMENT INFORMATION:

**ARCO NTI**

3400 am/pm  
FUEL CANOPY w/ 6 MPD's

SITE ADDRESS:

**SWC S MERIDIAN**  
@ HIGHWAY 512  
PUTALLUP, WASHINGTON

**FACILITY #7184**

DESIGNED BY: ALLIANCE ZADM  
CHECKED BY: BP REPA  
DRAWN BY: ALLIANCE PM  
VERSION: PROJECT NO:  
- 21730

DRAWING TITLE:

**CARWASH POWER PLAN**

SHEET NO:

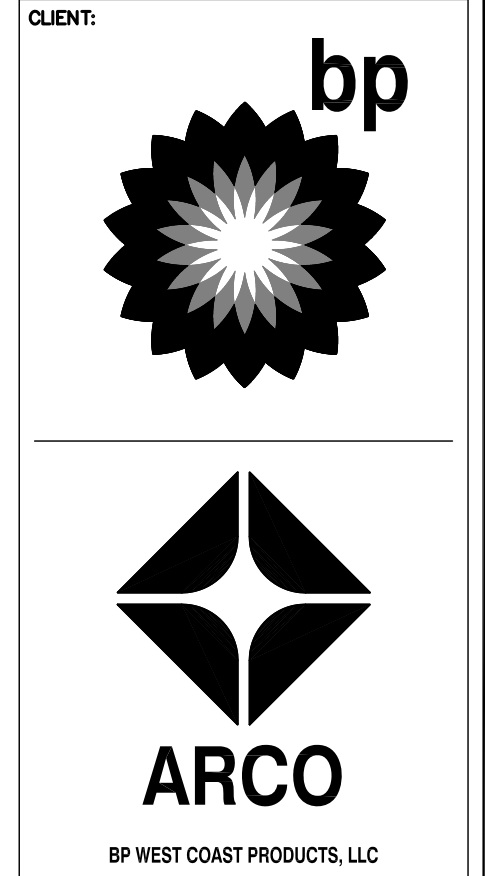
**CWE2.0**

# CW

ROOM CARWASH MECH ROOM VOLTS 208Y/120V 3P 4W AIC 42,000  
 MOUNTING SURFACE BUS AMPS 400 MAIN BKR MLO  
 FED FROM MSB-4 NEUTRAL 100% LUGS STANDARD  
 NOTE PROVIDE MEANS TO LOCK BREAKER IN OPEN POSITION FOR ALL MOTORS PER NEC 430.102

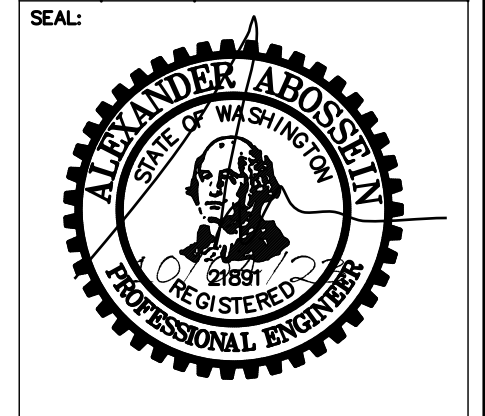
CKT #	CKT BKR	CIRCUIT DESCRIPTION	LOAD KVA			CKT #	CKT BKR	CIRCUIT DESCRIPTION	LOAD KVA		
			A	B	C				A	B	C
1	20/1	CARWASH PAYSTATION	1.8			2	20/1	VACUUM	1.92		
3	20/1	AIR/WATER UNIT		1.5		4	20/1	EXTERIOR CARWASH EM		0.141	
5	20/3	5 - RAINMAKER III R.O. SYS			1.8	6	20/1	INTERIOR CARWASH EM			0.45
7		W/REPRESSURIZATION	1.8			8	20/1	EM BACKUP LIGHTING,	0.15		
9				1.8		10	20/3	6 - BOOST PUMP SYSTEM		1.8	
11	20/3	4 - AIR COMPRESSOR 5HP			2.11	12		CONTROL BOX			1.8
13		3PH	2.11			14			1.8		
15				2.11		16	50/3	7 - WASH BAY TERMINAL		4.2	
17	20/1	CARWASH MECHANICAL ROOM			0.72	18		BOX 208V			4.2
19	80/3	9 - ONBOARD H.P. PUMP	7.2			20			4.2		
21		CONTROL BOX 208V		7.2		22	20/1	8 - WASH BAY TERMINAL		1.8	
23					7.2	24	20/3	BOX 120V			0.942
25	20/1	9 - ONBOARD H.P. PUMP	1.8			26		10 - OFFBOARD CHEMICAL	0.942		
27	40/3	11 - EV ULTRACLEAR		3		28		INJECTION PUMP		0.942	
29		RECLAIM SYSTEM 208V			3	30	20/1	26 - REMOTE BAY BUZZER			0.18
31			3			32	110/3	KIT JBOX	11.1		
33	20/1	11 - EV ULTRACLEAR		1.8		34		3 - AIR KNIFE		11.1	
35	20/1	RECLAIM SYSTEM 120V			0.18	36		DRYER/CONTROL CABINET			11.1
37	20/1	11 - EV ULTRACLEAR	0.1			38	20/1	33 - AUTO DOOR RELAY	0.18		
39	20/1	RECLAIM SYSTEM JBOX		0.18		40	30/1	JBOX		2.4	
41	30/1	HEAT TAPE				42	20/1	2 - AIRLIFT DOORS CONTROL			1.8
43	20/1	2 - AIRLIFT DOORS CONTROL	0.18			44	20/1	BOX	1.8		
45	20/1	19 - 3-MESSAGE LIGHTED			0.96	46	20/1	12 - UNITED POS INTERFACE			
47	20/1	ENTRANCE SIGN JBOX				48	20/1	13 - ROUTER		0.18	
49	20/1	1 - UNITEC PORTAL TI	0			50	20/1	27 - 8 SEGMENT LIGHTED			0
51	20/1	ACTIVATION		0		52	20/1	SIGN JBOX	0		
53	20/1	SPACE		0		54	20/1	SPACE		0	0
55	20/1	SPACE	0			56	20/1	SPACE	0		
57	20/1	SPACE		0		58	20/1	SPACE		0	
59	20/1	SPACE		0		60	20/1	SPACE			0
TOTAL CONNECTED KVA BY PHASE									40.1	41.1	37.9

	CONN KVA	CALC KVA		CONN KVA	CALC KVA
LIGHTING	1.1	1.38	(125%)	CONTINUOUS	0
LARGEST MOTOR	33.3	41.6	(125%)	HEATING	0
OTHER MOTORS	15.9	15.9	(100%)	COOLING	0
RECEPTACLES	0.72	0.72	(50%>10)	NONCONTINUOUS	68.1
KITCHEN EQUIP	0	0	(N/A)	DIVERSE	0
				METERED DEMAND	0
				TOTAL KVA	119
				BALANCED 3-PHASE AMPS	354



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NO.	DATE	REVISION DESCRIPTION
1		
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13		



DEVELOPMENT INFORMATION:  
**ARCO NTI**  
 3400 am/pm  
 FUEL CANOPY w/ 6 MPD'S

SITE ADDRESS:  
**SWC S MERIDIAN**  
 @ HIGHWAY 512  
 PUTALLUP, WASHINGTON

FACILITY #7184  
 DESIGNED BY: ALLIANCE ZADM:  
 CHECKED BY: BP REPA:  
 DRAWN BY: ALLIANCE PH:  
 VERSION: PROJECT NO:  
 - 21730

DRAWING TITLE:  
**CARWASH PANEL SCHEDULE**  
 SHEET NO:

ABOSSEIN #223054

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## CWE2.1





PIPE SIZING INFORMATION

Table with 3 columns: Item, Value, and Notes. Includes City main water pressure (55.0 psi), Water meter loss (3.0 psi), Backflow preventer loss (10.0 psi), Pressure losses between meter and bldg. (0.0 psi), Water pressure at building entry (42.0 psi), and Maximum available water pressure for distribution (42.0 psi).

BUILDING WATER PRESSURE LOSS:

Table with 3 columns: Item, Value, and Notes. Includes Elevation loss (4.3 psi), Backflow preventer loss (psi), Min. fixture pressure (30.0 psi), Total pressure loss (34.3 psi), Remaining available pressure (7.7 psi), and Longest piping run (150 ft).

Max. allowable pressure loss for pipe sizing: 3.845 psi/100ft

COLD WATER PIPE SIZING TABLE

Table with 5 columns: PIPE SIZE, FIX. UNITS (flush tank), FIX. UNITS (flush valve), Flow Rate (gpm), and Velocity (ft/s).

HOT WATER PIPE SIZING TABLE

Table with 5 columns: PIPE SIZE, FIX. UNITS (flush tank), Flow Rate (gpm), and Velocity (ft/s).

FIXTURE UNITS CALCULATIONS

Table with 8 columns: FIXT. ID (ITEM), QTY, DESCRIPTION, F.U. PER FIXTURE, TOTAL CW F.U., TOTAL HW F.U., F.U. PER FIXTURE, TOTAL SS F.U. Lists various fixtures like WC-1, LV-1, A1C, etc.

NOTES: 1. WATER SUPPLY FIXTURE UNITS ARE BASED ON CPC, APPENDIX A. 2. DRAINAGE FIXTURE UNITS ARE BASED ON CPC, CHAPTER-7 TABLE 7-3.

BACKFLOW PREVENTER NOTES

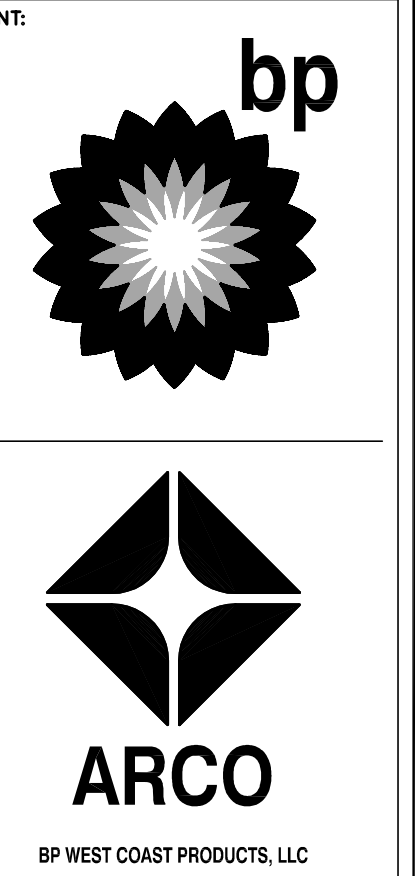
- 1. AS MANUFACTURED BY "WATTS" OR EQUAL: RPBA = REDUCED PRESSURE #090QT DCVA = DOUBLE CHECK #007QT AVB = VACUUM BREAKER
2. VALVES TO BE LINE SIZE.
3. INSTALL AT THE FOLLOWING LOCATIONS (MINIMUM): A. DCVA AT ICE MAKER B. RPBA AT COFFEE BREWER/ESPRESSO MACHINE (IF INSTALLED) C. RPBA AT BEVERAGE BAR/CARBONATOR (POP MACHINE PIPING DOWNSTREAM OF CARBONATOR SHALL BE PLASTIC IN ORDER TO AVOID CARBONIC POISONING) D. BACKFLOW PREVENTERS SHALL BE MOUNTED MAXIMUM 5 FEET ABOVE FLOOR PER UPC 2015, SEC. 603.4.3. DISCHARGE DRAINS WITH AIRGAP, TYP.
4. BACKFLOW PREVENTERS SHALL BE FULLY INSTALLED AND TESTED PRIOR TO PRE-OPENING INSPECTION

GENERAL NOTES

- 1. PLUMBING CONTRACT DRAWINGS ARE IN PART DIAGRAMMATIC, COVERING THE SCOPE OF WORK AND GENERAL ARRANGEMENT OF THE EQUIPMENT, PIPING, ETC. AND THE APPROXIMATE SIZE OF EQUIPMENT AND MATERIALS. THE CONTRACTOR SHALL FOLLOW THESE DRAWINGS IN LAYING OUT THE PLUMBING WORK.
2. BECAUSE OF THE NATURE AND SCALE OF THE DRAWINGS, CERTAIN BASIC PLUMBING ITEMS SUCH AS UNIONS, FITTINGS, ELBOWS, ETC., MAY NOT BE SHOWN. WHERE SUCH ITEMS ARE REQUIRED BY OTHER SECTIONS OF THE SPECIFICATIONS, OR WHERE THEY ARE REQUIRED BY THE NATURE OF THE WORK OR BY CODES AND REGULATIONS, THEY SHALL BE FURNISHED AND INSTALLED AT NO ADDITIONAL COST TO THE OWNER.
3. ALL EQUIPMENT SHALL BE TIGHTLY COVERED AND PROTECTED AGAINST DIRT, WATER, AND CHEMICAL OR MECHANICAL INJURY OR THEFT.
4. ALL MATERIALS SUCH AS VALVES, FITTINGS, PIPING, EQUIPMENT, PUMPS, COILS, ETC., SHALL BE PROPERLY PROTECTED, AND ALL PIPING OPENINGS SHALL BE TEMPORARILY CLOSED BY THE CONTRACTOR FOR THE WORK UNDER HIS CHARGE, ON A DAILY BASIS, AT THE END OF EACH WORKING DAY, SO AS TO PREVENT OBSTRUCTION AND DAMAGE.
5. THE CONTRACTOR SHALL SEE THAT ALL MATERIALS, INSTALLATION AND WORKMANSHIP IS PERFORMED IN ACCORDANCE WITH THE LATEST EDITION OF ALL APPLICABLE CODES, LAWS, OR ORDINANCES OF THE STATE, AND ALL COUNTY AND LOCAL CITY CODES OR ORDINANCES, INCLUDING ALL STATE OR LOCAL BOARD OF HEALTH, FEDERAL AND STATE ENVIRONMENTAL PROTECTION REGULATIONS, STATE ENERGY CODES AND UTILITY REGULATORY AGENCIES.
6. ALL WORK SHALL BE FURTHER PERFORMED IN ACCORDANCE WITH THE NATIONAL BOARD OF FIRE UNDERWRITERS, THE PLUMBING AND BUILDING CODES, NATIONAL ELECTRICAL CODE, THE OCCUPATIONAL SAFETY AND HEALTH ACT, THE AMERICAN GAS ASSOCIATION, AND ALL SUCH OTHER SPECIFIC CODES AS MAY BE REFERRED TO IN THE INDIVIDUAL SECTIONS OF THE SPECIFICATIONS.
7. PIPE SIZES SHOWN ON THE DRAWINGS ARE THE MINIMUM SIZES ALLOWED REGARDLESS OF THE CODE MINIMUM, EXCEPT WHEN THE CODE MINIMUM SIZE IS LARGER THAN THAT SHOWN.
8. THE CONTRACTOR SHALL MAINTAIN A CURRENT SET OF CONTRACT PRINTS ON THE CONSTRUCTION SITE AT ALL TIMES, ON WHICH HE SHALL ACCURATELY RECORD THE ACTUAL INSTALLATION OF ALL PLUMBING WORK, AS WORK PROGRESSES, MARK CHANGES MADE, WHETHER RESULTING FROM JOB CONDITIONS, ADDENDA, FORMAL CHANGE ORDERS OR OTHER INSTRUCTIONS ISSUED BY THE ENGINEER.
9. THE PLUMBING CONTRACTOR SHALL INDICATE PROGRESS BY COLORING IN VARIOUS PIPES, FIXTURES, AND ASSOCIATED APPURTENANCES EXACTLY AS THEY ARE ERRECTED AND INSTALLED.
10. MARK ALL PIPE SIZES AND LOCATIONS DURING CONSTRUCTION. ALSO, MARK LOCATIONS OF ALL VALVES AND VARIOUS EQUIPMENT, APPARATUS, AND ASSOCIATED APPURTENANCES AS ERRECTED WEEKLY DURING CONSTRUCTION.
11. AT THE COMPLETION OF THE JOB THESE PRINTS, INCORPORATING CHANGES, ADDENDA AND ADDED DATA NOTED ON MARKED-UP PRINTS, INCLUDING DIMENSIONED LOCATIONS OF UNDERGROUND PIPING BEYOND LIMITS OF BUILDING, SHALL BE SUBMITTED TO THE ENGINEER FOR FINAL REVIEW AND COMMENT. THE PRINTS WILL BE RETURNED WITH APPROPRIATE COMMENTS AND RECOMMENDATIONS. THESE CORRECTED PRINTS TOGETHER WITH CORRELATED PRINTS INDICATING ALL THE REVISIONS, ADDITIONS AND DELETIONS OF WORK, SHALL FORM THE BASIS FOR PREPARING A SET OF RECORD DRAWINGS.
12. WHERE PIPING AND OTHER PLUMBING APPURTENANCES PASS THROUGH FIRE PARTITIONS, FIRE WALLS, OR FLOORS, INSTALL A FIRE-STOP THAT PROVIDES AN EFFECTIVE BARRIER AGAINST THE SPREAD OF FIRE, SMOKE AND GASES. FIRE-STOP MATERIAL SHALL BE UL APPROVED PACKED TIGHT AND COMPLETELY FILL CLEARANCES BETWEEN RACEWAYS AND OPENINGS, FLOOR, EXTERIOR WALL, AND ROOF SEALS SHALL ALSO BE MADE WATERTIGHT AS APPROVED BY THE ADMINISTRATIVE AUTHORITY.
13. ARRANGE AND INSTALL PIPING APPROXIMATELY AS INDICATED, STRAIGHT, PLUMB AND AS DIRECT AS POSSIBLE. FORM RIGHT ANGLES OR PARALLEL LINES WITH BUILDING WALLS. KEEP PIPES CLOSE TO WALLS, PARTITIONS AND CEILINGS, OFFSETTING ONLY WHERE NECESSARY TO FOLLOW WALLS AND AVOID INTERFERENCE WITH OTHER MECHANICAL ITEMS. LOCATE GROUPS OF PIPES PARALLEL TO EACH OTHER; SPACE THEM AT A DISTANCE TO PERMIT ACCESS FOR SERVICE VALVES.
14. WATER PIPING SHALL BE PITCHED TO POINTS OF DRAINAGE WITH CONSTANT UNIFORM SLOPE.
15. INSTALL HORIZONTAL PIPING AS HIGH AS POSSIBLE WITHOUT SAGS OR HUMPS.
16. GRADE DRAINAGE AT UNIFORM SLOPE OF NOT LESS THAN 1/4" PER FOOT TOWARD THE POINT OF DISPOSAL. WHEN APPROVED BY ADMINISTRATIVE AUTHORITY, PIPE SIZE 4" AND LARGER MAY HAVE A SLOPE OF NOT LESS THAN 1/8" PER FOOT.
17. WHERE CHANGES IN PIPE SIZES OCCUR, USE ONLY REDUCING FITTINGS.
18. FOR DRAINAGE PIPING CHANGES IN DIRECTION, USE LONG SWEEP WHERE POSSIBLE, OTHERWISE, SHORT SWEEP 1/4 BENDS, OR COMBINATION WYE AND 1/8 BENDS; USE SANITARY TEE BRANCHES ONLY FOR HORIZONTAL BRANCHES DISCHARGING TO STACKS.
19. INSTALL SECTIONALISING VALVES AND ON EACH BRANCH LINE TO MULTI-FIXTURE GROUPS. LOCATE VALVES IN A READILY ACCESSIBLE LOCATION, DO NOT CONCEAL, DO NOT LOCATE VALVE SYSTEMS BELOW HORIZONTAL UNLESS INDICATED ON PLANS. LOCATE ANGLE STOP VALVES BELOW THE SINK OR WATER CLOSET.
20. WATER SUPPLY TO ALL FIXTURES AND CONTAINERS SHALL BE SO INSTALLED AS TO PREVENT POSSIBLE BACK SIPHONAGE OF POLLUTED WATER. ALL SUPPLIES SHALL BE EITHER ABOVE THE FLOOD RIM OF THE FIXTURE OR SEPARATED FROM THE DRAINAGE END BY MEANS OF AN APPROVED VACUUM BREAKERS.
21. PROVIDE PIPING AND FIXTURE TRAPS, CONNECT TO FIXTURES AND OTHER EQUIPMENT INDICATED OR SPECIFIED AS REQUIRING SOIL, WASTE, DRAIN AND VENT FACILITIES.
22. LAY ALL PIPING TRUE TO LINE AND GRADE, FIT ENDS TOGETHER, MATCH SO THAT SEWER OR DRAIN WILL HAVE SMOOTH AND UNIFORM INSERT. FOLLOW LOCATIONS AND ELEVATIONS AT SITE, AS THE PIPE LAYING PROGRESSES, CLEAR PIPE INTERIOR OF CEMENT, DIRT, AND OTHER FOREIGN MATERIALS. DURING WORK STOPPAGE PERIODS, PROVIDE EFFECTIVE PLUGS OR COVERS FOR OPEN ENDS OF PIPE AND DRAINS.
23. PROVIDE CLEANOUTS WHERE INDICATED AND AT INTERVALS OF 100' OR AS REQUIRED BY LOCAL PLUMBING CODE AND WHERE REQUIRED AT CHANGES OF DIRECTIONS OF SOIL AND WASTE STACKS. INSTALL CLEANOUTS SO AS TO BE ACCESSIBLE FOR EASY REMOVAL AND TO PROVIDE CLEARANCE FOR RODDING. CLEANOUTS SHALL BE THE SAME SIZE AS PIPE SERVED EXCEPT THAT NO CLEANOUT NEED BE LARGER THAN FOUR INCHES.
24. EXTEND VENT PIPES 12 INCHES ABOVE ROOF AND 10FT MINIMUM AWAY FROM ANY FRESH AIR INTAKES AND AT LEAST 48 INCHES AWAY FROM A PARAPET WALL.
25. SANITARY VENT PIPING SHALL BE GRADED SO THAT THE AIRFLOW TO THE OUTSIDE WILL BE CONTINUOUSLY UPWARD AND SO THAT NO LOW POINTS WILL BE DRAINED.
26. MAKE TIGHT CONNECTION BETWEEN WATER CLOSET FLANGES AND EARTHENWARE FIXTURE BY MEANS OF AN APPROVED MOLDED WAX RING OR SETTING COMPOUND AND BOLTING.
27. VENTS: PROVIDE FLASHING FOR STACKS PASSING THROUGH ROOF. MAKE WATER-TIGHT AT ROOF. DO NOT LOCATE VENT THROUGH ROOF LESS THAN 24 INCHES FROM A PARAPET WALL.
28. ALL PLUMBING FIXTURES AND PIPING ARE TO BE LISTED BY AN APPROVED LISTING AND TESTING AGENCY AND PROPERLY LABELED.
29. COORDINATE ALL LOCATIONS, SIZES, AND ELEVATIONS OF ALL SLEEVES THROUGH WALLS, BEAMS, SLABS AND FOOTING WITH STRUCTURAL AND ARCHITECTURAL DRAWINGS. ALL PIPES SLEEVING THROUGH FOOTINGS SHALL HAVE A SLEEVE DIAMETER OF TWO PIPE SIZES OVER THE PIPE PASSING THROUGH THE FOOTING. NO PIPE TO BE PLACED THROUGH FOOTING UNLESS APPROVED BY THE STRUCTURAL ENGINEER.
30. ALL PIPES SHALL BE PROTECTED AT THE POINT THEY CROSS BUILDING EXPANSION JOINT, EITHER WITH AN EXPANSION FITTINGS OR IN ANOTHER MANNER ACCEPTABLE TO THE ENGINEER.
31. PLUMBING CONTRACTOR SHALL CONNECT ALL GAS PIPING TO ALL GAS RELATED UNITS PER PLAN WITH LISTED AND APPROVED GAS SHUT-OFF VALVE, SEDIMENT TRAP, AND UNION.
32. FAUCET CONTROLS SHALL BE OPERABLE WITH ONE HAND AND SHALL NOT REQUIRE TIGHT GRASPING, PINCHING, OR TWISTING OF THE WRIST. THE FORCE REQUIRED TO ACTIVATE CONTROLS SHALL BE NO GREATER THAN 5 POUNDS.
33. PENETRATION OF FLOOR/CEILING ASSEMBLIES AND ASSEMBLIES REQUIRED TO HAVE A FIRE-RESISTANCE RATING SHALL BE PROTECTED IN ACCORDANCE WITH THE BUILDING CODE.
34. WHERE WATER PRESSURE WITHIN A BUILDING EXCEEDS 80 PSI, AN APPROVED WATER-PRESSURE REDUCING VALVE CONFORMING TO ASSE 1003 WITH STRAINER SHALL BE INSTALLED TO REDUCE THE PRESSURE IN THE BUILDING WATER DISTRIBUTION PIPING TO 80 PSI STATIC OR LESS.
35. DISINFECTION OF POTABLE WATER SYSTEM SHALL COMPLY WITH THE LOCAL AND THE STATE PLUMBING CODE.
36. PROPER ACCESS MUST BE PROVIDED FOR THE TESTING AND MAINTENANCE OF THE BACKFLOW PREVENTER. IF THE BACKFLOW PREVENTER IS INSTALLED MORE THAN 5'-0" ABOVE THE FLOOR, SPECIAL PROVISIONS MUST BE MADE.
37. PROVIDE AND INSTALL A SINGLE GAS ISOLATION VALVE FOR THE MULTIPLE GAS METER BANKS FOR THE ENTIRE BLDG.
38. ALL PIPING SHALL MAINTAIN AT LEAST 5'-0" CLEARANCE IN FRONT OF THE HVAC SUPPLY AND RETURN OPENINGS.
39. PLASTIC PIPES ARE NOT PERMITTED TO BE INSTALLED WITHIN THE AIR PLENUM SPACE.
40. HUNG WASTE PIPING SHALL BE STRUCTURALLY SUPPORTED AS TIGHT AS POSSIBLE BELOW THE STRUCTURAL BEAMS TO GAIN MORE HEAD SPACE AS IT PITCH TOWARDS THE LOWEST POINT TO KEEP WASTE PIPING WITHIN THE CEILING SPACE.
41. CONTRACTOR TO PROVIDE AND INSTALL QUICK DISCONNECT GAS LINES AT ALL COOKING EQUIPMENT.
42. NO NON-METALLIC PIPING IS ALLOWED WITHIN THE RETURN-AIR PLENUMS.
43. AIR BARRIER TESTING REPORTS SHALL BE SUBMITTED TO THE CITY OF LACEY BUILDING DEPARTMENT PRIOR TO CALLING FOR FINAL INSPECTION.

ABOSSEIN #223054

Abossein Engineering, L.L.C. MECHANICAL - ELECTRICAL CIVIL - LEED FIRE PROTECTION 18465 NE 68TH ST REDMOND, WA 98052 PH: (425) 462-9441 FAX: (425) 462-9451 E-Mail: cservice@abossein.com www.abossein.com



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Table with 3 columns: NO., DATE, REVISION DESCRIPTION. Contains several rows of revision information.



DEVELOPMENT INFORMATION: ARCO NTI 3400 am/pm FUEL CANOPY w/ 6 MPD'S

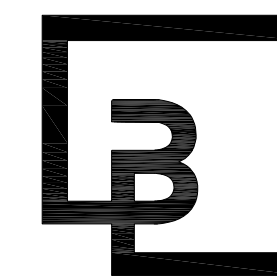
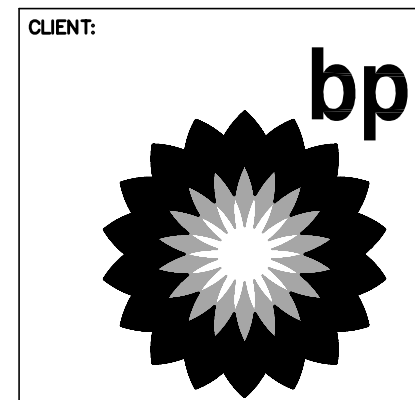
SITE ADDRESS: SWC S MERIDIAN @ HIGHWAY 512 PUTALLUP, WASHINGTON FACILITY #7184

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GENERAL NOTES & CALCULATIONS

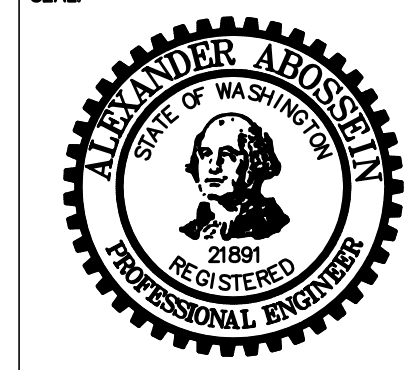
SHEET NO: P0.2





**Barghausen Consulting Engineers, Inc.**  
 18215 72nd Avenue South  
 Kent, WA 98032  
 425.251.6222  
 barghausen.com

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DEVELOPMENT INFORMATION:  
**ARCO NTI**  
 3400 am/pm  
 FUEL CANOPY w/ 6 MPD's

SITE ADDRESS:  
**SWC S MERIDIAN**  
 @ HIGHWAY 512  
 PUTALLUP, WASHINGTON

FACILITY #7184  
 DESIGNED BY: ALLIANCE TEAM  
 CHECKED BY: BP REP  
 DRAWN BY: ALLIANCE PM  
 VERSION: PROJECT NO:  
 - 21730

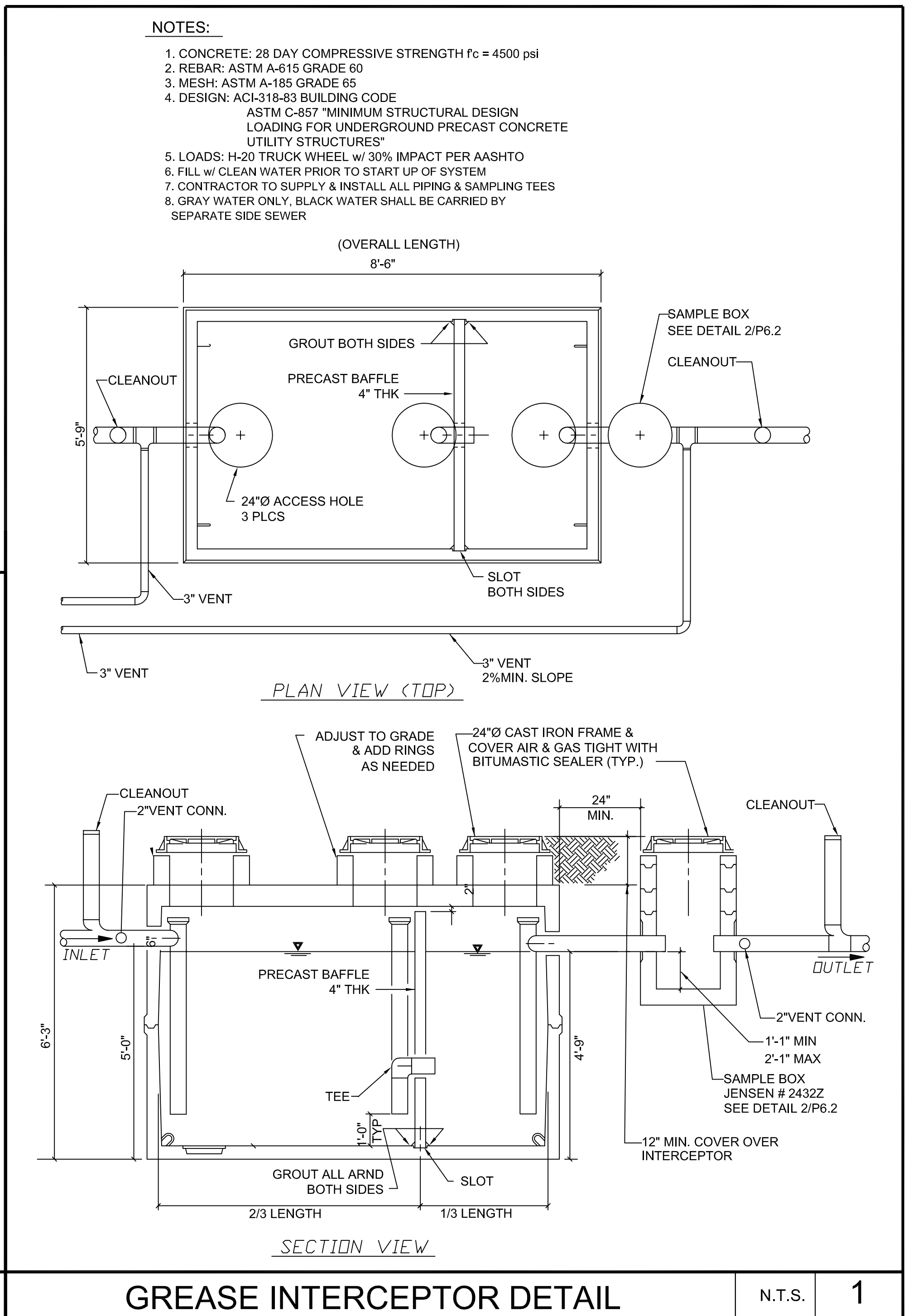
DRAWING TITLE:  
**PLUMBING  
 DETAILS - III**

SHEET NO:  
**P4.2**

ABOSSEIN #223054

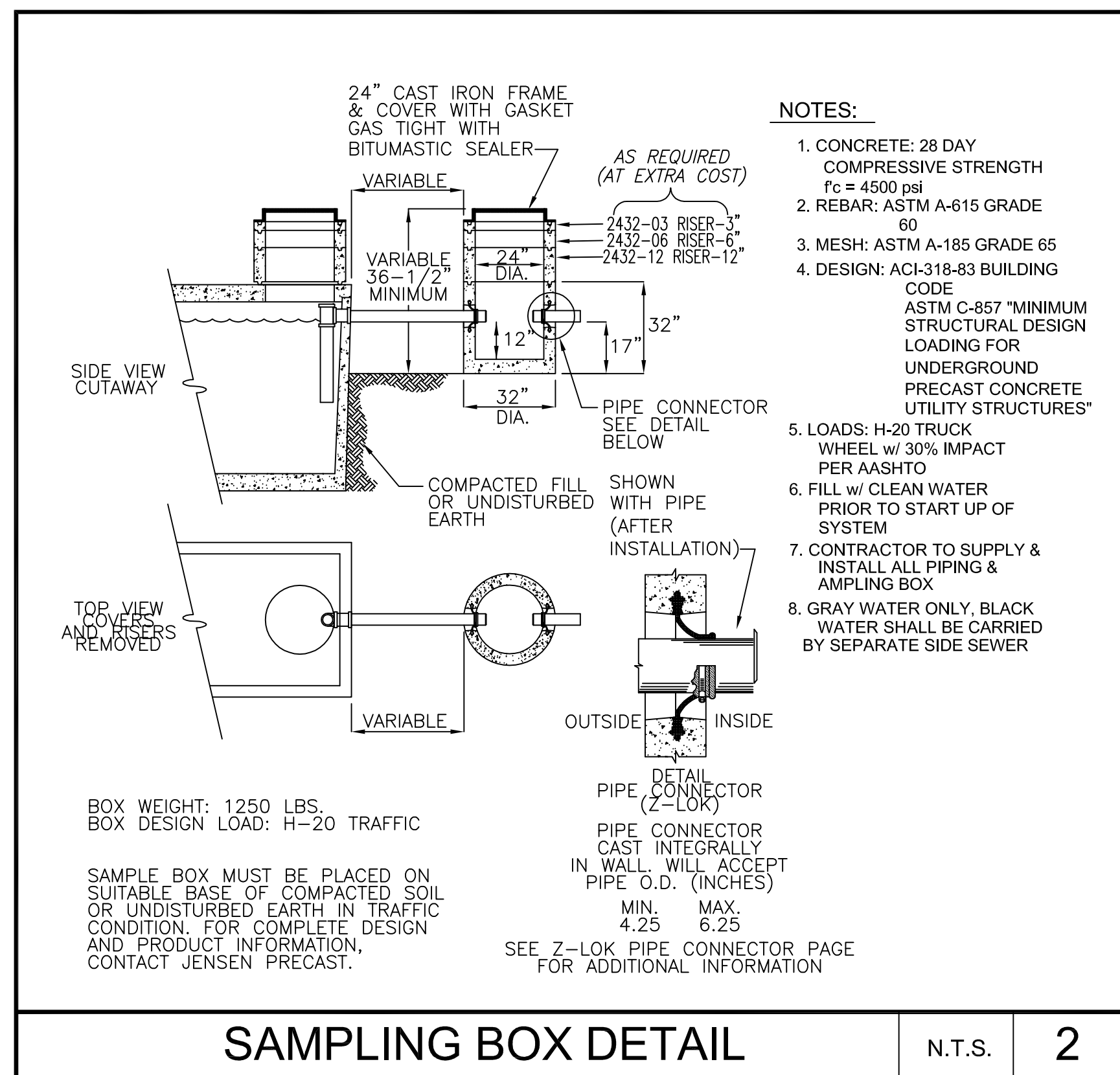
Abossein Engineering, L.L.C.

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**GREASE INTERCEPTOR DETAIL**

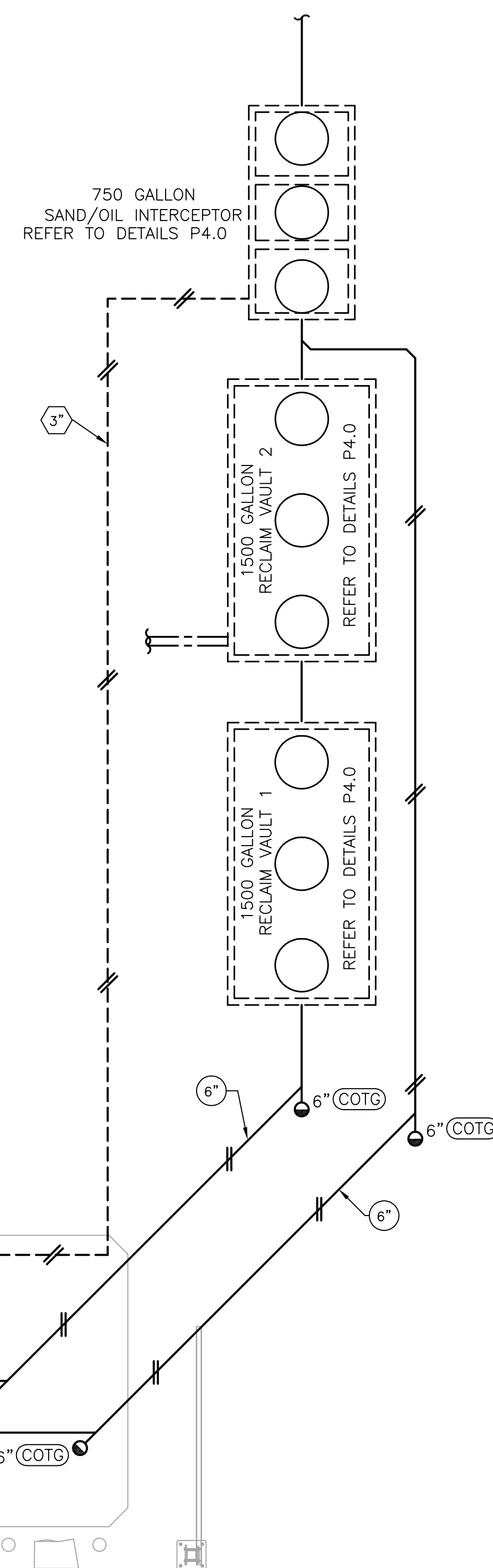
N.T.S. 1



**SAMPLING BOX DETAIL**

N.T.S. 2

EQUIPMENT SCHEDULE	
NO.	ITEM / DESCRIPTION
CW6	TRENCH MOUNTED UNDERCAR MANIFOLD
CW8	SOFTGLOSS FLOOR TRACKS
CW9	SOFTGLOSS FLOOR MOUNT BOOM STAND
CW10	SOFTGLOSS CABLE MOUNT BRACKET
CW11	WASH BAY TERMINAL BOX
CW12	LOW PROFILE GUIDE RAILS (2 PLCS)
CW13	SOFTGLOSS WASH MACHINE
CW14	SLIMLINE DRYER PNEUMATIC CONTROL BOX
CW16	SLIMLINE DRYER (3 FAN)
CW24	FRESH WATER BACKUP VALVE ASSEMBLY
CW25	FV ULTRACLEAR RECLAIM SYSTEM 40 GPM W/ OZONE
CW26	OFFBOARD CHEMICAL INJECTION PUMP/ WITH CHEMICAL CONTAINERS
CW27	ONBOARD HP PUMP W/ CONTROL BOX
CW28	HP DIVERTER VALVES
CW29	OFF-BOARD RINSE VALVE
CW32	165 GALLON R.O. STORAGE TANK
CW33	CARBON FILTER
CW34	RAINMAKER III R.O. SYSTEM
CW35	AIR COMPRESSOR, 5 HP, 3 PH

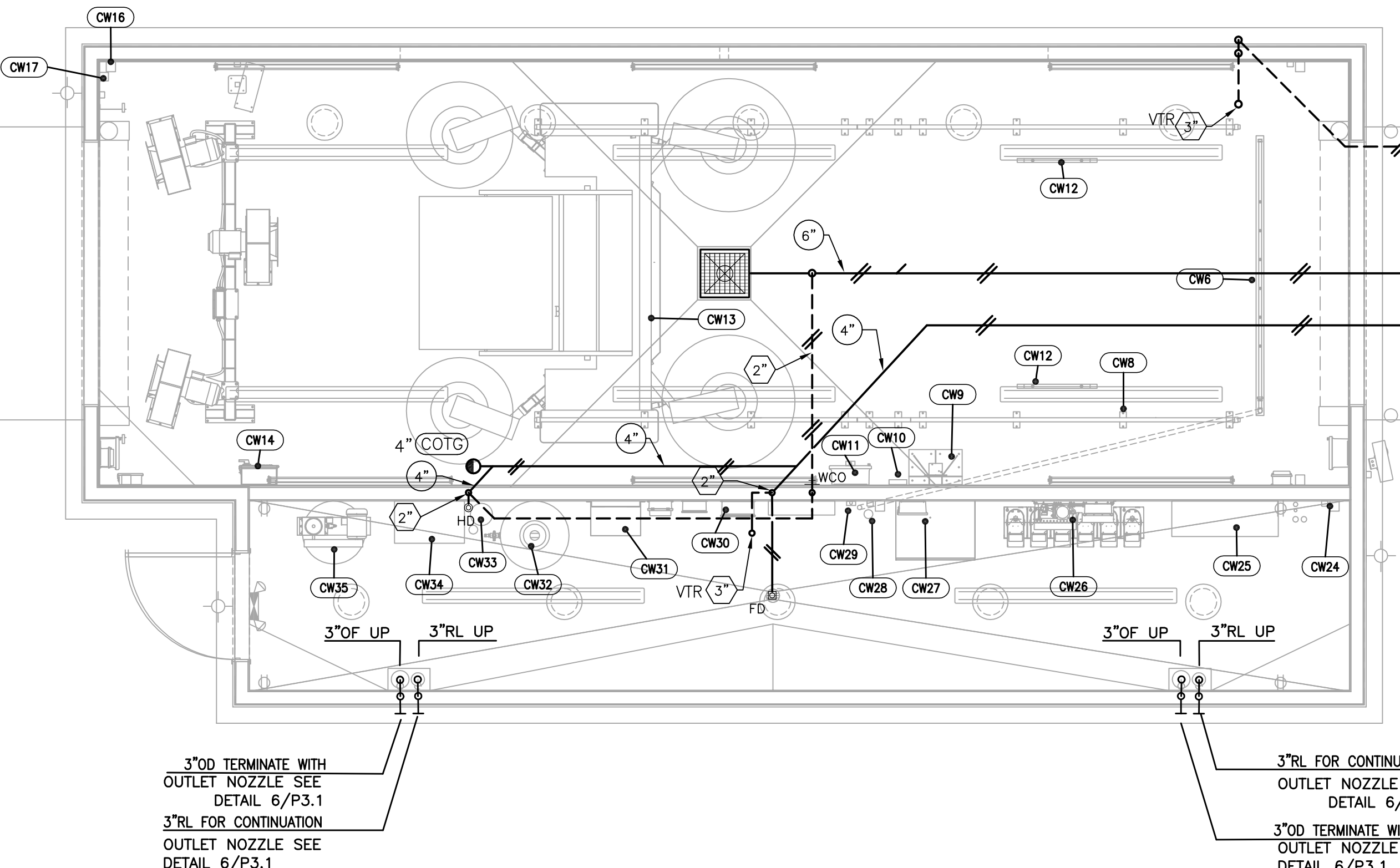


**GENERAL NOTES**

- COORDINATE WITH STRUCTURAL FOR EXACT LOCATION OF ALL STRUCTURAL FRAMING AND FOOTINGS AND FINALIZE THE EXACT ROUTING OF ALL PIPES WITH STRUCTURAL AND AT SITE PRIOR AND DURING THE CONSTRUCTION.
- COORDINATE WITH ARCHITECTURAL AND AT SITE FOR EXACT LOCATION OF ALL PLUMBING FIXTURES.
- ALL FIXTURES REQUIRING PLUMBING SHALL BE CONNECTED TO BUILDING WASTE, VENT, COLD WATER AND HOT WATER SYSTEM AS REQUIRED BY THE CODES. WASTE AND VENT PIPE SIZES SHALL NOT BE SMALLER THAN UPC 2015 TABLE 703.2.
- INSTALL CLEANOUTS PER UPC 2015 SECTION 707, SIZED PER TABLE 707.1 AND AS REQUIRED BY LOCAL JURISDICTIONS. ALL CLEANOUTS SHALL BE LOCATED IN WALLS/FLOORS IN A NOT HIGHLY VISIBLE LOCATION AS APPROVED BY THE ARCHITECT.
- CONNECT TO EACH FIXTURE, EQUIPMENT, ETC. WITH ALL ACCESSORIES, VALVES, VACUUM BREAKERS, REGULATORS, UNION, ETC., AS REQUIRED AND AS RECOMMENDED BY THE MANUFACTURERS.
- COORDINATE WITH THE STRUCTURAL ENGINEER AND GENERAL CONTRACTOR TO PROVIDE STRUCTURAL SUPPORT FOR ALL EQUIPMENT.
- PLUMBING CONTRACTOR SHALL COORDINATE PLUMBING VENT STACKS WITH THE HVAC CONTRACTOR TO MAINTAIN A MINIMUM OF 10 FT. FROM THE OUTSIDE AIR INTAKES.
- ALL ROOF PENETRATIONS SHALL BE MINIMUM 5 FEET AWAY FROM AREA/OCCUPANCY SEPARATION WALLS.
- COMPLETE INSTALLATION OF THE PLUMBING SYSTEM SHALL BE PER THE LOCAL CODE BOOK, PLUMBING AND HEALTH CODES AND REGULATIONS AS ADOPTED BY THE LOCAL JURISDICTIONS.
- ALL EQUIPMENT SHALL BE FREE FROM DEFECTS IN MATERIAL, WORKMANSHIP AND SHALL BE OF THE KIND AND QUALITY DESCRIBED HEREIN.
- PLUMBING CONTRACTOR SHALL CONNECT TO EACH PIECE OF EQUIPMENT WITH ALL REQUIRED ACCESSORIES AND IN ACCORDANCE WITH DRAWINGS, MANUFACTURER'S RECOMMENDATIONS AND LOCAL CODES.
- INSTALL SHUT OFF VALVES/STOPS AT HOT AND COLD WATER SUPPLY TO EACH FIXTURE EQUIPMENT PER CODE.
- INSTALL ALL TRAP ARMS SUCH THAT THE MAXIMUM LENGTH WILL NOT EXCEED THE CODE REQUIREMENTS. ALL TRAPS WITHOUT HAVING CONTINUOUS WATER DISCHARGE TO BE PROTECTED AGAINST TRAP EVAPORATION.
- VENT LENGTH SHALL NOT EXCEED 2015-UPC-TABLE-703.2.
- ALL DRAINAGE PIPING INSIDE BUILDING SHALL BE SLOPED AT MINIMUM 1/4" PER FOOT (2%) UNLESS OTHERWISE APPROVED BY LOCAL JURISDICTIONS. (OTHER THAN 2% SLOPE WILL REQUIRE ADJUSTMENT FACTOR [0.80 FOR 1% SLOPE] FOR TOTAL F.U. COUNT CAPACITIES PER UPC 2015 TABLE 703.2)
- ALL WATER PIPING SHALL BE INSTALLED ON THE WARM SIDE OF INSULATION.
- ALL PLUMBING, PIPING AND EQUIPMENT SHALL CONFORM TO SMACNA & LOCAL REGULATIONS FOR SEISMIC RESTRAINTS.
- ALL PIPING SHALL BE INSULATED PER THE STATE ENERGY CODE.
- VERIFY OVERFLOW DRAIN REQUIREMENTS FOR DISCHARGE WITH LOCAL JURISDICTION PRIOR TO CONSTRUCTION.
- PROVIDE HEAT TAP ON PLUMBING IN CARWASH BAY.

PLUMBING FIXTURE SCHEDULE						
MARK	EQUIPMENT	DISCRPTION	SUPPLY PIPING	WASTE PIPING	MANUFACTURER/ MODEL	NOTES
HB-1	HOSE BIBB	ANTI-SIPHON, AUTOMATIC DRAINING, FREE-PROOF TYPE WITH NICKEL BRONZE COVER	3/4" CW	SEE PLAN	ZURN #Z-1321-C-04	(1)
FD-1	FLOOR DRAIN	PVC FLOOR DRAIN WITH PVC TOP HOUSING, PVC FLASHING COLLAR AND WITH CAST METAL RING AND ROUND STRAINER	---	SEE PLAN	SIoux CHEF 863-44N0	(2) (3)
TP-1	TRAP PRIMER		1/2"	---	ZURN SANI-GUARD Z-1022	
CB-1	CATCH BASIN	24"X24" POLYETHYLENE BODY CATCH BASIN WITH BLACK ACID RESISTANT COATED DUCTILE IRON GRATE AND FRAME.		4"	ZURN Z-887	
HD-1	HUB DRAIN	HUB DRAIN FOR RAINMAKER RO SYSTEM			BRADLEY S19-620	

NOTES:  
 (1) USE 4" WALL HYDRANT, ROUTE COLD WATER DROP INSIDE 6"  
 (2) FLOOR DRAINS SHALL HAVE TRAP PRIMERS INSTALL.  
 (3) ZURN AND WATTS ARE ACCEPTABLE ALTERNATES.



3"OD TERMINATE WITH  
OUTLET NOZZLE SEE  
DETAIL 6/P3.1  
3"RL FOR CONTINUATION  
OUTLET NOZZLE SEE  
DETAIL 6/P3.1

3"RL FOR CONTINUATION  
OUTLET NOZZLE SEE  
DETAIL 6/P3.1  
3"OD TERMINATE WITH  
OUTLET NOZZLE SEE  
DETAIL 6/P3.1

VERIFY ALL PLUMBING ROUGH-IN DIMENSIONS WITH ARCHITECTURAL DRAWINGS PRIOR INSTALLATION

ABOSSEIN #223054

**Abossein Engineering, L.L.C.**

MECHANICAL - ELECTRICAL  
CIVIL - LEED  
FIRE PROTECTION  
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REDMOND, WA 98052  
PH: (425) 462-9441  
FAX: (425) 462-9451  
E-Mail: cservice@abossein.com  
www.abossein.com

**1 WASTE AND VENT PLUMBING PLAN**  
1/4" = 1'-0"

CLIENT:

BP WEST COAST PRODUCTS, LLC

**Barghausen Consulting Engineers, Inc.**

18215 72nd Avenue South  
Kent, WA 98032  
425.251.6222  
[barghausen.com](http://barghausen.com)

NO.	DATE	REVISION	DESCRIPTION

SEAL:

DEVELOPMENT INFORMATION:

**ARCO NTI**  
3400 am/pm  
FUEL CANOPY w/ 6 MPD's

SITE ADDRESS:

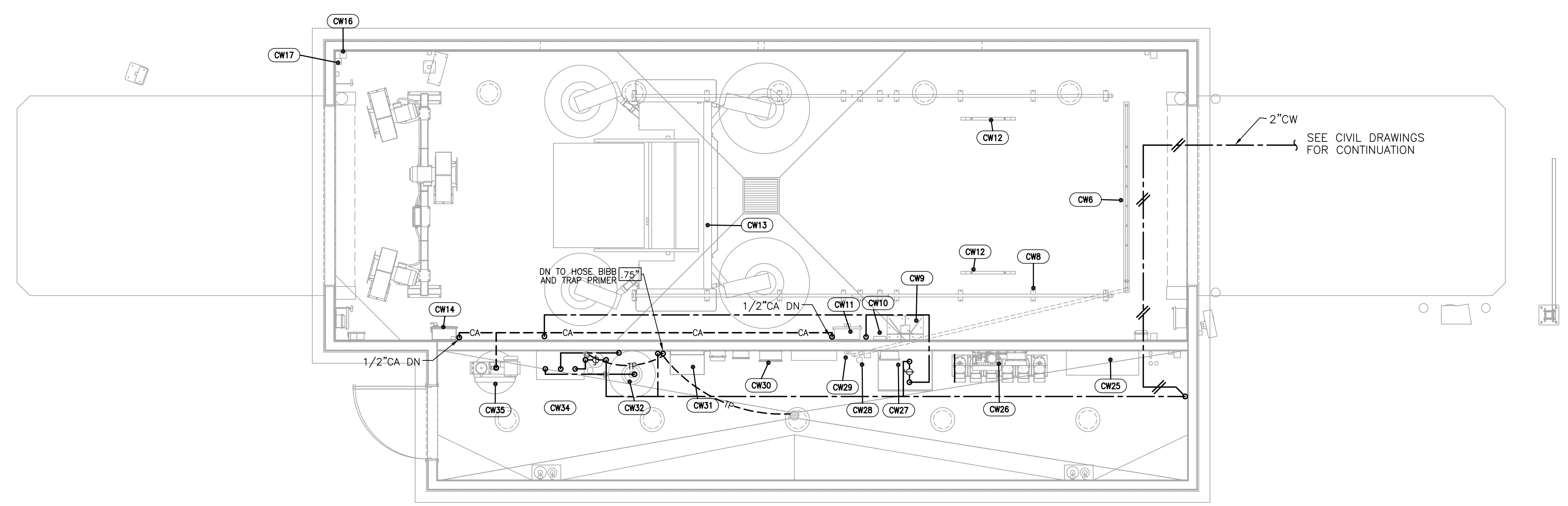
**SWC S MERIDIAN**  
@ HIGHWAY 512  
PUTALLUP, WASHINGTON

**FACILITY #7184**

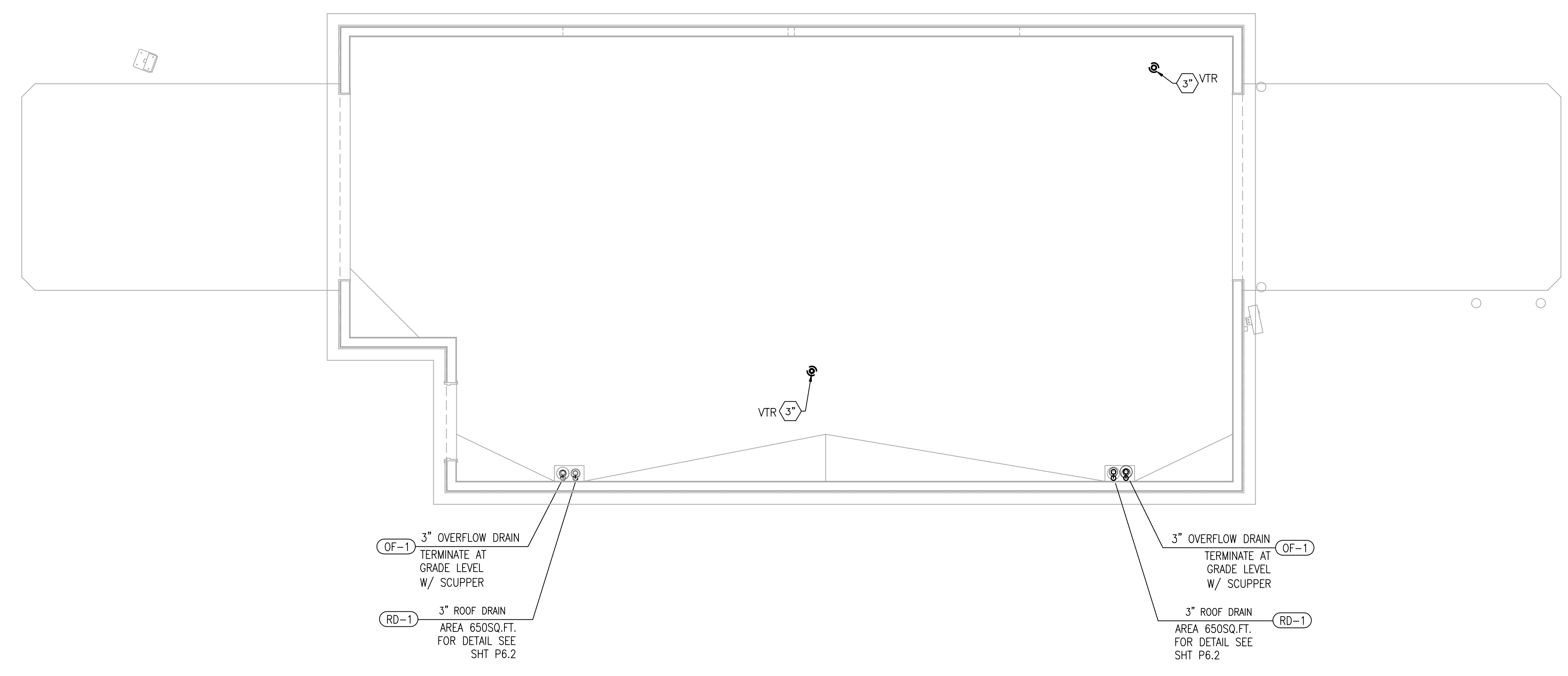
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CHECKED BY: BP REPI:  
DRAWN BY: ALLIANCE PM:  
VERSION: PROJECT NO: 21730

DRAWING TITLE:  
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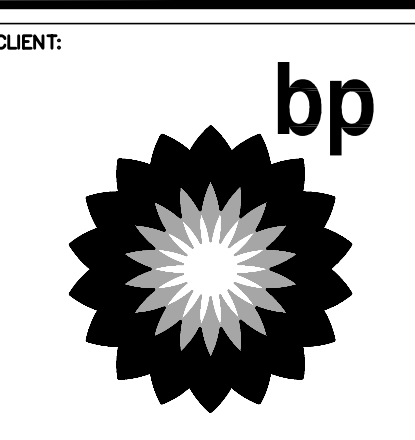
SHEET NO:  
**CWP1.1**



**1 CARWASH WATER PLUMBING PLAN**  
1/4" = 1'-0"

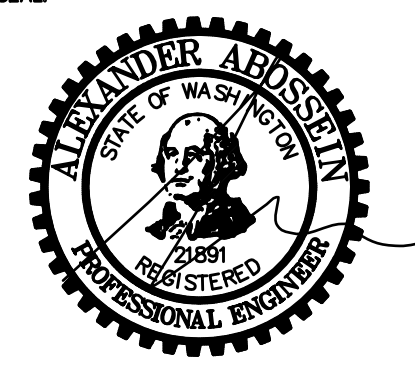


**2 CARWASH ROOF PLAN**  
1/4" = 1'-0"



**B**  
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18215 72nd Avenue South  
Kent, WA 98032  
425.251.6222  
barghausen.com

NO.	DATE	REVISION DESCRIPTION



DEVELOPMENT INFORMATION:  
**ARCO NTI**  
3400 am/pm  
FUEL CANOPY w/ 6 MPD's

SITE ADDRESS:  
**SWC S MERIDIAN**  
@ HIGHWAY 512  
PUTALLUP, WASHINGTON

**FACILITY #7184**  
DESIGNED BY: ALLIANCE ZADM:  
CHECKED BY: BP REPI:  
DRAWN BY: ALLIANCE PM:  
VERSION: PROJECT NO:  
21730

DRAWING TITLE:  
**CARWASH WATER AND ROOF PLAN**

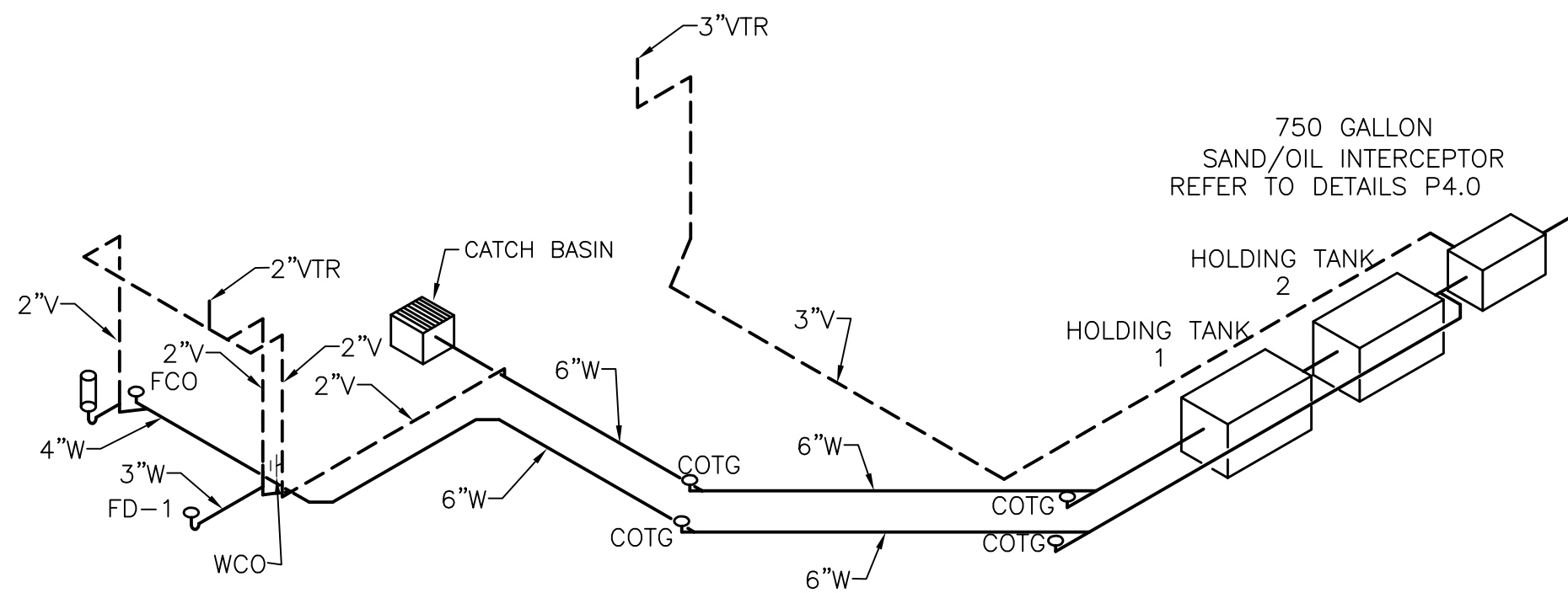
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ABOSSEIN #223054

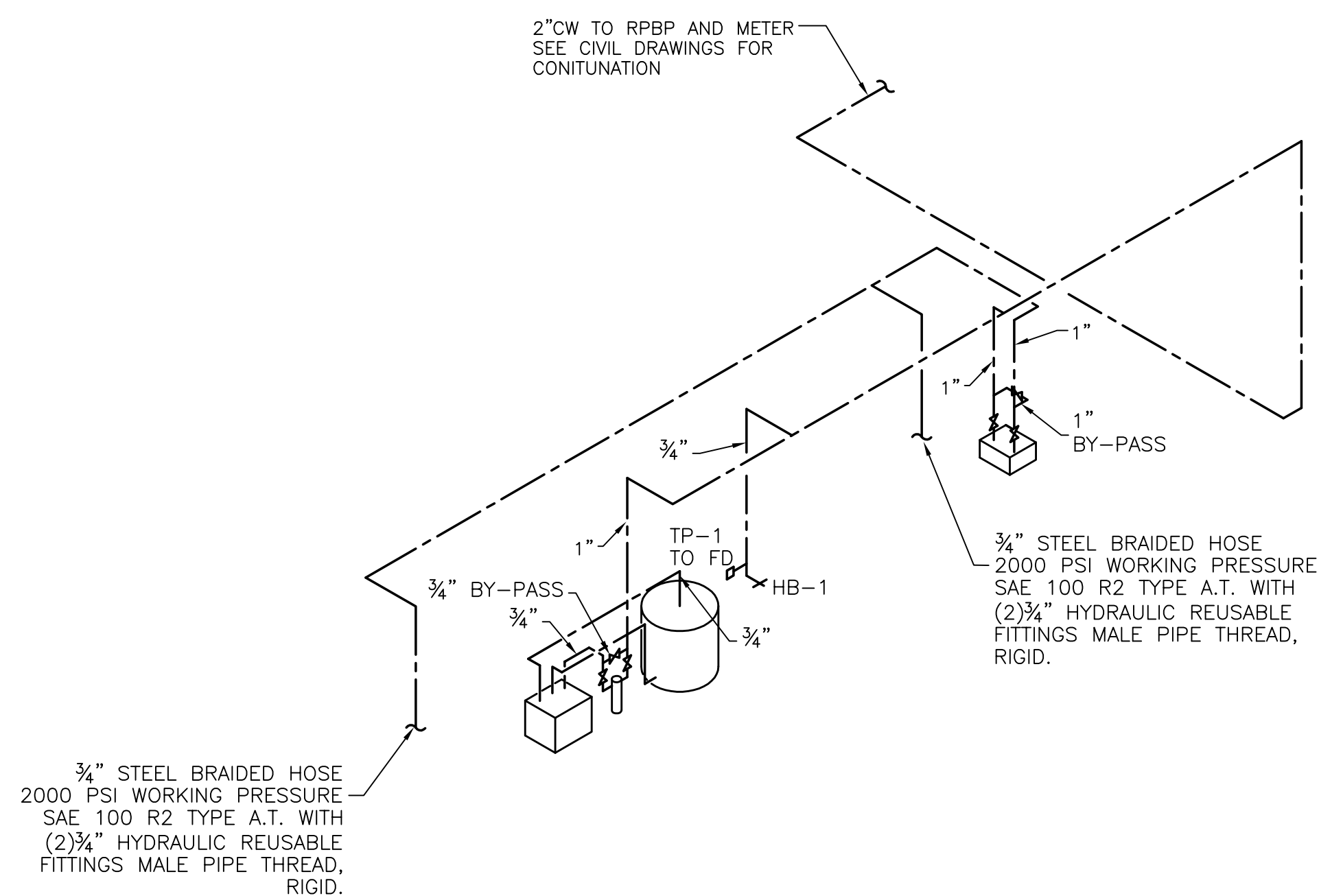
**Abossein Engineering, L.L.C.**

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VERIFY ALL PLUMBING ROUGH-IN DIMENSIONS WITH ARCHITECTURAL DRAWINGS PRIOR INSTALLATION



**1 WASTE AND VENT RISER DIAGRAM**  
NONE



**2 WATER RISER DIAGRAM**  
NONE

**EQUIPMENT SCHEDULE**

NO.	ITEM / DESCRIPTION
EW6	TRENCH MOUNTED UNDERCAR MANIFOLD
EW8	SOFTGLOSS FLOOR TRACKS
EW9	SOFTGLOSS FLOOR MOUNT BOOM STAND
EW10	SOFTGLOSS CABLE MOUNT BRACKET
EW11	WASH BAY TERMINAL BOX
EW12	LOW PROFILE GUIDE RAILS (2 PLCS)
EW13	SOFTGLOSS WASH MACHINE
EW14	SUMLINE DRYER PNEUMATIC CONTROL BOX
EW16	SUMLINE DRYER (3 FAN)
EW24	FRESH WATER BACKUP VALVE ASSEMBLY
EW25	EV ULTRACLEAR RELCMAI SYSTEM 40 GPM W/ OZONE
EW26	OFFBOARD CHEMICAL INJECTION PUMP/ WITH CHEMICAL CONTAINERS
EW27	ONBOARD HP PUMP W/ CONTROL BOX
EW28	HP DIVERTER VALVES
EW29	OFF-BOARD RINSE VALVE
EW32	165 GALLON R.O. STORAGE TANK
EW33	CARBON FILTER
EW34	RAINMAKER III R.O. SYSTEM
EW35	AIR COMPRESSOR, 5 HP, 3 PH

**GENERAL NOTES**

- COORDINATE WITH STRUCTURAL FOR EXACT LOCATION OF ALL STRUCTURAL FRAMING AND FOOTINGS AND FINALIZE THE EXACT ROUTING OF ALL PIPES WITH STRUCTURAL AND AT SITE PRIOR AND DURING THE CONSTRUCTION.
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- PROVIDE HEAT TAP ON PLUMBING IN CARWASH BAY.

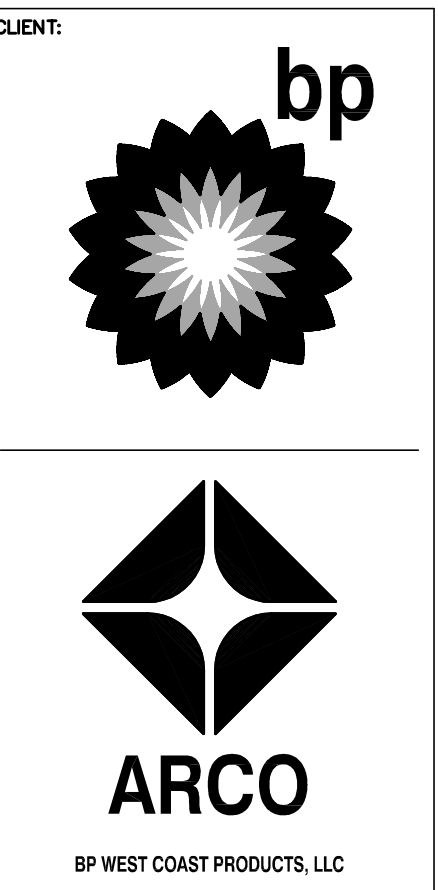
**PLUMBING FIXTURE SCHEDULE**

MARK	EQUIPMENT	DISCRIPTION	SUPPLY PIPING	WASTE PIPING	MANUFACTURER/MODEL	NOTES
HB-1	HOSE BIBB	ANTI-SIPHON, AUTOMATIC DRAINING, FREE=PROOF TYPE WITH NICKEL BRONZE COVER	3/4" CW	SEE PLAN	ZURN #Z-1321-C-04	(1)
FD-1	FLOOR DRAIN	PVC FLOOR DRAIN WITH PVC TOP HOUSING, PVC FLASHING COLLAR AND WITH CAST METAL RING AND ROUND STRAINER	----	SEE PLAN	SIoux CHEIF 863-44Nq	(2) (3)
TP-1	TRAP PRIMER		1/2"	----	ZURN SANI-GUARD Z-1022	
CB-1	CATCH BASIN	24"x24" POLYETHYLENE BODY CATCH BASIN WITH BLACK ACID RESISTANT COATED DUCTILE IRON GRATE AND FRAME.		4"	ZURN Z-887	
HD-1	HUB DRAIN	HUB DRAIN FOR RAINMAKER RO SYSTEM			BRADLEY S19-620	

- NOTES:
- USE 4" WALL HYDRANT, ROUTE COLD WATER DROP INSIDE 6" WALL.
  - FLOOR DRAINS SHALL HAVE TRAP PRIMERS INSTALL.
  - ZURN AND WATTS ARE ACCEPTABLE ALTERNATES.

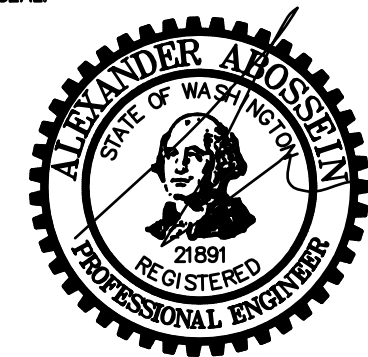
ABOSSEIN #223054

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DEVELOPMENT INFORMATION:  
**ARCO NTI**  
3400 am/pm  
FUEL CANOPY w/ 6 MPD's

SITE ADDRESS:  
**SWC S MERIDIAN**  
@ HIGHWAY 512  
PUTALLUP, WASHINGTON

**FACILITY #7184**

DESIGNED BY: ALLIANCE ZADM  
CHECKED BY: BP REPA  
DRAWN BY: ALLIANCE PK  
VERSION: PROJECT NO:  
- 21730

DRAWING TITLE:  
**CARWASH RISER DIAGRAMS**

SHEET NO:  
**CWP2.0**

GENERAL NOTES:

- ALL ELECTRICAL FITTINGS TO BE WATERTIGHT. ANY FIXTURES IN VICINITY OF WASH UNIT TO BE WATER TIGHT INCLUDING LIGHTS.
- ALL ELECTRICAL WIRING, INCLUDING CONTROL WIRING, TO BE FURNISHED AND INSTALLED BY ELECTRICIAN.
- CONTROL WIRING CONDUIT AND WIRE AS WELL AS HIGH VOLTAGE CONDUIT AND WIRE TO BE FURNISHED AND INSTALLED BY ELECTRICIAN.
- ACCESS POINT THRU BAY WALL PROVIDED BY OTHERS.
- INTERCONNECTING PIPING FOR ABOVE GROUND RECLAIM SYSTEM PROVIDED AND INSTALLED BY PLUMBER.
- AIR LINE PIPING FURNISHED AND INSTALLED BY PLUMBER.
- DRILL A 1/4" DIAMETER DRAIN HOLE IN THE BOTTOM OF ALL JUNCTION BOXES THAT ARE LOCATED IN THE WASH BAY.
- ALL MATERIALS TO BE PROVIDED AND INSTALLED BY CUSTOMER UNLESS OTHERWISE SPECIFIED.
- CONSULT YOUR LOCAL RYKO REPRESENTATIVE FOR DIMENSIONS OTHER THAN SHOWN.
- TERMINATE ALL PIPES WITH FEMALE PIPE THREADS UNLESS OTHERWISE NOTED.
- ALL DIMENSIONS TO BE CLEAR SPACE DIMENSIONS.
- DO NOT USE WIRE LARGER OR SMALLER THAN THOSE SPECIFIED.
- ALL WIRES #16 AWG AND SMALLER ARE TO BE TFFN STRANDED.
- ALL WIRES #14 AWG AND LARGER ARE TO BE THHN STRANDED.
- NO CONDUITS MAY ENTER THE TOP OF ANY ENCLOSURE.
- BUILDING DETAILS ARE FOR ILLUSTRATION, AND ARE NOT INTENDED FOR CONSTRUCTION, PURCHASER SHOULD CONSULT WITH A PROPERLY CERTIFIED ENGINEER, CONTRACTOR, OR ARCHITECT WITH RESPECT TO COMPLIANCE WITH LOCAL SAFETY AND BUILDING CODES, FOR NECESSARY PERMITS AND LICENSES, AND FOR APPROPRIATE CONNECTIONS OF ALL UTILITIES.

SHEET 1 OF 10

**RYKO® SOLUTIONS, INC.**  
GRIMES, IOWA, 50111 U.S.A.

GENERAL NOTES  
SOFTGLOSS  
ARCO CAR WASH  
1402 S MERIDIAN AVE  
PUYALLUP, WA  
98371

REV. DWG NO. 22798-595  
A

FOR CUSTOMER USE ONLY

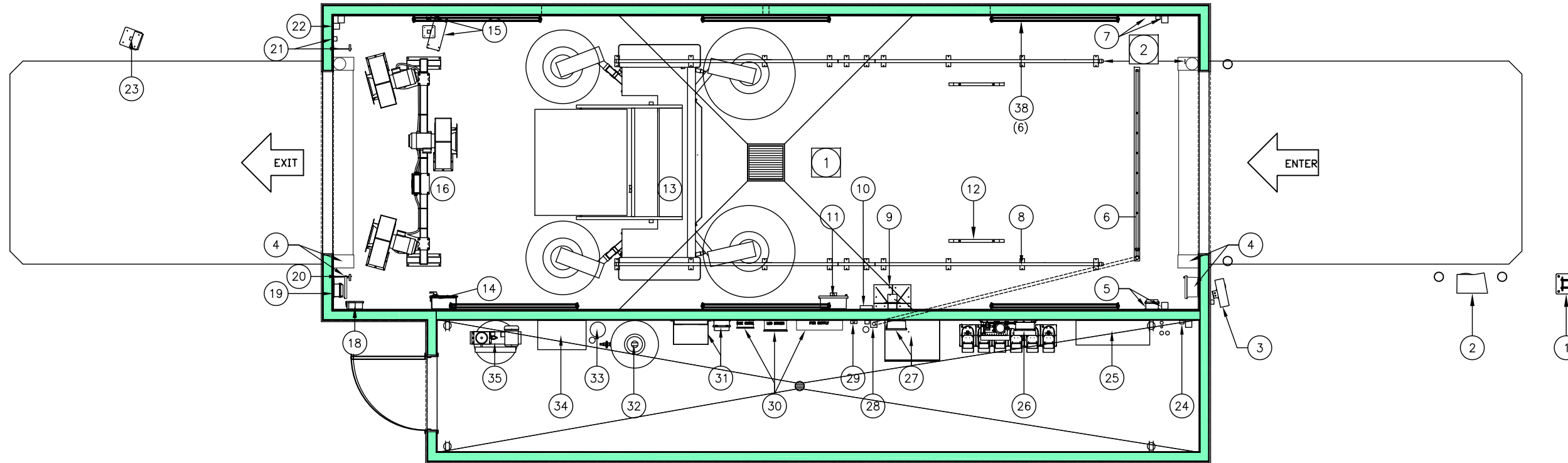
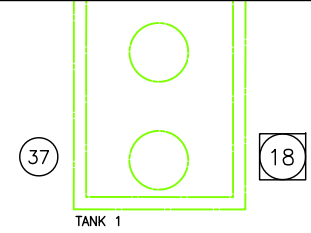
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REVISED LOCATION RECLAIM TANKS BY CIVIL PRINT		A		9999-999		-		LTR		ECO		KS		9/20/23		KS	
RELEASING DRAWING		-		9999-999		-		LTR		ECO		KS		9/13/23		APVD	
DESCRIPTION																	

NOTES:

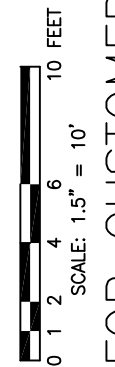
- 1 RECOMMENDED SLOPE OF FLOOR IN BAY IS 1/8" PER FOOT. EXCESSIVE SLOPE MAY AFFECT OPERATION OF THE MACHINE.
- 2 RECOMMENDED PLACEMENT OF TRACKS IN BAY SHOULD BE 4FT-6IN FROM NEAREST OBSTRUCTION.
- 3 TRENCH IN BAY FOR UNDERCAR MANIFOLD MEASURES 1-1/2" WIDE x 2" DEEP x 10'-2" LENGTH (BY OTHERS).

- 6 ACTUAL LOCATION OF THESE ITEMS MAY VARY. RECOMMENDED LOCATION SHOWN.
- 7 ACTUAL LOCATION OF ITEM WILL BE NEAR POINT OF SALE IN C-STORE.
- 8 FIRST LOCATE THE THERMOSTAT BULBS ON THE OUTSIDE OF THE NORTH WALL OUT OF DIRECT SUNLIGHT. THIS WILL THEN LOCATE THE POSITION OF THE THERMOSTAT ASSY APPROXIMATELY 4FT AWAY. TAKE CARE NOT TO CRIMP CAPILLARY TUBES LEADING TO THERMOSTAT BULBS.

- 17 TSS LED DRIVER AND DMX CONTROLLER SHOULD BE POSITIONED NEAR CENTER OF BAY FOR CABLE REACH.
- 18 REVISION A LOCATED THE RECLAIM TANKS AS POSITIONED BY THE ARCHITECT CIVIL PRINT. SEE CIVIL PRINT FOR ADDITIONAL INFORMATION.



- 4 WASH BAY SHOWN MEASURES 47'-0" LONG x 16'-0" WIDE. EQUIPMENT ROOM SHOWN MEASURES 41'-4" LONG x 7'-1 1/2" WIDE.
- 5 J-BOX REQUIRED PROVIDED BY OTHERS.



FOR CUSTOMER USE ONLY

EQUIPMENT LEGEND: PROVIDED BY RYKO UNLESS NOTED.

REFERENCE NUMBER	DESCRIPTION	REFERENCE NUMBER	DESCRIPTION	REFERENCE NUMBER	DESCRIPTION	REFERENCE NUMBER	DESCRIPTION
1	ENTRANCE ARCH w/CLEARANCE BAR	6	WASH BAY TERMINAL BOX WITH REMOTE BAY BUZZER KIT	21	AUTO DOOR PHOTOEYE W/BRACKET & AIR KNIFE DRYER PHOTOEYE LOCATION	31	BOOST PUMP SYSTEM (OPTIONAL)
2	UNITEC PORTAL TI ACTIVATION	12	LOW PROFILE GUIDE RAILS (2 PLCS)	22	DUAL THERMOSTAT ASSY	32	165 GALLON R.O. STORAGE TANK
3	3 MESSAGE LIGHTED ENTRANCE SIGN	13	SOFTGLOSS WASH MACHINE	23	DRYER COUNT DOWN TIMER SIGN	33	CARBON FILTER
4	AIRLIFT XRS VINYL ROLL UP DOORS WITH CONTROL BOX (OPTIONAL)	14	AIR KNIFE DRYER CONTROL CABINET	24	FRESH WATER BACKUP VALVE ASSY	34	RAINMAKER III R.O. SYSTEM
5	UNDERCAR ENTRANCE ACTIVATION WALL MNT PHOTOEYE & RELAY BOX	15	8 SEGMENT LIGHTED SIGN (WALL MT)	25	EV ULTRACLEAR RECLAIM SYSTEM 40GPM w/OZONE	35	AIR COMPRESSOR, 5HP, 3PH
6	HIGH PRESSURE TRENCH MOUNTED UNDERCAR MANIFOLD	16	AIR KNIFE DRYER (30HP)	26	OFFBOARD CHEMICAL INJECTION PUMP/ WITH CHEMICAL CONTAINERS	36	UNITEC P.O.S. INTERFACE
7	UNDERCAR ENTRANCE ACTIVATION BOX WALL MNT PHOTOEYE	17		27	ONBOARD HP PUMP W/CONTROL BOX	37	UNDERGROUND RECLAIM TANKS (PROVIDED BY OTHERS)
8	SOFTGLOSS FLOOR TRACKS	18	COMMUNICATION INTERFACE BOX (WITH TOUCH SCREEN AND E-STOP)	28	HP DIVERTER VALVES	38	TSS LED BAY FIXTURES (6)
9	SOFTGLOSS FLOOR MOUNT BOOM STAND	19	AUTO DOOR RELAY BOX	29	OFFBOARD RINSE VALVE/R.O.		
10	SOFTGLOSS CABLE MOUNT BRACKET	20	AUTO DOOR PHOTOEYE W/BRACKET & AIR KNIFE DRYER PHOTOEYE LOCATION	30	TSS DMX CONTROLLER-LED DRIVER -POWER SUPPLY LED LIGHTS		

SHEET 2 OF 10

RYKO SOLUTIONS, INC.

GRIMES, IOWA, 50111 U.S.A.

EQUIPMENT PLAN

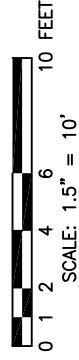
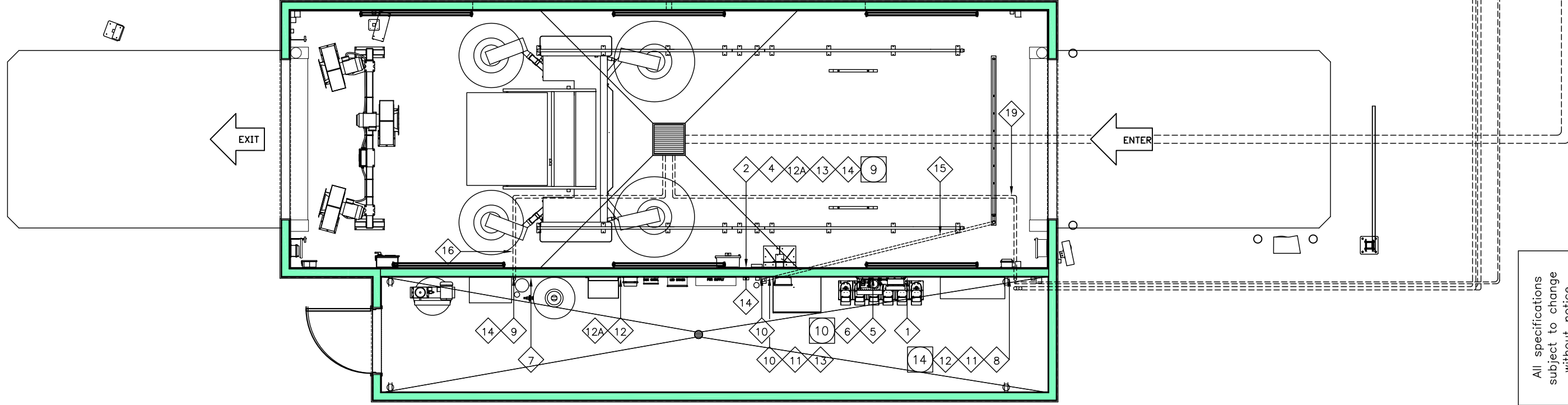
SOFTGLOSS ARCO CAR WASH

1402 S MERIDIAN AVE PUYALLUP, WA 98371

REV. DWG NO. 22798-595 A

All specifications subject to change without notice.	DATE	9/12/23	CHK'D	KS	DATE	9/13/23
	SCALE AS NOTED		DRAWN	KS	APVD	KS





SHEET 3 OF 10

**RYKO® SOLUTIONS, INC.**  
 GRIMES, IOWA, 50111 U.S.A.

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 without notice.

PLUMBING PLAN  
 SOFTGLOSS  
 ARCO CAR WASH  
 1402 S MERIDIAN AVE  
 PUYALLUP, WA  
 98371

SCALE AS NOTED	DATE
DRAWN KS	9/12/23
APVD KS	CHK'D KS
DATE 9/13/23	

REV. DWG NO. 22798-595  
 A

**FOR CUSTOMER USE ONLY**

# PLUMBING CHART

REFERENCE NUMBER	SIZE	DESCRIPTION	ORIGIN	TERMINUS	THREADING/ VALVE AT ORIGIN	THREADING/ VALVE AT TERMINUS	NOTES	REFERENCE NUMBER	SIZE	DESCRIPTION	ORIGIN	TERMINUS	THREADING/ VALVE AT ORIGIN	THREADING/ VALVE AT TERMINUS	NOTES
1	3/8"	AIR TO OFFBOARD CHEMICAL INJECTION PUMP	COMPRESSED AIR SUPPLY	WALL NEXT TO PUMP BOX	N/A	3/8" FPT SHUT-OFF VALVE	4 SCFM, 80 PSI MIN, 150 PSI MAX	11	1"	RECLAIM WATER TO HIGH PRESSURE PUMP	RECLAIM WATER	WALL NEXT TO PUMP BASE	N/A	1" FPT SHUT-OFF VALVE	18 GPM FLOW RATE @ 0-70 PSI
2	3/8"	AIR TO WASH BAY WALL	COMPRESSED AIR SUPPLY	LEFT WASH BAY WALL	N/A	3/8" FPT SHUT-OFF VALVE	5 SCFM, 100 PSI MIN, 125 PSI MAX								FILTER WATER TO 10 MICRON OR LESS.
3								12 12A	1"	RECLAIM WATER TO BOOST PUMP (12A) BOOSTED WATER TO WASH BAY WALL	INCOMING FRESH WATER	LEFT WASH BAY WALL	N/A	1" FPT SHUT-OFF VALVE	N/A
4	3/4"	FRESH WATER TO WASH BAY WALL	INCOMING FRESH WATER	LEFT WASH BAY WALL	N/A	3/4" FPT SHUT-OFF VALVE	35 GPM @ 40 PSI MIN, 125 PSI MAX	13	3/4"	HIGH PRESS LINE FROM HP PUMP TO WASH BAY WALL	ONBOARD HP PUMP	LEFT WASH BAY WALL	TERMINATE WITH 3/4" FPT	TERMINATE WITH 3/4" FPT	HIGH PRESSURE LINE (3000 PSI) MUST BE USED
5	3/4"	FRESH WATER TO OFFBOARD CHEMICAL INJECTION PUMP	INCOMING FRESH WATER	WALL UNDER INJECTION PUMP	N/A	3/4" FPT SHUT-OFF VALVE	7 GPM @ 40 PSI MIN, 75 PSI MAX	14	1"	R.O. WATER TO WASH BAY WALL	RO RINSE VALVE ASSY	LEFT WASH BAY WALL	N/A	1" FPT SHUT-OFF VALVE	N/A
6	3/4"	FRESH WATER TO COLOR WAVE VALVE ASSEMBLY	INCOMING FRESH WATER	WALL UNDER INJECTION PUMP	N/A	3/4" FPT SHUT-OFF VALVE	10 GPM @ 40 PSI MIN, 75 PSI MAX	15	1"	HIGH PRESSURE LINE TO TRENCH UNDERCAR MANIFOLD	HP DIVERTER VALVE ASSY	UNDERCAR MANIFOLD	N/A	N/A	HIGH PRESSURE LINE (3000 PSI) MUST BE USED
7	3/4"	FRESH WATER TO CARBON FILTER	INCOMING FRESH WATER	CARBON FILTER	3/4" FPT SHUT-OFF VLV	3/4" FPT SHUT-OFF VALVE	8 GPM @ 30 PSI MIN 85 PSI MAX	16	2"	FLOOR DRAIN FOR RAINMAKER III R.O. SYSTEM	FLOOR DRAIN	SANITARY SEWER	N/A	N/A	N/A
8	1" & 1/2"	14 FRESH WATER TO EV ULTRACLEAR RECLAIM	INCOMING FRESH WATER	EV ULTRACLEAR RECLAIM	1/2" & 1" FPT SHUTOFF	1/2" & 1" FPT SHUTOFF	15 GPM @ 40 PSI MIN, 125 PSI MAX	17	2"	SUCTION LINES TO RECLAIM	EV ULTRA CLEAR RECLAIM	TANK THREE OF RECLAIM SYSTEM	2" FPT	2" FULL FLAPPER CHECK VALVES	11
9	3/4"	FILTERED WATER TO RAINMAKER III R.O. SYSTEM	CARBON FILTER	RAINMAKER III R.O. SYSTEM	N/A	3/4" FPT SHUT-OFF VALVE	N/A	18	1"	OZONE/AREATION LINE	EV ULTRACLEAR RECLAIM	TANK ONE OF RECLAIM SYSTEM	1" FPT	NONE	12
10	1"	HP RECLAIM WATER TO HP DIVERTER VALVE ASSY	RECLAIM WATER	HP DIVERTER VALVE ASSY	N/A	1" FPT SHUT-OFF VALVE	N/A	19	2"	SAND TRAP/COLLECTION PIT	EV ULTRACLEAR RECLAIM	SAND TRAP/ COLLECTION PIT	2" FPT	NONE	13

**NOTES:**

- 9 ACCESS POINT THRU BAY WALL (PROVIDED BY OTHERS) MOUNT BOOM STAND, CABLE CARRIER AND WASH BAY TERMINAL BOX BEFORE HOLE LOCATION IS DETERMINED. HOLE WILL BE LOCATED BETWEEN CABLE CARRIER AND WASH BAY TERMINAL BOX. BOTTOM OF HOLE SHOULD BE 9'-6" FROM FLOOR.
- 10 RUN WATER LINE FROM FLOOR LEVEL UP TO BOTTOM OF OFFBOARD CHEMICAL INJECTION PUMP.
- 11 CONNECT THE SUCTION LINE OUTLET IN FLOOR. HOSE BARB, FLAPPER VALVE, AND SUCTION HOSE SHOWN ON DRAWING ARE PART OF SUCTION LINE SHIP KIT. THE SUCTION LINE SIZE WILL BE 2" FOR A 40 GPM RECLAIM UNIT. SUCTION LINES SHOULD BE LOCATED AS CLOSE TO THE UNIT AS POSSIBLE TO KEEP THE SUCTION LINE LENGTH TO A MINIMUM.
- 12 CONNECT THE OUTLET OF THE AREATION/OZONE INJECTION WITH THE 3/4" PROVIDED WITH THE SHIPPING KIT. CONNECT THE 3/4" HOSE TO THE 1" OUTLET ON THE FLOOR. IF THE FLOOR OUTLET IS NOT PRESENT, ROUTE THE 3/4" HOSE DIRECTLY INTO RECLAIM TANK FARTHEST FROM THE SUCTION LINES. IF NECESSARY, USE A HOSE PROTECTION PLATE TO PROTECT THE HOSE FROM BEING DRIVEN OVER.
- 13 ATTACH THE 1" HOSE PROVIDED IN THE SHIPPING KIT TO THE OUTLET OF THE 1" SOLENOID VALVE. ROUTE THE 1" HOSE TO THE 2" OUTLET ON THE FLOOR. INSERT ENOUGH 1" HOSE INTO THE 2" OUTLET TO KEEP THE 1" HOSE FROM COMING OUT WHEN WATER IS FLOWING THROUGH IT. IF THE 2" OUTLET ON THE FLOOR IS NOT PRESENT, ROUTE THE 1" HOSE TO THE TRENCH IN THE CENTER OF THE WASH BAY, ROUTE THE 1" HOSE TO THE TRENCH IN THE CENTER OF THE WASH BAY. USE A HOSE PROTECTION PLATE TO PROTECT THE HOSE FROM BEING DRIVEN OVER.
- 14 1" FRESH WATER LINE IS USED FOR FRESH WATER BACKUP THAT IS AN OPTION ON THE EV ULTRACLEAR RECLAIM SYSTEM.

**FOR CUSTOMER USE ONLY**

SHEET 4 OF 10

**RYKO® SOLUTIONS, INC.**  
GRIMES, IOWA, 50111 U.S.A.

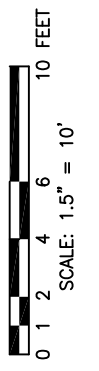
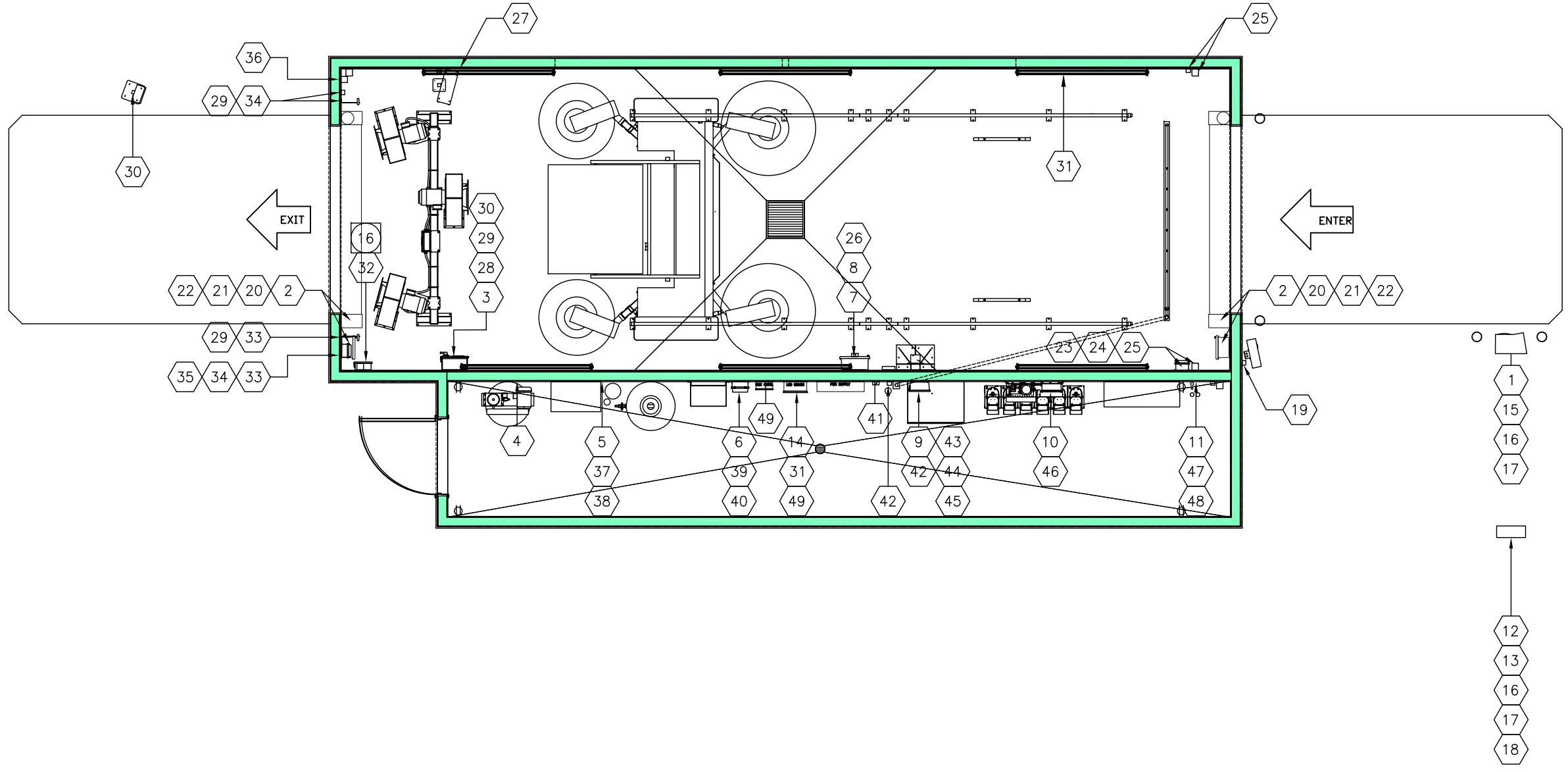
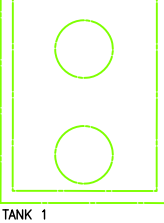
PLUMBING PLAN  
SOFTGLOSS  
ARCO CAR WASH  
1402 S. MERIDIAN AVE  
PUYALLUP, WA  
98371

All specifications subject to change without notice.	
SCALE AS NOTED	DATE 9/12/23
DRAWN KS	CHK'D KS
APVD KS	DATE 9/13/23

REV. DWG NO. 22798-595  
A

NOTES:

- 15 REFER TO SHEET 6 FOR ELECTRICAL CHART.
- 16 LOCATE COMMUNICATION INTERFACE BOX IN A CLEARLY VISIBLE AND QUICKLY ACCESSIBLE LOCATION WHERE THE OPERATOR CAN REACH IT TO STOP THE MACHINE IN AN EMERGENCY.



FOR CUSTOMER USE ONLY

SHEET 5 OF 10

**RYKO® SOLUTIONS, INC.**  
 GRIMES, IOWA, 50111 U.S.A.

ELECTRICAL PLAN  
 SOFTGLOSS  
 ARCO CAR WASH  
 1402 S MERIDIAN AVE  
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KS	KS
APVD	DATE
KS	9/13/23

REV. DWG NO. 22798-595  
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# ELECTRICAL CHART

REFERENCE NUMBER	ORIGIN	TERMINUS	QTY	WIRE/CABLE SIZE	CONDUIT	NOTES	REFERENCE NUMBER	ORIGIN	TERMINUS	QTY	WIRE/CABLE SIZE	CONDUIT	NOTES
1	ELECTRICAL SERVICE	UNITEC PORTAL TI ACTIVATION	1	3-#14 AWG WIRES BLACK/WHITE/GREEN	3/4-1"	8 AMP, SINGLE PHASE, 120 VAC DEDICATED POWER	26	WASH BAY TERMINAL BOX	REMOTE BAY BUZZER KIT	2	#14 AWG WIRES	1/2"	(J-BOX BY OTHERS)
2	ELECTRICAL SERVICE	AIRLIFT XRS ROLL UP DOORS CONTROL BOX	2		AS REQD	20 AMP, SINGLE PHASE, 120VAC	27	WASH BAY TERMINAL BOX	8 SEGMENT LIGHTED SIGN	9 1	#14 AWG WIRES #14 AWG GREEN WIRE	3/4"	(J-BOX BY OTHERS)
3	ELECTRICAL SERVICE	AIR KNIFE DRYER/CONTROL CABINET	1		AS REQD	92.4 FLA, 208VAC, 3 PHASE OR 84 FLA, 230VAC, 3 PHASE	28	WASH BAY TERMINAL BOX	AIR KNIFE DRYER/ELECTRICAL CONTROL CABINET	12 1	#16 AWG WIRES #16 AWG GREEN WIRE	3/4"	
4	ELECTRICAL SERVICE	AIR COMPRESSOR, 5HP, 3PH	1		AS REQD	16 AMP, 3 PHASE, 208/230VAC W/GROUND	29	AIR KNIFE DRYER/ELECTRICAL CONTROL CABINET	PHOTOEYES FOR DRYER		CABLES SUPPLIED WITH PHOTOEYES (2)	1/2"	
5	ELECTRICAL SERVICE	RAINMAKER III R.O. SYS W/REPRESSURIZATION	1		AS REQD	15 AMP, 3 PHASE, 208/230VAC W/GROUND	30	AIR KNIFE DRYER/ELECTRICAL CONTROL CABINET	DRYER COUNT DOWN TIMER DISPLAY	6 1	#16 AWG WIRES #16 AWG GREEN WIRE	1/2"	
6	ELECTRICAL SERVICE	BOOST PUMP SYSTEM CONTROL BOX	1		AS REQD	15 AMP, 3 PHASE, 208/230 VAC (W/DISCONNECT WITHIN SIGHT)	31	ALL WIRING REQUIREMENTS FOR TSS LIGHTS AND CONTROLLERS SHOWN ON SHEET 7 THRU 10 DRAWING 28980-000 FOR INSTALLATION				AS REQD	SEE SHEET 7 THRU 10
7	ELECTRICAL SERVICE	WASH BAY TERMINAL BOX	1		AS REQD	35 AMP, 3 PHASE, 208/230VAC	32	WASH BAY TERMINAL BOX	COMMUNICATION INTERFACE BOX	4 1 1	#14 AWG WIRES #14 AWG GREEN WIRE 4 PAIR SHIELDED CABLE SUPPLIED BY RYKO WITH MACHINE BOOM	1/2"	
8	ELECTRICAL SERVICE	WASH BAY TERMINAL BOX	1		AS REQD	15 AMP, SINGLE PHASE, 120 VAC	33	AUTO DOOR RELAY BOX	PHOTOEYE W/DOOR BRACKET (DRIVER SIDE)		CABLE PROVIDED	1/2"	
9	ELECTRICAL SERVICE	ONBOARD H.P. PUMP CONTROL BOX	1		AS REQD	60 AMP, 3 PHASE, 208/230 VAC 15 AMP, SINGLE PHASE, 120VAC	34	AUTO DOOR RELAY BOX	PHOTOEYE W/DOOR BRACKET (PASSENGER SD)		CABLE PROVIDED	1/2"	(J-BOX BY OTHERS)
10	ELECTRICAL SERVICE	OFFBOARD CHEMICAL INJECTION PUMP	1		AS REQD	10 AMP, 3 PHASE, 208/230 VAC (J-BOX BY OTHERS)	35	WASH BAY TERMINAL BOX	AUTO DOOR RELAY BOX	4	#14 AWG WIRES	1/2"	
11	ELECTRICAL SERVICE	EV ULTRACLEAR RECLAIM SYSTEM	1		AS REQD	25 AMP, 3 PHASE, 208/230 VAC 15 AMP, SINGLE PHASE, 120VAC	36	WASH BAY TERMINAL BOX	DUAL THERMOSTAT ASSY	3	#14 AWG WIRES	1/2"	SEE SHEET 2 NOTE 8 FOR MOUNTING LOCATION
12	ELECTRICAL SERVICE	UNITED P.O.S. INTERFACE	1		AS REQD	15 AMP, SINGLE PHASE, 120VAC RECEPTACLE	37	WASH BAY TERMINAL BOX	RAINMAKER III R.O. SYSTEM	5 1	#14 AWG WIRES #14 AWG GREEN WIRE	1/2"	
13	ELECTRICAL SERVICE	ROUTER	1		AS REQD	15 AMP, SINGLE PHASE, 120VAC RECEPTACLE	38	RAINMAKER III R.O. SYSTEM	R.O. STORAGE TANK FLOAT SWITCH	2	#14 AWG WIRES	1/2"	
14	ELECTRICAL SERVICE	TSS LED DRIVER	1		AS REQD	10 AMP, 240VAC, SINGLE PHASE	39	WASH BAY TERMINAL BOX	BOOST PUMP CONTROL BOX	5	#14 AWG WIRES	1/2"	
15	WASH BAY TERMINAL BOX	UNITEC PORTAL TI ACTIVATION	10 1	#14 AWG WIRES #14 AWG GREEN WIRE	3/4-1"		40	BOOST PUMP CONTROL BOX	BOOST PUMP MOTOR	3 1	#14 AWG WIRES #14 AWG GREEN	1/2"	
16	UNITEC PORTAL TI ACTIVATION	UNITEC P.O.S. INTERFACE (INSIDE STORE)	INTERCOM PHONE NETWORK	4-#22 AWG WIRES 1 2PR / 4 COND 1 CAT 5E CABLE	3/4-1"		41	WASH BAY TERMINAL BOX	OFFBOARD RINSE VALVE/R.O.	3	#14 AWG WIRES	1/2"	
17	UNITEC PORTAL TI ACTIVATION	UNITEC ROUTER	1	CAT 5 COMMUNICATION CABLE	3/4-1"		42	ONBOARD HP PUMP CONTROL BOX	HP DIVERTER VALVE ASSEMBLY	4	#14 AWG WIRES	1/2"	
18	UNITEC ROUTER	INTERNET REQUIRED	1	AS REQUIRED	3/4-1"		43	WASH BAY TERMINAL BOX	ONBOARD H.P. PUMP CONTROL BOX	5	#14 AWG WIRES	1/2"	
19	WASH BAY TERMINAL BOX	3 MESSAGE LIGHTED ENTRANCE SIGN	4 1	#14 AWG WIRES #14 AWG GREEN WIRE	1/2"	(J-BOX BY OTHERS)	44	ONBOARD HP PUMP CONTROL BOX	PUMP INLET WATER SOLENOID JUNCTION BOX	2	#14 AWG WIRES	1/2"	
20	WASH BAY TERMINAL BOX	AIRLIFT DOORS CONTROL BOX (ENTRANCE & EXIT)	6	#14 AWG WIRES	1/2"		45	ONBOARD HP PUMP CONTROL BOX	ONBOARD HP PUMP MOTOR	3 1	#6 OR 10 AWG WIRES #6 OR 10 AWG GREEN	3/4"	
21	AIRLIFT DOORS CONTROL BOX (ENTRANCE & EXIT)	AIRLIFT DOOR MOTOR (POWER)	4	#12 AWG WIRES RED,WHITE,BLACK,GRN	1/2"		46	WASH BAY TERMINAL BOX	OFFBOARD CHEMICAL INJECTION PUMP (J-BOX BY OTHERS)	2 1 10	#14 AWG WIRES #14 AWG GREEN WIRE #18 AWG WIRES	3/4"	
22	AIRLIFT DOORS CONTROL BOX (ENTRANCE & EXIT)	PHOTOEYE TRANSMITTER AND RECEIVER		PROVIDED BY AIRLIFT	1/2"		47	WASH BAY TERMINAL BOX	EV ULTRACLEAR RECLAIM SYSTEM	4	#14 AWG WIRES	1/2"	
23	ONBOARD HP PUMP CONTROL BOX	ENTRANCE ACTIVATION RELAY BOX (UNDERCAR)	4	#14 AWG WIRES	1/2"		48	EV ULTRACLEAR RECLAIM SYSTEM	FRESH WATER BACKUP VALVE SOLENOID	2	#14 AWG WIRES (J-BOX BY OTHERS)	1/2"	
24	ENTRANCE ACTIVATION RELAY BOX (UNDERCAR)	FLOOR MOUNT PHOTOEYE (DRIVER SIDE)		CABLE PROVIDED	1/2"		49	LED DRIVER (TSS LIGHTS)	DMX CONTROLLER	1	CAT 5 COMMUNICATION CABLE	AS REQD	
25	ENTRANCE ACTIVATION RELAY BOX (UNDERCAR)	FLOOR MOUNT PHOTOEYE (PASSENGER SIDE)		CABLE PROVIDED	1/2"	(J-BOX BY OTHERS)	PROVIDED AND INSTALLED BY ELECTRICIAN						

SHEET 6 OF 10

**RYKO SOLUTIONS, INC.**  
GRIMES, IOWA, 50111 U.S.A.

ELECTRICAL PLAN  
SOFTGLOSS  
ARCO CAR WASH  
1402 S. MERIDIAN AVE  
PUYALLUP, WA  
98371

All specifications subject to change without notice.

SCALE	DATE
NONE	9/12/23
DRAWN	CHK'D
KS	KS
APVD	DATE
KS	9/13/23

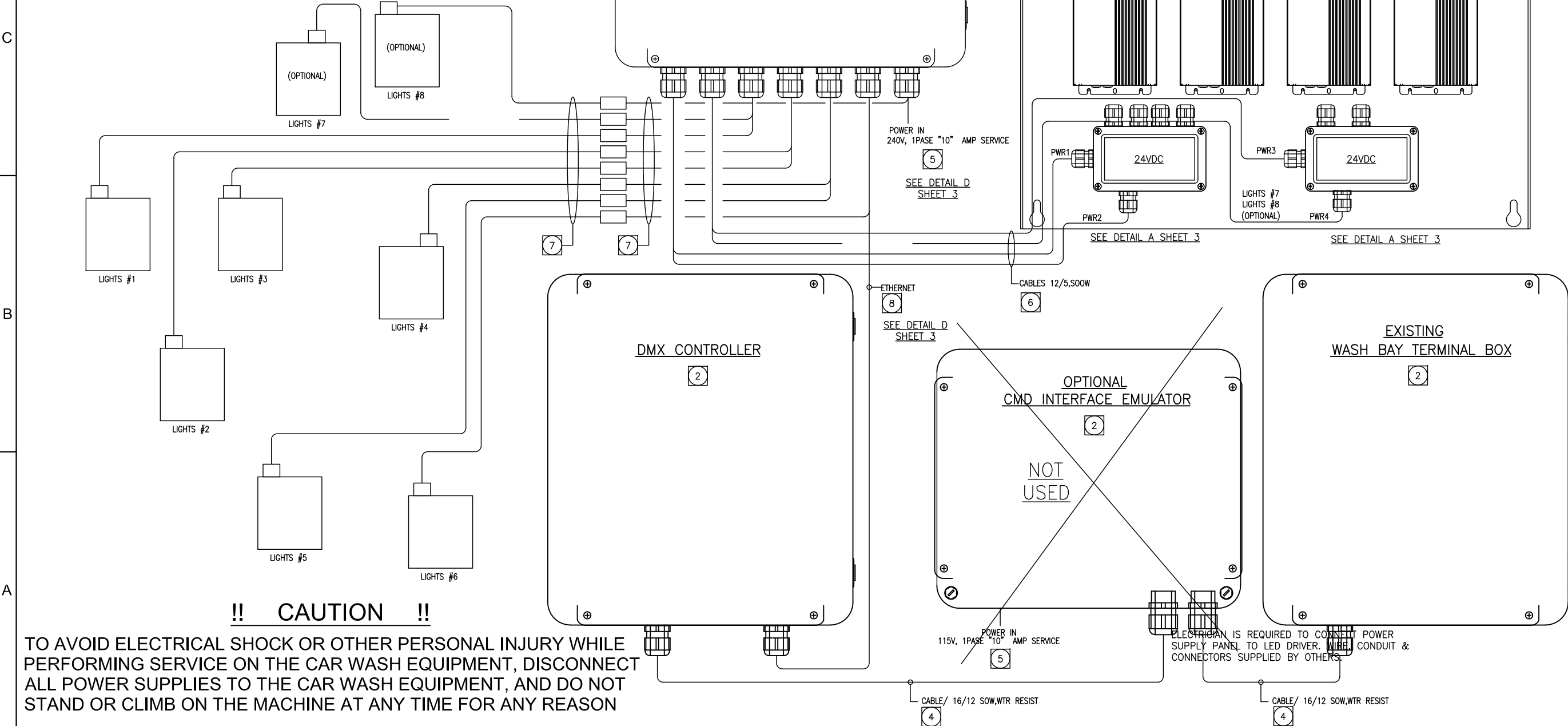
REV. DWG NO. 22798-595  
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FOR CUSTOMER USE ONLY

NOTES:

- 1 SITE SURVEY IS REQUIRED FOR THE PRODUCT. CONFIRM SPACE FOR PANEL PLACEMENTS, LIGHT SUSPENSION NEEDS, AND CABLE LENGTHS. DETERMINE WHETHER SITE HAS CMD INTERFACE AVAILABLE AND ADD TO ORDER IF NECESSARY. FAILURE TO COMPLETE A SITE SURVEY WILL LEAD TO DELAYS ON INSTALLATION.
- 2 THE DMX CONTROLLER BOX OR CMD INTERFACE EMULATOR (IF PRESENT) TO BE MOUNTED IN A CONVENIENT LOCATION. EITHER THE DMX CONTROLLER OR CMD INTERFACE EMULATOR (IF PRESENT) MUST BE WITHIN 15 FEET OF EXISTING WASH BAY TERMINAL BOX.
- 3 THE LED DRIVER BOX AND POWER SUPPLY PANEL MUST BE LOCATED NEAR EACH OTHER AND THE PAIR OF PANELS MUST BE LOCATED SO THAT THE 40FT CABLE CAN REACH THE FARTHEST LIGHT (80FT WITH EXTENSION).
- 4 CABLES SUPPLIED BY NCS (CMD INTERFACE EMULATOR) AND INSTALLED BY ELECTRICIAN TO THE TSS DMX CONTROLLER & EXISTING WASH BAY TERMINAL BOX.
- 5 ELECTRICIAN IS REQUIRED TO CONNECT PANEL TO SERVICE. WIRE, CONDUIT & CONNECTORS SUPPLIED BY OTHERS.
- 6 CABLES SUPPLIED BY NCS (POWER SUPPLY) AND INSTALLED BY ELECTRICIAN TO THE LED DRIVER.
- 7 CABLES SUPPLIED BY NCS (LIGHTS) AND INSTALLED BY ELECTRICIAN.
- 8 ETHERNET CABLE SUPPLIED BY ELECTRICIAN AND INSTALLED BY ELECTRICIAN.
- 8 ELECTRICIAN IS REQUIRED TO CONNECT POWER SUPPLY PANEL TO LED DRIVER. WIRE, CONDUIT & CONNECTORS SUPPLIED BY OTHERS.

GENERAL NOTES:  
 - ALL CONSTRUCTION TO MEET ALL APPLICABLE LOCAL, STATE, AND NATIONAL CODES.  
 - ALL ELECTRICAL FITTINGS TO BE WATERTIGHT.  
 - NO CONDUITS MAY BE INSTALLED IN THE TOP OF ANY ENCLOSURE.



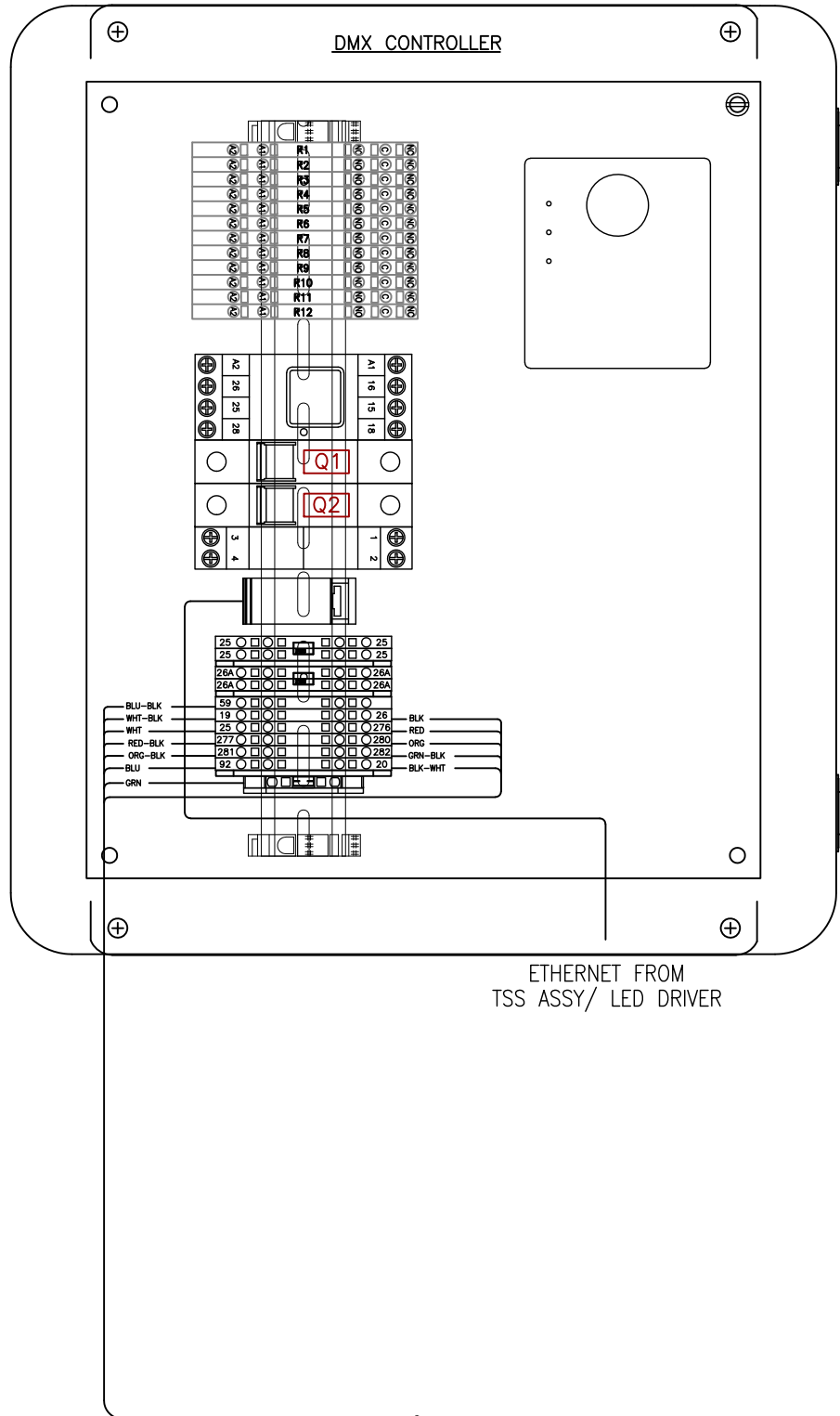
**!! CAUTION !!**

TO AVOID ELECTRICAL SHOCK OR OTHER PERSONAL INJURY WHILE PERFORMING SERVICE ON THE CAR WASH EQUIPMENT, DISCONNECT ALL POWER SUPPLIES TO THE CAR WASH EQUIPMENT, AND DO NOT STAND OR CLIMB ON THE MACHINE AT ANY TIME FOR ANY REASON



Grimes, IA  
 Barrie, Ontario  
 www.nationalcarwashsolutions.com

Material:	WS	01/31/19	Part Name:	INSTALL/ TSS LIGHTS	Revision	C
Checked by:	TW	01/31/19	Drawn By:	TW	Page	1 of 4
Date:	01/31/19	Date:	01/31/19	Part Number:	28980-000	
All specifications subject to change without notice.						
ADD SWITCH DEFINITIONS NOTES	TW	5/26/20	Date	APVD		
REVISED DMX DECODER WIRING & ADDED SHEET 4	TW	8/15/19	Date	APVD		
ADDED CMD INTERFACE EMULATOR & ADDED SHEET 2 & 3	TW	5/31/19	Date	APVD		
RELEASE DRAWING	WS	3/29/19	Date	APVD		
Rev	ECN	Description				



⚠️ DEFAULT SETTINGS FOR SWITCHES ON THE FRONT OF THE DMX CONTROLLER;  
 IDLE SHOW ENABLE:MANUAL  
 LIGHT DISABLE CONTROL: WASH CLOSED  
 IDLE SHOW SELECTOR: DEFAULT

SWITCH DEFINITIONS:

IDLE SHOW ENABLE CONTROL:

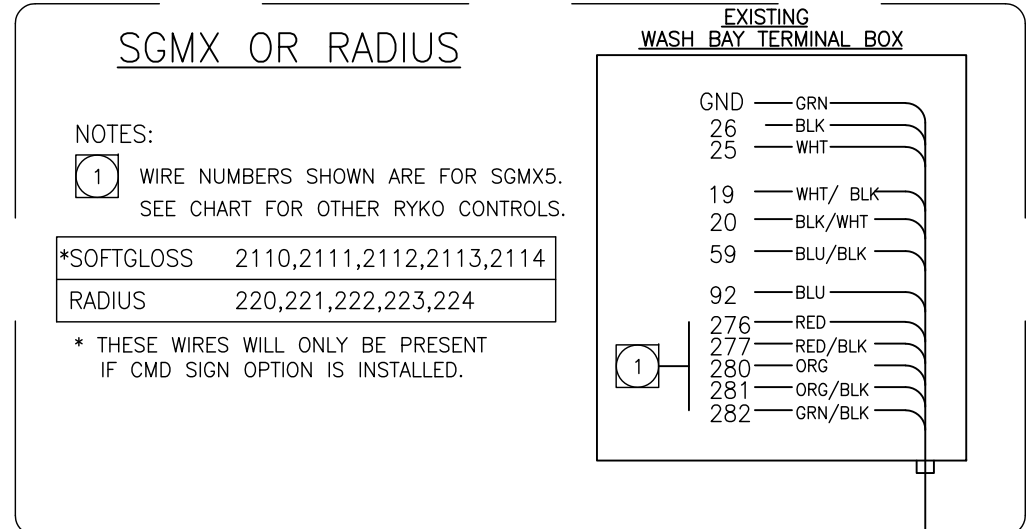
ALLOWS THE IDLE SHOW TO BE ENABLED MANUALLY OR VIA THE TIMER INSIDE THE BOX. MANUAL MODE HAS THE IDLE SHOW ENABLED AND ON ALL THE TIME WHILE STILL ALLOWING THE IN WASH SHOW TO RUN. TIMER MODE ENABLES THE IDLE SHOW ON A SCHEDULE CONTROLLED BY THE TIMER MODULE INSIDE THE BOX. PROGRAM TIMER ACCORDING TO CUSTOMER REQUIREMENTS, TIME OUTPUT IS ON FOR IDLE SHOW TO BE ENABLED. TIMER INSTRUCTIONS SHOULD BE INCLUDED WITH CONTROL BOX OR CAN BE FOUND VIA A GOOGLE SEARCH FOR THE TIMER MODEL NUMBER.

LIGHT DISABLE CONTROL:

ALLOWS THE LIGHTS TO BE DISABLED MANUALLY (TURNED OFF) OR ONLY DISABLED WHEN THE WASH CLOSED SIGNAL IS ACTIVE, I.E. ANY TIME THE COIN BOX WOULD SHOW THE CAR WASH IS CLOSED OR OUT OF ORDER. THE INTENT HERE IS TO AUTOMATICALLY TURN OFF ANY LIGHT DISPLAY INCLUDING ANYTIME THE IDLE SHOW MAY BE RUNNING IF THE WASH IS INOPERATIVE AND NOT ATTRACT CUSTOMERS TO A NON-WORKING WASH.

IDLE SHOW SELECTOR:

DEFAULT SHOW: MULTI COLOR EFFECT WITH DIFFERENT EFFECTS AND TRANSITIONS BETWEEN MANY DIFFERENT COLORS DESIGNED TO CATCH THE EYE AND DRAW CUSTOMERS IN.  
 ALTERNATE 1: RED WHITE AND BLUE THEME FOR 4<sup>TH</sup> OF JULY AND OTHER PATRIOTIC HOLIDAYS  
 ALTERNATE 2: RED AND GREEN HOLIDAY COLOR SHOW



**NCS**  
 NATIONAL CARWASH SOLUTIONS

Material: \_\_\_\_\_  
 Part Name: **INSTALL/ TSS LIGHTS**  
 Part Number: **28980-000**

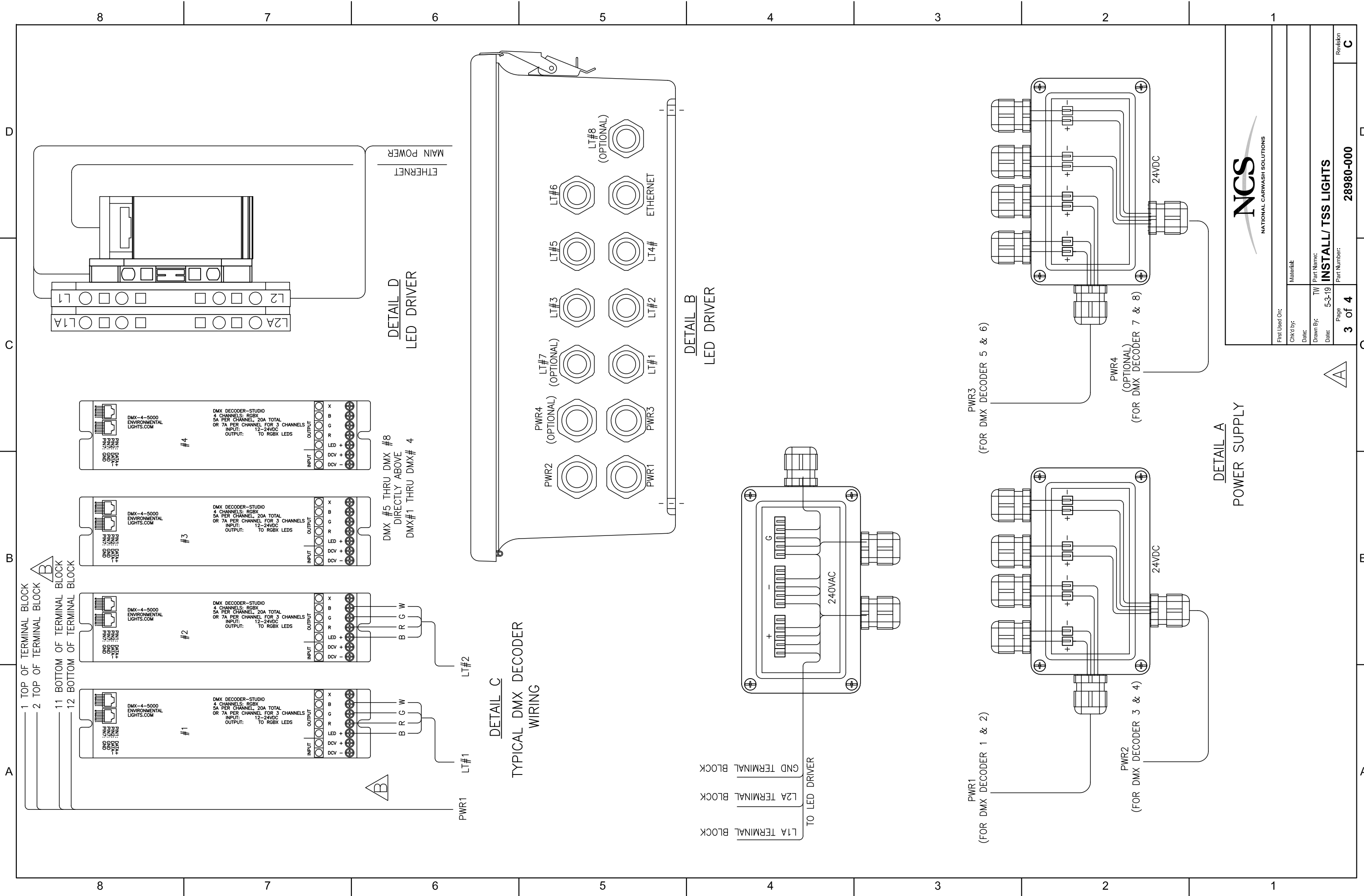
First Used On: \_\_\_\_\_  
 Ck'd by: \_\_\_\_\_  
 Date: \_\_\_\_\_  
 Drawn By: TW  
 Date: 5-3-19

Page **2** of **4**

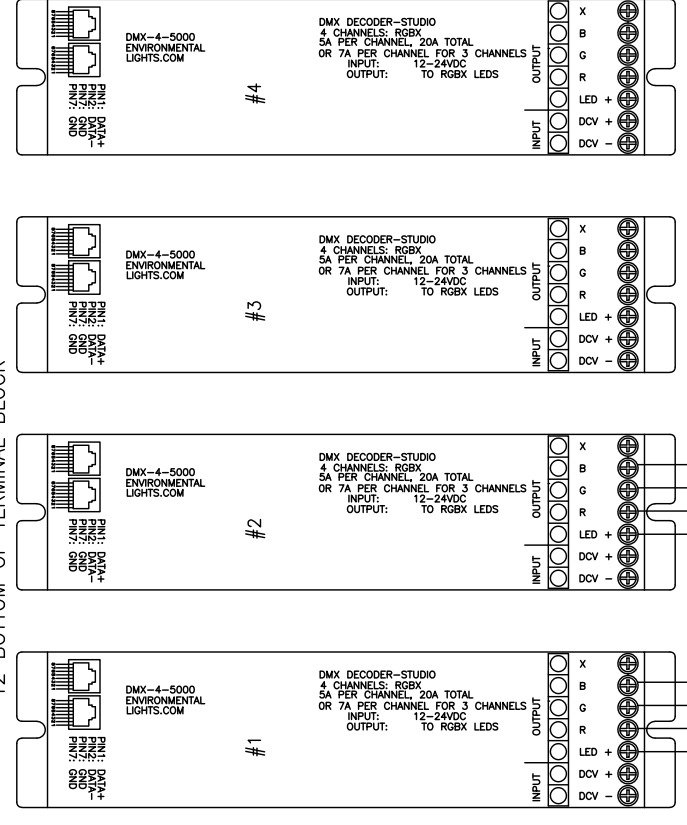
Revision **C**

**!! CAUTION !!**

TO AVOID ELECTRICAL SHOCK OR OTHER PERSONAL INJURY WHILE PERFORMING SERVICE ON THE CAR WASH EQUIPMENT, DISCONNECT ALL POWER SUPPLIES TO THE CAR WASH EQUIPMENT, AND DO NOT STAND OR CLIMB ON THE MACHINE AT ANY TIME FOR ANY REASON



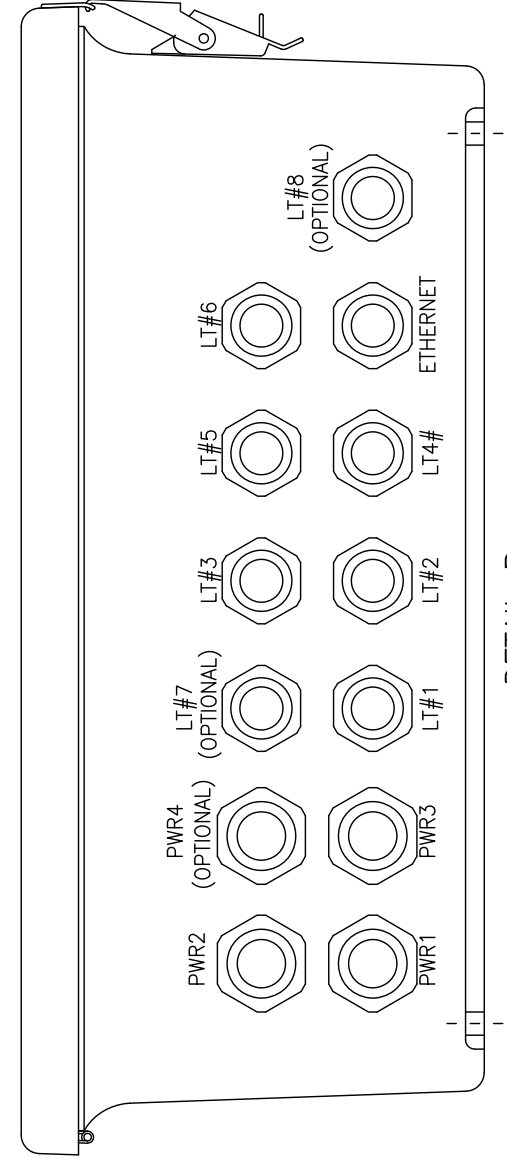
1 TOP OF TERMINAL BLOCK  
 2 TOP OF TERMINAL BLOCK  
 11 BOTTOM OF TERMINAL BLOCK  
 12 BOTTOM OF TERMINAL BLOCK



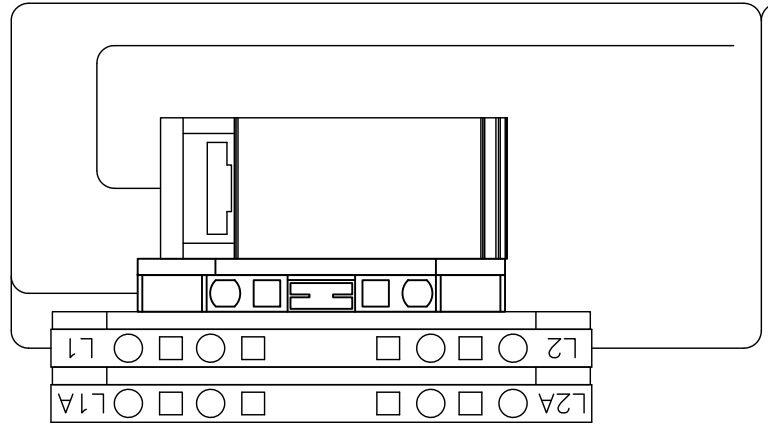
DMX #5 THRU DMX #8  
 DIRECTLY ABOVE  
 DMX#1 THRU DMX#4

PWR1 LT#1  
 LT#2

**DETAIL C**  
 TYPICAL DMX DECODER  
 WIRING

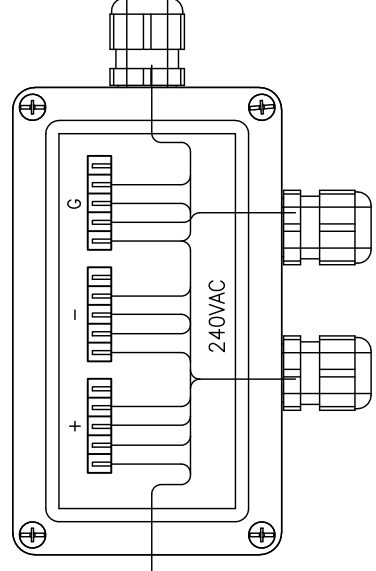


**DETAIL B**  
 LED DRIVER

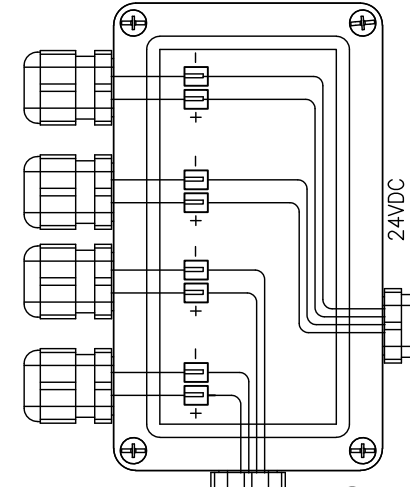


**DETAIL D**  
 LED DRIVER

L1A TERMINAL BLOCK  
 L2A TERMINAL BLOCK  
 GND TERMINAL BLOCK  
 TO LED DRIVER

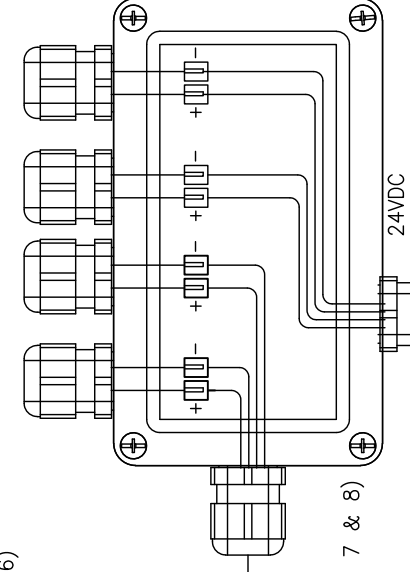


PWR1  
 (FOR DMX DECODER 1 & 2)



PWR2  
 (FOR DMX DECODER 3 & 4)

PWR3  
 (FOR DMX DECODER 5 & 6)



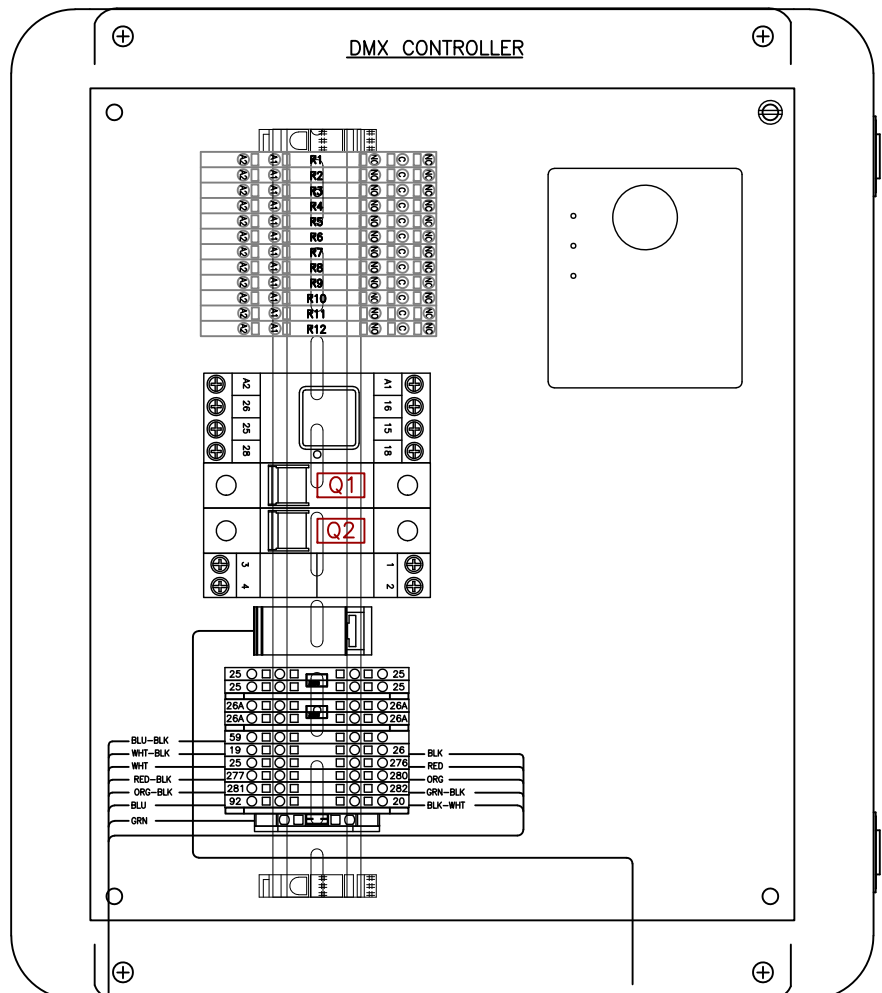
PWR4  
 (OPTIONAL)  
 (FOR DMX DECODER 7 & 8)

**DETAIL A**  
 POWER SUPPLY



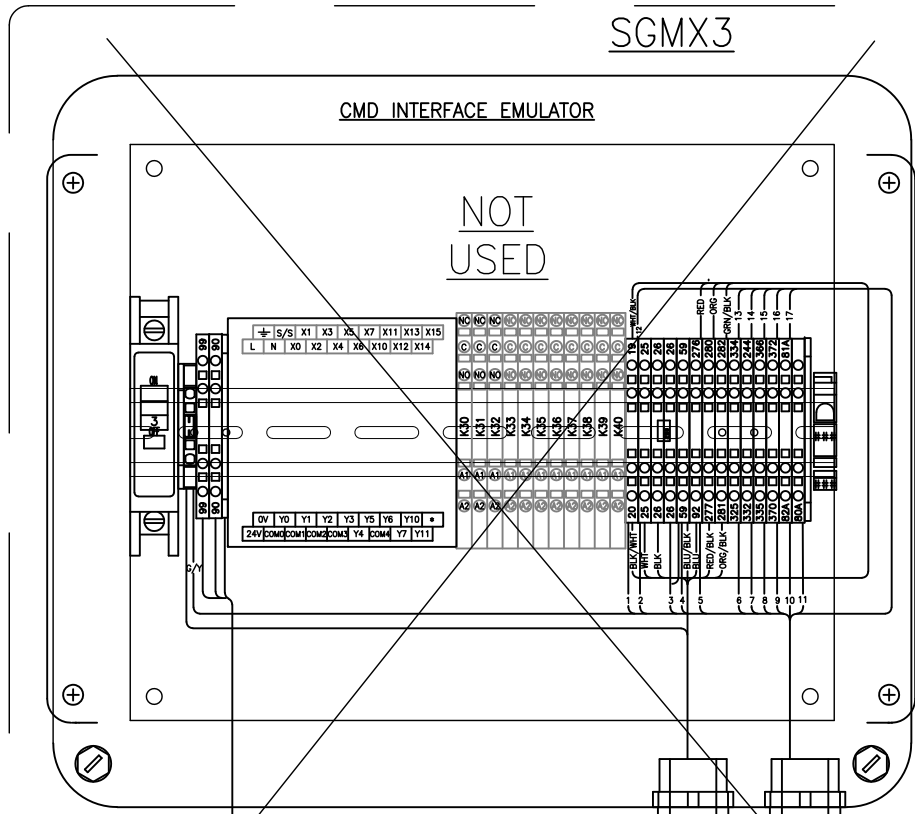
First Used On:	Material:	Part Name:	Revision
Checked by:	Date:	TW	C
Drawn By:	Date:	5-3-19	
Page		3 of 4	
Part Number:		28980-000	
Part Name:		INSTALL/ TSS LIGHTS	

8 7 6 5 4 3 2 1



ETHERNET FROM  
TSS ASSY/ LED DRIVER

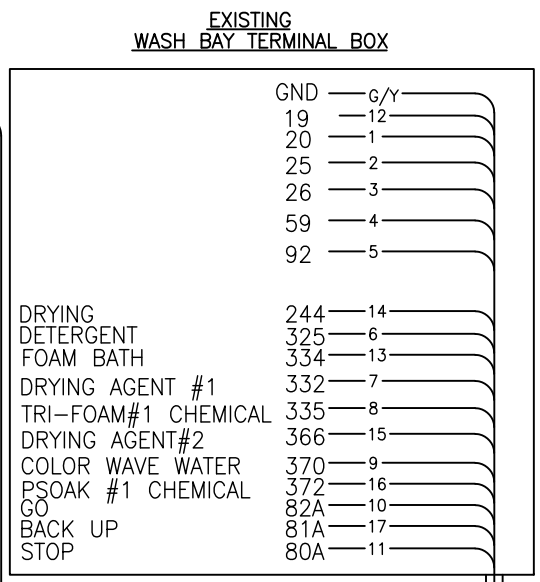
CABLE/ 16/12 SOW,WTR RESIST



NOT  
USED

POWER IN  
115V

- GND — GRN
- 26 — BLK
- 25 — WHT
- 19 — WHT/ BLK
- 20 — BLK/WHT
- 59 — BLU/BLK
- 92 — BLU
- 276 — RED
- 277 — RED/BLK
- 280 — ORG
- 281 — ORG/BLK
- 282 — GRN/BLK



CABLE/ 18/18, UL,CE

**NCS**  
NATIONAL CARWASH SOLUTIONS

File Used On: \_\_\_\_\_  
 Chkd by: \_\_\_\_\_  
 Date: \_\_\_\_\_  
 Drawn By: TW  
 Date: 5-3-19  
 Part Name: **INSTALL/ TSS LIGHTS**  
 Part Number: **28980-000**

Page **4** of **4**

Revision **C**

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8 7 6 5 4 3 2 1