GENERAL SITE NOTES:

- THE CONTRACTOR SHALL OBTAIN AND HAVE AVAILABLE COPIES OF THE APPLICABLE GOVERNING AGENCY STANDARDS AT THE JOB SITE DURING THE RELATED CONSTRUCTION OPERATIONS.
- CONTRACTOR SHALL ENSURE THAT ALL NECESSARY PERMITS HAVE BEEN OBTAINED PRIOR TO COMMENCING WORK.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING THE LOCATION. DIMENSION AND DEPTH OF ALL EXISTING UTILITIES PRIOR TO CONSTRUCTION WHETHER SHOWN ON THESE PLANS OR NOT. UTILITIES OTHER THAN THOSE SHOWN MAY EXIST ON THIS SITE. ONLY THOSE UTILITIES WITH EVIDENCE OF THEIR INSTALLATION VISIBLE AT GROUND SURFACE OR SHOWN ON RECORD DRAWING PROVIDED BY OTHERS ARE SHOWN HEREON. EXISTING UNDERGROUND UTILITY LOCATIONS SHOWN ARE APPROXIMATE ONLY AND ARE SUBJECT TO A DEGREE OF UNKNOWN VARIATION. SOME UNDERGROUND LOCATIONS SHOWN HEREON MAY HAVE BEEN TAKEN FROM PUBLIC RECORDS. BARGHAUSEN CONSULTING ENGINEERS, INC. ASSUMES NO LIABILITY FOR THE ACCURACY OF PUBLIC RECORDS OR RECORDS OF OTHERS. IF CONFLICTS SHOULD OCCUR, THE CONTRACTOR SHALL CONSULT BARGHAUSEN CONSULTING ENGINEERS, INC. TO RESOLVE ALL PROBLEMS PRIOR TO PROCEEDING WITH CONSTRUCTION.
- IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO REVIEW ALL OF THE DRAWINGS AND SPECIFICATIONS ASSOCIATED WITH THE PROJECT WORK SCOPE PRIOR TO THE INITIATION OF CONSTRUCTION. SHOULD THE CONTRACTOR FIND A CONFLICT WITH THE DOCUMENTS RELATIVE TO THE SPECIFICATIONS OR THE RELATIVE CODES. IT IS THE CONTRACTOR'S RESPONSIBILITY TO NOTIFY THE PROJECT ENGINEER OF RECORD IN WRITING PRIOR TO THE START OF CONSTRUCTION. FAILURE BY THE CONTRACTOR TO NOTIFY THE PROJECT ENGINEER SHALL CONSTITUTE ACCEPTANCE OF FULL RESPONSIBILITY BY THE CONTRACTOR TO COMPLETE THE SCOPE OF WORK AS DEFINED BY THE DRAWINGS AND IN FULL COMPLIANCE WITH LOCAL REGULATIONS AND CODES.
- . IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO NOTIFY THE APPROPRIATE UTILITIES INVOLVED PRIOR TO CONSTRUCTION.
- INSPECTION OF SITE WORK WILL BE ACCOMPLISHED BY A REPRESENTATIVE OF THE GOVERNING JURISDICTION. INSPECTION OF PRIVATE FACILITIES WILL BE ACCOMPLISHED BY A REPRESENTATIVE OF THE OWNER. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO NOTIFY THE INSPECTOR 24 HOURS IN ADVANCE OF BACKFILLING ALL CONSTRUCTION.
- PRIOR TO ANY CONSTRUCTION OR DEVELOPMENT ACTIVITY THE CONTRACTOR SHALL CONTACT THE AGENCY AND/OR UTILITY INSPECTION PERSONNEL AND ARRANGE ANY REQUIRED PRE-CONSTRUCTION MEETING(S). CONTRACTOR SHALL PROVIDE ONE WEEK MINIMUM ADVANCE NOTIFICATION TO OWNER, FIELD ENGINEER AND ENGINEER OF PRE-CONSTRUCTION MEETINGS.
- THE CONTRACTOR IS RESPONSIBLE FOR WORKER AND SITE SAFETY AND SHALL COMPLY WITH THE LATEST OSHA STANDARDS AND REGULATIONS, OR ANY OTHER AGENCY HAVING JURISDICTION FOR EXCAVATION AND TRENCHING PROCEDURES. THE CONTRACTOR IS RESPONSIBLE FOR DETERMINING THE "MEANS AND METHODS" REQUIRED TO MEET THE INTENT AND PERFORMANCE CRITERIA OF OSHA, AS WELL AS ANY OTHER ENTITY THAT HAS JURISDICTION FOR EXCAVATION AND/OR TRENCHING PROCEDURES.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING ADEQUATE SAFEGUARDS, SAFETY DEVICES. PROTECTIVE EQUIPMENT, FLAGGERS, AND ANY OTHER NEEDED ACTIONS TO PROTECT THE LIFE, HEALTH, AND SAFETY OF THE PUBLIC, AND TO PROTECT PROPERTY IN CONNECTION WITH THE PERFORMANCE OF WORK COVERED BY THE CONTRACTOR. ANY WORK WITHIN THE TRAVELED RIGHT-OF-WAY THAT MAY INTERRUPT NORMAL TRAFFIC FLOW SHALL REQUIRE AT LEAST ONE FLAGGER FOR EACH LANE OF TRAFFIC AFFECTED.
- PROTECTIVE MEASURES SHALL BE TAKEN BY THE CONTRACTOR TO PROTECT ALL ADJACENT PUBLIC AND PRIVATE PROPERTIES AT ALL TIMES DURING CONSTRUCTION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTION OF ALL EXISTING UTILITY SERVICES THAT ARE TO REMAIN OPERATIONAL WITHIN THE CONSTRUCTION AREA WHETHER SHOWN OR NOT SHOWN ON THE PLANS.
- TWO (2) COPIES OF THESE APPROVED PLANS MUST BE ON THE JOB SITE WHENEVER CONSTRUCTION IS IN PROGRESS. ONE (1) SET WITH RECORDS OF AS-BUILT INFORMATION SHALL BE SUBMITTED TO BARGHAUSEN CONSULTING ENGINEERS, INC. AT COMPLETION OF PROJECT.
- 12. CONTRACTOR SHALL OBTAIN SERVICES OF A LICENSED LAND SURVEYOR TO STAKE HORIZONTAL CONTROL FOR ALL NEW IMPROVEMENTS. STAKING CONTROL SHALL BE TAKEN FROM ELECTRONIC PLAN FILES PROVIDED BY BARGHAUSEN CONSULTING ENGINEERS, INC.
- 13. CONTRACTOR SHALL REQUEST FROM BARGHAUSEN CONSULTING ENGINEERS, INC., PRIOR TO ANY CONSTRUCTION STAKING OR CONSTRUCTION WORK, A FORMAL CONSTRUCTION RELEASE PLAN SET OR SPECIFIC RELEASE IN WRITING. THE APPROVED AGENCY PERMIT DRAWINGS WILL NOT BE CONSIDERED CONSTRUCTION RELEASE PLANS BY BARGHAUSEN CONSULTING ENGINEERS, INC. UNLESS BARGHAUSEN CONSULTING ENGINEERS, INC. HAS GIVEN A FORMAL WRITTEN RELEASE OR ISSUED A CONSTRUCTION RELEASE PLAN SET.

CITY OF PUYALLUP - GENERAL NOTES:

- 1. ALL WORK IN CITY RIGHT-OF-WAY REQUIRES A PERMIT FROM THE CITY OF PUYALLUP. PRIOR TO ANY WORK COMMENCING, THE GENERAL CONTRACTOR SHALL ARRANGE FOR A PRECONSTRUCTION MEETING AT THE DEVELOPMENT SERVICES CENTER TO BE ATTENDED BY ALL CONTRACTORS THAT WILL PERFORM WORK SHOWN ON THE APPROVED ENGINEERING PLANS, REPRESENTATIVES FROM ALL APPLICABLE UTILITY COMPANIES, THE PROJECT OWNER AND APPROPRIATE CITY STAFF. CONTACT ENGINEERING SERVICES AT (253-841-5568) TO SCHEDULE THE MEETING. THE CONTRACTOR IS RESPONSIBLE TO HAVE THEIR OWN SET OF APPROVED PLANS AT THE MEETING.
- AFTER COMPLETION OF ALL ITEMS SHOWN ON THESE PLANS AND BEFORE ACCEPTANCE OF THE PROJECT THE CONTRACTOR SHALL OBTAIN A "PUNCH LIST" PREPARED BY THE CITY'S INSPECTOR DETAILING REMAINING ITEMS OF WORK TO BE COMPLETED. ALL ITEMS OF WORK SHOWN ON THESE PLANS SHALL BE COMPLETED TO THE SATISFACTION OF THE CITY PRIOR TO ACCEPTANCE OF THE WATER SYSTEM AND PROVISION OF SANITARY SEWER SERVICE.
- ALL MATERIALS AND WORKMANSHIP SHALL CONFORM TO THE STANDARD SPECIFICATIONS FOR ROAD, BRIDGE, AND MUNICIPAL CONSTRUCTION (HEREINAFTER REFERRED TO AS THE "STANDARD SPECIFICATIONS"), WASHINGTON STATE DEPARTMENT OF TRANSPORTATION AND AMERICAN PUBLIC WORKS ASSOCIATION, WASHINGTON STATE CHAPTER, LATEST EDITION, UNLESS SUPERSEDED OR AMENDED BY THE CITY OF PUYALLUP CITY STANDARDS FOR PUBLIC WORKS ENGINEERING AND CONSTRUCTION (HEREINAFTER REFERRED TO AS THE "CITY STANDARDS").
- 4. A COPY OF THESE APPROVED PLANS AND APPLICABLE CITY DEVELOPER SPECIFICATIONS AND DETAILS SHALL BE ON SITE DURING CONSTRUCTION.

ANY REVISIONS MADE TO THESE PLANS MUST BE REVIEWED AND APPROVED BY THE

DEVELOPER'S ENGINEER AND THE CITY PRIOR TO ANY IMPLEMENTATION IN THE FIELD.

- THE CITY SHALL NOT BE RESPONSIBLE FOR ANY ERRORS AND/OR OMISSIONS ON THESE PLANS. 6. THE CONTRACTOR SHALL HAVE ALL UTILITIES VERIFIED ON THE GROUND PRIOR TO ANY
- CONSTRUCTION. CALL (811) AT LEAST TWO WORKING DAYS IN ADVANCE. THE OWNER AND HIS/HER ENGINEER SHALL BE CONTACTED IMMEDIATELY IF A CONFLICT EXISTS.
- ANY STRUCTURE AND/OR OBSTRUCTION THAT REQUIRES REMOVAL OR RELOCATION RELATING TO THIS PROJECT SHALL BE DONE SO AT THE DEVELOPER'S EXPENSE.
- 8. LOCATIONS OF EXISTING UTILITIES ARE APPROXIMATE. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE THE TRUE ELEVATIONS AND LOCATIONS OF HIDDEN UTILITIES. ALL VISIBLE ITEMS SHALL BE THE ENGINEER'S RESPONSIBILITY.
- 9. THE CONTRACTOR SHALL INSTALL, REPLACE, OR RELOCATE ALL SIGNS, AS SHOWN ON THE PLANS OR AS AFFECTED BY CONSTRUCTION, PER CITY STANDARDS.
- 10. POWER, STREET LIGHT, CABLE, AND TELEPHONE LINES SHALL BE IN A TRENCH LOCATED WITHIN A 10-FOOT UTILITY EASEMENT ADJACENT TO PUBLIC RIGHT-OF-WAY. RIGHT-OF-WAY CROSSINGS SHALL HAVE A MINIMUM HORIZONTAL SEPARATION FROM OTHER UTILITIES (SEWER, WATER, AND STORM) OF 5 FEET.
- 11. ALL CONSTRUCTION SURVEYING FOR EXTENSIONS OF PUBLIC FACILITIES SHALL BE DONE UNDER THE DIRECTION OF A WASHINGTON STATE LICENSED LAND SURVEYOR OR A WASHINGTON STATE LICENSE PROFESSIONAL CIVIL ENGINEER.
- 12. DURING CONSTRUCTION, ALL PUBLIC STREETS ADJACENT TO THIS PROJECT SHALL BE KEPT CLEAN OF ALL MATERIAL DEPOSITS RESULTING FROM ON-SITE CONSTRUCTION.

AND EXISTING STRUCTURES SHALL BE PROTECTED AS DIRECTED BY THE CITY.

- 13. CERTIFIED RECORD DRAWINGS ARE REQUIRED PRIOR TO PROJECT ACCEPTANCE.
- 14. A NPDES STORMWATER GENERAL PERMIT MAY BE REQUIRED BY THE DEPARTMENT OF ECOLOGY FOR THIS PROJECT. FOR INFORMATION CONTACT THE DEPARTMENT OF ECOLOGY, SOUTHWEST REGION OFFICE AT (360)407-6300.
- 15. ANY DISTURBANCE OR DAMAGE TO CRITICAL AREAS AND ASSOCIATED BUFFERS, OR SIGNIFICANT TREES DESIGNATED FOR PRESERVATION AND PROTECTION SHALL BE MITIGATED IN ACCORDANCE WITH A MITIGATION PLAN REVIEWED AND APPROVED BY THE CITY'S PLANNING DIVISION. PREPARATION AND IMPLEMENTATION OF THE MITIGATION PLAN SHALL BE AT THE DEVELOPER'S EXPENSE.

SOILS REPORT NOTES:

1. THE FOLLOWING SOILS REPORT FOR THE SITE SHALL BE CONSIDERED PART OF THESE CONSTRUCTION DOCUMENTS:

GEOTECHNICAL ENGINEERING STUDY ARCO AMPM REFUELING STATION 1402 S MERIDIAN AVENUE PUYALLUP, WASHINGTON 98371 DATED MAY 6, 2022

KRAZAN & ASSOCIATES, INC. 825 CENTER STREET, STE A TACOMA, WASHINGTON 98409 PHONE: (253) 939-2500

- 2. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO ENSURE THAT ALL PROVISIONS OF THE SOILS REPORT FOR THE SITE BE OBSERVED AND COMPLIED WITH DURING ALL PHASES OF THE SITE PREPARATION, GRADING OPERATIONS, FOUNDATION, SLAB, DETENTION VAULT, AND PAVING
- ANY PROVISIONS OF THE SOILS REPORT WHICH CONFLICT WITH INFORMATION SHOWN ELSEWHERE ON THESE DRAWINGS, OR WHICH REQUIRE FURTHER CLARIFICATION, SHALL BE BROUGHT TO THE ATTENTION OF BARGHAUSEN CONSULTING ENGINEERS, INC.
- A REPRESENTATIVE OF THE SOILS ENGINEER SHALL BE AVAILABLE TO OBSERVE AND APPROVE THE EARTHWORK OPERATIONS AND TO VERIFY FIELD CONDITIONS AS WORK PROCEEDS. THE SOILS ENGINEER SHALL SUBMIT FIELD REPORTS DOCUMENTING THAT THE METHODS AND MATERIALS OF THE EARTHWORK OPERATIONS WERE IN ACCORDANCE WITH THE RECOMMENDATION OF THE SOILS INVESTIGATION AND THAT THE WORK WAS PERFORMED TO THE SATISFACTION OF THE ENGINEER. THE CONTRACTOR SHALL MAKE ALL PROVISIONS FOR SOILS INSPECTIONS AS RECOMMENDED WITHIN THE SOILS REPORT. AT A MINIMUM. THIS INCLUDES THE OBSERVATIONS OF THE FOLLOWING BY A SOILS ENGINEER:
- A. OVER-EXCAVATION RECOMMENDATIONS B. PLACEMENT OF STRUCTURAL FILL MATERIAL BENEATH PAVEMENT SUBGRADE PREPARATION OF STRUCTURAL FOOTINGS D. EXCAVATION FOR UNDERGROUND STORAGE TANKS AND STORMWATER FACILITIES
- 5. THE CONTRACTOR SHALL QUALIFY ANY LIMITATIONS TO SOILS INSPECTIONS WITHIN BID PROPOSAL.

SHEET SET

ERIDIAN ST JOR ARTERIA

30' STORMWATER-SANITARY-WATERMAIN

EASEMENT AFN 9206040382

EASEMENT AFN 9206040384

-10' GAS PIPELINE EASEMENT

EXCEPTION NO. 30

EXCEPTION NO. 32

AFN 9203300111

EXCEPTION NO. 29

STREET IMPROVEMENTS

H 10' ELECTRIC EASEMENT

INGRESS/EGRESS AND UTILITIES

(TITLE PARCEL A2) AFN 2792268

COMMON ACCESS TRACT "A"

(TITLE PARCEL A1) SP NO.

EXCEPTION NO. 22

AFN 2667305

EXCEPTION NO. 25

EXCEPTION NO. 24

EASEMENT

77-315

TRAFFIC ENGINEER

12131 113TH AVE. NE, SUITE 203

VAULT STRUCTURAL

33801 1ST WAY SOUTH, SUITE 251

CONTACT: ANDY DERRICK, P.E., S.E.

-10' ELECTRIC EASEMENT

EXCEPTION NO. 25

TRANSPO GROUP

KIRKLAND, WA 98034

ENGINEER:

VISSER ENGINEERING

FEDERAL WAY, WA 98003

TEL: (253) 835-0810

(AFTER ROW DEDICATION)

LAND COVERAGE

TOTAL IMPERVIOUS:

TOTAL SITE AREA:

TOTAL SITE AREA:

XISTING PROJECT SITE SURFACE AREAS

PERVIOUS/LANDSCAPE AREA:

PROPOSED PROJECT SITE SURFACE AREAS

TOTAL IMPERVIOUS (ON-SITE):

PERVIOUS/LANDSCAPE AREA:

TEL: (425) 896-5238

CONTACT: CHRIS CAVALLO, P.E.

AFN 2792268

EASEMENT AFN 8706100397

COVER SHEET

ARCO ampm PUYALLUP

SEC. 33, TWN. 20 N, RGE. 4 E, W.M.

CITY OF PUYALLUP, PIERCE COUNTY

3400 ARCO

AM/PM

3.349 S.F.

ELECTRIC EASEMENT -

ૂંS15'56'20"W 3.7

S0'33'46"W 110.90'-

AFN 9207280564

EXCEPTION NO. 34

CANOPY W/ 6

24'x48'

CAR WASH

NO KNOWN ADDRESS

(LAND USE - GENERAL

COMMERCIAL)

AFN 2872449

BODY TALK, INC.

1420 S MERIDIAN, PUYALLUP

TAX PARCEL NO. 7730000310

(LAND USE - GENERAL

COMMERCIAL)

N89°58'03"W 1335.09'

ON-SITE (AFTER DEDICATION)

PROPOSED IMPERVIOUS SURFACES

ROOF CANOPY (COLLECTED)

CURBS/ASPHALT/CONCRETE (COLLECTED)

15TH AVE SW

ROW CENTERLINE

- 30' INGRESS/EGRESS & UTILITY EASEMENT

1410 S MERIDIAN, PUYALLUP.

WA 98371

TAX PARCEL NO. 7730000300

(LAND USE - GENERAL

COMMERCIAL)

√N89°58'15"W 178.19

12' BUILDING SETBACK

SCALE: 1"=40'

N89'57'35"W 57.36"

30' STORMWATER-

EXCEPTION NO. 31

SANITARY-WATERMAIN

ELECTRIC EASEMENT

EASEMENT AFN 9206040383

MOTEL PUYALLÜF

TAX PARCEL NO. 7730000282

1412 S MERIDIAN, PUYALLUP

WA 98371

(LAND USE - GENERAL

COMMERCIAL)

AFN 2792268

10' ELEC. EASEMENT

EXCEPTION NO. 25

20' INGRESS/EGRESS

EXCEPTION NO. 26

TAX PARCEL NO

7730000283

NO KNOWN

ADDRESS

(LAND USE -

GENERAL

COMMERCIAL)

205-201 15TH

AVE SW,

PUYALLUP, WA

9837

LAND USE

GENERAL

COMMERCIAL)

TAX PARCEL I 7730000321

EASEMENT

AFN 2741876

AFN 9207280563

EXCEPTION NO. 33

C1.0 - COVER SHEET C2.0 - DEMOLITION PLAN C2.1 – TESC PLAN C2.2 - TESC DETAILS AND NOTES C2.3 - TESC DETAILS C3.0 – SITE PLAN C4.0 - GRADING PLAN - NORTH C4.1 - GRADING PLAN - SOUTH C4.2 - GRADING NOTES AND DETAILS C5.0 - DRAINAGE PLAN - NORTH C5.1 - DRAINAGE PLAN - SOUTH C5.2 - DETENTION VAULT PLAN C5.3 - DETENTION VAULT CROSS SECTIONS

C5.4 - DRAINAGE NOTES AND DETAILS C5.5 - DRAINAGE DETAILS C5.6 - DRAINAGE DETAILS

C5.7 – DRAINAGE DETAILS C5.8 - DRAINAGE PROFILE - CB #4 TO SDMH #1 C5.9 - DRAINAGE PROFILE - CB #3 TO SDMH #4 C6.0 - UTILITY PLAN - NORTH C6.1 - UTILITY PLAN - SOUTH

C6.2 - UTILITY NOTES AND DETAILS C6.3 - UTILITY DETAILS C6.4 - UTILITY DETAILS

C6.5 - UTILITY DETAILS C6.6 - SEWER PROFILE - BUILDING & TRASH ENCLOSURE C6.7 - SEWER PROFILE - CANOPY & CAR WASH C7.0 - CONSTRUCTION DETAILS

C7.1 - CONSTRUCTION DETAILS C7.2 - CONSTRUCTION DETAILS 30' STORMWATER-SANITARY-WATERMAIN C7.3 - CONSTRUCTION DETAILS C8.0 - S MERIDIAN ST. - PLAN OVER PROFILE

C8.1 - RIGHT-OF-WAY GRADING DETAILS C8.2 - 15TH AVE. SE - DRIVEWAY PLAN C8.3 - RIGHT-OF-WAY DETAILS

1 OF 2 - ALTA & NSPS LAND TITLE SURVEY 2 OF 2 - ALTA & NSPS LAND TITLE SURVEY

<u> ANDSCAPE:</u> L1 - LANDSCAPE PLAN L2 - LANDSCAPE NOTES AND PLANT SCHEDULE L3 - LANDSCAPE DETAILS L4 - IRRIGATION PLAN

APPLICANT/DEVELOPER

BP FUELS, NA P.O. BOX 696049

L5 - IRRIGATION DETAILS

L6 - IRRIGATION DETAILS

SAN ANTONIO, TX 78269-9931 CONTACT: RANDALL ARNOLD

ENGINEER/SURVEYOR

BARGHAUSEN CONSULTING ENGINEERS, INC. 18215 72ND AVE. SOUTH KENT, WA 98032

TEL: (425) 251-6222

FAX: (425) 251-8782 CONTACT: CHRIS JENSEN, P.E./BRIAN GILLOOLY, P.L.S.

ARCHITECT

BARGHAUSEN CONSULTING ENGINEERS, INC. 18215 72ND AVE. SOUTH KENT. WA 98032

TEL: (425) 251-6222 FAX: (425) 251-8782 CONTACT: DAN GOALWIN, R.A.

LANDSCAPE ARCHITECT

BARGHAUSEN CONSULTING ENGINEERS, INC. 18215 72ND AVE. SOUTH KENT, WA 98032 TEL: (425) 251-6222

FAX: (425) 251-8782 CONTACT: JEFF VARLEY, R.L.A.

GEOTECHNICAL ENGINEER

KRAZAN & ASSOCIATES, INC. 825 CENTER STREET, STE A TACOMA, WASHINGTON 98409 PHONE: (253) 939-2500 CONTACT: VIJAY CHAUDARY

9TH AVE SW **a** 10TH AVE SE BLUE RIBBON AVE 13TH AVE SE 14TH AVE SE SITE 15TH AVE SE **VICINITY MAP (N.T.S.)**

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

LOT AREA 52,078± SF (1.20± AC)

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

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 MARC 22, 2022. ALL SURVEY CONTROL INDICATED AS "FOUND" WAS RECOVERED FOR THI PROJECT IN MARCH OF 2022.

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)

LEGAL DESCRIPTION (PER ABOVE REFERENCED TITLE REPORT)

PARCEL A: (773000-028-1 & 773000-028-8)

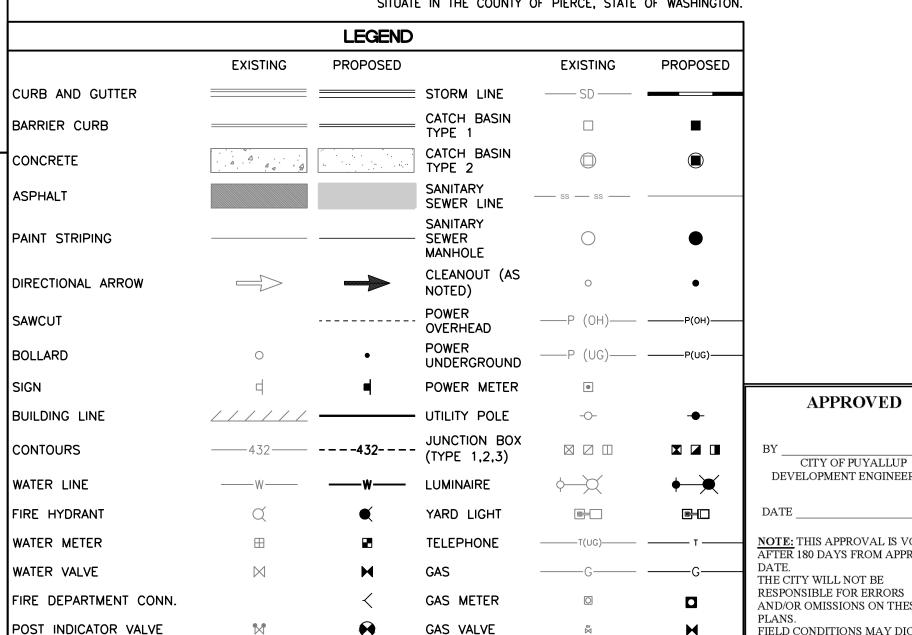
LOT 1 AND THE NORTH 15 FEET OF THE EAST 178.33 FEET OF "COMMON ACCESS TRACT A OF PIERCE COUNTY SHORT PLAT RECORDED UNDER RECORDING NO. 77-315, RECORDS OF PIERCE COUNTY WASHINGTON, FORMERLY BEING DESCRIBED AS THE NORTH 161.5 FEET OF THE WEST 178.33 FEET OF THE EAST 188.33 FEET OF LOT 20, SOURWINE'S ACRE 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

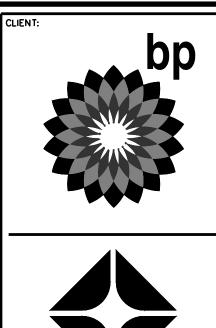
ABUTTING THEREON AND ATTACHED THERETO, RECORDED UNDER RECORDING NO. 920604038 RIGHTS TO USE THAT PORTION OF THE WITHIN DESCRIBED PROPERTY LYING WITHIN COMMON ACCESS TRACT "A" OF SIDE SHORT PLAT, FOR INGRESS, EGRESS, AND INSTALLATION AND MAINTENANCE OF UTILITIES, AS SET FORTH AND DELINEATED ON PIERCE COUNTY SHORT PLAT

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

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.









Consulting Engineers, Inc

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

	NO.	DATE	REVISION	DESCRIPTION
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PEG/STERED LE 10/4/2

DEVELOPMENT INFORMATION: **ARCO NTI**

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

SWC S MERIDIAN @ HIGHWAY 512 PUYALLUP, WASHINGTON

SITE ADDRESS:

FACILITY #TBD

P REPM: LIANCE PM: 21730

COVER SHEET

HORIZONTAL CONTROL NOTE: CONTRACTOR SHALL HAVE ALL PROPERTY LINES, CURB, SIDEWALK, STRUCTURES, CONCRETE PADS AND ANY

OTHER ABOVE GROUND PERMANENT STRUCTURE DEPICTED ON THESE PLANS STAKED FOR CONSTRUCTION BY A LICENSED SURVEYOR. LICENSED SURVEYOR SHALL STAKE ALL ITEMS USING COORDINATE GEOMETRY (RECTIFIED TO SITE CONTROL) CONTAINED IN CAD DRAWING FILES PROVIDED BY BARGHAUSEN CONSULTING ENGINEERS, INC. IT IS THE CONTRACTOR'S RESPONSIBILITY TO RETRIEVE LATEST CAD FILES FROM BARGHAUSEN CONSULTING ENGINEERS INC., REFLECTING ANY ISSUED PLAN REVISIONS. BARGHAUSEN CONSULTING ENGINEERS SHALL IMMEDIATELY BE NOTIFIED OF ANY DISCREPANCIES PRIOR TO THE START OF CONSTRUCTION.

MONUMENT PROTECTION NOTE:

CONTRACTOR SHALL FIELD LOCATE ALL MONUMENTS WITHIN THE AREA OF DISTURBANCE PRIOR TO CONSTRUCTION AND PROTECT FROM DISTURBANCE/DESTRUCTION TO THE MAXIMUM EXTENT FEASIBLE. IF IT IS NECESSARY TO REMOVE OR REPLACE A MONUMENT DURING CONSTRUCTION, THE CONTRACTOR SHALL NOTIFY THE LOCAL JURISDICTION HAVING AUTHORITY (RCW 58.24.040) AND BE FULLY RESPONSIBLE FOR OBTAINING PERMITS FROM THE WASHINGTON STATE DEPARTMENT OF NATURAL RESOURCES PRIOR TO DISTURBANCE, DESTRUCTION, OR RELOCATION (WAC 332-120). APPLICATIONS MUST BE COMPLETED BY A REGISTERED LAND SURVEYOR AND MAY BE OBTAINED FROM THE WASHINGTON STATE DEPARTMENT OF NATURAL RESOURCES:

WASHINGTON STATE DEPARTMENT OF NATURAL RESOURCES

- PUBLIC LAND SURVEY OFFICE 1111 WASHINGTON STREET S.E.
- P.O. BOX 47060

(206) 902-1190

OLYMPIA, WASHINGTON 98504-7060

UPON COMPLETION OF CONSTRUCTION, ALL MONUMENTS DISPLACED, REMOVED, OR DESTROYED THAT ARE ABLE TO BE REPLACED, SHALL BE REPLACED BY A REGISTERED LAND SURVEYOR AT THE COST AND AT THE DIRECTION OF THE CONTRACTOR PURSUANT TO THESE REGULATIONS. THE APPROPRIATE FORMS FOR REPLACEMENTS OF SAID MONUMENTATION SHALL ALSO BE THE RESPONSIBILITY OF THE CONTRACTOR.

UTILITY PROTECTION NOTE:

APPROXIMATE LOCATION OF EXISTING UTILITIES ARE SHOWN ON THESE PLANS. CONTRACTOR TO COORDINATE WITH PURVEYOR AND USE EXTREME CAUTION WHEN EXCAVATING ON-SITE, UNTIL EXISTING GAS AND POWER SERVICE LOCATIONS ARE CONFIRMED. CONTRACTOR TO ORDER INDEPENDENT UTILITY LOCATES (INCLUDING GAS AND POWER) FOR THE FULL SCOPE OF WORK PRIOR TO CONSTRUCTION OR ANY GROUND DISTURBING ACTIVITIES.

UTILITY CONFLICT NOTE:

THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING THE LOCATION, DIMENSION, AND DEPTH OF ALI EXISTING UTILITIES WHETHER SHOWN ON THESE PLANS OR NOT BY POTHOLING THE UTILITIES AND SURVEYING THE HORIZONTAL AND VERTICAL LOCATION PRIOR TO CONSTRUCTION. THIS SHALL INCLUDE CALLING UTILITY LOCATE AT 811 48 HOURS IN ADVANCE AND THEN POTHOLING ALL OF THE EXISTING UTILITIES AT LOCATIONS OF NEW UTILITY CROSSINGS TO PHYSICALLY VERIFY WHETHER OR NOT CONFLICTS EXIST. LOCATIONS OF SAID UTILITIES AS SHOWN ON THESE PLANS ARE BASED UPON THE UNVERIFIED PUBLIC INFORMATION AND ARE SUBJECT TO VARIATION. IF CONFLICTS SHOULD OCCUR. THE CONTRACTOR SHALL NOTIFY BARGHAUSEN CONSULTING ENGINEERS, INC. TO RESOLVE ALL PROBLEMS PRIOR PROCEEDING WITH CONSTRUCTION.



Know what's **below**. Call before you dig. **Dial 81**′

EARTHWORK CALCULATIONS SITE PREP: **UST EXCAVATION:** VAULT EXCAVATION: TOTAL:

ESTIMATE FOR BIDDING.

SITE PREP: 3,200 CY 3,600 CY 1,000 CY 3,200 CY 7,400 CY 3,600 C EARTHWORK QUANTITIES ARE APPROXIMATE AND HIGHLY DEPENDENT ON SOIL CONDITIONS ENCOUNTERED DURING CONSTRUCTION. TOTAL DOES NOT ASSUME RE-USE OF EXISTING SOILS. CONTRACTOR SHOULD PERFORM INDEPENDENT

ESTIMATED EARTHWORK QUANTITIES:

AREA TO BE DISTURBED = 1.28 AC

CUT: 7,400 CY (EXPORT)

| FILL: 3,600 CY (IMPORT)

12,050 SF (0.277 AC) PROPOSED LANDSCAPING TOTAL AREA OFFSITE (ADJACENT PROPERTY) REPLACED ASPHALT DRIVEWAY SECTION (COLLECTED) 741 SF (0.017 AC) EXISTING IMPERVIOUS SURFACE (COLLECTED, BYPASS TRADE-OFF) 2,284 SF (0.052 AC) 3,025 SF (0.069 AC) NOTE: WWHM CALCS ONLY INCLUDE AREA REQUIRED TO PROVIDE BYPASS TRADE OFF **RIGHT-OF-WAY** (AFTER DEDICATION) ROADWAY/SIDEWALK/CURB & GUTTER (BYPASS) 1,591 SF (0.037 AC) REVERSE SLOPE SIDEWALK (COLLECTED) 1,824 SF (0.042 AC) DRIVEWAY (COLLECTED) 123 SF (0.003 AC) 2,521 SF (0.058 AC) PROPOSED LANDSCAPE 6,059 SF (0.139 AC) TOTAL AREA PEDESTRIAN ACCESS PATH

STORMWATER IMPERVIOUS AREA TABLE 36,726 SF (0.843 AC) 10,106 SF (0.232 AC) 26,620 SF (0.611 AC) 48,776± SF (1.12± AC) | SAWCUT

FENCE

48,776 SF (1.12 AC)

45,936 SF (1.05 AC)

2,840 SF (0.065 AC)

48,776 SF (1.12 AC)

36,726 SF (0.843 AC)

12,050 SF (0.277 AC)

PROPERTY LINE

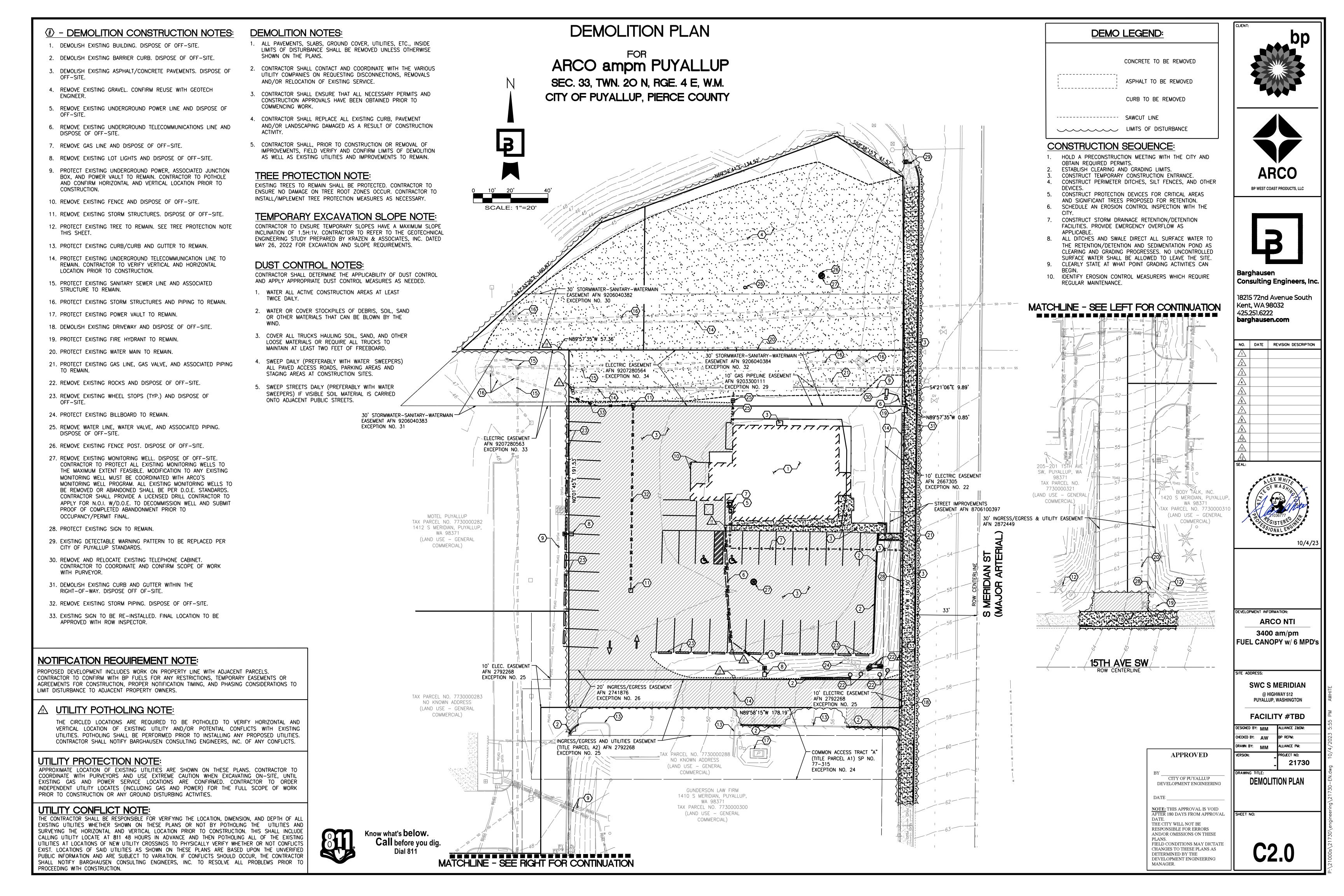
— × —

DEVELOPMENT ENGINEERING NOTE: THIS APPROVAL IS VOID AFTER 180 DAYS FROM APPROVAL THE CITY WILL NOT BE

RESPONSIBLE FOR ERRORS AND/OR OMISSIONS ON THESE FIELD CONDITIONS MAY DICTATE CHANGES TO THESE PLANS AS DETERMINED BY THE

DEVELOPMENT ENGINEERING

MANAGER.



- TESC CONSTRUCTION NOTES: INSTALL SILTATION FENCE PER CITY OF PUYALLUP STANDARD DETAIL INSPECTOR. SEE DETAIL 5/C2.2.

- 02.03.02 AROUND PERIMETER OF SITE TO PREVENT SILT-LADEN RUNOFF FROM LEAVING SITE. ADJUST LOCATION AS DIRECTED BY THE CITY
- INSTALL CATCH BASIN INSERTS IN ALL CATCH BASINS LOCATED ON-SITE PER BMP C220-INLET PROTECTION OF THE 2019 STORMWATER MANAGEMENT MANUAL FOR WESTERN WASHINGTON (2019 SWMMWW). CONTRACTOR TO ALSO INSTALL CATCH BASIN INSERTS IN ANY CATCH BASIN LOCATED WITH 500' OF THE JOB SITE. SEE DETAIL 3/C2.3.
- APPROXIMATE LOCATION OF CONSTRUCTION STAGING AREA. CONTRACTOR TO USE THIS AREA FOR TEMPORARY STOCKPILE STORAGE AND CONCRETE WASHOUT PER 2019 SWMMWW BMP C154-CONCRETE WASHOUT AREA, SEE DETAIL 4/C2.3. ADJUST SIZE AND LOCATION OF AREA AS NEEDED DURING CONSTRUCTION.
- INSTALL CONSTRUCTION ENTRANCE PER CITY OF PUYALLUP STANDARD DETAIL 05.01.01. ADJUST LOCATION AS NEEDED OR AS DIRECTED BY THE CITY INSPECTOR. SEE DETAIL 2/C2.2.
- INSTALL TEMPORARY CONSTRUCTION FENCE AND SITE ACCESS GATE (6' HIGH-CHAIN LINK WITH LOCKING DEVICE) AT TEMPORARY CONSTRUCTION ENTRANCE. SEE DETAIL 1/C2.2.
- 6. APPROXIMATE LIMITS OF DISTURBANCE.
- APPROXIMATE LOCATION OF TEMPORARY SEDIMENT TRAP PER 2019 SWMMWW BMP C240. MINIMUM REQUIRED SURFACE AREA FOR SEDIMENT TRAP IS 1548 SF. CONTRACTOR TO ENSURE SEDIMENT TRAP LENGTH TO WIDTH RATIO OF 3:1. SEE DETAIL 1/C2.3. TOP ELEVATION: 44.7 BOTTOM ELEVATION: 47.7
- 8. APPROXIMATE LOCATION OF TEMPORARY "V" DITCH. SEE DETAIL 2/C2.2.
- 9. APPROXIMATE LOCATION OF TEMPORARY ROCK CHECK DAM, PER 2019 SWMMWW BMP C207. SEE DETAIL 2/C2.3.

TREE PROTECTION NOTE:

EXISTING TREES TO REMAIN SHALL BE PROTECTED. CONTRACTOR TO ENSURE NO DAMAGE ON TREE ROOT ZONES OCCUR. CONTRACTOR TO INSTALL/IMPLEMENT TREE PROTECTION MEASURES AS NECESSARY.

EROSION CONTROL NOTES:

- ALL NECESSARY EQUIPMENT AND MATERIALS SHALL BE AVAILABLE ON SITE TO FACILITATE RAPID INSTALLATION OF EROSION AND SEDIMENT CONTROL BMPS WHEN RAIN IS IMMINENT.
- 2. THE CONTRACTOR SHALL RESTORE ALL EROSION CONTROL DEVICES TO WORKING ORDER TO THE SATISFACTION OF THE AUTHORITY HAVING JURISDICTION AFTER EACH RUN-OFF PRODUCING RAINFALL.
- THE CONTRACTOR SHALL INSTALL ADDITIONAL EROSION CONTROL MEASURES AS MAY BE REQUIRED BY THE AUTHORITY HAVING JURISDICTION DUE TO UNCOMPLETED GRADING OPERATIONS OR UNFORESEEN CIRCUMSTANCES WHICH MAY ARISE.
- ADEQUATE EROSION AND SEDIMENT CONTROL AND PERIMETER PROTECTION BEST MANAGEMENT PRACTICE MEASURES MUST BE INSTALLED AND MAINTAINED.
- CONTRACTOR TO IMPLEMENT SLOPE STABILIZATION MEASURES AS NECESSARY FOR EXPOSED SLOPES DURING CONSTRUCTION. MEASURES CAN INCLUDE TEMPORARY AND PERMANENT SEEDING PER

TEMPORARY EXCAVATION SLOPE NOTE:

CONTRACTOR TO ENSURE TEMPORARY SLOPES HAVE A MAXIMUM SLOPE INCLINATION OF 1.5H:1V. CONTRACTOR TO REFER TO THE GEOTECHNICAL ENGINEERING STUDY PREPARED BY KRAZEN & ASSOCIATES, INC. DATED MAY 26, 2022 FOR EXCAVATION AND SLOPE REQUIREMENTS.

DUST CONTROL NOTES:

CONTRACTOR SHALL DETERMINE THE APPLICABILITY OF DUST CONTROL AND APPLY APPROPRIATE DUST CONTROL MEASURES AS NEEDED.

- 1. WATER ALL ACTIVE CONSTRUCTION AREAS AT LEAST TWICE DAILY.
- WATER OR COVER STOCKPILES OF DEBRIS, SOIL, SAND OR OTHER MATERIALS THAT CAN
- 3. BE BLOWN BY THE WIND.
- 4. COVER ALL TRUCKS HAULING SOIL, SAND, AND OTHER LOOSE MATERIALS OR REQUIRE ALL TRUCKS TO MAINTAIN AT LEAST TWO FEET OF FREEBOARD.
- 5. SWEEP DAILY (PREFERABLY WITH WATER SWEEPERS) ALL PAVED ACCESS ROADS, PARKING AREAS AND STAGING AREAS AT CONSTRUCTION SITES.
- 6. SWEEP STREETS DAILY (PREFERABLY WITH WATER SWEEPERS) IF VISIBLE SOIL MATERIAL IS CARRIED ONTO ADJACENT PUBLIC STREETS.

___ UTILITY POTHOLING NOTE:

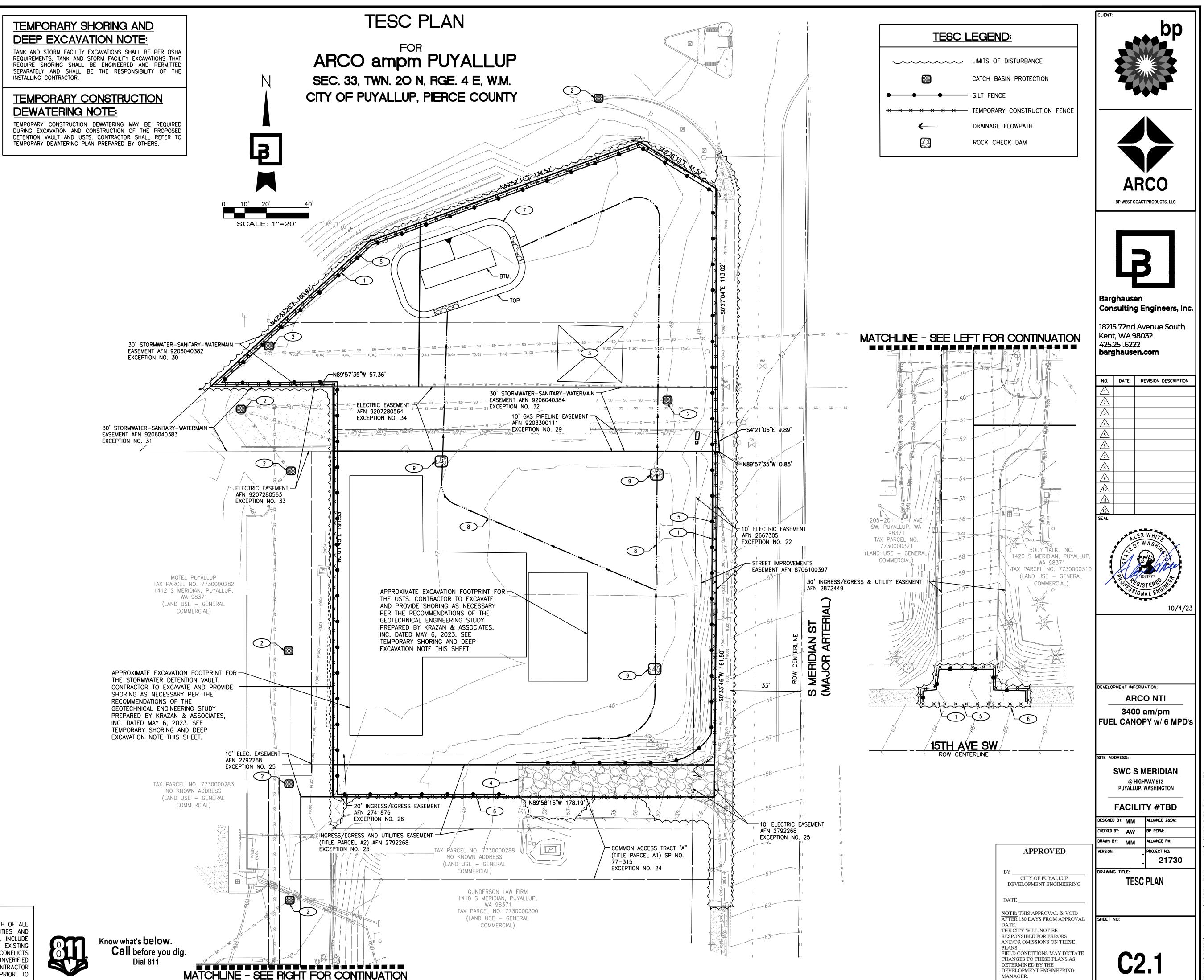
THE CIRCLED LOCATIONS ARE REQUIRED TO BE POTHOLED TO VERIFY VERTICAL AND HORIZONTAL LOCATION OF EXISTING UTILITY AND/OR POTENTIAL CONFLICTS WITH EXISTING UTILITIES. POTHOLING SHALL BE PERFORMED PRIOR TO INSTALLING ANY PROPOSED UTILITIES. CONTRACTOR SHALL NOTIFY BARGHAUSEN CONSULTING ENGINEERS, INC. OF ANY CONFLICTS.

UTILITY PROTECTION NOTE:

APPROXIMATE LOCATION OF EXISTING GAS SERVICE IS SHOWN ON THESE PLANS. CONTRACTOR TO COORDINATE WITH PURVEYOR AND USE EXTREME CAUTION WHEN EXCAVATING ON-SITE, UNTIL EXISTING GAS AND POWER SERVICE LOCATIONS ARE CONFIRMED. CONTRACTOR TO ORDER INDEPENDENT UTILITY LOCATES (INCLUDING GAS AND POWER) FOR THE FULL SCOPE OF WORK PRIOR TO CONSTRUCTION OR ANY GROUND DISTURBING ACTIVITIES.

UTILITY CONFLICT NOTE:

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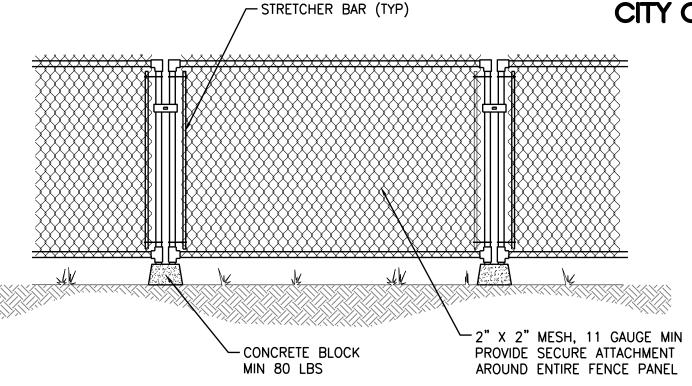


CITY OF PUYALLUP - GRADING, EROSION AND SEDIMENTATION CONTROL NOTES:

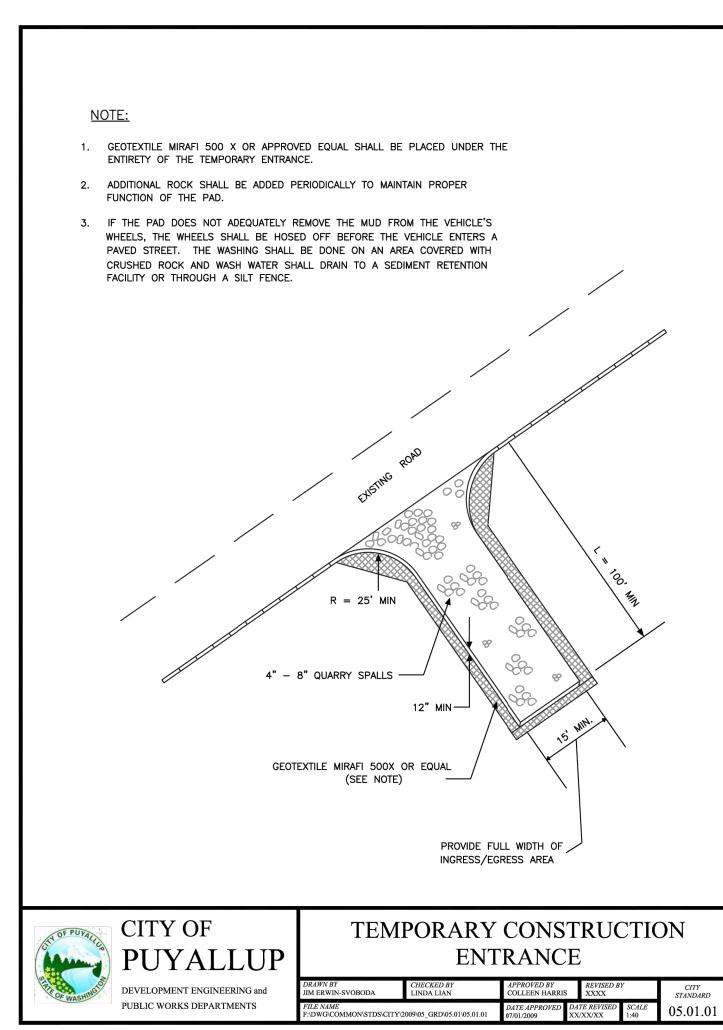
- 1. ALL WORK IN CITY RIGHT-OF-WAY REQUIRES A PERMIT FROM THE CITY OF PUYALLUP. PRIOR TO ANY WORK COMMENCING, THE GENERAL CONTRACTOR SHALL ARRANGE FOR A PRECONSTRUCTION MEETING AT THE DEVELOPMENT SERVICES CENTER TO BE ATTENDED BY ALL CONTRACTORS THAT WILL PERFORM WORK SHOWN ON THE APPROVED ENGINEERING PLANS, REPRESENTATIVES FROM ALL APPLICABLE UTILITY COMPANIES, THE PROJECT OWNER AND APPROPRIATE CITY STAFF. CONTACT ENGINEERING SERVICES AT (253-841-5568) TO SCHEDULE THE MEETING. THE CONTRACTOR IS RESPONSIBLE TO HAVE THEIR OWN SET OF APPROVED PLANS AT THE MEETING.
- 2. AFTER COMPLETION OF ALL ITEMS SHOWN ON THESE PLANS AND BEFORE ACCEPTANCE OF THE PROJECT THE CONTRACTOR SHALL OBTAIN A "PUNCH LIST" PREPARED BY THE CITY'S INSPECTOR DETAILING REMAINING ITEMS OF WORK TO BE COMPLETED. ALL ITEMS OF WORK SHOWN ON THESE PLANS SHALL BE COMPLETED TO THE SATISFACTION OF THE CITY PRIOR TO ACCEPTANCE OF THE WATER SYSTEM AND PROVISION OF SANITARY SEWER SERVICE.
- 3. ALL MATERIALS AND WORKMANSHIP SHALL CONFORM TO THE STANDARD SPECIFICATIONS FOR ROAD, BRIDGE, AND MUNICIPAL CONSTRUCTION (HEREINAFTER REFERRED TO AS THE "STANDARD SPECIFICATIONS"), WASHINGTON STATE DEPARTMENT OF TRANSPORTATION AND AMERICAN PUBLIC WORKS ASSOCIATION, WASHINGTON STATE CHAPTER, LATEST EDITION, UNLESS SUPERSEDED OR AMENDED BY THE CITY OF PUYALLUP CITY STANDARDS FOR PUBLIC WORKS ENGINEERING AND CONSTRUCTION (HEREINAFTER REFERRED TO AS THE "CITY STANDARDS").
- 4. A COPY OF THESE APPROVED PLANS AND APPLICABLE CITY DEVELOPER SPECIFICATIONS AND DETAILS SHALL BE ON SITE DURING CONSTRUCTION.
- 5. ANY REVISIONS MADE TO THESE PLANS MUST BE REVIEWED AND APPROVED BY THE DEVELOPER'S ENGINEER AND THE CITY PRIOR TO ANY IMPLEMENTATION IN THE FIELD. THE CITY SHALL NOT BE RESPONSIBLE FOR ANY ERRORS AND/OR OMISSIONS ON THESE PLANS.
- 6. THE CONTRACTOR SHALL HAVE ALL UTILITIES VERIFIED ON THE GROUND PRIOR TO ANY CONSTRUCTION. CALL (811) AT LEAST TWO WORKING DAYS IN ADVANCE. THE OWNER AND HIS/HER ENGINEER SHALL BE CONTACTED IMMEDIATELY IF A CONFLICT EXISTS.
- 7. ALL LIMITS OF CLEARING AND AREAS OF VEGETATION PRESERVATION AS PRESCRIBED ON THE PLANS SHALL BE CLEARLY FLAGGED IN THE FIELD AND OBSERVED DURING CONSTRUCTION.
- 8. ALL REQUIRED SEDIMENTATION AND EROSION CONTROL FACILITIES MUST BE CONSTRUCTED AND IN OPERATION PRIOR TO ANY LAND CLEARING AND/OR OTHER CONSTRUCTION TO ENSURE THAT SEDIMENT LADEN WATER DOES NOT ENTER THE NATURAL DRAINAGE SYSTEM. THE CONTRACTOR SHALL SCHEDULE AN INSPECTION OF THE EROSION CONTROL FACILITIES PRIOR TO ANY LAND CLEARING AND/OR OTHER CONSTRUCTION. ALL EROSION AND SEDIMENT FACILITIES SHALL BE MAINTAINED IN A SATISFACTORY CONDITION AS DETERMINED BY THE CITY, UNTIL SUCH TIME THAT CLEARING AND/OR CONSTRUCTION IS COMPLETED AND THE POTENTIAL FOR ON—SITE EROSION HAS PASSED. THE IMPLEMENTATION, MAINTENANCE, REPLACEMENT, AND ADDITIONS TO THE EROSION AND SEDIMENTATION CONTROL SYSTEMS SHALL BE RESPONSIBILITY OF THE PERMITTEE.
- 9. THE EROSION AND SEDIMENTATION CONTROL SYSTEM FACILITIES DEPICTED ON THESE PLANS ARE INTENDED TO BE MINIMUM REQUIREMENTS TO MEET ANTICIPATED SITE CONDITIONS. AS CONSTRUCTION PROGRESSES AND UNEXPECTED OR SEASONAL CONDITIONS DICTATE, FACILITIES WILL BE NECESSARY TO ENSURE COMPLETE SILTATION CONTROL ON THE SITE. DURING THE COURSE OF CONSTRUCTION, IT SHALL BE THE OBLIGATION AND RESPONSIBILITY OF THE PERMITTEE TO ADDRESS ANY NEW CONDITIONS THAT MAY BE CREATED BY HIS ACTIVITIES AND TO PROVIDE ADDITIONAL FACILITIES, OVER AND ABOVE THE MINIMUM REQUIREMENTS, AS MAY BE NEEDED TO PROTECT ADJACENT PROPERTIES, SENSITIVE AREAS, NATURAL WATER COURSES, AND/OR STORM DRAINAGE SYSTEMS.
- 10. APPROVAL OF THESE PLANS IS FOR GRADING, TEMPORARY DRAINAGE, EROSION AND SEDIMENTATION CONTROL ONLY. IT DOES NOT CONSTITUTE AN APPROVAL OF PERMANENT STORM DRAINAGE DESIGN, SIZE OR LOCATION OF PIPES, RESTRICTORS, CHANNELS, OR RETENTION FACILITIES.
- 11. ANY DISTURBED AREA WHICH HAS BEEN STRIPPED OF VEGETATION AND WHERE NO FURTHER WORK IS ANTICIPATED FOR A PERIOD OF 30 DAYS OR MORE, MUST BE IMMEDIATELY STABILIZED WITH MULCHING, GRASS PLANTING, OR OTHER APPROVED EROSION CONTROL TREATMENT APPLICABLE TO THE TIME OF YEAR IN QUESTION. GRASS SEEDING ALONE WILL BE ACCEPTABLE ONLY DURING THE MONTHS OF APRIL THROUGH SEPTEMBER INCLUSIVE. SEEDING MAY PROCEED OUTSIDE THE SPECIFIED TIME PERIOD WHENEVER IT IS IN THE INTEREST OF THE PERMITTEE BUT MUST BE AUGMENTED WITH MULCHING, NETTING, OR OTHER TREATMENT APPROVED BY THE CITY.
- 12. IN CASE EROSION OR SEDIMENTATION OCCURS TO ADJACENT PROPERTIES, ALL CONSTRUCTION WORK WITHIN THE DEVELOPMENT THAT WILL FURTHER AGGRAVATE THE SITUATION MUST CEASE, AND THE OWNER/CONTRACTOR WILL IMMEDIATELY COMMENCE RESTORATION METHODS. RESTORATION ACTIVITY WILL CONTINUE UNTIL SUCH TIME AS THE AFFECTED PROPERTY OWNER IS SATISFIED.
- 13. NO TEMPORARY OR PERMANENT STOCKPILING OF MATERIALS OR EQUIPMENT SHALL OCCUR WITHIN CRITICAL AREAS OR ASSOCIATED BUFFERS, OR THE CRITICAL ROOT ZONE FOR VEGETATION PROPOSED FOR RETENTION.

TESC DETAILS AND NOTES

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



1 TEMPORARY CONSTRUCTION FENCE C2.2 SCALE: NTS



2 STABILIZED CONSTRUCTION ACCESS
C2.2 SCALE: NTS

1. ALL LIMITS OF CLEARING AND AREAS OF VEGETATION PRESERVATION AS PRESCRIBED ON THE PLANS SHALL BE CLEARLY FLAGGED IN THE FIELD AND OBSERVED DURING CONSTRUCTION.

2. ALL REQUIRED SEDIMENTATION AND EROSION CONTROL FACILITIES MUST BE CONSTRUCTED AND IN OPERATION PRIOR TO ANY LAND CLEARING AND/OR OTHER CONSTRUCTION TO ENSURE THAT SEDIMENT LADEN WATER DOES NOT ENTER THE NATURAL DRAINAGE SYSTEM. THE CONTRACTOR SHALL SCHEDULE AN INSPECTION OF THE EROSION CONTROL FACILITIES PRIOR TO ANY LAND CLEARING AND/OR CONSTRUCTION. ALL EROSION AND SEDIMENT FACILITIES SHALL BE MAINTAINED IN A SATISFACTORY CONDITION AS DETERMINED BY THE CITY, UNTIL SUCH TIME THAT CLEARING AND/OR CONSTRUCTION IS COMPLETED AND THE POTENTIAL FOR ON—SITE EROSION HAS PASSED. THE IMPLEMENTATION, MAINTENANCE, REPLACEMENT, AND ADDITIONS TO THE EROSION AND SEDIMENTATION CONTROL SYSTEMS SHALL BE THE RESPONSIBILITY OF THE PERMITEE.

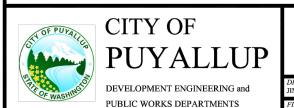
3. THE EROSION AND SEDIMENTATION CONTROL SYSTEM FACILITIES DEPICTED ON THESE PLANS ARE INTENDED TO BE MINIMUM REQUIREMENTS TO MEET ANTICIPATED SITE CONDITIONS. AS CONSTRUCTION PROGRESSES AND UNEXPECTED OR SEASONAL CONDITIONS DICTATE, FACILITIES WILL BE NECESSARY TO ENSURE COMPLETE SILTATION CONTROL ON THE SITE. DURING THE COURSE OF CONSTRUCTION, IT SHALL BE THE OBLIGATION AND RESPONSIBILITY OF THE PERMITEE TO ADDRESS ANY NEW CONDITIONS THAT MAY BE CREATED BY HIS ACTIVITIES AND TO PROVIDE ADDITIONAL FACILITIES, OVER AND ABOVE THE MINIMUM REQUIREMENTS, AS MAY BE NEEDED TO PROTECT ADJACENT PROPERTIES, SENSITIVE AREAS, NATURAL WATER COURSES, AND/OR STORM DRAINAGE SYSTEMS.

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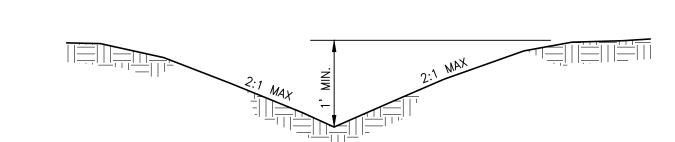
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C2.2 / SCALE: NTS

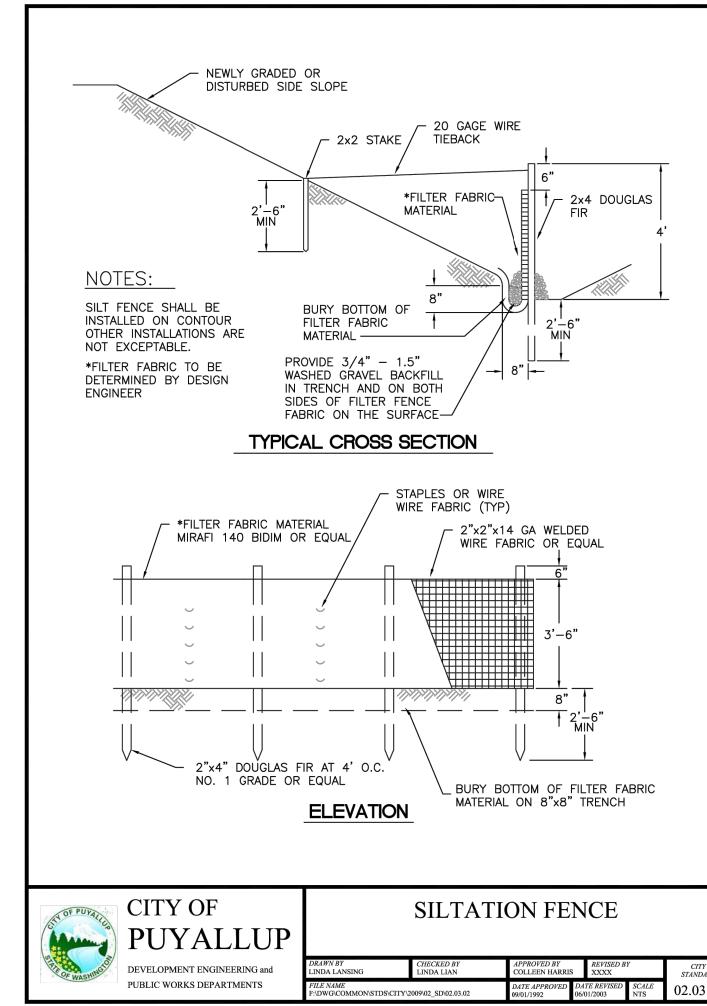
CITY OF GRADING, EROSION, AND SEDIMENTATION CONTROL NOTES

BY CHECKED BY APPROVED BY COLLEEN HARRIS LINDA LIAN COLLEEN HARRIS LINDA LIAN MECOMMON\STDS\CITY\2009\05_GRD\05.01\05.02.01 DATE APPROVED 07/01/2009 DATE REVISED SCALE 11/18/2014 1:1



3 CITY OF PUYALLUP NOTES

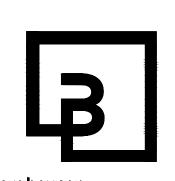
TEMPORARY "V" DITCH
C2.2 SCALE: NTS



5 SILTATION FENCE
C2.2 SCALE: NTS

client:





18215 72nd Avenue South Kent, WA 98032

425.251.6222

barghausen.com

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10/4/2

ARCO NTI
3400 am/pm

FUEL CANOPY w/ 6 MPD's

SITE ADDRESS:

SWC S MERIDIAN

PUYALLUP, WASHINGTON
FACILITY #TBD

@ HIGHWAY 512

ESIGNED BY: MM ALLIANCE Z&DM:
HECKED BY: AW BP REPM:
RAWN BY: MM ALLIANCE PM:
ERSION:
PROJECT NO:
21730

TESC DETAILS AND NOTES

SHEET NO:

APPROVED

CITY OF PUYALLUP

DEVELOPMENT ENGINEERING

NOTE: THIS APPROVAL IS VOID AFTER 180 DAYS FROM APPROVAL

THE CITY WILL NOT BE

DETERMINED BY THE

MANAGER.

RESPONSIBLE FOR ERRORS

AND/OR OMISSIONS ON THESE

DEVELOPMENT ENGINEERING

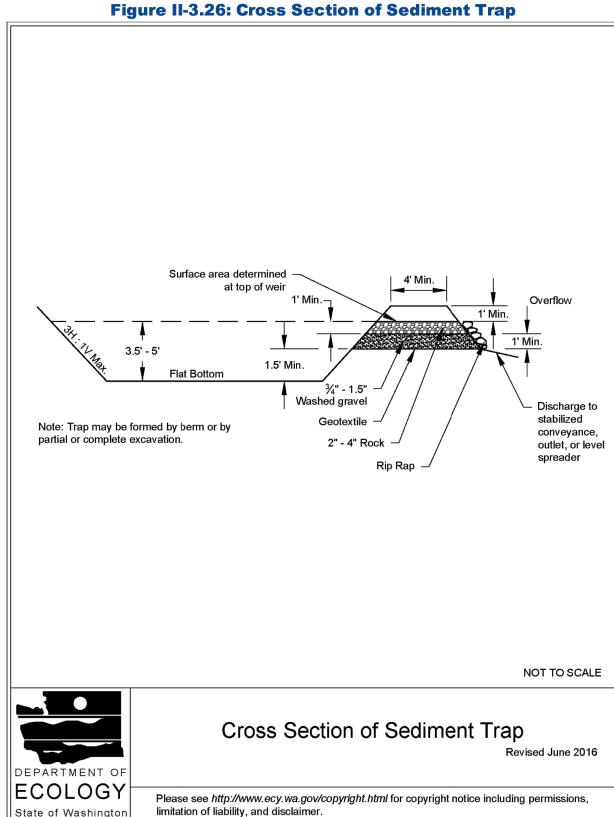
FIELD CONDITIONS MAY DICTATE CHANGES TO THESE PLANS AS

C2.2

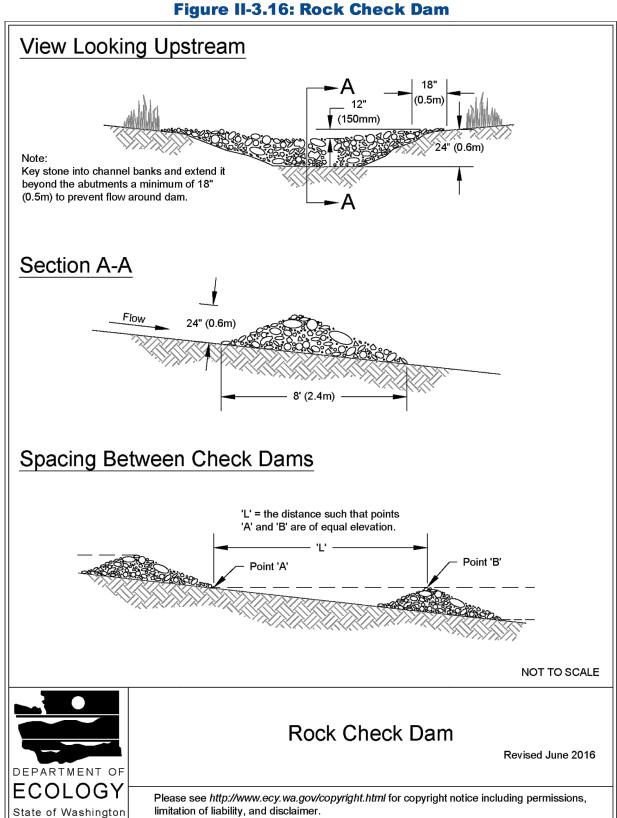
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1 SEDIMENT TRAP C2.3 SCALE: NTS



ROCK CHECK DAM C2.3 SCALE: NTS

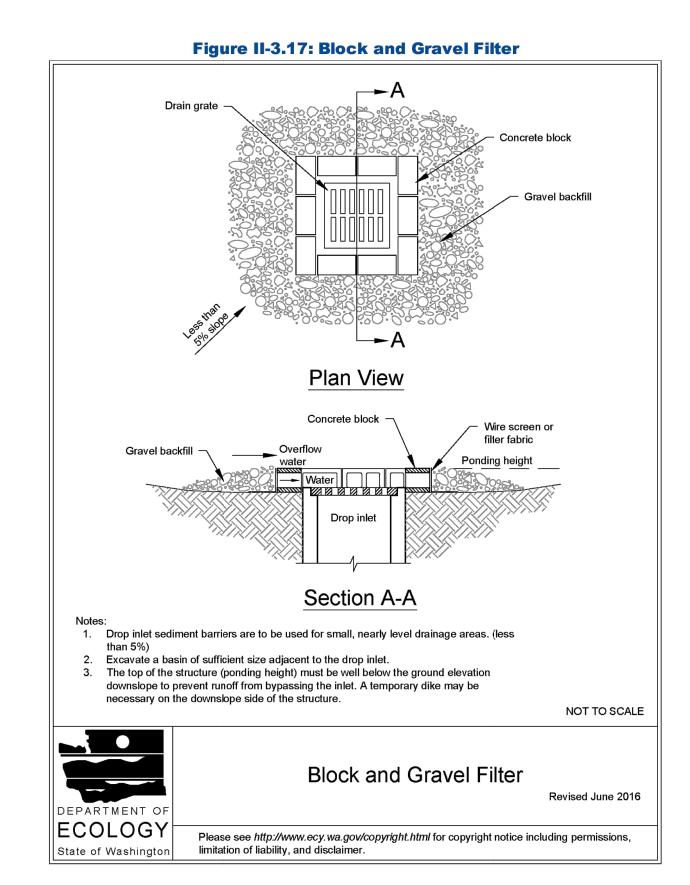
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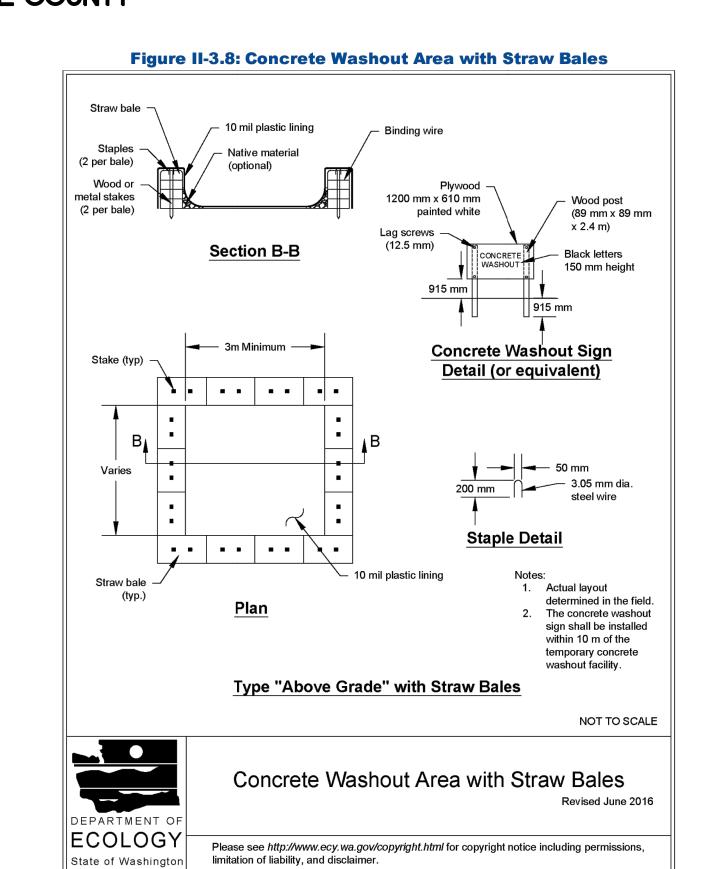


TESC DETAILS

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

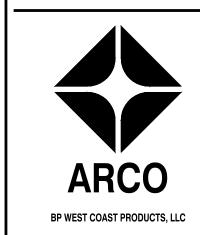


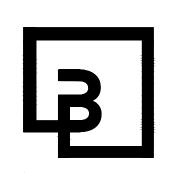
3 INLET PROTECTION



CONCRETE WASHOUT







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

> SWC S MERIDIAN @ HIGHWAY 512 PUYALLUP, WASHINGTON

FACILITY #TBD

_	TESC D	ETAII C
	DRAWING TITLE:	
	VERSION:	PROJECT NO: 21730
	DRAWN BY: MM	ALLIANCE PM:
	CHECKED BY: AW	BP REPM:

CITY OF PUYALLUP DEVELOPMENT ENGINEERING

APPROVED

NOTE: THIS APPROVAL IS VOID AFTER 180 DAYS FROM APPROVAL THE CITY WILL NOT BE RESPONSIBLE FOR ERRORS AND/OR OMISSIONS ON THESE

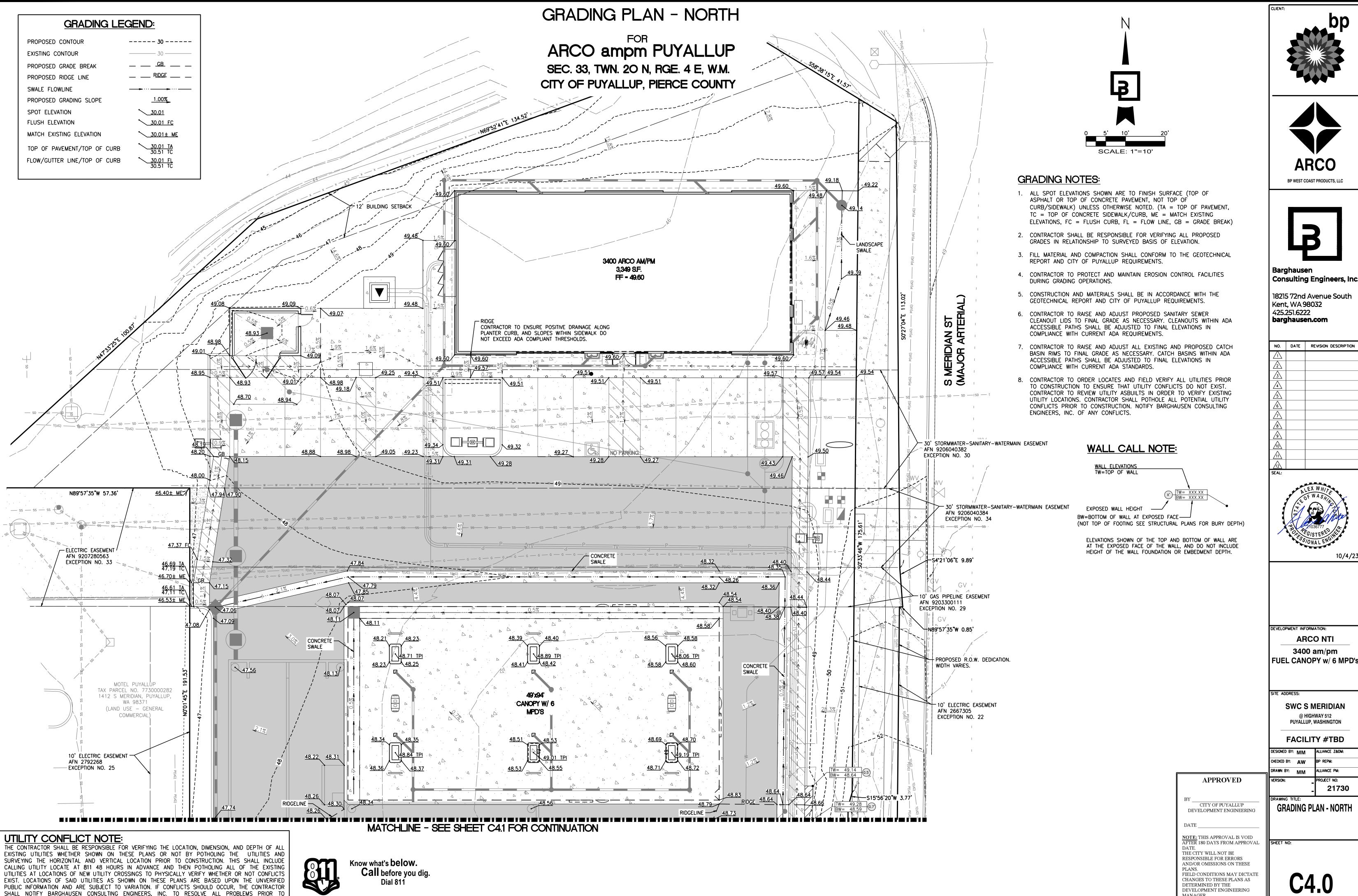
MANAGER.

FIELD CONDITIONS MAY DICTATE CHANGES TO THESE PLANS AS DETERMINED BY THE DEVELOPMENT ENGINEERING

SITE ADDRESS:

1E2C DETAILS

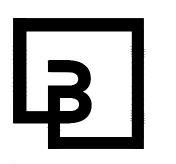
SITE PLAN **#** CONSTRUCTION NOTES: PROPOSED CONVENIENCE STORE. CONFIRM ALL DIMENSIONS WITH ARCHITECTURAL PLANS. SEE ARCHITECTURAL PLANS FOR DETAILS. (1) MEASUREMENT FROM NORTHWEST PROPERTY CORNER TO ARCO ampm PUYALLUP NORTHWEST CORNER OF C-STORE. C-STORE IS NOT PROPOSED CAR WASH, CONFIRM ALL DIMENSIONS WITH ARCHITECTURAL PARALLEL TO NORTHWEST PROPERTY LINE. DIMENSIONS PLANS. SEE ARCHITECTURAL PLANS FOR DETAILS. FROM NORTHWEST PROPERTY CORNER ARE ONLY ACCURATE TO BUILDING CORNERS AS SHOWN. PROPOSED LOCATION OF FUEL CANOPY. CONFIRM ALL DIMENSIONS SEC. 33, TWN. 20 N, RGE. 4 E, W.M. WITH THE ARCHITECTURAL AND FUEL PLANS. SEE ARCHITECTURAL (2) MEASUREMENT FROM NORTHWEST PROPERTY CORNER TO PLANS AND FUEL PLANS FOR DETAILS. CITY OF PUYALLUP, PIERCE COUNTY CENTER OF CANOPY COLUMNS. CANOPY IS NOT PARALLEL TO WEST PROPERTY LINE. DIMENSIONS FROM NORTHWEST . PROPOSED 25K AND 22K SPLIT UNDERGROUND STORAGE TANKS. SEE PROPERTY CORNER ARE ONLY ACCURATE TO CENTER OF FUEL PLANS FOR DETAILS. CANOPY COLUMNS AS SHOWN. 5. PROPOSED TRASH ENCLOSURE AND CONCRETE TRASH ENCLOSURE (3) MEASUREMENT FROM SOUTHWEST PROPERTY CORNER TO SLAB. SEE ARCHITECTURAL PLANS FOR DETAILS. FINISH FACE OF CAR WASH. CAR WASH IS NOT PARALLEL TO SOUTH PROPERTY LINE. DIMENSIONS FROM SOUTHWEST 6. PROPOSED ON-SITE ASPHALT PAVEMENT. SEE DETAIL 1/C7.0. PROPERTY CORNER ARE ONLY ACCURATE TO CAR WASH AS SHOWN. 7. PROPOSED ON-SITE CONCRETE PAVEMENT. SEE DETAIL 2/C7.0. PROVIDE EXPANSION AND CONTROL JOINTS PER SHEET C7.0. **ARCO** 8. PROPOSED BARRIER CURB. SEE DETAIL 4/C7.0. SCALE: 1"=20' 9. PROPOSED CURB AND GUTTER. SEE DETAIL 3/C7.0. BP WEST COAST PRODUCTS, LLC 10. PROPOSED CONCRETE SIDEWALK, WIDTH VARIES. SEE DETAIL 5/C7.0. 11. PROPOSED ACCESSIBLE PARKING STALL AND AISLE. SEE DETAIL 12. PROPOSED BOLLARD MOUNTED ACCESSIBLE PARKING STALL SIGNAGE. (1)3400 ARCO SEE DETAIL 2/C7.1. 13. PROPOSED PARKING STALL WITH 4" WIDE WHITE REFLECTIVE PAINT 3.349 S.F. STRIPE (TYP.). SEE DETAIL 4/C7.1. 14. PROPOSED BOLLARD (TYP.). SEE DETAIL 3/C7.2. Barghausen Consulting Engineers, Inc. 15. PROPOSED LOT LIGHT. SEE DETAIL ON-SITE PHOTOMETRIC PLANS FOR MORE DETAILS. COORDINATE ALL CONDUIT RUNS, WIRING REQUIREMENTS, ETC. WITH ELECTRICAL PLANS. SEE DETAIL 1/C7.2. 18215 72nd Avenue South Kent, WA 98032 MATCHLINE - SEE LEFT FOR CONTINUATION 16. PROPOSED AIR/WATER UNIT. SEE ARCHITECTURAL PLANS FOR DETAILS. 425.251.6222 30' STORMWATER-SANITARY-WATERMAIN barghausen.com 17. PROPOSED BICYCLE STORAGE. SEE DETAIL 4/C7.2. EASEMENT AFN 9206040382 EXCEPTION NO. 30 18. PROPOSED SEATING BENCH. SEE ARCHITECTURAL PLANS FOR DETAILS. PROPOSED R.O.W. NO. DATE REVISION DESCRIPTION DEDICATION. WIDTH 19. PROPOSED LANDSCAPING. SEE LANDSCAPE PLANS. N89'57'35"W 57.36' 30' STORMWATER-SANITARY-WATERMAIN -20. PROPOSED CONCRETE TANK FUEL SLAB. SEE FUEL PLANS FOR DESIGN. **EASEMENT AFN 9206040384** ELECTRIC EASEMENT EXCEPTION NO. 32 21. PROPOSED UNDER CANOPY CONCRETE SLAB. SEE ARCHITECTURAL AFN 9207280564 PLANS FOR DETAILS. EXCEPTION NO. 34 10' GAS PIPELINE EASEMENT **1**_35_ AFN 9203300111 EXCEPTION NO. 29 22. PROPOSED FUEL DISPENSERS WITH HOOP BOLLARDS (TYP.). SEE FUEL ₩S4°21'06"E 9.89' PLANS FOR DETAILS. 40 40.05 23. PAVEMENT MARKINGS - 4" WIDE WHITE PAINTED STRIPES @ 2' O.C/45° ANGLE. SEE DETAIL 5/C7.1. 34 30' STORMWATER-SANITARY-WATERMAIN ₩N89'57'35"W 0.85' EASEMENT AFN 9206040383 24. PROPOSED VACUUM UNIT. SEE ARCHITECTURAL PLANS FOR DETAILS. 30' INGRESS/EGRESS & UTILITY EASEMENT -EXCEPTION NO. 31 52.06' (2) AFN 2872449 ELECTRIC EASEMENT (3)49'x94' 25. PROPOSED FUTURE VAN ACCESSIBLE AND STANDARD EV CHARGING AFN 9207280563 STATION. FREEWIRE EV CHARGING STATION TO BE INSTALLED, SEE 34.07 EXCEPTION NO. 33 DETAIL 2/C7.2. 52.07'(2) 26. PROPOSED TRASH RECEPTACLE (TYP). 10' ELECTRIC EASEMENT SW, PUYALLUP, WA AFN 2667305 27. PROPOSED ACCESSIBLE PATH. REFER TO ACCESSIBLE PATH NOTE THIS EXCEPTION NO. 22 TAX PARCEL NO. 7730000321 BODY TALK, INC. 40.08 28. PROPOSED BLOCK RETAINING WALL. REFER TO STRUCTURAL (LAND USE - GENERAL 1420 S MERIDIAN, PUYALLUP ENGINEERING PLANS FOR DETAILS. S15'56'20"W 3.77' COMMERCIAL) STREET IMPROVEMENTS WA 98371 EASEMENT AFN 8706100397 TAX PARCEL NO. 77300003 29. PROPOSED ON-SITE MONUMENT SIGN. (LAND USE - GENERAL MOTEL PUYALLUP TAX PARCEL NO. 7730000282 COMMERCIAL) 30. PROPOSED TYPE 31 TIMBER POST GUARDRAIL WITH CASE 4 POST 1412 S MERIDIAN, PUYALLUP, INSTALLATION PER 1610.04(2) OF THE 2021 WSDOT DESIGN MANUAL. WA 98371 SEE DETAILS 1 AND 2/C7.3. LINETYPE DOES NOT DEPICT LOCATION OF (LAND USE - GENERAL 10/4/2 GUARDRAIL POST. FACE OF GUARDRAIL TO BE SETBACK 15-1/4" FROM COMMERCIAL) EDGE OF TRAVEL LANE. 31. PROPOSED DIRECTIONAL ARROWS. SEE DETAIL 6/C7.1. 32. PROPOSED BUS STOP BENCH PER PIERCE TRANSIT STANDARD BENCH. SEE DETAIL 6/C8.3. 33. EXISTING FIRE HYDRANT TO REMAIN. CONTRACTOR TO SAWCUT ASPHALT ON PROPERTY -LINE. PROPOSED WORK MAY ENCROACH ON 34. EXISTING ASPHALT TO REMAIN. ADJACENT PROPERTY. CONTRACTOR TO OBTAIN DEVELOPMENT INFORMATION: ALL NECESSARY PERMISSIONS OR TEMPORARY $-\stackrel{\sim}{\scriptstyle \sim}{\scriptstyle \sim}$ $-\stackrel{\sim}{\scriptstyle \sim}$ $-\stackrel{\sim}{\scriptstyle \sim}$ $-\stackrel{\sim}{\scriptstyle \sim}$ $-\stackrel{\sim}{\scriptstyle \sim}$ $\stackrel{\sim}{\scriptstyle \sim}$ $\stackrel{\sim}{\scriptstyle \sim}$ 35. EXISTING GRAVEL TO REMAIN. CONSTRUCTION EASEMENTS WITH ADJACENT **ARCO NTI** PROPERTY OWNER PRIOR TO CONSTRUCTION. 36. EXISTING CURB TO REMAIN. 3400 am/pm 2 **24'x48'** - PROPOSED DRIVEWAY CAR WASH FUEL CANOPY w/ 6 MPD's EXISTING SIGN TO REMAIN 37. RESTORE GRAVEL SURFACE. RESTORATION. SEE SHEET C8.2 FOR DETAILS. 38. PROPOSED TRANSFORMER. 15TH AVE SW 10' ELEC. EASEMENT 39. EXISTING SIGN TO BE RE-SET. FINAL LOCATION TO BE APPROVED WITH AFN 2792268 SITE ADDRESS: ROW INSPECTOR. EXCEPTION NO. 25 <u>\</u>8 77.25 PROPOSED DRIVEWAY SWC S MERIDIAN 40. PROPOSED ON-SITE CONCRETE PER DETAIL 1/C5.4. 20' INGRESS/EGRESS EASEMENT RECONSTRUCTION. SEE AFN 2741876 @ HIGHWAY 512 SHEET C8.1 FOR DETAILS. TAX PARCEL NO. 7730000283 EXCEPTION NO. 26 PUYALLUP, WASHINGTON NO KNOWN ADDRESS (LAND USE - GENERAL _N89'58'15"W 178.19' COMMERCIAL) FACILITY #TBD 36 (3)101.13' · 10' ELECTRIC EASEMENT AFN 2792268 EXCEPTION NO. 25 LIANCE PM: INGRESS/EGRESS AND UTILITIES EASEMENT ACCESSIBLE PATH OF TRAVEL NOTE: TAX PARCEL "NO. 7730000288 COMMON ACCESS TRACT "A" (TITLE PARCEL A2) AFN 2792268 APPROVED NO KNOWN ADDRESS (TITLE PARCEL A1) SP NO. EXCEPTION NO. 25 WALKWAYS ALONG ACCESSIBLE ROUTES OF TRAVEL SHALL BE (LAND USE - GENERAL 21730 CONTINUOUSLY ACCESSIBLE, BE A MINIMUM OF 48" IN WIDTH (PER COMMERCIAL) EXCEPTION NO. 24 PAR REQUIREMENTS FOUND IN PROWAG), HAVE A MAXIMUM 2.0% CITY OF PUYALLUP SITE PLAN CROSS SLOPE, AND SHALL HAVE RAMPS COMPLYING WITH DEVELOPMENT ENGINEERING ACCESSIBILITY STANDARDS (SECTION 405) WHERE NECESSARY TO GUNDERSON LAW FIRM CHANGE ELEVATION AT A LONGITUDINAL SLOPE EXCEEDING 5% (1:20). 1410 S MERIDIAN, PUYALLUP. WA 98371 TAX PARCEL NO. 7730000300 NOTE: THIS APPROVAL IS VOID AFTER 180 DAYS FROM APPROVAL SHEET NO: UTILITY CONFLICT NOTE: (LAND USE - GENERAL THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING THE LOCATION, DIMENSION, AND DEPTH OF ALL COMMERCIAL) THE CITY WILL NOT BE EXISTING UTILITIES WHETHER SHOWN ON THESE PLANS OR NOT BY POTHOLING THE UTILITIES AND RESPONSIBLE FOR ERRORS SURVEYING THE HORIZONTAL AND VERTICAL LOCATION PRIOR TO CONSTRUCTION. THIS SHALL INCLUDE Know what's **below**. AND/OR OMISSIONS ON THESE CALLING UTILITY LOCATE AT 811 48 HOURS IN ADVANCE AND THEN POTHOLING ALL OF THE EXISTING Call before you dig. UTILITIES AT LOCATIONS OF NEW UTILITY CROSSINGS TO PHYSICALLY VERIFY WHETHER OR NOT CONFLICTS FIELD CONDITIONS MAY DICTATE CHANGES TO THESE PLANS AS EXIST. LOCATIONS OF SAID UTILITIES AS SHOWN ON THESE PLANS ARE BASED UPON THE UNVERIFIED **Dial 811 U3.U** DETERMINED BY THE MATCHLINE - SEE RIGHT FOR CONTINUATION PUBLIC INFORMATION AND ARE SUBJECT TO VARIATION. IF CONFLICTS SHOULD OCCUR, THE CONTRACTOR DEVELOPMENT ENGINEERING SHALL NOTIFY BARGHAUSEN CONSULTING ENGINEERS, INC. TO RESOLVE ALL PROBLEMS PRIOR TO MANAGER. PROCEEDING WITH CONSTRUCTION.



PROCEEDING WITH CONSTRUCTION.



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



DEVELOPMENT INFORMATION: **ARCO NTI** 3400 am/pm

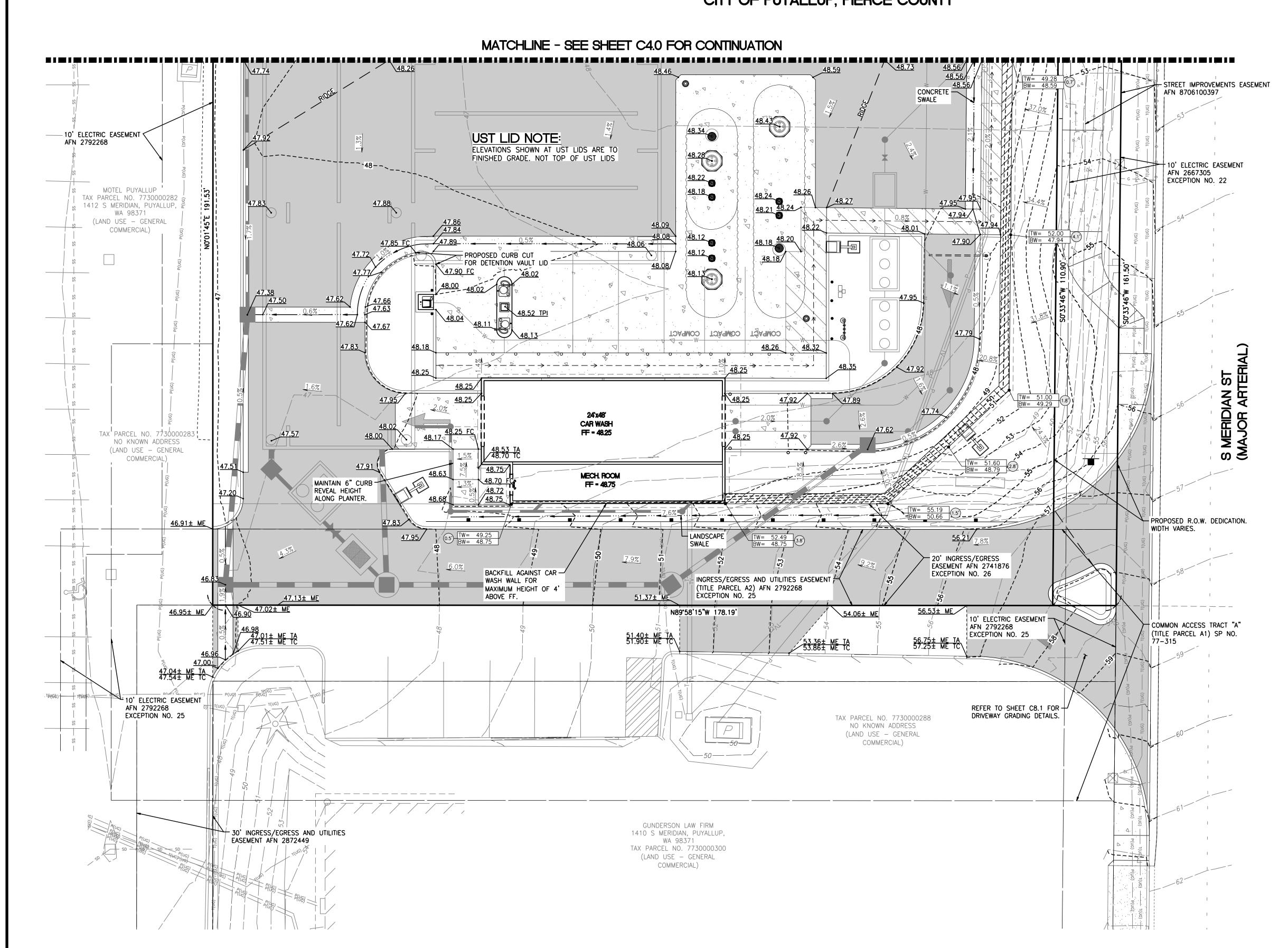
SWC S MERIDIAN @ HIGHWAY 512 PUYALLUP, WASHINGTON FACILITY #TBD

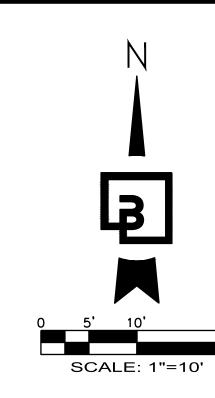
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GRADING PLAN - NORTH

MANAGER.

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



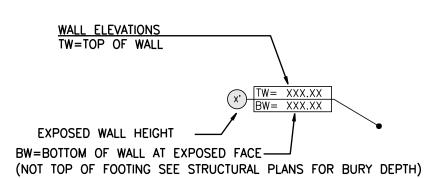


GRADING LE	GEND:
PROPOSED CONTOUR	30
EXISTING CONTOUR	30
PROPOSED GRADE BREAK	<u>GB</u>
PROPOSED RIDGE LINE	RIDGE
SWALE FLOWLINE	
PROPOSED GRADING SLOPE	1.00%
SPOT ELEVATION	30.01
FLUSH ELEVATION	30.01 FC
MATCH EXISTING ELEVATION	30.01± ME
TOP OF PAVEMENT/TOP OF CURB	30.01 TA 30.51 TC
FLOW/GUTTER LINE/TOP OF CURB	30.01 FL 30.51 TC

GRADING NOTES:

- 1. ALL SPOT ELEVATIONS SHOWN ARE TO FINISH SURFACE (TOP OF ASPHALT OR TOP OF CONCRETE PAVEMENT, NOT TOP OF CURB/SIDEWALK) UNLESS OTHERWISE NOTED. (TA = TOP OF PAVEMENT TC = TOP OF CONCRETE SIDEWALK/CURB, ME = MATCH EXISTING ELEVATIONS, FC = FLUSH CURB, FL = FLOW LINE, GB = GRADE BREAK)
- CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING ALL PROPOSED GRADES IN RELATIONSHIP TO SURVEYED BASIS OF ELEVATION.
- 3. FILL MATERIAL AND COMPACTION SHALL CONFORM TO THE GEOTECHNICA REPORT AND CITY OF PUYALLUP REQUIREMENTS.
- 4. CONTRACTOR TO PROTECT AND MAINTAIN EROSION CONTROL FACILITIES DURING GRADING OPERATIONS.
- 5. CONSTRUCTION AND MATERIALS SHALL BE IN ACCORDANCE WITH THE GEOTECHNICAL REPORT AND CITY OF PUYALLUP REQUIREMENTS.
- 6. CONTRACTOR TO RAISE AND ADJUST PROPOSED SANITARY SEWER CLEANOUT LIDS TO FINAL GRADE AS NECESSARY. CLEANOUTS WITHIN ADA ACCESSIBLE PATHS SHALL BE ADJUSTED TO FINAL ELEVATIONS IN COMPLIANCE WITH CURRENT ADA REQUIREMENTS.
- 7. CONTRACTOR TO RAISE AND ADJUST ALL EXISTING AND PROPOSED CATCH BASIN RIMS TO FINAL GRADE AS NECESSARY, CATCH BASINS WITHIN ADA ACCESSIBLE PATHS SHALL BE ADJUSTED TO FINAL ELEVATIONS IN COMPLIANCE WITH CURRENT ADA STANDARDS.
- 8. CONTRACTOR TO ORDER LOCATES AND FIELD VERIFY ALL UTILITIES PRIOR TO CONSTRUCTION TO ENSURE THAT UTILITY CONFLICTS DO NOT EXIST. CONTRACTOR TO REVIEW UTILITY ASBUILTS IN ORDER TO VERIFY EXISTING UTILITY LOCATIONS. CONTRACTOR SHALL POTHOLE ALL POTENTIAL UTILITY CONFLICTS PRIOR TO CONSTRUCTION. NOTIFY BARGHAUSEN CONSULTING ENGINEERS, INC. OF ANY CONFLICTS.

WALL CALL NOTE:



ELEVATIONS SHOWN OF THE TOP AND BOTTOM OF WALL ARE AT THE EXPOSED FACE OF THE WALL, AND DO NOT INCLUDE HEIGHT OF THE WALL FOUNDATION OR EMBEDMENT DEPTH.

CITY OF PUYALLUP

MANAGER.

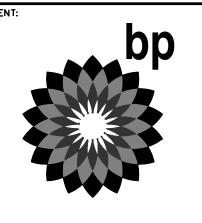
AND/OR OMISSIONS ON THESE

APPROVED

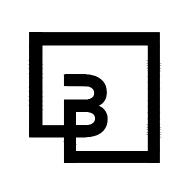
DEVELOPMENT ENGINEERING

NOTE: THIS APPROVAL IS VOID
AFTER 180 DAYS FROM APPROVAL
SHEET NO: THE CITY WILL NOT BE RESPONSIBLE FOR ERRORS

FIELD CONDITIONS MAY DICTATE CHANGES TO THESE PLANS AS DETERMINED BY THE DEVELOPMENT ENGINEERING







BP WEST COAST PRODUCTS, LLC

Consulting Engineers, Inc.

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

NO. DATE REVISION DESCRIPTION





10/4/2

DEVELOPMENT INFORMATION: **ARCO NTI**

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

SITE ADDRESS: **SWC S MERIDIAN** @ HIGHWAY 512

PUYALLUP, WASHINGTON FACILITY #TBD

LIANCE PM: 21730

GRADING PLAN - SOUTH

THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING THE LOCATION, DIMENSION, AND DEPTH OF ALL EXISTING UTILITIES WHETHER SHOWN ON THESE PLANS OR NOT BY POTHOLING THE UTILITIES AND SURVEYING THE HORIZONTAL AND VERTICAL LOCATION PRIOR TO CONSTRUCTION. THIS SHALL INCLUDE CALLING UTILITY LOCATE AT 811 48 HOURS IN ADVANCE AND THEN POTHOLING ALL OF THE EXISTING UTILITIES AT LOCATIONS OF NEW UTILITY CROSSINGS TO PHYSICALLY VERIFY WHETHER OR NOT CONFLICTS EXIST. LOCATIONS OF SAID UTILITIES AS SHOWN ON THESE PLANS ARE BASED UPON THE UNVERIFIED PUBLIC INFORMATION AND ARE SUBJECT TO VARIATION. IF CONFLICTS SHOULD OCCUR, THE CONTRACTOR SHALL NOTIFY BARGHAUSEN CONSULTING ENGINEERS, INC. TO RESOLVE ALL PROBLEMS PRIOR TO PROCEEDING WITH CONSTRUCTION.



GEOTECHNICAL RECOMMENDATIONS

THE FOLLOWING NOTES HAVE BEEN REFERENCED FROM THE REPORT TITLED "GEOTECHNICAL ENGINEERING" INVESTIGATION" DATED MAY 6, 2022, PREPARED BY KRAZAN & ASSOCIATES, INC. REFER TO THE COMPLETE REPORT FOR ALL EARTHWORK REQUIREMENTS.

GENERAL SITE CLEARING SHOULD INCLUDE REMOVAL OF TOPSOIL MATERIAL, ASPHALTIC CONCRETE, ABANDONED UTILITIES, AND STRUCTURES INCLUDING FOUNDATIONS, SLABS, RUBBLE, AND TRASH, DOWN TO NATIVE SUITABLE SOILS. IN ADDITION, ANY BURIED STRUCTURES, SUCH AS GREASE TRAPS, SEPTIC TANKS, UNDERGROUND STORAGE TANKS, DEBRIS PITS, CESSPOOLS, OR SIMILAR STRUCTURES, SHOULD BE COMPLETELY REMOVED AND BACKFILLED WITH STRUCTURAL FILL. THE UNDOCUMENTED FILL AND THE NATIVE VERY LOOSE SANDS AND VERY SOFT TO MEDIUM STIFF ORGANIC SILT/PEAT, CLAY, AND SANDY OR CLAYEY SILT ENCOUNTERED IN OUR FIELD EXPLORATIONS ARE CONSIDERED UNSUITABLE FOR SUPPORT OF THE AM/PM BUILDING, FUEL CANOPY STRUCTURE, CAR WASH STRUCTURE, FLOOR SLABS AND EXTERIOR SLABS-ON-GRADE, AND PAVEMENT LOADS.

BASED ON THE SHALLOW GROUNDWATER LEVELS ENCOUNTERED IN OUR EXPLORATIONS CONDUCTED IN MARCH 2022, TEMPORARY DEWATERING MEASURES WILL LIKELY BE REQUIRED TO CONDUCT THE OVER-EXCAVATION OF UNSUITABLE SOILS. ESPECIALLY IF CONSTRUCTION TAKES PLACE DURING THE "WET WEATHER" SEASON

KRAZAN & ASSOCIATES RECOMMEND THE UNDOCUMENTED FILL AND UNSUITABLE NATIVE SOILS BE OVER-EXCAVATED TO A DEPTH OF AT LEAST 2 FEET BELOW THE FOOTING BEARING LEVEL FOR SHALLOW FOUNDATIONS OR THE PLANNED SUBGRADE ELEVATION FOR SLABS-ON-GRADE OR PAVEMENTS. DEEPER EXCAVATIONS MAY BE REQUIRED IF SOFT AND YIELDING SOIL CONDITIONS ARE EXPOSED AT THE BOTTOM OF THE OVER-EXCAVATION. A LAYER OF ROCK SPALLS SHOULD BE PLACED ON THE EXCAVATION BOTTOM AND TAMPED IN-PLACE TO PROVIDE A STABLE WORKING SURFACE FOR PLACEMENT OF STRUCTURAL FILL. KRAZAN & ASSOCIATES RECOMMEND A HIGH-STRENGTH GEOTEXTILE SEPARATION FABRIC, SUCH AS MIRAFI 600X OR EQUIVALENT, THEN BE PLACED OVER THE ROCK SPALLS. AFTER THE FABRIC IS PLACED, THE AREA SHOULD BE FILLED TO THE PLANNED PAVEMENT SUBGRADE ELEVATION WITH STRUCTURAL FILL. THE STRUCTURAL FILL SHOULD BE COMPACTED TO AT LEAST 95 PERCENT OF THE MAXIMUM DRY DENSITY (ASTM D1557) AND TO WITHIN 2 PERCENT OF THE OPTIMUM MOISTURE CONTENT. IN-PLACE DENSITY TESTS SHOULD BE PERFORMED TO VERIFY PROPER MOISTURE CONTENT AND ADEQUATE COMPACTION LEVELS ARE ACHIEVED IN THE STRUCTURAL FILL. AN EXISTING RESTAURANT BUILDING IS LOCATED WITHIN THE EASTERN CENTRAL PORTION OF THE PROPERTY WHERE THE CANOPY AND FUEL PUMPS ARE PLANNED, AND EXTENDS INTO PART OF THE PROPOSED AREA OF THE FUTURE USTS. THE DEBRIS FROM DEMOLITION OF THE EXISTING BUILDING SHOULD BE HAULED OFF-SITE. AS-BUILT RECORDS FOR THE EXISTING BUILDING WERE NOT AVAILABLE AT THE TIME OF THIS REPORT. ASSUMING THE RESTAURANT IS SUPPORTED ON A SHALLOW FOUNDATION SYSTEM. THEN EXISTING CONCRETE FOOTINGS SHOULD BE COMPLETELY REMOVED WITHIN THE FOOTPRINT OF THE CANOPY STRUCTURE, AND TO A DEPTH OF AT LEAST 1-FOOT BELOW THE PLANNED SUBGRADE ELEVATION IN NEW PAVEMENT OR EXTERIOR SLAB-ON-GRADE AREAS. IF THE EXISTING BUILDING IS PILE SUPPORTED, THE TYPE AND LOCATION OF THE PILES WILL NEED TO BE EVALUATED PRIOR TO OR DURING CONSTRUCTION AS INFORMATION BECOMES AVAILABLE TO DETERMINE IF THE PILES SHOULD BE LEFT IN-PLACE, OR PARTIALLY OR COMPLETELY REMOVED. KRAZAN & ASSOCIATES SHOULD BE ONSITE FULL-TIME DURING THE DEMOLITION ACTIVITIES TO DOCUMENT THAT ALL BELOW-GRADE STRUCTURES HAVE BEEN PROPERLY REMOVED AND BACKFILLED WITH PROPERLY PLACED AND COMPACTED STRUCTURAL FILL, AND THAT THE RESULTING DEBRIS FROM THE DEMOLITION ACTIVITIES

DURING WET WEATHER CONDITIONS. SUBGRADE STABILITY PROBLEMS AND GRADING DIFFICULTIES MAY DEVELOP DUE TO THE EXCESS MOISTURE, DISTURBANCE OF SENSITIVE SOILS, SHALLOW GROUNDWATER LEVELS, AND/OR THE PRESENCE OF PERCHED GROUNDWATER. CONSTRUCTION DURING EXTENDED PERIODS OF WET WEATHER COULD RESULT IN THE NEED TO REMOVE WET DISTURBED SOILS IF THEY CANNOT BE SUITABLY COMPACTED DUE TO ELEVATED MOISTURE CONTENTS. THE PREPARED SUBGRADE SHOULD BE PROTECTED FROM CONSTRUCTION TRAFFIC AND SURFACE WATER SHOULD BE DIVERTED AROUND THE PREPARED SUBGRADE. SOILS THAT HAVE BECOME UNSTABLE MAY REQUIRE OVER-EXCAVATION, OR DRYING AND RECOMPACTION. SELECTIVE DRYING MAY BE ACCOMPLISHED BY SCARIFYING OR WINDROWING SURFICIAL MATERIAL DURING EXTENDED PERIODS OF DRY, WARM WEATHER (TYPICALLY DURING THE SUMMER MONTHS). IF THE SOILS CANNOT BE DRIED BACK TO A WORKABLE MOISTURE CONDITION, REMOVAL OF THE UNSTABLE SOILS OR THE USE OF REMEDIAL MEASURES MAY BE REQUIRED. THESE REMEDIAL MEASURES COULD INCLUDE PLACEMENT OF A BLANKET OF ROCK SPALLS TO PROTECT THE EXPOSED SUBGRADE AND CONSTRUCTION TRAFFIC AREAS. THE LATERAL EXTENT AND DEPTH OF ROCK SPALLS, IF REQUIRED, SHOULD BE DETERMINED BASED ON EVALUATION OF THE NEAR SURFACE SOIL CONDITIONS AT THE TIME OF CONSTRUCTION. GENERAL PROJECT SITE WINTERIZATION SHOULD CONSIST OF THE PLACEMENT OF AGGREGATE BASE AND THE PROTECTION OF EXPOSED SOILS DURING THE CONSTRUCTION PHASE.

HAS BEEN HAULED OFF-SITE AND NOT RE-USED AS FILL AT ANY LOCATION ON THE PROPERTY.

POREWATER PRESSURE DISSIPATION TESTS CONDUCTED ON MARCH 30, 2022 IN THE CPTS INDICATED A GROUNDWATER LEVEL RANGING BETWEEN 1.2 TO 3.7 FEET BGS. SHALLOW GROUNDWATER WAS ALSO ENCOUNTERED IN THE TEST PITS: HOWEVER, AFTER WAITING 3 HOURS THE WATER LEVEL WAS STILL RISING SO THE TEST PITS WERE BACKFILLED FOR SAFETY REASONS. TWO MONITORING WELLS INSTALLED BY OTHERS, ONE NEAR CPT-1 AND THE OTHER NEAR CPT-4. INDICATED WATER LEVELS AT 4.6 AND 1.5 FEET BGS. A MANHOLE COVER FOR THE COMMUNICATIONS LINE AT THE NORTHEAST SIDE OF THE SITE WAS REMOVED DURING OUR MARCH 28, 2022 SITE VISIT AND THE WATER LEVEL WAS MEASURED AT A DEPTH OF ABOUT 5.5 FEET BG.

SUMP PIT AND PUMPING METHODS MAY BE ABLE TO HANDLE GROUNDWATER ENCOUNTERED IN SHALLOW EXCAVATIONS DEPENDING ON THE TIME OF YEAR CONSTRUCTION TAKES PLACE. THE PLANNED EXCAVATION DEPTH, AND THE SOILS ENCOUNTERED WITHIN THE EXCAVATION. THE TEST PITS CONDUCTED FOR THIS EXPLORATION ENCOUNTERED GROUNDWATER AS SHALLOW AS 1.5 FEET BGS, AND CAVE-IN OF THE PIT SIDEWALLS OCCURRED IN THE VERY LOOSE TO LOOSE SOILS AT ABOUT THE LEVEL GROUNDWATER WAS ENCOUNTERED. DEEPER EXCAVATIONS, SUCH AS FOR INSTALLATION OF THE USTS, WILL REQUIRE MORE A MORE AGGRESSIVE DEWATERING METHOD, SUCH AS WELL POINTS. TO MAINTAIN THE STABILITY OF THE EXCAVATION BOTTOM, GROUNDWATER LEVELS SHOULD BE DRAWN DOWN A MINIMUM OF 2 FEET BELOW THE LOWEST PORTION OF THE EXCAVATION. THE GROUNDWATER LEVEL SHOULD BE MAINTAINED BELOW THE RECOMMENDED LEVEL UNTIL THE BACKFILL HAS BEEN PLACED AND COMPACTED.

THE ONSITE SOILS HAVE VARIABLE FRICTION AND COHESION STRENGTHS, THEREFORE THE SAFE ANGLES TO WHICH THESE MATERIALS MAY BE CUT FOR TEMPORARY EXCAVATIONS IS VARIABLE. AS THE SOILS MAY BE PRONE TO CAVING AND SLOPE FAILURES IN TEMPORARY EXCAVATIONS DEEPER THAN ABOUT 2 FEET OR AT THE LEVEL WHERE GROUNDWATER IS ENCOUNTERED. TEMPORARY EXCAVATIONS IN THE FILL MATERIAL AND UNDERLYING NATIVE SOILS SHOULD BE SLOPED NO STEEPER THAN 2H:1V (HORIZONTAL TO VERTICAL) WHERE ROOM PERMITS. DEPENDING ON SITE SOIL AND GROUNDWATER CONDITIONS, IT MAY BE NECESSARY TO FLATTEN THE SIDE SLOPES OF THE EXCAVATION AND LOWER THE GROUNDWATER LEVEL AS NECESSARY TO ACHIEVE STABLE CONDITIONS. SLOPE CUTS INTO EXCAVATIONS GREATER THAN 20 FEET IN DEPTH SHOULD BE DESIGNED BY A PROFESSIONAL ENGINEER FOR THE CONTRACTOR.

THE ONSITE UNDOCUMENTED FILL AND NATIVE SOILS ARE CONSIDERED UNSUITABLE FOR RE-USE AS TRENCH BACKFILL, STRUCTURAL FILL SHOULD BE USED AS BACKFILL. TRENCH BACKFILL LIFTS SHOULD BE PLACED IN EQUAL MEASURES ON EACH SIDE OF THE UTILITY PIPE TO THE TOP OF THE PIPE. TRENCH BACKFILL LIFTS SHOULD NOT EXCEED 8 INCHES IN LOOSE THICKNESS PRIOR TO COMPACTION, WITH THE EXCEPTION THAT THE FIRST LIFT PLACED OVER THE PIPE MAY BE UP TO 14 INCHES IN LOOSE THICKNESS. EACH LIFT OF TRENCH BACKFILL SHOULD BE MOISTURE CONDITIONED TO WITHIN 2 PERCENT OF ITS OPTIMUM MOISTURE CONTENT AND COMPACTED TO THE REQUIRED RELATIVE DENSITY PRIOR TO PLACEMENT OF ADDITIONAL FILL LIFTS. A FIRM AND UNYIELDING SUBGRADE (I.E. BEARING SOILS AT BOTTOM OF TRENCH) SHOULD ALLOW FOR THE PROPER PLACEMENT OF SUBSURFACE UTILITIES. IF UNSTABLE SOILS ARE ENCOUNTERED AT THE UTILITY TRENCH BOTTOM, WE RECOMMEND PLACEMENT OF GEOTEXTILE AND QUARRY ROCK (ROCK SPALLS) ON THE BOTTOM OF UTILITY TRENCHES PRIOR TO PLACEMENT OF PIPE BEDDING TO PROVIDE A STABLE SUBGRADE FOR PLACEMENT OF THE PIPE BEDDING UTILITY, AND TRENCH BACKFILL. THE THICKNESS OF THE ROCK SPALL LAYER WILL DEPEND ON THE INSTABILITY OF THE SUBGRADE SOILS AT THE TIME OF EXCAVATION. PIPE BEDDING SHOULD BE IN ACCORDANCE WITH THE PIPE MANUFACTURER'S RECOMMENDATION.

BASED ON THE FIELD EXPLORATION, THE UNDOCUMENTED FILL AND NATIVE SOIL THAT WILL BE ENCOUNTERED WITHIN ROUGHLY THE UPPER 10 FEET DURING SITE DEVELOPMENT ARE CONSIDERED UNSUITABLE FOR RE-USE AS STRUCTURAL FILL MATERIAL DUE TO THEIR HIGH FINES CONTENT (PERCENT SILT AND/OR CLAY MATERIAL PASSING THE NO. 200 SIEVE), AS WELL AS ORGANIC CONTENT FOR THE SHALCAR MUCK ENCOUNTERED IN OUR EXPLORATIONS. THESE SOILS ARE CONSIDERED EXTREMELY MOISTURE-SENSITIVE AND WILL LIKELY DISTURB EASILY IN WET CONDITION.

IMPORTED FILL MATERIAL SHOULD BE ALL-WEATHER STRUCTURAL FILL CONSISTING OF WELL-GRADED GRAVEL OR A SAND AND GRAVEL MIXTURE WITH A MAXIMUM GRAIN SIZE OF 3 INCHES AND LESS THAN 5 PERCENT FINES (MATERIAL PASSING THE U.S. STANDARD NO. 200 SIEVE). STRUCTURAL FILL MAY ALSO CONSIST OF CRUSHED ROCK, ROCK SPALLS, OR CONTROLLED DENSITY FILL (CDF).

ALL STRUCTURAL FILL MATERIAL SHOULD BE SUBMITTED FOR APPROVAL TO THE GEOTECHNICAL ENGINEER AT LEAST 48 HOURS PRIOR TO DELIVERY TO THE SITE. FILL SOILS SHOULD BE PLACED IN HORIZONTAL LIFTS NOT EXCEEDING 8 INCHES LOOSE THICKNESS, MOISTURE-CONDITIONED AS NECESSARY (MOISTURE CONTENT OF SOIL SHALL NOT VARY BY MORE THAN ±2 PERCENT OF ITS OPTIMUM MOISTURE CONTENT). AND COMPACTED TO AT LEAST 95 PERCENT OF THE MAXIMUM DRY DENSITY BASED ON ASTM TEST METHOD D1557 (MODIFIED PROCTOR). IN-PLACE DENSITY TESTS SHOULD BE PERFORMED ON ALL STRUCTURAL FILL TO DOCUMENT

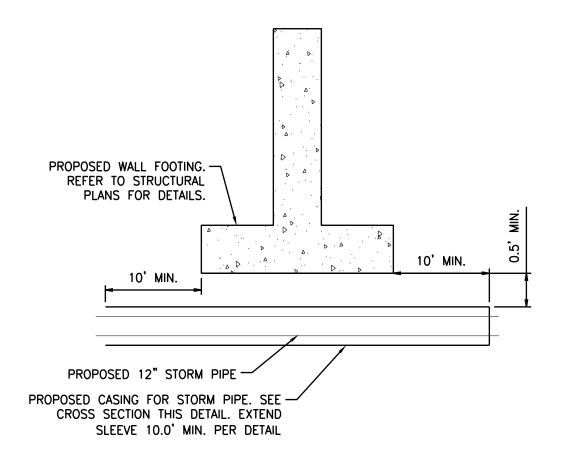
PROPER MOISTURE CONTENT AND ADEQUATE COMPACTION LEVELS HAVE BEEN ATTAINED. ADDITIONAL FILL LIFTS SHOULD NOT BE PLACED IF THE PREVIOUS LIFT DID NOT MEET THE COMPACTION REQUIREMENTS OR IF SOIL CONDITIONS ARE NOT CONSIDERED STABLE. PLACING SEVERAL LIFTS OF FILL AND THEN POTHOLING DOWN TO EACH LIFT TO CONDUCT COMPACTION TESTING IS NOT ACCEPTABLE, AND WILL REQUIRE COMPLETE REMOVAL OF THE FILL DOWN TO THE FIRST LIFT. PONDING OR JETTING THE SOIL IS NOT AN APPROVED METHOD OF SOIL COMPACTION

TW EL = ± 53.56 FINISHED GRADE PER PLAN-TW ELEVATION PER PLAN > LANDSCAPE SWALE $EL = \pm 53.48$ FLOW ARROW BLOCK WALL PER STRUCTURAL AND -CONCRETE CURB GEOTECHNICAL RECOMMENDATIONS. PER CIVIL DRAWINGS $EL = \pm 53.57$ **HARDSCAPE** FINISHES PER PLAN EXPOSED WALL HEIGHT PER PLAN -ELEVATIONS VARY PER PLAN -FILL PER OWNER BW EL = $\pm 49.52 -$ APPOINTED GEOTECHNICAL ELEVATIONS VARY PER PLAN-ENGINEER'S REPORT $EL = \pm 48.49 \, \neg$ PROPOSED GRADE - $EL = \pm 47.99 \, \neg$ HARDSCAPE FINISHES ~ PER PLAN PROVIDE 4"Ø PERFORATED DRAIN PIPE. - OVER EXCAVATE AND PREPARE SUBGRADE PER THE GEOTECHNICAL RECOMMENDATIONS. 16" DI CASING, 0.375' MIN. WALL THICKNESS. PROPOSED CASING FOR STORM 12" STORM PIPE, CENTERED -- FILL ANNULAR SPACE WITH PIPE. SEE CROSS SECTION THIS AND RESTRAINED. AIR BLOWN SAND DETAIL. EXTEND SLEEVE 10.0' MIN. PIPE CASING CROSS SECTION PROPOSED CASING FOR STORM PIPE. SEE CROSS SECTION THIS DETAIL. EXTEND SLEEVE 10.0' MIN.

ELEVATIONS VARY PER PLAN-

1 BLOCK WALL

C4.2 | SCALE: 1/2"=1'-0"



3 DUCTILE IRON PIPE CASING C4.2 / SCALE: NTS

APPROVED

CITY OF PUYALLUP DEVELOPMENT ENGINEERING

NOTE: THIS APPROVAL IS VOID AFTER 180 DAYS FROM APPROVAL SHEET NO: THE CITY WILL NOT BE RESPONSIBLE FOR ERRORS AND/OR OMISSIONS ON THESE

MANAGER.

FIELD CONDITIONS MAY DICTATE CHANGES TO THESE PLANS AS DETERMINED BY THE DEVELOPMENT ENGINEERING

ARCO

BP WEST COAST PRODUCTS, LLC

Consulting Engineers, Inc.

18215 72nd Avenue South

NO. DATE REVISION DESCRIPTION

Kent. WA 98032

barghausen.com

DEVELOPMENT INFORMATION:

SITE ADDRESS:

ARCO NTI

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

SWC S MERIDIAN

@ HIGHWAY 512 PUYALLUP, WASHINGTON

FACILITY #TBD

GRADING NOTES AND DETAILS

LIANCE PM:

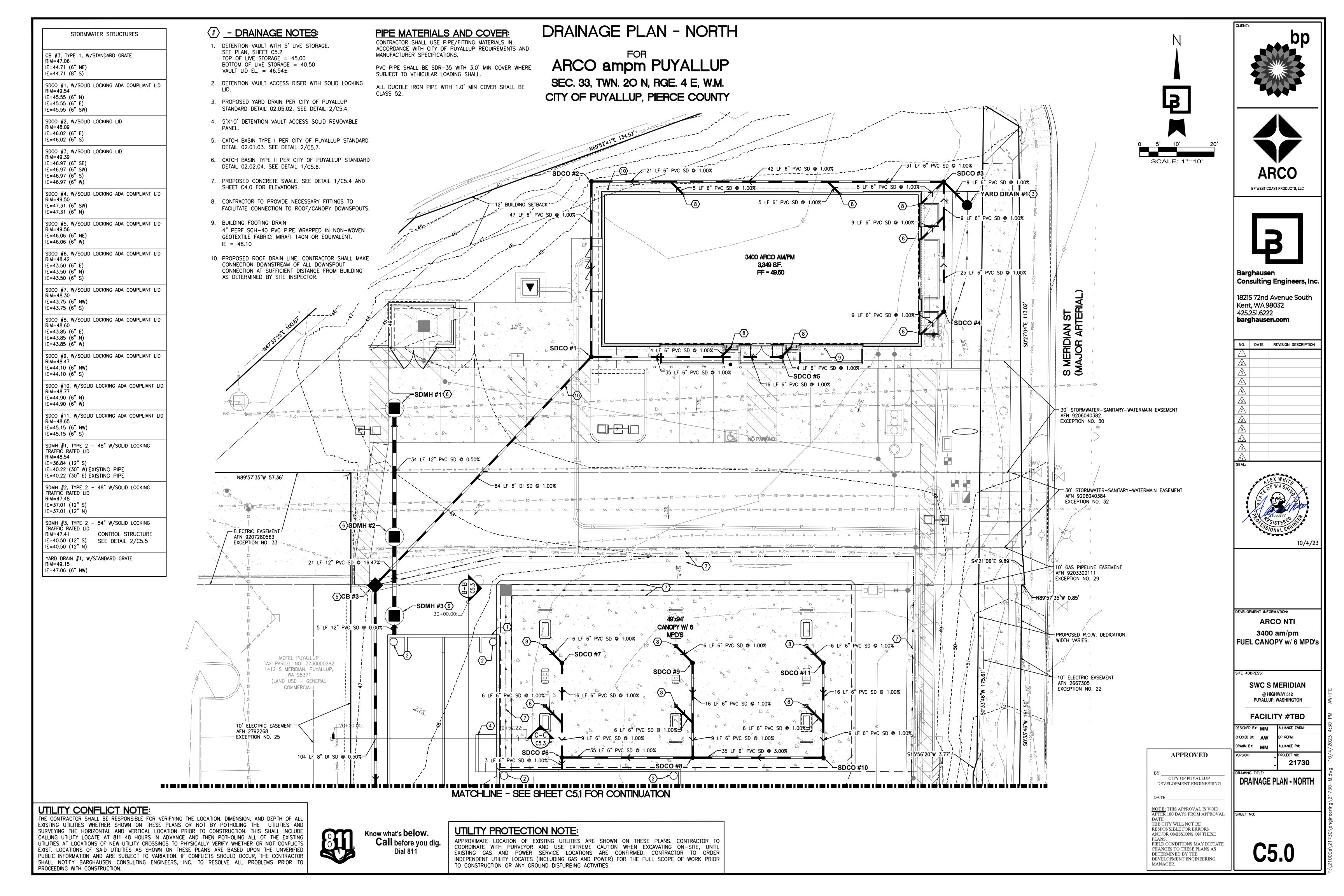
21730

425.251.6222

UTILITY CONFLICT NOTE:

THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING THE LOCATION, DIMENSION, AND DEPTH OF ALI EXISTING UTILITIES WHETHER SHOWN ON THESE PLANS OR NOT BY POTHOLING THE UTILITIES AND SURVEYING THE HORIZONTAL AND VERTICAL LOCATION PRIOR TO CONSTRUCTION. THIS SHALL INCLUDE CALLING UTILITY LOCATE AT 811 48 HOURS IN ADVANCE AND THEN POTHOLING ALL OF THE EXISTING UTILITIES AT LOCATIONS OF NEW UTILITY CROSSINGS TO PHYSICALLY VERIFY WHETHER OR NOT CONFLICTS EXIST. LOCATIONS OF SAID UTILITIES AS SHOWN ON THESE PLANS ARE BASED UPON THE UNVERIFIED PUBLIC INFORMATION AND ARE SUBJECT TO VARIATION. IF CONFLICTS SHOULD OCCUR, THE CONTRACTOR SHALL NOTIFY BARGHAUSEN CONSULTING ENGINEERS, INC. TO RESOLVE ALL PROBLEMS PRIOR TO PROCEEDING WITH CONSTRUCTION.





DRAINAGE PLAN - SOUTH

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

PIPE MATERIALS AND COVER:

CONTRACTOR SHALL USE PIPE/FITTING MATERIALS IN ACCORDANCE WITH CITY OF PUYALLUP REQUIREMENTS AND MANUFACTURER SPECIFICATIONS.

PVC PIPE SHALL BE SDR-35 WITH 3.0' MIN COVER WHERE SUBJECT TO VEHICULAR LOADING SHALL.

ALL DUCTILE IRON PIPE WITH 1.0' MIN COVER SHALL BE CLASS 52.

SCALE: 1"=10'

VAULT LID EL. = 47.50-48.582. DETENTION VAULT ACCESS RISER WITH SOLID LOCKING LID.

3. BUILDING FOOTING DRAIN 4" PERF SCH-40 PVC PIPE WRAPPED IN NON-WOVEN GEOTEXTILE FABRIC: MIRAFI 140N OR EQUIVALENT.

(#) - DRAINAGE NOTES:

1. DETENTION VAULT WITH 5' LIVE STORAGE. SEE PLAN, SHEET C5.2

BOTTOM OF LIVE STORAGE = 40.50

TOP OF LIVE STORAGE = 45.00

4. PROPOSED OIL/WATER SEPARATOR (OLDCASTLE PRECAST 577-CPS OR APPROVED EQUAL) SEE DETAIL 1/C5.7 RIM: 47.53 IE: 44.48 (IN 8" SE) IE: 45.00 (OUT 8" NW)

5. 8" EMERGENCY SHUT OFF VALVE W/ RISER & VALVE BOX. VALVE SHALL BE INSTALLED IN TRAFFIC RATED BOX.

6. CONTECH MODULAR WETLAND: MWS-L-8-8-V SEE DETAIL 2/C5.6 RIM: 47.57 IE: 44.97 (IN 8" SE)

7. CATCH BASIN TYPE I PER CITY OF PUYALLUP STANDARD DETAIL 02.01.03. SEE DETAIL 2/C5.7.

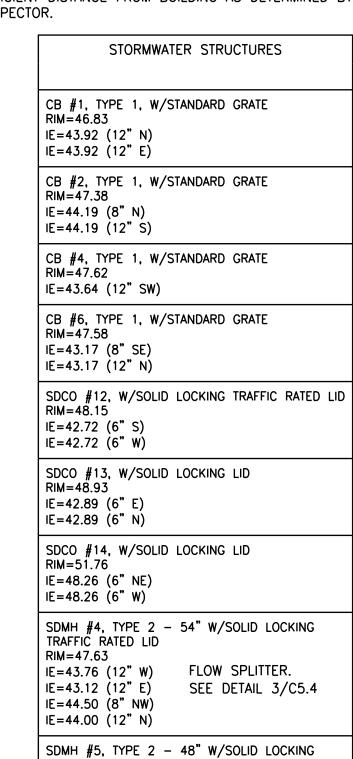
8. CATCH BASIN TYPE II PER CITY OF PUYALLUP STANDARD DETAIL 02.01.04. SEE DETAIL 1/C5.6.

9. CONTRACTOR TO PROVIDE NECESSARY FITTINGS TO FACILITATE CONNECTION TO ROOF/CANOPY DOWNSPOUTS.

10. PROPOSED CONCRETE SWALE. SEE DETAIL 1/C5.4 AND SHEET C4.1 FOR ELEVATIONS.

11. PROPOSED PIPE CASING, SEE WALL DETAIL 1/C4.2. CONTRACTOR TO ENSURE 0.5' SEPARATION BETWEEN TOP OF PIPE AND BOTTOM OF WALL FOOTING FOR 10' ON EITHER SIDE OF INTERSECTION.

12. PROPOSED ROOF DRAIN LINE. CONTRACTOR SHALL MAKE CONNECTION DOWNSTREAM OF ALL DOWNSPOUT CONNECTION AT SUFFICIENT DISTANCE FROM BUILDING AS DETERMINED BY SITE INSPECTOR.

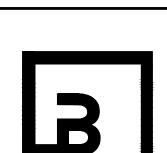


TRAFFIC RATED LID

IE=43.40 (12" NE) IE=43.40 (12" W)

RIM=51.19





BP WEST COAST PRODUCTS, LLC

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 PUYALLUP, WASHINGTON

FACILITY #TBD

RSION:	- -	PROJECT NO: 21730
RAWN BY:	ММ	ALLIANCE PM:
ECKED BY:	AW	BP REPM:
SIGNED BY:	MM	ALLIANCE Z&DM:

DRAINAGE PLAN - SOUTH

APPROVED

CITY OF PUYALLUP

DEVELOPMENT ENGINEERING

NOTE: THIS APPROVAL IS VOID AFTER 180 DAYS FROM APPROVAL

THE CITY WILL NOT BE RESPONSIBLE FOR ERRORS

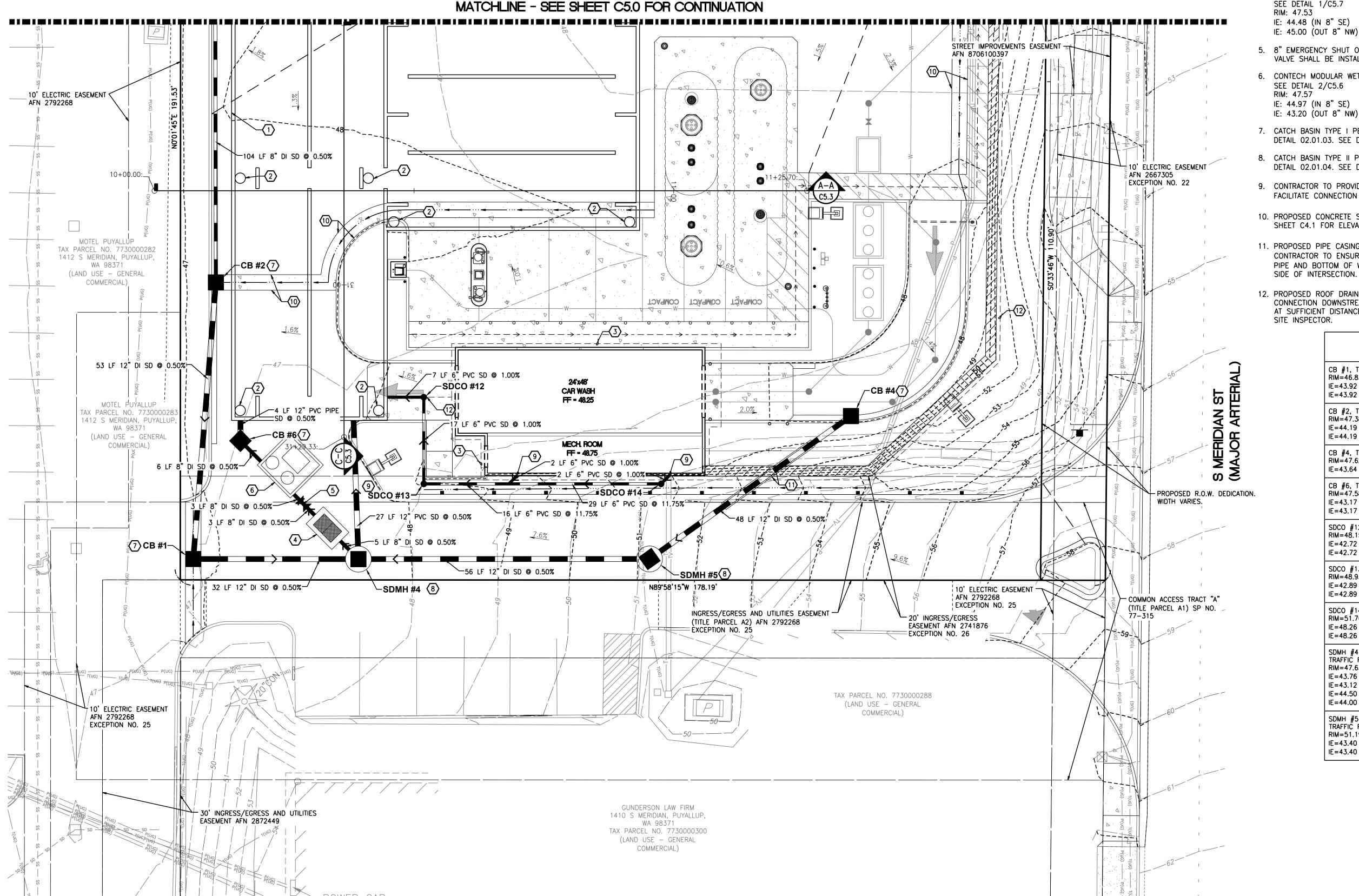
DETERMINED BY THE

MANAGER.

AND/OR OMISSIONS ON THESE

DEVELOPMENT ENGINEERING

FIELD CONDITIONS MAY DICTATE CHANGES TO THESE PLANS AS



UTILITY CONFLICT NOTE:

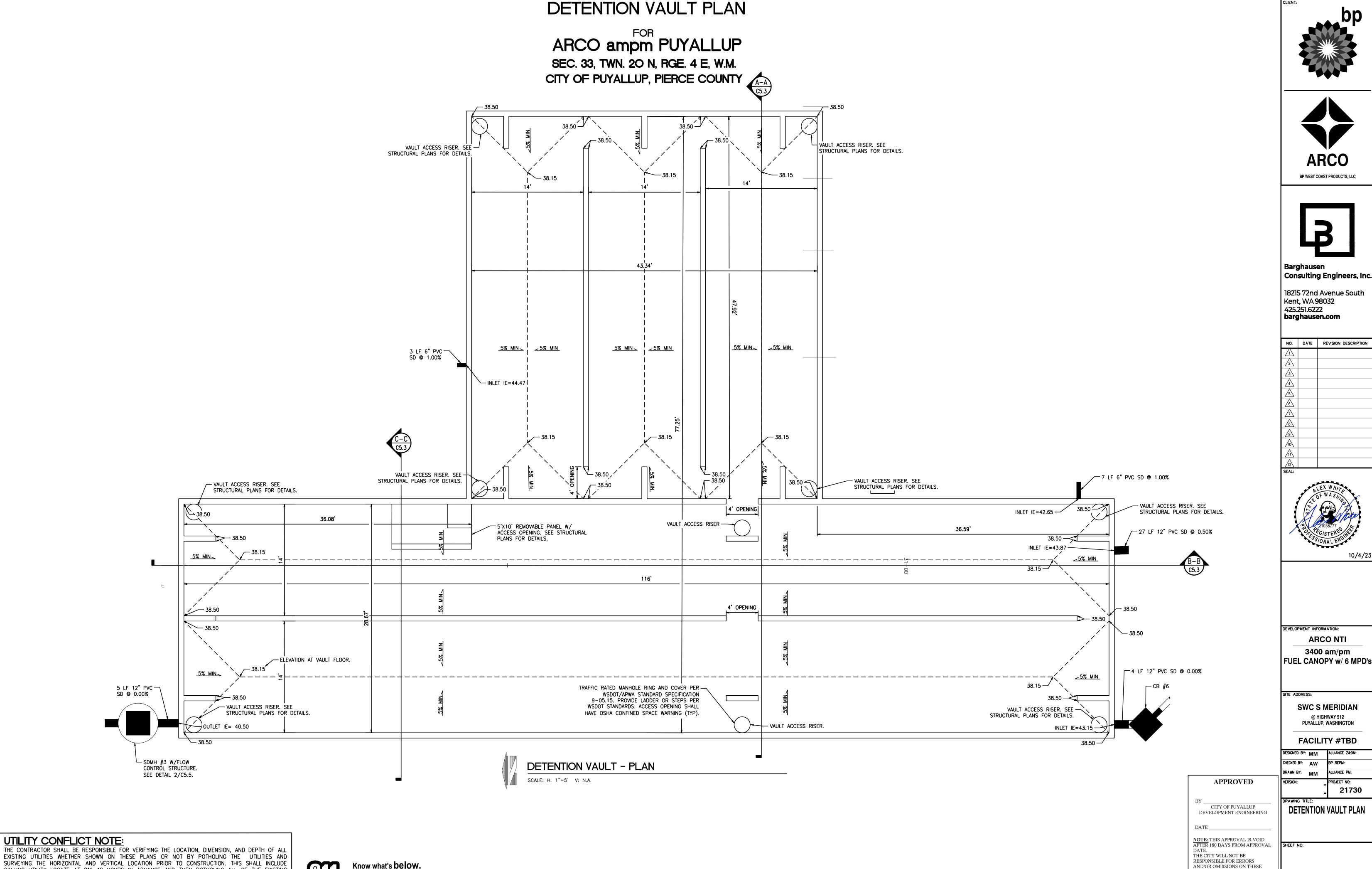
THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING THE LOCATION, DIMENSION, AND DEPTH OF ALL EXISTING UTILITIES WHETHER SHOWN ON THESE PLANS OR NOT BY POTHOLING THE UTILITIES AND SURVEYING THE HORIZONTAL AND VERTICAL LOCATION PRIOR TO CONSTRUCTION. THIS SHALL INCLUDE CALLING UTILITY LOCATE AT 811 48 HOURS IN ADVANCE AND THEN POTHOLING ALL OF THE EXISTING UTILITIES AT LOCATIONS OF NEW UTILITY CROSSINGS TO PHYSICALLY VERIFY WHETHER OR NOT CONFLICTS EXIST. LOCATIONS OF SAID UTILITIES AS SHOWN ON THESE PLANS ARE BASED UPON THE UNVERIFIED PUBLIC INFORMATION AND ARE SUBJECT TO VARIATION. IF CONFLICTS SHOULD OCCUR, THE CONTRACTOR SHALL NOTIFY BARGHAUSEN CONSULTING ENGINEERS, INC. TO RESOLVE ALL PROBLEMS PRIOR T PROCEEDING WITH CONSTRUCTION.



Know what's **below**. Call before you dig. **Dial 811**

UTILITY PROTECTION NOTE:

APPROXIMATE LOCATION OF EXISTING UTILITIES ARE SHOWN ON THESE PLANS. CONTRACTOR TO COORDINATE WITH PURVEYOR AND USE EXTREME CAUTION WHEN EXCAVATING ON-SITE, UNTIL EXISTING GAS AND POWER SERVICE LOCATIONS ARE CONFIRMED. CONTRACTOR TO ORDER INDEPENDENT UTILITY LOCATES (INCLUDING GAS AND POWER) FOR THE FULL SCOPE OF WORK PRIOR TO CONSTRUCTION OR ANY GROUND DISTURBING ACTIVITIES.



FACILITY #TBD

LLIANCE PM: 21730

DETENTION VAULT PLAN

FIELD CONDITIONS MAY DICTATE CHANGES TO THESE PLANS AS

DEVELOPMENT ENGINEERING

DETERMINED BY THE

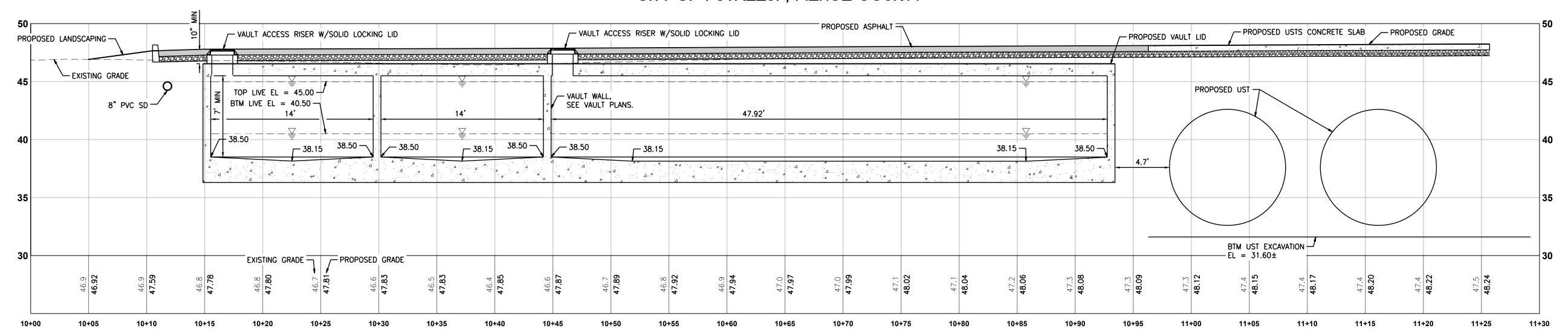
MANAGER.

CALLING UTILITY LOCATE AT 811 48 HOURS IN ADVANCE AND THEN POTHOLING ALL OF THE EXISTING UTILITIES AT LOCATIONS OF NEW UTILITY CROSSINGS TO PHYSICALLY VERIFY WHETHER OR NOT CONFLICTS EXIST. LOCATIONS OF SAID UTILITIES AS SHOWN ON THESE PLANS ARE BASED UPON THE UNVERIFIED PUBLIC INFORMATION AND ARE SUBJECT TO VARIATION. IF CONFLICTS SHOULD OCCUR, THE CONTRACTOR SHALL NOTIFY BARGHAUSEN CONSULTING ENGINEERS, INC. TO RESOLVE ALL PROBLEMS PRIOR TO PROCEEDING WITH CONSTRUCTION.

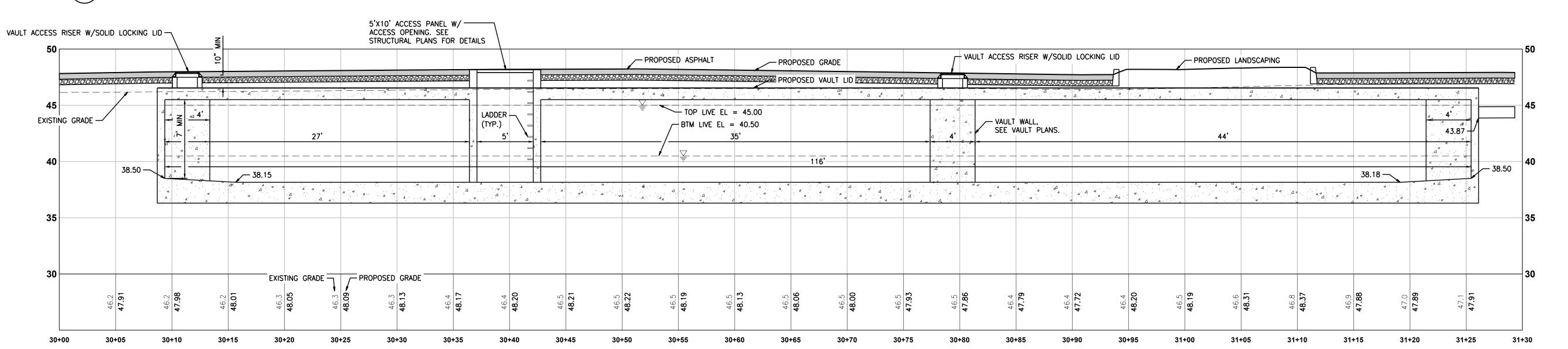


DETENTION VAULT CROSS SECTIONS

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

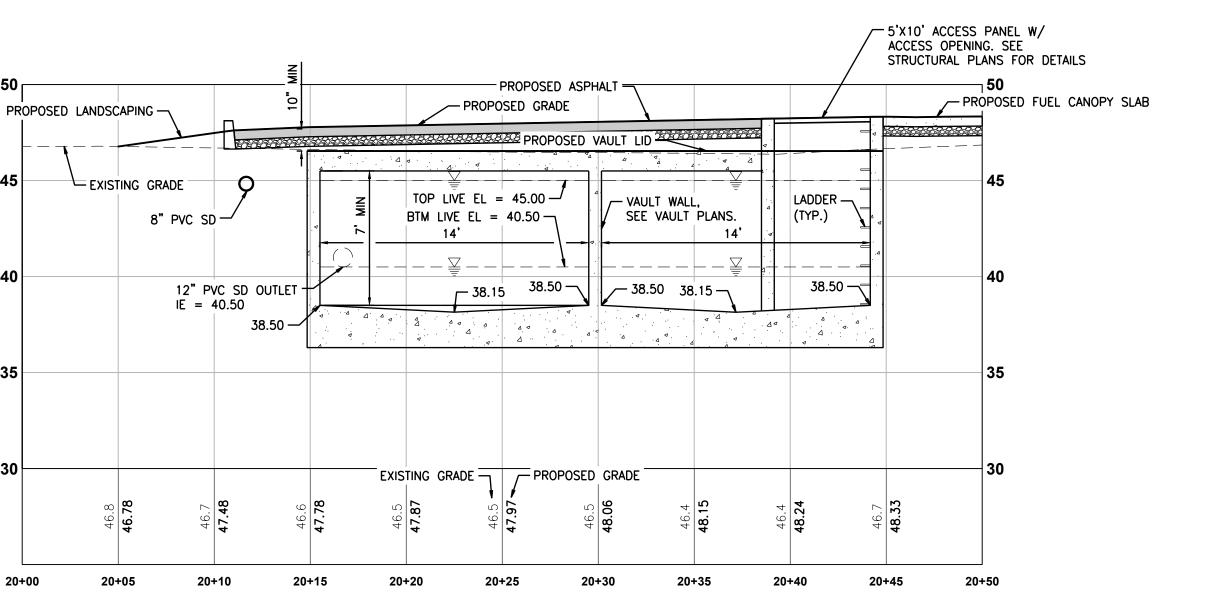


C5.3 SCALE: H: 1" = 5', V: 1" = 5'



B-B VAULT SECTION C-C - LOOKING EAST

C5.3 SCALE: H: 1" = 5', V: 1" = 5'



UTILITY CONFLICT NOTE:

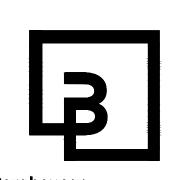
THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING THE LOCATION, DIMENSION, AND DEPTH OF ALL EXISTING UTILITIES WHETHER SHOWN ON THESE PLANS OR NOT BY POTHOLING THE UTILITIES AND SURVEYING THE HORIZONTAL AND VERTICAL LOCATION PRIOR TO CONSTRUCTION. THIS SHALL INCLUDE CALLING UTILITY LOCATE AT 811 48 HOURS IN ADVANCE AND THEN POTHOLING ALL OF THE EXISTING UTILITIES AT LOCATIONS OF NEW UTILITY CROSSINGS TO PHYSICALLY VERIFY WHETHER OR NOT CONFLICTS EXIST. LOCATIONS OF SAID UTILITIES AS SHOWN ON THESE PLANS ARE BASED UPON THE UNVERIFIED PUBLIC INFORMATION AND ARE SUBJECT TO VARIATION. IF CONFLICTS SHOULD OCCUR, THE CONTRACTOR SHALL NOTIFY BARGHAUSEN CONSULTING ENGINEERS, INC. TO RESOLVE ALL PROBLEMS PRIOR TO PROCEEDING WITH CONSTRUCTION.



Know what's **below**. Call before you dig. Dial 811

C-C VAULT SECTION B-B - LOOKING NORTH C5.3 | SCALE: H: 1" = 5', V: 1" = 5'





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

SWC S MERIDIAN @ HIGHWAY 512 PUYALLUP, WASHINGTON

> FACILITY #TBD LLIANCE PM:

21730 **DETENTION VAULT CROSS**

CITY OF PUYALLUP DEVELOPMENT ENGINEERING **SECTIONS**

APPROVED

NOTE: THIS APPROVAL IS VOID AFTER 180 DAYS FROM APPROVAL

THE CITY WILL NOT BE

DETERMINED BY THE

MANAGER.

RESPONSIBLE FOR ERRORS

AND/OR OMISSIONS ON THESE

CHANGES TO THESE PLANS AS

DEVELOPMENT ENGINEERING

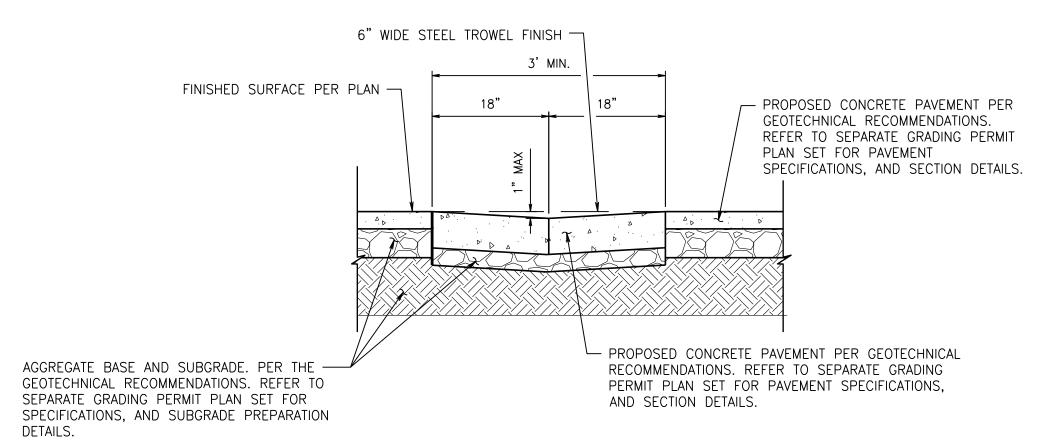
FIELD CONDITIONS MAY DICTATE

CITY OF PUYALLUP - STORMWATER NOTES:

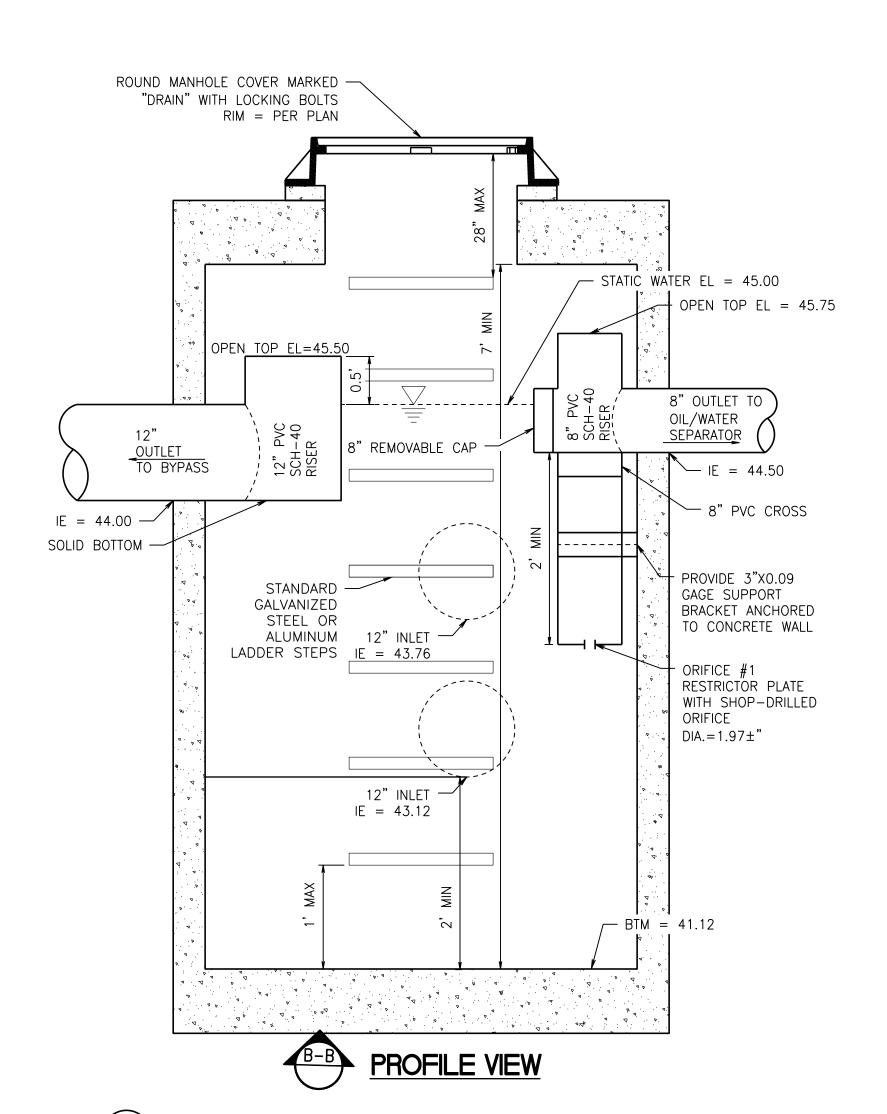
- ALL WORK IN CITY RIGHT-OF-WAY REQUIRES A PERMIT FROM THE CITY OF PUYALLUP. PRIOR TO ANY WORK COMMENCING. THE GENERAL CONTRACTOR SHALL ARRANGE FOR A PRECONSTRUCTION MEETING AT THE DEVELOPMENT SERVICES CENTER TO BE ATTENDED BY ALL CONTRACTORS THAT WILL PERFORM WORK SHOWN ON THE APPROVED ENGINEERING PLANS, REPRESENTATIVES FROM ALL APPLICABLE UTILITY COMPANIES, THE PROJECT OWNER AND APPROPRIATE CITY STAFF. CONTACT ENGINEERING SERVICES AT (253-841-5568) TO SCHEDULE THE MEETING. THE CONTRACTOR IS RESPONSIBLE TO HAVE THEIR OWN SET OF APPROVED PLANS AT THE
- 2. AFTER COMPLETION OF ALL ITEMS SHOWN ON THESE PLANS AND BEFORE ACCEPTANCE OF THE PROJECT THE CONTRACTOR SHALL OBTAIN A "PUNCH LIST" PREPARED BY THE CITY'S INSPECTOR DETAILING REMAINING ITEMS OF WORK TO BE COMPLETED. ALL ITEMS OF WORK SHOWN ON THESE PLANS SHALL BE COMPLETED TO THE SATISFACTION OF THE CITY PRIOR TO ACCEPTANCE OF THE WATER SYSTEM AND PROVISION OF SANITARY SEWER SERVICE.
- 3. ALL MATERIALS AND WORKMANSHIP SHALL CONFORM TO THE STANDARD SPECIFICATIONS FOR ROAD, BRIDGE, AND MUNICIPAL CONSTRUCTION (HEREINAFTER REFERRED TO AS THE "STANDARD SPECIFICATIONS"), WASHINGTON STATE DEPARTMENT OF TRANSPORTATION AND AMERICAN PUBLIC WORKS ASSOCIATION. WASHINGTON STATE CHAPTER. LATEST EDITION. UNLESS SUPERSEDED OR AMENDED BY THE CITY OF PUYALLUP CITY STANDARDS FOR PUBLIC WORKS ENGINEERING AND CONSTRUCTION (HEREINAFTER REFERRED TO AS THE "CITY STANDARDS").
- 4. A COPY OF THESE APPROVED PLANS AND APPLICABLE CITY DEVELOPER SPECIFICATIONS AND DETAILS SHALL BE ON SITE DURING CONSTRUCTION.
- 5. ANY REVISIONS MADE TO THESE PLANS MUST BE REVIEWED AND APPROVED BY THE DEVELOPER'S ENGINEER AND THE CITY PRIOR TO ANY IMPLEMENTATION IN THE FIELD. THE CITY SHALL NOT BE RESPONSIBLE FOR ANY ERRORS AND/OR OMISSIONS ON THESE PLANS.
- THE CONTRACTOR SHALL HAVE ALL UTILITIES VERIFIED ON THE GROUND PRIOR TO ANY CONSTRUCTION. CALL (811) AT LEAST TWO WORKING DAYS IN ADVANCE. THE OWNER AND HIS/HER ENGINEER SHALL BE CONTACTED IMMEDIATELY IF A CONFLICT EXISTS.
- 7. ANY STRUCTURE AND/OR OBSTRUCTION THAT REQUIRES REMOVAL OR RELOCATION RELATING TO THIS PROJECT SHALL BE DONE SO AT THE DEVELOPER'S EXPENSE.
- 8. DURING CONSTRUCTION, ALL EXISTING AND NEWLY INSTALLED DRAINAGE STRUCTURES SHALL BE PROTECTED FROM SEDIMENTS.
- 9. ALL STORM MANHOLES SHALL CONFORM TO CITY STANDARD DETAIL NO. 02.01.01. FLOW CONTROL MANHOLE/OIL WATER SEPARATOR SHALL CONFORM TO CITY STANDARD DETAIL NO. 02.01.06 AND 02.01.07.
- 10. MANHOLE RING AND COVER SHALL CONFORM TO CITY STANDARD DETAIL NO. 06.01.01.
- 11. CATCH BASINS TYPE I SHALL CONFORM TO CITY STANDARD DETAIL NO. 02.01.02 AND 02.01.03 AND SHALL BE USED ONLY FOR DEPTHS LESS THAN 5 FEET FROM TOP OF THE GRATE TO THE INVERT OF THE STORM
- 12. CATCH BASINS TYPE II SHALL CONFORM TO CITY STANDARD NO. 02.01.04 AND SHALL BE USED FOR DEPTHS GREATER THAN 5 FEET FROM TOP OF THE GRATE TO THE INVERT OF THE STORM PIPE.
- 13. CAST IRON OR DUCTILE IRON FRAME AND GRATE SHALL CONFORM TO CITY STANDARD DETAIL NO.02.01.05. GRATE SHALL BE MARKED WITH DRAINS TO STREAM". SOLID CATCH BASIN LIDS (SQUARE UNLESS NOTED AS ROUND) SHALL CONFORM TO WSDOT STANDARD PLAN B-30.20-04 (OLYMPIC FOUNDRY NO. SM60 OR EQUAL). VANED GRATES SHALL CONFORM TO WSDOT STANDARD PLAN B-30.30-03 (OLYMPIC FOUNDRY NO. SM60V OR EQUAL).
- 14. STORMWATER PIPE SHALL BE ONLY PVC, CONCRETE, DUCTILE IRON, OR DUAL WALLED POLYPROPYLENE PIPE. A. THE USE OF ANY OTHER TYPE SHALL BE REVIEWED AND APPROVED BY THE ENGINEERING SERVICES STAFF PRIOR TO INSTALLATION. B. PVC PIPE SHALL BE PER ASTM D3034, SDR 35 FOR PIPE SIZE 15-INCH AND SMALLER AND F679 FOR PIPE SIZES 18 TO 27 INCH. MINIMUM COVER ON PVC PIPE SHALL BE 3.0 FEET. C. CONCRETE PIPE SHALL CONFORM TO THE WSDOT STANDARD SPECIFICATIONS FOR CONCRETE UNDERDRAIN PIPE. MINIMUM COVER ON CONCRETE PIPE SHALL NOT LESS THAN 3.0 FEET. D. DUCTILE IRON PIPE SHALL BE CLASS 50, CONFORMING TO AWWA C151. MINIMUM COVER ON DUCTILE IRON PIPE SHALL BE 1.0 FOOT. E. POLYPROPYLENE PIPE (PP) SHALL BE DUAL WALLED, HAVE A SMOOTH INTERIOR AND EXTERIOR CORRUGATIONS AND MEET WSDOT 9-05.24(1). 12-INCH THROUGH 30-INCH PIPE SHALL MEET OR EXCEED ASTM F2736 AND AASHTO M330, TYPE S, OR TYPE D. 36-INCH THROUGH 60-INCH PIPE SHALL MEET OR EXCEED ASTM F2881 AND AASHTO M330, TYPE S, OR TYPE D. TESTING SHALL BE PER ASTM F1417. MINIMUM COVER OVER POLYPROPYLENE PIPE SHALL BE 3-FEET.
- 15. TRENCHING, BEDDING, AND BACKFILL FOR PIPE SHALL CONFORM TO CITY STANDARD DETAIL NO. 06.01.01.
- 16. STORM PIPE SHALL BE A MINIMUM OF 10 FEET AWAY FROM BUILDING FOUNDATIONS AND/OR ROOF LINES.
- 17. ALL STORM DRAIN MAINS SHALL BE TESTED AND INSPECTED FOR ACCEPTANCE AS OUTLINED IN SECTION 406 OF THE CITY OF PUYALLUP SANITARY SEWER SYSTEM STANDARDS.
- 18. ALL TEMPORARY SEDIMENTATION AND EROSION CONTROL MEASURES, AND PROTECTIVE MEASURES FOR CRITICAL AREAS AND SIGNIFICANT TREES SHALL BE INSTALLED PRIOR TO INITIATING ANY CONSTRUCTION ACTIVITIES.

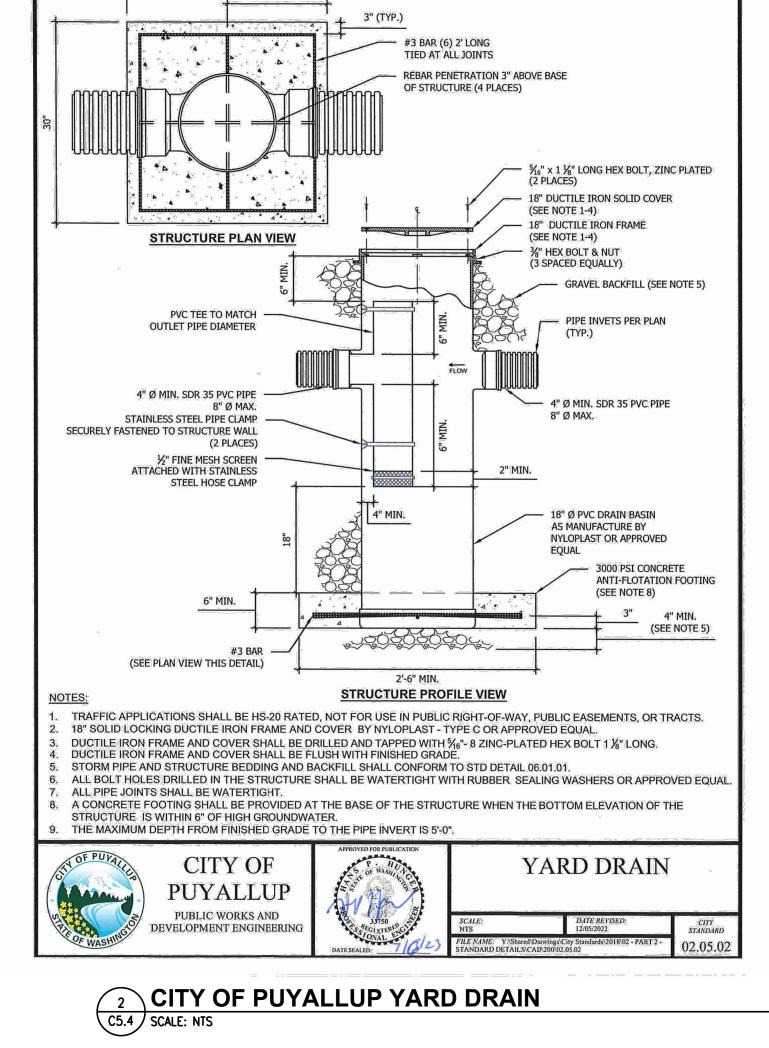
DRAINAGE NOTES AND DETAILS

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

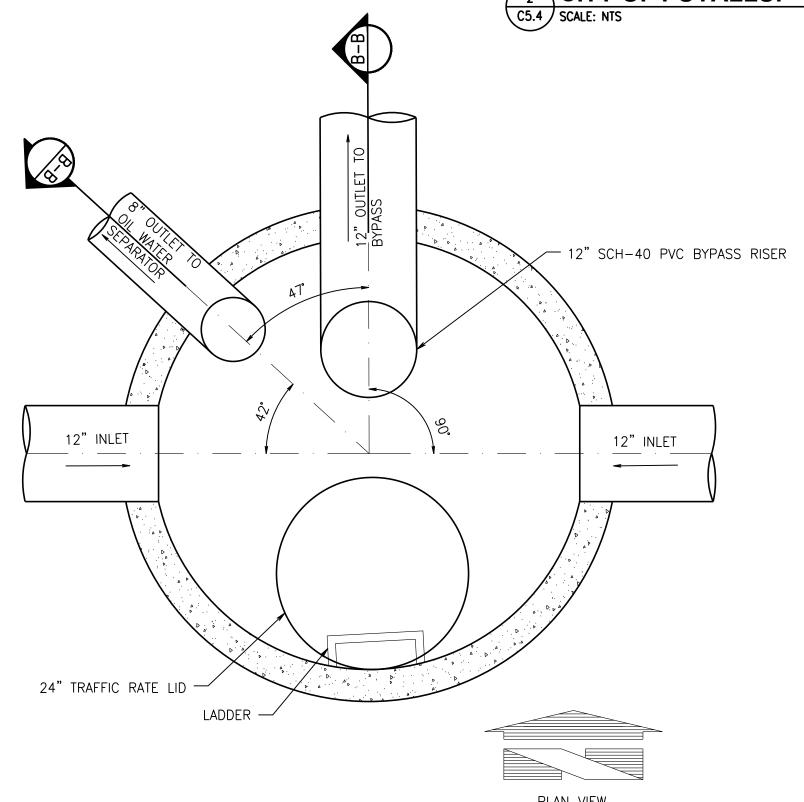


∖CONCRETE DRAINAGE SWALE C5.4 / SCALE: NTS





15"



UTILITY CONFLICT NOTE:

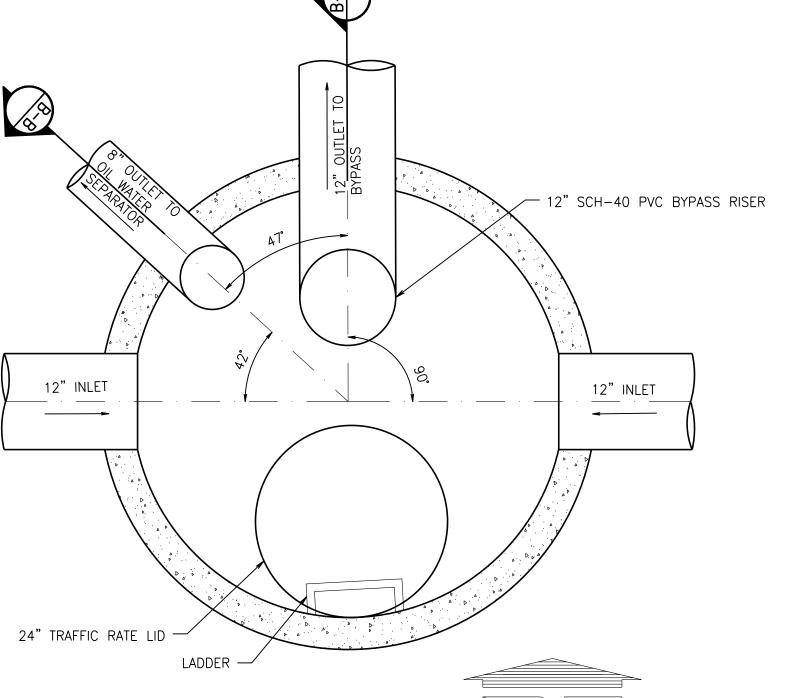
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Know what's below. Call before you dig. **Dial 811**

C5.4 SCALE: NTS

3 SDMH #4 - TYPE 2 - 54" FLOW SPLITTER



APPROVED

CITY OF PUYALLUP DEVELOPMENT ENGINEERING

NOTE: THIS APPROVAL IS VOID AFTER 180 DAYS FROM APPROVAL THE CITY WILL NOT BE RESPONSIBLE FOR ERRORS AND/OR OMISSIONS ON THESE

MANAGER.

FIELD CONDITIONS MAY DICTATE CHANGES TO THESE PLANS AS DETERMINED BY THE DEVELOPMENT ENGINEERING

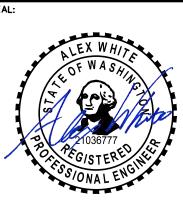




Consulting Engineers, Inc.

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 PUYALLUP, WASHINGTON

FACILITY #TBD LIANCE PM: 21730

DRAINAGE NOTES AND DETAILS

- STANDARD GALVANIZED STEEL OR

RISER TOP -

RECTANGLE NOTCH

PROVIDE 3"X0.09 GAGE

ANCHORED TO CONCRETE

PROVIDE 3"X0.09 GAGE SUPPORT

RESTRICTOR PLATE WITH SHOP -DRILLED ORIFICE 0.497"ø

BRACKET ANCHORED TO

CONCRETE WALL

EL = 38.50

SUPPORT BRACKET

1.41' x 0.01'

____12" PVC

IE = 40.50

IE = 45.00

4 4 4 4 4 4

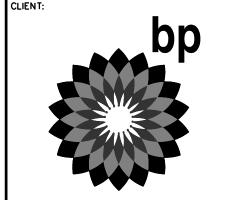
ALUMINUM LADDER STEPS

- ROUND LOCKING ACCESS LID

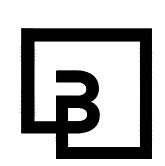
WITH STEPS OR LADDER

W/HANDHOLD

PLAN VIEW







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- ROUND SOLID COVER MARKED

RIM = 47.41

"DRAIN" WITH LOCKING BOLTS.

12<u>"</u> INLET

IE = 40.50

DESIGN W.S. EL=40.50

12" RISER TO BE ALUMINUM

MEETING WSDOT/APWA

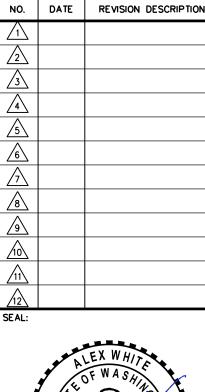
STANDARDS

PROFILE VIEW

CMP OR ALUMINUM STEEL CMP

- REMOVABLE GASKET

END PLUG.





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

SITE ADDRESS: SWC S MERIDIAN @ HIGHWAY 512

> PUYALLUP, WASHINGTON FACILITY #TBD

LLIANCE PM: 21730 DRAINAGE DETAILS

DEVELOPMENT ENGINEERING

NOTE: THIS APPROVAL IS VOID AFTER 180 DAYS FROM APPROVAL DATE. THE CITY WILL NOT BE RESPONSIBLE FOR ERRORS AND/OR OMISSIONS ON THESE FIELD CONDITIONS MAY DICTATE

APPROVED

CITY OF PUYALLUP

CHANGES TO THESE PLANS AS

DEVELOPMENT ENGINEERING

DETERMINED BY THE

MANAGER.

C5.5

NOTES FOR FLOW CONTROL MANHOLE:

1 1/2" ASPHALT PATCH

- HANDHOLD

└─_9" CONCRETE COLLAR

PRECAST RISER SECTION

REMOVABLE GASKETED END PLUG

PRECAST BASE WITH NTEGRAL RISER

12" MIN. OF 1 1/4" MINUS GRAVEL BEDDING

DROP-IN ANCHOR

WITH JAMB NUT

STAINLESS STEEL PIPE CLAMP

02.01.07

PIPE SUPPORT

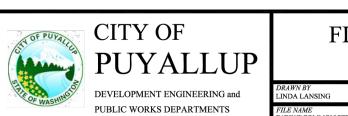
FLOW CONTROL MANHOLE WITH FLAT TOP

FLOW

CENTER LINE OF MANHOLE LID AND RUNGS

1/2" MIN. SS THREADED ROD W/ WASHER & NUT EACH SIDE OF CLAMP

- 1. NEAT LINE CUTS SHALL BE AT TOP WITH A HOT PAVING GRADE ASPHALT AND FACE OF CUT TACKED.
- 2. FLOW CONTROL MANHOLES SHALL BE USED AS A SINGLE USE STRUCTURE.
- MANHOLE RUNG SHALL CONFORM TO SECTION R, ASTM C 478 (ASSHTO M-199) AND MEET ALL WISHA REQUIREMENTS. MANHOLE RUNGS SHALL BE PARALLEL OR APPROXIMATELY RADIAL AT THE OPTION OF THE MANUFACTURER, EXCEPT THAT ALL STEPS IN ANY MANHOLE SHALL BE SIMILAR. PENETRATION OF OUTER WALL BY A RUNG LEG IS PROHIBITED. SEE MANHOLE STEP AND LADDER DETAIL, CITY STANDARD DETAIL NO. 06.01.04.
- 4. PRECAST RISER SECTION SHALL BE FURNISHED WITH CUTOUTS OR KNOCKOUTS. KNOCKOUTS SHALL HAVE WALL THICKNESS OF TWO (2) INCHES MINIMUM. KNOCKOUT OR CUTOUT HOLE SIZE IS EQUAL TO PIPE OUTER DIAMETER PLUS MANHOLE WALL THICKNESS. MINIMUM DISTANCE BETWEEN HOLES IS EIGHT (8) INCHES.
- 5. PRECAST CONCRETE MANHOLE COMPONENTS SHALL CONFORM TO ASTM C 478.
- 6. FLEXIBLE JOINTS SHALL BE RUBBER GASKETED IN ACCORDANCE WITH THE WSDOT STANDARD SPECIFICATIONS. MORTARED, DRY-PACKED, OR CAST-IN-PLACE JOINTS WILL BE PERMITTED FOR CONNECTIONS TO OR THROUGH MANHOLES. A FLEXIBLE GASKETED JOINT SHALL BE INSTALLED WITHIN ONE (1) FOOT OF EACH CONNECTION TO OR THROUGH SAID MANHOLES. CONNECTIONS TO MANHOLE WITH PVC PIPE SHALL UTILIZE A MANHOLE COUPLING AND RUBBER GASKET.
- 7. THE COVER ON THE MANHOLE SHALL BE MARKED WITH "STORM" OR "DRAIN" IN TWO (2) INCH RAISED LETTERS. SEE MANHOLE RING AND COVER DETAIL, CITY STANDARDS DETAIL NO. 06.01.02 AND 06.01.03.
- 8. STAINLESS STEEL PIPE CLAMP WITH 1/2" DIAMETER STAINLESS STEEL THREADED ROD WITH WASHER AND NUT EACH SIDE OF CLAMP. PROVIDE 1/2" DIAMETER DROP-IN ANCHOR WITH JAMB NUT AT WALL. PIPE CLAMPS SHALL BE PLACED AT SIXTEEN (16) INCHES ON CENTER.
- FLOW CONTROL UNIT SHALL BE MADE FROM PVC PIPE AND SHALL CONFORM TO THE STANDARD PIPE SPECIFICATIONS.



FLOW CONTROL MANHOLE **NOTES**

CITY OF PUYALLUP FLOW CONTROL DETAIL C5.5 SCALE: NTS

MANHOLE RING AND COVER

CAST IRON FRAME

AND COVER SEE CITY STANDARD DETAIL NO. 404

6" PVC SLEEVE

ADJUSTING RINGS 4" MIN. TO 16" MAX., PLASTER INSIDE FACING WITH 1/2" MORTAR

MASTIC AROUND TEE
AT CENTER OF WALL

OUTLET PIPE

NON-SHRINK GROUT, TYP.

JOINTS SHALL BE RUBBER
GASKETED, MEET ASTM C 443

SEE PIPE SUPPORT DETAIL BELOW

12", TYP.,

UNDISTURBED OR COMPACTED SUB-GRADE

CLEAR TOP VIEW

ORIFICE PLATE SHALL BE ATTACHED WITH A PVC CEMENT

REMOVABLE GASKETED END PLUG

CITY OF

PUBLIC WORKS DEPARTMENTS

UTILITY CONFLICT NOTE:

THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING THE LOCATION, DIMENSION, AND DEPTH OF ALL EXISTING UTILITIES WHETHER SHOWN ON THESE PLANS OR NOT BY POTHOLING THE UTILITIES AND SURVEYING THE HORIZONTAL AND VERTICAL LOCATION PRIOR TO CONSTRUCTION. THIS SHALL INCLUDE CALLING UTILITY LOCATE AT 811 48 HOURS IN ADVANCE AND THEN POTHOLING ALL OF THE EXISTING UTILITIES AT LOCATIONS OF NEW UTILITY CROSSINGS TO PHYSICALLY VERIFY WHETHER OR NOT CONFLICTS EXIST. LOCATIONS OF SAID UTILITIES AS SHOWN ON THESE PLANS ARE BASED UPON THE UNVERIFIED PUBLIC INFORMATION AND ARE SUBJECT TO VARIATION. IF CONFLICTS SHOULD OCCUR, THE CONTRACTOR SHALL NOTIFY BARGHAUSEN CONSULTING ENGINEERS, INC. TO RESOLVE ALL PROBLEMS PRIOR T PROCEEDING WITH CONSTRUCTION.

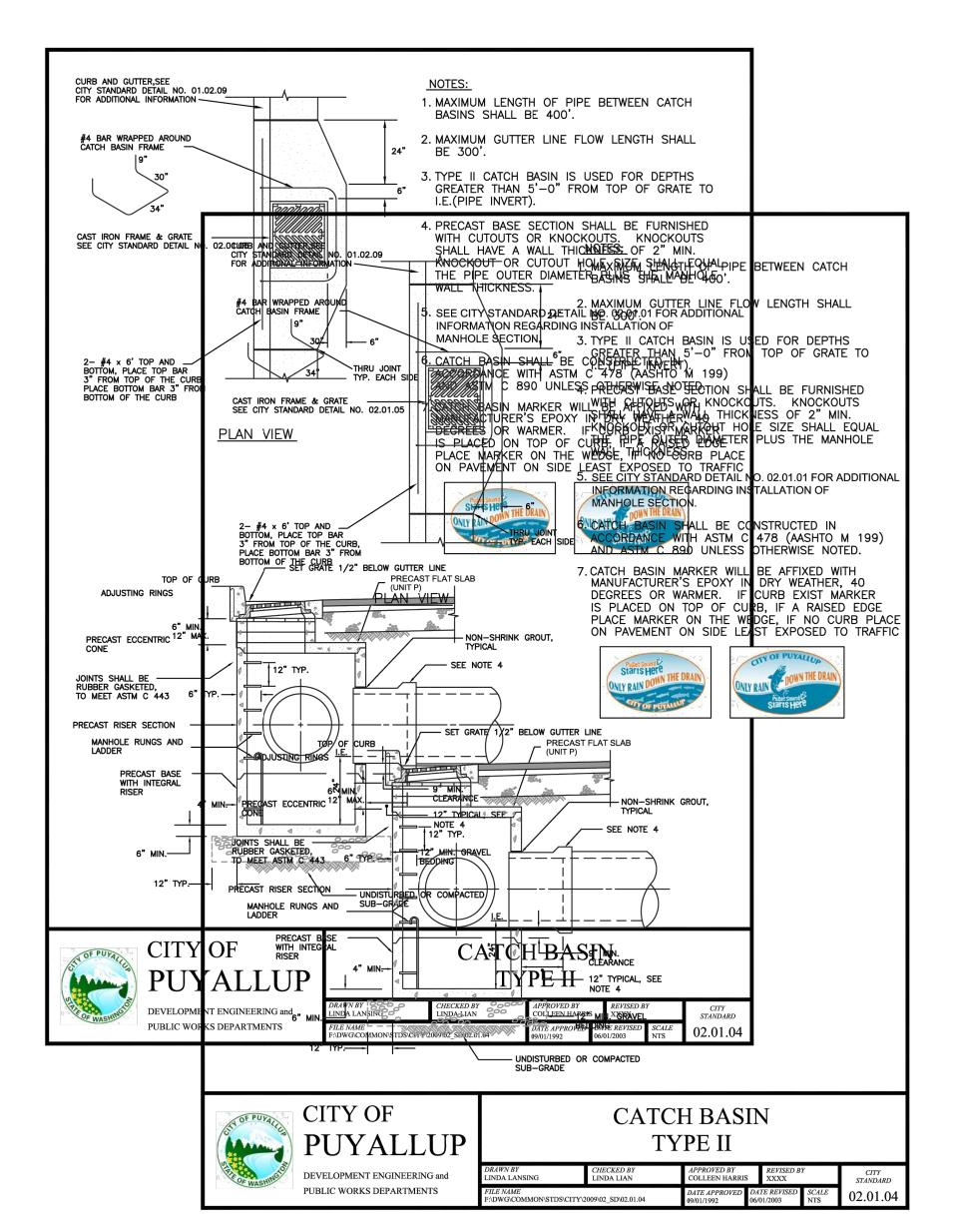


Know what's **below**. Call before you dig.

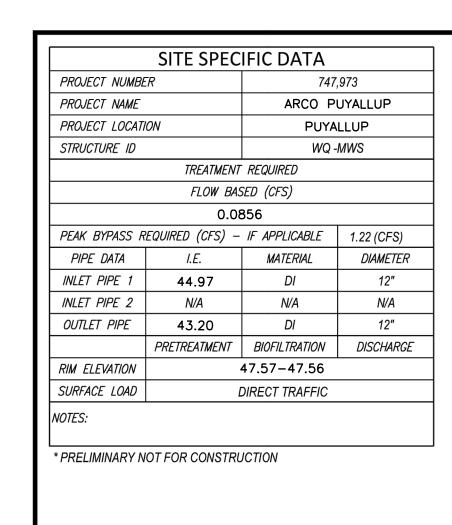
SDMH #2 - FLOW CONTROL MANHOLE - TYPE II-54" C5.5 SCALE: NTS Dial 811

DRAINAGE DETAILS

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



1 TYPE 2 CATCH BASIN C5.6 SCALE: NTS



CONTRACTOR TO PROVIDE ALL LABOR, EQUIPMENT, MATERIALS AND

UNIT MUST BE INSTALLED ON LEVEL BASE. MANUFACTURER

PROJECT ENGINEER'S RECOMMENDED BASE SPECIFICATIONS. CONTRACTOR TO SUPPLY AND INSTALL ALL EXTERNAL CONNECTING PIPES. ALL PIPES MUST BE FLUSH WITH INSIDE SURFACE OF CONCRETE (PIPES CANNOT INTRUDE BEYOND FLUSH). INVERT OF

OUTFLOW PIPE MUST BE FLUSH WITH DISCHARGE CHAMBER FLOOR. ALL PIPES SHALL BE SEALED WATERTIGHT PER MANUFACTURER'S

CONTRACTOR RESPONSIBLE FOR INSTALLATION OF ALL PIPES, RISERS,

MANHOLES, AND HATCHES. CONTRACTOR TO USE GROUT AND/OR BRICKS TO MATCH COVERS WITH FINISHED SURFACE UNLESS SPECIFIED

VEGETATION SUPPLIED AND INSTALLED BY OTHERS. ALL UNITS WITH

VEGETATION MUST HAVE DRIP OR SPRAY IRRIGATION SUPPLIED AND

CONTRACTOR RESPONSIBLE FOR CONTACTING CONTECH FOR ACTIVATION OF UNIT. MANUFACTURER'S WARRANTY IS VOID WITHOUT PROPER

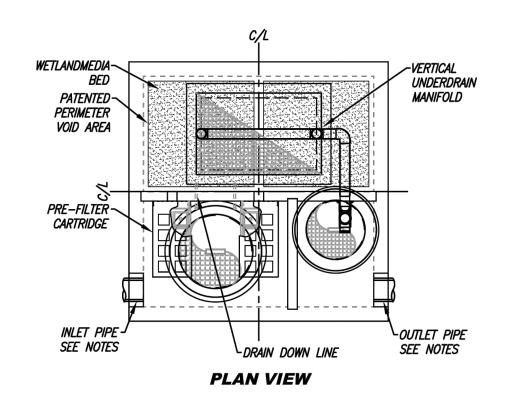
MANUFACTURER TO PROVIDE ALL MATERIALS UNLESS OTHERWISE NOTED.

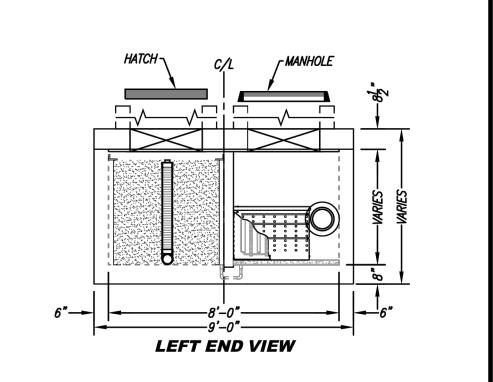
ALL DIMENSIONS, ELEVATIONS, SPECIFICATIONS AND CAPACITIES ARE SUBJECT TO

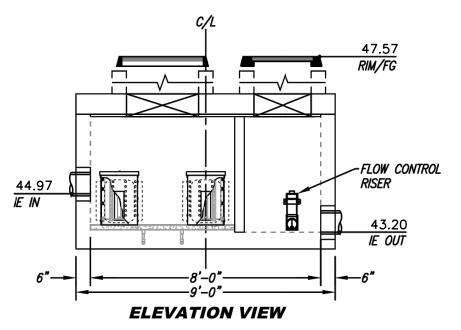
CHANGE. FOR PROJECT SPECIFIC DRAWINGS DETAILING EXACT DIMENSIONS, WEIGHTS

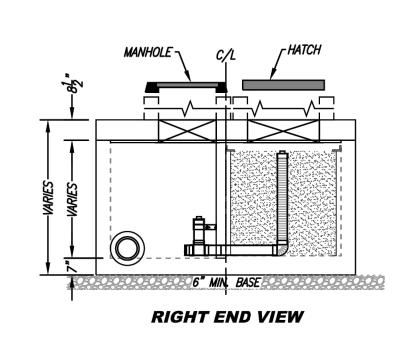
INCIDENTALS REQUIRED TO OFFLOAD AND INSTALL THE SYSTEM AND APPURTENANCES IN ACCORDANCE WITH THIS DRAWING AND THE MANUFACTURERS' SPECIFICATIONS, UNLESS OTHERWISE STATED IN

RECOMMENDS A MINIMUM 6" LEVEL ROCK BASE UNLESS SPECIFIED BY THE PROJECT ENGINEER. CONTRACTOR IS RESPONSIBLE FOR VERIFYING









OPERATING HEAD (FT)	2.1
PRETREATMENT LOADING RATE (GPM/SF) WETLAND MEDIA LOADING RATE (GPM/SF)	1.3
N/IN/S_1_8_8_1/_I	,,,,



IVI VV S-L-8-8-V-UG STORMWATER BIOFILTRATION SYSTEM STANDARD DETAIL



ACTIVATION BY A CONTECH REPRESENTATIVE.

AND ACCESSORIES PLEASE CONTACT CONTECH.

INSTALLATION NOTES

MANUFACTURER'S CONTRACT.

STANDARD CONNECTION DETAIL.

OTHERWISE.

GENERAL NOTES

INSTALLED BY OTHERS.

APPROVED

BY _____CITY OF PUYALLUP DEVELOPMENT ENGINEERING

NOTE: THIS APPROVAL IS VOID AFTER 180 DAYS FROM APPROVAL DATE. THE CITY WILL NOT BE RESPONSIBLE FOR ERRORS

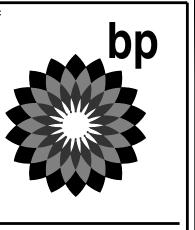
AND/OR OMISSIONS ON THESE FIELD CONDITIONS MAY DICTATE CHANGES TO THESE PLANS AS DETERMINED BY THE DEVELOPMENT ENGINEERING MANAGER.



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Know what's **below**. Call before you dig. Dial 811







Consulting Engineers, Inc. 18215 72nd Avenue South Kent, WA 98032 425.251.6222

barghausen.com





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: MM ALLIANCE Z&DM:

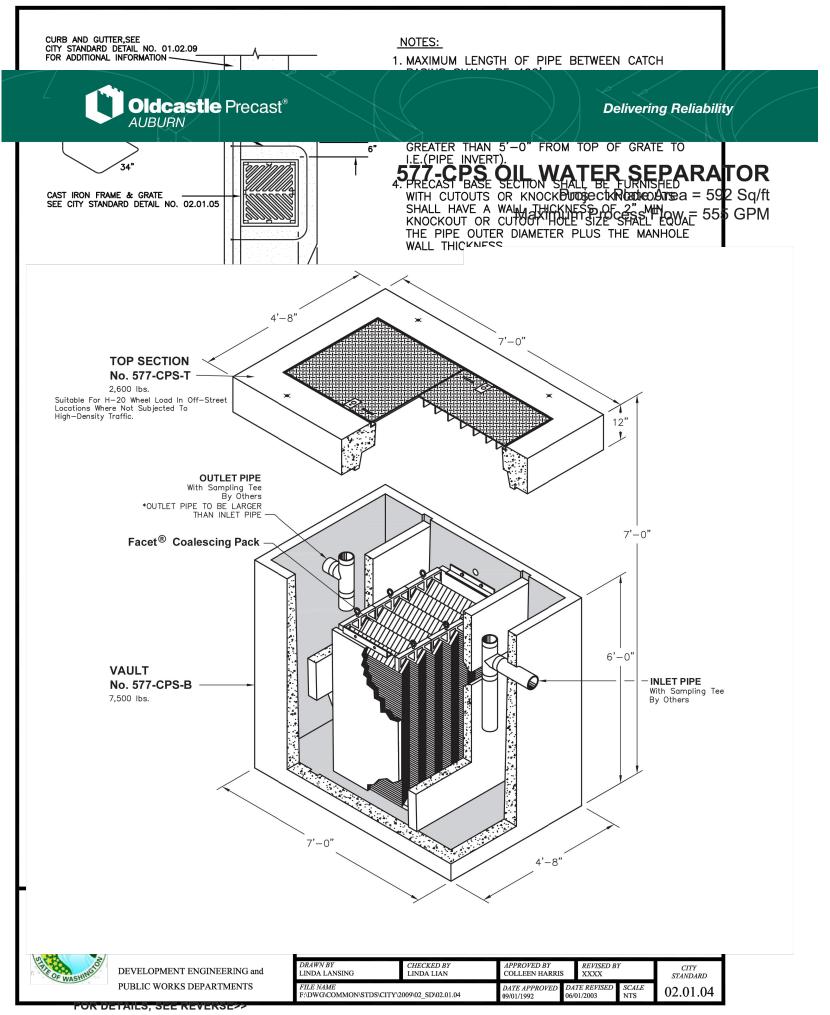
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	DRAWN BY: MM	ALLIANCE PM:
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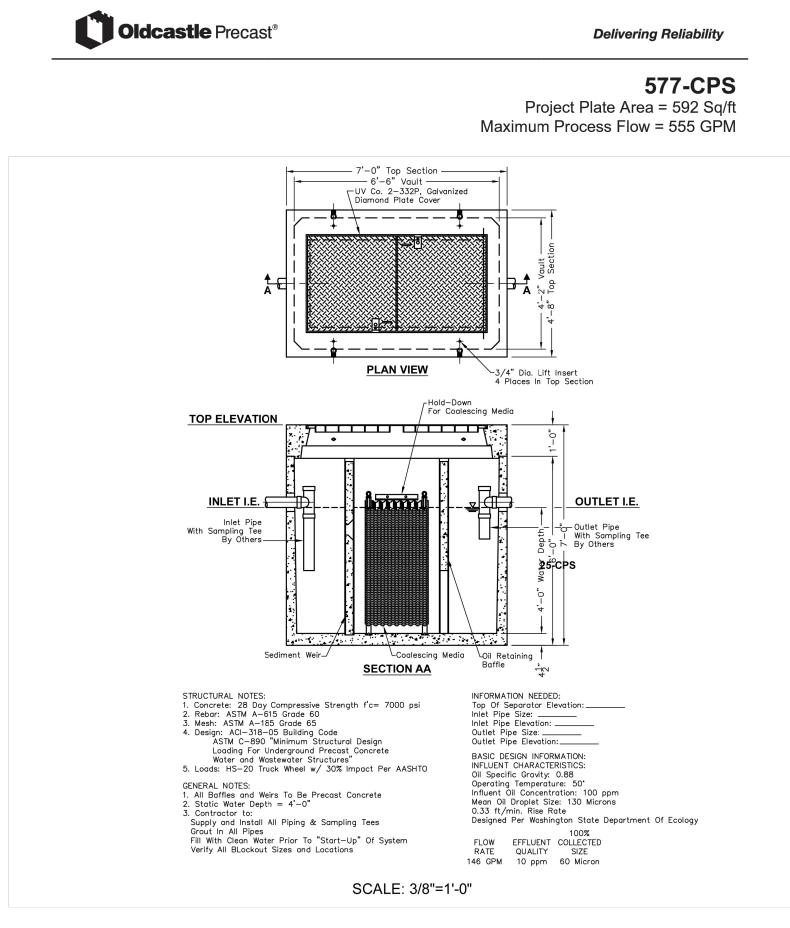
DRAINAGE DETAILS

DRAINAGE DETAILS

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

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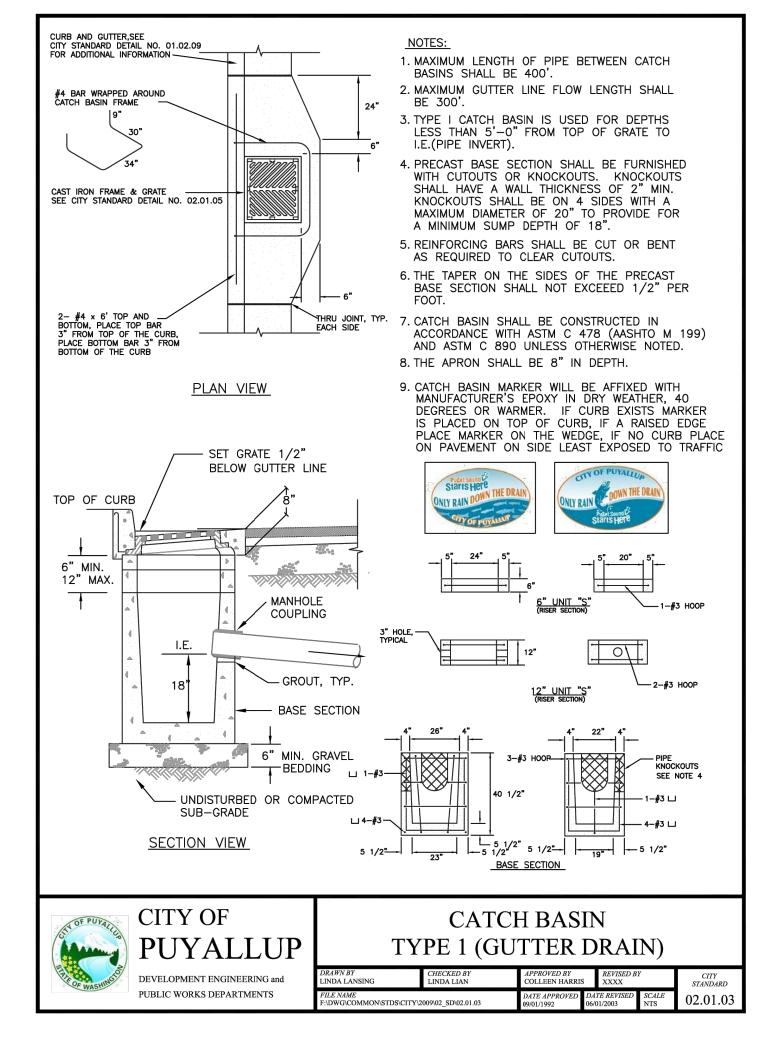
OLDCASTLE PRECAST 577-CPS

SCALE: NTS

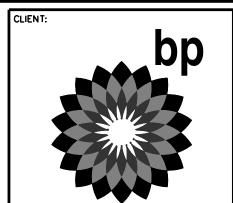
opauburn.com

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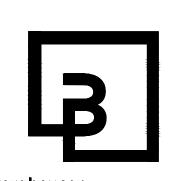
opauburn.com











Barghausen
Consulting Engineers, Inc.

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

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10/4

ARCO NTI

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

SITE ADDRESS:

SWC S MERIDIAN
@ HIGHWAY 512
PUYALLUP, WASHINGTON

FACILITY #TBD

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		-	21730

DRAINAGE DETAILS

BY ______ CITY OF PUYALLUP
DEVELOPMENT ENGINEERING

DATE _____

MANAGER.

NOTE: THIS APPROVAL IS VOID AFTER 180 DAYS FROM APPROVAL DATE. THE CITY WILL NOT BE RESPONSIBLE FOR ERRORS AND/OR OMISSIONS ON THESE

APPROVED

RESPONSIBLE FOR ERRORS
AND/OR OMISSIONS ON THESE
PLANS.
FIELD CONDITIONS MAY DICTATE
CHANGES TO THESE PLANS AS
DETERMINED BY THE
DEVELOPMENT ENGINEERING

UTILITY CONFLICT NOTE:

Items Shown Are Subject To Change Without Notice

Fax: 253-735-4201

Email: opauburn@oldcastle.com

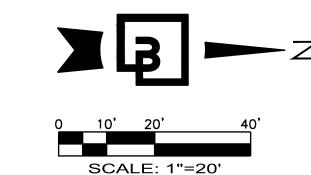
Issue Date: April 2016

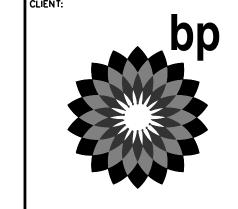
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DRAINAGE PROFILE - CB #4 TO SDMH #1

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



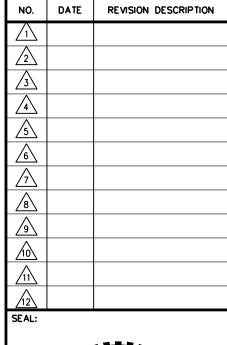






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Kent, WA 98032 425.251.6222 barghausen.com





10/4/2

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:	MM	ALLIANCE Z&DM:
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DRAINAGE PROFILE - CB #4 TO
SDMH #1

DEVELOPMENT ENGINEERING
SDMH #1
DATE _____

APPROVED

NOTE: THIS APPROVAL IS VOID AFTER 180 DAYS FROM APPROVAL

BY _____CITY OF PUYALLUP

DATE. THE CITY WILL NOT BE RESPONSIBLE FOR ERRORS

DETERMINED BY THE

MANAGER.

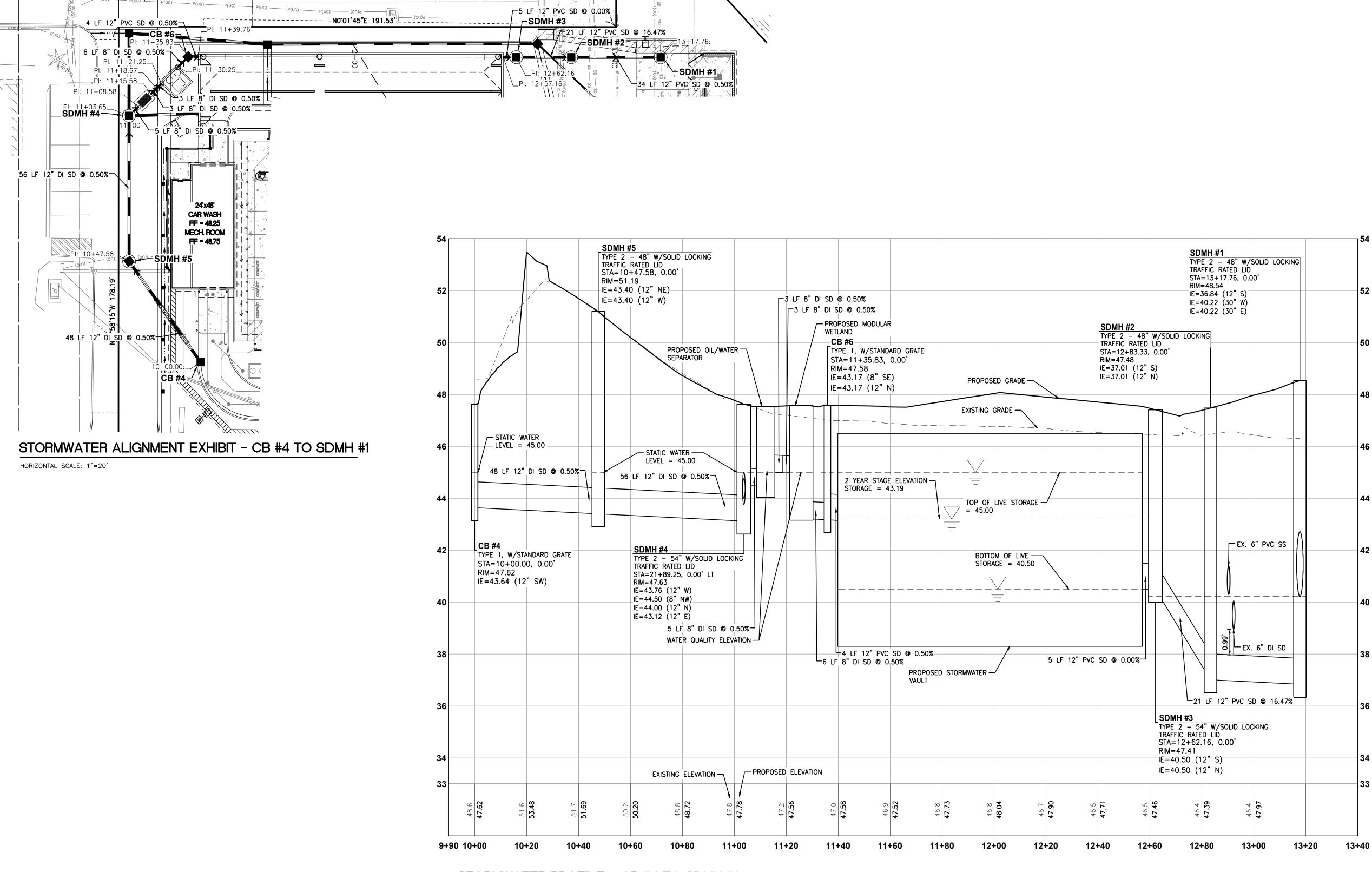
AND/OR OMISSIONS ON THESE

DEVELOPMENT ENGINEERING

FIELD CONDITIONS MAY DICTATE CHANGES TO THESE PLANS AS

SHEET NO:

C5.8



STORMWATER PROFILE - CB #4 TO SDMH #1

HORIZONTAL SCALE: 1"=20", VERTICAL SCALE: 1" = 2'

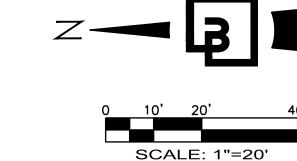
UTILITY CONFLICT NOTE:

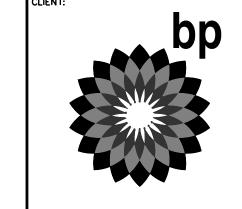
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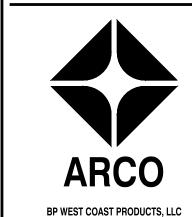


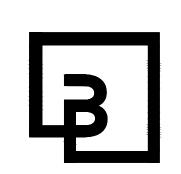
DRAINAGE PROFILE - CB #3 TO SDMH #4

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









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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: MM ALLIANCE Z&DM:

HECKED BY:	AW	BP REPM:
RAWN BY:	ММ	ALLIANCE PM:
ERSION:		PROJECT NO:
	-	21730
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DRAINAGE PROFILE - CB #3 TO SDMH #4

APPROVED

DEVELOPMENT ENGINEERING

NOTE: THIS APPROVAL IS VOID AFTER 180 DAYS FROM APPROVAL

CITY OF PUYALLUP

DATE. THE CITY WILL NOT BE RESPONSIBLE FOR ERRORS

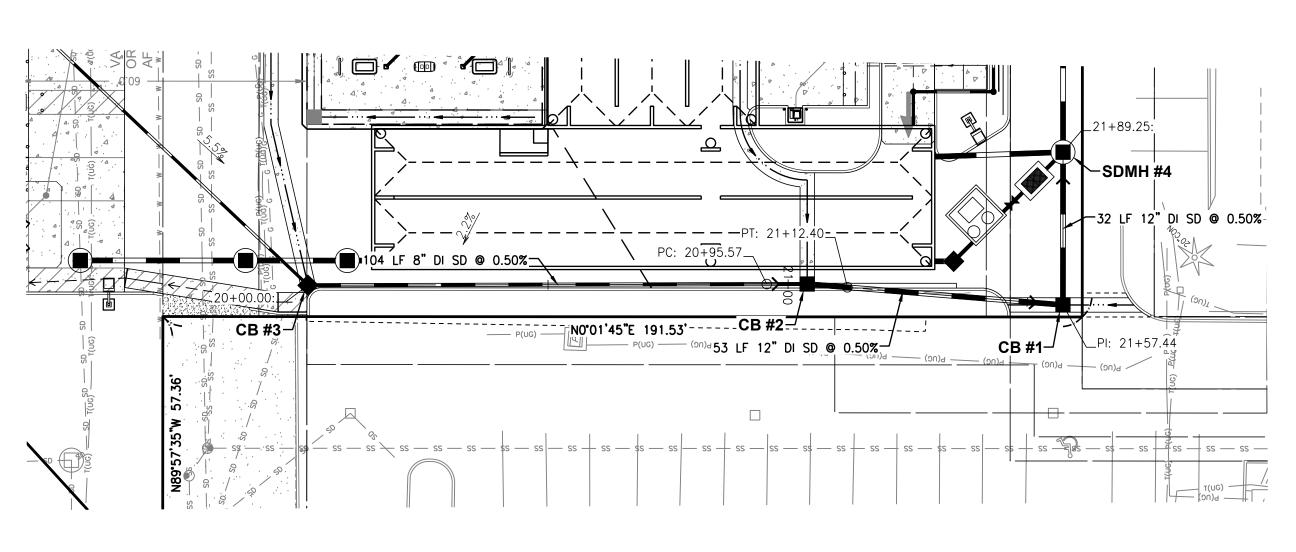
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MANAGER.

AND/OR OMISSIONS ON THESE

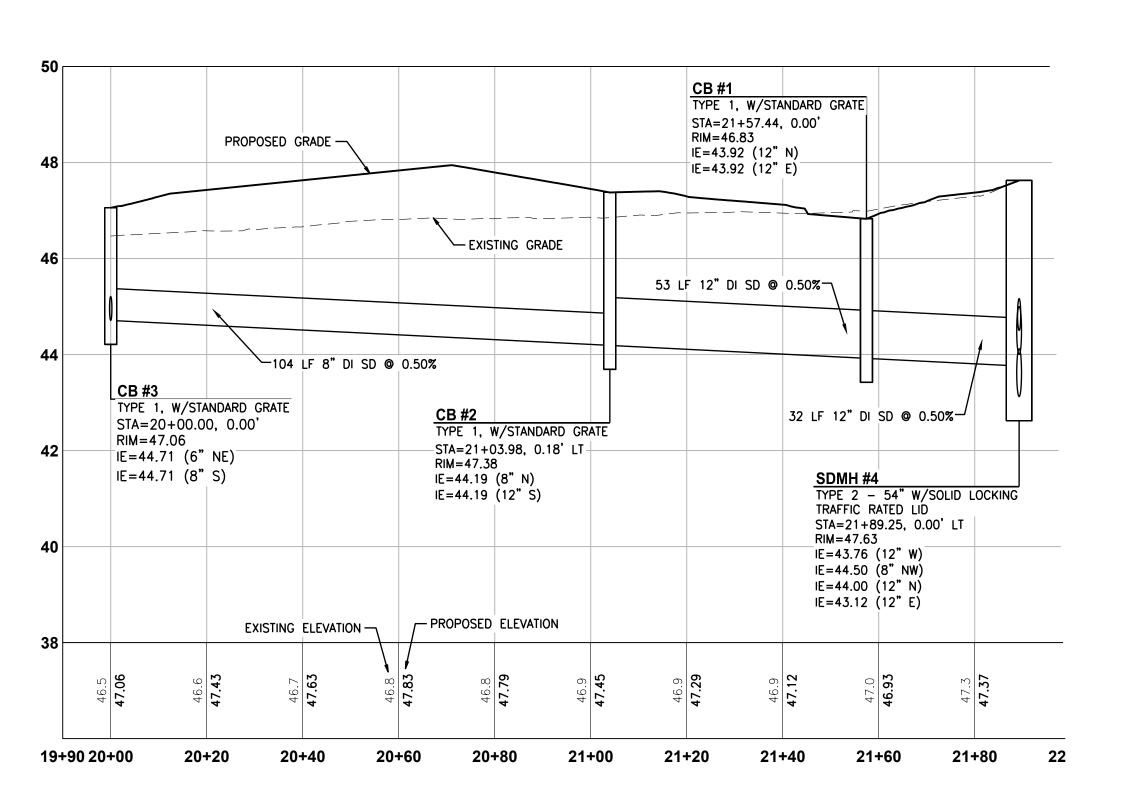
DEVELOPMENT ENGINEERING

FIELD CONDITIONS MAY DICTATE CHANGES TO THESE PLANS AS



STORMWATER ALIGNMENT EXHIBIT - CB #3 TO SDMH #4

HORIZONTAL SCALE: 1"=20"



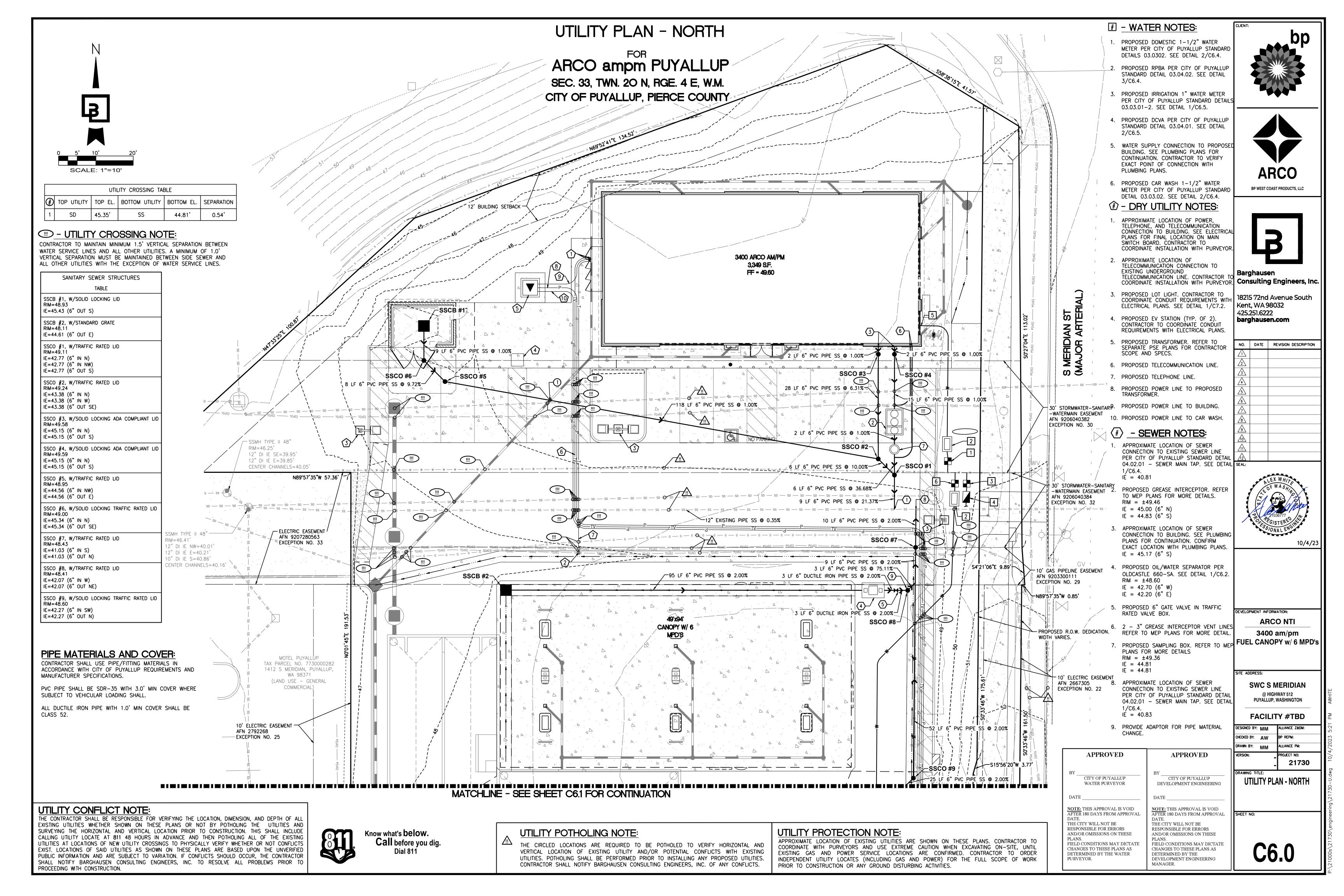
STORMWATER PROFILE - CB #3 TO SDMH #4

HORIZONTAL SCALE: 1"=20", VERTICAL SCALE: 1" = 2'

UTILITY CONFLICT NOTE:

THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING THE LOCATION, DIMENSION, AND DEPTH OF ALL EXISTING UTILITIES WHETHER SHOWN ON THESE PLANS OR NOT BY POTHOLING THE UTILITIES AND SURVEYING THE HORIZONTAL AND VERTICAL LOCATION PRIOR TO CONSTRUCTION. THIS SHALL INCLUDE CALLING UTILITY LOCATE AT 811 48 HOURS IN ADVANCE AND THEN POTHOLING ALL OF THE EXISTING UTILITIES AT LOCATIONS OF NEW UTILITY CROSSINGS TO PHYSICALLY VERIFY WHETHER OR NOT CONFLICTS EXIST. LOCATIONS OF SAID UTILITIES AS SHOWN ON THESE PLANS ARE BASED UPON THE UNVERIFIED PUBLIC INFORMATION AND ARE SUBJECT TO VARIATION. IF CONFLICTS SHOULD OCCUR, THE CONTRACTOR SHALL NOTIFY BARGHAUSEN CONSULTING ENGINEERS, INC. TO RESOLVE ALL PROBLEMS PRIOR TO PROCEEDING WITH CONSTRUCTION.







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



10/4/2

DEVELOPMENT INFORMATION: **ARCO NTI**

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

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

FACILITY #TBD

LIANCE PM: 21730

UTILITY PLAN - SOUTH

APPROVED

CITY OF PUYALLUP

CITY OF PUYALLUP - WATER SYSTEM NOTES:

- 1. ALL WORK IN CITY RIGHT-OF-WAY REQUIRES A PERMIT FROM THE CITY OF PUYALLUP, PRIOR TO ANY WORK COMMENCING, THE GENERAL CONTRACTOR SHALL ARRANGE FOR A PRECONSTRUCTION MEETING AT THE DEVELOPMENT SERVICES CENTER TO BE ATTENDED BY ALL CONTRACTORS THAT WILL PERFORM WORK SHOWN ON THE APPROVED ENGINEERING PLANS, REPRESENTATIVES FROM ALL APPLICABLE UTILITY COMPANIES, THE PROJECT OWNER AND APPROPRIATE CITY STAFF. CONTACT ENGINEERING SERVICES AT (253-841-5568) TO SCHEDULE THE MEETING. THE CONTRACTOR IS RESPONSIBLE TO HAVE THEIR OWN SET OF APPROVED PLANS AT THE MEETING.
- AFTER COMPLETION OF ALL ITEMS SHOWN ON THESE PLANS AND BEFORE ACCEPTANCE OF THE PROJECT THE CONTRACTOR SHALL OBTAIN 24. SHOULD A BREAK OCCUR ON ANY CITY WATER MAIN, THE CONTRACTOR A "PUNCH LIST" PREPARED BY THE CITY'S INSPECTOR DETAILING REMAINING ITEMS OF WORK TO BE COMPLETED. ALL ITEMS OF WORK SHOWN ON THESE PLANS SHALL BE COMPLETED TO THE SATISFACTION OF THE CITY PRIOR TO ACCEPTANCE OF THE WATER SYSTEM AND PROVISION OF SANITARY SEWER SERVICE.
- 3. ALL MATERIALS AND WORKMANSHIP SHALL CONFORM TO THE STANDARD SPECIFICATIONS FOR ROAD, BRIDGE, AND MUNICIPAL CONSTRUCTION (HEREINAFTER REFERRED TO AS THE "STANDARD SPECIFICATIONS"). WASHINGTON STATE DEPARTMENT OF TRANSPORTATION AND AMERICAN PUBLIC WORKS ASSOCIATION, WASHINGTON STATE CHAPTER, LATEST EDITION, UNLESS SUPERSEDED OR AMENDED BY THE CITY OF PUYALLUP CITY STANDARDS FOR PUBLIC WORKS ENGINEERING AND CONSTRUCTION (HEREINAFTER REFERRED TO AS THE "CITY STANDARDS").
- 4. A COPY OF THESE APPROVED PLANS AND APPLICABLE CITY DEVELOPER SPECIFICATIONS AND DETAILS SHALL BE ON SITE DURING CONSTRUCTION.
- ANY REVISIONS MADE TO THESE PLANS MUST BE REVIEWED AND APPROVED BY THE DEVELOPER'S ENGINEER AND THE CITY PRIOR TO ANY IMPLEMENTATION IN THE FIELD. THE CITY SHALL NOT BE RESPONSIBLE FOR ANY ERRORS AND/OR OMISSIONS ON THESE PLANS.
- 6. THE CONTRACTOR SHALL HAVE ALL UTILITIES VERIFIED ON THE GROUND PRIOR TO ANY CONSTRUCTION. CALL (811) AT LEAST TWO WORKING DAYS IN ADVANCE. THE OWNER AND HIS/HER ENGINEER SHALL BE CONTACTED IMMEDIATELY IF A CONFLICT EXISTS.
- 7. ANY STRUCTURE AND/OR OBSTRUCTION THAT REQUIRES REMOVAL OR RELOCATION RELATING TO THIS PROJECT SHALL BE DONE SO AT THE DEVELOPER'S EXPENSE.
- 8. BACTERIOLOGICAL (COLIFORM AND IRON BACTERIA) TEST SAMPLES WILL BE TAKEN BY THE CITY (OR FMWC, VW OR TCW WHEN SERVED BY THAT PURVEYOR) AND PAID BY THE CONTRACTOR, EXCEPT FOR CAPITAL IMPROVEMENT PROJECTS (CIP) WHICH SHALL BE PAID FOR BY THE CITY.
- WATER MAINS SHALL HAVE A MINIMUM COVER OF 36 INCHES FROM PAVED FINAL GRADE IN IMPROVED RIGHT-OF-WAY AND IMPROVED EASEMENTS. AND A MINIMUM OF 48 INCHES IN UNIMPROVED RIGHT-OF-WAY AND UNIMPROVED EASEMENTS.
- 10. PIPE FOR WATER MAINS SHALL BE DUCTILE IRON CONFORMING TO SECTION 7-09 OF THE STANDARD SPECIFICATIONS, CLASS 52 WITH TYTON OR APPROVED EQUAL JOINTS. PIPE SHALL BE CEMENT LINED IN ACCORDANCE WITH A.S.A. SPECIFICATION A 21.4-1964.
- 11. CONNECTIONS TO EXISTING WATER MAINS TYPICALLY SHALL BE WET TAPS THROUGH A TAPPING TEF AND TAPPING VALVE AND SHALL BE MADE A CITY APPROVED CONTRACTOR. THE TAPPING SLEEVE SHALL BE ROMAC SST ALL STAINLESS STEEL TAPPING SLEEVE OR APPROVED EQUAL. A TWO-PIECE EPOXY COATED OR DUCTILE IRON TAPPING SLEEVE MAY BE USED ON DUCTILE IRON PIPE, WHEN THE TAP IS SMALLER THAN THE WATER MAIN SIZE I.E. 6-INCH TAP ON 8-INCH PIPE. THE CITY (OR FMWC, VW OR TCW WHEN SERVED BY THAT PURVEYOR) SHALL APPROVE THE TIME AND LOCATION FOR THESE CONNECTIONS.
- 12. ALL WATER MAINS AND APPURTENANCES SHALL BE HYDROSTATICALLY TESTED AT 200 PSI IN ACCORDANCE WITH STANDARD SPECIFICATION 7-09.3(23). PRESSURE TESTING SHALL NOT BE PERFORMED UNTIL SATISFACTORY PURITY SAMPLES HAVE BEEN RECEIVED. EXCEPT WHEN NEW WATER MAINS ARE INSTALLED INDEPENDENTLY FROM THE WATER
- 13. FIRE HYDRANTS SHALL BE INSTALLED IN ACCORDANCE WITH CITY STANDARD DETAIL 03.05.01 AND AS DIRECTED BY THE CITY OF PUYALLUP FIRE CODE OFFICIAL.
- 14. VALVE MARKER POSTS SHALL BE INSTALLED WHERE VALVE BOXES ARE HIDDEN FROM VIEW OR IN UNPAVED AREAS. THE INSTALLATION SHALL BE IN ACCORDANCE WITH CITY STANDARD DETAIL 03.01.02.
- 15. RESILIENT SEATED WEDGE GATE VALVES SHALL BE USED FOR 10-INCH MAINS AND SMALLER. BUTTERFLY VALVES SHALL BE USED FOR MAINS GREATER THAN 10 INCHES.
- 16. PIPE FITTING FOR WATER MAINS SHALL BE DUCTILE IRON AND SHALL BE MECHANICAL JOINT CONFIRMING TO AWWA SPECIFICATION C111-72.
- 17. WATER MAIN PIPE AND SERVICE CONNECTIONS SHALL BE A MINIMUM OF 26.c. 10 FEET AWAY FROM BUILDING FOUNDATIONS AND/OR ROOF LINES.
- 18. WHERE A WATER MAIN CROSSES THE NORTHWEST GAS PIPELINES, THE WATER LINE SHALL BE CASED WITH PVC PIPE A MINIMUM OF 10 FEET BEYOND EACH SIDE OF THE GAS LINE EASEMENT. CONTACT WILLIAMS NORTHWEST PIPELINE BEFORE THE CROSSING IS MADE.
- 19. TRENCHING, BEDDING, AND BACKFILL FOR WATER MAINS SHALL BE INSTALLED IN ACCORDANCE WITH CITY STANDARD DETAIL 06.01.01.
- AND MULTI-FAMILY WATER SERVICE CONNECTIONS SHALL BE PROTECTED BY A DOUBLE CHECK VALVE ASSEMBLY OR A REDUCED PRESSURE BACKFLOW ASSEMBLY AS DIRECTED BY THE CITY (OR FMWC, VW OR TCW WHEN SERVED BY THAT PURVEYOR) CONFORMING TO CITY STANDARD DETAILS 03.04.01, 03.04.02, AND 03.04.03.
- 21. ANY LEAD JOINT FITTING DISTURBED DURING CONSTRUCTION SHALL BE REPLACED WITH A MECHANICAL JOINT FITTING AT THE CONTRACTOR'S EXPENSE.
- 22. HYDRAULIC FIRE FLOW MODELING SHALL BE REQUIRED FOR FORMAL PLATS WITHIN OR TO BE ANNEXED INTO THE CITY OF PUYALLUP'S WATER SERVICE AREA. THE DEVELOPER SHALL BE RESPONSIBLE TO APPLY FOR A HYDRAULIC MODEL PERMIT PRIOR TO PLAT REVIEW. THE HYDRAULIC MODELING CRITERIA IS BASED ON THE PROJECTED WATER

- DEMAND WHILE MAINTAINING A MINIMUM SYSTEM PRESSURE OF 20 POUNDS PER SQUARE INCH (PSI) AND A MAXIMUM VELOCITY OF 10 FEET PER SECOND.
- WHEN USING A FIRE HYDRANT FOR NON-FIREFIGHTING PURPOSES. A CITY HYDRANT METER MUST BE USED. COORDINATE THE ACQUISITION OF THE HYDRANT METER WITH THE CITY'S UTILITY BILLING DIVISION AT PUYALLUP CITY HALL. A CITY APPROVED BACKFLOW PROTECTION ASSEMBLY SHALL BE ACCOMPANIED BY A CURRENT BACKFLOW ASSEMBLY TEST REPORT. THE TEST REPORT SHALL BE AVAILABLE AT THE SITE FOR THE DURATION OF THE HYDRANT USE.
- SHALL FOLLOW THE CITY'S ADOPTED "WATER MAIN BREAK PROCEDURE" ISSUED TO THEM AT THE PRE-CONSTRUCTION MEETING AND NOTIFY THOSE CONNECTED TO THE SYSTEM IN THE IMPACTED AREA AS OUTLINED IN THE PROCEDURE.
- 25. WATER MAIN REPAIRS (REFERENCES: AWWA C651-14 AND WSDOT STANDARD SPECIFICATION SECTION 7-09) (NOTE: A PLANNED WATER MAIN REPAIR SHALL BE APPROVED BY THE CITY INSPECTOR AND/OR WATER DIVISION SUPERVISOR PRIOR TO COMMENCING WORK.)

25.a. <u>REPAIR WITHOUT DEPRESSURIZATION</u>-SMALL LEAKS SHALL BE

- REPAIRED USING REPAIR BANDS WHILE MAINTAINING POSITIVE PRESSURE IN THE WATER MAIN. VALVES SURROUNDING THE LEAK WILL BE PARTIALLY SHUT BY THE CITY WATER DEPARTMENT TO REDUCE THE FLOW AND PRESSURE TO THE AREA. BLOWOFFS AND HYDRANTS IN THE REDUCED PRESSURE MAY BE OPENED AS NEEDED TO FURTHER REDUCE THE PRESSURE. THE WATER MAIN TRENCH SHALL BE OVER-EXCAVATED TO ALLOW WATER IN THE TRENCH TO BE PUMPED OUT AND MAINTAINED BELOW THE LEVEL OF THE WATER MAIN. THE REPAIR SHALL BE COMPLETED WITH THE WATER MAIN PRESSURE REMAINING POSITIVE. AFTER THE REPAIR IS MADE, THE SYSTEM SHALL BE FULLY PRESSURIZED AND A VISUAL LEAK INSPECTION WILL BE COMPLETED. THE WATER MAIN IN THE AFFECTED AREA SHALL BE FLUSHED TO ACHIEVE THREE PIPE VOLUMES PULLED FROM THE PIPE (DISTANCE MEASURED FROM VALVE OPENED FOR FLUSHING TO THE EXIT HYDRANT OR BLOWOFF)
- 25.b. <u>REPAIR/CUT-IN WITH DEPRESSURIZATION</u>-TRENCH SHALL BE OVER EXCAVATED AND DEWATERED BELOW THE WATER MAIN. FLUSH WATER FROM PIPE FROM EACH DIRECTION UNTIL IT RUNS CLEAR. IMMEDIATELY PRIOR TO INSTALLATION OF A NEW PIPE SECTION FOR REPAIR OR CUT IN TEE, ALL NEW FITTINGS AND PIPE SPOOLS SHALL BE SWABBED WITH A FIVE PERCENT (5%) CHLORINE SOLUTION (MINIMUM). THE INTERIOR OF THE EXISTING PIPE SHALL BE SWABBED WITH A FIVE PERCENT (5%) CHLORINE SOLUTION AT LEAST 6 FEET IN EACH DIRECTION FROM EXPOSED CUT ENDS. THE WATER MAIN IN THE AFFECTED AREA SHALL BE FLUSHED TO ACHIEVE THREE PIPE VOLUMES PULLED FROM THE PIPE (DISTANCE MEASURED FROM THE VALVE OPENED FOR FLUSHING TO THE EXIST HYDRANT OR BLOWOFF). CUSTOMERS SHALL BE NOTIFIED AFTER THE WATER MAIN IS FLUSHED AND REPAIRS HAVE BEEN COMPLETED, AS OUTLINE IN THE "WATER MAIN BREAK PROCEDURE."

26. NEW WATER MAIN INSTALLATION:

26.o. EACH NEW WATER MAIN SECTION SHALL BE DELIVERED, STACKED AND STORED ONSITE WITH ENDS PLUGGED. THE PLUGS SHALL REMAIN IN THE PIPE UNTIL EACH PARTICULAR SECTION IS INSTALLED. NATIONAL SANITATION FOUNDATION (NSF) APPROVED SIXTY-FIVE PERCENT (65%) CALCIUM HYPOCHLORITE SHALL BE ADDED TO THE UPSTREAM END OF EACH PIPE SECTION, AND AT EACH HYDRANT TEE IN THE AMOUNT GIVEN IN THE TABLE BELOW (OR PER APPROVED MANUFACTURER SPECIFICATIONS). THE MINIMUM AMOUNT OF CALCIUM HYPOCHLORITE ADDED SHOULD BE SUFFICIENT TO ACHIEVE A 50 MG/L CONCENTRATION WITHIN THE IMPACTED

AKEA	ARLA.						
65%	CALCIUM	HYPOCHLORITE	ADDITION	PER	PIPE	SECTION	

63% CAEGON THE CONCORDE ABBITION TEXT IN E. SECTION						
	PIPE	5-GRAM		HLORITE IULES		
PIPE DIAMETER (INCHES)	VOLUME PER 18 FEET (GAL)	TABLETS PER PIPE SECTION	OUNCES PER 500 FEET	TEASPOO NS PER 18 FEET	MAXIMUM FILL RATE (GPM)	
4	35	1	1.7	0.2	40	
6	53	1	3.8	0.4	90	
8	70	2	6.7	0.7	150	
12	106	4	15.1	1.4	350	
16	141	6	27	2.5	600	

- 26.b. NEW WATER MAINS SHALL BE FILLED USING AN APPROVED BACKFLOW PREVENTION ASSEMBLY. THE WATER MAIN SHALL BE FILLED FROM THE LOWER ELEVATION END SOT THAT AS THE WATER MAIN IS FILLED, THE CHLORINE IS CONTACTED, DISSOLVED AND SPREAD RELATIVELY UNIFORM THROUGH THE LENGTH OF THE WATER MAIN. THE FILL RATE SHALL BE MINIMIZED SOT HAT THE VELOCITY OF THE WATER IS LESS THAN 1 FT/SEC (SEE TABLE ABOVE). SUCCESSFUL PRESSURE TEST AND BACTERIOLOFICAL TESTS SHALL BE COMPETED AND PROVIDED TO THE CITY PRIOR TO ANY NEW WATER MAIN CONNECTION TO THE EXISTING WATER SYSTEM.
- THE CHOLRINATED WATER WILL BE ALLOWED TO REMAIN IN CONTACT WITH THE NEW WATER MAIN SYSTEM 24 TO 72 HOURS. AFTER 24 HOURS, WATER MAY BE ADDED TO THE WATER MAIN FOR THE PURPOSES OF PRESSURE TESTING. THE WATER IN THE MAIN USED FOR PRESSURE TESTING MUST REMAIN IN THE WATER MAIN UNTIL PRESSURE TEST IS COMPLETED. IF NECESSARY, LIQUID CHLORINE SHALL BE INJECTED INTO THE WATER MAIN WITH FILL WATER TO MAINTAIN A CONCENTRATION IN THE WATER MAIN ABOVE 50 MG/L. UNDER NO CIRCUMSTANCES SHALL "SUPER" CHLORINATED WATER BE ALLOWED TO SITE WITHIN A NEW WATER MAIN FOR MORE THAN
- 20. ALL COMMERCIAL AND INDUSTRIAL DEVELOPMENTS, IRRIGATION SYSTEMS, 26.d. PRESSURE TESTING INCLUDES TESTING AGAINST NEW VALVES AND HYDRANTS. EACH VALVE SHALL BE TESTED BY CLOSING EACH IN TURN AND REDUCING THE PRESSURE BEYOND THE VALVE. THE PRESSURE ON THE ABACK SIDE OF THE VALVE SHOULD NOT BE ELIMINATED. CARE MUST BE TAKEN THAT, DURING THIS PROCESS, POSITIVE PRESSURE REMAINS THROUGHOUT THE SYSTEM BEING TEST <u>AT ALL TIMES</u>. ALL HYDRANT FOOT VALVES SHALL BE OPEN DURING PRESSURE TESTING SO THAT THE PRESSURE TEST IS AGAINST THE HYDRANT VALVE, PRESSURE TESTING WILL NOT BE ALLOWED AGAINST ANY EXISTING VALVES.
 - 26.e. AFTER SUCCESSFUL PRESSURING TESTING, THE WATER MAIN SHALL BE THOROUGHLY FLUSHED TO REMOVE ALL "SUPER" CHLORINATED WATER FROM THE NEW WATER MAIN. FLUSHING OF NEW OR EXTENDED WATER MAINS SHALL BE CONDUCTED PER WSDOT SPECIFICATION 7-09.3(24)A WITH A MINIMUM VELOCITY DEVELOPED WITHIN THE PIPE WHILE FLUSHING OF 2.5 FEET PER SECOND

UTILITY CONFLICT NOTE: THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING THE LOCATION, DIMENSION, AND DEPTH OF ALI

EXISTING UTILITIES WHETHER SHOWN ON THESE PLANS OR NOT BY POTHOLING THE UTILITIES AND SURVEYING THE HORIZONTAL AND VERTICAL LOCATION PRIOR TO CONSTRUCTION. THIS SHALL INCLUDE CALLING UTILITY LOCATE AT 811 48 HOURS IN ADVANCE AND THEN POTHOLING ALL OF THE EXISTING UTILITIES AT LOCATIONS OF NEW UTILITY CROSSINGS TO PHYSICALLY VERIFY WHETHER OR NOT CONFLICTS EXIST. LOCATIONS OF SAID UTILITIES AS SHOWN ON THESE PLANS ARE BASED UPON THE UNVERIFIED PUBLIC INFORMATION AND ARE SUBJECT TO VARIATION. IF CONFLICTS SHOULD OCCUR, THE CONTRACTOR SHALL NOTIFY BARGHAUSEN CONSULTING ENGINEERS, INC. TO RESOLVE ALL PROBLEMS PRIOR TO PROCEEDING WITH CONSTRUCTION.



UTILITY NOTES AND DETAILS

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

(FPS). ALL FLUSHED WATER SHALL BE DECHOLRIINATED PRIOR TO DISPOSAL. THE CONTRACTOR SHALL BE RESPONSIBLE FOR DISPOSAL OF ALL CHLORINATED WATER FLUSHED FROM MAINS. THE CITY SHALL APPROVE THE DISPOSAL METHOD PRIOR TO IMPLEMENTATION IN THE FIELD. THE CONTRACTOR SHALL UTILIZE ON-SITE DISPOSAL METHODS, IF AVAILABLE. DISPOSAL OF FLUSH WATER TO THE SANITARY SEWER SYSTEM SHALL NOT BE ALLOWED WITHOUT WRITTEN PERMISSION FROM THE WATER POLLUTION CONTROL PLANT (WPCP_ SUPERVISOR. ANY PLANNED DISCHARGE TO A STORMWATER SYSTEM SHALL BE DECHLORINATED TO CONCENTRATION OF 0.1 PPM OR LESS, PH ADJUSTED (IF NECESSARY) TO BE BETWEEN 6.5 AND 8.5. AND VOLUMETRICALLY AND VELOCITY CONTROLLED TO PREVENT ANY RESUSPENSION OF SEDIMENTS. THE CITY WILL REQUIRE INDEPENDENT TESTING THROUGHOUT THE WATER DISCHARGE

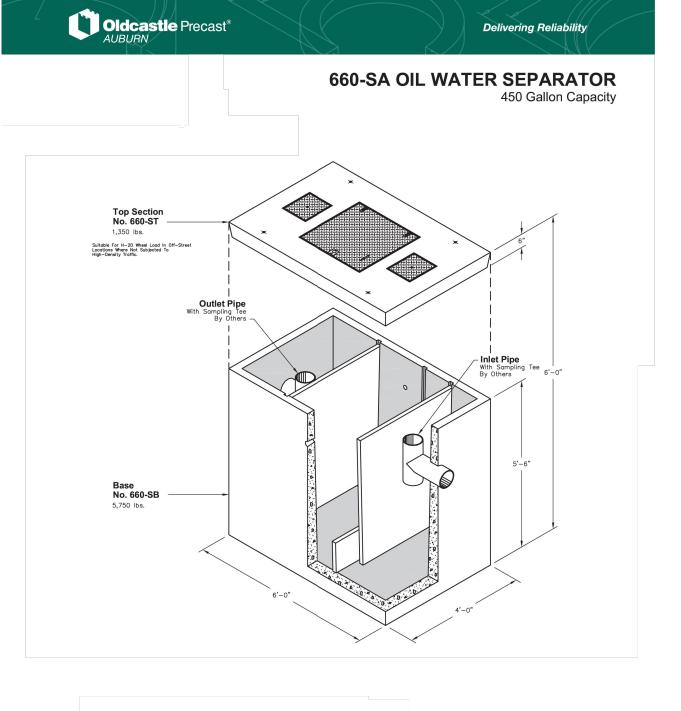
- PROCESS TO ENSURE COMPLIANCE OF THESE STANDARDS ARE MET SAMPLES FOR BACTERIOLOGICAL ANALYSIS SHALL BE COLLECTED AFTER FLUSHING AND AGAIN 24 HOURS AFTER THE FIRST SET OF
- 26.g. ALL CLOSURE/FINAL CONNECTION FITTINGS SHALL BE SPRAYED CLEAN AND THEN SWABBED WITH A FIVE PERCENT (5%) CHLORINE SOLUTION IMMEDIATELY PRIOR TO INSTALLATION PER AWWA STANDARD C651. ADDITIONAL SAMPLES FOR BACTERIOLOGICAL ANALYSIS SHALL BE COLLECTED FROM THE IMMEDIATE VICINITY OF THE NEW OR REPLACED WATER MAIN AND ANALYZED AFTER THE FINAL CONNECTIONS ARE MADE. IF NECESSARY, ADDITIONAL FLUSHING SHALL BE CONDUCTED AND ADDITIONAL SAMPLES SHALL BE COLLECTED UNTIL SATISFACTORY RESULTS ARE OBTAINED.

CITY OF PUYALLUP - SANITARY SEWER NOTES:

- ALL WORK IN CITY RIGHT-OF-WAY REQUIRES A PERMIT FROM THE CITY OF PUYALLUP. PRIOR TO ANY WORK COMMENCING, THE GENERAL CONTRACTOR SHALL ARRANGE FOR A PRECONSTRUCTION MEETING AT THE DEVELOPMENT SERVICES CENTER TO BE ATTENDED BY ALL CONTRACTORS THAT WILL PERFORM WORK SHOWN ON THE APPROVED ENGINEERING PLANS, REPRESENTATIVES FROM ALL APPLICABLE UTILITY COMPANIES, THE PROJECT OWNER AND APPROPRIATE CITY STAFF. CONTACT ENGINEERING SERVICES AT (253-841-5568) TO SCHEDULE THE MEETING. THE CONTRACTOR IS RESPONSIBLE TO HAVE THEIR OWN SET OF APPROVED PLANS AT THE MEETING.
- AFTER COMPLETION OF ALL ITEMS SHOWN ON THESE PLANS AND BEFORE ACCEPTANCE OF THE PROJECT THE CONTRACTOR SHALL OBTAIN A "PUNCH LIST" PREPARED BY THE CITY'S INSPECTOR DETAILING REMAINING ITEMS OF WORK TO BE COMPLETED. ALL ITEMS OF WORK SHOWN ON THESE PLANS SHALL BE COMPLETED TO THE SATISFACTION OF THE CITY PRIOR TO ACCEPTANCE OF THE WATER SYSTEM AND PROVISION OF SANITARY SEWER SERVICE.
- 3. ALL MATERIALS AND WORKMANSHIP SHALL CONFORM TO THE STANDARD SPECIFICATIONS FOR ROAD, BRIDGE, AND MUNICIPAL CONSTRUCTION (HEREINAFTER REFERRED TO AS THE "STANDARD SPECIFICATIONS"), WASHINGTON STATE DEPARTMENT OF TRANSPORTATION AND AMERICAN PUBLIC WORKS ASSOCIATION. WASHINGTON STATE CHAPTER. LATEST EDITION. UNLESS SUPERSEDED OR AMENDED BY THE CITY OF PUYALLUP CITY STANDARDS FOR PUBLIC WORKS ENGINEERING AND CONSTRUCTION (HEREINAFTER REFERRED TO AS THE "CITY STANDARDS")
- 4. A COPY OF THESE APPROVED PLANS AND APPLICABLE CITY DEVELOPER SPECIFICATIONS AND DETAILS SHALL BE ON SITE DURING CONSTRUCTION.
- 5. ANY REVISIONS MADE TO THESE PLANS MUST BE REVIEWED AND APPROVED BY THE DEVELOPER'S ENGINEER AND THE CITY PRIOR TO ANY IMPLEMENTATION IN THE FIELD. THE CITY SHALL NOT BE RESPONSIBLE FOR ANY ERRORS AND/OR OMISSIONS ON THESE PLANS.
- 6. THE CONTRACTOR SHALL HAVE ALL UTILITIES VERIFIED ON THE GROUND PRIOR TO ANY CONSTRUCTION. CALL (811) AT LEAST TWO WORKING DAYS IN ADVANCE. THE OWNER AND HIS/HER ENGINEER SHALL BE CONTACTED IMMEDIATELY IF A CONFLICT EXISTS.
- 7. ANY STRUCTURE AND/OR OBSTRUCTION THAT REQUIRES REMOVAL OR RELOCATION RELATING TO THIS PROJECT SHALL BE DONE SO AT THE DEVELOPER'S EXPENSE.
- MINIMUM GRADE ON ALL 4 INCH RESIDENTIAL SIDE SEWERS SHALL BE 2 PERCENT AND 6 INCH COMMERCIAL SIDE SEWERS SHALL BE 1 PERCENT; MAXIMUM SHALL BE 8 PERCENT. ALL SIDE SEWERS SHALL BE 6 INCHES WITHIN CITY RIGHT-OF-WAY.
- 9. SIDE SEWERS SHALL BE INSTALLED IN ACCORDANCE WITH CITY STANDARD NOS. 04.03.01, 04.03.02, 04.03.03 AND 04.03.04. SIDE SEWER INSTALLATION WORK SHALL BE DONE IN ACCORDANCE WITH THE WASHINGTON INDUSTRIAL SAFETY AND HEALTH ACT (WISHA).
- 10. ALL SEWER PIPE SHALL BE PVC, POLYPROPYLENE, OR DUCTILE IRON. PVC SEWER PIPE SHALL CONFORM TO ASTM D-3034, SDR35 FOR PIE SIZES 15-INCH AND SMALLER AND ASTM F679 FOR PIPE SIZES 18- TO 27-INCH, DUCTILE IRON PIPE SHALL BE CLASS 51 OR GREATER, LINED WITH PROTECTO 401TM EPOXY LINING OR EQUIVALENT, UNLESS OTHERWISE NOTED. 12-INCH THROUGH 30-INCH POLYPROPYLENE PIPE (PP) SHALL BE DUAL WALLED, HAVE A SMOOTH INTERIOR AND EXTERIOR CORRUGATIONS AND MEET WSDOT 9-05.24(2). IT SHALL MEET OR EXCEED ASTM F2764. 36-INCH THROUGH 60-INCH PP PIPE SHALL BE TRIPLE WALLED AND MEET WSDOT 9-05.24(2) IT SHALL MEET OR EXCEED ASTM F2764. PP SHALL HAVE A MINIMUM PIPE STIFFNESS OF 46 PII WHEN TESTED IN ACCORDANCE WITH ASTM D2412. TESTING SHALL BE PER ASTM F1417. TRENCHING, BEDDING, AND BACKFILL SHALL BE IN ACCORDANCE WITH CITY STANDARD NO. 06.01.01. MINIMUM COVER ON PVC AND PP PIE SHALL BE 3.0 FEET. MINIMUM COVER ON DUCTILE IRON PIPE SHALL BE 1.0 FOOT.
- 11. SANITARY SEWER MANHOLE FRAMES AND COVERS SHALL CONFORM TO CITY STANDARD NO. 06.01.02.
- 12. SANITARY SEWER MANHOLES SHALL CONFORM TO CITY STANDARD NOS. 04.01.01, 04.01.02, 04.01.03 AND 04.01.04, ALL MANHOLES SHALL BE CHANNELED FOR FUTURE LINES AS SPECIFIED ON THESE PLANS. MANHOLE STEPS AND LADDER SHALL CONFORM TO STANDARD NO. 06.01.03.
- 13. SANITARY SEWER PIPE AND SIDE SEWERS SHALL BE 10 FEET AWAY FROM BUILDING FOUNDATIONS AND/OR ROOF LINES WITH THE EXCEPTION OF SIDE SEWERS THAT PROVIDE SERVICE TO A SINGLE-FAMILY RESIDENCE. AT THE DISCRETION OF THE REVIEW ENGINEER, A LICENSE PROFESSIONAL ENGINEER WILL BE REQUIRED TO STAMP THE DESIGN TO ACCOUNT FOR DEPTH OR PROXIMITY TO FOUNDATION, STEEP SLOPES, OR OTHER FACTORS.
- 14. NO SIDE SEWERS SHALL BE CONNECTED TO ANY HOUSE OR BUILDING UNTIL ALL MANHOLES ARE ADJUSTED TO THE FINISHED GRADE OF THE COMPLETED

ASPHALT ROADWAY AND THE ASPHALT PATCH AND SEAL AROUND THE RING ARE ACCEPTED.

- 15. FOR COMMERCIAL DEVELOPMENTS IN WHICH SOURCES OF GREASE AND/OR OILS MAY BE INTRODUCED TO THE CITY SANITARY SEWER SYSTEM, A CITY APPROVED GREASE INTERCEPTOR SHALL BE INSTALLED DOWNSTREAM FROM
- 16. ONCE SEWER AND ALL OTHER UTILITY CONSTRUCTION IS COMPLETED, ALL SANITARY SEWER MAINS AND SIDE SEWERS SHALL BE TESTED PER SECTION 406 OF THE CITY STANDARDS



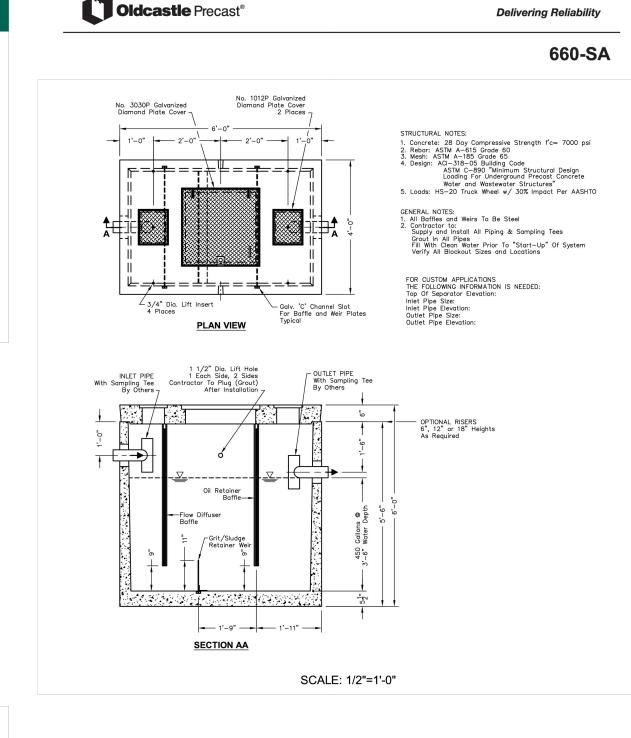
Non Skid Covers Available

FOR DETAILS, SEE REVERSE>

 Mailing Address
 Phone: 800-892-1538

 PO Box 588
 Fax: 253-735-4201

 Auburn, WA 98071
 Email: opauburn@oldcastle.com



APPROVED

CITY OF PUYALLUP

WATER PURVEYOR

NOTE: THIS APPROVAL IS VOID

THE CITY WILL NOT BE

RESPONSIBLE FOR ERRORS

AND/OR OMISSIONS ON THESE

CHANGES TO THESE PLANS AS

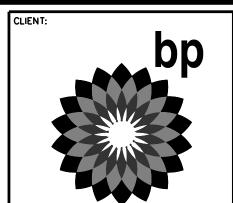
DETERMINED BY THE WATER

FIELD CONDITIONS MAY DICTATE

AFTER 180 DAYS FROM APPROVAL

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OLDCASTLE 660-SA OIL/WATER SEPARATOR C6.2 / SCALE: NTS







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

SITE ADDRESS: **SWC S MERIDIAN** @ HIGHWAY 512

FUEL CANOPY w/ 6 MPD's

PUYALLUP, WASHINGTON **FACILITY #TBD**

	ALLIANCE Z&DM:
	BP REPM:
	ALLIANCE PM:
	PROJECT NO:
-	21730
	-

UTILITY NOTES AND DETAILS

NOTE: THIS APPROVAL IS VOID AFTER 180 DAYS FROM APPROVAL

APPROVED

CITY OF PUYALLUP

DEVELOPMENT ENGINEERING

THE CITY WILL NOT BE

DETERMINED BY THE

MANAGER.

RESPONSIBLE FOR ERRORS

AND/OR OMISSIONS ON THESE

CHANGES TO THESE PLANS AS

DEVELOPMENT ENGINEERING

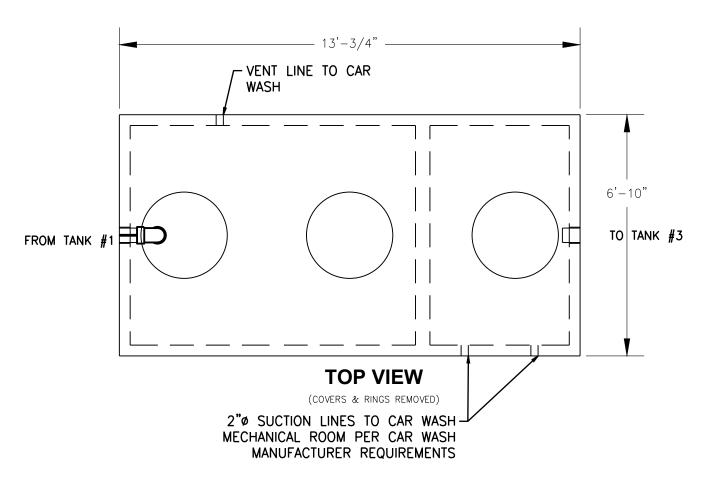
FIELD CONDITIONS MAY DICTATE

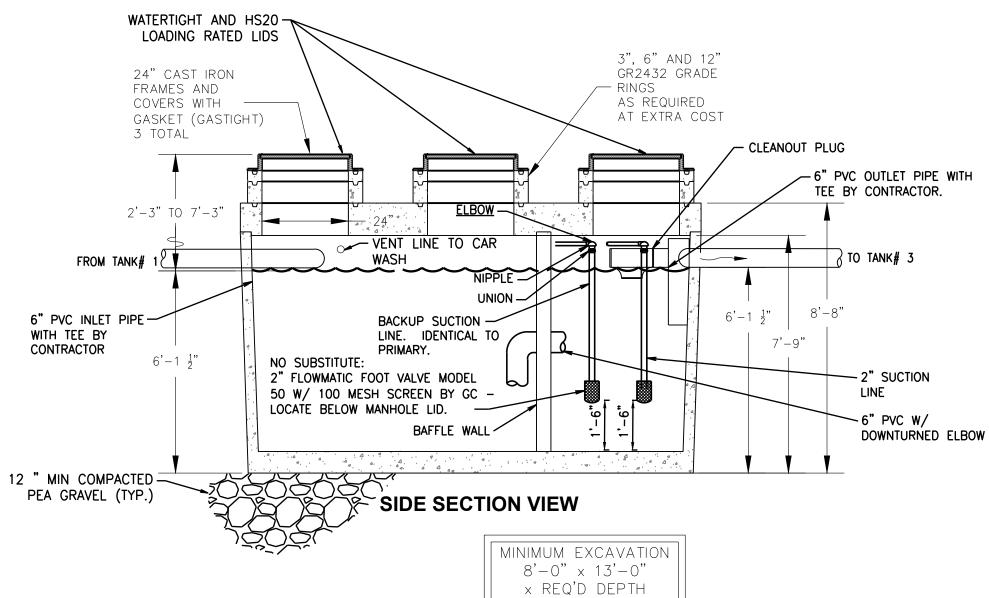
UTILITY DETAILS

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

SPECIFICATIONS:

- 1. CONCRETE: DESIGN STRENGTH OF 5500 PSI AT 28 DAYS.
- 2. STEEL REINFORCEMENT: ASTM A-615 GRADE 60.
- 3. LOADING: DESIGNED FOR HS-20 LOADING.
- 4. C.I. CASTINGS: ASTM A-48 CLASS 30/35.





OPERATING CAPACITY: 1,500 GALLONS.

DESIGN LOAD: H-20 TRAFFIC WITH DRY SOIL CONDITIONS (WATER LEVEL BELOW TANK) AND 1'-6' EARTH COVER.

SUITABLE SUB-BASE BEDDED WITH GRANULAR MATERIAL SHALL BE PREPARED TO HANDLE ANTICIPATED LOADS.

FOR COMPLETE DESIGN AND PRODUCT INFORMATION CONTACT OLDCASTLE PRECAST.

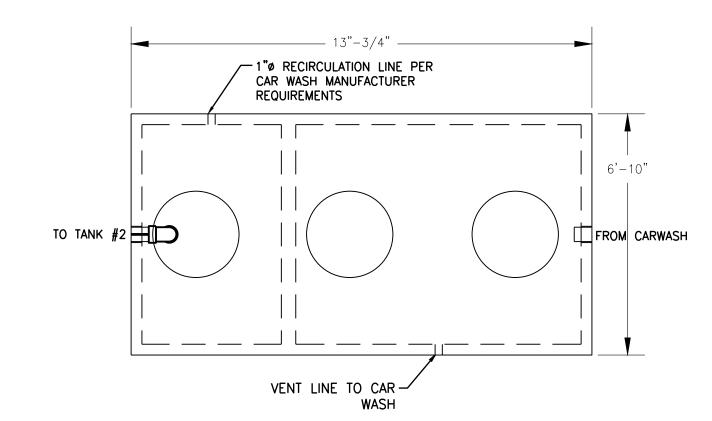
MODIFIED OLDCASTLE PRECAST 1500 GALLON

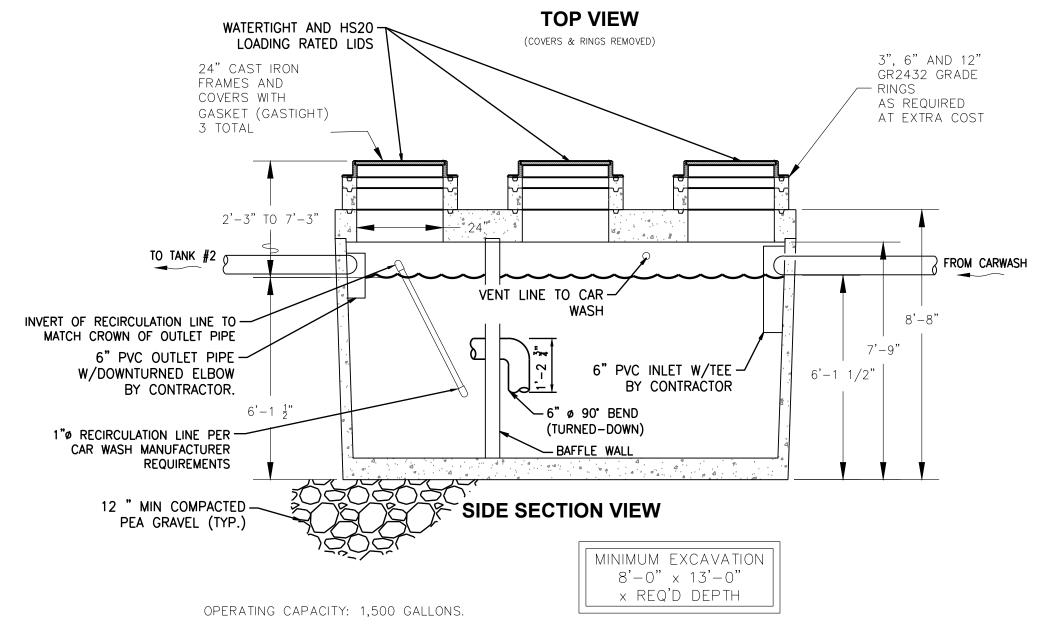
NOT TO SCALE MODEL NO. GT-1500

RECLAIM TANK #2 C6.3 | SCALE: NTS

SPECIFICATIONS:

- CONCRETE: DESIGN STRENGTH OF 5500 PSI AT 28 DAYS.
- 2. STEEL REINFORCEMENT: ASTM A-615 GRADE 60.
- 3. LOADING: DESIGNED FOR HS-20 LOADING.
- 4. C.I. CASTINGS: ASTM A-48 CLASS 30/35.





DESIGN LOAD: H-20 TRAFFIC WITH DRY SOIL CONDITIONS

(WATER LEVEL BELOW TANK) AND 1'-6' EARTH COVER. SUITABLE SUB-BASE BEDDED WITH GRANULAR MATERIAL SHALL BE PREPARED TO

HANDLE ANTICIPATED LOADS.

FOR COMPLETE DESIGN AND PRODUCT INFORMATION CONTACT OLDCASTLE PRECAST.

MODIFIED OLDCASTLE PRECAST 1500 GALLON

NOT TO SCALE MODEL NO. GT-1500

RECLAIM TANK #1 C6.3 SCALE: NTS

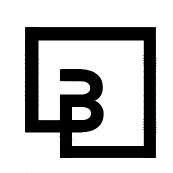
UTILITY CONFLICT NOTE:

THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING THE LOCATION, DIMENSION, AND DEPTH OF ALL EXISTING UTILITIES WHETHER SHOWN ON THESE PLANS OR NOT BY POTHOLING THE UTILITIES AND SURVEYING THE HORIZONTAL AND VERTICAL LOCATION PRIOR TO CONSTRUCTION. THIS SHALL INCLUDE CALLING UTILITY LOCATE AT 811 48 HOURS IN ADVANCE AND THEN POTHOLING ALL OF THE EXISTING UTILITIES AT LOCATIONS OF NEW UTILITY CROSSINGS TO PHYSICALLY VERIFY WHETHER OR NOT CONFLICTS EXIST. LOCATIONS OF SAID UTILITIES AS SHOWN ON THESE PLANS ARE BASED UPON THE UNVERIFIED PUBLIC INFORMATION AND ARE SUBJECT TO VARIATION. IF CONFLICTS SHOULD OCCUR, THE CONTRACTOR SHALL NOTIFY BARGHAUSEN CONSULTING ENGINEERS, INC. TO RESOLVE ALL PROBLEMS PRIOR TO PROCEEDING WITH CONSTRUCTION.



Know what's **below**. Call before you dig. Dial 811





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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:	MM	ALLIANCE Z&DM:
CHECKED BY:	AW	BP REPM:
DRAWN BY:	ММ	ALLIANCE PM:
VERSION:	_	PROJECT NO:
	-	21730
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UTILITY DETAILS

APPROVED

CITY OF PUYALLUP

DEVELOPMENT ENGINEERING

NOTE: THIS APPROVAL IS VOID AFTER 180 DAYS FROM APPROVAL

DATE. THE CITY WILL NOT BE RESPONSIBLE FOR ERRORS

DETERMINED BY THE

MANAGER.

AND/OR OMISSIONS ON THESE

DEVELOPMENT ENGINEERING

FIELD CONDITIONS MAY DICTATE CHANGES TO THESE PLANS AS

APPROVED

CITY OF PUYALLUP

WATER PURVEYOR

NOTE: THIS APPROVAL IS VOID AFTER 180 DAYS FROM APPROVAL

THE CITY WILL NOT BE RESPONSIBLE FOR ERRORS

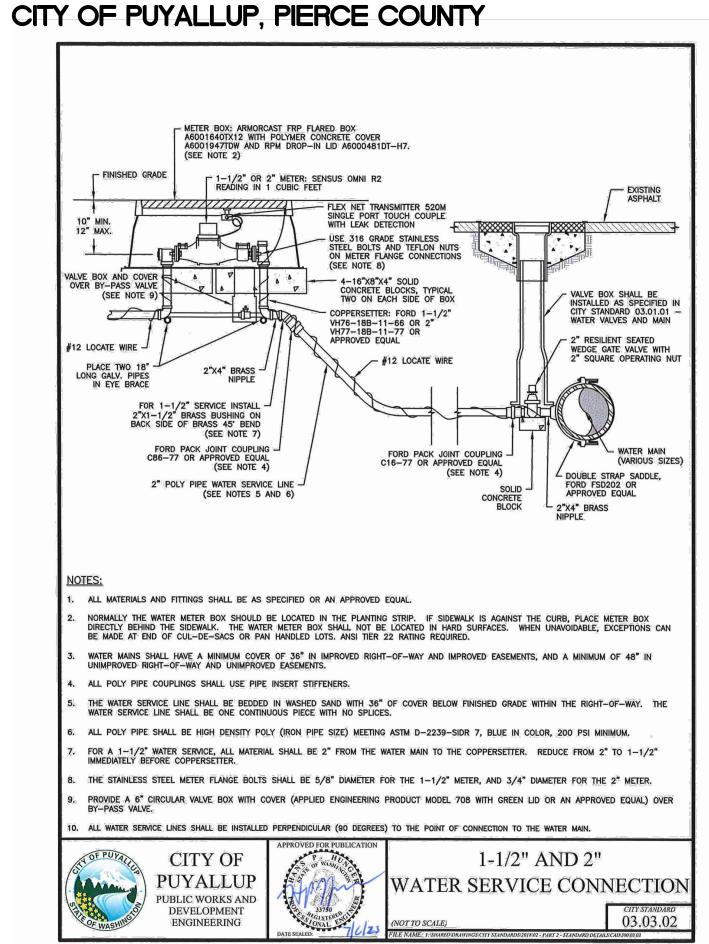
AND/OR OMISSIONS ON THESE

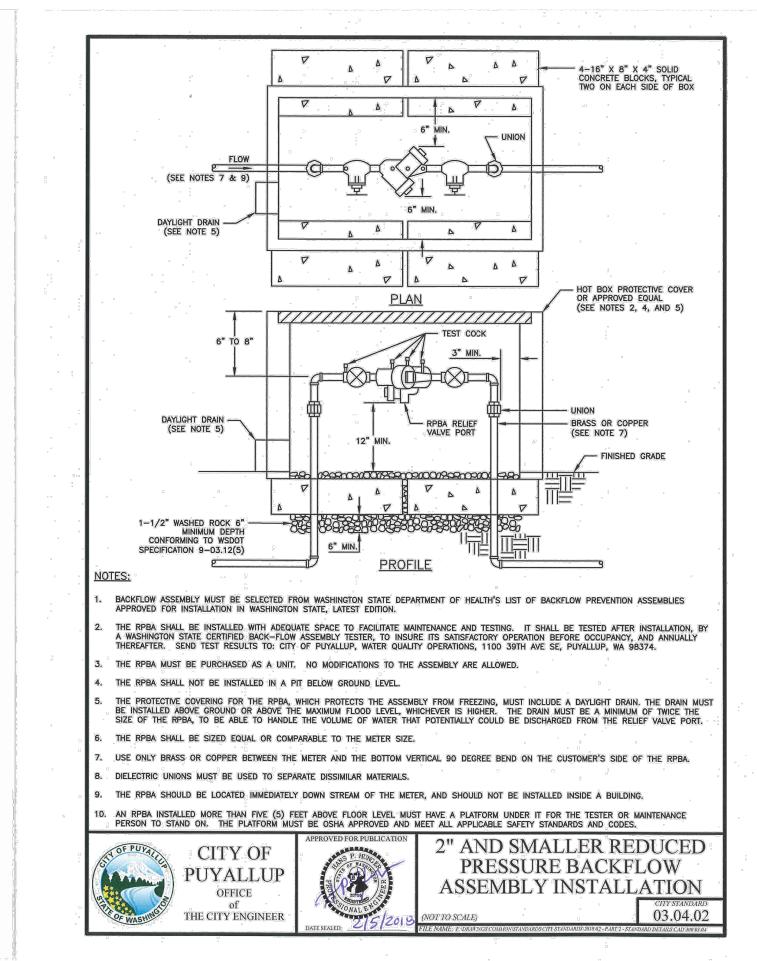
CHANGES TO THESE PLANS AS

DETERMINED BY THE WATER

FIELD CONDITIONS MAY DICTATE

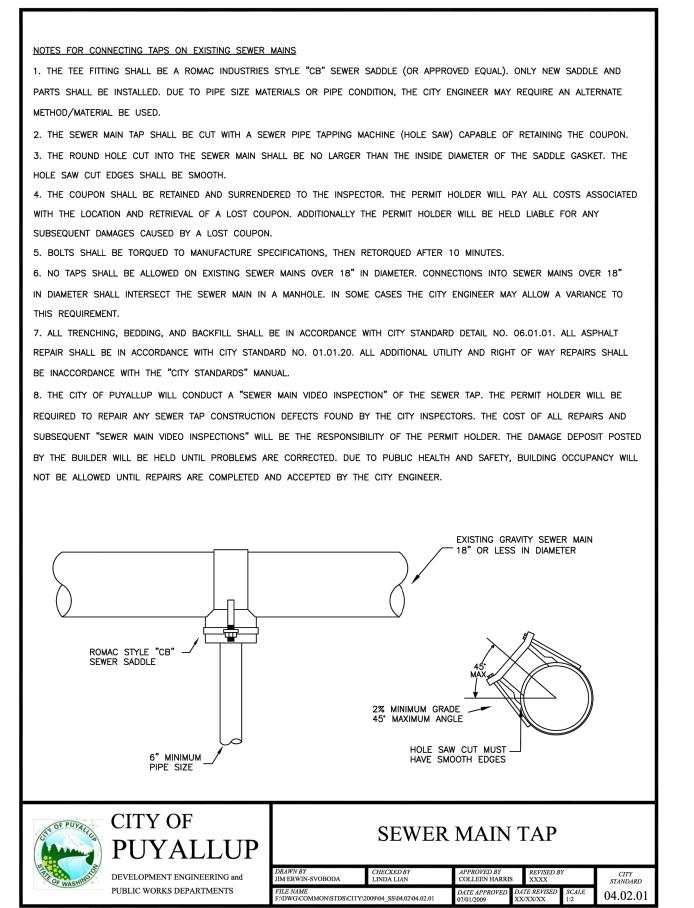
ARCO ampm PUYALLUP SEC. 33, TWN. 20 N, RGE. 4 E, W.M.





CITY OF PUYALLUP 2" AND SMALLER RPBA

CITY OF PUYALLUP 1-1/2" AND 2" WATER SERVICE CONNECTION SCALE: NTS



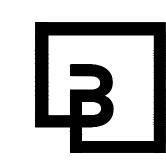


DEVELOPMENT ENGINEERING

MANAGER.

bp





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10/4

DEVELOPMENT INFORMATION:

ARCO NTI

3400 am/pm

FUEL CANOPY w/ 6 MPD's

SITE ADDRESS:

SWC S MERIDIAN
@ HIGHWAY 512
PUYALLUP, WASHINGTON

FACILITY #TBD
SIGNED BY: MM ALLIANCE Z&DM:

BP REPM:

RAWN BY: MM ALLIANCE PM:

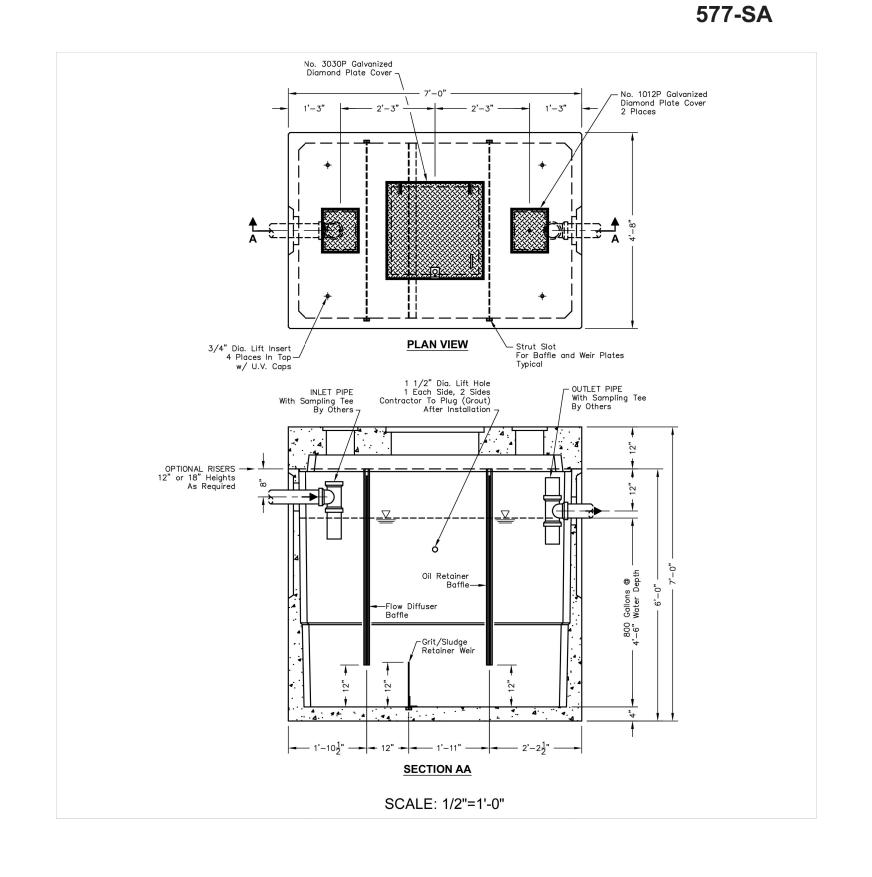
RSION:

PROJECT NO:

21730

UTILITY DETAILS

C6.4



opauburn.com

Oldcastle Precast®

OIL/WATER SEPARATOR TANK #3 MODIFIED OLDCASTLE PRECAST 800 GALLON

MODEL NO. 577-SA-800 NOT TO SCALE

1 RECLAIM TANK #3 SCALE: NTS

UTILITY CONFLICT NOTE:

THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING THE LOCATION, DIMENSION, AND DEPTH OF ALL EXISTING UTILITIES WHETHER SHOWN ON THESE PLANS OR NOT BY POTHOLING THE UTILITIES AND SURVEYING THE HORIZONTAL AND VERTICAL LOCATION PRIOR TO CONSTRUCTION. THIS SHALL INCLUDE CALLING UTILITY LOCATE AT 811 48 HOURS IN ADVANCE AND THEN POTHOLING ALL OF THE EXISTING UTILITIES AT LOCATIONS OF NEW UTILITY CROSSINGS TO PHYSICALLY VERIFY WHETHER OR NOT CONFLICTS EXIST. LOCATIONS OF SAID UTILITIES AS SHOWN ON THESE PLANS ARE BASED UPON THE UNVERIFIED PUBLIC INFORMATION AND ARE SUBJECT TO VARIATION. IF CONFLICTS SHOULD OCCUR, THE CONTRACTOR SHALL NOTIFY BARGHAUSEN CONSULTING ENGINEERS, INC. TO RESOLVE ALL PROBLEMS PRIOR TO PROCEEDING WITH CONSTRUCTION.



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Delivering Reliability

Know what's **below. Call** before you dig.

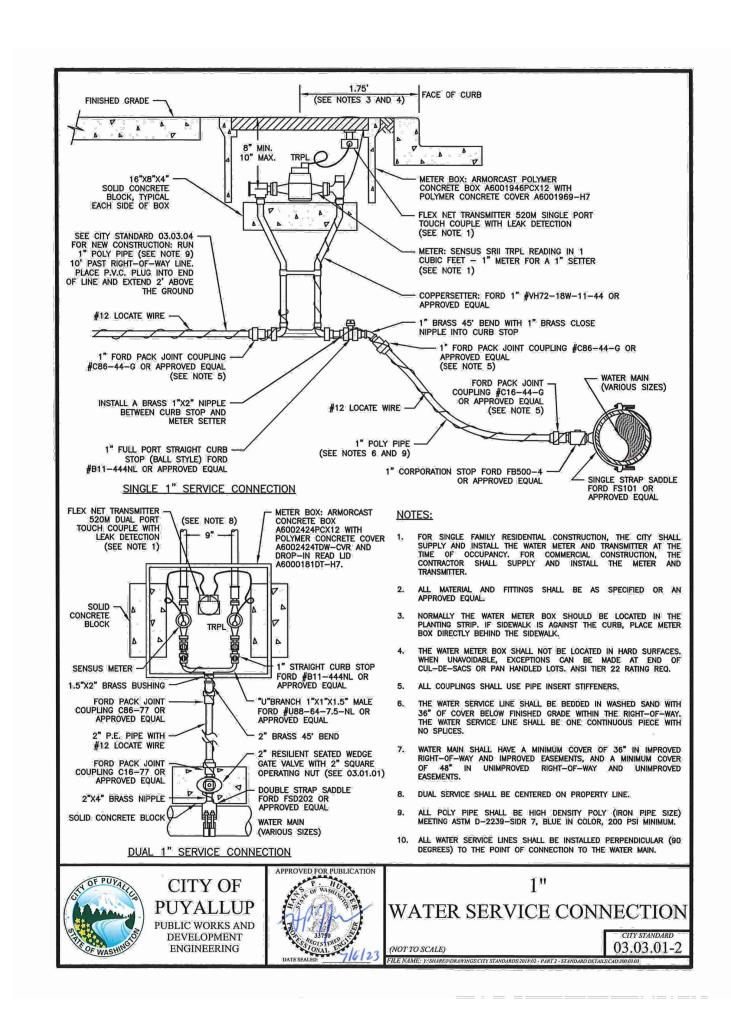
Dial 811

4 CITY OF PUYALLUP SEWER MAIN TAP

C6.4 SCALE: NTS

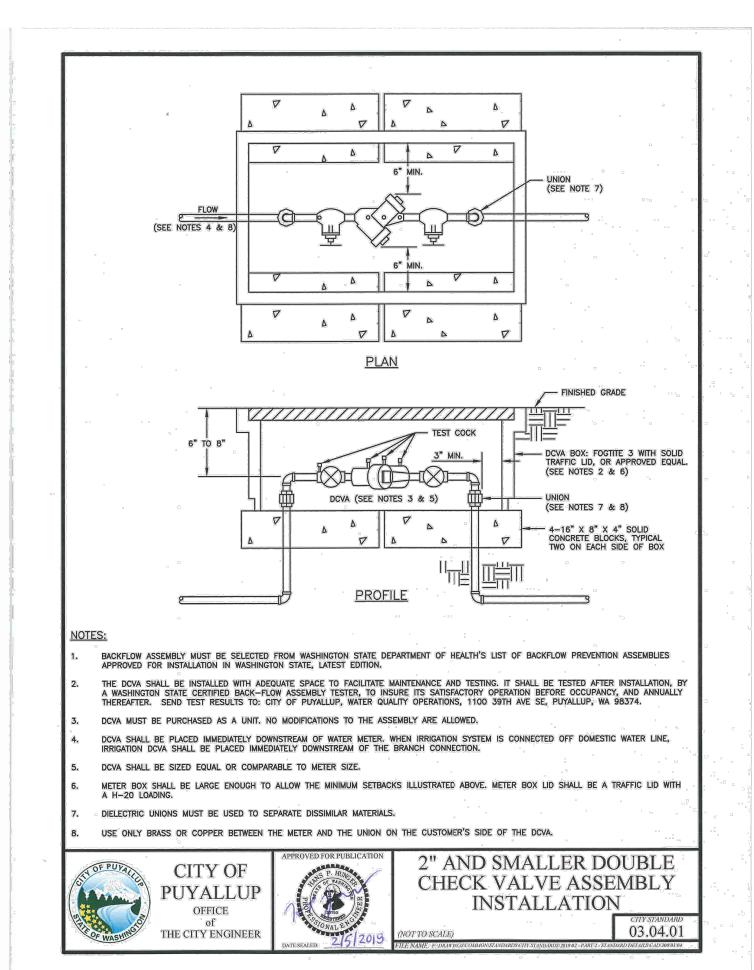
UTILITY DETAILS

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



CITY OF PUYALLUP 1" WATER SERVICE CONNECTION

C6.5 SCALE: NTS



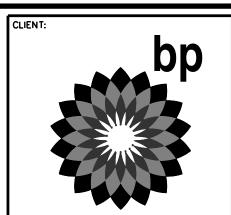
2 CITY OF PUYALLUP 2" AND SMALLER DCVA
C6.5 SCALE: NTS

UTILITY CONFLICT NOTE:

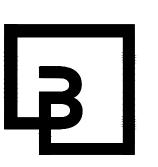
THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING THE LOCATION, DIMENSION, AND DEPTH OF ALL EXISTING UTILITIES WHETHER SHOWN ON THESE PLANS OR NOT BY POTHOLING THE UTILITIES AND SURVEYING THE HORIZONTAL AND VERTICAL LOCATION PRIOR TO CONSTRUCTION. THIS SHALL INCLUDE CALLING UTILITY LOCATE AT 811 48 HOURS IN ADVANCE AND THEN POTHOLING ALL OF THE EXISTING UTILITIES AT LOCATIONS OF NEW UTILITY CROSSINGS TO PHYSICALLY VERIFY WHETHER OR NOT CONFLICTS EXIST. LOCATIONS OF SAID UTILITIES AS SHOWN ON THESE PLANS ARE BASED UPON THE UNVERIFIED PUBLIC INFORMATION AND ARE SUBJECT TO VARIATION. IF CONFLICTS SHOULD OCCUR, THE CONTRACTOR SHALL NOTIFY BARGHAUSEN CONSULTING ENGINEERS, INC. TO RESOLVE ALL PROBLEMS PRIOR TO PROCEEDING WITH CONSTRUCTION.



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10/4

ARCO NTI

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

SITE ADDRESS:

SWC S MERIDIAN

@ HIGHWAY 512
PUYALLUP, WASHINGTON

FACILITY #TBD

CHECKED BY:	AW	BP REPM:
DRAWN BY:	ММ	ALLIANCE PM:
VERSION:		PROJECT NO:
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DRAWING TI	TLE:	

APPROVED

CITY OF PUYALLUP

DEVELOPMENT ENGINEERING

NOTE: THIS APPROVAL IS VOID AFTER 180 DAYS FROM APPROVAL

DATE.
THE CITY WILL NOT BE

DETERMINED BY THE

MANAGER.

RESPONSIBLE FOR ERRORS

AND/OR OMISSIONS ON THESE

DEVELOPMENT ENGINEERING

FIELD CONDITIONS MAY DICTATE CHANGES TO THESE PLANS AS

APPROVED

CITY OF PUYALLUP

WATER PURVEYOR

NOTE: THIS APPROVAL IS VOID AFTER 180 DAYS FROM APPROVAL

THE CITY WILL NOT BE RESPONSIBLE FOR ERRORS

AND/OR OMISSIONS ON THESE

CHANGES TO THESE PLANS AS

DETERMINED BY THE WATER

FIELD CONDITIONS MAY DICTATE

DATE

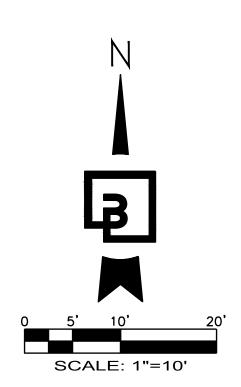
UTILITY DETAILS

SHEET NO:

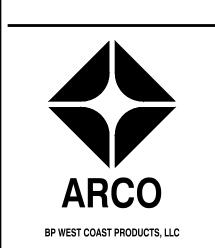
C6.5

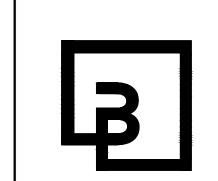
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SEWER PROFILE - BUILDING + TRASH ENCLOSURE



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





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REVISION DESCRIPTION



DEVELOPMENT INFORMATION: **ARCO NTI** 3400 am/pm

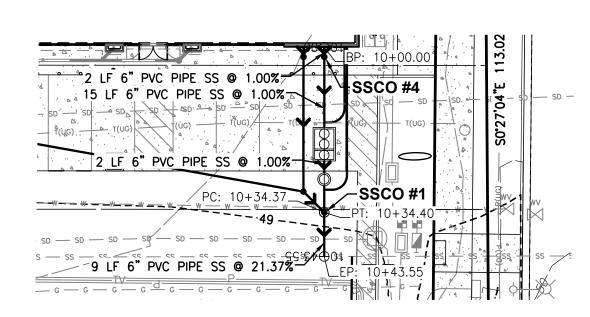
SITE ADDRESS: SWC S MERIDIAN @ HIGHWAY 512 PUYALLUP, WASHINGTON

FUEL CANOPY w/ 6 MPD's

FACILITY #TBD

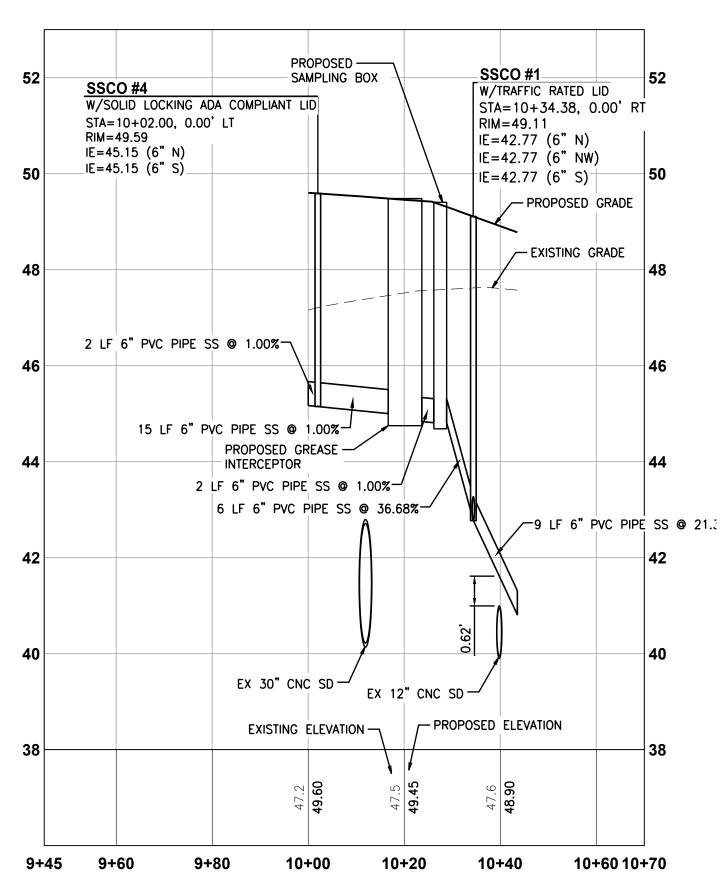
21730

SEWER PROFILE - BUILDING & TRASH ENCLOSURE



SANITARY SEWER BUILDING ALIGNMENT EXHIBIT - 10+00.00 - 10+43.55

HORIZONTAL SCALE: 1"=20'



HORIZONTAL SCALE: 1"=20", VERTICAL SCALE: 1" = 2'

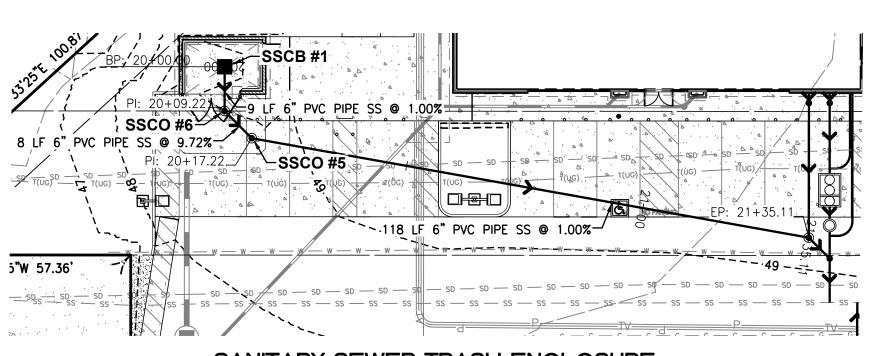


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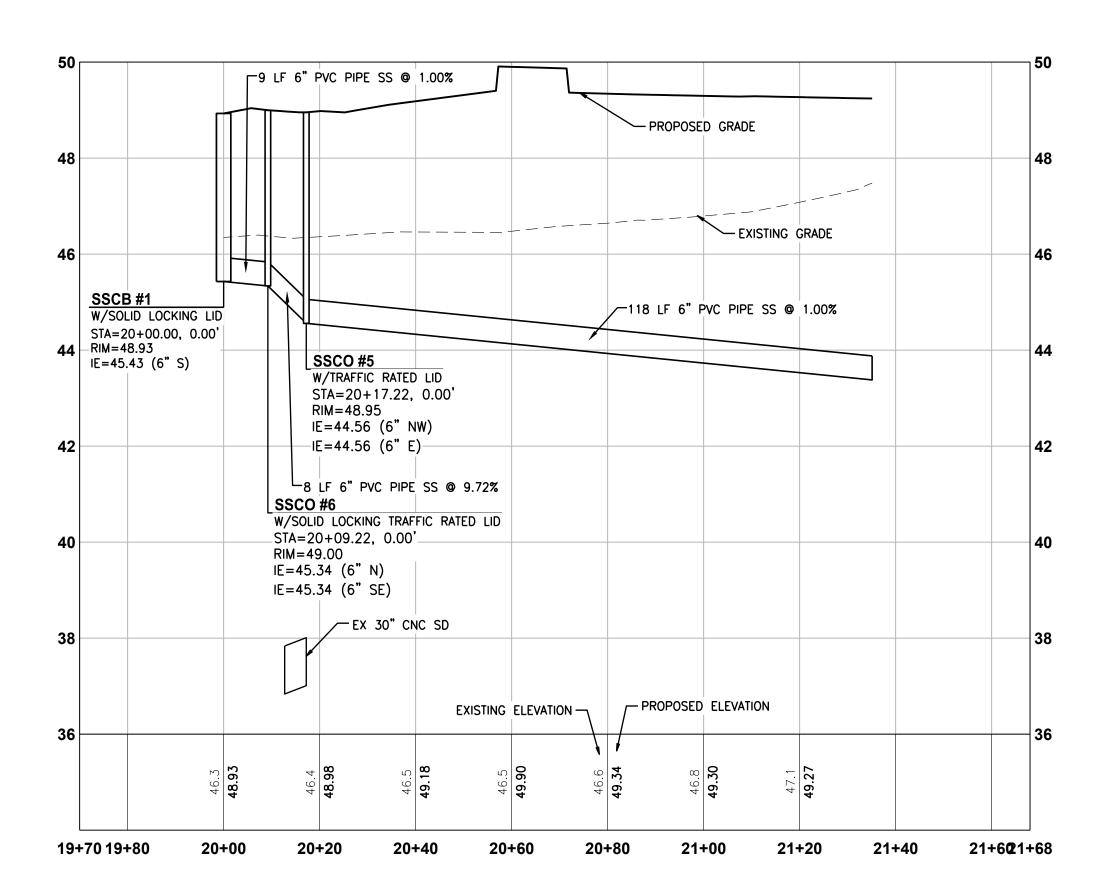


Know what's **below**. Call before you dig. **Dial 811**



SANITARY SEWER TRASH ENCLOSURE ALIGNMENT EXHIBIT - 20+00.00 - 21+66.27

HORIZONTAL SCALE: 1"=20"



SANITARY SEWER TRASH ENCLOSURE PROFILE - 20+00.00 - 21+66.27

HORIZONTAL SCALE: 1"=20", VERTICAL SCALE: 1" = 2"

APPROVED	APPROVED
BY CITY OF PUYALLUP WATER PURVEYOR	BY CITY OF PUYALLUP DEVELOPMENT ENGINEERING
DATE	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	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

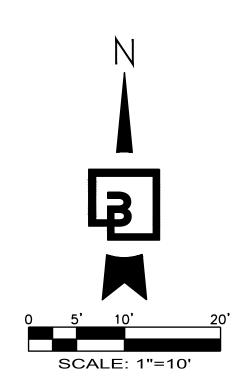
DETERMINED BY THE

MANAGER.

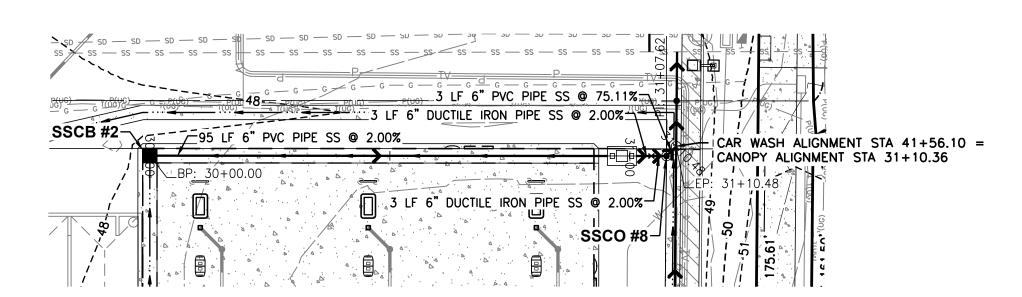
DEVELOPMENT ENGINEERING

DETERMINED BY THE WATER

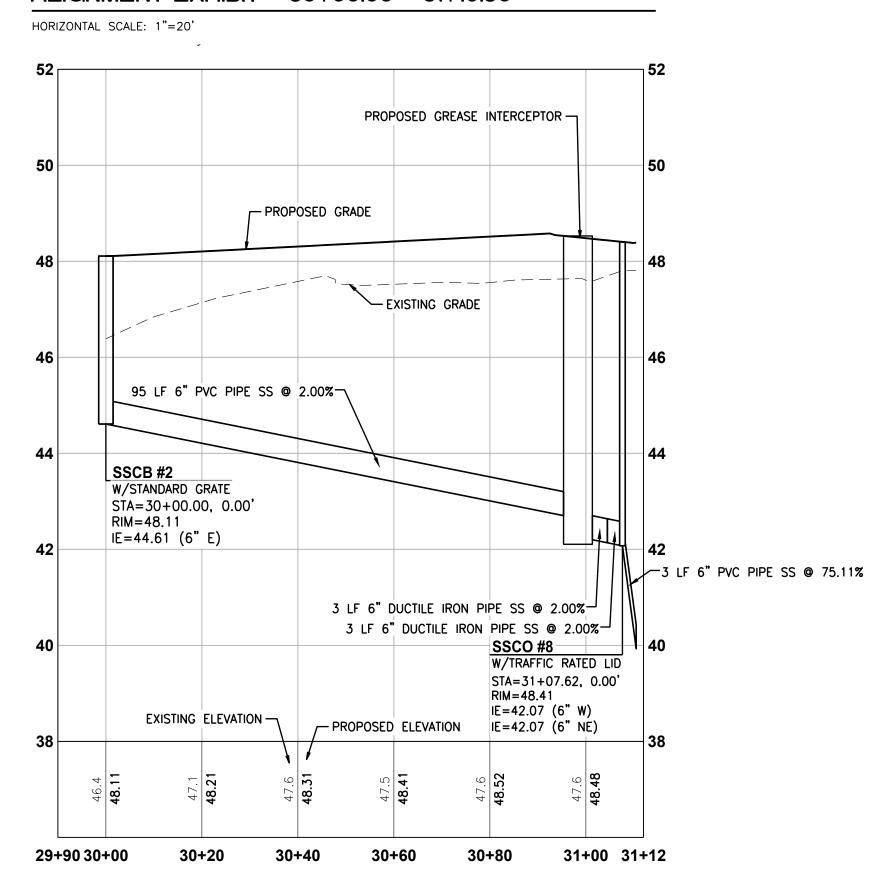
SEWER PROFILE - CANOPY + CAR WASH



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



SANITARY SEWER CANOPY ALIGNMENT EXHIBIT - 30+00.00 - 31+10.36



SANITARY SEWER

CANOPY PROFILE - 30+00.00 - 31+10.36

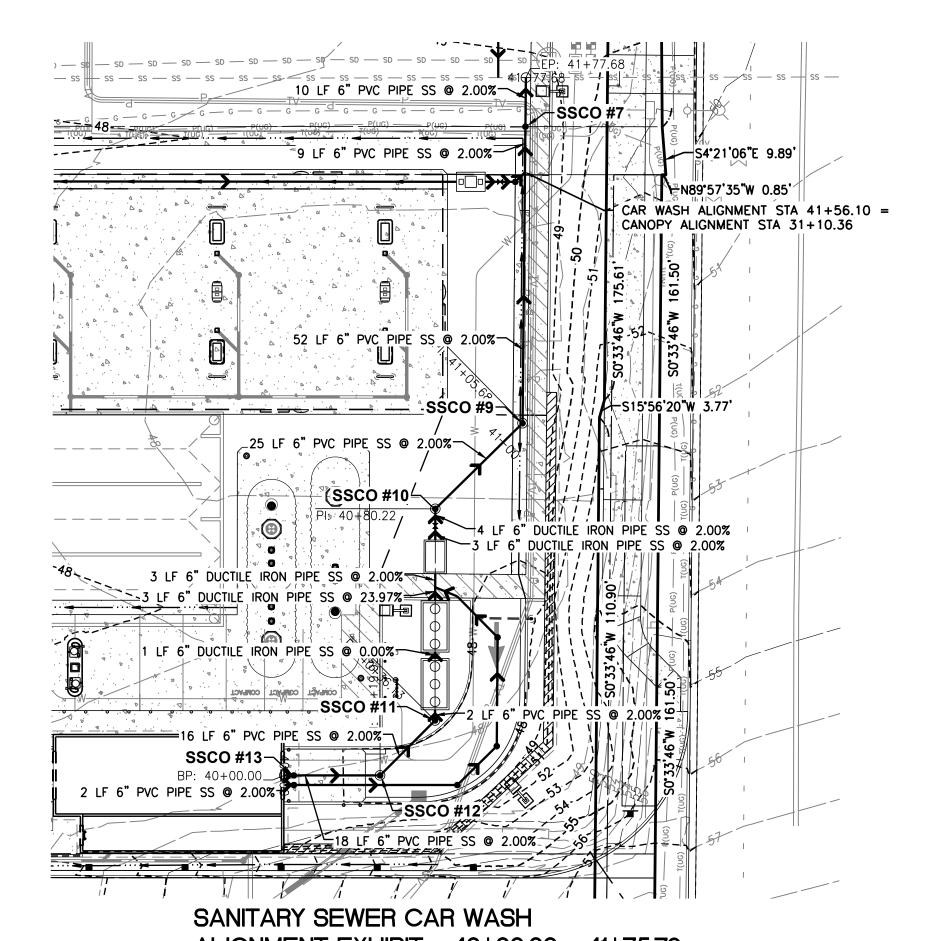
HORIZONTAL SCALE: 1"=20", VERTICAL SCALE: 1" = 2"

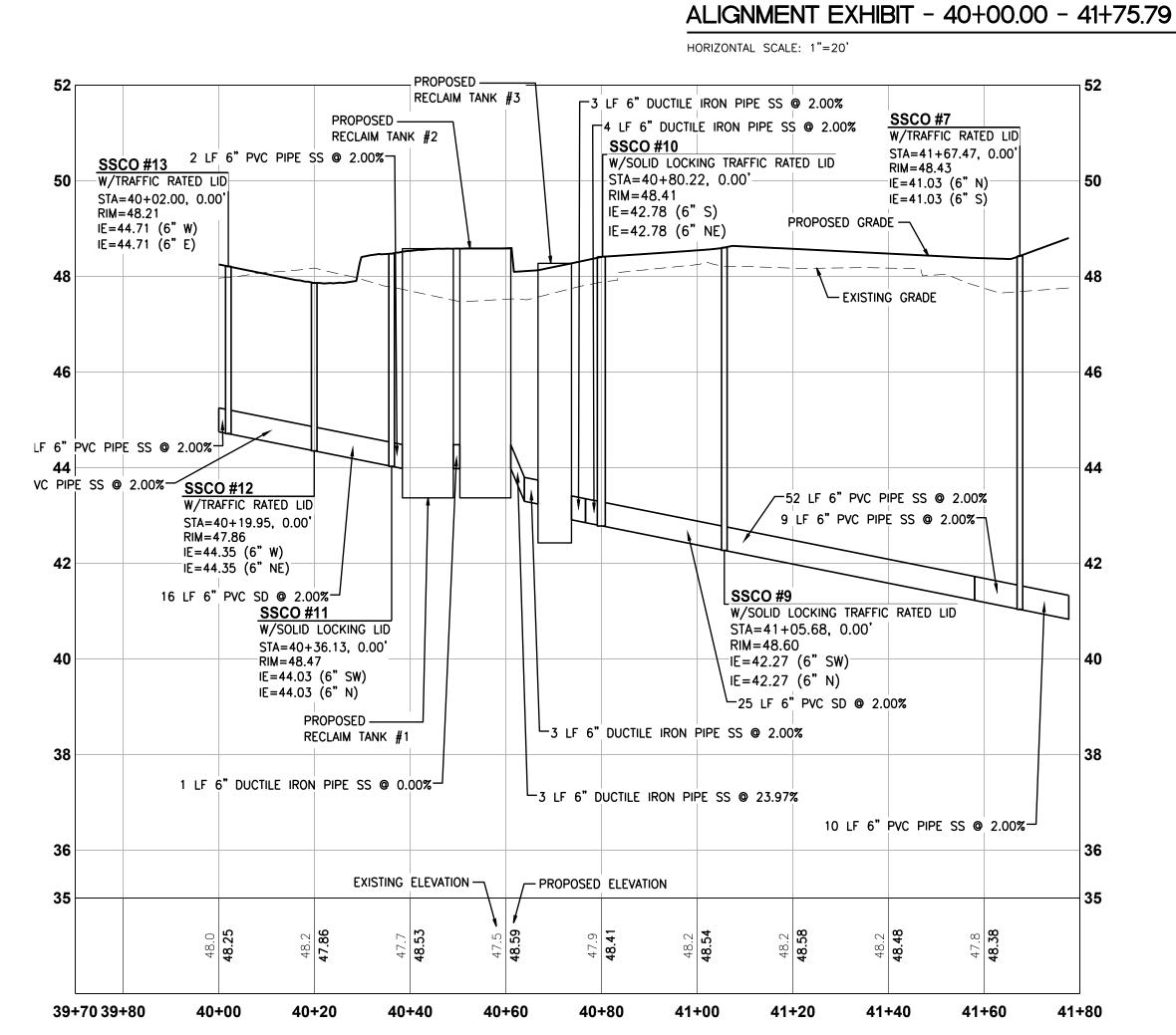
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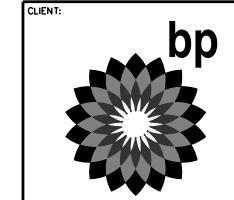
Know what's **below**. Call before you dig.



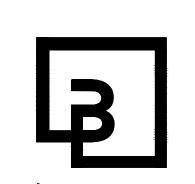


SANITARY SEWER CAR WASH PROFILE - 40+00.00 - 41+75.79

HORIZONTAL SCALE: 1"=20", VERTICAL SCALE: 1" = 2'







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DEVELOPMENT INFORMATION: **ARCO NTI**

3400 am/pm

FUEL CANOPY w/ 6 MPD's

SITE ADDRESS:

SWC S MERIDIAN @ HIGHWAY 512 PUYALLUP, WASHINGTON

FACILITY #TBD

LLIANCE PM: 21730

SEWER PROFILE - CANOPY & CAR WASH

NOTE: THIS APPROVAL IS VOID AFTER 180 DAYS FROM APPROVAL DATE. THE CITY WILL NOT BE RESPONSIBLE FOR ERRORS AND/OR OMISSIONS ON THESE

APPROVED

CITY OF PUYALLUP

DEVELOPMENT ENGINEERING

FIELD CONDITIONS MAY DICTATE CHANGES TO THESE PLANS AS

DEVELOPMENT ENGINEERING

DETERMINED BY THE

MANAGER.

APPROVED

CITY OF PUYALLUP

WATER PURVEYOR

NOTE: THIS APPROVAL IS VOID AFTER 180 DAYS FROM APPROVAL

THE CITY WILL NOT BE RESPONSIBLE FOR ERRORS

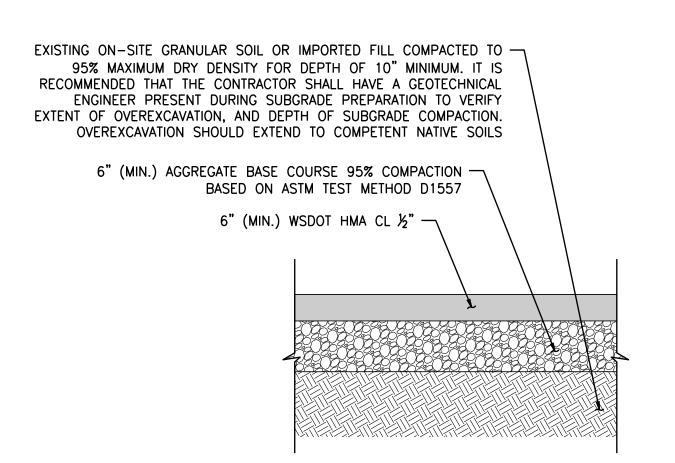
AND/OR OMISSIONS ON THESE

DETERMINED BY THE WATER

FIELD CONDITIONS MAY DICTATE CHANGES TO THESE PLANS AS

ARCO ampm PUYALLUP SEC. 33, TWN. 20 N, RGE. 4 E, W.M.

CITY OF PUYALLUP, PIERCE COUNTY



4" MIN. (COMPACTED DEPTH) PORTLAND -CEMENT CONCRETE PAVEMENT (PCC).

4" MIN. (COMPACTED DEPTH) CLASS —

6"x6"x6 GAUGE WELDED WIRE FABRIC -

TYPICAL SECTION

IN LAWN AREAS

1/2" EXPANSION JOINT —

(SEE NOTE #1)

SEATED AND SECURED ON STANDS

SUBGRADE SHOULD BE 12" THICK LIME-TREATED -

2 AGGREGATE BASE (AB)

NATIVE SOILS BROUGHT TO AT LEAST THE

SMOOTH TOOLED FINISH —

AROUND ALL EDGES (TYP)

OPTIMUM MOISTURE CONTENT AND UNIFORMLY COMPACTED PER THE GEOTECH REPORT

WITH 6X6 - W1.4XW1.4 W.W.F.

TOPSOIL (TYPICAL LANDSCAPE -

AREA) SLOPE TO 2" BELOW

THE TOP OF SIDEWALK

1. GENERAL CONTRACTOR SHALL REFERENCE GEOTECHNICAL ENGINEERING STUDY PREPARED BY KRAZAN & ASSOCIATES, INC. DATED MAY 6, 2022 FOR PAVEMENT, AGGREGATE, OVER-EXCAVATION AND SUBGRADE REQUIREMENTS.

6" DIA. BOLLARD ALONG SIDEWALK -

SEE SITE PLAN FOR WIDTH

SLOPE 0.5% MIN.

TYPICAL SECTION ADJACENT TO DRIVES

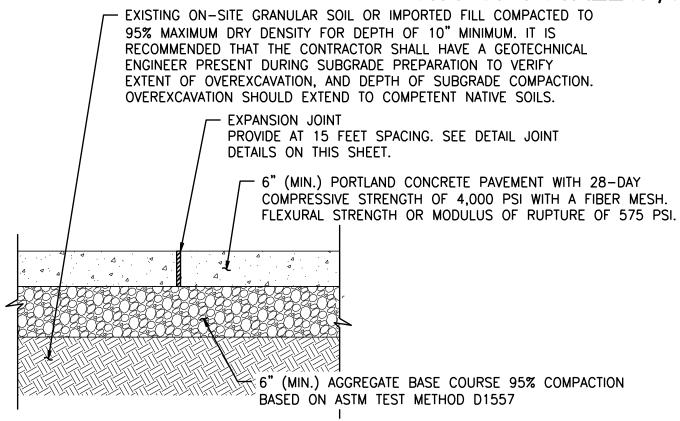
TOOLED JOINT >

1.5% MAX.

IF ADJACENT TO PARKING, REFER

TO DETAIL 4/CSD6.

1 ON-SITE ASPHALT SECTION C7.0 / SCALE: NTS



- CONSTRUCTION JOINT

SEE SITE PLAN

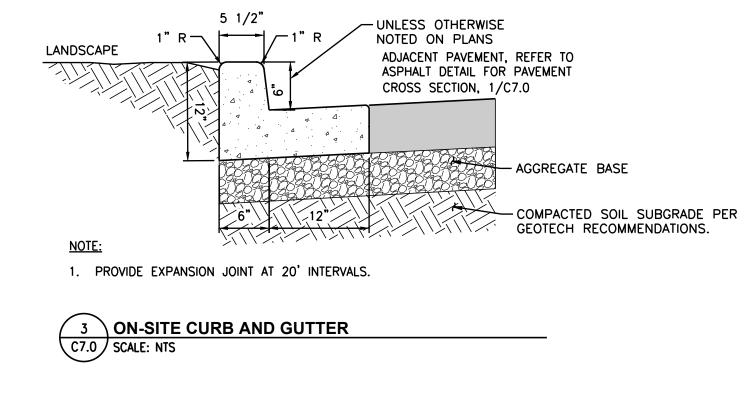
-1/2" CONTRACTION JOINT

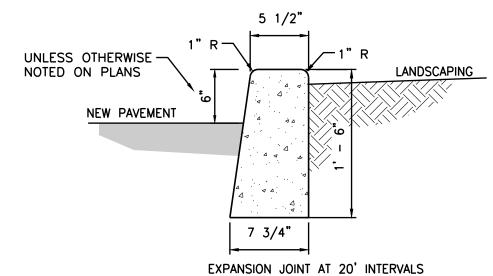
(SEE NOTE #1)

ADJACENT SURFACE.

1. GENERAL CONTRACTOR SHALL REFERENCE GEOTECHNICAL ENGINEERING STUDY PREPARED BY KRAZAN & ASSOCIATES, INC. DATED MAY 6, 2022 FOR PAVEMENT, AGGREGATE, OVER-EXCAVATION AND SUBGRADE REQUIREMENTS.

2 ON-SITE CONCRETE SECTION **C7.0** / SCALE: NTS





- INSTALL "SNAP CAP" OR EQUAL, REMOVE

AFTER CONCRETE HAS CURED AND FILL

1/2" EXPANSION JOINT MATERIAL

JOINT FILLER CAST IN PLACE

SHALL COMPLY WITH ASTM D1751.

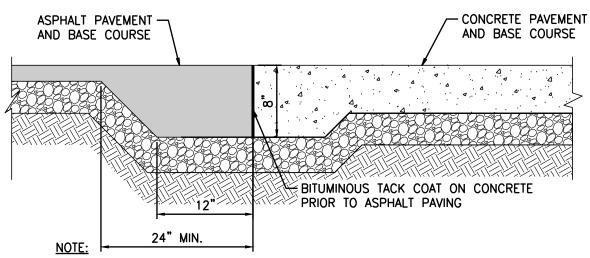
JOINT WITH SEALANT

NEW CONCRETE PAVEMENT

- 1/4" RADIUS (TYP.)

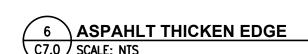
1. EXPANSION JOINT AT 20' INTERVALS.

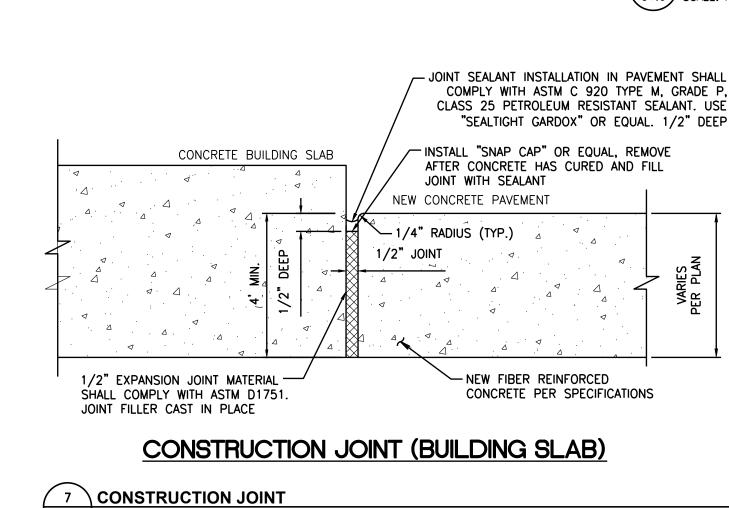
√ 4 \ ON-SITE BARRIER CURB C7.0 | SCALE: NTS



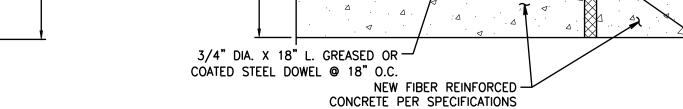
1. ASPHALT THICKEN EDGE IS REQUIRED AT ALL JUNCTIONS WITH WITH CONCRETE.

2. REFER TO ASPHALT AND CONCRETE DETAIL FOR REQUIRED PAVEMENT





C7.0 | SCALE: NTS



JOINT SEALANT INSTALLATION IN PAVEMENT SHALL -

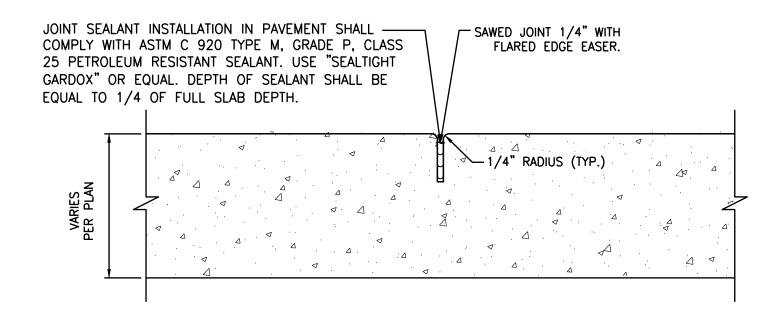
COMPLY WITH ASTM C 920 TYPE M, GRADE P,

"SEALTIGHT GARDOX" OR EQUAL. 1/2" DEEP

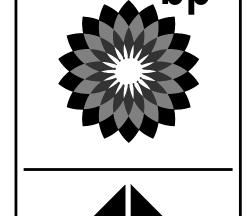
NEW CONCRETE PAVEMENT

CLASS 25 PETROLEUM RESISTANT SEALANT. USE

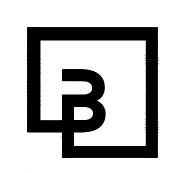
8 \ CONSTRUCTION JOINT C7.0 / SCALE: NTS



9 EXPANSION JOINT C7.0 SCALE: NTS

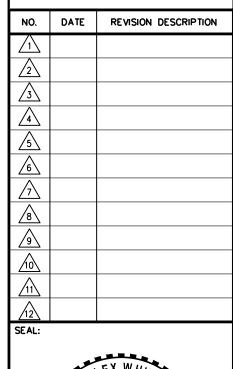






Barghausen Consulting Engineers, Inc.

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





DEVELOPMENT INFORMATION:

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

SITE ADDRESS:

SWC S MERIDIAN @ HIGHWAY 512 PUYALLUP, WASHINGTON

FACILITY #TBD

LIANCE PM: 21730

CONSTRUCTION **DETAILS**

APPROVED

CITY OF PUYALLUP

DEVELOPMENT ENGINEERING

NOTE: THIS APPROVAL IS VOID AFTER 180 DAYS FROM APPROVAL

AND/OR OMISSIONS ON THESE

CHANGES TO THESE PLANS AS

DEVELOPMENT ENGINEERING

FIELD CONDITIONS MAY DICTATE

THE CITY WILL NOT BE RESPONSIBLE FOR ERRORS

DETERMINED BY THE

MANAGER.

1. SIDEWALKS VARY IN WIDTH. CONTROL JOINTS TO BE PLACED AT SPACING EQUAL TO SIDEWALK WIDTH.

VARIES, SEE NOTE 1

2. PROVIDE EXPANSION JOINTS AT 28' TO 30' O.C. MAXIMUM.

3. WHEN WALK IS ADJACENT TO THE BUILDING PROVIDE 3/8" X 4" IMPREGNATED FIBERBOARD.

4. ALL PORTLAND CEMENT CONCRETE PAVEMENT (PCC) SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE RECOMMENDATIONS OF THE GEOTECHNICAL ENGINEERING REPORT.

5. EDGES OF SIDEWALKS ADJACENT TO THE BUILDING SHOULD BE THICKENED TO AT LEAST TWICE THE SLAB THICKNESS (8 INCHES) FOR A HORIZONTAL DISTANCE OF 8"

5 \ ON-SITE CONCRETE SIDEWALK C7.0 SCALE: NTS

LIGHT BROOM FINISH (PERPENDICULAR -TO TRAVEL PATH). CONCRETE SURFACE

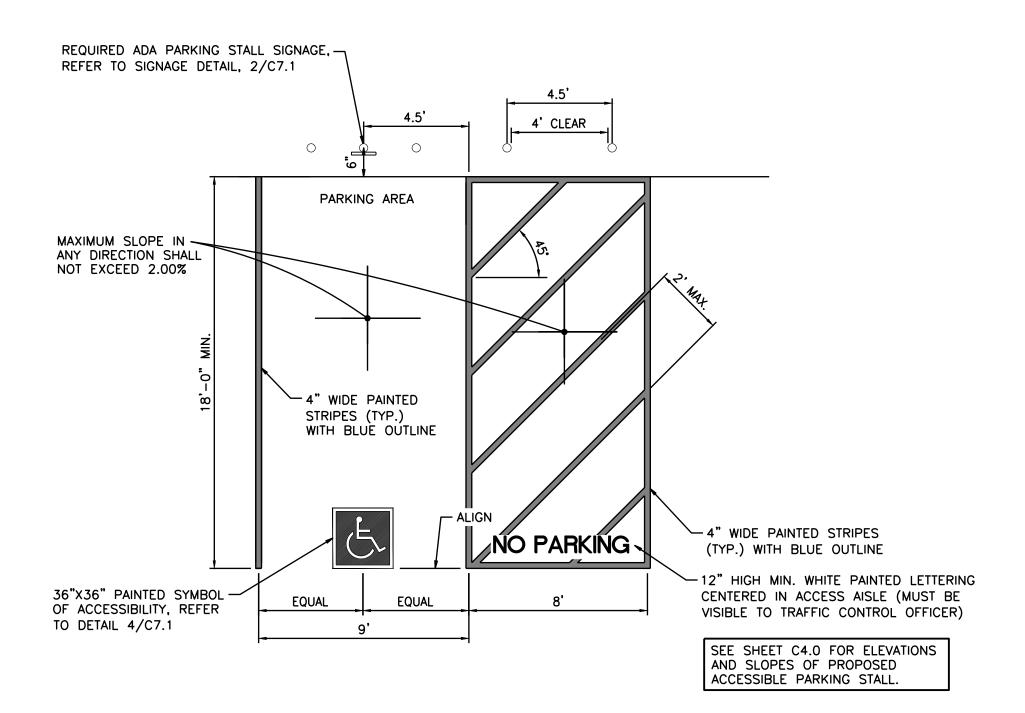
AREA INSIDE OF TOOLED EDGE TO CREATE PICTURE FRAME EFFECT

UTILITY CONFLICT NOTE: THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING THE LOCATION, DIMENSION, AND DEPTH OF ALI EXISTING UTILITIES WHETHER SHOWN ON THESE PLANS OR NOT BY POTHOLING THE UTILITIES AND SURVEYING THE HORIZONTAL AND VERTICAL LOCATION PRIOR TO CONSTRUCTION. THIS SHALL INCLUDE CALLING UTILITY LOCATE AT 811 48 HOURS IN ADVANCE AND THEN POTHOLING ALL OF THE EXISTING UTILITIES AT LOCATIONS OF NEW UTILITY CROSSINGS TO PHYSICALLY VERIFY WHETHER OR NOT CONFLICTS EXIST. LOCATIONS OF SAID UTILITIES AS SHOWN ON THESE PLANS ARE BASED UPON THE UNVERIFIED PUBLIC INFORMATION AND ARE SUBJECT TO VARIATION. IF CONFLICTS SHOULD OCCUR, THE CONTRACTOR SHALL NOTIFY BARGHAUSEN CONSULTING ENGINEERS, INC. TO RESOLVE ALL PROBLEMS PRIOR TO PROCEEDING WITH CONSTRUCTION.

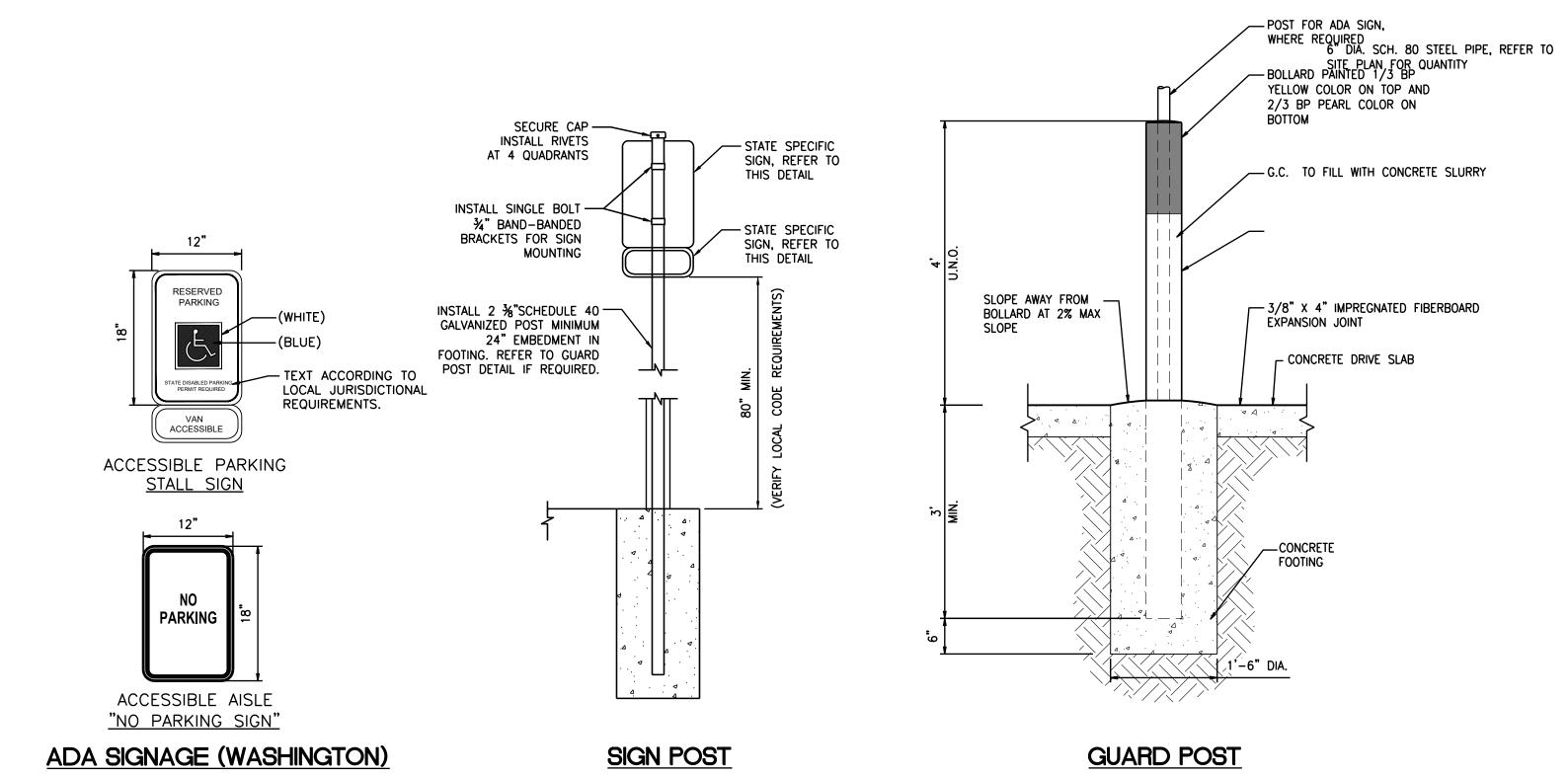


ARCO ampm PUYALLUP

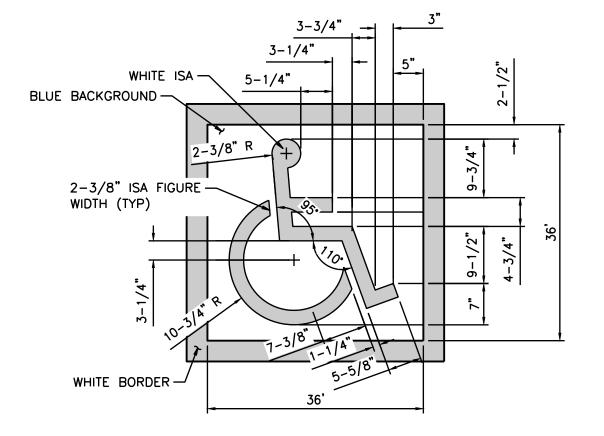
SEC. 33, TWN. 20 N, RGE. 4 E, W.M. CITY OF PUYALLUP, PIERCE COUNTY



1 ADA PARKING STALL AND AISLE REQUIREMENTS C7.1 SCALE: NTS



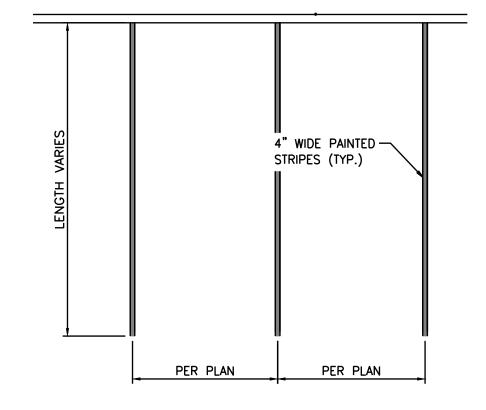
2 ADA SIGNAGE REQUIREMENTS
C7.1 SCALE: NTS



PROCEEDING WITH CONSTRUCTION.

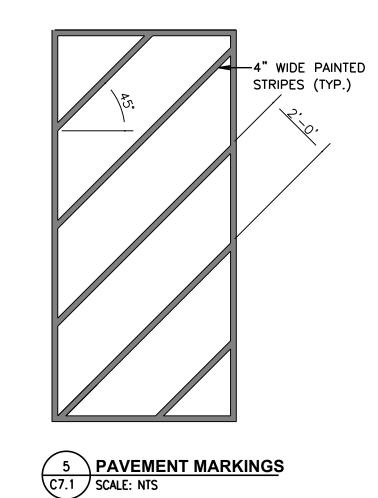
- SYMBOL TO BE CENTERED ON WIDTH OF PARKING STALL.
 BOTTOM OF SYMBOL TO BE LOCATED FLUSH WITH ACCESS DRIVE,
- CENTERED ON PARKING SPACE. 3. SYMBOL IS REQUIRED TO CONTRAST WITH BACKGROUND.





2 COATS ALKYD TRAFFIC PAINT MARKING PAINT. COLOR: WHITE FOR PARKING STRIPES. 3. SEE SITE PLAN FOR WIDTH.





24" 24" **DETAIL NOTES:**

PER ARCO STANDARDS OR AS REQUIRED BY CITY CODE.

APPLY 2 COATS OF CHLORINATED RUBBER-TYPE TRAFFIC-LANE MARKING PAINT OVER

CLEANED PAVING SURFACE ACCORDING TO LAYOUT SHOWN ON THE SITE PLAN. PAINT

6 DIRECTIONAL ARROW C7.1 SCALE: NTS

APPROVED

BY ______CITY OF PUYALLUP

MANAGER.

DATE. THE CITY WILL NOT BE RESPONSIBLE FOR ERRORS

DEVELOPMENT ENGINEERING

ARCO

BP WEST COAST PRODUCTS, LLC

Consulting Engineers, Inc.

18215 72nd Avenue South

NO. DATE REVISION DESCRIPTION

Kent, WA 98032

barghausen.com

DEVELOPMENT INFORMATION:

SITE ADDRESS:

ARCO NTI

3400 am/pm

FUEL CANOPY w/ 6 MPD's

SWC S MERIDIAN

@ HIGHWAY 512 PUYALLUP, WASHINGTON

FACILITY #TBD

CONSTRUCTION **DETAILS**

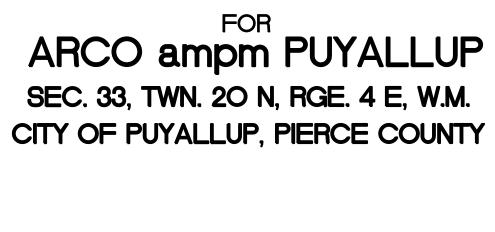
21730

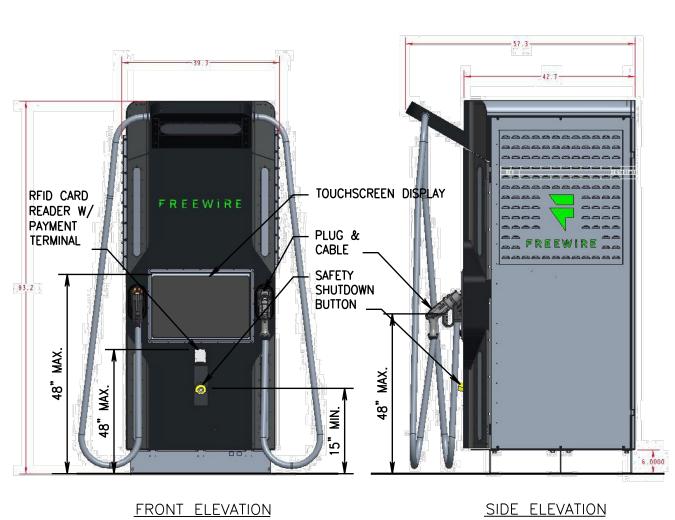
425.251.6222

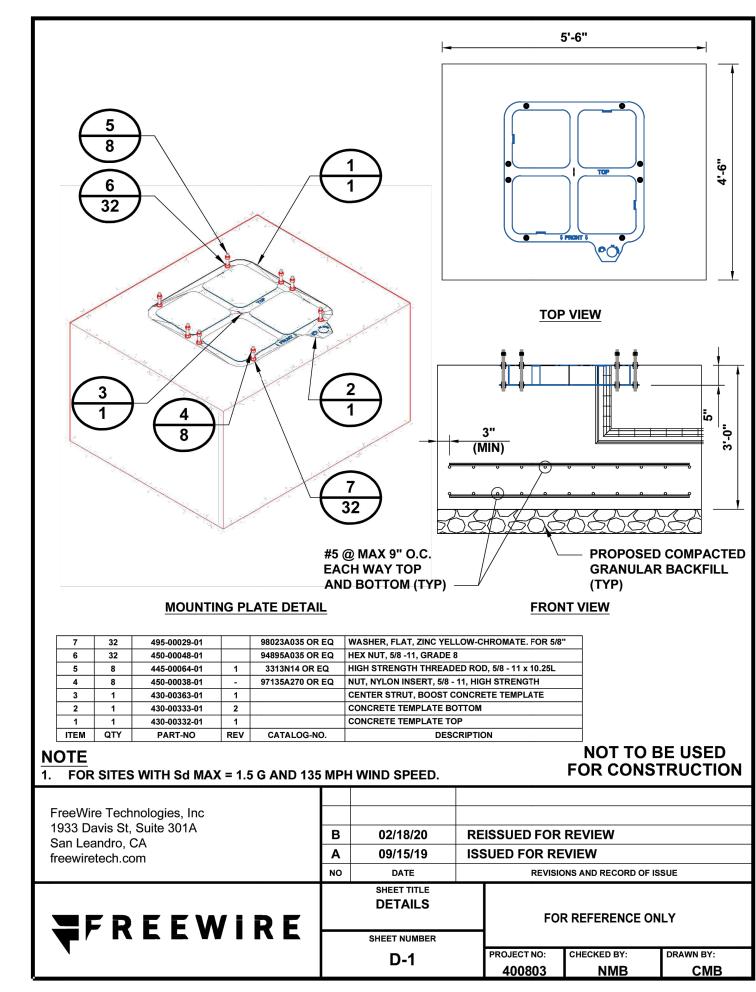
DEVELOPMENT ENGINEERING

NOTE: THIS APPROVAL IS VOID AFTER 180 DAYS FROM APPROVAL AND/OR OMISSIONS ON THESE FIELD CONDITIONS MAY DICTATE CHANGES TO THESE PLANS AS DETERMINED BY THE

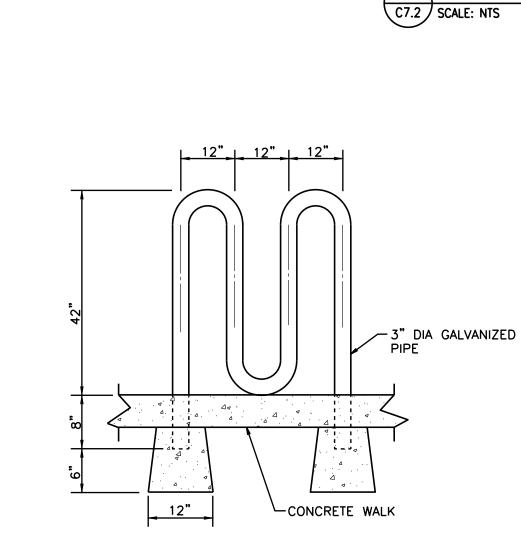
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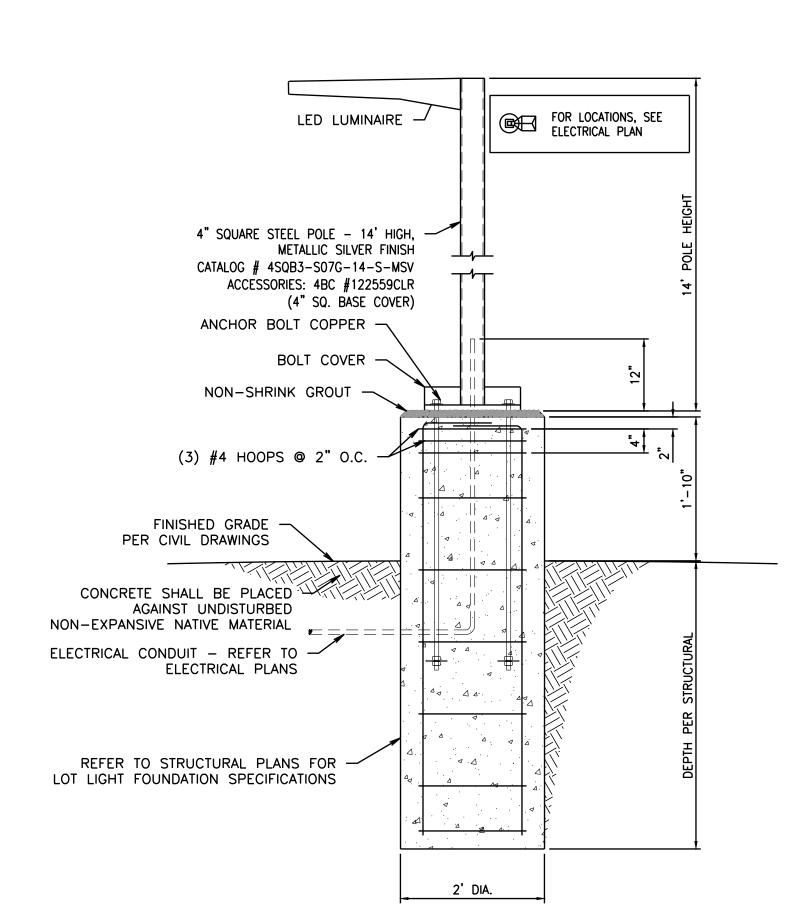




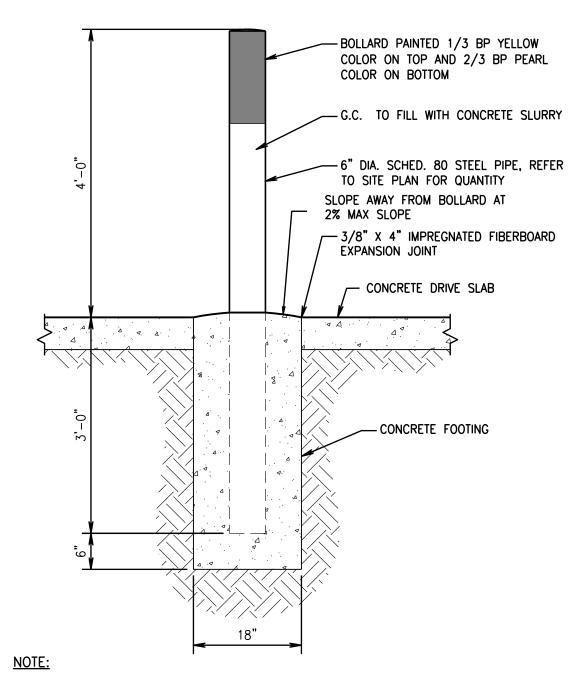
2 FREEWIRE EV CHARGING STATION



4 BIKE STORAGE
C7.2 SCALE: NTS







1. REFER TO FUEL PLANS FOR HOOP BOLLARD PROTECTION DETAIL.



UTILITY CONFLICT NOTE:

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Know what's **below**. Call before you dig. Dial 811

FACILITY #TBD

APPROVED

MANAGER.

SITE ADDRESS:

DEVELOPMENT INFORMATION:

ARCO NTI

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

> SWC S MERIDIAN @ HIGHWAY 512 PUYALLUP, WASHINGTON

ARCO

BP WEST COAST PRODUCTS, LLC

Consulting Engineers, Inc.

18215 72nd Avenue South

NO. DATE REVISION DESCRIPTION

Kent, WA 98032

barghausen.com

425.251.6222

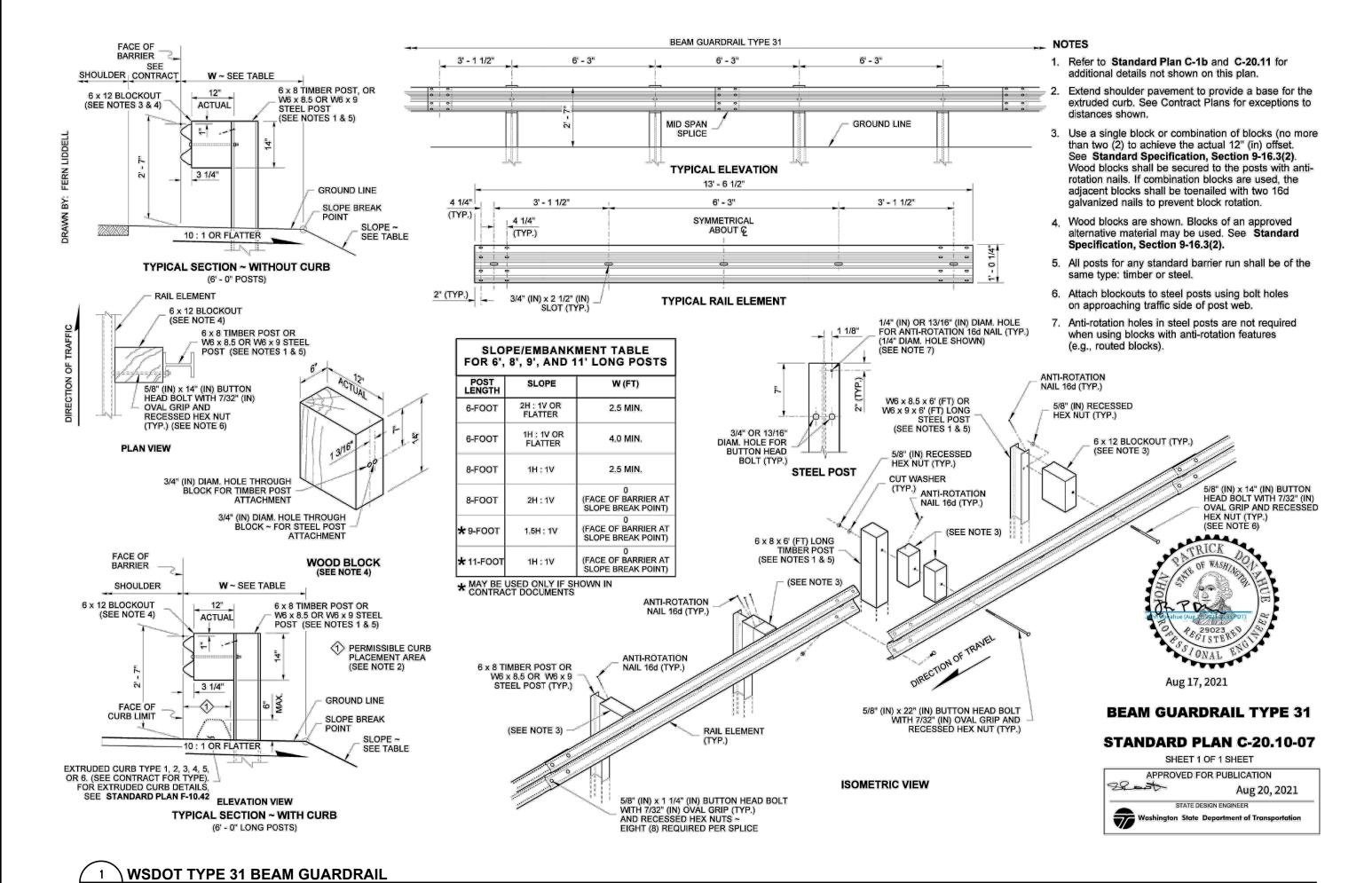
CITY OF PUYALLUP DEVELOPMENT ENGINEERING CONSTRUCTION **DETAILS** NOTE: THIS APPROVAL IS VOID AFTER 180 DAYS FROM APPROVAL

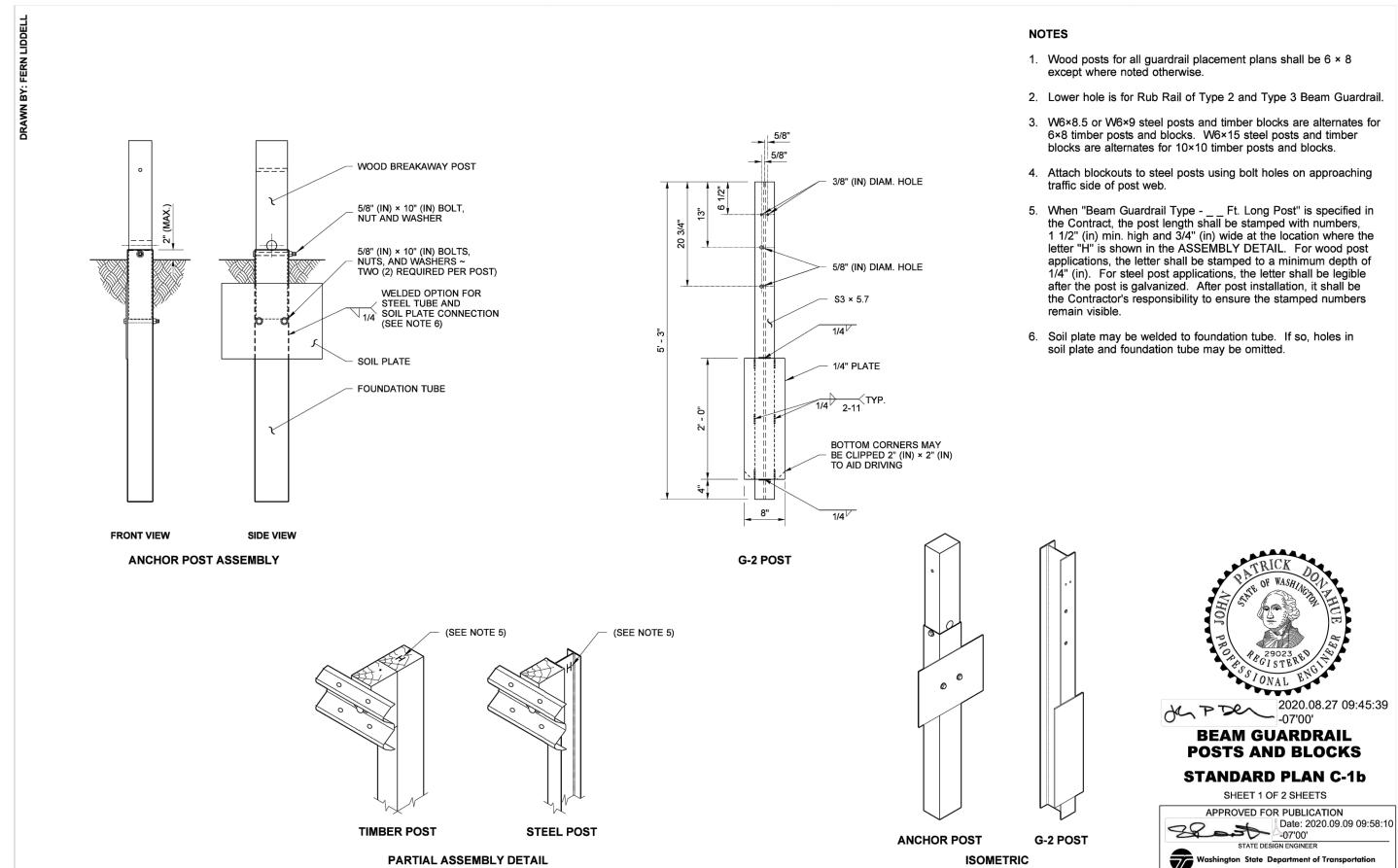
THE CITY WILL NOT BE RESPONSIBLE FOR ERRORS AND/OR OMISSIONS ON THESE FIELD CONDITIONS MAY DICTATE CHANGES TO THESE PLANS AS DETERMINED BY THE DEVELOPMENT ENGINEERING

21730

LLIANCE PM:

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





2 WSDOT BEAM GUARDRAIL POST AND BLOCKS
C7.3 SCALE: NTS

UTILITY CONFLICT NOTE:

C7.3 SCALE: NTS

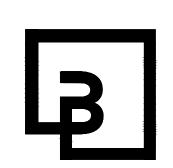
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Know what's **below**. Call before you dig. Dial 811



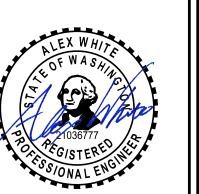
BP WEST COAST PRODUCTS, LLC



Barghausen Consulting Engineers, Inc.

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

NO.	DATE	REVISION DESCRIPTION
1		
2		
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<u> </u>		
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SEAL:		



10/4/2

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:	MM	ALLIANCE ZOUM:
CHECKED BY:	AW	BP REPM:
RAWN BY:	ММ	ALLIANCE PM:
ERSION:	_	PROJECT NO:
	-	21730
RAWING TIT	LE:	

APPROVED

DEVELOPMENT ENGINEERING

NOTE: THIS APPROVAL IS VOID AFTER 180 DAYS FROM APPROVAL

BY _____CITY OF PUYALLUP

THE CITY WILL NOT BE

DETERMINED BY THE

MANAGER.

RESPONSIBLE FOR ERRORS

AND/OR OMISSIONS ON THESE

DEVELOPMENT ENGINEERING

FIELD CONDITIONS MAY DICTATE CHANGES TO THESE PLANS AS

CONSTRUCTION **DETAILS**

INGRESS/EGRESS AND UTILITIES EASEMENT

GUNDERSON LAW FIRM

1410 S MERIDIAN, PUYALLUP,

TAX PARCEL NO. 7730000300

(LAND USE - GENERAL

COMMERCIAL)

AFN 2792268

EXCEPTION NO. 25

10' ELECTRIC EASEMENT -

COMMON ACCESS TRACT "A"

EXCEPTION NO. 24

(TITLE PARCEL A1) SP NO. 77-315

STA: 12+16.58

OFF: 32.90'LT

FOUND 2" SURFACE BRASS DISK

AVE SW & S MERIDIAN

(MARCH 2022)

W/PUNCH, IN 12" ROUND CUTOUT IN ASPHALT, INTERSECTION OF 15TH

- STA: \12+17.63

OFF: 33.00'LT

STA: 12+22.58

OFF: 33.00'L

(TITLE PARCEL A2) AFN 2792268

EXCEPTION NO. 25

HORIZONTAL SCALE: 1"=20', VERTICAL SCALE: 1"=2'

Know what's **below**.

Call before you dig.

Dial 811

TAX PARCEL NO. 773000

NO KNOWN ADDRESS

(LAND USE - GENERAL

- ALL SPOT ELEVATIONS SHOWN ARE TO FINISH SURFACE (TOP OF CURB/SIDEWALK) UNLESS OTHERWISE NOTED. (TA = TOP OF PAVEMENT, TC = TOP OF CONCRETE SIDEWALK/CURB, ME = MATCH EXISTING ELEVATIONS, FC = FLUSH CURB, FL = FLOW LINE, GB = GRADE BREAK)
- CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING ALL PROPOSED GRADES IN RELATIONSHIP TO SURVEYED BASIS OF ELEVATION.
- 3. FILL MATERIAL AND COMPACTION SHALL CONFORM TO THE GEOTECHNICAL REPORT AND CITY OF PUYALLUP REQUIREMENTS.
- 4. CONTRACTOR TO PROTECT AND MAINTAIN EROSION CONTROL FACILITIES DURING GRADING OPERATIONS.
- CONSTRUCTION AND MATERIALS SHALL BE IN ACCORDANCE WITH THE GEOTECHNICAL REPORT AND CITY OF PUYALLUP REQUIREMENTS.
- CONTRACTOR TO RAISE AND ADJUST PROPOSED SANITARY SEWER CLEANOUT LIDS TO FINAL GRADE AS NECESSARY. CLEANOUTS WITHIN ADA ACCESSIBLE PATHS SHALL BE ADJUSTED TO FINAL ELEVATIONS IN COMPLIANCE WITH CURRENT ADA REQUIREMENTS.
- CONTRACTOR TO RAISE AND ADJUST ALL EXISTING AND PROPOSED CATCH BASIN RIMS TO FINAL GRADE AS NECESSARY. CATCH BASINS WITHIN ADA ACCESSIBLE PATHS SHALL BE ADJUSTED TO FINAL ELEVATIONS IN COMPLIANCE WITH CURRENT ADA STANDARDS.
- CONTRACTOR TO ORDER LOCATES AND FIELD VERIFY ALL UTILITIES PRIOR TO CONSTRUCTION TO ENSURE THAT UTILITY CONFLICTS DO NOT EXIST. CONTRACTOR TO REVIEW UTILITY ASBUILTS IN ORDER TO VERIFY EXISTING UTILITY LOCATIONS. CONTRACTOR SHALL POTHOLE ALL POTENTIAL UTILITY CONFLICTS PRIOR TO CONSTRUCTION. NOTIFY BARGHAUSEN CONSULTING ENGINEERS, INC. OF ANY CONFLICTS.

® CONSTRUCTION NOTES:

- PROPOSED COMMERCIAL APPROACH PER THE CITY OF PUYALLUP STANDARD DETAIL 1.02.16. SEE DETAIL 3/C8.3. REFER TO DETAIL 1/C8.1 FOR THE PROPOSED ELEVATIONS AND SLOPES. ASPHALT WITHIN ROW SHALL CONFORM TO THE CITY OF PUYALLUP STANDARD DETAIL 1.01.01, SEE DETAIL 5/C8.3, ASPHALT WITHIN PRIVATE PROPERTY SHALL CONFORM WITH DETAIL 1/C7.0.
- PROPOSED CURB AND GUTTER PER THE CITY OF PUYALLUP STANDARD DETAIL 1.02.09. SEE DETAIL 2/C8.3.
- PROPOSED REVERSED SLOPE SIDE WALK PER THE CITY OF PUYALLUP STANDARD DETAIL 1.02.01. SEE DETAIL 1/C8.3.
- 4. PROPOSED COMMERCIAL APPROACH RAMP PER THE CITY OF PUYALLUP STANDARD DETAIL 1.02.19. SEE DETAIL 4/C8.3.
- 5. PROPOSED SAWCUT (TYP.). CONTRACTOR SAWCUT AT THE EDGE OF THE EXISTING GUTTER.
- 6. PROTECT EXISTING STREET LIGHT TO REMAIN.
- 7. PROTECT EXISTING J-BOX TO REMAIN. ADJUST TO FINAL GRADE AS NEEDED.
- 8. PROTECT EXISTING FIRE HYDRANT TO REMAIN.
- RELOCATED EXISTING TELEPHONE CABINET TO THE PROPOSED PLANTER. CONTRACTOR TO COORDINATE RELOCATION OF CABINET WITH THE PURVEYOR.
- 10. PROTECT EXISTING UNDERGROUND POWER. CONTRACTOR TO POTHOLE AND VERIFY HORIZONTAL AND VERTICAL LOCATION OF EXISTING THE
- 11. PROTECT EXISTING UNDERGROUND TELEPHONE. CONTRACTOR TO POTHOLE AND VERIFY HORIZONTAL AND VERTICAL LOCATION OF EXISTING THE CONDUIT.
- 12. PROTECT EXISTING GAS. CONTRACTOR TO POTHOLE AND VERIFY HORIZONTAL AND VERTICAL LOCATION OF EXISTING THE CONDUIT.
- 13. PROTECT EXISTING WATER MAIN. CONTRACTOR TO POTHOLE AND VERIFY HORIZONTAL AND VERTICAL LOCATION OF THE EXISTING MAIN.
- 14. PROTECT EXISTING SEWER MAIN. CONTRACTOR TO POTHOLE AND VERIFY HORIZONTAL AND VERTICAL LOCATION OF THE EXISTING MAIN.
- 15. PROTECT EXISTING STORM MAIN. CONTRACTOR TO POTHOLE AND VERIFY HORIZONTAL AND VERTICAL LOCATION OF THE EXISTING MAIN.
- 16. PROPOSED MOUNTABLE CURB ISLAND. REFER TO DETAIL 1/C8.1 FOR THE PROPOSED ELEVATIONS AND SLOPES.
- 17. EXISTING SIGN TO REMAIN.
- 18. PROPOSED BUS STOP BENCH PER PIERCE COUNTY TRANSIT STANDARDS. SEE DETAIL 6/C8.3.

UTILITY CONFLICT NOTE:

THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING THE LOCATION, DIMENSION, AND DEPTH OF ALI EXISTING UTILITIES WHETHER SHOWN ON THESE PLANS OR NOT BY POTHOLING THE UTILITIES AND SURVEYING THE HORIZONTAL AND VERTICAL LOCATION PRIOR TO CONSTRUCTION. THIS SHALL INCLUDE CALLING UTILITY LOCATE AT 811 48 HOURS IN ADVANCE AND THEN POTHOLING ALL OF THE EXISTING UTILITIES AT LOCATIONS OF NEW UTILITY CROSSINGS TO PHYSICALLY VERIFY WHETHER OR NOT CONFLICTS EXIST. LOCATIONS OF SAID UTILITIES AS SHOWN ON THESE PLANS ARE BASED UPON THE UNVERIFIED PUBLIC INFORMATION AND ARE SUBJECT TO VARIATION. IF CONFLICTS SHOULD OCCUR, THE CONTRACTOR SHALL NOTIFY BARGHAUSEN CONSULTING ENGINEERS, INC. TO RESOLVE ALL PROBLEMS PRIOR TO PROCEEDING WITH CONSTRUCTION.

S MERIDIAN ST. - PLAN OVER PROFILE

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

CONTRACTOR TO ENSURE

SIDEWALK IS REVERSED SLOPED.

−\$0°33'46"W 161.50^{°2}

- STREET IMPROVEMENTS

EASEMENT AFN 8706100397

14+00

__N89*57'35"W 0.85'

20' INGRESS/EGRESS EASEMENT

PROPERTY BOUNDARY —

SUITABLE NATIVE SOIL -

REVERSED SLOPE SIDEWALK PER CITY -

C8.0 1" = 5

OF PUYALLUP STANDARD DETAIL 1.02.02

ROW DEDICATION VARIES

LANDSCAPING PLANS.

S. MERIDIAN ST. SECTION LOOKING NORTH

➤ 8' - SIDEWALK

<u>__2.0%_MAX.</u>

AT 95% COMPACTION PROPOSED LANDSCAPING. SEE

AFN 2741876

OFF: 33.00'LT

DRIVEWAY APPROACH. SEE DETAIL 1/C8.1. -

FOR THE PROPOSED ELEVATIONS AND

S. MERIDIAN ST., NO'33'46"E 1059.04' 13+00

EXCEPTION NO. 26

UTILITY PROTECTION NOTE:

APPROXIMATE LOCATION OF EXISTING UTILITIES ARE SHOWN ON THESE PLANS. CONTRACTOR TO COORDINATE WITH PURVEYOR AND USE EXTREME CAUTION WHEN EXCAVATING ON-SITE, UNTIL EXISTING GAS AND POWER SERVICE LOCATIONS ARE CONFIRMED. CONTRACTOR TO ORDER INDEPENDENT UTILITY LOCATES (INCLUDING GAS AND POWER) FOR THE FULL SCOPE OF WORK PRIOR TO CONSTRUCTION OR ANY GROUND DISTURBING ACTIVITIES.

MUTILITY POTHOLING NOTE:

S0°27'04"E 113.02'

15+00

— FOFF: 33.00'LT

STA: 14+46.24

OFF: 33.00'LT

=\$4'21'06"E 9.89'

51.5' TO 52.5' - ROW

SEAL JOINT WITH AR4000

AFTER COMPLETED (TYP.)

— CURB AND GUTTER PER CITY OF

PUYALLUP STANDARD DETAIL 1.02.09

:11.4' - EXISTING LANE

— SLOPE GUTTER

_3/4" PER 18"

33' - HALF ROAD WIDTH

±10.7' - EXISTING LANE

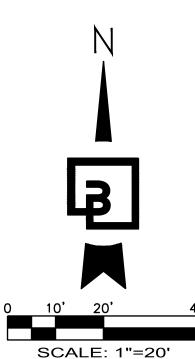
THE CIRCLED LOCATIONS ARE REQUIRED TO BE POTHOLED TO VERIFY VERTICAL AND HORIZONTAL LOCATION OF EXISTING UTILITY AND/OR POTENTIAL CONFLICTS WITH EXISTING UTILITIES. POTHOLING SHALL BE PERFORMED PRIOR TO INSTALLING ANY PROPOSED UTILITIES. CONTRACTOR SHALL NOTIFY BARGHAUSEN CONSULTING ENGINEERS, INC. OF ANY CONFLICTS.

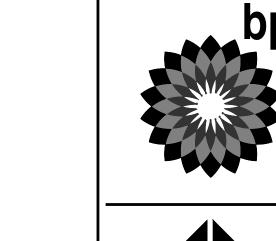
S. MERIDIAN ST BUS STOP AND RAMP

CONNECTION. SEE DETAIL 2/C8.1. FOR

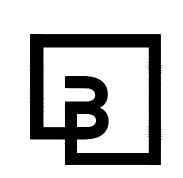
ROW CENTERLINE —

THE PROPOSED ELEVATIONS AND SLOPES.









Barghausen Consulting Engineers, Inc.

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





DEVELOPMENT INFORMATION: **ARCO NTI** 3400 am/pm

| FUEL CANOPY w/ 6 MPD's

SITE ADDRESS: **SWC S MERIDIAN** @ HIGHWAY 512

FACILITY #TBD

PUYALLUP, WASHINGTON

URAWN BT:	MM	ALLIANCE PM:
VERSION:		PROJECT NO:
	-	21730
DRAWING TITL	E:	
S MERI	DIAN ST	PLAN OVE
	PRO	FILE

CHECKED BY: AW

DEVELOPMENT ENGINEERING NOTE: THIS APPROVAL IS VOID AFTER 180 DAYS FROM APPROVAL SHEET NO:

APPROVED

CITY OF PUYALLUP

THE CITY WILL NOT BE

DETERMINED BY THE

MANAGER.

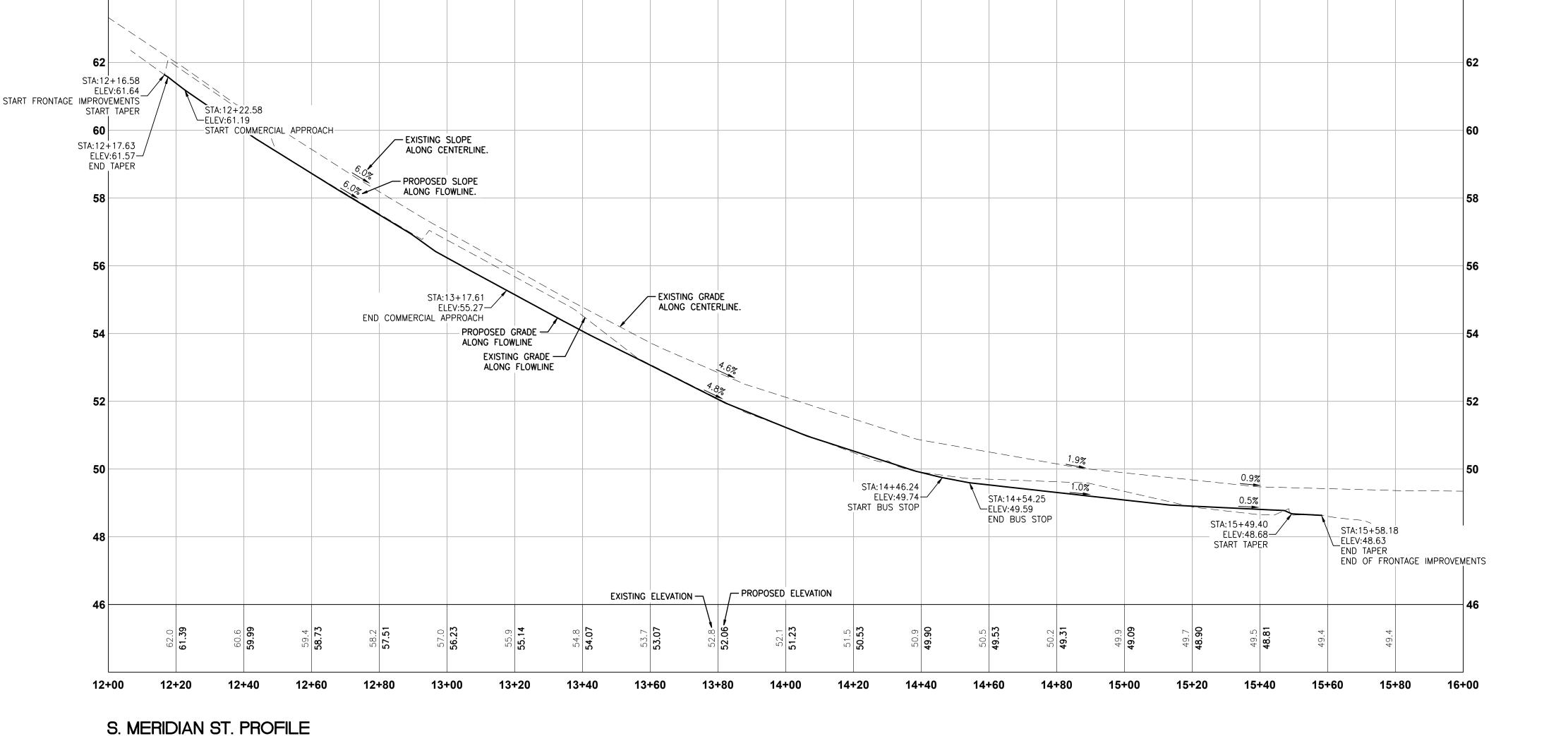
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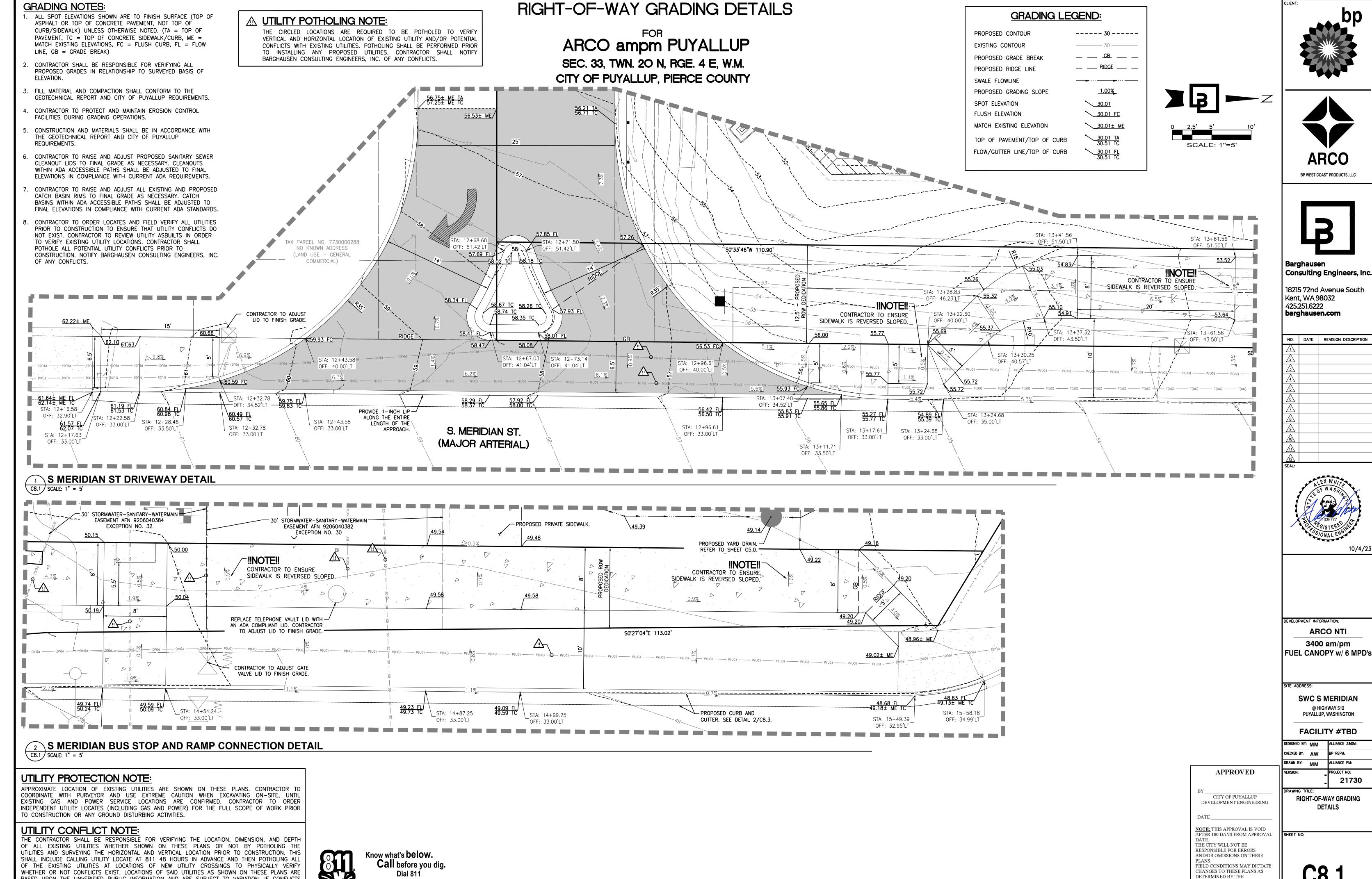
' - CURB AND GUTTER

).5% MIN.

SUITABLE NATIVE SOIL -

AT 95% COMPACTION

10' - PLANTER



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.



DEVELOPMENT ENGINEERING

MANAGER.

GRADING NOTES:

- 1. ALL SPOT ELEVATIONS SHOWN ARE TO FINISH SURFACE (TOP OF ASPHALT OR TOP OF CONCRETE PAVEMENT, NOT TOP OF CURB/SIDEWALK) UNLESS OTHERWISE NOTED. (TA = TOP OF PAVEMENT, TC = TOP OF CONCRETE SIDEWALK/CURB, ME = MATCH EXISTING ELEVATIONS, FC = FLUSH CURB, FL = FLOW LINE, GB = GRADE BREAK)
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- CONTRACTOR TO RAISE AND ADJUST PROPOSED SANITARY SEWER CLEANOUT LIDS TO FINAL GRADE AS NECESSARY. CLEANOUTS WITHIN ADA ACCESSIBLE PATHS SHALL BE ADJUSTED TO FINAL ELEVATIONS IN COMPLIANCE WITH CURRENT ADA REQUIREMENTS
- CONTRACTOR TO RAISE AND ADJUST ALL EXISTING AND PROPOSED CATCH BASIN RIMS TO FINAL GRADE AS NECESSARY. CATCH BASINS WITHIN ADA ACCESSIBLE PATHS SHALL BE ADJUSTED TO FINAL ELEVATIONS IN COMPLIANCE WITH CURRENT ADA STANDARDS.
- CONTRACTOR TO ORDER LOCATES AND FIELD VERIFY ALL UTILITIES PRIOR TO CONSTRUCTION TO ENSURE THAT UTILITY CONFLICTS DO NOT EXIST. CONTRACTOR TO REVIEW UTILITY ASBUILTS IN ORDER TO VERIFY EXISTING UTILITY LOCATIONS. CONTRACTOR SHALL POTHOLE ALL POTENTIAL UTILITY CONFLICTS PRIOR TO CONSTRUCTION. NOTIFY BARGHAUSEN CONSULTING ENGINEERS, INC. OF ANY CONFLICTS.

(#) CONSTRUCTION NOTES:

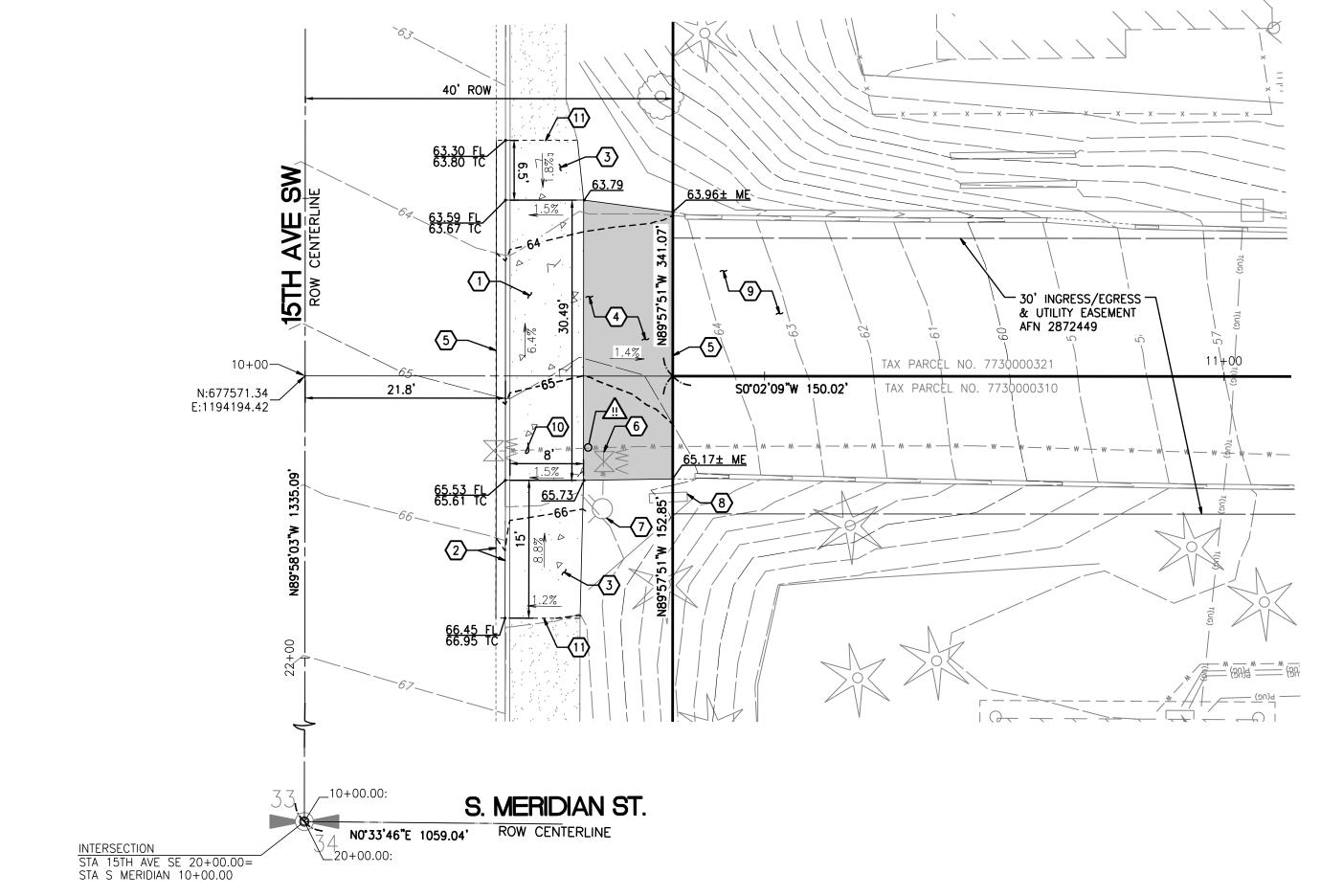
- 1. PROPOSED URBAN COMMERCIAL APPROACH PER CITY OF PUYALLUP STANDARD 01.02.18. SEE DETAIL 1/C8.2.
- PROPOSED CURB AND GUTTER PER THE CITY OF PUYALLUP STANDARD DETAIL 1.02.09. SEE DETAIL 2/C8.3. CONTRACTOR TO MATCH EXISTING GUTTER WIDTH.
- 3. PROPOSED SIDEWALK PER THE CITY OF PUYALLUP STANDARD DETAIL 1.02.01. SEE DETAIL 1/C8.3.
- 4. PROPOSED ASPHALT PAVEMENT. SEE DETAIL SEE DETAIL 1/C7.0.
- 5. PROPOSED SAWCUT (TYP.). CONTRACTOR SAWCUT AT THE EDGE OF THE EXISTING GUTTER.
- 6. PROTECT EXISTING WATER GATE VALVE TO REMAIN.
- 7. PROTECT EXISTING FIRE HYDRANT TO REMAIN.
- 8. PROTECT EXISTING SITE SIGN TO REMAIN.
- 9. EXISTING ASPHALT TO REMAIN.
- 10. PROTECT EXISTING WATER MAIN. CONTRACTOR TO POTHOLE AND VERIFY HORIZONTAL AND VERTICAL LOCATION OF THE EXISTING MAIN.
- 11. SAWCUT SIDEWALK AT NEAREST COLD JOINT.

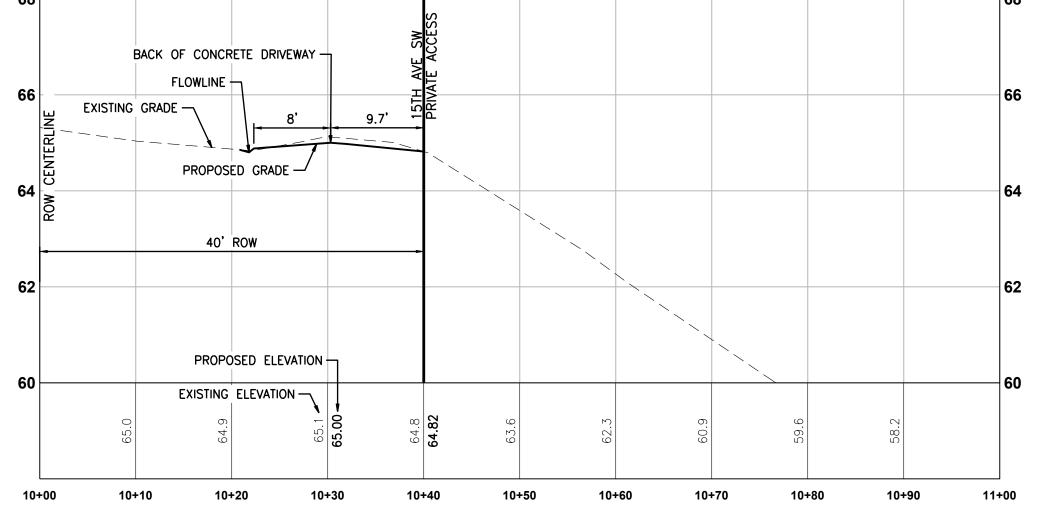
GRADING LEGEND:

<u> </u>
30
30
<u>GB</u>
R <u>IDGE</u>
····
1.00%
30.01
30.01 FC
30.01± ME
30.01 TA 30.51 TC
30.01 FL 30.51 TC

15TH AVE. SE - DRIVEWAY PLAN

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





SOUTH DRIVEWAY PROFILE

HORIZONTAL SCALE: 1"=20', VERTICAL SCALE: 1"=2'

Know what's **below**. Call before you dig. **Dial 811**

SCALE: 1"=10"

6" CONCRETE

SCALE: 1" = 2"

- 4" CRUSHED SURFACING

SCALE: 1" = 10'

SPLIT APPROACH SECTION (B)

SPLIT APPROACH

URBAN COMMERCIAL **APPROACH ALTERNATE 2**

TOP OF ADJACENT SIDEWALK

2% MAX.

SECTION (A)

1. TO BE USED AS AN OPTION TO THE URBAN APPROACH WHEN GRADES ARE CREATING A SITE CONSTRAINT.
2. JOINTS IN PAVING SLAB SHALL NOT EXTEND INTO DRIVEWAY. ALL JOINTS SHALL BE CLEAN AND EDGED.
3. CONCRETE SHALL BE COMMERCIAL CONCRETE, 5.5 SACK MINIMUM, AASHTO GRADIING 467 COARSE AGGREGATE, NO FLY ASH.

* 30 FEET MINIMUM WIDTH FOR TWO WAY TRAFFIC. MAXIMUM WIDTH DEPENDANT ON VEHICLE VOLUME AND DESIGN VEHICLE TYPE.

4. DROP APPROACH RAMPS SHALL NOT EXCEED 8.3%, AS MEASURED WITH A SMART LEVEL, UNLESS RAMP LENGTH IS EXTENDED TO 15.

CEMENT AND CONCRETE BARRIER CURB AND GUTTER

CEMENT AND CONCRETE BARRIER CURB AND GUTTER

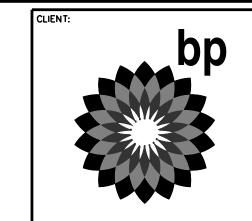
DROP APPROACH

DEVELOPMENT ENGINEERING and PUBLIC WORKS DEPARTMENTS

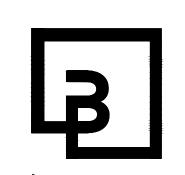
C8.2 SCALE: NTS

\CITY OF PUYALLUP COMERCIAL APPROACH

- 4" CRUSHED







Barghausen Consulting Engineers, Inc.

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

NO.	DATE	REVISION DESCRIPTION
1		
2		
3		
4		
<u> </u>		
6		
<u> </u>		
8		
9		
10		
<u></u>		
12		
SEAL:		
	وعو	EX WHITE

DEVELOPMENT INFORMATION: **ARCO NTI** 3400 am/pm

FUEL CANOPY w/ 6 MPD's

SITE ADDRESS:

SWC S MERIDIAN @ HIGHWAY 512 PUYALLUP, WASHINGTON

FACILITY #TBD

ESIGNED BY:	ММ	ALLIANCE Z&DM:
CHECKED BY:	AW	BP REPM:
RAWN BY:	ММ	ALLIANCE PM:
ERSION:	_	PROJECT NO:
	_	21730
	-	
RAWING TIT	LE:	

15TH AVE. SE - DRIVEWAY PLAN

NOTE: THIS APPROVAL IS VOID
AFTER 180 DAYS FROM APPROVAL

APPROVED

CITY OF PUYALLUP

DEVELOPMENT ENGINEERING

THE CITY WILL NOT BE RESPONSIBLE FOR ERRORS

DETERMINED BY THE

MANAGER.

AND/OR OMISSIONS ON THESE

DEVELOPMENT ENGINEERING

FIELD CONDITIONS MAY DICTATE CHANGES TO THESE PLANS AS

MUTILITY POTHOLING NOTE:

THE CIRCLED LOCATIONS ARE REQUIRED TO BE POTHOLED TO VERIFY VERTICAL AND HORIZONTAL LOCATION OF EXISTING UTILITY AND/OR POTENTIAL CONFLICTS WITH EXISTING UTILITIES. POTHOLING SHALL BE PERFORMED PRIOR TO INSTALLING ANY PROPOSED UTILITIES. CONTRACTOR SHALL NOTIFY BARGHAUSEN CONSULTING ENGINEERS, INC. OF ANY CONFLICTS.

UTILITY PROTECTION NOTE:

APPROXIMATE LOCATION OF EXISTING UTILITIES ARE SHOWN ON THESE PLANS. CONTRACTOR TO COORDINATE WITH PURVEYOR AND USE EXTREME CAUTION WHEN EXCAVATING ON-SITE, UNTIL EXISTING GAS AND POWER SERVICE LOCATIONS ARE CONFIRMED. CONTRACTOR TO ORDER INDEPENDENT UTILITY LOCATES (INCLUDING GAS AND POWER) FOR THE FULL SCOPE OF WORK PRIOR TO CONSTRUCTION OR ANY GROUND DISTURBING ACTIVITIES.

UTILITY CONFLICT NOTE:

THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING THE LOCATION, DIMENSION, AND DEPTH OF ALL EXISTING UTILITIES WHETHER SHOWN ON THESE PLANS OR NOT BY POTHOLING THE UTILITIES AND SURVEYING THE HORIZONTAL AND VERTICAL LOCATION PRIOR TO CONSTRUCTION. THIS SHALL INCLUDE CALLING UTILITY LOCATE AT 811 48 HOURS IN ADVANCE AND THEN POTHOLING ALL OF THE EXISTING UTILITIES AT LOCATIONS OF NEW UTILITY CROSSINGS TO PHYSICALLY VERIFY WHETHER OR NOT CONFLICTS EXIST. LOCATIONS OF SAID UTILITIES AS SHOWN ON THESE PLANS ARE BASED UPON THE UNVERIFIED PUBLIC INFORMATION AND ARE SUBJECT TO VARIATION. IF CONFLICTS SHOULD OCCUR, THE CONTRACTOR SHALL NOTIFY BARGHAUSEN CONSULTING ENGINEERS, INC. TO RESOLVE ALL PROBLEMS PRIOR TO PROCEEDING WITH CONSTRUCTION.

CITY OF DEVELOPMENT ENGINEERING and PUBLIC WORKS DEPARTMENTS

MINIMUM SIDEWALK WIDTHS

8'(RS ZONES) COMMERCIAL USES, WHEN REQUIRED

* MATCH GREATEST WIDTH FOR ANY ADJACENT ZONE

AREAS (DETACHED DWELLINGS)

MULTI-FAMILY RESIDENTIAL AREAS

BY DEVELOPMENT SERVICES MANAGER

5'(RS ZONES) SINGLE FAMILY RESIDENTIAL

8'(RM ZONES) MEDIUM AND HIGH DENSITY

8'(CG, CBD ZONES) COMMERCIAL AREAS

8'(PF ZONES) PUBLIC FACILITIES AREAS

8'(ML ZONES) INDUSTRIAL AREAS

8'(F ZONES) FAIR AREAS

SIDEWALK WITHOUT PLANTING STRIP

TO THE MAXIMUM EXTENT FEASIBLE.

THE GRADE OF THE SIDEWALK.

8. SIDEWALK MINIMUM UNOBSTRUCTED CLEAR

WIDTH SHALL BE 4', EXCLUSIVE OF THE WIDTH

10. CURB RAMPS SHALL BE CONSTRUCTED AT

INTERSECTIONS USING A DESIGN PREPARED BY A

DESIGN FAILS TO MEET ALL APPLICABLE DESIGN

STANDARDS. THE ENGINEER SHALL DOCUMENT WHY

LICENSED PROFESSIONAL ENGINEER. WHEN A RAMP

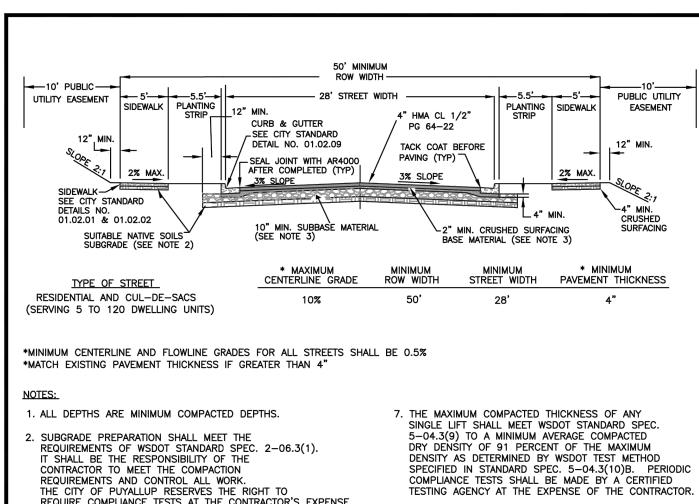
THE PROPOSED RAMP ACHIEVES DESIGN STANDARDS

9. GRATINGS, ACCESS COVERS, JUNCTION BOXES,

CABLE VAULTS, PULL BOXES AND OTHER APPURTENANCES WITHIN THE SIDEWALK (RIGHT-OF-WAY) MUST HAVE SLIP RESISTANT SURFACE AND MATCH

	1 21 11 11	11100			
DRAWN BY JIM ERWIN-SVOBODA	CHECKED BY LINDA LIAN	APPROVED BY COLLEEN HARRIS	REVISED B LINDA LIA		CITY STANDARD
FILE NAME F:\DWG\COMMON\STDS\CITY\2	2009\01_STR\01.02\01.02.01	DATE APPROVED 07/01/2009	DATE REVISED 03/21/11	SCALE 1:8	01.02.01

1 \ CITY OF PUYALLUP CONCRETE SIDEWALK (MODIFIED) C8.3 | SCALE: NTS



REQUIREMENTS AND CONTROL ALL WORK.
THE CITY OF PUYALLUP RESERVES THE RIGHT TO
REQUIRE COMPLIANCE TESTS AT THE CONTRACTOR'S EXPENSE. 3. SUBBASE MATERIAL SHALL BE GRAVEL BORROW MEETING THE REQUIREMENTS OF WSDOT STANDARD SPEC.

9-03.14(1) OR CRUSHED BALLAST MEETING THE REQUIREMENTS OF WSDOT STANDARD SPEC. 9-03.9(1). CRUSHED SURFACING SHALL MEET THE GRADATION REQUIREMENTS OF WSDOT STANDARD SPEC. 9-03.9(3). THE SUBBASE AND BASE MATERIAL SHALL BE INSTALLED IN ACCORDANCE WITH WSDOT STANDARD SPEC. 4-04.

4. SOIL STABILIZATION FABRIC MAY BE REQUIRED BY THE DEVELOPMENT REVIEW ENGINEER TO BE INSTALLED PRIOR TO THE INSTALLATION OF THE BASE MATERIAL. WHEN REQUIRED, THE CONTRACTOR SHALL PLACE A GEOTEXTILE FABRIC OVER THE PREPARED SUBGRADE WITH A TWO FOOT MINIMUM OVERLAP. THE FABRIC SHALL BE INSTALLED PER MANUFACTURER

5. ASPHALT CONCRETE PAVEMENT SHALL BE INSTALLED IN ACCORDANCE WITH WSDOT STANDARD . 5-04. DESIGN ENGINEER SHALL SUBMIT A STATE APPROVED HMA MIX FOR APPROVAL.

TEMPERATURE SHALL NOT EXCEED 325°F AT DISCHARGE OF THE PLANT NOR BE LESS THAN 185°F

C8.3 | SCALE: NTS

LEAVING THE SPREADER BOX.

28' PUBLIC ROADWAY CITY OF

CROSS SECTION 01.01.01

8. THE FACE OF THE GUTTER LIP AND EDGES OF

WHEN SUCCESSIVE LIFTS OF ASPHALT ARE

UNIFORMLY OVER THE PREVIOUS LIFT AT A

AT A TEMPERATURE OF 100° F AND SHALL BE ALLOWED TO SET TO A TACKY STATE PRIOR

SHALL BE UNIFORM AND VERTICAL. THE MEET

LINES SHALL BE CLEANED AND TACK COATED.

10. ANY CHANGES TO THE STANDARD PAVEMENT SECTION

DESIGN WITH CALCULATIONS SHALL BE REQUIRED.

MONUMENT COVERS SHALL BE INSTALLED AFTER PLACEMENT OF ASPHALT. IF MORE THAN ONE LIFT

12. A UTILITY EASEMENT OF 10' SHALL BE PROVIDED ON

13. PLANTING STRIP SHALL BE PLANTED AS DIRECTED BY CITY

IS NECESSARY, FRAMES AND LIDS WILL BE ADJUSTED TO FINISH GRADE AT FIRST LIFT AS DIRECTED BY

SHALL REQUIRE APPROVAL BY THE DEVELOPMENT REVIEW ENGINEER. A STRUCTURAL PAVEMENT CROSS SECTION

TO THE PLACEMENT OF THE NEXT LIFT.

9. ALL MEET LINES BETWEEN LIFTS OF ASPHALT

11. ALL MANHOLE FRAMES, VALVE FRAMES AND

EXISTING ASPHALT MEET LINES SHALL BE TACK COATED PRIOR TO PAVEMENT PLACEMENT.

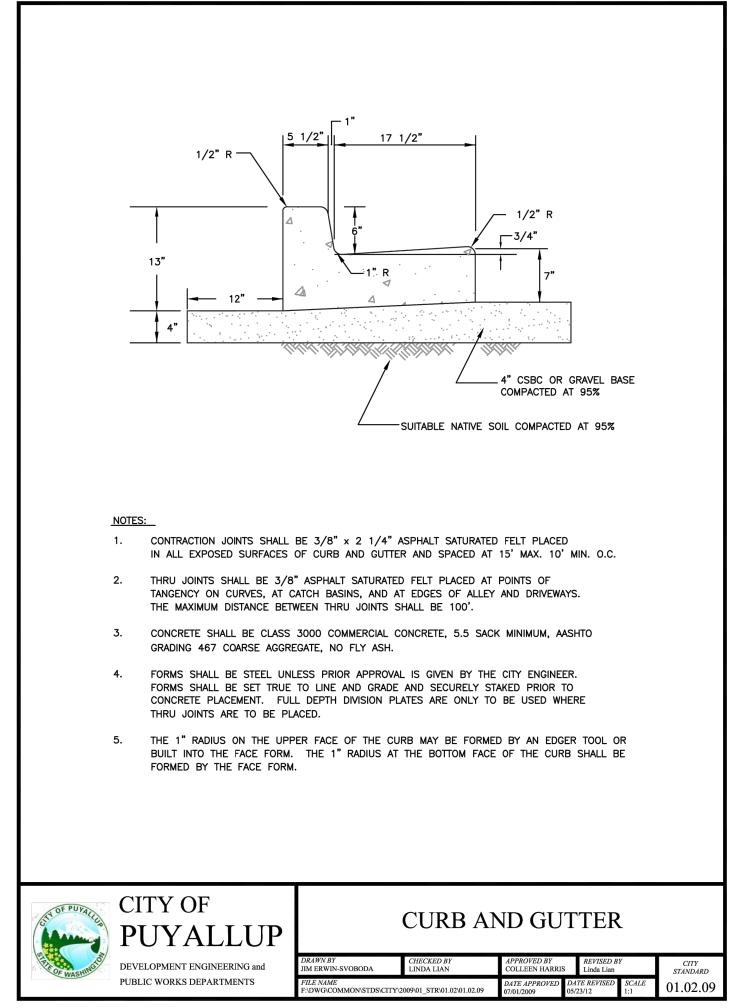
REQUIRED. A TACK COAT SHALL BE DISTRIBUTED

RATE OF 0.06-0.08 GALLONS PER SQUARE YARD

DEVELOPMENT ENGINEERING and PUBLIC WORKS DEPARTMENTS ∫ CITY OF PUYALLUP ASPHALT PAVEMENT

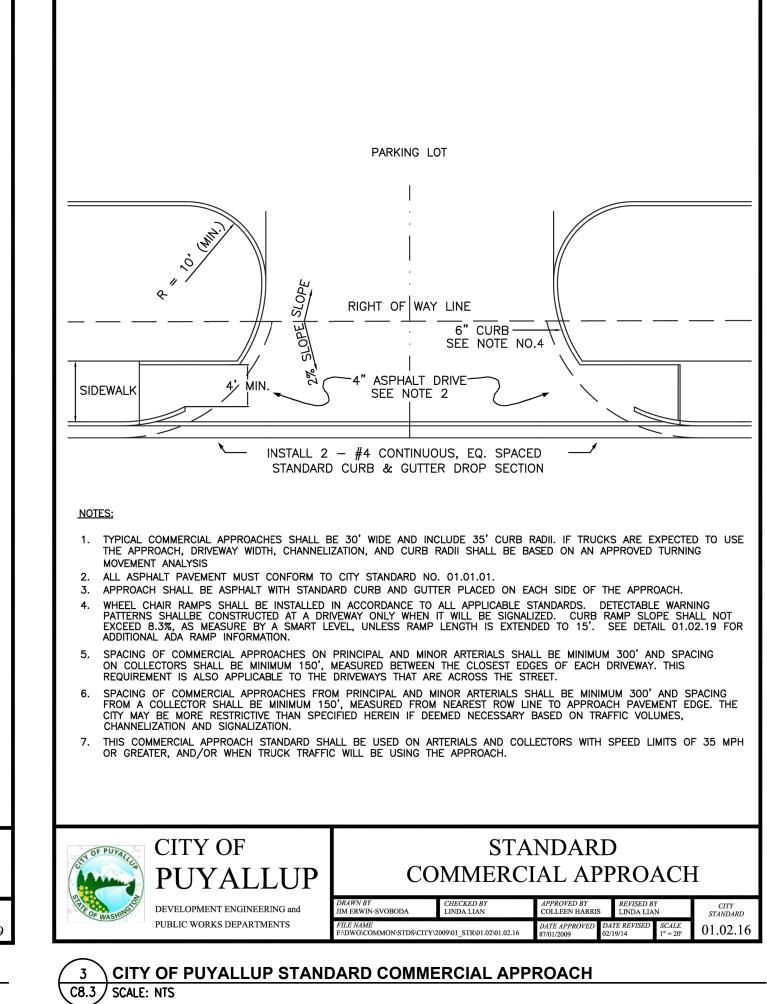
RIGHT-OF-WAY DETAILS

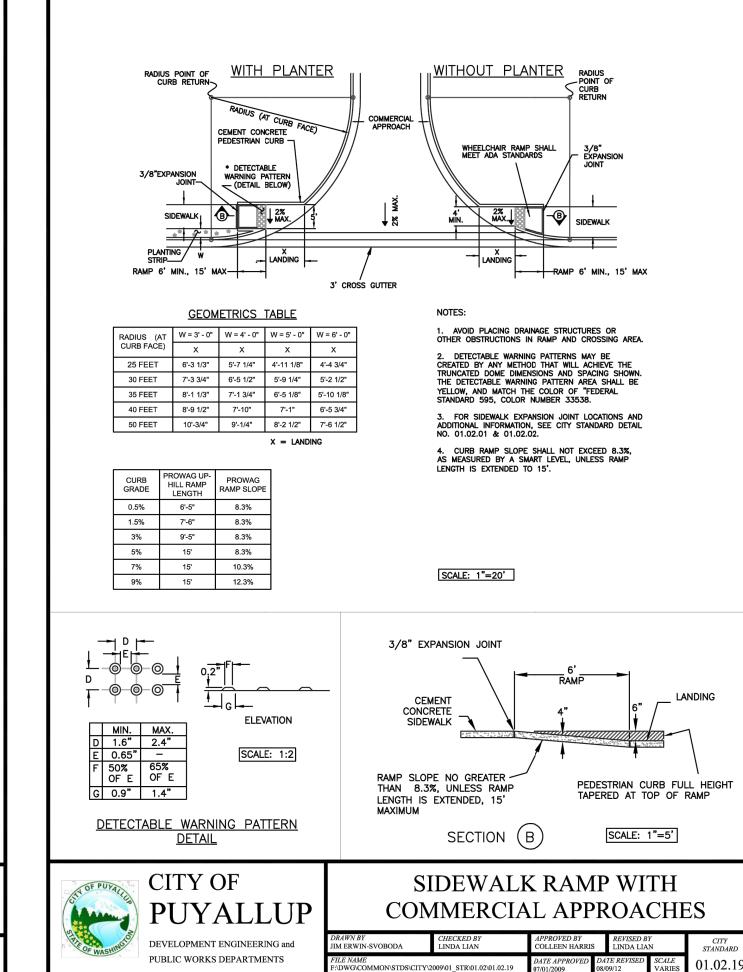
ARCO ampm PUYALLUP SEC. 33, TWN. 20 N, RGE. 4 E, W.M. CITY OF PUYALLUP, PIERCE COUNTY

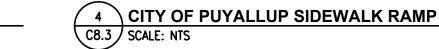


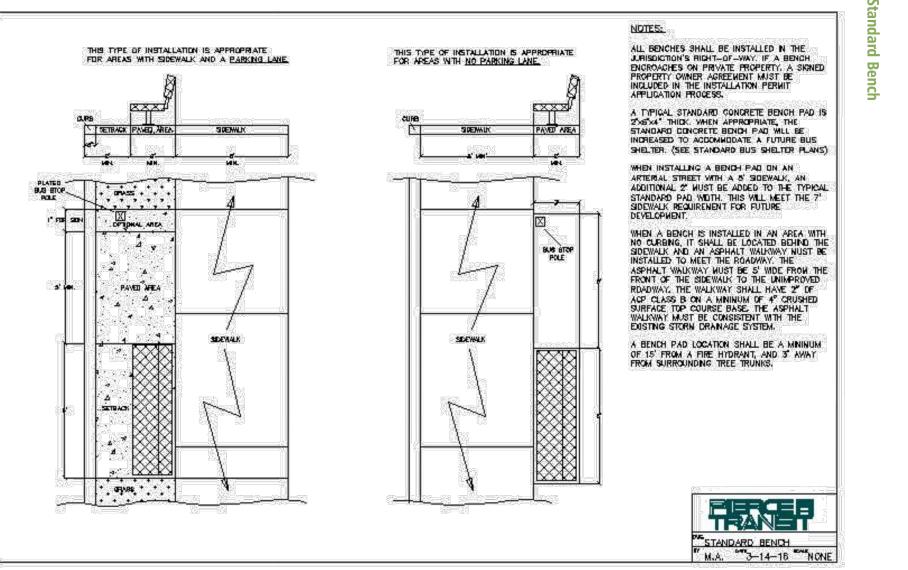
CITY OF PUYALLUP CURB AND GUTTER

C8.3 / SCALE: NTS









6 \ PIERCE COUNTY TRANSIT BENCH C8.3 SCALE: NTS

APPROVED

CITY OF PUYALLUP DEVELOPMENT ENGINEERING

DATE NOTE: THIS APPROVAL IS VOID AFTER 180 DAYS FROM APPROVAL THE CITY WILL NOT BE

RESPONSIBLE FOR ERRORS AND/OR OMISSIONS ON THESE FIELD CONDITIONS MAY DICTATE CHANGES TO THESE PLANS AS DETERMINED BY THE DEVELOPMENT ENGINEERING

MANAGER.

ARCO

BP WEST COAST PRODUCTS, LLC

Consulting Engineers, Inc.

18215 72nd Avenue South

NO. DATE REVISION DESCRIPTION

Barghausen

Kent, WA 98032

barghausen.com

425.251.6222

21730 **RIGHT-OF-WAY DETAILS**

10/4/2

DEVELOPMENT INFORMATION:

SITE ADDRESS:

CHECKED BY: AW

ARCO NTI

3400 am/pm

FUEL CANOPY w/ 6 MPD's

SWC S MERIDIAN

@ HIGHWAY 512

PUYALLUP, WASHINGTON

FACILITY #TBD

P REPM:

LIANCE PM:

9TH AVE SW 3 10TH AVE SE BLUE RIBBON AVE 13TH AVE SE VICINITY MAP (N.T.S.)

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)

1402 S. MERIDIAN, PUYALLUP, WA 98371

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

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.

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
- 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 (IE. 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
- 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:

ALL TITLE INFORMATION SHOWN ON THIS MAP HAS BEEN EXTRACTED FROM STEWART TITLE GUARANTY COMPANY COMMITMENT NO. 21000200719, 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.

(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.

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.

AN EASEMENT FOR INGRESS AND EGRESS AS SET FORTH IN DOCUMENTS ENTITLED "STATUTORY WARRANTY DEED" AS RECORDED UNDER RECORDING NUMBERS 2741876 AND

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 TOGETHER WITH THAT PORTION OF 14TH AVENUE SW, VACATED BY ORDINANCE NO. 2304 ABUTTING THEREON AND ATTACHED THERETO, RECORDED UNDER RECORDING NO.

(PER ABOVE REFERENCED TITLE REPORT)

ITEMS 1 THOUGH 18 ARE NOT SURVEY RELATED. 19. TEMPORARY RIGHT, PERMIT, LICENSE AND EASEMENT TO USE AND OCCUPY A

SITUATE IN THE COUNTY OF PIERCE, STATE OF WASHINGTON.

PORTION OF SAID LOT 20 FOR THE PURPOSE OF CONSTRUCTING HIGHWAY SLOPES AND OPERATING ALL NECESSARY MACHINERY AND FOUIPMENT THEREON AT ANY AND ALL TIMES UNTIL COMPLETION OF CONSTRUCTION FOR STATE RAD 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. 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: NOVEMBER 19, 1966 RECORDING NO .: 2321816

AFFFCTS: PARCFI A (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: OCTOBER 20, 1975 RECORDING NO .: 2632004

PARCEL B

MAY 26, 1976

2667305

AFFECTS: (BLANKET IN NATURE)

22. EASEMENT AND THE TERMS AND CONDITIONS THEREOF: PUGET SOUND POWER AND LIGHT COMPANY ELECTRIC TRANSMISSION AND/OR DISTRIBUTION SYSTEM PURPOSE: AFFECTS: EAST 10 FEET OF PARCEL A AND INCLUDES OTHER PROPERTY

RECORDING NO .: (PLOTTED HEREON)

23. EASEMENT AND THE TERMS AND CONDITIONS THEREOF: GRANTEE: PUGET SOUND POWER AND LIGHT COMPANY ELECTRIC TRANSMISSION AND/OR DISTRIBUTION SYSTEM PURPOSE: PORTION OF PARCEL A AND INCLUDES OTHER PROPERTY RECORDED: MAY 26, 1976 RECORDING NO .:

(BLANKET IN NATURE)

24. COVENANTS, CONDITIONS AND RESTRICTIONS AND EASEMENTS CONTAINED IN SHORT RECORDED: MAY 25, 1977 RECORDING NO.: 77-315

(PLOTTED HEREON)(COMMON ACCESS TRACT "A")

25. EASEMENT AND THE TERMS AND CONDITIONS THEREOF: INGRESS, EGRESS AND UTILITIES PORTION OF TRACT A LYING WITHIN PARCEL A JANUARY 16, 1958 RECORDING NO.: 2792268

PURPOSE: INGRESS AND EGRESS TRACT A OF SHORT PLAT 77-315 RECORDED 2741876 RECORDING NO.:

26. EASEMENT AND THE TERMS AND CONDITIONS THEREOF:

(PLOTTED HEREON)

(PLOTTED HEREON)

27. EASEMENT AND THE TERMS AND CONDITIONS THEREOF: CITY OF PUYALLUP GRANTEE: CONSTRUCTING, INSTALLING, REPAIRING AND MAINTAINING STREET IMPROVEMENTS ACCORDING TO THE PLAN

RECORDED: 8706100397 RECORDING NO.: (PLOTTED HEREON)

28. MUTUAL MAINTENANCE AGREEMENT AND THE TERMS AND CONDITIONS THEREOF: RECORDED:

ENTITLED "SOUTH MERIDIAN STREET IMPROVEMENTS"

RECORDING NO .: 9105170239 (NOT SURVEY RELATED)

29. EASEMENT AND THE TERMS AND CONDITIONS THEREOF: WASHINGTON NATURAL GAS PURPOSE GAS PIPELINE OR PIPELINES NORTHERLY PORTION OF PARCEL A MARCH 30, 1992 RECORDED

RECORDING NO.: (PLOTTED HEREON)

30. EASEMENT AND THE TERMS AND CONDITIONS THEREOF:

9203300111

STORMWATER, SANITARY AND WATERMAIN PIPE LINE AND PURPOSE: APPURTENANCES SOUTH 30 FEET OF PARCEL B

RECORDED RECORDING NO .:

9206040382 (PLOTTED HEREON)

31. EASEMENT AND THE TERMS AND CONDITIONS THEREOF: CITY OF PUYALLUP GRANTFF STORMWATER, SANITARY AND WATERMAIN PIPE LINE AND PURPOSE: **APPURTENANCES**

NORTH 30 FEET OF PARCEL A RECORDED JUNE 4, 1992 9206040383 RECORDING NO.:

(PLOTTED HEREON)(OFFSITE ADJACENT EASEMENT)

32. EASEMENT AND THE TERMS AND CONDITIONS THEREOF: GRANTEE: CITY OF PUYALLUF STORMWATER, SANITARY AND WATERMAIN PIPE LINE AND PURPOSE: APPURTENANCES

NORTH 30 FEET OF PARCEL A RECORDED: RECORDING NO .: 9206040384

(PLOTTED HEREON)

(PLOTTED HEREON)

33. EASEMENT AND THE TERMS AND CONDITIONS THEREOF: PUGET SOUND POWER AND LIGHT COMPANY GRANTEE: ELECTRIC TRANSMISSION AND/OR DISTRIBUTION SYSTEM AFFECTS: PORTION OF PARCEL B RECORDED JULY 28, 1992

RECORDING NO.: 9207280563 (PLOTTED HEREON)(OFFSITE ADJACENT EASEMENT)

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

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.

7/19/2023

DATE OF PLAT OR MAP: JULY 19, 2023.

MABBAS@BARGHAUSEN.COM

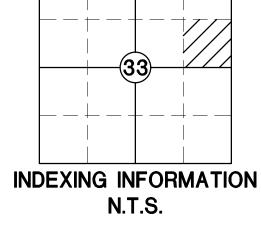
Mm MATTHEW K. ABBAS, PLS WASHINGTON REGISTRATION NO. 20109892



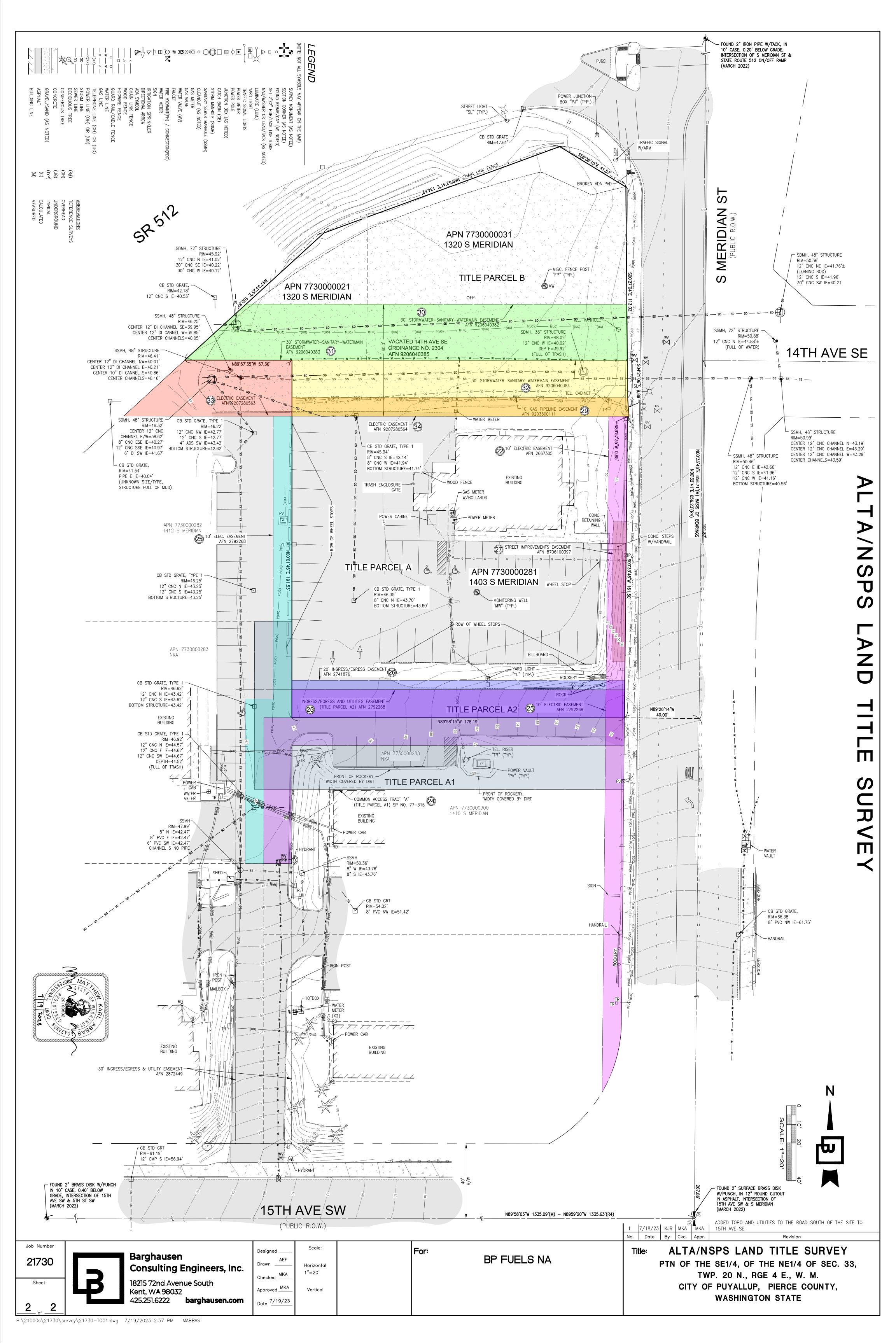
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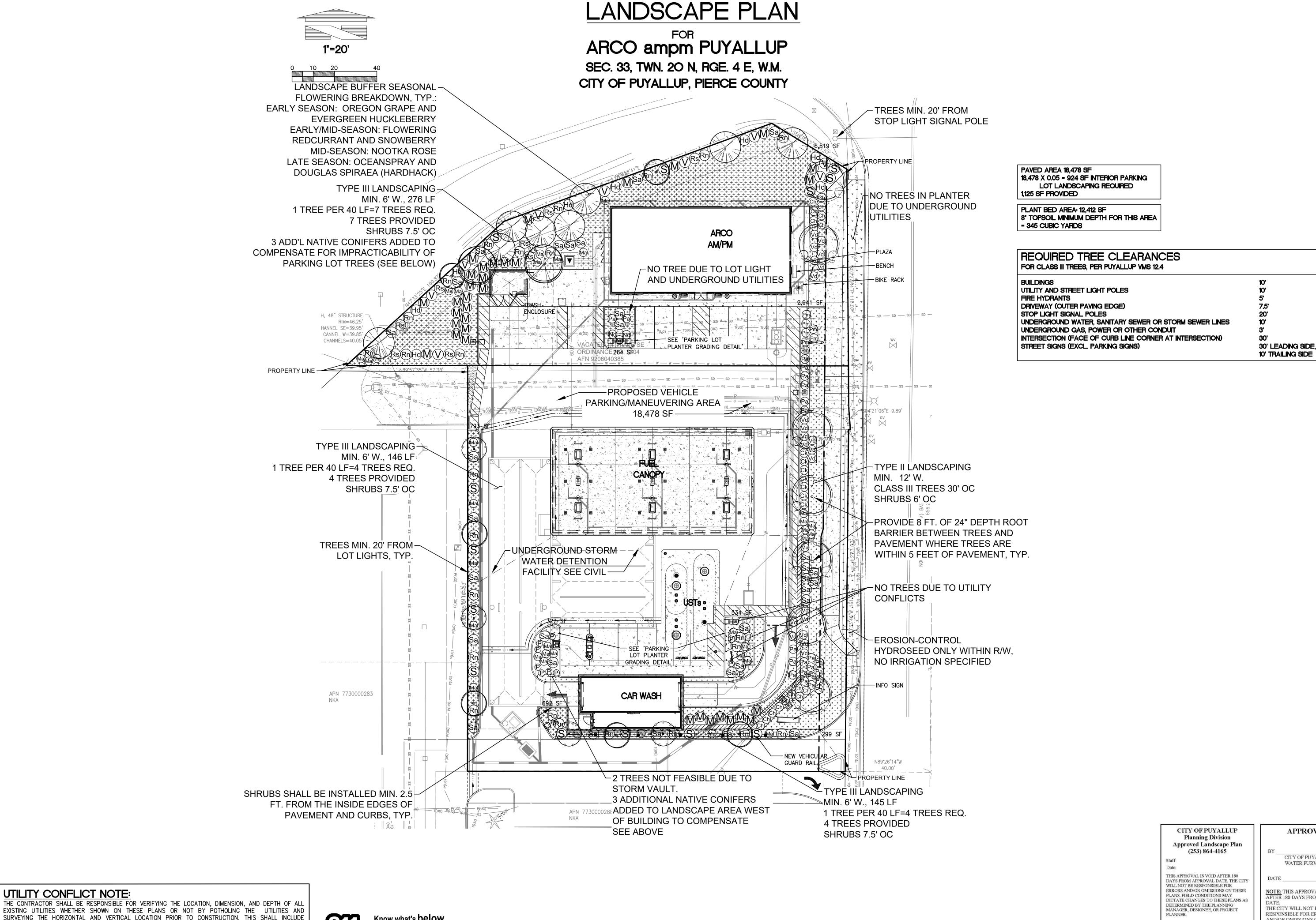
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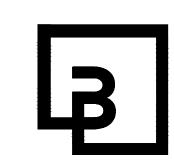


TWP. 20N R.4E









Consulting Engineers, Inc.

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

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

SITE ADDRESS:

APPROVED

CITY OF PUYALLUP WATER PURVEYOR

NOTE: THIS APPROVAL IS VOID AFTER 180 DAYS FROM APPROVAL

THE CITY WILL NOT BE

RESPONSIBLE FOR ERRORS

AND/OR OMISSIONS ON THESE

CHANGES TO THESE PLANS AS

DETERMINED BY THE WATER

FIELD CONDITIONS MAY DICTATE

SWC S MERIDIAN @ HIGHWAY 512 PUYALLUP, WASHINGTON

FACILITY #TBD			
DESIGNED BY:	ALLIANCE Z&DM:		
CHECKED BY:	BP REPM:		
DRAWN BY:	ALLIANCE PM:		
VERSION:	PROJECT NO:		
	21730		

LANDSCAPE

UTILITY CONFLICT NOTE:

PROCEEDING WITH CONSTRUCTION.

CALLING UTILITY LOCATE AT 811 48 HOURS IN ADVANCE AND THEN POTHOLING ALL OF THE EXISTING

UTILITIES AT LOCATIONS OF NEW UTILITY CROSSINGS TO PHYSICALLY VERIFY WHETHER OR NOT CONFLICTS

EXIST. LOCATIONS OF SAID UTILITIES AS SHOWN ON THESE PLANS ARE BASED UPON THE UNVERIFIED

PUBLIC INFORMATION AND ARE SUBJECT TO VARIATION. IF CONFLICTS SHOULD OCCUR, THE CONTRACTOR

SHALL NOTIFY BARGHAUSEN CONSULTING ENGINEERS, INC. TO RESOLVE ALL PROBLEMS PRIOR TO

Know what's below.

NOTE: If street trees are required, Call Hanning 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 standards may result in rejection of installation.

Call before you dig.

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

PLANT SCHEDULE

QUANTITY NATIVE SHRUBS AND GROUNDCOVERS: QUANTITY NON-NATIVE SHRUBS AND GROUNDCOVERS: 7.6% TOTAL SHRUBS AND GROUNDCOVERS:

> SEE SHEET L1 FOR ADDITIONAL PLANTING SPECIFICATIONS. CONFORM TO THE SPECIFICATIONS AND DRAWINGS IN THESE LANDSCAPE PLANS AND THE REQUIREMENTS OF CITY OF PUYALLUP VEGETATION MANAGEMENT STANDARDS (VMS). WHERE THERE IS A CONFLICT CONFORM TO THE MORE STRINGENT REQUIREMENTS.

TREES	QTY	BOTANICAL / COMMON NAME	CONT.	SIZE	WATER USE	ORIGIN	FOLIAGE
4	6	ACER CIRCINATUM / VINE MAPLE 2" TOTAL CAL. IF MULTI-STEM. NURSERY GROWN. STAKE AND GUY ONE GROWING SEASON.	B & B	1" CAL	LOW	NATIVE	DECIDUOUS
	8	CALOCEDRUS DECURRENS / INCENSE CEDAR FULL TO BASE; SINGLE, STRAIGHT UN-CUT LEADER; STAKE AND GUY ONE GROWING SEASON	B & B	5`-6` MIN. HT.	LOW	NATIVE	EVERGREEN
	2	GLEDITSIA TRIACANTHOS INERMIS 'SKYCOLE' / SKYLINE HONEY LOCUST NURSERY GROWN FOR STREET TREE USE; BRANCHING AT 5'; STAKE AND GUY ONE GROWING SEASON	В&В	1" CAL	LOW	ADAPTIVE	DECIDUOUS
	4	THUJA PLICATA `EXCELSA` / EXCELSA CEDAR FULL TO BASE; SINGLE, STRAIGHT UN-CUT LEADER; STAKE AND GUY ONE GROWING SEASON	В&В	5`-6` MIN. HT.	LOW	NATIVE	EVERGREEN
STREET TREES	QTY	BOTANICAL / COMMON NAME	CONT.	SIZE	WATER USE	<u>ORIGIN</u>	<u>FOLIAGE</u>
	7 27 18 NATIVE 9 NON-NATIVE	ZELKOVA SERRATA 'VILLAGE GREEN' / SAWLEAF ZELKOVA CLASS III MEDIUM STREET TREE PER VMS 12.9. NURSERY GROWN FOR STREET TREE USE; BRANCHED AT FIVE (5) FEET; STAKE AND GUY ONE GROWING SEASON	B & B	1" CAL	LOW	ADAPTIVE	DECIDUOUS
SHRUBS	QTY	BOTANICAL / COMMON NAME	CONT.	WATER USE	ORIGIN	<u>FOLIAGE</u>	
Ch	16	CHAENOMELES X SUPERBA 'JET TRAIL' / DWARF FLOWERING QUINCE	#2	MEDIUM	ADAPTIVE	DECIDUOUS	
(Ck)	7	CORNUS SERICEA 'KELSEYI' / DWARF REDTWIG DOGWOOD	#2	LOW	NATIVE	DECIDUOUS	
(Hd)	8	HOLODISCUS DISCOLOR / OCEAN-SPRAY	#2	LOW	NATIVE	DECIDUOUS	
\bigcirc	34	MAHONIA AQUIFOLIUM / OREGON GRAPE	#2	LOW	NATIVE	EVERGREEN	
Ma	36	MAHONIA AQUIFOLIUM 'COMPACTA' / COMPACT OREGON GRAPE	#2	LOW	NATIVE	EVERGREEN	
Nd	3	NANDINA DOMESTICA 'GULF STREAM' / HEAVENLY BAMBOO	#2	LOW	ADAPTIVE	EVERGREEN	
(Pm)	7	PINUS MUGO 'PUMILIO' / DWARF MUGO PINE	#2	LOW	ADAPTIVE	EVERGREEN	
Rs	8	RIBES SANGUINEUM / RED FLOWERING CURRANT	#2	LOW	NATIVE	DECIDUOUS	
Rn	25	ROSA NUTKANA / NOOTKA ROSE	#2	MEDIUM	NATIVE	DECIDUOUS	
S	13	SPIRAEA DOUGLASII / HARDHACK	#2	MEDIUM	NATIVE	DECIDUOUS	
Sa	31	SYMPHORICARPOS ALBUS / SNOWBERRY	#2	LOW	NATIVE	DECIDUOUS	
V	9	VACCINIUM OVATUM / EVERGREEN HUCKLEBERRY	#2	LOW	NATIVE	EVERGREEN	
(Vd)	21	VIBURNUM DAVIDII / DAVID VIBURNUM	#2	LOW	ADAPTIVE	EVERGREEN	
FERNS AND GRASSE	ES QTY	BOTANICAL / COMMON NAME	CONT.	WATER USE	ORIGIN	FOLIAGE	
Pa	22	PENNISETUM ALOPECUROIDES 'HAMELN' / FOUNTAIN GRASS	#2	LOW	ADAPTIVE	DECIDUOUS	
181 NATIVE 69 NON-NA		POLYSTICHUM MUNITUM / WESTERN SWORD FERN	#2	LOW	NATIVE	EVERGREEN	
GROUND COVERS	<u>QTY</u>	BOTANICAL / COMMON NAME	CONT.	WATER USE	<u>ORIGIN</u>	<u>FOLIAGE</u>	SPACING
+ + + + + + + + + + + + + + + + + + + +	740		ща	1.0\\\\	NIATIVE		26" 0 0

CITY OF PUYALLUP MINIMUM SOIL REQUIREMENTS: SOIL PREPARATION IN ALL DISTURBED AREAS WITH NEW LANDSCAPING SHALL CONFORM TO SPECIFICATIONS PROVIDED IN BMP T5.13 - THE "STORM WATER MANAGEMENT MANUAL OF WESTERN WASHINGTON". DEPARTMENT OF ECOLOGY. DATED AUGUST 2012, OR AS SUBSEQUENTLY AMENDED. COMPACTION OF LANDSCAPED AREAS FROM VEHICLES AND HEAVY EQUIPMENT SHALL BE

SOIL AMENDMENT NOTES

AVOIDED AFTER TILLING.

ALL SOILS IN ALL LANDSCAPE INSTALLATIONS SHALL CONFORM TO THE FOLLOWING SOIL DEPTH AND QUALITY REQUIREMENTS. PLEASE REFER TO APPENDIX 20.9 FOR FURTHER INSTALLATION GUIDANCE:

5% ORGANIC MATTER CONTENT IN TURF AREAS, AND A pH FROM 6.0 TO 8.0 OR MATCHING THE pH OF THE ORIGINAL UNDISTURBED SOIL. THE TOPSOIL LAYER SHALL HAVE A MINIMUM DEPTH OF EIGHT INCHES (8") EXCEPT WHERE TREE ROOTS LIMIT THE DEPTH OF INCORPORATION OF AMENDMENTS NEEDED TO MEET TH CRITERIA. SUBSOILS BELOW THE TOPSOIL LAYER SHOULD BE SCARIFIED AT LEAST 6 INCHES WITH SOME INCORPORATION OF THE UPPER MATERIAL TO AVOID STRATIFIED LAYERS, WHERE FEASIBLE. INSTALLATION OF THE EIGHT INCHES (8") OF TOPSOIL, AS DESCRIBED ABOVE, SHALL GENERALLY BE ACHIEVED BY PLACING FIVE INCHES (5") OF IMPORTED SANDY-LOAM SOIL INTO PLANNED LANDSCAPE AREAS (SUB-BASE SCARIFIED FOUR INCHES (4") WITH A THREE INCH (3") LAYER OF COMPOST TILLED INTO THE ENTIRE DEPTH.

B. FOR STREET TREES IN THE RIGHT OF WAY PLANTER STRIP. THE FOLLOWING STANDARDS SHALL APPLY IN RELATION TO SOIL DEPTH, SOIL AMENDMENTS AND INSTALLATION OF NEW STREET TREES. THE FOLLOWING NOTES SHALL BE SHOWN ON THE FACE OF THE PRELIMINARY AND FINAL LANDSCAPE PLAN SHEETS: (1) FOR NEW CONSTRUCTION: IN AREAS WHERE A NEW PLANTER STRIP AND STREET TREE SHALL BE ESTABLISHED OR RECONSTRUCTED DUE TO A STREET CONSTRUCTION PROJECT, THE PLANTER STRIP AREA SHALL BE FXCAVATED TO A DEPTH OF 24" AND BACKFILLED FOLLOWING THE STANDARD ABOVE TO ACHIEVE A TOPSOIL MIX WITH 40 PERCENT COMPOST BY VOLUME, THE CONTRACTOR OR INSTALLER SHALL: (1)1) REVIEW THE CITY STANDARD PLANTING DETAIL - ALL CONTRACTORS/INSTALLERS AREA REQUIRED TO FOLLOW

CITY STANDARD #01.02.07 (STREET TREE PLANTING) AND #01.02.03 (ROOT BARRIER INSTALLATION). THE CONTRACTOR/INSTALLER SHALL REVIEW THE PLANTING STANDARD DETAIL PRIOR TO INSTALLATION TO UNDERSTAND THE CITY'S REQUIREMENTS. FAILURE TO FOLLOW THE STANDARD MAY RESULT IN REJECTION OF THE WORK BY THE INSPECTOR AND/OR PLANNING DEPARTMENT.

(1)2) SCHEDULE A FIELD PRE-CONSTRUCTION MEETING - THE CONTRACTOR/INSTALLER SHALL CONTACT THE SITE INSPECTOR AND PLANNING DEPARTMENT 48 HOURS IN ADVANCE OF THE INSTALLATION OF STREET TREE(S) FOR A FIELD PRE-CONSTRUCTION MEETING ON-SITE TO REVIEW THE APPROVED PLAN SET AND CITY STANDARD DETAILS. IF STREET TREES ARE TO BE INSTALLED OVER A LONGER TIMELINE (SUCH AS A RESIDENTIAL PLAT WHERE TREES MAY BE INSTALLED OVER A MULTI-MONTH PERIOD OF TIME), THE CONTRACTOR/INSTALLER SHALL HOLD ONE CONSOLIDATED PRE-CON TO REVIEW PLANS, ALL STREET TREES

SHALL BE INSPECTED AFTER PLANTING BY THE PLANNING DEPARTMENT. (1)3) EXCAVATE ALL CONSTRUCTION MATERIALS - EXCAVATE ALL CONSTRUCTION MATERIALS, REMNANT SOIL, GRAVEL, PIT RUN, CONSTRUCTION DEBRIS, ETC. FROM THE PLANTER STRIP AREA TO A DEPTH OF 24" PRIOR TO PLANTING. DISCARD THIS MATERIAL AS THE PLACEMENT OF NEW COMPOST AMENDED TOP SOIL IS

(1)4) PREPARE THE PLANTING STRIP - AFTER EXCAVATING ALL MATERIALS FROM THE PLANTER STRIP, SCARIFY AND RIP THE SUB-BASE WITH THE TEETH OF A BACKHOE BUCKET (OR OTHER MECHANICAL MEANS OR HAND TOOLS) TO A DEPTH OF 6" WITH MULTIPLE PASSES, 90-DEGREES TO EACH OTHER. PRIOR TO PLANTING THE TREE, RE-COMPACT THE TREE BASE WHERE THE STREET TREE WILL BE PLANTED TO AVOID SETTING OF THE ROOT BALL. AT THIS STAGE, IF THE TREE IS TO BE PLANTED WHEN THE PLANTER STRIP IS BACKFILLED WITH AMENDED TOPSOIL. THE CONTRACTOR/INSTALLER SHOULD MEASURE THE DEPTH OF THE ROOT BALL TO DETERMINE WHEN TO PLACE THE TREE IN THE PIT DURING THE BACKFILLING PROCESS. IF THE ROOTBALL OR ROOT MASS (IN THE CASE OF BARE ROOT TREES) IS LESS THAN 24". THE STREET TREI SHALL BE PLANTED IN A MANNER IN WHICH THE ROOT FLARE IS LEVEL WITH OR AT LEAST 1" ABOVE GRADE AT THE TIME OF FINISHED PLANTING. THE MAY REQUIRE THE ROOTBALL BE PLACED ON A

COMPACTED SUB-BASE OF THE COMPOST AMENDED TOPSOIL AS BACKFILLING IS OCCURRING (1)5) INSTALL ROOT BARRIER PANELS - AT THIS STAGE THE CONTRACTOR/INSTALLER SHALL PLACE 24" DEEP ROOT BARRIER PANELS (UB-24) ALONG THE EDGE OF THE SIDEWALK AND CURB LINE FOR A TOTAL OF EIGHT FEET (8') OF LINEAL PROTECTION ALONG EITHER SIDE OF THE PLANTING AREA. THE PANELS SHALL BE INSTALLED PERPENDICULAR TO THE EDGE OF THE PLANTING AREA. THE PANELS SHALL BE INSTALLED PERPENDICULAR TO THE DGE OF PAVED SURFACE IN ACCORDANCE WITH THE MANUFACTURER'S STSANDARDS FOR A 'LINEAR' APPLICATION; THE ROOT BARRIER PANELS SHALL NOT BE INSTALLED IN THE PLANTING PIT AS A 'SURROUND' APPLICATION, UNLESS SPECIFIED ON THE FINAL LANDSCAPE PLANS. THE TOP OF THE ROOT BARRIER PANEL SHALL BE INSTALLED SUCH THAT 1/2" OF THE ROOT BARRIER IS ABOVE THE FINISHED

(1)6) COMPOST AMENDED TOP SOILS REQUIRED - TOPSOIL SOURCE SHALL BE REVIEWED AND APPROVED DURING THE PRE-CONSTRUCTION MEETING; ALL TOPSOIL SHALL BE A TOP QUALITY SANDY-LOAM MIX, OR DURING INSTALLATION WITH COMPOST TO ACHIEVE A 40 PERCENT BY VOLUME TOPSOIL MIX IN THE RIGHT-OF-WAY PLANTER STRIP, IMPORTED TOPSOIL MAY BE USED BY THE CONTRACTOR IF DATA 'CUT SHEETS' ARE AVAILABLE FROM THE SUPPLIER CERTIFYING COMPOST AMENDMENT EQUALING 40 PERCENT BY VOLUME USING ONE OF THE APPROVED COMPOST SOURCES BELOW. COMPOST SHALL ONLY BE SOURCED

> COUNTY RECYCLING, COMPOSTING & DISPOSAL, 10308 SALES ROAD, TACOMA, WASHINGTON 98499, OR RETAIL/WHOLESALE LANDSCAPE MATERIAL SUPPLIERS) -TAGRO COMPOST MIX (AVAILABLE THROUGH CITY OF TACOMA, 2201 EAST PORTLAND AVENUE, GATE 6, TACOMA, WA 98421, OR RETAIL/WHOLESALE LANDSCAPE MATERIAL SUPPLIERS) -CEDAR GROVE COMPOST (AVAILABLE THROUGH CEDAR GROVE COMPOST. 17825 CEDAR GROVE ROAD SE, MAPLE VALLEY, 98038, OR RETAIL/WHOLESALE

-CASCADE COMPOST (ALSO KNOWN AS PREP/LRI) (AVAILABLE THROUGH PIERCE

LANDSCAPE MATERIAL SUPPLIERS) (1)7) INSTALL AND AMEND TOPSOILS - TO AVOID STRATIFIED LAYERS, FIRST PLACE SEVEN INCHES (7") OF APPROVED TOPSOIL IN THE PREPARED/SCARIFIED PLANTING STRIP AREA AND MECHANICALLY TILL IN FIVE INCHES (5") OF APPROVED COMPOST; FOLLOW THIS PROCEDURE TWICE TO ACHIEVE THE TOTAL 24" TOPSOIL DEPTH. FINISHED GRADE OF TOPSOIL SHOULD BE $rac{1}{2}$ " BELOW THE EDGE OF SIDEWALK TO ALLOW THE ROOT BARRIER PANEL TO BE PROPERLY INSTALLED ABÔVE FINISHED GRAI

(1)8) INSTALL TREE STAKES AND FINISH MULCH - PLACEMENT OF FOUR INCHES (4") OF WOOD CHIP MULCH, WATER BASIN RINGS, TREE STAKING AND TEMPORARY IRRIGATION BAGS (WHERE REQUIRED) SHALL FOLLOW CITY STANDARD #01.02.07

LANDSCAPE PLANTING NOTES AND MATERIALS

FURNISH ALL MATERIALS, LABOR, EQUIPMENT AND RELATED ITEMS NECESSARY TO ACCOMPLISH TOPSOIL, TREATMENT AND PREPARATION OF SOIL, FINISH GRADING. PLACEMENT OF SPECIFIED PLANT MATERIALS, FERTILIZER, STAKING, MULCH, CLEAN-UP, DEBRIS REMOVAL, AND 30-DAY MAINTENANCE.

LANDSCAPE CONTRACTOR TO BE SKILLED AND KNOWLEDGEABLE IN THE FIELD OF WORK AND HAVE A MINIMUM OF FIVE (5) YEAR'S EXPERIENCE INSTALLING SIMILAR WORK. CONTRACTOR TO BE LICENSED TO PERFORM THE WORK SPECIFIED WITHIN THE PRESIDING JURISDICTION

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

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

REPAIR OF EXISTING PLANTINGS DURING THE COURSE OF WORK, REPAIR ALL EXISTING PLANTING AREAS BY PRUNING DEAD GROWTH, RE-ESTABLISHING FINISH GRADE AND RE-MULCHING TO SPECIFIED DEPTH.

DURING THE COURSE OF WORK, REPAIR ANY DAMAGE TO THE IRRIGATION SYSTEM TO MATCH CONDITIONS PRIOR TO THE DAMAGE.

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

CONTRACTOR TO PROVIDE OWNER WITH A SCOPE OF WORK AT TIME OF INITIAL PROJECT BID TO PROVIDE LANDSCAPE AND IRRIGATION MAINTENANCE FOR 30 DAYS FOLLOWING OCCUPANCY. WORK TO INCLUDE MAINTENANCE AS DESCRIBED BELOW, IN PLANTING AND IRRIGATION MAINTENANCE.

B) TOPSOIL ANALYSIS AND RECOMMENDED AMENDMENTS.

SUBMIT THE FOLLOWING TO THE LANDSCAPE ARCHITECT FOR REVIEW AND APPROVAL PRIOR TO THE START OF ANY WORK: A) DOCUMENTATION THAT ALL PLANT MATERIAL HAS BEEN ORDERED.

C) TREE STAKING AND GUYING MATERIALS. D) ONE (1) QUART SIZE OF TOPSOIL AND MULCH.

E) PLANTING SCHEDULE INCLUDING DATES AND TIMES. F) MAINTENANCE INSTRUCTIONS FOR ONE (1) FULL YEAR.

PLANT MATERIALS TO BE GRADE NO. 1. SIZED IN ACCORDANCE WITH (AAN) AMERICAN STANDARDS FOR NURSERY STOCK (ANSI 7-60-2014). PRUNE PLANTS RECEIVED FROM THE NURSERY ONLY UPON AUTHORIZATION BY THE LANDSCAPE ARCHITECT. "B & B" INDICATES. BALLED AND BURLAPPED: "CONT." INDICATES CONTAINER: "BR" INDICATES BARE ROOT: "CAL

INDICATES CALIPER AT 6" ABOVE SOIL LINE: "GAL" INDICATES GALLON. A) SPECIFIED PLANT CANOPY SIZE OR CALIPER IS THE MINIMUM ACCEPTABLE CONTAINER OR BALL SIZE AND ESTABLISHES MINIMUM PLANT CONDITION TO BE PROVIDED

PLANT MATERIAL TO COMPLY WITH STATE AND FEDERAL LAWS FOR DISEASE INSPECTION, PLANTS TO BE FULLY LIVE, VIGOROUS, WELL FORMED, WITH WELI DEVELOPED FIBROUS ROOT SYSTEMS ROOT BALLS OF PLANTS TO BE SOLID AND FIRMLY HELD TOGETHER. SECURELY CONTAINED AND PROTECTED FROM INJUF AND DESICCATION. PLANTS DETERMINED BY LANDSCAPE ARCHITECT TO HAVE BEEN DAMAGED; HAVE DEFORMITIES OF STEM, BRANCHES, OR ROOTS; LACK SYMMETRY, HAVE MULTIPLE LEADERS OR "Y" CROTCHES LESS THAN 30 DEGREES IN TREES, OR DO NOT MEET SIZE OR ANSI STANDARDS WILL BE REJECTED. PLANT MATERIAL TO BE FROM A SINGLE NURSERY SOURCE FOR EACH SPECIFIED SPECIES/HYBRID. NURSERY

SOURCES TO BE THOSE LOCATED IN THE SAME REGION AS THE JOB SITE.

, NO SUBSTITUTION OF PLANT MATERIAL, SPECIES OR VARIETY, WILL BE PERMITTED UNLESS WRITTEN EVIDENCE IS SUBMITTED TO THE OWNER FROM TWO QUALIFIED PLANT BROKERAGE OFFICES. SUBSTITUTIONS WHICH ARE PERMITTED TO BE IN WRITING FROM THE OWNER AND LANDSCAPE ARCHITECT. THE SPECIFIED SIZE, SPECIES AND

NEAREST VARIETY, AS APPROVED, TO BE FURNISHED. SUBSTITUTIONS MAY REQUIRE SUBMITTAL TO REVISED LANDSCAPE PLAN TO CITY FOR APPROVAL. D) LABEL AT LEAST ONE (1) TREE, SHRUB, AND GROUNDCOVER OF EACH VARIETY WITH A SECURELY ATTACHED WATERPROOF TAG BEARING LEGIBLE DESIGNATION OF BOTANICAL

AND COMMON NAMES. E) DELIVER PLANT MATERIAL AFTER PREPARATION OF PLANTING AREAS HAVE BEEN COMPLETED AND PLANT IMMEDIATELY. IF PLANTING IS DELAYED MORE THAN SIX (6) HOURS AFTER DELIVERY, SET MATERIAL IN SHADE, PROTECT FOR WEATHER AND MECHANICAL DAMAGE, AND KEEP ROOT BALLS MOIST BY COVERING WITH MULCH, BURLAP OR OTHER ACCEPTABLE MEANS OF RETAINING MOISTURE

TOPSOIL, AMENDMENT, AND BACKFILL, ARE GENERAL REQUIREMENTS FOR ALL LANDSCAPE AREAS, UNLESS NOTED OTHERWISE ON THE PLANS. FOR SOIL PREPARATION AND INSTALLATION REQUIREMENTS, SEE CITY OF PUYALLUP VEGETATION MANAGEMENT STANDARDS SECTION 8.2, SOIL QUANTITY AND QUALITY STANDARDS. SOIL LABORATORY TESTED BY THE CONTRACTOR. PROVIDE CHANGE ORDER FOR ADDITIONAL OR REDUCTION OF MATERIALS REQUIRED OR NOT REQUIRED BY THE SOILS

SOIL FERTILITY AND AGRICULTURAL SUITABILITY ANALYSIS: AFTER ROUGH GRADING AND PRIOR TO SOIL PREPARATION, CONTRACTOR TO OBTAIN TWO REPRESENTATIVE SOIL SAMPLES, FROM LOCATIONS AS DIRECTED BY THE I ANDSCAPE ARCHITECT. TO AN ACCREDITED SOIL TESTING LABORATORY FOR TESTING. SUBMIT RESULTS TO LANDSCAPE ARCHITECT FOR REVIEW. TESTS TO INCLUDE FERTILITY AND SUITABILITY ANALYSIS WITH WRITTEN RECOMMENDATIONS FOR SOIL AMENDMENT, FERTILIZER, CONDITIONERS, APPLICATION RATES, AND POST-CONSTRUCTION MAINTENANCE PROGRAM. TESTS TO BE CONTRACTED WITH AND PAID FOR BY THE CONTRACTOR.

ORGANIC MULCH (TOPDRESSING): NT STANDARDS SECTION 8.3, MULCHING, ALL PLANTING AREAS SHALL BE MULCHED WITH A UNIFORM FOUR INCH (4") LAYER OF ORGANIC COMPOST MULCH MATERIAL OR WOOD CHIPS OVER A PROPERLY CLEANED, AMENDED AND GRADED SUBSURFACE. FOUR INCHES (4") OF MULCH IN PLANTING AREAS SHALL BE MAINTAINED THROUGH THE LIFE OF THE PROJECT.

2-INCH DIAMETER BY 8-FOOT MINIMUM LODGEPOLE PINE STAKES.

1-INCH WIDE POLYETHYLENE CHAIN LOCK TYPE TIES; OR, 3/8" DIAMETER RUBBER. NO WIRE.

VERIFY THAT ALL SOIL CONTAMINANTS (E.G., PAINT, SEALANTS, SOLVENTS, OILS, GREASES, CONCRETE/ASPHALT SPOILS, ETC.) HAVE BEEN SATISFACTORY REMOVED FROM ALL PLANTING AREAS. DO NOT BEGIN WORK UNTIL UNSATISFACTORY CONDITIONS HAVE BEEN CORRECTED.

FINE GRADE AND REMOVE ROCKS, DEBRIS, AND FOREIGN OBJECTS OVER 2 INCHES DIAMETER FROM TOP SURFACE OF PREPARED LANDSCAPE AREAS. FINISH ELEVATIONS TO BE DEFINED AS 3 INCHES BELOW CURBS, WALKS AND/OR OTHER ADJACENT HARDSCAPE FOR ALL PLANTING BED AREAS AND 1-INCH BELOW CURBS, WALKS AND/OR OTHER ADJACENT HARDSCAPE FOR ALL LAWN AREAS. FINISH GRADE REFER TO GRADES PRIOR TO INSTALLATION OF MULCH OR LAWN. ALL FINISH GRADES TO BE SMOOTH EVEN GRADES, LIGHTLY COMPACTED, AS SHOWN ON THE PLAN AND DETAILED. PROVIDE POSITIVE DRAINAGE AWAY FROM BUILDINGS AND STRUCTURES. SITE CIVIL DRAWINGS IDENTIFY FINAL ELEVATIONS. MOISTEN PREPARED AREAS BEFORE PLANTING IF SOIL IS DRY. WATER THOROUGHLY AND ALLOW SURFACE TO DRY BEFORE PLANTING. DO NOT CREATE MUDDY SOIL

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

EXCAVATE PITS TO A MINIMUM OF 3 INCHES BELOW, AND TWICE THE ROOT BALL DIAMETER. WATER THOROUGHLY AND TAKE CARE TO ENSURE THAT ROOT CROWN IS AT

PROPER GRADE, AS DETAILED.

FIELD ADJUST PLANT LOCATIONS FOR 5-FOOT SEPARATION OF TREES/SHRUBS AND 2-FOOT SEPARATION FOR GROUNDCOVER FROM FIRE HYDRANTS AND UTILITY VAULTS.

DURING LANDSCAPE WORK, KEEP ALL PAVEMENT CLEAN AND WORK AREAS IN AN ORDERLY CONDITION. PROTECT LANDSCAPE WORK AND MATERIALS FROM DAMAGE DUE TO LANDSCAPE OPERATIONS AND TRESPASSERS. MAINTAIN PROTECTION DURING INSTALLATION AND MAINTENANCE PERIOD. TREAT, REPAIR, OR REPLACE DAMAGE

PROVIDE FULL MAINTENANCE BY SKILLED EMPLOYEES OF LANDSCAPE INSTALLERS. CONTRACTOR TO MAINTAIN PLANTINGS THROUGH COMPLETED INSTALLATION, AND UNTIL ACCEPTANCE OF LANDSCAPE INSTALLATION. PLANTING MAINTENANCE TO INCLUDE WATERING, WEEDING, CULTIVATING, TIGHTENING AND REPAIRING OF TREE GUYS, RESETTING PLANTS TO PROPER GRADES OR POSITION, RE-ESTABLISHING SETTLED GRADES; AND MOWING LAWNS WEEKLY AFTER LAWN ESTABLISHMENT. HERBICIDE IS NOT RECOMMENDED FOR ONE YEAR FOLLOWING LANDSCAPE INSTALLATION. INCLUDED IS REPLACEMENT OF DEAD PLANTS AND PLANTS SHOWING LOSS OF

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

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

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 MANAGER, DESIGNEE, 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 verification required. Failure to install top soil and root barriers in accordance with city standards may result in

APPROVED

CITY OF PUYALLUI

WATER PURVEYOR

NOTE: THIS APPROVAL IS VOID AFTER 180 DAYS FROM APPROVAL THE CITY WILL NOT BE RESPONSIBLE FOR ERRORS AND/OR OMISSIONS ON THESE

PURVEYOR.

FIELD CONDITIONS MAY DICTATE CHANGES TO THESE PLANS AS DETERMINED BY THE WATER

BP WEST COAST PRODUCTS, LLC

Consulting Engineers, Inc.

18215 72nd Avenue South

NO. DATE REVISION DESCRIPTION

F WASH

DEVELOPMENT INFORMATION:

ARCO NTI

3400 am/pm

FUEL CANOPY w/ 6 MPD's

SWC S MERIDIAN

@ HIGHWAY 512

PUYALLUP, WASHINGTON

FACILITY #TBD

LANDSCAPE

NOTES/SCHEDULE

Kent, WA 98032

barghausen.com

425.251.6222

UTILITY CONFLICT NOTE:

0 NON-NATIVE 742 NATIVE

THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING THE LOCATION, DIMENSION, AND DEPTH OF ALL EXISTING UTILITIES WHETHER SHOWN ON THESE PLANS OR NOT BY POTHOLING THE UTILITIES AND SURVEYING THE HORIZONTAL AND VERTICAL LOCATION PRIOR TO CONSTRUCTION. THIS SHALL INCLUDE CALLING UTILITY LOCATE AT 811 48 HOURS IN ADVANCE AND THEN POTHOLING ALL OF THE EXISTING UTILITIES AT LOCATIONS OF NEW UTILITY CROSSINGS TO PHYSICALLY VERIFY WHETHER OR NOT CONFLICTS EXIST. LOCATIONS OF SAID UTILITIES AS SHOWN ON THESE PLANS ARE BASED UPON THE UNVERIFIED PUBLIC INFORMATION AND ARE SUBJECT TO VARIATION. IF CONFLICTS SHOULD OCCUR. THE CONTRACTOR SHALL NOTIFY BARGHAUSEN CONSULTING ENGINEERS, INC. TO RESOLVE ALL PROBLEMS PRIOR TO PROCEEDING WITH CONSTRUCTION.

ARCTOSTAPHYLOS UVA-URSI / KINNIKINNICK

WA. ST. D.O.T. EROSION CONTROL MIX OAE, 80-120 LBS. PER ACRE

2,156 SF EROSION-CONTROL HYDROSEED

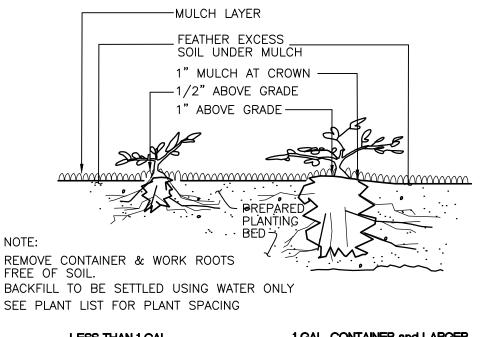


EVERGREEN

36" o.c.

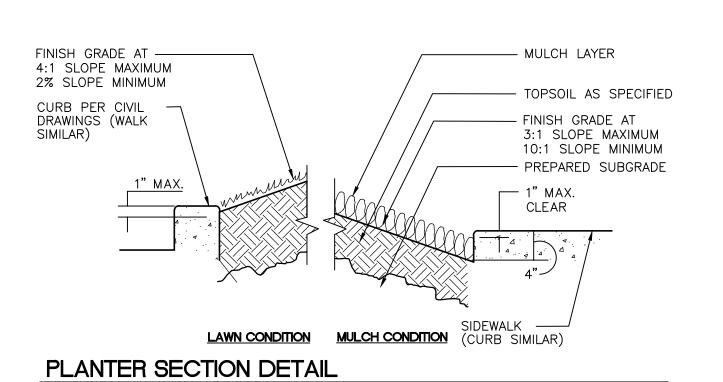
DECIDUOUS TREE PLANTING/STAKING DETAIL

NOT TO SCALE



1 GAL. CONTAINER and LARGER (PLANTED BEFORE MULCH)

GROUNDCOVER PLANTING DETAIL



UTILITY CONFLICT NOTE:

PROCEEDING WITH CONSTRUCTION.

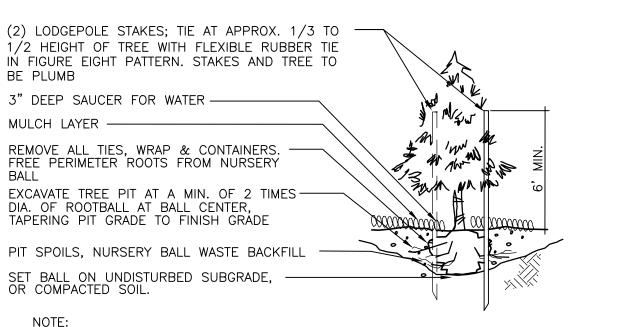
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LANDSCAPE DETAILS

ARCO ampm PUYALLUP

SEC. 33, TWN. 20 N, RGE. 4 E, W.M. SHRUB - PRUNE AS DIRECTED CITY OF PUYALLUP, PIERCE COUNTY BY LANDSCAPE ARCHITECT



LIGHT FERTILIZER OVER PLANTING BED AFTER BACKFILL ONLY; NO FERTILIZER IN PLANTING PIT. WORK PERIMETER ROOTS FREE OF NURSERY BALL. BALL & PIT TO BE COURSELY SCARIFIED.

PLANT MATERIAL SPACING DETAIL

EVERGREEN TREE PLANTING/STAKING DETAIL

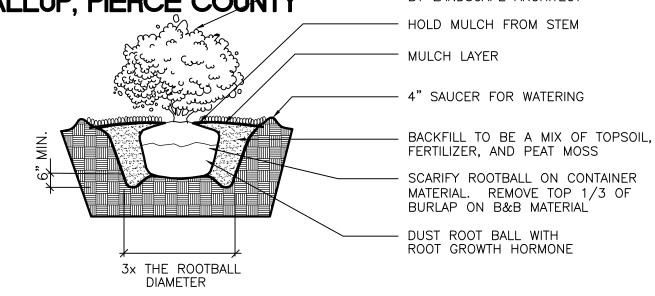
HOLD PLANTS FROM —

AS NOTED ON PLANT LIST

EDGE OF PLANTER

BED LINE EDGE -

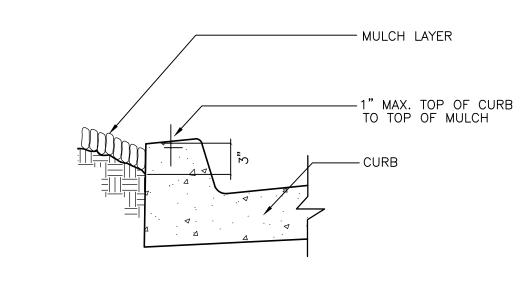
CURB/WALK



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

PLANT SHRUB HIGH ENOUGH TO ALLOW POSITIVE DRAINAGE AWAY FROM ROOTBALL. ROUGHEN ALL SURFACES OF PIT. CUT AND REMOVE BURLAP FROM ROOT BALL

SHRUB PLANTING DETAIL



MULCH AT CURB DETAIL

NOTES:

1. PLANTING INCLUDES REMOVAL OF STAKES ONE YEAR AFTER INSTALLATION.

2. SHAPE SOIL SURFACE TO PROVIDE 4' DIA WATERING RING.

3. TREE CLEARANCE SHALL BE PER STD SECTION 0.1.0.1.1 01.01.11.
ADJUST TREE TIES DURING ESTABLISHMENT TO ALLOW ROOM FOR GROWTH (@1" SLACK).
ROOT BARRIER REQUIRED ALONG EDGE OF ROADWAY, CURB, DRIVEWAY, TRAIL, SIDEWALK, OR OTHER STRUCTURES WHERE ROOTBALL IS WITHIN FIVE FEET; PLACE VERTICAL ROOTBARRIER AS SHOWN IN STANDARD PLAN 01.02.03. INSTALL ROOT BARRIERS FOR NEWLY PLANTED TREES ONLY. FOR CONTAINER GROWN TREES, CORRECT AL CIRCLING/MATTED ROOTS BY LOOSENING ROOTS AND SPREADING THEM FLAT AND/OR MAKING CLEAN CUTS TO CIRCLED ROOT(S) PRIOR TO PLANTING TO ALLOW HORIZONTAL ROOT GROWTH. CONTAINERIZED TREES WITH HEAVY ROOT MATTING OR LARGE CIRCLING ROOTS SHALL BE REJECTED. ALL BARE ROOT TREES SHALL BE PLANTED WITH ROOTS FLAT AND HORIZONTAL IN THE PLANTING PIT (E.G. NOT CIRCLING THE PLANTING PIT WHEN PLANTED). LLC. NOT CIRCLING THE PLANTING PIT WHEN PLANTED).

ALL DECIDIOUS STREET TREES SHALL BE INSTALLED WITH A 20 GALLON TEMPORARY IRRIGATION BAG (TREEGATOR PRO', OR EQUAL EQUIVALENT). FOR ALL EVERGREEN CONIFER TREES, A 15 GALLON TEMPORARY RING IRRIGATION BAG ("TREEGATOR JUNIOR PRO', OR EQUAL EQUIVALENT) SHALL BE USED.

ALL TEMPORARY IRRICATION BAGS SHALL BE FILLED AT LEAST ONCE A WEEK FOR THE FIRST 2—3 YEARS AFTER PLANTING. 1"-2" ABOVE ADJACENT CURB AND SIDEWALK GRADE. -3" TO 4" HIGH WATERING TREE PIT DEPTH = ROOTBALL
DEPTH (MEASURE BEFORE
DIGGING TO AVOID
OVEREXCAVATION).

SPACING AS CALLED OUT ON PLAN/PLANT LIST

AS NOTED ON PLANT LIST

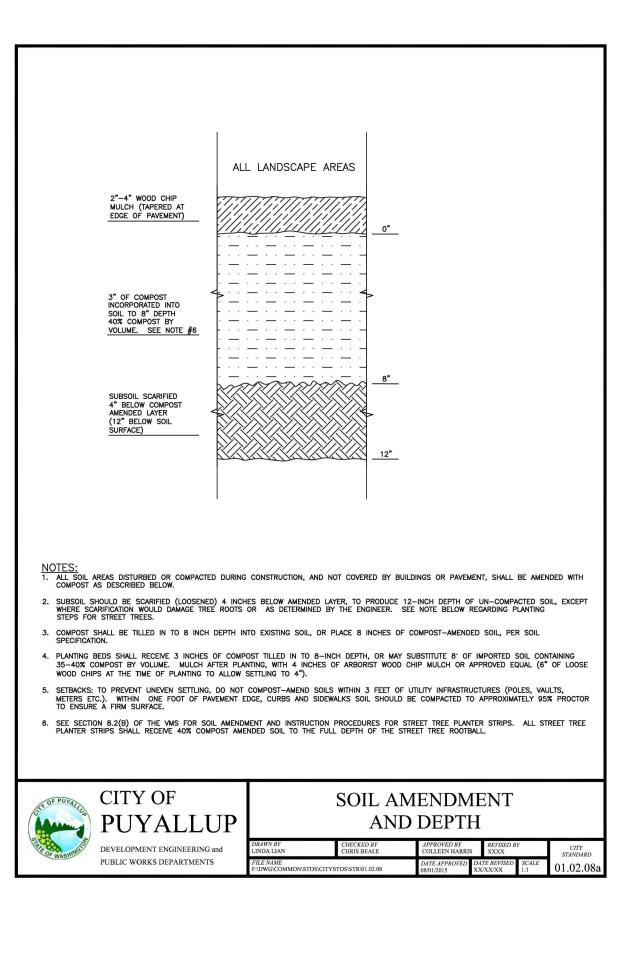
-HOLD PLANTS FROM EDGE OF PLANTER

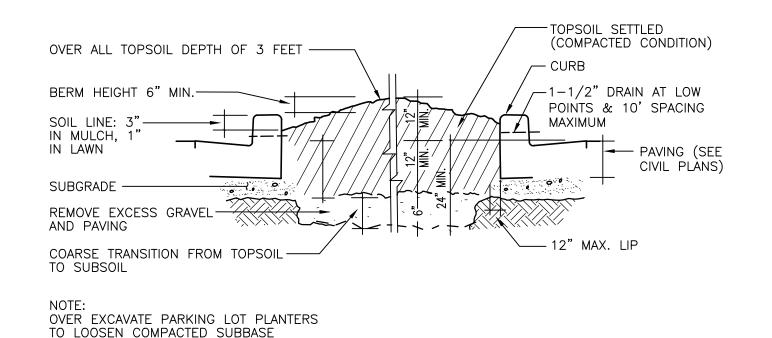
THIS SPACING APPLIES TO

GROUNDCOVER AND FORMAL

SHRUB ROW PLACEMENT.

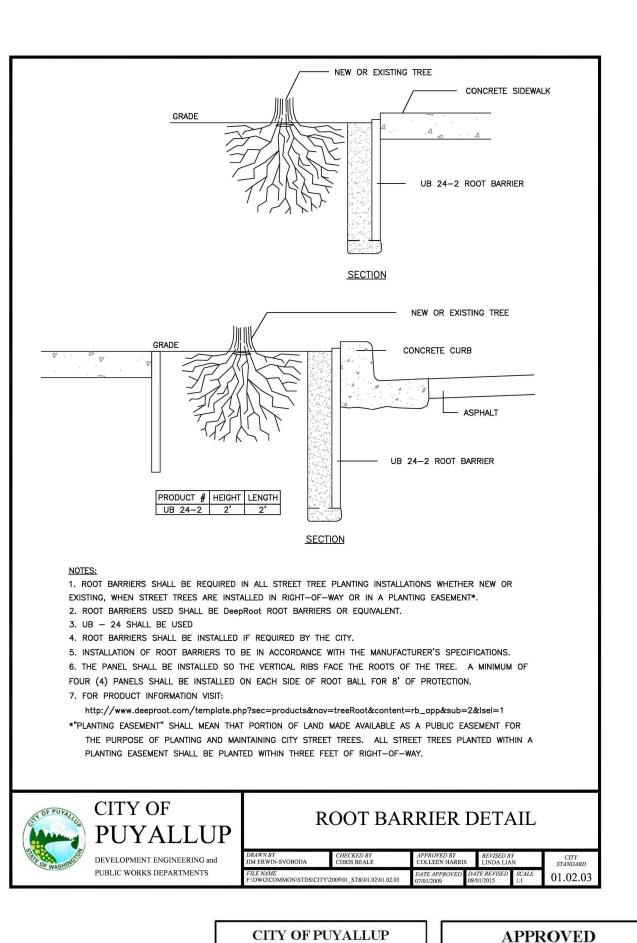
4" MULCH DEPTH
(TAPERED AT TRUNK)
MULCH RING SHALL NOT EXCEED
HEIGHT OF ADJACENT CURB OR
SIDEWALK (TAPERED AT EDGE OF
CURB AND SIDEWALK). MULCH TREE PIT MIN 5'-0" LENGTH X FULL PLANTING STRIP WIDTH BETWEEN CURB ROOTBARRIER; PLACE AT EDGE OF PAVEMENT/SIDEWALK/ETG.; PLACE PRIOR TO PLACEMENT OF NEW SIDEWALK OR CURB TO PREVENT UNDERMINING. SEE DETAIL 01.02.03. STREET TREE PLANTING IN PLANTING STRIP PUBLIC WORKS DEPARTMENTS





PARKING LOT PLANTER GRADING DETAIL

DEDUCT ALT #1: IF LANDSCAPE CONTRACTOR CAN DEMONSTRATE THAT PLANTER ISLANDS ARE NOT FULL OF NON-SOIL MATERIALS (CONCRETE WASTE, LUMBER, ROAD BASE, GRAVEL), FULL EXCAVATION AND REPLACE WITH 18"-21" OF TOPSOIL CAN BE ELIMINATED AND IN ITS PLACE, 6" OF COMPOST CAN BE PLACED ON SUB-GRADE AND CULTIVATED INTO TOP 12" OF EXISTING SOIL. TOP OF FINISH GRADE AND DEPTH OF MULCH STILL APPLIES



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

MANAGER, DESIGNEE, OR PROJECT

NOTE: If street trees are required, Call Planning Division for final inspection: (253) 864-4165 (Option:

verification required. Failure to install top soil and root

barriers in accordance with city standards may result in rejection of installation.

Root Barriers are required around street trees in accordance with city standard detail. Top soil shall be

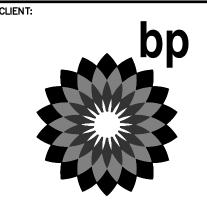
PLANNER.

NOTE: THIS APPROVAL IS VOID AFTER 180 DAYS FROM APPROVAL THE CITY WILL NOT BE RESPONSIBLE FOR ERRORS AND/OR OMISSIONS ON THESE

FIELD CONDITIONS MAY DICTATE CHANGES TO THESE PLANS AS DETERMINED BY THE WATER

CITY OF PUYALLUP

WATER PURVEYOR







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

SITE ADDRESS:

FUEL CANOPY w/ 6 MPD's

SWC S MERIDIAN @ HIGHWAY 512 PUYALLUP, WASHINGTON

FACILITY #TBD

CHECKED BY: LIANCE PM: 21730

LANDSCAPE

DETAILS



IRRIGATION PLAN

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

PROPERTY LINE

04°21'06"E 9.89'

N89°26'14"W

PROPERTY LINE

IRRIGATION LEGEND

DESCRIPTION

DRIP IRRIGATION:

HUNTER LANDSCAPE DRIPLINE COMPONENTS

HDL-06-12-250-CV SUB-SURFACE DRIPLINE TUBING 0.6 GPH PRESSURE COMPENSATING EMITTERS WITH CHECK VALVE AT 12" ON-CENTER SPACING - ALL TUBING SHALL BE INSTALLED ON GRADE W/ 9" WIRE STAKES FOUR (4) FEET ON-CENTER; VERIFY THE LAYOUT AND 18" ON-CENTER SPACING IN THE FIELD PRIOR TO STARTING WORK. INSTALL ALL COMPONENTS PER MANUF. SPECIFICATIONS.

USE HUNTER PLD-LOC FITTINGS FOR CONNECTION BETWEEN PVC LATERAL LINES AND INLINE DRIP TUBING

DRIP IRRIGATION: ICZ-101/151-XL REMOTE CONTROL DRIP ZONE KIT WITH FILTER AND PRESSURE REGULATOR MAXIMUM 2 VALVES PER BOX

HUNTER SOLAR SYNC WIRE RAIN SENSOR COMBO

C HUNTER PRO-C CONTROLLER 3 TO 15 STATIONS, (HARDWIRE CONNECTION); PROVIDE GROUND AND BATTERIES PER MANUFACTURER'S SPECIFICATIONS

WILKINS 950 XLT— 1-1/4" DOUBLE CHECK VALVE (STATE APPROVED); TEST AND CERTIFICATION BY LICENSED BACKFLOW TESTER
WILKINS 850 — BALL VALVE, SIZE TO MATCH PIPE

CARSON INDUSTRIES #1730 (TWO AT P.O.C.) GRADE LEVEL VAULT WITH BOLT LOCK LID

► PLASTIC BALL VALVE, MATCH LINE SIZE, IN VALVE BOX

HUNTER HQ-33DLRC 3/4" QUICK COUPLING VALVE, IN VALVE BOX, PROVIDE TWO KEYS AND SWIVELS

- - - - MAINLINE - SCH 40 PVC (18" COVER); SIZE PER PLAN, 1-1/2" SIZE MINIMUM

-- LATERAL - SCH 40 PVC (12" COVER); SIZE PER PLAN, 3/4" SIZE MINIMUM

========== SLEEVE - SCH 40 PVC; 24" MINIMUM COVER AT VEHICLE CROSSINGS AND 18" MINIMUM COVER IN LANDSCAPE AREAS, 6" SIZE WHERE IRRIGATION MAINLINE TRAVELS THROUGH PIPE.
4" SIZE WHERE ONLY LATERALS TRAVEL THROUGH PIPE

IRRIGATION SHOWN DIAGRAMATICALLY FOR PLAN CLARITY. COMMON TRENCH AND PLACE EQUIPMENT IN LANDSCAPE; MANIFOLD GROUPED VALVES IN ADJACENT SHRUB AREAS WHERE FEASIBLE.

SCH 40 PIPE SIZING CHART

PIPE SIZE	3/4"	1"	1 1/4"	1 1/2"	2"	2 1/2"		
FLOW	•		,	,		,		
GPM	1-8	8.1–13	13.1-23	23.1-32	32.1-53	53.1-74	GPM ((MAX.)

LANDSCAPE IRRIGATION NOTES

- 1. GENERAL CONTRACTOR AND LANDSCAPE CONTRACTOR TO COORDINATE:
- A) INSTALLATION OF 110V ELECTRICAL SERVICE FROM ELECTRICAL SOURCE TO AUTOMATIC CONTROLLER, INCLUDING WIRE HOOK—UP INTO MOUNTED CONTROLLER. IRRIGATION CONTRACTOR WILL MOUNT CONTROLLER PER DESIGN AND COORDINATE WITH GENERAL CONTRACTOR.
- B) INSTALLATION OF IRRIGATION/SERVICE METER AND STUB TO IRRIGATION POINT OF CONNECTION, PER UTILITY PLAN(S).

 PROVIDE STANDARD THREADED STUB—OUT WITH THREADED CAP ON DISCHARGE SIDE OF METER. STUB—OUT TO BE INSTALLED APPROXIMATELY 18 INCHES BELOW
- VERIFICATION OF STATIC WATER PRESSURE AT POINT-OF-CONNECTION (P.O.C.)
 CONTRACTOR SHALL NOTIFY OWNER AND BARGHAUSEN CONSULTING ENGINEERS,
 INC., OF ANY VARIATION IN STATIC PRESSURE OVER 5 PSI GREATER/LESS THAN
 DESIGN PRESSURE.
- D) INSTALLATION OF SLEEVING.
- 2. PROVIDE ALL LABOR, MATERIALS, TRANSPORTATION, AND SERVICES NECESSARY TO FURNISH AND INSTALL A COMPLETE IRRIGATION SYSTEM AS INDICATED ON THE DRAWINGS AND/OR NOTES. PROVIDE A ONE (1) YEAR WARRANTY/GUARANTEE FROM FINAL ACCEPTANCE AGAINST ALL DEFECTS IN MATERIALS, EQUIPMENT, AND WORKMANSHIP.
- . COORDINATE IRRIGATION INSTALLATION WITH GENERAL CONTRACTOR, ELECTRICAL CONTRACTOR, LANDSCAPE CONTRACTOR, OWNER, ARCHITECT, AND LANDSCAPE ARCHITECT.
- 4. LANDSCAPE CONTRACTOR TO TEST AVAILABLE WATER PRESSURE PRIOR TO BEGINNING ANY WORK. PROVIDE LANDSCAPE ARCHITECT WITH WRITTEN PSI RESULTS.
- 5. ALL WORK PER LOCAL CODE. INSTALLATION PER MANUFACTURER'S WRITTEN SPECIFICATIONS.6. CONTRACTOR TO OBTAIN AND PAY FOR ALL PERMITS, FEES, AND REQUIRED CITY INSPECTIONS.
- 7. SUBMITTALS:
 - A) SUBMIT EACH ITEM LISTED BELOW FOR LANDSCAPE ARCHITECT'S REVIEW AND APPROVAL,
 - B) PRODUCT DATA: FOR EACH TYPE OF PRODUCT INDICATED,
 - C) CONTROL WIRING PATH DIAGRAM,D) "AS-BUILT" DRAWINGS.
 - E) OPERATION AND MAINTENANCE MANUALS.
 - PROVIDE AND KEEP UP TO DATE A COMPLETE "AS-BUILT" RECORD SET OF PRINTS WHICH ARE TO BE CORRECTED DAILY AND SHOW EVERY CHANGE FROM THE ORIGINAL DRAWINGS AND NOTES AND EXACT "AS-BUILT" LOCATIONS, SIZES AND KIND OF EQUIPMENT. THIS SET OF DRAWINGS. ARE TO BE KEPT ON SITE AND ARE TO BE USED ONLY AS THE RECORD SET. ALL WORK IS TO BE NEAT AND LEGIBLE ANNOTATIONS THEREON DAILY AS THE WORK PROCEEDS, SHOWING WORK AS ACTUALLY INSTALLED.

DIMENSION FORM TWO (2) PERMANENT POINTS OF REFERENCE, BUILDING CORNERS, WALKS, OR ROAD INTERSECTIONS, ETC., THE LOCATION OF THE FOLLOWING:

- A) CONNECTION TO WATER LINES (P.O.C.),
- B) CONNECTIONS TO ELECTRICAL POWER,
- C) GATE VALVE, QUICK COUPLERS, AND REMOTE CONTROL VALVE,
-) ROUTING OF MAINLINE (DIMENSION MAXIMUM 100' ALONG ROUTING),
- E) ROUTING OF CONTROL WIRING,
- F) OTHER RELATED EQUIPMENT AS DIRECTED BY THE LANDSCAPE ARCHITECT.

- 9. PREPARE AND PROVIDE PRIOR TO COMPLETION OF CONSTRUCTION, A THREE RING BINDER CONTAINING THE FOLLOWING INFORMATION:
- A) INDEX SHEET STATING CONTRACTOR'S ADDRESS, TELEPHONE NUMBER, FAX, E—MAIL AND A, LIST OF EQUIPMENT WITH NAME AND ADDRESS OF LOCAL MANUFACTURER'S REPRESENTATIVES,
- B) CATALOG AND PARTS SHEETS ON EVERY MATERIAL AND EQUIPMENT INSTALLED UNDER THIS, CONTRACT,
- C) GUARANTEE STATEMENT,
- D) COMPLETE OPERATING AND MAINTENANCE INSTRUCTIONS ON ALL MAJOR EQUIPMENT.
- E) CONSTRUCTION DETAILS FROM THE PROJECT,
- F) COMPLETE TROUBLE-SHOOTING GUIDE TO COMMON IRRIGATION PROBLEMS,
- G) WINTERIZATION AND SPRING START-UP PROCEDURES,
- H) CHART OF APPROXIMATE WATERING TIMES FOR SPRING, SUMMER, AND FALL,
- I) A COPY OF THE "AS-BUILT" DRAWINGS AND CONTROLLER CHART.
- 10. ALL VALVES TO BE PLACED IN "CARSON" GRADE LEVEL BOXES WITH BOLT-LOCK LIDS (OR APPROVED EQUIVALENT). SET BOXES 2 INCHES HIGHER THAN FINISH GRADE IN MULCH AREAS AND FLUSH WITH FINISH GRADE IN LAWN AREAS. JUMBO BOX FOR CHECK VALVE, 10" ROUND BOX FOR GATE/QUICK COUPLER/WIRE SPLICES, AND 12" STANDARD FOR CONTROL VALVES. PROVIDE BOX EXTENSIONS AS REQUIRED.
- 11. MAINLINE PIPE TO BE BURIED 18 INCHES, LATERALS 12 INCHES, AND SLEEVES 24" INCHES BELOW FINISH GRADE. NO ROCK OR DEBRIS TO BE BACKFILLED OVER PIPE.
- 12. HEAD AND LINE POSITIONING IS DIAGRAMMATIC ON PLAN. ADJUST IN FIELD AS NECESSARY FOR 100 PERCENT COVERAGE. VALVES TO BE POSITIONED ADJACENT TO PAVEMENT/CURBS, IN SHRUB BEDS WHERE POSSIBLE.
- 13. FAMILIARIZE OWNERS FACILITY OPERATOR WITH IRRIGATION SYSTEM FUNCTION, CONTROLLER PROGRAMMING, SYSTEM OPERATION AND MAINTENANCE REQUIREMENTS.
- 14. SPRINKLERS ON RISERS WILL NOT BE ALLOWED UNLESS NOTED ON PLANS.
- 15. RADIUS REDUCTION TO BE MADE BY USE OF PRESSURE ADJUSTMENT, SCREENS, AND/OR ALTERNATE NOZZLES. IN-NOZZLE ADJUSTMENT IS LIMITED TO 10 PERCENT FOR SPRAY HEADS AND PER MANUFACTURER'S LIMITS FOR OTHER SPRINKLERS. SPRINKLER SPACING NOT EXCEED 60% OF THE DIAMETER OF THE PUBLISHED DATA.
- 16. ALL CONTROL WIRE SPLICES TO BE MADE AT VALVE BOXES WITH WATER TIGHT ELECTRICAL SPLICES, 3M, SCOTT'S LOCK SEAL TACK 3576-78, OR EQUIVALENT.
- 17. EACH VALVE BOX TO CONTAIN A MINIMUM OF TWO (2) SPARE ORANGE CONTROL WIRES FOR JACKETED WIRE. ROUTE SPARE WIRES FROM THE CONTROLLER TO THE LAST VALVE OF EACH MAINLINE BRANCH. COMMON WIRE TO BE WHITE. SINGLE STRAND WIRE TO BE A MINIMUM OF 14 GAUGE.
- 18. ALL ELECTRICAL EQUIPMENT TO BE U.L. TESTED AND APPROVED, AND BEAR THE U.L. LABEL.
- 19. CROSS CONNECTION PROTECTION INSPECTION REQUIRED. THE BACKFLOW DEVICE TO BE TESTED UPON THE ORIGINAL INSTALLATION. THE TESTING TO BE PERFORMED BY A PERSON HOLDING A CURRENT CERTIFICATE AS A BACKFLOW TESTER. THE TEST REPORT TO BE SUBMITTED TO THE LOCAL WATER DISTRICT, OR PURVEYOR, AND OWNER WITH A COPY TO BARGHAUSEN CONSULTING ENGINEERS, INC. CONTRACTOR TO INCLUDE TESTING IN THE SCOPE OF WORK. OWNER IS RESPONSIBLE FOR ANNUAL INSPECTIONS AFTER THE INTIAL INSPECTION.
- 20. CONTRACTOR TO PROVIDE SYSTEM WINTERIZATION/SPRING SERVICE WHEN INSTALLATION HAS BEEN COMPLETED WITHIN 90 DAYS OF NOVEMBER 1 FOR WINTERIZATION, OR MAY 15 FOR SPRING SERVICE. SERVICE TO BE PERFORMED AS NEAR AS PRACTICAL

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, DESIGNEE, OR PROJECT
PLANNER.

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 standards may result in
rejection of installation.

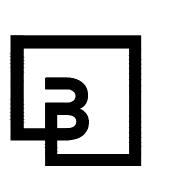
APPROVED

Y _____CITY OF PUYALLUP WATER PURVEYOR

AFTER 180 DAYS FROM APPROVAL DATE.
THE CITY WILL NOT BE
RESPONSIBLE FOR ERRORS
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PLANS.
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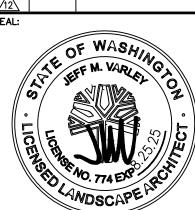
BP WEST COAST PRODUCTS, LLC



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
PUYALLUP, WASHINGTON

FACILITY #TBD

DESIGNED BY: ALLIANCE Z&DM:
CHECKED BY: BP REPM:
DRAWN BY: ALLIANCE PM:

VERSION: PROJECT NO:
21730

RAWNG TITLE:

IRRIGATION PLAN SHEET NO:

I **-**4

UTILITY CONFLICT NOTE:
THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING THE LOCATION, DIMENSION, AND DEPTH OF ALL

PROCEEDING WITH CONSTRUCTION.

H, 48" STRUCTURE

HANNEL SE=39.95'

CANNEL W=39.85'

CHANNELS=40.0

PROPERTY LINE -

RIM=46.25'

MOUNT CONTROLLER ON EXTERIOR -

Hz. OUTPUT: 26.5 VAC, 1.5 A.

FOR 24V ELECTRICAL WIRING

FROM THE CONTROLLER TO

TO MATCH BUILDING COLOR.

WALL. INPUT: 117VAC +/-10%, 60

INSTALL 1" DIAMETER PVC CONDUIT

LANDSCAPE AREA. PAINT CONDUIT

APN 7730000282

1412 S MERIDIAN

APN 7730000283

CALLING UTILITY LOCATE AT 811 48 HOURS IN ADVANCE AND THEN POTHOLING ALL OF THE EXISTING UTILITIES AT LOCATIONS OF NEW UTILITY CROSSINGS TO PHYSICALLY VERIFY WHETHER OR NOT CONFLICTS EXIST. LOCATIONS OF SAID UTILITIES AS SHOWN ON THESE PLANS ARE BASED UPON THE UNVERIFIED PUBLIC INFORMATION AND ARE SUBJECT TO VARIATION. IF CONFLICTS SHOULD OCCUR, THE CONTRACTOR SHALL NOTIFY BARGHAUSEN CONSULTING ENGINEERS. INC. TO RESOLVE ALL PROBLEMS PRIOR TO

EXISTING UTILITIES WHETHER SHOWN ON THESE PLANS OR NOT BY POTHOLING THE UTILITIES AND

SURVEYING THE HORIZONTAL AND VERTICAL LOCATION PRIOR TO CONSTRUCTION. THIS SHALL INCLUDE



APN 7730000288

Know what's **below. Call** before you dig.

Dial 811

N89°58'15"W 178.19'

ARCO

3.349 SF

IRRIGATION POINT OF -

CITY STANDARD DETAIL.

INSTALL NEW 1-1/4"

DOUBLECHECK BACKFLOW

CONNECTION WITH NEW 1"

WATER METER. INSTALL PER

DEVICE. SEE DETAIL THIS SET

- MOUNT RAIN SENSOR' ON

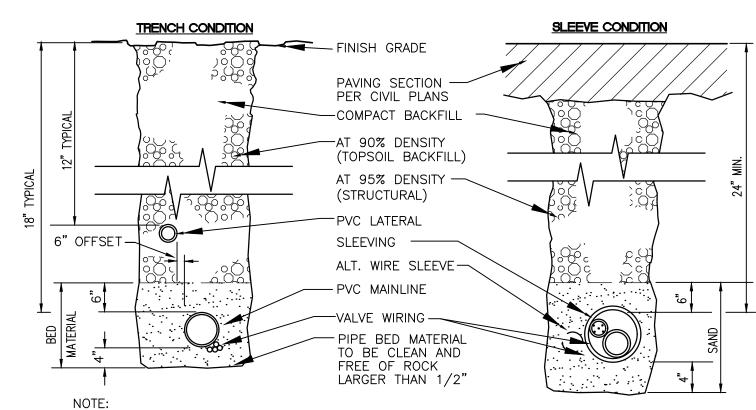
PORTION OF EXTERIOR

WEATHER EXPOSED

HEIGHT.

IRRIGATION DETAILS

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

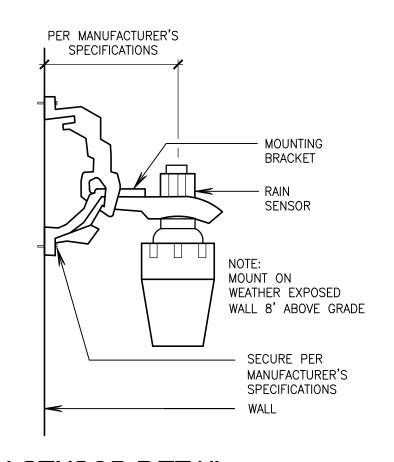


SLEEVING MATERIAL SHALL BE PVC CLASS 160(SDR-26). DIMENSIONS ARE MIN. CLEARANCES.

ALL IRRIGATION SLEEVING TRENCH BACKFILL MATERIAL SHALL BE CLASS "B" OR BETTER (MAX. OF 10% PASSING NO.40 SCREEN) AND BE COMPACTED TO MIN. 95% OPTIMUM DENSITY PER ASTM D-1557-70

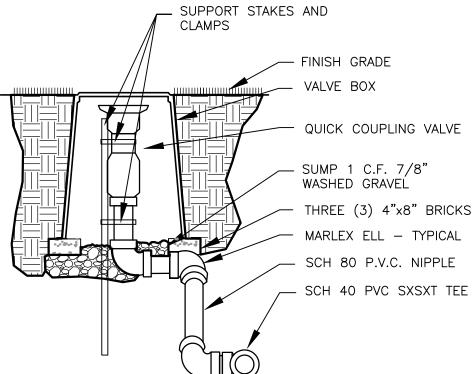
SLEEVE/TRENCHING DETAIL

NOT TO SCALE



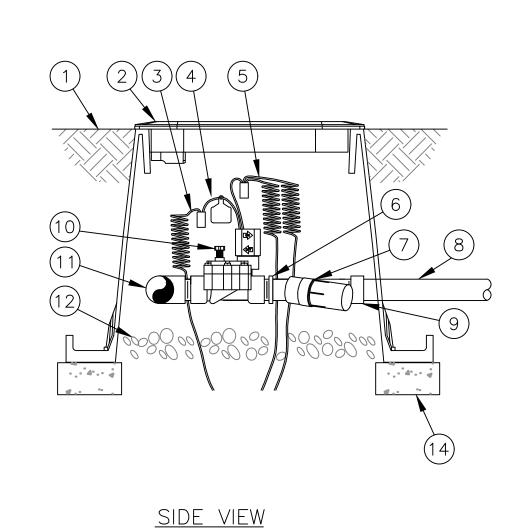
RAIN SENSOR DETAIL

NOT TO SCALE



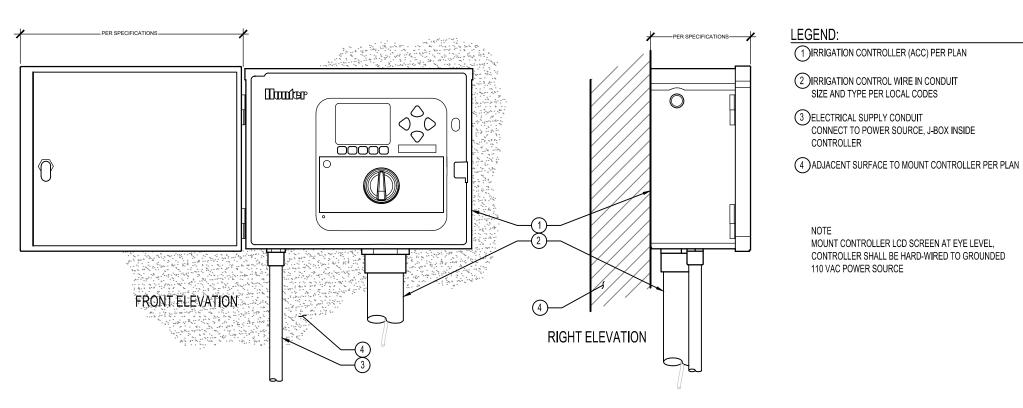
QUICK COUPLING VALVE DETAIL

NOT TO SCALE



DRIP IRRIGATION VALVE

NOT TO SCALE



IRRIGATION CONTROLLER, WALL MOUNT

NOT TO SCALE



2 STANDARD VALVE BOX WITH COVER: RAIN BIRD VB-STD

3 WATERPROOF CONNECTION:
RAIN BIRD DB SERIES
4 VALVE ID TAG

1) V/LEVE 10 1/10

5 30-INCH LINEAR LENGTH OF WIRE, COILED

(6) 1" X 34" REDUCING COUPLING
(INCLUDED IN XCZ-LF-100-PRF KIT)

7) PRESSURE REGULATING FILTER:

RAIN BIRD PRF-100-RBY (INCLUDED IN XCZ-LF-100-PRF KIT)

8 LATERAL PIPE

(9) PVC SCH 40 FEMALE ADAPTOR OR REDUCER

(10) REMOTE CONTROL VALVE:

RAIN BIRD LFV-100 (INCLUDED IN

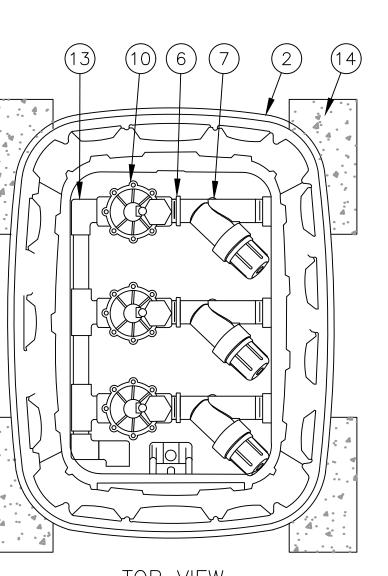
XCZ-LF-100-PRF KIT)

(11) PVC SCH 40 TEE OR ELL TO MANIFOLD

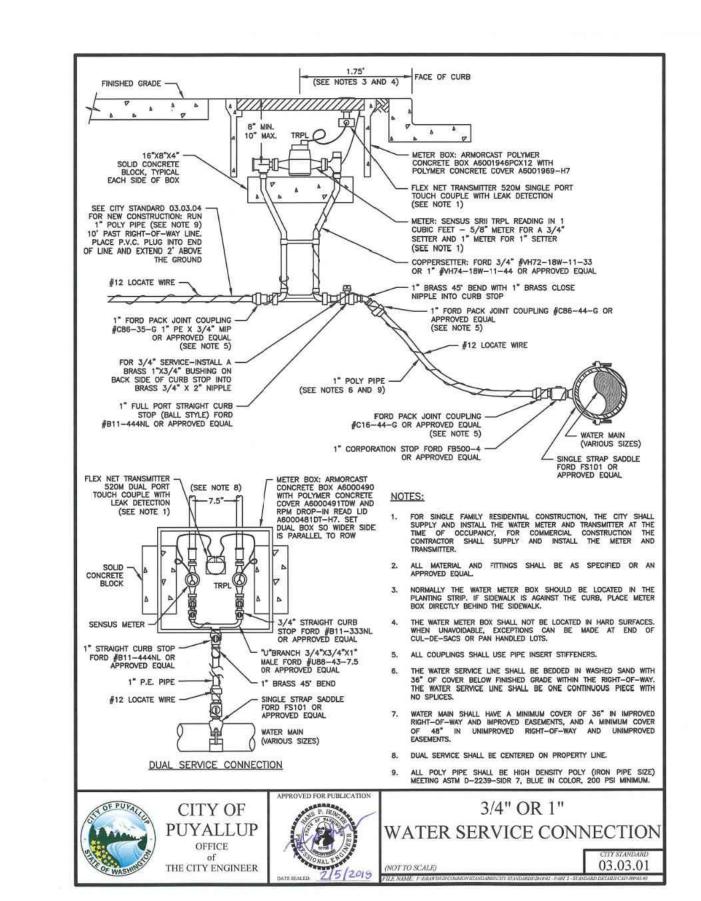
3-INCH MINIMUM DEPTH OF 3/4-INCH WASHED GRAVEL

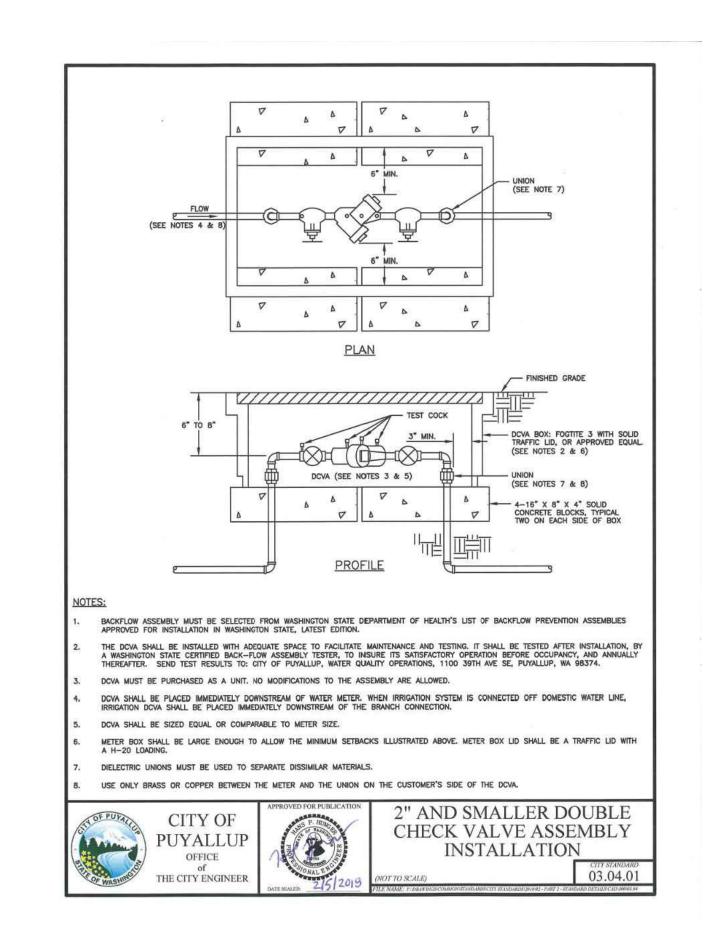
13) MANIFOLD PIPE AND FITTINGS

14) MINIMUM FOUR (4) 4"x8" BRICKS



TOP VIEW





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

(25. Staff: Date:

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, DESIGNEE, 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 standards may result in
rejection of installation.

APPROVED

Y _____ CITY OF PUYALLUP WATER PURVEYOR

NOTE: THIS APPROVAL IS VOID
AFTER 180 DAYS FROM APPROVAL
DATE.
THE CITY WILL NOT BE
RESPONSIBLE FOR ERRORS

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.

bp





Consulting Engineers, Inc.

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

NO.	DATE	REVISION DESCRIPTION
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SEAL:		FWASHIN



ARCO NTI
3400 am/pm

SITE ADDRESS:

SWC S MERIDIAN

FUEL CANOPY w/ 6 MPD's

@ HIGHWAY 512
PUYALLUP, WASHINGTON

FACILITY #TBD				
ESIGNED BY:	ALLIANCE Z&DM:			
HECKED BY:	BP REPM:			
RAWN BY:	ALLIANCE PM:			
ERSION:	PROJECT NO:			
_	21730			

IRRIGATION DETAILS

EET NO:

L-5



THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING THE LOCATION, DIMENSION, AND DEPTH OF ALL EXISTING UTILITIES WHETHER SHOWN ON THESE PLANS OR NOT BY POTHOLING THE UTILITIES AND SURVEYING THE HORIZONTAL AND VERTICAL LOCATION PRIOR TO CONSTRUCTION. THIS SHALL INCLUDE CALLING UTILITY LOCATE AT 811 48 HOURS IN ADVANCE AND THEN POTHOLING ALL OF THE EXISTING UTILITIES AT LOCATIONS OF NEW UTILITY CROSSINGS TO PHYSICALLY VERIFY WHETHER OR NOT CONFLICTS EXIST. LOCATIONS OF SAID UTILITIES AS SHOWN ON THESE PLANS ARE BASED UPON THE UNVERIFIED PUBLIC INFORMATION AND ARE SUBJECT TO VARIATION. IF CONFLICTS SHOULD OCCUR, THE CONTRACTOR SHALL NOTIFY BARGHAUSEN CONSULTING ENGINEERS, INC. TO RESOLVE ALL PROBLEMS PRIOR TO PROCEEDING WITH CONSTRUCTION.



IRRIGATION DETAILS

CITY OF PUYALLUP, PIERCE COUNTY

ARCO ampm PUYALLUP 12 3 4 5 SEC. 33, TWN. 20 N, RGE. 4 E, W.M.

(1) PVC EXHAUST HEADER (2) PVC SCH 40 TEE OR EL (TYPICAL) (3) BARB X MALE FITTING

(4) FLUSH POINT (TYPICAL)

(8) PVC SUPPLY MANIFOLD

(5) PERIMETER OF AREA (6) PERIMETER DRIPLINE PIPE TO BE INSTALLED 2"-4" FROM PERIMETER OF AREA (7) PVC SUPPLY PIPE FROM CONTROL ZONE KIT (SIZED TO

(9) CONNECTION FROM SUPPLY MANIFOLD TO DRIF (TYPICAL) - SEE INSET A

MEET LATERAL FLOW DEMAND)

(10) SUB-SURFACE DRIPLINE (11) BLANK TUBING

(12) BARB X BARB INSERT TEE OR CROSS: (13) 1/3" AIR RELIEF VALVE

(14) BARB X FEMALE FITTING:

(15) 3/4" PVC NIPPLE, LENGTH AS NECESSARY

\bigcirc .	•					
(16) DRIPLINE	INDICATOR.	SEE	DETAIL	FOR	ADDITIONAL	INFORMATION

Dripline Maximum Lateral Lengths (Feet)								
Inlet Pressure	Nomin	pacing al Flow ph)	Nomin	pacing al Flow ph)	Nomin	pacing al Flow ph)		
	0.6	0.9	0.6	0.9	0.6	0.9		
15	273	155	314	2 50	424	3 22		
20	3 18	169	353	294	508	368		
30	3 60	2 30	413	350	586	414		
40	395	255	465	402	652	474		
50	417	285	528	420	720	488		
60	460	290	596	455	780	51 4		

1. DISTANCE BETWEEN LATERAL ROWS AND EMITTER SPACING TO BE BASED ON SOIL TYPE, PLANT MATERIALS AND CHANGES IN ELEVATION. SEE IRRIGATION SCHEDULE FOR SPACING. 2. LENGTH OF LONGEST DRIPLINE LATERAL SHOULD NOT EXCEED THE MAXIMUM LENGTH SHOWN IN THE ACCOMPANYING TABLE

3. AIR RELIEF VALVE TO BE INSTALLED AT HIGH POINT OF AREA. 4. WHEN USING 17MM INSERT FITTINGS WITH DESIGN PRESSURE OVER 50PSI, IT IS RECOMMENDED THAT STAINLESS STEEL CLAMPS BE INSTALLED ON EACH FITTING.

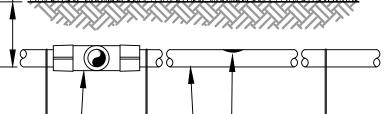
DRIPLINE CENTER FEED LAYOUT

NOT TO SCALE



(1) EASY FIT COMPRESSION TEE

(2) SUB-SURFACE DRIPLINE



(2) (3) (4)

(3) INLINE DRIP EMITTER

(4) TIE DOWN STAKE

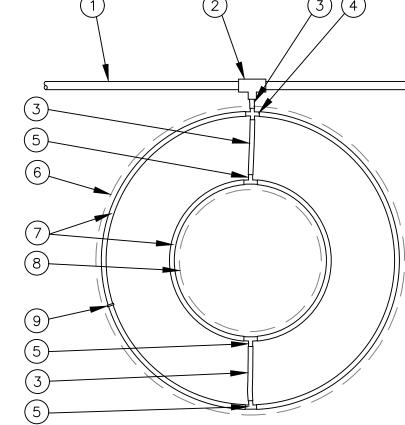
(5) TURF/FINISH GRADE OR SHRUB BED

1. PLACE TIE DOWN STAKES EVERY THREE FEET IN SAND, FOUR FEET IN LOAM, AND FIVE FEET IN CLAY.

2. AT FITTINGS WHERE THERE IS A CHANGE OF DIRECTION SUCH AS TEES OR ELBOWS, USE TIE-DOWN STAKES ON EACH LEG OF THE CHANGE OF DIRECTION. 3. INSERTION PLOW AND TRENCHED INSTALLATIONS DO NOT REQUIRE TIE DOWN

DRIPLINE BURIAL

NOT TO SCALE



(2) PVC SCH 40 TEE OR EL (3) BLANK TUBING (4) BARB CROSS INSERT FITTING (5) BARB TEE INSERT FITTING (6) PROJECTED CANOPY LINE OF TREE (7) SUB-SURFACE DRIPLINE: SEE IRRIGATION SCHEDULE (8) PLACE AS SHOWN (LENGTH AS REQUIRED) ROOT BALL

1. DISTANCE BETWEEN LATERAL RINGS AND EMITTER SPACING TO BE BASED ON SOIL TYPE, AND TREE CANOPY. SEE MANUFACTURER DRIPLINE INSTALLATION GUIDE FOR SUGGESTED

(1) PVC DRIP MANIFOLD PIPE

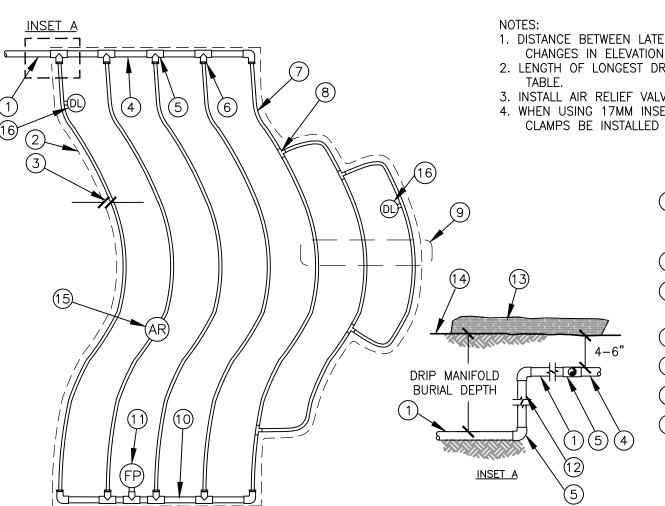
(9) TIE DOWN STAKE:

QUANTITY AS REQUIRED, SEE NOTES 2-3

- 2. PLACE TIE DOWN STAKES EVERY THREE FEET IN SAND, FOUR FEET IN LOAM, AND FIVE FEET IN CLAY.
- 3. AT FITTINGS WHERE THERE IS A CHANGE OF DIRECTION SUCH AS TEES OR ELBOWS, USE TIE-DOWN STAKES ON EACH LEG OF THE CHANGE OF DIRECTION.

DRIPLINE AROUND TREE

NOT TO SCALE



1. DISTANCE BETWEEN LATERAL ROWS AND EMITTER SPACING TO BE BASED ON SOIL TYPE, PLANT MATERIALS AND CHANGES IN ELEVATION. SEE INSTALLATION SPECIFICATIONS FOR SPACING 2. LENGTH OF LONGEST DRIPLINE LATERAL SHOULD NOT EXCEED THE MAXIMUM SPACING SHOWN IN THE ACCOMPANYING

3. INSTALL AIR RELIEF VALVE AT HIGH POINTS IN DRIP LATERAL. CLAMPS BE INSTALLED ON EACH FITTING.

4. WHEN USING 17MM INSERT FITTINGS WITH DESIGN PRESSURE OVER 50PSI, IT IS RECOMMENDED THAT STAINLESS STEEL

(1) PVC SUPPLY PIPE FROM RAIN BIRD CONTROL ZONE KIT (SIZED TO MEET LATERAL FLOW DEMAND)

(2) PERIMETER OF AREA (3) PERIMETER DRIPLINE PIPE TO BE INSTALLED

2"-4" FROM PERIMETER OF AREA (4) PVC SUPPLY MANIFOLD

(5) PVC SCH 40 TEE OR EL (TYPICAL) (6) BARB X MALE FITTING

(7) SUB-SURFACE DRIPLINE: SEE IRRIGATION SCHEDULE (8) ARB X BARB INSERT TEE

(9) TOTAL LENGTH OF SELECTED DRIPLINE SHOULD NOT EXCEED LENGTH SHOWN IN TABLE (10) PVC FLUSH HEADER

11) FLUSH POINT SEE DETAIL

(12) PVC RISER PIPE

(13) TURF OR MULCH (14) FINISH GRADE

(15) 1/2" AIR RELIEF VALVE: SEE DETAIL

(16) DRIPLINE INDICATOR. SEE DETAIL FOR ADDT'L INFO

INSET A

DRIPLINE IRREGULAR SHAPED LAYOUT

NOT TO SCALE

1) PVC EXHAUST HEADER

SPACING TO BE BASED ON SOIL TYPE, PLANT

LENGTH OF LONGEST DRIPLINE LATERAL SHOULD

• AIR RELIEF VALVE TO BE INSTALLED AT HIGH

WHEN USING 17MM INSERT FITTINGS WITH

DESIGN PRESSURE OVER 50PSI, IT IS

BE INSTALLED ON EACH FITTING.

THE ACCOMPANYING TABLE.

POINT OF AREA.

NOT EXCEED THE MAXIMUM LENGTH SHOWN IN

RECOMMENDED THAT STAINLESS STEEL CLAMPS

MATERIALS AND CHANGES IN ELEVATION. SEE

(2) PVC SCH 40 TEE OR EL (TYPICAL) (3) BARB X MALE FITTING:

 DISTANCE BETWEEN LATERAL ROWS AND EMITTER DRIPLINE INSTALLATION GUIDE FOR SUGGESTED

(4) FLUSH POINT (TYPICAL) SEE RAIN BIRD DETAIL 'FLUSH POINT WITH BALL VALVE'

5 PERIMETER OF AREA

6 PERIMETER DRIPLINE PIPE TO BE INSTALLED 2"-4" FROM PERIMETER OF AREA

(7) SUB-SURFACE DRIPLINE

(8) BLANK TUBING

(9) BARB X BARB INSERT TEE OR CROSS:

FINISH GRADE

NOT TO SCALE

(10)½" AIR RELIEF VALVE

(11) PVC SUPPLY HEADER

(12) PVC DRIP MANIFOLD FROM CONTROL ZONE VALVE KIT (SIZED TO MEET LATERAL FLOW DEMAND)

(13) PVC SCH 40 RISER PIPE

(14) DRIPLINE INDICATOR. SEE DETAIL FOR ADDT'L INFO

D	ripline N	/laximum	Lateral	Lengths	(Feet)		
	12" S	pacing	18" S	pacing	24" Spacing		
Inlet Pressure ps	Nominal	Nominal Flow (gph)		Nominal Flow (gph)		Nominal Flow	
	0.6	0.9	0.6	0.9	0.6	0.9	
15	273	155	314	2 50	424	3 2	
20	3 18	169	353	294	508	36	
30	3 60	230	413	350	586	41	
40	395	255	465	402	652	47	
50	417	285	528	420	720	48	
60	460	290	596	455	780	51	

6" ROUND VALVE BOX

1/2" PVC TEE

AIR/VACUUM RELIEF VALVE

COMPRESSION ADAPTER

OR BLANK TUBING - TYPICAL

DRIPLINE - TYPICAL

1 C.F. 7/8" WASHED GRAVEL SUMP — BRICK SUPPORTS

AIR/VACUUM RELIEF VALVE CANNOT BE CONNECTED LOWER THAN DRIPLINE LATERALS.

FOR USE ON ZONES OF 7 GPM OR LESS ONLY (PLUMBED TO TUBING).

1/2" AIR/VACUUM RELIEF VALVE DETAIL

DISTANCE BETWEEN LATERAL ROWS

MANUFACTURER DRIPLINE

LENGTH OF LONGEST DRIPLINE

ACCOMPANYING TABLE.

AT HIGH POINT OF AREA.

SPACINGS

EACH FITTING.

ON SOIL TYPE, PLANT MATERIALS AND CHANGES IN ELEVATION. SEE

AND EMITTER SPACING TO BE BASED

INSTALLATION GUIDE FOR SUGGESTED

LATERAL SHOULD NOT EXCEED THE

WHEN USING 17MM INSERT FITTINGS

STEEL CLAMPS BE INSTALLED ON

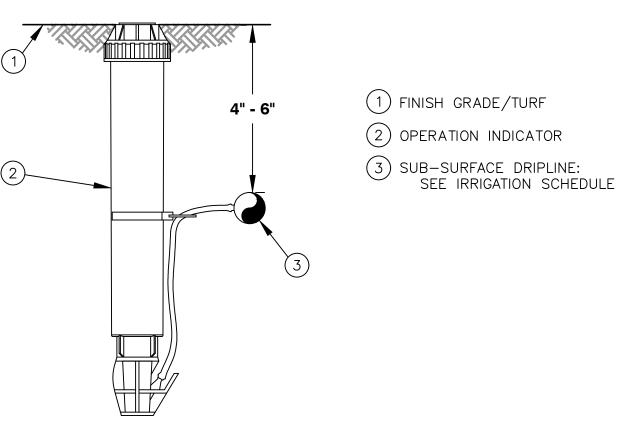
WITH DESIGN PRESSURE OVER 50PSI,

IT IS RECOMMENDED THAT STAINLESS

MAXIMUM LENGTH SHOWN IN THE

DRIPLINE END FEED LAYOUT

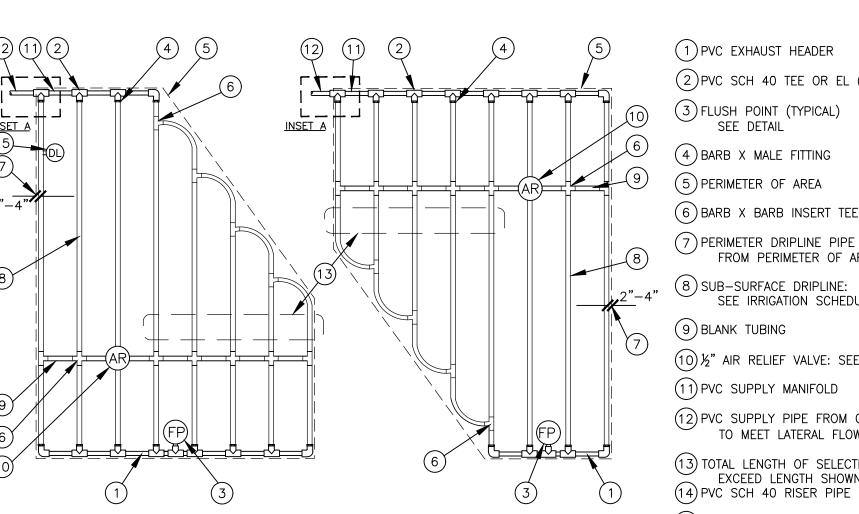
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1. INSERT BARB TRANSFER FITTING DIRECTLY INTO DRIPLINE TUBING 2. VAN NOZZLE MAY BE SET TO CLOSED, OR IF IT IS DESIRED TO SEE SPRAY FROM THE NOZZLE, SET THE ARC TO 1/4 PATTERN. THE FLOW FROM THE NOZZLE, 0.3 GPM, SHOULD BE ACCOUNTED FOR IN THE SYSTEM DESIGN.

DRIP IRRIGATION DRIPLINE INDICATOR

NOT TO SCALE



(2)PVC SCH 40 TEE OR EL (TYPICAL)

(3) FLUSH POINT (TYPICAL) SEE DETAIL

(4) BARB X MALE FITTING

(5)PERIMETER OF AREA

(6)BARB X BARB INSERT TEE OR CROSS AIR RELIEF VALVE TO BE INSTALLED 7) PERIMETER DRIPLINE PIPE TO BE INSTALLED 2"-4" FROM PERIMETER OF AREA

(8) SUB-SURFACE DRIPLINE: SEE IRRIGATION SCHEDULE

(9) BLANK TUBING

(10)½" AIR RELIEF VALVE: SEE DETAIL (11) PVC SUPPLY MANIFOLD

(12) PVC SUPPLY PIPE FROM CONTROL ZONE KIT (SIZED TO MEET LATERAL FLOW DEMAND) (13) TOTAL LENGTH OF SELECTED DRIPLINE SHOULD NOT

(15) DRIPLINE INDICATOR. SEE DETAIL FOR ADDT'L INFO

EXCEED LENGTH SHOWN IN TABLE

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

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 MANAGER, DESIGNEE, 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 b verification required. Failure to install top soil and root barriers in accordance with city standards may result in rejection of installation.

APPROVED

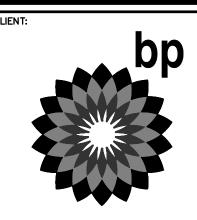
DRIP MANIFOLD

BURIAL DEPTH

CITY OF PUYALLUP WATER PURVEYOR

NOTE: THIS APPROVAL IS VOID AFTER 180 DAYS FROM APPROVAL THE CITY WILL NOT BE RESPONSIBLE FOR ERRORS AND/OR OMISSIONS ON THESE

FIELD CONDITIONS MAY DICTATE CHANGES TO THESE PLANS AS DETERMINED BY THE WATER





BP WEST COAST PRODUCTS, LLC



Consulting Engineers, Inc.

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

NO.	DATE	REVISION DESCRIPTION
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SEAL:		
		2010



ARCO NTI 3400 am/pm

FUEL CANOPY w/ 6 MPD's

SITE ADDRESS: SWC S MERIDIAN

@ HIGHWAY 512 PUYALLUP, WASHINGTON

FACILIT	Y #TBD
DESIGNED BY:	ALLIANCE Z&DM:
CHECKED BY:	BP REPM:
DRAWN BY:	ALLIANCE PM:
VERSION:	PROJECT NO:
-	21730
DDAWING TITLE	

IRRIGATION DETAILS

UTILITY CONFLICT NOTE:

NOT TO SCALE

DRIPLINE ODD CURVES LAYOUT

THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING THE LOCATION, DIMENSION, AND DEPTH OF ALL EXISTING UTILITIES WHETHER SHOWN ON THESE PLANS OR NOT BY POTHOLING THE UTILITIES AND SURVEYING THE HORIZONTAL AND VERTICAL LOCATION PRIOR TO CONSTRUCTION. THIS SHALL INCLUDE CALLING UTILITY LOCATE AT 811 48 HOURS IN ADVANCE AND THEN POTHOLING ALL OF THE EXISTING UTILITIES AT LOCATIONS OF NEW UTILITY CROSSINGS TO PHYSICALLY VERIFY WHETHER OR NOT CONFLICTS EXIST. LOCATIONS OF SAID UTILITIES AS SHOWN ON THESE PLANS ARE BASED UPON THE UNVERIFIED PUBLIC INFORMATION AND ARE SUBJECT TO VARIATION. IF CONFLICTS SHOULD OCCUR, THE CONTRACTOR SHALL NOTIFY BARGHAUSEN CONSULTING ENGINEERS, INC. TO RESOLVE ALL PROBLEMS PRIOR TO PROCEEDING WITH CONSTRUCTION.

