

# MUKILTEO WAREHOUSE

# CIVIL PLANS 4301 78TH ST SW MUKILTEO, WA 98275

## VICINITY MAP

#### **APPLICANT**

NELSON 43 LLC ADDRESS CITY, STATE, ZIPCODE T: (206)-248-3838 F: (XXX)-XXX-XXXX CONTÀCT: GREG NELSON

#### **CONSULTANTS**

NAVIX ENGINEERING, INC. 11235 SE 6TH STREET SUITE 150 BELLEVUE, WA 98004 T: (425) 453-9501 CONTÀCT: SPENCER HUMPHREY, P.E.

ARCHITECT: SYNTHESIS PLLC 12503 BEL-RED ROAD BELLEVUE, WA 98005 T: (425) 646-1818 CONTACT:

SURVEYOR: DUNCANSON COMPANY 145 SW 115TH ST SUITE 102 SEATTLE, WA 98166 T: (206) 244-4141 CONTACT: JONATHAN BECKER, PLS

#### DATUM/BASIS OF BEARINGS

BENCHMARK IS "PF06", A WGS SURVEY CONTROL POINT, DB ID: 20438 BASED ON NAD 1983/91. ELEV = 556.508

#### LEGAL DESCRIPTION

LESS THE WEST 208.71 FEET THEREOF

SNOHOMISH COUNTY PARCEL NUMBERS: 28041000300100, 28041000300400, 28041000300500, 28041000300600 APPROXIMATELY 4.04 ACRES

PARCEL A: SNOHOMISH COUNTY PARCEL NUMBER: 28041000300100

THE WEST HALF OF THE NORTHWEST QUARTER OF THE NORTHWEST QUARTER OF THE SOUTHWEST QUARTER OF SECTION 10, TOWNSHIP 28 NORTH, RANGE 4 EAST, W.M., IN SNOHOMISH COUNTY, WASHINGTON; LESS THE NORTH 100 FEET THEREOF; LESS THE SOUTH 231 FEET THEREOF; AND

PARCEL B: SNOHOMISH COUNTY PARCEL NUMBER: 2804100030040

THE EAST 123.69 FEET OF THE SOUTH 231 FEET OF THE WEST HALF OF THE NORTHWEST QUARTER OF THE NORTHWEST QUARTER OF THE SOUTHWEST QUARTER OF SECTION 10, TOWNSHIP 28 NORTH, RANGE 4 EAST, W.M., IN SNOHOMISH COUNTY, WASHINGTON; LESS THE SOUTH 20 FEET THEREOF FOR ROAD.

PARCEL C: SNOHOMISH COUNTY PARCEL NUMBER: 28041000300500

THE WEST 58.31 FEET OF THE EAST 182 FEET OF THE SOUTH 231 FEET OF THE WEST HALF OF THE NORTHWEST QUARTER OF THE NORTHWEST QUARTER OF THE SOUTHWEST QUARTER OF SECTION 10, TOWNSHIP 28 NORTH, RANGE 4 EAST, W.M., IN SNOHOMISH COUNTY, WASHINGTON; LESS THE SOUTH 20 FEET THEREOF FOR ROAD.

PARCEL D: SNOHOMISH COUNTY PARCEL NUMBER: 28041000300600

THE WEST 208.71 FEET OF THE WEST HALF OF THE NORTHWEST QUARTER OF THE NORTHWEST QUARTER OF THE SOUTHWEST QUARTER OF SECTION 10, TOWNSHIP 28 NORTH, RANGE 4 EAST, W.M., IN SNOHOMISH COUNTY, WASHINGTON; LESS COUNTY ROAD;

LESS THE NORTH 100 FEET THEREOF; LESS THE EAST 182 FEET OF THE SOUTH 231 FEET OF SAID WEST HALF OF THE NORTHWEST QUARTER OF THE NORTHWEST QUARTER OF THE SOUTHWEST QUARTER.

#### REFERENCE DOCUMENTS

TOPOGRAPHIC SURVEY FOR: 44TH AND 78TH PROPERTY BY DUNCANSON COMPANY, DATED 12/27/2018

GEOTECH REPORT:

GEOTECHNICAL ENGINEERING STUDY PROPOSED COMMERCIAL WAREHOUSE 4301-78TH STREET SOUTHWEST MUKILTEO, WASHINGTON BY EARTH SOLUTIONS NW LLC DATED 12/27/2018

INFILTRATION FEASIBILITY REPORT: INFILTRATION FEASIBILITY REPORT FOR MUKILTEO INDUSTRIAL DEVELOPMENT (NELSON 43) BY ASSOCIATED EARTH SCIENCES, INC. DATED 05/08/2019

#### PROJECT DATA

TAX LOT NUMBER = 28041000300100, 0400, 0500, 0600 EXISTING USE = PI (PLANNED INDUSTRIAL) PROPOSED USE = PI (PLANNED INDUSTRIAL) ZONING DESIGNATION = PI (PLANNED INDUSTRIAL)  $= 176,141 \pm SF (4.04 ACRES)$ TOTAL PROPERTY AREA PROPOSED ROW DEDICATION = 15,528 SFPROPOSED PROPERTY AREA = 160,613 SF (3.69 ACRES)EXISTING LAND COVER AREAS: **IMPERVIOUS** = 1,763 SFPERVIOUS = 174,378 SFPROPOSED LAND COVER AREAS: = 130,815 SF (81.4% OF TOTAL SF) **NPGIS** = 55,405 SF (34.5% OF TOTAL SF) PGIS = 75,410 SF (46.9% OF TOTAL SF) PERVIOUS: = 29,798 SF (18.6% OF TOTAL SF) ROW LAND COVER AREAS: **IMPERVIOUS** = 11,122 SF (71.6% OF TOTAL SF) PGIS = 11,122 SF (71.6% OF TOTAL SF) PERVIOUS = 4,406 SF (28.4% OF TOTAL SF)

#### EARTHWORK NOTE

IT IS ANTICIPATED, THAT APPROXIMATELY 15,000 CUBIC YARDS OF EARTHWORK WILL BE MOVED ON SITE FOR THIS PROJECT.

PLEASE NOTE THAT THIS NUMBER IS TO BE USED FOR PERMITTING AND AGENCY USE ONLY AND IS NOT AN ACTUAL QUANTITY TO BE USED FOR BIDDING, COST ESTIMATING, OR OTHER PURPOSES.

#### GENERAL NOTES

- 1. SITE WORK FOR THIS PROJECT SHALL MEET OR EXCEED THE PROJECT SPECIFICATIONS. THE CITY OF MUKILTED STANDARD SPECIFICATIONS, AND THE A.P.W.A. STANDARDS WHICH ARE HEREBY REFERENCED AS PART OF THESE PLANS.
- 2. THE DESIGN SHOWN IS BASED UPON THE ENGINEER'S UNDERSTANDING OF THE EXISTING CONDITIONS. THE PLAN DOES NOT REPRESENT A DETAILED FIELD SURVEY. THE EXISTING CONDITIONS SHOWN ON THIS PLAN SHEET ARE BASED UPON THE SURVEY PREPARED BY DUNCANSON COMPANY, DATED 12/27/18. THE CONTRACTOR IS RESPONSIBLE FOR VERIFYING FIELD CONDITIONS PRIOR TO BIDDING THE PROPOSED SITEWORK IMPROVEMENTS. IF CONFLICTS ARE DISCOVERED, THE CONTRACTOR SHALL NOTIFY THE OWNER PRIOR TO INSTALLATION OF ANY PORTION OF THE SITEWORK WHICH WOULD BE AFFECTED. IF CONTRACTOR DOES NOT ACCEPT EXISTING SURVEY, INCLUDING TOPOGRAPHY AS SHOWN ON THE PLANS, WITHOUT EXCEPTION, HE SHALL HAVE MADE, AT HIS OWN EXPENSE, A TOPOGRAPHIC SURVEY BY A REGISTERED LAND SURVEYOR AND SUBMIT IT TO THE OWNER FOR REVIEW.
- 3. REFER TO PROJECT GEOTECHNICAL REPORT DATED 12/27/2018 BY EARTH SOLUTIONS NW, LLC AND ANY ASSOCIATED ADDENDUMS FOR GEOTECHNICAL RECOMMENDATIONS.
- 4. CAUTION NOTICE TO CONTRACTOR THE CONTRACTOR IS SPECIFICALLY CAUTIONED THAT THE LOCATION OF EXISTING UTILITIES AS SHOWN ON THESE PLANS IS BASED ON RECORDS OF THE VARIOUS UTILITY COMPANIES AND, WHERE POSSIBLE, MEASUREMENTS TAKEN IN THE FIELD. THE INFORMATION IS NOT TO BE RELIED ON AS BEING EXACT OR COMPLETE. THE CONTRACTOR MUST CALL THE APPROPRIATE UTILITY COMPANY AT LEAST 48 HOURS BEFORE ANY EXCAVATION TO REQUEST EXACT FIELD LOCATION OF UTILITIES. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO RELOCATE ALL EXISTING UTILITIES WHICH CONFLICT WITH THE PROPOSED IMPROVEMENTS SHOWN ON THESE

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SHEET IND	DEX
Sheet Number	Sheet Title
C-0.0	COVER SHEET
SV1	LIMITED ROADWAY SURVEY
SV2	LIMITED ROADWAY SURVEY
C-0.1	TESC PLAN
C-0.2	TESC DETAILS
C-1.0	SITE IMPROVEMENTS PLAN
C-1.1	SITE DETAILS
C-1.2	SITE DETAILS
C-2.0	GRADING AND DRAINAGE PLA
C-2.1	STORM DRAINAGE DETAILS
C-2.2	STORM DRAINAGE DETAILS
C-2.3	STORM DRAINAGE DETAILS
C-2.4	STORM DRAINAGE DETAILS
C-2.5	FINISHED GRADING PLAN
C-3.0	WATER PLAN
C-3.1	WATER DETAILS
C-3.2	WATER DETAILS
C-4.0	SANITARY SEWER PLAN
C-4.1	SEWER DETAILS
C-4.2	SEWER DETAILS
CR-1.0	ROADWAY PLAN
CR-1.1	ROADWAY NOTES AND DETAIL
CR-1.2	ROADWAY DETAILS

CHANNELIZATION PLAN

CHANNELIZATION DETAILS

11235 s.e. 6th street | suite 150 bellevue, wa 98004

SITE | CIVIL

t: 425.453.9501 | f: 425-453-8208 www.navixeng.com

**CLIENT/OWNER** 

**GREG NELSON** 

PROJECT NAME

## **NELSON 43**

NAVIX PROJECT NUMBER:

PROJECT ADDRESS

4301 78TH ST SW **MUKILTEO, WA 98275** 

STAMP



REVISIONS					
REV	ISSUED FOR:	DATE			
	PERMIT SET	10.11.1			



SECTION, TOWNSHIP, RANGE:

**SECTION 10, TOWNSHIP 28** NORTH, RANGE 4 EAST, W.M.

PROJECT TEAM

REVIEWED BY:

DESIGNED BY:

S.HUMPHREY J.STEFANOFF

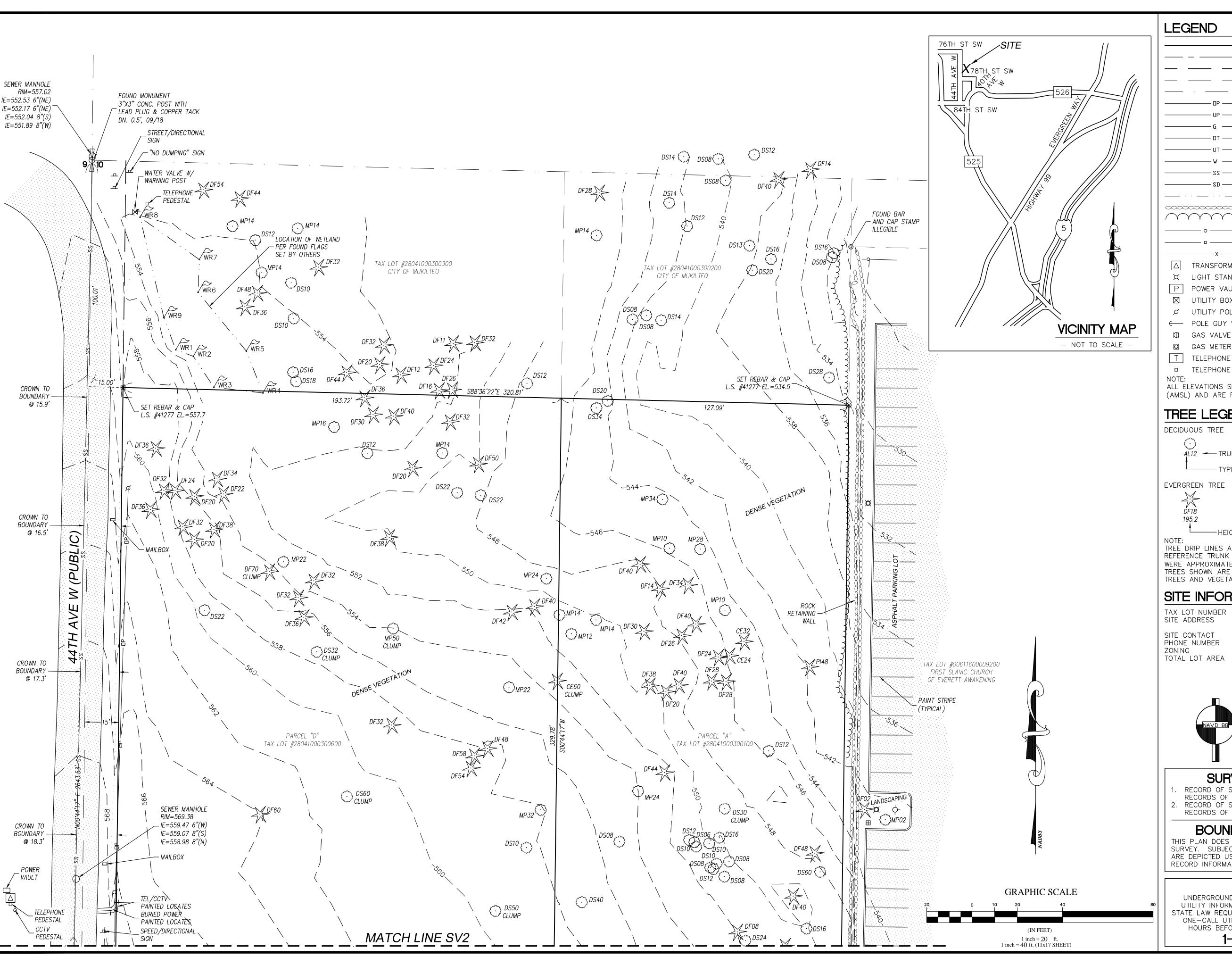
S.HUMPHREY

SHEET NAME

#### **COVER SHEET**

SHEET NUMBER

C-0.0



SUBJECT BOUNDARY LINE RIGHT-OF-WAY CENTERLINE - RIGHT-OF-WAY LINE - ADJACENT BOUNDARY LINE - SECTIONAL BREAKDOWN LINE OVERHEAD POWER LINE BURIED POWER LINE GAS LINE OVERHEAD TELEPHONE LINE BURIED TELEPHONE LINE WATER LINE SANITARY SEWER --- DITCH LINE/FLOW LINE ROCK RETAINING WALL VEGETATION LINE CHAIN LINK FENCE

BARBED WIRE/WIRE FENCE TRANSFORMER -Q- FIRE HYDRANT M GATE VALVE X LIGHT STANDARD P POWER VAULT

■ WATER METER Q FIRE STAND PIPE UTILITY BOX ☐ CATCH BASIN, TYPE Ø UTILITY POLE CATCH BASIN, TYPE ← POLE GUY WIRE **-** SIGN

WOOD FENCE

GAS METER BOLLARD T TELEPHONE VAULT □ MAIL BOX 234.21 SPOT ELEVATION TELEPHONE RISER

ALL ELEVATIONS SHOWN ARE ABOVE MEAN SEA LEVEL (AMSL) AND ARE REFERENCED TO THE NAVD88 DATUM.

#### TREE LEGEND

AL=ALDER MP=MAPLE DS=DECIDUOUS AL12 TRUNK DIAMETER (IN) MA=MADRONA OK=OAK CH=CHERRY

CE=CEDAR DF=DOUGLAS FIR HE=HEMLOCK

PI=PINE EVG=EVERGREEN

-HEIGHT AGL IF MEASURED

TREE DRIP LINES ARE NOT TO SCALE. TREE SYMBOLS REFERENCE TRUNK LOCATION ONLY. TRUNK DIAMETERS WERE APPROXIMATED AT 3.5' TO 4' ABOVE GROUND LEVEL. TREES SHOWN ARE FOR REFERENCE ONLY AND OTHER TREES AND VEGETATION MAY EXIST.

#### SITE INFORMATION

TAX LOT NUMBER 28041000300100, 0400, 0500, 06 SITE ADDRESS 44TH AVE W & 78TH ST SW MUKILTEO, WA 98275 SITE CONTACT GREG NELSON

PHONE NUMBER 206-248-3838 PI (CITY OF MUKILTEO) TOTAL LOT AREA 176,141± S.F.(4.04 AĆ.)



BENCHMARK IS "PF06", A WGS SURVEY CONTROL POINT, DB ID: 20438 BASED ON NAD 1983/91. ELEV = 556.508

#### SURVEY REFERENCE

RECORD OF SURVEY PER A.F. NO. 200802045001, RECORDS OF SNOHOMISH COUNTY. RECORD OF SURVEY PER A.F. NO. 9811195007, RECORDS OF SNOHOMISH COUNTY.

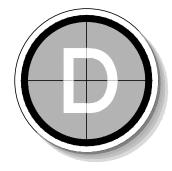
#### **BOUNDARY DISCLAIMER**

THIS PLAN DOES NOT REPRESENT A BOUNDARY SURVEY. SUBJECT AND ADJACENT PROPERTY LINES ARE DEPICTED USING FIELD—FOUND EVIDENCE AND RECORD INFORMATION.

#### CAUTION!

UNDERGROUND UTILITIES EXIST IN THE AREA AND UTILITY INFORMATION SHOWN MAY BE INCOMPLETE. STATE LAW REQUIRES THAT CONTRACTOR CONTACT THE ONE—CALL UTILITY LOCATE SERVICE AT LEAST 48 HOURS BEFORE STARTING ANY CONSTRUCTION.

1-800-424-5555

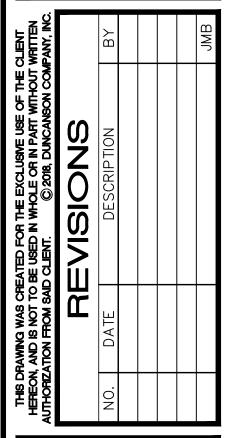


DUNCANSON

Company, Inc.

145 SW 155th Street, Suite 102 Seattle, Washington 98166 Phone 206.244.4141 Fax 206.244.4455

OPMENT 



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FLD. CREW: CR/D FLD. BOOK: 513/9

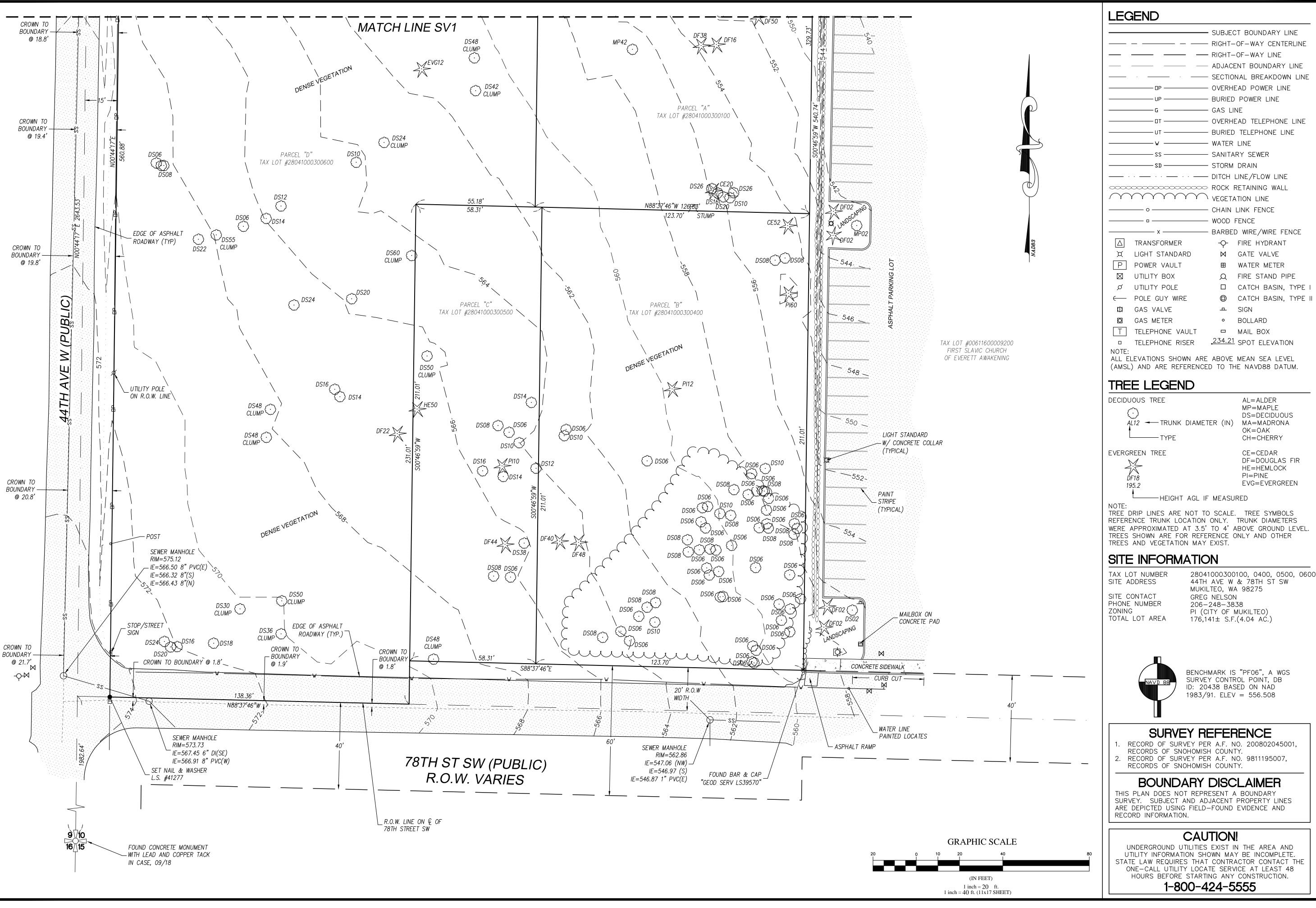
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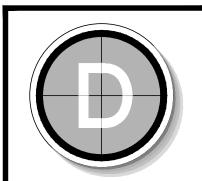
DATE: 12/27/1



SV1

OF 2





DUNCANSON

145 SW 155th Street, Suite 102 Seattle, Washington 98166 Phone 206.244.4141 Fax 206.244.4455

Company, Inc.

- Tux 200.244.4433

NELSON EVELOPMENT P.O. BOX 1301

44TH AND 78TH
PROPERTY
IMITED ROADWAY SURVE
EC 10, TWP 28 N, RNG 4 E, WI

FLD. CREW: CR/DC FLD. BOOK: 513/90

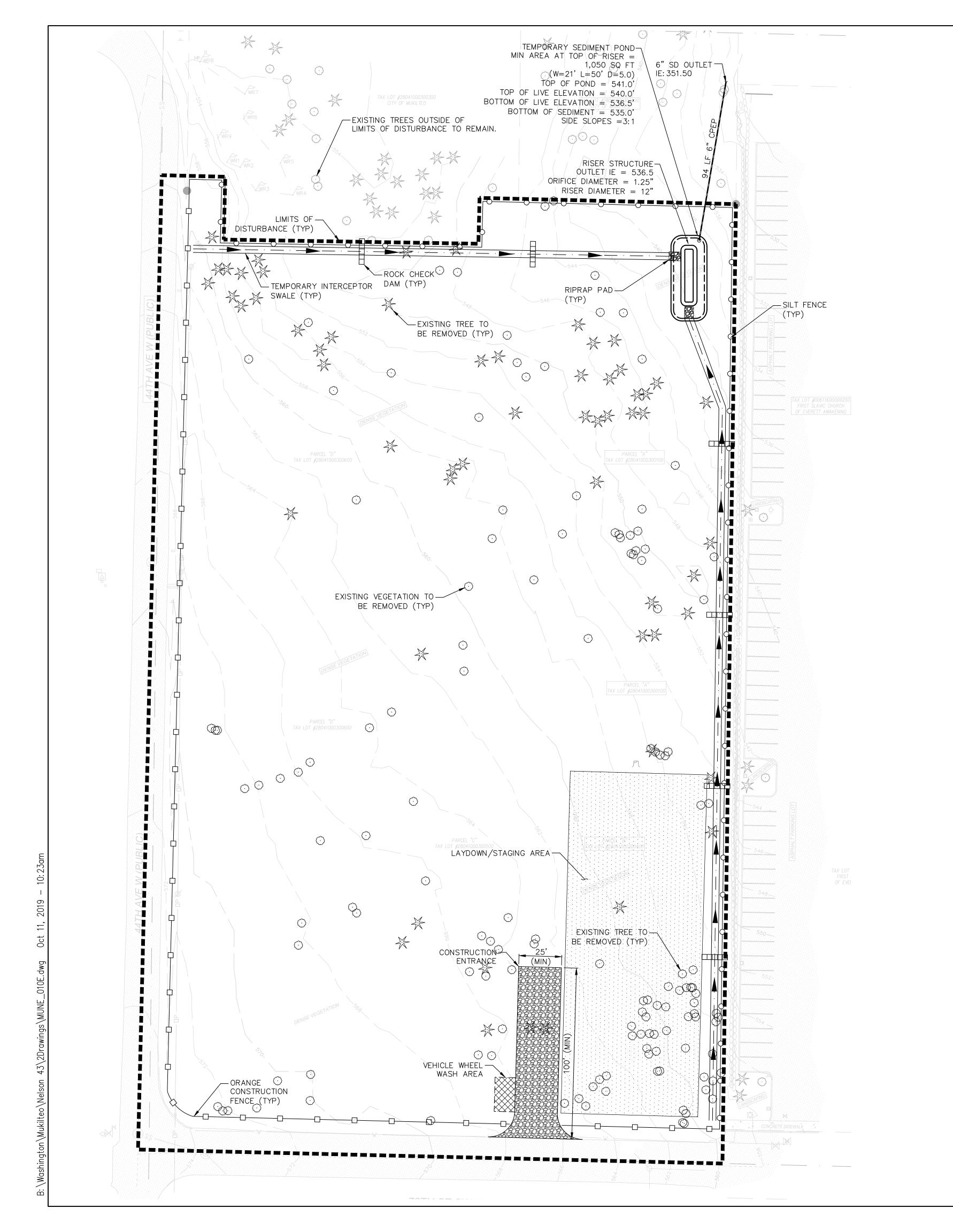
DRAWN BY: LAC JOB #: 18697

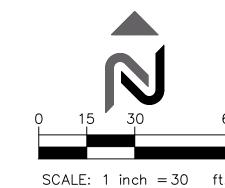
DATE: 12/27/1



SV2

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#### LEGEND:

PROPERTY BOUNDARY

TEMPORARY CONSTRUCTION FENCE

SILT FENCE

TEMPORARY GRASS SWALE

CONCRETE CURB AND GUTTER

STABILIZED CONSTRUCTION ENTRANCE

SEQUENCE OF CONSTRUCTION

INLET PROTECTION FOR EXISTING CATCH BASINS.

4. INSTALL STABILIZED CONSTRUCTION ENTRANCE.

5. CONSTRUCT TEMPORARY SEDIMENT POND.

2. ESTABLISH LIMITS OF DISTURBANCE.

7. BEGIN ROUGH GRADING THE SITE.

13. TEMPORARILY SEED EXPOSED AREAS.

15. PREPARE BUILDING PADS AS SHOWN.

FULLY STABILIZED.

1. HOLD A PRE-CONSTRUCTION MEETING WITH CITY AND OBTAIN REQUIRED

3. CONSTRUCT SILT FENCING AND CONSTRUCTION FENCING ON-SITE. INSTALL

6. CONTACT CITY AND COORDINATE AN EROSION CONTROL INSPECTION.

8. CONSTRUCT THE INTERCEPTOR SWALES WITH APPROPRIATE OUTFALL

LOWER THAN THE BOTTOM OF THE NEXT UPSTREAM DAM.

STRUCTURES. INTERCEPTOR SWALES ARE TO SLOPE TOWARD POND WITH ROCK CHECK DAMS SPACED SUCH THAT THE TIP OF THE DOWNSTREAM DAM IS NO

9. ONCE SWALES ARE OPERATIONAL, ALL STORMWATER SHOULD BE DIRECTED TO

10. INSTALL RIP RAP AROUND TEMPORARY INLET AND OUTLET STRUCTURES.

14. CONSTRUCT STORM DRAINAGE SYSTEM. CONTACT CITY AND COORDINATE AN

16. COMPLETE GRADING AND OTHER CONSTRUCTION AND STABILIZE THE SITE.

CONTACT CITY AND COORDINATE AN INSPECTION AFTER THE SITE HAS BEEN

11. CONTACT CITY AND COORDINATE AN EROSION CONTROL INSPECTION.

12. CLEAR AND GRUB THE SITE AS CONSTRUCTION ACTIVITIES REQUIRE.

INSPECTION PRIOR TO BURIAL OF UNDERGROUND UTILITIES.

WHEEL WASH

LAYDOWN/STAGING AREA

ROCK CHECK DAM

TEMPORARY INLET PROTECTION

TESC POND

PERMITS.



11235 s.e. 6th street | suite 150 bellevue, wa 98004

t: 425.453.9501 | f: 425-453-8208 www.navixeng.com

CLIENT/OWNER

**GREG NELSON** 

PROJECT NAME

**NELSON 43** 

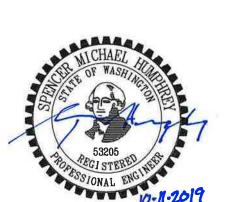
NAVIX PROJECT NUMBER:

PROJECT ADDRESS

4301 78TH ST SW

MUKILTEO, WA 98275

STAMP



_	<b>REVISIONS</b>	
REV	ISSUED FOR:	DATE
	PERMIT SET	10.11.19



SECTION 10, TOWNSHIP 28 NORTH, RANGE 4 EAST, W.M.

PROJECT TEAM

REVIEWED BY: DESIGNED BY:

NED BY:

SHEET NAME

S.HUMPHREY

S.HUMPHREY

J.STEFANOFF

**TESC PLAN** 

SHEET NUMBER

C-0.1

#### SITE GRADING AND SWPPP NOTES (CITY OF MUKILTEO)

- NONCOMPLIANCE WITH THE EROSION CONTROL REQUIREMENTS, WATER QUALITY REQUIREMENTS AND CLEARING LIMITS VIOLATIONS MAY RESULT IN REVOCATION OF PROJECT PERMITS AND PLAN APPROVAL AND BOND FORECLOSURES.
- PRIOR TO ANY SITE CONSTRUCTION, INCLUDING CLEARING, LOGGING OR GRADING, THE SITE CLEARING LIMITS SHALL BE LOCATED AND FIELD IDENTIFIED BY THE PROJECT SURVEYOR (OR PROJECT ENGINEER) AS REQUIRED BY THESE PLANS. THE PROJECT SURVEYOR'S NAME AND PHONE NUMBER IS JONATHAN BECKER, P.L.S., (206) 244-4141.
- THE CONTRACTOR IS RESPONSIBLE FOR WATER QUALITY AS DETERMINED BY THE MONITORING PROGRAM ESTABLISHED BY THE PROJECT ENGINEER. THE PROJECT ENGINEER'S NAME AND PHONE NUMBER IS SPENCER HUMPHREY, P.E., (425) 453-9501.
- 4. THE CONSTRUCTION STORMWATER POLLUTION PREVENTION FACILITIES SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE APPROVED SWPPP PRIOR TO ANY GRADING OR EXTENSIVE LAND CLEARING. AN INSPECTION BY THE CITY OF THESE FACILITIES SHALL BE ARRANGED FOR BY THE CONTRACTOR PRIOR TO ANY GRADING. THESE FACILITIES MUST BE SATISFACTORILY MAINTAINED UNTIL CONSTRUCTION AND LANDSCAPING IS COMPLETED AND THE POTENTIAL FOR ON-SITE EROSION HAS
- 5. ALL SITE WORK MUST BE PERFORMED IN ACCORDANCE WITH THE CURRENT CITY ADOPTED INTERNATIONAL BUILDING CODE.
- ALL EARTH WORK SHALL BE PERFORMED IN ACCORDANCE WITH CITY STANDARDS. A PRECONSTRUCTION SOILS INVESTIGATION MAY BE REQUIRED TO EVALUATE SOILS STABILITY.
- 7. IF CUT AND FILL SLOPES EXCEED A MAXIMUM OF TWO FEET HORIZONTAL TO ONE FOOT VERTICAL A ROCK OR CONCRETE RETAINING WALL MAY BE REQUIRED. ALL ROCK RETAINING WALLS GREATER THAN FOUR (4) FEET IN HEIGHT ARE TO BE DESIGNED AND CERTIFIED BY A PROFESSIONAL ENGINEER EXPERIENCED IN SOIL MECHANICS.
- 8. STOCKPILES ARE TO BE LOCATED IN SAFE AREAS AND ADEQUATELY PROTECTED BY TEMPORARY SEEDING AND MULCHING. HYDROSEEDING IS PREFERRED.
- 9. ALL STRUCTURAL FILLS SHALL BE COMPACTED TO A MINIMUM OF 95% MAXIMUM DENSITY IN THE UPPER 4 FEET & 90% MAXIMUM DENSITY BELOW 4 FEET AS DETERMINED BY MODIFIED PROCTOR.
- 10. PRIOR TO ANY SITE WORK PERTAINING TO DRAINAGE, THE CONTRACTOR SHALL CONTACT COMMUNITY DEVELOPMENT AT 425-263-8000 TO SCHEDULE A PRECONSTRUCTION CONFERENCE.
- 11. CONSTRUCTION STORMWATER POLLUTION PREVENTION MEASURES SHALL BE INSTALLED PRIOR TO ANY SITE WORK. (SEE ATTACHED DETAILED DRAINAGE PLAN).
- 12. THE SURFACE OF ALL SLOPES SHALL BE COMPACTED. THIS MAY BE ACCOMPLISHED BY OVERBUILDING THE SLOPES, THEN CUTTING BACK TO FINAL GRADES; OR BY COMPACTING EACH LIFT AS THE SLOPE IS BEING CONSTRUCTED. ALL SLOPES SHALL BE COMPACTED BY THE END OF EACH WORKING DAY.
- 13. UPON COMPLETION OF WORK, FINAL REPORTS MUST BE SUBMITTED TO THE CITY IN CONFORMANCE WITH THE CURRENT CITY ADOPTED INTERNATIONAL BUILDING CODE.

#### SITE GRADING AND SWPPP NOTES (CITY OF MUKILTEO)

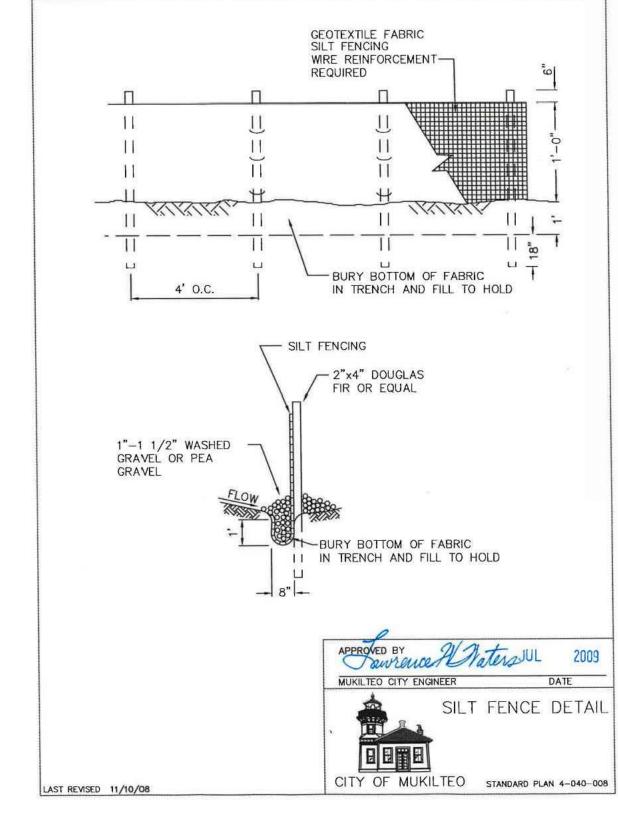
- THE TEMPORARY CONSTRUCTION ENTRANCE SHOULD BE CLEARED OF ALL VEGETATION, ROOTS, AND OTHER OBJECTIONABLE MATERIAL. ANY DRAINAGE FACILITIES REQUIRED BECAUSE OF WASHING SHOULD BE CONSTRUCTED ACCORDING TO SPECIFICATIONS IN THE PLAN. IF WASH RACKS ARE USED. THEY SHOULD BE INSTALLED ACCORDING TO MANUFACTURES SPECIFICATIONS.
- GRAVEL SHALL BE CRUSHED BALLAST ROCK, 8"TO 12"IN DEPTH AND INSTALLED TO THE SPECIFIED DIMENSIONS AT THE ENTRANCE.
- THE GRAVEL BALLAST ROCK SHALL BE 4"TO 8"IN DIAMETER AND PLACED ACROSS THE FULL WIDTH OF THE VEHICULAR INGRESS AND EGRESS AREA. THE LENGTH OF ENTRANCE SHALL BE A MINIMUM OF 100 FEET.
- IF CONDITIONS ON THE SITE ARE SUCH THAT MOST OF THE MUD IS NOT REMOVED FROM VEHICLE TIRES BY CONTACT WITH THE GRAVEL. THEN THE TIRES MUST BE WASHED BEFORE VEHICLES ENTER ONTO A PUBLIC ROAD. WASH WATER MUST BE CARRIED AWAY FROM THE ENTRANCE TO A SETTLING AREA TO REMOVE SEDIMENT. A WASH RACK MAY ALSO BE USED TO MAKE WASHING MORE CONVENIENT AND EFFECTIVE.
- THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOW OF MUD ONTO PUBLIC RIGHTS-OF-WAY. THIS MAY REQUIRE PERIODIC TOP DRESSING WITH 2" STONE, AS CONDITIONS DEMAND, AND REPAIR AND/OR CLEAN OUT ANY STRUCTURES USED TO TRAP SEDIMENT. ALL MATERIALS SPILLED, DROPPED, WASHED OR TRACKED FROM VEHICLES ONTO ROADWAY OR INTO STORM DRAINS MUST BE REMOVED IMMEDIATELY.

#### MAINTENANCE OF SILTATION BARRIERS (CITY OF MUKILTEO)

SILTATION BARRIERS SHALL BE INSPECTED IMMEDIATELY AFTER EACH RAINFALL AND AT LEAST DAILY DURING PROLONGED RAINFALL. CLOSE ATTENTION SHALL BE PAID TO THE REPAIR OF DAMAGED BALES, END RUNS AND UNDERCUTTING BENEATH BALES, NECESSARY REPAIRS TO BARRIERS OR REPLACEMENT OF BALES SHALL BE ACCOMPLISHED PROMPTLY. SEDIMENT DEPOSITS SHOULD BE REMOVED AFTER EACH RAINFALL. SEDIMENT DEPOSITS MUST BE REMOVED WHEN THE SEDIMENT LEVEL REACHES APPROXIMATELY ONE—HALF THE SILTATION BARRIER HEIGHT. ANY SEDIMENT DEPOSITS REMAINING IN PLACE AFTER THE STRAW BALE BARRIER IS NO LONGER REQUIRED SHALL BE DRESSED TO CONFORM TO THE EXISTING GRADE, PREPARED AND SEEDED.

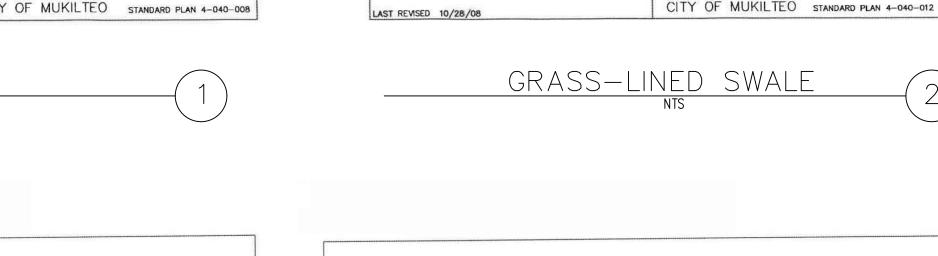
#### STAND PIPE AND SEDIMENT POND MAINTENANCE (CITY OF MUKILTEO)

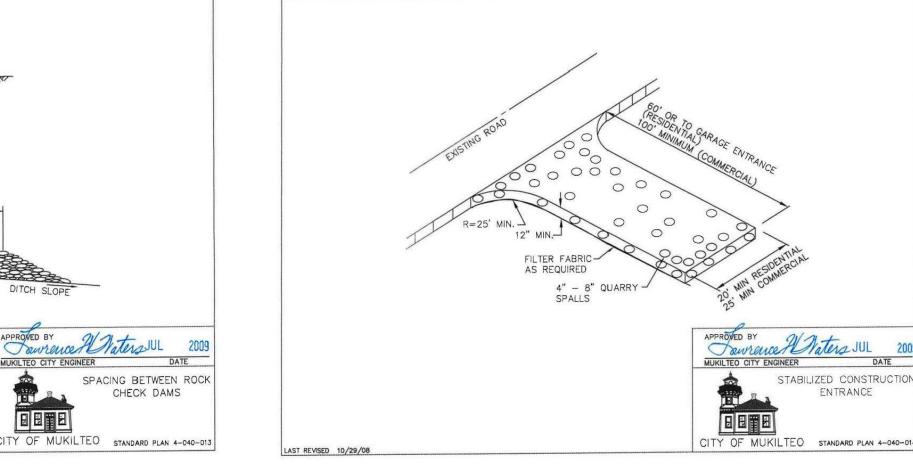
THE EMBANKMENT OF THE BASIN SHOULD BE CHECKED REGULARLY TO INSURE THAT IT IS STRUCTURALLY SOUND AND HAS NOT BEEN DAMAGED BY EROSION OR CONSTRUCTION EQUIPMENT. THE EMERGENCY SPILLWAY SHOULD BE CHECKED REGULARLY TO INSURE THAT THE LINING IS WELL ESTABLISHED AND EROSION RESISTANT. THE SILTATION BASIN SHOULD BE CHECKED FOR SEDIMENT CLEANOUT AFTER EACH RAINFALL WHICH PRODUCES RUNOFF. WHEN THE SEDIMENT REACHES THE CLEANOUT LEVEL, IT SHALL BE REMOVED AND PROPERLY DISPOSED.





ROCK CHECK DAM



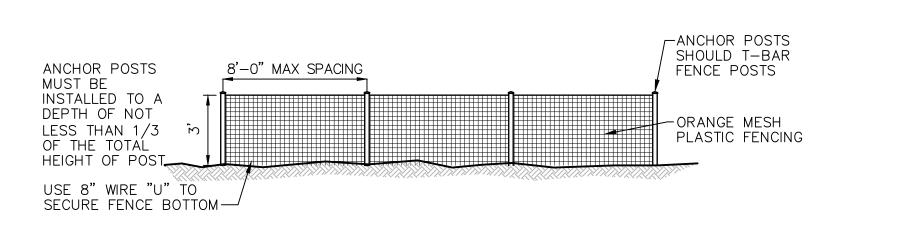




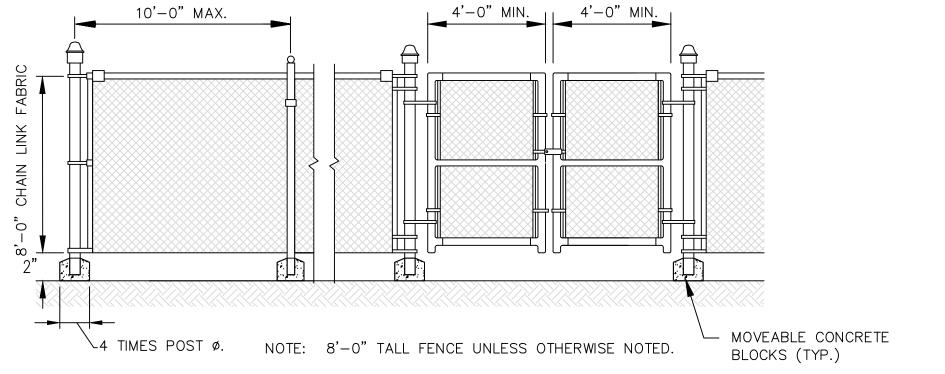
10'-0" MAX.

TEMPORARY CHAIN LINK FENCE

ENTRANCE



TEMPORARY ORANGE CONSTRUCTION FENCE



INLET PROTECTION NOTES

HIGH.

SETBACK 15'

-0.5' FREEBOARD, MIN.

4. MAXIMUM DESIGN VELOCITY SHALL BE 4 FPS. VELOCITY MAY BE CONTROLLED

6. DURING CONSTRUCTION AND MAINTENANCE PERIOD REMOVE SEDIMENT WHEN

7. MATRIX-TYPE SOIL REINFORCEMENT MAY BE SUBSTITUTED ON PRIOR WRITTEN

Dawrence Waters JUL 2009

GRASS LINED SWALE

2. SOD SHALL BE STAPLED IN PLACE

3. ROUND ALL CORNERS FOR EASE OF MOWING

5. LOCATE ALL SEDIMENT TRAPS FOR EASE OF MAINTENANCE.

A MAXIMUM OF 6 INCHES IS DEPOSITED AT ANY POINT.

BY CHECK DAMS OR OTHER DEVICES.

APPROVAL OF THE CITY ENGINEER.

1. 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 ADJACENT BLOCKS SHALL ABUT. THE HEIGHT OF THE BARRIER CAN BE VARIED, DEPENDING ON DESIGN NEEDS, BY STACKING COMBINATIONS OF BLOCKS THAT ARE 4 INCHES, AND 12 INCHES WIDE. THE ROW OF BLOCKS SHALL BE AT LEAST 12 INCHES BUT NO GREATER THAN 24

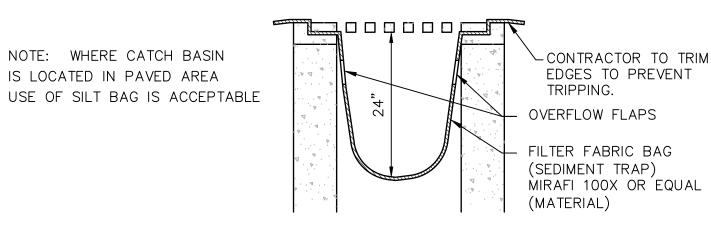
2. PLACE WIRE MESH OVER THE OUTSIDE VERTICAL FACE (OPEN END) OF THE CONCRETE PREVENT STONE FROM BEING WASHED THROUGH THE BLOCKS. USE HARDWARE CLOTH OR COMPARABLE WIRE MESH WITH 1/2-INCH OPENINGS.

3. PILE STONE AGAINST THE WIRE MESH TO THE TOP OF THE BLOCKS. USE 3/4-TO 3-INCH GRAVEL.

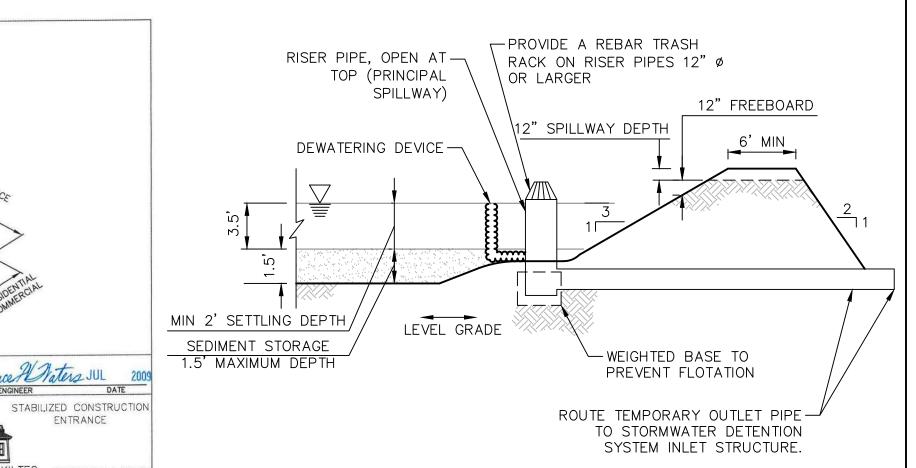
4. PLACE WIRE MESH OVER THE DROP INLET SO THAT THE WIRE EXTENDS A MINIMUM OF 1 BEYOND EACH SIDE OF THE INLET STRUCTURE. USE HARDWARE CLOTH OR COMPARABLE WIRE MESH WITH 1/2-INCH OPENINGS. IF MORE THAN ONE STRIP OF MESH IS NECESSARY, OVERLAF THE STRIPS. PLACE FILTER FABRIC OVER WIRE MESH.

5. PLACE 3/4-INCH GRAVEL OVER THE WIRE MESH. THE DEPTH OF STONE SHALL BE AT INCHES OVER THE ENTIRE INLET OPENING. EXTEND THE STONE BEYOND THE INLET OPENING AT LEAST 18 INCHES ON ALL SIDES.

6. IF THE STONE FILTER BECOMES CLOGGED WITH SEDIMENT, THE STONES MUST BE PULLED FROM THE INLET AND CLEANED OR REPLACED.



FILTER FABRIC IN CATCH BASIN



TEMPORARY SEDIMENT POND AND RISER

SITE | CIVIL 11235 s.e. 6th street | suite 150 bellevue, wa 98004 t: 425.453.9501 | f: 425-453-8208 www.navixeng.com **CLIENT/OWNER** 

PROJECT NAME

**GREG NELSON** 

**NELSON 43** 

NAVIX PROJECT NUMBER:

PROJECT ADDRESS

4301 78TH ST SW **MUKILTEO, WA 98275** 

STAMP



**REVISIONS ISSUED FOR:** DATE **PERMIT SET** 10.11.19



SECTION, TOWNSHIP, RANGE:

**SECTION 10, TOWNSHIP 28** NORTH, RANGE 4 EAST, W.M.

PROJECT TEAM

REVIEWED BY: DESIGNED BY:

> J.STEFANOFF SHEET NAME

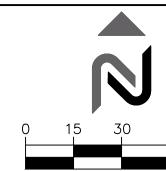
S.HUMPHREY

S.HUMPHREY

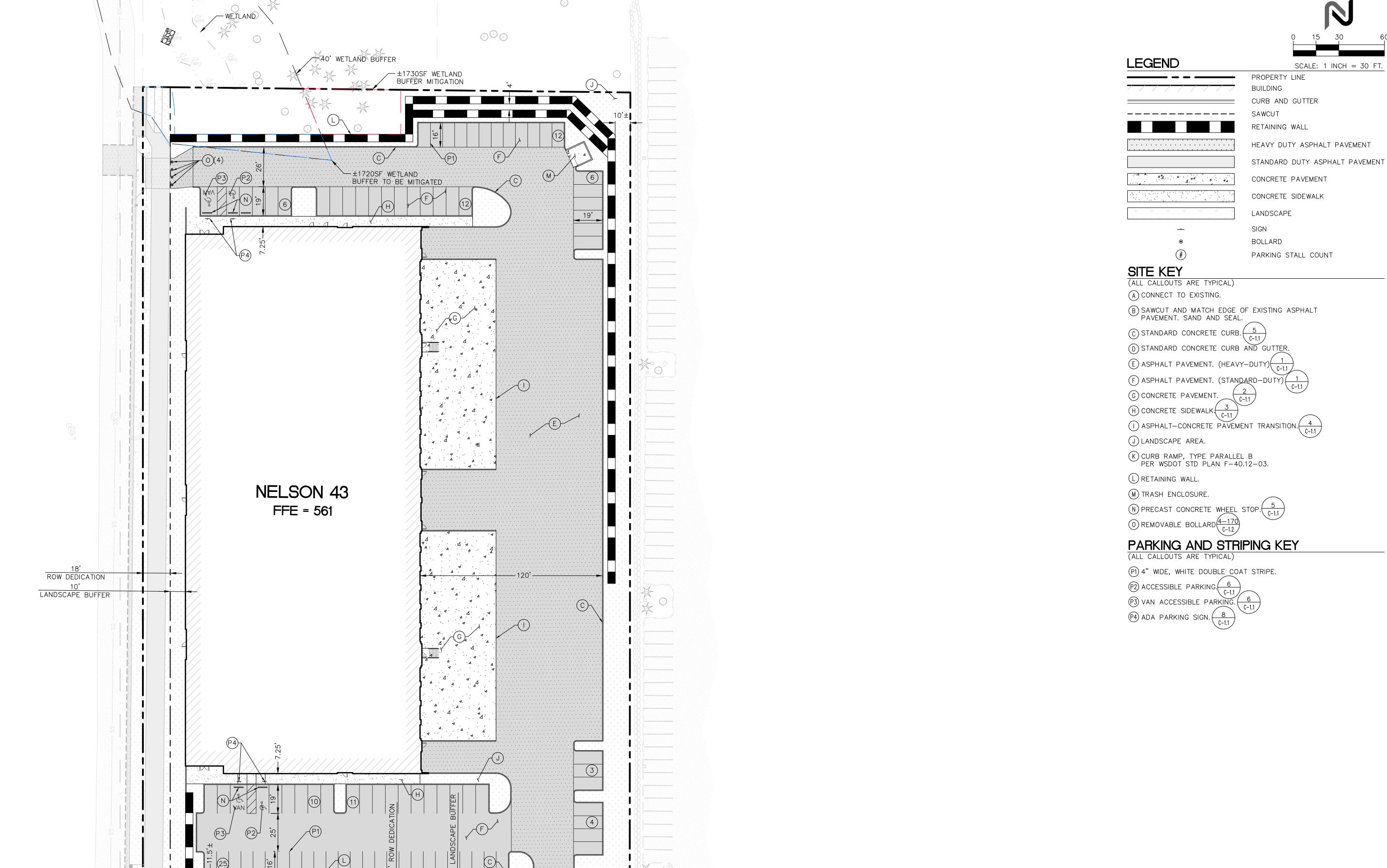
**TESC DETAILS** 

SHEET NUMBER

C-0.2



SCALE: 1 INCH = 30 FT.





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SECTION, TOWNSHIP, RANGE:

SECTION 10, TOWNSHIP 28 NORTH, RANGE 4 EAST, W.M.

PROJECT TEAM

REVIEWED BY: DESIGNED BY:

SHEET NAME

SITE **IMPROVEMENTS PLAN** 

SHEET NUMBER

C-1.0

#### SITE NOTES (NAVIX)

- ALL WORK AND MATERIALS SHALL COMPLY WITH ALL CITY/COUNTY REGULATIONS AND CODES AND O.S.H.A. STANDARDS.
- 2. THE DESIGN SHOWN IS BASED UPON THE ENGINEER'S UNDERSTANDING OF THE EXISTING CONDITIONS. THIS PLAN DOES NOT REPRESENT A DETAILED FIELD SURVEY. THE EXISTING CONDITIONS SHOWN ON THIS PLAN SHEET ARE BASED UPON SURVEY PREPARED BY TERRANE, INC. (FORMERLY GEODIMENSIONS, INC.) DATED 02/12/2016. THE CONTRACTOR IS RESPONSIBLE FOR VERIFYING FIELD CONDITIONS PRIOR TO BIDDING THE PROPOSED SITEWORK IMPROVEMENTS. IF CONFLICTS ARE DISCOVERED, THE CONTRACTOR SHALL NOTIFY THE OWNER PRIOR TO INSTALLATION OF ANY PORTION OF THE SITEWORK WHICH WOULD BE AFFECTED. IF CONTRACTOR DOES NOT ACCEPT EXISTING SURVEY, INCLUDING TOPOGRAPHY AS SHOWN ON THE PLANS, WITHOUT EXCEPTION, HE SHALL HAVE MADE, AT HIS OWN EXPENSE, A TOPOGRAPHIC SURVEY BY A REGISTERED LAND SURVEYOR AND SUBMIT IT TO THE OWNER FOR REVIEW.
- CAUTION NOTICE TO CONTRACTOR
  - THE CONTRACTOR IS SPECIFICALLY CAUTIONED THAT THE LOCATION AND/OR ELEVATION OF EXISTING UTILITIES AS SHOWN ON THESE PLANS IS BASED ON RECORDS OF THE VARIOUS UTILITIES, AND WHERE POSSIBLE, MEASUREMENTS TAKEN IN THE FIELD. THE INFORMATION IS NOT TO BE RELIED ON AS BEING EXACT OR COMPLETE. THE CONTRACTOR MUST CALL THE APPROPRIATE UTILITY COMPANY AT LEAST 48 HOURS BEFORE ANY EXCAVATION TO REQUEST EXACT FIELD LOCATION OF UTILITIES. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO RELOCATE ALL EXISTING UTILITIES AND EXISTING IMPROVEMENTS WHICH CONFLICT WITH THE PROPOSED IMPROVEMENTS ON THE PLANS.
- CONTRACTOR SHALL REFER TO ARCHITECTURAL PLANS FOR EXACT LOCATION AND DIMENSIONS OF VESTIBULE, SLOPED PAVING, EXIT PORCHES, SIDEWALKS, RAMPS & TRUCK DOCKS, PRECISE BUILDING DIMENSIONS AND EXACT BUILDING UTILITY ENTRANCE LOCATIONS.
- DIMENSIONS SHOWN REFER TO FACE OF CURB, FACE OF BUILDING OR TO THE CENTERLINE OF PAVEMENT STRIPING, UNLESS OTHERWISE NOTED.
- ALL PAVED PARKING LOT AREAS WITHIN THE LIMITS OF IMPROVEMENTS SHALL BE PER STRUCTURAL PLANS UNLESS OTHERWISE NOTED.
- CONTRACTOR SHALL PROVIDE A TEMPORARY TRAFFIC CONTROL PLAN FOR THE CITY ENGINEER'S APPROVAL PRIOR TO ANY WORK WITHIN THE CITY RIGHT-OF-WAY.
- FIRE LANE STRIPING AROUND BUILDING PERIMETER AND ALONG FIRE TRUCK ACCESS WAYS SHALL BE INSTALLED AS PART OF THIS CONTRACT, IN ACCORDANCE WITH THE LOCAL CODE AND FIRE MARSHAL REQUIREMENTS.
- REFER TO BOUNDARY SURVEY FOR LEGAL DESCRIPTION, DIMENSIONS OF PROPERTY LINES, BASIS OF BEARINGS & BENCHMARK INFORMATION.
- 10. ALL ON-SITE PAINTED STRIPING SHALL BE DOUBLE COATED. SEPARATE COATS SHALL BE APPLIED NO SOONER THAN 4 HOURS APART. (CONTRACTOR TO REFER TO PROJECT SPECIFICATIONS FOR ADDITIONAL PAVING MARKING REQUIREMENTS.)
- 11. PARKING LOT STRIPING SHALL BE WHITE, 4" WIDTH, & DOUBLE COATED, UNLESS OTHERWISE NOTED. LIGHT POLE BASES TO BE PAINTED TRAFFIC YELLOW (DOUBLE COAT)
- 12. ALL DISTURBED AREAS THAT WILL BE PERMANENTLY LANDSCAPED ARE TO RECEIVE FOUR INCHES OF TOPSOIL, SEED, MULCH AND WATER UNTIL A HEALTHY STAND OF GRASS IS ESTABLISHED.
- 13. EXISTING STRUCTURES WITHIN CONSTRUCTION LIMITS ARE TO BE ABANDONED, REMOVED OR RELOCATED AS NECESSARY. ALL COST SHALL BE INCLUDED IN BASE BID.
- 14. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL RELOCATIONS, INCLUDING BUT NOT LIMITED TO, ALL UTILITIES, STORM DRAINAGE, SIGNS, TRAFFIC SIGNALS & POLES, ETC. AS REQUIRED. ALL WORK SHALL BE IN ACCORDANCE WITH GOVERNING AUTHORITIES SPECIFICATIONS AND SHALL BE APPROVED BY SUCH. ALL COST SHALL BE INCLUDED IN BASE BID.

#### (CITY OF MUKILTEO)

. ALL WORK AND MATERIALS SHALL BE IN ACCORDANCE WITH CURRENT CITY OF MUKILTEO STANDARDS AND SPECIFICATIONS: THE CURRENT EDITION OF THE WASHINGTON STATE DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR ROAD, BRIDGE, AND MUNICIPAL CONSTRUCTION; AND THE ADOPTED EDITION OF THE WASHINGTON STATE DEPARTMENT OF ECOLOGY STORMWATER MANAGEMENT MANUAL FOR WESTERN WASHINGTON.

2. ALL WORK WITHIN THE PLAT AND CITY RIGHT-OF-WAY SHALL BE SUBJECT TO THE INSPECTION OF THE CITY ENGINEER OR DESIGNATED REPRESENTATIVE.

3. PRIOR TO ANY SITE CONSTRUCTION INCLUDING CLEARING/LOGGING OR GRADING, THE SITE CLEARING LIMITS SHALL BE LOCATED AND FIELD IDENTIFIED BY THE PROJECT SURVEYOR (OR PROJECT ENGINEER) AS REQUIRED BY THESE PLANS. THE PROJECT SURVEYOR'S NAME AND PHONE NUMBER IS JONATHAN BECKER, PLS. (206) 244-4141.

4. THE DEVELOPER, CONTRACTOR AND PROJECT ENGINEER IS RESPONSIBLE FOR WATER QUALITY AS DETERMINED BY THE MONITORING PROGRAM ESTABLISHED BY THE PROJECT ENGINEER. THE PROJECT ENGINEER'S NAME AND PHONE NUMBER IS SPENCER HUMPHREY, P.E., (425) 453-9501 EXT. 1527.

5. PRIOR TO ANY SITE WORK, THE CONTRACTOR SHALL CONTACT THE CITY OF MUKILTED COMMUNITY DEVELOPMENT AT 425-355-4141 X251 TO SCHEDULE A PRECONSTRUCTION CONFERENCE. ENGINEERED AS-BUILT DRAWINGS IN ACCORDANCE WITH THE CURRENT ADOPTED INTERNATIONAL BUILDING CODE SHALL BE REQUIRED PRIOR TO FINAL SITE APPROVAL.

6. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL PERMITS FOR UTILITY, ROAD, AND RIGHT-OF-WAY CONSTRUCTION. THE CONTRACTOR FOR THIS PROJECT IS

\_\_. CONTACT PERSON IS \_\_\_\_\_\_. PHONE \_\_\_\_\_, MOBILE PHONE \_\_\_\_\_, EMERGENCY PHONE \_\_\_\_\_\_

THE CONSTRUCTION STORMWATER POLLUTION PREVENTION (SWPP) FACILITIES SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE APPROVED SWPP PLANS PRIOR TO ANY GRADING OR EXTENSIVE LAND CLEARING. THESE FACILITIES MUST BE SATISFACTORILY MAINTAINED UNTIL CONSTRUCTION AND LANDSCAPING IS COMPLETED AND THE POTENTIAL FOR ON-SITE EROSION HAS PASSED. SEDIMENT LADEN WATERS SHALL NOT ENTER THE NATURAL DRAINAGE SYSTEM.

8. NONCOMPLIANCE WITH THE REQUIREMENTS FOR; EROSION CONTROLS, WATER QUALITY AND CLEARING LIMITS MAY RESULT IN REVOCATION OF; PROJECT PERMITS, PLAN APPROVAL AND BOND FORECLOSURES.

9. TRENCH BACKFILL OF NEW UTILITIES AND STORM DRAINAGE FACILITIES SHALL BE COMPACTED TO 95% MAXIMUM DENSITY (MODIFIED PROCTOR) UNDER ROADWAYS AND 90% MAXIMUM DENSITY (MODIFIED PROCTOR) OFF ROADWAYS. COMPACTION SHALL BE PERFORMED IN ACCORDANCE WITH SECTIONS 7-08.3(3) AND 2-03.3(14)C - METHOD B AS DEFINED IN THE CURRENT EDITION OF THE WSDOT STANDARD SPECIFICATIONS FOR ROAD, BRIDGE, AND MUNICIPAL CONSTRUCTION.

10. THE OWNER AND CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATING AND PROTECTING ALL EXISTING UTILITIES PRIOR TO BEGINNING CONSTRUCTION. LOCATION OF UTILITIES SHOWN ON CONSTRUCTION PLANS ARE BASED ON BEST RECORDS AVAILABLE AND ARE SUBJECT TO VARIATION. FOR ASSISTANCE IN UTILITY LOCATION, CALL 1-800-424-5555.

11. PRIOR TO CONSTRUCTION THE OWNER AND/OR CONTRACTOR SHALL NOTIFY THE PROJECT ENGINEER AND THE CITY ENGINEER WHEN CONFLICTS EXIST BETWEEN THE PLANS AND FIELD CONDITIONS. CONFLICTS SHALL BE RESOLVED (INCLUDING PLAN AND PROFILE REVISIONS) AND RESUBMITTED FOR APPROVAL PRIOR TO PROCEEDING WITH CONSTRUCTION.

12. THE CONTRACTOR SHALL KEEP TWO SETS OF PLANS ON SITE AT ALL TIMES FOR RECORDING AS-BUILT INFORMATION: ONE SET SHALL BE SUBMITTED TO THE PROJECT ENGINEER. AND ONE SET SHALL BE SUBMITTED TO THE CITY ENGINEER AT COMPLETION OF CONSTRUCTION AND PRIOR TO FINAL ACCEPTANCE OF WORK.

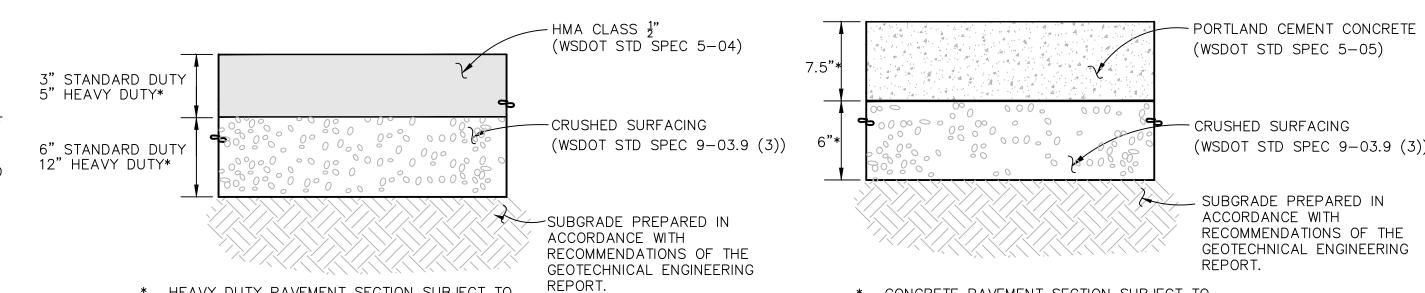
13. A GRADING PERMIT ISSUED PURSUANT TO THE CURRENT ADOPTED INTERNATIONAL BUILDING CODE. AND APPROVAL OF THE TEMPORARY EROSION AND SEDIMENTATION CONTROL PLAN SHALL BE OBTAINED FROM THE COMMUNITY DEVELOPMENT DEPARTMENT PRIOR TO ANY ON-SITE GRADING WORK NOT EXPRESSLY EXEMPT BY THE CURRENT ADOPTED INTERNATIONAL BUILDING CODE.

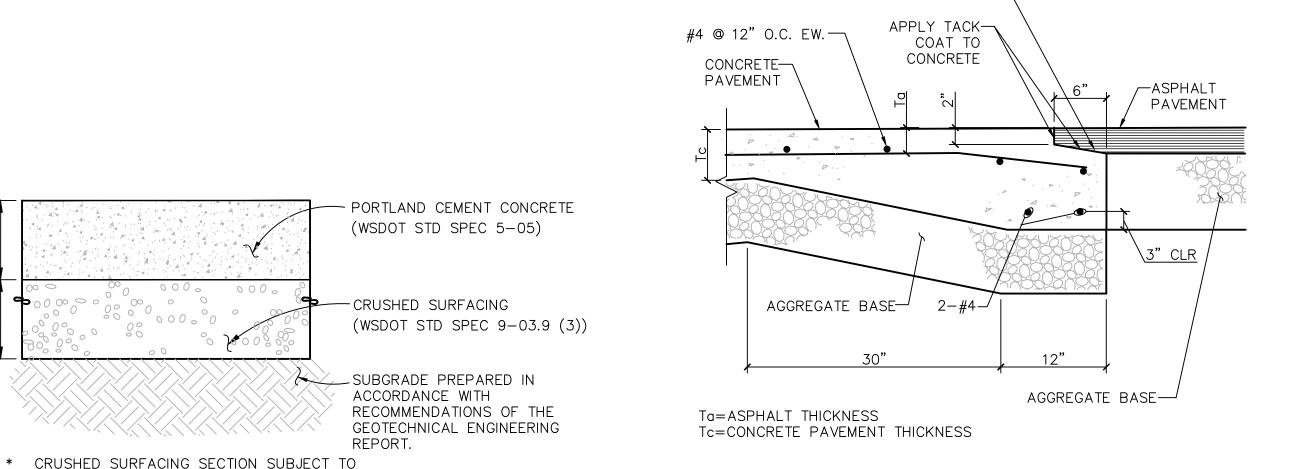
14. PRIOR TO COMMENCEMENT OF FRAMING. FINAL DRAINAGE INSPECTION AND APPROVAL OF THE ROOF LEADER AND POSITIVE FOOTING SYSTEMS SHALL BE COMPLETED BY THE BUILDING DEPARTMENT. CALL 360-363-8100 TO SCHEDULE THE INSPECTION.

#### PAVEMENT NOTES (NAVIX)

1. MATERIAL THICKNESS IS COMPACTED DEPTH. APPLIES TO ALL SECTIONS.

- 2. SUITABLE ONSITE SOILS SHALL BE FREE OF DELETERIOUS MATERIALS AND MAY BE USED FOR SUBBASE PROVIDED SOILS MEET REQUIREMENTS IN THE PROJECT'S SPECIFICATIONS.
- 3. FOR PREPARATION OF PAVEMENT SUBGRADE, FILL PLACED WITHIN 12 INCHES OF FINISHED SUBGRADE ELEVATION IN FILL AREAS AND AT LEAST THE UPPER 8 INCHES OF SUBGRADE IN ALL AREAS TO BE PAVED SHOULD BE COMPACTED TO AT LEAST 95% OF THE MATERIAL'S MAXIMUM MODIFIED PROCTOR DRY DENSITY (ASTM D-1557) AND SHOULD BE NON-YIELDING. FILL PLACED BELOW THIS LEVEL SHOULD BE COMPACTED TO AT LEAST 95% OF THE MATERIAL'S MAXIMUM DRY DENSITY.
- 4. ALL COMPACTION SHALL BE IN ACCORDANCE WITH THE WSDOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, SECTION 2-03.3(14)D.
- 5. IF ALTERNATIVE PAVEMENT SECTION WITH A.T.B. IS USED DURING CONSTRUCTION ANY FAILED AREAS THAT SHOW CRACKING UNDER EQUIPMENT SHOULD BE REPAIRED ONCE HEAVY CONSTRUCTION TRAFFIC HAS CEASED AND PRIOR TO PLACEMENT OF FINAL LIFT OF HMA PAVEMENT.
- 6. CRUSHED BASE COURSE MATERIALS SHALL CONFORM TO THE REQUIREMENTS OF SECTION 9-03.9(3) OF THE LATEST EDITION OF THE WSDOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION.
- 7. ASPHALTIC SURFACE COURSE MIXTURES SHALL BE IN ACCORDANCE WITH SECTION 9-02 OF THE LATEST EDITION OF THE WSDOT STANDARD SPECIFICATIONS. THE MIXTURE SHALL HAVE A MINIMUM MARSHALL STABILITY OF 1,000 POUNDS, AND THE SURFACE COURSE SHOULD BE COMPACTED TO A MINIMUM OF 96% MARSHALL DENSITY (ASTM SPECIFICATION D 1559).
- 8. THE PORTLAND CEMENT CONCRETE PAVEMENT MIXTURE SHALL BE IN ACCORDANCE WITH CONCRETE FOR PAVEMENT SECTION 5-05 OF THE LATEST EDITION OF THE WSDOT STANDARD SPECIFICATIONS FOR ROAD & BRIDGE CONSTRUCTION. THE MIXTURE SHALL BE DESIGNED TO DEVELOP A MINIMUM COMPRESSIVE STRENGTH OF 4000 PSI AT 28 DAYS WITH A 4 INCH MAXIMUM SLUMP.
- 9. CONTRACTOR SHALL PROVIDE A PRIME COAT AND TACK COAT TO FACE OF CURB WHERE CURB CONTACTS ASPHALT.



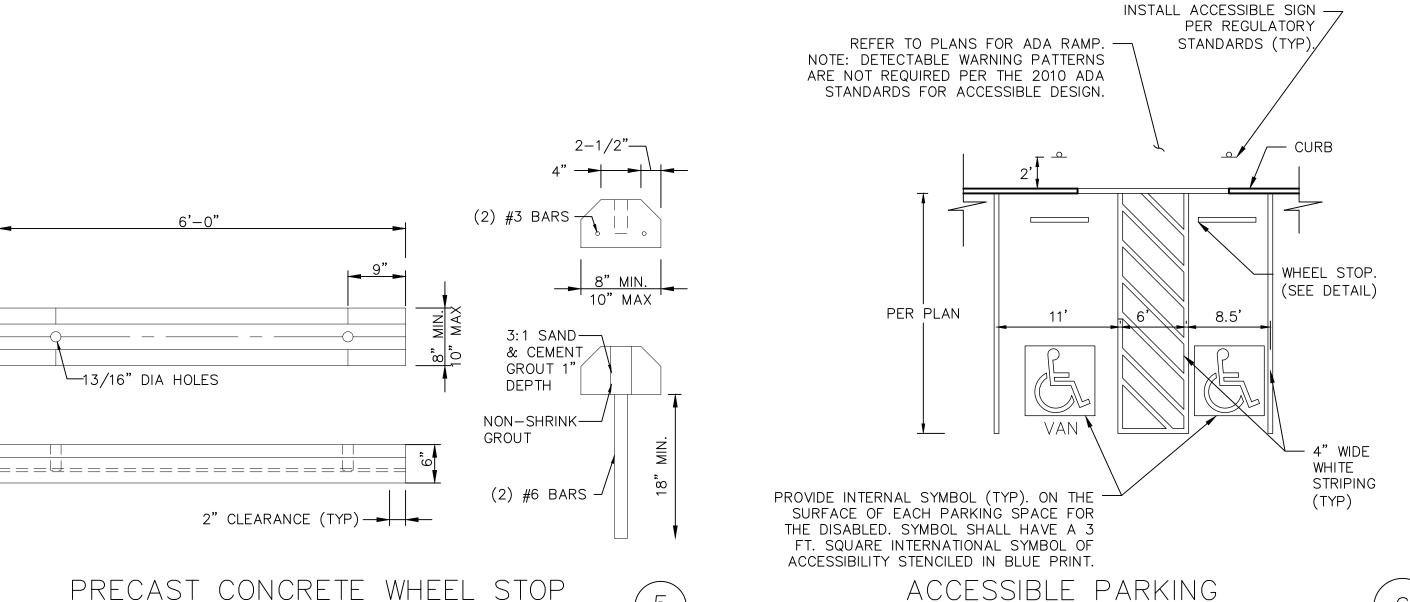


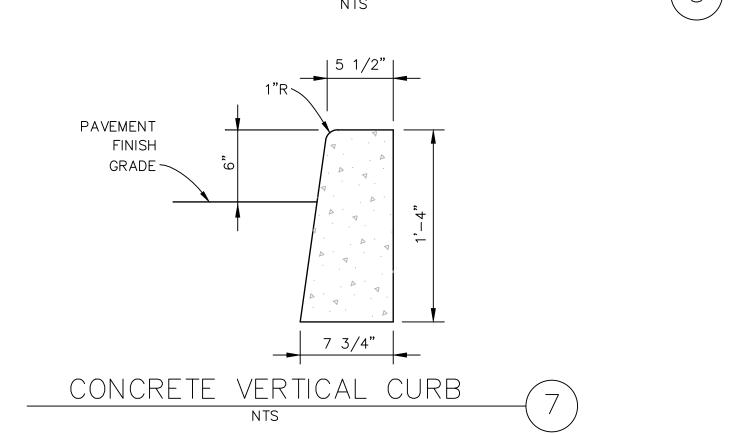


\* HEAVY DUTY PAVEMENT SECTION SUBJECT TO

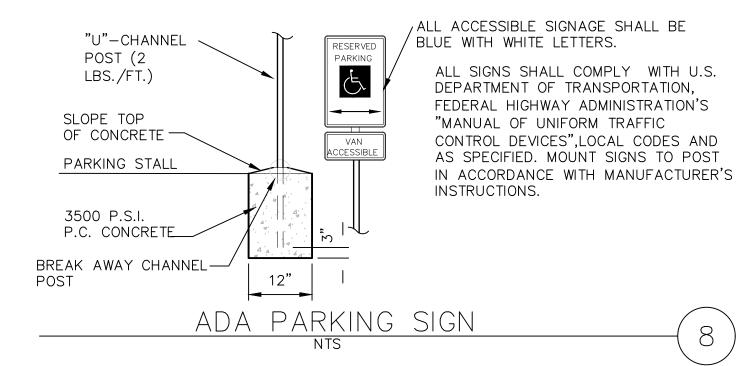
CHANGE BASED ON GEOTECHNICAL REVIEW

ON-SITE ASPHALT PAVEMENT





—13/16" DIA HOLES



NTS

\* CONCRETE PAVEMENT SECTION SUBJECT TO

USE 2x6 AS PART OF FORM-

WORK FOR BLOCK OUT

ASPHALT-CONCRETE

PAVEMENT TRANSITION

N.T.S.

CHANGE BASED ON GEOTECHNICAL REVIEW

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CLIENT/OWNER

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PROJECT NAME

**NELSON 43** 

NAVIX PROJECT NUMBER:

PROJECT ADDRESS

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	PERMIT SET	10.11.19		



**SECTION 10, TOWNSHIP 28** 

NORTH, RANGE 4 EAST, W.M.

PROJECT TEAM

REVIEWED BY: DESIGNED BY:

SHEET NAME

S.HUMPHREY

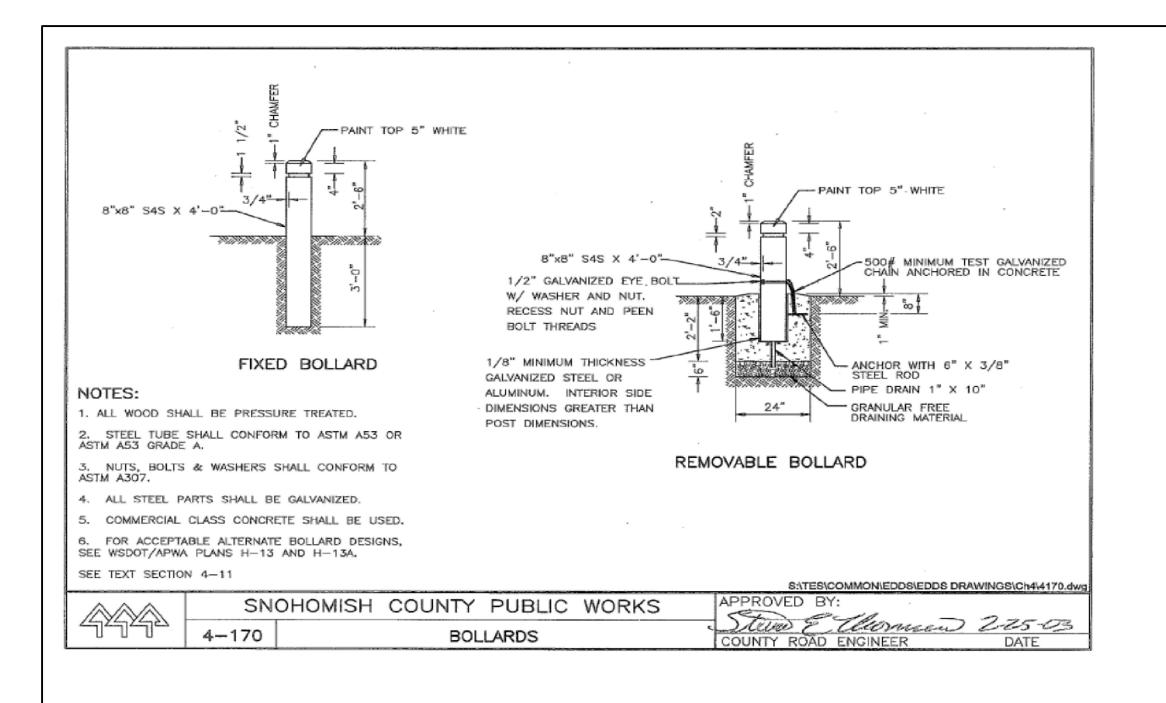
S.HUMPHREY

J.STEFANOFF

SITE DETAILS

SHEET NUMBER

C-1.1



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CLIENT/OWNER

**GREG NELSON** 

PROJECT NAME

## **NELSON 43**

NAVIX PROJECT NUMBER:

50-609-001

PROJECT ADDRESS

4301 78TH ST SW **MUKILTEO, WA 98275** 

STAMP



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SECTION, TOWNSHIP, RANGE:

SECTION 10, TOWNSHIP 28 NORTH, RANGE 4 EAST, W.M.

PROJECT TEAM

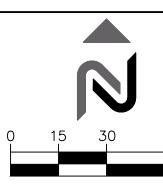
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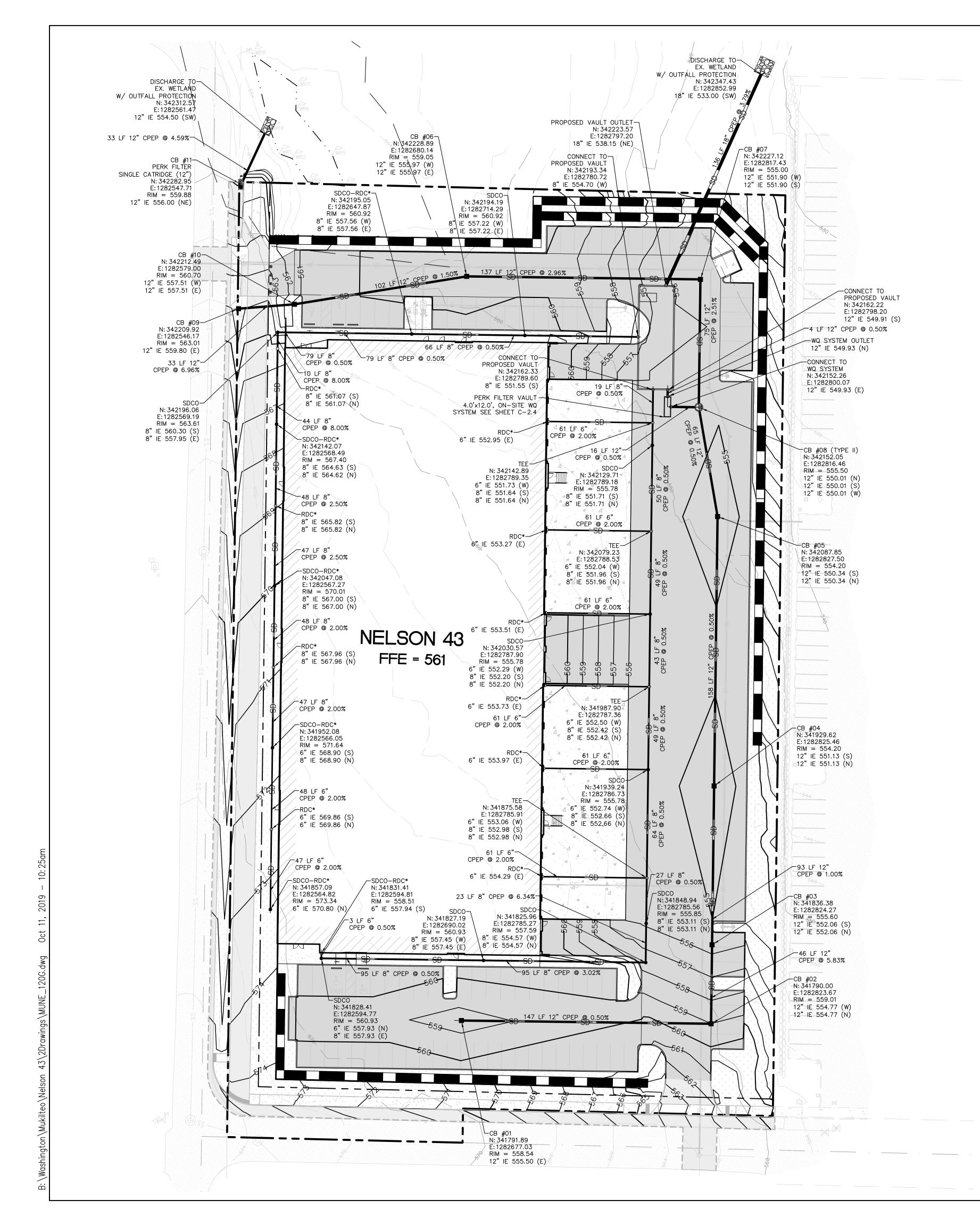
S.HUMPHREY S.HUMPHREY J.STEFANOFF SHEET NAME

SITE DETAILS

SHEET NUMBER

C-1.2





**LEGEND** 

SCALE: 1 INCH = 30 FT.- PROPERTY LINE PROPOSED BUILDING STORM PIPE PERFORATED PIPE ROOF DRAIN LINE TRENCH DRAIN (ZURN OR APPROVED EQUAL SEE PLAN FOR MODEL NUMBER) ---- RIDGE LINE TYPE II CATCH BASIN W/ HERRINGBONE GRATE (UNLESS OTHERWISE NOTED) C-2.1 TYPE II CATCH BASIN W/ THRU CURB INLET (UNLESS OTHERWISE NOTED) C-2.1 TYPE I CATCH BASIN W/ HERRINGBONE GRATE (UNLESS OTHERWISE NOTED) C-2.1 TYPE 1 CATCH BASIN (1-3,6)W/ COMBINATION INLET (C-2.1)PERK FILTER CONCRETE ( 3 CATCH BASIN AREA DRAIN  $\frac{6}{C-2.2}$ STORM DRAIN CLEANOUT (SDCO)  $\frac{6}{(c-2.2)}$ WYE/ROOF DOWNSPOUT CONNECTION CATCH BASIN MANHOLE CPEP CORRUGATED POLYETHYLENE PIPE RCP REINFORCED CONCRETE PIPE RDL ROOF DRAIN LINE

## NOTE

RDC

- 1. ALL STORM STRUCTURES LOCATED FROM CENTER OF STRUCTURE.
- 2. CONTRACTOR SHALL CONNECT ROOF DRAIN LEADERS TO PROPOSED STORM DRAINS AS SHOWN. SEE ARCHITECTURAL PLAN FOR LOCATION OF DOWNSPOUTS FOR ROOF DRAIN CONNECTIONS.

ROOF DRAIN CONNECTION

DUCTILE IRON PIPE

- 3. CONTRACTOR TO INSTALL TEMPORARY INTERCEPTOR SWALES, AS NECESSARY, TO PROMOTE POSITIVE DRAINAGE AWAY FROM ROUGH GRADING TO DESIGNATED SEDIMENT PONDS.
- 4. ADJUST ALL RIMS (EXISTING/PROPOSED) TO FINISHED
- \* ROOF DRAINAGE CONNECTION SEE ARCHITECTURAL FOR
- CONTINUATION
- \*\* SEE ARCHITECTURAL/PLUMBING FOR CONTINUATION AND FINAL LAYOUT



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SECTION, TOWNSHIP, RANGE:

**SECTION 10, TOWNSHIP 28** NORTH, RANGE 4 EAST, W.M.

PROJECT TEAM

REVIEWED BY: DESIGNED BY:

S.HUMPHREY J.STEFANOFF

S.HUMPHREY

**GRADING AND DRAINAGE PLAN** 

SHEET NAME

SHEET NUMBER

#### STORM DRAINAGE NOTES (CITY OF MUKILTEO)

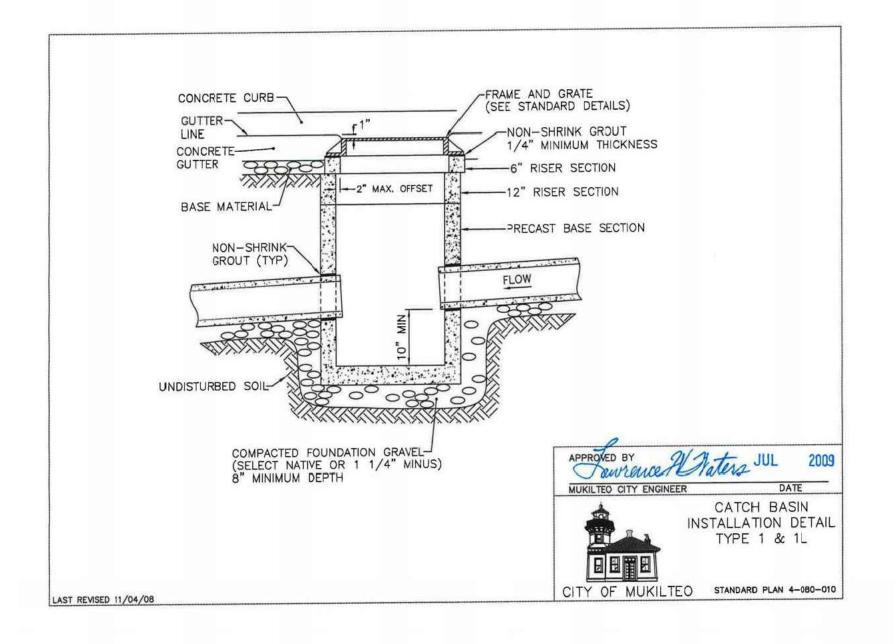
- PRIOR TO ANY SITE WORK INCLUDING DRAINAGE, THE CONTRACTOR SHALL CONTACT THE CITY OF MUKILTED COMMUNITY DEVELOPMENT AT 425-263-8000 TO SCHEDULE A PRE-CONSTRUCTION CONFERENCE.
- 2. ALL PIPE SHALL BE PLACED ON STABLE EARTH. IF IN THE OPINION OF THE CITY INSPECTOR, THE EXISTING TRENCH FOUNDATION IS UNSATISFACTORY, THEN IT SHALL BE EXCAVATED BELOW GRADE AND BACKFILLED WITH GRAVEL BEDDING TO SUPPORT THE PIPE.
- 3. BACKFILL SHALL BE PLACED EQUALLY ON BOTH SIDES OF THE PIPE OR PIPE-ARCH IN 6-INCH AVERAGE DEPTH LOOSE LIFTS. MAXIMUM LIFT DEPTH SHALL NOT EXCEED 9". EACH LIFT SHALL BE THOROUGHLY COMPACTED. COMPACTED LIFTS MUST EXTEND AT LEAST ONE PIPE DIAMETER ON EACH SIDE OF THE PIPE OR TO THE SIDE OF THE TRENCH. BACKFILL OVER THE PIPE SHALL BE PERFORMED IN ACCORDANCE WITH SECTIONS 7-04.3(3) AND 2-03.2(14)C - METHOD B AND C OF THE WSDOT STANDARD SPECIFICATIONS FOR ROAD, BRIDGE, AND MUNICIPAL CONSTRUCTION.
- 4. ALL GRATES LOCATED IN THE GUTTER FLOW LINE (INLET AND CATCH BASIN) SHALL BE DEPRESSED 0.1 FEET BELOW PAVEMENT LEVEL.
- 5. ALL CATCH BASINS ARE TO BE TYPE I UNLESS OTHERWISE APPROVED BY THE CITY ENGINEER OR DESIGNATED REPRESENTATIVE. THE USE AND INSTALLATION OF INLETS IS NOT ENCOURAGED.
- 6. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ADJUSTING ALL MANHOLE, INLET AND CATCH BASIN FRAMES AND GRATES TO GRADE JUST PRIOR TO CURB INSTALLATION AND/OR PAVING.
- 7. ALL CATCH BASINS WITH A DEPTH OF 5-FEET OR GREATER TO THE FLOW LINE SHALL BE TYPE II CATCH BASINS
- VANED GRATES ARE REQUIRED ON ALL STORM STRUCTURES. ALL CATCH BASINS AND MANHOLES SHALL HAVE LOCKING LIDS. ROLLED GRATES ARE NOT APPROVED FOR USE.
- POLYPROPYLENE SAFETY STEPS AND LADDER STEPS SHALL BE PROVIDED IN ALL MANHOLES AND SHALL BE POSITIONED CORRECTLY WITH THE BOLT AREAS ON THE RIM.
- 10. CATCH BASIN FRAMES AND GRATES SHALL BE OLYMPIC FOUNDRY MODEL SM60, SM52, OR SM44, LOCKING TYPE OR EQUIVALENT. MODEL SM52 SHALL BE REFERRED TO AS A "THROUGH CURB INLET"ON THE PLANS.
- 11. DETENTION PONDS WITH SIDE SLOPES STEEPER THAN 3:1 OR WITH A MAXIMUM WATER DEPTH GREATER THAN 3 FEET SHALL REQUIRE A POWDER OR VINYL COATED CHAIN LINK PERIMETER FENCE PER STANDARD PLANS 3-501-007 & 008. SIDE SLOPE AVERAGING SHALL NOT BE ALLOWED. ALL INLET AND OUTFALL PIPES SHALL HAVE A TRASH RACK INSTALLED AND A MORTARED RIPRAP HEADWALL. REFER TO STORM DRAINAGE NOTE 18.
- 12. PRIOR TO SIDEWALK CONSTRUCTION; LOT DRAINAGE SYSTEMS, STUB-OUTS AND ANY BEHIND SIDEWALK DRAINS MUST BE INSTALLED AS REQUIRED. PIPE SHALL BE PVC 3034, OR SDR-35. STUBOUTS SHALL BE MARKED WITH A 2" x 4" WITH 3-FEET VISIBLE ABOVE GRADE AND MARKED "STORM". LOCATIONS OF THESE INSTALLATIONS SHALL BE SHOWN ON THE AS-BUILT CONSTRUCTION PLANS SUBMITTED TO THE CITY.
- 13. STORM WATER RETENTION/DETENTION FACILITIES, STORM DRAINAGE PIPE AND CATCH BASINS SHALL BE FLUSHED AND CLEANED BY THE DEVELOPER PRIOR TO; CITY OF MUKILTEO FINAL ACCEPTANCE OF THE PROJECT AND; UPON COMMENCEMENT AND COMPLETION OF THE 2 YEAR WARRANTY PERIOD FOR THE STORM DRAINAGE SYSTEM.
- 14. UNLESS OTHERWISE NOTED, ALL STORM SEWER PIPE SHALL BE; (CP) NON-REINFORCED CONCRETE, ASTM C-14; (RCP) REINFORCED CONCRETE FOR CONCRETE PIPE DIAMETERS 24-INCH OR GREATER, ASTM C-76; OR (CMP) CORRUGATED METAL. CMP TO BE; GALVANIZED STEEL WITH TREATMENT I ASPHALT COATING OR BETTER; OR CORRUGATED ALUMINUM; OR AASHTO M274-70 ALUMINIZED STEEL. ALL PIPES SHALL BE INSTALLED WITH RUBBER GASKETS AS PER MANUFACTURER'S RECOMMENDATIONS. COVERAGE REQUIREMENTS FOR 12-INCH DIAMETER PIPE:

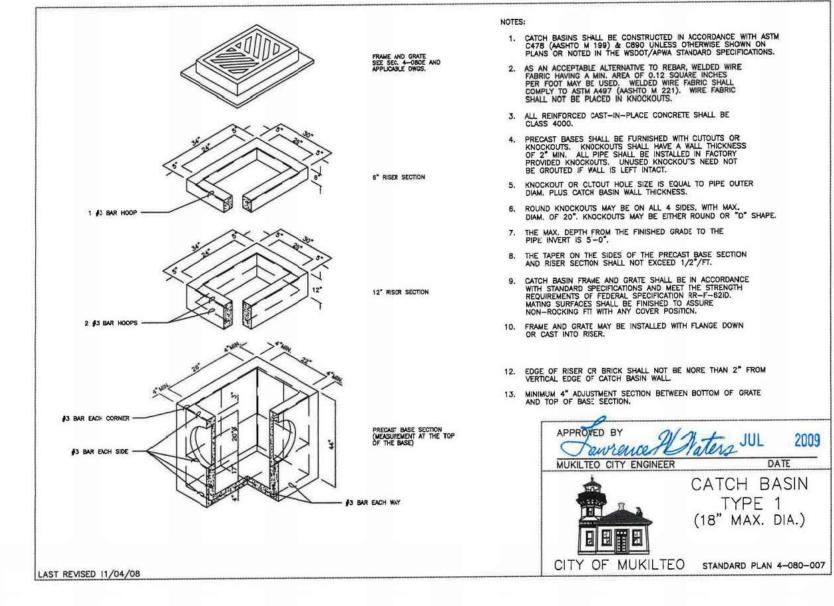
BACKFILL OVER PIPE LESS THAN 12-INCH REQUIRES RCP CLASS IV.

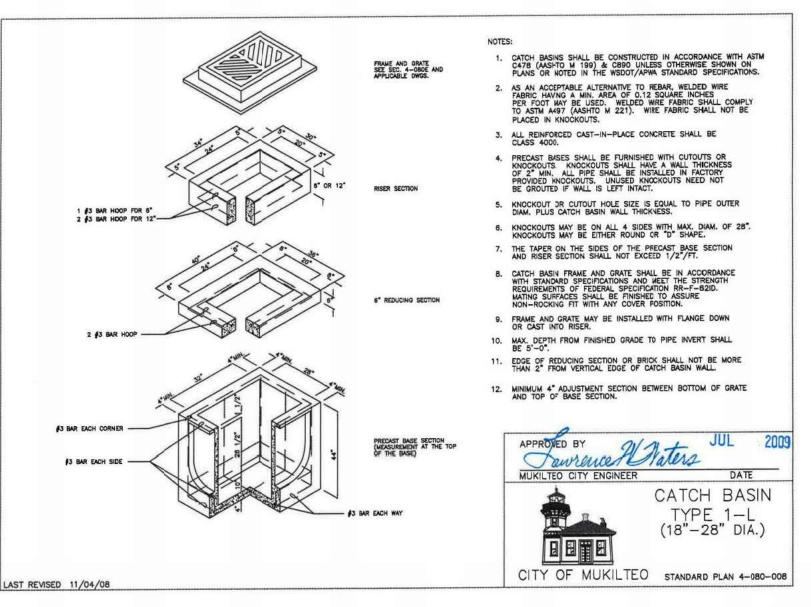
- BACKFILL OVER PIPE LESS THAN 24-INCH REQUIRES RCP MINIMUM. BACKFILL OVER PIPE GREATER THAN 24-INCH REQUIRES 16 GAGE CMP MINIMUM.
- 15. CORRUGATED POLYETHYLENE PIPE (CPP):
- A. ALL PIPE SHALL BE SMOOTH INTERIOR. CPP SHALL BE DOUBLE-WALLED. ALL PIPE SHALL MEET AASHTO AND ASTM SPECIFICATIONS. B. UPON REQUEST BY THE CITY INSPECTOR, ALL PIPE RUNS SHALL PASS THE LOW PRESSURE AIR TEST REQUIREMENTS OF SECTION 7-04.3(1) E & F OF THE WSDOT STANDARD SPECIFICATIONS FOR ROAD, BRIDGE, AND MUNICIPAL CONSTRUCTION. PIPE RUNS SHALL BE TESTED WITH PIPE LOADED AND COMPACTED TO FINISH GRADE.
- C. UPON REQUEST BY THE CITY INSPECTOR, PIPE SHALL BE SUBJECT TO MANDREL TESTING (MANDREL SIZE = 90% OF NOMINAL PIPE DIAMETER).
- D. PIPE SHALL BE STORED ON SITE IN SHIPPING BUNKS ON A FLAT LEVEL SURFACE. THIS REQUIREMENT WILL BE STRICTLY ENFORCED; FAILURE TO COMPLY MAY RESULT IN REJECTION OF THE PIPE AND/OR FUTURE RESTRICTION ON USE OF MATERIAL.
- E. MINIMUM DEPTH OF COVER SHALL BE 2-FEET.
- F. COUPLINGS SHALL BE INTEGRAL BELL AND SPIGOT OR DOUBLE BELL SEPARATE COUPLINGS. SPLIT COUPLINGS WILL NOT BE ALLOWED.
- G. BACKFILL SHALL COMPLY WITH SECTION 7-08.3(3) OF THE WSDOT STANDARD SPECIFICATIONS FOR ROAD, BRIDGE, AND MUNICIPAL CONSTRUCTION MODIFIED AS FOLLOWS: THE SECOND PARAGRAPH OF SECTION 7-08.3(3) IS DELETED AND REPLACED WITH THE FOLLOWING: THE MATERIAL USED FOR BACKFILLING AROUND AND TO A POINT 1 FOOT ABOVE THE TOP OF THE PIPE SHALL BE CLEAN EARTH OR SAND, FREE FROM CLAY. ANY GRAVEL OR STONES INCLUDED IN THE BACKFILL SHALL PASS THROUGH A 1 INCH
- 16. ALL NON-PERFORATED METAL PIPE SHALL HAVE NEOPRENE GASKETS AT THE JOINTS. O-RING GASKETS MAY BE USED FOR TYPE-F COUPLING BAND.
- 17. CULVERT ENDS SHALL BE BEVELED TO MATCH SIDE SLOPES. FIELD CUTTING OF CULVERT ENDS IS PERMITTED WHEN APPROVED BY THE CITY ENGINEER OR DESIGNATED REPRESENTATIVE.
- 18. ALL FIELD CUT CULVERT PIPE SHALL BE TREATED AS REQUIRED IN THE STANDARD SPECIFICATIONS OR GENERAL SPECIAL PROVISIONS.

#### STORM DRAINAGE NOTES: (NAVIX)

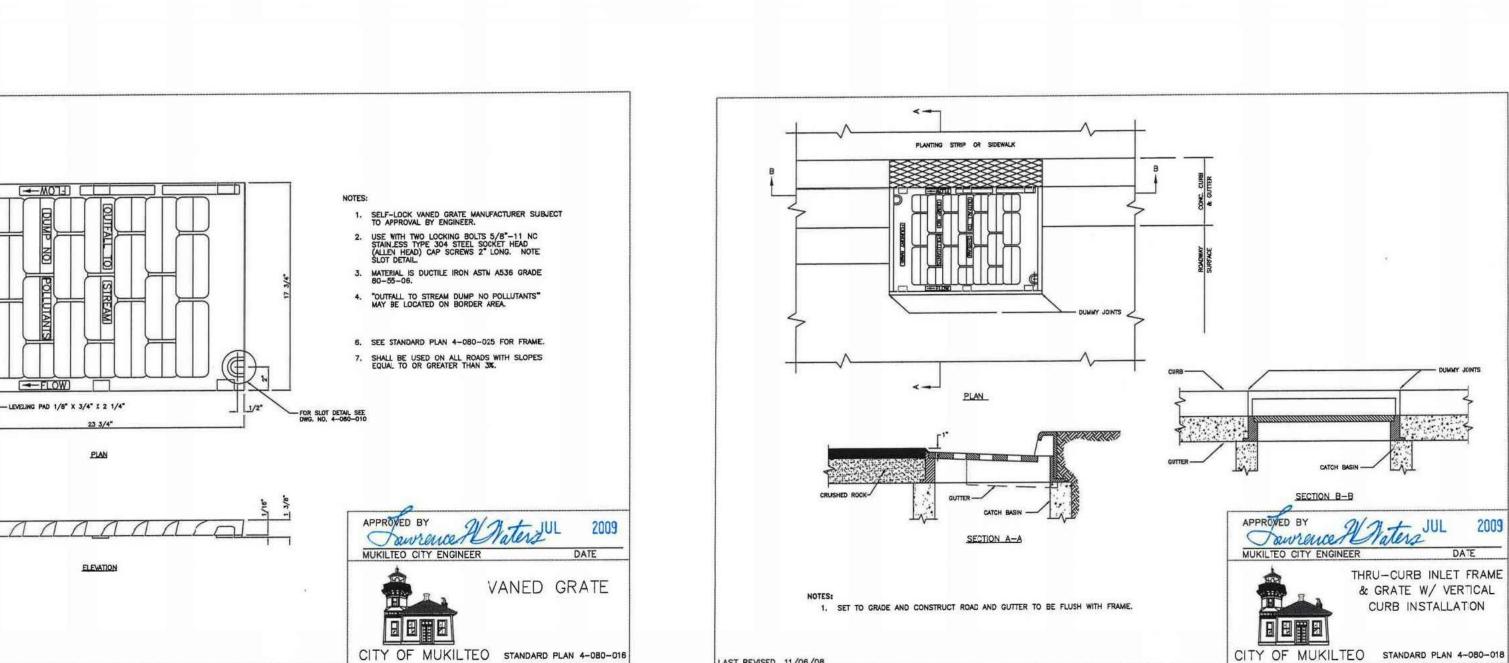
- 1. THE DESIGN SHOWN IS BASED UPON THE ENGINEER'S UNDERSTANDING OF THE EXISTING CONDITIONS. THE PLAN DOES NOT REPRESENT A DETAILED FIELD SURVEY. THE EXISTING CONDITIONS SHOWN ON THIS PLAN SHEET ARE BASED UPON THE SURVEY PREPARED BY TERRANE, INC. (FORMERLY GEODIMENSIONS INC.), DATED 02/12/16. THE CONTRACTOR IS RESPONSIBLE FOR VERIFYING FIELD CONDITIONS PRIOR TO BIDDING THE PROPOSED SITEWORK IMPROVEMENTS. IF CONFLICTS ARE DISCOVERED, THE CONTRACTOR SHALL NOTIFY THE OWNER PRIOR TO INSTALLATION OF ANY PORTION OF THE SITEWORK WHICH WOULD BE AFFECTED. IF CONTRACTOR DOES NOT ACCEPT EXISTING SURVEY, INCLUDING TOPOGRAPHY AS SHOWN ON THE PLANS, WITHOUT EXCEPTION, HE SHALL HAVE MADE, AT HIS OWN EXPENSE, A TOPOGRAPHIC SURVEY BY A REGISTERED LAND SURVEYOR AND SUBMIT IT TO THE OWNER FOR REVIEW.
- <u>CAUTION NOTICE TO CONTRACTOR</u>
- THE CONTRACTOR IS SPECIFICALLY CAUTIONED THAT THE LOCATION AND/OR ELEVATION OF EXISTING UTILITIES AS SHOWN ON THESE PLANS IS BASED ON RECORDS OF THE VARIOUS UTILITY COMPANIES AND, WHERE POSSIBLE, MEASUREMENTS TAKEN IN THE FIELD. THE INFORMATION IS NOT TO BE RELIED ON AS BEING EXACT OR COMPLETE. THE CONTRACTOR MUST CALL THE APPROPRIATE UTILITY COMPANY AT LEAST 48 HOURS BEFORE ANY EXCAVATION TO REQUEST EXACT FIELD LOCATION OF UTILITIES. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO RELOCATE ALL EXISTING UTILITIES WHICH CONFLICT WITH THE PROPOSED IMPROVEMENTS SHOWN ON THESE PLANS.
- 3. ALL WORKMANSHIP AND MATERIALS SHALL CONFORM TO THE MOST CURRENT APPLICABLE LOCAL, STATE, AND FEDERAL STANDARDS.
- 4. EXISTING DRAINAGE STRUCTURES TO BE INSPECTED AND REPAIRED AS NEEDED, AND EXISTING PIPES TO BE CLEANED OUT TO REMOVE ALL SILT AND DEBRIS.
- 5. IF ANY EXISTING STRUCTURES TO REMAIN ARE DAMAGED DURING CONSTRUCTION IT SHALL BE THE CONTRACTORS RESPONSIBILITY TO REPAIR AND/OR REPLACE THE EXISTING STRUCTURE AS NECESSARY TO RETURN IT TO EXISTING CONDITIONS OR BETTER.
- STORM DRAINAGE PIPE WITH LESS THAN 2'-0" COVER SHALL BE CLASS IV REINFORCED CONCRETE PIPE, OR APPROVED EQUAL TO SUSTAIN H-20 LOADING.
- 7. ALL ONSITE STORM DRAINAGE PIPE SHALL BE SMOOTH WALLED INTERIOR, MANUFACTURER'S VERIFICATION OF MANNING'S ROUGHNESS COEFFICIENT N=0.012 OR LESS.
- 8. PRECAST STRUCTURES MAY BE USED AT CONTRACTOR'S OPTION.
- ALL CATCH BASINS AND AREA DRAINS ARE TO BE SITUATED SUCH THAT THE OUTSIDE EDGE OF GRATE FRAME IS AT TOE OF CURB OR FLOW LINE OF GUTTER (WHERE APPLICABLE)
- 10. CATCH BASIN INLET PROTECTION / EROSION CONTROL TO BE USED FOR ALL NEW INLETS.
- 11. ALL STORM PIPE ENTERING STRUCTURES SHALL BE GROUTED TO ASSURE CONNECTION AT STRUCTURE IS WATERTIGHT.
- 12. ALL STORM SEWER MANHOLES IN PAVED AREAS SHALL BE FLUSH WITH PAVEMENT, AND SHALL HAVE TRAFFIC BEARING RING AND COVERS. MANHOLES IN UNPAVED AREAS SHALL BE 6" ABOVE FINISH GRADE. LIDS SHALL BE LABELED "STORM SEWER".
- 11. ALL STORM STRUCTURES SHALL HAVE A SMOOTH UNIFORM POURED MORTAR INVERT FROM INVERT IN TO INVERT OUT, UNLESS OTHERWISE SHOWN IN THE CATCH BASIN DETAIL.
- 12. CONTRACTOR SHALL CONNECT ROOF DRAIN LEADERS TO PROPOSED STORM DRAINS AS SHOWN.

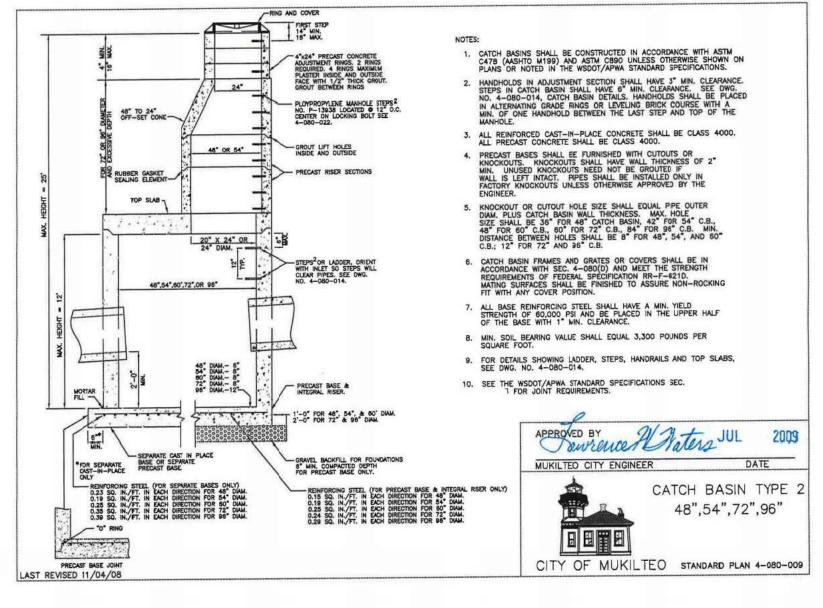






LAST REVISED 11/05/0





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CLIENT/OWNER

**GREG NELSON** 

PROJECT NAME

**NELSON 43** 

NAVIX PROJECT NUMBER:

PROJECT ADDRESS

4301 78TH ST SW **MUKILTEO, WA 98275** 

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**SECTION 10, TOWNSHIP 28** 

NORTH, RANGE 4 EAST, W.M.

**PROJECT TEAM** 

REVIEWED BY:

**DESIGNED BY:** 

THRU-CURB INLET FRAME

& GRATE W/ VERTICAL

CURB INSTALLATION

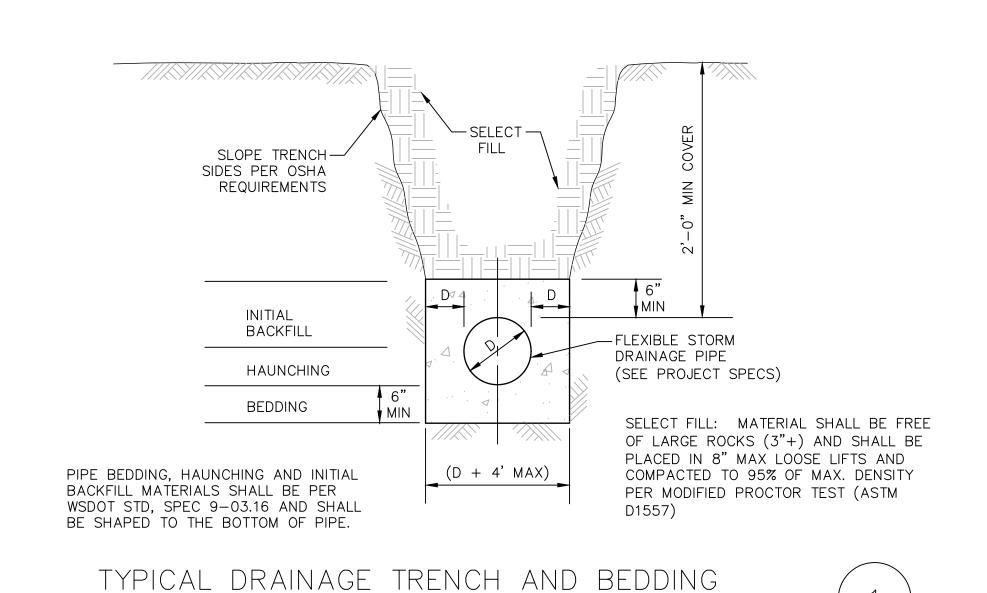
S.HUMPHREY J.STEFANOFF

SHEET NAME

S.HUMPHREY

**STORM DRAINAGE DETAILS** 

SHEET NUMBER



GRAVEL BACKFILL

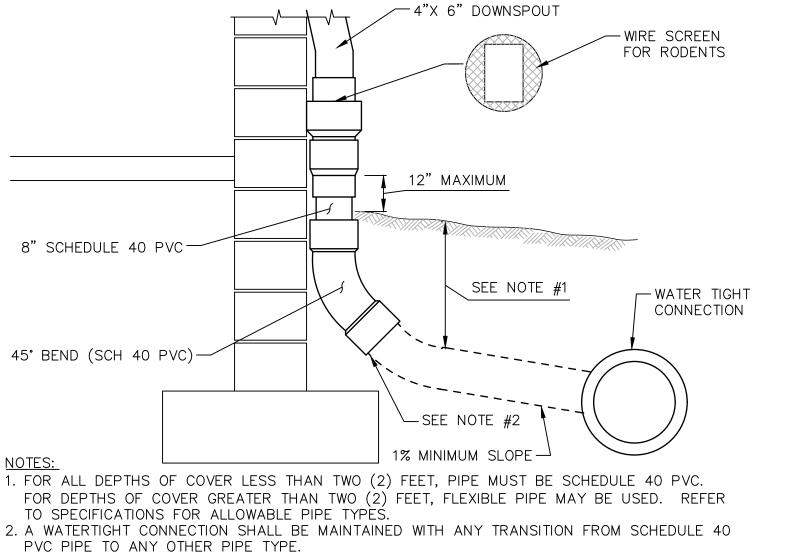
-FOOTING PER STRUCTURAL

DRAWINGS

4" PERFORATED PVC DRAIN

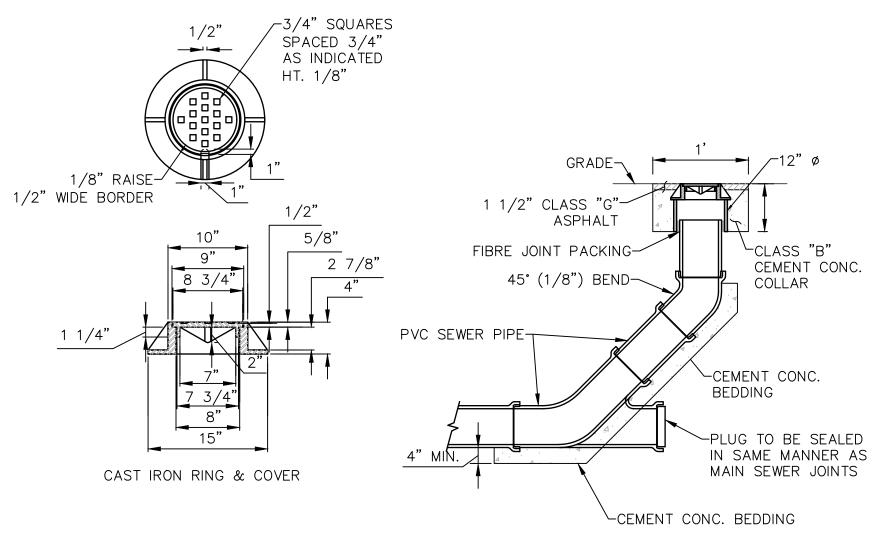
PIPE WITH PERFORATIONS DOWN @ 0.50% MIN. W/ CLEANOUTS EVERY 100'

NTS



1. FOR ALL DEPTHS OF COVER LESS THAN TWO (2) FEET, PIPE MUST BE SCHEDULE 40 PVC.

3. THE DOWNSPOUT COLLECTOR DRAIN SHALL BE INSTALLED BEFORE THE DOWNSPOUTS ARE INSTALLED ON THE BUILDING. SITEWORK CONTRACTOR SHALL BE RESPONSIBLE FOR ALL WORK TO AND INCLUDING THE RODENT SCREEN. BUILDING CONTRACTOR SHALL BE RESPONSIBLE FOR THE CONNECTION AT THE POINT OF THE RODENT SCREEN. DOWNSPOUT COLLECTOR DETAIL



STORM DRAIN CLEANOUT

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**SECTION 10, TOWNSHIP 28** 

NORTH, RANGE 4 EAST, W.M.

PROJECT TEAM

REVIEWED BY:

DESIGNED BY:

J.STEFANOFF SHEET NAME

S.HUMPHREY

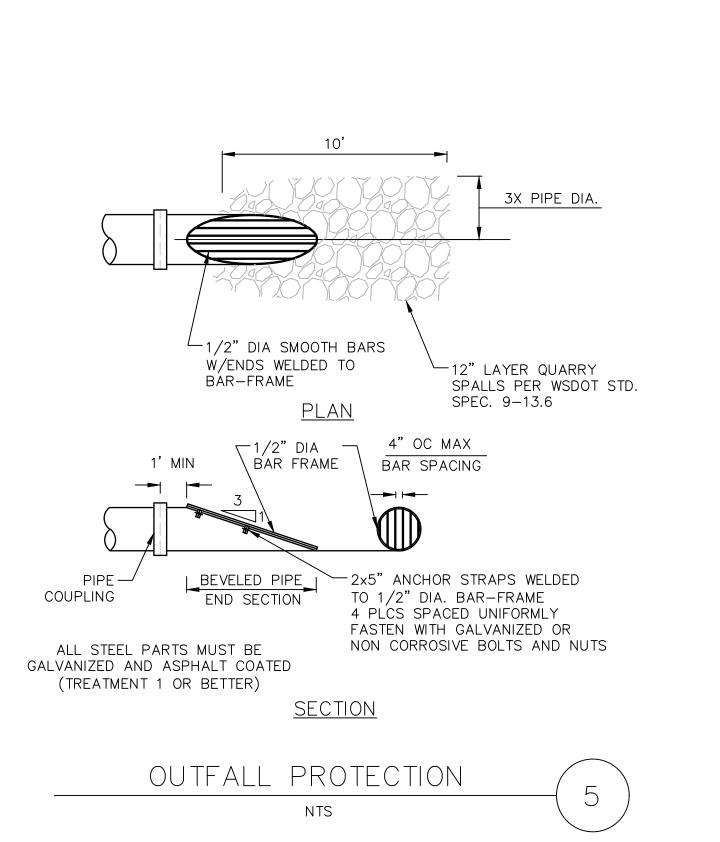
S.HUMPHREY

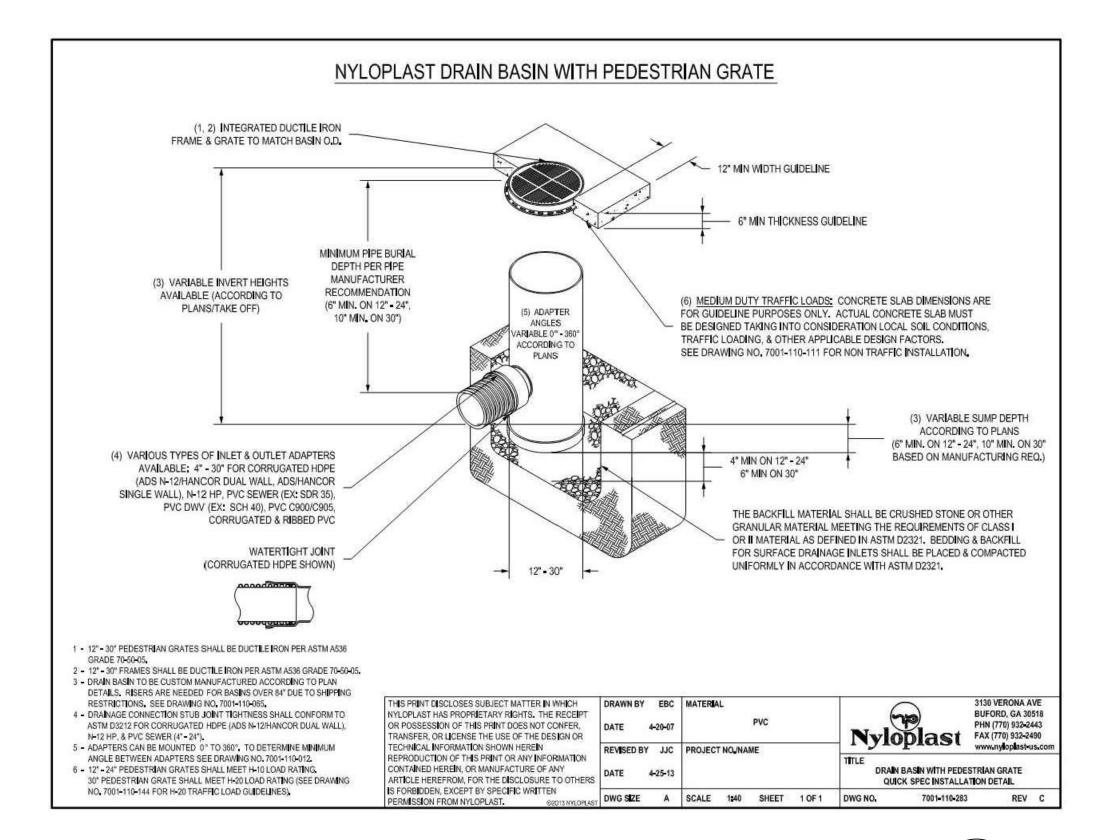
STORM **DRAINAGE** 

SHEET NUMBER

**DETAILS** 

C-2.2





\* OR APPROVED EQUAL

AREA DRAIN

FOOTING DRAINAGE GRASS LINED SWALE SECTION

GEOTEXTILE FILTER ─

FABRIC "MIRAFI 140N"

OR APPROVED EQUAL

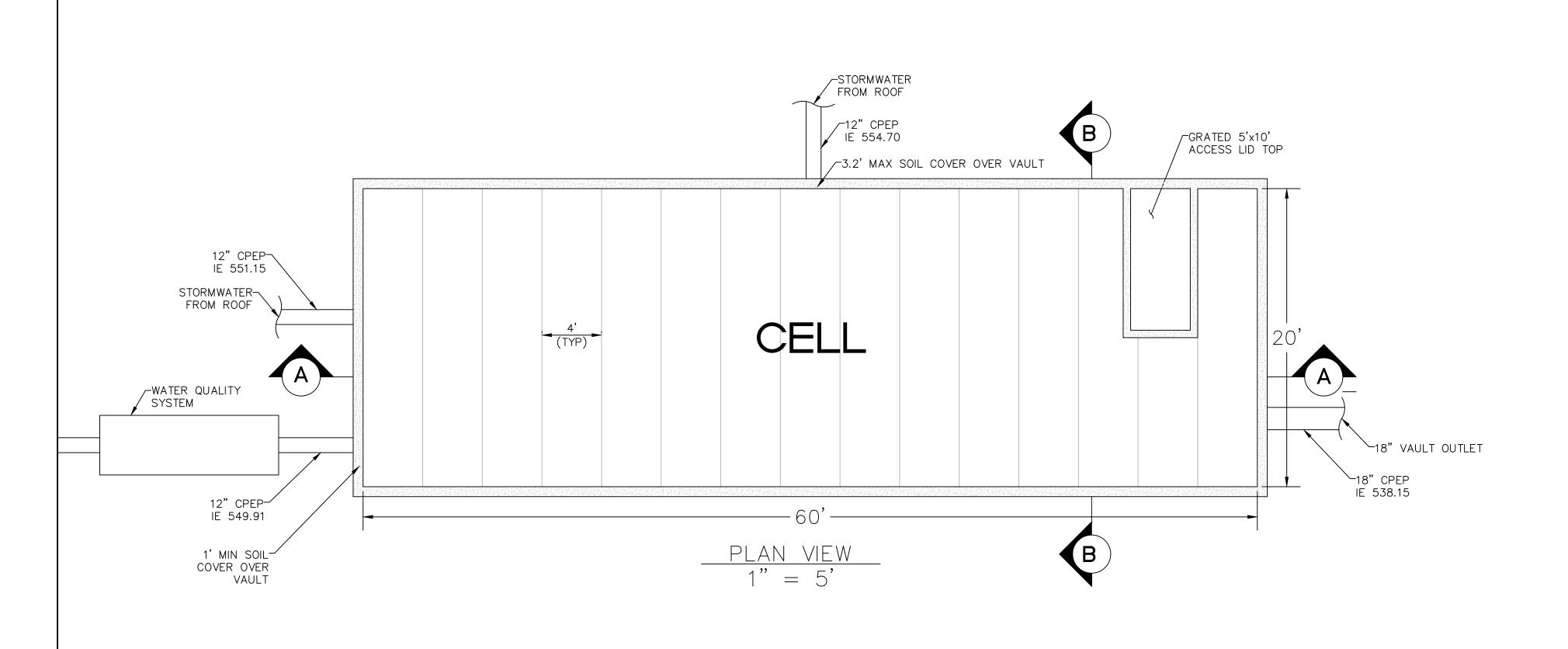
UTILITIES AS SHOWN ON-

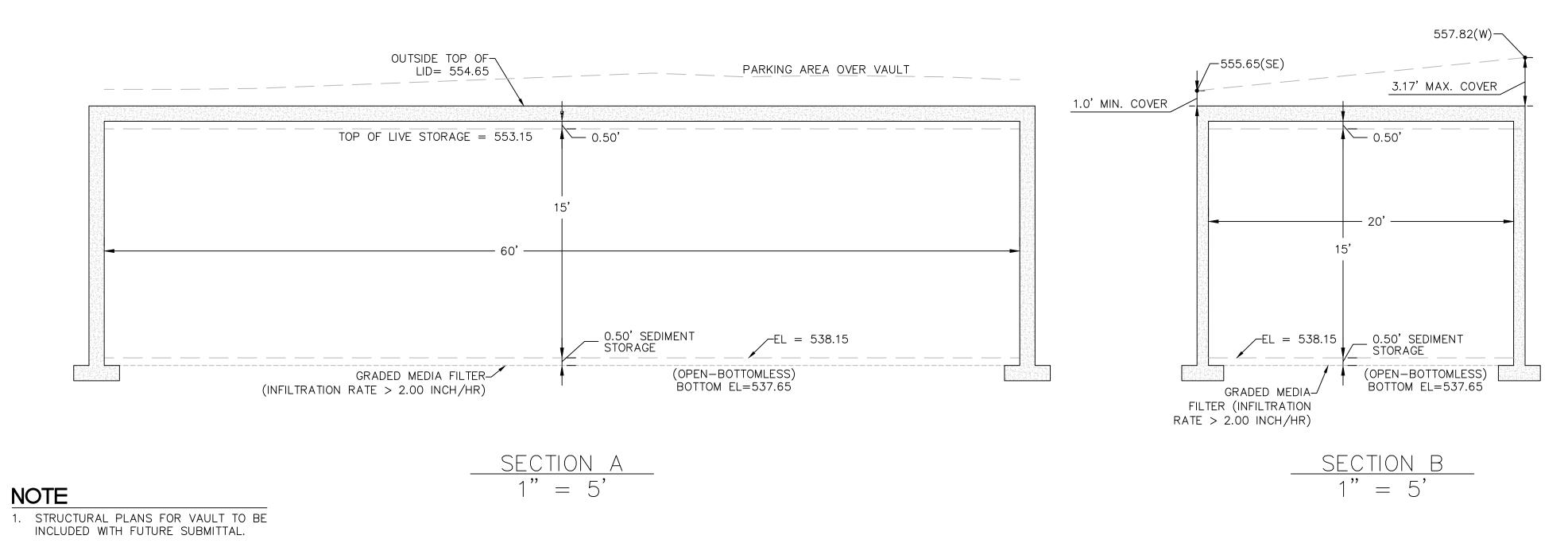
LINE OF THE BUILDING

FOUNDATION

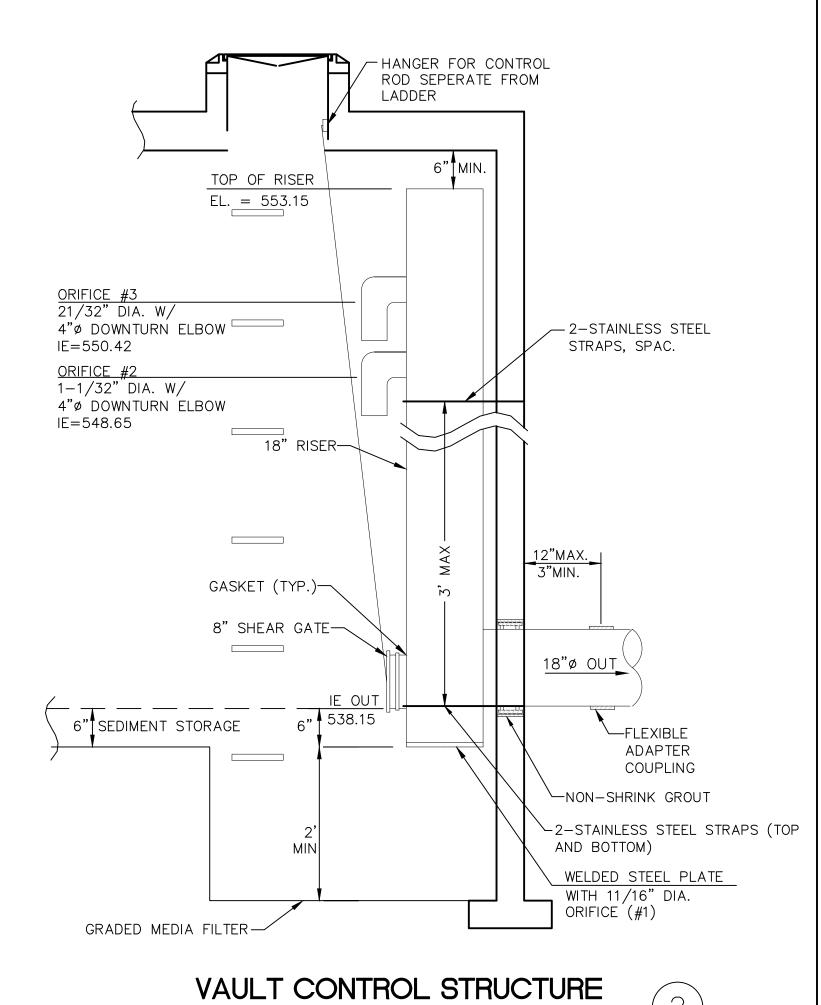
PLANS SHALL BE LOCATED

OUTSIDE THE SOIL BEARING





STORMWATER VAULT DETAILS



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PROJECT NAME

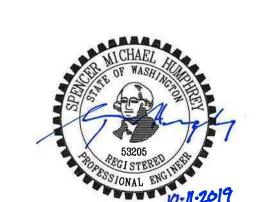
**NELSON 43** 

NAVIX PROJECT NUMBER:

PROJECT ADDRESS

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SECTION, TOWNSHIP, RANGE:

SECTION 10, TOWNSHIP 28 NORTH, RANGE 4 EAST, W.M.

**PROJECT TEAM** 

REVIEWED BY:

DESIGNED BY:

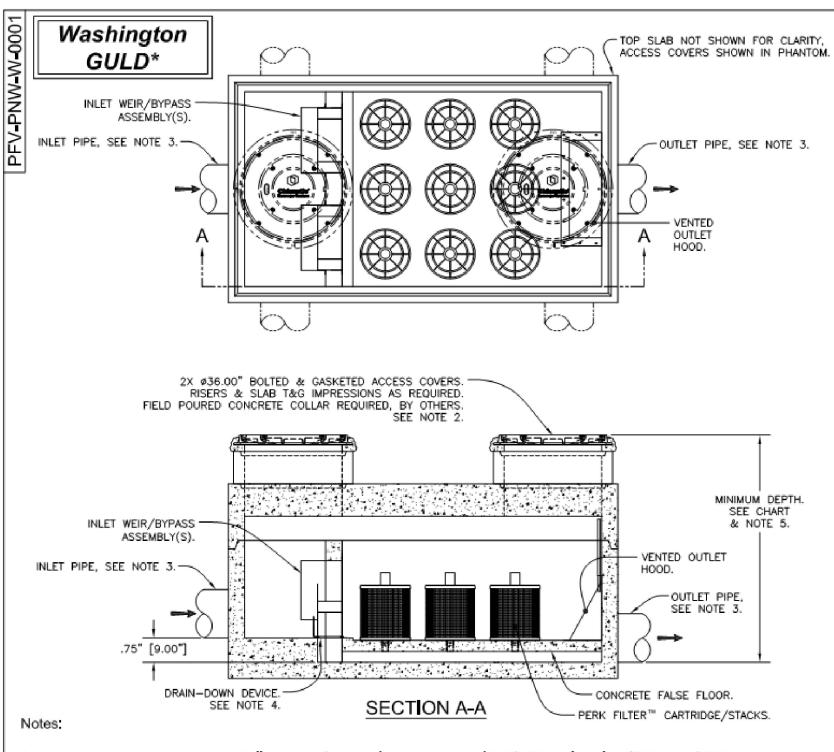
SHEET NAME

S.HUMPHREY S.HUMPHREY

STORM

**DRAINAGE DETAILS** 

SHEET NUMBER



- Precast concrete structure shall be manufactured in accordance with ASTM Designation C857 and C858.
- 2. Filter system shall be supplied with traffic rated (H20) bolted & gasketed Ø36" circular access covers with risers as required. Shallow applications may require configurations with (H20) bolted & gasketed square/rectangular access hatches. Fleld poured concrete collars required, by others.
- 3. Inlet & outlet pipe(s) may enter device on all three sides of the inlet & outlet chambers. See chart for maximum pipe size.
- Inlet chamber shall be supplied with a drain-down device designed to remove standing water between storm events.
- For depths less than specified minimums contact Oldcastle® Stormwater Solutions for engineering assistance.
- ★ Treatment Flow Rates shown conform to WashIngton State GULD Specifications





Washington GULD\*

#### MINIMUM DEPTH - RIM TO OUTLET INVERT -CARTRIDGE STACK CONFIGURATION 18" 12" + 12" 12" + 18" 5.75' 4.83'

[49.00"] [58.00"] [69.00"] [78.00"]

		Т	reat	mer	nt Flow	Rate	es &	Total Fl	ow (	Capa	acities			
					CA	RTRI	DGE	SIZE & ST	ACK (	CONF	IGURATI	ON		
VAULT SIZE	MAXIMUM	Cartridge /		12	2"		18	3"		12" -	÷12"		12" +	+ 18"
ID	PIPE SIZE	Stack	TREAT	MENT	TOTAL FLOW	TREAT	MENT	TOTAL FLOW	TREAT	MENT	TOTAL FLOW	TREAT	MENT	TOTAL FLOW
(Nominal)	TITE SIZE	Quantity	FLOW	RATE	CAPACITY	FLOW	RATE	CAPACITY	FLOW	RATE	CAPACITY	FLOW	RATE	CAPACITY
			(GPM	/ CFS)	(CFS)	(GPM	/CFS)	(CFS)	(GPM	/CFS)	(CFS)	(GPM	/CFS)	(CFS)
		1	6.8	0.015	2.8	10.2	0.023	4.2	13.6	0.030	4.7	17.0	0.038	6.3
4.0' X 6.5'	Ø18"	2	13.6	0.030	2.8	20.4	0.045	4.2	27.2	0.061	4.7	34.0	0.076	6.3
		3	20.4	0.045	2.8	30.6	0.068	4.2	40.8	0.091	4.8	51.0	0.114	6.3
		4	27.2	0.061	2.9	40.8	0.091	4.2	54.4	0.121	4.8	68.0	0.152	6.4
		5	34.0	0.076	2.9	51.0	0.114	4.2	68.0	0.152	4.8	85.0	0.190	6.4
5.0' X 10.5'	Ø18"	6	40.8	0.091	2.9	61.2	0.136	4.3	81.6	0.182	4.9	102.0	0.227	6.4
		7	47.6	0.106	2.9	71.4	0.159	4.3	95.2	0.212	4.9	119.0	0.265	6.5
		8	54.4	0.121	2.9	81.6	0.182	4.3	108.8	0.243	4.9	136.0	0.303	6.5
		9	61.2	0.136	5.7	91.8	0.205	8.5	122.4	0.273	9.6	153.0	0.341	12.8
C 01 V 43 01	Ø24"	10	68.0	0.152	5.8	102.0	0.227	8.5	136.0	0.303	9.6	170.0	0.379	12.8
6.0' X 12.0'		11	74.8	0.167	5.8	112.2	0.250	8.5	149.6	0.334	9.7	187.0	0.417	12.9
		12	81.6	0.182	5.8	122.4	0.273	8.5	163.2	0.364	9.7	204.0	0.455	12.9
		13	88.4	0.197	8.6	132.6	0.296	12.7	176.8	0.394	14.4	221.0	0.493	19.2
		14	95.2	0.212	8.6	142.8	0.318	12.7	190.4	0.425	14.4	238.0	0.531	19.2
		15	102.0	0.227	8.6	153.0	0.341	12.7	204.0	0.455	14.5	255.0	0.569	19.2
		16	108.8	0.243	8.6	163.2	0.364	12.8	217.6	0.485	14.5	272.0	0.607	19.3
		17	115.6	0.258	8.6	173.4	0.387	12.8	231.2	0.516	14.5	289.0	0.644	19.3
		18	122.4	0.273	8.7	183.6	0.409	12.8	244.8	0.546	14.6	306.0	0.682	19.3
		19	129.2	0.288	8.7	193.8	0.432	12.8	258.4	0.576	14.6	323.0	0.720	19.4
		20	136.0	0.303	8.7	204.0	0.455	12.8	272.0	0.607	14.6	340.0	0.758	19.4
8.0° X 16'	Ø24"	21	142.8	0.318	8.7	214.2	0.478	12.9	285.6	0.637	14.6	357.0	0.796	19.5
		22	149.6	0.334	8.7	224.4	0.500	12.9	299.2	0.667	14.7	374.0	0.834	19.5
		23	156.4	0.349	8.7	234.6	0.523	12.9	312.8	0.698	14.7	391.0	0.872	19.5
		24	163.2	0.364	8.8	244.8	0.546	12.9	326.4	0.728	14.7	408.0	0.910	19.6
		25	170.0	0.379	8.8	255.0	0.569	13.0	340.0	0.758	14.8	425.0	0.948	19.6
		26	176.8	0.394	8.8	265.2	0.591	13.0	353.6	0.789	14.8	442.0	0.986	19.6
		27	183.6	0.409	8.8	275.4	0.614	13.0	367.2	0.819	14.8	459.0	1.024	19.7
		28	190.4	0.425	8.8	285.6	0.637	13.0	380.8	0.849	14.9	476.0	1.061	19.7
		29	197.2	0.440	8.8	295.8	0.660	13.0	394.4	0.880	14.9	493.0	1.099	19.8
MAX	IMUM HEAD	LOSS		1.7 F	EET		2.31	EET		2.9	EET		3.5 (	EET

★ Treatment Flow Rates shown conform to Washington State GULD Specifications

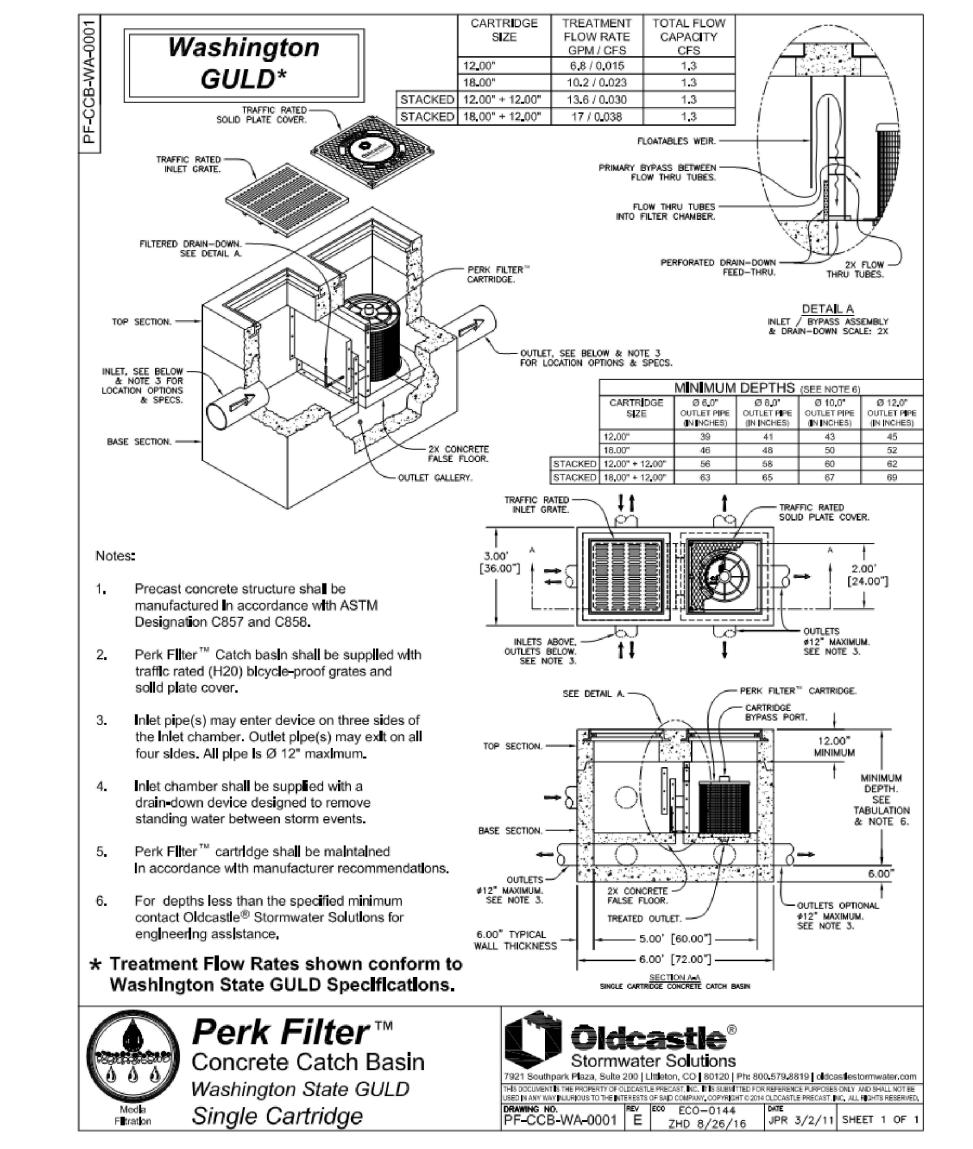


Perk Filter™ Vault
Pacific Northwest Sizing

Oldcastle®
Stormwater Solutions Pacific Northwest Sizing

Washington State GULD One to Twenty Nine Cartridges / Stacks

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**CLIENT/OWNER** 

**GREG NELSON** 

**PROJECT NAME** 

**NELSON 43** 

NAVIX PROJECT NUMBER:

PROJECT ADDRESS

4301 78TH ST SW MUKILTEO, WA 98275

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SECTION, TOWNSHIP, RANGE:

**SECTION 10, TOWNSHIP 28** NORTH, RANGE 4 EAST, W.M.

**PROJECT TEAM** 

REVIEWED BY:

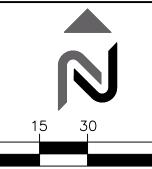
DESIGNED BY:

S.HUMPHREY

SHEET NAME

STORM **DRAINAGE DETAILS** 

SHEET NUMBER



LEGEND

GRADING NOTES: (NAVIX)

RIGHT-OF-WAY.

GRASS IS OBTAINED.

PROJECT SITE.

SURVEY.

1. THE SPOT ELEVATIONS INDICATED ON THIS PLAN REPRESENT THE

STRUCTURES INCLUDING REMOVAL OF ANY EXISTING UTILITIES SERVING

OTHER LANDSCAPED AREAS SHALL RECEIVE 6 INCHES OF TOPSOIL PER

ACCORDANCE WITH LOCAL SPECIFICATION UNTIL A HEALTHY STAND OF

DESIGN TOP OF PAVEMENT, UNLESS OTHERWISE NOTED.

2. CONTRACTOR IS RESPONSIBLE FOR DEMOLITION OF EXISTING

THE STRUCTURE. UTILITIES ARE TO BE REMOVED TO THE

3. ALL LAWN AREAS SHALL RECEIVE 4 INCHES OF TOPSOIL AND ALL

CONTRACTOR SHALL STABILIZE DISTURBED AREAS WITH GRASS IN

4. ALL CUT AND FILL SLOPES SHALL BE CONSTRUCTED PER THE UBC

SLOPES SHALL BE 3:1 OR FLATTER UNLESS OTHERWISE NOTED.

5. CONTRACTOR SHALL ASSURE POSITIVE DRAINAGE AWAY FROM

6. ALL POLLUTANTS OTHER THAN SEDIMENT ON-SITE DURING

DISCHARGE ASSOCIATED WITH CONSTRUCTION ACTIVITIES.

ALL AREAS TO PRECLUDE PONDING OF WATER.

CODES AND BE CONSTRUCTED TO SAME.

BUILDINGS SPLAY LINE OF THE FOOTINGS.

11. FOR LAYOUT INFORMATION REFER TO THE SITE PLAN.

CODE AND APPLICABLE LOCAL REGULATION. ALL CUT AND FILL

BUILDINGS FOR ALL NATURAL AND PAVED AREAS AND SHALL GRADE

CONSTRUCTION SHALL BE HANDLED AND DISPOSED OF IN A MANNER

THAT DOES NOT CAUSE CONTAMINATION OF STORMWATER. THE

OUTLINED IN THE GENERAL N.P.D.E.S. PERMIT FOR STORMWATER

7. PROPERTIES AND WATERWAYS DOWNSTREAM OF THE SITE SHALL BE PROTECTED FROM EROSION DUE TO INCREASES IN THE VOLUME, VELOCITY AND PEAK FLOW RATE OF STORMWATER RUNOFF FROM

8. CONSTRUCTION SHALL COMPLY WITH ALL APPLICABLE GOVERNING

9. CONTRACTOR TO REMOVE UNSUITABLE SOILS LOCATED WITHIN THE

10. FOR BOUNDARY AND TOPOGRAPHIC INFORMATION REFER TO PROJECT

CONTRACTOR SHALL ADHERE TO ALL TERMS AND CONDITIONS AS

LANDSCAPING SPECIFICATIONS. CONTRACTOR SHALL APPLY

STABILIZATION FABRIC TO ALL SLOPES 3H:1V OR STEEPER.

SCALE: 1 INCH = 30 FT.

#### NOTE

- GRADE.
- 2. HIGH POINTS IN PAVED AREAS ARE CRITICAL TO THE FUNCTION OF SURFACE WATER COLLECTION. CONTRACTOR TO CONTACT ENGINEER IF PROPOSED GRADES AT HIGH POINTS AND INLET RIM ELEVATIONS ARE UNABLE TO BE ACHIEVED.

	PROPERTY LINE
////,	PROPOSED BUILDING
	RIDGE LINE
GS	GROUND SPOT
TP	TOP OF PAVEMENT
TC	TOP OF CURB
ВС	BOTTOM OF CURB (AT TOP OF PAVEMENT)
EG	EXISTING GROUND
T/PE	TOP OF PAD ELEVATION
THR	DOOR THRESHOLD
T/CO	TOP OF CLEANOUT
RIM	RIM ELEVATION
HP	HIGH POINT
LP	LOW POINT
M.E.	MATCH EXISTING
TW	TOP OF WALL

1. ADJUST ALL RIMS (EXISTING AND PROPOSED) TO FINISHED

BOTTOM OF WALL

	SCALL: I INCIT = S
	PROPERTY LINE
	PROPOSED BUILDING
	RIDGE LINE
GS	GROUND SPOT
TP	TOP OF PAVEMENT
TC	TOP OF CURB
ВС	BOTTOM OF CURB (AT TOP OF PAVEMENT)
EG	EXISTING GROUND
T/PE	TOP OF PAD ELEVATION
THR	DOOR THRESHOLD
T/CO	TOP OF CLEANOUT
RIM	RIM ELEVATION
HP	HIGH POINT
LP	LOW POINT
M.E.	MATCH EXISTING
TW	TOP OF WALL

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**SECTION, TOWNSHIP, RANGE:** 

**SECTION 10, TOWNSHIP 28** NORTH, RANGE 4 EAST, W.M.

PROJECT TEAM

S.HUMPHREY

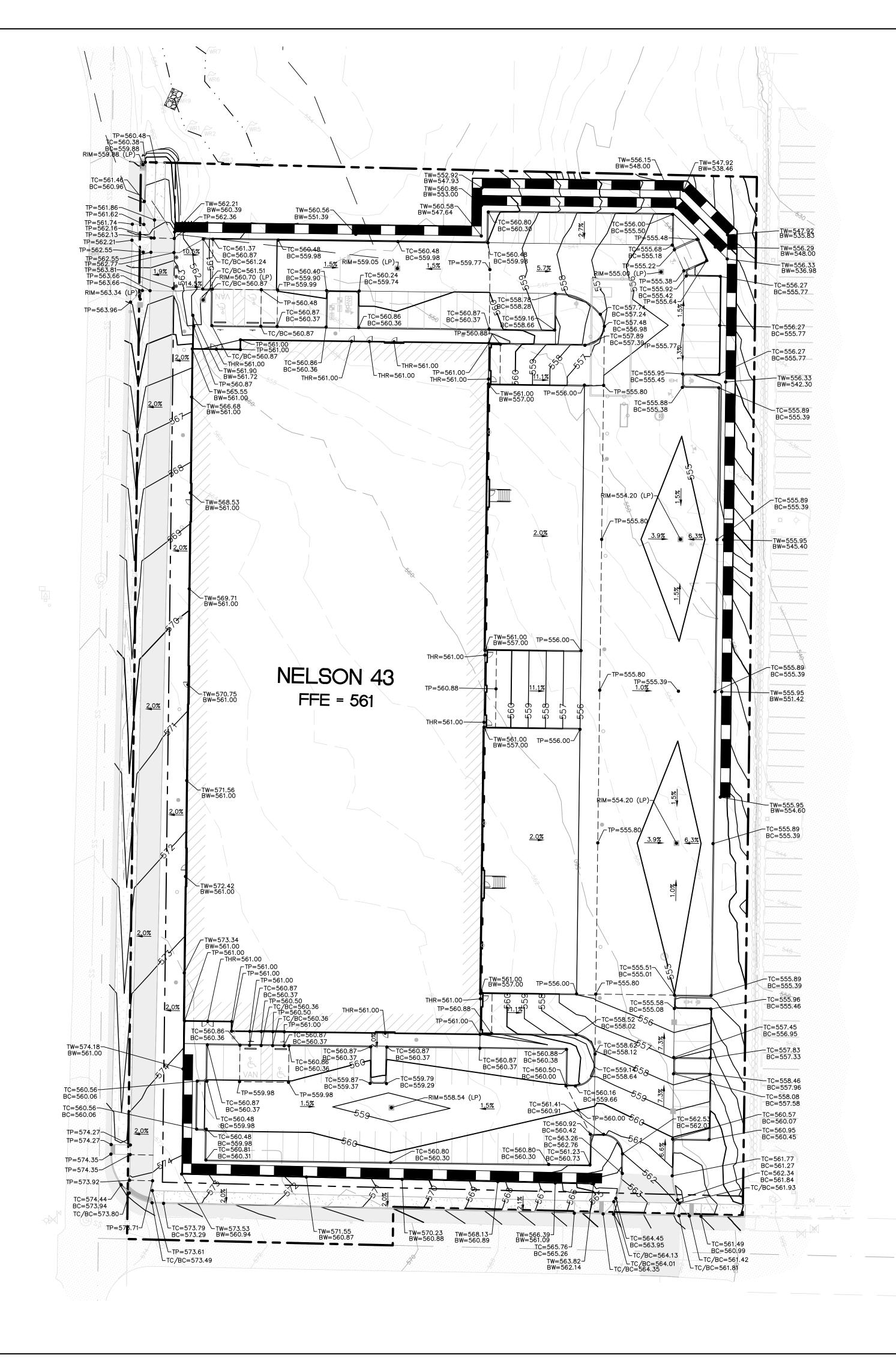
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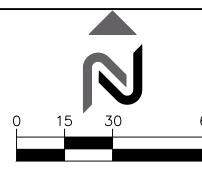
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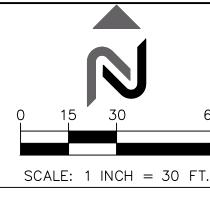
SHEET NAME

**FINISHED GRADING PLAN** 

SHEET NUMBER







PROPERTY LINE

FIRE PIPE  $\frac{W-D1}{C-3.2}$ 

TEE/BEND W/

FIRE HYDRANT

ASSEMBLY

DUCTILE IRON

FLANGE JOINT

COPPER PIPE

POLYETHYLENE

1. PROVIDE NECESSARY REDUCERS AT POINT OF

2. INSTALL 6" DRAIN FROM PROPOSED DDCVA TO

CONNECTION TO ARCH/MECH/PLUMB.

NEAREST CATCHBASIN.

MECHANICAL JOINT

RESTRAINED JOINT

THRUST BLOCKING

GATE VALVE (W-D24)

WATER METER (M-D13)

FIRE DEPARTMENT CONNECTION  $\left(\frac{2}{2}\right)$ 

REDUCED PRESSURE BACKFLOW W-D20

DOUBLE CHECK VALVE ASSEMBLY

DOUBLE DETECTOR CHECK VALVE W-D19W-D20 C-3.2 C-3.2

POST INDICATOR VALVE  $\frac{2}{(C-F-3)}$ 

PROPOSED BUILDING

VERTICAL BENDS (W-D14

DOMESTIC WATER PIPE (W-D1)

11235 s.e. 6th street | suite 150 bellevue, wa 98004

SITE | CIVIL

t: 425.453.9501 | f: 425-453-8208 www.navixeng.com

**CLIENT/OWNER** 

**GREG NELSON** 

PROJECT NAME

**NELSON 43** 

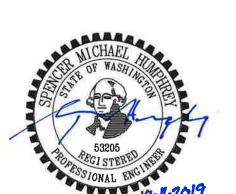
PROJECT ADDRESS

NAVIX PROJECT NUMBER:

4301 78TH ST SW

STAMP

MUKILTEO, WA 98275



REVISIONS		
REV	ISSUED FOR:	DATE
	PERMIT SET	10.11.19



SECTION 10, TOWNSHIP 28 NORTH, RANGE 4 EAST, W.M.

PROJECT TEAM

REVIEWED BY:

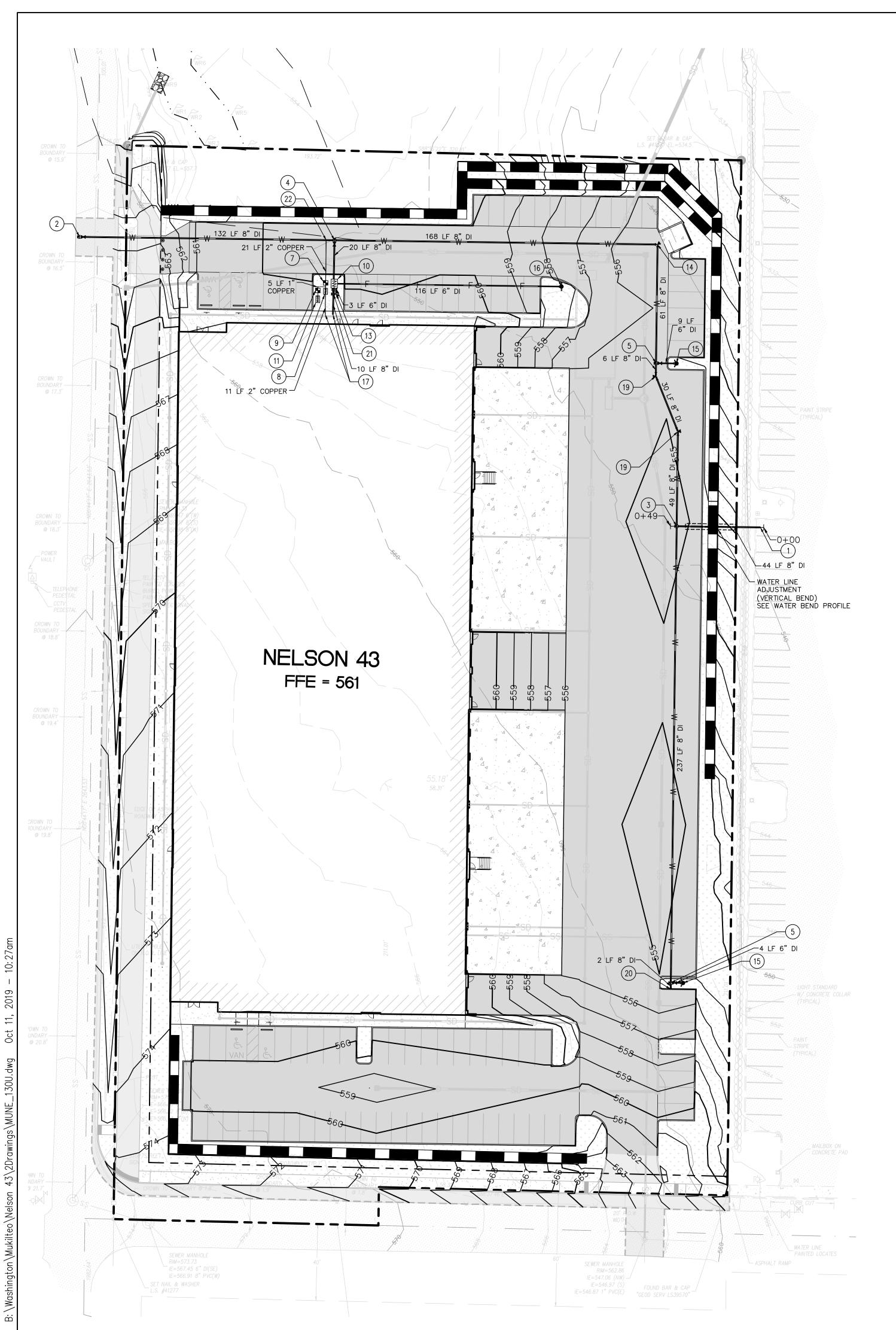
DESIGNED BY:

SHEET NAME

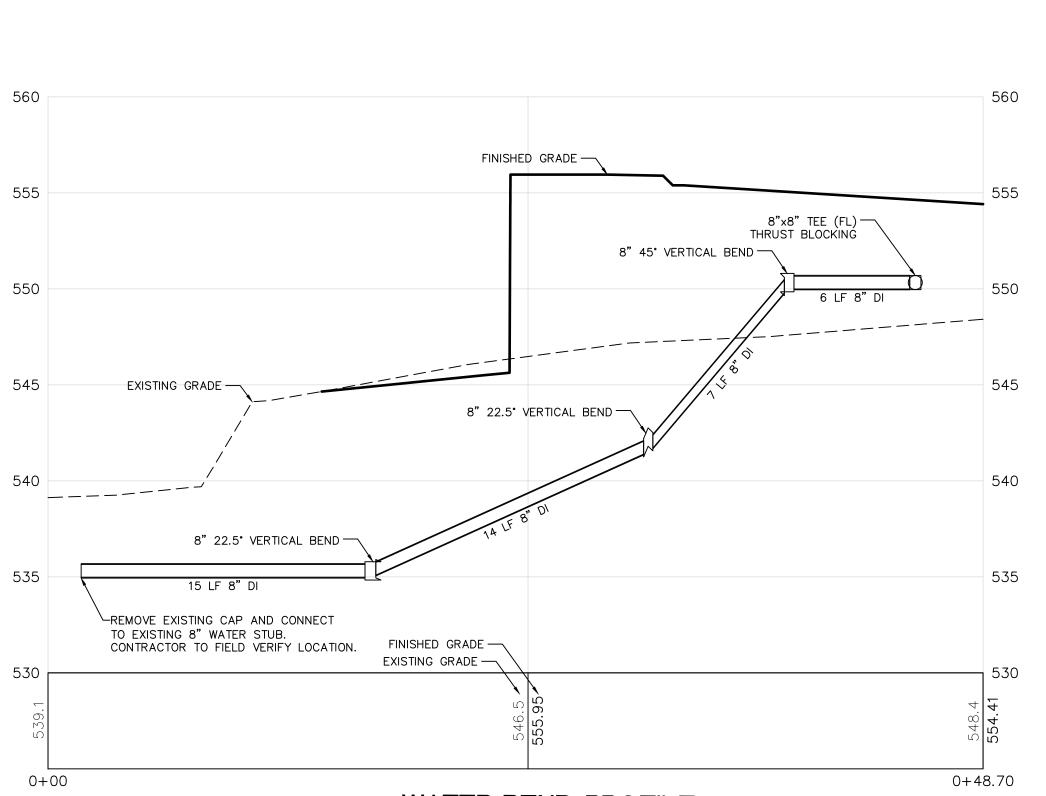
**WATER PLAN** 

SHEET NUMBER

C-3.0



#### WATER SCHEDULE REMOVE EXISTING CAP AND CONNECT TO EXISTING 8" WATER STUB PER MUKILTEO WATER 9 1-1" IRRIGATION METER PER DETAILS W-D10, REMOVE EXISTING CAP AND CONNECT TO AND WASTE WATER DISTRICT DETAILS AND REQUIREMENTS. CONTRACTOR TO VERIFY SHEET C-3.1 AND W-D27, SHEET C-3.2. LOCATION OF EXISTING WATER STUB. NOTIFY ENGINEER IF FIELD CONDITION DIFFERS. 0) 1-DOUBLE DETECTOR CHECK VALVE ASSEMBLY 1-DCVA PER STANDARD DETAIL W-D17 CONNECT NEW 8" WATER TO EXISTING WATER MUKILTEO WATER AND WASTEWATER DISTRICT MAIN PER MUKILTEO WATER AND WASTEWATER DISTRICT DETAILS AND REQUIREMENTS. 1-4" 90° BEND (MJ) THRUST BLOCKING CONTRACTOR TO VERIFY LOCATION AND SIZE OF EXISTING MAIN. NOTIFY ENGINEER IF FIELD CONDITION DIFFERS. 1-6" 90° BEND (MJ) 1-12"x8" TAPPING TEE (FL) 기 THRUST BLOCKING 1-8" GATE VALVE (FLxMJ) 1-8" 90° BEND (MJ) THRUST BLOCKING THRUST BLOCKING 1-8"x8" TEE (FL) 1-FIRE HYDRANT ASSEMBLY PER DETAIL W-D3, THRUST BLOCKING SHEET C-3.3. 1-8"x8" TEE (FL) 1-FIRE DEPARTMENT CONNECTION 1-8" GATE VALVE (FLxMJ) THRUST BLOCKING CONNECT TO BUILDING (SEE PLUMBING FOR 1-8"x6" TEE (FL) CONT.) 1-6" GATE VALVE (FLxMJ) (18) 1-POST INDICATOR VALVE THRUST BLOCKING 1-8" 22.5" BEND (MJ) THRUST BLOCKING 1-4"×4" TEE (FL) 3-4" GATE VALVE (FLxMJ) THRUST BLOCKING 20 1-8" DEADMAN BLOCKING W/ SHACKLES 7 1-2" DOMESTIC WATER METER PER DETAIL 21 1-8"x6" TEE (FL) THRUST BLOCKING / W-D12, SHEET C-3.1 (8) 1-RPBA PER DETAIL W-D26, SHEET C-3.1 2 2" DIRECT TAP INTO 8" WATER MAIN



**LEGEND** 

**∄** ⊢**>** 

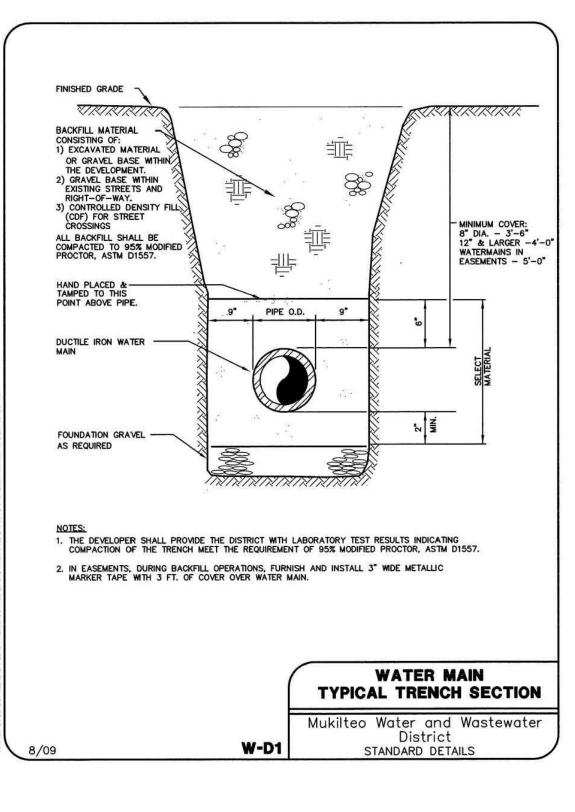
WATER BEND PROFILE STATION 0+00 TO 0+48.70 HORIZONTAL SCALE: 1" = 5" VERTICAL SCALE: 1" = 5'

APPROVED BY:MUKILTEO WATER AND WASTEWATER	DATE
MUKILTEO WATER AND WASTEWATER DISTRICT EXTENSION NO.	
GRAY & OSBORNE NO.	
PROJECT MUST BE COMPLETED AND OWNERSHIP TRANSFERRED TO WASTEWATER DISTRICT WITHIN 1 YEAR FROM THE DATE OF APPROPROJECT DEVELOPER FAILS TO DO SO, THE PROJECT WILL BE SUBADDITIONAL PLAN REVIEW AND REVISION, DUE TO ANY CHANGES IN REQUIREMENTS OCCURRING PRIOR TO COMPLETION AND TRANSFER SERVICE IS AVAILABLE ONLY AFTER PAYMENT OF ALL CURRENT FOR AND TRANSFER OF OWNERSHIP TO THE DISTRICT.	VAL. IN THE EVENT THAT THE BJECT TO REAPPLICATION, N DISTRICT STANDARDS OR OF OWNERSHIP. WATER/SEWER

#### WATER SYSTEM INSTALLATION NOTES

- PRIOR TO ANY CONSTRUCTION ACTIVITY, THE DEVELOPER SHALL ARRANGE A PRE-CONSTRUCTION CONFERENCE WITH THE MUKILTEO WATER AND WASTEWATER DISTRICT. THE DEVELOPER, CONTRACTOR AND PROPOSED ON-SITE SUPERVISORS SHALL ATTEND.
- 2. ALL WORK AND MATERIALS SHALL BE IN ACCORDANCE WITH THE LATEST REVISION, INCLUDING ADDENDA AND UPDATES, OF THE MUKILTEO WATER AND WASTEWATER DISTRICT DEVELOPER STANDARDS. CONTRACTOR TO HAVE MUKILTEO WATER AND WASTEWATER DISTRICT STANDARDS ON JOB SITE.
- 3. NO DISTRICT INSPECTIONS WILL TAKE PLACE AND THE JOB WILL BE 16. INDIVIDUAL WATER SERVICES TO THE PROPERTY LINE SHALL BE SHUT DOWN UNLESS AN APPROVED AND DISTRICT SIGNED COPY OF THESE PLANS ARE ON THE JOB SITE AT ALL TIMES CONSTRUCTION IS IN PROGRESS.
- 4. ALL WATER SYSTEM IMPROVEMENTS SHALL BE CONSTRUCTED IN ACCORDANCE WITH THESE APPROVED PLANS. ANY DEVIATION FROM THE PLANS WILL REQUIRE APPROVAL FROM THE OWNER, ENGINEER, DISTRICT AND APPROPRIATE PUBLIC AGENCIES.
- 5. NOTIFY THE DISTRICT 72 HOURS (3 WORKING DAYS) PRIOR TO BEGINNING CONSTRUCTION AND FOR ANY RESTARTS OF WORK.
- 6. THE DISTRICT SHALL BE NOTIFIED THREE WORKING DAYS PRIOR TO THE TIME THE DEVELOPER WOULD LIKE TO CONNECT TO EXISTING MAINS OR FOR INSTALLATION OF TAPPING TEES. THE CONNECTION SHALL BE DONE IN ACCORDANCE WITH DISTRICT REQUIREMENTS. CONNECTIONS TO TAKE PLACE TUESDAYS THROUGH THURSDAYS ONLY. DEVELOPER SHALL NOT OPERATE ANY DISTRICT VALVES; THESE WILL BE OPERATED BY WATER DISTRICT PERSONNEL ONLY.
- 7. FOR AID IN UTILITY LOCATION, CALL 1-800-424-5555, A MINIMUM OF 48 HOURS (2 WORKING PRIOR TO BEGINNING OF CONSTRUCTION. EXISTING UTILITIES, WHETHER SHOWN OR NOT. SHALL BE LOCATED PRIOR TO CONSTRUCTION, SO AS TO AVOID DAMAGE OR DISTURBANCE, AND THE DEVELOPER SHALL ASSUME ALL RESPONSIBILITY AND COSTS CONNECTED THEREWITH TO PROTECT. MAINTAIN AND REPAIR. WHERE NECESSARY.
- 8. WATER LINE CONSTRUCTION WITHIN THE PROPOSED DEVELOPMENT SHALL NOT COMMENCE UNTIL THE STREET HAS BEEN BROUGHT TO SUB-GRADE, MEETING MUKILTEO WATER DISTRICT APPROVAL.
- 9. WATER MAIN SHALL BE FIELD STAKED PRIOR TO CONSTRUCTION WITH 25-FOOT STAKES ON LOT CORNER STAKES SHALL ALSO BE 21. WATER MAINS CONSTRUCTED WITHIN EASEMENTS OR PRIVATE IN PLACE PRIOR TO CONSTRUCTION.
- 10. PIPE SHALL BE DUCTILE IRON, AWWA CLASS 52 THICKNESS, WITH RUBBER GASKETS, PUSHON TYPE, OR MECHANICAL JOINT, MEETING AWWA SPECIFICATIONS. FITTINGS SHALL BE AWWA, CEMENT LINED, DUCTILE IRON, AND EITHER MECHANICAL JOINT OR FLANGED, AS INDICATED HEREIN. ALL PIPE TO BE PURCHASED AND INSTALLED AS A PART OF THE DEVELOPERS WATER SYSTEM SHALL BE DELIVERED TO THE JOB SITE WITH WATER TIGHT WRAPPING OR PIPE PLUGS. PLUGS AND/OR WRAPPING SHALL REMAIN IN PLACE UNTIL THE PIPE IS INSTALLED IN THE TRENCH.
- 11. UNLESS OTHERWISE SPECIFIED VALVES 12-INCH AND SMALLER SHALL BE DUCTILE IRON RESILIENT SEATED GATE VALVES: ACCEPTABLE VALVES ARE MUELLER, CLOW, M&H, U.S. PIPE AND AMERICAN FLOW CONTROL, SERIES 2500. VALVES LARGER THAN 12-INCHES SHALL BE DUCTILE IRON BUTTERFLY VALVES: ACCEPTABLE VALVES ARE PRATT GROUNDHOG AND DRESSER 450.
- 12. ALL BOLTS ON WATER WORKS FITTINGS SHALL BE COATED WITH ARMITE ANTI-SEIZE COMPOUND NO. 609, OR EQUAL, PRIOR TO INSTALLATION. ALL WATER WORKS FITTINGS AND BOLTED ASSEMBLIES SHALL BE COMPLETELY COVERED WITH VISQUEEN PLASTIC, 4-MIL. THE END OF THE PLASTIC SHALL BE TAPED TO SECURE THEM TO THE PIPE.
- 13. HYDRANTS SHALL BE MUELLER CENTURION A-423, CLOW SPECIFICATIONS. HYDRANTS SHALL BE FURNISHED WITH THREADED 26. WATER SERVICE IS AVAILABLE ONLY AFTER TRANSFER OF OUTLETS, MEETING FIRE DISTRICT/DEPARTMENT STANDARDS. BOTH THRUST BLOCKING AND MEGA LUGS RESTRAINTS ARE REQUIRED ON EACH HYDRANT INSTALLATION.
  - HYDRANTS WITHIN THE CITY OF MUKILTED FIRE SERVICE AREA AND FIRE DISTRICT #1 SHALL BE EQUIPPED WITH 4-INCH STORZ ADAPTERS: ALL OTHER HYDRANTS SHALL UTILIZE A 5-INCH STORZ ADAPTER. ALL HYDRANTS SHALL HAVE A 4-1/2-INCH NST THREADS ON PUMPER PORT.

- 14. PROVIDE THRUST BLOCKING AND OR RESTRAINED JOINTS AT ALL FITTINGS AND BENDS AND UPTHRUST FITTINGS, IN ACCORDANCE WITH DISTRICT STANDARDS, CONDITIONS AND SPECIFICATIONS.
- 15. ALL NEW CONNECTIONS TO THE EXISTING WATER SYSTEM SHALL BE IN STRICT CONFORMANCE WITH THE APPROPRIATE SUBSECTIONS OF THE SPECIFICATIONS OF THE DISTRICT. NO CONNECTION SHALL BE MADE BETWEEN THE NEW MAIN AND THE EXISTING MAINS UNTIL THE NEW PIPING HAS BEEN FLUSHED, DISINFECTED, TESTED AND RECEIVED SATISFACTORY BACTERIOLOGICAL TEST RESULTS.
- 1-INCH DIAMETER MINIMUM SIZE AND BE INSTALLED WITH 36-INCH MINIMUM COVER.
- 17. RESIDENTIAL FIRE SPRINKLER SYSTEMS SHALL HAVE A MINIMUM 1-INCH METER/SERVICE. BACKFLOW PREVENTION ASSEMBLIES SHALL BE INSTALLED ON ALL RESIDENTIAL FIRE SPRINKLER SYSTEMS AND LOCATED IMMEDIATELY BEHIND THE WATER METER/SERVICE ON THE PROPERTY SIDE.
- 18. FIRE LINE SERVICES SHALL HAVE A DOUBLE CHECK DETECTOR BACKFLOW PREVENTION ASSEMBLY INSTALLED IN A UTILITY VAULT AT THE ROW/PROPERTY LINE WITH A 6-INCH PVC GRAVITY DRAIN TO STORM. FIRE LINE SERVICE SHALL TERMINATE, IN THE STRUCTURE TO BE SERVED, WITH THE DISTRICT'S RISER DETAIL
- 19. ALL COMMERCIAL, MULTI-FAMILY, INDUSTRIAL AND IRRIGATION SERVICES SHALL INCLUDE A DOH APPROVED BACKFLOW PREVENTION ASSEMBLY LOCATED IMMEDIATELY BEHIND AND ON THE PROPERTY SIDE OF THE WATER METER. ALTERNATE LOCATIONS MAY BE ACCEPTABLE UPON APPROVAL BY THE DISTRICT. STRUCTURES REQUIRING FIRE SPRINKLER SYSTEM SHALL HAVE AT LEAST ONE BACKFLOW PREVENTION ASSEMBLY PER EACH STRUCTURE, PROTECTING THE POTABLE WATER SYSTEM FROM THE FIRE SYSTEM. THE BACKFLOW PREVENTION ASSEMBLY SHALL BE LOCATED IN A FLOOD PROOF VAULT OR SERVICE BOX. DEPENDING ON SIZE, OUTSIDE THE STRUCTURE IN A LOCATION APPROVED BY THE DISTRICT.
- 20. WHERE ROAD GRADES ARE ESTABLISHED, PROVIDE A MINIMUM OF 48-INCH COVER OVER 12-INCH OR LARGER WATER MAINS, AND PROVIDE A MINIMUM OF 42-INCH COVER OVER 8-INCH MAINS: OR ADDITIONAL DEPTH AS REQUIRED TO MISS OTHER UTILITIES.
- ROADS SHALL BE INSTALLED WITH POLYETHYLENE ENCASEMENT, RESTRAINED JOINTS AND WITH A 5'-0" MINIMUM COVER. DURING BACKFILL OPERATIONS, FURNISH AND INSTALL 3-INCH-WIDE METALLIC MARKER TAPE WITH 3-FEET OF COVER OVER WATER
- 22. MINIMUM RADIUS FOR 12-INCH AND SMALLER PIPELINES CONSTRUCTED ON CURVES (4 DEGREE DEFLECTION PER JOINT) IS 258-FEET.
- 23. COMPACTION: ALL TRENCH BACKFILL AND ROADWAY EMBANKMENT SHALL BE COMPACTED TO 95% OF MODIFIED PROCTOR DRY MAXIMUM DENSITY IN ACCORDANCE WITH ASTM D1557, EXCEPT THE TOP 6-INCHES IN PAVED AREAS, WHICH SHALL BE 100%.
- 24. CONSTRUCTION INSPECTION WILL BE DONE BY MUKILTEO WATER AND WASTEWATER DISTRICT AND/OR THEIR DESIGNATED ENGINEER NO UTILITY FACILITIES WILL BE ACCEPTED BY THE DISTRICT IF PROPER INSPECTIONS HAVE NOT BEEN COMPLETED.
- 25. THE WATER MAIN CONSTRUCTION PHASE WILL NOT BE CONSIDERED COMPLETE UNTIL THE INSTALLATION IS ACCEPTABLE TO THE DISTRICT INCLUDING A SATISFACTORY HYDROSTATIC PRESSURE TEST, A SATISFACTORY DISINFECTION TEST, SATISFACTORY FLOW OF SERVICE LINES, AND COMPLETION OF ALL ITEMS ON THE INSPECTOR'S PUNCH LIST.
- OWNERSHIP TO THE DISTRICT AND AFTER PAYMENT OF ALL CURRENT APPLICABLE FEES.



CONCRETE OR IMPACT RESISTANT

METER OR IRRIGATION BOX SIZED

SUPPORT

OF HEALTH CURRENT APPROVED LIST.

2. CONCRETE TO BE 2500 PSI MIX WITH AIR ENTRAINMENT.

6. PRESSURE TEST AND DISINFECT PER A.W.W.A. STANDARDS.

FOR ASSEMBLY (INSULATED

RECOMMENDED) -

BOLT TO PAD -

W/ 3/8" S.S. ANCHOR

BOLTS AND WASHERS,

MIN. 4 LOCATIONS

DISCHARGE

WASHINGTON STATE APPROVED RPBA

STAINLESS STEEL OR BRONZE BODY

INSULATION IS RECOMMENDED

— UNION (TYP. OF 2)

- DRAIN TO DAYLIGHT

WITH BIRD SCREEN

BETWEEN METER

PROPERTY LINE

RESPONSIBILITY

REDUCED PRESSURE BACKFLOW

Mukilteo Water and Wastewater

STANDARD DETAILS

ASSEMBLY - 3/4" TO 2"

FLOW

RESPONSIBILITY

1. BACKFLOW ASSEMBLY SHALL BE SELECTED FROM WASHINGTON STATE DEPARTMENT

3. COMPLETE ALL WORK IN ACCORDANCE WITH STATE, DISTRICT AND MANUFACTURER

4. SYSTEM SHALL NOT BE PUT INTO SERVICE UNTIL RPBA IS APPROVED BY THE

BY THE PROPERTY OWNER WITH ANNUAL CERTIFICATION REQUIRED.

W-D26

7. DIELECTRIC UNIONS SHALL BE USED TO SEPARATE DISSIMILAR MATERIALS.

8. RPBA BOX SHALL BE LOCATED IMMEDIATELY DOWNSTREAM OF WATER SERVICE

BOX PRIOR TO ANY BRANCH CONNECTIONS WITH NO MORE THAN 1'-2' BETWEEN BOXES.

DISTRICT AND TESTED/CERTIFIED BY A WASHINGTON STATE LICENSED TESTER.

5. RPBA IS CONSIDERED PART OF THE PRIVATE SYSTEM AND SHALL BE MAINTAINED

- INSTALL RW GV

FOR FREEZE PROTECTION.

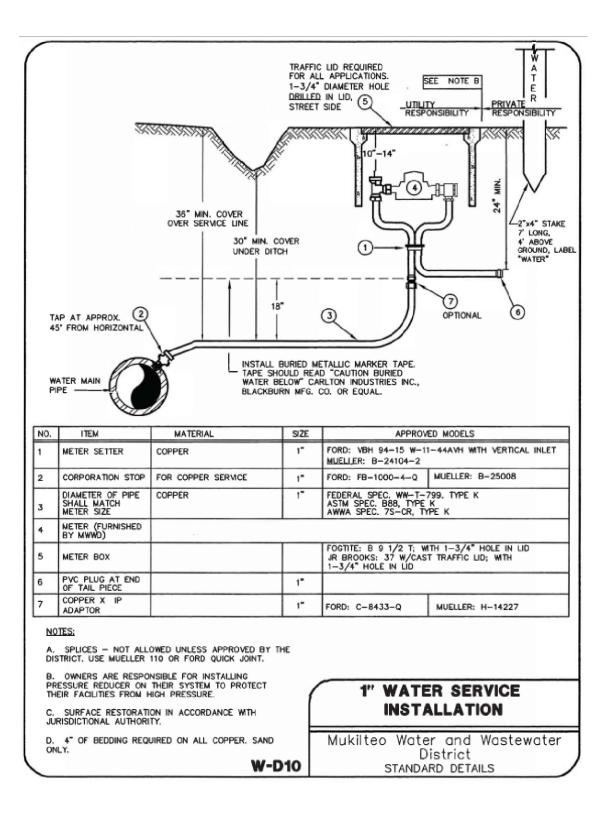
SEE NOTE 7

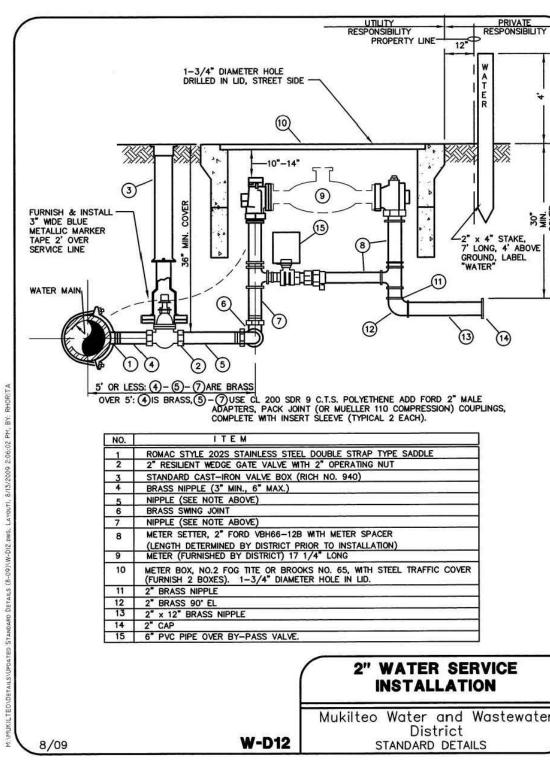
- GATE VALVE

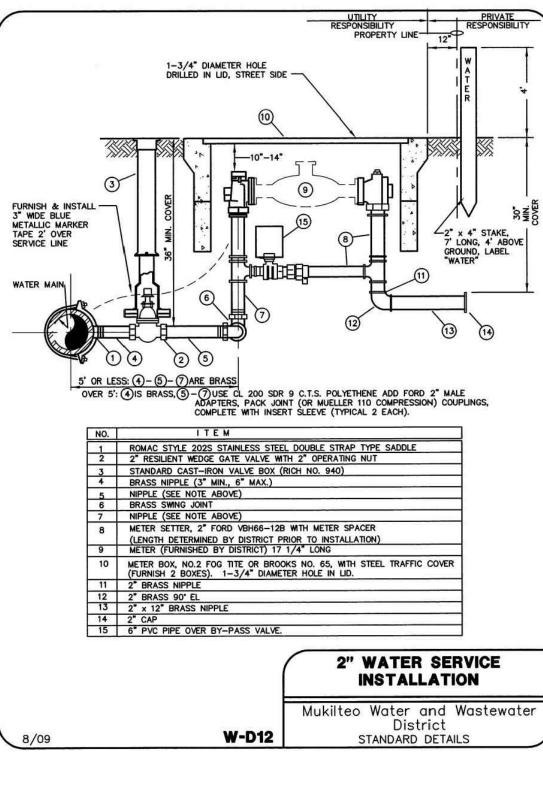
PROVIDE ELECTRICAL

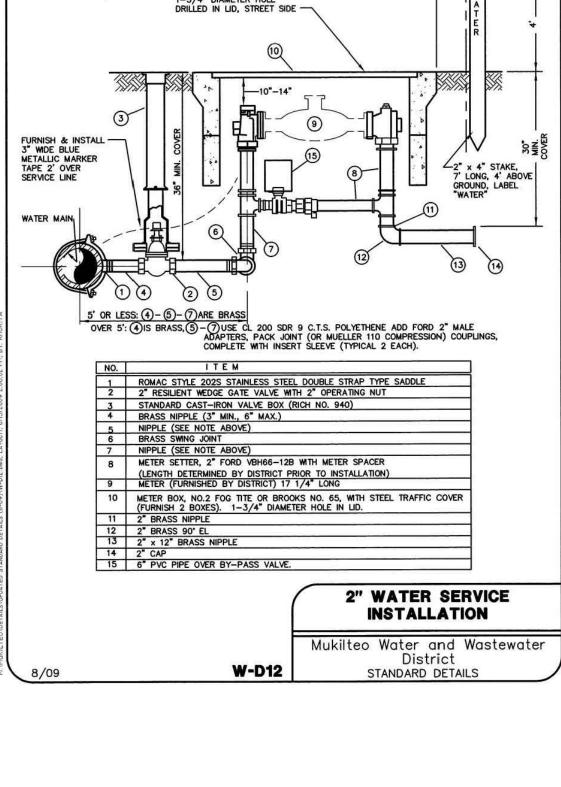
W/ TEST COCK PROTECTION AND

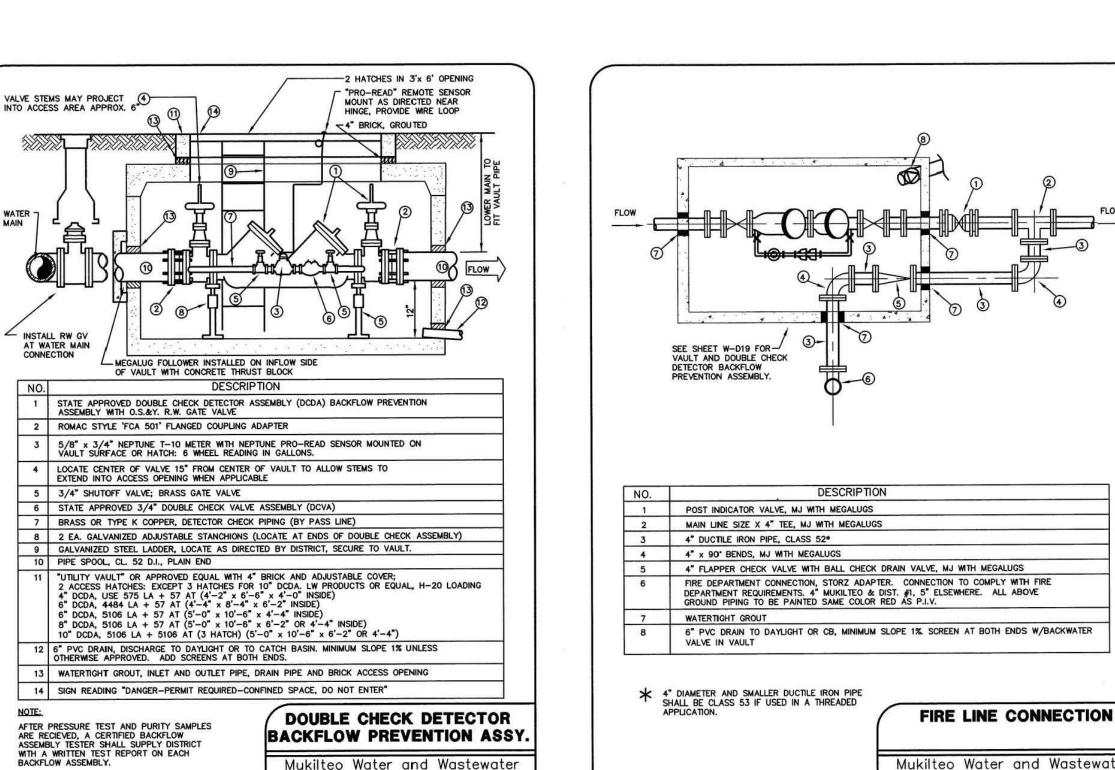
BALL VALVE AT EACH END.

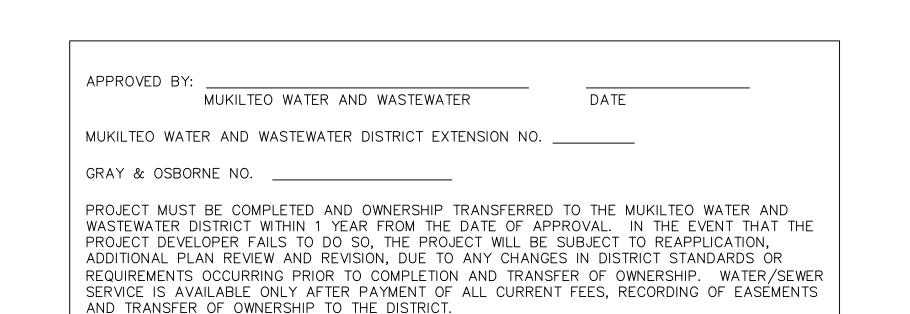






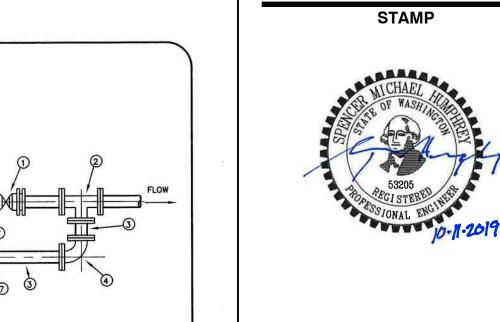






Mukilteo Water and Wastewater

STANDARD DETAILS



REV	ISSUED FOR:	DATE
	PERMIT SET	10.11.19

SITE | CIVIL

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CLIENT/OWNER

**GREG NELSON** 

PROJECT NAME

**NELSON 43** 

PROJECT ADDRESS

4301 78TH ST SW

**MUKILTEO, WA 98275** 

50-609-001

NAVIX PROJECT NUMBER:



**SECTION, TOWNSHIP, RANGE:** 

**SECTION 10, TOWNSHIP 28** NORTH, RANGE 4 EAST, W.M.

PROJECT TEAM

REVIEWED BY: **DESIGNED BY** 

Mukilteo Water and Wastewater

STANDARD DETAILS

W-D20

J.STEFANOFF

SHEET NAME

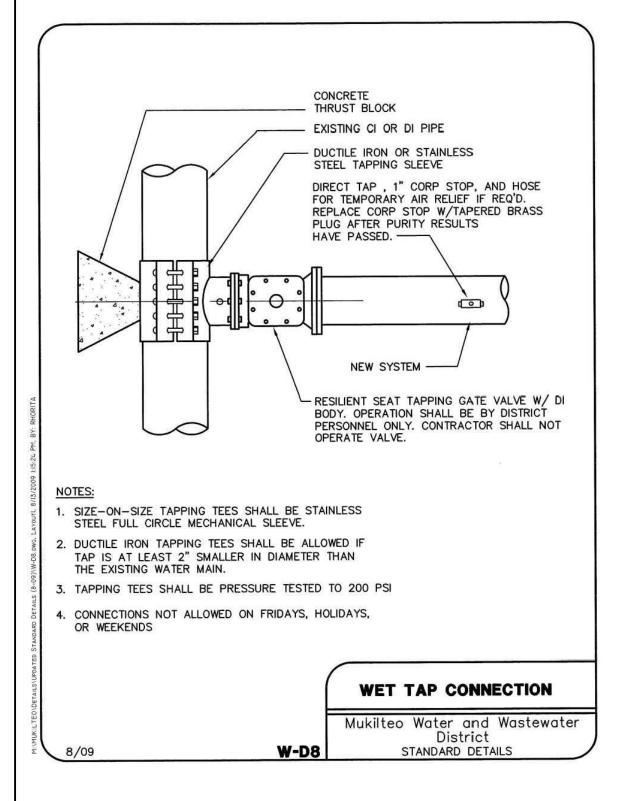
S.HUMPHREY

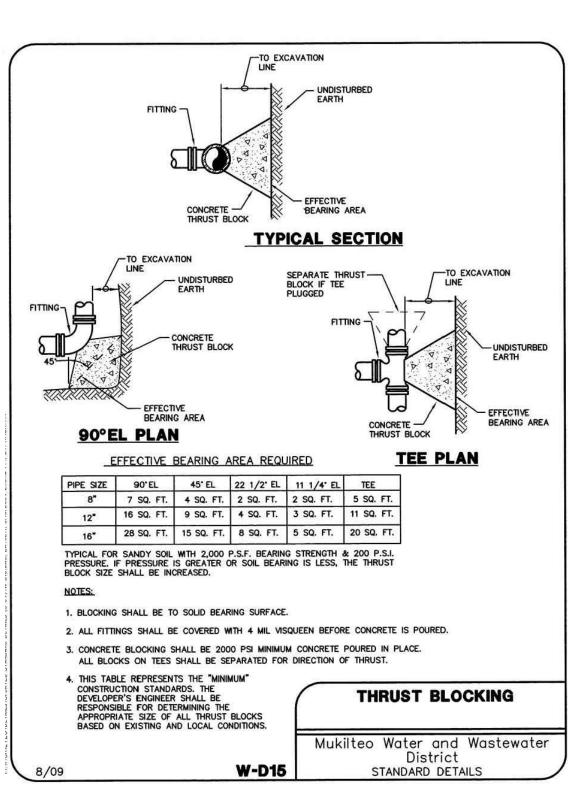
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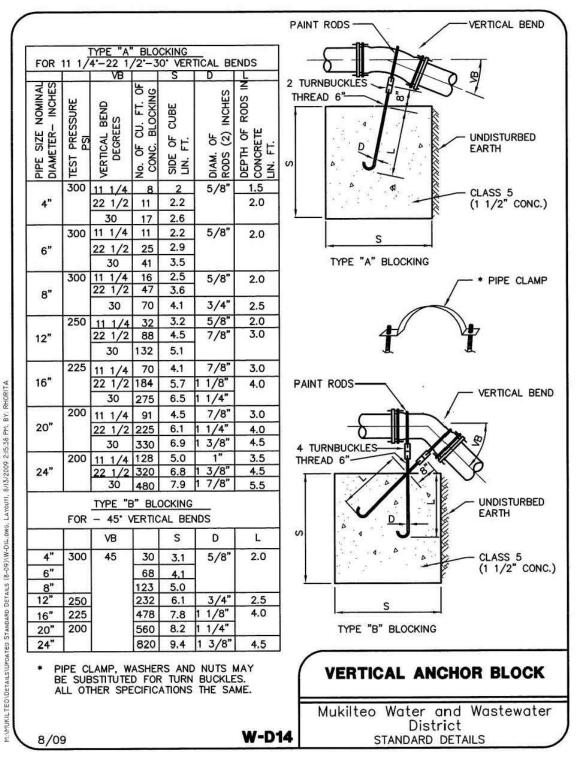
WATER DETAILS

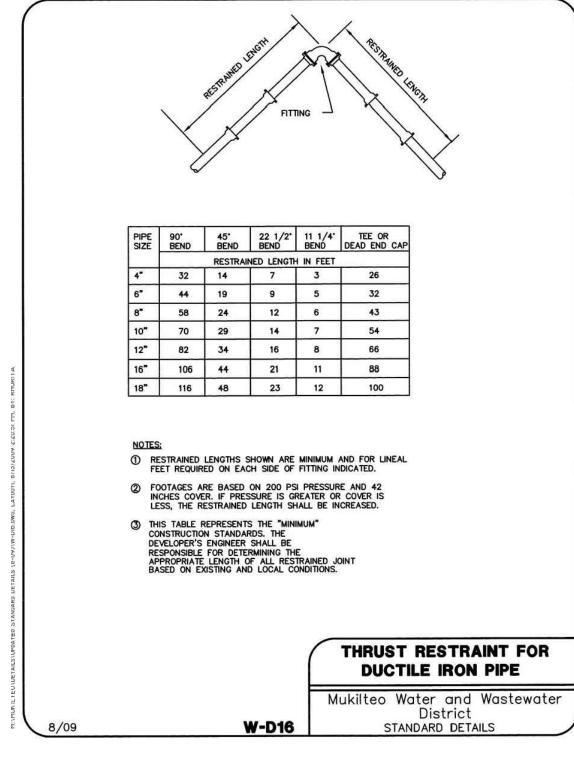
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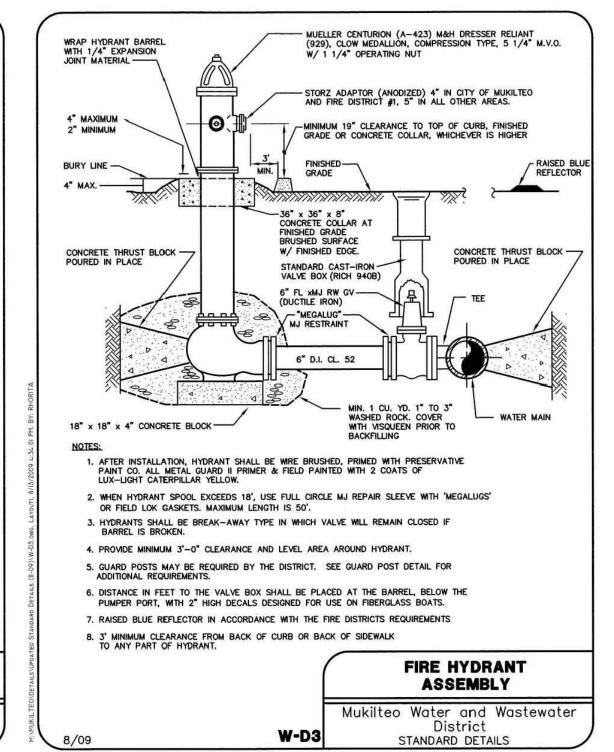
C-3.1

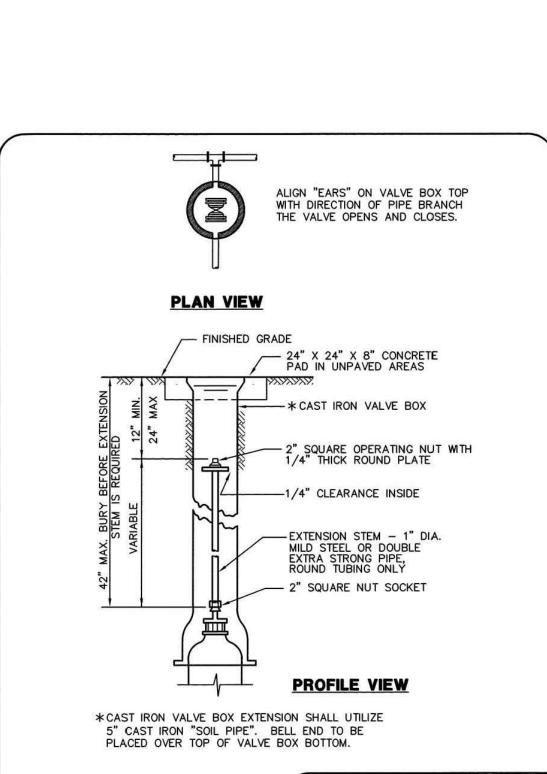












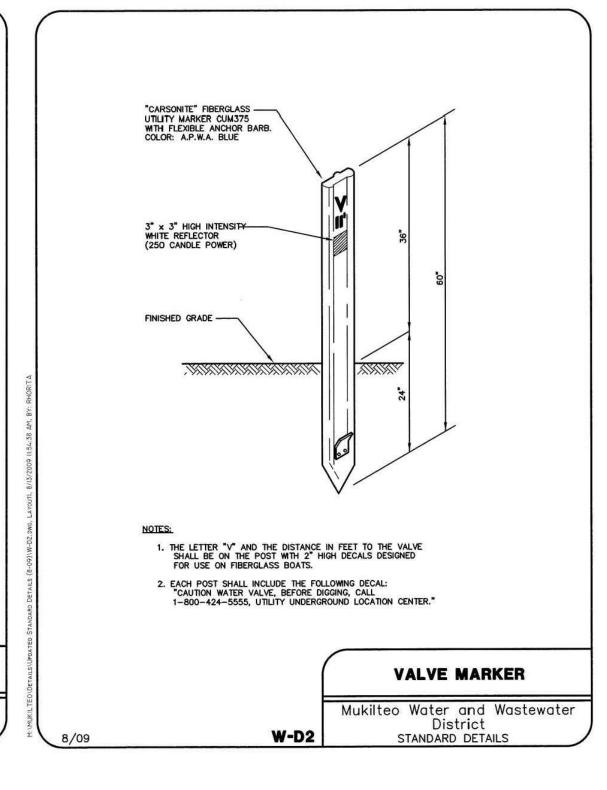
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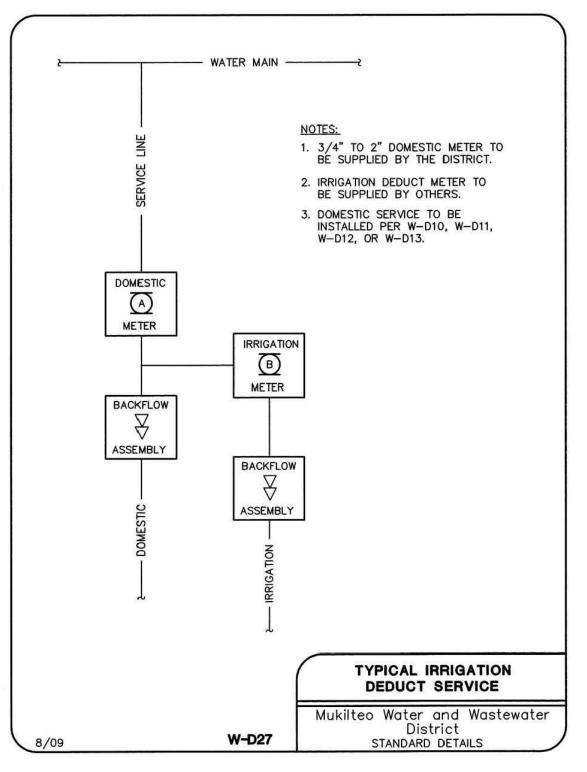
8/09

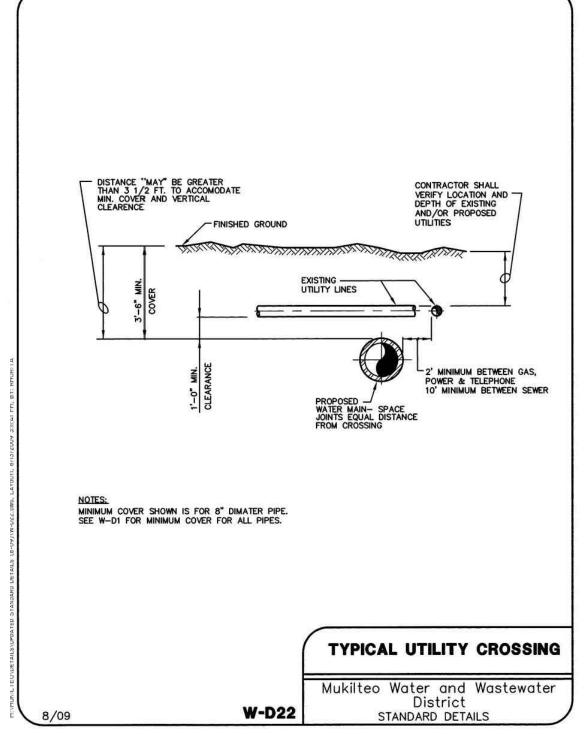
**VALVE STEM EXTENSION** 

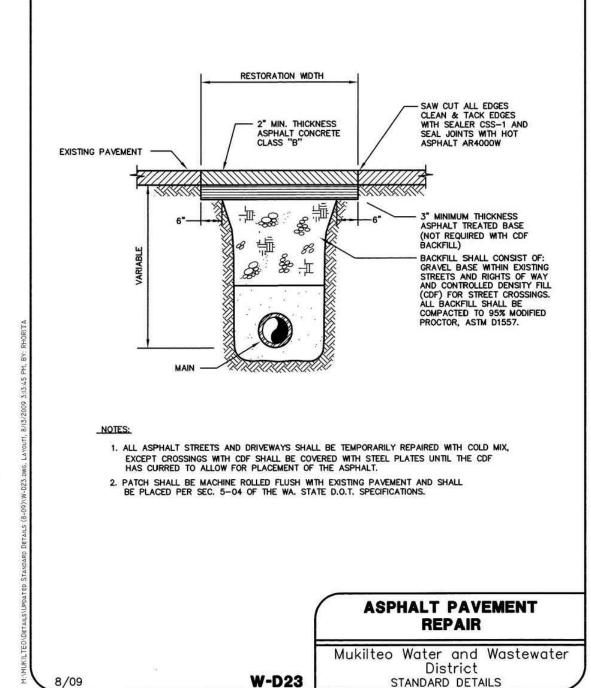
Mukilteo Water and Wastewater

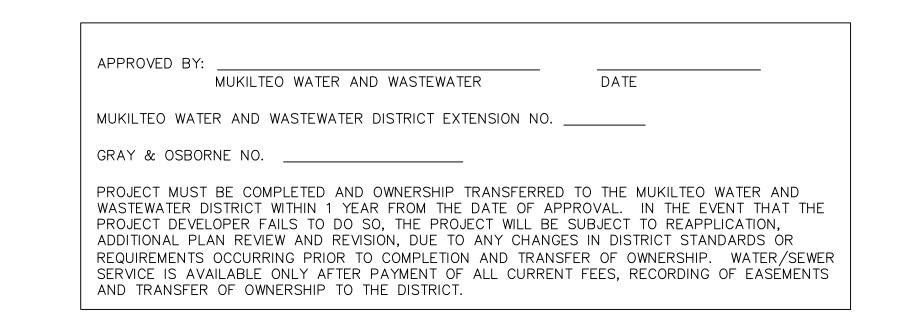
STANDARD DETAILS













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CLIENT/OWNER

**GREG NELSON** 

PROJECT NAME

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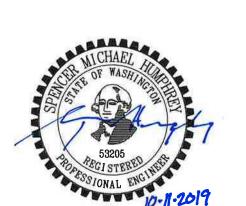
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NAVIX PROJECT NUMBER:

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4301 78TH ST SW MUKILTEO, WA 98275

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REVISIONS		
REV	ISSUED FOR:	DATE
	PERMIT SET	10.11.19



\_\_\_\_\_

SECTION 10, TOWNSHIP 28 NORTH, RANGE 4 EAST, W.M.

PROJECT TEAM

REVIEWED BY:

DESIGNED BY:

J.STEFANOFF

S.HUMPHREY

S.HUMPHREY

SHEET NAME

**WATER DETAILS** 

SHEET NUMBER

C-3.2



SS WYE  $\frac{S-D8}{C-4.1}$ 

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PROJECT ADDRESS

4301 78TH ST SW MUKILTEO, WA 98275

**STAMP** 



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SECTION, TOWNSHIP, RANGE:

**SECTION 10, TOWNSHIP 28** NORTH, RANGE 4 EAST, W.M.

PROJECT TEAM

REVIEWED BY: DESIGNED BY:

J.STEFANOFF

S.HUMPHREY

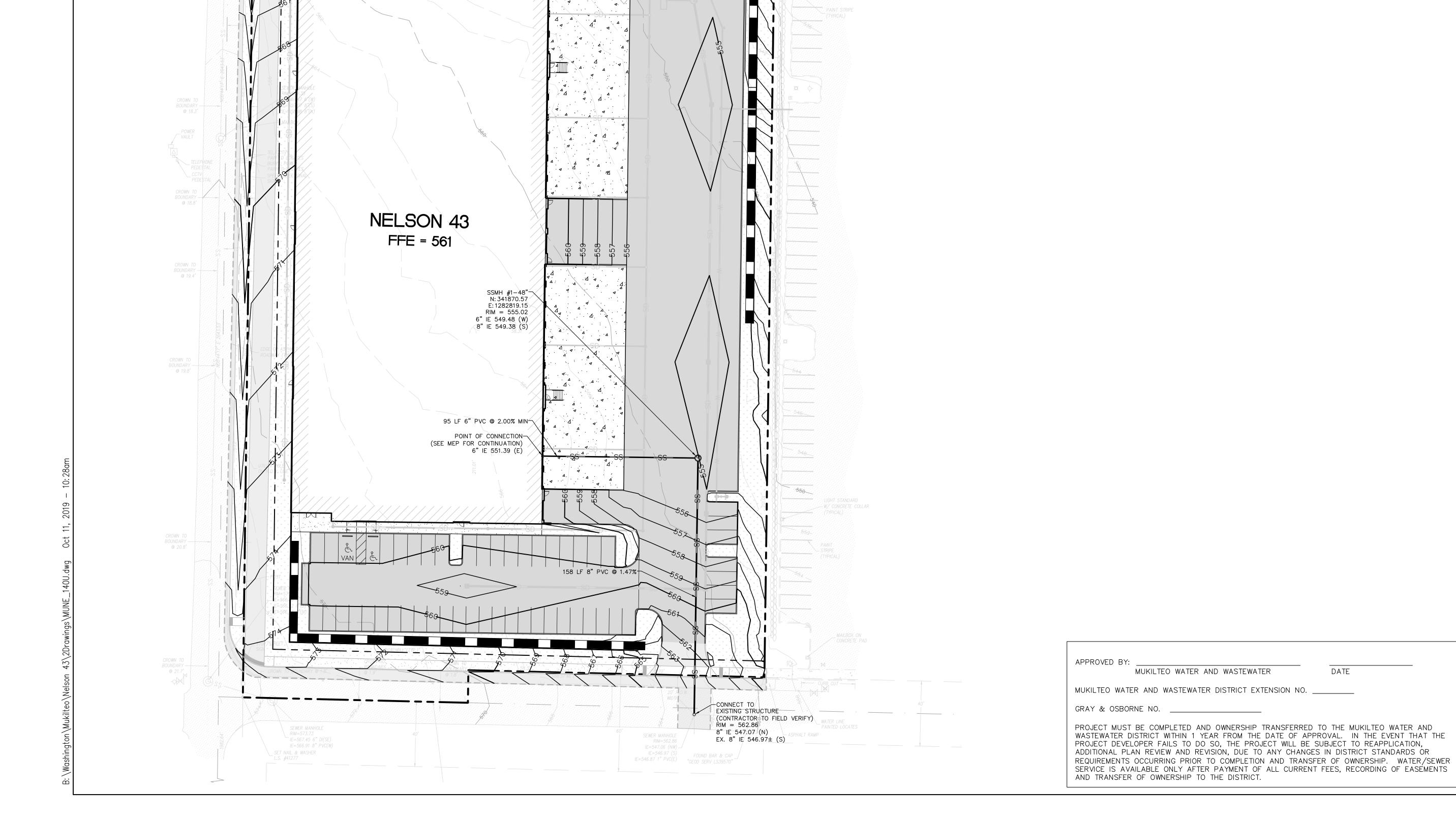
S.HUMPHREY

SHEET NAME

SANITARY **SEWER PLAN** 

SHEET NUMBER

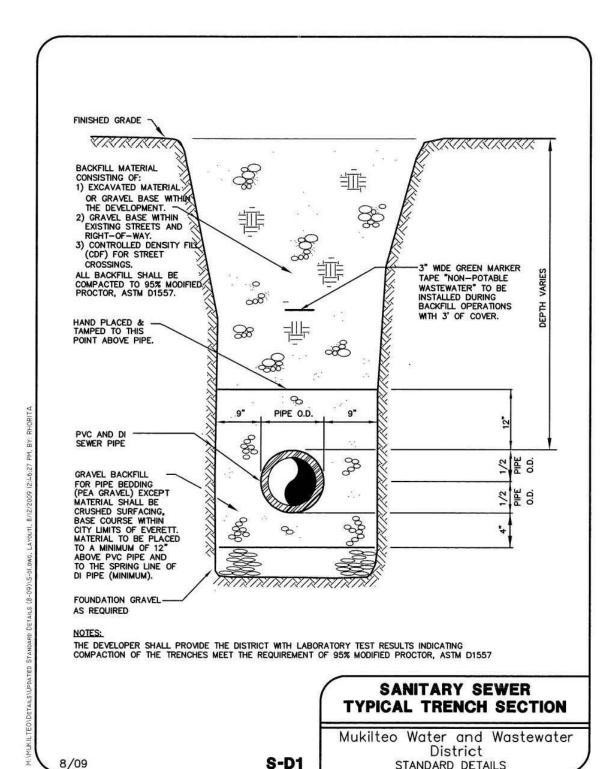
C-4.0

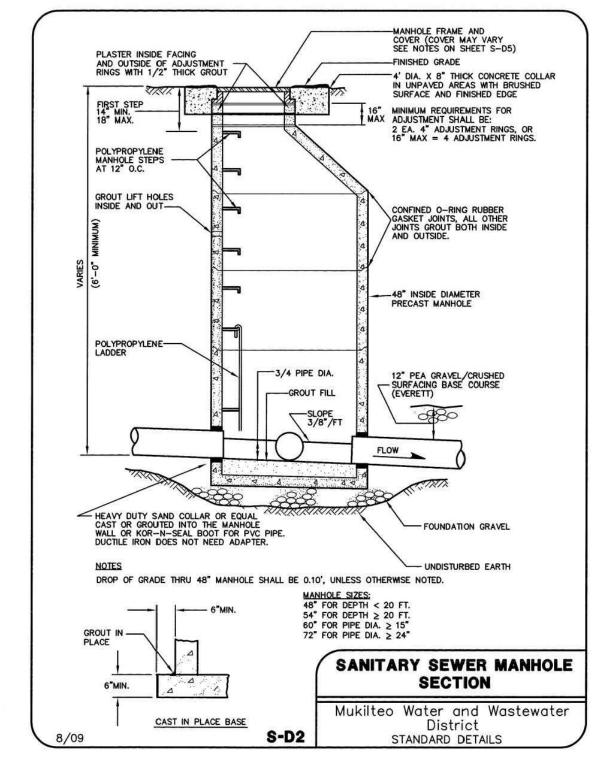


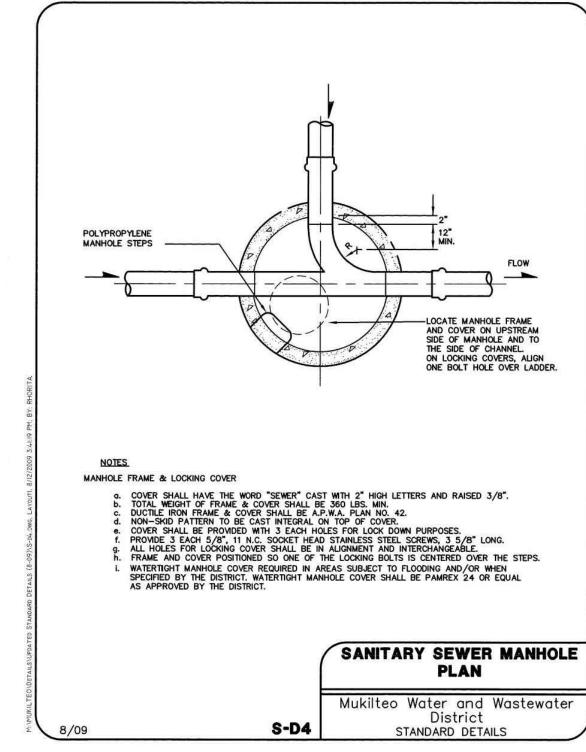
#### SEWER SYSTEM INSTALLATION NOTES

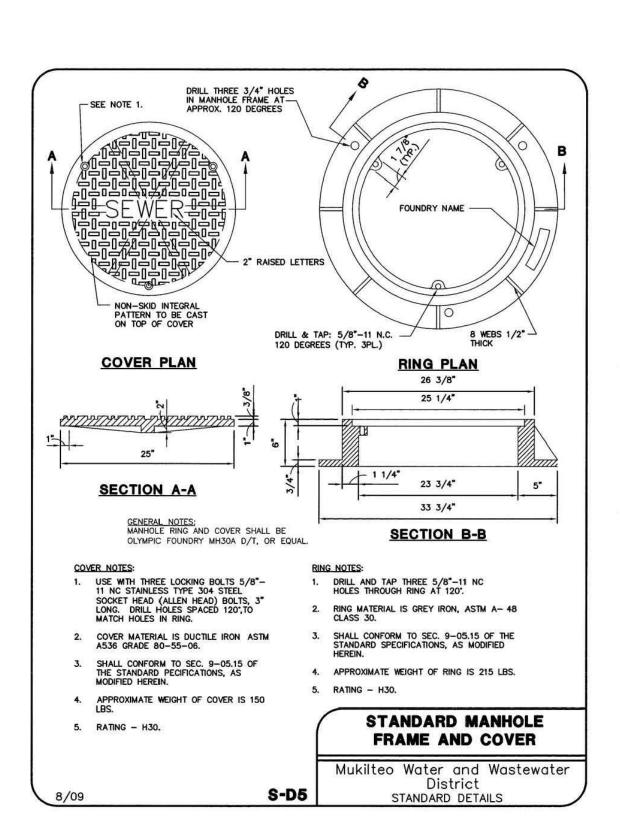
- 1. PRIOR TO ANY CONSTRUCTION ACTIVITY, THE DEVELOPER SHALL ARRANGE A PRE-CONSTRUCTION CONFERENCE WITH THE MUKILTED WATER AND WASTEWATER DISTRICT. THE DEVELOPER, CONTRACTOR AND PROPOSED ON-SITE SUPERVISOR SHALL ATTEND
- 2. ALL WORK AND MATERIALS SHALL BE IN ACCORDANCE WITH THE LATEST REVISION, INCLUDING ADDENDA AND UPDATES, OF THE MUKILTEO WATER AND WASTEWATER DISTRICT DEVELOPER STANDARDS. CONTRACTOR TO HAVE MUKILTED WATER AND WASTEWATER DISTRICT STANDARDS ON JOB SITE AT ALL TIMES WHILE LIMITS OF EVERETT) EXTENDING FROM 4-INCHES BELOW TO CONSTRUCTION IS IN PROGRESS.
- 3. A DISTRICT APPROVED SIGNED COPY OF THE PLANS MUST BE ON THE JOB SITE WHENEVER CONSTRUCTION IS IN PROGRESS.
- 4. ALL WORK AND MATERIAL SHALL BE IN ACCORDANCE WITH THE APPLICABLE STANDARDS AND SPECIFICATIONS OF THE DISTRICT, THE 16. SEWERS TO BE LOCATED BELOW POTABLE WATER LINES, WITH PROJECT SPECIFICATIONS, AND THE MOST RECENT EDITION OF THE APWA STANDARDS AND SPECIFICATIONS.
- 5. WORK SHALL NOT COMMENCE UNTIL APPROVAL IS RECEIVED FROM THE STATE DEPARTMENT OF ECOLOGY, UNLESS THE REVIEW AND APPROVAL IS WAIVED BY ECOLOGY.
- 6. FRONT PROPERTY CORNERS SHALL BE SET BY A LAND SURVEYOR LICENSED IN THE STATE OF WASHINGTON PRIOR TO THE START OF CONSTRUCTION.
- 7. NOTIFY THE DISTRICT 72 HOURS (3 WORKING DAYS) PRIOR TO BEGINNING CONSTRUCTION AND FOR ANY RESTARTS OF WORK.
- 8. FOR AID IN UTILITY LOCATION, CALL 1-800-424-555, A MINIMUM OF 48 HOURS (2 WORKING PRIOR TO BEGINNING OF CONSTRUCTION. EXISTING UTILITIES, WHETHER SHOWN OR NOT, SHALL BE LOCATED PRIOR TO CONSTRUCTION, SO AS TO AVOID DAMAGE OR DISTURBANCE, AND THE DEVELOPER SHALL ASSUME ALL RESPONSIBILITY AND COSTS CONNECTED THEREWITH TO PROTECT, MAINTAIN AND REPAIR, WHERE NECESSARY.
- 9. PIPE LENGTHS, MANHOLE DEPTHS, ETC., AS SHOWN ARE APPROXIMATE. DEVELOPER IS RESPONSIBLE FOR SUPPLYING PROPER QUANTITIES OF MATERIALS.
- 10. PROVIDE THE DISTRICT'S INSPECTOR WITH A COPY OF ALL CUT SHEETS PRIOR TO CONSTRUCTION.
- 11. PERMANENT ACCESS FOR DISTRICT SERVICE VEHICLES SHALL BE PROVIDED AT ALL MANHOLES. MANHOLES SHALL BE CONSTRUCTED AS PER DISTRICT STANDARD DETAILS, INCLUDING CONSTRUCTION OF 23. SEWER SERVICE IS AVAILABLE ONLY AFTER TRANSFER OF OWNERSHIP CHANNELS. WHERE INDICATED, PROVIDE KNOCK-OUTS AND CHANNELIZATION FOR SIDE SEWER OR FUTURE MAINLINE EXTENSIONS; AND FOR PVC PIPE, PROVIDE A WATERTIGHT FLEXIBLE RUBBER BOOT OR HEAVY DUTY SAND COLLAR. PROVIDE LOCKING LIDS FOR MANHOLE COVERS.
- 12. CONNECTION TO EXISTING MAIN SHALL BE DONE SO AS TO PREVENT ANY FOREIGN MATERIALS FROM ENTERING EXISTING SEWERS. EXISTING PIPE IN SADDLE MANHOLE INSTALLATIONS SHALL NOT BE CUT OR REMOVED UNTIL INSTRUCTED TO DO SO BY THE DISTRICT.

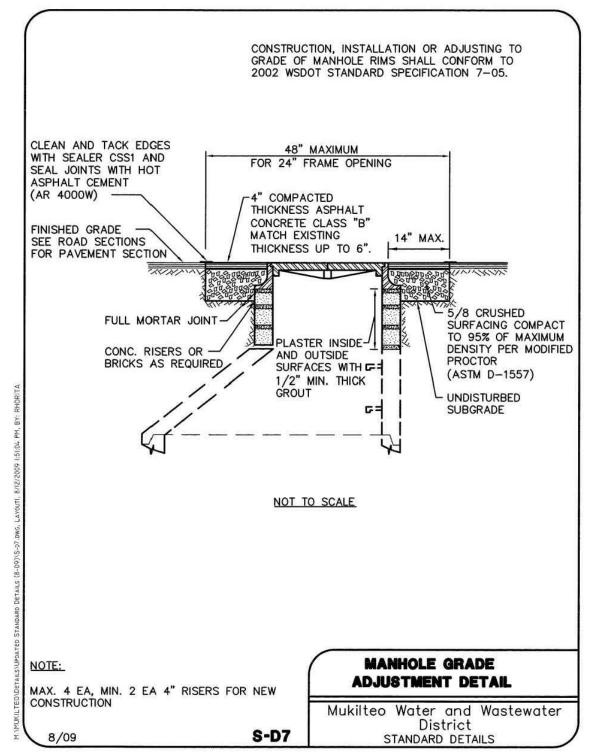
- 13. CONNECTION TO EXISTING MANHOLES SHALL BE MADE BY UTILIZATION OF A CONCRETE COREDRILLING MACHINE OF ADEQUATE DIAMETER TO GROUT IN PLACE AN ADAPTER IF PVC SEWER LINES ARE INSTALLED. ALIGN CORE-DRILLING MACHINE TO PROVIDE MINIMUM OF 0.10-FOOT DROP ACROSS THE MANHOLE.
- 14. PVC PIPE SHALL BE SDR-35 ASTM D3034 FURNISHED IN 13-F00T MAXIMUM LENGTHS AND SHALL BE FULLY ENCASED IN PEA GRAVEL (OR CRUSHED ROCK, BASE COURSE, IF INSTALLED WITHIN THE CITY 12-INCHES ABOVE PIPE BARREL.
- 15. DI SANITARY SEWER PIPE SHALL CONFORM TO AWWA C151 AND SHALL BE POLYETHYLENE OR EPOXY LINED, RESTRAINED JOINT. THE DI PIPE SHALL BE CLASS 52, UNLESS OTHERWISE APPROVED.
- 18-INCHES VERTICAL SEPARATION AND WITH A MINIMUM OF 10-FOOT HORIZONTAL SEPARATION FROM PARALLEL WATER LINES. CROSSING ANGLES SHALL BE 45 DEG. OR GREATER. UNUSUAL OR SPECIAL CONDITIONS ARE ADDRESSED IN ACCORDANCE WITH THE DEPARTMENT ECOLOGY AND DEPARTMENT OF HEALTH CRITERIA.
- 17. SIDE SEWER SHALL BE A MINIMUM OF 6-INCHES IN DIAMETER AND SHALL HAVE A MINIMUM SLOPE OF 2%. SIDE SEWER SHALL INCLUDE TWO 6-INCH TEES AT THE PROPERTY LINE; ONE WITHIN THE PUBLIC RIGHT-OF-WAY AND ONE WITHIN THE PRIVATE PROPERTY. SEE DETAIL.
- 18. ALL SEWER LINES SHALL BE CLEANED AND TESTED IN ACCORDANCE WITH DISTRICT STANDARDS AND SPECIFICATIONS.
- 19. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING AND/OR REPAIRING ASPHALT AND GRAVEL SURFACE DISTURBED AS A RESULT OF THIS CONSTRUCTION UNTIL THEY ARE ACCEPTED BY THE PUBLIC WORKS DEPARTMENT OF THE CITY AND OR COUNTY.
- 20. COMPACTION: ALL TRENCH BACKFILL AND ROADWAY EMBANKMENT SHALL BE COMPACTED TO 95% OF MODIFIED PROCTOR DRY MAXIMUM DENSITY IN ACCORDANCE WITH ASTM D1557, EXCEPT THE TOP 6-INCHES IN PAVED AREAS WHICH SHALL BE 100%.
- 21. MANHOLE COVERS LOCATED IN ASPHALT AREAS SHALL BE ADJUSTED TO FINISH GRADE PRIOR TO PAVING.
- 22. NO UTILITY FACILITIES WILL BE ACCEPTED BY THE DISTRICT IF PROPER INSPECTIONS HAVE NOT BEEN COMPLETED.
- TO THE DISTRICT AND AFTER PAYMENT OF ALL CURRENT APPLICABLE

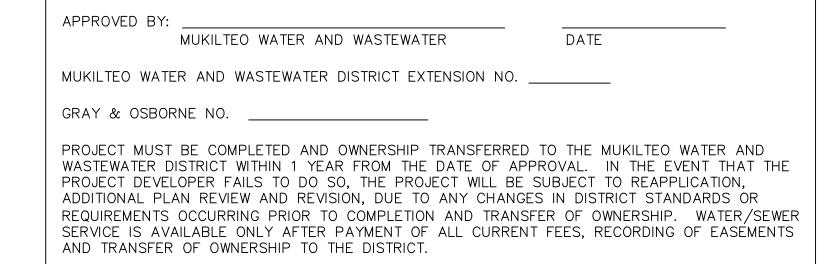














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**CLIENT/OWNER** 

**GREG NELSON** 

PROJECT NAME

**NELSON 43** 

NAVIX PROJECT NUMBER:

PROJECT ADDRESS

50-609-001

4301 78TH ST SW

**MUKILTEO, WA 98275** 

STAMP



	REVISIONS	
REV	ISSUED FOR:	DATE
	PERMIT SET	10.11.19



SECTION, TOWNSHIP, RANGE:

**SECTION 10, TOWNSHIP 28** NORTH, RANGE 4 EAST, W.M.

PROJECT TEAM

REVIEWED BY:

DESIGNED BY:

J.STEFANOFF

SHEET NAME

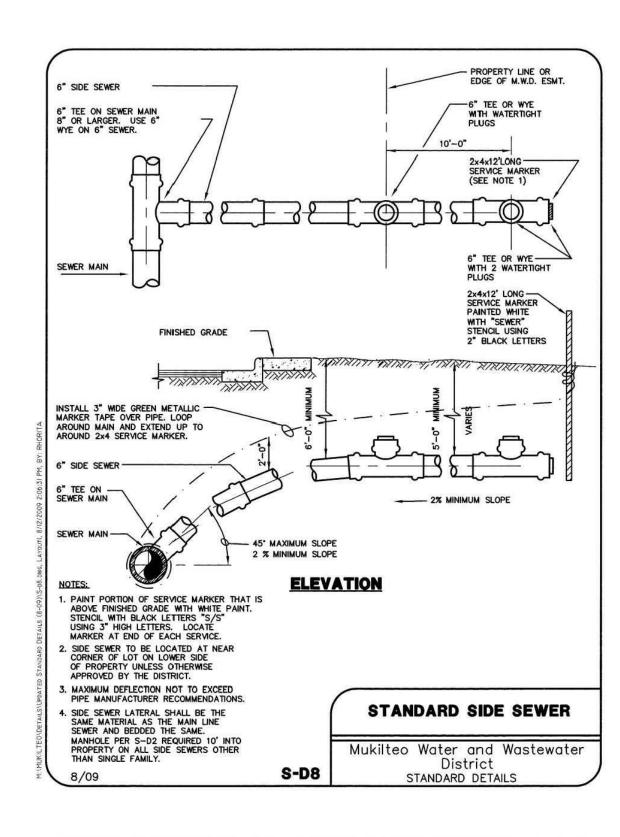
S.HUMPHREY

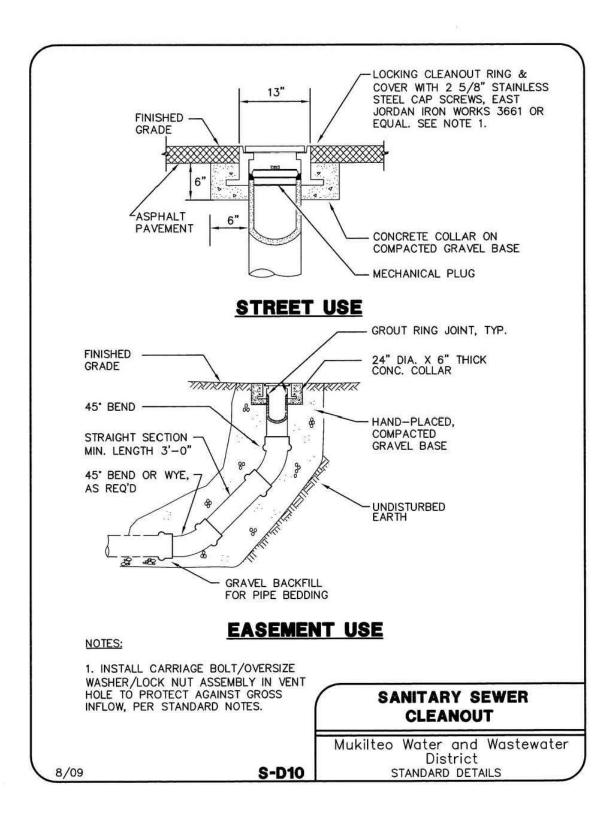
S.HUMPHREY

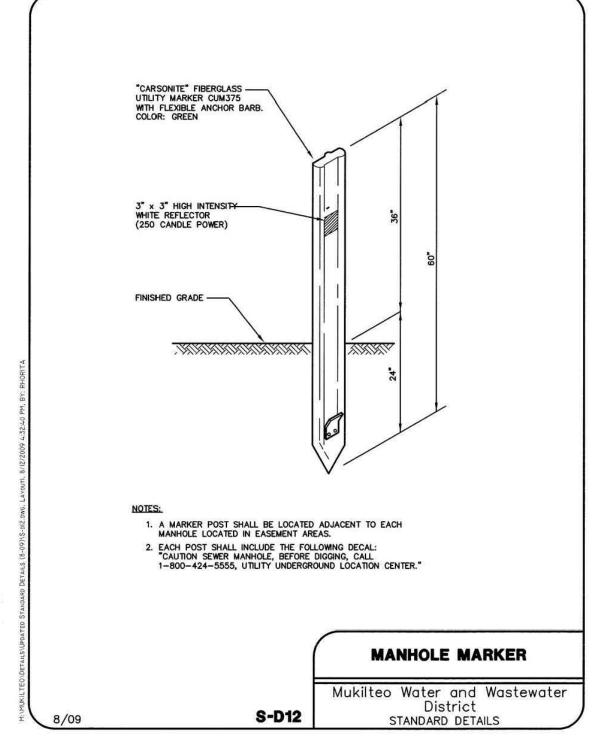
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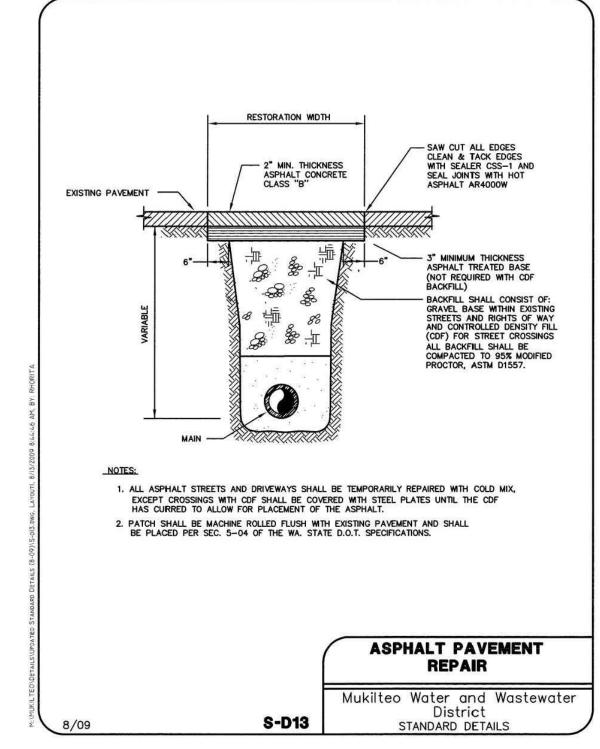
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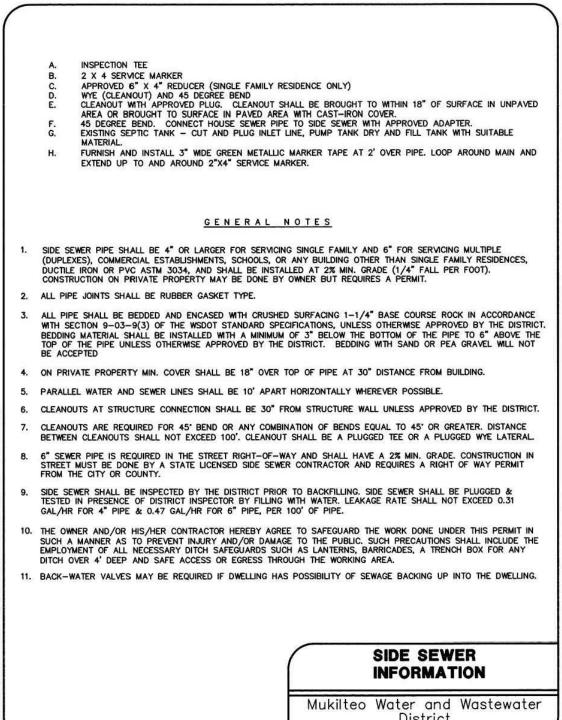
C-4.1







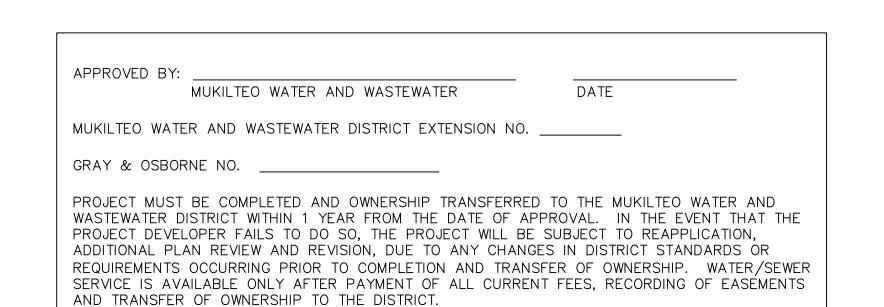




S-D15

STANDARD DETAILS

8/09





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SECTION, TOWNSHIP, RANGE:

**SECTION 10, TOWNSHIP 28** NORTH, RANGE 4 EAST, W.M.

PROJECT TEAM

REVIEWED BY:

DESIGNED BY:

J.STEFANOFF

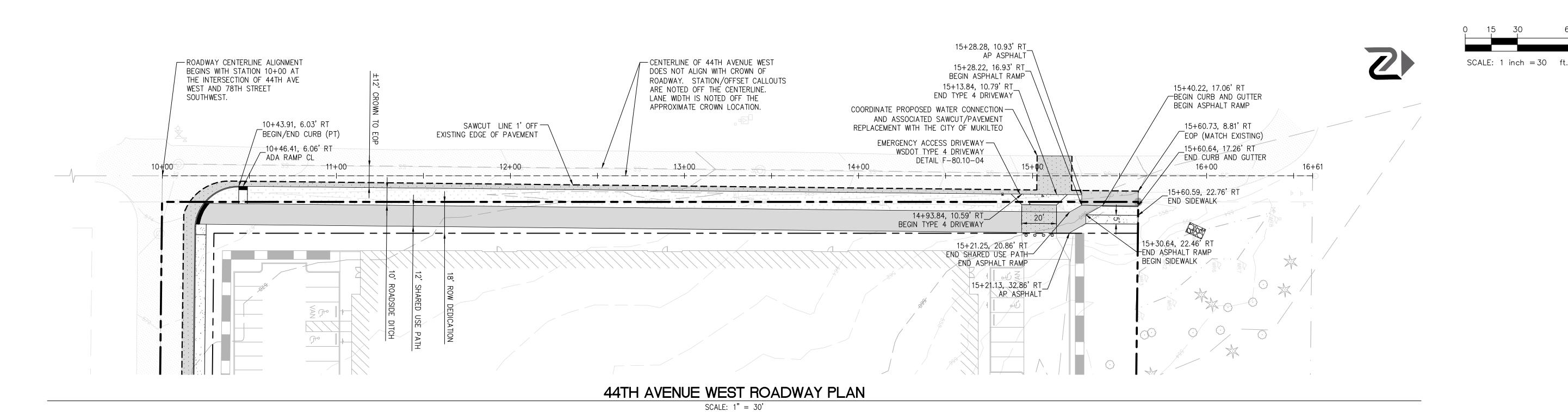
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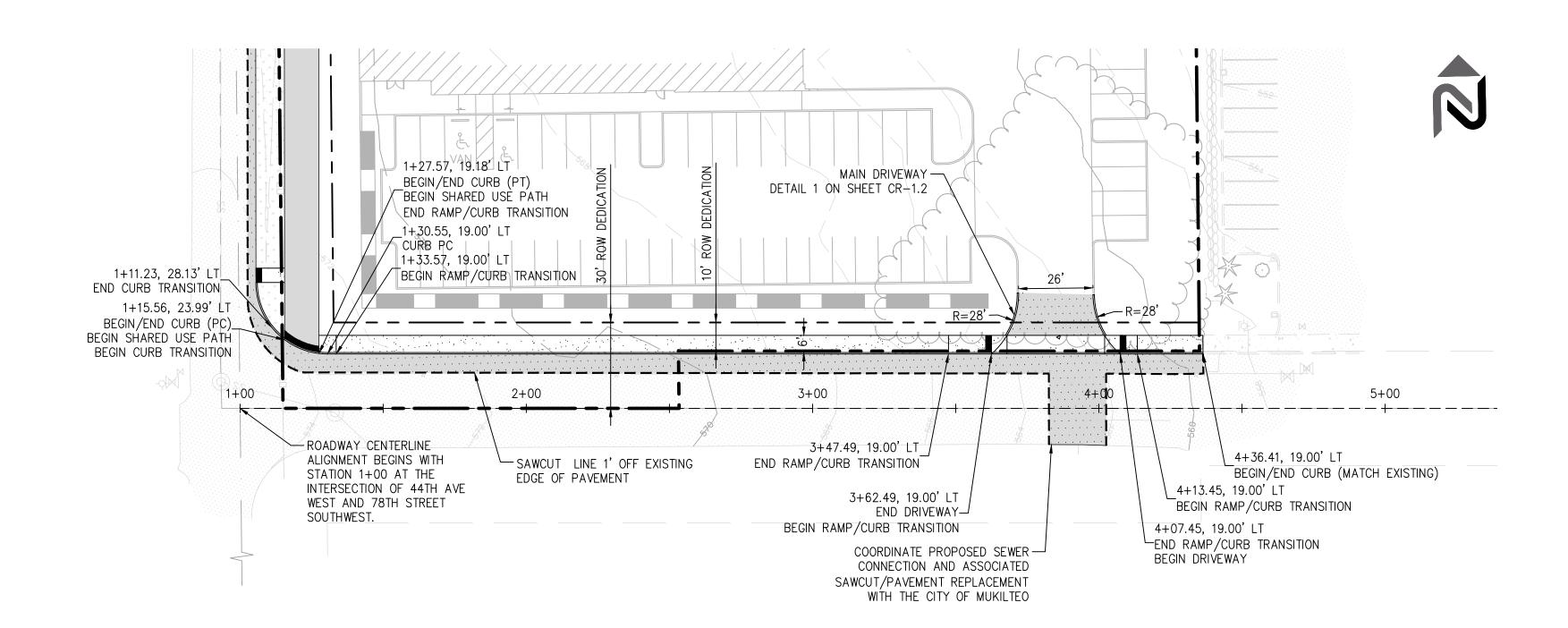
S.HUMPHREY

S.HUMPHREY

**SEWER DETAILS** 

SHEET NUMBER





78TH STREET SOUTHWEST ROADWAY PLAN

SCALE: 1" = 30'

LEGEND

	PROPERTY LINE RIGHT OF WAY LINE
7 / / / / / / / / / /	BUILDING
	CURB AND GUTTER F-10.12-03 (R-1.2)
	SAWCUT
	HEAVY DUTY ASPHALT PAVEMENT
	STANDARD DUTY ASPHALT PAVEMENT
44 44 44	CONCRETE DRIVEWAY F-80.10-04 (0R-1.1)
	CONCRETE SIDEWALK F-30.10-03
Ψ Ψ Ψ Ψ Ψ Ψ Ψ Ψ	LANDSCAPE
CL	CENTER LINE
PC	POINT OF CURVATURE
PT	POINT OF TANGENCY
EOP	EDGE OF PAVEMENT
AP	ANGLE POINT

### **NOTES**

- 1. CURB CALLOUTS ARE TO FACE OF CURB UNLESS NOTED OTHERWISE.
- 2. SEE SHEETS CR-1.1 AND CR-1.2 FOR ROADWAY DETAILS.
- 3. CENTERLINE OF 44TH AVENUE WEST DOES NOT ALIGN WITH CROWN OF ROADWAY. STATION/OFFSET CALLOUTS ARE NOTED OFF THE CENTERLINE. LANE WIDTH IS NOTÉD OFF THE APPROXIMATE CROWN LOCATION.

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SECTION, TOWNSHIP, RANGE:

**SECTION 10, TOWNSHIP 28** NORTH, RANGE 4 EAST, W.M.

**PROJECT TEAM** 

REVIEWED BY:

DESIGNED BY:

S.HUMPHREY J.STEFANOFF

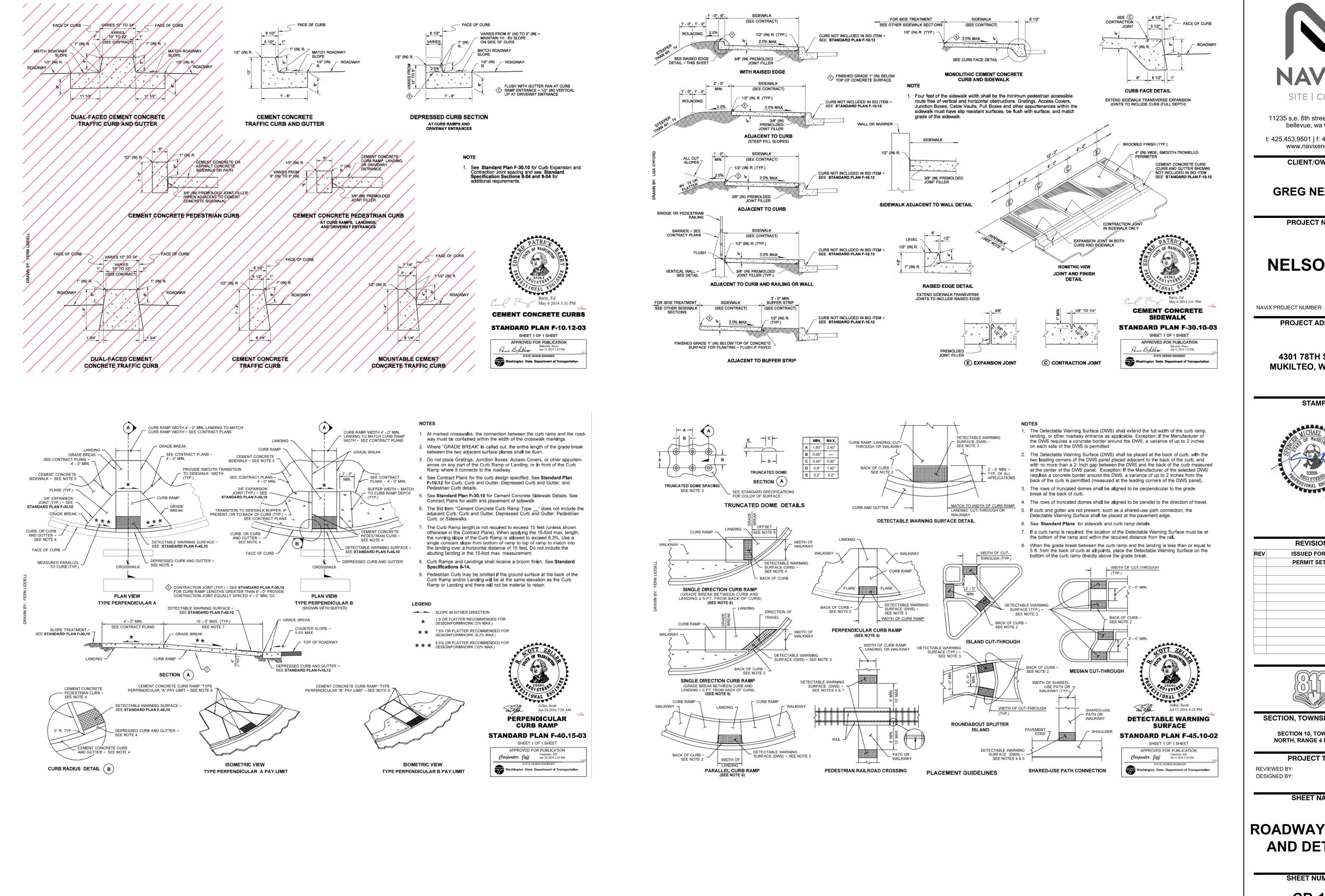
S.HUMPHREY

SHEET NAME

**ROADWAY PLAN** 

SHEET NUMBER

CR-1.0



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**SECTION 10, TOWNSHIP 28** 

NORTH, RANGE 4 EAST, W.M.

PROJECT TEAM

DESIGNED BY:

J.STEFANOFF SHEET NAME

S.HUMPHREY

S.HUMPHREY

## **ROADWAY NOTES AND DETAILS**

SHEET NUMBER

**CR-1.1** 

#### GENERAL NOTES (CITY OF MUKILTEO)

1. ALL WORK AND MATERIALS SHALL BE IN ACCORDANCE WITH CURRENT CITY OF MUKILTEO STANDARDS AND SPECIFICATIONS; THE CURRENT EDITION OF THE WASHINGTON STATE DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR ROAD, BRIDGE, AND MUNICIPAL CONSTRUCTION; AND THE ADOPTED EDITION OF THE WASHINGTON STATE DEPARTMENT OF ECOLOGY STORMWATER MANAGEMENT MANUAL FOR WESTERN WASHINGTON.

2. ALL WORK WITHIN THE PLAT AND CITY RIGHT—OF—WAY SHALL BE SUBJECT TO THE INSPECTION OF THE CITY ENGINEER OR DESIGNATED REPRESENTATIVE.

3. PRIOR TO ANY SITE CONSTRUCTION INCLUDING CLEARING/LOGGING OR GRADING, THE SITE CLEARING LIMITS SHALL BE LOCATED AND FIELD IDENTIFIED BY THE PROJECT SURVEYOR (OR PROJECT ENGINEER) AS REQUIRED BY THESE PLANS. THE PROJECT SURVEYOR'S NAME AND PHONE NUMBER IS JONATHAN BECKER, PLS, (206) 244-4141.

4. THE DEVELOPER, CONTRACTOR AND PROJECT ENGINEER IS RESPONSIBLE FOR WATER QUALITY AS DETERMINED BY THE MONITORING PROGRAM ESTABLISHED BY THE PROJECT ENGINEER. THE PROJECT ENGINEER'S NAME AND PHONE NUMBER IS SPENCER HUMPHREY, P.E., (425) 453-9501 EXT. 1527.

5. PRIOR TO ANY SITE WORK, THE CONTRACTOR SHALL CONTACT THE CITY OF MUKILTEO COMMUNITY DEVELOPMENT AT 425-355-4141 X251 TO SCHEDULE A PRECONSTRUCTION CONFERENCE. ENGINEERED AS-BUILT DRAWINGS IN ACCORDANCE WITH THE CURRENT ADOPTED INTERNATIONAL BUILDING CODE SHALL BE REQUIRED PRIOR TO FINAL SITE APPROVAL.

6. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL PERMITS FOR UTILITY, ROAD, AND RIGHT-OF-WAY CONSTRUCTION. THE CONTRACTOR FOR THIS PROJECT IS

PHONE \_\_\_\_\_, MOBILE PHONE \_\_\_\_\_, EMERGENCY PHONE \_\_\_\_\_.

7. THE CONSTRUCTION STORMWATER POLLUTION PREVENTION (SWPP) FACILITIES SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE APPROVED SWPP PLANS PRIOR TO ANY GRADING OR EXTENSIVE LAND CLEARING. THESE FACILITIES MUST BE SATISFACTORILY MAINTAINED UNTIL CONSTRUCTION AND LANDSCAPING IS COMPLETED AND THE POTENTIAL FOR ON—SITE EROSION HAS PASSED. SEDIMENT LADEN WATERS SHALL NOT ENTER THE NATURAL DRAINAGE SYSTEM.

8. NONCOMPLIANCE WITH THE REQUIREMENTS FOR; EROSION CONTROLS, WATER QUALITY AND CLEARING LIMITS MAY RESULT IN REVOCATION OF; PROJECT PERMITS, PLAN APPROVAL AND BOND FORECLOSURES.

9. TRENCH BACKFILL OF NEW UTILITIES AND STORM DRAINAGE FACILITIES SHALL BE COMPACTED TO 95% MAXIMUM DENSITY (MODIFIED PROCTOR) UNDER ROADWAYS AND 90% MAXIMUM DENSITY (MODIFIED PROCTOR) OFF ROADWAYS. COMPACTION SHALL BE PERFORMED IN ACCORDANCE WITH SECTIONS 7-08.3(3) AND 2-03.3(14)C - METHOD B AS DEFINED IN THE CURRENT EDITION OF THE WSDOT STANDARD SPECIFICATIONS FOR ROAD, BRIDGE, AND MUNICIPAL CONSTRUCTION.

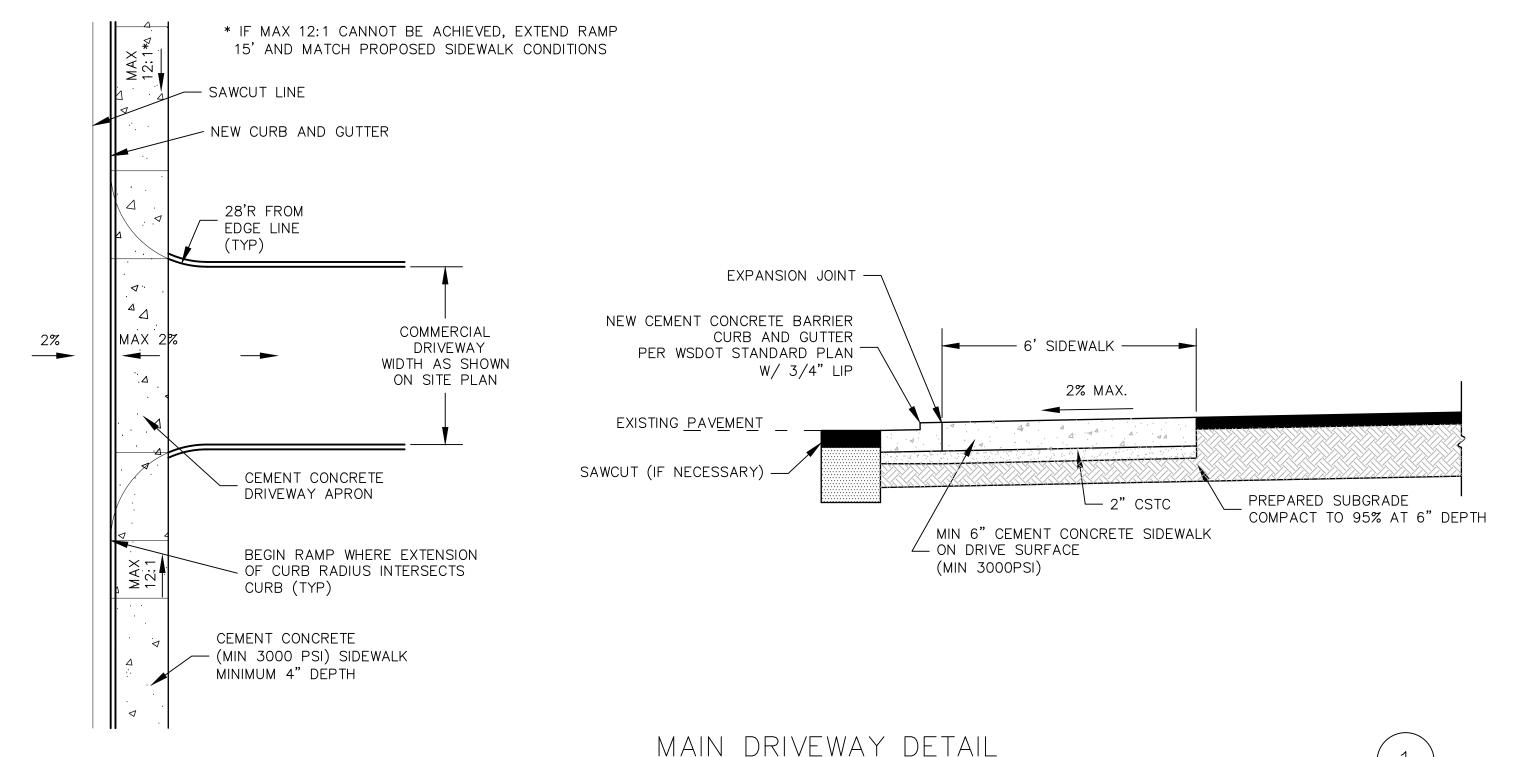
10. THE OWNER AND CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATING AND PROTECTING ALL EXISTING UTILITIES PRIOR TO BEGINNING CONSTRUCTION. LOCATION OF UTILITIES SHOWN ON CONSTRUCTION PLANS ARE BASED ON BEST RECORDS AVAILABLE AND ARE SUBJECT TO VARIATION. FOR ASSISTANCE IN UTILITY LOCATION, CALL 1-800-424-5555.

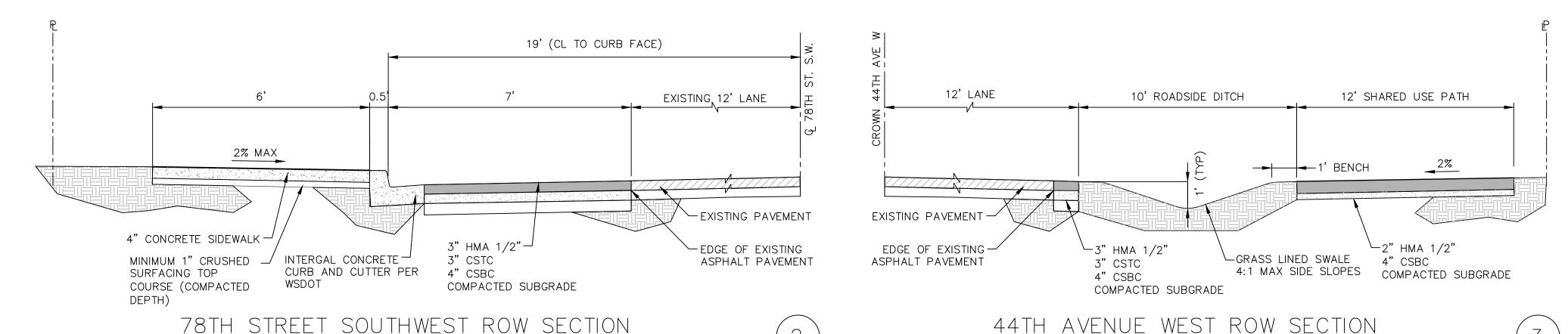
11. PRIOR TO CONSTRUCTION THE OWNER AND/OR CONTRACTOR SHALL NOTIFY THE PROJECT ENGINEER AND THE CITY ENGINEER WHEN CONFLICTS EXIST BETWEEN THE PLANS AND FIELD CONDITIONS. CONFLICTS SHALL BE RESOLVED (INCLUDING PLAN AND PROFILE REVISIONS) AND RESUBMITTED FOR APPROVAL PRIOR TO PROCEEDING WITH CONSTRUCTION.

12. THE CONTRACTOR SHALL KEEP TWO SETS OF PLANS ON SITE AT ALL TIMES FOR RECORDING AS-BUILT INFORMATION; ONE SET SHALL BE SUBMITTED TO THE PROJECT ENGINEER, AND ONE SET SHALL BE SUBMITTED TO THE CITY ENGINEER AT COMPLETION OF CONSTRUCTION AND PRIOR TO FINAL ACCEPTANCE OF WORK.

13. A GRADING PERMIT ISSUED PURSUANT TO THE CURRENT ADOPTED INTERNATIONAL BUILDING CODE, AND APPROVAL OF THE TEMPORARY EROSION AND SEDIMENTATION CONTROL PLAN SHALL BE OBTAINED FROM THE COMMUNITY DEVELOPMENT DEPARTMENT PRIOR TO ANY ON—SITE GRADING WORK NOT EXPRESSLY EXEMPT BY THE CURRENT ADOPTED INTERNATIONAL BUILDING CODE.

14. PRIOR TO COMMENCEMENT OF FRAMING, FINAL DRAINAGE INSPECTION AND APPROVAL OF THE ROOF LEADER AND POSITIVE FOOTING SYSTEMS SHALL BE COMPLETED BY THE BUILDING DEPARTMENT. CALL 360-363-8100 TO SCHEDULE THE INSPECTION.





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SECTION, TOWNSHIP, RANGE:

SECTION 10, TOWNSHIP 28 NORTH, RANGE 4 EAST, W.M.

NORTH, RANGE 4 EAST, W

PROJECT TEAM

VIEWED BY: S.HUMPHREY

REVIEWED BY: DESIGNED BY:

SHEET NAME

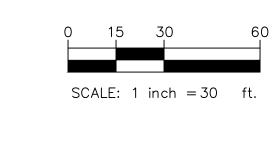
S.HUMPHREY

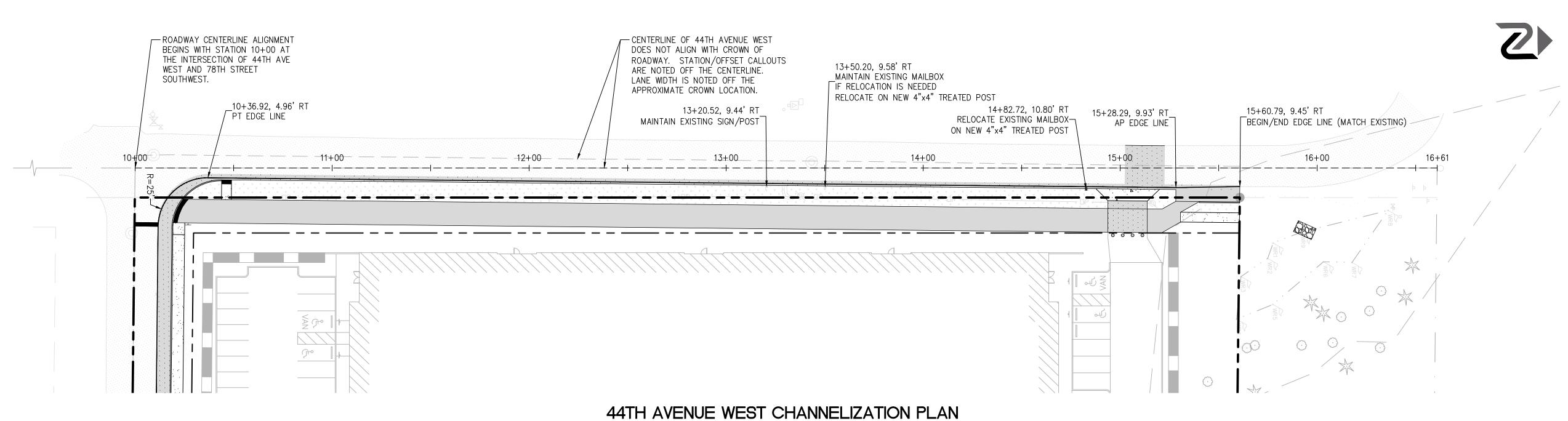
J.STEFANOFF

ROADWAY DETAILS

SHEET NUMBER

CR-1.2

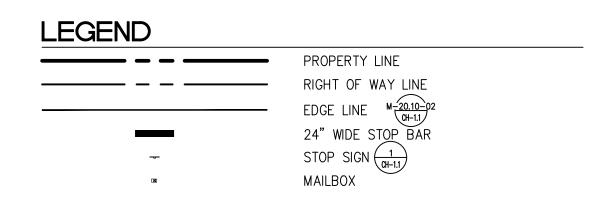




SCALE: 1" = 30'

1+28.30, 27,21' LT RELOCATE EXISTING STOP SIGN ON NEW POST \_1+29.55, 12.00' LT PC EDGE LINE 1+00 2+00 4+00 3+00 \_\_1+28.57, 6.00' LT CP OF STOP BAR ROADWAY CENTERLINE REPLACE CENTERLINE STRIPING — ALIGNMENT BEGINS WITH STATION 1+00 AT THE AS NECESSARY FOR UTILITY CONNECTION OVERLAY INTERSECTION OF 44TH AVE (MATCH EXISTING) WEST AND 78TH STREET 4+36.53, 12.00' LT SOUTHWEST. BEGIN/END EDGE LINE (MATCH EXISTING)

78TH STREET SOUTHWEST CHANNELIZATION PLAN



#### **NOTES**

- 1. SEE SHEET CH-1.1 FOR CHANNELIZATION DETAILS.
- 2. LONG LINE CHANNELIZATION AND ASSOCIATED PAVEMENT MARKINGS SHALL BE PER WSDOT STANDARD PLANS AND SPECIFICATIONS.
- 3. CENTERLINE OF 44TH AVENUE WEST DOES NOT ALIGN WITH CROWN OF ROADWAY. STATION/OFFSET CALLOUTS ARE NOTED OFF THE CENTERLINE. LANE WIDTH IS NOTED OFF THE APPROXIMATE CROWN LOCATION.



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REVIEWED BY:

DESIGNED BY:

S.HUMPHREY J.STEFANOFF

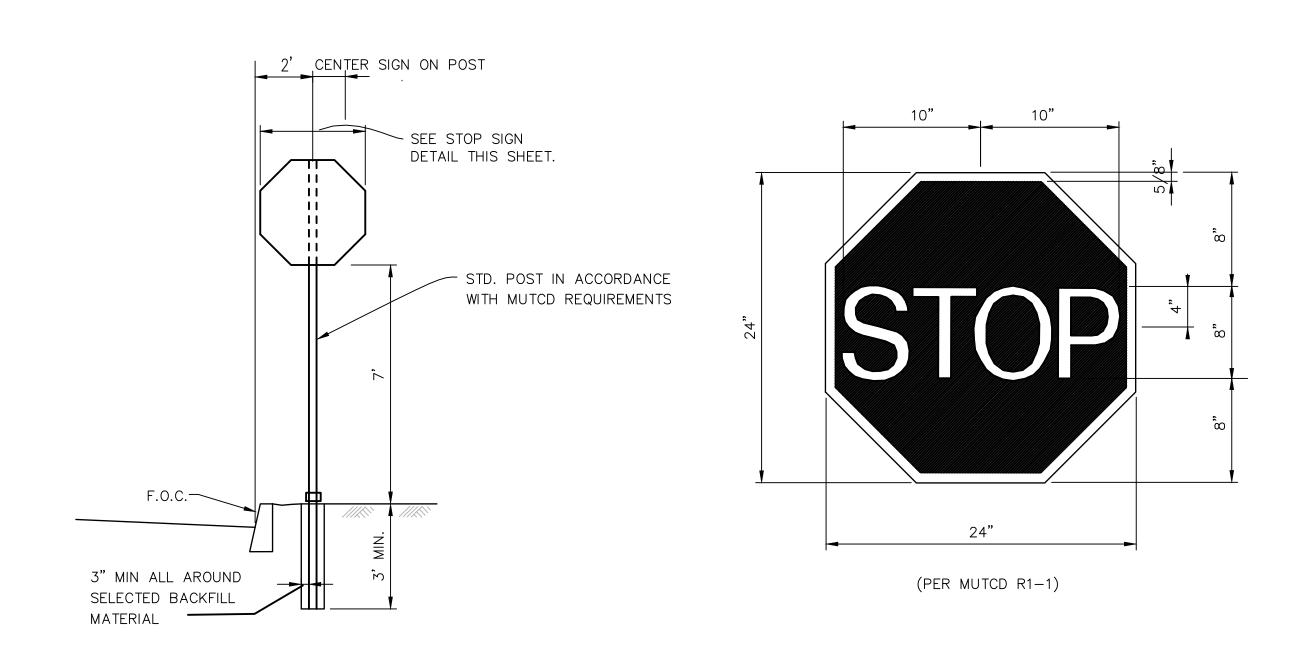
S.HUMPHREY

SHEET NAME

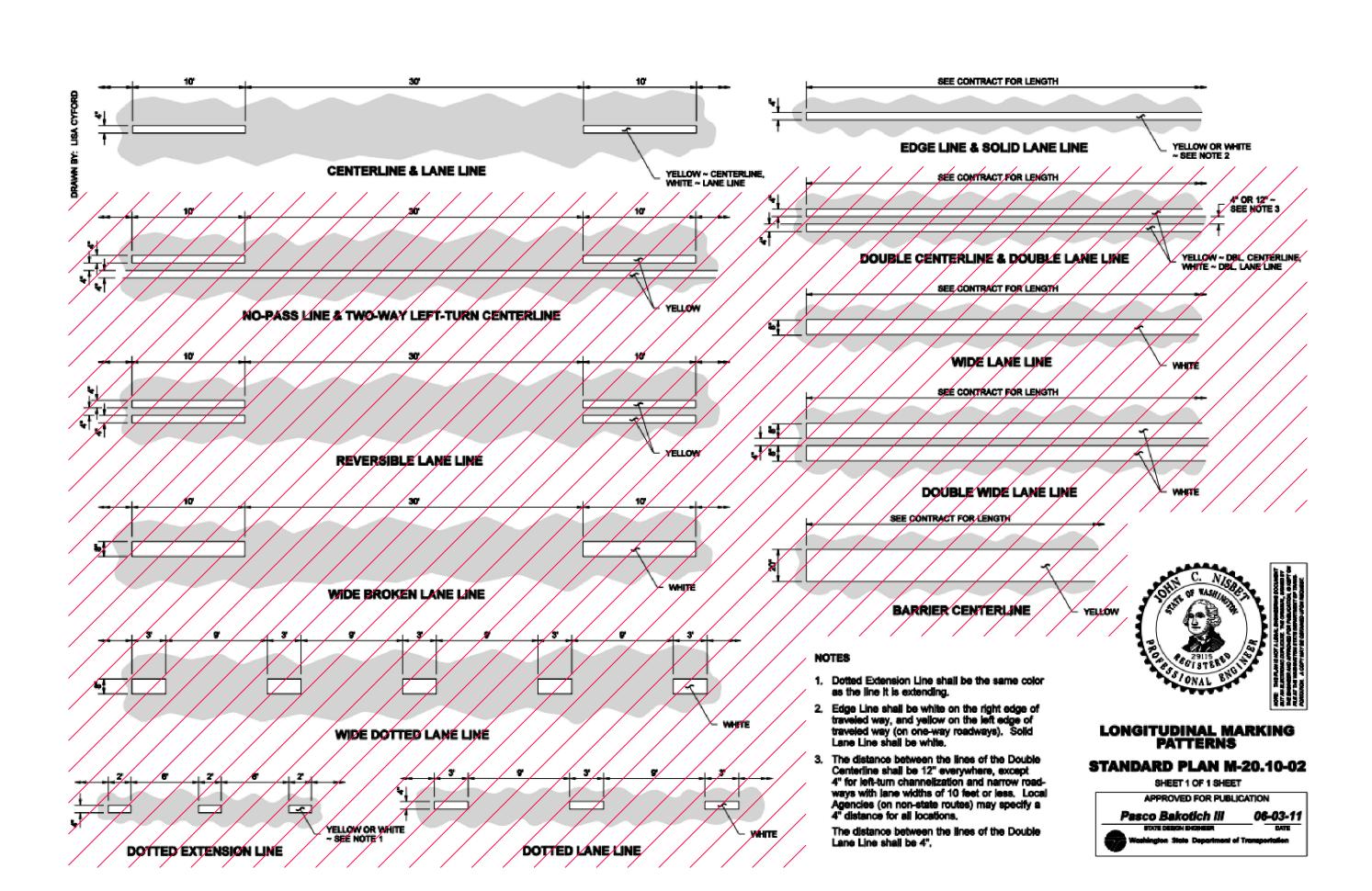
**CHANNELIZATION PLAN** 

SHEET NUMBER

CH-1.0



## STOP SIGN AND POST DETAIL



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SECTION 10, TOWNSHIP 28 NORTH, RANGE 4 EAST, W.M.

PROJECT TEAM

REVIEWED BY:

DESIGNED BY:

J.STEFANOFF

S.HUMPHREY S.HUMPHREY

SHEET NAME

CHANNELIZATION DETAILS

SHEET NUMBER

CH-1.1