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CIVIL CONSTRUCTION PERMIT

SITUATE IN A PORTION OF THE NE QUARTER OF THE NE QUARTER OF SECTION 21,TOWNSHIP 20 NORTH, RANGE 4 EAST, W.M., CITY OF PUYALLUP, PIERCE COUNTY, WASHINGTON
PIERCE COUNTY TAX PARCEL #0420211030

LEGEND

- BC = FOUND BRASS MON
- = FOUND 5/8" REBAR W/ PLASTIC CAP
- = FOUND CASED MONUMENT
- = SET HUB AND TACK
- = SET REBAR AND CAP
- = EXISTING STORM DRAIN CATCH BASIN (TYPE I)
- = EXISTING STORM DRAIN CATCH BASIN (TYPE 2)
- = PROPOSED STORM DRAIN CLEANOUT
- = PROPOSED RAINLEADER/DOWNSPOUT
- = PROPOSED AREA DRAIN
- = PROPOSED STORM DRAIN CATCH BASIN
- = PROPOSED STORM DRAIN MANHOLE (TYPE 2)
- = EXISTING SANITARY SEWER MANHOLE
- = EXISTING SANITARY SEWER CLEANOUT
- = PROPOSED SEWER CLEANOUT
- = PROPOSED SEWER MANHOLE
- = EXISTING PIV
- = EXISTING WATER METER BOX
- = EXISTING FIRE HYDRANT
- = EXISTING WATER VALVE
- = PROPOSED WATER SERVICE CONNECT
- = PROPOSED WATER METER BOX
- = PROPOSED WATER VALVE
- = PROPOSED WATER BLOW-OFF
- = PROPOSED FIRE HYDRANT
- = PROPOSED FIRE DEPARTMENT CONNECTION
- = PROPOSED POST INDICATOR VALVE
- = EXISTING POWER/AND OR UTILITY POLE
- = EXISTING GUY POLE
- = EXISTING GUY WIRE
- = EXISTING POWER METER/STRUCTURE
- = EXISTING POWER VAULT
- = EXISTING POWER JBOX/HANDHOLD
- = EXISTING LIGHT POLE
- LP = PROPOSED LIGHT POLE
- C = PROPOSED CAMERA POLE
- UP = PROPOSED ON-SITE UTILITY POLE
- = EXISTING UTILITY POLE
- = EXISTING TV BOX
- = EXISTING TELEPHONE PEDESTAL
- = EXISTING TELEPHONE MANHOLE
- MBOX = EXISTING MAIL BOX
- = EXISTING SIGN
- = PROPOSED SIGN
- = EXISTING LANDSCAPING
- GM = EXISTING GAS METER
- = PROPOSED POWER POLE
- = ADA PARKING SPACE
- X / XXX = DETAIL CALLOUT

- OP — OP — = EXISTING OVERHEAD ELECTRIC LINES
- FO — FO — = EXISTING FIBER OPTIC LINE
- P — P — = EXISTING UNDERGROUND POWER
- OT — OT — = EXISTING OVERHEAD PHONE
- T — T — = EXISTING UNDERGROUND PHONE
- OH — OH — = EXISTING OVERHEAD UTILITES (UNKNOWN)
- TV — TV — = EXISTING UNDERGROUND TV CABLE
- G — G — = EXISTING GAS MAIN
- G — G — G — = PROPOSED GAS LINE
- W — W — = EXISTING WATER LINE
- W — W — = PROPOSED WATER LINE
- S — S — = EXISTING SANITARY SEWER LINE
- SS — SS — = PROPOSED SANITARY SEWER LINE
- >> = EXISTING FLOW LINE & DIRECTION
- D — D — = EXISTING STORM DRAIN LINE
- SD — SD — = PROPOSED STORM DRAIN LINE (SOLID WALL)
- = PROPOSED STORM DRAIN LINE (PERFORATED)
- = PROPOSED FOUNDATION DRAIN
- = PROPOSED ROOF DRAIN
- AIR — AIR — = PROPOSED AIR LINE
- = PROPOSED LEAKER LINE
- 0 — 0 — = EXISTING CHAIN LINK FENCE
- = EXISTING HOG WIRE FENCE
- X — X — X — = PROPOSED FENCING
- = EXISTING WETLAND
- TOP = EXISTING TOP OF BANK
- TOE = EXISTING TOE OF BANK
- TOP — TOP = PROPOSED TOP OF BANK
- TOE — TOE = PROPOSED TOE OF BANK
- 10 = EXISTING CONTOUR (INDEX)
- 11 = EXISTING CONTOUR (NORMAL)
- 10 = PROPOSED CONTOUR (INDEX)
- 11 = PROPOSED CONTOUR (NORMAL)
- = PROPOSED LIGHT DUTY ASPHALT PAVEMENT
- = PROPOSED HEAVY DUTY ASPHALT PAVEMENT
- = PROPOSED GRIND & OVERLAY
- = PROPOSED CONCRETE
- = PROPOSED LIGHT DUTY GRAVEL SURFACING
- = PROPOSED MODERATE DUTY GRAVEL SURFACING
- = PROPOSED HEAVY DUTY GRAVEL SURFACING
- = PROPOSED MULCH PATH
- = PROPOSED STABILIZED GRAVEL SURFACE

ARCHAEOLOGICAL FINDINGS

AN ARCHAEOLOGICAL MONITORING PLAN AND INADVERTENT DISCOVERY PROTOCOL (MIDP) FOR THE PSE O… CULTURAL RESOURCE CONSULTANTS, DATED APRIL 17, 2024 (DAHP PROJECT: 2023-06-03529). SUPERVISION OF GROUND DISTURBANCE BY AN ARCHAEOLOGIST TO ASSESS THE PRESENCE OR POTENTIAL PRESENCE OF ARCHAEOLOGICAL RESOURCES IS REQUIRED FOR THIS PROJECT. ARCHAEOLOGICAL MONITORING MUST BE COMPLETED IN ACCORDANCE WITH THE MIDP. THE DEVELOPER MUST COORDINATE WITH ARCHAEOLOGICAL MONITORS THROUGHOUT CONSTRUCTION. SHOULD ARCHAEOLOGICAL MATERIALS (e.g. FIRE-MODIFIED ROCK, SHELL LENSES, ANIMAL BONES, WOOD POSTS, HEARTHS, PITS, POST MOLDS, STONE TOOLS, OR HISTORIC OBJECTS) BE OBSERVED, ALL WORK WITHIN 30 FEET (OR OTHER DISTANCE DETERMINED BY PROJECT ARCHAEOLOGIST) SHALL STOP, AND THE AREA SHALL BE SECURED. THE PROJECT ARCHAEOLOGIST MUST BE NOTIFIED TO ASSESS THE POTENTIAL ELIGIBILITY OF THE DISCOVERY AND FOLLOW STANDARD PROCEDURES FOR DISCOVERY PER THE MIDP.

An Archaeological Monitoring Plan and Inadvertent Discovery Protocol (MIDP) has been prepared for this project. These plans shall be updated to reference the MIDP and provided the necessary notes regarding coordinating with Archaeological Monitors. (C0.0)

ABBREVIATIONS

1'/1"	ONE FOOT/ONE INCH
AD	ABSOLUTE VALUE OF THE ALGEBRAIC GRADE DIFFERENCE
AF#	AUDITORS FILE NUMBER
APPROX	APPROXIMATE
ASB/AB	AS-BUILT
ASPH	ASPHALT
BLDG	BUILDING
BVCS	BEGINNING OF VERTICAL CURVE STATION
BVCE	BEGINNING OF VERTICAL CURVE ELEVATION
CB	CATCH BASIN
CDF	CONTROLLED DENSITY FILL
CESCL	CERTIFIED EROSION & SEDIMENTATION CONTROL LEAD
CL	CENTERLINE
CMP	CORRUGATED METAL PIPE
CNTRL	CONTROL
CO	CLEANOUT
CPLG	COUPLING
CPEP	CORRUGATED POLYETHYLENE PIPE
CONC	CONCRETE
CULV	CULVERT
ø	DIAMETER
DEMO	DEMOLITION
DI	DUCTILE IRON
DWGS	DRAWINGS
EL/ELEV	ELEVATION
EP/EOP	EDGE OF PAVEMENT
ESMT	EASEMENT
EVCE	END OF VERTICAL CURVE ELEVATION
EX/EXIST	EXISTING
FDC	FIRE DEPARTMENT CONNECTION
CPP	CORREGATED POLYPROPYLENE PIPE
FFE/FF	FINISH FLOOR ELEVATION
FG	FINISH GRADE
FH	FIRE HYDRANT
FM	FORCE MAIN
FND	FOUND
HDPE	HIGH DENSITY POLYETHYLENE PIPE
INV	INVERT
IE	INVERT ELEVATION
IRRIG	IRRIGATION
K	LENGTH OF VERTICAL CURVE PER PERCENT GRADE DIFFERENCE
LF	LINEAR FOOT
MJ	MECHANICAL JOINT
MAX	MAXIMUM
MIN	MINIMUM
MON	MONUMENT
NIC	NOT IN CONTRACT
No./#	NUMBER
PC	POINT OF CURVATURE
PCC	PORTLAND CEMENT CONCRETE
PCL	PARCEL
PERF	PERFORATED
PG	PERFORMANCE GRADE
PI	POINT OF INTERSECTION
PIV	POST INDICATOR VALVE
P.O.B.	POINT OF BEGINNING
PROP	PROPERTY -OR- PROPOSED
PT/POT	POINT OF TANGENCY
PRC	POINT OF RETURN CURVATURE
PRT	POWER TRANSFORMER
PVC	POLYVINYL CHLORIDE
PVI	POINT OF VERTICAL INFLECTION
R/RAD	RADIUS
R/C	REBAR WITH CAP
RIM	RIM
RCP	REINFORCED CONCRETE PIPE
RET	RETAINING
RJ	RESTRAINED JOINT
ROW	RIGHT OF WAY
RPP	REDUCED PRESSURE PRINCIPAL
RR	RAILROAD
SAN	SANITARY
SCH	SCHEDULE
SD	STORM DRAIN
SDCB	STORM DRAIN CATCH BASIN
SDCO	STORM DRAIN CLEANOUT
SDMH	STORM DRAIN MAN HOLE
SERV	SERVICE
SS	SANITARY SEWER
SSCO	SANITARY SEWER CLEANOUT
SSMH	SANITARY SEWER MANHOLE
ST	STREET
TBM/T.B.M.	TEMPORARY BENCH MARK
TC	TOP OF CURB
TEL/TELE	TELEPHONE
TESC	TEMPORARY EROSION & SEDIMENTATION CONTROL
TP	TOP OF PAVEMENT
TS	TOP OF SIDEWALK
TW	TOP OF WALL
TYP	TYPICAL
UG	UNDERGROUND
W/	WITH
W/IN	WITHIN
W	WATER

SURVEY NOTE

DIGITAL COPIES OF THE CIVIL SITE PLANS WILL BE PROVIDED TO THE CONTRACTOR FOR REFERENCE. ALL BUILDINGS, UTILITY STRUCTURES, AND OTHER COMPONENTS NECESSARY FOR CONSTRUCTION SHALL BE STAKED BY A LICENSED SURVEYOR PRIOR TO CONSTRUCTION.

PROJECT CONTACTS

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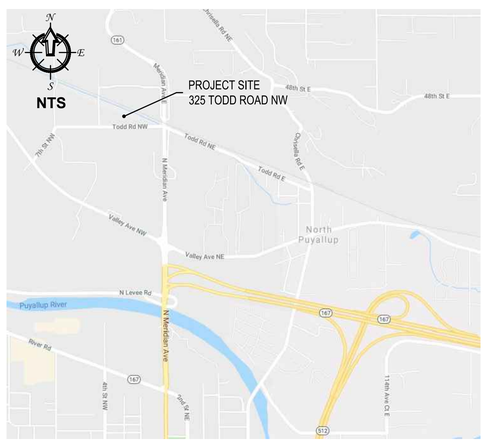
ALTERNATE METHOD REQUESTS

PRAMR20231722: NO FRONTAGE IMPROVEMENTS TO 4TH STREET NW

CONSTRUCTION SCHEDULE

1. HOLD A PRECONSTRUCTION MEETING WITH THE CITY AND OBTAIN REQUIRED PERMITS.
2. ENSURE CLEARING AND GRADING LIMITS HAVE BEEN ESTABLISHED AND CRITICAL AREAS ARE IDENTIFIED.
3. INSTALL & MAINTAIN TEMPORARY CONSTRUCTION ENTRANCES.
4. INSTALL & MAINTAIN SILT FENCES, AND OTHER EROSION CONTROL DEVICES AS SHOWN.
5. ENSURE CRITICAL AREAS (EXISTING WETLAND) ARE PROJECTED AS SHOWN.
6. SCHEDULE AN EROSION CONTROL INSPECTION WITH …TY. AFTER ALL TESC BMPS ARE INSTALLED.
7. …NSTALL & ENSURE CONSTRUCTION ROAD/PARKING …STABILIZATION HAS BEEN MAINTAINED.
8. …NSURE TEMPORARY SEDIMENT POND AND DEWATERING DEVICE ARE FUNCTIONING. IF SEDIMENT IS 1 FOOT DEEP CLEAN POND. ENSURE EMERGENCY OVERFLOW IS FUNCTIONING.
10. INSTALL SUMPS & PUMPS, DITCHES, OR SWALES TO DIRECT ALL SURFACE WATER TO THE SEDIMENT POND. NO UNCONTROLLED SURFACE WATER SHALL BE ALLOWED TO LEAVE THE SITE OR BE DISCHARGED TO A CRITICAL AREA AT ANY TIME DURING THE GRADING OPERATIONS.
11. GRADING ACTIVITIES CAN BEGIN AFTER ALL DRAINAGE AND EROSION CONTROL MEASURES ARE IN PLACE.
12. ALL EROSION CONTROL MEASURES MUST BE MAINTAINED PER APPLICABLE STORMWATER POLLUTION PREVENTION PLAN. THIS PROJECT IS OVER 1 ACRE AND MUST FOLLOW REQUIREMENTS FOR CONSTRUCTION STORMWATER GENERAL PERMIT WITH DEPARTMENT OF ECOLOGY. A CERTIFIED EROSION AND SEDIMENTATION CONTROL LEAD (CESCL) WILL BE REQUIRED TO MAINTAIN AND UPDATE A LOGBOOK THROUGHOUT THE PROJECT.
13. EXECUTE UTILITY WORK, BUILDING IMPROVEMENTS, SURFACE RESTORATION & LANDSCAPING.
14. FOLLOWING FINAL STABILIZATION OF THE ENTIRE PROJECT SITE, AND UPON APPROVAL BY OWNER, ENGINEER, AND CITY INSPECTOR, REMOVE ALL TESC MEASURES.

VICINITY MAP



SHEET INDEX

C0.0	CIVIL COVER SHEET
C0.1	OVERALL EXISTING CONDITIONS
C0.2	OVERALL IMPROVEMENT PLAN
PRIVATE IMPROVEMENTS	
C1.0	SITE PLAN
C1.1	TESC PLAN
C1.2A	WATER & SEWER PLAN
C1.2B	SEWER SERVICE PROFILE
C1.3A	DRAINAGE PLAN (WEST)
C1.3B	DRAINAGE PLAN (CENTRAL)
C1.3C	DRAINAGE PLAN (EAST)
C1.3D	DRAINAGE PROFILE
C1.4A	GRADING PLAN (WEST)
C1.4B	GRADING PLAN (CENTRAL)
C1.4C	GRADING PLAN (EAST)
C1.5A	PAVING & SURFACING PLAN (WEST)
C1.5B	PAVING & SURFACING PLAN (CENTRAL)
C1.5C	PAVING & SURFACING PLAN (EAST)
C1.6	SUBSTATION CONTAINMENT PLAN
C1.7	TRAINING VILLAGE UTILITY PLAN
C1.8	FIRE LANE MARKING PLAN
PUBLIC IMPROVEMENTS	
C2.0	FRONTAGE PLAN & SHEET LAYOUT
C2.1	TESC PLAN
C2.2A	SEWER PLAN & PROFILE - 0+00 - 4+00
C2.2B	SEWER PLAN & PROFILE - 4+00 - 8+00
C2.2C	SEWER PLAN & PROFILE - 8+00 - 12+00
C2.2D	SEWER PLAN & PROFILE - 12+00 - 16+00
C2.2E	WATER & SEWER PLAN & PROFILE - 16+00 - 20+00
C2.2F	WATER PLAN & PROFILE - 20+00 - 25+00
C2.2G	WATER PLAN & PROFILE - 25+00 - 29+90
C2.3D	ROAD & DRAINAGE PLAN & PROFILE 12+00 - 16+00
C2.3E	ROAD & DRAINAGE PLAN & PROFILE - 16+00 - 20+00
C2.3F	ROAD & DRAINAGE PLAN & PROFILE - 20+00 - 25+00
C2.3G	ROAD & DRAINAGE PLAN & PROFILE - 25+00 - 29+90
C2.4	TODD ROAD CHANNELIZATION & SIGNAGE PLAN
DETAILS & NOTES	
C3.1	TESC NOTES & DETAILS
C3.2	SANITARY SEWER DETAILS
C3.3	WATER DETAILS
C3.4	WATER DETAILS
C3.5	DRAINAGE DETAILS (1)
C3.6	DRAINAGE DETAILS (2)
C3.7	DRAINAGE DETAILS (3)
C3.8	STORMWATER MANAGEMENT DETAILS
C3.9	PAVING DETAILS (1)
C3.10	PAVING DETAILS (2)
C3.11	PAVING DETAILS (3)
C3.12	SITE DETAILS
C3.13	SITE SECTION & DETAIL GRADING
C3.14	CHANNELIZATION & SIGNAGE DETAILS
C3.15	GENERAL NOTES

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MILES PATRICK MCEATHRON — STATE OF WASHINGTON — 49494 — REGISTERED PROFESSIONAL ENGINEER — 05/31/2024

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MILES PATRICK MCEATHRON — STATE OF WASHINGTON — 49494 — REGISTERED PROFESSIONAL ENGINEER — 7/8/2025

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APPROVED
BY _____
CITY OF PUYALLUP
DEVELOPMENT ENGINEERING
DATE 07/09/2024
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 DEVELOPMENT ENGINEERING MANAGER.

FIRE HYDRANT/FDC LOCATION/ACCESS APPROVED
BY _____
CITY OF PUYALLUP
FIRE CODE OFFICIAL
DATE 07/02/2024
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 FIRE CODE OFFICIAL.

City of Puyallup
Development & Permitting Services
ISSUED PERMIT
Building | Planning | Engineering | Public Works | Fire | Traffic

100% CD SET

REV	ISSUED FOR	DATE

PLAN NORTH | TRUE NORTH
SCALE: 0

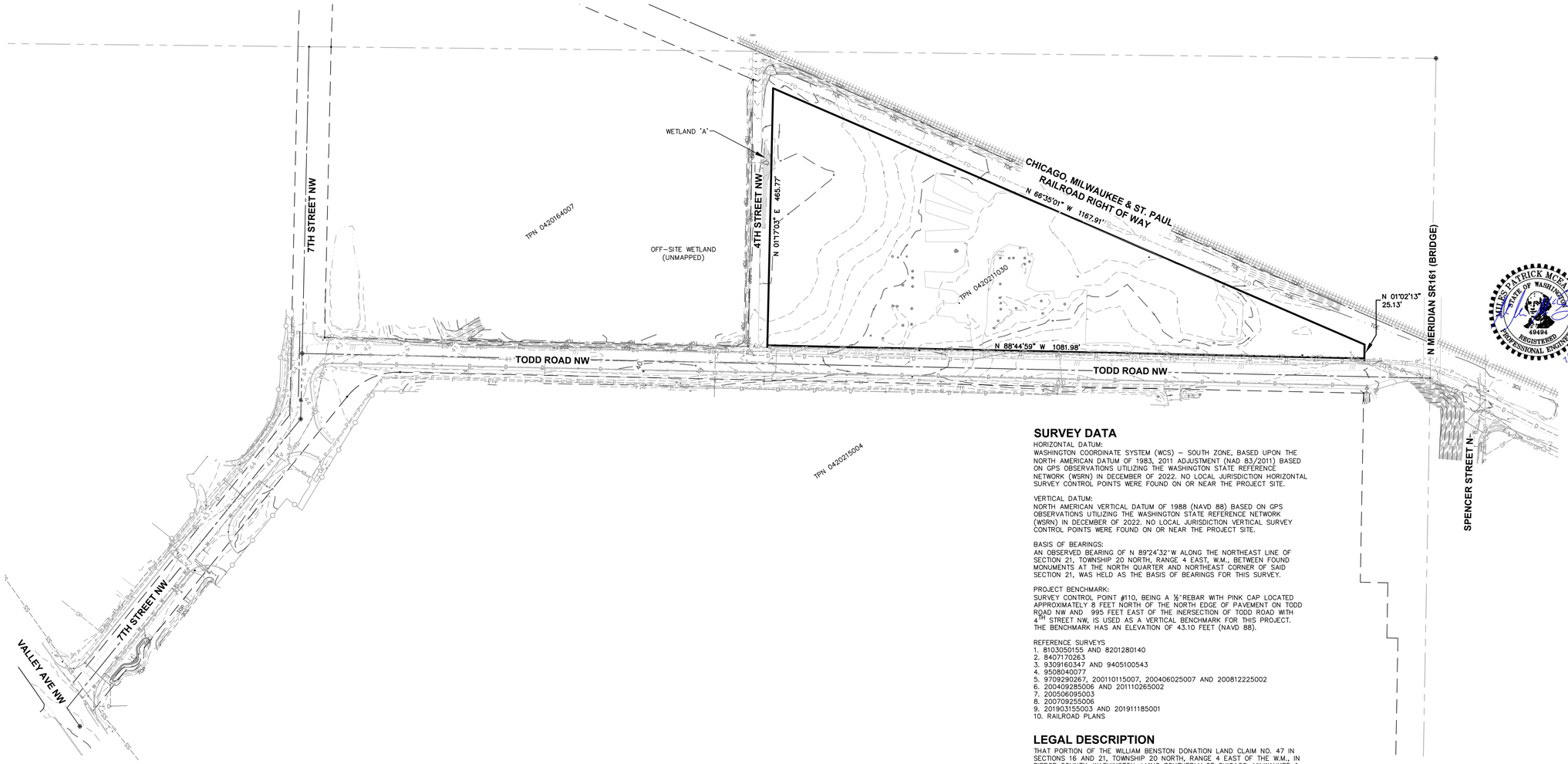
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CIVIL COVER SHEET

PROJECT No:	22219
DRAWN BY:	MPM
CHECKED BY:	THF
DATE ISSUED:	05/31/2024

C0.0

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SURVEY DATA

HORIZONTAL DATUM:
WASHINGTON COORDINATE SYSTEM (WCS) – SOUTH ZONE, BASED UPON THE NORTH AMERICAN DATUM OF 1983, 2011 ADJUSTMENT (NAD 83/2011) BASED ON GPS OBSERVATIONS UTILIZING THE WASHINGTON STATE REFERENCE NETWORK (WSRN) IN DECEMBER OF 2022. NO LOCAL JURISDICTION HORIZONTAL SURVEY CONTROL POINTS WERE FOUND ON OR NEAR THE PROJECT SITE.

VERTICAL DATUM:
NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD 88) BASED ON GPS OBSERVATIONS UTILIZING THE WASHINGTON STATE REFERENCE NETWORK (WSRN) IN DECEMBER OF 2022. NO LOCAL JURISDICTION VERTICAL SURVEY CONTROL POINTS WERE FOUND ON OR NEAR THE PROJECT SITE.

BASIS OF BEARINGS:
AN OBSERVED BEARING OF N 89°24'32"W ALONG THE NORTHEAST LINE OF SECTION 21, TOWNSHIP 20 NORTH, RANGE 4 EAST, W.M., BETWEEN FOUND MONUMENTS AT THE NORTH QUARTER AND NORTHEAST CORNER OF SAID SECTION 21, WAS HELD AS THE BASIS OF BEARINGS FOR THIS SURVEY.

PROJECT BENCHMARK:
SURVEY CONTROL POINT #110, BEING A ½"REBAR WITH PINK CAP LOCATED APPROXIMATELY 8 FEET NORTH OF THE NORTH EDGE OF PAVEMENT ON TODD ROAD NW AND 995 FEET EAST OF THE INERSECTION OF TODD ROAD WITH 4TH STREET NW, IS USED AS A VERTICAL BENCHMARK FOR THIS PROJECT. THE BENCHMARK HAS AN ELEVATION OF 43.10 FEET (NAVD 88).

REFERENCE SURVEYS
1. 8103050155 AND 8201280140
2. 8407170263
3. 9309160347 AND 9405100543
4. 9508040077
5. 9709290267, 200110115007, 200406025007 AND 200812225002
6. 200409285006 AND 201110265002
7. 200506095003
8. 200709255006
9. 201903155003 AND 201911185001
10. RAILROAD PLANS

LEGAL DESCRIPTION

THAT PORTION OF THE WILLIAM BENSTON DONATION LAND CLAIM NO. 47 IN SECTIONS 16 AND 21, TOWNSHIP 20 NORTH, RANGE 4 EAST OF THE W.M., IN PIERCE COUNTY, WASHINGTON, LYING SOUTHERLY OF CHICAGO, MILWAUKEE & ST. PAUL RAILROAD RIGHT OF WAY AND LYING WESTERLY OF NORTH MERIDIAN (AKA SR 161) AND LYING NORTHERLY OF TODD ROAD NORTHWEST (ADA 23RD AVENUE NORTHWEST) AND LYING EASTERLY OF THAT 15 FOOT STRIP CONVEYED TO PIERCE COUNTY FOR ROAD PURPOSES (4TH STREET NORTHWEST, AKA DECHAUX LANE) NY DEED RECORDED UNDER RECORDING NO. 1783507.

(ALSO KNOWN AS REVISED LOT 1 OF DECLARATION OF LOT BOUNDARY ADJUSTMENT RECORDED UNDER RECORDING NO. 202303030112).

SITE INFORMATION

ZONING: LIMITED MANUFACTURING (ML)
SIZE: 6.096 ACRES

ZERVAS
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MILES PATRICK MCEATHRON
STATE OF WASHINGTON
49494
REGISTERED
PROFESSIONAL ENGINEER
05/31/2024

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APPROVED
BY _____
CITY OF PUYALLUP
DEVELOPMENT ENGINEERING
DATE 07/09/2024

NOTE: THIS APPROVAL IS VOID AFTER 180 DAYS FROM APPROVAL DATE.
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FIELD CONDITIONS MAY DICTATE CHANGES TO THESE PLANS AS DETERMINED BY THE DEVELOPMENT ENGINEERING MANAGER.

MILES PATRICK MCEATHRON
STATE OF WASHINGTON
49494
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PROFESSIONAL ENGINEER
7/8/2024

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City of Puyallup
Development & Permitting Services
ISSUED PERMIT

Building	Planning
Engineering	Public Works
Fire	Traffic

100% CD SET

REV	ISSUED FOR	DATE

PLAN NORTH | TRUE NORTH
SCALE: 1"=100'
0 100

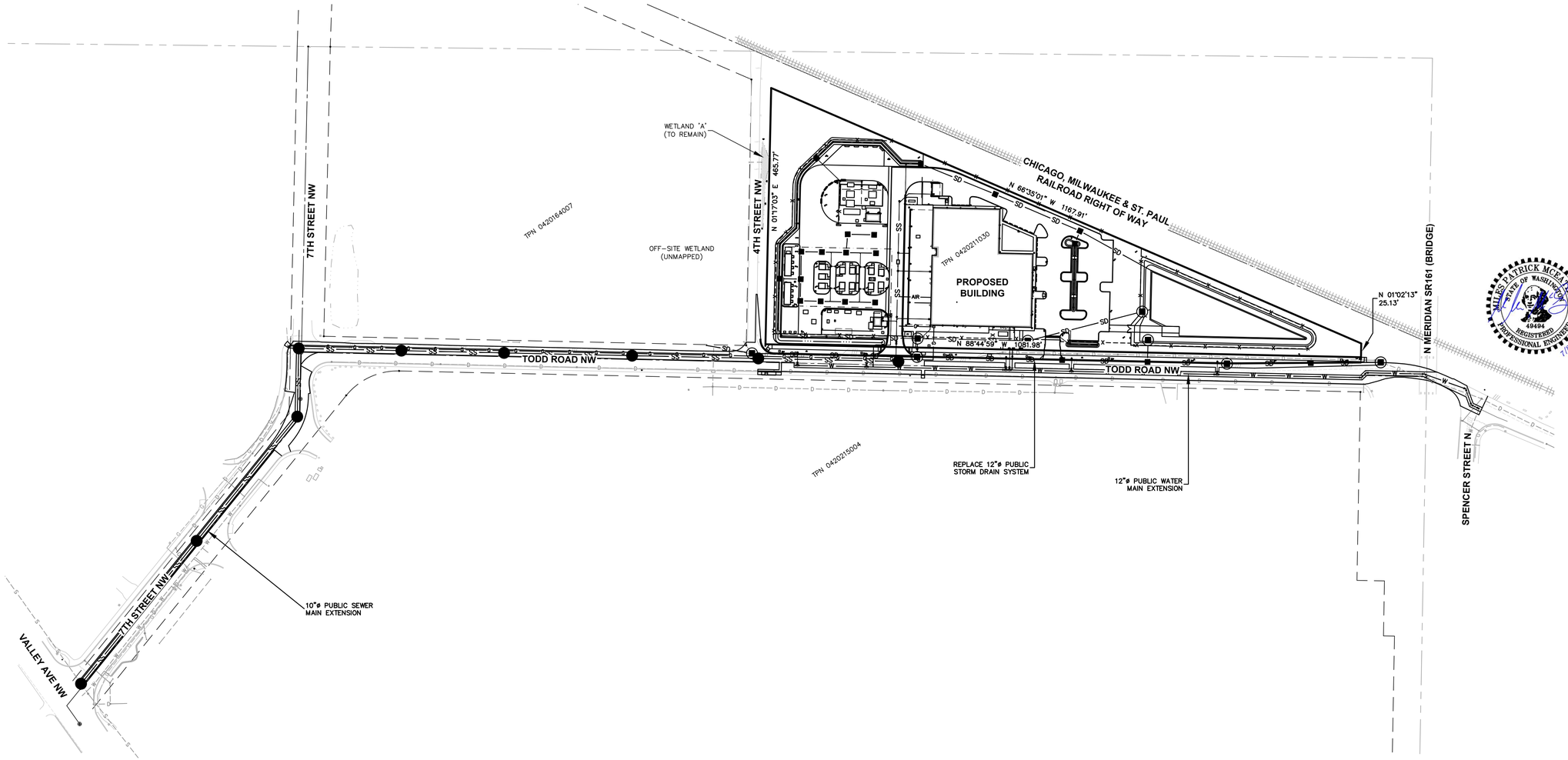
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OVERALL EXISTING CONDITIONS

PROJECT No:	22219
DRAWN BY:	MPM
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DATE ISSUED:	05/31/2024

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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 SE
PO BOX 47060
OLYMPIA, WASHINGTON 98504-7060
206-902-1190

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 REPLACEMENT OF SAID MONUMENTATION SHALL ALSO BE THE RESPONSIBILITY OF THE CONTRACTOR.

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209 Prospect Street
Bellingham, WA 98225
360.734.4744

FREELAND & ASSOCIATES
220 West Champion Street, Suite 200 t: 360.650.1408
Bellingham, WA 98225 f: 360.650.1401

MILES PATRICK MCEATHRON
STATE OF WASHINGTON
49494
REGISTERED
PROFESSIONAL ENGINEER
05/31/2024

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

APPROVED
BY _____
CITY OF PUYALLUP
DEVELOPMENT ENGINEERING
DATE 07/09/2024

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 DEVELOPMENT ENGINEERING MANAGER.

MILES PATRICK MCEATHRON
STATE OF WASHINGTON
49494
REGISTERED
PROFESSIONAL ENGINEER
7/8/2025

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City of Puyallup
Development & Permitting Services
ISSUED PERMIT

Building	Planning
Engineering	Public Works
Fire	Traffic

100% CD SET

REV	ISSUED FOR	DATE

PLAN NORTH | TRUE NORTH

SCALE: 1"=100' 0 100

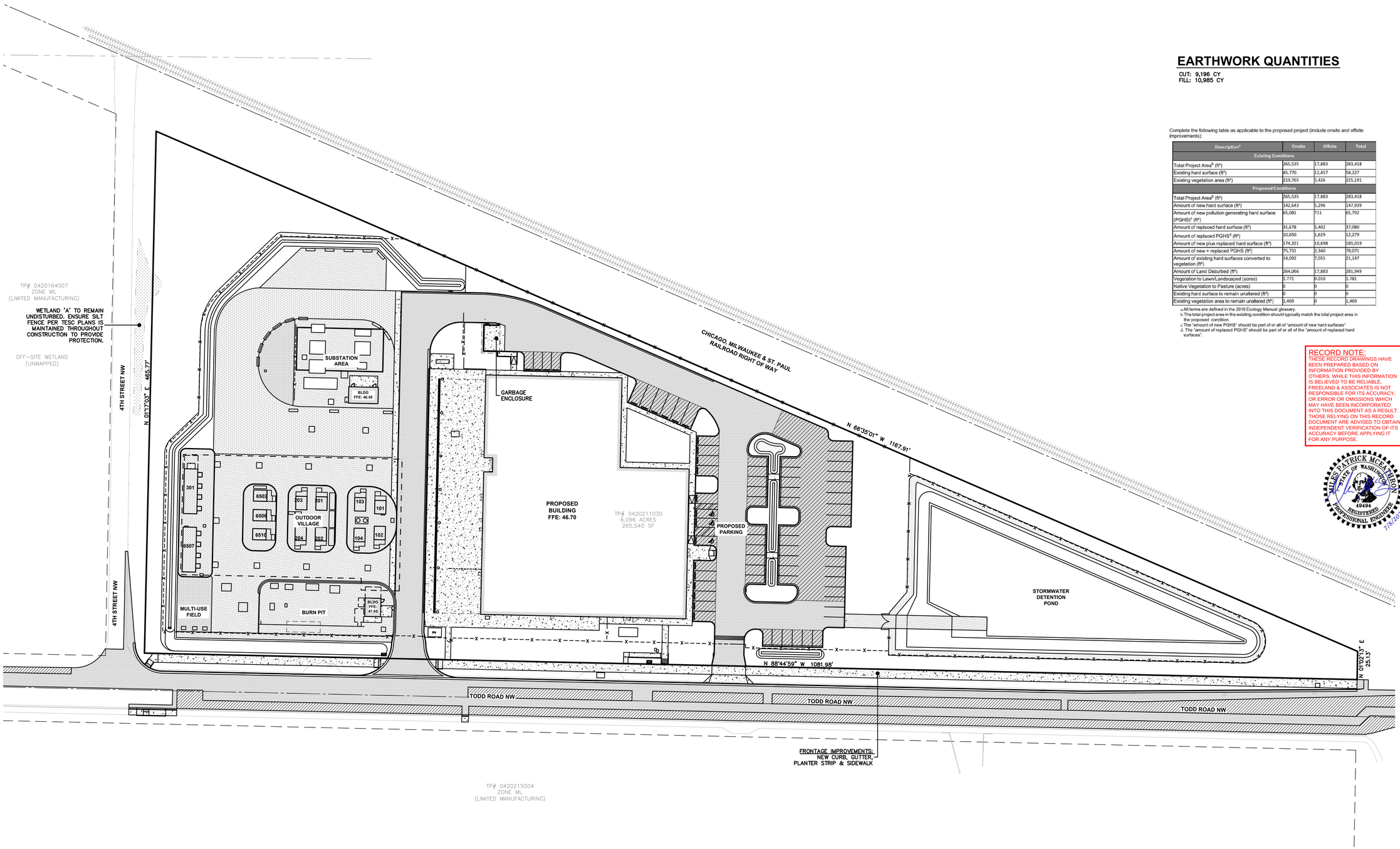
PSE - OPERATIONAL TRAINING CENTER

OVERALL IMPROVEMENT PLAN

PROJECT No:	22219
DRAWN BY:	MPM
CHECKED BY:	THF
DATE ISSUED:	05/31/2024

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EARTHWORK QUANTITIES

CUT: 9,198 CY
FILL: 10,985 CY

Complete the following table as applicable to the proposed project (include onsite and offsite improvements):

Description[a]	Onsite	Offsite	Total
Existing Conditions			
Total Project Area[b] (ft²)	265,535	17,883	283,418
Existing hard surface (ft²)	45,770	12,457	58,227
Existing vegetation area (ft²)	219,765	5,426	225,191
Proposed Conditions			
Total Project Area[b] (ft²)	265,535	17,883	283,418
Amount of new hard surface (ft²)	142,643	5,296	147,939
Amount of new pollution generating hard surface (PGHS)[c] (ft²)	65,081	711	65,792
Amount of replaced hard surface (ft²)	31,678	5,402	37,080
Amount of replaced PGHS[d] (ft²)	10,650	1,629	12,279
Amount of new plus replaced hard surface (ft²)	174,321	10,698	185,019
Amount of new + replaced PGHS (ft²)	75,731	2,340	78,071
Amount of existing hard surfaces converted to vegetation (ft²)	14,092	7,055	21,147
Amount of Land Disturbed (ft²)	264,066	17,883	281,949
Vegetation to Lawn/Landscaped (acres)	1.771	0.010	1.781
Native Vegetation to Pasture (acres)	0	0	0
Existing hard surface to remain unaltered (ft²)	0	0	0
Existing vegetation area to remain unaltered (ft²)	1,469	0	1,469

a. All terms are defined in the 2019 Ecology Manual glossary.
b. The total project area in this existing condition should typically match the total project area in the proposed condition.
c. The "amount of new PGHS" should be part of or all of "amount of new hard surfaces"
d. The "amount of replaced PGHS" should be part of or all of the "amount of replaced hard surfaces".

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FIRE HYDRANT/FDC LOCATION/ACCESS APPROVED
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CITY OF PUYALLUP
FIRE CODE OFFICIAL
DATE 07/02/2024
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PLAN NORTH | TRUE NORTH
SCALE: 1"=40'
0 40

PSE - OPERATIONAL TRAINING CENTER

SITE PLAN

PROJECT No:	22219
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SOIL STABILIZATION NOTE

EXPOSED AREAS AND SOIL STOCKPILES MUST BE STABILIZED ACCORDING TO THE FOLLOWING SCHEDULE:

1. FROM APRIL TO OCTOBER 31 ALL DISTURBED AREAS AT FINAL GRADE AND ALL EXPOSED AREAS THAT ARE SCHEDULED TO REMAIN UNWORKED FOR MORE THAN 30 DAYS SHALL BE STABILIZED WITHIN 10 DAYS.

2. FROM NOVEMBER 1 TO MARCH 31 ALL EXPOSED SOILS AT FINAL GRADE SHALL BE STABILIZED IMMEDIATELY USING PERMANENT OR TEMPORARY MEASURES. EXPOSED SOILS WITH AN AREA GREATER THAN 5,000 SQUARE FEET THAT ARE SCHEDULED TO REMAIN UNWORKED FOR MORE THAN 24 HOURS AND EXPOSED AREAS OF LESS THAN 5,000 SQUARE FEET THAT WILL REMAIN UNWORKED FOR MORE THAN SEVEN (7) DAYS SHALL BE STABILIZED IMMEDIATELY.

ALL DISTURBED AREAS WHICH ARE NOT PLANNED TO BE CONSTRUCTED ON WITHIN 90 DAYS FROM TIME OF CLEARING AND GRADING SHALL BE REVEGETATED WITH THE NATIVE VEGETATION.

TESC CONTRACTOR RESPONSIBILITY

1. TEMPORARY EROSION CONTROL BMPs SHOWN IN THESE PLANS ARE THE MINIMUM NECESSARY FOR PERMIT APPROVALS. ADDITIONAL BMPs MAY BE REQUIRED DURING THE COURSE OF CONSTRUCTION. NO ADDITIONAL COMPENSATION WILL BE PROVIDED FOR ADDITIONAL BMPs OR BMP MAINTENANCE THAT MAY BE REQUIRED DURING CONSTRUCTION.
2. THIS PROJECT WILL DISTURB MORE THAN ONE ACRE OF SOIL AND WILL REQUIRE A NATIONAL DISCHARGE ELIMINATION SYSTEM (NPDES) CONSTRUCTION GENERAL PERMIT FROM WASHINGTON DOE. THE DEVELOPER WILL OBTAIN THE NPDES PERMIT AND WILL TRANSFER THE PERMIT TO THE CONTRACTOR PRIOR TO CONSTRUCTION.
3. THE CONTRACTOR SHALL COMPLY WITH ALL REQUIREMENTS IN THE NPDES PERMIT. THE CONTRACTOR SHALL PREPARE AND MAINTAIN AN EROSION CONTROL LOG BOOK IN ACCORDANCE WITH NPDES PERMIT REQUIREMENTS. NO ADDITIONAL COMPENSATION WILL BE MADE FOR BMP MAINTENANCE OR REPAIRS THAT RESULT FROM COMPLIANCE WITH THE NPDES PERMIT. LIKEWISE, ANY ADDITIONAL BMPs THAT MAY BE REQUIRED FOR COMPLIANCE WITH THE NPDES PERMIT DURING CONSTRUCTION SHALL BE IMPLEMENTED AT THE CONTRACTOR'S EXPENSE.

TESC LEGEND

- VEG — WSDOE BMP C101 PRESERVING NATURAL VEGETATION
- CE — WSDOE BMP C105 STABILIZED CONSTRUCTION EXIT (A C3.1)
- PK — WSDOE BMP C107 PARKING AREA STABILIZATION
- PS — WSDOE BMP C120 TEMPORARY AND PERMANENT SEEDING
- MU — WSDOE BMP C121 MULCHING
- PC — WSDOE BMP C123 PLASTIC COVERING
- DC — WSDOE BMP C140 DUST CONTROL
- OP — WSDOE BMP C209 OUTLET PROTECTION
- CD — WSDOE BMP C207 CHECK DAMS
- 5.13 — WSDOE BMP T5.13 SOIL AMENDMENT (A C3.10)
- IP — WSDOE BMP C220 STORM DRAIN INLET PROTECTION (C C3.1)
- SF — WSDOE BMP C233 SILT FENCE (B C3.1)

TESC NOTES:

1. A COPY OF THE APPROVED TESC PLAN MUST BE ON THE JOB SITE WHENEVER CONSTRUCTION IS IN PROGRESS.
2. APPROVAL OF THIS TEMPORARY EROSION & SEDIMENTATION CONTROL (TESC) PLAN DOES NOT CONSTITUTE AN APPROVAL OF PERMANENT STRUCTURES, DRIVEWAYS OR DRAINAGE DESIGN (E.G., SIZE AND LOCATION OF ROADS, PIPES, RESTRICTORS, CHANNELS, RETENTION FACILITIES, UTILITIES, ETC.).
3. THE IMPLEMENTATION OF THIS TESC PLAN AND THE CONSTRUCTION, MAINTENANCE, REPLACEMENT AND UPGRADING OF THESE TESC FACILITIES IS THE RESPONSIBILITY OF THE CONTRACTOR UNTIL ALL CONSTRUCTION IS APPROVED.
4. THE BOUNDARIES OF THE CLEARING LIMITS SHOWN ON THIS PLAN SHALL BE CLEARLY FLAGGED IN THE FIELD PRIOR TO CONSTRUCTION. DURING CONSTRUCTION, NO DISTURBANCE BEYOND THE FLAGGED CLEARING LIMITS SHALL BE PERMITTED. THE FLAGGING SHALL BE MAINTAINED BY THE CONTRACTOR FOR THE DURATION OF THE CONSTRUCTION.
5. TESC FACILITIES SHOWN ON THIS PLAN MUST BE CONSTRUCTED IN CONJUNCTION WITH ALL CLEARING AND GRADING ACTIVITIES, UNLESS REVISED BY A CERTIFIED EROSION AND SEDIMENT CONTROL LEAD. TESC FACILITIES SHALL BE INSTALLED IN SUCH A MANNER AS TO ENSURE THAT SEDIMENT LADEN WATER DOES NOT ENTER ENTER DRAINAGE SYSTEM OR VIOLATE APPLICABLE WATER STANDARDS.
6. THE TESC FACILITIES SHOWN ON THIS PLAN ARE THE MINIMUM REQUIREMENTS FOR ANTICIPATED SITE CONDITIONS. DURING THE CONSTRUCTION PERIOD. THESE TESC FACILITIES SHALL BE UPGRADED (E.G., ADDITIONAL SUMPS, RELOCATION OF DITCHES AND SILT FENCES, ETC,) AS NEEDED FOR UNEXPECTED STORM EVENTS.
7. THE TESC FACILITIES SHALL BE INSPECTED DAILY BY THE CESCL AND MAINTAINED AS NECESSARY TO ENSURE THEIR CONTINUED FUNCTION.
8. ANY AREA NEEDING TESC MEASURES, NOT REQUIRING IMMEDIATE ATTENTION, SHALL BE ADDRESSED WITHIN FIFTEEN (15) DAYS.
9. THE TESC FACILITIES ON INACTIVE SITES SHALL BE INSPECTED AND MAINTAINED A MINIMUM OF ONCE A MONTH OR WITHIN 24 HOURS FOLLOWING A STORM EVENT THAT PRODUCES RUNOFF FROM THE SITE.
10. WASH PADS MAY BE NECESSARY TO ENSURE PAVED AREAS ARE KEPT CLEAN FOR THE DURATION OF THE PROJECT.
11. MULCHING OF ANY TYPE SHALL BE INSTALLED PER THE RATES AND STANDARDS PRESENTED IN VOL. II, TABLE II-3.6: MULCH STANDARDS AND GUIDELINES OF THE STORMWATER MANAGEMENT MANUAL FOR WESTERN WASHINGTON, 2019 EDITION BY DEPARTMENT OF ECOLOGY.
12. ALL WORK AND MATERIAL SHALL BE IN ACCORDANCE WITH WASHINGTON STATE DEPARTMENT OF TRANSPORTATION STANDARDS AND SPECIFICATIONS AND CITY OF PUYALLUP STANDARDS.
13. EROSION & SEDIMENTATION CONTROL FACILITIES SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE DETAILS ON THIS PLAN. LOCATIONS MAY BE MOVED TO SUIT FIELD CONDITIONS, SUBJECT TO APPROVAL BY THE CONTRACTORS CESCL OR ENGINEER OF RECORD.
14. COVER ALL DIRT/TOPSOIL PILES WITH PLASTIC SHEETING (BMP C123) DURING CONSTRUCTION WHEN NOT IN USE.
15. NETS AND/OR EROSION CONTROL BLANKETS (BMP C122) MAY BE USED IN LIEU OF TEMPORARY MULCHING.
16. CONSTRUCTION SCHEDULE– PENDING APPROVAL OF PLANS FROM CITY OF PUYALLUP.
17. ADDITIONAL BMPs MAY BE USED OR REQUIRED AS CONDITIONS WARRANT. BMPs SHALL BE INSTALLED PER RECOMMENDATIONS IN THE DOE STORMWATER MANAGEMENT MANUAL FOR WESTERN WASHINGTON, CURRENT EDITION.

DO NOT INSTALL BIORETENTION CELLS UNTIL ALL AREAS UPSTREAM HAVE BEEN PERMANENTLY STABILIZED.

STOCKPILE EXCAVATED MATERIAL ALONG UPHILL SIDE OF ALL UTILITY TRENCHING, TYP.

INLET PROTECTION REQUIRED IN ANY SURFACE DRAINAGE COLLECTION DEVICE MADE OPERATIONAL DURING CONSTRUCTION (CATCH BASIN, TRENCH DRAIN, ETC.)

USE EXISTING STABILIZED SURFACES TO THE MAXIMUM EXTENT FEASIBLE FOR CONTRACTOR PARKING AND STAGING. VEHICLES SHOULD ONLY LEAVE STABILIZED SURFACES IF NEEDED FOR MATERIAL OR EQUIPMENT TRANSFERS, TYP.

STORMWATER MONITORING LOCATION #2

PROVIDE SUMP & PUMP AT LOW POINT FOR CONSTRUCTION STORMWATER RUNOFF TO BE ROUTED TO SEDIMENT POND. CONTRACTOR RESPONSIBLE FOR WORKING WITH CESCL TO CREATE AND IMPLEMENT PLAN TO USE SUMPS & PUMPS TO ROUTE CONSTRUCTION RUNOFF TO TEMPORARY SEDIMENT POND. 790 LF 4"ø SCH40 FORCEMAIN SHOWN FOR REFERENCE, DISCHARGE PIPE TO BE APPROPRIATELY SIZED BY CESCL, TYP.

WETLAND 'A' MUST BE PROTECTED DURING CONSTRUCTION. MAINTAIN SILT FENCE TO ENSURE NO ENCROACHMENTS.

CLEARING LIMITS CORRESPOND TO SILT FENCING ALONG WEST, NORTH AND EAST SIDE OF PROPERTY, TYP.

PROPOSED GRADES SHOWN FOR REFERENCE

PROPOSED BUILDING OUTLINE

CONTRACTOR TO COORDINATE W/ PUGET SOUND ENERGY FOR POWER USE FROM EXISTING POLE DURING CONSTRUCTION UNTIL NEW SERVICE IS AVAILABLE.

PROVIDE SUMP & PUMP AT LOW POINT FOR CONSTRUCTION STORMWATER RUNOFF TO BE ROUTED TO SEDIMENT POND. CONTRACTOR RESPONSIBLE FOR WORKING WITH CESCL TO CREATE AND IMPLEMENT PLAN TO USE SUMPS & PUMPS TO ROUTE CONSTRUCTION RUNOFF TO TEMPORARY SEDIMENT POND. 220 LF 4"ø SCH40 FORCEMAIN SHOWN FOR REFERENCE. DISCHARGE PIPE TO BE APPROPRIATELY SIZED BY CESCL, TYP.

STORMWATER MONITORING LOCATION #1

DO NOT INSTALL BIORETENTION CELLS UNTIL ALL AREAS UPSTREAM HAVE BEEN PERMANENTLY STABILIZED.

IF DEEMED NECESSARY BY CESCL, CONTRACTOR IS RESPONSIBLE FOR CREATING & MANAGING APPROPRIATE CONCRETE WASHOUT FACILITY

CLEARING LIMITS CORRESPOND TO SILT FENCING ALONG WEST, NORTH AND EAST SIDE OF PROPERTY, TYP.

CONSTRUCT DETENTION POND DURING INITIAL PHASES OF LAND-DISTURBING WORK ON SITE. USE POND AS SEDIMENT SETTLING FACILITY THROUGHOUT CONSTRUCTION. CONTRACTOR SHALL CLEAN AND PERMANENTLY STABILIZE THE POND & CONTROL STRUCTURE AT PROJECT COMPLETION.

PERMEABLE BARRIER TO BE WIRE BACKED SILT FENCE STAKED W/ 4"x4" TREATED WOOD POSTS. INTENT IS TO DIVIDE POND IN TWO ROUGHLY EQUAL VOLUMES. TOP OF PERMEABLE BARRIER = 42.5

TRACKING OF MUD AND DEBRIS ONTO CITY STREETS IS STRICTLY PROHIBITED. IF IT OCCURS, THOROUGHLY CLEAN SEDIMENT FROM EXISTING PAVEMENT AT THE END OF EACH WORK DAY. CLEANING SHALL REMOVE ALL VISIBLE TRACKOUT.

UTILIZE SAWCUTTING & SURFACING POLLUTION PREVENTION TECHNIQUES PER BMP C152, TYP.

TRACKING OF MUD AND DEBRIS ONTO CITY STREETS IS STRICTLY PROHIBITED. IF IT OCCURS, THOROUGHLY CLEAN SEDIMENT FROM EXISTING PAVEMENT AT THE END OF EACH WORK DAY. CLEANING SHALL REMOVE ALL VISIBLE TRACKOUT.

UTILIZE SAWCUTTING & SURFACING POLLUTION PREVENTION TECHNIQUES PER BMP C152, TYP.

4TH STREET NW

TODD ROAD NW

CHICAGO, MILWAUKEE & ST. PAUL RAILROAD RIGHT OF WAY

N 01°17'05" E 485.77'

N 66°35'01" W 1167.91'

N 38°44'59" W 1081.98'

NOTE: THERE ARE NO ON-SITE EXISTING IMPROVEMENTS TO BE DEMOLISHED/REMOVED AS PART OF THIS PERMIT. SEE CLEAR, FILL & GRADE PERMIT PRGR20240391 FOR EARLY SITE DEMOLITION & GRADING ACTIVITIES. SEE SHEET C2.1 FOR DEMOLISHED/REMOVED ITEMS WITHIN RIGHT-OF-WAY.

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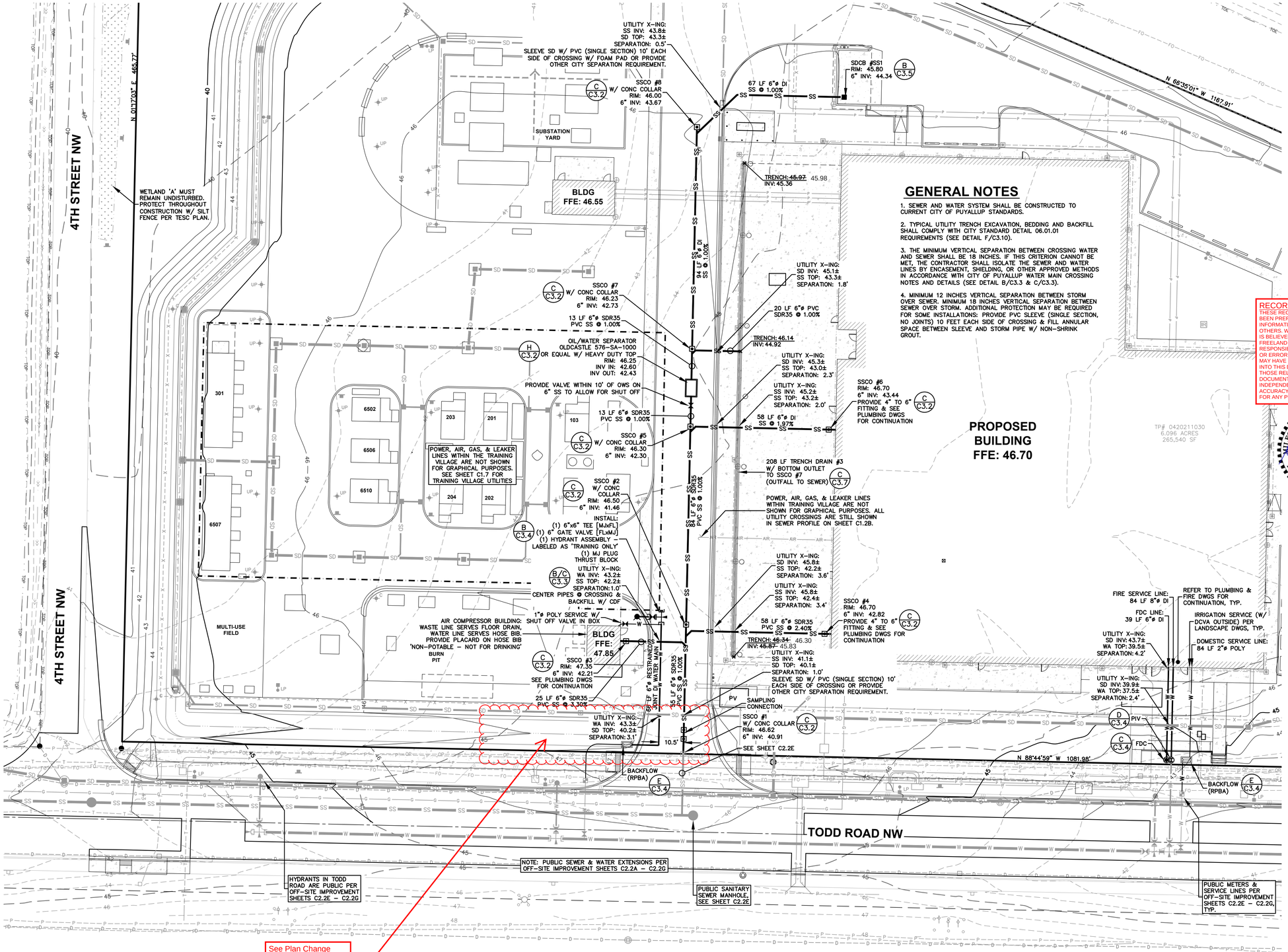
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TESC PLAN

PROJECT No:	22219
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GENERAL NOTES

1. SEWER AND WATER SYSTEM SHALL BE CONSTRUCTED TO CURRENT CITY OF PUYALLUP STANDARDS.

2. TYPICAL UTILITY TRENCH EXCAVATION, BEDDING AND BACKFILL SHALL COMPLY WITH CITY STANDARD DETAIL 06.01.01 REQUIREMENTS (SEE DETAIL F/C3.10).

3. THE MINIMUM VERTICAL SEPARATION BETWEEN CROSSING WATER AND SEWER SHALL BE 18 INCHES. IF THIS CRITERION CANNOT BE MET, THE CONTRACTOR SHALL ISOLATE THE SEWER AND WATER LINES BY ENCASEMENT, SHIELDING, OR OTHER APPROVED METHODS IN ACCORDANCE WITH CITY OF PUYALLUP WATER MAIN CROSSING NOTES AND DETAILS (SEE DETAIL B/C3.3 & C/C3.3).

4. MINIMUM 12 INCHES VERTICAL SEPARATION BETWEEN STORM OVER SEWER. MINIMUM 18 INCHES VERTICAL SEPARATION BETWEEN SEWER OVER STORM. ADDITIONAL PROTECTION MAY BE REQUIRED FOR SOME INSTALLATIONS: PROVIDE PVC SLEEVE (SINGLE SECTION, NO JOINTS) 10 FEET EACH SIDE OF CROSSING & FILL ANNULAR SPACE BETWEEN SLEEVE AND STORM PIPE W/ NON-SHRINK GROUT.

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MILES PATRICK MCCARTHERON STATE OF WASHINGTON 19494 REGISTERED PROFESSIONAL ENGINEER 7/9/2024

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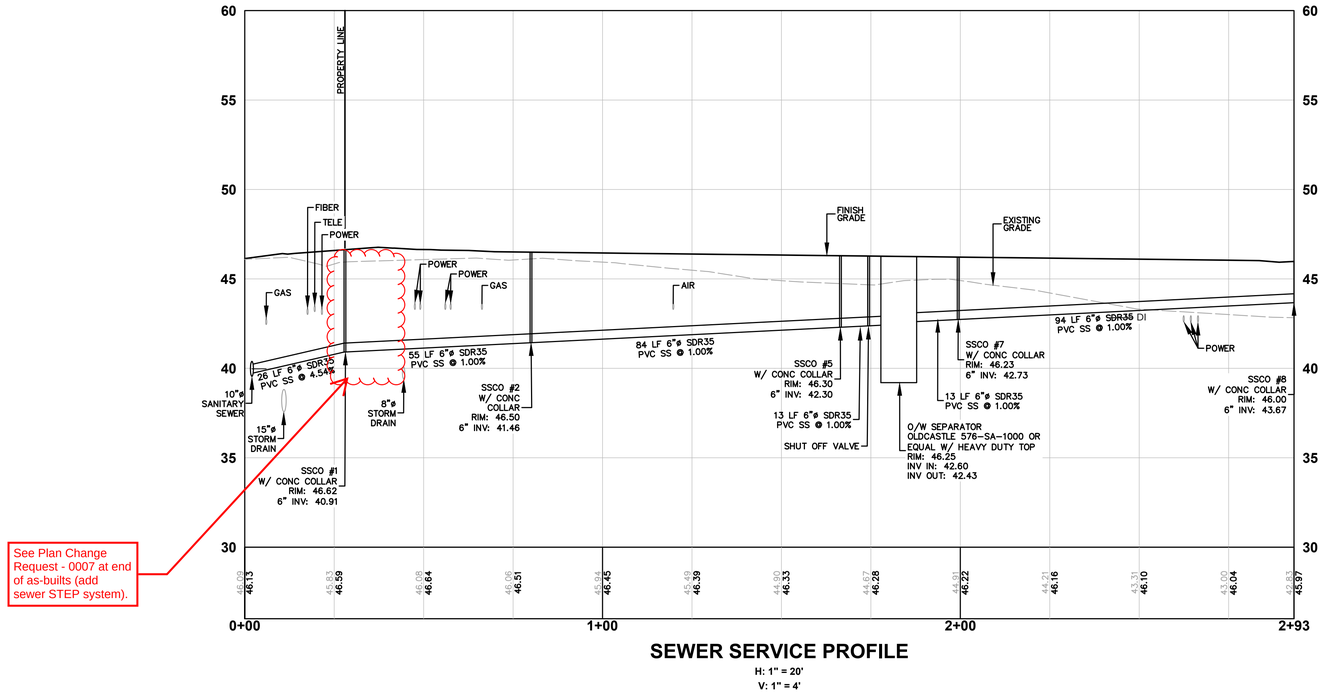
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WATER & SEWER PLAN

PROJECT No:	22219
DRAWN BY:	MPM
CHECKED BY:	THF
DATE ISSUED:	05/31/2024

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See Plan Change Request - 0007 at end of as-builts (add sewer STEP system).

SEWER SERVICE PROFILE

H: 1" = 20'
V: 1" = 4'

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SCALE: 1"=20' 0 20

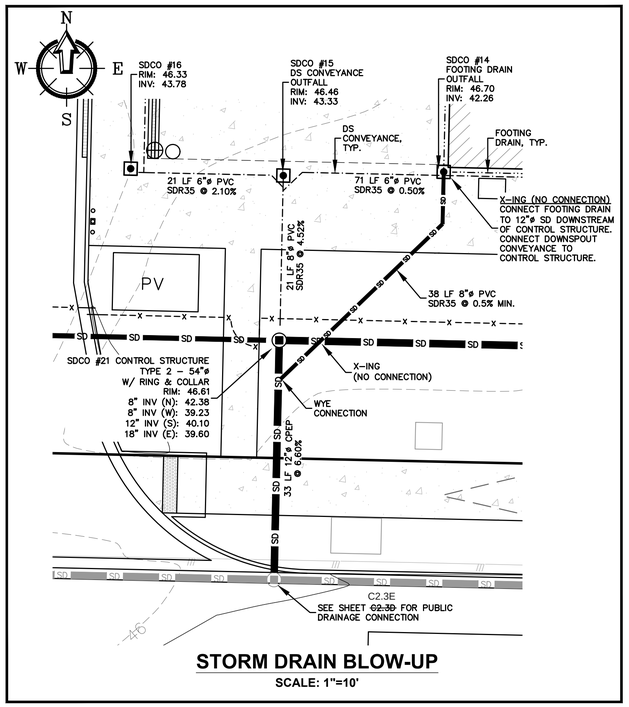
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SEWER SERVICE PROFILE

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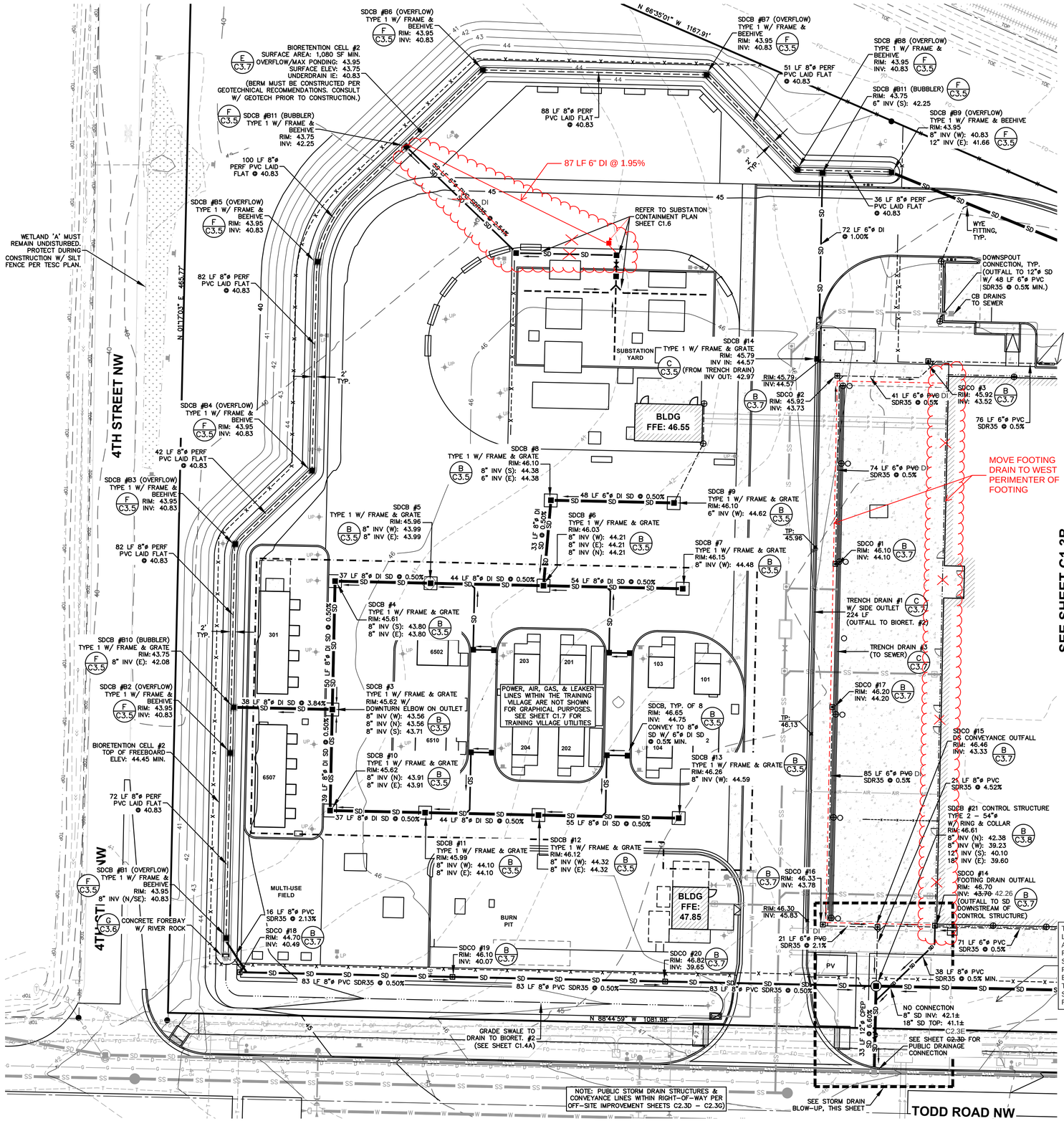


STORM DRAIN BLOW-UP

SCALE: 1"=10'

UTILITY CROSSING NOTE:

SEE SHEET C1.2A FOR OTHER UTILITY CROSSING LOCATIONS.



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STATE OF WASHINGTON
19494
REGISTERED
PROFESSIONAL ENGINEER
05/31/2024

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Building	Planning
Engineering	Public Works
Fire	Traffic

100% CD SET

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0 20

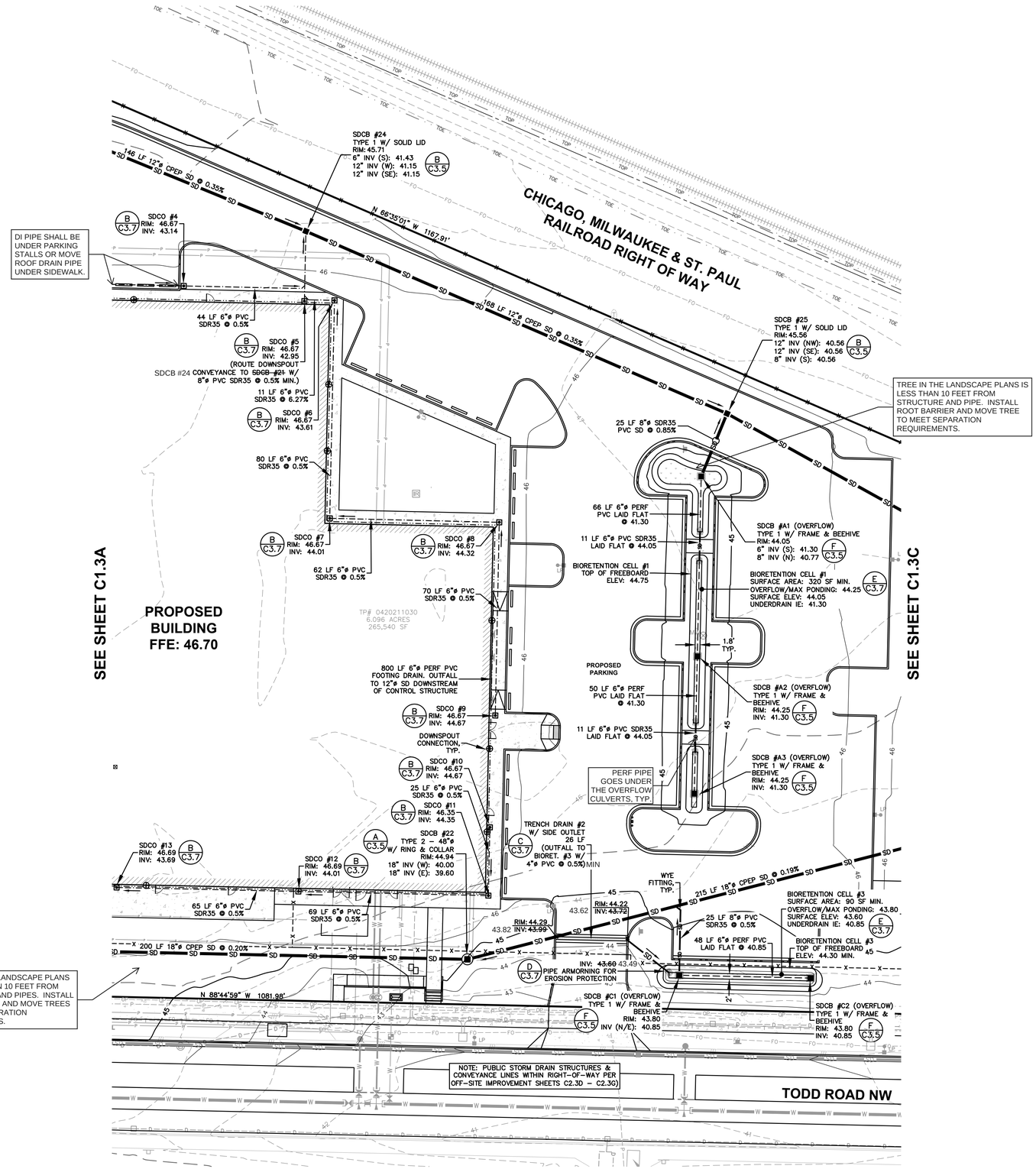
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DRAINAGE PLAN (WEST)

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Engineering	Public Works
Fire	Traffic

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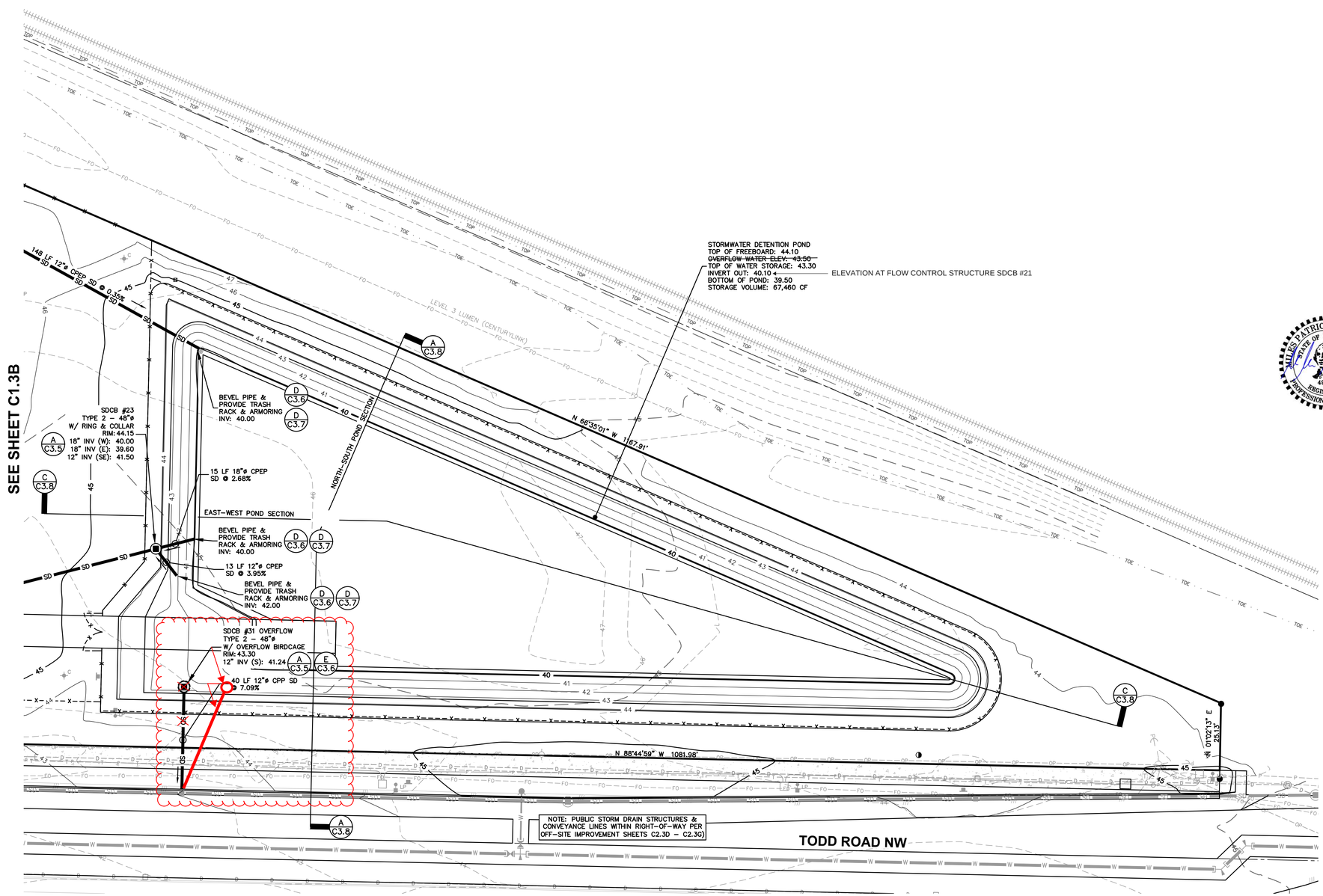
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DRAINAGE PLAN (CENTRAL)

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Fire	Traffic

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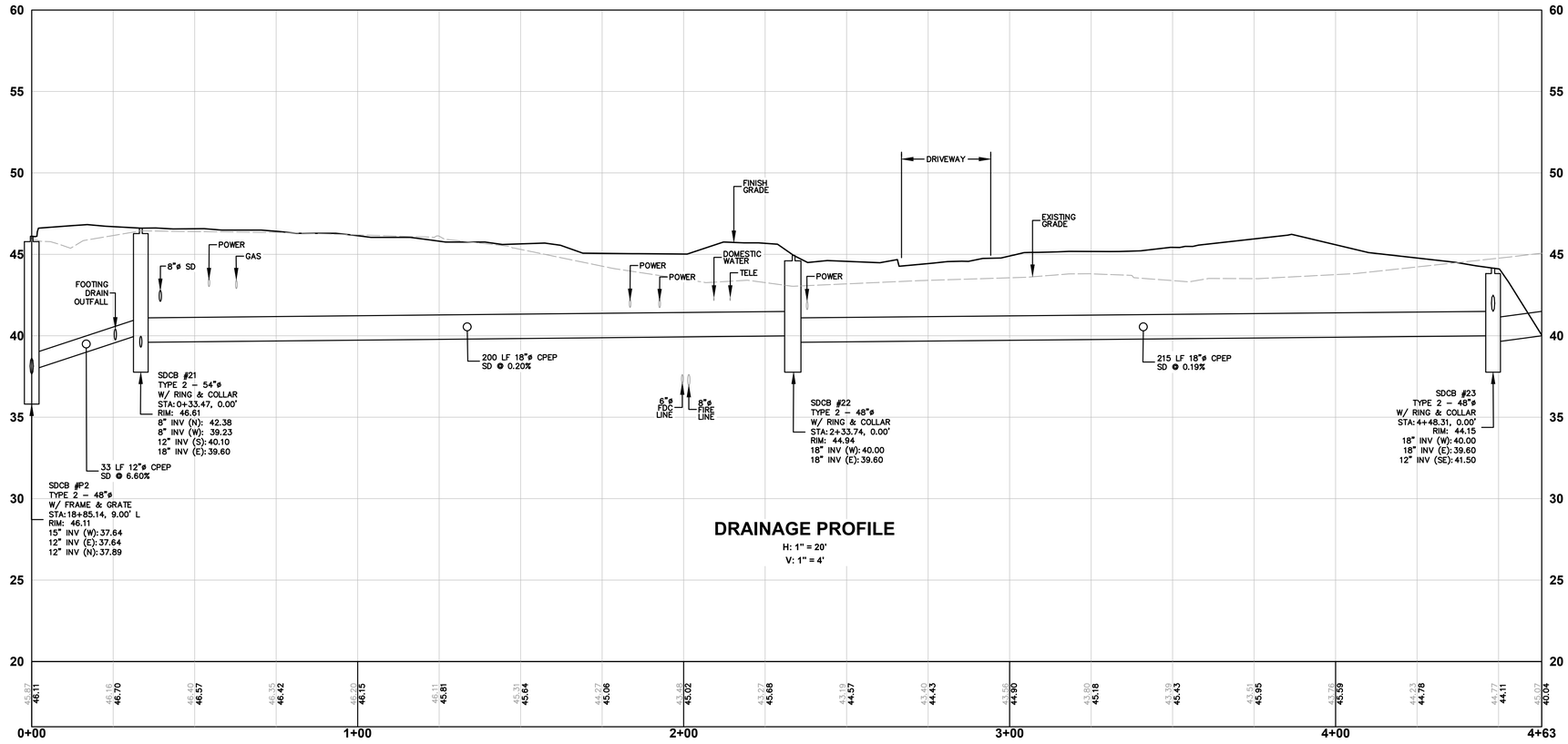
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DRAINAGE PLAN (EAST)

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DRAINAGE PROFILE

H: 1" = 20'
V: 1" = 4'

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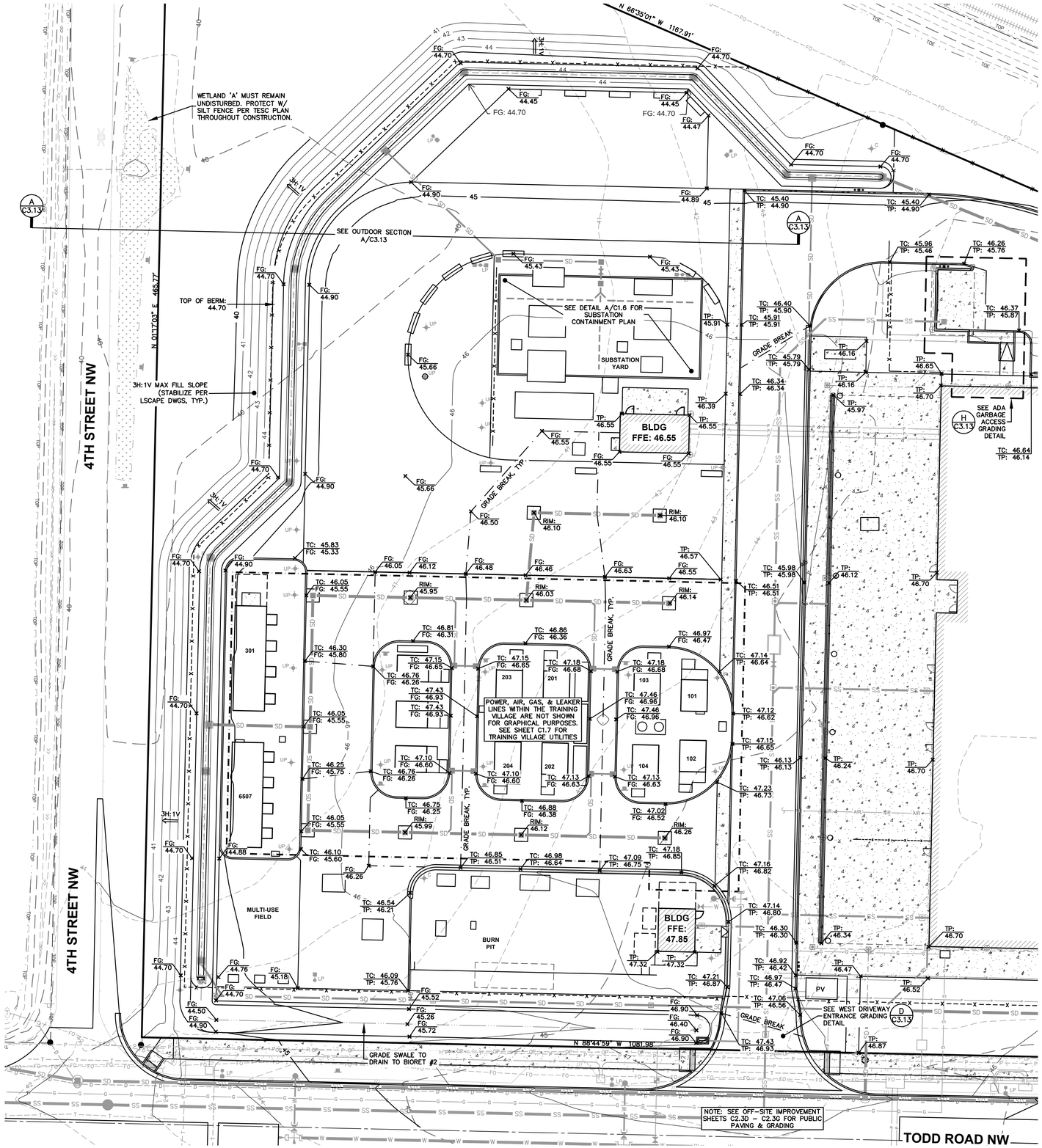
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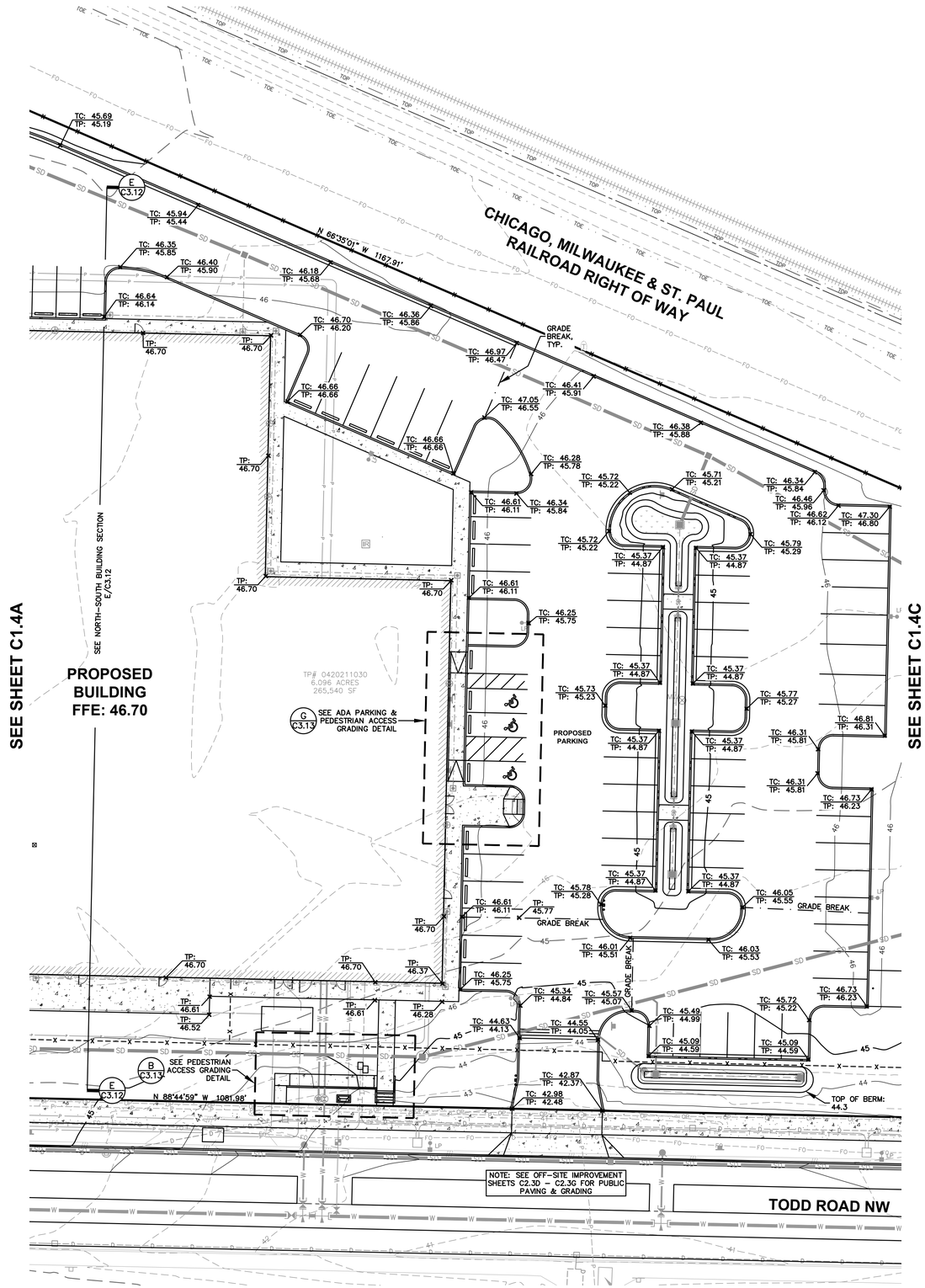
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GRADING PLAN (WEST)

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Engineering	Public Works
Fire	Traffic

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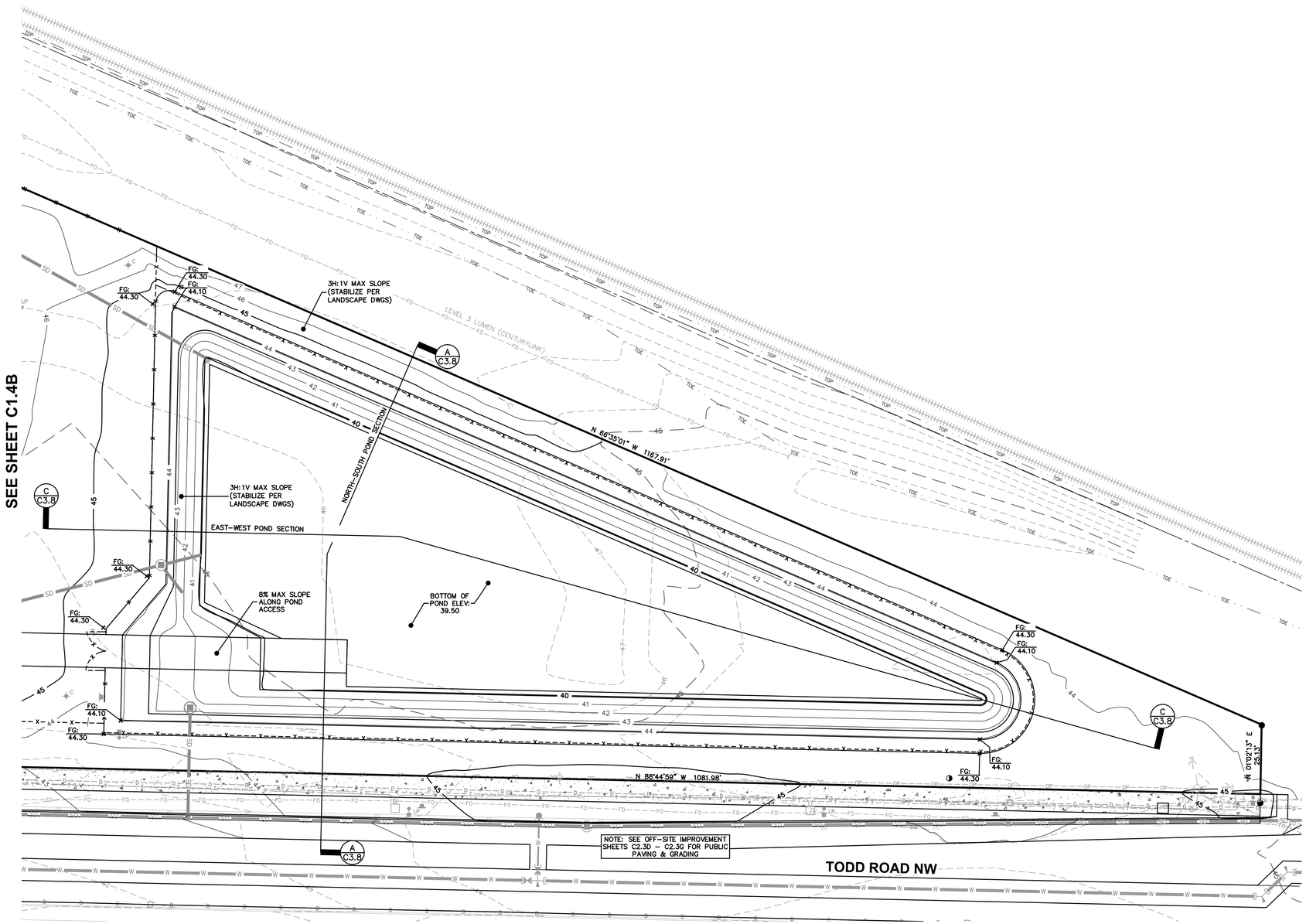
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GRADING PLAN (CENTRAL)

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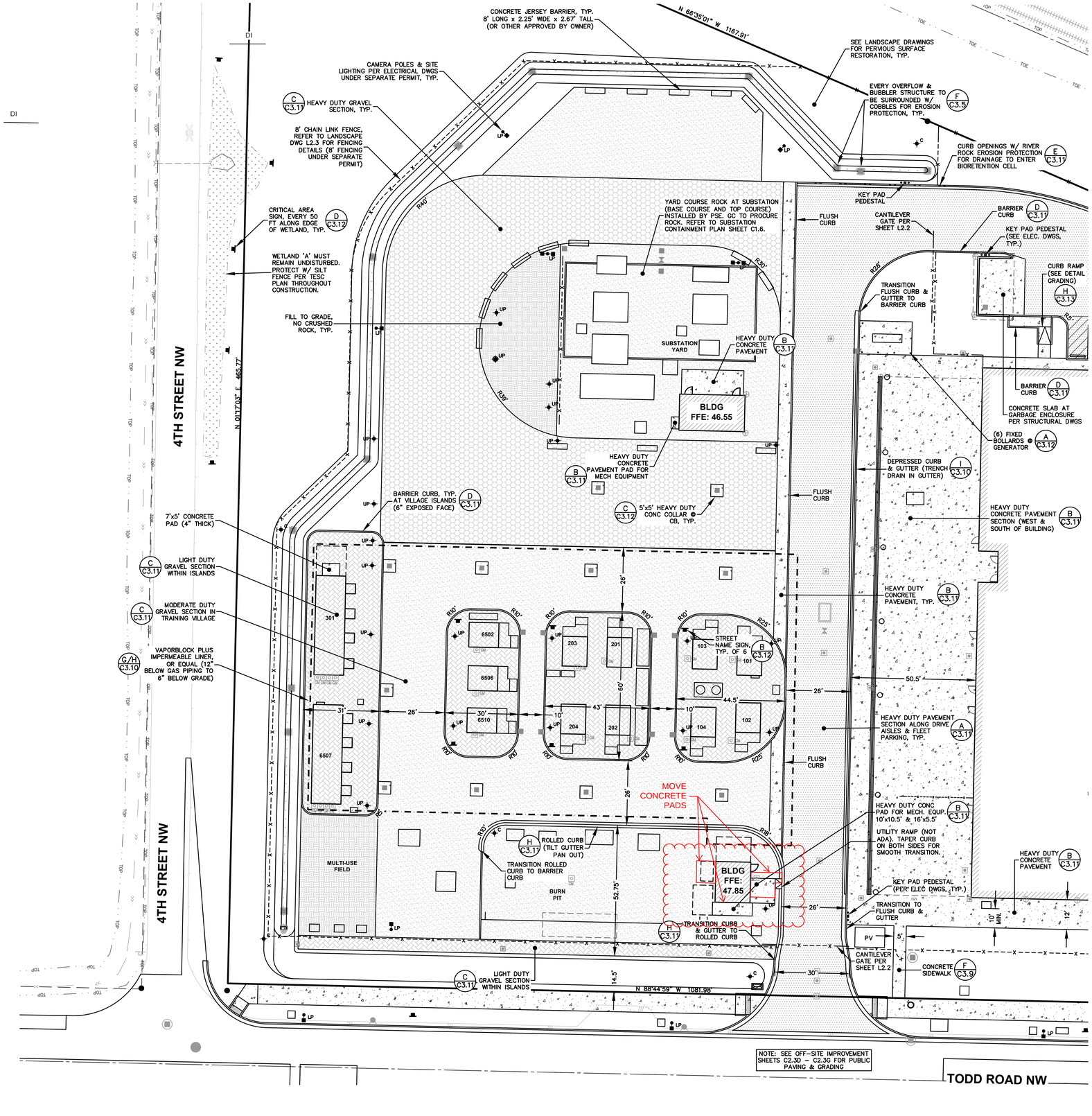
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GRADING PLAN (EAST)

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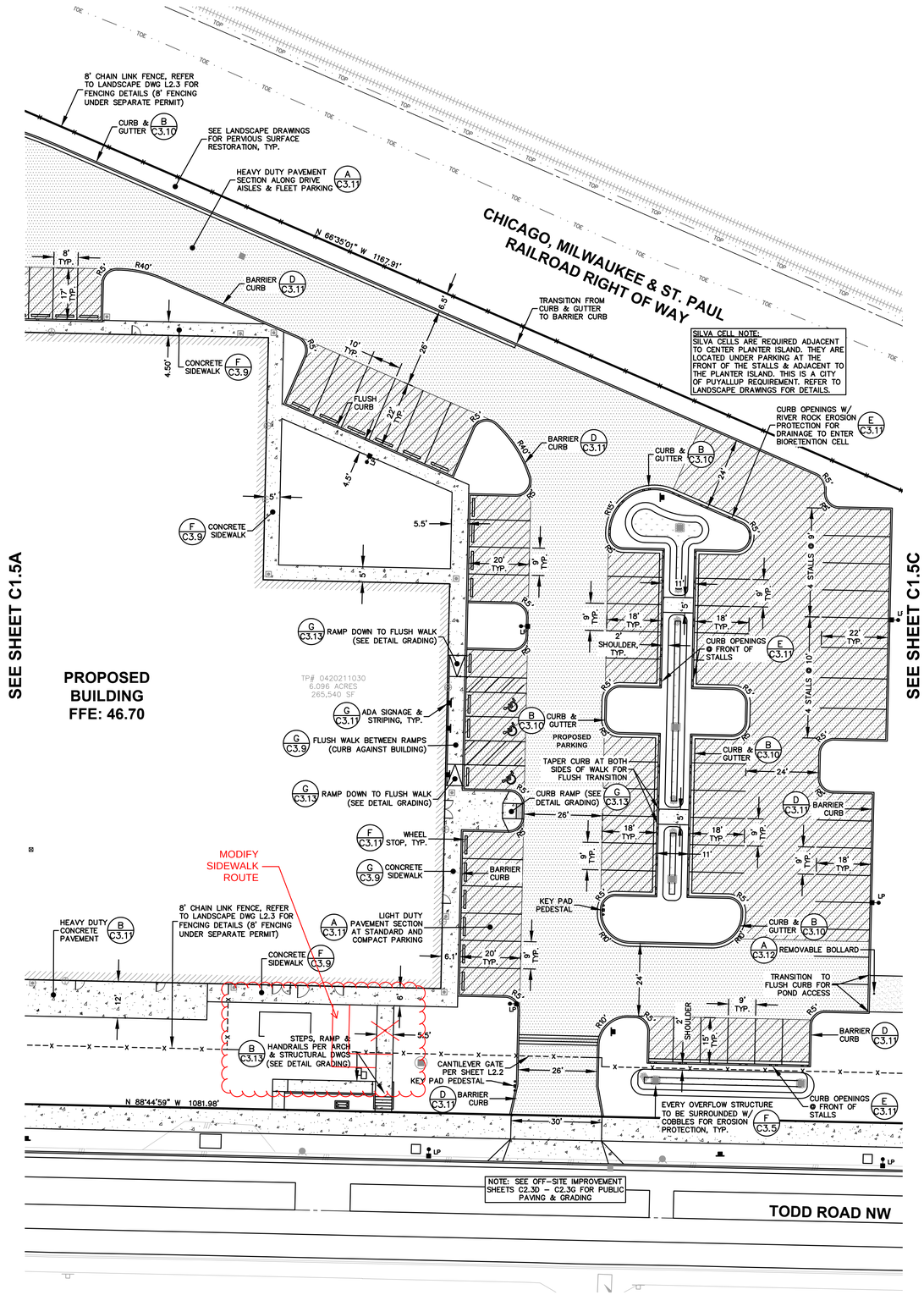
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PAVING & SURFACING PLAN (WEST)

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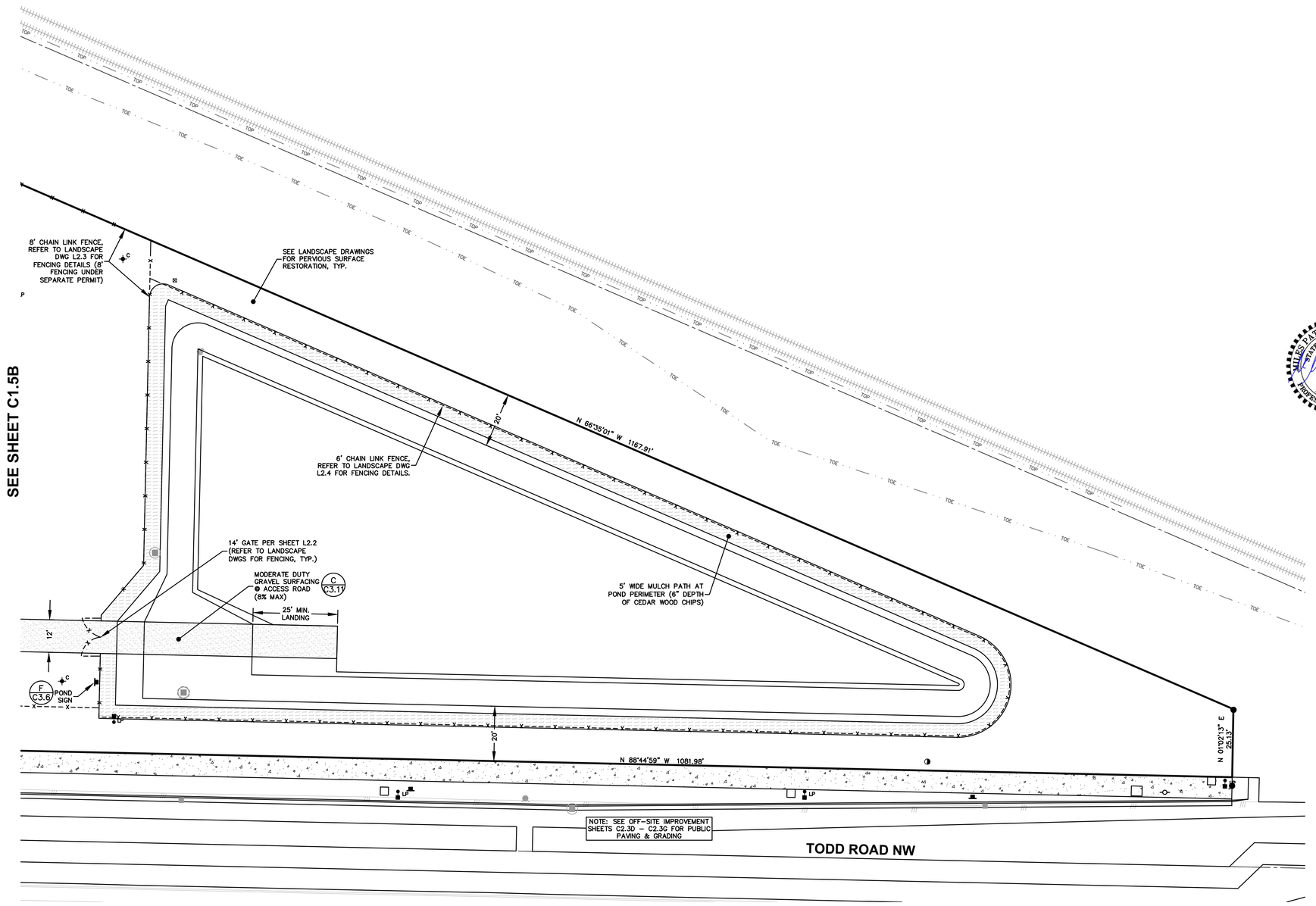
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PAVING & SURFACING PLAN (CENTRAL)

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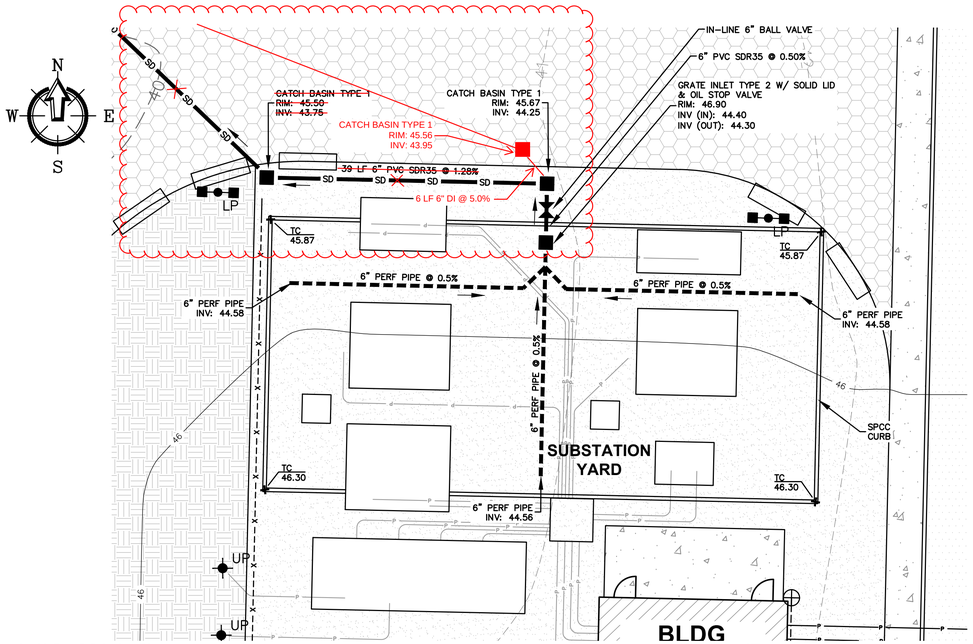
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PAVING & SURFACING PLAN (EAST)

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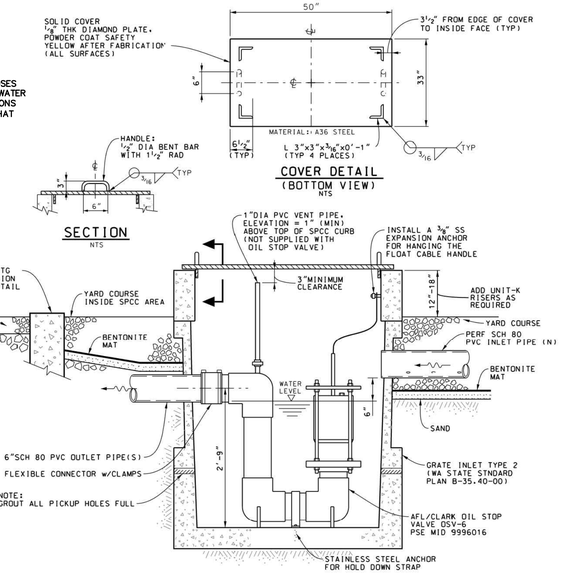


OIL CONTAINMENT CALCULATION:
REQUIRED OIL CONTAINMENT VOLUME = 4,726 GALLONS * 110% = 5199 GALLONS = 695 CF
EQUIVALENT ROCK STORAGE VOLUME = 695 CF / 0.35 = 1,986 CF
ROCK STORAGE DEPTH PROVIDED = (TOP OF CURB – 4") – (HIGHEST PERF PIPE IE) = 0.96 FT
REQUIRED FOOTPRINT = 1,986 CF / 0.96 FT = 2,068 SF
FOOTPRINT PROVIDED = 2,090 SF (EXCLUDES UTILITY PADS)

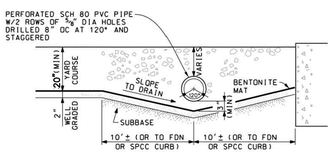
NOTE:
OIL CONTAINMENT TO MEET DEPARTMENT OF ECOLOGY BMP S427 FOR STORAGE OF LIQUID, FOOD WASTE, OR DANGEROUS WASTE CONTAINERS. ANY OIL CAPTURED WITHIN THE CONTAINMENT AREA MUST BE PUMPED AND DISCHARGED APPROPRIATELY. THE OWNER WILL BE GENERATING A SPILL PREVENTION CONTROL AND COUNTERMEASURE PLAN.

A SUBSTATION CONTAINMENT PLAN
SCALE: 1"=10'

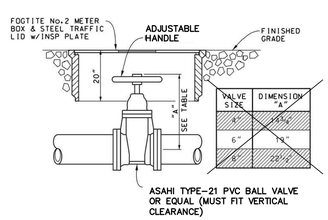
NOTE
VERIFY THAT VALVE SEAT IS CLEAN AND CLOSES PROPERLY THEN CHARGE GRATE INLET WITH WATER TO LEVEL SHOWN (APPROXIMATELY 200 GALLONS OF WATER WILL BE REQUIRED) MAKE SURE THAT VALVE IS IN OPEN (FLOATING) POSITION.



B GRATE INLET TYPE 2 W/ 6" OIL STOP VALVE
nts

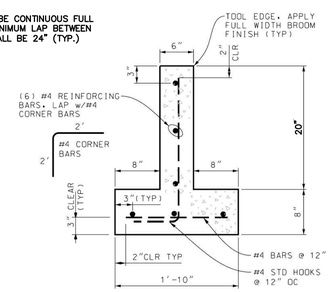


C SPCC PERFORATED DRAIN
nts

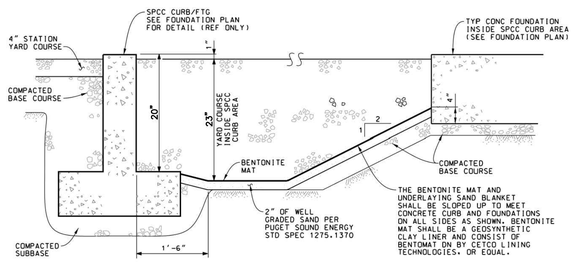


D GATE VALVE ASSEMBLY
nts

NOTE
REINFORCING SHALL BE CONTINUOUS FULL LENGTH OF CURB, MINIMUM LAP BETWEEN INDIVIDUAL BARS SHALL BE 24" (TYP.)



E SPCC CONCRETE CURB
nts



F TYPICAL AREA INSIDE SPCC CURB
nts

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MILES PATRICK MCEATHRON
STATE OF WASHINGTON
49494
REGISTERED
PROFESSIONAL ENGINEER
05/31/2024

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BY _____
CITY OF PUYALLUP
DEVELOPMENT ENGINEERING
DATE 07/09/2024

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 DEVELOPMENT ENGINEERING MANAGER.

MILES PATRICK MCEATHRON
STATE OF WASHINGTON
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7/8/2025

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City of Puyallup
Development & Permitting Services
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Building	Planning
Engineering	Public Works
Fire	Traffic

100% CD SET

REV	ISSUED FOR	DATE

PLAN NORTH TRUE NORTH
SCALE: 0

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SUBSTATION CONTAINMENT PLAN

PROJECT No:	22219
DRAWN BY:	MPM
CHECKED BY:	THF
DATE ISSUED:	05/31/2024

C1.6

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8"Ø GATE VALVE (CASING ONLY, NO VALVE. THESE ARE NOT CONNECTED TO A WATER SYSTEM. THE VALVE BOXES ARE INTENDED TO INDICATE THERE IS A WATER MAIN IN CLOSE PROXIMITY FOR TRAINING PURPOSES), TYP. OF 16

FUTURE CORROSION CONTROL TESTING, BY PSE (STEEL GAS PIPE)

SSMH W/ RING & COVER & 8"Ø PIPE STUBS, TYP. OF 6 RIM TO IE: 6.00' (PIPE STUBS ARE NOT CONNECTED TO A SEWER SYSTEM. THESE STRUCTURES ARE INTENDED TO INDICATE THERE IS A SEWER SYSTEM IN CLOSE PROXIMITY FOR TRAINING PURPOSES.)

COMMUNAL WATER METER BOX
FOG TITE #3 METER BOX

REFER TO MECHANICAL DWGS FOR RISERS, MANIFOLDS & MOCKUPS, TYP.

VAPORBLOCK PLUS IMPERMEABLE LINER OR EQUAL

N 01°17'03" E 465.77'

REFER TO PLAN SHEET C1.3A FOR DRAINAGE INFORMATION. UTILITY INFORMATION INDICATED ON THIS PLAN SHEET IS FOR TRAINING PURPOSES ONLY.

VILLAGE UTILITY ROUTING
INTENT IS TO FOLLOW PSE REQUIREMENTS FOR MAINLINE AND SERVICE LINE JOINT TRENCHING WITH THE EXCEPTION: 3'-6" TO BOTTOM OF TRENCH (36" TO TOP OF PIPE). INCLUDE 4" SAND BEDDING & 12" SAND SHADING & FOLLOW SEPARATION GUIDELINES.

GAS, AIR & LEAKER TRENCHING, INSTALLATION & BACKFILL BY PSE.

VAULT NOTE:
ALL LIDS TO BE TRAFFIC RATED.

(3) DIGGING VAULTS: OLDCASTLE 444-LA

COVERED AREA TRAINING VAULT: OLDCASTLE 575 W/ (2) J-BOX VAULTS

CONFINED SPACE TRAINING VAULT: OLDCASTLE 7906800-5106 2-PIECE W/ (2) 42"Ø ACCESS HOLES

BROKEN SERVICE TO #203:
(1) OLDCASTLE 444-LA
(1) OLDCASTLE 644-LA

BROKEN MAIN PIT:
(3) OLDCASTLE MEID-7-1
W/ 12"Ø CONDUIT BETWEEN VAULTS

301
6502
6506
6510
6507
203
201
204
202
103
101
104
102

MULTI-USE FIELD

PLIDCO TRAINING: 8'W x 8'L x 6'D (INTERIOR) LID TO BE SPRING LOADED HATCH (SUPPORT BEAMS DOWN MIDDLE MUST BE REMOVABLE)

BREAK PIT VAULT: OLDCASTLE 644-LA

UNDERWATER VAULT: OLDCASTLE 233-LA

BURN PIT

BLDG FFE: 47.85

PV

FUTURE CORROSION CONTROL TESTING, BY PSE (STEEL GAS PIPE)

LEAKER TRENCHING, INSTALLATION & BACKFILL BY PSE

AIR TRENCHING, INSTALLATION & BACKFILL BY PSE

GAS TRENCHING, INSTALLATION & BACKFILL BY PSE

REFER TO MECHANICAL DWGS FOR RISERS, MANIFOLDS & MOCKUPS, TYP.

N 88°44'59" W 1081.98'

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DEVELOPMENT ENGINEERING
DATE 07/09/2024

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Building	Planning
Engineering	Public Works
Fire	Traffic

100% CD SET

REV	ISSUED FOR	DATE

PLAN NORTH | TRUE NORTH

SCALE: 1"=10' 0 10

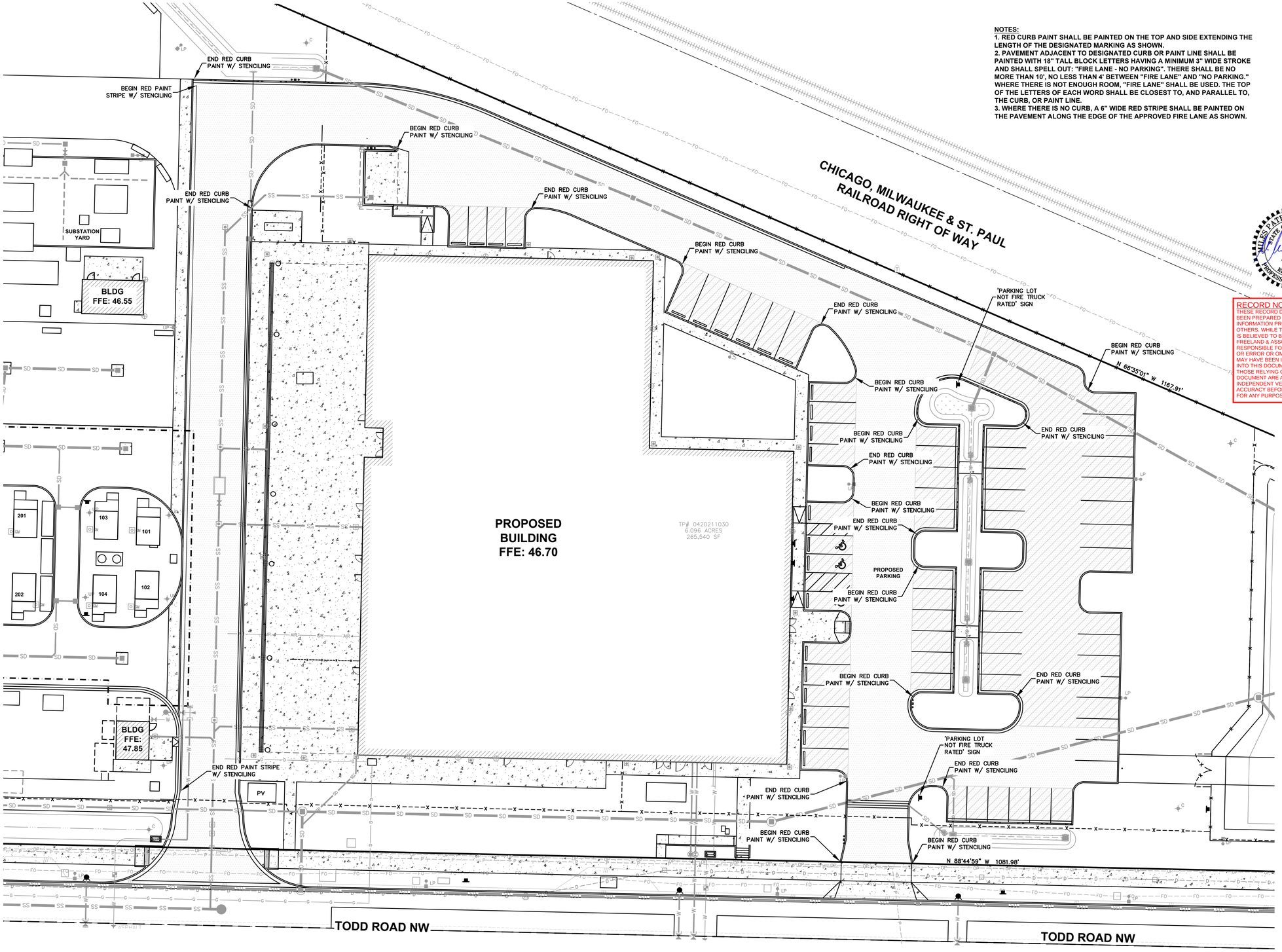
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TRAINING VILLAGE UTILITY PLAN

PROJECT No:	22219
DRAWN BY:	MPM
CHECKED BY:	THF
DATE ISSUED:	05/31/2024

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NOTES:
1. RED CURB PAINT SHALL BE PAINTED ON THE TOP AND SIDE EXTENDING THE LENGTH OF THE DESIGNATED MARKING AS SHOWN.
2. PAVEMENT ADJACENT TO DESIGNATED CURB OR PAINT LINE SHALL BE PAINTED WITH 18" TALL BLOCK LETTERS HAVING A MINIMUM 3" WIDE STROKE AND SHALL SPELL OUT: "FIRE LANE - NO PARKING". THERE SHALL BE NO MORE THAN 10', NO LESS THAN 4' BETWEEN "FIRE LANE" AND "NO PARKING." WHERE THERE IS NOT ENOUGH ROOM, "FIRE LANE" SHALL BE USED. THE TOP OF THE LETTERS OF EACH WORD SHALL BE CLOSEST TO, AND PARALLEL TO, THE CURB, OR PAINT LINE.
3. WHERE THERE IS NO CURB, A 6" WIDE RED STRIPE SHALL BE PAINTED ON THE PAVEMENT ALONG THE EDGE OF THE APPROVED FIRE LANE AS SHOWN.

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CITY OF PUYALLUP
DEVELOPMENT ENGINEERING
DATE 07/09/2024
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FIRE HYDRANT/FDC LOCATION/ACCESS APPROVED
BY _____
CITY OF PUYALLUP
FIRE CODE OFFICIAL
DATE 07/02/2024
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 FIRE CODE OFFICIAL.

City of Puyallup
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Engineering	Public Works
Fire	Traffic

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PLAN NORTH | TRUE NORTH
SCALE: 1"=20' (0 – 20)

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FIRE LANE MARKING PLAN

PROJECT No:	22219
DRAWN BY:	MPM
CHECKED BY:	THF
DATE ISSUED:	05/31/2024

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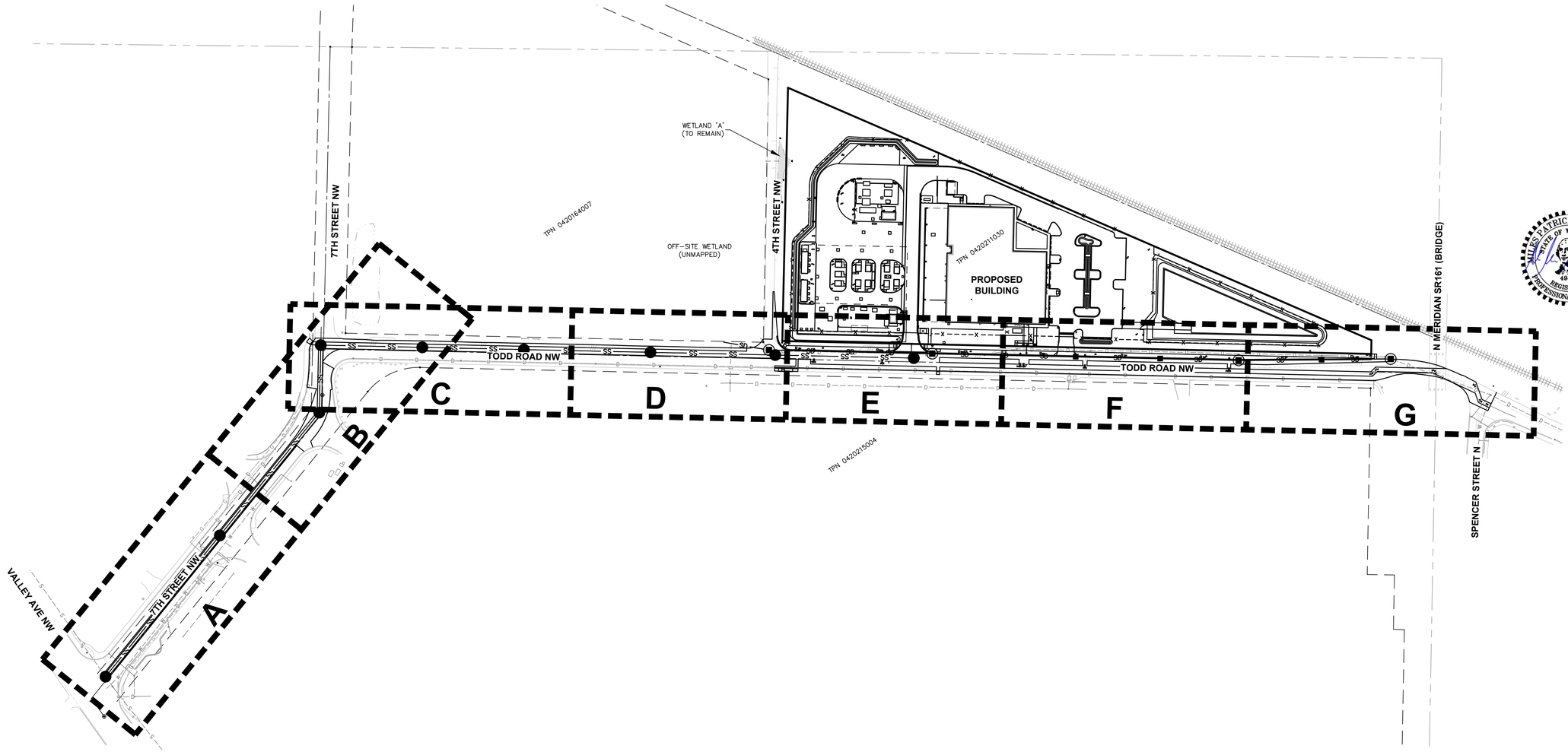
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MILES PATRICK MCEATHRON — STATE OF WASHINGTON — 49404 — REGISTERED PROFESSIONAL ENGINEER — 05/31/2024

MILES PATRICK MCEATHRON — STATE OF WASHINGTON — 49404 — REGISTERED PROFESSIONAL ENGINEER — 7/8/2025

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STATE OF WASHINGTON
49494
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05/31/2024

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MILES PATRICK MCEATHRON
STATE OF WASHINGTON
49494
REGISTERED
PROFESSIONAL ENGINEER
7/9/2024

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Building	Planning
Engineering	Public Works
Fire	Traffic

100% CD SET

REV	ISSUED FOR	DATE

PLAN NORTH | TRUE NORTH

SCALE: 100 (0 – 100)

PSE - OPERATIONAL TRAINING CENTER

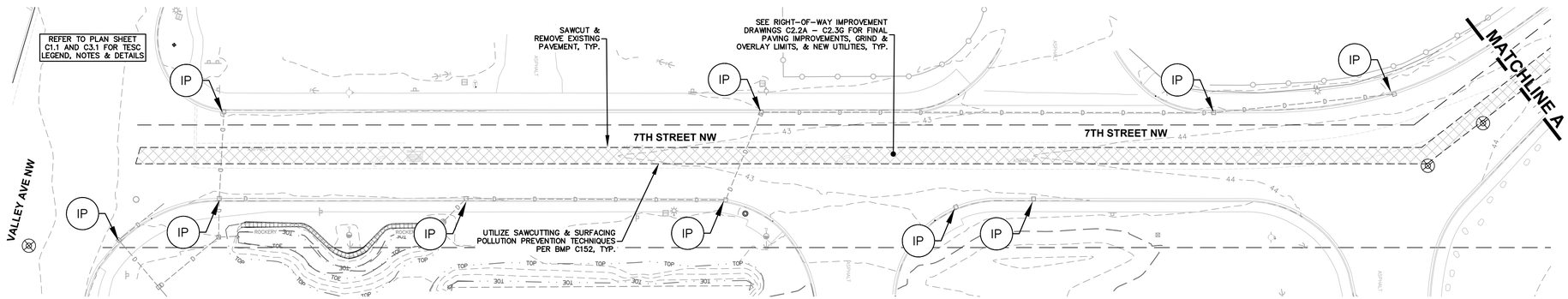
FRONTAGE PLAN & SHEET LAYOUT

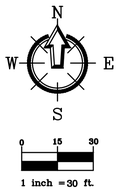
PROJECT No:	22219
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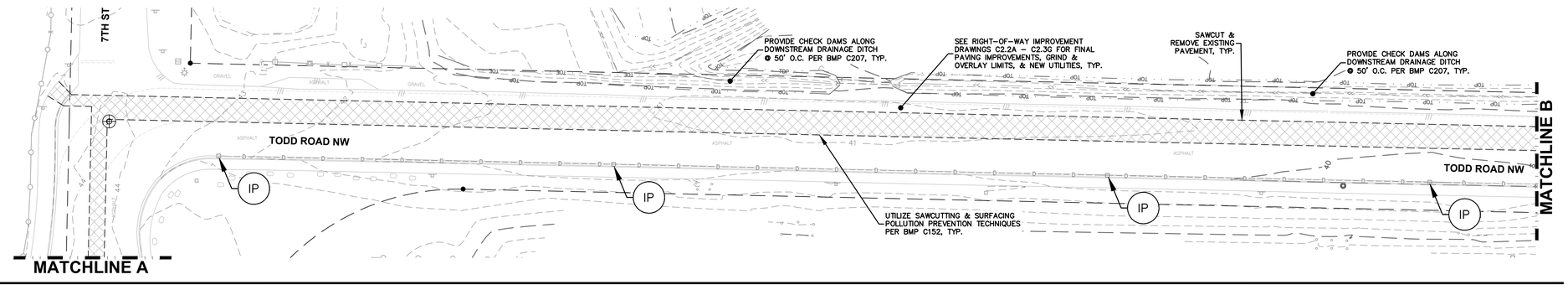
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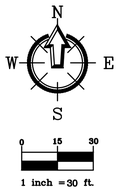
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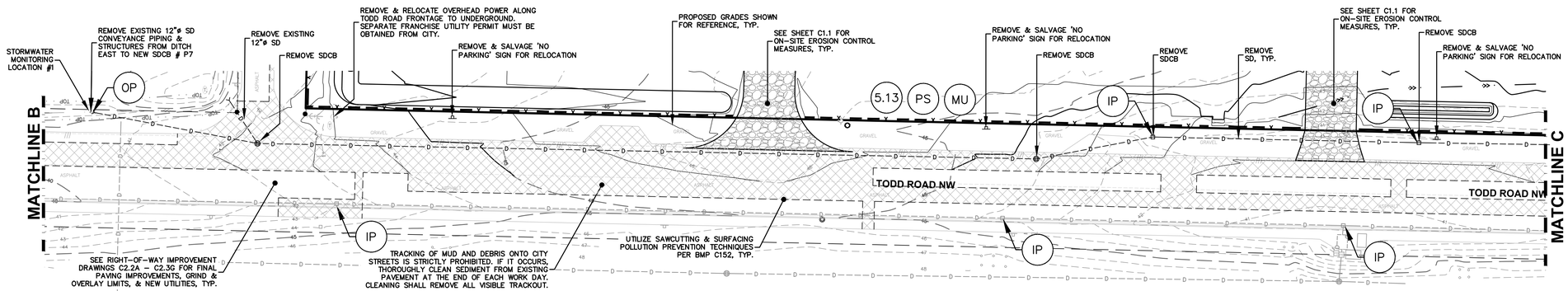


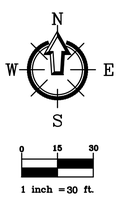


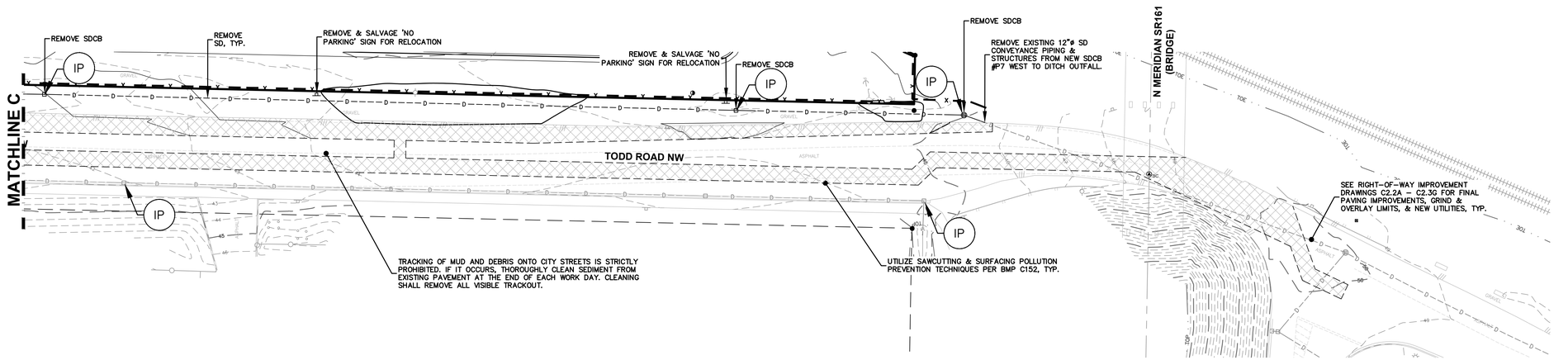












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MILES PATRICK MCEATHRON — STATE OF WASHINGTON — 49494 — REGISTERED PROFESSIONAL ENGINEER — 05/31/2024

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DATE 07/09/2024

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City of Puyallup
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Building	Planning
Engineering	Public Works
Fire	Traffic

100% CD SET

REV	ISSUED FOR	DATE

PLAN NORTH TRUE NORTH
SCALE: 1"=30' 0 30

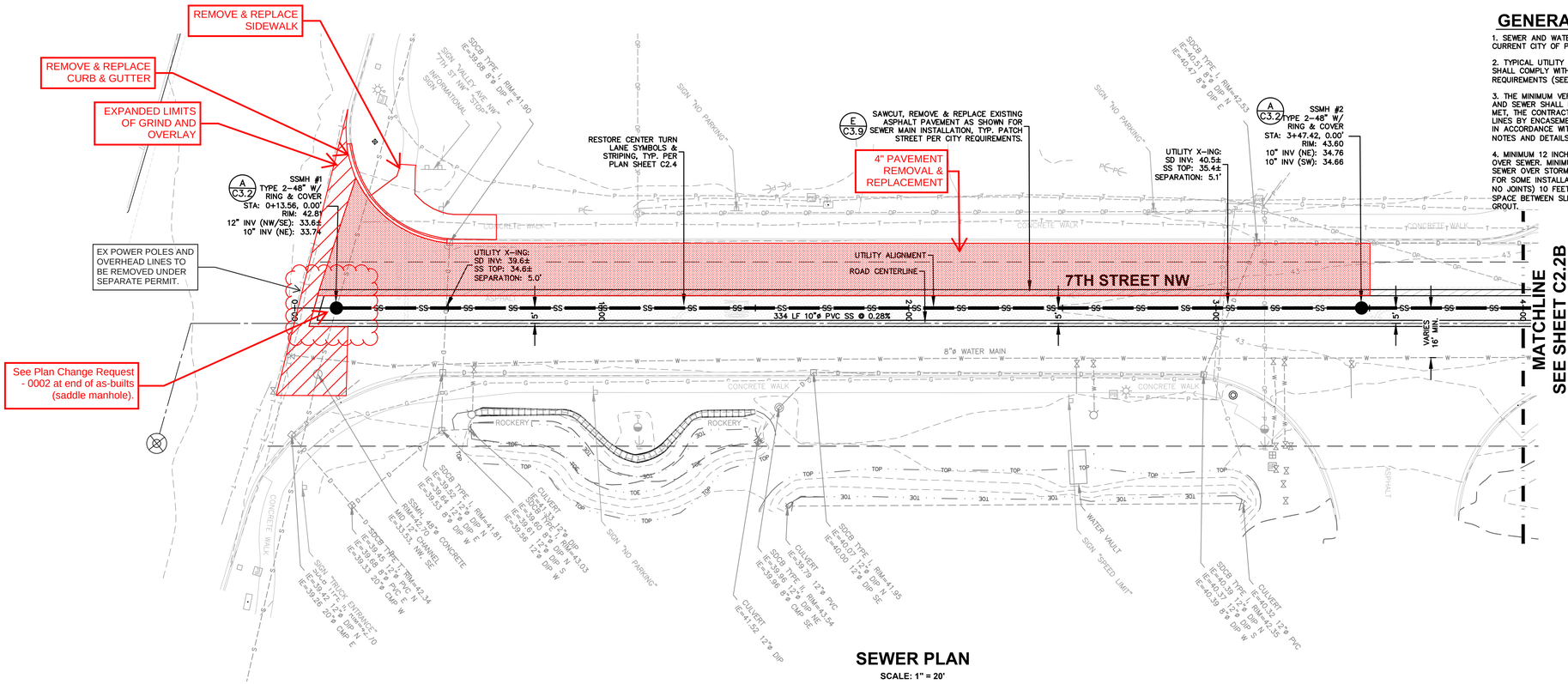
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TESC PLAN

PROJECT No:	22219
DRAWN BY:	MPM
CHECKED BY:	THF
DATE ISSUED:	05/31/2024

C2.1

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SEWER PLAN

SCALE: 1" = 20'

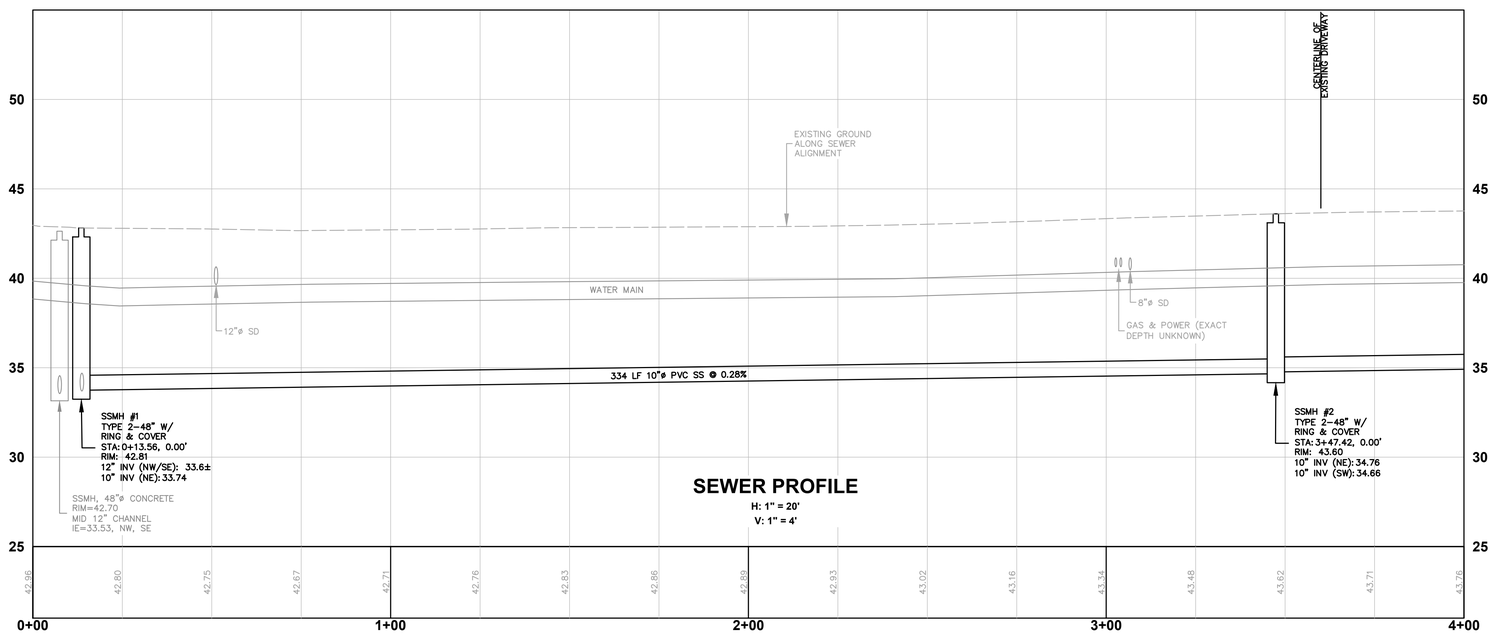
GENERAL NOTES

1. SEWER AND WATER SYSTEM SHALL BE CONSTRUCTED TO CURRENT CITY OF PUYALLUP STANDARDS.

2. TYPICAL UTILITY TRENCH EXCAVATION, BEDDING AND BACKFILL SHALL COMPLY WITH CITY STANDARD DETAIL 06.01.01 REQUIREMENTS (SEE DETAIL F/C3.10).

3. THE MINIMUM VERTICAL SEPARATION BETWEEN CROSSING WATER AND SEWER SHALL BE 18 INCHES. IF THIS CRITERION CANNOT BE MET, THE CONTRACTOR SHALL ISOLATE THE SEWER AND WATER LINES BY ENCASEMENT, SHIELDING, OR OTHER APPROVED METHODS IN ACCORDANCE WITH CITY OF PUYALLUP WATER MAIN CROSSING NOTES AND DETAILS (SEE DETAIL B/C3.3 & C/C3.3).

4. MINIMUM 12 INCHES VERTICAL SEPARATION BETWEEN STORM OVER SEWER. MINIMUM 18 INCHES VERTICAL SEPARATION BETWEEN SEWER OVER STORM. ADDITIONAL PROTECTION MAY BE REQUIRED FOR SOME INSTALLATIONS: PROVIDE PVC SLEEVE (SINGLE SECTION, NO JOINTS) 10 FEET EACH SIDE OF CROSSING & FILL ANNULAR SPACE BETWEEN SLEEVE AND STORM PIPE W/ NON-SHRINK GROUT.



SEWER PROFILE

H: 1" = 20'
V: 1" = 4'

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City of Puyallup
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Fire	Traffic

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PLAN NORTH | TRUE NORTH
SCALE: 1"=20' (0 — 20)

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SEWER PLAN & PROFILE - 0+00 - 4+00

PROJECT No:	22219
DRAWN BY:	MPM
CHECKED BY:	THF
DATE ISSUED:	05/31/2024

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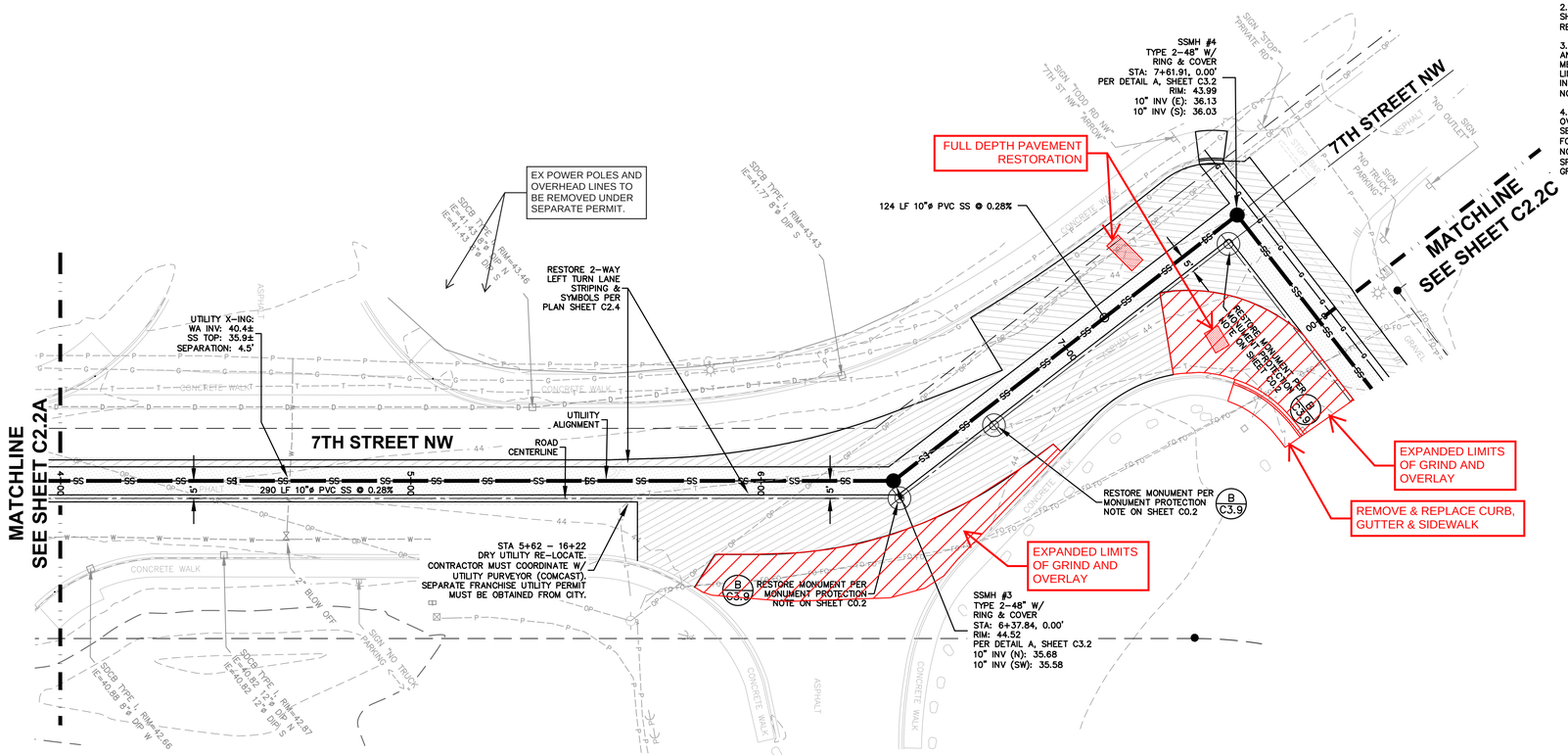
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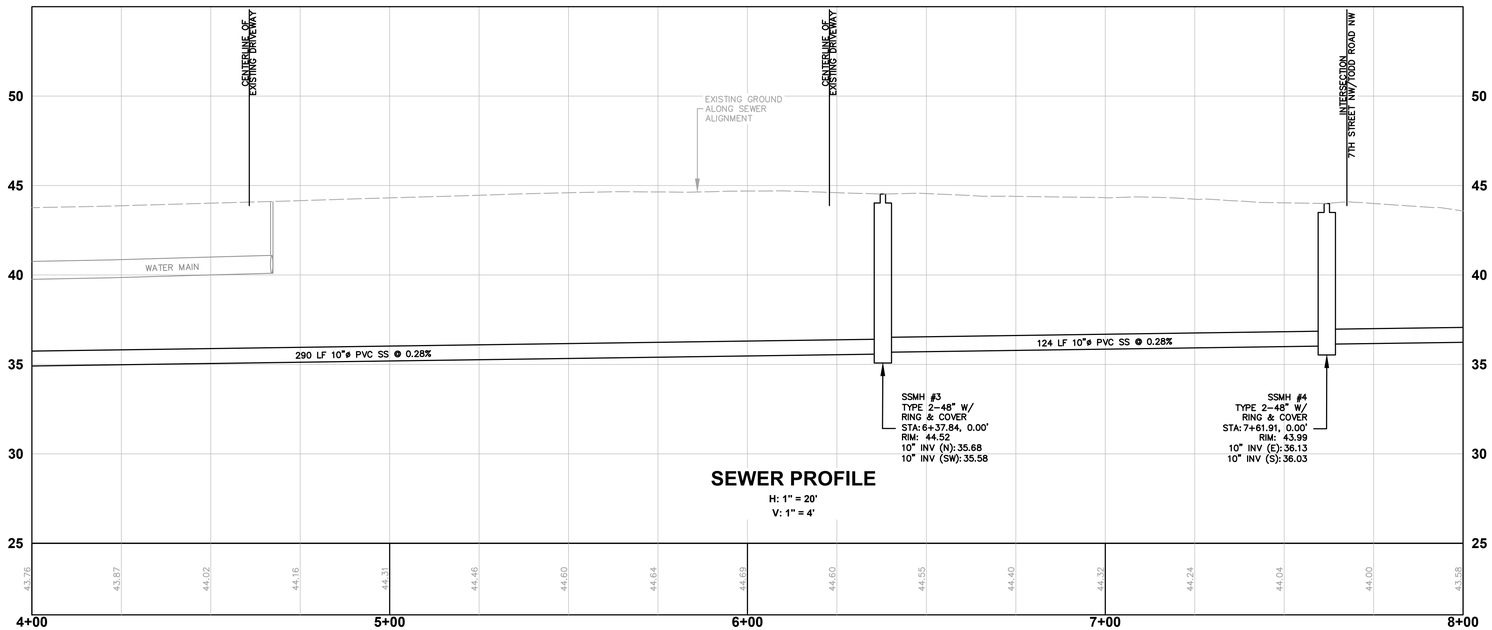
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SEWER PLAN

SCALE: 1" = 20'



SEWER PROFILE

H: 1" = 20'
V: 1" = 4'

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MILES PATRICK MCEATHRON — STATE OF WASHINGTON — 49494 — REGISTERED PROFESSIONAL ENGINEER — 05/31/2024

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APPROVED
BY _____
CITY OF PUYALLUP
DEVELOPMENT ENGINEERING
DATE 07/09/2024

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.
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MILES PATRICK MCEATHRON — STATE OF WASHINGTON — 49494 — REGISTERED PROFESSIONAL ENGINEER — 7/8/2025

City of Puyallup
Development & Permitting Services
ISSUED PERMIT

Building	Planning
Engineering	Public Works
Fire	Traffic

100% CD SET

REV	ISSUED FOR	DATE

PLAN NORTH | TRUE NORTH
SCALE: 1"=20' (0 – 20)

PSE - OPERATIONAL TRAINING CENTER

SEWER PLAN & PROFILE - 4+00 - 8+00

PROJECT No:	22219
DRAWN BY:	MPM
CHECKED BY:	THF
DATE ISSUED:	05/31/2024

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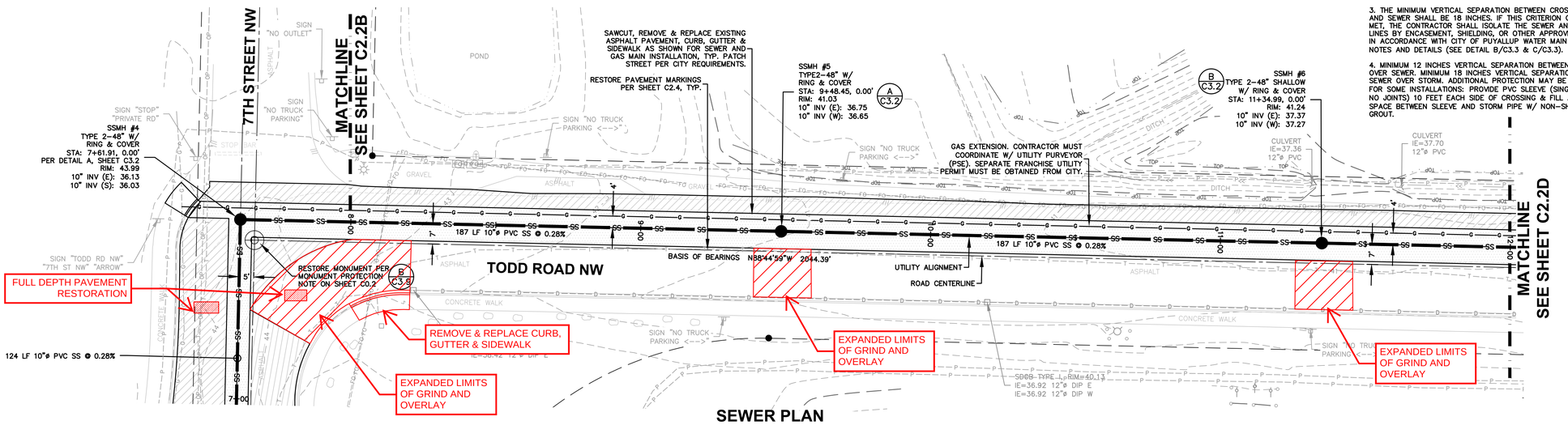
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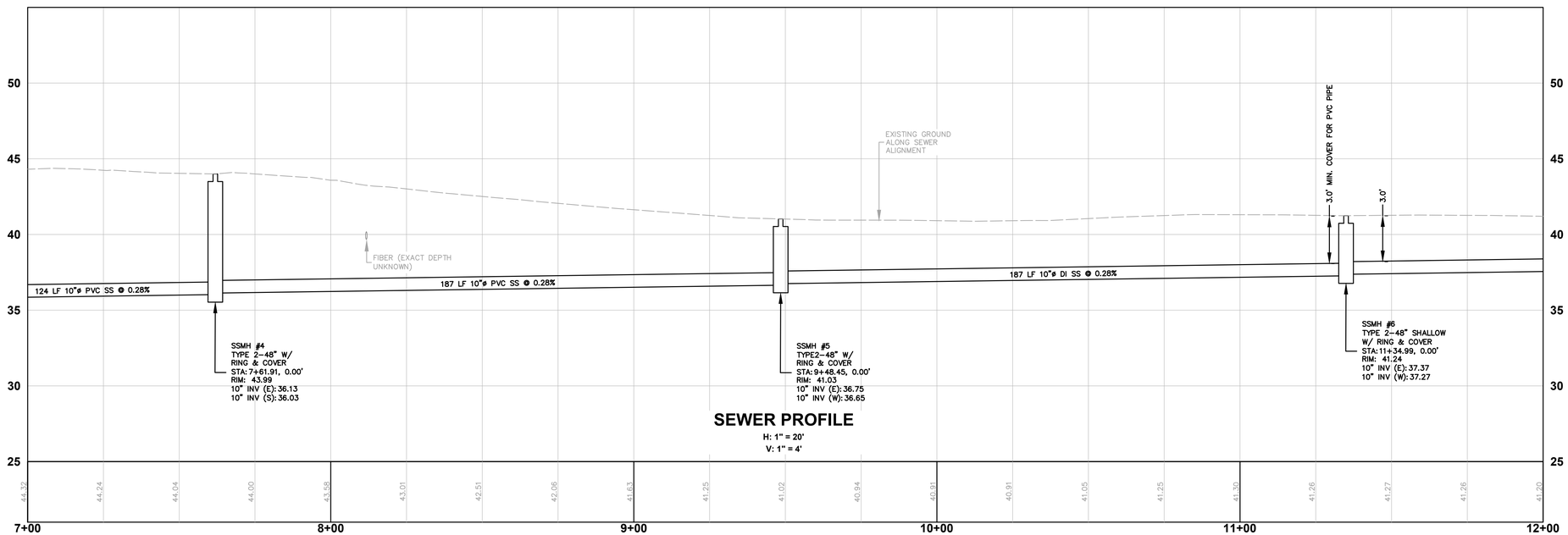
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SEWER PLAN

SCALE: 1" = 20'



SEWER PROFILE

H: 1" = 20'
V: 1" = 4'

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MILES PATRICK MCCARTHUR — STATE OF WASHINGTON — 49494 — REGISTERED PROFESSIONAL ENGINEER — 05/31/2024

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APPROVED

BY _____
CITY OF PUYALLUP
DEVELOPMENT ENGINEERING

DATE 07/09/2024

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MILES PATRICK MCCARTHUR — STATE OF WASHINGTON — 49494 — REGISTERED PROFESSIONAL ENGINEER — 7/8/2025

City of Puyallup
Development & Permitting Services
ISSUED PERMIT

Building	Planning
Engineering	Public Works
Fire	Traffic

100% CD SET

REV	ISSUED FOR	DATE

PLAN NORTH | TRUE NORTH

SCALE: 1"=20' (0 — 20)

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SEWER PLAN & PROFILE - 8+00 - 12+00

PROJECT No:	22219
DRAWN BY:	MPM
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DATE ISSUED:	05/31/2024

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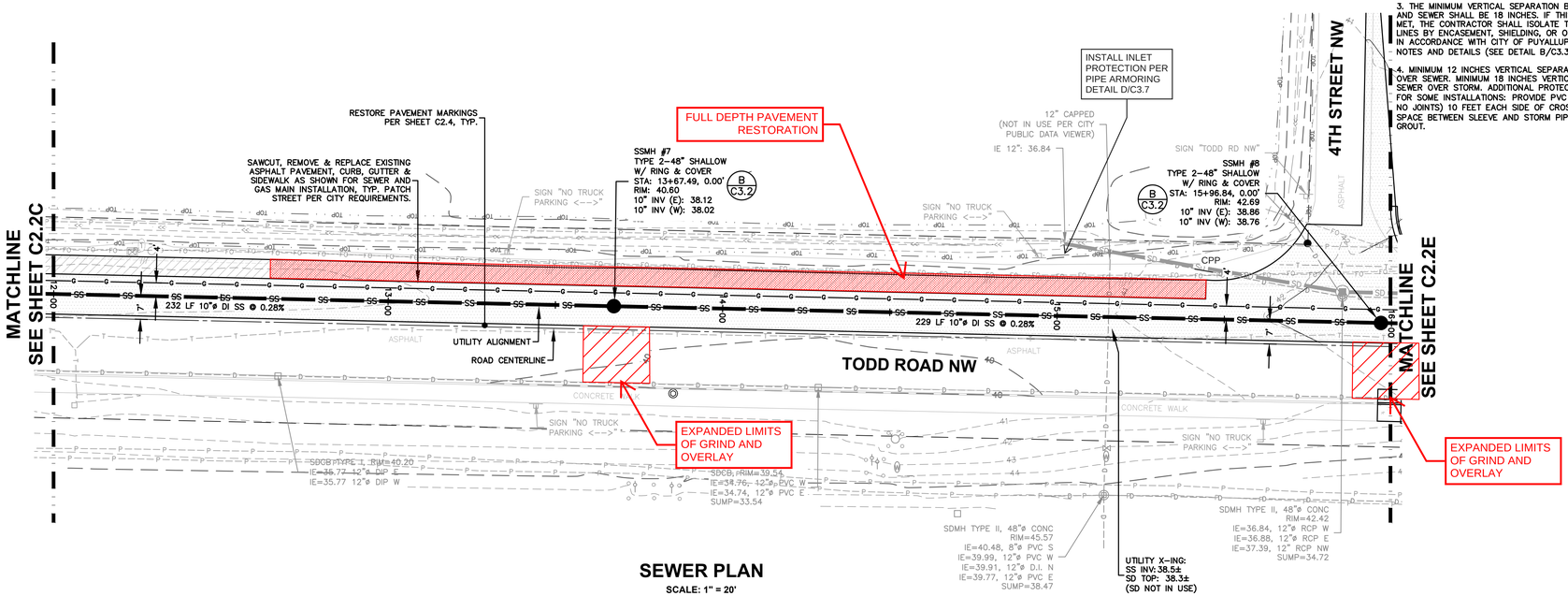
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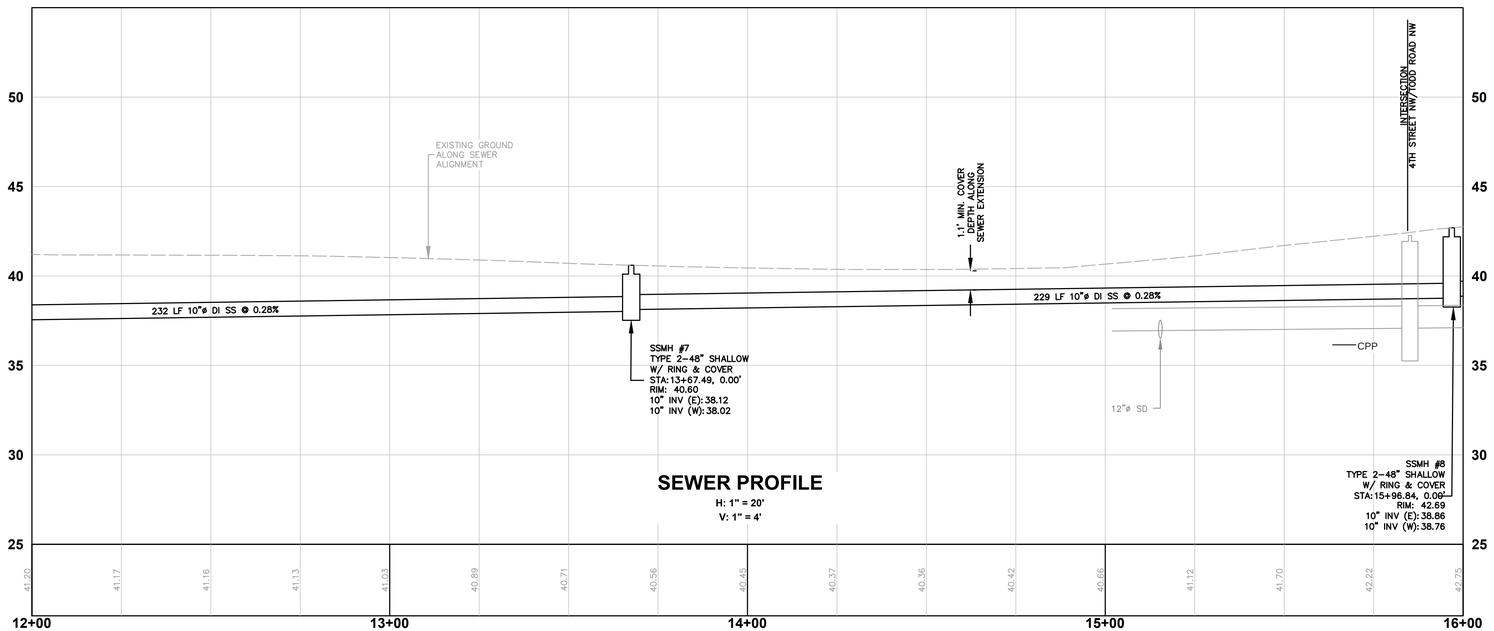
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SEWER PLAN
SCALE: 1" = 20'



SEWER PROFILE
H: 1" = 20'
V: 1" = 4'

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MILES PATRICK MCEATHRON — STATE OF WASHINGTON — 49494 — REGISTERED PROFESSIONAL ENGINEER — 05/31/2024

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DEVELOPMENT ENGINEERING
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MILES PATRICK MCEATHRON — STATE OF WASHINGTON — 49494 — REGISTERED PROFESSIONAL ENGINEER — 7/8/2025

City of Puyallup
Development & Permitting Services
ISSUED PERMIT

Building	Planning
Engineering	Public Works
Fire	Traffic

100% CD SET

REV	ISSUED FOR	DATE

PLAN NORTH | TRUE NORTH
SCALE: 1"=20' 0 20

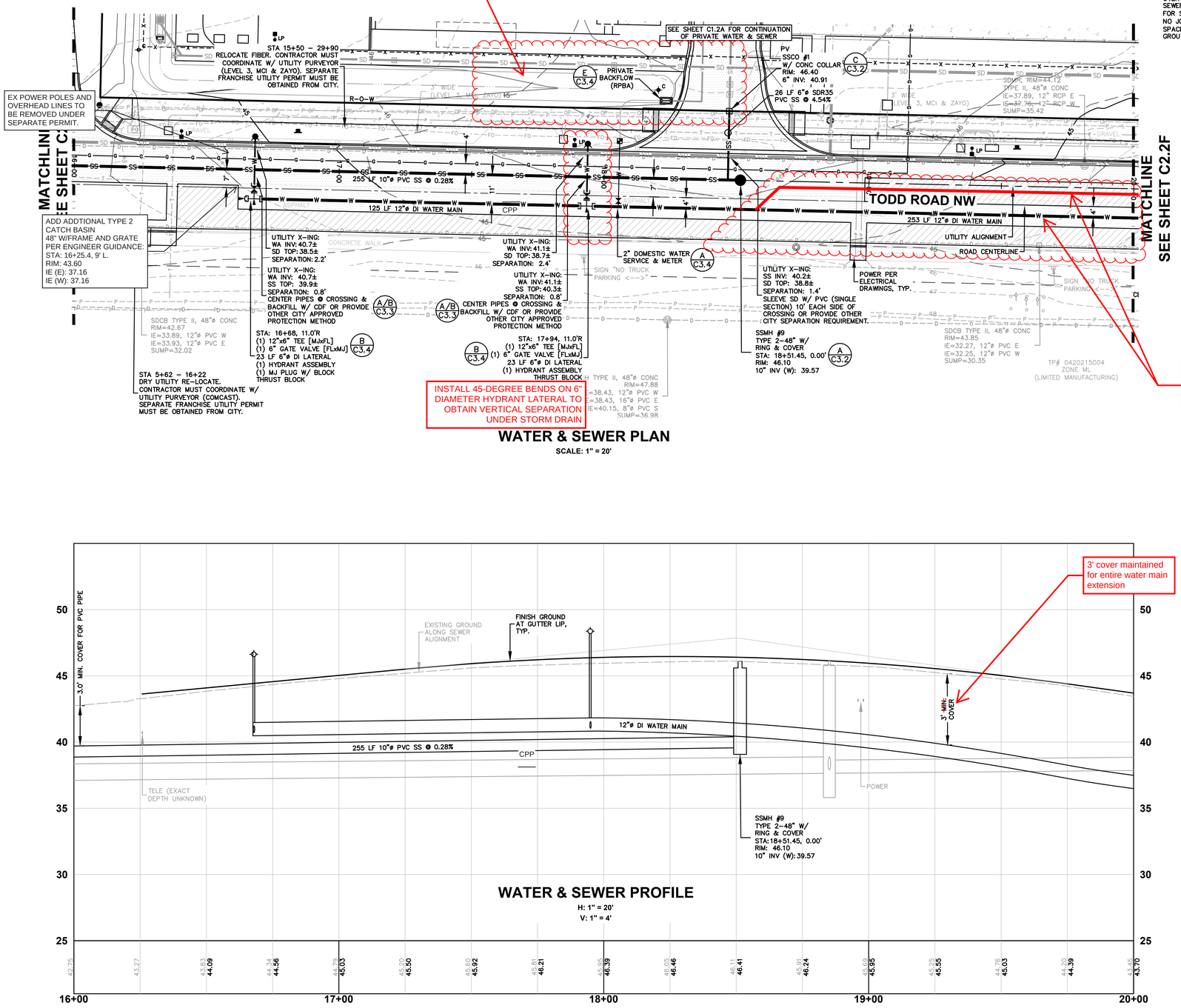
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SEWER PLAN & PROFILE - 12+00 - 16+00

PROJECT No:	22219
DRAWN BY:	MPM
CHECKED BY:	THF
DATE ISSUED:	05/31/2024

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WATER & SEWER PLAN

SCALE: 1" = 20'

WATER & SEWER PROFILE

H: 1" = 20'
V: 1" = 4'

GENERAL NOTES

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MILES PATRICK MCEATHERON — STATE OF WASHINGTON — 49494 — REGISTERED PROFESSIONAL ENGINEER — 05/31/2024

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DEVELOPMENT ENGINEERING
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MILES PATRICK MCEATHERON — STATE OF WASHINGTON — 49494 — REGISTERED PROFESSIONAL ENGINEER — 7/8/2025

City of Puyallup
Development & Permitting Services
ISSUED PERMIT
Building | Planning
Engineering | Public Works
Fire | Traffic

100% CD SET

REV	ISSUED FOR	DATE

PLAN NORTH | TRUE NORTH
SCALE: 1"=20'
0 20

PSE - OPERATIONAL TRAINING CENTER

WATER & SEWER PLAN & PROFILE- 16+00 - 20+00

PROJECT No:	22219
DRAWN BY:	MPM
CHECKED BY:	THF
DATE ISSUED:	05/31/2024

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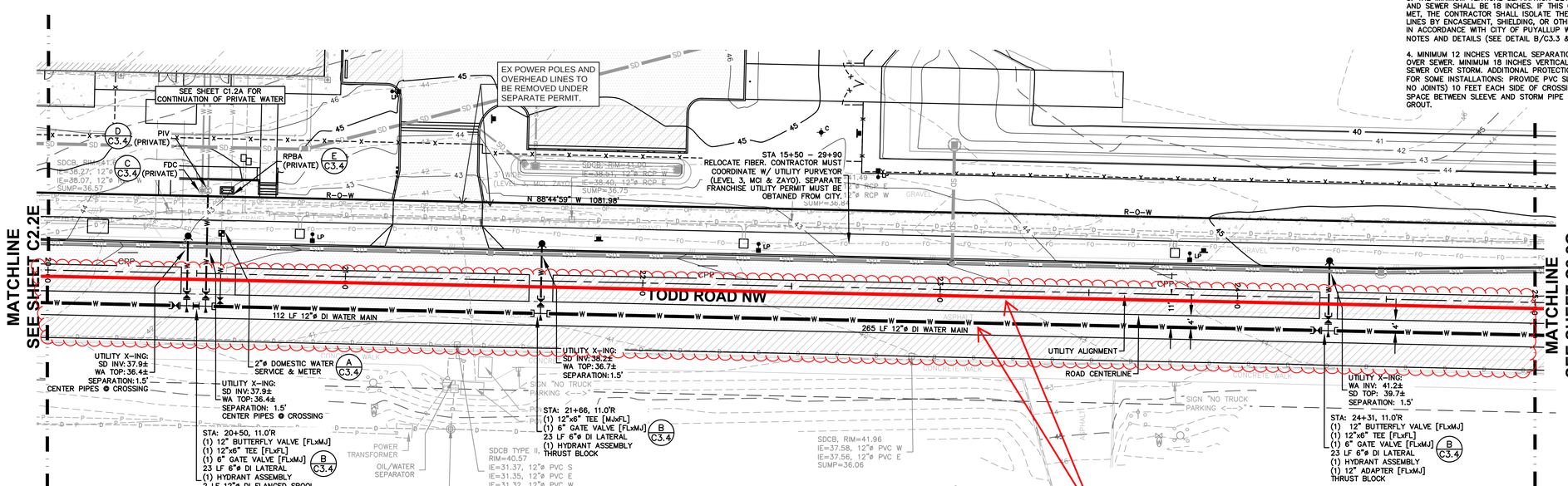
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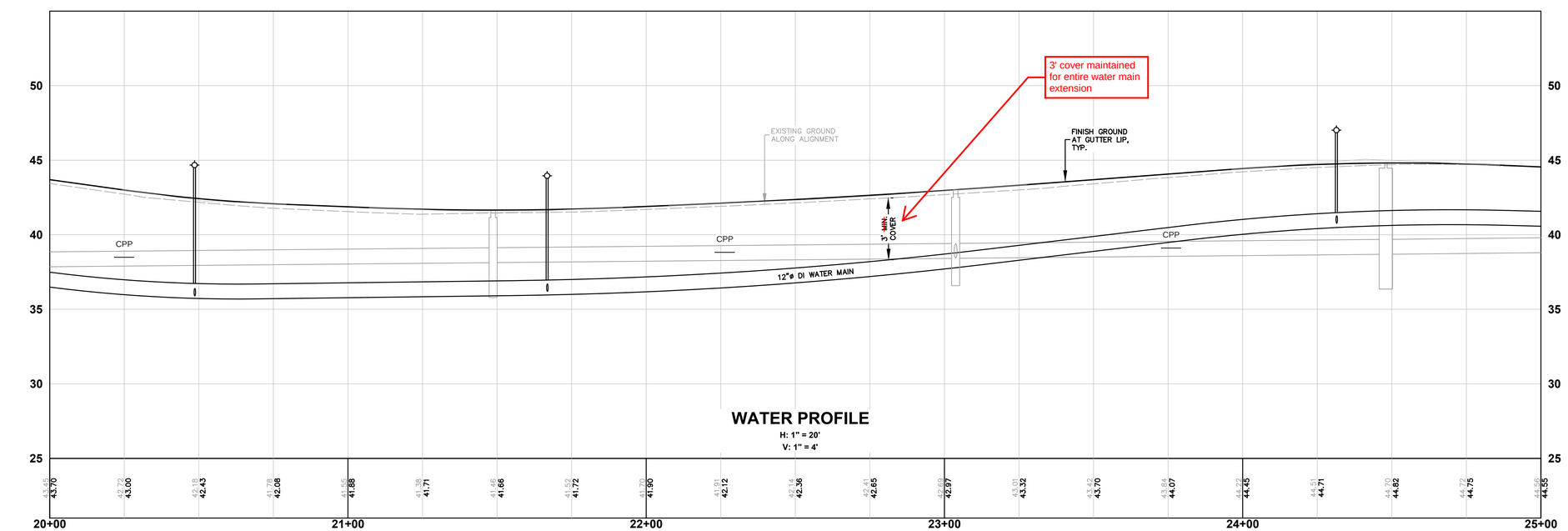
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WATER PLAN

SCALE: 1" = 20'



WATER PROFILE

H: 1" = 20'
V: 1" = 4'

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MILES PATRICK MCEATHRON — STATE OF WASHINGTON — 49494 — REGISTERED PROFESSIONAL ENGINEER — 7/8/2025

City of Puyallup
Development & Permitting Services
ISSUED PERMIT

Building	Planning
Engineering	Public Works
Fire	Traffic

100% CD SET

REV	ISSUED FOR	DATE

PLAN NORTH | TRUE NORTH
SCALE: 1"=20' (0 – 20)

PSE - OPERATIONAL TRAINING CENTER

WATER PLAN & PROFILE- 20+00 - 25+00

PROJECT No:	22219
DRAWN BY:	MPM
CHECKED BY:	THF
DATE ISSUED:	05/31/2024

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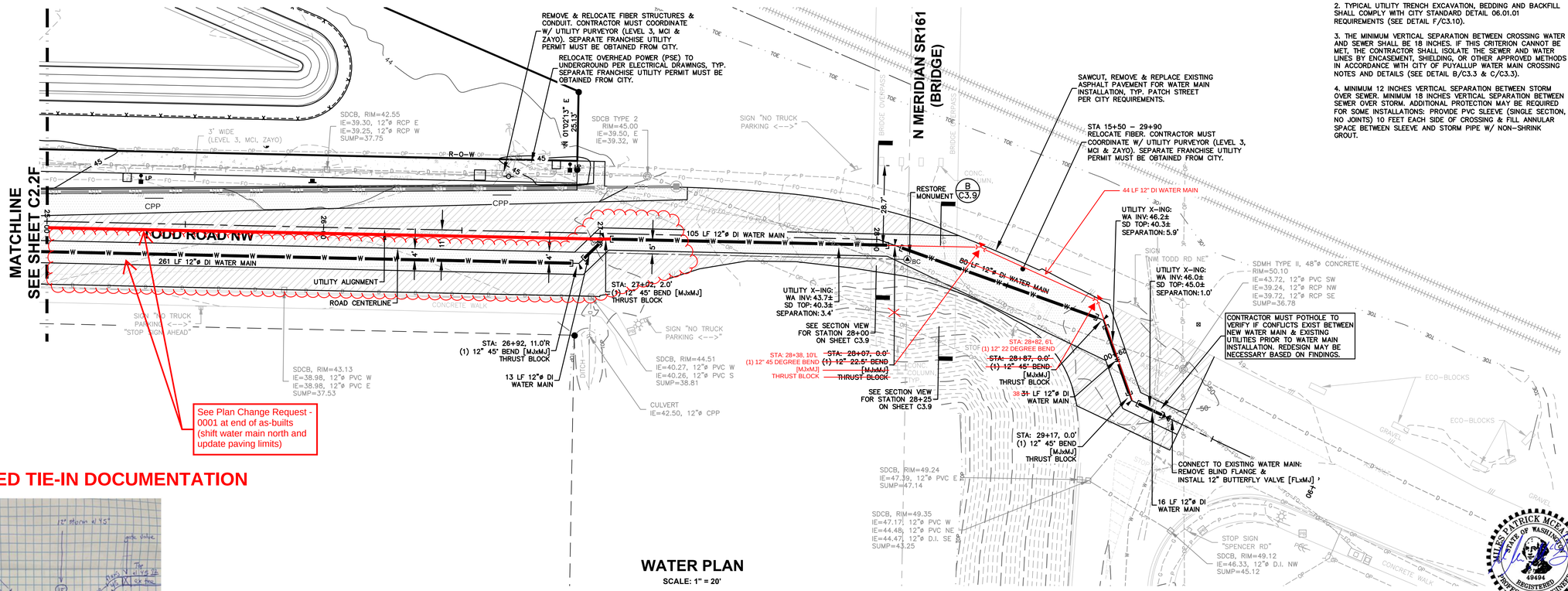
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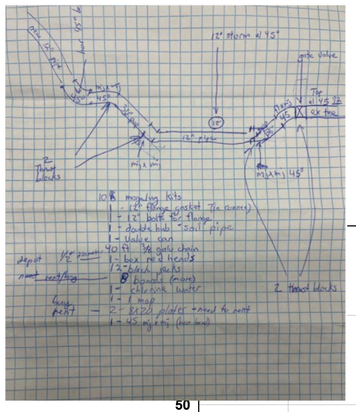
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WATER PLAN

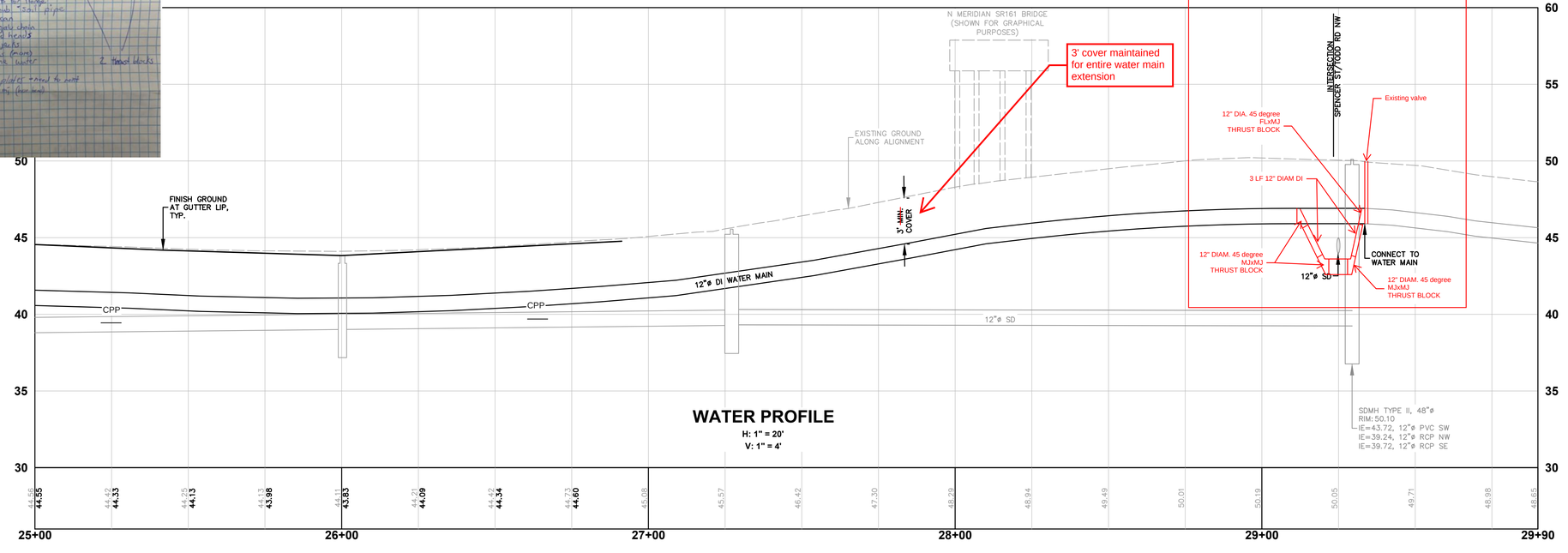
SCALE: 1" = 20'

INSPECTOR DIRECTED TIE-IN DOCUMENTATION



WATER PROFILE

H: 1" = 20'
V: 1" = 4'



SEE CITY INSPECTOR DIRECTED TIE-IN DOCUMENTATION

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MILES PATRICK MCEATHRON — STATE OF WASHINGTON — 19494 — REGISTERED PROFESSIONAL ENGINEER — 05/31/2024

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APPROVED

BY _____
CITY OF PUYALLUP
DEVELOPMENT ENGINEERING

DATE 07/09/2024

NOTE: THIS APPROVAL IS VOID AFTER 180 DAYS FROM APPROVAL DATE.
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MILES PATRICK MCEATHRON — STATE OF WASHINGTON — 19494 — REGISTERED PROFESSIONAL ENGINEER — 7/8/2024

City of Puyallup
Development & Permitting Services
ISSUED PERMIT

Building	Planning
Engineering	Public Works
Fire	Traffic

100% CD SET

REV	ISSUED FOR	DATE

PLAN NORTH | TRUE NORTH

SCALE: 1"=20' 0 20

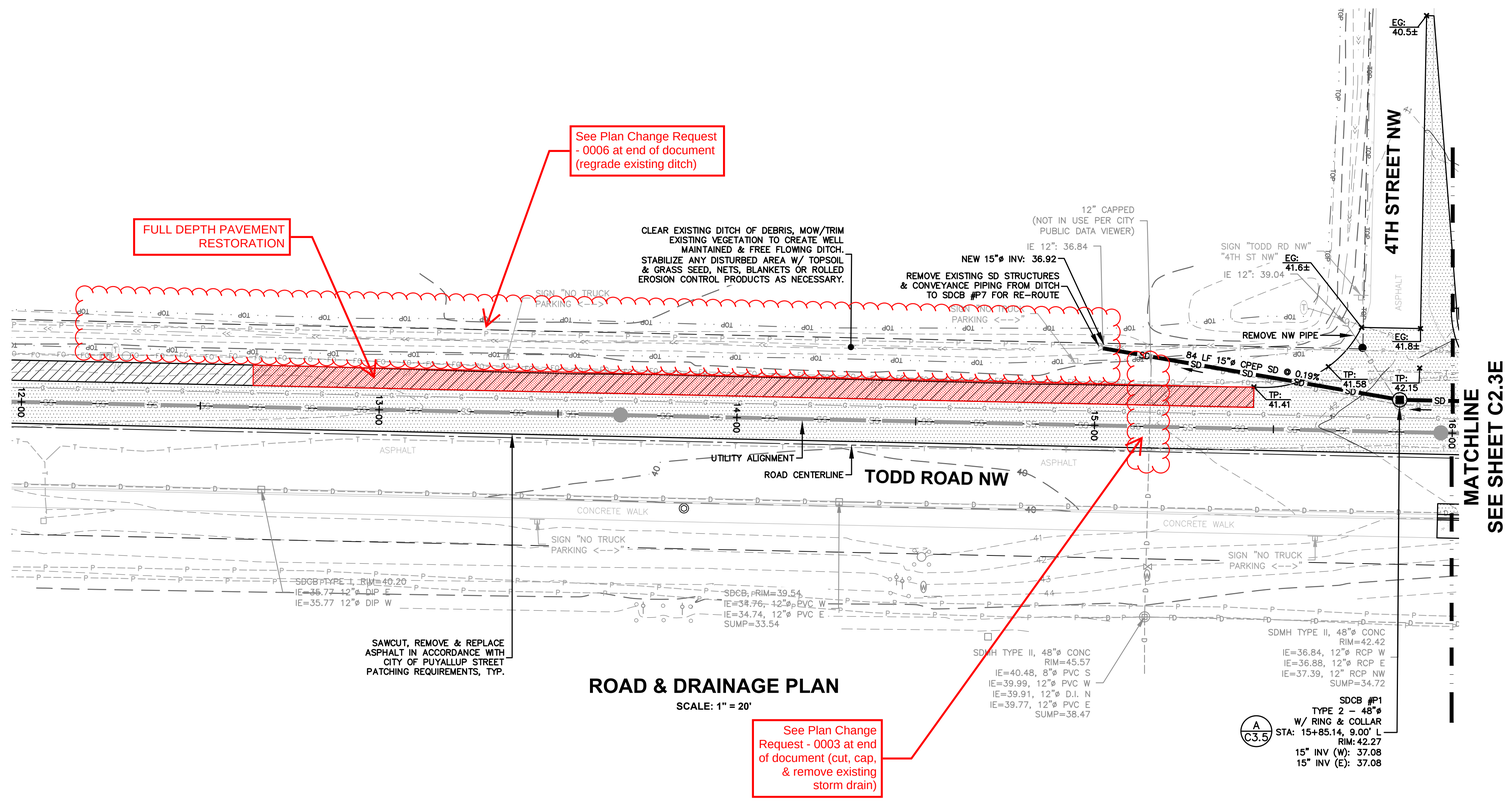
PSE - OPERATIONAL TRAINING CENTER

WATER PLAN & PROFILE- 25+00 - 29+90

PROJECT No:	22219
DRAWN BY:	MPM
CHECKED BY:	THF
DATE ISSUED:	05/31/2024

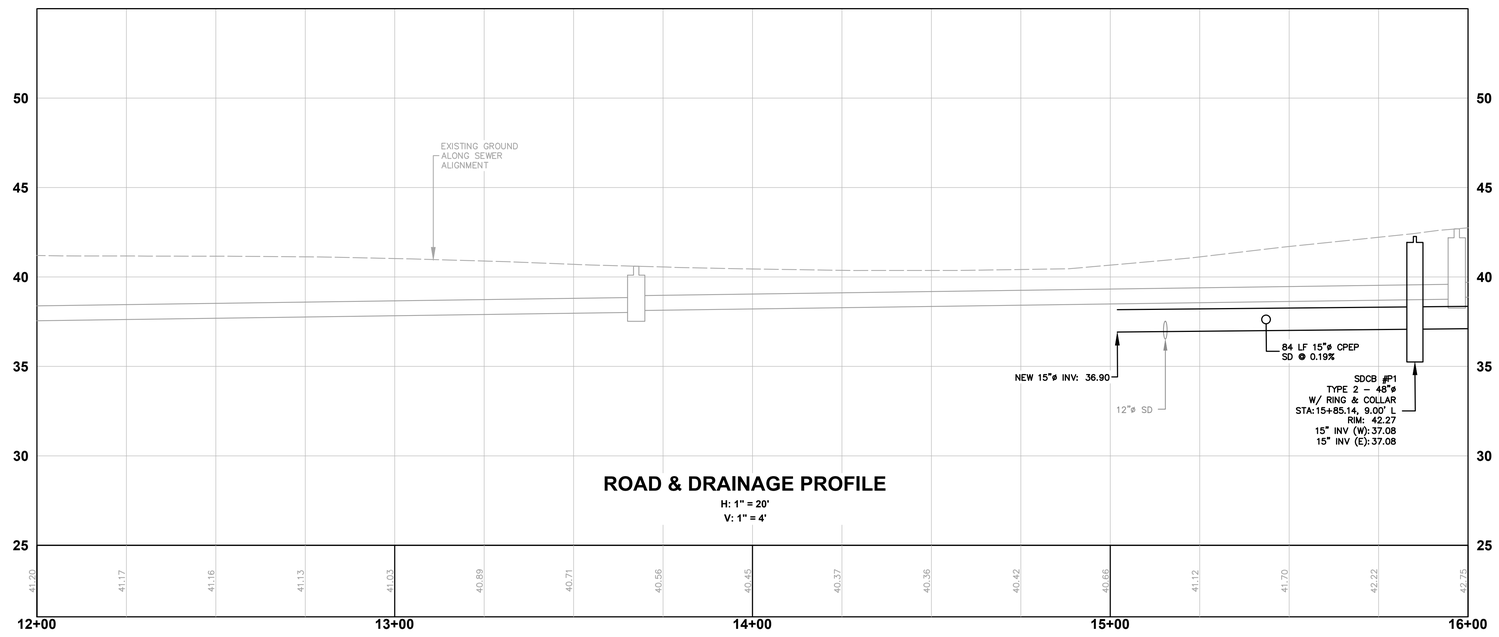
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ROAD & DRAINAGE PLAN

SCALE: 1" = 20'



ROAD & DRAINAGE PROFILE

H: 1" = 20'
V: 1" = 4'

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City of Puyallup
Development & Permitting Services
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Building	Planning
Engineering	Public Works
Fire	Traffic

100% CD SET

REV	ISSUED FOR	DATE

PLAN NORTH | TRUE NORTH
SCALE: 1"=20' (0 — 20)

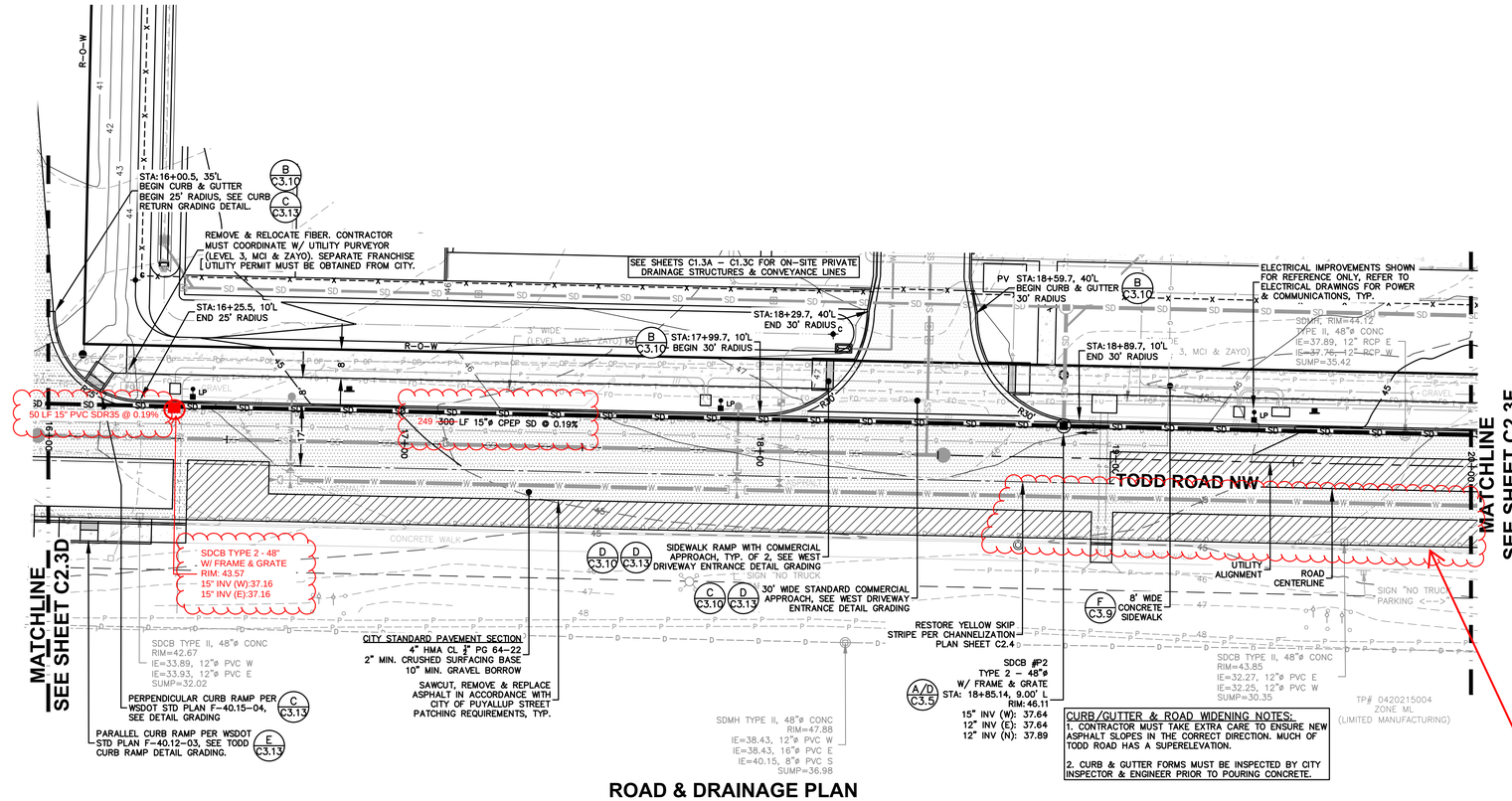
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ROAD & DRAINAGE PLAN & PROFILE- 12+00 - 16+00

PROJECT No:	22219
DRAWN BY:	MPM
CHECKED BY:	THF
DATE ISSUED:	05/31/2024

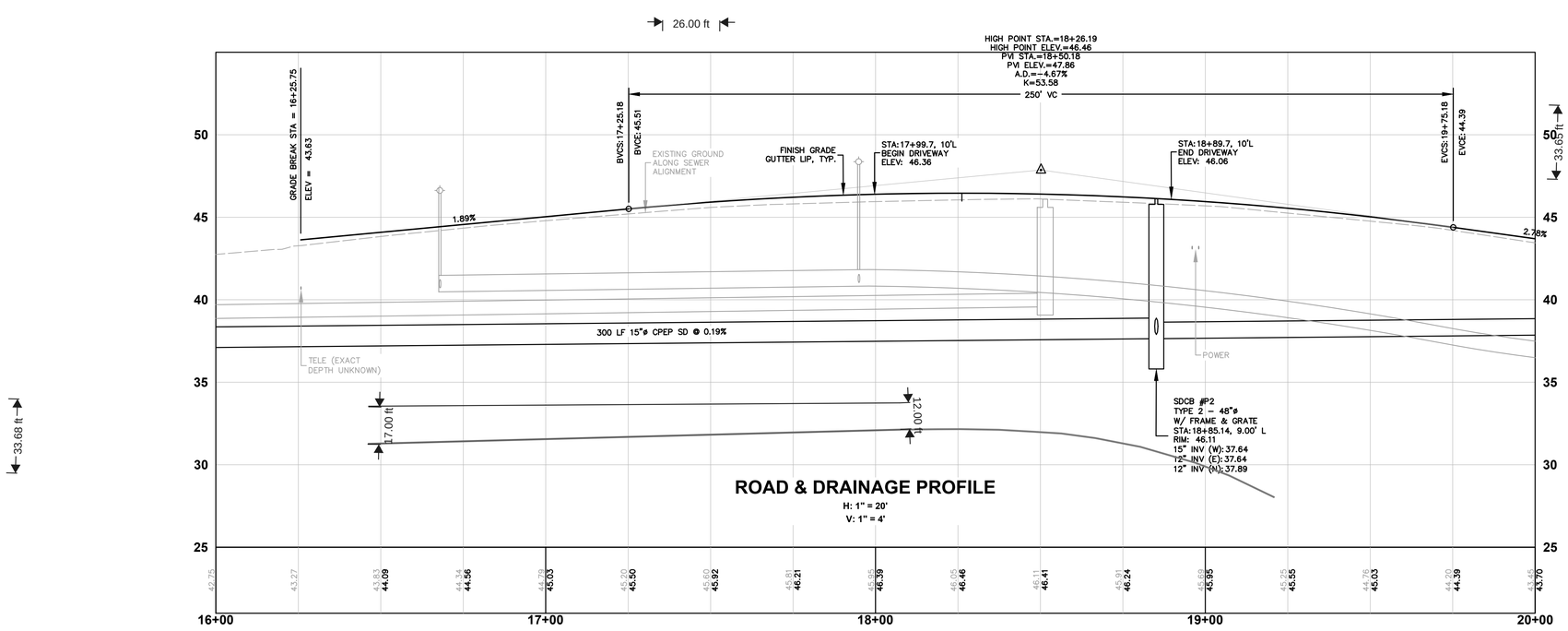
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ROAD & DRAINAGE PLAN

SCALE: 1" = 20'



ROAD & DRAINAGE PROFILE

H: 1" = 20'
V: 1" = 4'

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zervasgroup.com
209 Prospect Street
Bellingham, WA 98225
360.734.4744

FREELAND & ASSOCIATES
220 West Champion Street, Suite 200 t: 360.650.1408
Bellingham, WA 98225 f: 360.650.1401

MILES PATRICK MCEATHRON — STATE OF WASHINGTON — 49494 — REGISTERED PROFESSIONAL ENGINEER — 05/31/2024

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BY _____
CITY OF PUYALLUP
DEVELOPMENT ENGINEERING
DATE 07/09/2024

NOTE: THIS APPROVAL IS VOID AFTER 180 DAYS FROM APPROVAL DATE.
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MILES PATRICK MCEATHRON — STATE OF WASHINGTON — 49494 — REGISTERED PROFESSIONAL ENGINEER — 7/8/2024

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RESTORATION MODIFICATION
See Plan Change Request - 0001 at end of document (shift water main north and update paving limits)

City of Puyallup
Development & Permitting Services
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Building | Planning
Engineering | Public Works
Fire | Traffic

100% CD SET

REV	ISSUED FOR	DATE

PLAN NORTH | TRUE NORTH
SCALE: 1"=20' 0 20

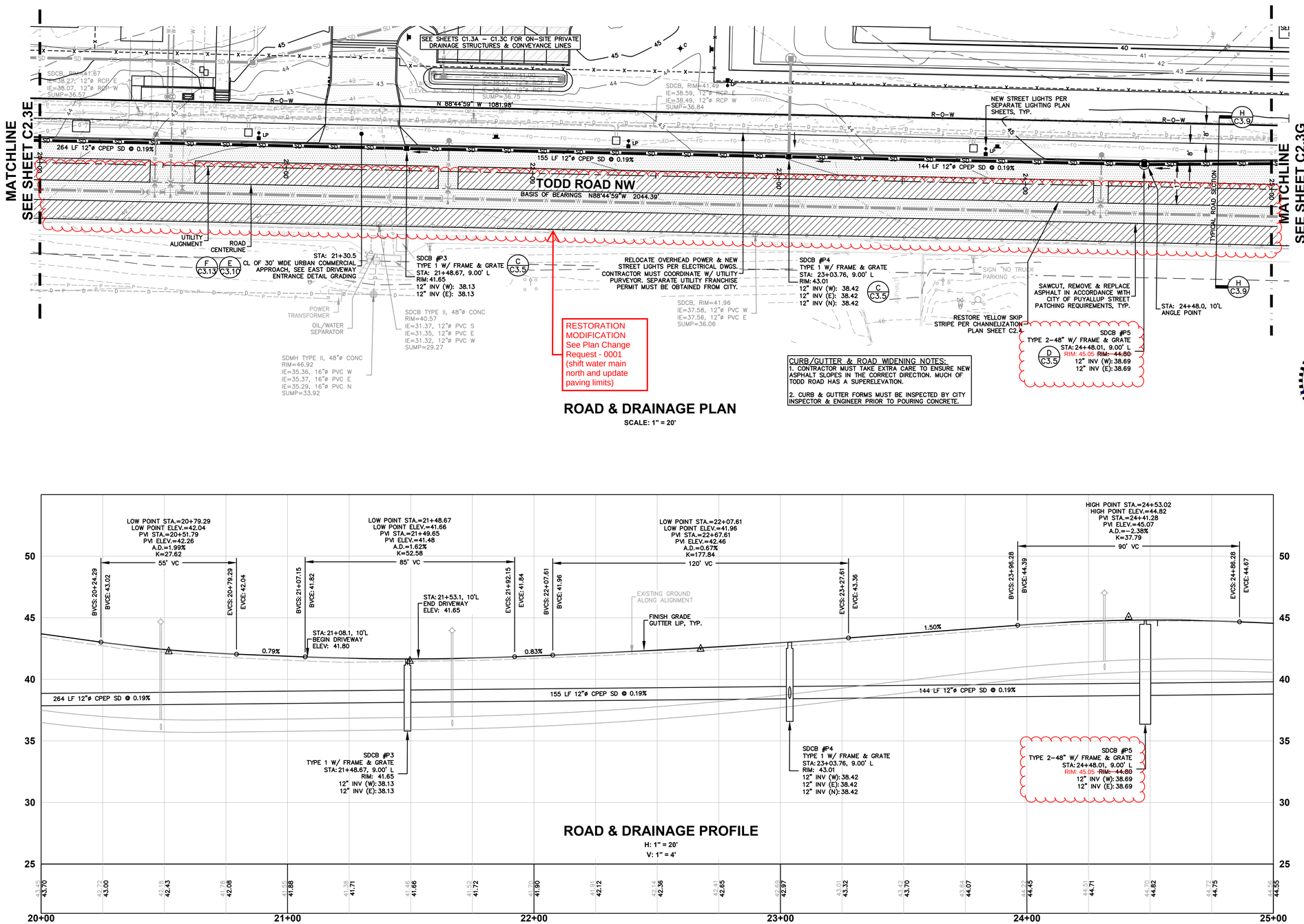
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ROAD & DRAINAGE PLAN & PROFILE- 16+00 - 20+00

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ROAD & DRAINAGE PLAN

SCALE: 1" = 20'

ROAD & DRAINAGE PROFILE

H: 1" = 20'
V: 1" = 4'

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MILES PATRICK MCEATHRON
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49494
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Building	Planning
Engineering	Public Works
Fire	Traffic

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REV	ISSUED FOR	DATE

PLAN NORTH | TRUE NORTH
SCALE: 1"=20'
0 20

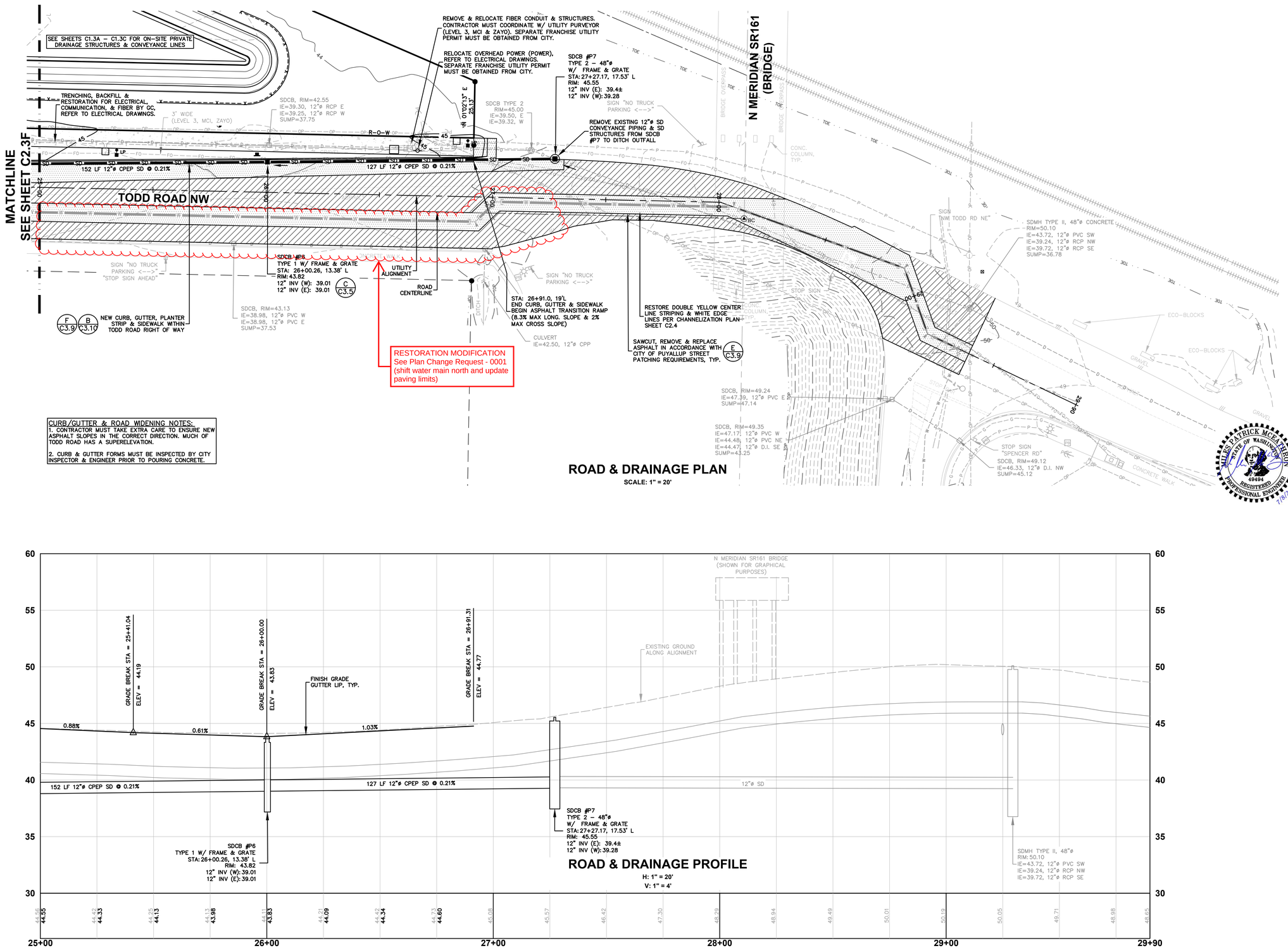
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ROAD & DRAINAGE PLAN & PROFILE- 20+00 - 25+00

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DATE ISSUED:	05/31/2024

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ROAD & DRAINAGE PLAN

SCALE: 1" = 20'

ROAD & DRAINAGE PROFILE

H: 1" = 20'
V: 1" = 4'

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Engineering	Public Works
Fire	Traffic

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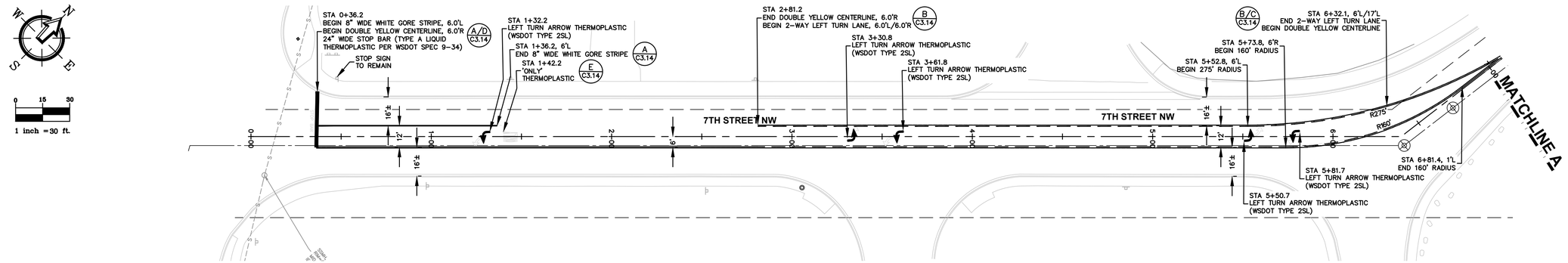
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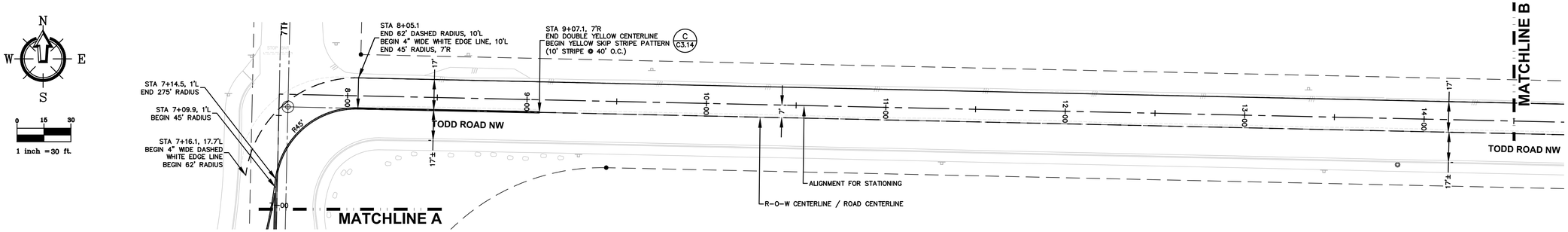
ROAD & DRAINAGE PLAN & PROFILE - 25+00 - 29+90

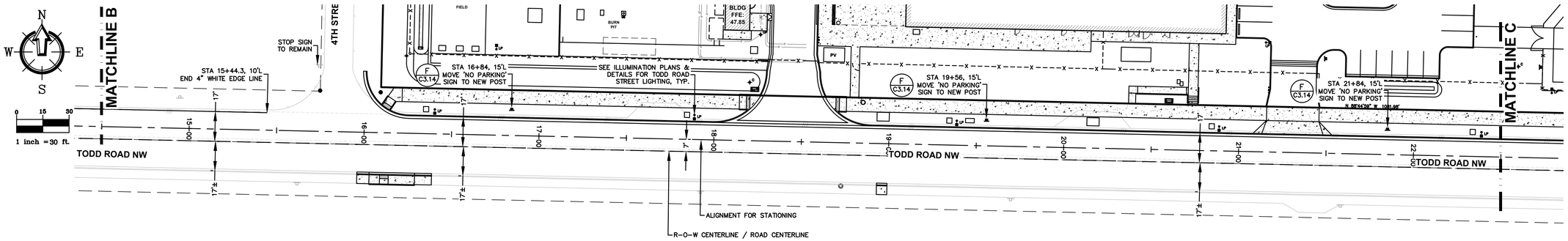
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DATE ISSUED:	05/31/2024

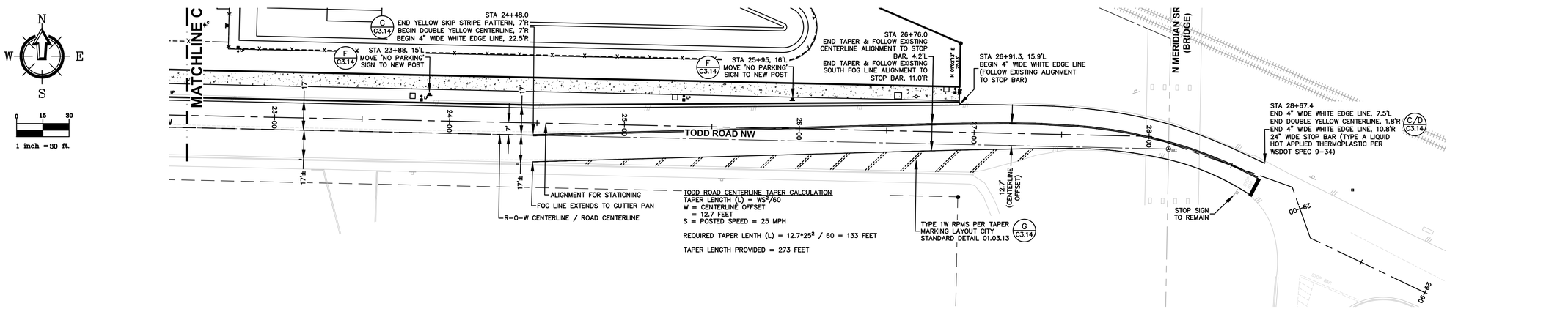
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Building	Planning
Engineering	Public Works
Fire	Traffic

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REV	ISSUED FOR	DATE

PLAN NORTH — TRUE NORTH
SCALE: 1"=30'

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TODD ROAD CHANNELIZATION & SIGNAGE PLAN

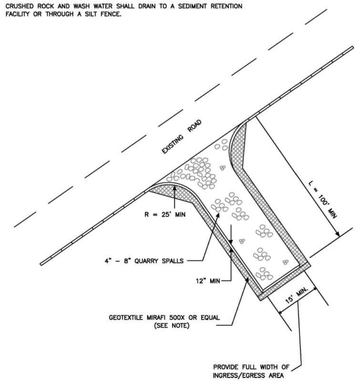
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NOTE:

1. GEOTEXTILE MIRAFI 500 X OR APPROVED EQUAL SHALL BE PLACED UNDER THE ENTIRETY OF THE TEMPORARY ENTRANCE.
2. ADDITIONAL ROCK SHALL BE ADDED PERIODICALLY TO MAINTAIN PROPER FUNCTION OF THE PAD.
3. IF THE PAD DOES NOT ADEQUATELY REMOVE THE MUD FROM THE VEHICLE'S WHEELS, THE WHEELS SHALL BE HOSED OFF BEFORE THE VEHICLE ENTERS A PAVED STREET. THE WASHING SHALL BE DONE ON AN AREA COVERED WITH CRUSHED ROCK AND WASH WATER SHALL DRAIN TO A SEDIMENT RETENTION FACILITY OR THROUGH A SILT FENCE.

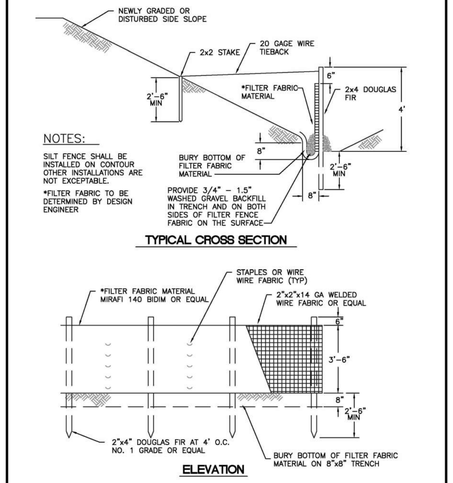


CITY OF PUYALLUP — DEVELOPMENT ENGINEERING and PUBLIC WORKS DEPARTMENTS

TEMPORARY CONSTRUCTION ENTRANCE

DRAWN BY	CHECKED BY	APPROVED BY	REVISED BY	CITY STANDARD
JIM DEWEIN-SVOBODA	LINDA LUAN	COLLEEN HARRIS	XXXX	05.01.01
FILE NAME: T:\DWGS\CMM\39TSTDS\CITY\2009\05_CRD\05.01\05.01.01	DATE APPROVED: 03/01/2009	DATE REVISED: XX/XX/XX	SCALE: NTS	

A TEMPORARY CONSTRUCTION ENTRANCE
nts



NOTES:

SILT FENCE SHALL BE INSTALLED ON CONTOUR OTHER INSTALLATIONS ARE NOT EXCEPTABLE.

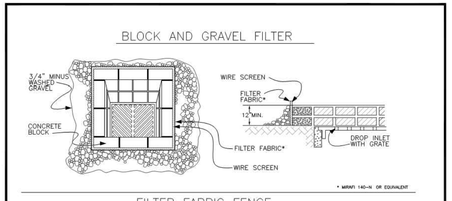
*FILTER FABRIC TO BE DETERMINED BY DESIGN ENGINEER

CITY OF PUYALLUP — DEVELOPMENT ENGINEERING and PUBLIC WORKS DEPARTMENTS

SILTATION FENCE

DRAWN BY	CHECKED BY	APPROVED BY	REVISED BY	CITY STANDARD
LINDA LUAN	LINDA LUAN	COLLEEN HARRIS	XXXX	02.03.02
FILE NAME: T:\DWGS\CMM\39TSTDS\CITY\2009\05_SDS\05.03.02	DATE APPROVED: 09/01/1992	DATE REVISED: 06/01/2009	SCALE: NTS	

B SILTATION FENCE
nts



NOTE:
ALSO REFER TO BMP C220: STORM DRAIN INLET PROTECTION.

CITY OF PUYALLUP — DEVELOPMENT ENGINEERING and PUBLIC WORKS DEPARTMENTS

STORM DRAIN BARRIERS

DRAWN BY	CHECKED BY	APPROVED BY	REVISED BY	CITY STANDARD
LINDA LUAN	LINDA LUAN	COLLEEN HARRIS	XXXX	02.03.05
FILE NAME: T:\DWGS\CMM\39TSTDS\CITY\2009\05_SDS\02.03.05	DATE APPROVED: 09/01/1992	DATE REVISED: 06/01/2009	SCALE: NTS	

C STORM DRAIN BARRIER
nts

CONDITIONS WHERE PRACTICE APPLIES

1. BLOCK AND GRAVEL FILTER – APPLICABLE FOR AREAS GREATER THAN 5% SLOPE.
2. FILTER FABRIC FENCE – APPLICABLE WHERE THE INLET DRAINS A RELATIVELY SMALL (ONE ACRE OR LESS) AND FLAT AREA (LESS THAN 5% SLOPE).
3. STRAW BALE BARRIER – APPLICABLE WHERE INLET DRAINS A RELATIVELY FLAT DISTURBED AREA (LESS THAN 5% SLOPE) IN WHICH SHEET FLOW (NOT EXCEEDING 0.5 FT/SEC.) OCCURES. BARRIERS OF THIS TYPE SHOULD NOT BE PLACED AROUND INLETS RECEIVING CONCENTRATED FLOWS SUCH AS THOSE ALONG MAJOR STREETS AND HIGHWAYS.

1. BLOCK AND GRAVEL FILTER – INSTALLATION PROCEDURE

A: PLACE WIRE MESH OVER THE DROP INLET SO THAT THE WIRE EXTENDS A MINIMUM OF ONE FOOT BEYOND EACH SIDE OF THE INLET STRUCTURE. USE WIRE SCREEN WITH 1/2–INCH OPENINGS. IF MORE THAN ONE STRIP OF MESH IS NECESSARY, OVERLAP THE STRIPS. PLACE FILTER FABRIC* OVER WIRE MESH.

B: PLACE CONCRETE BLOCKS LENGTHWISE ON THEIR SIDES IN A SINGLE ROW AROUND THE PERIMETER OF THE INLET, SO THAT THE OPEN ENDS FACE OUTWARD, NOT UPWARD. THE ENDS OF ADJACENT BLOCKS SHOULD ABUT. THE HEIGHT OF THE BARRIER CAN BE VARIED, DEPENDING ON DESIGN NEEDS, BY STACKING COMBINATIONS OF BLOCKS THAT ARE 4–INCH, 8–INCH AND 12–INCH WIDE. THE ROW OF BLOCKS SHOULD BE AT LEAST 12–INCHES BUT NO GREATER THAN 24–INCHES HIGH.

C: PLACE WIRE SCREEN OVER THE OVERSIDE VERTICAL FACE (OPEN END) OF THE CONCRETE BLOCKS TO PREVENT STONES FROM BEING WASHED THROUGH THE BLOCKS. USE WIRE SCREEN WITH 1/2–INCH OPENINGS.

D: PILE STONES AGAINST THE WIRE MESH TO THE TOP OF THE BLOCKS. USE 3/4" MINUS WASHED GRAVEL.

2. FILTER FABRIC FENCE – INSTALLATION PROCEDURE

A: PLACE 2–INCH BY 2–INCH WOODEN STAKES AROUND THE PERIMETER OF THE INLET A MAXIMUM OF 3 FEET APART AND DRIVE THEM AT LEAST 8–INCHES INTO THE GROUND. THE STAKES MUST BE AT LEAST 3 FEET LONG.

B: EXCAVATE A TRENCH APPROXIMATELY 8–INCHES WIDE AND 12–INCHES DEEP AROUND THE OUTSIDE PERIMETER OF THE STAKES.

C: STAPLE THE FILTER FABRIC* TO THE WOODEN STAKES SO THAT 32–INCHES OF THE FABRIC EXTENDS AND CAN BE FORMED INTO THE TRENCH, AND USE HEAVY–DUTY WIRE STAPLES AT LEAST 1/2–INCHES LONG.

D: BACKFILL THE TRENCH WITH 3/4–INCH MINUS WASHED GRAVEL ALL THE WAY AROUND.

3. STRAW BALE BARRIER – INSTALLATION PROCEDURE

A: EXCAVATE A 4–INCH DEEP TRENCH AROUND THE INLET. MAKE THE TRENCH AS WIDE AS A STRAW BALE.

B: ORIENT STRAW BALES WITH THE BINDINGS AROUND THE SIDES OF THE BALES RATHER THAN OVER AND UNDER THE BALES.

C: PLACE BALES LENGTHWISE AROUND THE INLET AND PRESS THE ENDS OF ADJACENT BALES SECURELY IN PLACE.

D: DRIVE TWO 2–INCH BY 2–INCH STAKES THROUGH EACH BALE TO ANCHOR THE BALE SECURELY IN PLACE.

E: BACKFILL THE EXCAVATED SOIL AND COMPACT IT AGAINST THE BALE.

F: WEDGE LOOSE STRAW BETWEEN BALES TO PREVENT WATER FROM FLOWING BETWEEN BALES.

* MIRAFI 140–N OR EQUIVALENT

CITY OF PUYALLUP — DEVELOPMENT ENGINEERING and PUBLIC WORKS DEPARTMENTS

STORM DRAIN BARRIERS NOTES

DRAWN BY	CHECKED BY	APPROVED BY	REVISED BY	CITY STANDARD
LINDA LUAN	LINDA LUAN	COLLEEN HARRIS	XXXX	02.03.06
FILE NAME: T:\DWGS\CMM\39TSTDS\CITY\2009\05_SDS\02.03.06	DATE APPROVED: 09/01/1992	DATE REVISED: 06/01/2009	SCALE: NTS	

D STORM DRAIN BARRIER NOTES
nts

BMP C152: SAWCUTTING AND SURFACING POLLUTION PREVENTION

PURPOSE

SAWCUTTING AND SURFACING OPERATIONS GENERATE SLURRY AND PROCESS WATER THAT CONTAINS FINE PARTICLES AND HIGH PH (CONCRETE CUTTING), BOTH OF WHICH CAN VIOLATE THE WATER QUALITY STANDARDS IN THE RECEIVING WATER. CONCRETE SPILLAGE OR CONCRETE DISCHARGE TO WATERS OF THE STATE IS PROHIBITED. USE THIS BMP TO MINIMIZE AND ELIMINATE PROCESS WATER AND SLURRY CREATED THROUGH SAWCUTTING OR SURFACING FROM ENTERING WATERS OF THE STATE.

CONDITIONS OF USE

UTILIZE THESE MANAGEMENT PRACTICES ANYTIME SAWCUTTING OR SURFACING OPERATIONS TAKE PLACE. SAWCUTTING AND SURFACING OPERATIONS INCLUDE, BUT ARE NOT LIMITED TO:

- SAWING
- CORING
- GRINDING
- ROUGHENING
- HYDRO–DEMOLITION
- BRIDGE AND ROAD SURFACING

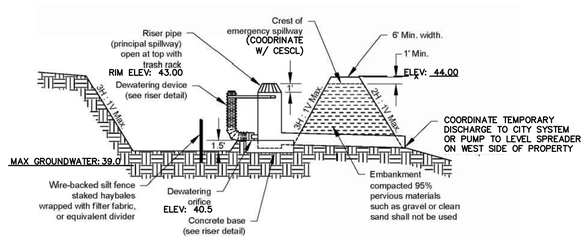
DESIGN AND INSTALLATION SPECIFICATIONS

- VACUUM SLURRY AND CUTTINGS DURING CUTTING AND SURFACING OPERATIONS.
- SLURRY AND CUTTINGS SHALL NOT REMAIN ON PERMANENT CONCRETE OR ASPHALT PAVEMENT OVERNIGHT.
- SLURRY AND CUTTINGS SHALL NOT DRAIN TO ANY NATURAL OR CONSTRUCTED DRAINAGE CONVEYANCE INCLUDING STORMWATER SYSTEMS. THIS MAY REQUIRE TEMPORARILY BLOCKING CATCH BASINS.
- DISPOSE OF COLLECTED SLURRY AND CUTTINGS IN A MANNER THAT DOES NOT VIOLATE GROUND WATER OR SURFACE WATER QUALITY STANDARDS.
- DO NOT ALLOW PROCESS WATER GENERATED DURING HYDRO–DEMOLITION, SURFACE ROUGHENING OR SIMILAR OPERATIONS TO DRAIN TO ANY NATURAL OR CONSTRUCTED DRAINAGE CONVEYANCE INCLUDING STORMWATER SYSTEMS. DISPOSE OF PROCESS WATER IN A MANNER THAT DOES NOT VIOLATE GROUND WATER OR SURFACE WATER QUALITY STANDARDS.
- HANDLE AND DISPOSE OF CLEANING WASTE MATERIAL AND DEMOLITION DEBRIS IN A MANNER THAT DOES NOT CAUSE CONTAMINATION OF WATER. DISPOSE OF SWEEPING MATERIAL FROM A PICK–UP SWEEPER AT AN APPROPRIATE DISPOSAL SITE.

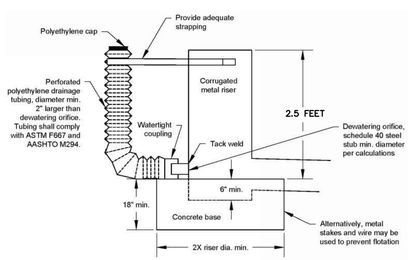
MAINTENANCE STANDARDS

CONTINUALLY MONITOR OPERATIONS TO DETERMINE WHETHER SLURRY, CUTTINGS, OR PROCESS WATER COULD ENTER WATERS OF THE STATE. IF INSPECTIONS SHOW THAT A VIOLATION OF WATER QUALITY STANDARDS COULD OCCUR, STOP OPERATIONS AND IMMEDIATELY IMPLEMENT PREVENTIVE MEASURES SUCH AS BERMS, BARRIERS, SECONDARY CONTAINMENT, AND/OR VACUUM TRUCKS.

E SAWCUT & SURFACE POLLUTION PREVENTION
nts



SEDIMENT POND SECTION



DEWATERING DEVICE

F SEDIMENT POND
nts

SEDIMENT POND SIZING CALCULATION

PRIOR TO DISCHARGING OFF–SITE STORMWATER MUST PASS THROUGH A SEDIMENT POND OR OTHER SEDIMENT REMOVAL BMP APPROVED BY CESCL. CONTRACTOR MUST COORDINATE WITH CECSL TO DETERMINE EXACT SIZE, LOCATION AND TYPE OF BMP (BAKER TANKS MAY BE USED IN LIEU OF SEDIMENT POND).

POND SURFACE AREA (SA) IS DETERMINED BY:
SA = 2,080 SF PER CFS OF INFLOW
INFLOW = 10 YEAR DEVELOPED FLOW RATE = 2.2317 CFS
NOTE: CESCL TO REFER TO PROJECT SPECIFIC STORMWATER SITE PLAN (STORMWATER MODELING INPUT & OUTPUT – FLOW CONTROL CALCULATIONS SECTION) UNDER CITY OF PUYALLUP PERMIT PRCCP202400215 FOR ADDITIONAL FLOW RATES.
SA = 2,080 x 2.2317 = 4,642 SF

THIS CORRESPONDS TO A POND APPROXIMATELY 68.5 FT x 68.5 FT WITH 3H:1V SIDE SLOPES AND 3.5 FT STORAGE DEPTH. TOTAL POND VOLUME IS EQUAL TO 12,160 CUBIC FEET OR 90,956 GALLONS.

POND VOLUME SHOWN ON DRAWINGS:
SURFACE AREA = 24,570
RISER HEIGHT = 2.5 FEET
SIDE SLOPES = 3H:1V
STORAGE VOLUME PROVIDED = 50,358 CF (EXCEEDS REQUIRED)

DEWATERING ORIFICE CALCULATION

A_O = DEWATERING ORIFICE AREA (SQUARE FEET)
A_S = POND SURFACE AREA (SQUARE FEET) = 24,570 SF
h = HEAD OF WATER ABOVE ORIFICE (HEIGHT OF RISER IN FEET) = 2.5 FT
T = DEWATERING TIME (24 HOURS) = 24 HOURS
g = ACCELERATION OF GRAVITY (32.2 FEET/SECOND^2) = 32.2

$A_O = A_S(2h)^{0.5} / 0.6*3600Tg^{0.5}$
$A_O = 24{,}570(2*2.5)^{0.5} / 0.6*3600*24*32.2^{0.5}$
$A_O = 54{,}940 / 294{,}166 = 0.187$ SF

D = DEWATERING ORIFICE DIAMETER (INCHES)
$D = 13.53*A_O^{0.5}$
$D = 13.53*0.187^{0.5}$
D = 5.85 INCHES

*NOTE: CESCL TO UPDATE CALCULATION DEPENDING ON EXACT POND SIZE.

HYDRO-SEED MIX

SEED TYPE	%
RED FESCUE (FESTUCA RUBRA)	40%
REDTOP (AGROSTIS ALBA)	40%
WHITE DUTCH CLOVER (TRIFOLIUM REPENS)	20%

NOTES:
1. THIS SEED MIX IS RECOMMENDED FOR AREAS THAT WILL BE MAINTAINED INFREQUENTLY OR NOT AT ALL AND WHERE COLONIZATION BY NATIVE PLANTS IS DESIRABLE. SEEDING SHALL TAKE PLACE IN SEPTEMBER OR VERY EARLY OCTOBER (PRIOR TO OCT. 10TH).
2. ANY SEEDED AREAS THAT FAIL TO ESTABLISH AT LEAST 80 PERCENT COVER (100 PERCENT COVER FOR AREAS THAT RECEIVE SHEET OR CONCENTRATED FLOWS) SHALL BE RESEEDED. IF RESEEDING IS INEFFECTIVE, AN ALTERNATE METHOD, SUCH AS SODDING, MULCHING, OR NETS/BLANKETS, SHALL BE USED. IF WINTER WEATHER PREVENTS ADEQUATE GRASS GROWTH, THIS TIME LIMIT MAY BE RELAXED AT THE DISCRETION OF THE LOCAL AUTHORITY WHEN SENSITIVE AREAS WOULD OTHERWISE BE PROTECTED.
3. AFTER ADEQUATE COVER IS ACHIEVED, ANY AREAS THAT EXPERIENCE EROSION SHALL BE RESEEDED AND PROTECTED BY MULCH. IF THE EROSION PROBLEM IS DRAINAGE RELATED, THE PROBLEM SHALL BE FIXED AND THE ERODED AREA RESEEDED AND PROTECTED BY MULCH.
4. SEEDED AREAS SHALL BE SUPPLIED WITH ADEQUATE MOISTURE, BUT NOT WATERED TO THE EXTENT THAT IT CAUSES RUNOFF.
5. ALL REMAINING AREAS OF THE TRACT SHALL BE LANDSCAPED AND MULCHED WITH A 3–INCH COVER OF HOG FUEL OR SHREDDED WOO & BARK MULCH.
6. THE MULCH SHALL BE FREE OF GARBAGE AND WEEDS AND SHALL NOT CONTAIN EXCESSIVE RESIN, TANNIN, OR OTHER MATERIAL DETRIMENTAL TO PLANT GROWTH.

G SLOPE STABILIZATION SEED MIX
nts

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Building	Planning
Engineering	Public Works
Fire	Traffic

100% CD SET

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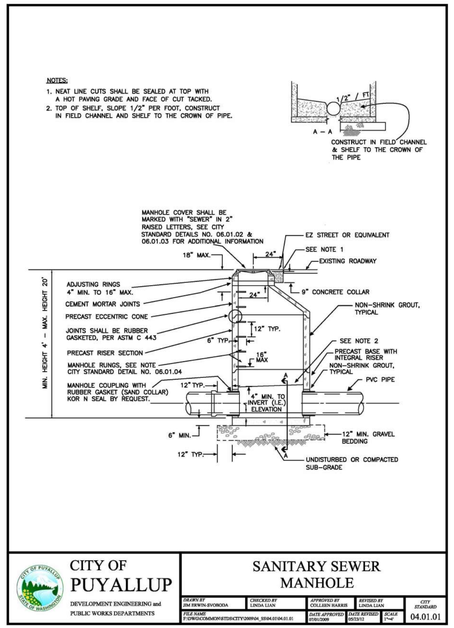
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TESC NOTES & DETAILS

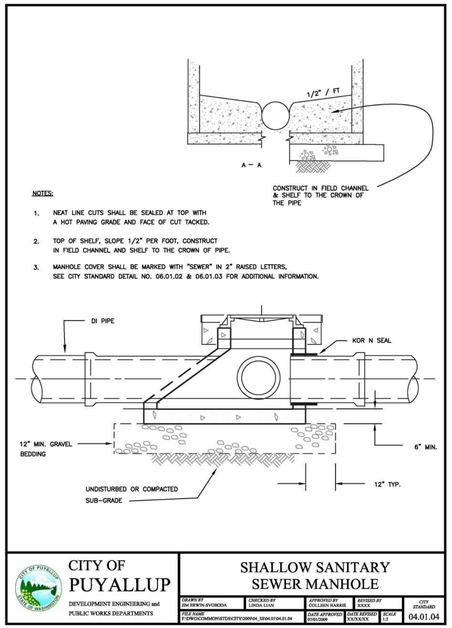
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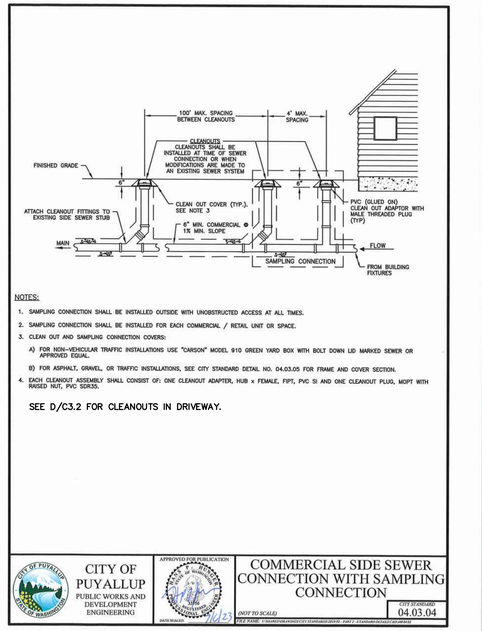
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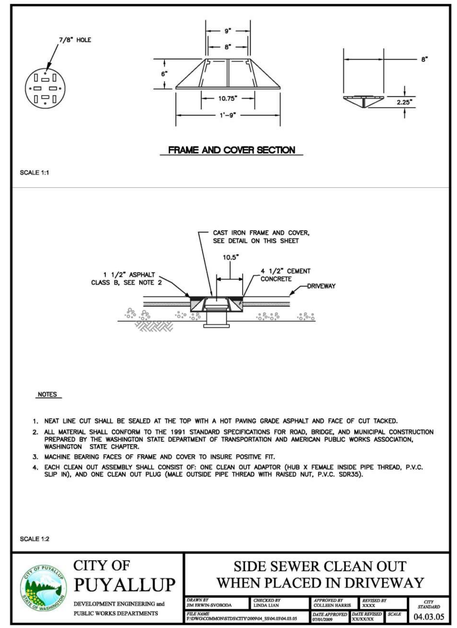
A SANITARY SEWER MANHOLE
nts



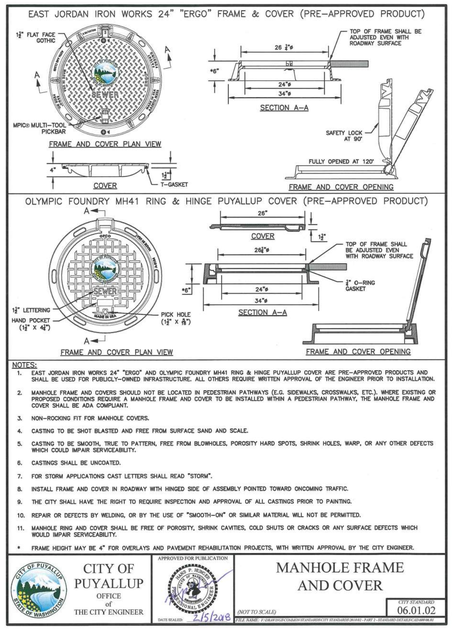
B SHALLOW SANITARY SEWER MANHOLE
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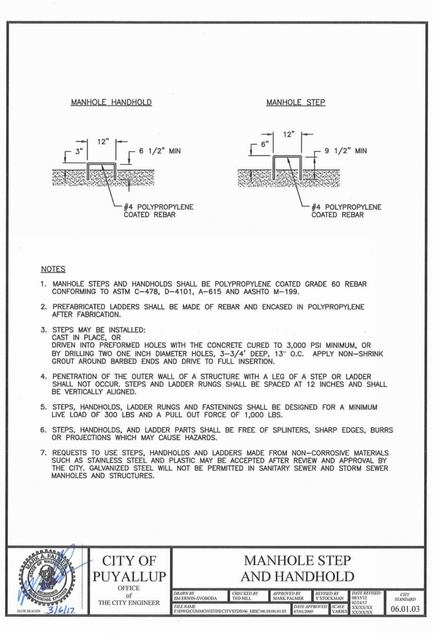
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nts



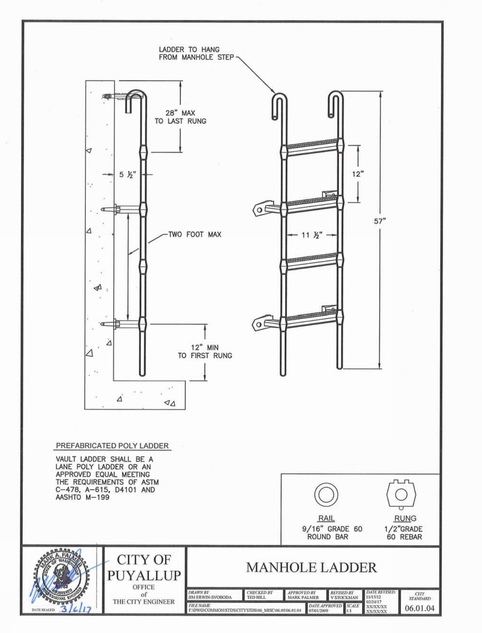
D CLEAN OUT IN DRIVEWAY
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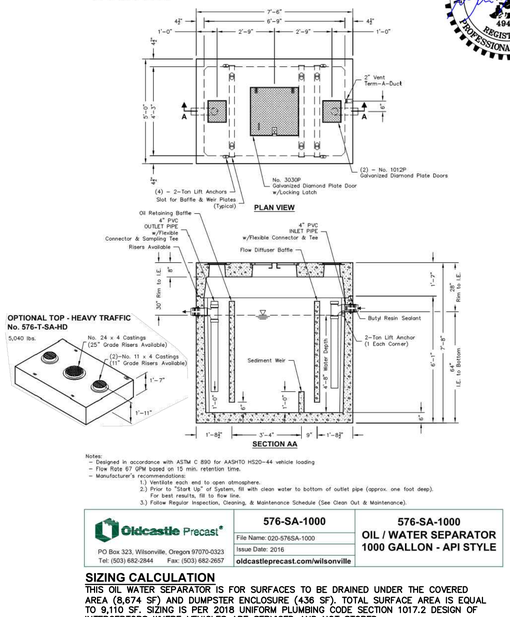
E MANHOLE FRAME & COVER
nts



F MANHOLE STEP & HANDHOLD
nts



G MANHOLE LADDER
nts



SIZING CALCULATION

THIS OIL WATER SEPARATOR IS FOR SURFACES TO BE DRAINED UNDER THE COVERED AREA (8,674 SF) AND DUMPSTER ENCLOSURE (436 SF). TOTAL SURFACE AREA IS EQUAL TO 9,110 SF. SIZING IS PER 2018 UNIFORM PLUMBING CODE SECTION 1017.2 DESIGN OF INTERCEPTORS WHERE VEHICLES ARE SERVICED AND NOT STORED:
1 CUBIC FOOT OF STORAGE PER 100 SQUARE FEET OF SURFACE AREA TO BE DRAINED
9,110 / 100 = 91.1 CF = 682 GALLONS
OWS CAPACITY PROVIDED = 1,000 GALLONS

H OIL/WATER SEPARATOR
nts

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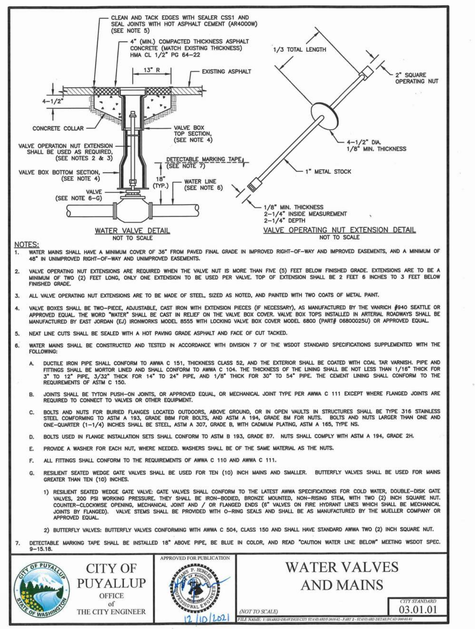
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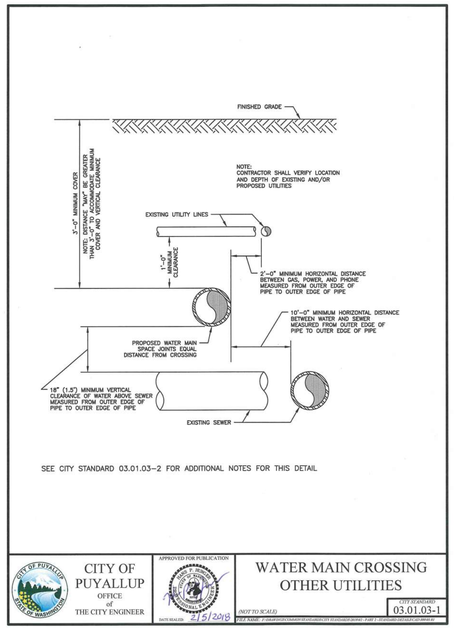


NOTES:

1. WATER MAINS SHALL HAVE A MINIMUM COVER OF 36" FROM PAVED FINAL GRADE IN IMPROVED RIGHT-OF-WAY AND IMPROVED EASEMENTS, AND A MINIMUM OF 48" IN UNIMPROVED RIGHT-OF-WAY AND UNIMPROVED EASEMENTS.
2. VALVE OPERATING NUT EXTENSIONS ARE REQUIRED WHEN THE VALVE NUT IS MORE THAN FIVE (5) FEET BELOW FINISHED GRADE. EXTENSIONS ARE TO BE A MINIMUM OF TWO (2) FEET LONG, ONLY ONE EXTENSION TO BE USED PER VALVE. TOP OF EXTENSION SHALL BE 2 FEET 6 INCHES TO 3 FEET BELOW FINISHED GRADE.
3. ALL VALVE OPERATING NUT EXTENSIONS ARE TO BE MADE OF STEEL, SIZED AS NOTED, AND PAINTED WITH TWO COATS OF METAL PAINT.
4. VALVE BOXES SHALL BE TWO-PIECE, ADJUSTABLE, CAST IRON WITH EXTENSION PIECES (IF NECESSARY), AS MANUFACTURED BY THE WARRICH #940 SEATTLE OR APPROVED EQUAL. THE WORD "WATER" SHALL BE CAST IN RELIEF ON THE VALVE BOX COVER. VALVE BOX TOPS INSTALLED IN ARTERIAL ROADWAYS SHALL BE MANUFACTURED BY EAST JORDAN (EJ) IRONWORKS MODEL 8555 WITH LOCKING VALVE BOX COVER MODEL 8800 (PART# 08800220LU) OR APPROVED EQUAL.
5. NEAT LINE CUTS SHALL BE SEALED WITH A HOT PAVING GRADE ASPHALT AND FACE OF CUT TACKED.
6. WATER MAINS SHALL BE CONSTRUCTED AND TESTED IN ACCORDANCE WITH DIVISION 7 OF THE WSDOT STANDARD SPECIFICATIONS SUPPLEMENTED WITH THE FOLLOWING:
   - A. DUCTILE IRON PIPE SHALL CONFORM TO AWWA C 151, THICKNESS CLASS 52, AND THE EXTERIOR SHALL BE COATED WITH COAL TAR VARNISH. PIPE AND FITTINGS SHALL BE MORTOR LINED AND SHALL CONFORM TO AWWA C 104. THE THICKNESS OF THE LINING SHALL BE NOT LESS THAN 1/16" THICK FOR 3" TO 12" PIPE, 3/32" THICK FOR 14" TO 24" PIPE, AND 1/8" THICK FOR 30" TO 54" PIPE. THE CEMENT LINING SHALL CONFORM TO THE REQUIREMENTS OF ASTM C 150.
   - B. JOINTS SHALL BE TYTON PUSH-ON JOINTS, OR APPROVED EQUAL, OR MECHANICAL JOINT TYPE PER AWWA C 111 EXCEPT WHERE FLANGED JOINTS ARE REQUIRED TO CONNECT TO VALVES OR OTHER EQUIPMENT.
   - C. BOLTS AND NUTS FOR BURIED FLANGES LOCATED OUTDOORS, ABOVE GROUND, OR IN OPEN VAULTS IN STRUCTURES SHALL BE TYPE 316 STAINLESS STEEL CONFORMING TO ASTM A 193, GRADE B8M FOR BOLTS, AND ASTM A 194, GRADE 8M FOR NUTS. BOLTS AND NUTS LARGER THAN ONE AND ONE-QUARTER (1-1/4) INCHES SHALL BE STEEL, ASTM A 307, GRADE B, WITH CADMIUM PLATING, ASTM A 165, TYPE NS.
   - D. BOLTS USED IN FLANGE INSTALLATION SETS SHALL CONFORM TO ASTM B 193, GRADE B7. NUTS SHALL COMPLY WITH ASTM A 194, GRADE 2H.
   - E. PROVIDE A WASHER FOR EACH NUT, WHERE NEEDED. WASHERS SHALL BE OF THE SAME MATERIAL AS THE NUTS.
   - F. ALL FITTINGS SHALL CONFORM TO THE REQUIREMENTS OF AWWA C 110 AND AWWA C 111.
   - G. RESILIENT SEATED WEDGE GATE VALVES SHALL BE USED FOR TEN (10) INCH MAINS AND SMALLER. BUTTERFLY VALVES SHALL BE USED FOR MAINS GREATER THAN TEN (10) INCHES.
     1) RESILIENT SEATED WEDGE GATE VALVE: GATE VALVES SHALL CONFORM TO THE LATEST AWWA SPECIFICATIONS FOR COLD WATER, DOUBLE-DISK GATE VALVES, 200 PSI WORKING PRESSURE. THEY SHALL BE IRON-BODIED, BRONZE MOUNTED, NON-RISING STEM, WITH TWO (2) INCH SQUARE NUT. COUNTER-CLOCKWISE OPENING, MECHANICAL JOINT AND / OR FLANGED ENDS (IF VALVES ON FIRE HYDRANT LINES WHICH SHALL BE MECHANICAL JOINTS BY FLANGED). VALVE STEMS SHALL BE PROVIDED WITH O-RING SEALS AND SHALL BE AS MANUFACTURED BY THE MUELLER COMPANY OR APPROVED EQUAL.
     2) BUTTERFLY VALVES: BUTTERFLY VALVES CONFORMING WITH AWWA C 504, CLASS 150 AND SHALL HAVE STANDARD AWWA TWO (2) INCH SQUARE NUT.
7. DETECTABLE MARKING TAPE SHALL BE INSTALLED 18" ABOVE PIPE, BE BLUE IN COLOR, AND READ "CAUTION WATER LINE BELOW" MEETING WSDOT SPEC. 9-15.18.

CITY OF PUYALLUP OFFICE of THE CITY ENGINEER | APPROVED FOR PUBLICATION 12/10/2021 | WATER VALVES AND MAINS | CITY STANDARD 03.01.01 | (NOT TO SCALE)

A WATER VALVES & MAINS
nts



SEE CITY STANDARD 03.01.03-2 FOR ADDITIONAL NOTES FOR THIS DETAIL

CITY OF PUYALLUP OFFICE of THE CITY ENGINEER | APPROVED FOR PUBLICATION 2/5/2018 | WATER MAIN CROSSING OTHER UTILITIES | CITY STANDARD 03.01.03-1 | (NOT TO SCALE)

B WATER MAIN CROSSING OTHER UTILITIES
nts

NOTES FOR WATER MAIN CROSSING OTHER UTILITIES
CITY STANDARD 03.01.03-1

WHEN LOCAL CONDITIONS PREVENT THE SEPARATIONS DESCRIBED ON CITY STANDARD 03.01.03-1, A SEWER MAY BE LAID CLOSER THAN 10-FEET HORIZONTALLY OR 18-INCHES VERTICALLY TO A WATER LINE, PROVIDED THE GUIDELINES BELOW ARE FOLLOWED:

UNUSUAL CONDITIONS (PARALLEL SYSTEMS)

1. SEWER LINE IS LAID IN A SEPARATE TRENCH FROM THE WATER LINE.
2. WHEN 18-INCHES VERTICAL SEPARATION CANNOT BE OBTAINED, THE SEWER SHALL BE CONSTRUCTED OF MATERIALS AND JOINTS THAT ARE EQUIVALENT TO WATER MAIN STANDARDS OF CONSTRUCTION AND SHALL BE PRESSURE TESTED TO ENSURE WATER TIGHTNESS PRIOR TO BACKFILLING.
3. THE WATER LINE SHALL BE PLACED ON A BENCH OF UNDISTURBED EARTH WITH THE BOTTOM OF THE WATER PIPE AT LEAST 18-INCHES ABOVE THE CROWN OF THE SEWER, AND SHALL HAVE AT LEAST 5-FEET OF HORIZONTAL SEPARATION AT ALL TIMES. THE CITY RESERVES THE RIGHT TO REQUIRE SUPPLEMENTAL MITIGATION EFFORTS, SUCH AS IMPERMEABLE BARRIERS OR OTHER MEANS, FOR ADDITIONAL PROTECTION.
4. THE SEWER SHALL NOT BE INSTALLED IN THE SAME DITCH AS A POTABLE WATER LINE WITHOUT PRIOR WRITTEN APPROVAL BY THE CITY OF PUYALLUP.

UNUSUAL CONDITIONS (PERPENDICULAR SYSTEMS)

CONDITION A - GRAVITY SEWERS PASSING UNDER WATER LINES (ALL OF THE FOLLOWING APPLY)

1. ONE FULL SEGMENT (NOT LESS THAN 18-FEET LONG) OF DUCTILE IRON CLASS 52 WATER PIPE, AND THE LONGEST STANDARD SEWER PIPE LENGTH AVAILABLE FROM THE MANUFACTURER SHALL BE USED WITH THE PIPES CENTERED TO MAXIMIZE JOINT SEPARATION.
2. STANDARD GRAVITY-SEWER MATERIAL ENCASED IN CONCRETE OR IN A ONE-QUARTER-INCH THICK CONTINUOUS STEEL, DUCTILE IRON, OR PRESSURE RATED PVC PIPE WITH A DIMENSION RATIO (THE RATIO OF THE OUTSIDE DIAMETER TO THE PIPE WALL THICKNESS) OF 18 OR LESS, WITH ALL VOIDS PRESSURE-GROUTED WITH SAND-CEMENT GROUT OR BENTONITE.

EXAMPLE OF DIMENSION RATIO (DR): OUTSIDE PIPE DIAMETER DIVIDED BY THE WALL THICKNESS OR OD/T.
FOR 8-INCH SCH. 80 PVC PIPE (T=0.5 INCHES), THE DR IS 8.625/0.5=17.25

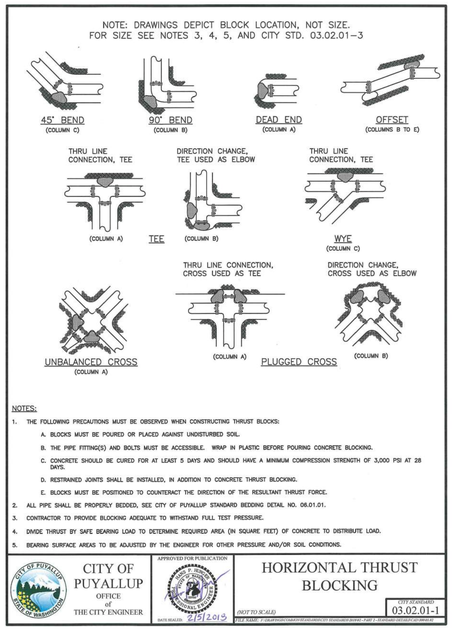
CONDITION B - GRAVITY SEWER PASSING OVER WATER LINES

WATER LINES SHALL BE PROTECTED BY PROVIDING:

1. A VERTICAL SEPARATION OF AT LEAST 18-INCHES BETWEEN THE INVERT OF THE SEWER AND THE CROWN OF THE WATER LINE.
2. ADEQUATE STRUCTURAL SUPPORT FOR THE SEWER LINE TO PREVENT EXCESSIVE DEFLECTION OF JOINTS AND SETTLING ON AND BREAKING OF THE WATER LINE.
3. THE SEWER PIPE SHALL BE THE LONGEST STANDARD SEWER PIPE LENGTH AVAILABLE FROM THE MANUFACTURER WITH THE WATER AND SEWER PIPES CENTERED TO MAXIMIZE JOINT SEPARATION.
4. THE SEWER LINE CASING EQUIVALENT TO THAT SPECIFIED IN A(2) ABOVE.

CITY OF PUYALLUP OFFICE of THE CITY ENGINEER | APPROVED FOR PUBLICATION 2/5/2018 | WATER MAIN CROSSING OTHER UTILITIES (NOTES) | CITY STANDARD 03.01.03-2 | (NOT TO SCALE)

C WATER MAIN CROSSING OTHER UTILITIES - NOTES
nts



NOTES:

1. THE FOLLOWING PRECAUTIONS MUST BE OBSERVED WHEN CONSTRUCTING THRUST BLOCKS:
   - A. BLOCKS MUST BE POURED OR PLACED AGAINST UNDISTURBED SOIL.
   - B. THE PIPE FITTING(S) AND BOLTS MUST BE ACCESSIBLE. WRAP IN PLASTIC BEFORE POURING CONCRETE BLOCKING.
   - C. CONCRETE SHOULD BE CURED FOR AT LEAST 5 DAYS AND SHOULD HAVE A MINIMUM COMPRESSION STRENGTH OF 3,000 PSI AT 28 DAYS.
   - D. RESTRAINED JOINTS SHALL BE INSTALLED, IN ADDITION TO CONCRETE THRUST BLOCKING.
   - E. BLOCKS MUST BE POSITIONED TO COUNTERACT THE DIRECTION OF THE RESULTANT THRUST FORCE.
2. ALL PIPE SHALL BE PROPERLY BEDDED, SEE CITY OF PUYALLUP STANDARD BEDDING DETAIL NO. 08.01.01.
3. CONTRACTOR TO PROVIDE BLOCKING ADEQUATE TO WITHSTAND FULL TEST PRESSURE.
4. DIVIDE THRUST BY SAFE BEARING LOAD TO DETERMINE REQUIRED AREA (IN SQUARE FEET) OF CONCRETE TO DISTRIBUTE LOAD.
5. BEARING SURFACE AREAS TO BE ADJUSTED BY THE ENGINEER FOR OTHER PRESSURE AND/OR SOIL CONDITIONS.

CITY OF PUYALLUP OFFICE of THE CITY ENGINEER | APPROVED FOR PUBLICATION 2/5/2015 | HORIZONTAL THRUST BLOCKING | CITY STANDARD 03.02.01-1 | (NOT TO SCALE)

D HORIZONTAL THRUST BLOCKING
nts

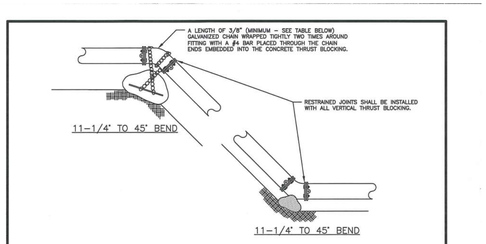


TABLE 1: CONCRETE BLOCKING FOR VERTICAL BENDS

PIPE DIAMETER (INCHES)	TEST PRESSURE (PSI)	BEND ANGLE (DEG)	CONCRETE VOLUME (FT³)	CUBE SIZE (FEET)	CHAIN SIZE (INCHES)	CHAIN EMBEDMENT (INCHES)
4"	200	11.25°	6	1.8	3/8"	17"
		22.5°	12	2.3		
		45°	22	2.8		
6"	200	11.25°	14	2.4	3/8"	17"
		22.5°	27	3.0		
		45°	50	3.7		
8"	200	11.25°	25	2.9	3/8"	17"
		22.5°	48	3.6		
		45°	89	4.5		
10"	200	11.25°	38	3.4	3/8"	17"
		22.5°	75	4.2		
		45°	139	5.2		
12"	200	11.25°	55	3.8	3/8"	17"
		22.5°	108	4.8		
		45°	200	5.8	1/2"	24"
14"	200	11.25°	75	4.2	3/8"	17"
		22.5°	147	5.3	1/2"	20"
		45°	272	6.5	1/2"	27"
16"	200	11.25°	98	4.6	3/8"	17"
		22.5°	192	5.8	1/2"	24"
		45°	355	7.1	3/4"	30"

ALL NOTES ON CITY STANDARD 03.02.01-1 SHALL APPLY TO THIS DETAIL.
SEE CITY STANDARD 03.02.01-3 FOR ADDITIONAL INFORMATION.

CITY OF PUYALLUP OFFICE of THE CITY ENGINEER | APPROVED FOR PUBLICATION 2/5/2018 | VERTICAL THRUST BLOCKING | CITY STANDARD 03.02.01-2 | (NOT TO SCALE)

E VERTICAL THRUST BLOCKING
nts

TABLE 2: THRUST AT FITTINGS AT 200 PSI

SIZE	TEST PRESSURE (PSI)	THRUST FITTINGS AT 200 PSI				
		A	B	C	D	E
		TEE AND DEAD ENDS	90° BEND	45° BEND	22.5° BEND	11.25° BEND
4"	200	3,140	4,440	2,405	1,225	615
6"	200	7,070	9,995	5,410	2,760	1,385
8"	200	12,565	17,770	9,620	4,905	2,465
10"	200	19,635	27,770	15,030	7,660	3,850
12"	200	28,275	39,985	21,640	11,030	5,545
14"	200	38,485	54,425	29,455	15,015	7,545
16"	200	50,265	71,085	38,470	19,615	9,855

TABLE 3: BEARING VALUE OF SOIL

SOIL TYPE	SAFE BEARING LOAD LBS/SF
MUCK, PEAT, ETC.	0
SOFT CLAY/ALLUVIAL SOIL	1,000
SAND	2,000
SAND AND GRAVEL	3,000
SAND AND GRAVEL CEMENTED WITH CLAY	4,000
HARD SHALE	10,000

SEE CITY STANDARDS 03.02.01-1 AND 03.02.01-2 FOR ADDITIONAL INFORMATION.

NOTES:

1. TO DETERMINE THRUST AT PRESSURES OTHER THAN PSI SHOWN, MULTIPLY THE THRUST OBTAINED IN TABLE 2 BY THE RATIO OF THE PRESSURE TO 200 PSI.
   EXAMPLE:
   THE THRUST ON A 12 INCH, 90° BEND AT 300 PSI.
   39,985 x 300 PSI / 200 PSI = 59,978 LBS
2. TO DETERMINE THE BEARING AREA OF THE THRUST BLOCK IN SQUARE FEET (SF):
   SEE TABLE 3, BEARING VALUE OF SOIL.
   EXAMPLE:
   FOR SAND AND GRAVEL BEARING VALUE FROM TABLE 3 IS 3,000 LBS/SF
   59,978 LBS ÷ 3000 LB/SF = 20 SF OF AREA
3. CONTRACTOR TO PROVIDE BLOCKING ADEQUATE TO WITHSTAND FULL TEST PRESSURE
4. AREAS SHALL BE ADJUSTED FOR OTHER PRESSURE CONDITIONS.
5. NO WATER MAIN SHALL DEAD END AGAINST A MAIN LINE VALVE. DEAD END WATER MAINS SHALL BE BLOCKED AGAINST A RESTRAINED MECHANICAL JOINT (M.J.) PLUG OR CAP.

CITY OF PUYALLUP OFFICE of THE CITY ENGINEER | APPROVED FOR PUBLICATION 2/5/2018 | THRUST BLOCKING TABLE | CITY STANDARD 03.02.01-3 | (NOT TO SCALE)

F THRUST BLOCKING TABLE
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BY Lance D. Kirkpatrick
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DEVELOPMENT ENGINEERING
DATE 07/09/2024

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 DEVELOPMENT ENGINEERING MANAGER.

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MILES PATRICK MCEATHERON — STATE OF WASHINGTON — 49494 — REGISTERED PROFESSIONAL ENGINEER — 7/8/2025

City of Puyallup
Development & Permitting Services
ISSUED PERMIT

Building	Planning
Engineering	Public Works
Fire	Traffic

100% CD SET

REV	ISSUED FOR	DATE

PLAN NORTH | TRUE NORTH
SCALE: 0

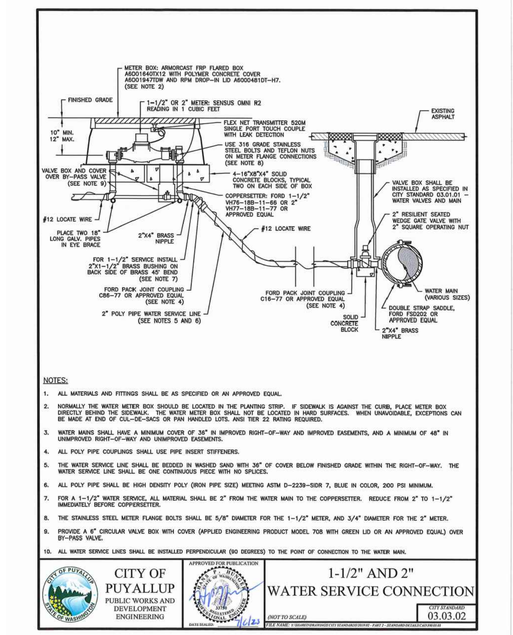
PSE - OPERATIONAL TRAINING CENTER

WATER DETAILS

PROJECT No:	22219
DRAWN BY:	MPM
CHECKED BY:	THF
DATE ISSUED:	05/31/2024

C3.3

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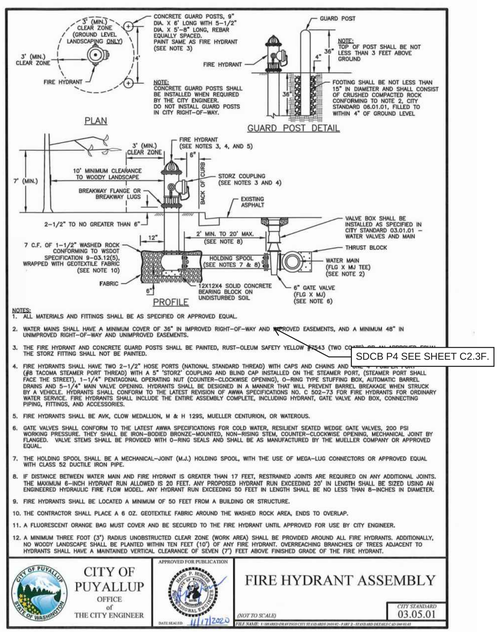


NOTES:

1. ALL MATERIALS AND FITTINGS SHALL BE AS SPECIFIED OR AN APPROVED EQUAL.
2. NORMALLY THE WATER METER BOX SHOULD BE LOCATED IN THE PLANTING STRIP. IF SIDEWALK IS AGAINST THE CURB, PLACE METER BOX DIRECTLY BEHIND THE SIDEWALK. THE WATER METER BOX SHALL NOT BE LOCATED IN HARD SURFACES. WHEN UNAVOIDABLE, EXCEPTIONS CAN BE MADE AT END OF CUL-DE-SACS OR PAN HANDLED LOTS. ANSI TIER 22 RATING REQUIRED.
3. WATER MAINS SHALL HAVE A MINIMUM COVER OF 36" IN IMPROVED RIGHT-OF-WAY AND IMPROVED EASEMENTS, AND A MINIMUM OF 48" IN UNIMPROVED RIGHT-OF-WAY AND UNIMPROVED EASEMENTS.
4. ALL POLY PIPE COUPLINGS SHALL USE PIPE INSERT STIFFENERS.
5. THE WATER SERVICE LINE SHALL BE BEDDED IN WASHED SAND WITH 36" OF COVER BELOW FINISHED GRADE WITHIN THE RIGHT-OF-WAY. THE WATER SERVICE LINE SHALL BE ONE CONTINUOUS PIECE WITH NO SPLICES.
6. ALL POLY PIPE SHALL BE HIGH DENSITY POLY (IRON PIPE SIZE) MEETING ASTM D-2239-SIDR 7, BLUE IN COLOR, 200 PSI MINIMUM.
7. FOR A 1-1/2" WATER SERVICE, ALL MATERIAL SHALL BE 2" FROM THE WATER MAIN TO THE COPPERSETTER. REDUCE FROM 2" TO 1-1/2" IMMEDIATELY BEFORE COPPERSETTER.
8. THE STAINLESS STEEL METER FLANGE BOLTS SHALL BE 5/8" DIAMETER FOR THE 1-1/2" METER, AND 3/4" DIAMETER FOR THE 2" METER.
9. PROVIDE A 6" CIRCULAR VALVE BOX WITH COVER (APPLIED ENGINEERING PRODUCT MODEL 708 WITH GREEN LID OR AN APPROVED EQUAL) OVER BY-PASS VALVE.
10. ALL WATER SERVICE LINES SHALL BE INSTALLED PERPENDICULAR (90 DEGREES) TO THE POINT OF CONNECTION TO THE WATER MAIN.

CITY OF PUYALLUP
PUBLIC WORKS AND DEVELOPMENT ENGINEERING
APPROVED FOR PUBLICATION
DATE 6/4/23
1-1/2" AND 2"
WATER SERVICE CONNECTION
(NOT TO SCALE)
CITY STANDARD 03.03.02

A 2" WATER SERVICE CONNECTION (DOMESTIC)
nts



NOTES:

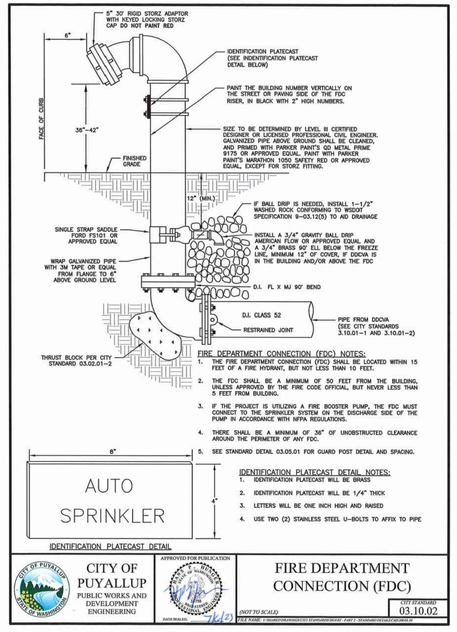
1. ALL MATERIALS AND FITTINGS SHALL BE AS SPECIFIED OR APPROVED EQUAL.
2. WATER MAINS SHALL HAVE A MINIMUM COVER OF 36" IN IMPROVED RIGHT-OF-WAY AND IMPROVED EASEMENTS, AND A MINIMUM 48" IN UNIMPROVED RIGHT-OF-WAY AND UNIMPROVED EASEMENTS.
3. THE FIRE HYDRANT AND CONCRETE GUARD POSTS SHALL BE PAINTED, RUST-OLEUM SAFETY YELLOW #2543 (TWO COATS OR AS REQUIRED FOR FULL COVERAGE). THE STORZ FITTING SHALL NOT BE PAINTED.
4. FIRE HYDRANTS SHALL HAVE TWO 2-1/2" HOSE PORTS (NATIONAL STANDARD THREAD) WITH CAPS AND CHAINS AND ONE 4" PORT (4" TACOMA STEAMER PORT THREAD) WITH A 5" "STORZ" COUPLING AND BLIND CAP INSTALLED ON THE STEAMER PORT, (STEAMER PORT SHALL FACE THE STREET), 1-1/4" PENTAGONAL OPERATING NUT (COUNTER-CLOCKWISE OPENING), O-RING TYPE STUFFING BOX, AUTOMATIC BARREL DRAINS AND 5-1/4" MAIN VALVE OPENING. HYDRANTS SHALL BE DESIGNED IN A MANNER THAT WILL PREVENT BARREL BREAKAGE WHEN STRUCK BY A VEHICLE. HYDRANTS SHALL CONFORM TO THE LATEST REVISION OF AWWA SPECIFICATIONS NO. C 502-73 FOR FIRE HYDRANTS FOR ORDINARY WATER SERVICE. FIRE HYDRANTS SHALL INCLUDE THE ENTIRE ASSEMBLY COMPLETE, INCLUDING HYDRANT, GATE VALVE AND BOX, CONNECTING PIPING, FITTINGS, AND ACCESSORIES.
5. FIRE HYDRANTS SHALL BE AVK, CLOW MEDALLION, M & H 1295, MUELLER CENTURION, OR WATEROUS.
6. GATE VALVES SHALL CONFORM TO THE LATEST AWWA SPECIFICATIONS FOR COLD WATER, RESILIENT SEATED WEDGE GATE VALVES, 200 PSI WORKING PRESSURE. THEY SHALL BE IRON-BODIED BRONZE-MOUNTED, NON-RISING STEM, COUNTER-CLOCKWISE OPENING, MECHANICAL JOINT BY FLANGED. VALVE STEMS SHALL BE PROVIDED WITH O-RING SEALS AND SHALL BE AS MANUFACTURED BY THE MUELLER COMPANY OR APPROVED EQUAL.
7. THE HOLDING SPOOL SHALL BE A MECHANICAL-JOINT (M.J.) HOLDING SPOOL, WITH THE USE OF MEGA-LUG CONNECTORS OR APPROVED EQUAL WITH CLASS 52 DUCTILE IRON PIPE.
8. IF DISTANCE BETWEEN WATER MAIN AND FIRE HYDRANT IS GREATER THAN 17 FEET, RESTRAINED JOINTS ARE REQUIRED ON ANY ADDITIONAL JOINTS. THE MAXIMUM 6-INCH HYDRANT RUN ALLOWED IS 20 FEET. ANY PROPOSED HYDRANT RUN EXCEEDING 20' IN LENGTH SHALL BE SIZED USING AN ENGINEERED HYDRAULIC FIRE FLOW MODEL. ANY HYDRANT RUN EXCEEDING 40 FEET IN LENGTH SHALL BE NO LESS THAN 8-INCHES IN DIAMETER.
9. FIRE HYDRANTS SHALL BE LOCATED A MINIMUM OF 50 FEET FROM A BUILDING OR STRUCTURE.
10. THE CONTRACTOR SHALL PLACE A 6 OZ. GEOTEXTILE FABRIC AROUND THE WASHED ROCK AREA, ENDS TO OVERLAP.
11. A FLUORESCENT ORANGE BAG MUST COVER AND BE SECURED TO THE FIRE HYDRANT UNTIL APPROVED FOR USE BY CITY ENGINEER.
12. A MINIMUM THREE FOOT (3') RADIUS UNOBSTRUCTED CLEAR ZONE (WORK AREA) SHALL BE PROVIDED AROUND ALL FIRE HYDRANTS. ADDITIONALLY, NO WOODY LANDSCAPE SHALL BE PLANTED WITHIN TEN FEET (10') OF ANY FIRE HYDRANT. OVERREACHING BRANCHES OF TREES ADJACENT TO HYDRANTS SHALL HAVE A MAINTAINED VERTICAL CLEARANCE OF SEVEN (7') FEET ABOVE FINISHED GRADE OF THE FIRE HYDRANT.

SDCB P4 SEE SHEET C2.3F.

CITY OF PUYALLUP
PUBLIC WORKS AND DEVELOPMENT ENGINEERING
APPROVED FOR PUBLICATION
DATE 6/4/23
FIRE HYDRANT ASSEMBLY
(NOT TO SCALE)
CITY STANDARD 03.05.01

HYDRANT IN VILLAGE TO BE LABELED AS "TRAINING ONLY" & PAINTED WITH UNIQUE COLOR (SUCH AS GREEN) TO DISTINGUISH IT FROM OTHERS. THIS HYDRANT WILL NOT HAVE FULL FIRE FLOW. COORDINATE EXACT COLOR AND LETTERING WITH OWNER.

B FIRE HYDRANT ASSEMBLY
nts



IDENTIFICATION PLATECAST DETAIL

FIRE DEPARTMENT CONNECTION (FDC) NOTES:

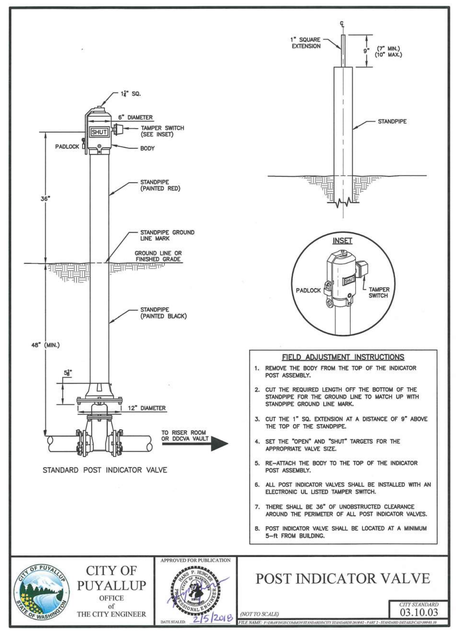
1. THE FIRE DEPARTMENT CONNECTION (FDC) SHALL BE LOCATED WITHIN 15 FEET OF A FIRE HYDRANT, BUT NOT LESS THAN 10 FEET.
2. THE FDC SHALL BE A MINIMUM OF 50 FEET FROM THE BUILDING, UNLESS APPROVED BY THE FIRE CODE OFFICIAL, BUT NEVER LESS THAN 5 FEET FROM BUILDING.
3. IF THE PROJECT IS UTILIZING A FIRE BOOSTER PUMP, THE FDC MUST CONNECT TO THE SPRINKLER SYSTEM ON THE DISCHARGE SIDE OF THE PUMP IN ACCORDANCE WITH NFPA REGULATIONS.
4. THERE SHALL BE A MINIMUM OF 36" OF UNOBSTRUCTED CLEARANCE AROUND THE PERIMETER OF ANY FDC.
5. SEE STANDARD DETAIL 03.05.01 FOR GUARD POST DETAIL AND SPACING.

IDENTIFICATION PLATECAST DETAIL NOTES:

1. IDENTIFICATION PLATECAST WILL BE BRASS
2. IDENTIFICATION PLATECAST WILL BE 1/4" THICK
3. LETTERS WILL BE ONE INCH HIGH AND RAISED
4. USE TWO (2) STAINLESS STEEL U-BOLTS TO AFFIX TO PIPE

CITY OF PUYALLUP
PUBLIC WORKS AND DEVELOPMENT ENGINEERING
APPROVED FOR PUBLICATION
DATE 6/4/23
FIRE DEPARTMENT CONNECTION (FDC)
(NOT TO SCALE)
CITY STANDARD 03.10.02

C FIRE DEPARTMENT CONNECTION (FDC)
nts



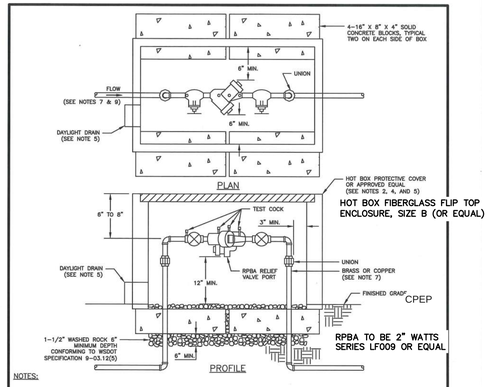
STANDARD POST INDICATOR VALVE

FIELD ADJUSTMENT INSTRUCTIONS

1. REMOVE THE BODY FROM THE TOP OF THE INDICATOR POST ASSEMBLY.
2. CUT THE REQUIRED LENGTH OFF THE BOTTOM OF THE STANDPIPE FOR THE GROUND LINE TO MATCH UP WITH STANDPIPE GROUND LINE MARK.
3. CUT THE 1" SQ. EXTENSION AT A DISTANCE OF 9" ABOVE THE TOP OF THE STANDPIPE.
4. SET THE "OPEN" AND "SHUT" TARGETS FOR THE APPROPRIATE VALVE SIZE.
5. RE-ATTACH THE BODY TO THE TOP OF THE INDICATOR POST ASSEMBLY.
6. ALL POST INDICATOR VALVES SHALL BE INSTALLED WITH AN ELECTRONIC UL LISTED TAMPER SWITCH.
7. THERE SHALL BE 36" OF UNOBSTRUCTED CLEARANCE AROUND THE PERIMETER OF ALL POST INDICATOR VALVES.
8. POST INDICATOR VALVE SHALL BE LOCATED AT A MINIMUM 5-FT FROM BUILDING.

CITY OF PUYALLUP
OFFICE of THE CITY ENGINEER
APPROVED FOR PUBLICATION
DATE 6/5/2024
POST INDICATOR VALVE
(NOT TO SCALE)
CITY STANDARD 03.10.03

D POST INDICATOR VALVE (PIV)
nts



NOTES:

1. BACKFLOW ASSEMBLY MUST BE SELECTED FROM WASHINGTON STATE DEPARTMENT OF HEALTH'S LIST OF BACKFLOW PREVENTION ASSEMBLIES APPROVED FOR INSTALLATION IN WASHINGTON STATE, LATEST EDITION.
2. THE RPBA SHALL BE INSTALLED WITH ADEQUATE SPACE TO FACILITATE MAINTENANCE AND TESTING. IT SHALL BE TESTED AFTER INSTALLATION, BY A WASHINGTON STATE CERTIFIED BACK-FLOW ASSEMBLY TESTER, TO INSURE ITS SATISFACTORY OPERATION BEFORE OCCUPANCY, AND ANNUALLY THEREAFTER. SEND TEST RESULTS TO: CITY OF PUYALLUP, WATER QUALITY OPERATIONS, 1100 39TH AVE SE, PUYALLUP, WA 98374.
3. THE RPBA MUST BE PURCHASED AS A UNIT. NO MODIFICATIONS TO THE ASSEMBLY ARE ALLOWED.
4. THE RPBA SHALL NOT BE INSTALLED IN A PIT BELOW GROUND LEVEL.
5. THE PROTECTIVE COVERING FOR THE RPBA, WHICH PROTECTS THE ASSEMBLY FROM FREEZING, MUST INCLUDE A DAYLIGHT DRAIN. THE DRAIN MUST BE INSTALLED ABOVE GROUND OR ABOVE THE MAXIMUM FLOOD LEVEL, WHICHEVER IS HIGHER. THE DRAIN MUST BE A MINIMUM OF TWICE THE SIZE OF THE RPBA, TO BE ABLE TO HANDLE THE VOLUME OF WATER THAT POTENTIALLY COULD BE DISCHARGED FROM THE RELIEF VALVE PORT.
6. THE RPBA SHALL BE SIZED EQUAL OR COMPARABLE TO THE METER SIZE.
7. USE ONLY BRASS OR COPPER BETWEEN THE METER AND THE BOTTOM VERTICAL 90 DEGREE BEND ON THE CUSTOMER'S SIDE OF THE RPBA.
8. DIELECTRIC UNIONS MUST BE USED TO SEPARATE DISSIMILAR MATERIALS.
9. THE RPBA SHOULD BE LOCATED IMMEDIATELY DOWN STREAM OF THE METER, AND SHOULD NOT BE INSTALLED INSIDE A BUILDING.
10. AN RPBA INSTALLED MORE THAN FIVE (5) FEET ABOVE FLOOR LEVEL MUST HAVE A PLATFORM UNDER IT FOR THE TESTER OR MAINTENANCE PERSON TO STAND ON. THE PLATFORM MUST BE OSHA APPROVED AND MEET ALL APPLICABLE SAFETY STANDARDS AND CODES.

CITY OF PUYALLUP
OFFICE of THE CITY ENGINEER
APPROVED FOR PUBLICATION
DATE 6/5/2015
2" AND SMALLER REDUCED PRESSURE BACKFLOW ASSEMBLY INSTALLATION
(NOT TO SCALE)
CITY STANDARD 03.04.02

E 2" AND SMALLER RPBA INSTALLATION
nts

NOTES FOR: DOUBLE DETECTOR CHECK VALVE ASSEMBLY (DDCVA) INSTALLATION CITY STANDARD 03.10.01-1

1. BACKFLOW ASSEMBLY MUST BE SELECTED FROM WASHINGTON STATE DEPARTMENT OF HEALTH'S LIST OF BACKFLOW PREVENTION ASSEMBLIES APPROVED FOR INSTALLATION IN WASHINGTON STATE, LATEST EDITION.
2. THE DDCVA SHALL BE INSTALLED WITH ADEQUATE SPACE TO FACILITATE MAINTENANCE AND TESTING. IT SHALL BE TESTED AFTER INSTALLATION, BY A WASHINGTON STATE CERTIFIED BACK-FLOW ASSEMBLY TESTER, TO INSURE ITS SATISFACTORY OPERATION BEFORE OCCUPANCY, AND ANNUALLY THEREAFTER. SEND TEST RESULTS TO: CITY OF PUYALLUP, WATER QUALITY OPERATIONS, 1100 39TH AVE SE, PUYALLUP, WA 98374.
3. DDCVA MUST BE PURCHASED AS A UNIT. NO MODIFICATIONS TO THE ASSEMBLY ARE ALLOWED.
4. DDCVA IS ALLOWED TO BE LOCATED WITHIN A BUILDING AS APPROVED BY THE FIRE CODE OFFICIAL. WHEN THE DDCVA IS LOCATED WITHIN A BUILDING, THE FIRE DEPARTMENT CONNECTION (FDC) BALL DRIP SHALL DRAIN TO THE NEAREST APPROVED ON-SITE STORM DRAINAGE STRUCTURE.
5. IN A VAULT INSTALLATION, IF VAULT CANNOT BE DRAINED TO DAYLIGHT, A 1/4 HP SUMP PUMP SHALL BE INSTALLED IN THE SUMP PIT OF THE VAULT. IT SHALL BE WIRED PER WASHINGTON STATE ELECTRICAL CODE, AND INSPECTED BY A STATE ELECTRICAL INSPECTOR. THE DISCHARGE PIPE SHALL BE CONNECTED TO THE NEAREST APPROVED ON-SITE STORM DRAINAGE STRUCTURE.
6. DDCVA OUTSIDE STEM AND YOKE (OS&Y) GATE VALVES, AND THE POST INDICATOR VALVE (PIV), SHALL HAVE SUPERVISED TAMPER SWITCHES.
7. ALL ELECTRICAL SHALL BE INSPECTED BY A WASHINGTON STATE ELECTRICAL INSPECTOR.
8. IN A VAULT INSTALLATION, RUN TWO 3/4" SCHEDULE 80 P.V.C. CONDUITS TO THE VAULT. ONE WILL BE USED FOR A GFCI PROTECTED OUTLET, AND ONE WILL BE FOR LOW VOLTAGE COMING FROM THE FIRE ALARM PANEL. INSTALL AN APPLETON FSCA OR FDCA CAST DEVICE BOX OR APPROVED EQUAL ON THE VAULT WALL AT THE CONDUIT PENETRATION.
9. IN A VAULT INSTALLATION, RUN LOW VOLTAGE WIRE INSIDE VAULT AND TO PIV THROUGH SEAL-TIGHT FLEX CONDUIT. CONDUIT SHALL BE SECURELY FASTENED PERPENDICULAR OR HORIZONTALLY TO THE WALLS OF THE VAULT.
10. WATER METER SHALL BE A SENSUS SRII TRPL READING IN 1 CUBIC FEET.
11. PIPE SUPPORTS SHALL BE RUST-PROTECTED WITH ALUMINUM PAINT.
12. THE FDC SHALL BE LOCATED WITHIN 15 FEET OF A FIRE HYDRANT, BUT NOT LESS THAN 10 FEET.
13. THE FDC AND PIV SHALL BE A MINIMUM OF 50 FEET FROM A BUILDING, UNLESS APPROVED BY THE CITY OF PUYALLUP FIRE CODE OFFICIAL, BUT NEVER LESS THAN 5 FEET FROM BUILDING.
14. A DDCVA INSTALLED MORE THAN 5 FEET ABOVE THE FLOOR LEVEL MUST HAVE A PLATFORM UNDER IT FOR THE TESTER OR MAINTENANCE PERSON TO STAND ON. THE PLATFORM MUST BE OSHA APPROVED AND MEET ALL APPLICABLE SAFETY STANDARDS AND CODES.

CPEP

CPEP

CITY OF PUYALLUP
OFFICE of THE CITY ENGINEER
APPROVED FOR PUBLICATION
DATE 6/5/2015
DOUBLE DETECTOR-CHECK VALVE ASSEMBLY INSTALLATION (NOTES)
(NOT TO SCALE)
CITY STANDARD 03.10.01-2

F DDCVA INSTALLATION NOTES
nts

FIRE SERVICE INSTALLATION NOTES

1. INSTALLATION WORK SHALL BE PPERFORMED BY FULLY EXPERIENCED AND RESPONSIBLE PERSONS. NFPA 24 4.2.1
2. THE AUTHORITY HAVING JURISDICTION (AHJ) SHALL ALWAYS BE CONSULTED BEFORE THE INSTALLATION OR REMODELING OF PRIVATE FIRE SERVICE MAINS. NFPA 24 4.2.2
3. PIPING MANUFACTURED IN ACCORDANCE WITH TABLE NFPA 24 10.1.1.1 SHALL BE PERMITTED TO BE USED.
4. PIPING SPECIFICALLY LISTED FOR USE IN PRIVATE FIRE SERVICE MAINS SHALL BE PERMITTED TO BE USED. NFPA 24 10.1.1.2
5. THE DEPTH OF COVER FOR PRIVATE FIRE SERVICE MAINS AND THEIR APPURTENANCES TO PROTECT AGAINST FREEZING SHALL BE A MINIMUM OF 4 FEET (48 INCHES). NFPA 24 10.4.2.1 AND AHJ REQUIREMENT.
6. PRIVATE FIRE SERVICE MAINS INSTALLED UNDER RAILROAD TRACKS SHALL BE BURIED AT A MINIMUM DEPTH OF 4 FEET (48 INCHES). NFPA 24 10.4.2.4
7. ALL PIPING SHALL BE INSTALLED A MINIMUM OF 12 INCHES BELOW THE BOTTOM OF BUILDING FOUNDATION OR FOOTERS. NFPA 10.4.3.1.2
8. AFTER INSTALLATION, RODS, NUTS, BOLTS, WASHERS, CLAMPS, AND OTHER RESTRAINING DEVICES SHALL BE CLEANED AND THOROUGHLY COATED WITH A BITUMINOUS OR OTHER ACCEPTABLE CORROSION-RETARDING MATERIAL. NFPA 24 10.6.2.5
9. ALL PIPING AND ATTACHED APPURTENANCES SUBJECTED TO SYSTEM WORKING PRESSURE SHALL BE HYDROSTATICALLY TESTED AT GAUGE PRESSURE OF 200 PSI OR 50 PSI IN EXCESS OF THE SYSTEM WORKING PRESSURE, WHICHEVER IS GREATER, AND SHALL MAINTAIN THAT PRESSURE AT GAUGE PRESSURE OF + OR - 5 PSI FOR A MINIMUM OF 2 HOURS. NFPA 24 10.10.2.2.1
10. ACCEPTABLE TEST RESULTS SHALL BE DETERMINED BY INDICATION OF EITHER A PRESSURE LOSS LESS THAN GAUGE PRESSURE OF 5 PSI OR BY NO VISUAL LEAKAGE. NFPA 24 10.10.2.2.2
11. WHERE USING PIPING LISTED FOR PRIVATE FIRE SERVICE MAINS, THE MANUFACTURERS INSTALLATION INSTRUCTION FOR BACKFILL AS WELL AS AHJ REQUIREMENTS FOR BACKFILL SHALL BE FOLLOWED. NFPA 24 10.9.6
12. PER AHJ REQUIREMENTS THE FDC SHALL BE COLORED APPROPRIATELY FOR USE.
RUSTOLEUM RED FOR STAND ALONE SPRINKLER SYSTEM
RUSTOLEUM GREEN FOR STAND ALONE STANDPIPE SYSTEM
RUSTOLEUM YELLOW FOR COMBINATION STANDPIPE SPRINKLER SYSTEMS
13. PER AHJ REQUIREMENTS REMOTE FDC SHALL BE SIGNED OR ADDRESSED APPROPRIATELY TO SHOW WHAT BUILDING OR PORTION OF BUILDING IT IS CONNECTED TO.
14. PER AHJ REQUIREMENTS IF THE SPRINKLER SYSTEM RISER ROOM IS ACCESSIBLE THROUGH AN EXTERIOR DOOR, A PIV IS NOT NEEDED; HOWEVER, WE STILL REQUIRE AN ISOLATION VALVE AT THE PROPERTY LINE OR EDGE OF EASEMENT.
15. ALL ABOVE REQUIREMENTS SHALL BE INSPECTED AND APPROVED BY THE AHJ BEFORE PERMIT CAN BE FINALED.

FIRE SERVICE PERMITTING NOTE

CONTRACTOR MUST PROCURE ALL NECESSARY PERMITS FROM CITY OF PUYALLUP FIRE DEPARTMENT PRIOR TO CONSTRUCTION OF FACILITIES.

FIRE SERVICE SIZING NOTE

CONTRACTOR SHALL VERIFY FIRE SERVICE SUPPLY LINE SIZE WITH SPRINKLER CONTRACTOR PRIOR TO INSTALLATION.

TRAFFIC CONTROL NOTE

ACTIVITIES ON STREETS SHALL PROVIDE TRAFFIC CONTROL PER APPLICABLE WSDOT STANDARD PLANS.

JAMES PATRICK MCMAHON — STATE OF WASHINGTON — 49494 — REGISTERED PROFESSIONAL ENGINEER — 7/8/2025

City of Puyallup
Development & Permitting Services
ISSUED PERMIT

Building	Planning
Engineering	Public Works
Fire	Traffic

ZERVAS
ARCHITECTURE | INTERIOR DESIGN
zervasgroup.com
209 Prospect Street
Bellingham, WA 98225
360.734.4744

FREELAND & ASSOCIATES
220 West Champion Street, Suite 200 t: 360.650.1408
Bellingham, WA 98225 f: 360.650.1401

JAMES PATRICK MCMAHON — STATE OF WASHINGTON — 49494 — REGISTERED PROFESSIONAL ENGINEER — 05/31/2024

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

APPROVED
BY Lance D. Hoogendoorn
CITY OF PUYALLUP
DEVELOPMENT ENGINEERING
DATE 07/09/2024

NOTE: THIS APPROVAL IS VOID AFTER 180 DAYS FROM APPROVAL DATE.
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100% CD SET

REV	ISSUED FOR	DATE

PLAN NORTH TRUE NORTH
SCALE: 0

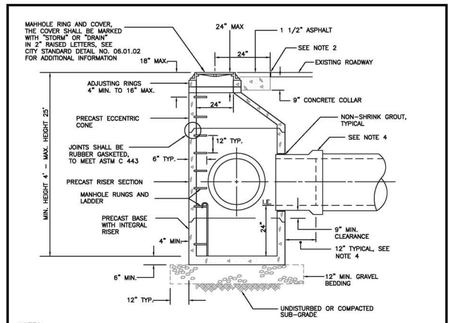
PSE - OPERATIONAL TRAINING CENTER

WATER DETAILS

PROJECT No:	22219
DRAWN BY:	MPM
CHECKED BY:	THF
DATE ISSUED:	05/31/2024

C3.4

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NOTES:

1. THE CONSTRUCTION AND INSTALLATION OF STORM SEWER MANHOLES SHALL CONFORM TO THE REQUIREMENTS OF WSDOT SPEC. SECTION 7-05 AND ASTM C 478.
2. THE FACE OF NEAT LINE CUTS IN EXISTING ASPHALT PAVEMENT SHALL BE TACK COATED AND THE TOP OF THE JOINT SHALL BE SEALED WITH A HOT PAVING GRADE ASPHALT.
3. PRECAST RISER SECTION OR PRECAST BASE WITH INTEGRAL RISER SHALL BE FURNISHED WITH CUTOUTS OR KNOCKOUTS WITH A MINIMUM WALL THICKNESS OF 2". THE SIZE OF THE KNOCKOUT SHALL BE EQUAL TO THE PIPE OUTER DIAMETER PLUS THE MANHOLE WALL THICKNESS. THE MAXIMUM HOLE SIZE IS 36" FOR A 48" MANHOLE, 42" FOR A 54" MANHOLE, 60" FOR A 72" MANHOLE, AND 84" FOR A 96" MANHOLE.
4. A FLEXIBLE GASKETED JOINT SHALL BE INSTALLED WITHIN 12" OF EACH CONNECTION TO A MANHOLE. THE CONNECTION OF CONCRETE OR DUCTILE IRON PIPE TO A MANHOLE SHALL BE CEMENT MORTARED. DUCTILE IRON PIPE SHALL BE SEALED WITH MASTIC AT THE CONNECTION POINT PRIOR TO BEING MORTARED. THE CONNECTION OF PVC PIPE TO A MANHOLE SHALL UTILIZE A MANHOLE COUPLING (SAND COLLAR) WITH A RUBBER GASKET.
5. THE MANHOLE COVER SHALL BE MARKED WITH "STORM" OR "DRAIN" IN 2 INCH RAISED LETTERS. MANHOLE RING AND COVER SHALL CONFORM TO CITY STANDARD DETAIL NO. 06.01.03
6. MANHOLE STEP AND LADDER SHALL CONFORM TO CITY STANDARD DETAILS NO. 06.01.04 AND 06.01.05

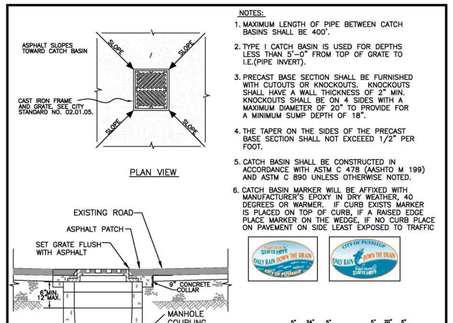
CITY OF PUYALLUP — DEVELOPMENT ENGINEERING and PUBLIC WORKS DEPARTMENTS

STORM SEWER MANHOLE

DRAWN BY	CHECKED BY	APPROVED BY	REVISED BY	CITY STANDARD
JIM IRWIN-SVOBODA	TRINA LIAN	COLLEEN BAKER	XXXX	
FILE NAME: P:\DWG\COMMON\STDRCVTY\STDDWG_SDN02.07.01.DWG		DATE APPROVED: 06/01/2005	DATE REVISED: 06/27/2023	SCALE: NTS

02.01.01

A STORM SEWER MANHOLE
nts



NOTES:

1. MAXIMUM LENGTH OF PIPE BETWEEN CATCH BASINS SHALL BE 400'.
2. TYPE I CATCH BASIN IS USED FOR DEPTHS LESS THAN 5'-0" FROM TOP OF GRATE TO I.E.(PIPE INVERT).
3. PRECAST BASE SECTION SHALL BE FURNISHED WITH CUTOUTS OR KNOCKOUTS. KNOCKOUTS SHALL HAVE A WALL THICKNESS OF 2" MIN. KNOCKOUTS SHALL BE ON 4 SIDES WITH A MAXIMUM DIAMETER OF 20" TO PROVIDE FOR A MINIMUM SUMP DEPTH OF 18".
4. THE TAPER ON THE SIDES OF THE PRECAST BASE SECTION SHALL NOT EXCEED 1/2" PER FOOT.
5. CATCH BASIN SHALL BE CONSTRUCTED IN ACCORDANCE WITH ASTM C 478 (AASHTO M 199) AND ASTM C 890 UNLESS OTHERWISE NOTED.
6. CATCH BASIN MARKER WILL BE AFFIXED WITH MANUFACTURER'S EPOXY IN DRY WEATHER, 40 DEGREES OR WARMER. IF CURB EXISTS MARKER IS PLACED ON TOP OF CURB, IF A RAISED EDGE PLACE MARKER ON THE WEDGE, IF NO CURB PLACE ON PAVEMENT ON SIDE LEAST EXPOSED TO TRAFFIC

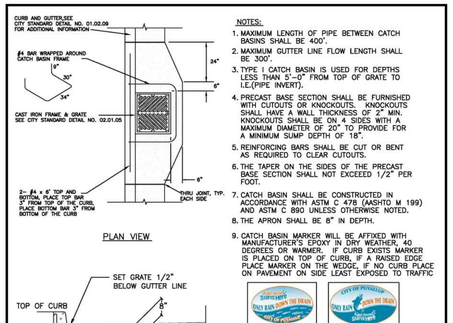
CITY OF PUYALLUP — DEVELOPMENT ENGINEERING and PUBLIC WORKS DEPARTMENTS

CATCH BASIN TYPE 1 (AREA DRAIN)

DRAWN BY	CHECKED BY	APPROVED BY	REVISED BY	CITY STANDARD
LINDA LANSING	TRINA LIAN	COLLEEN BAKER	XXXX	
FILE NAME: P:\DWG\COMMON\STDRCVTY\CBTY1DRNS_SDN02.01.02		DATE APPROVED: 06/01/2005	DATE REVISED: 06/27/2023	SCALE: NTS

02.01.02

B CATCH BASIN TYPE 1 (AREA DRAIN)
nts



NOTES:

1. MAXIMUM LENGTH OF PIPE BETWEEN CATCH BASINS SHALL BE 400'.
2. MAXIMUM GUTTER LINE FLOW LENGTH SHALL BE 300'.
3. TYPE I CATCH BASIN IS USED FOR DEPTHS LESS THAN 5'-0" FROM TOP OF GRATE TO I.E.(PIPE INVERT).
4. PRECAST BASE SECTION SHALL BE FURNISHED WITH CUTOUTS OR KNOCKOUTS. KNOCKOUTS SHALL HAVE A WALL THICKNESS OF 2" MIN. KNOCKOUTS SHALL BE ON 4 SIDES WITH A MAXIMUM DIAMETER OF 20" TO PROVIDE FOR A MINIMUM SUMP DEPTH OF 18".
5. REINFORCING BARS SHALL BE CUT OR BENT AS REQUIRED TO CLEAR CUTOUTS.
6. THE TAPER ON THE SIDES OF THE PRECAST BASE SECTION SHALL NOT EXCEED 1/2" PER FOOT.
7. CATCH BASIN SHALL BE CONSTRUCTED IN ACCORDANCE WITH ASTM C 478 (AASHTO M 199) AND ASTM C 890 UNLESS OTHERWISE NOTED.
8. THE APRON SHALL BE 8" IN DEPTH.
9. CATCH BASIN MARKER WILL BE AFFIXED WITH MANUFACTURER'S EPOXY IN DRY WEATHER, 40 DEGREES OR WARMER. IF CURB EXISTS MARKER IS PLACED ON TOP OF CURB, IF A RAISED EDGE PLACE MARKER ON THE WEDGE, IF NO CURB PLACE ON PAVEMENT ON SIDE LEAST EXPOSED TO TRAFFIC

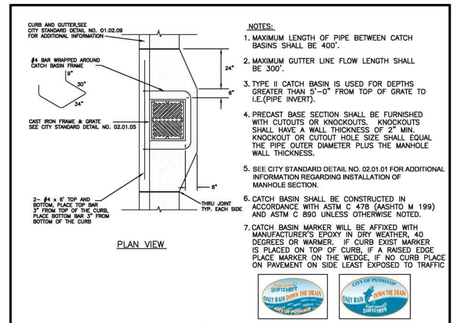
CITY OF PUYALLUP — DEVELOPMENT ENGINEERING and PUBLIC WORKS DEPARTMENTS

CATCH BASIN TYPE 1 (GUTTER DRAIN)

DRAWN BY	CHECKED BY	APPROVED BY	REVISED BY	CITY STANDARD
LINDA LANSING	TRINA LIAN	COLLEEN BAKER	XXXX	
FILE NAME: P:\DWG\COMMON\STDRCVTY\CBTY1DRNG_SDN02.01.03		DATE APPROVED: 06/01/2005	DATE REVISED: 06/27/2023	SCALE: NTS

02.01.03

C CATCH BASIN TYPE 1 (GUTTER DRAIN)
nts



NOTES:

1. MAXIMUM LENGTH OF PIPE BETWEEN CATCH BASINS SHALL BE 400'.
2. MAXIMUM GUTTER LINE FLOW LENGTH SHALL BE 300'.
3. TYPE II CATCH BASIN IS USED FOR DEPTHS GREATER THAN 5'-0" FROM TOP OF GRATE TO I.E.(PIPE INVERT).
4. PRECAST BASE SECTION SHALL BE FURNISHED WITH CUTOUTS OR KNOCKOUTS. KNOCKOUTS SHALL HAVE A WALL THICKNESS OF 2" MIN. KNOCKOUT OR CUTOUT HOLE SIZE SHALL EQUAL THE PIPE OUTER DIAMETER PLUS THE MANHOLE WALL THICKNESS.
5. SEE CITY STANDARD DETAIL NO. 02.01.01 FOR ADDITIONAL INFORMATION REGARDING INSTALLATION OF MANHOLE SECTION.
6. CATCH BASIN SHALL BE CONSTRUCTED IN ACCORDANCE WITH ASTM C 478 (AASHTO M 199) AND ASTM C 890 UNLESS OTHERWISE NOTED.
7. CATCH BASIN MARKER WILL BE AFFIXED WITH MANUFACTURER'S EPOXY IN DRY WEATHER, 40 DEGREES OR WARMER. IF CURB EXIST MARKER IS PLACED ON TOP OF CURB, IF A RAISED EDGE PLACE MARKER ON THE WEDGE, IF NO CURB PLACE ON PAVEMENT ON SIDE LEAST EXPOSED TO TRAFFIC

CITY OF PUYALLUP — DEVELOPMENT ENGINEERING and PUBLIC WORKS DEPARTMENTS

CATCH BASIN TYPE II

DRAWN BY	CHECKED BY	APPROVED BY	REVISED BY	CITY STANDARD
LINDA LANSING	TRINA LIAN	COLLEEN BAKER	XXXX	
FILE NAME: P:\DWG\COMMON\STDRCVTY\CBTY2DRNS_SDN02.01.04		DATE APPROVED: 06/01/2005	DATE REVISED: 06/27/2023	SCALE: NTS

02.01.04

D CATCH BASIN TYPE II
nts

ZERVAS
ARCHITECTURE | INTERIOR DESIGN
zervasgroup.com
209 Prospect Street
Bellingham, WA 98225
360.734.4744

FREELAND & ASSOCIATES
220 West Champion Street, Suite 200 t: 360.650.1408
Bellingham, WA 98225 f: 360.650.1401

JAMES PATRICK MCEATHRON — STATE OF WASHINGTON — 49494 — REGISTERED PROFESSIONAL ENGINEER — 05/31/2024

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APPROVED
BY _____
CITY OF PUYALLUP
DEVELOPMENT ENGINEERING
DATE 07/09/2024

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.
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JAMES PATRICK MCEATHRON — STATE OF WASHINGTON — 49494 — REGISTERED PROFESSIONAL ENGINEER — 7/8/2025

City of Puyallup
Development & Permitting Services
ISSUED PERMIT

Building	Planning
Engineering	Public Works
Fire	Traffic

100% CD SET

REV	ISSUED FOR	DATE

PLAN NORTH TRUE NORTH
SCALE: 0

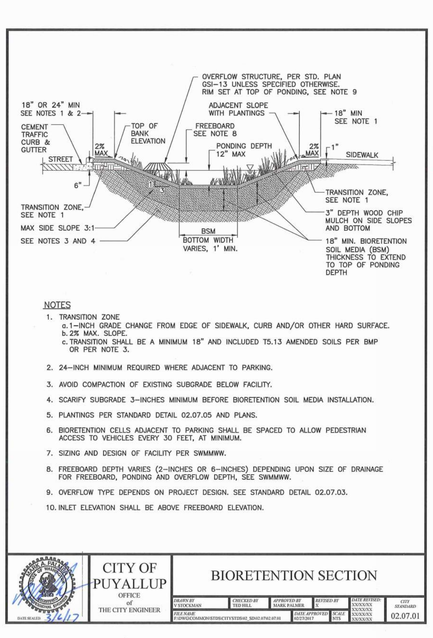
PSE - OPERATIONAL TRAINING CENTER

DRAINAGE DETAILS (1)

PROJECT No:	22219
DRAWN BY:	MPM
CHECKED BY:	THF
DATE ISSUED:	05/31/2024

C3.5

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NOTES

1. TRANSITION ZONE
   a. 1-INCH GRADE CHANGE FROM EDGE OF SIDEWALK, CURB AND/OR OTHER HARD SURFACE.
   b. 2% MAX. SLOPE.
   c. TRANSITION SHALL BE A MINIMUM 18" AND INCLUDED T5.13 AMENDED SOILS PER BMP OR PER NOTE 3.
2. 24-INCH MINIMUM REQUIRED WHERE ADJACENT TO PARKING.
3. AVOID COMPACTION OF EXISTING SUBGRADE BELOW FACILITY.
4. SCARIFY SUBGRADE 3-INCHES MINIMUM BEFORE BIORETENTION SOIL MEDIA INSTALLATION.
5. PLANTINGS PER STANDARD DETAIL 02.07.05 AND PLANS.
6. BIORETENTION CELLS ADJACENT TO PARKING SHALL BE SPACED TO ALLOW PEDESTRIAN ACCESS TO VEHICLES EVERY 30 FEET, AT MINIMUM.
7. SIZING AND DESIGN OF FACILITY PER SWMMWW.
8. FREEBOARD DEPTH VARIES (2-INCHES OR 6-INCHES) DEPENDING UPON SIZE OF DRAINAGE FOR FREEBOARD, PONDING AND OVERFLOW DEPTH, SEE SWMMWW.
9. OVERFLOW TYPE DEPENDS ON PROJECT DESIGN. SEE STANDARD DETAIL 02.07.03.
10. INLET ELEVATION SHALL BE ABOVE FREEBOARD ELEVATION.

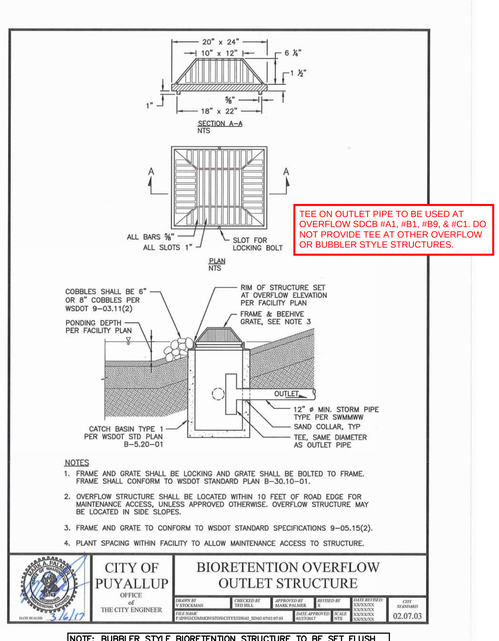
CITY OF PUYALLUP — OFFICE of THE CITY ENGINEER

BIORETENTION SECTION

DRAWN BY	CHECKED BY	APPROVED BY	REVISED BY	CITY STANDARD
JIM IRWIN-SVOBODA	TRINA LIAN	MARK PALMER	XXXX	
FILE NAME: P:\DWG\COMMON\STDRCVTY\STDDWG_SDN02.07.01.DWG		DATE APPROVED: 06/01/2017	DATE REVISED: XX/XX/XXXX	SCALE: NTS

02.07.01

E BIORETENTION SECTION
nts



TEE ON OUTLET PIPE TO BE USED AT OVERFLOW SDCB #A1, #B1, #B9, & #C1. DO NOT PROVIDE TEE AT OTHER OVERFLOW OR BUBBLER STYLE STRUCTURES.

NOTES

1. FRAME AND GRATE SHALL BE LOCKING AND GRATE SHALL BE BOLTED TO FRAME. FRAME SHALL CONFORM TO WSDOT STANDARD PLAN B-30.10-01.
2. OVERFLOW STRUCTURE SHALL BE LOCATED WITHIN 10 FEET OF ROAD EDGE FOR MAINTENANCE ACCESS, UNLESS APPROVED OTHERWISE. OVERFLOW STRUCTURE MAY BE LOCATED IN SIDE SLOPES.
3. FRAME AND GRATE TO CONFORM TO WSDOT STANDARD SPECIFICATIONS 9-05.15(2).
4. PLANT SPACING WITHIN FACILITY TO ALLOW MAINTENANCE ACCESS TO STRUCTURE.

CITY OF PUYALLUP — OFFICE of THE CITY ENGINEER

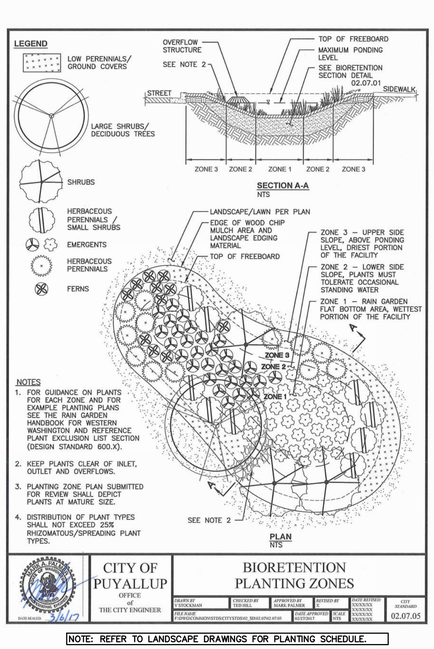
BIORETENTION OVERFLOW OUTLET STRUCTURE

DRAWN BY	CHECKED BY	APPROVED BY	REVISED BY	CITY STANDARD
JIM IRWIN-SVOBODA	TRINA LIAN	MARK PALMER	XXXX	
FILE NAME: P:\DWG\COMMON\STDRCVTY\STDDWG_SDN02.07.03.DWG		DATE APPROVED: 06/01/2017	DATE REVISED: XX/XX/XXXX	SCALE: NTS

02.07.03

NOTE: BUBBLER STYLE BIORETENTION STRUCTURE TO BE SET FLUSH AT SURFACE OF CELL W/ COBBLES. INTENT IS TO DISSIPATE INCOMING FLOWS. OVERFLOW STYLE STRUCTURE TO BE SET PER DETAIL.

F BIORETENTION OVERFLOW OUTLET STRUCTURE
nts



NOTES

1. FOR GUIDANCE ON PLANTS FOR EACH ZONE AND FOR EXAMPLE PLANTING PLANS SEE THE RAIN GARDEN HANDBOOK FOR WESTERN WASHINGTON AND REFERENCE PLANT EXCLUSION LIST SECTION (DESIGN STANDARD 600.X).
2. KEEP PLANTS CLEAR OF INLET, OUTLET AND OVERFLOWS.
3. PLANTING ZONE PLAN SUBMITTED FOR REVIEW SHALL DEPICT PLANTS AT MATURE SIZE.
4. DISTRIBUTION OF PLANT TYPES SHALL NOT EXCEED 25% RHIZOMATOUS/SPREADING PLANT TYPES.

CITY OF PUYALLUP — OFFICE of THE CITY ENGINEER

BIORETENTION PLANTING ZONES

DRAWN BY	CHECKED BY	APPROVED BY	REVISED BY	CITY STANDARD
LINDA LANSING	TRINA LIAN	MARK PALMER	XXXX	
FILE NAME: P:\DWG\COMMON\STDRCVTY\STDDWG_SDN02.07.05.DWG		DATE APPROVED: 06/01/2017	DATE REVISED: XX/XX/XXXX	SCALE: NTS

02.07.05

NOTE: REFER TO LANDSCAPE DRAWINGS FOR PLANTING SCHEDULE.

G BIORETENTION PLANTING ZONES
nts

48

shope Concrete Products

Catch Basins

Catch Basin Type 1-L
WSDOT B-5.40-02

Reinforcing
- ASTM / WSDOT requirements
- All components
- #3 grade 60 reinforcing

Riser Sections
- Available in 2", 4", 6" & 12"
- Lift holes provided in all risers and must be grouted up from both inside and outside to assure watertight structure

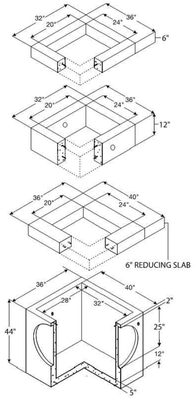
Reducing Top Slab
- Standard unit is designed for frame and grate to be placed on top.

Precast Base
- The unit is provided with 25 inch diameter knockouts on all four sides leaving minimum wall thickness of 2 inches
- Lift holes provided in all risers and must be grouted up from both inside and outside to assure watertight structure

Weights
- Base Unit.....2,480 lbs
- 6 inch Reducing Top.....430 lbs
- 12 inch Riser Section.....537 lbs
- 6 inch Riser.....280 lbs

Conformity Standards
- Washington State APWA / WSDOT Standard Specifications
- WSDOT B-1a

SHOPE PRECAST OR EQUIVALENT APPROVED CATCH BASIN TYPE 1L

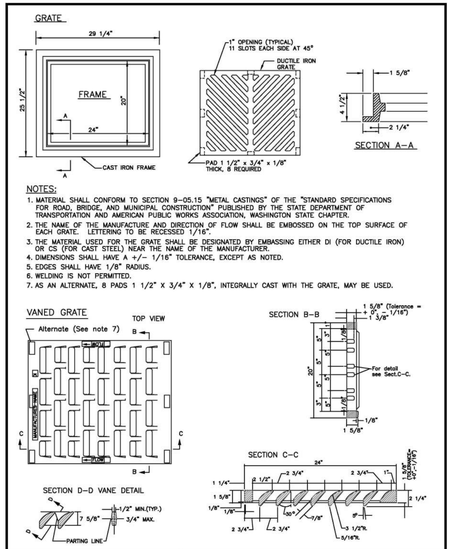


Note: Drawings not to scale
www.shopeconcrete.com
1-800-422-7560 [TOLL FREE]

Shope Concrete, LLC
1818 East Main Avenue
Puyallup, WA 98372-3142
(253) 848-1551
Fax Line 1 (253) 845-0292
Fax Line 2 (253) 864-6172

NPCA CERTIFIED — WSDOT QPL Approved

H CATCH BASIN TYPE 1L
nts

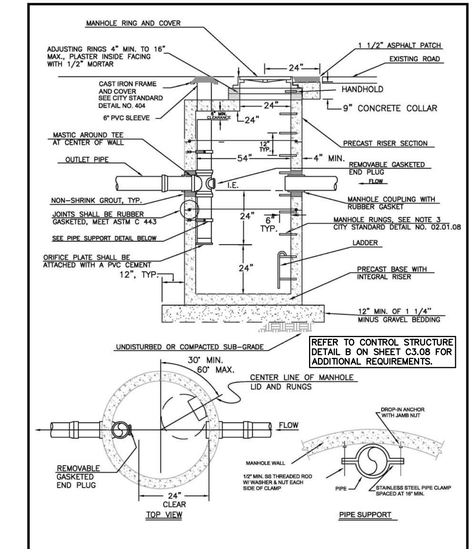


CITY OF PUYALLUP
DEVELOPMENT ENGINEERING and PUBLIC WORKS DEPARTMENTS

CATCH BASIN FRAME AND GRATE/VANED GRATE

DRAWN BY	CHECKED BY	APPROVED BY	REVISED BY	CITY STANDARD
LINDA LANDINO	LINDA LUAN	COLLEEN HARRIS	LINDA LUAN	02.01.05
FILE NAME: P:\PROJECTS\MMC\SITDEV\CITY\2309\02_SDS\D.01.05		DATE APPROVED: 09/01/2009	DATE REVISED: 03/27/13	SCALE: NTS

A CATCH BASIN FRAME AND GRATE
nts



CITY OF PUYALLUP
DEVELOPMENT ENGINEERING and PUBLIC WORKS DEPARTMENTS

FLOW CONTROL MANHOLE WITH FLAT TOP

DRAWN BY	CHECKED BY	APPROVED BY	REVISED BY	CITY STANDARD
LINDA LANDINO	LINDA LUAN	COLLEEN HARRIS	XXXX	02.01.07
FILE NAME: P:\PROJECTS\MMC\SITDEV\CITY\2309\02_SDS\D.01.07		DATE APPROVED: 09/01/2009	DATE REVISED: 09/01/2009	SCALE: NTS

B FLOW CONTROL MANHOLE WITH FLAT TOP
nts

NOTES FOR FLOW CONTROL MANHOLE:

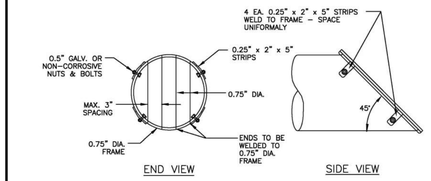
1. NEAT LINE CUTS SHALL BE AT TOP WITH A HOT PAVING GRADE ASPHALT AND FACE OF CUT TACKED.
2. FLOW CONTROL MANHOLES SHALL BE USED AS A SINGLE USE STRUCTURE.
3. MANHOLE RUNG SHALL CONFORM TO SECTION R, ASTM C 478 (ASSHTO M-199) AND MEET ALL WISHA REQUIREMENTS. MANHOLE RUNGS SHALL BE PARALLEL OR APPROXIMATELY 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.
9. FLOW CONTROL UNIT SHALL BE MADE FROM PVC PIPE AND SHALL CONFORM TO THE STANDARD PIPE SPECIFICATIONS.

CITY OF PUYALLUP
DEVELOPMENT ENGINEERING and PUBLIC WORKS DEPARTMENTS

FLOW CONTROL MANHOLE NOTES

DRAWN BY	CHECKED BY	APPROVED BY	REVISED BY	CITY STANDARD
LINDA LANDINO	LINDA LUAN	COLLEEN HARRIS	XXXX	02.01.08
FILE NAME: P:\PROJECTS\MMC\SITDEV\CITY\2309\02_SDS\D.01.08		DATE APPROVED: 09/01/2009	DATE REVISED: 09/01/2009	SCALE: NTS

C FLOW CONTROL MANHOLE NOTES
nts



NOTES:

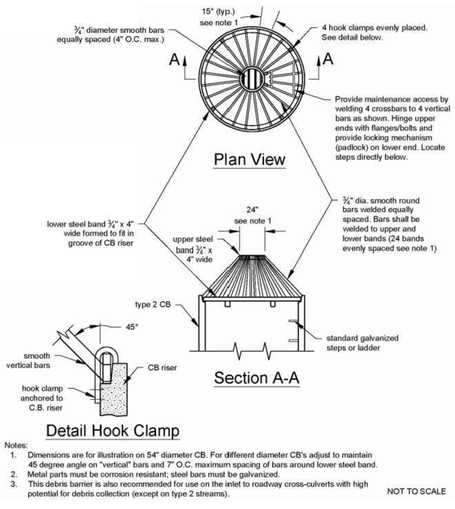
1. ALL STEEL PARTS MUST BE GALVANIZED AND ASPHALT COATED (TREATMENT 1 OR BETTER).
2. TRASH RACKS SHALL BE INSTALLED AT ALL OPEN ENDS OF STORM DRAINAGE PIPE 12" DIA. AND GREATER.

CITY OF PUYALLUP
DEVELOPMENT ENGINEERING and PUBLIC WORKS DEPARTMENTS

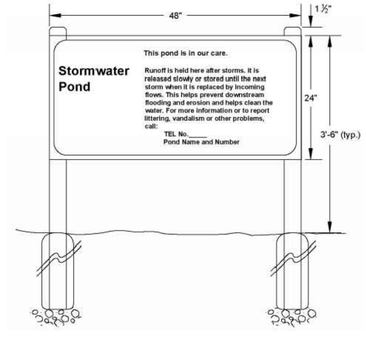
TRASH RACK

DRAWN BY	CHECKED BY	APPROVED BY	REVISED BY	CITY STANDARD
LINDA LANDINO	LINDA LUAN	COLLEEN HARRIS	XXXX	02.02.03
FILE NAME: P:\PROJECTS\MMC\SITDEV\CITY\2309\02_SDS\D.02.03		DATE APPROVED: 09/01/1992	DATE REVISED: 09/01/2009	SCALE: NTS

D TRASH RACK
nts

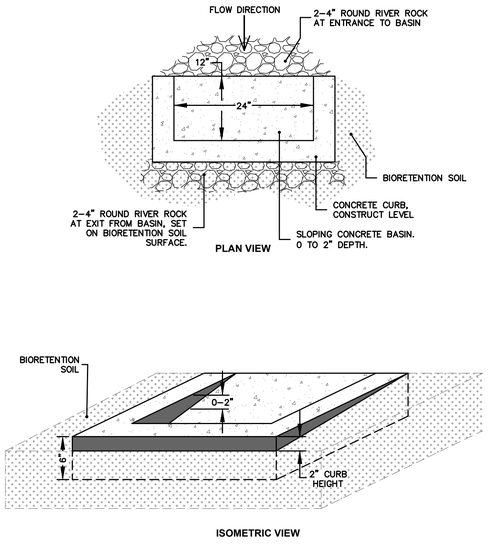


E BIRDCAGE GRATE
nts



NOTES:
SIZE: 48"x24"
MATERIAL: 0.125 GAUGE ALUMINUM
FACE: NON-REFLECTIVE VINYL OR 3 COATS OUTDOOR ENAMEL (SPRAYED)
LETTERING: SILK SCREEN ENAMEL WHERE POSSIBLE, OR VINYL LETTERS
COLORS: BEIGE BACKGROUND, TEAL LETTERS
TYPE FACE: HELVETICA CONDENSED. TITLE: 3"; SUB-TITLE: 1.5"; TEXT: 1"; OUTER BORDER: 1/8"; BORDER DISTANCE FROM EDGE: 1/4"; ALL TEXT 1-3/4" FROM BORDER.
POSTS: PRESSURE TREATED, BEVELED TOPS, 1-1/2" HIGHER THAN SIGN
INSTALLATION: INSTALL ON TWO 4"x4" POSTS, PRESSURE TREATED, MOUNTED ATOP GRAVEL BED, INSTALLED IN 30" CONCRETE FILLED POST HOLES (8" MINIMUM DIAMETER). TOP OF SIGN NO HIGHER THAN 42" FROM GROUND SURFACE.
PLACEMENT: FACE SIGN IN DIRECTION OF PRIMARY VISUAL OR PHYSICAL ACCESS. DO NOT BLOCK ANY ACCESS ROAD. DO NOT PLACE WITHIN 6 FEET OF STRUCTURAL FACILITIES (MANHOLES, PIPES, ETC).

F POND SIGN
nts



G CONCRETE FOREBAY
nts

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zervasgroup.com
209 Prospect Street
Bellingham, WA 98225
360.734.4744

FREELAND & ASSOCIATES
220 West Champion Street, Suite 200 t: 360.650.1408
Bellingham, WA 98225 f: 360.650.1401

MILES PATRICK MCEATHRON — STATE OF WASHINGTON — 49494 — REGISTERED PROFESSIONAL ENGINEER — 05/31/2024

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MILES PATRICK MCEATHRON — STATE OF WASHINGTON — 49494 — REGISTERED PROFESSIONAL ENGINEER — 7/8/2025

City of Puyallup
Development & Permitting Services
ISSUED PERMIT

Building	Planning
Engineering	Public Works
Fire	Traffic

100% CD SET

REV	ISSUED FOR	DATE

PLAN NORTH | TRUE NORTH
SCALE: 0

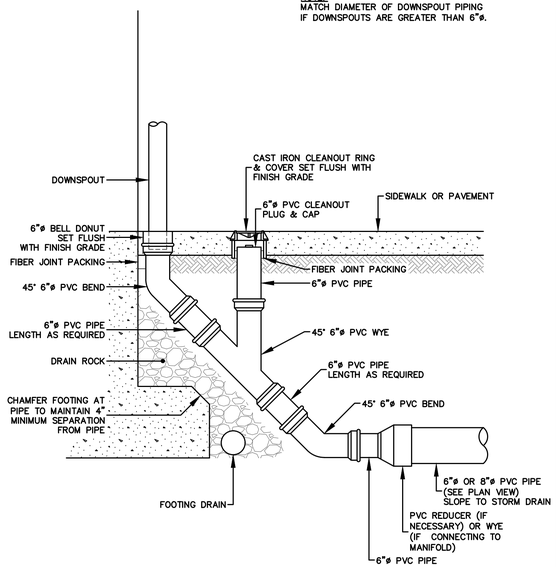
PSE - OPERATIONAL TRAINING CENTER

DRAINAGE DETAILS (2)

PROJECT No:	22219
DRAWN BY:	MPM
CHECKED BY:	THF
DATE ISSUED:	05/31/2024

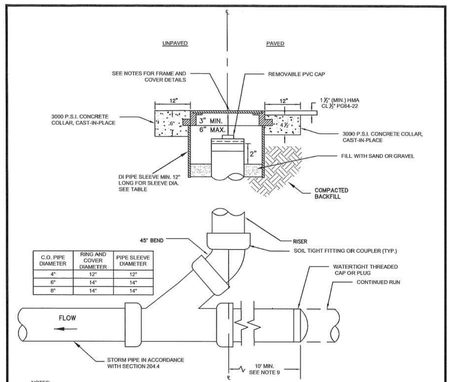
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© 2020



THIS DETAIL SHALL NOT BE USED FOR ASPHALT IN THE RIGHT OF WAY.

A DOWNSPOUT CLEANOUT IN PAVEMENT
nts



NOTES:
1. CAST IRON COVER MARKED "FOCO" FOR FOOTING DRAINS OR "SSCO" FOR STORM LINES.
2. CAST IRON FRAME AND COVER SHALL BE DRILLED AND TAPPED WITH 5/"-11 NC STAINLESS STEEL TYPE 304 ALLEN HEAD BOLTS, 2" LONG.
3. BOLT-LOCKING CAST IRON FRAME AND COVER SHALL BE HS-20 RATED IF USED IN RIGHT-OF-WAY OR EASEMENTS.
4. 14" BOLT-LOCKING CAST IRON FRAME AND COVER SHALL BE EQUAL TO OLYMPIC FOUNDRY PART # M1060.
5. CAST IRON FRAME AND COVER SHALL BE FLUSH WITH FINISHED GRADE.
6. CLEANOUTS REQUIRED FOR EACH PIPE LENGTH GREATER THAN 100' AND FOR EACH 90 DEGREE BEND.
7. STORM PIPE BEDDING AND BACKFILL SHALL CONFORM TO STD DETAIL 05.01.01.
8. FINAL JOINTS SHALL BE SAW CUT, FACE OF CUT TACKED AND ALL JOINTS SEALED WITH SEALANT (AR4000W).
9. STORM DRAIN STUB SHALL EXTEND 10' BEYOND THE PROPERTY LINE OR EASEMENT LINE TO PREVENT DAMAGE AND MINIMIZE CONFLICT WITH FUTURE UTILITIES.
10. EACH CLEANOUT ASSEMBLY SHALL CONSIST OF; ONE CLEANOUT ADAPTOR, (HUB x FEMALE INSIDE PIPE THREAD, PVC SLIP IN), AND ONE CLEANOUT PLUG (MALE OUTSIDE THREAD WITH RAISED NUT, PVC).
11. FOR LANDSCAPED AREAS (OUTSIDE OF CITY ROW, EASEMENTS AND FACILITIES) A GREEN "CARSON" MODEL 910 YARD BOX MAY BE USED FOR C.O. PIPE DIA. LESS THAN OR EQUAL TO 6". YARD BOX SHALL BE FASTENED WITH 3/" HEX BOLTS, THE COVER MARKED "STORM" AND FLUSH WITH FINISHED GRADE.

CITY OF PUYALLUP
PUBLIC WORKS AND DEVELOPMENT ENGINEERING

STORM DRAIN CLEANOUT

SCALE: NTS | DATE REVISED: 01/01/2021 | CITY STANDARD 02.01.09

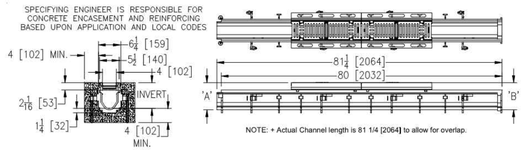
B STORM DRAIN CLEAN-OUT (SDCO/SSCO)
nts

ZURN

Z886-FGF
5.50 [140] WIDE REVEAL TRENCH DRAIN SYSTEM WITH DUCTILE IRON FRAME AND SLOTTED GRATE

SPECIFICATION SHEET TAG _____

Dimensional Data (inches and [mm]) are Subject to Manufacturing Tolerances and Change Without Notice



NOTE: * Actual Channel length is 81 1/4 [2064] to allow for overlap.

ENGINEERING SPECIFICATION: Zurn Z886-FGF Channels shall be 80 [2032] long, 5.50 [140] wide reveal and have a 4 [102] throat. Modular channel sections shall be made of 0% water absorbent High Density Polyethylene (HDPE). Shall have a positive mechanical connection between channel sections that will not separate during the installation and shall mechanically lock into the concrete surround a minimum of every 10 [254]. Channels shall weigh less than 2.31 lbs.[1.05kg] per linear foot, have a smooth, 1.5 [38] radiused self cleaning bottom with a Manning's coefficient of 0.009 and 0.75% or neutral 0% built in slope. Channels shall have rebar clips standard to secure trench in its final location. Shall be provided with standard FGF grates that lock into the concrete surround during installation and is intended for dynamic traffic loadings. Zurn 5.5 [140] wide reveal Class F Grate and Frame Ductile Iron slotted grate conforming to ASTM specification A536-84, Grade 80-55-06. The ductile iron grate is rated class F per the DIN EN1433 top load classifications. Supplied in 20 [508] nominal lengths with 0.5 [13] wide slots, and 2.8 [71] bearing depth. Grate has an open area of 21.00 sq. in per ft. [44,450 sq. mm per meter].

PREFIX OPTIONS (Check/specify appropriate options)
☑ Z Six-foot, Eight-inch High Density Polyethylene (HDPE)*

SUFFIX OPTIONS (Check/specify appropriate options)

Outlet Adapters Add/Each
-E1 Closed End Cap
-E2 2 [51] No-Hub End Outlet
-E3 3 [76] No-Hub End Outlet
-E4 4 [102] No-Hub End Outlet
-E6 6 [152] No-Hub End Outlet
-U2 2 [51] No-Hub Bottom Outlet
-U3 3 [76] No-Hub Bottom Outlet
-U4 4 [102] No-Hub Bottom Outlet
-U6 6 [152] No-Hub Bottom Outlet

Frame Options
-SW Sidewall Extensions - 9" [229] High
-SW2 Sidewall Extensions - 18" [457] High

Grate Options (Load Classifications are per DIN EN1433)
-DFG Galvanized Ductile Iron Frame and Slotted Grate - Class F

Miscellaneous Options
-JC Joint Connector

MADE in the U.S.A. (Load Classifications are per DIN EN1433)
-FGF-USA Ductile Iron Frame and Slotted Grate - Class F
-GFG-USA Galvanized Ductile Iron Frame and Slotted Grate - Class F

Trench No	'A' Shallow Inv.	'B' Deep Inv.	Flow (cfs)	Flow (gpm)	Flow (lps)
8601	5.59 [142]	6.19 [157]	0.21	93	6
8602	6.19 [157]	6.79 [172]	0.27	122	8
8603	6.79 [172]	7.39 [188]	0.34	152	10
8603N	7.39 [188]	7.39 [188]	-	-	-
8604	7.39 [188]	7.99 [203]	0.41	183	12
8605	7.99 [203]	8.59 [218]	0.48	214	13
8606	8.59 [218]	9.19 [233]	0.55	245	15
8606N	9.19 [233]	9.19 [233]	-	-	-
8607	9.19 [233]	9.79 [249]	0.62	276	17
8608	9.79 [249]	10.39 [264]	0.69	308	19
8609	10.39 [264]	10.99 [279]	0.76	339	21
8610	10.99 [279]	11.59 [294]	0.83	371	23
8611	11.59 [294]	12.19 [310]	0.90	403	25
8612	12.19 [310]	12.79 [325]	0.97	435	27
8612N	12.79 [325]	12.79 [325]	-	-	-
8613	12.79 [325]	13.39 [340]	1.04	467	29
8614	13.39 [340]	13.99 [355]	1.11	498	31
8615	13.99 [355]	14.59 [471]	1.18	530	33

*REGULARLY FURNISHED UNLESS OTHERWISE SPECIFIED

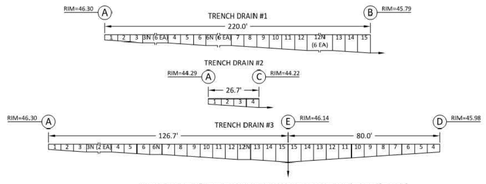
REV. C DATE: 8/24/10 C.N. NO. 111590
DWG. NO. 82534 PRODUCT NO. Z886-FGF

ZURN INDUSTRIES, LLC ♦ SPECIFICATION DRAINAGE OPERATION ♦ 1801 Pittsburgh Ave. ♦ Erie, PA 16514
Phone: 814/455-0921 ♦ Fax: 814/454-7929 ♦ World Wide Web: www.zurn.com
In Canada: ZURN INDUSTRIES LIMITED ♦ 3544 Nashua Drive ♦ Mississauga, Ontario L4V1L2 ♦ Phone: 905/405-8272 Fax: 905/405-1292

C TRENCH DRAIN
nts

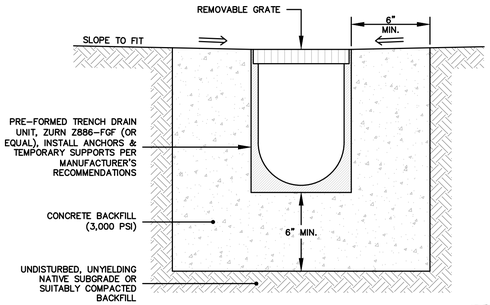
LAYOUTS BY:
A.E. GOODRICK COMPANY

PROJECT NAME: *PSE OPERATIONAL TRAINING CENTER*
PLAN REFERENCE: *SHEET C1.2A, C1.3A, C1.3B*



ZURN Z-886-FGF 6" HDPE CHANNELS, HEAVY DUTY FRAMES AND GRATES (CLASS F)

A E1 CLOSED END CAP IE=-5.59"
B E6 NO-HUB END OUTLET IE=-14.59"
C E4 NO-HUB END OUTLET IE=-7.99"
D E1 CLOSED END CAP IE=-7.39"
E JOINT CONNECTOR; U6 NO-HUB BOTTOM OUTLET IE=-14.59"



ZERVAS
ARCHITECTURE | INTERIOR DESIGN
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Bellingham, WA 98225
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220 West Champion Street, Suite 200 t: 360.650.1408
Bellingham, WA 98225 f: 360.650.1401

MILES PATRICK MCEATHRON — STATE OF WASHINGTON — 49494 — REGISTERED PROFESSIONAL ENGINEER — 05/31/2024

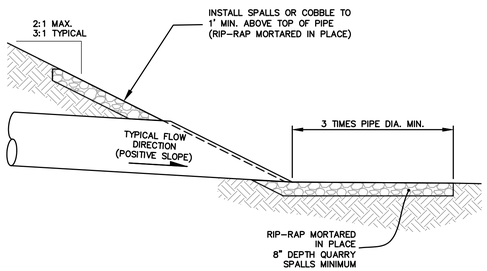
811 Know what's below. Call before you dig.

APPROVED
BY _____
CITY OF PUYALLUP
DEVELOPMENT ENGINEERING
DATE 07/09/2024

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 DEVELOPMENT ENGINEERING MANAGER.

RECORD NOTE:
THESE RECORD DRAWINGS HAVE BEEN PREPARED BASED ON INFORMATION PROVIDED BY OTHERS. WHILE THIS INFORMATION IS BELIEVED TO BE RELIABLE, FREELAND & ASSOCIATES IS NOT RESPONSIBLE FOR ITS ACCURACY, OR ERROR OR OMISSIONS WHICH MAY HAVE BEEN INCORPORATED INTO THIS DOCUMENT AS A RESULT. THOSE RELYING ON THIS RECORD DOCUMENT ARE ADVISED TO OBTAIN INDEPENDENT VERIFICATION OF ITS ACCURACY BEFORE APPLYING IT FOR ANY PURPOSE.

MILES PATRICK MCEATHRON — STATE OF WASHINGTON — 49494 — REGISTERED PROFESSIONAL ENGINEER — 7/8/2024



D PIPE ARMORING
nts

BIORETENTION CONSTRUCTION SPECS

SOIL SPECIFICATIONS

MINERAL AGGREGATE

PERCENT FINES: A RANGE OF 2 TO 4 PERCENT PASSING THE #200 SIEVE IS IDEAL AND FINES SHOULD NOT BE ABOVE 5 PERCENT FOR A PROPER FUNCTIONING SPECIFICATION ACCORDING TO ASTM D422.

AGGREGATE GRADATION

THE AGGREGATE PORTION OF THE BSM SHOULD BE WELL-GRADED, ACCORDING TO ASTM D 2487-98 (CLASSIFICATION OF SOILS FOR ENGINEERING PURPOSES (UNIFIED SOIL CLASSIFICATION SYSTEM)), WELL-GRADED SAND SHOULD HAVE THE FOLLOWING GRADATION COEFFICIENTS:

- COEFFICIENT OF UNIFORMITY (CU = D60/D10) EQUAL TO OR GREATER THAN 4, AND
- COEFFICIENT OF CURVE (CC = (D30)2/D60 X D10) GREATER THAN OR EQUAL TO 1 AND LESS THAN OR EQUAL TO 3.

TABLE BELOW PROVIDES A GRADATION GUIDELINE FOR THE AGGREGATE COMPONENT OF A BIORETENTION SOIL MIX SPECIFICATION IN WESTERN WASHINGTON (HINMAN, ROBERTSON, 2007). THE SAND GRADATION BELOW IS OFTEN SUPPLIED AS A WELLGRADED UTILITY OR SCREENED, WITH COMPOST THIS BLEND PROVIDES ENOUGH FINES FOR ADEQUATE WATER RETENTION, HYDRAULIC CONDUCTIVITY WITHIN RECOMMENDED RANGE (SEE BELOW), POLLUTANT REMOVAL CAPABILITY, AND PLANT GROWTH CHARACTERISTICS FOR MEETING DESIGN GUIDELINES AND OBJECTIVES.

MINERAL AGGREGATE GRADATION

U.S. SIEVE NUMBER	PERCENT PASSING
3/8	100
4	95–100
10	75–90
40	25–40
100	4–10
200	2–5

WHERE EXISTING SOILS MEET THE ABOVE AGGREGATE GRADATION, THOSE SOILS MAY BE AMENDED RATHER THAN IMPORTING MINERAL AGGREGATE.

COMPOST TO AGGREGATE RATIO, ORGANIC MATTER CONTENT, CATION EXCHANGE CAPACITY

- COMPOST TO AGGREGATE RATIO: 60–65 PERCENT MINERAL AGGREGATE, 35 – 40 PERCENT COMPOST.
- ORGANIC MATTER CONTENT: 5 – 8 PERCENT BY WEIGHT.
- CATION EXCHANGE CAPACITY (CEC) MUST BE > 5 MILLIEQUIVALENTS/100 G DRY SOIL NOTE: SOIL MIXES MEETING THE ABOVE SPECIFICATIONS DO NOT HAVE TO BE TESTED FOR CEC. THEY WILL READILY MEET THE MINIMUM CEC.

COMPOST

TO ENSURE THAT THE BSM WILL SUPPORT HEALTHY PLANT GROWTH AND ROOT DEVELOPMENT, CONTRIBUTE TO BIOFILTRATION OF POLLUTANTS, AND NOT RESTRICT INFILTRATION WHEN USED IN THE PROPORTIONS CITED HEREIN, THE FOLLOWING COMPOST STANDARDS ARE REQUIRED.

- MEETS THE DEFINITION OF "COMPOSTED MATERIALS" IN WAC 173-350-220 (INCLUDING CONTAMINANT LEVELS AND OTHER STANDARDS), AVAILABLE ONLINE AT HTTP://WWW.ECY.WA.GOV/PROGRAMS/SWFA/ORGANICS/SOIL.HTML
- PRODUCED AT A COMPOSTING FACILITY PERMITTED BY THE WA DEPARTMENT OF ECOLOGY. A CURRENT LIST OF PERMITTED FACILITIES IS AVAILABLE AT HTTP://WWW.ECY.WA.GOV/PROGRAMS/SWFA/COMPOST/
- THE COMPOST PRODUCT MUST ORIGINATE A MINIMUM OF 65 PERCENT BY VOLUME FROM RECYCLED PLANT WASTE AS DEFINED IN WAC 173-350-100 AS "TYPE I FEEDSTOCKS." A MAXIMUM OF 35 PERCENT BY VOLUME OF OTHER APPROVED ORGANIC WASTE AS DEFINED IN WAC 173-350-100 AS "TYPE III," INCLUDING POSTCONSUMER FOOD WASTE, BUT NOT INCLUDING BIOSOLIDS, MAY BE SUBSTITUTED FOR RECYCLED PLANT WASTE. TYPE II AND IV FEEDSTOCKS SHALL NOT BE USED FOR THE COMPOST GOING INTO BIORETENTION FACILITIES OR BIORETENTION CELLS.
- STABLE (LOW OXYGEN USE AND CO2 GENERATION) AND MATURE (CAPABLE OF SUPPORTING PLANT GROWTH) BY TESTS SHOWN BELOW. THIS IS CRITICAL TO PLANT SUCCESS IN A BIORETENTION SOIL MIXES.
- MOISTURE CONTENT RANGE: NO VISIBLE FREE WATER OR DUST PRODUCED WHEN HANDLING THE MATERIAL.
- TESTED IN ACCORDANCE WITH THE U.S. COMPOSTING COUNCIL "TESTING METHODS FOR THE EXAMINATION OF COMPOST AND COMPOSTING" (TMECC), AS ESTABLISHED IN THE COMPOSTING COUNCIL'S "SEAL OF TESTING ASSURANCE" (STA) PROGRAM. MOST WASHINGTON COMPOST FACILITIES NOW USE THESE TESTS.
- SCREENED TO THE SIZE GRADATIONS FOR FINE COMPOST UNDER TMECC TEST METHOD 02.02-B (GRADATIONS ARE SHOWN IN THE SPECIFICATION IN AN APPENDIX OF THE LOW IMPACT DEVELOPMENT TECHNICAL GUIDANCE MANUAL FOR PUGET SOUND)

PH BETWEEN 6.0 AND 8.5 (TMECC 04.11-A). IF THE PH FALLS OUTSIDE OF THE ACCEPTABLE RANGE, IT MAY BE MODIFIED WITH LIME TO INCREASE THE PH OR IRON SULFATE PLUS SULFUR TO LOWER THE PH. THE LIME OR IRON SULFATE MUST BE MIXED UNIFORMLY INTO THE SOIL PRIOR TO USE IN THE BIORETENTION AREA.

- MANUFACTURED INERT CONTENT LESS THAT 1% BY WEIGHT (TMECC 03.08-A)
- MINIMUM ORGANIC MATTER CONTENT OF 40% (TMECC 05.07-A)
- SOLUBLE SALT CONTENT LESS THAN 4.0 MMHOS/CM (TMECC 04.10-A)
- MATURITY GREATER THAN 80% (TMECC 05.05-A "GERMINATION AND VIGOR")
- STABILITY OF 7 OR BELOW (TMECC 05.08-B "CARBON DIOXIDE EVOLUTION RATE")
- CARBON TO NITROGEN RATIO (TMECC 04.01 "TOTAL CARBON" AND 04.02D "TOTAL KJELDAHL NITROGEN") OF LESS THAN 25:1. THE C:N RATIO MAY BE UP TO 35:1 FOR PLANTINGS COMPOSED ENTIRELY OF PUGET SOUND LOWLAND NATIVE SPECIES AND UP TO 40:1 FOR COARSE COMPOST TO BE USED AS A SURFACE MULCH (NOT IN A SOIL MIX).

INSTALLATION SPECIFICATIONS

1. BIORETENTION AREAS SHALL REMAIN FREE OF ALL CONSTRUCTION MATERIALS (CONCRETE SLURRY, GYPSUM BOARD, PLYWOOD, NAILS, SCREWS, ETC.)
2. PREVENT OVER COMPACTION OF SUBGRADE SOIL. THIS IS CRITICAL FOR PERFORMANCE OF THE FACILITY.
3. NO EXCAVATION, SOIL PLACEMENT, OR SOIL AMENDMENT SHALL TAKE PLACE DURING WET OR SATURATED CONDITIONS. SEE SOIL PLACEMENT NOTE FOR ADDITIONAL INFORMATION.
4. OPERATE EQUIPMENT ADJACENT TO, NOT IN, THE FACILITY.
5. IF MACHINERY MUST OPERATE IN THE FACILITY, USE LIGHT WEIGHT, LOW GROUND CONTACT PRESSURE EQUIPMENT.
6. EXCAVATE BIORETENTION FACILITY WITH TOOTHED BUCKET. SCARIFY SUBGRADE TO FRACTURE SOIL AND TILL IN BSM AT INTERFACE. SCARIFICATION DEPTH TO BE A MINIMUM OF FOUR INCHES.

SOIL PLACEMENT

1. ON-SITE SOIL MIXING OR PLACEMENT IS NOT ALLOWED IF SOIL IS SATURATED OR SUBJECT TO WATER WITHIN 48 HOURS.
2. PLACEMENT OF THE TOPSOIL SHALL BE IN LIFTS OF 8 INCHES OR LESS AND LIGHTLY COMPACTED (80%).
3. MINIMAL COMPACTION EFFORT CAN BE APPLIED TO THE SOIL BY TAMPING WITH A BUCKET FROM A BACKHOE FROM THE SIDE OF THE LANDSCAPE AREAS (AVOID DRIVING OVER PLACED TOPSOIL).
4. CONTRACTOR SHALL OBTAIN MATERIAL SAMPLES AND TEST RESULTS FOR APPROVAL BY THE ENGINEER OF RECORD PRIOR TO INSTALLING THE BIORETENTION SOILS.

PERFORATED PIPE SPECIFICATIONS

1. MINIMUM PIPE DIAMETER: 4 INCHES (PIPE DIAMETER WILL DEPEND ON HYDRAULIC CAPACITY REQUIRED, 4 TO 8 INCHES IS COMMON). SEE PLAN VIEW FOR PIPE SIZE.
2. SLOTTED SUBSURFACE DRAIN PVC PER ASTM D1785 SCH DR35 OR PER PLAN.
3. SLOTS SHOULD BE CUT PERPENDICULAR TO THE LONG AXIS OF THE PIPE AND BE 0.04 TO 0.069 INCHES BY 1 INCH LONG AND BE SPACED 0.25 INCHES APART (SPACED LONGITUDINALLY). SLOTS SHOULD BE ARRANGED IN FOUR ROWS SPACED ON 45-DEGREE CENTERS AND COVER ½ OF THE CIRCUMFERENCE OF THE PIPE.

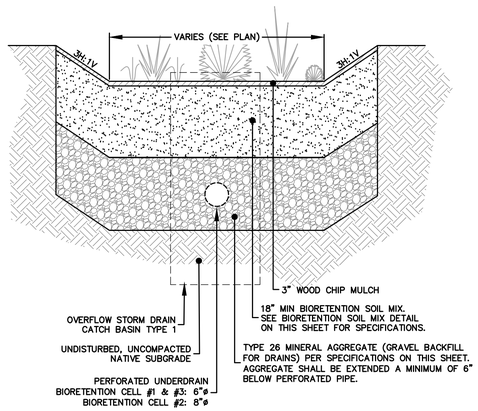
UNDERDRAIN PIPE BEDDING SPECIFICATIONS

1. USE TYPE 26 MINERAL AGGREGATE (GRAVEL BACKFILL FOR DRAINS, CITY OF SEATTLE).
2. PLACE UNDER-DRAIN ON A BED OF TYPE 26 AGGREGATE WITH A MINIMUM THICKNESS OF 4 INCHES. PROVIDE 6 INCHES MINIMUM COVER AND 1-FOOT MINIMUM DEPTH AROUND THE SIDES OF THE SLOTTED PIPE.

MINERAL AGGREGATE GRADATION

U.S. SIEVE NUMBER	PERCENT PASSING
3/4"	100
1/4"	30–60
US NO. 8	20–50
US NO. 50	3–12
US NO. 200	0–1

NOTES:
1. DESIGN TO BE COMPLIANT WITH CITY OF PUYALLUP DESIGN STANDARD SECTION 202.3 AND BIORETENTION DETAIL 02.07.01 (DETAIL E ON SHEET C3.5).
2. BIORETENTION SIZING AND STORMWATER MODELING CALCULATIONS ARE IN PUGET SOUND ENERGY OPERATIONAL TRAINING CENTER STORMWATER SITE PLAN SECTION BMP T7.30 – BIORETENTION AND STORMWATER MODELING INPUT & OUTPUT – BIORETENTION TREATMENT CALCULATIONS.



E BIORETENTION SECTION
nts

TEMPORARY AND SEDIMENT CONTROL (TESC)

CONTROLLING EROSION AND SEDIMENT ARE MOST DIFFICULT DURING CLEARING, GRADING, AND CONSTRUCTION; ACCORDINGLY, MINIMIZING SITE DISTURBANCES TO THE GREATEST EXTENT PRACTICABLE IS THE MOST EFFECTIVE SEDIMENT MANAGEMENT. ALWAYS KEEP CONSTRUCTION TRAFFIC OFF OF BIORETENTION AREA.

1. BIORETENTION AREAS SHOULD NOT BE USED AS SEDIMENT CONTROL FACILITIES AND ALL DRAINAGE SHOULD BE DIRECTED AWAY FROM BIORETENTION AREAS AFTER INITIAL ROUGH GRADING. FLOW CAN BE DIRECTED AWAY FROM THE FACILITY WITH TEMPORARY DIVERSION SWALES OR OTHER APPROVED PROTECTION.
2. CONSTRUCTION ON BIORETENTION FACILITIES SHOULD NOT BEGIN UNTIL ALL CONTRIBUTING DRAINAGE AREAS ARE STABILIZED ACCORDING TO EROSION AND SEDIMENT CONTROL BMPs.
3. IF THE DESIGN INCLUDES CURB AND GUTTER, THE CURB CUTS AND INLETS SHOULD BE BLOCKED UNTIL BSM AND MULCH HAVE BEEN PLACED AND PLANTING IS COMPLETED.

IF IT BECOMES UNAVOIDABLE TO PREVENT STORMWATER RUNOFF FROM ENTERING THE BIORETENTION FACILITY DURING CONSTRUCTION, ADDITIONAL SEDIMENT CONTROLS AND ALTERED CONSTRUCTION TECHNIQUES MUST BE EMPLOYED.

WITHOUT UNDERDRAIN:
1. INSTALL ADDITIONAL SEDIMENT CONTROLS, SUCH AS A TEMPORARY FOREBAY TO LOCALIZE SEDIMENT.
2. LEAVE TEMPORARY GRADE AT LEAST 6 INCHES ABOVE FINAL GRADE.
3. LINE BIORETENTION FACILITY WITH PLASTIC OR 6 INCH THICK BLANKET OF MULCH.

WITH UNDERDRAIN:
4. PLACE UNDER-DRAIN AND AGGREGATE FILTER AND BEDDING LAYER WHILE MAINTAINING A TEMPORARY GRADE AT LEAST 6 INCHES ABOVE FINAL GRADE IN THE BIORETENTION AREA.
5. PLACE PROTECTIVE COVERING (PLASTIC OR FILTER FABRIC) OVER UNDER-DRAIN AGGREGATE FILTER AND BEDDING LAYER AND COVER WITH A PROTECTIVE LAYER OF SANDY AGGREGATE.

City of Puyallup
Development & Permitting Services
ISSUED PERMIT
Building | Planning | Engineering | Public Works | Fire | Traffic

100% CD SET

REV	ISSUED FOR	DATE

PLAN NORTH TRUE NORTH
SCALE: 0

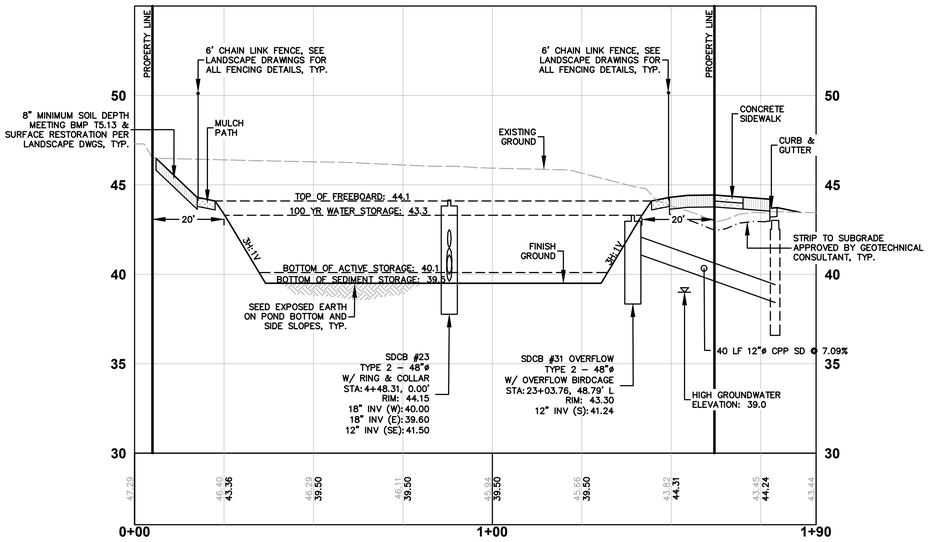
PSE - OPERATIONAL TRAINING CENTER

DRAINAGE DETAILS (3)

PROJECT No: 22219
DRAWN BY: MPM
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DATE ISSUED: 05/31/2024

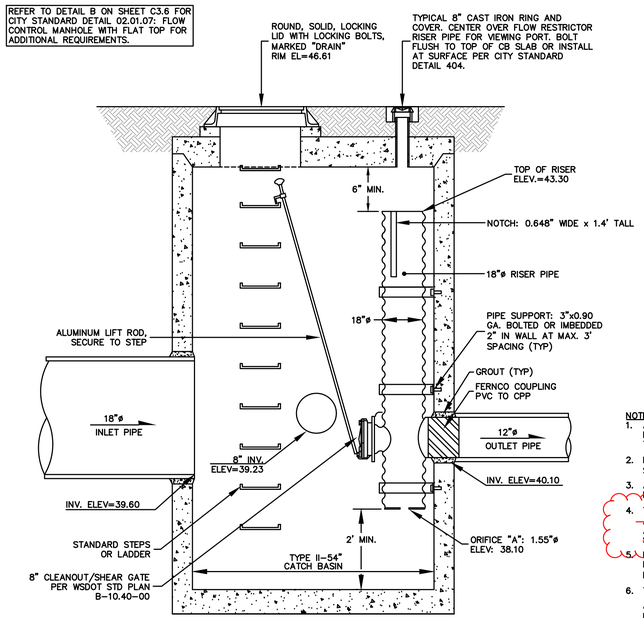
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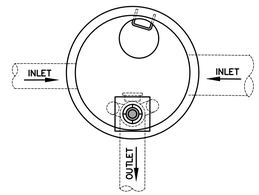


A NORTH-SOUTH POND SECTION
nts

REFER TO DETAIL B ON SHEET C3.6 FOR CITY STANDARD DETAIL 02.01.07: FLOW CONTROL MANHOLE WITH FLAT TOP FOR ADDITIONAL REQUIREMENTS.



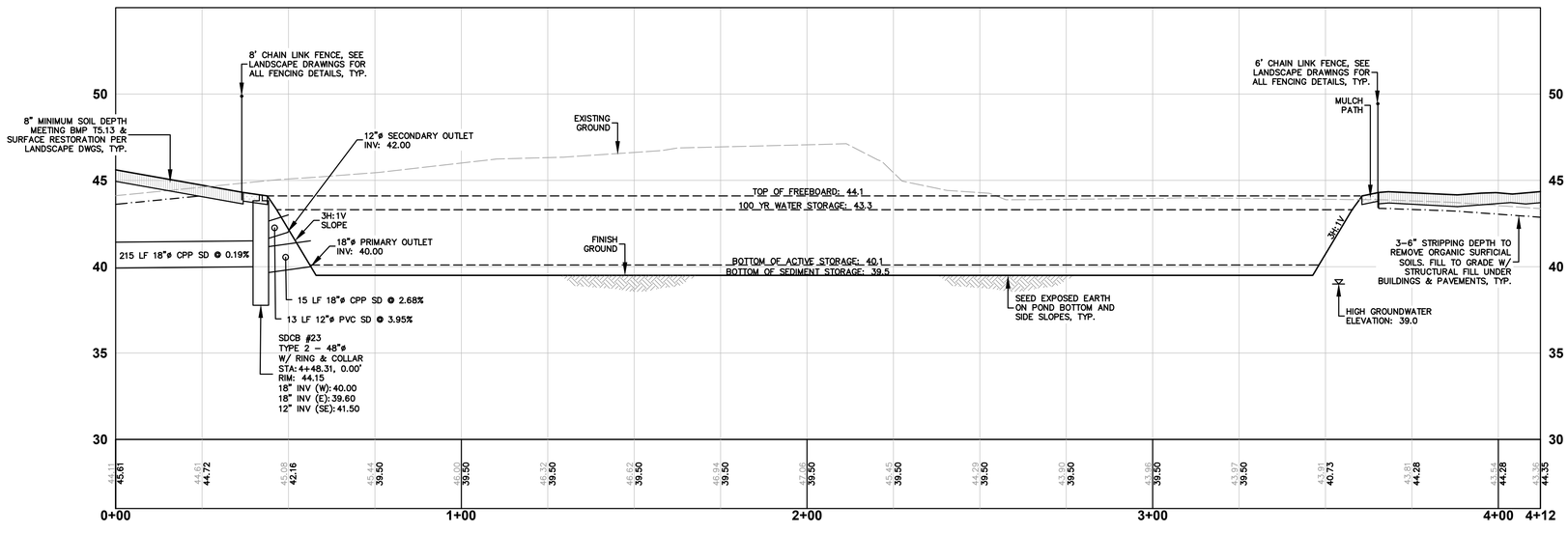
STRUCTURE SECTION VIEW



STRUCTURE PLAN VIEW

NOTES:
1. ALL ORIFICES TO BE FABRICATED BY SHOP DRILLING HOLES OF APPROPRIATE DIAMETER IN METAL PLATE, AND WELDING IT INTO PLACE AT THE BOTTOM OF THE MAIN RISER AND THE TWO ELBOWS.
2. PIPE SUPPORT BRACKETS AND THE RESTRICTOR/SEPARATOR SHALL BE OF THE SAME MATERIAL, AND BE ANCHORED AT 3' MAXIMUM SPACING.
3. ALL METAL PARTS SHALL BE CORROSION RESISTANT. ALL GALVANIZED STEEL ~~PARTS SHALL BE ASPHALT TREATMENT 1 COATED.~~
4. THE RESTRICTOR/SEPARATOR STANDPIPE SHALL BE FABRICATED FROM ~~0.060" ALUMINUM, 0.064" ALUMINIZED STEEL, OR 0.064" GALVANIZED STEEL, IN ACCORDANCE WITH AASHTO M36, M196, M197 AND M274. GALVANIZED STEEL SHALL BE ASPHALT TREATMENT 1 COATED.~~ PVC PER CITY STANDARD.
5. ~~IF A METAL OUTLET PIPE CONNECTS TO A CEMENT CONCRETE PIPE, THE OUTLET~~ PIPE SHALL HAVE A SMOOTH OUTSIDE DIAMETER EQUAL TO THE INSIDE DIAMETER OF THE CONCRETE PIPE LESS 1/4".
6. THE FRAME AND LADDER (OR STEPS) SHALL OFFSET SO THAT:
   A. THE CLEANOUT GATE IS VISIBLE FROM THE TOP.
   B. THE CLIMB DOWN CLEAR SPACE OF 2 FEET IS BETWEEN THE RISER AND CLEANOUT GATE.
   C. THE FRAME IS CLEAR OF THE CURB. (IF APPLICABLE)
7. LOCATE ELBOW RESTRICTOR(S) AS NECESSARY TO PROVIDE 2' MINIMUM CLEARANCE BETWEEN ELBOW AND INLET PIPES OR LADDER.
8. LOCATE ADDITIONAL LADDER RUNGS IN STRUCTURES USED AS ACCESS TO TANKS OR VAULTS TO ALLOW ACCESS WHEN CATCH BASIN IS FILLED WITH WATER.

B CONTROL STRUCTURE DETAILS
nts



C EAST-WEST POND SECTION
nts

POND SEED MIX

SEED TYPE	%
DWARF TALL FESCUE	40%
DWARF PERENNIAL RYE "BARCLAY"	30%
RED FESCUE	25%
COLONIAL BENTGRASS	5%

NOTES:
1. SEED MIX IS INTENDED TO MEET STORMWATER TRACT "LOW GROW" SEED MIX PER DEPARTMENT OF ECOLOGY RECOMMENDATION FOR DETENTION PONDS.
2. APPLY AT 2.5 TO 3 LBS PER 1,000 SQUARE FEET. FOLLOW APPLICATION REQUIREMENTS PER LANDSCAPE DRAWINGS AND SPECIFICATIONS.

ZERVAS
ARCHITECTURE | INTERIOR DESIGN
zervasgroup.com
209 Prospect Street
Bellingham, WA 98225
360.734.4744

FREELAND & ASSOCIATES
220 West Champion Street, Suite 200 t: 360.650.1408
Bellingham, WA 98225 f: 360.650.1401

MILES PATRICK MCEATHRON — STATE OF WASHINGTON — 49494 — REGISTERED PROFESSIONAL ENGINEER — 05/31/2024

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

APPROVED
BY _____
CITY OF PUYALLUP
DEVELOPMENT ENGINEERING
DATE 07/09/2024

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.
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MILES PATRICK MCEATHRON — STATE OF WASHINGTON — 49494 — REGISTERED PROFESSIONAL ENGINEER — 7/8/2025

City of Puyallup
Development & Permitting Services
ISSUED PERMIT

Building	Planning
Engineering	Public Works
Fire	Traffic

100% CD SET

REV	ISSUED FOR	DATE

PLAN NORTH | TRUE NORTH
SCALE: 0

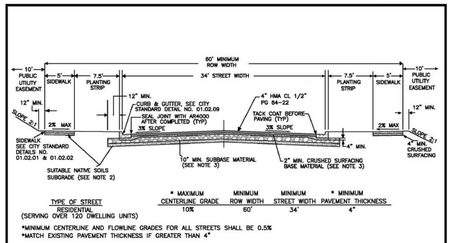
PSE - OPERATIONAL TRAINING CENTER

STORMWATER MANAGEMENT DETAILS

PROJECT No:	22219
DRAWN BY:	MPM
CHECKED BY:	THF
DATE ISSUED:	05/31/2024

C3.8

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TYPE OF STREET	* MAXIMUM CENTERLINE GRADE	MINIMUM ROW WIDTH	MINIMUM STREET WIDTH	* MINIMUM PAVEMENT THICKNESS
RESIDENTIAL (SERVING OVER 120 DWELLING UNITS)	10%	60'	34'	4"

*MINIMUM CENTERLINE AND FLOWLINE GRADES FOR ALL STREETS SHALL BE 0.5%
*MATCH EXISTING PAVEMENT THICKNESS IF GREATER THAN 4"

NOTES:

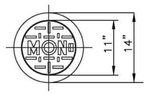
1. ALL DEPTHS ARE MINIMUM COMPACTED DEPTHS.
2. SUBGRADE PREPARATION SHALL MEET THE REQUIREMENTS OF WSDOT STANDARD SPEC. 2-06.3(1). ENGINEER SHALL BE PRESENT ON SITE FOR THE CONTRACTOR TO MEET THE COMPACTION REQUIREMENTS AND CONTROL ALL WORK. THE CITY OF PUYALLUP RESERVES THE RIGHT TO REQUIRE COMPLIANCE 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 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 SPECIFICATIONS.
5. ASPHALT CONCRETE PAVEMENT SHALL BE INSTALLED IN ACCORDANCE WITH WSDOT STANDARD SPEC. 5-04. DESIGN ENGINEER SHALL SUBMIT A STATE APPROVED HMA MIX FOR APPROVAL.
6. TEMPERATURE SHALL NOT EXCEED 325° F AT DISCHARGE OF THE PLANT NOR BE LESS THAN 185° F LEAVING THE SPREADER BOX.
7. THE MAXIMUM COMPACTED THICKNESS OF ANY SINGLE LIFT SHALL MEET WSDOT STANDARD SPEC. 5-04.3(9) TO A MINIMUM AVERAGE COMPACTED DRY DENSITY OF 91 PERCENT OF THE MAXIMUM DENSITY AS DETERMINED BY WSDOT TEST METHOD SPECIFIED IN STANDARD SPEC. 5-04.3(10)B. PERIODIC COMPLIANCE TESTS SHALL BE MADE BY A CERTIFIED TESTING AGENCY AT THE EXPENSE OF THE CONTRACTOR.
8. THE FACE OF THE GUTTER LIP AND EDGES OF EXISTING ASPHALT MEET LINES SHALL BE TACK COATED PRIOR TO PAVEMENT PLACEMENT. WHEN SUCCESSIVE LIFTS OF ASPHALT ARE REQUIRED, A TACK COAT SHALL BE DISTRIBUTED UNIFORMLY OVER THE PREVIOUS LIFT AT A RATE OF 0.05–0.08 GALLONS PER SQUARE YARD AT A TEMPERATURE OF 100° F AND SHALL BE ALLOWED TO SET TO A TACKY STATE PRIOR TO THE PLACEMENT OF THE NEXT LIFT.
9. ALL MEET LINES BETWEEN LIFTS OF ASPHALT SHALL BE UNIFORM AND VERTICAL. THE MEET LINES SHALL BE CLEANED AND TACK COATED.
10. ANY CHANGES TO THE STANDARD PAVEMENT SECTION SHALL REQUIRE APPROVAL BY THE DEVELOPMENT REVIEW ENGINEER. A STRUCTURAL PAVEMENT CROSS SECTION DESIGN WITH CALCULATIONS SHALL BE REQUIRED.
11. ALL MANHOLE FRAMES, VALVE FRAMES AND MONUMENT COVERS SHALL BE INSTALLED AFTER PLACEMENT OF ASPHALT. IF MORE THAN ONE LIFT IS NECESSARY, FRAMES AND LIDS WILL BE ADJUSTED TO FINISH GRADE AT FIRST LIFT AS DIRECTED BY THE CITY.
12. ADDITIONAL BIKE LANES AND/OR ON STREET PARKING MAY BE REQUIRED PER TRAFFIC ENGINEER.
13. A UTILITY EASEMENT OF 10' SHALL BE PROVIDED ON BOTH SIDES OF THE ROADWAY.
14. PLANTING STRIP SHALL BE PLANTED AS DIRECTED BY CITY PLANNING DEPARTMENT.

CITY OF PUYALLUP
DEVELOPMENT ENGINEERING and PUBLIC WORKS DEPARTMENTS

34' PUBLIC ROADWAY CROSS SECTION

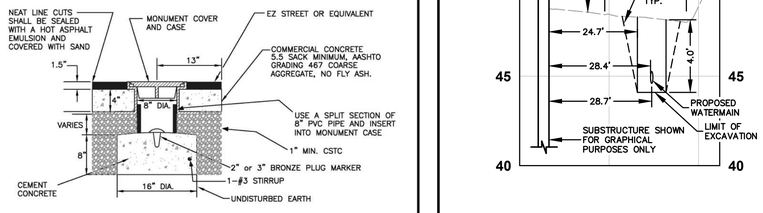
DRAWN BY	CHECKED BY	APPROVED BY	REVISED BY	CITY STANDARD
JIM HEWIN-SVOBODA	LINDA LUAN	COLLEEN HARRIS	LINDA LUAN	01.01.02
FILE NAME: P:\ENGS\CAD\MONFIT\DETAILS\TYP2009\01_STD\01.01.02.DGN	DATE APPROVED: 05/01/2009	DATE REVISED: 05/01/17	SCALE: 1:10	

A 34' PUBLIC ROADWAY CROSS SECTION
nts



NOTES:

1. CASTINGS FOR MONUMENT CASES, COVERS, AND RISERS SHALL BE GRAY IRON CASTINGS CONFORMING TO THE REQUIREMENTS OF AASHTO M 105, CLASS 30B.
2. THE COVER AND SEAT SHALL BE MACHINED SO AS TO HAVE PERFECT CONTACT AROUND THE ENTIRE CIRCUMFERENCE AND FULL WIDTH OF BEARING SURFACE.
3. FOR OVERLAYS, CONTRACTOR SHALL REMOVE COVER & CASE AND INSTALL TEMPORARY PLATE. AFTER ASPHALT WORK IS COMPLETE, MONUMENT CASE AND LID SHALL BE REPLACED AND ADJUSTED TO FINISH GRADE.
4. ON NEW PAVING PROJECTS, MONUMENTS SHALL BE INSTALLED AFTER FINAL LIFT. CONTRACTOR SHALL COORDINATE WITH A LICENSED SURVEYOR FOR PROPER LOCATION OF BRONZE MARKER.

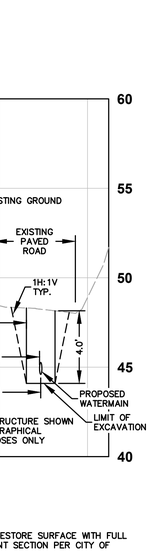


CITY OF PUYALLUP
DEVELOPMENT ENGINEERING and PUBLIC WORKS DEPARTMENTS

MONUMENT

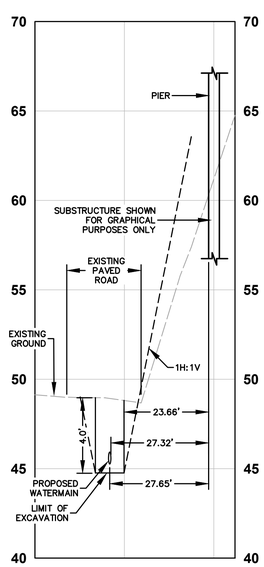
DRAWN BY	CHECKED BY	APPROVED BY	REVISED BY	CITY STANDARD
JIM HEWIN-SVOBODA	LINDA LUAN	COLLEEN HARRIS	XXXX	01.01.17
FILE NAME: P:\ENGS\CAD\MONFIT\DETAILS\TYP2009\01_STD\01.01.17.DGN	DATE APPROVED: 07/01/2009	DATE REVISED: XX/XX/XX	SCALE: 1:1	

B MONUMENT
nts

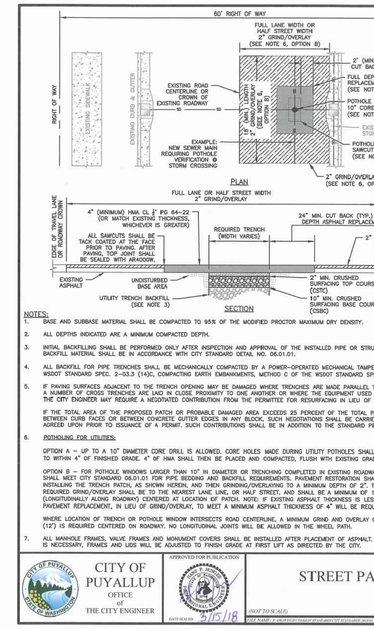


NOTES:
1. BACKFILL TRENCH & RESTORE SURFACE WITH FULL DEPTH ASPHALT PAVEMENT SECTION PER CITY OF PUYALLUP STANDARDS.
2. GRIND AND OVERLAY ROAD PER PLAN VIEW.

C STA 28+00 SECTION (NORTH PIER)
nts



D STA 28+00 SECTION (SOUTH PIER)
nts



NOTES:
1. BASE AND SUBBASE MATERIAL SHALL BE COMPACTED TO 95% OF THE MODIFIED PROCTOR MAXIMUM DRY DENSITY.
2. ALL DEPTHS INDICATED ARE A MINIMUM COMPACTED DEPTH.
3. INITIAL BACKFILLING SHALL BE PERFORMED ONLY AFTER INSPECTION AND APPROVAL OF THE INSTALLED PIPE OR STRUCTURE. THE TRENCH BACKFILL MATERIAL SHALL BE IN ACCORDANCE WITH CITY STANDARD DETAIL NO. 08.01.01.
4. ALL BACKFILL FOR PIPE TRENCHES SHALL BE MECHANICALLY COMPACTED BY A POWER-OPERATED MECHANICAL TAMPER(S) AS SPECIFIED IN WSDOT STANDARD SPEC. 2-03.3 (14)C, COMPACTING EARTH EMBANKMENTS, METHOD C OF THE WSDOT STANDARD SPECIFICATIONS.
5. IF PAVING SURFACES ADJACENT TO THE TRENCH OPENING MAY BE DAMAGED WHERE TRENCHES ARE MADE PARALLEL TO THE STREET, OR WHERE A NUMBER OF CROSS TRENCHES ARE LAID IN CLOSE PROXIMITY TO ONE ANOTHER OR WHERE THE EQUIPMENT USED HAS EXCESS TRACK DAMAGE, THE CITY ENGINEER MAY REQUIRE A NEGOTIATED CONTRIBUTION FROM THE PERMITTEE FOR RESURFACING IN LIEU OF PATCHING.

   IF THE TOTAL AREA OF THE PROPOSED PATCH OR PROPOSED DAMAGE AREA EXCEEDS 25 PERCENT OF THE TOTAL PAVEMENT SURFACING BETWEEN CURB FACES OR BETWEEN CONCRETE GUTTER EDGES IN ANY BLOCK, SUCH NEGOTIATIONS SHALL BE CARRIED ON AND CONTRIBUTIONS AGREED UPON PRIOR TO ISSUANCE OF A PERMIT. SUCH CONTRIBUTIONS SHALL BE IN ADDITION TO THE STANDARD PERMIT FEE.
6. POTHOLING FOR UTILITIES:

   OPTION A – UP TO A 10" DIAMETER CORE DRILL IS ALLOWED. CORE HOLES MADE DURING UTILITY POTHOLES SHALL BE BACKFILLED WITH CDF TO WITHIN 4" OF FINISHED GRADE. 4" OF HMA SHALL THEN BE PLACED AND COMPACTED, FLUSH WITH EXISTING GRADE.

   OPTION B – FOR POTHOLE WINDOWS LARGER THAN 10" IN DIAMETER OR TRENCHING COMPLETED IN EXISTING ROADWAY, THE CONTRACTOR SHALL MEET CITY STANDARD 08.01.01 FOR PIPE BEDDING AND BACKFILL REQUIREMENTS. PAVEMENT RESTORATION SHALL BE ACCOMPLISHED BY INSTALLING THE TRENCH PATCH, AS SHOWN HEREIN, AND THEN GRINDING/OVERLAYING TO A MINIMUM DEPTH OF 2". THE LIMITS OF THE REQUIRED GRIND/OVERLAY SHALL BE TO THE NEAREST LANE LINE OR HALF STREET, AND SHALL BE A MINIMUM OF 18 FEET LONG (LONGITUDINALLY ALONG ROADWAY) CENTERED AT LOCATION OF PATCH. NOTE: IF EXISTING ASPHALT THICKNESS IS LESS THAN 3", FULL DEPTH PAVEMENT REPLACEMENT, IN LIEU OF GRIND/OVERLAY, TO MEET A MINIMUM ASPHALT THICKNESS OF 4" WILL BE REQUIRED.

   WHERE LOCATION OF TRENCH OR POTHOLE WINDOW INTERSECTS ROAD CENTERLINE, A MINIMUM GRIND AND OVERLAY OF ONE FULL LANE WIDTH (12') IS REQUIRED CENTERED ON ROADWAY. NO LONGITUDINAL JOINTS WILL BE ALLOWED IN THE WHEEL PATH.
7. ALL MANHOLE FRAMES, VALVE FRAMES AND MONUMENT COVERS SHALL BE INSTALLED AFTER PLACEMENT OF ASPHALT. IF MORE THAN ONE LIFT IS NECESSARY, FRAMES AND LIDS WILL BE ADJUSTED TO FINISH GRADE AT FIRST LIFT AS DIRECTED BY THE CITY.

CITY OF PUYALLUP
OFFICE of THE CITY ENGINEER

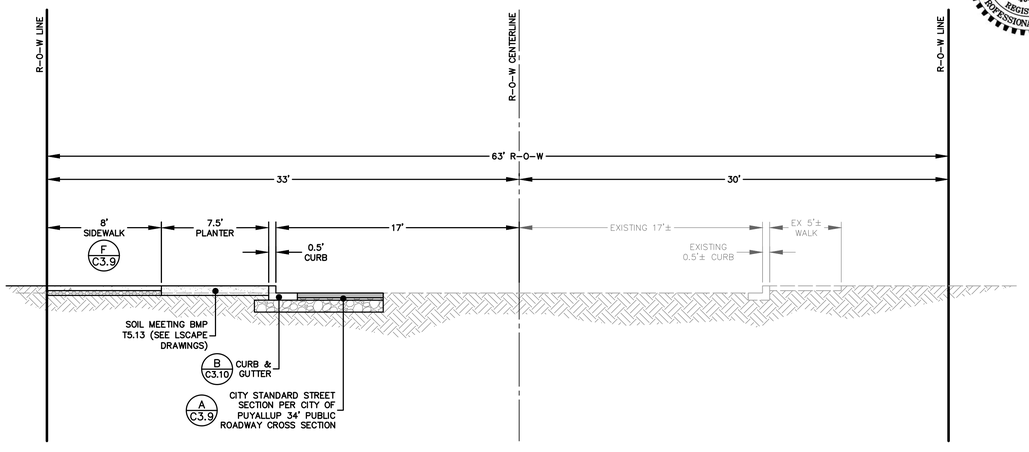
APPROVED FOR PUBLICATION — DATE ISSUED: 2/15/18

STREET PATCH

CITY STANDARD
01.01.20

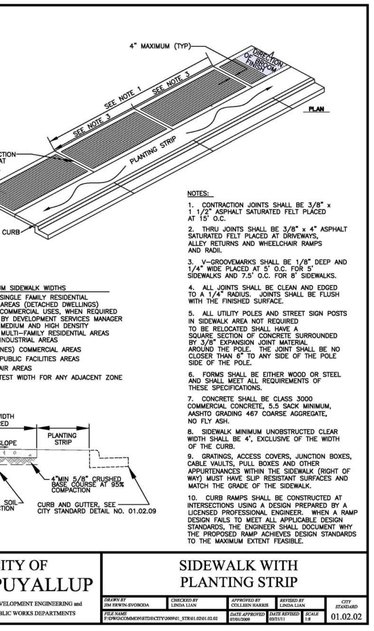
(NOT TO SCALE)

E STREET PATCH
nts



NOTES:
1. REFER TO CITY OF PUYALLUP 34' PUBLIC ROADWAY CROSS SECTION FOR ADDITIONAL INFORMATION.
2. SEE PLAN VIEW FOR STREET PATCH & OVERLAY LOCATIONS. REFER TO CITY OF PUYALLUP STREET PATCH DETAIL FOR ADDITIONAL INFORMATION.

H TODD ROAD TYPICAL SECTION
nts



NOTES:

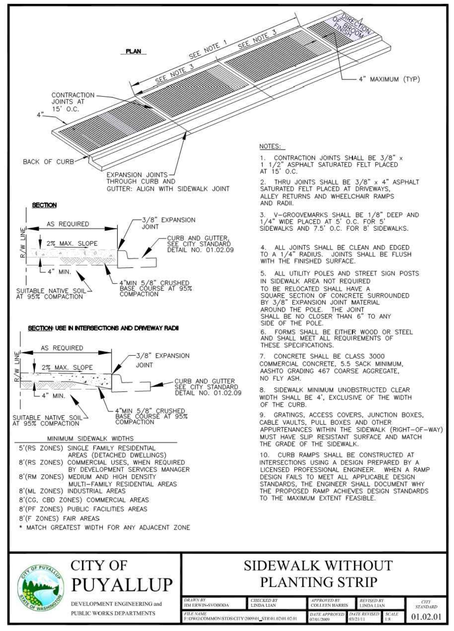
1. CONTRACTION JOINTS SHALL BE 3/8" x 1 1/2" ASPHALT SATURATED FELT PLACED AT 15' O.C.
2. THRU JOINTS SHALL BE 3/8" x 4" ASPHALT SATURATED FELT PLACED AT DRIVEWAYS, ALLEY RETURNS AND WHEELCHAIR RAMPS AND RADII.
3. V-GROOVEMARKS SHALL BE 1/8" DEEP AND 1/4" WIDE PLACED AT 5' O.C. FOR 5' SIDEWALKS AND 7.5' O.C. FOR 8' SIDEWALKS.
4. ALL JOINTS SHALL BE CLEAN AND EDGED TO A 1/4" RADIUS. JOINTS SHALL BE FLUSH WITH THE FINISHED SURFACE.
5. ALL UTILITY POLES AND STREET SIGN POSTS IN SIDEWALK AREA NOT REQUIRED TO BE RELOCATED SHALL HAVE A SQUARE SECTION OF CONCRETE SURROUNDED BY 3/8" EXPANSION JOINT MATERIAL AROUND THE POLE. THE JOINT SHALL BE NO CLOSER THAN 6" TO ANY SIDE OF THE POLE SIDE OF THE POLE.
6. FORMS SHALL BE EITHER WOOD OR STEEL AND SHALL MEET ALL REQUIREMENTS OF THESE SPECIFICATIONS.
7. CONCRETE SHALL BE CLASS 3000 COMMERCIAL CONCRETE, 5.5 SACK MINIMUM, AASHTO GRADING 467 COARSE AGGREGATE, NO FLY ASH.
8. SIDEWALK MINIMUM UNOBSTRUCTED CLEAR WIDTH SHALL BE 4', EXCLUSIVE OF THE WIDTH OF THE CURB.
9. GRATINGS, ACCESS COVERS, JUNCTION BOXES, CABLE VAULTS, PULL BOXES AND OTHER APPURTENANCES WITHIN THE SIDEWALK (RIGHT-OF-WAY) MUST HAVE SLIP RESISTANT SURFACES AND MATCH THE GRADE OF THE SIDEWALK.
10. CURB RAMPS SHALL BE CONSTRUCTED AT INTERSECTIONS USING A DESIGN PREPARED BY A LICENSED PROFESSIONAL ENGINEER. WHEN A RAMP DESIGN FAILS TO MEET ALL APPLICABLE DESIGN STANDARDS, THE ENGINEER SHALL DOCUMENT WHY THE PROPOSED RAMP ACHIEVES DESIGN STANDARDS TO THE MAXIMUM EXTENT FEASIBLE.

CITY OF PUYALLUP
DEVELOPMENT ENGINEERING and PUBLIC WORKS DEPARTMENTS

SIDEWALK WITH PLANTING STRIP

DRAWN BY	CHECKED BY	APPROVED BY	REVISED BY	CITY STANDARD
JIM HEWIN-SVOBODA	LINDA LUAN	COLLEEN HARRIS	LINDA LUAN	01.02.02
FILE NAME: P:\ENGS\CAD\MONFIT\DETAILS\TYP2009\02_STD\02.02.01.02.DGN	DATE APPROVED: 05/01/2009	DATE REVISED: 05/01/17	SCALE: 1:8	

F SIDEWALK WITH PLANTING STRIP
nts



NOTES:

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CITY OF PUYALLUP
DEVELOPMENT ENGINEERING and PUBLIC WORKS DEPARTMENTS

SIDEWALK WITHOUT PLANTING STRIP

DRAWN BY	CHECKED BY	APPROVED BY	REVISED BY	CITY STANDARD
JIM HEWIN-SVOBODA	LINDA LUAN	COLLEEN HARRIS	LINDA LUAN	01.02.01
FILE NAME: P:\ENGS\CAD\MONFIT\DETAILS\TYP2009\02_STD\02.02.01.01.DGN	DATE APPROVED: 05/01/2009	DATE REVISED: 05/01/17	SCALE: 1:8	

G SIDEWALK WITHOUT PLANTING STRIP
nts

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Bellingham, WA 98225 f: 360.650.1401

MILES PATRICK MCARTHERON — STATE OF WASHINGTON — 49494 — REGISTERED PROFESSIONAL ENGINEER — 05/31/2024

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

APPROVED
BY Lance D. Hoagwood
CITY OF PUYALLUP
DEVELOPMENT ENGINEERING
DATE 07/09/2024

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 DEVELOPMENT ENGINEERING MANAGER.

RECORD NOTE:
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MILES PATRICK MCARTHERON — STATE OF WASHINGTON — 49494 — REGISTERED PROFESSIONAL ENGINEER — 7/8/2025

City of Puyallup
Development & Permitting Services
ISSUED PERMIT

Building	Planning
Engineering	Public Works
Fire	Traffic

100% CD SET

REV	ISSUED FOR	DATE

PLAN NORTH — TRUE NORTH
SCALE: 0

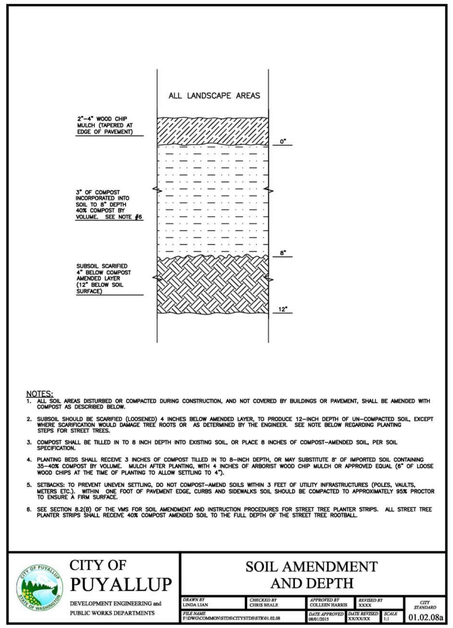
PSE - OPERATIONAL TRAINING CENTER

PAVING DETAILS (1)

PROJECT No:	22219
DRAWN BY:	MPM
CHECKED BY:	THF
DATE ISSUED:	05/31/2024

C3.9

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NOTES:

1. ALL SOIL AREAS DISTURBED OR COMPACTED DURING CONSTRUCTION, AND NOT COVERED BY BUILDINGS OR PAVEMENT, SHALL BE AMENDED WITH COMPOST AS DESCRIBED BELOW.
2. SUBSOIL SHOULD BE SCARIFIED (LOOSENED) 4 INCHES BELOW AMENDED LAYER, TO PRODUCE 12–INCH DEPTH OF UN–COMPACTED SOIL, EXCEPT WHERE SCARIFICATION WOULD DAMAGE TREE ROOTS OR AS DETERMINED BY THE ENGINEER. SEE NOTE BELOW REGARDING PLANTING STEPS FOR STREET TREES.
3. COMPOST SHALL BE TILLED IN TO 8 INCH DEPTH INTO EXISTING SOIL, OR PLACE 8 INCHES OF COMPOST–AMENDED SOIL, PER SOIL SPECIFICATION.
4. PLANTING BEDS SHALL RECEIVE 3 INCHES OF COMPOST TILLED IN TO 8–INCH DEPTH, OR MAY SUBSTITUTE 8" OF IMPORTED SOIL CONTAINING 35–40% COMPOST BY VOLUME. MULCH AFTER PLANTING, WITH 4 INCHES OF ARBORIST WOOD CHIP MULCH OR APPROVED EQUAL (6" OF LOOSE WOOD CHIPS AT THE TIME OF PLANTING TO ALLOW SETTLING TO 4").
5. SETBACKS: TO PREVENT UNDUE SETTLING, DO NOT COMPOST–AMEND SOILS WITHIN 3 FEET OF UTILITY INFRASTRUCTURES (POLES, VAULTS, METERS ETC.). WITHIN ONE FOOT OF PAVEMENT EDGE, CURBS AND SIDEWALKS SOIL SHOULD BE COMPACTED TO APPROXIMATELY 95% PROCTOR TO ENSURE A FIRM SURFACE.
6. SEE SECTION 8.2(10) OF THE VMS FOR SOIL AMENDMENT AND INSTRUCTION PROCEDURES FOR STREET TREE PLANTER STRIPS. ALL STREET TREE PLANTER STRIPS SHALL RECEIVE 40% COMPOST AMENDED SOIL TO THE FULL DEPTH OF THE STREET TREE ROOTBALL.

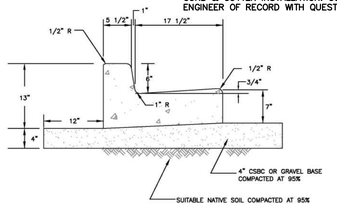
CITY OF PUYALLUP — DEVELOPMENT ENGINEERING and PUBLIC WORKS DEPARTMENTS

SOIL AMENDMENT AND DEPTH

DRAWN BY	CHECKED BY	APPROVED BY	REVISED BY	CITY STANDARD
LINDA LUAN	CHRIS BELLE	COLLEEN BAKER	XXXX	
FILE NAME: T:\DWG\COMMON\STDDET\CITYSTD\STD-01.02.08	DATE APPROVED: 06/01/2023	DATE REVISED: XX/XX/XX	SCALE: N.T.S.	01.02.08a

A SOIL AMENDMENT AND DEPTH
nts

CURB & GUTTER INSTALLATION NOTE:
PROPOSED CURB & GUTTER ELEVATIONS BASED OFF EXISTING GRADE SURVEY. CONTRACTOR MUST VERIFY ELEVATIONS AND APPROPRIATE ROAD SLOPE PRIOR TO CURB & GUTTER INSTALLATION. CONTACT ENGINEER OF RECORD WITH QUESTIONS.



NOTES:

1. CONTRACTION JOINTS SHALL BE 3/8" x 2 1/4" ASPHALT SATURATED FELT PLACED IN ALL EXPOSED SURFACES OF CURB AND GUTTER AND SPACED AT 15' MAX. 10' MIN. O.C.
2. THRU JOINTS SHALL BE 3/8" ASPHALT SATURATED FELT PLACED AT POINTS OF TANGENCY ON CURVES, AT CATCH BASINS, AND AT EDGES OF ALLEY AND DRIVEWAYS. THE MAXIMUM DISTANCE BETWEEN THRU JOINTS SHALL BE 100'.
3. CONCRETE SHALL BE CLASS 3000 COMMERCIAL CONCRETE, 5.5 SACK MINIMUM, AASHTO GRADING 467 COARSE AGGREGATE, NO FLY ASH.
4. FORMS SHALL BE STEEL UNLESS PRIOR APPROVAL IS GIVEN BY THE CITY ENGINEER. FORMS SHALL BE SET TRUE TO LINE AND GRADE AND SECURELY STAKED PRIOR TO CONCRETE PLACEMENT. FULL DEPTH DIVISION PLATES ARE ONLY TO BE USED WHERE THRU JOINTS ARE TO BE PLACED.
5. THE 1" RADIUS ON THE UPPER FACE OF THE CURB MAY BE FORMED BY AN EDGER TOOL OR BUILT INTO THE FACE FORM. THE 1" RADIUS AT THE BOTTOM FACE OF THE CURB SHALL BE FORMED BY THE FACE FORM.

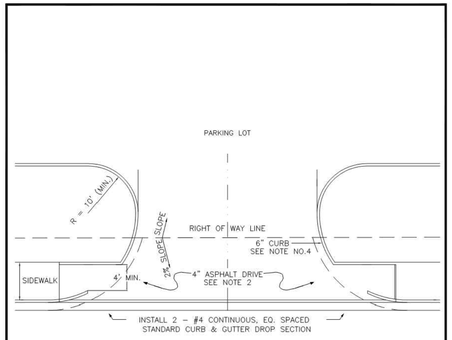
6. REFER TO DEPRESS CURB AND GUTTER DETAIL I ON SHEET C3.10 FOR DEPRESSED CURB AT CURB RAMPS AND DRIVEWAYS.

CITY OF PUYALLUP — DEVELOPMENT ENGINEERING and PUBLIC WORKS DEPARTMENTS

CURB AND GUTTER

DRAWN BY	CHECKED BY	APPROVED BY	REVISED BY	CITY STANDARD
EM ERWIN RIVEROSA	LINDA LUAN	COLLEEN BAKER	XXXX	
FILE NAME: T:\DWG\COMMON\STDDET\CITYSTD\STD-01.02.09	DATE APPROVED: 07/01/2008	DATE REVISED: 10/27/21	SCALE: N.T.S.	01.02.09

B CURB AND GUTTER
nts



NOTES:

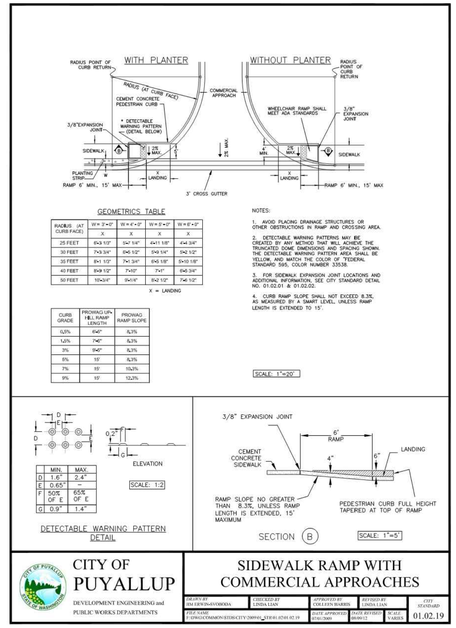
1. TYPICAL COMMERCIAL APPROACHES SHALL BE 30' WIDE AND INCLUDE 35' CURB RADII. IF TRUCKS ARE EXPECTED TO USE THE APPROACH, DRIVEWAY WIDTH, CHANNELIZATION, AND CURB RADII SHALL BE BASED ON AN APPROVED TURNING MOVEMENT ANALYSIS.
2. ALL ASPHALT PAVEMENT MUST CONFORM TO CITY STANDARD NO. 01.01.01.
3. APPROACH SHALL BE ASPHALT WITH STANDARD CURB AND GUTTER PLACED ON EACH SIDE OF THE APPROACH.
4. WHEEL CHAIR RAMPS SHALL BE INSTALLED IN ACCORDANCE TO ALL APPLICABLE STANDARDS. DETECTABLE WARNING PATTERNS SHALLBE CONSTRUCTED AT A DRIVEWAY ONLY WHEN IT WILL BE SIGNALIZED. CURB RAMP SLOPE SHALL NOT EXCEED 8.3%, AS MEASURE BY A SMART LEVEL, UNLESS RAMP LENGTH IS EXTENDED TO 15'. SEE DETAIL 01.02.19 FOR ADDITIONAL ADA RAMP INFORMATION.
5. SPACING OF COMMERCIAL APPROACHES ON PRINCIPAL AND MINOR ARTERIALS SHALL BE MINIMUM 300' AND SPACING ON COLLECTORS SHALL BE MINIMUM 150', MEASURED BETWEEN THE CLOSEST EDGES OF EACH DRIVEWAY. THIS REQUIREMENT IS ALSO APPLICABLE TO THE DRIVEWAYS THAT ARE ACROSS THE STREET.
6. SPACING OF COMMERCIAL APPROACHES FROM PRINCIPAL AND MINOR ARTERIALS SHALL BE MINIMUM 300' AND SPACING FROM A COLLECTOR SHALL BE MINIMUM 150', MEASURED FROM NEAREST ROW LINE TO APPROACH PAVEMENT EDGE. THE CITY MAY BE MORE RESTRICTIVE THAN SPECIFIED HEREIN IF DEEMED NECESSARY BASED ON TRAFFIC VOLUMES, CHANNELIZATION AND SIGNALIZATION.
7. THIS COMMERCIAL APPROACH STANDARD SHALL BE USED ON ARTERIALS AND COLLECTORS WITH SPEED LIMITS OF 35 MPH OR GREATER, AND/OR WHEN TRUCK TRAFFIC WILL BE USING THE APPROACH.

CITY OF PUYALLUP — DEVELOPMENT ENGINEERING and PUBLIC WORKS DEPARTMENTS

STANDARD COMMERCIAL APPROACH

DRAWN BY	CHECKED BY	APPROVED BY	REVISED BY	CITY STANDARD
EM ERWIN RIVEROSA	LINDA LUAN	COLLEEN BAKER	XXXX	
FILE NAME: T:\DWG\COMMON\STDDET\CITYSTD\STD-01.02.16	DATE APPROVED: 07/01/2008	DATE REVISED: 10/27/21	SCALE: N.T.S.	01.02.16

C STANDARD COMMERCIAL APPROACH
nts

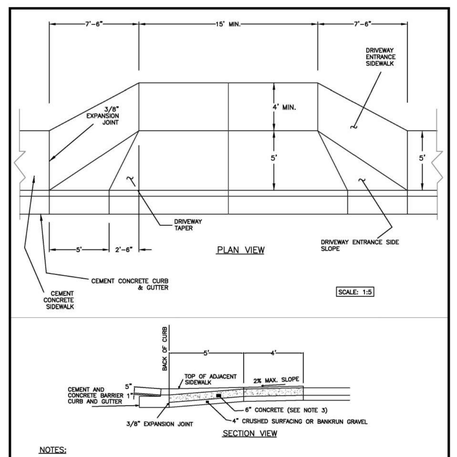


CITY OF PUYALLUP — DEVELOPMENT ENGINEERING and PUBLIC WORKS DEPARTMENTS

SIDEWALK RAMP WITH COMMERCIAL APPROACHES

DRAWN BY	CHECKED BY	APPROVED BY	REVISED BY	CITY STANDARD
EM ERWIN RIVEROSA	LINDA LUAN	COLLEEN BAKER	XXXX	
FILE NAME: T:\DWG\COMMON\STDDET\CITYSTD\STD-01.02.19	DATE APPROVED: 07/01/2008	DATE REVISED: 09/01/22	SCALE: N.T.S.	01.02.19

D SIDEWALK RAMP AT COMMERCIAL APPROACH
nts



NOTES:

1. THIS COMMERCIAL APPROACH TO BE USED WHEN SPEED LIMIT IS LESS THAN 30 MPH. APPROACH SPACING AS SPECIFIED ON CITY STANDARD DETAIL NO. 01.02.16.
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 GRADING 467 COARSE AGGREGATE, NO FLY ASH.
4. 30 FEET MINIMUM WIDTH FOR TWO WAY TRAFFIC. MAXIMUM WIDTH DEPENDENT ON VEHICLE VOLUME THRU DRIVE AND DESIGN VEHICLE.

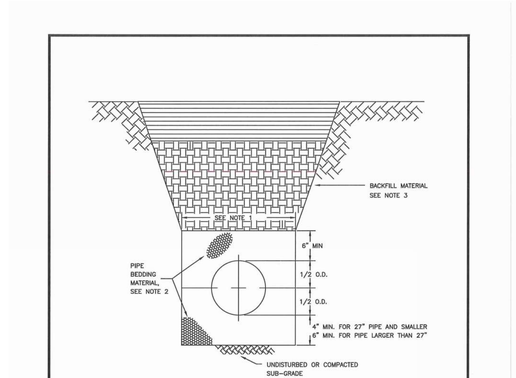
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CITY OF PUYALLUP — DEVELOPMENT ENGINEERING and PUBLIC WORKS DEPARTMENTS

URBAN COMMERCIAL APPROACH ALTERNATE 1

DRAWN BY	CHECKED BY	APPROVED BY	REVISED BY	CITY STANDARD
EM ERWIN RIVEROSA	LINDA LUAN	COLLEEN BAKER	XXXX	
FILE NAME: T:\DWG\COMMON\STDDET\CITYSTD\STD-01.02.17	DATE APPROVED: 07/01/2008	DATE REVISED: XX/XX/XX	SCALE: NONE	01.02.17

E URBAN COMMERCIAL APPROACH
nts



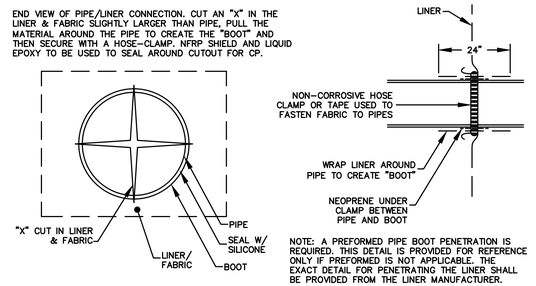
1. TRENCHING SHALL MEET THE REQUIREMENTS OF SECTION 7–08.3(1)A AND 2–06.3(1) OF THE WSDOT SPECIFICATIONS.
2. BEDDING MATERIAL SHALL CONFORM TO 9–03.12(3) GRAVEL BACKFILL FOR PIPE ZONE BEDDING.
3. GRAVEL BACKFILL SHALL CONFORM TO 9–03.12(1)A GRAVEL BACKFILL FOR FOUNDATIONS, CLASS A.

CITY OF PUYALLUP — OFFICE of THE CITY ENGINEER

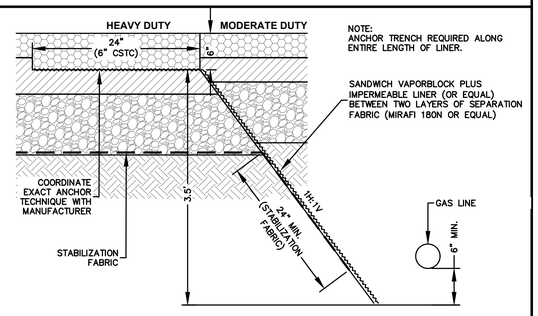
PIPE TRENCHING BEDDING AND BACKFILL

DRAWN BY	CHECKED BY	APPROVED BY	REVISED BY	CITY STANDARD
EM ERWIN RIVEROSA	MIKE BEA	MARK PALMER	XX/XX/XX	
FILE NAME: T:\DWG\COMMON\STDDET\CITYSTD\STD-06.01.01_MISC\06.01.01.01	DATE APPROVED: 07/01/2007	SCALE: N.T.S.	XX/XX/XX	06.01.01

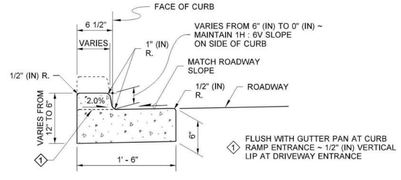
F PIPE TRENCHING, BEDDING AND BACKFILL
nts



G PIPE PENETRATION
nts



H LINER & FABRIC INTERFACE
nts



NOTE:
REFER TO CURB AND GUTTER DETAIL B ON SHEET C3.10 FOR STANDARD 6" CURB WITH GUTTER PAN.

I DEPRESSED CURB & GUTTER
nts

ZERVAS
ARCHITECTURE | INTERIOR DESIGN
zervasgroup.com
209 Prospect Street
Bellingham, WA 98225
360.734.4744

FREELAND & ASSOCIATES
220 West Champion Street, Suite 200 t: 360.650.1408
Bellingham, WA 98225 f: 360.650.1401

MILES PATRICK MCEATHRON — STATE OF WASHINGTON — 19494 — REGISTERED PROFESSIONAL ENGINEER — 05/31/2024

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APPROVED
BY _____
CITY OF PUYALLUP
DEVELOPMENT ENGINEERING
DATE 07/09/2024

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 DEVELOPMENT ENGINEERING MANAGER.

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MILES PATRICK MCEATHRON — STATE OF WASHINGTON — 19494 — REGISTERED PROFESSIONAL ENGINEER — 7/8/2025

City of Puyallup
Development & Permitting Services
ISSUED PERMIT

Building	Planning
Engineering	Public Works
Fire	Traffic

100% CD SET

REV	ISSUED FOR	DATE

PLAN NORTH | TRUE NORTH
SCALE: 0

PSE - OPERATIONAL TRAINING CENTER

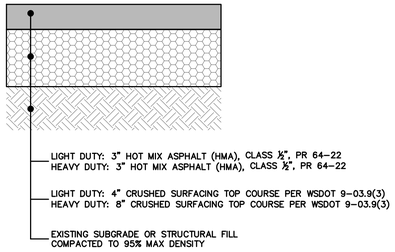
PAVING DETAILS (2)

PROJECT No:	22219
DRAWN BY:	MPM
CHECKED BY:	THF
DATE ISSUED:	05/31/2024

C3.10

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NOTE:
ALL DEPTHS REPRESENT COMPACTED THICKNESSES.



SUBGRADE AND GRAVEL BASE NOTES:

(1) STRUCTURAL FILL MUST BE PLACED IN HORIZONTAL LIFTS APPROXIMATELY 8 TO 10 INCHES IN LOOSE THICKNESS AND THOROUGHLY COMPACTED. THE FILL MUST BE COMPACTED TO A MINIMUM OF 92%, EXCEPT THE UPPER 24 INCHES OF SUBGRADE, WHICH MUST BE COMPACTED TO A MINIMUM OF 95% OF THE MAXIMUM DRY DENSITY.

(2) STRUCTURAL FILL MUST CONSIST OF CLEAN, WELL-GRADED SANDY GRAVEL, GRAVELLY SAND, OR OTHER APPROVED NATURALLY OCCURRING GRANULAR MATERIAL (PIT RUN) WITH AT LEAST 40 PERCENT RETAINED ON THE NO. 4 SIEVE, OR A WELL-GRADED CRUSHED ROCK.

(3) STRUCTURAL FILL MUST BE APPROVED BY GEOTECHNICAL CONSULTANT.

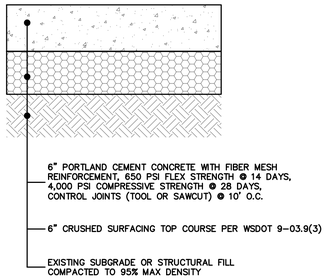
(4) IF APPROVED BY A GEOTECHNICAL CONSULTANT, STRUCTURAL FILL NOT MEETING THE ABOVE REQUIREMENTS CAN BE USED FOR FILL BELOW 24" OF FINAL GRADE. THE CONTRACTOR MUST NOTIFY THE ENGINEER OF RECORD IN WRITING. GEOTECHNICAL RECOMMENDATIONS/APPROVAL MUST ACCOMPANY THE NOTIFICATION.

(5) PAVEMENT SUBGRADE MUST BE APPROVED BY THE GEOTECHNICAL CONSULTANT PRIOR TO FILL OR PAVING. FOLLOW GEOTECHNICAL RECOMMENDATIONS FOR EXCESSIVELY YIELDING AREAS THAT CANNOT BE STABILIZED IN PALCE BY COMPACTION.

A ASPHALT PAVEMENT SECTIONS
nts

NOTES

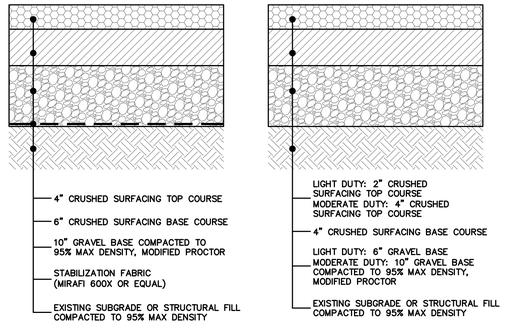
1. ALL DEPTHS REPRESENT COMPACTED DEPTHS.
2. REMOVE ALL TOPSOIL AND UNSUITABLE NATIVE SOIL FROM THE ROAD AND SLOPE PRISM.
3. IN FILL SECTIONS EXTEND GRAVEL BASE TO UNYIELDING NATIVE SUBGRADE. PLACE GRAVEL BASE IN 12" MAX LIFTS AND COMPACT LIFT TO 95% MAX. DENSITY.
4. SUBGRADE MUST BE APPROVED BY THE GEOTECHNICAL CONSULTANT PRIOR TO FILL. FOLLOW GEOTECHNICAL RECOMMENDATIONS FOR EXCESSIVELY YIELDING AREAS THAT CANNOT BE STABILIZED IN PLACE BY COMPACTION.
5. CONTROL JOINTS SHALL BE ¼ DEPTH OF SLAB. ALL CONSTRUCTION JOINT SHALL BE DOWELED.



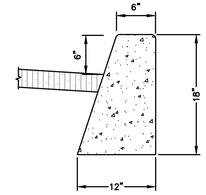
B CONCRETE SECTION
nts

NOTES

1. ALL DEPTHS REPRESENT COMPACTED DEPTHS.
2. REMOVE ALL TOPSOIL AND UNSUITABLE NATIVE SOIL FROM THE ROAD AND SLOPE PRISM.
3. IN FILL SECTIONS EXTEND GRAVEL BASE TO UNYIELDING NATIVE SUBGRADE. PLACE GRAVEL BASE IN 12" MAX LIFTS AND COMPACT LIFT TO 95% MAX. DENSITY.
4. SUBGRADE MUST BE APPROVED BY THE GEOTECHNICAL CONSULTANT PRIOR TO FILL. FOLLOW GEOTECHNICAL RECOMMENDATIONS FOR EXCESSIVELY YIELDING AREAS THAT CANNOT BE STABILIZED IN PLACE BY COMPACTION.



C GRAVEL SECTIONS
nts



TYPE "E" BARRIER CURB

- DUMMY JOINTS SHALL EXTEND 2" BELOW GUTTER LINE, BE MINIMUM OF 3/16" THICK AND BE 10' C/C. PARTIAL DIVISION PLATES MAY BE USED IN LIEU OF DUMMY JOINTS.
- CONCRETE SHALL BE CLASS "C". (3000 PSI)

D BARRIER CURB
nts

ZERVAS
ARCHITECTURE | INTERIOR DESIGN
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Bellingham, WA 98225
360.734.4744

FREELAND & ASSOCIATES
220 West Champion Street, Suite 200 t: 360.650.1408
Bellingham, WA 98225 f: 360.650.1401

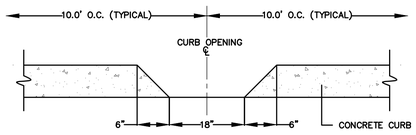
MILES PATRICK MCEATHRON — STATE OF WASHINGTON — 49494 — REGISTERED PROFESSIONAL ENGINEER — 05/31/2024

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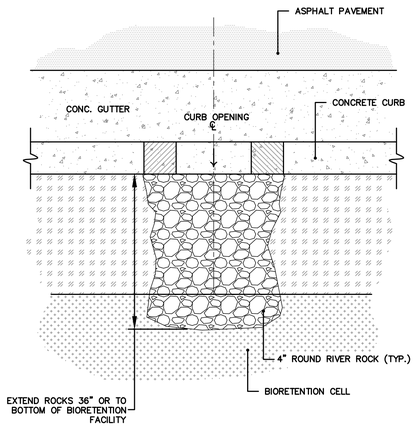
APPROVED
BY _____
CITY OF PUYALLUP
DEVELOPMENT ENGINEERING
DATE 07/09/2024
NOTE: THIS APPROVAL IS VOID AFTER 180 DAYS FROM APPROVAL DATE.
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FIELD CONDITIONS MAY DICTATE CHANGES TO THESE PLANS AS DETERMINED BY THE DEVELOPMENT ENGINEERING MANAGER.

MILES PATRICK MCEATHRON — STATE OF WASHINGTON — 49494 — REGISTERED PROFESSIONAL ENGINEER — 7/8/2025

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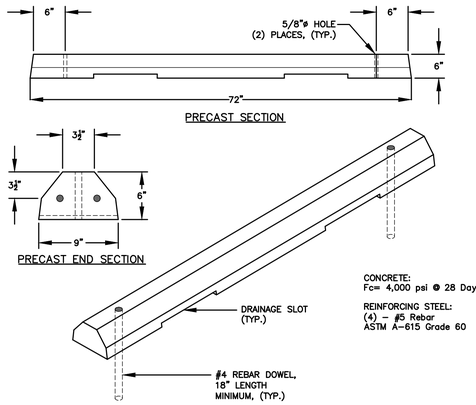


TYPICAL CROSS SECTION



PLAN

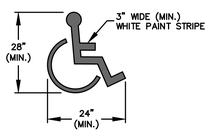
E CURB OPENING DETAIL
nts



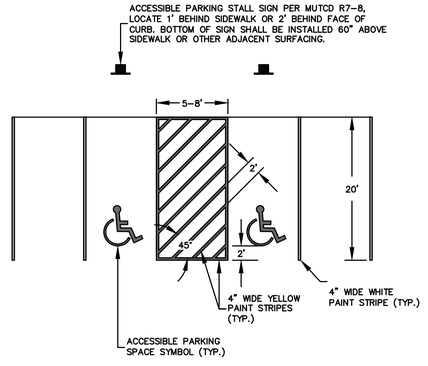
DRAINAGE NOTE:
WHEEL STOPS SHALL BE SLOTTED TO ALLOW SURFACE FLOW PAST WHEEL STOPS.

F WHEEL STOP
nts

NOTE:
SEE PLAN FOR FOR ACTUAL CONFIGURATION & LOCATIONS OF ACCESSIBLE STALLS & AISLES

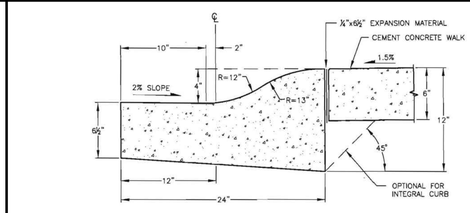


ACCESSIBLE PARKING SYMBOL



STALL LAYOUT

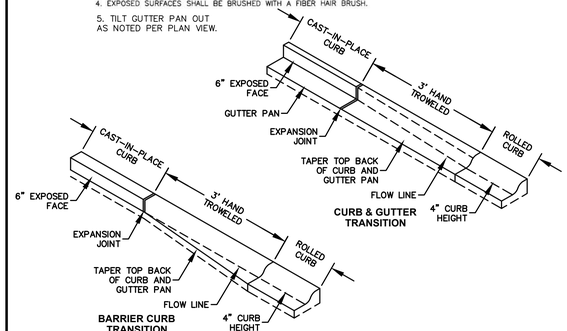
G ADA PARKING STALL LAYOUT
nts



CEMENT CONCRETE ROLLED CURB

NOTES:

1. CONTRACTION JOINTS OF ONE OF THESE TYPES SHOWN ABOVE TO BE PLACED 10' C/C. COMPLETELY SEVER THE STRUCTURE TO THE POINTS SHOWN. JOINTS MAY BE MADE BY INSERTING MIN. ⅜" BITUMINOUS FILLER DUMMY JOINTS. JOINTS SHALL BE CLEANED AND EDGED.
2. CONCRETE SHALL BE CEMENT CONCRETE CLASS "C".
3. FINISHED WORK SHALL NOT VARY MORE THAN ¼" IN GRADE AND ¼" IN ALIGNMENT WHEN CHECKED WITH 10' STRAIGHT EDGE.
4. EXPOSED SURFACES SHALL BE BRUSHED WITH A FIBER HAIR BRUSH.
5. TILT GUTTER PAN OUT AS NOTED PER PLAN VIEW.



H ROLLED CURB
nts

City of Puyallup
Development & Permitting Services
ISSUED PERMIT
Building | Planning | Engineering | Public Works | Fire | Traffic

100% CD SET

REV	ISSUED FOR	DATE

PLAN NORTH TRUE NORTH
SCALE: 0

PSE - OPERATIONAL TRAINING CENTER

PAVING DETAILS (3)

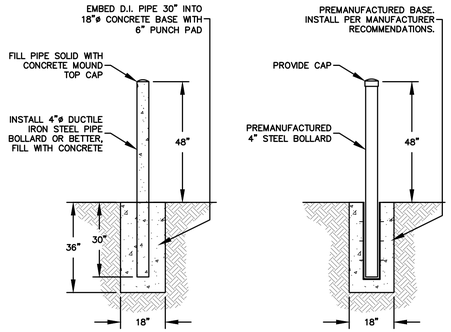
PROJECT No:	22219
DRAWN BY:	MPM
CHECKED BY:	THF
DATE ISSUED:	05/31/2024

C3.11

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BOLLARD NOTES:

1. FIXED BOLLARDS SHALL BE 4" DIAMETER POSTS SET IN 36" OF CONCRETE AT LEAST 18" IN DIAMETER. THE INSIDE OF POSTS SHALL ALSO BE FILLED WITH CONCRETE WITH SMOOTH MOUND AS TOP CAP.
2. BOLLARDS SHALL BE LOCATED AT LEAST 2' AWAY FROM STRUCTURES @ ±5' O.C.
3. BOLLARDS SHALL EXTEND ABOVE GROUND TO A MINIMUM HEIGHT OF 4'.
4. BOLLARDS SHALL BE OF SUFFICIENT NUMBER TO PROTECT THE STRUCTURE, MINIMUM OF 2.
5. PAINT BOLLARDS RUSTOLEUM YELLOW.

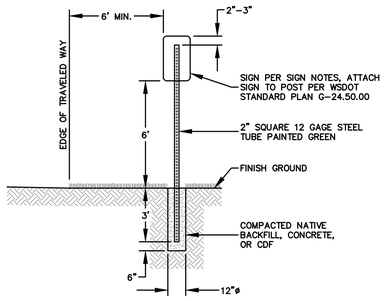


FIXED BOLLARD **REMOVABLE BOLLARD**

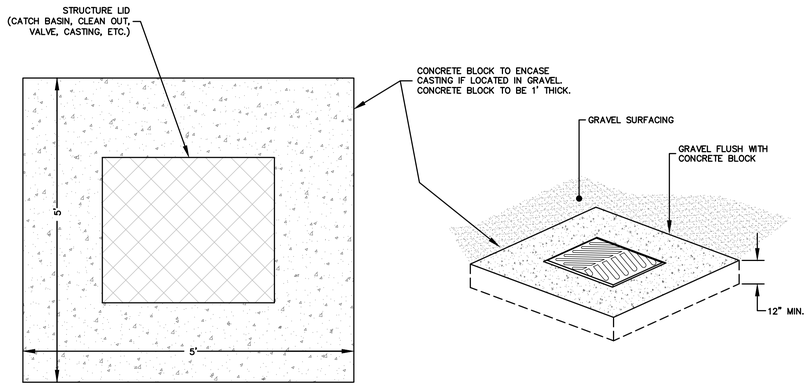
A BOLLARD
nts

SIGN NOTES:

1. PLACEMENT SHALL BE PER PLAN.
2. ADA PARKING STALL SIGNAGE SHALL BE POLE MOUNTED.
3. ELECTRIC VEHICLE CHARGING PARKING STALLS SHALL BE EQUIPPED WITH (3) SIGNS:
   MUTCD D9-11B ALTERNATE ELECTRIC VEHICLE CHARGING STATION SYMBOL, 12"x12".
   MUTCD R7-11 'NO PARKING EXCEPT FOR ELECTRIC VEHICLE CHARGING', 12" X 18".
   MUTCD R7-8P, 4 HOUR LIMIT.
4. 'PARKING LOT NOT FIRE TRUCK RATED' SIGN: MUTCD R5-4 SIMILAR
5. 'NO PARKING' SIGN: MUTCD R7-1B
6. VILLAGE STREET SIGNS TO BE APPROVED BY OWNER/DEVELOPER.

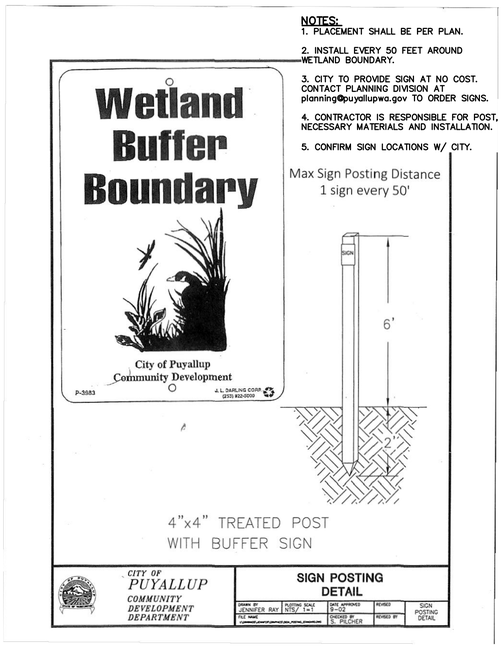


B SIGN DETAIL (PRIVATE)
nts

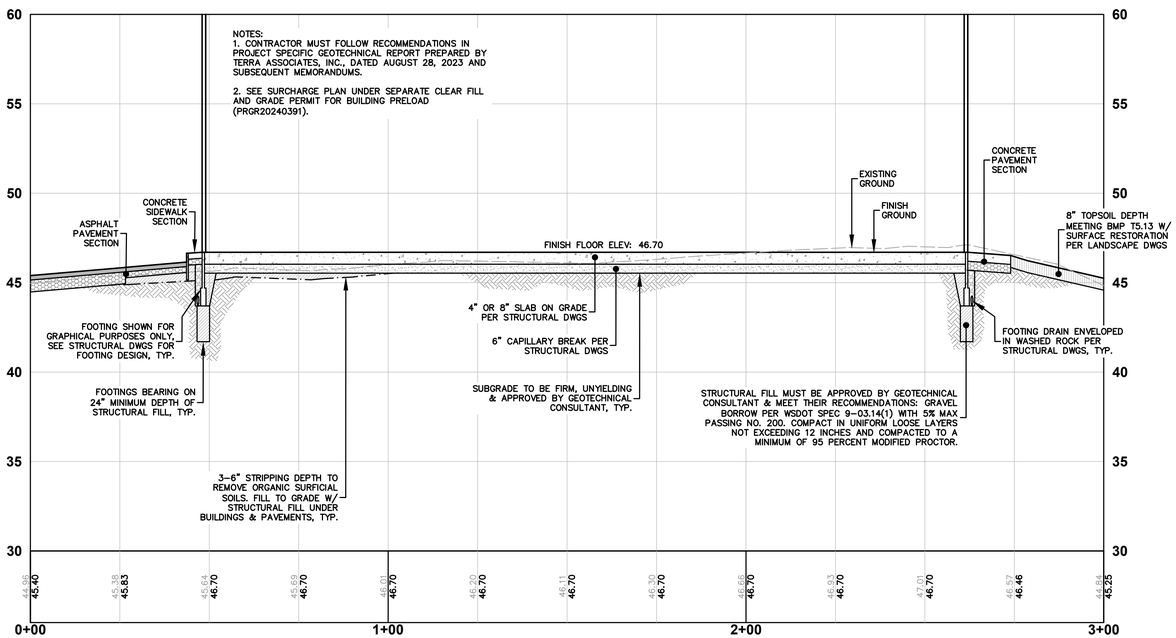


C CATCH BASIN COLLAR
nts

NOTES:
1. PLACEMENT SHALL BE PER PLAN.
2. INSTALL EVERY 50 FEET AROUND WETLAND BOUNDARY.
3. CITY TO PROVIDE SIGN AT NO COST. CONTACT PLANNING DIVISION AT planning@puyallupwa.gov TO ORDER SIGNS.
4. CONTRACTOR IS RESPONSIBLE FOR POST, NECESSARY MATERIALS AND INSTALLATION.
5. CONFIRM SIGN LOCATIONS W/ CITY.



D CRITICAL AREA SIGN
nts



E NORTH-SOUTH BUILDING SECTION
H: 1"=20' V: 1"=4'

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zervasgroup.com
209 Prospect Street
Bellingham, WA 98225
360.734.4744

FREELAND & ASSOCIATES
220 West Champion Street, Suite 200 t: 360.650.1408
Bellingham, WA 98225 f: 360.650.1401

MILES PATRICK MCCARTHERON — STATE OF WASHINGTON — 49494 — REGISTERED PROFESSIONAL ENGINEER — 05/31/2024

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APPROVED
BY _____
CITY OF PUYALLUP
DEVELOPMENT ENGINEERING
DATE 07/09/2024

NOTE: THIS APPROVAL IS VOID AFTER 180 DAYS FROM APPROVAL DATE.
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MILES PATRICK MCCARTHERON — STATE OF WASHINGTON — 49494 — REGISTERED PROFESSIONAL ENGINEER — 7/8/2025

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City of Puyallup
Development & Permitting Services
ISSUED PERMIT

Building	Planning
Engineering	Public Works
Fire	Traffic

100% CD SET

REV	ISSUED FOR	DATE

PLAN NORTH TRUE NORTH
SCALE: 0

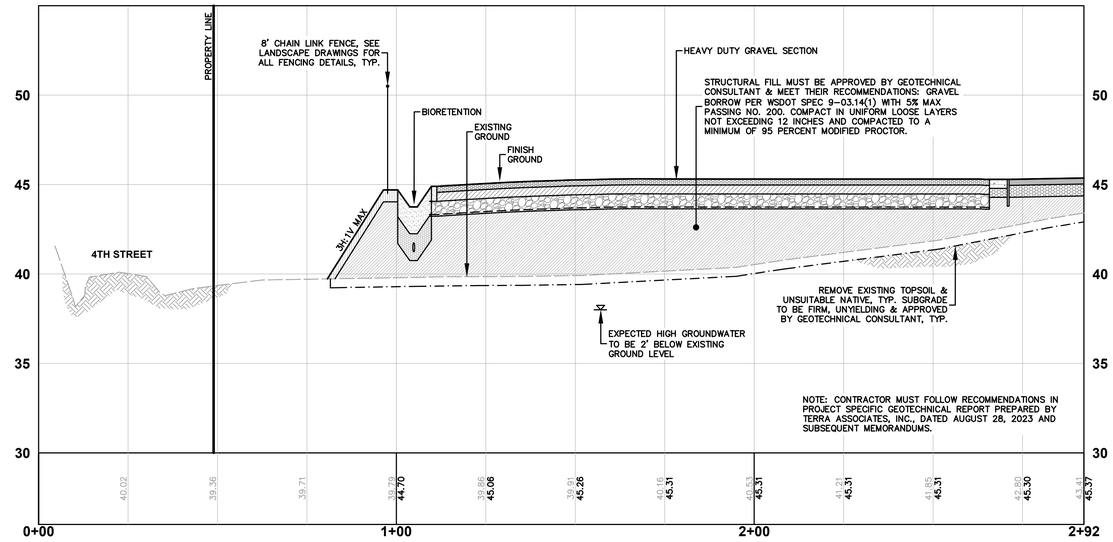
PSE - OPERATIONAL TRAINING CENTER

SITE DETAILS

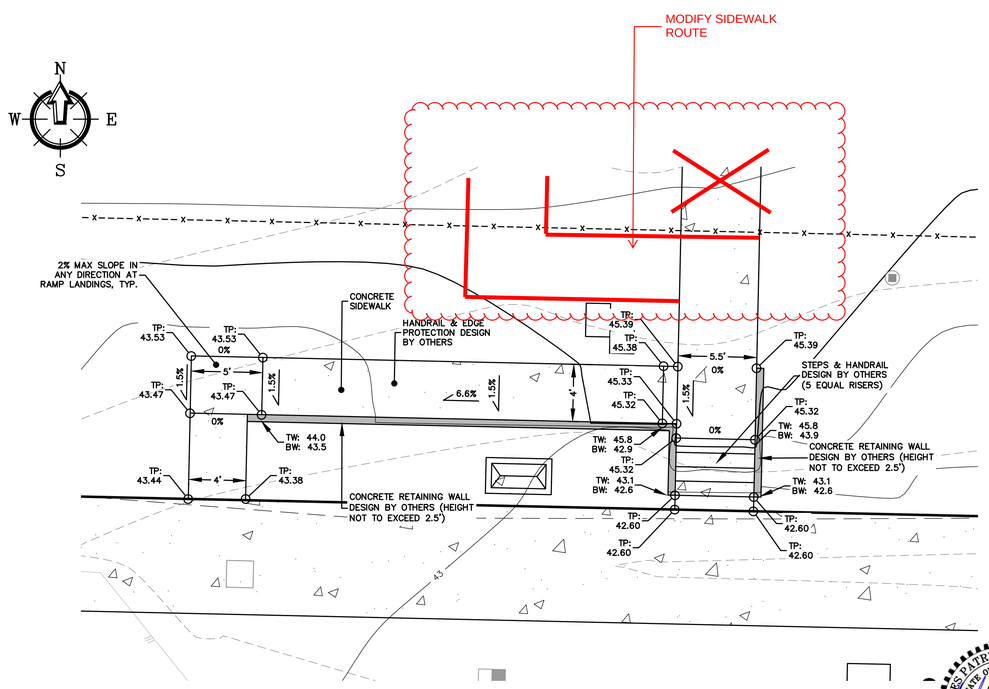
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DRAWN BY:	MPM
CHECKED BY:	THF
DATE ISSUED:	05/31/2024

C3.12

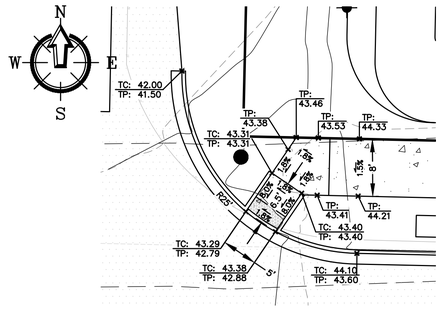
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A OUTDOOR SECTION
H: 1"=20' V: 1"=4'

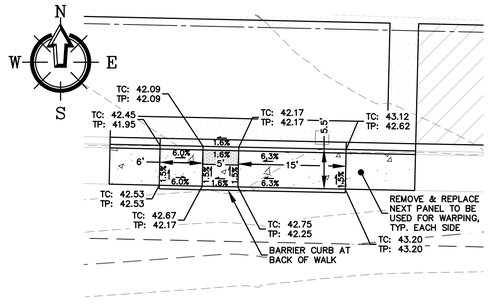


B PEDESTRIAN ACCESS GRADING DETAIL
1"=10'

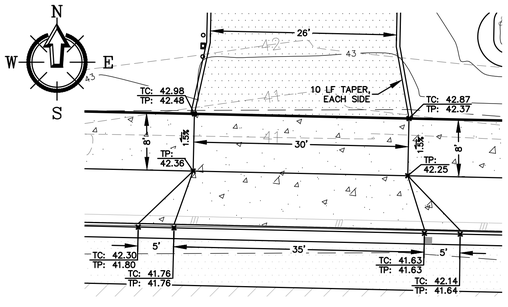


C TODD & 4TH CURB RETURN
1"=10'

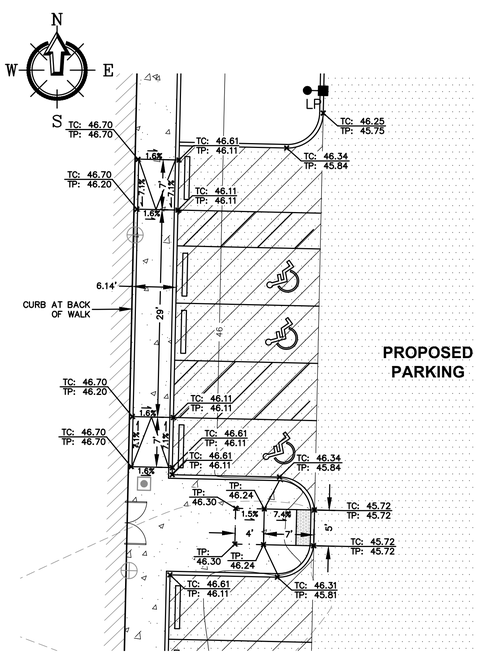
D WEST DRIVEWAY ENTRANCE
1"=10'



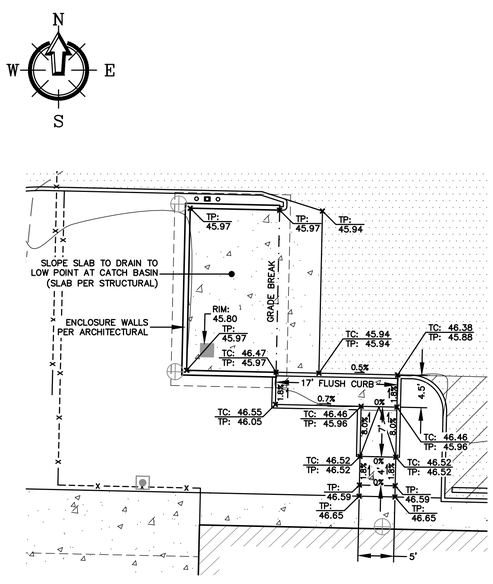
E TODD CURB RAMP
1"=10'



F EAST DRIVEWAY ENTRANCE
1"=10'



G ADA PARKING & PEDESTRIAN ACCESS
1"=10'



H ADA GARBAGE ACCESS
1"=10'

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Building	Planning
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100% CD SET

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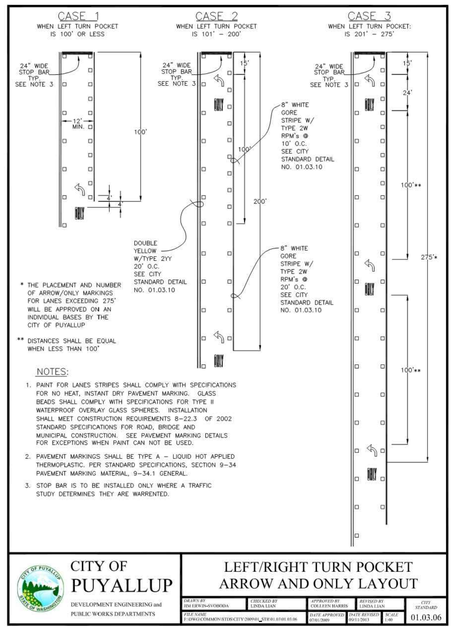
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SITE SECTION & DETAIL GRADING

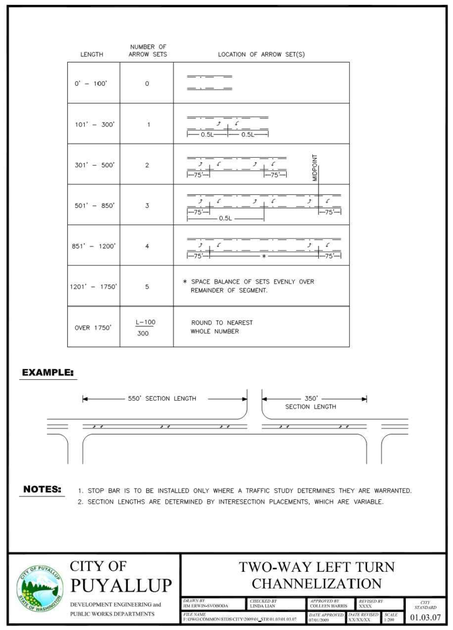
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CHECKED BY:	THF
DATE ISSUED:	05/31/2024

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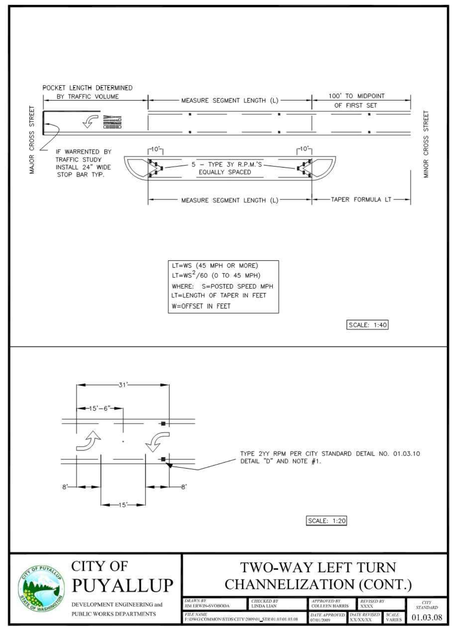
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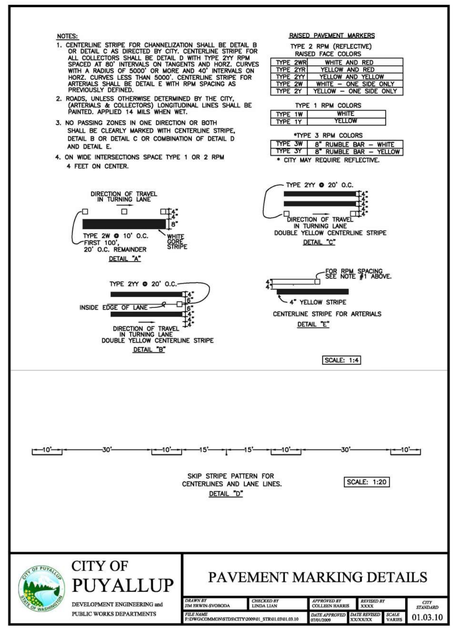


A LEFT TURN POCKET ARROW AND ONLY LAYOUT
nts

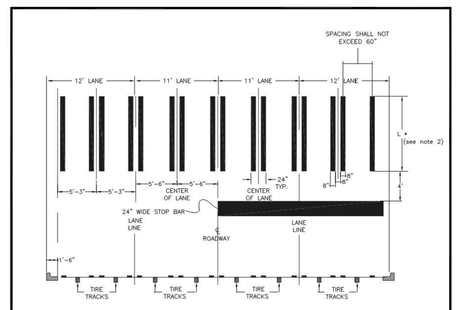


B TWO-WAY LEFT TURN CHANNELIZATION
nts

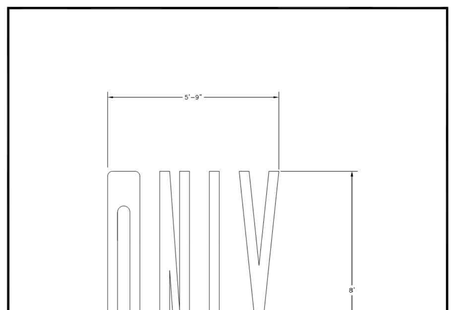




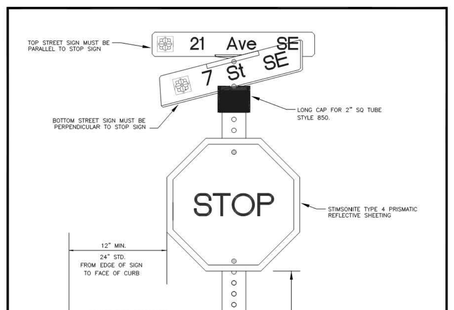
C PAVEMENT MARKING DETAILS
nts



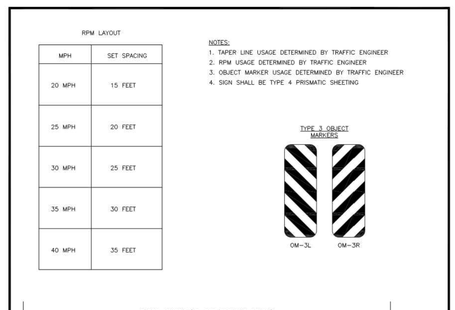
D CROSSWALK DETAIL
nts



E PAVEMENT MARKER 'ONLY'
nts



F STREET SIGN DETAIL (PUBLIC)
nts



G TAPER MARKING LAYOUTS
nts

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MILES PATRICK MCEATHRON STATE OF WASHINGTON 49494 REGISTERED PROFESSIONAL ENGINEER 7/8/2025

City of Puyallup
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Fire | Traffic

100% CD SET

REV	ISSUED FOR	DATE

PLAN NORTH | TRUE NORTH
SCALE: 0

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CHANNELIZATION & SIGNAGE DETAILS

PROJECT No:	22219
DRAWN BY:	MPM
CHECKED BY:	THF
DATE ISSUED:	05/31/2024

C3.14

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CITY OF PUYALLUP GENERAL NOTES

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 ENGINEERING PLANS, REPRESENTATIVES FROM ALL APPLICABLE UTILITY COMPANIES, THE PROJECT OWNER AND APPROPRIATE CITY STAFF. CONTACT ENGINEERING SERVICES TO SCHEDULE THE MEETING 841-5568. THE CONTRACTOR IS RESPONSIBLE TO HAVE THEIR OWN APPROVED SET OF 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 (HERINAFTER 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 ENGINEER 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 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 THE 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.

SANITARY SEWER 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 ENGINEERING PLANS, REPRESENTATIVES FROM ALL APPLICABLE UTILITY COMPANIES, THE PROJECT OWNER AND APPROPRIATE CITY STAFF. CONTACT ENGINEERING SERVICES TO SCHEDULE THE MEETING 841-5568. THE CONTRACTOR IS RESPONSIBLE TO HAVE THEIR OWN APPROVED SET OF PLANS AT THE MEETING.

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7. ANY STRUCTURE AND/OR OBSTRUCTION WHICH REQUIRE REMOVAL OR RELOCATION RELATING TO THIS PROJECT SHALL BE DONE SO AT THE DEVELOPER'S EXPENSE.

8. 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 (WSHA).

10. ALL SEWER PIPE SHALL BE PVC, POLYPROPYLENE, OR DUCTILE IRON. PVC SEWER PIPE SHALL CONFORM TO ASTM D-3034, SDR35 FOR PIPE 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 401 EPOXY OR APPROVED EQUAL, 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(3). 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 PIPE 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 LICENSED 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 THE SOURCE.

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.

RECORD NOTE:
THESE RECORD DRAWINGS HAVE BEEN PREPARED BASED ON INFORMATION PROVIDED BY OTHERS. WHILE THIS INFORMATION IS BELIEVED TO BE RELIABLE, FREELAND & ASSOCIATES IS NOT RESPONSIBLE FOR ITS ACCURACY, OR ERROR OR OMISSIONS WHICH MAY HAVE BEEN INCORPORATED INTO THIS DOCUMENT AS A RESULT. THOSE RELYING ON THIS RECORD DOCUMENT ARE ADVISED TO OBTAIN INDEPENDENT VERIFICATION OF ITS ACCURACY BEFORE APPLYING IT FOR ANY PURPOSE.

MILES PATRICK MCEACHRON — STATE OF WASHINGTON — 49494 — REGISTERED PROFESSIONAL ENGINEER — 7/8/2023

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 ENGINEERING PLANS, REPRESENTATIVES FROM ALL APPLICABLE UTILITY COMPANIES, THE PROJECT OWNER AND APPROPRIATE CITY STAFF. CONTACT ENGINEERING SERVICES TO SCHEDULE THE MEETING (253) 841-5568. THE CONTRACTOR IS RESPONSIBLE TO HAVE THEIR OWN APPROVED SET OF 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'). AS DIRECTED BY FRUITLAND MUTUAL WATER COMPANY (FMWC), VALLEY WATER (VW), OR TACOMA CITY WATER (TCW) IS THE PURVEYOR.

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, THE ENGINEERING SERVICES STAFF, AND THE FMWC, VW OR TCW WHEN SERVED BY THAT PURVEYOR, 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 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 WHICH REQUIRE 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 FOR BY THE CONTRACTOR, EXCEPT FOR CAPITAL IMPROVEMENT PROJECTS (CIP) WHICH SHALL BE PAID FOR BY THE CITY.

9. 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-OFWAY 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 INACCORDANCE WITH A.S.A. SPECIFICATION A 21.4-1964.

11. CONNECTIONS TO EXISTING WATER MAINS TYPICALLY SHALL BE WET TAPS THROUGH A TAPPING TEE AND TAPPING VALVE AND SHALL BE MADE BY 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 MAIN. 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 SYSTEM PIPING.

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 CONFORMING TO AWWA SPECIFICATION C111-72.

17. WATER MAIN PIPE AND SERVICE CONNECTIONS SHALL BE A MINIMUM OF 10 FEET AWAY FROM BUILDING FOUNDATIONS AND/OR ROOF LINES.

18. WHERE A WATER MAIN CROSSES THE NORTHWEST GAS PIPELINE, 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.

20. ALL COMMERCIAL AND INDUSTRIAL DEVELOPMENTS, IRRIGATION SYSTEMS, 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.

23. 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 INSTALLED BY THE PERSON REQUESTING USE OF A FIRE HYDRANT. THE 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.

24. SHOULD A BREAK OCCUR ON ANY CITY WATER MAIN, THE CONTRACTOR 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.)

a. REPAIR WITHOUT DEPRESSURIZATION - 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 AREA 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).

b. REPAIR/CUT-IN WITH DEPRESSURIZATION - 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 EXIT HYDRANT OR BLOWOFF). CUSTOMERS SHALL BE NOTIFIED AFTER THE WATER MAIN IS FLUSHED AND REPAIRS HAVE BEEN COMPLETED, AS OUTLINED IN THE 'WATER MAIN BREAK PROCEDURE.'

WATER SYSTEM NOTES CONTINUED

26. NEW WATER MAIN INSTALLATION:

a. 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 AREA.

65% Calcium Hypochlorite Addition per Pipe Section

Pipe Diameter (Inches)	Pipe Volume per 18 feet (gal)	5-gram tablets per pipe section	Hypochlorite Granules: Ounces per 500 feet	Hypochlorite Granules: Teaspoons per 18 feet (gms)	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

b. NEW WATER MAINS SHALL BE FILLED USING AN APPROVED BACKFLOW PREVENTION ASSEMBLY. THE WATER MAIN SHALL BE FILLED FROM THE LOWER ELEVATION END SO THAT AS THE WATER MAIN IS FILLED, THE CHORINE IS CONTACTED, DISSOLVED AND SPREAD RELATIVELY UNIFORM THROUGH THE LENGTH OF THE NEW WATER MAIN. THE FILL RATE SHALL BE MINIMIZED SO THAT THE VELOCITY OF THE WATER IS LESS THAN 1 FT/SEC (SEE TABLE ABOVE). SUCCESSFUL PRESSURE TEST AND BACTERIOLOGICAL TESTS SHALL BE COMPLETED AND PROVIDED TO THE CITY PRIOR TO ANY NEW WATER MAIN CONNECTION TO THE EXISTING WATER SYSTEM.

c. THE CHLORINATED WATER WILL BE ALLOWED TO REMAIN IN CONTACT WITH THE NEW WATER MAIN SYSTEM FOR 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 SHALL REMAIN IN THE WATER MAIN UNTIL BACTERIOLOGICAL TESTING. 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 CIRCUMSTANCE SHALL 'SUPER' CHLORINATED WATER BE ALLOWED TO SIT WITHIN A NEW WATER MAIN FOR MORE THAN 5 DAYS.

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 BACK SIDE OF THE VALVE SHOULD NOT BE ELIMINATED. CARE MUST BE TAKEN THAT, DURING THIS PROCESS, PRESSURE IS REDUCED THROUGHOUT THE SYSTEM BEING TESTED AT ALL TIMES. 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.

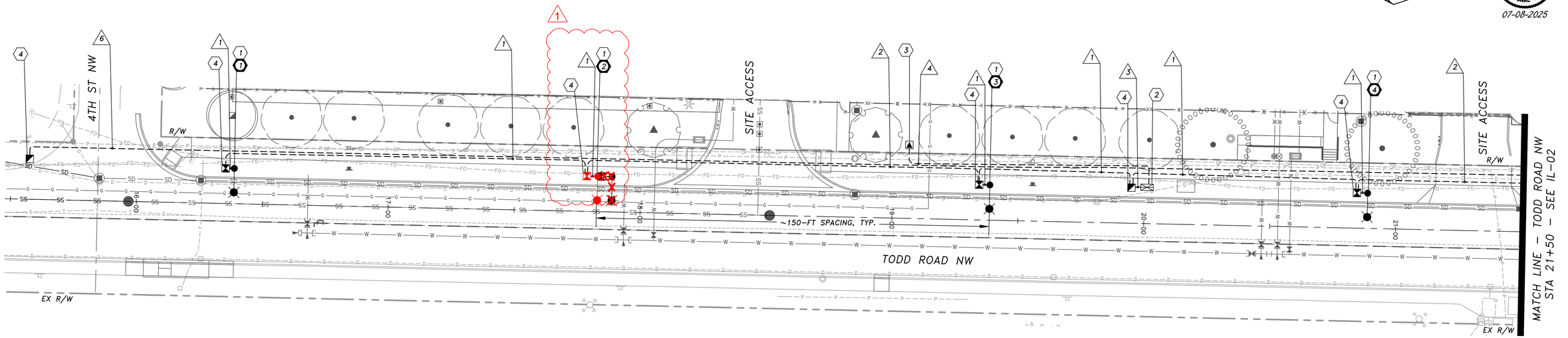
e. AFTER SUCCESSFUL PRESSURE TESTING, THE WATER MAIN SHALL BE THOROUGHLY FLUSHED TO REMOVE ALL 'SUPER' CHLORINATED WATER FROM THE NEW WATER MAIN. FLUSHING OF NEW WATER MAINS SHALL BE CONDUCTED PER SPECIFICATION 7-09.3(24)A WITH A MINIMUM VELOCITY DEVELOPED WITHIN THE PIPE WHILE FLUSHING OF 2.5 FEET PER SECOND (FPS). ALL FLUSHED WATER SHALL BE DECHLORINATED PRIOR TO DISPOSAL. THE CONTRACTOR'S METHOD OF DECHLORINATION SHALL BE SUBJECT TO APPROVAL. NO CHLORINATED WATER FLUSHED FROM MAINS. THE CITY SHALL APPROVE THE DISPOSAL METHOD PRIOR TO IMPLEMENTATION IN THE FIELD. THE CONTRACTOR SHALL UTILIZE ONSITE 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 SUPERVISOR. ANY PLANNED DISCHARGE TO A STORMWATER SYSTEM SHALL BE DECHLORINATED TO A 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.

f. SAMPLES FOR BACTERIOLOGICAL ANALYSIS SHALL BE COLLECTED AFTER FLUSHING AND AGAIN 24 HOURS AFTER THE FIRST SET OF SAMPLES.

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 CONNECTION TO THE 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.

STORMWATER 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 ENGINEERING PLANS, REPRESENTATIVES FROM ALL APPLICABLE UTILITY COMPANIES, THE PROJECT OWNER AND APPROPRIATE CITY STAFF. CONTACT ENGINEERING SERVICES TO SCHEDULE THE MEETING (253) 841-5568. THE CONTRACTOR IS RESPONSIBLE TO HAVE THEIR OWN APPROVED SET OF PLANS



CONSTRUCTION RECORD DRAWING

THIS CONSTRUCTION RECORD DRAWING IS A COPY OF A CAD FILE PREPARED BY TRANSPORTATION ENGINEERING NORTHWEST (TENW) AND HAS BEEN EDITED TO REFLECT FIELD VERIFIED LOCATIONS OF SURFACE FEATURES APPLICABLE TO THIS PLAN SHEET ONLY. LOCATIONS HAVE BEEN PROVIDED TO TENW BY OTHERS. TENW DOES NOT PROVIDE ANY WARRANTY AS TO THE ACCURACY OR COMPLETENESS OF SUCH INFORMATION PROVIDED BY OTHERS.

CHRISTOPHER T. BICKET — STATE OF WASHINGTON — 35435 — REGISTERED PROFESSIONAL ENGINEER

07-08-2025

CITY OF PUYALLUP POLE SPACING REQUIREMENTS

ROADWAY	CLASSIFICATION	MAX. SPACING
TODD ROAD NW	COMMERCIAL	150'

* CITY OF PUYALLUP STANDARDS SECTION 102.12

ILLUMINATION LEGEND

NEW	DESCRIPTION
	JUNCTION BOX TYPE 1,2
	STREET SCALE LIGHT STANDARD
	CONDUIT/CONDUCTOR
	SERVICE CABINET
	TRANSFORMER
	CONSTRUCTION NOTE
	LIGHT POLE NUMBER
	WIRE NOTE

N

0 10 20 40 60

SCALE IN FEET

ILLUMINATION CONSTRUCTION NOTES

1. CONSTRUCT FOUNDATION PER CITY OF PUYALLUP STANDARD PLAN 01.05.06. FURNISH AND INSTALL NEW LUMINAIRE WITH SHORTING CAP, POLE AND ARM PER CITY OF PUYALLUP STANDARD PLANS 01.05.01, 01.05.02, 01.05.03 & 01.05.04, SHEET IL-04, AND PER ILLUMINATION POLE SCHEDULE, IL-03.
2. CONSTRUCT FOUNDATION PER CITY OF PUYALLUP STANDARD PLAN 01.05.05. FURNISH AND INSTALL NEW SERVICE METER CABINET WITH REMOTE PHOTOCELL PER CITY OF PUYALLUP STANDARD PLAN 01.06.05. CITY ENGINEER SHALL CONFIRM FINAL LOCATION PRIOR TO INSTALLATION.
3. POWER SOURCE SHALL BE TRANSFORMER INSTALLED BY PSE. CONTRACTOR SHALL INSTALL CONDUIT AND CONDUCTORS TO POWER SOURCE LOCATION. CONTRACTOR SHALL COORDINATE WITH PSE TO SCHEDULE CONNECTION AND THE COMPLETION OF ALL FORMS/APPLICATIONS AND PAYMENT OF ALL ASSOCIATED FEES. PSE SHALL MAKE FINAL CONNECTION TO POWER SOURCE.
4. INSTALL NEW JUNCTION BOX PER CITY OF PUYALLUP STANDARD PLAN 01.06.01.
5. EXISTING STREET LIGHT POLE TO REMAIN. CITY OF PUYALLUP TO COORDINATE TRANSITION OF OWNERSHIP AND DE-ENERGIZATION OF STREET LIGHT POLE WITH PSE.
6. EXTEND NEW CONDUIT TO EXISTING JUNCTION BOX. PULL NEW ILLUMINATION CONDUCTORS THROUGH EXISTING JUNCTION BOX & EXISTING CONDUIT TO CONNECT EXISTING STREET LIGHT POLE TO NEW CITY OWNED ILLUMINATION SYSTEM.

ILLUMINATION WIRING SCHEDULE

NO.	RACEWAY CONDUIT SIZE	ILLUM. #8	SVC. POWER #2	EQUIP. GRND *	DETECTABLE PULL WIRE
1	2" SCH40 PVC	2		1	
2	2" SCH80 PVC	2		1	
3	3" SCH40 PVC	2		1	
4	3" SCH80 PVC		3		
5	2" SCH40 PVC (SPARE)				1
6	2" SCH80 PVC (SPARE)				1
7	EX**	2			

* EQUIPMENT GROUND SIZE SHALL BE EQUAL TO OR LARGER THAN THE LARGEST WIRE SIZE IN THE CONDUIT.
** ADDITIONAL EXISTING CONDUCTORS MAY BE PRESENT.

APPROVED

BY _____
CITY OF PUYALLUP
DEVELOPMENT ENGINEERING

DATE _____

NOTES: 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 DEVELOPMENT ENGINEERING MANAGER.

△	REVISION	DATE	BY
1	LUMINAIRE POLE SHIFTS & CONDUIT REVISIONS	03-14-25	BVL
	RECORD DRAWINGS	07-02-25	DMA

DESIGNED BY: DAG
DRAWN BY: BVL
APPROVED BY: CTB
ISSUE DATE: 08-05-2024
JOB NO.: TENW #2022-380
DRAWING FILE NO.:

CHRISTOPHER T. BICKET — STATE OF WASHINGTON — 35435 — REGISTERED PROFESSIONAL ENGINEER

08-05-2024

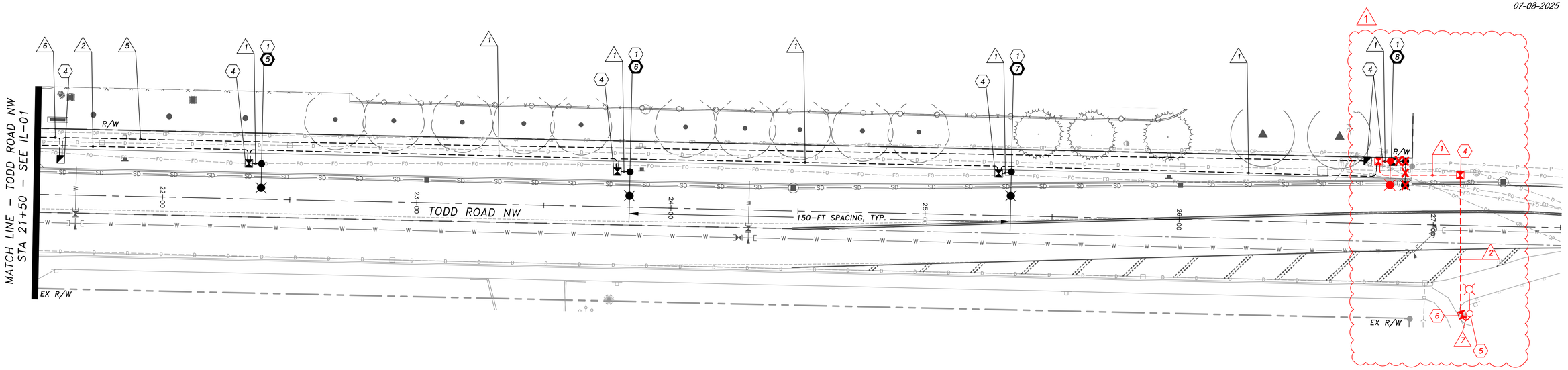
TENW
Transportation Engineering NorthWest
Transportation Planning | Design | Traffic Impact & Operations
11400 SE 8th Street, Suite 200, Bellevue, WA 98004 | Office (425) 889-6747
Project Contact: Brenda Velazquez Lopez
Phone: 206-773-5386

TC NORTHWEST DEVELOPMENT INC
600 UNIVERSITY STREET
SUITE 2912
SEATTLE, WA 98101
CDOBBS@TRAMMELLCROW.COM
CRAIG DOBBS

PSE TODD ROAD OTC

ILLUMINATION PLAN

DRAWING NO.: IL-01
SHEET NO.: 1 OF 4 SHEETS



CONSTRUCTION RECORD DRAWING

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CHRISTOPHER T. BICKET — STATE OF WASHINGTON — 33835 — REGISTERED PROFESSIONAL ENGINEER

07-08-2025

ILLUMINATION CONSTRUCTION NOTES

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6. EXTEND NEW CONDUIT TO EXISTING JUNCTION BOX. PULL NEW ILLUMINATION CONDUCTORS THROUGH EXISTING JUNCTION BOX & EXISTING CONDUIT TO CONNECT EXISTING STREET LIGHT POLE TO NEW CITY OWNED ILLUMINATION SYSTEM.

CITY OF PUYALLUP POLE SPACING REQUIREMENTS

ROADWAY	CLASSIFICATION	MAX. SPACING
TODD ROAD NW	COMMERCIAL	150'

* CITY OF PUYALLUP STANDARDS SECTION 102.12

ILLUMINATION WIRING SCHEDULE

NO.	RACEWAY CONDUIT SIZE	ILLUM. #8	SVC. POWER #2	EQUIP. GRND *	DETECTABLE PULL WIRE
1	2" SCH40 PVC	2		1	
2	2" SCH80 PVC	2		1	
3	3" SCH40 PVC	2		1	
4	3" SCH80 PVC		3		
5	2" SCH40 PVC (SPARE)				1
6	2" SCH80 PVC (SPARE)				1
7	EX**	2			

* EQUIPMENT GROUND SIZE SHALL BE EQUAL TO OR LARGER THAN THE LARGEST WIRE SIZE IN THE CONDUIT.
** ADDITIONAL EXISTING CONDUCTORS MAY BE PRESENT.

ILLUMINATION LEGEND

NEW	DESCRIPTION
	JUNCTION BOX TYPE 1,2
	STREET SCALE LIGHT STANDARD
	CONDUIT/CONDUCTOR
	SERVICE CABINET
	TRANSFORMER
	CONSTRUCTION NOTE
	LIGHT POLE NUMBER
	WIRE NOTE

N

0 10 20 40 60
SCALE IN FEET

APPROVED

BY _____
CITY OF PUYALLUP
DEVELOPMENT ENGINEERING

DATE _____

NOTES: 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 DEVELOPMENT ENGINEERING MANAGER.

△	REVISION	DATE	BY
1	LUMINAIRE POLE SHIFTS & CONDUIT REVISIONS	03-14-25	BVL
	RECORD DRAWINGS	07-02-25	DMA

DESIGNED BY: DAG
DRAWN BY: BVL
APPROVED BY: CTB
ISSUE DATE: 08-05-2024
JOB NO.: TENW #2022-380
DRAWING FILE NO.:

CHRISTOPHER T. BICKET — STATE OF WASHINGTON — 33835 — REGISTERED PROFESSIONAL ENGINEER
08-05-2024

TENW
Transportation Engineering NorthWest
Transportation Planning | Design | Traffic Impact & Operations
11400 SE 8th Street, Suite 200, Bellevue, WA 98004 | Office (425) 889-6747
Project Contact: Brenda Velazquez Lopez
Phone: 206-773-5386

TC NORTHWEST DEVELOPMENT INC
600 UNIVERSITY STREET
SUITE 2912
SEATTLE, WA 98101
CDOBBS@TRAMMELLCROW.COM
CRAIG DOBBS

PSE TODD ROAD OTC

ILLUMINATION PLAN

DRAWING NO.: IL-02
SHEET NO.: 2 OF 4 SHEETS

CONSTRUCTION RECORD DRAWING

THIS CONSTRUCTION RECORD DRAWING IS A COPY OF A CAD FILE PREPARED BY TRANSPORTATION ENGINEERING NORTHWEST (TENW) AND HAS BEEN EDITED TO REFLECT FIELD VERIFIED LOCATIONS OF SURFACE FEATURES APPLICABLE TO THIS PLAN SHEET ONLY. LOCATIONS HAVE BEEN PROVIDED TO TENW BY OTHERS. TENW DOES NOT PROVIDE ANY WARRANTY AS TO THE ACCURACY OR COMPLETENESS OF SUCH INFORMATION PROVIDED BY OTHERS.

CHRISTOPHER T. BICKEL — STATE OF WASHINGTON — 35435 — REGISTERED PROFESSIONAL ENGINEER

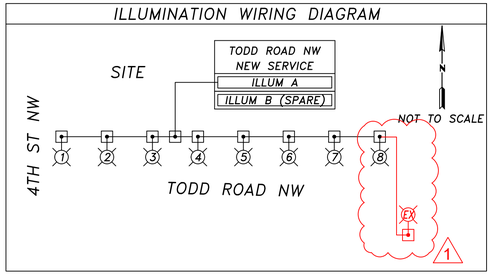
07-08-2025

ILLUMINATION POLE SCHEDULE

LUM. POLE NO.	STREET	STATION	OFFSET	MOUNT. HEIGHT	VOLTAGE	ARM LENGTH	WATTAGE /TYPE	INITIAL LUMENS	LUMINAIRE TYPE – DISTRIBUTION	SHORTING CAP	POLE/ARM TYPE	BASE	SERVICE/ CIRCUIT	COMMENT
1	TODD ROAD NW	16+38.5	14.0' LT	30'	240	12'	27W/LED	4,299	LEOTEK GCJ1–30J–MV–40K–4–GY–045–PCR7–4B–RWG–SWTB–LLPC	YES	STEEL	FIXED	A	INSTALL FOUNDATION PER CITY OF PUYALLUP STANDARD 01.05.06.
2	TODD ROAD NW	~~17+88.5~~ 17+82.5	14.0' LT	30'	240	12'	27W/LED	4,299	LEOTEK GCJ1–30J–MV–40K–4–GY–045–PCR7–4B–RWG–SWTB–LLPC	YES	STEEL	FIXED	A	INSTALL FOUNDATION PER CITY OF PUYALLUP STANDARD 01.05.06.
3	TODD ROAD NW	19+38.5	14.0' LT	30'	240	12'	27W/LED	4,299	LEOTEK GCJ1–30J–MV–40K–4–GY–045–PCR7–4B–RWG–SWTB–LLPC	YES	STEEL	FIXED	A	INSTALL FOUNDATION PER CITY OF PUYALLUP STANDARD 01.05.06.
4	TODD ROAD NW	20+88.5	14.0' LT	30'	240	12'	27W/LED	4,299	LEOTEK GCJ1–30J–MV–40K–4–GY–045–PCR7–4B–RWG–SWTB–LLPC	YES	STEEL	FIXED	A	INSTALL FOUNDATION PER CITY OF PUYALLUP STANDARD 01.05.06.
5	TODD ROAD NW	22+38.5	14.0' LT	30'	240	12'	27W/LED	4,299	LEOTEK GCJ1–30J–MV–40K–4–GY–045–PCR7–4B–RWG–SWTB–LLPC	YES	STEEL	FIXED	A	INSTALL FOUNDATION PER CITY OF PUYALLUP STANDARD 01.05.06.
6	TODD ROAD NW	23+83.5	14.0' LT	30'	240	12'	27W/LED	4,299	LEOTEK GCJ1–30J–MV–40K–4–GY–045–PCR7–4B–RWG–SWTB–LLPC	YES	STEEL	FIXED	A	INSTALL FOUNDATION PER CITY OF PUYALLUP STANDARD 01.05.06.
7	TODD ROAD NW	25+33.5	17.0' LT	30'	240	12'	27W/LED	4,299	LEOTEK GCJ1–30J–MV–40K–4–GY–045–PCR7–4B–RWG–SWTB–LLPC	YES	STEEL	FIXED	A	INSTALL FOUNDATION PER CITY OF PUYALLUP STANDARD 01.05.06.
8	TODD ROAD NW	~~26+88.5~~ 25+83.5	24.5' LT	30'	240	12'	27W/LED	4,299	LEOTEK GCJ1–30J–MV–40K–4–GY–045–PCR7–4B–RWG–SWTB–LLPC	YES	STEEL	FIXED	A	INSTALL FOUNDATION PER CITY OF PUYALLUP STANDARD 01.05.06.

1

ILLUMINATION WIRING DIAGRAM



NEW SERVICE BREAKER SCHEDULE
TODD ROAD NW

CIRCUIT	VOLTAGE	BREAKER	CONTACTOR
MAIN	240	100 AMP	N/A
ILLUM A	240	20 AMP	30 AMP
ILLUM B (SPARE)	240	20 AMP	30 AMP

APPROVED

BY _____
CITY OF PUYALLUP
DEVELOPMENT ENGINEERING

DATE _____

NOTES: 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 DEVELOPMENT ENGINEERING MANAGER.

ILLUMINATION GENERAL NOTES

1. THE LOCATION OF ALL CONDUITS, JUNCTION BOXES, POLES AND CABINETS SHOWN ON THIS PLAN MAY BE SLIGHTLY ADJUSTED IN THE FIELD TO AVOID CONFLICTS. ALL FINAL LOCATIONS SHALL BE APPROVED BY THE CITY ENGINEER PRIOR TO CONSTRUCTION.
2. ALL CONDUCTORS FOR ALL ELECTRICAL EQUIPMENT SHALL BE LABELED IN EACH JUNCTION BOX.
3. ALL CONDUITS SHALL BE RIGID HOT–DIPPED GALVANIZED STEEL OR SCHEDULE 80 PVC WHEN EXPOSED ABOVE THE GROUND. SEE SPECIAL PROVISIONS.
4. ALL JUNCTION BOXES SHALL BE PLACED BEHIND SIDEWALK, UNLESS OTHERWISE NOTED.
5. ALL WORK SHALL BE IN ACCORDANCE WITH CITY OF PUYALLUP STANDARDS AND SPECIFICATIONS.
6. THE LOCATIONS OF FEATURES SHOWN ARE APPROXIMATE AND SHALL BE VERIFIED IN THE FIELD BY THE CONTRACTOR AS NECESSARY.
7. THE CONTRACTOR SHALL SUBMIT A REQUEST TO THE INSPECTOR FOR MATERIALS APPROVAL MIN. 30–DAYS PRIOR TO REQUIRED APPROVAL DATE.
8. ALL WORK SHALL BE CONSISTENT WITH UTILITY AGENCY REQUIREMENTS. THE CONTRACTOR SHALL CONTACT ALL PERTINENT UTILITY AGENCIES 48 HOURS BEFORE COMMENCING WORK, AND SHALL COORDINATE WITH AFFECTED UTILITY AGENCIES THROUGHOUT THE PROJECT.
9. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE TO EXISTING UTILITIES. THE CONTRACTOR SHALL NOTIFY THE AFFECTED UTILITY COMPANY AND THE CITY OF PUYALLUP IMMEDIATELY UPON DAMAGE.
10. EXISTING FEATURES TO REMAIN UNLESS OTHERWISE NOTED.
11. THE TOP ELEVATION OF ALL POLE FOUNDATIONS SHALL BE APPROVED BY THE INSPECTOR PRIOR TO PLACING CONCRETE.
12. IF STREET LIGHT IS TO BE INSTALLED GREATER THAN 4 FEET FROM EDGE OF THE DRIVING SURFACE THE STREET LUMINAIRE ARMS SHALL BE ADJUSTED TO A DIMENSION THAT PROVIDES A MINIMUM OF 3–FT OVERHANG ONTO THE DRIVING SURFACE PER CITY OF PUYALLUP STANDARD PLAN 01.05.04.
13. ANY NEW JUNCTION BOX WHICH WILL BE LOCATED WITHIN OR PARTIALLY WITHIN SIDEWALK SHALL HAVE LIDS AND FRAMES WITH A NON–SLIP COATING ON THE TOP SURFACE EQUAL TO MEBAC1 OR SLIPNOT#3.
14. ALL PROJECT MATERIALS SHALL BE REVIEWED AND APPROVED BY THE CITY OF INSPECTOR PRIOR TO PROCUREMENT. MATERIALS NOT APPROVED BY THE CITY INSPECTOR SHALL NOT BE ALLOWED ON THE JOB SITE.
15. SEE CITY OF PUYALLUP STANDARD PLANS 01.05.01 AND 01.05.02 FOR STREET LIGHT SPECIFICATIONS.
16. A COPY OF THE LOAD CALCULATIONS SHALL BE PROVIDED TO THE CITY'S SIGNAL TECHNICIAN PRIOR TO INSTALLATION.
17. AS PART OF THE DESIGN PROCESS, THE ENGINEER HAS ATTEMPTED TO CONFIRM THAT THERE ARE NOT CONFLICTS WITH OVERHEAD POWER LINES OR SUBSURFACE UTILITIES. HOWEVER, IT IS POSSIBLE FOR THE EXISTING OR PROPOSED CONDITIONS TO CHANGE PRIOR TO IMPLEMENTATION OF THE SCOPE OF WORK IDENTIFIED ON THESE DOCUMENTS. AS THE FIRST ORDER OF BUSINESS, THE CONTRACTOR SHALL CONFIRM THAT THERE ARE NOT CONFLICTS WITH SUBSURFACE UTILITIES. ADDITIONALLY, THE CONTRACTOR SHALL CONFIRM THAT THERE IS A MINIMUM 10–FT CLEARANCE PROVIDED BETWEEN OVERHEAD POWER LINES AND THE PROPOSED LUMINAIRE POLES PRIOR TO POLE PLACEMENT. ADDITIONAL CLEARANCE MAY BE REQUIRED AS DIRECTED BY THE UTILITY. THE CONTRACTOR SHALL CONTACT THE ENGINEER IMMEDIATELY IF A CONFLICT IS DISCOVERED.

CITY OF PUYALLUP ILLUMINATION GENERAL NOTES

1. ALL WORK SHALL BE IN ACCORDANCE WITH CITY OF PUYALLUP PUBLIC WORKS STANDARDS AND WSDOT STANDARDS AND SPECIFICATIONS.
2. THE LOCATIONS OF FEATURES SHOWN ARE APPROXIMATE AND SHALL BE VERIFIED BY THE CONTRACTOR PRIOR TO CONSTRUCTION START.
3. UTILITY LOCATIONS ARE APPROXIMATE AND SHALL BE VERIFIED IN THE FIELD BY THE CONTRACTOR PRIOR TO ANY ILLUMINATION WORK.
4. ALL WORK SHALL BE CONSISTENT WITH UTILITY AGENCY REQUIREMENTS. THE CONTRACTOR SHALL COORDINATE WITH AFFECTED UTILITY AGENCIES THROUGHOUT THE PROJECT. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE TO UTILITIES.
5. CONDUIT LOCATIONS ARE SHOWN FOR ILLUSTRATIVE PURPOSES. ACTUAL LOCATIONS SHALL BE DETERMINED BY THE CONTRACTOR IN THE FIELD.
6. CONTRACTOR SHALL COORDINATE WITH THE CITY SIGNAL/ILLUMINATION TECHNICIAN AT 253–405–4390 PRIOR TO CONSTRUCTION.
7. THE LOCATION OF ALL CONDUITS, JUNCTION BOXES, POLES, AND CABINETS SHOWN ON THIS PLAN MAY BE ADJUSTED IN THE FIELD TO AVOID CONFLICTS AND MEET ADA REQUIREMENTS. ALL FINAL LOCATIONS SHALL BE APPROVED BY THE CITY TRAFFIC ENGINEER PRIOR TO CONSTRUCTION.
8. JUNCTION BOX LOCATIONS SHOWN ARE FOR ILLUSTRATIVE PURPOSES ONLY. JUNCTION BOXES SHALL BE FIELD LOCATED BY THE CONTRACTOR WITH DIRECTION FROM THE CITY.
9. CONTRACTOR SHALL ADJUST JUNCTION BOX LIDS TO BE FLUSH WITH TOP OF SIDEWALK.
10. ANY NEW JUNCTION BOX WHICH WILL BE LOCATED WITHIN OR PARTIALLY WITHIN SIDEWALK SHALL HAVE LIDS AND FRAMES WITH A NON–SLIP COATING ON THE TOP SURFACE EQUAL TO MEBAC1 OR SLIPNOT#3.
11. IT IS THE SOLE RESPONSIBILITY OF THE DESIGN ENGINEER TO ENSURE STREETLIGHT DESIGN/PLACEMENT IS OUTSIDE OF THE 10FT MINIMUM SAFE ZONE AREA FROM PSE PRIMARY.

△	REVISION	DATE	BY
1	LUMINAIRE POLE SHIFTS & CONDUIT REVISIONS	03-14-25	BVL
	RECORD DRAWINGS	07-02-25	DMA

DESIGNED BY: DAG
DRAWN BY: BVL
APPROVED BY: CTB

ISSUE DATE: 08-05-2024
JOB NO.: TENW #2022-380
DRAWING FILE NO.:

CHRISTOPHER T. BICKEL — STATE OF WASHINGTON — 35435 — REGISTERED PROFESSIONAL ENGINEER
08-05-2024

TENW
Transportation Engineering NorthWest
Transportation Planning | Design | Traffic Impact & Operations
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Phone: 206-773-5386

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CDOBBS@TRAMMELLCROW.COM
CRAIG DOBBS

PSE TODD ROAD OTC

ILLUMINATION PLAN

DRAWING NO.: IL-03

SHEET NO.: 3 OF 4 SHEETS

CONSTRUCTION RECORD DRAWING

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CHRISTOPHER T. BICKEL — STATE OF WASHINGTON — 35435 — REGISTERED PROFESSIONAL ENGINEER

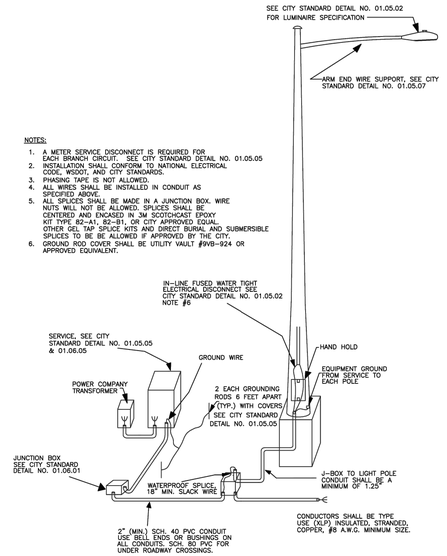
07-08-2025

STREET LIGHTING SPECIFICATIONS

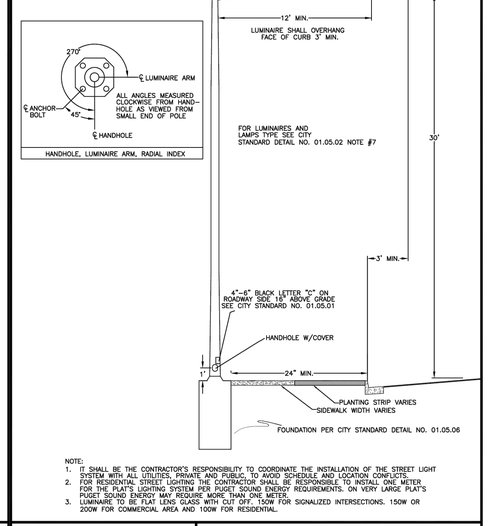
1. 30-FOOT STEEL STREETLIGHT STANDARD
   a. DIMENSIONS
      STREETLIGHT STANDARDS SHALL PROVIDE A FIXTURE MOUNTING HEIGHT OF 30'0" PLUS OR MINUS 6" WITH A TYPICAL 12 FOOT MAST ARM WITH A THREE FOOT OVERHANG.
      BASE PLATE SHALL HAVE SLOTTED HOLES TO ACCOMMODATE 1-INCH ANCHOR BOLTS, AND 11 1/2" BOLT CIRCLE WITH MINIMUM CLEARANCE OF 1" BETWEEN BOLT AND POLE.
      HANDHOLE CENTER SHALL BE LOCATED APPROXIMATELY 12 INCHES FROM THE BASE PLATE, ROTATED 270 DEGREES FROM MAST ARM SO AS THE HANDHOLE IS LOCATED ON THE SIDE OPPOSING ONCOMING TRAFFIC.
   b. STRENGTH
      POLES SHALL MEET ALL STRENGTH REQUIREMENTS OF AASHTO FOR 90 MPH ISOTACH WHEN USED WITH A LUMINAIRE WEIGHING 48 POUNDS WITH A E.P.A. OF 1.1 SQUARE FEET. ALL ATTACHING BOLTS AND SCREWS THAT ARE NOT GALVANIZED SHALL BE STAINLESS STEEL.
   c. FINISH
      THE POLES AND ALL HARDWARE SAHALL BE HOT DIPPED GALVANIZED, MINIMUM 3 MIL THICKNESS.
   d. MAST ARM ATTACHMENT SHALL BE SECURED BY 3 BOLTS.
   e. EACH POLE SHALL HAVE HANDHOLE (WITH COVER), GROUND LUG AND REMOVABLE POLE CAP.
   f. EACH CITY POLE SHALL HAVE A BLACK 4" TO 6" LETTER C STENCILED ON ROADWAY SIDE OF POLE 16" ABOVE GRADE.
2. ANCHORAGE
   a. POLES SHALL BE ANCHORED WITH 4 BOLTS, 1"X36"X4" ϕBUNC WITH HOT DIPPED GALVANIZING AFTER THREADS ARE CUT. GALVANIZED AREA SHALL EXTEND FROM THREADED END FOR A MINIMUM OF 12 INCHES. BOLTS SHALL BE PROVIDED WITH 2 GALVANIZED NUTS AND FLAT WASHERS FOR LEVELING. SHIMS WILL NOT BE USED.
   b. A NON-SHRINKING GROUT SHALL BE INSTALLED WITH ONE 1/2" DRAIN HOLE UNDER THE BASE PLATE AFTER THE ENGINEER HAS APPROVED THE POLE INSTALLATION.
3. CONDUIT
   ALL CONDUIT SHALL BE BURIED A MINIMUM OF 24 INCHES DEEP. ALL ROADWAY CROSSINGS SHALL BE RIGID METALLIC OR SCHEDULE 80 PVC. CONDUIT SHALL CONFORM TO SECTION 9-29 OF WSDOT STANDARD SPECIFICATIONS. SCHEDULE 80 PVC MAY BE USED IN LOCATIONS OTHER THAN ROADWAY CROSSINGS.

(STR LIGHT SPECS CONTINUED)

4. JUNCTION BOXES (WHEN REQUIRED)
   JUNCTION BOXES SHALL BE INSTALLED AT LOCATIONS AS SHOWN ON THE PLANS. THEY WILL CONFORM TO WSDOT STANDARD PLAN J-40.10-02, TYPE 1. THEY SHALL BE LEVEL WITH THE SIDEWALK GRADE AND FIRMLY BEDDED TO PREVENT FUTURE SETTLING. JUNCTION BOXES ARE PREFERRED NOT TO BE INSTALLED IN THE SIDEWALK. THE COVER SHALL BE GALVANIZED AND GROUNDED. THE LETTERS "LT" SHALL BE ETCHED ON THE COVER. (SEE CITY STANDARD DETAIL NO. 01.06.01). IF THE JUNCTION BOX IS NOT IN THE SIDEWALK THEN IT SHALL HAVE A CONCRETE COLLAR. IF THE JUNCTION BOX IS IN THE SIDEWALK THEN IT SHALL HAVE A NON-SLIP SURFACE TREATMENT. SEE CITY STANDARD DETAIL NO. 01.05.01.
5. CONDUCTORS, WIRES, ETC.
   WIRE CONDUCTORS FOR UNDERGROUND FEEDER RUNS AND FOR CIRCUITRY FROM THE IN-LINE FUSE IN THE POLES TO THE JUNCTION BOX SHALL BE 600 VOLT, SINGLE CONDUCTOR STRANDED COPPER AND INSULATED WITH USE GRADE POLYVINYL CHLORIDE COMPOUND (XLP) OR APPROVED EQUAL IN ACCORDANCE WITH THE INSULATED POWER CABLE ENGINEER'S ASSOCIATION SPECIFICATIONS, AN AWG NO. 8 GREEN INSULATED STRANDED COPPER WIRE WILL BE RUN TO THE SERVICE GROUND LUG ON EACH POLE. FEEDERS SHALL BE SIZED IN ACCORDANCE WITH THE NATIONAL ELECTRICAL CODE. WIRES INSIDE THE POLE BETWEEN BALLAST AND IN-LINE FUSES SHALL BE ROME 2C AWG 10 STRANDED POLE AND BRACKET WIRE OR APPROVED EQUAL. SPLICES WILL NOT BE ALLOWED IN JUNCTION BOXES AND POLE BASES ONLY. NO MORE THAN 2 CONDUITS WILL BE ALLOWED INSIDE THE STREET POLE.
6. FUSES
   LUMINAIRE FUSING AND ELECTRICAL CONNECTIONS AT LIGHT STANDARD BASES SHALL CONFORM TO SECTION 9-29.7 OF THE STATE OF WASHINGTON STANDARD SPECIFICATIONS AND AS SHOWN ON THE UNIFORM LUMINAIRE WIRING DETAIL IN THE APPENDIX. IN-LINE FUSE HOLDERS SHALL BE SEC MODEL 1791-SF WITH FNM-5 FUSES OR APPROVED EQUAL. (REFER TO CITY STANDARD DETAIL NO. 01.06.01)
7. LUMINAIRES AND LAMPS
   RESIDENTIAL STREETS AND NEIGHBORHOOD COLLECTORS:
   LEOTEK LED GC1-40E-MV-NW-2-530 (67 WATT LED)
   ARTERIALS AND COMMERCIAL COLLECTORS:
   GE EVOLVE LED ERS2-E-0-HX-EX-5-40 (130 WATT LED)
   THE CITY WILL ENERGIZE THE STREET LIGHTS WHEN A HOME IS OCCUPIED ADJACENT TO A STREET LIGHT OR IMMEDIATELY ACROSS THE STREET. AT THE DEVELOPER'S REQUEST, STREET LIGHTS MAY BE ENERGIZED PRIOR TO OCCUPANCY OF HOMES. HOWEVER, THE DEVELOPER OR BUILDER SHALL ASSUME FULL RESPONSIBILITY FOR ELECTRICAL POWER COSTS AND REPAIR COSTS DUE TO VANDALISM, THEFT, OR CONSTRUCTION.
8. SAFE WIRING LABELS
   THE CONTRACTOR IS ADVISED THAT SAFE WIRING LABELS REQUIRED BY LABOR AND INDUSTRIES SHALL APPLY ON THIS PROJECT. (ELECTRICAL INSPECTION STICKER)
9. GUARANTEE
   THE CONTRACTOR SHALL SURRENDER TO THE CITY OF PUYALLUP ANY GUARANTEE OR WARRANTY ACQUIRED BY HIM AS A NORMAL TRADE PRACTICE IN CONNECTION WITH THE PURCHASE OF ANY MATERIALS OR ITEMS USED IN THE CONSTRUCTION OF THE ILLUMINATION.
10. LOCATION
    SEE CITY STANDARD SECTION 01.01 ROADWAY DESIGN.



NOTES:
1. A METER SERVICE DISCONNECT IS REQUIRED FOR EACH BRANCH CIRCUIT. SEE CITY STANDARD DETAIL NO. 01.05.05
2. INSTALLATION SHALL CONFORM TO NATIONAL ELECTRICAL CODE, WSDOT, AND CITY STANDARDS.
3. PHASING TAPE IS NOT ALLOWED.
4. ALL WIRES SHALL BE INSTALLED IN CONDUIT AS SPECIFIED ABOVE.
5. ALL SPLICES SHALL BE MADE IN A JUNCTION BOX. WIRE NUTS WILL NOT BE ALLOWED. SPLICES SHALL BE CENTERED AND ENCASED IN 3M SCOTCHCAST EPOXY KIT TYPE 82-A1, 82-B1, OR CITY APPROVED EQUAL. OTHER GEL TAP SPLICE KITS AND DIRECT BURIAL AND SUBMERSIBLE SPLICES TO BE BE ALLOWED IF APPROVED BY THE CITY.
6. GROUND ROD COVER SHALL BE UTILITY VAULT #9VB-924 OR APPROVED EQUIVALENT.



NOTE:
1. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO COORDINATE THE INSTALLATION OF THE STREET LIGHT SYSTEM WITH ALL UTILITIES, PRIVATE AND PUBLIC, TO AVOID SCHEDULE AND LOCATION CONFLICTS.
2. FOR RESIDENTIAL STREET LIGHTING THE CONTRACTOR SHALL BE RESPONSIBLE TO INSTALL ONE METER FOR THE PLAT'S LIGHTING SYSTEM PER PUGET SOUND ENERGY REQUIREMENTS. ON VERY LARGE PLAT'S PUGET SOUND ENERGY MAY REQUIRE MORE THAN ONE METER.
3. LUMINAIRE TO BE FLAT LENS GLASS WITH CUT OFF; 150W FOR SIGNALIZED INTERSECTIONS. 150W OR 200W FOR COMMERCIAL AREA AND 100W FOR RESIDENTIAL.

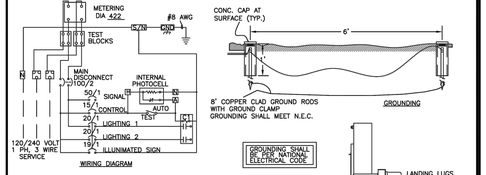
CITY OF PUYALLUP — DEVELOPMENT ENGINEERING and PUBLIC WORKS DEPARTMENTS

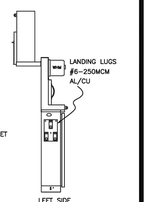
STREET LIGHT SPECIFICATIONS					
DRAWN BY: JIM SEWIN-SVOBODA	CHECKED BY: LINDA LIAN	APPROVED BY: COLLEEN HARRIS	REVISED BY: LINDA LIAN		CITY STANDARD: 01.05.01
FILE NAME: P:\DWG\COMMON\STDSCITY\2009\01_ST0101.05\01.05.01		DATE APPROVED: 07/01/2009	DATE REVISED: 05/25/2015	SCALE: 1:1	

STREET LIGHT SPECIFICATIONS (CONT.)					
DRAWN BY: JIM SEWIN-SVOBODA	CHECKED BY: LINDA LIAN	APPROVED BY: COLLEEN HARRIS	REVISED BY: LINDA LIAN		CITY STANDARD: 01.05.02
FILE NAME: P:\DWG\COMMON\STDSCITY\2009\01_ST0101.05\01.05.02		DATE APPROVED: 07/01/2009	DATE REVISED: 05/25/2015	SCALE: 1:1	

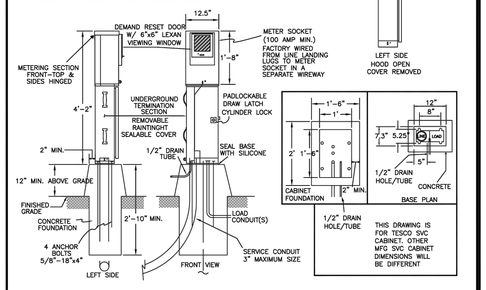
TYPICAL STREET LIGHT INSTALLATION					
DRAWN BY: JIM SEWIN-SVOBODA	CHECKED BY: LINDA LIAN	APPROVED BY: COLLEEN HARRIS	REVISED BY: LINDA LIAN		CITY STANDARD: 01.05.03
FILE NAME: P:\DWG\COMMON\STDSCITY\2009\01_ST0101.05\01.05.03		DATE APPROVED: 07/01/2009	DATE REVISED: 05/25/2015	SCALE: 1:5	

STREET LIGHT					
DRAWN BY: JIM SEWIN-SVOBODA	CHECKED BY: LINDA LIAN	APPROVED BY: COLLEEN HARRIS	REVISED BY: Linda Lian		CITY STANDARD: 01.05.04
FILE NAME: P:\DWG\COMMON\STDSCITY\2009\01_ST0101.05\01.05.04		DATE APPROVED: 07/01/2009	DATE REVISED: 04/04/2013	SCALE: 1:1	





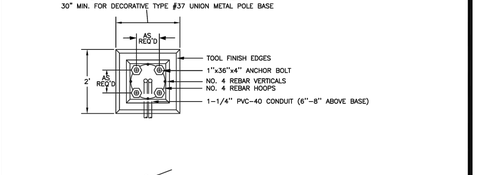
NOTES:
1. CONTRACTOR IS TO VERIFY THAT DETAIL SPECIFICATIONS AND EQUIPMENT LOCATIONS MEET WITH SERVING UTILITY'S AND CITY OF PUYALLUP ENGINEERING REQUIREMENTS.
2. EXPANSION ANCHOR BOLTS (KWIK-BOLT OR EQUAL) MAY BE USED TO MOUNT CABINET IN LIEU OF EMBEDDED BOLTS.
3. CONDUIT SIZE AND QUANTITY AS REQUIRED BY PLANS OR N.E.C.
4. TESCO SERVICE CABINET CATALOG #26-000, SKYLINE SERVICE CABINET SERIES 47700-P1.
5. GROUND ROD COVER SHALL BE UTILITY VAULT #9VB-924 OR APPROVED EQUIVALENT.
6. SEAL CABINETS TO PEDESTAL WITH SILICON SEALANT. PLACE SEALANT ON PEDESTAL AND SET CABINETS ONTO SEALANT. REMOVE EXCESS SEALANT.

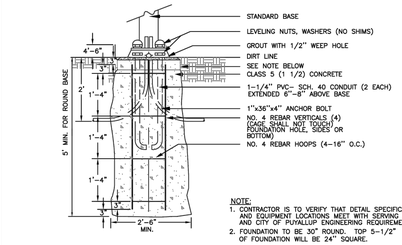


APPROVED
BY _____ CITY OF PUYALLUP DEVELOPMENT ENGINEERING
DATE _____

NOTES: THIS APPROVAL IS VOID AFTER 180 DAYS FROM APPROVAL DATE.
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FIELD CONDITIONS MAY DICTATE CHANGES TO THESE PLANS AS DETERMINED BY THE DEVELOPMENT ENGINEERING MANAGER.

STREET LIGHT SERVICE METER CABINET FOUNDATION					
DRAWN BY: JIM SEWIN-SVOBODA	CHECKED BY: LINDA LIAN	APPROVED BY: XXXX	REVISED BY: XX/XX/XX		CITY STANDARD: 01.05.05
FILE NAME: P:\DWG\COMMON\STDSCITY\2009\01_ST0101.05\01.05.05		DATE APPROVED: 07/01/2009	DATE REVISED: XX/XX/XX	SCALE: 1:5	



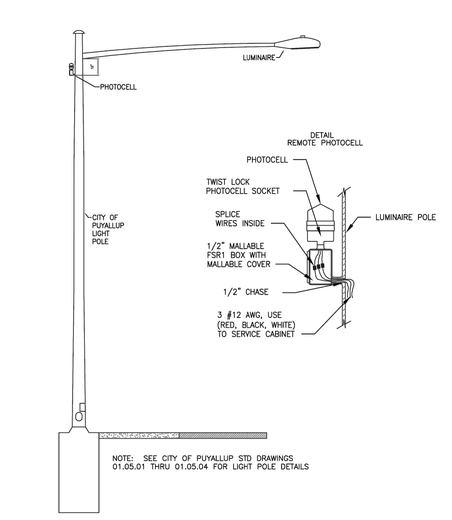


NOTE:
1. CONTRACTOR IS TO VERIFY THAT DETAIL SPECIFICATIONS AND EQUIPMENT LOCATIONS MEET WITH SERVING UTILITY'S AND CITY OF PUYALLUP ENGINEERING REQUIREMENTS.
2. FOUNDATION TO BE 30" ROUND, TOP 5-1/2" OF FOUNDATION WILL BE 24" SQUARE.

TEMPLATE FOR ANCHOR BOLT CIRCLE WILL BE A SINGLE PIECE OF 3/4" PLYWOOD WITH 4 BOLT HOLES TO FORM A BOLT CIRCLE OF 11-1/2" TO MATCH POLE MANUFACTURE'S BASE DESIGN.

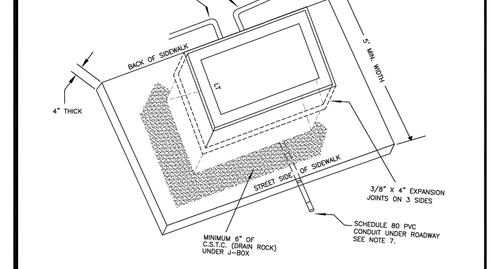
LOWER LEVELING NUTS SHOULD BE CLOSE TO CONCRETE (ABOUT 1") TO PREVENT EXCESSIVE STRESSES IN THE ANCHOR BOLTS CAUSED BY TORSIONAL FORCES IN THE POLE. ANCHOR BOLTS WILL EXTEND ABOVE TOP NUT, 2 THREADS MINIMUM AND 5/8" MAXIMUM.

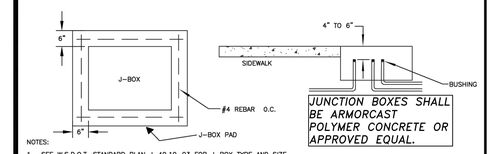
CONCRETE STREETLIGHT FOUNDATION TYPICAL					
DRAWN BY: JIM SEWIN-SVOBODA	CHECKED BY: LINDA LIAN	APPROVED BY: COLLEEN HARRIS	REVISED BY: XXXX		CITY STANDARD: 01.05.06
FILE NAME: P:\DWG\COMMON\STDSCITY\2009\01_ST0101.05\01.05.06		DATE APPROVED: 07/01/2009	DATE REVISED: XX/XX/XX	SCALE: 1:2	



NOTE: SEE CITY OF PUYALLUP STD DRAWINGS 01.05.01 THRU 01.05.04 FOR LIGHT POLE DETAILS

REMOTE PHOTOCELL					
DRAWN BY: LINDA LIAN	CHECKED BY: LINDA LIAN	APPROVED BY: COLLEEN HARRIS	REVISED BY: XXXX		CITY STANDARD: 01.05.10
FILE NAME: P:\DWG\COMMON\STDSCITY\STDST\ST0101.05\01 REMOTE		DATE APPROVED: 5/21/2015	DATE REVISED: XX/XX/XX	SCALE: 1:1	





NOTES:
1. SEE W.S.D.O.T. STANDARD PLAN J-40.10-03 FOR J-BOX TYPE AND SIZE.
2. ALL LIDS SHALL BE GALVANIZED STEEL AND MARKED WITH AN "LT" OR "TS" PER W.S.D.O.T. STANDARD PLAN J-40.10-03. NON-SLIP SURFACE TREATMENT SHALL BE MEBAC1 OR SlipNOT #3.
3. TYPE III SHALL BE DUAL HINGED
4. IF NO SIDEWALK EXISTS, A CONCRETE COLLAR SHALL BE CONSTRUCTED 6" THICK, 6" WIDE, COMPLETELY SURROUNDING THE J-BOX WITH ONE #4 REBAR ON CENTER EACH SIDE AND TIED AT CORNERS. CLASS 5 (1 1/2) CONCRETE SHALL BE USED. BY PERMISSION, COLLAR MAY ENCOMPASS JUNCTION BOX AND STREET LIGHT. PREFERRED LOCATION OF JUNCTION BOX SHOULD NOT BE IN THE SIDEWALK, BUT RATHER AT THE BACK OF SIDEWALK WITH 3-SIDED COLLAR.
5. CONDUIT RUNS SHALL NOT EXCEED 195 FEET BETWEEN JUNCTION BOXES.
6. JUNCTION BOX SHALL BE LOCATED WITHIN 10 FEET OF EACH LUMINAIRE POLE AND AT ROAD CROSSING.
7. CONDUIT MATERIAL SHALL BE AS SPECIFIED IN WSDOT STANDARD SPECIFICATION 8-20.3(5) OR AS MODIFIED ON SPECIAL PROVISIONS.
8. STREET LIGHT JUNCTION BOXES SHALL BE WELDED SHUT, 2'-2" LONG WELDS MIN., IMMEDIATELY AFTER L & I AND CITY INSPECTIONS TO HELP PREVENT WIRE THEFT. OTHER THEFT PREVENTION METHODS MAY BE USED IF APPROVED BY THE CITY.

JUNCTION BOX					
DRAWN BY: JIM SEWIN-SVOBODA	CHECKED BY: LINDA LIAN	APPROVED BY: COLLEEN HARRIS	REVISED BY: LINDA LIAN		CITY STANDARD: 01.06.01
FILE NAME: P:\DWG\COMMON\STDSCITY\2009\01_ST0101.06\01.06.01		DATE APPROVED: 07/01/2009	DATE REVISED: 11/18/2014	SCALE: 1:1	

△	REVISION	DATE	BY
	RECORD DRAWINGS	07-02-25	DMA

DESIGNED BY: DAG
DRAWN BY: BVL
APPROVED BY: CTB
ISSUE DATE: 08-05-2024
JOB NO.: TENW #2022-380
DRAWING FILE NO.:

CHRISTOPHER T. BICKEL — STATE OF WASHINGTON — 35435 — REGISTERED PROFESSIONAL ENGINEER
08-05-2024

TENW
Transportation Engineering NorthWest
Transportation Planning | Design | Traffic Impact & Operations
11400 SE 8th Street, Suite 200, Bellevue, WA 98004 | Office (425) 889-6747
Project Contact: Brenda Velazquez Lopez
Phone: 206-773-5386

TC NORTHWEST DEVELOPMENT INC
600 UNIVERSITY STREET
SUITE 2912
SEATTLE, WA 98101
CDOBBS@TRAMMELLCROW.COM
CRAIG DOBBS

PSE TODD ROAD OTC

ILLUMINATION DETAILS

DRAWING NO.: IL-04
SHEET NO.: 4 OF 4 SHEETS

PRCCP20240215
PCR001
8/21/2024

PLAN CHANGE REQUEST - 0001

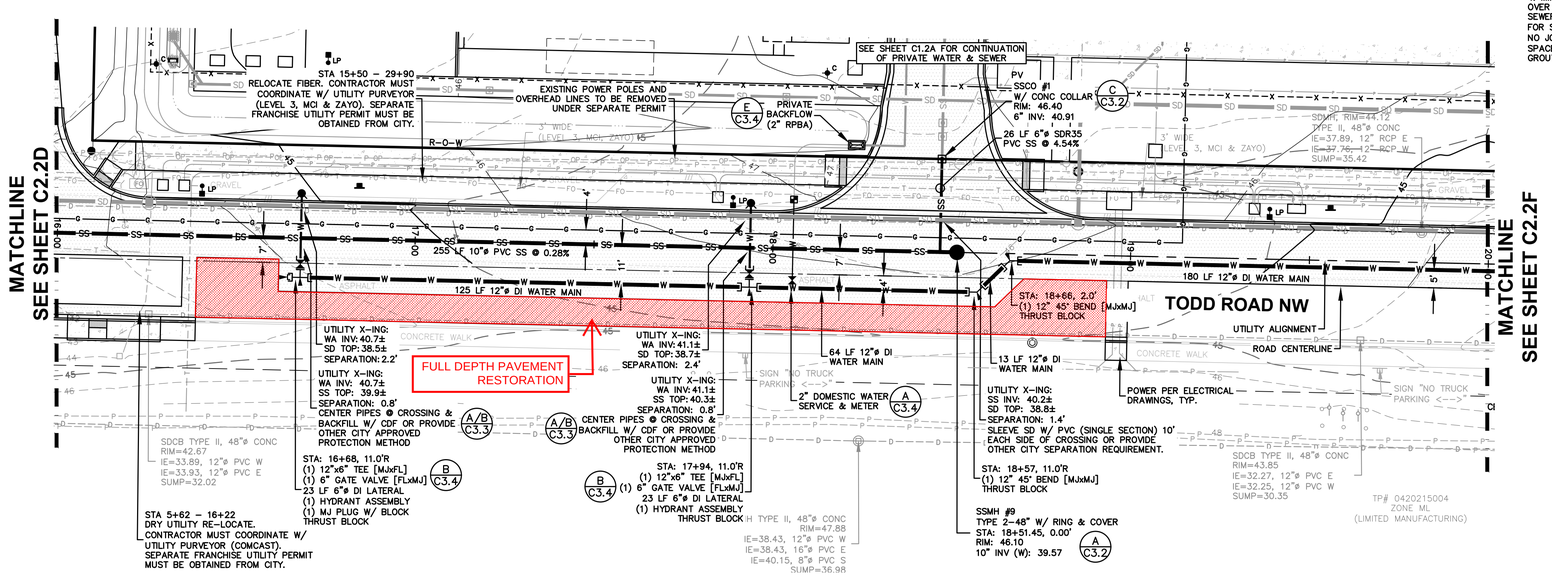
GENERAL NOTES

1. SEWER AND WATER SYSTEM SHALL BE CONSTRUCTED TO CURRENT CITY OF PUYALLUP STANDARDS.

2. TYPICAL UTILITY TRENCH EXCAVATION, BEDDING AND BACKFILL SHALL COMPLY WITH CITY STANDARD DETAIL 06.01.01 REQUIREMENTS (SEE DETAIL F/C3.10).

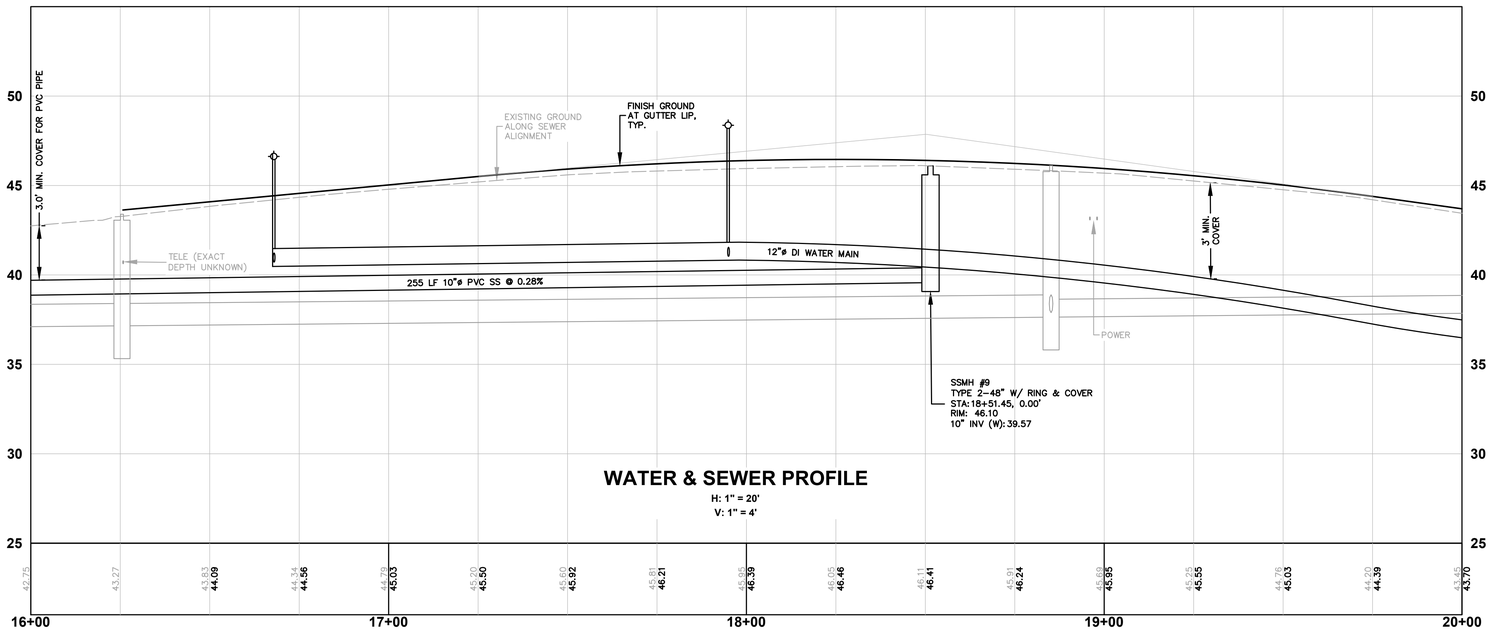
3. THE MINIMUM VERTICAL SEPARATION BETWEEN CROSSING WATER AND SEWER SHALL BE 18 INCHES. IF THIS CRITERION CANNOT BE MET, THE CONTRACTOR SHALL ISOLATE THE SEWER AND WATER LINES BY ENCASEMENT, SHIELDING, OR OTHER APPROVED METHODS IN ACCORDANCE WITH CITY OF PUYALLUP WATER MAIN CROSSING NOTES AND DETAILS (SEE DETAIL B/C3.3 & C/C3.3).

4. MINIMUM 12 INCHES VERTICAL SEPARATION BETWEEN STORM OVER SEWER. MINIMUM 18 INCHES VERTICAL SEPARATION BETWEEN SEWER OVER STORM. ADDITIONAL PROTECTION MAY BE REQUIRED FOR SOME INSTALLATIONS: PROVIDE PVC SLEEVE (SINGLE SECTION, NO JOINTS) 10 FEET EACH SIDE OF CROSSING & FILL ANNULAR SPACE BETWEEN SLEEVE AND STORM PIPE W/ NON-SHRINK GROUT.



WATER & SEWER PLAN

SCALE: 1" = 20'



WATER & SEWER PROFILE

H: 1" = 20'
V: 1" = 4'

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MILES PATRICK MCEATHRON — STATE OF WASHINGTON — 49494 — REGISTERED PROFESSIONAL ENGINEER — 08/16/2024

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CITY OF PUYALLUP
DEVELOPMENT ENGINEERING

DATE _____

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

MILES PATRICK MCEATHRON — STATE OF WASHINGTON — 49494 — REGISTERED PROFESSIONAL ENGINEER — 7/8/2025

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APPROVED

BY _____
CITY OF PUYALLUP
WATER PURVEYOR

DATE _____

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CONFORMED SET

REV	ISSUED FOR	DATE

PLAN NORTH | TRUE NORTH

SCALE: 1"=20' (0 – 20)

PSE - OPERATIONAL TRAINING CENTER

WATER & SEWER PLAN & PROFILE- 16+00 - 20+00

PROJECT No:	22219
DRAWN BY:	MPM
CHECKED BY:	THF
DATE ISSUED:	08/16/2024

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PCR001
8/21/2024

PLAN CHANGE REQUEST - 0001

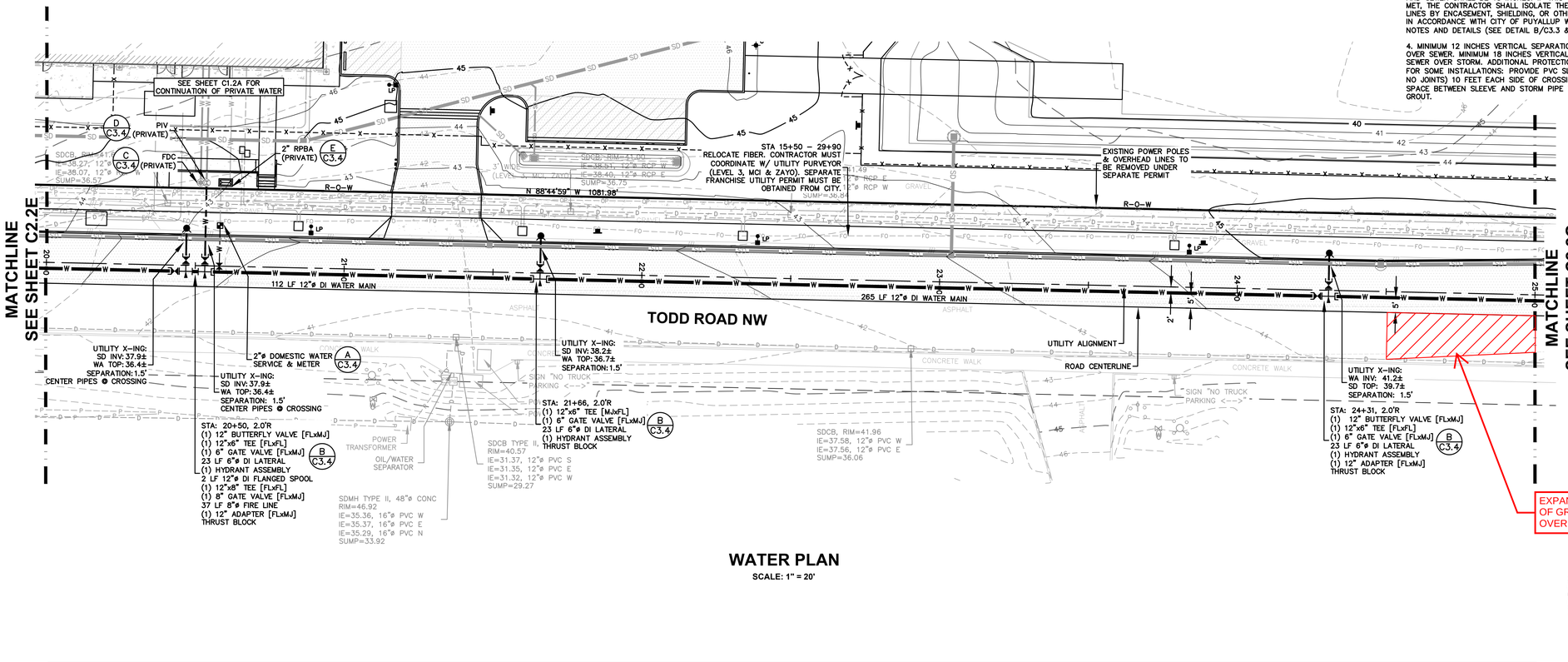
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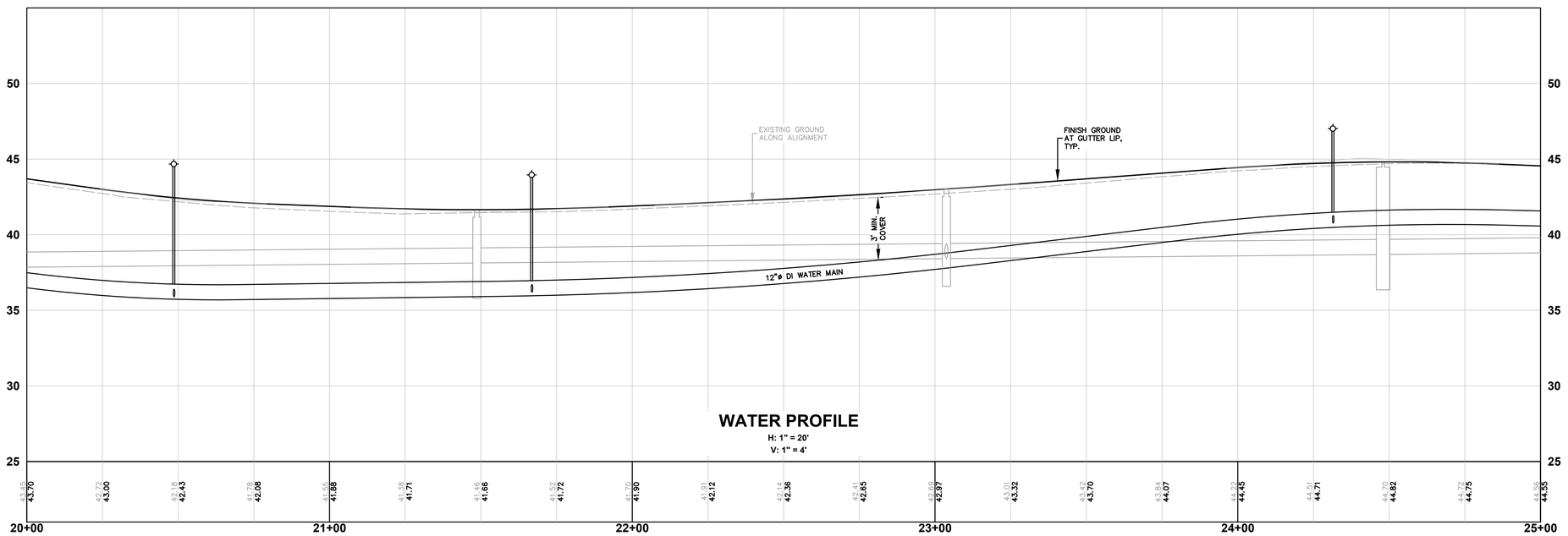
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WATER PLAN

SCALE: 1" = 20'



WATER PROFILE

H: 1" = 20'
V: 1" = 4'

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Bellingham, WA 98225
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FREELAND & ASSOCIATES
220 West Champion Street, Suite 200 t: 360.650.1408
Bellingham, WA 98225 f: 360.650.1401

MILES PATRICK MCEATHRON
STATE OF WASHINGTON
19494
REGISTERED PROFESSIONAL ENGINEER
08/16/2024

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APPROVED

BY _____
CITY OF PUYALLUP
DEVELOPMENT ENGINEERING

DATE _____

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MILES PATRICK MCEATHRON
STATE OF WASHINGTON
19494
REGISTERED PROFESSIONAL ENGINEER
7/8/2025

APPROVED

BY _____
CITY OF PUYALLUP
WATER PURVEYOR

DATE _____

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CONFORMED SET

REV	ISSUED FOR	DATE

PLAN NORTH | TRUE NORTH

SCALE: 1"=20' (0 – 20)

PSE - OPERATIONAL TRAINING CENTER

WATER PLAN & PROFILE- 20+00 - 25+00

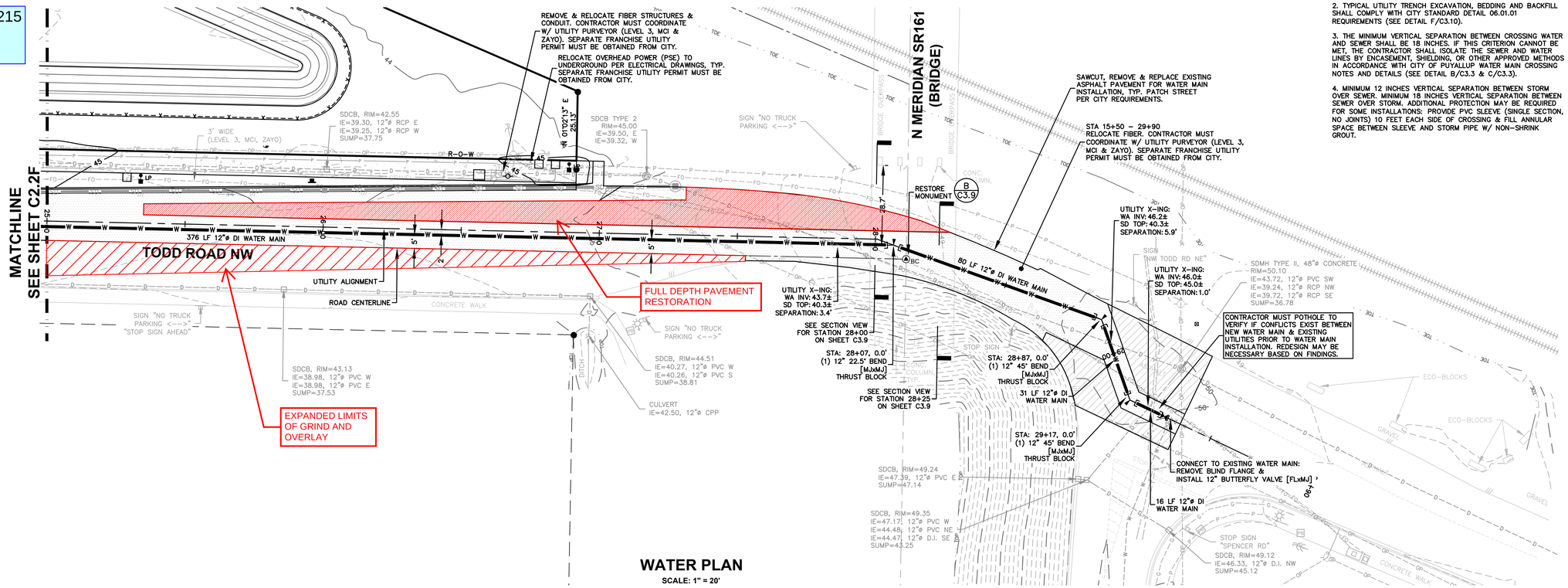
PROJECT No:	22219
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DATE ISSUED:	08/16/2024

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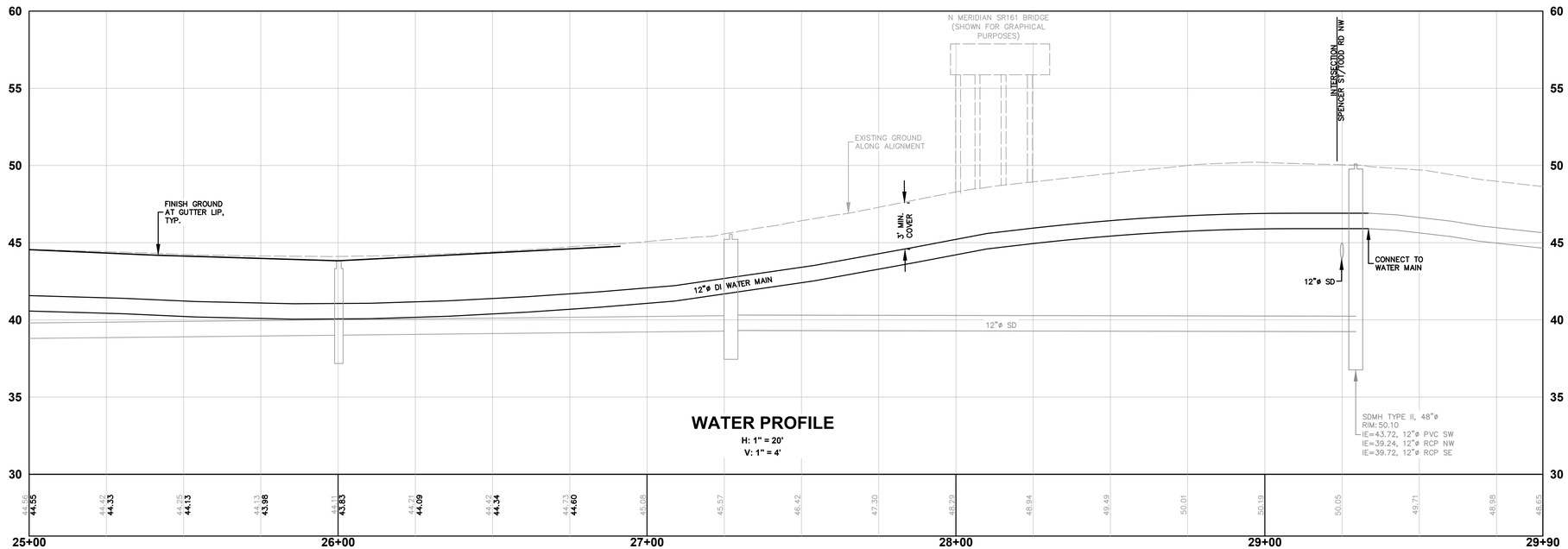
PLAN CHANGE REQUEST - 0001

PRCCP20240215
PCR001
8/21/2024



WATER PLAN

SCALE: 1" = 20'



WATER PROFILE

H: 1" = 20'
V: 1" = 4'

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CITY OF PUYALLUP
DEVELOPMENT ENGINEERING

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JAMES PATRICK MCEACHRON — STATE OF WASHINGTON — 49494 — REGISTERED PROFESSIONAL ENGINEER — 7/8/2025

APPROVED

BY _____
CITY OF PUYALLUP
WATER PURVEYOR

DATE _____

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CONFORMED SET

REV	ISSUED FOR	DATE

PLAN NORTH | TRUE NORTH

SCALE: 1"=20' (0 — 20)

PSE - OPERATIONAL TRAINING CENTER

WATER PLAN & PROFILE- 25+00 - 29+90

PROJECT No:	22219
DRAWN BY:	MPM
CHECKED BY:	THF
DATE ISSUED:	08/16/2024

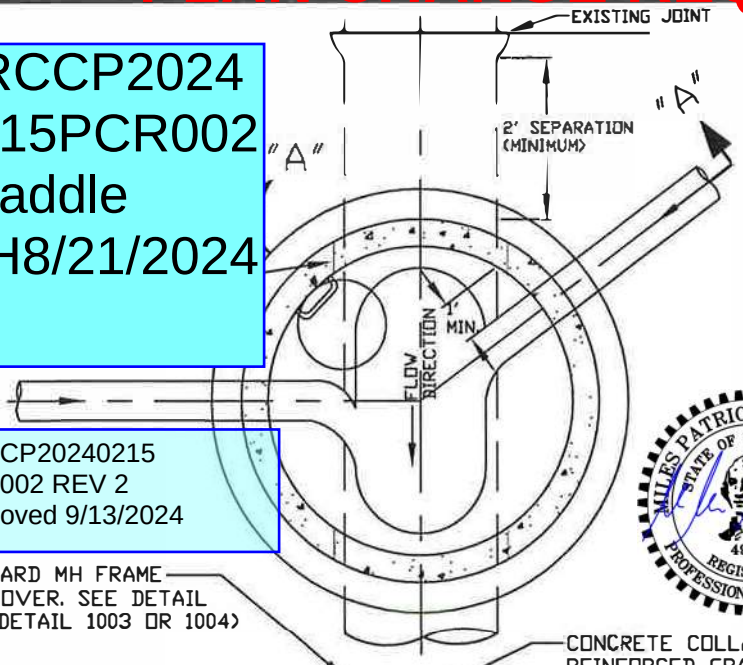
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PLAN CHANGE REQUEST - 0002

PRCCP2024 0215PCR002 - saddle MH8/21/2024

PRCCP20240215
PCR002 REV 2
Approved 9/13/2024



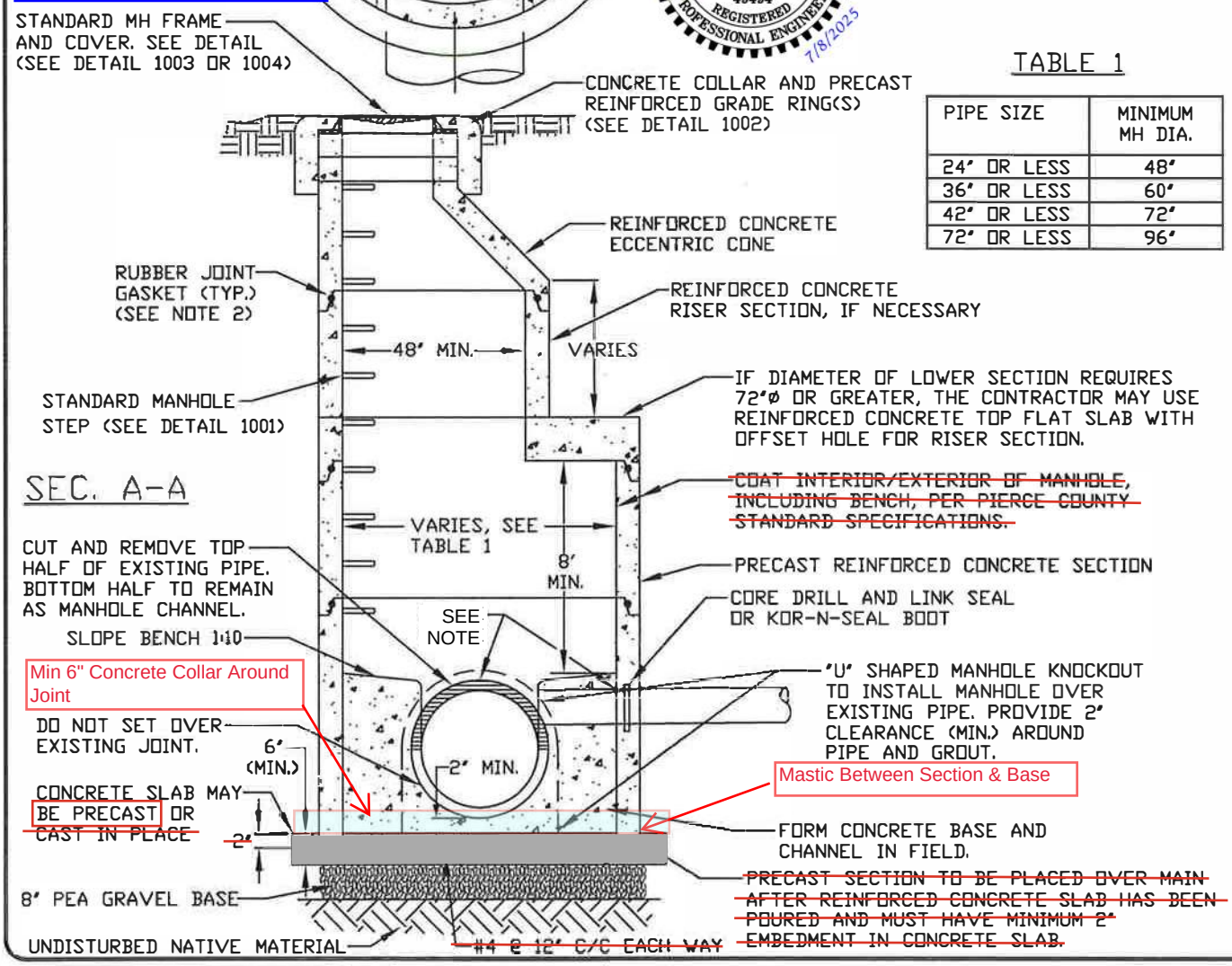
NOTES:
1. MANHOLE SIZE WILL BE DEPENDENT UPON THE NUMBER OF PIPES INTO THE THE MANHOLE, PIPE SIZE, AND CONFIGURATION THROUGH THE MANHOLE.
2. ALL MANHOLE RISER JOINTS SHALL HAVE BOTH BUTYL RUBBER GASKETS AND PREFORMED (ROPE TYPE) JOINT SEALANT, PER PIERCE COUNTY SANITARY SEWER SPECIFICATIONS.

NOTE: PIERCE COUNTY REQUIRES 0.1' MIN. DROP BETWEEN INVERTS

MILES PATRICK MCEATHRON
STATE OF WASHINGTON
49494
REGISTERED
PROFESSIONAL ENGINEER
7/8/2025

TABLE 1

PIPE SIZE	MINIMUM MH DIA.
24" OR LESS	48"
36" OR LESS	60"
42" OR LESS	72"
72" OR LESS	96"



KARL FRANK MILLIG
STATE OF WASHINGTON
32160
REGISTERED
PROFESSIONAL ENGINEER
12.27.22

PIERCE COUNTY PUBLIC WORKS & UTILITIES DEPARTMENT
SEWER UTILITY DIVISION
9850 64TH STREET WEST
UNIVERSITY PLACE, WASHINGTON 98467-1078
(253) 798-4050

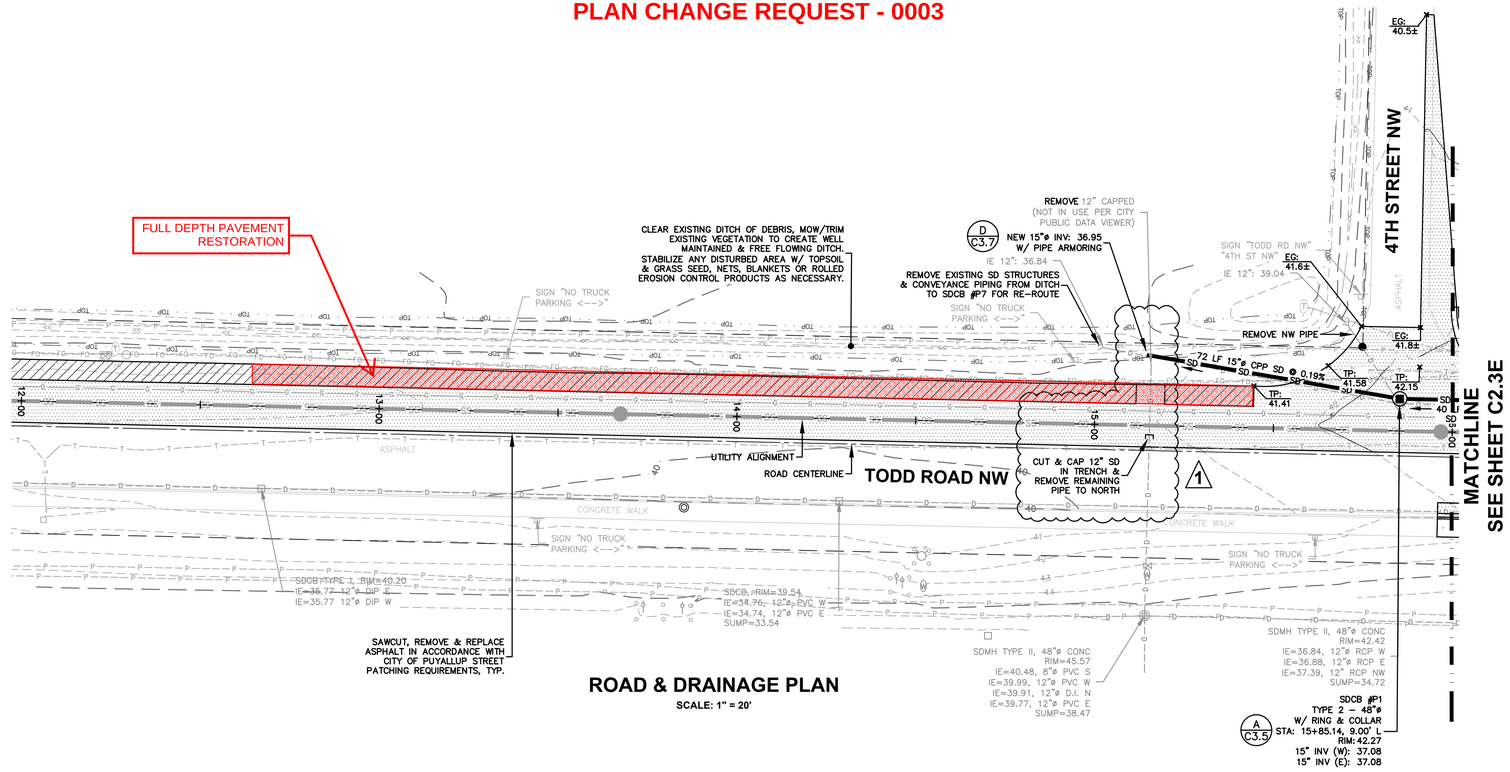
STANDARD DETAILS

DATE
12/26/2012
SCALE
NTS

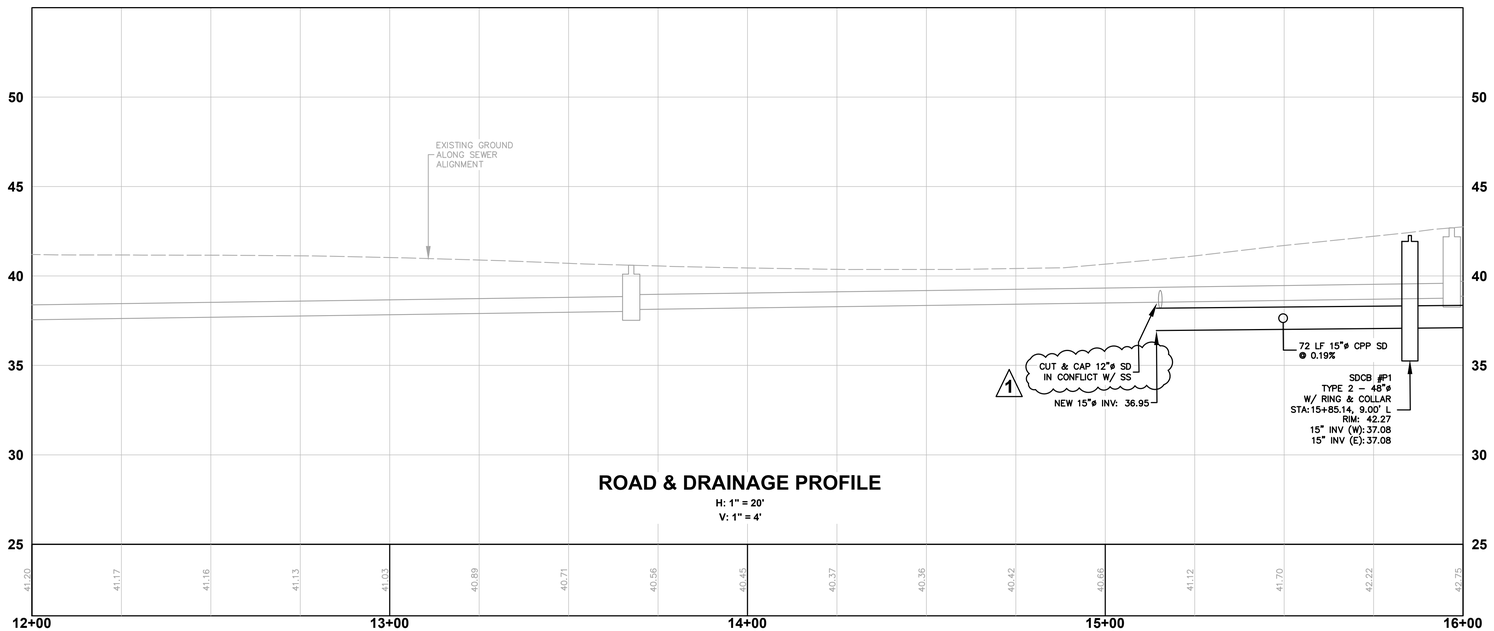
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PLAN CHANGE REQUEST - 0003



ROAD & DRAINAGE PLAN
SCALE: 1" = 20'



ROAD & DRAINAGE PROFILE
H: 1" = 20'
V: 1" = 4'

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Bellingham, WA 98225 f: 360.650.1401

MILES PATRICK MCEATHERON
STATE OF WASHINGTON
49494
REGISTERED PROFESSIONAL ENGINEER
10/15/2024

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DEVELOPMENT ENGINEERING

DATE _____

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RECORD NOTE:
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MILES PATRICK MCEATHERON
STATE OF WASHINGTON
49494
REGISTERED PROFESSIONAL ENGINEER
7/8/2025

CONFORMED SET

REV	ISSUED FOR	DATE
1	SEWER CONFLICT	10/15/24

PLAN NORTH | TRUE NORTH
SCALE: 1"=20' (0 – 20)

PSE - OPERATIONAL TRAINING CENTER

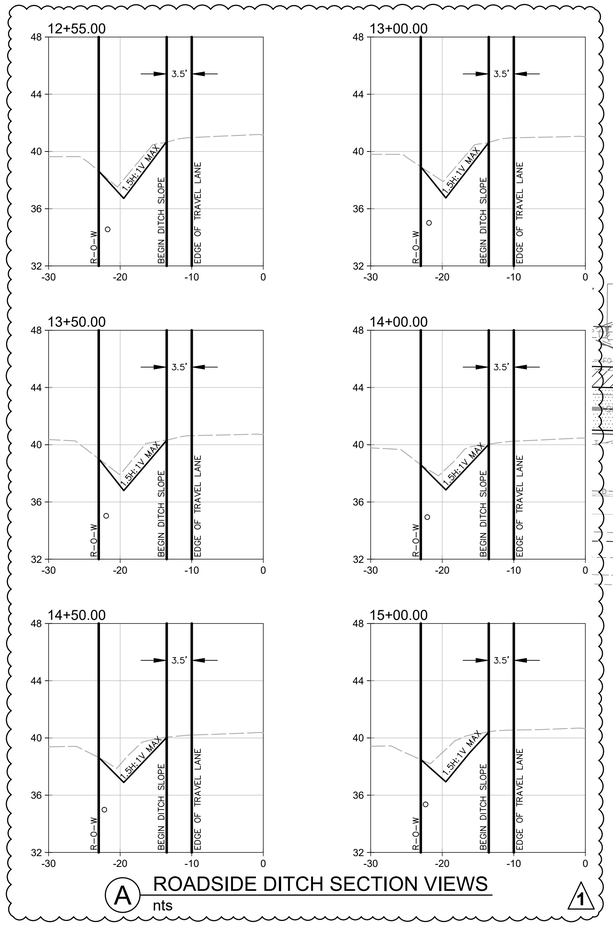
ROAD & DRAINAGE PLAN & PROFILE- 12+00 - 16+00

PROJECT No:	22219
DRAWN BY:	MPM
CHECKED BY:	THF
DATE ISSUED:	10/15/2024

C2.3D

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PLAN CHANGE REQUEST - 0006



A ROADSIDE DITCH SECTION VIEWS

nts

1

Extra care needed to ensure water turbidity stays under 25 NTU due to down stream wetland.

EROSION CONTROL SOD USED IN LIEU OF HYDROSEED

staked Jut mat will be needed due to the steep max side slopes.

switch to COP Standard 02.02.01 for pipe armoring

Ditch area between NW pipe removal and new out fall should be reformed to gradually shift from existing ditch grades to dredged ditch grades.

END DITCH REGRADING AT STA 12+55 & BLEND TO MATCH EXISTING DITCH. TAKE CARE TO NOT IMPACT ROOTS OF EXISTING 18"ø TREE.

CLEAR REMAINING SECTION OF EXISTING DITCH LEADING TO CREEK OF OVERGROWN VEGETATION AND DEBRIS (MOW/TRIM & REMOVE).

CULVERT IE=37.70 12"ø PVC

18" TREE

WORK W/ CAUTION. DO NOT IMPACT EXISTING UNDERGROUND UTILITIES, TYP.

REGRADE EXISTING ROADSIDE DITCH (0.09%) & STABILIZE W/ HYDROSEED. PROVIDE NETS OR BLANKETS IF NECESSARY,

NO WORK IS TO BE PERFORMED ON PRIVATE PROPERTY

REMOVE EXISTING SD STRUCTURES & CONVEYANCE PIPING FROM DITCH TO SDCB #P7 FOR RE-ROUTE

REMOVE 12" CAPPED (NOT IN USE PER CITY PUBLIC DATA VIEWER)

D C3.7

NEW 15"ø INV: 36.95 W/ PIPE ARMORING

IE 12": 36.84

SIGN "TODD RD NW" "4TH ST NW"

IE 12": 39.04

18" TREE

4TH STREET NW

ASPHALT

FG: 40.5±

FG: 41.6±

FG: 41.8±

REMOVE NW PIPE

72 LF 15"ø CPP SD @ 0.19%

TP: 41.58

TP: 42.15

TP: 41.41

FG: 36.72

FG: 36.95

SIGN "NO TRUCK PARKING <--->"

DECID TREE

PARKING <--->

12+00

13+00

14+00

15+00

ASPHALT

UTILITY ALIGNMENT

ROAD CENTERLINE

TODD ROAD NW

CUT & CAP 12" SD IN TRENCH & REMOVE REMAINING PIPE TO NORTH

CONCRETE WALK

SIGN "NO TRUCK PARKING <--->"

SDCB TYPE 1, RIM=40.20
IE=38.72 12"ø DIP E
IE=35.77 12"ø DIP W

SDCB, RIM=39.54
IE=38.76, 12"ø PVC W
IE=34.74, 12"ø PVC E
SUMP=33.54

SAWCUT, REMOVE & REPLACE ASPHALT IN ACCORDANCE WITH CITY OF PUYALLUP STREET PATCHING REQUIREMENTS, TYP.

SDMH TYPE II, 48"ø CONC
RIM=45.57
IE=40.48, 8"ø PVC S
IE=39.99, 12"ø PVC W
IE=39.91, 12"ø D.I. N
IE=39.77, 12"ø PVC E
SUMP=38.47

SDMH TYPE II, 48"ø CONC
RIM=42.42
IE=36.84, 12"ø RCP W
IE=36.88, 12"ø RCP E
IE=37.39, 12" RCP NW
SUMP=34.72

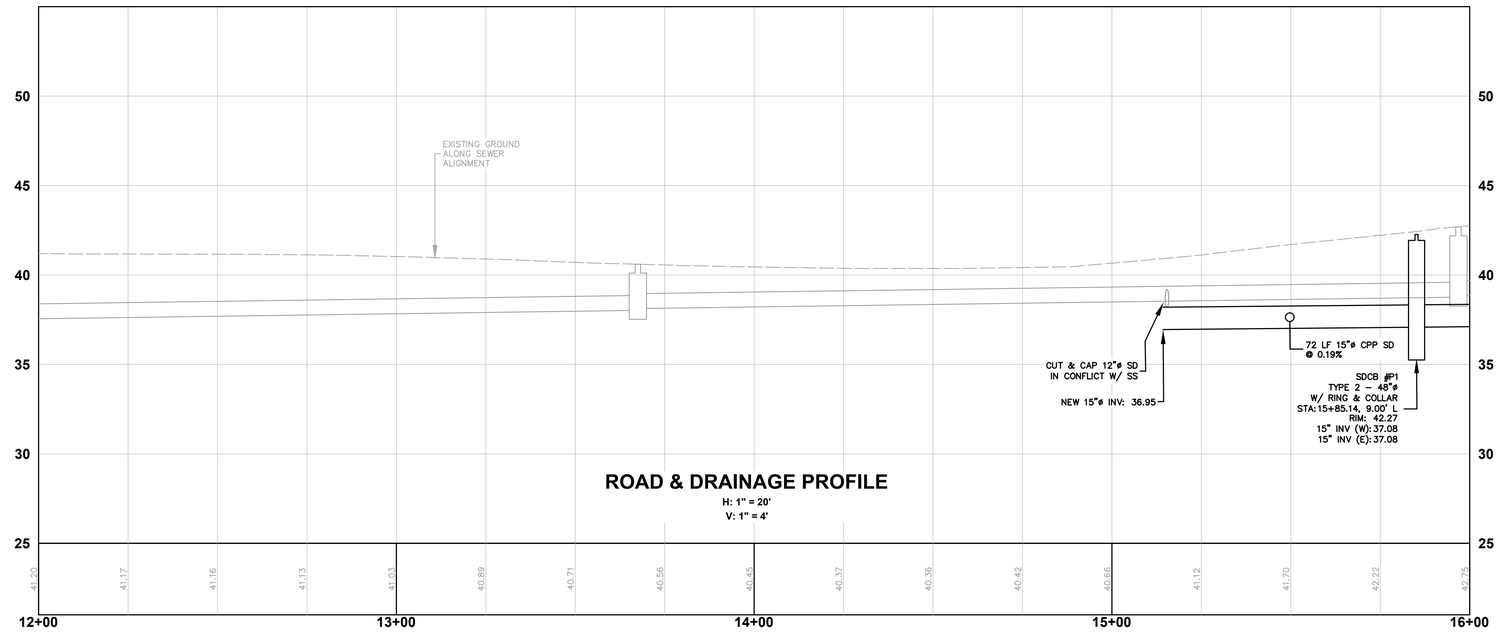
SDCB #P1
TYPE 2 – 48"ø
W/ RING & COLLAR
STA: 15+85.14, 9.00' L
RIM: 42.27
15" INV (W): 37.08
15" INV (E): 37.08

A C3.5

MATCHLINE
SEE SHEET C2.3E

ROAD & DRAINAGE PLAN

SCALE: 1" = 20'



ROAD & DRAINAGE PROFILE

H: 1" = 20'
V: 1" = 4'

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Bellingham, WA 98225
360.734.4744

FREELAND & ASSOCIATES
220 West Champion Street, Suite 200 t: 360.650.1408
Bellingham, WA 98225 f: 360.650.1401

JAMES PATRICK MCELHERON — STATE OF WASHINGTON — 49494 — REGISTERED PROFESSIONAL ENGINEER — 03/05/2025

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

APPROVED

BY _____
CITY OF PUYALLUP
DEVELOPMENT ENGINEERING

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.
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JAMES PATRICK MCELHERON — STATE OF WASHINGTON — 49494 — REGISTERED PROFESSIONAL ENGINEER — 7/8/2025

CONFORMED SET

REV	ISSUED FOR	DATE

PLAN NORTH | TRUE NORTH

SCALE: 1"=20' (0 – 20)

PSE - OPERATIONAL TRAINING CENTER

ROAD & DRAINAGE PLAN & PROFILE- 12+00 - 16+00

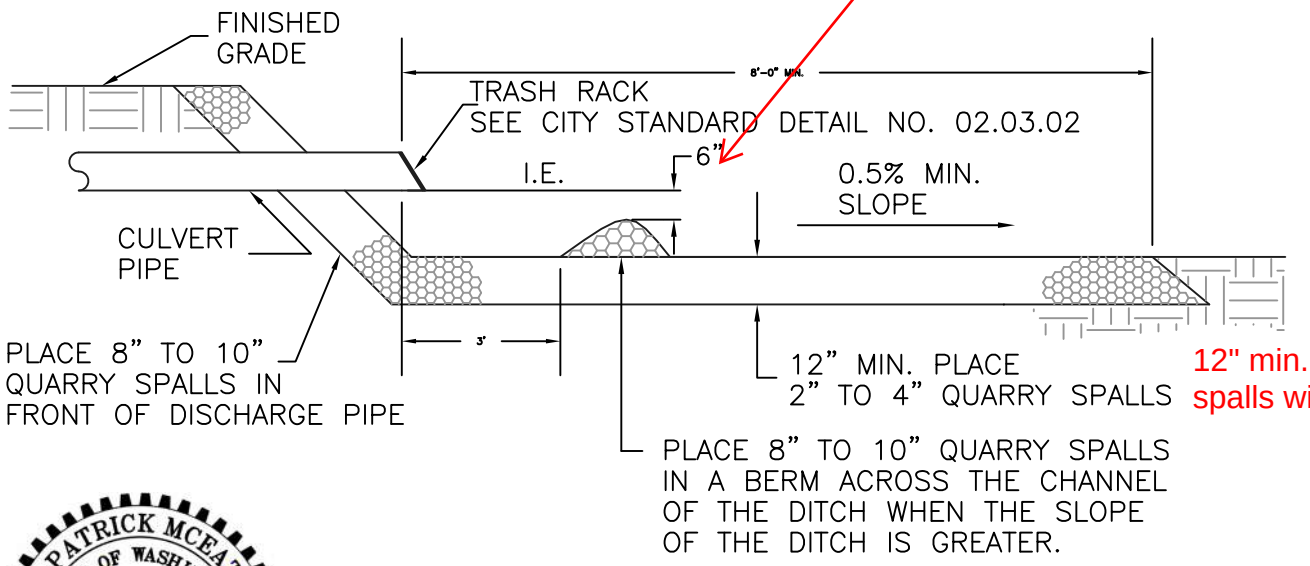
PROJECT No:	22219
DRAWN BY:	MPM
CHECKED BY:	THF
DATE ISSUED:	11/15/2024

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PLAN CHANGE REQUEST - 0006

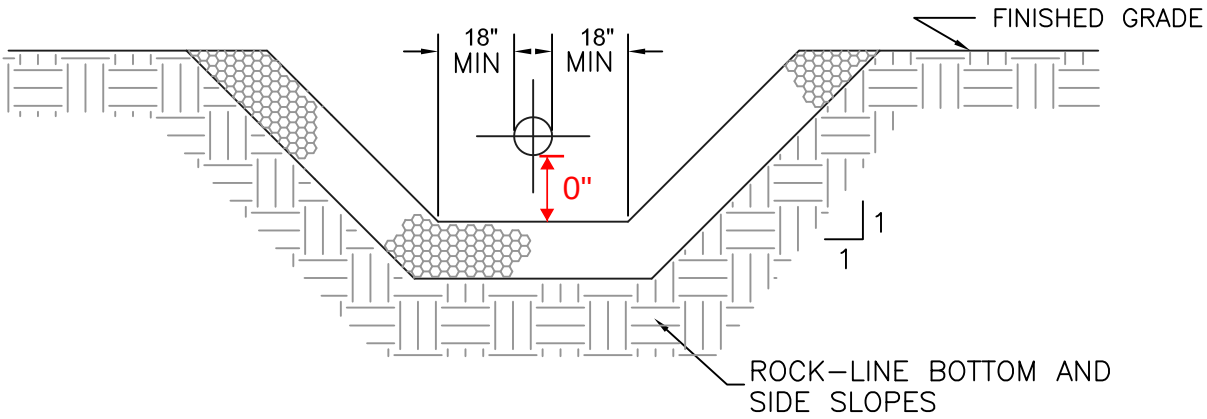
N/A, berms not provided.



12" min. depth of spalls will be at d

Slope is not greater than 0.5%, quarry spall berms are not required.





NOTE: ALL DRIVEWAY CULVERTS SHALL BE NOT LESS THAN 15 INCHES IN DIAMETER NOR LESS THAN 20 FEET IN LENGTH.

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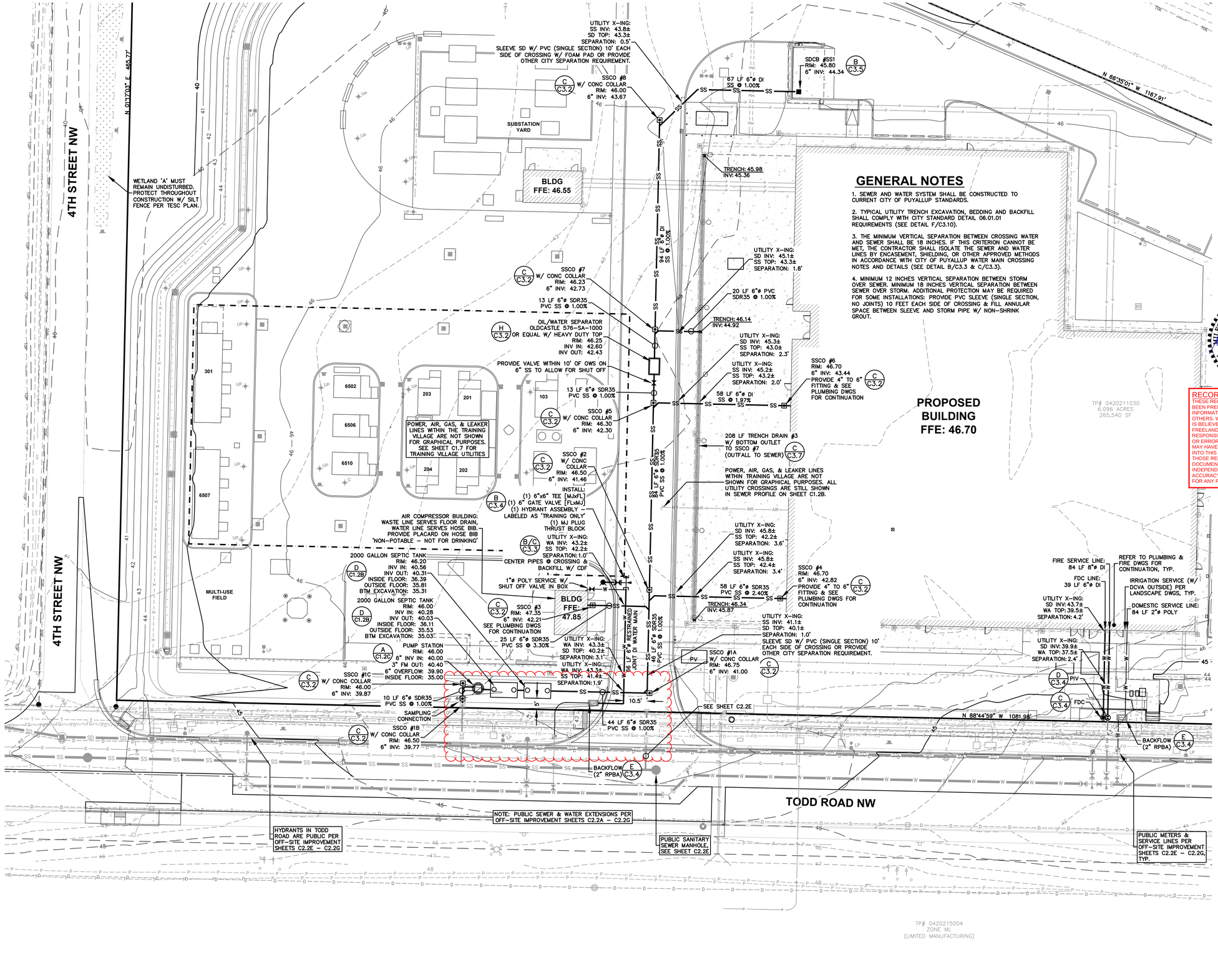
CITY OF PUYALLUP
DEVELOPMENT ENGINEERING and PUBLIC WORKS DEPARTMENTS

DAYLIGHT C
OPEN DI

DRAWN BY	CHECKED BY	APPROVED BY	REVISED BY	CITY STANDARD
LINDA LANSING	LINDA LIAN	COLLEEN HARRIS	XXXX	
FILE NAME		DATE APPROVED	DATE REVISED	SCALE
F:\DWG\COMMON\STDS\CITY\2009\02_SD\02.02.01		09/01/1992	06/01/2003	NTS

02.02.01

PLAN CHANGE REQUEST - 0007



GENERAL NOTES

1. SEWER AND WATER SYSTEM SHALL BE CONSTRUCTED TO CURRENT CITY OF PUYALLUP STANDARDS.

2. TYPICAL UTILITY TRENCH EXCAVATION, BEDDING AND BACKFILL SHALL COMPLY WITH CITY STANDARD DETAIL 06.01.01 REQUIREMENTS (SEE DETAIL F/C3.10).

3. THE MINIMUM VERTICAL SEPARATION BETWEEN CROSSING WATER AND SEWER SHALL BE 18 INCHES. IF THIS CRITERION CANNOT BE MET, THE CONTRACTOR SHALL ISOLATE THE SEWER AND WATER LINES BY ENCASEMENT, SHIELDING, OR OTHER APPROVED METHODS IN ACCORDANCE WITH CITY OF PUYALLUP WATER MAIN CROSSING NOTES AND DETAILS (SEE DETAIL B/C3.3 & C/C3.3).

4. MINIMUM 12 INCHES VERTICAL SEPARATION BETWEEN STORM OVER SEWER. MINIMUM 18 INCHES VERTICAL SEPARATION BETWEEN SEWER OVER STORM. ADDITIONAL PROTECTION MAY BE REQUIRED FOR SOME INSTALLATIONS: PROVIDE PVC SLEEVE (SINGLE SECTION, NO JOINTS) 10 FEET EACH SIDE OF CROSSING & FILL ANNULAR SPACE BETWEEN SLEEVE AND STORM PIPE W/ NON-SHRINK GROUT.

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JAMES PATRICK MCEATHRON STATE OF WASHINGTON 49494 REGISTERED PROFESSIONAL ENGINEER 04/01/2025

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

JAMES PATRICK MCEATHRON STATE OF WASHINGTON 49494 REGISTERED PROFESSIONAL ENGINEER 7/8/2025

PCR 7 APPROVED
BY _____
CITY OF PUYALLUP
DEVELOPMENT ENGINEERING
DATE 04/16/2025
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 DEVELOPMENT ENGINEERING MANAGER.

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FIRE HYDRANT/FDC LOCATION/ACCESS APPROVED
BY _____
CITY OF PUYALLUP
FIRE CODE OFFICIAL
DATE _____
NOTE: THIS APPROVAL IS VOID AFTER 180 DAYS FROM APPROVAL DATE. THE CITY WILL NOT BE RESPONSIBLE FOR ERRORS AND/OR OMISSIONS ON THESE PLANS. FIELD CONDITIONS MAY DICTATE CHANGES TO THESE PLANS AS DETERMINED BY THE FIRE CODE OFFICIAL.

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

CONFORMED SET

REV	ISSUED FOR	DATE

PLAN NORTH | TRUE NORTH
SCALE: 1"=20' (0 — 20)

PSE - OPERATIONAL TRAINING CENTER

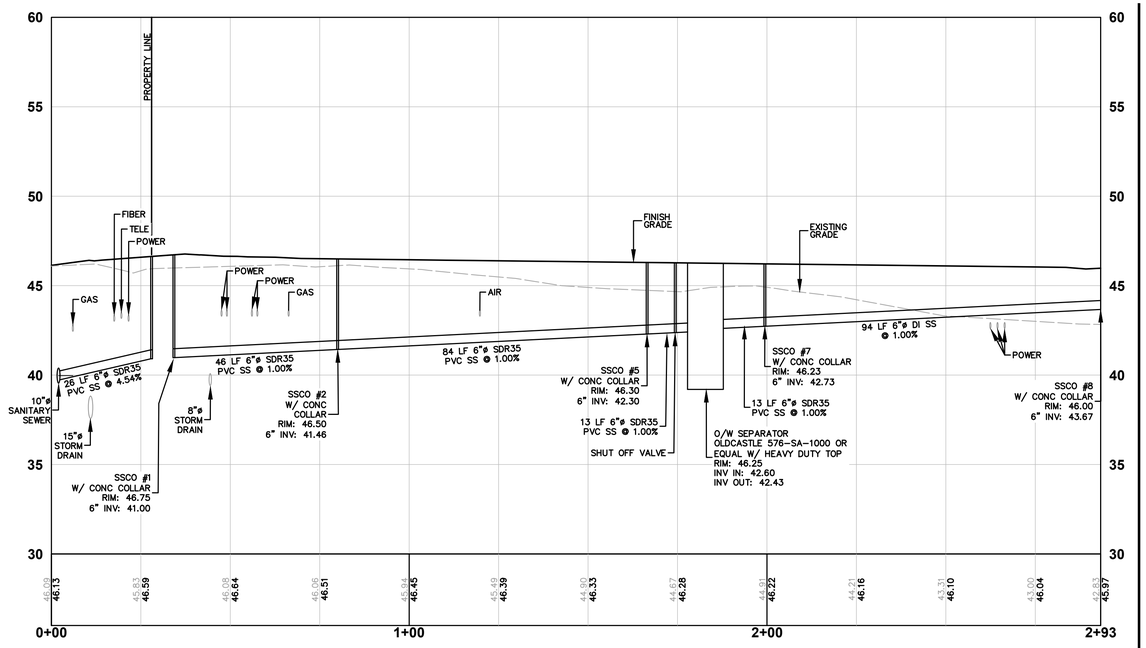
WATER & SEWER PLAN

PROJECT No:	22219
DRAWN BY:	MPM
CHECKED BY:	THF
DATE ISSUED:	11/15/2024

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PLAN CHANGE REQUEST - 0007

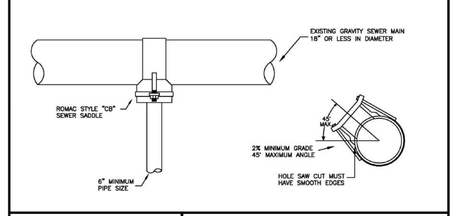


A SEWER SERVICE PROFILE

H: 1"=20'; V: 1"=4'

NOTES FOR CONNECTING TAPS ON EXISTING SEWER MAINS

1. THE TEE FITTING SHALL BE A ROMAC INDUSTRIES STYLE "CB" SEWER SADDLE (OR APPROVED EQUAL). ONLY NEW SADDLE AND PARTS SHALL BE INSTALLED. DUE TO PIPE SIZE MATERIALS OR PIPE CONDITION, THE CITY ENGINEER MAY REQUIRE AN ALTERNATE METHOD/MATERIAL BE USED.
2. THE SEWER MAIN TAP SHALL BE CUT WITH A SEWER PIPE TAPPING MACHINE (HOLE SAW) CAPABLE OF RETAINING THE COUPON.
3. THE ROUND HOLE CUT INTO THE SEWER MAIN SHALL BE NO LARGER THAN THE INSIDE DIAMETER OF THE SADDLE GASKET. THE HOLE SAW CUT EDGES SHALL BE SMOOTH.
4. THE COUPON SHALL BE RETAINED AND SURRENDERED TO THE INSPECTOR. THE PERMIT HOLDER WILL PAY ALL COSTS ASSOCIATED WITH THE LOCATION AND RETRIEVAL OF A LOST COUPON. ADDITIONALLY THE PERMIT HOLDER WILL BE HELD LIABLE FOR ANY SUBSEQUENT DAMAGES CAUSED BY A LOST COUPON.
5. BOLTS SHALL BE TORQUED TO MANUFACTURE SPECIFICATIONS, THEN RETORQUED AFTER 10 MINUTES.
6. NO TAPS SHALL BE ALLOWED ON EXISTING SEWER MAINS OVER 18" IN DIAMETER. CONNECTIONS INTO SEWER MAINS OVER 18" IN DIAMETER SHALL INTERSECT THE SEWER MAIN IN A MANHOLE. IN SOME CASES THE CITY ENGINEER MAY ALLOW A VARIANCE TO THIS REQUIREMENT.
7. ALL TRENCHING, BEDDING, AND BACKFILL SHALL BE IN ACCORDANCE WITH CITY STANDARD DETAIL NO. 06.01.01. ALL ASPHALT REPAIR SHALL BE IN ACCORDANCE WITH CITY STANDARD NO. 01.01.20. ALL ADDITIONAL UTILITY AND RIGHT OF WAY REPAIRS SHALL BE INACCORDANCE WITH THE "CITY STANDARDS" MANUAL.
8. THE CITY OF PUYALLUP WILL CONDUCT A "SEWER MAIN VIDEO INSPECTION" OF THE SEWER TAP. THE PERMIT HOLDER WILL BE REQUIRED TO REPAIR ANY SEWER TAP CONSTRUCTION DEFECTS FOUND BY THE CITY INSPECTORS. THE COST OF ALL REPAIRS AND SUBSEQUENT "SEWER MAIN VIDEO INSPECTIONS" WILL BE THE RESPONSIBILITY OF THE PERMIT HOLDER. THE DAMAGE DEPOSIT POSTED BY THE BUILDER WILL BE HELD UNTIL PROBLEMS ARE CORRECTED. DUE TO PUBLIC HEALTH AND SAFETY, BUILDING OCCUPANCY WILL NOT BE ALLOWED UNTIL REPAIRS ARE COMPLETED AND ACCEPTED BY THE CITY ENGINEER.



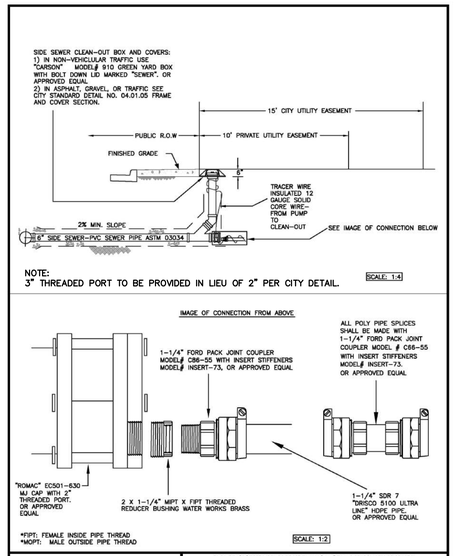
CITY OF PUYALLUP — DEVELOPMENT ENGINEERING and PUBLIC WORKS DEPARTMENTS

SEWER MAIN TAP

DRAWN BY	CHECKED BY	APPROVED BY	REVISED BY	SCALE	CITY STANDARD
JIM BOWEN/EVOBOSA	LINDA LUAN	GILLIAN HARRIS	XXXX	1/2	04.02.01
FILE NAME: E:\PROJECTS\SAMSUNG\TECH\CITY\260904_SEWER\SEWER_TAP.DWG		DATE APPROVED: 03/01/2006	DATE REVISED: XX/XX/XX		

B SEWER MAIN TAP

nts



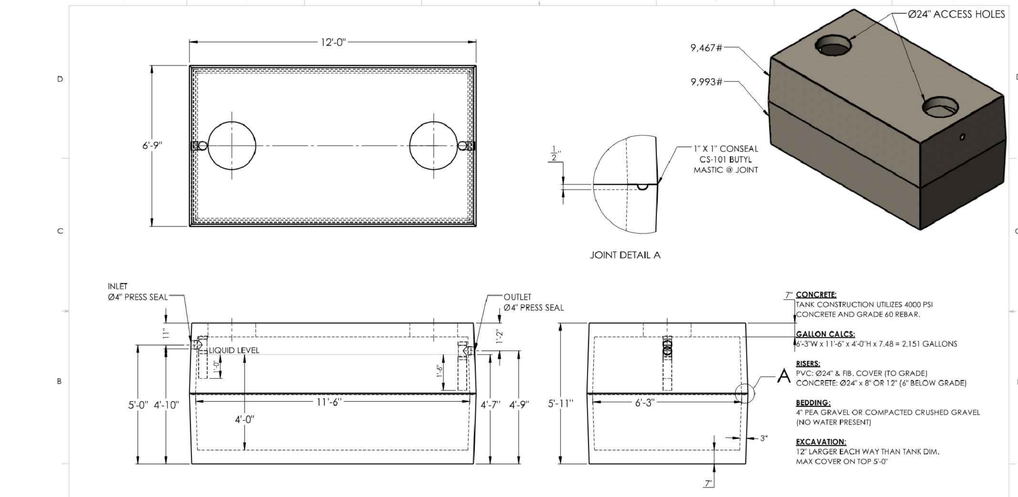
CITY OF PUYALLUP — DEVELOPMENT ENGINEERING and PUBLIC WORKS DEPARTMENTS

PRESSURE LINE TO GRAVITY LINE SIDE SEWER CONNECTION AND CLEAN OUT TYPE 1

DRAWN BY	CHECKED BY	APPROVED BY	REVISED BY	SCALE	CITY STANDARD
JIM BOWEN/EVOBOSA	LINDA LUAN	GILLIAN HARRIS	XXXX	XXXX	04.05.01
FILE NAME: E:\PROJECTS\SAMSUNG\TECH\CITY\260904_SEWER\SEWER_TAP.DWG		DATE APPROVED: 03/01/2006	DATE REVISED: XX/XX/XX		

C PRESSURE LINE TO GRAVITY LINE

nts



NOTES:
REINFORCEMENT:
-#5@5" O.C.E.W. IN TOP
-6X6 10 GA. WIRE MESH IN SIDES & BOTTOM
-#4@8" O.C.E.W. IN BOTTOM

Wilbert PRECAST, INC.

2215 E. BROOKLYN AVE
SPOKANE, WA 99217
TOLL FREE 1-800-888-4573
(509) 325-4573 FAX (509) 325-5098
SPOKANE - LEWISTON - YAKIMA
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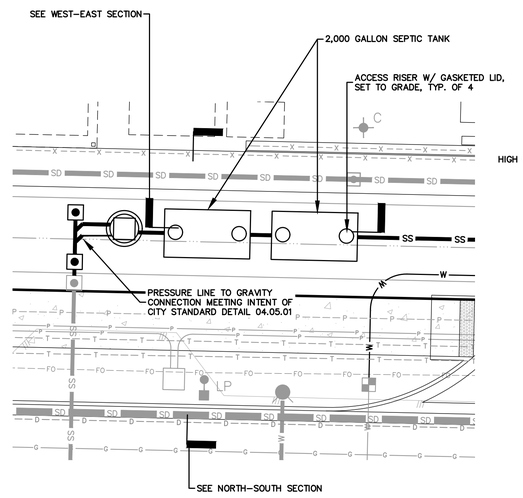
TITLE: 2000 GALLON SINGLE COMPARTMENT 2-PIECE SEPTIC TANK HEAVY

SIZE	DWG. NO.	SCALE:	DATE:
B	#1614TB	NTS	12/23/2019

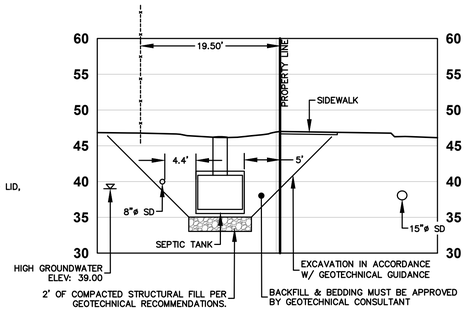
NOTES:
1. CONTRACTOR MUST PROVIDE FILTER BASKET ON OUTLET BAFFLE OF SECOND TANK W/ PVC ROD EXTENDING TO WITHIN 6" OF LID. ENSURE EASY OPERABILITY FOR YEARLY CLEANING.
2. SCREEN FOR FILTER BASKET TO ALLOW DAILY FLOW TO PASS THROUGH, 1,500 GPM MINIMUM. CONTRACTOR TO CONFIRM ⅜" MAX PARTICAL SIZE.
3. ALL PIPES AND BAFFLES TO BE 6"ø (NOT 4"ø).
4. CONTRACTOR SHALL COORDINATE VENTING W/ PLUMBING DESIGNER & ARCHITECT.
5. CONTRACTOR TO FOLLOW TANK MANUFACTURER RECOMMENDATIONS TO ENSURE WATERTIGHT.

D 2,000 GALLON SEPTIC TANK

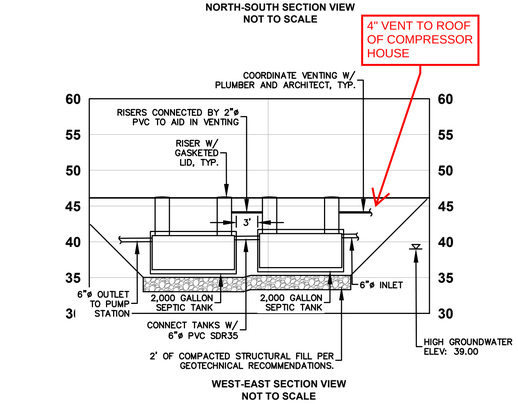
nts



PLAN VIEW
NOT TO SCALE



NORTH-SOUTH SECTION VIEW
NOT TO SCALE



WEST-EAST SECTION VIEW
NOT TO SCALE

E SEPTIC TANK SECTION VIEWS

nts

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JAMES PATRICK MCCARTHERON — STATE OF WASHINGTON — 49494 — REGISTERED PROFESSIONAL ENGINEER — 04/01/2025

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

PCR 7 APPROVED
BY Laura R. Hoogewerff
CITY OF PUYALLUP
DEVELOPMENT ENGINEERING
DATE 04/16/2025

NOTE: THIS APPROVAL IS VOID AFTER 180 DAYS FROM APPROVAL DATE.
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JAMES PATRICK MCCARTHERON — STATE OF WASHINGTON — 49494 — REGISTERED PROFESSIONAL ENGINEER — 7/4/2025

CONFORMED SET

REV	ISSUED FOR	DATE

PLAN NORTH — TRUE NORTH
SCALE: 1"=20' (0 — 20)

PSE - OPERATIONAL TRAINING CENTER

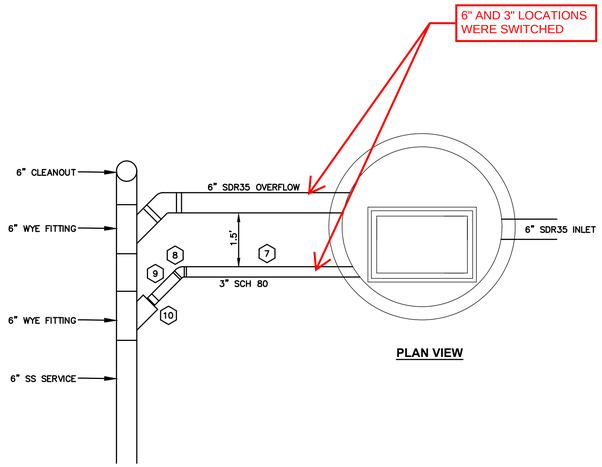
SEWER SERVICE PROFILE

PROJECT No:	22219
DRAWN BY:	MPM
CHECKED BY:	THF
DATE ISSUED:	11/15/2024

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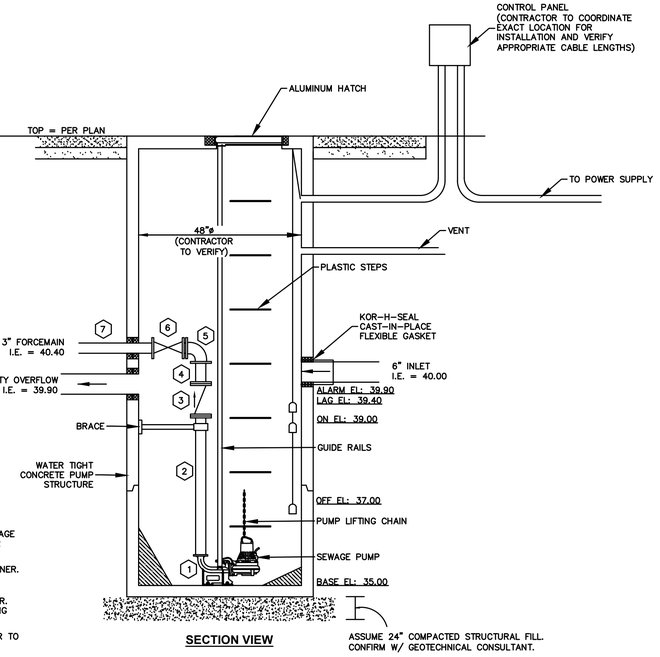
PLAN CHANGE REQUEST - 0007



PLAN VIEW

1. 3" DISCHARGE
2. 3" SCH 80 PIPE STUB
3. 3" CHECK VALVE W/ UNIONS
4. 3" SCH 80 PIPE STUB
5. 3" BRASS 90° BEND
6. 3" BALL VALVE
7. 3" SCH 80 PIPE STUB
8. 3" BRASS 45° BEND
9. 3" SCH 80 PIPE STUB
10. 3" SCH80 MIP ADAPTER

*SCHEDULE 80 PIPE AND BRASS FITTINGS.



SECTION VIEW

ASSUME 24" COMPACTED STRUCTURAL FILL. CONFIRM W/ GEOTECHNICAL CONSULTANT.

NOTES

1. FIELD SETUP REQUIRED.
2. LIBERTY PUMP XLE53M-2 EXPLOSION PROOF SUBMERSIBLE SEWAGE PUMP OR OTHER SUITABLE PUMP SELECTED BY PUMP SUPPLIER CAPABLE OF 120 GPM AT TOTAL DYNAMIC HEAD.
3. VENTING MUST BE COORDINATED W/ OWNER & PLUMBING DESIGNER.
4. SJE RHOMBUS MODEL 314 CONTROL PANEL OR EQUAL.
5. COORDINATE CONTROL PANEL LOCATION WITH OWNER/DEVELOPER. ADJACENT COMPRESSOR BUILDING OR OUTSIDE NOT OBSTRUCTING MAINTENANCE AND OPERATIONS.
6. STRUCTURE MUST BE CONFIRMED BY CONTRACTOR W/ SUPPLIER TO FIT ALL EQUIPMENT.
7. HATCH MUST BE INSTALLED TO OPEN AWAY FROM PUMPS AND ABOVE THE UPPER GUIDE RAIL BRACKET. CONFIRM EXACT ORIENTATION W/ PUMP SUPPLIER.
8. AUDIO AND VISUAL ALARM REQUIRED ON CONTROL PANEL WHEN HIGH LIQUID LEVEL IS TRIGGERED.
9. PUMP SUPPLIER CONTACT

   MATT STORM
   HD FOWLER
   253-405-1083
   matthews@hdfowler.com

A SEPTIC EFFLUENT PUMP STATION

H: 1"=20'; V: 1"=4'

ZERVAS
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MILES PATRICK MCEATHRON — STATE OF WASHINGTON — 49494 — REGISTERED PROFESSIONAL ENGINEER — 04/01/2025

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BY _____
CITY OF PUYALLUP
DEVELOPMENT ENGINEERING

DATE 04/16/2025

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.
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CONFORMED SET

REV	ISSUED FOR	DATE

PLAN NORTH | TRUE NORTH

SCALE: 1"=20' (0 — 20)

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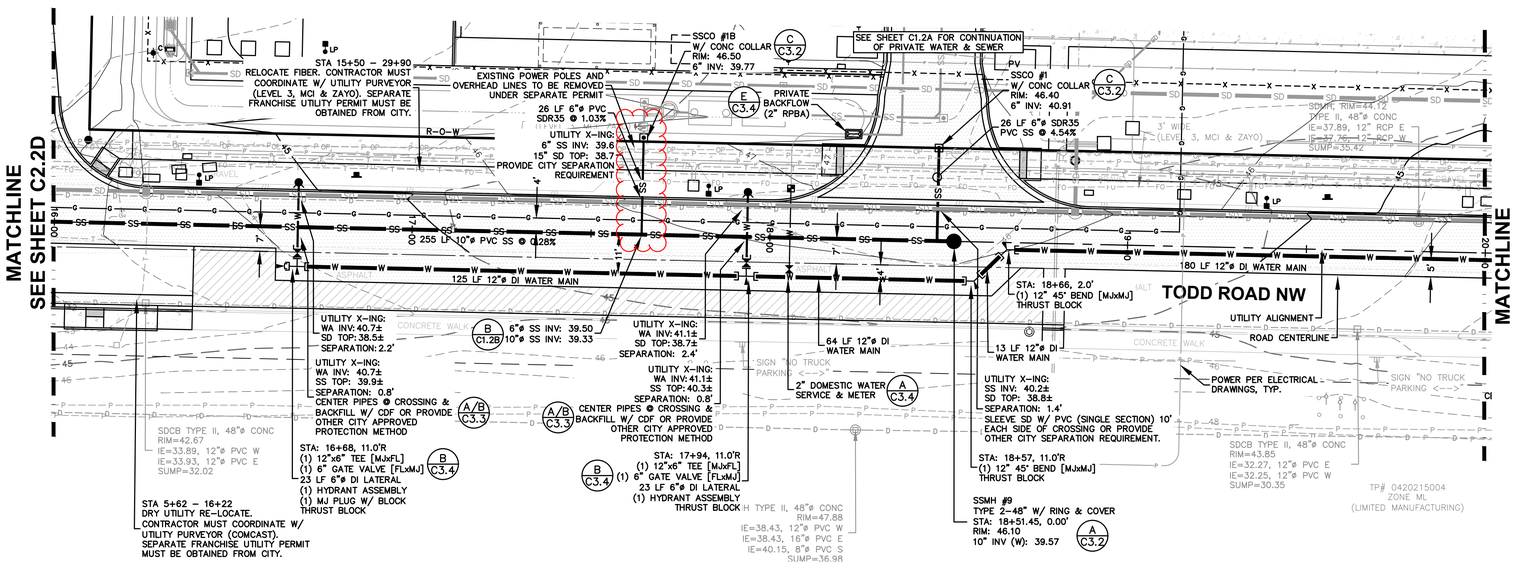
SEWER SERVICE PROFILE

PROJECT No:	22219
DRAWN BY:	MPM
CHECKED BY:	THF
DATE ISSUED:	11/15/2024

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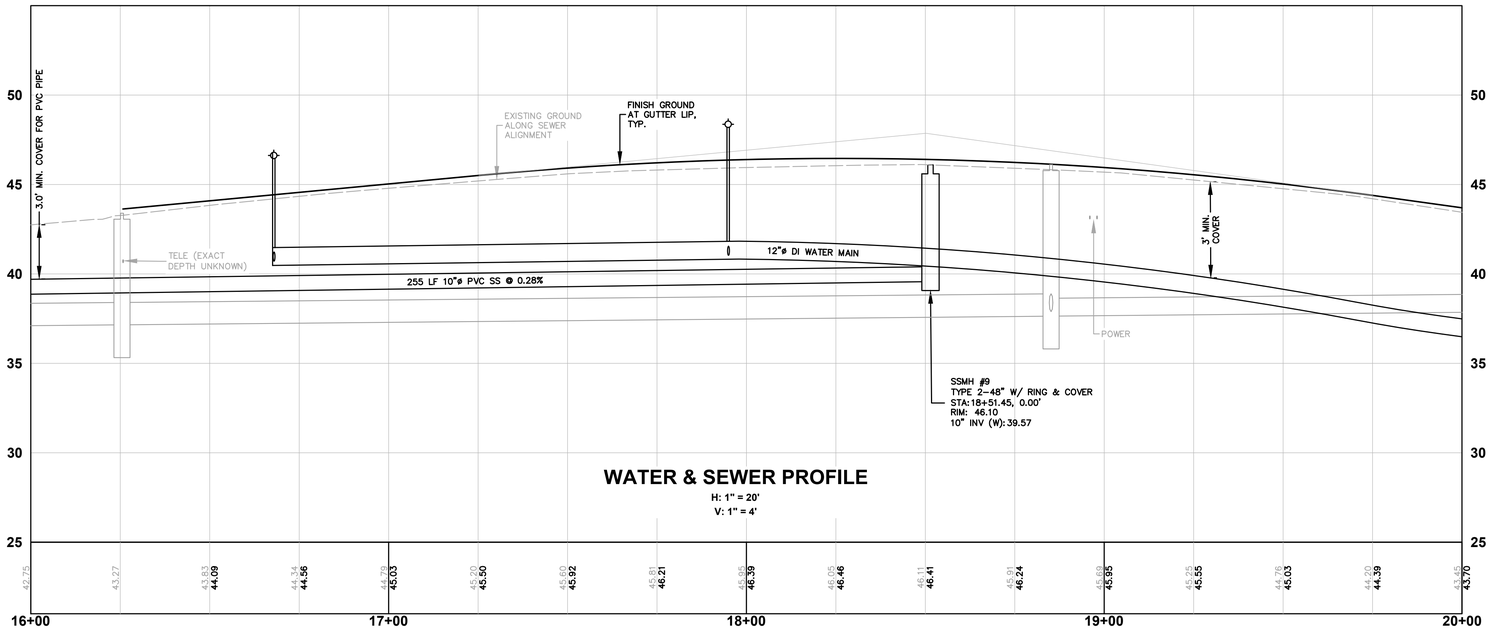
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PLAN CHANGE REQUEST - 0007



WATER & SEWER PLAN

SCALE: 1" = 20'



WATER & SEWER PROFILE

H: 1" = 20'
V: 1" = 4'

GENERAL NOTES

1. SEWER AND WATER SYSTEM SHALL BE CONSTRUCTED TO CURRENT CITY OF PUYALLUP STANDARDS.

2. TYPICAL UTILITY TRENCH EXCAVATION, BEDDING AND BACKFILL SHALL COMPLY WITH CITY STANDARD DETAIL 06.01.01 REQUIREMENTS (SEE DETAIL F/C3.10).

3. THE MINIMUM VERTICAL SEPARATION BETWEEN CROSSING WATER AND SEWER SHALL BE 18 INCHES. IF THIS CRITERION CANNOT BE MET, THE CONTRACTOR SHALL ISOLATE THE SEWER AND WATER LINES BY ENCASEMENT, SHIELDING, OR OTHER APPROVED METHODS IN ACCORDANCE WITH CITY OF PUYALLUP WATER MAIN CROSSING NOTES AND DETAILS (SEE DETAIL B/C3.3 & C/C3.3).

4. MINIMUM 12 INCHES VERTICAL SEPARATION BETWEEN STORM OVER SEWER: MINIMUM 18 INCHES VERTICAL SEPARATION BETWEEN SEWER OVER STORM. ADDITIONAL PROTECTION MAY BE REQUIRED FOR SOME INSTALLATIONS: PROVIDE PVC SLEEVE (SINGLE SECTION, NO JOINTS) 10 FEET EACH SIDE OF CROSSING & FILL ANNULAR SPACE BETWEEN SLEEVE AND STORM PIPE W/ NON–SHRINK GROUT.

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MILES PATRICK MCCARTHERON — STATE OF WASHINGTON — 19494 — REGISTERED PROFESSIONAL ENGINEER — 7/8/2025

APPROVED

BY _____
CITY OF PUYALLUP
WATER PURVEYOR

DATE _____

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CONFORMED SET

REV	ISSUED FOR	DATE

PLAN NORTH | TRUE NORTH

SCALE: 1"=20' (0 — 20)

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