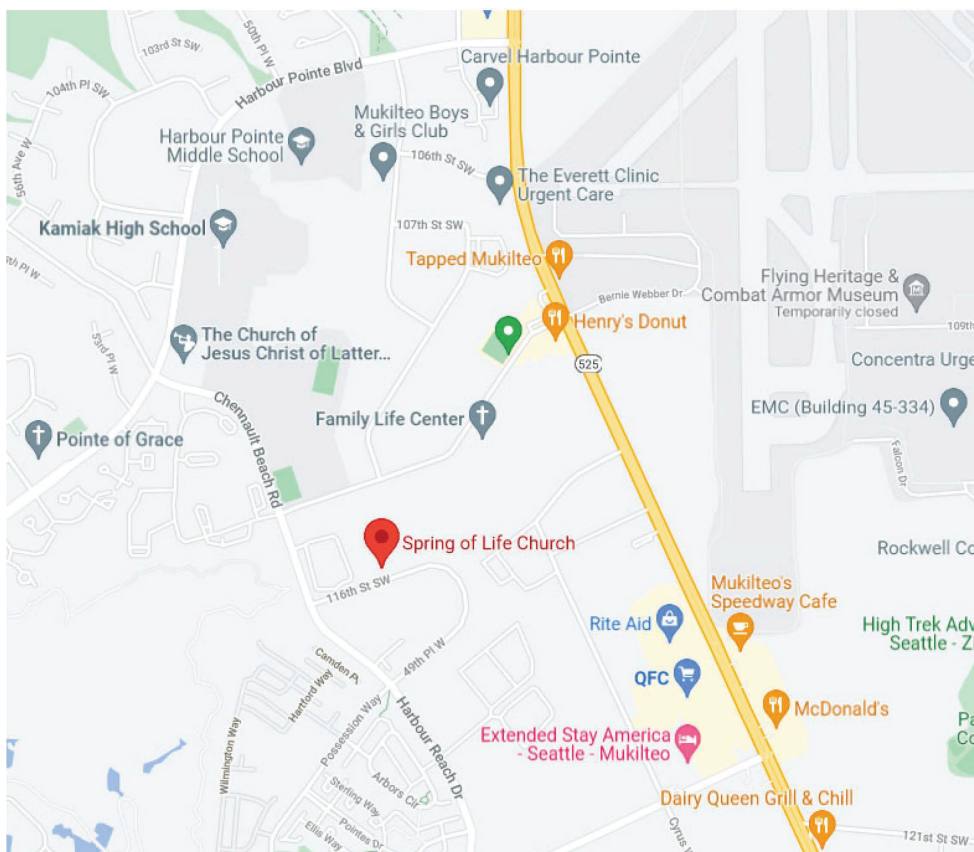


SE 1/4, SE 1/4, SEC.21, T.28N., R.4E., W.M.



Received on

6/1/2022

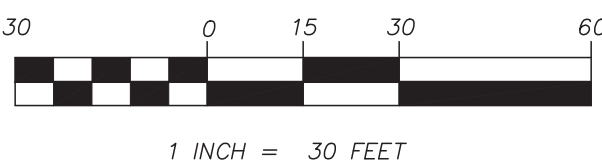


APPLICANT
SPRING OF LIFE CHURCH

PROJECT ENGINEER:
DECCIO ENGINEERING
17217 7TH AVE W.
BOTHELL, WA 98012
ATTN: RICHARD DECCIO
(206) 390-8374
(425) 741-8214 FAX
EMAIL: RDECCIO@COMCAST.NET

SURVEYOR
Pacific Coast Surveys, Inc.
LAND SURVEYING & MAPPING
P.O. BOX 13619
MILL CREEK, WA 98082
PH. 425.512.7099 FAX 425.357.3577

GRAPHIC SCALE



LEGEND (EXISTING)

- CASED CONC. MON. W/"X" ON BRASS DISK
- EX. REBAR W/CAP "10446", OR AS NOTED
- TEMPORARY BENCH MARK
- UTILITY POLE
- SIGN
- FIRE HYDRANT
- WATER METER
- WATER VALVE
- GAS METER
- PHONE PEDESTAL
- POWER METER
- GAS VALVE
- STORM CATCHBASIN
- SANITARY SEWER MANHOLE
- BUILDING
- DRAINAGE ARROWS
- T.B.R. TO BE REMOVED
- BSBL BUILDING SETBACK LINE

SHEET INDEX

- C1 COVER SHEET
- C2 EXISTING SITE CONDITIONS
- C3 TESC PLAN
- C4 SITE GRADING AND DRAINAGE
- C5 116TH AVE SWPLAN AND PROFILE
- C6 STORM VAULT
- C7 DETAILS
- C8 STANDARD NOTES

CALL 2 BUSINESS DAYS
BEFORE YOU DIG
1-800-424-5555

THESE CONSTRUCTION PLANS HAVE BEEN REVIEWED AND
APPROVED BY THE DIRECTOR OF PUBLIC WORKS

CITY OF MUKILTEO PUBLIC WORKS DIRECTOR DATE

DECCIO Engineering

17217 7TH AVENUE WEST
BOTHELL, WA 98012
(206) 390-8374
Fax: (425) 741-8214

SPRING OF LIFE CHURCH 116TH STREET SW

CITY FILE NO:

COVER SHEET

WASHINGTON
PROJECT NO.:
FILE NAME: P-mukilteo -CRV
PLOT DATE: 1-20-22
LAST EDIT: 1-20-22

mukilteo
SCALE: AS SHOWN

SHEET 1 OF 8

C1

LEGAL DESCRIPTION

LOTS 5 AND 6, HARBOUR POINT BUSINESS CENTER - NORTH CAMPUS,
ACCORDING TO THE PLAT THEREOF RECORDED IN VOLUME 51 OF PLATS,
PAGE(S) 73-81, INCLUSIVE, RECORDS OF SNOHOMISH COUNTY, WASHINGTON;

SITUATE IN THE CITY OF MUKILTEO, COUNTY OF SNOHOMISH, STATE OF
WASHINGTON.

PROPOSED IMPERVIOUS AREAS:

BUILDING: 6,732 SF
ADDED PAVEMENT: 10,782 SF
REPLACED SIDEWALK: 2,250 SF
TOTAL NEW/REPLACED 19,764 SF

AREA OF DISTURBANCE: 47,205 SF

EXCAVATION QUANTITIES
490 CYDS CUT, 490 YDS FILL

PROJECT INFORMATION

OWNER:
SLAVIC BAPTIST CHURCH OF EVERETT

ADDRESS:
4711 116TH ST SW,
MUKILTEO, WA 98275-5300
PARCEL NO: 00788400000500

LEGAL: HARBOUR POINTE BUSINESS CENTER, NORTH CAMPUS BLK 000
D-00 LOT 5 & LOT 6 (EXEMPT PER ST OF WA REG #11338-001)

LOT SIZE: 3.0 ACRES

STORM STRUCTURE INDEX

- (A) SDMH RIM=514.67
IE 18" CMP(N)=505.32
IE 18" CMP(W)=505.27
TOP OVERFLOW=508.52
- (B) CB RIM=516.28
IE 12" CPP(W)=510.98
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IE 12" CPP(W)=515.52
IE 12" CPP(E)=515.55
IE 12" CPP(S)=515.93
- (D) CB RIM=519.22
IE 12" CPP(N)=516.44
IE 12" CPP(S)=516.54

NOTES

1.) THIS SURVEY HAS BEEN PREPARED FOR THE EXCLUSIVE USE OF PARTIES
WHOSE NAMES APPEAR HEREON ONLY, AND DOES NOT EXTEND TO ANY
UNNAMED THIRD PARTIES WITHOUT EXPRESS RECERTIFICATION BY THE LAND
SURVEYOR OF RECORD.

2.) BOUNDARY LINES SHOWN AND CORNERS SET REPRESENT DEED LOCATIONS;
OWNERSHIP LINES MAY VARY. NO GUARANTEE OF OWNERSHIP IS EXPRESSED
OR IMPLIED. THIS SURVEY WAS PERFORMED WITHOUT THE BENEFIT OF A TITLE
REPORT AND DOES NOT PURPORT TO SHOW ALL EASEMENTS, RESTRICTIONS,
RESERVATIONS, AND OCCUPATION WHICH MAY ENCUMBER TITLE OR USE OF
SUBJECT PROPERTY.

NOTE:
CONTRACTOR SHALL VERIFY THE LOCATION OF ALL EXISTING
UTILITIES PRIOR TO THE START OF CONSTRUCTION. AGENCIES
INVOLVED SHALL BE NOTIFIED WITHIN A REASONABLE TIME
PRIOR TO THE START OF CONSTRUCTION.

A graphic scale bar is shown, labeled "GRAPHIC SCALE". The scale is marked in feet: 30, 0, 15, 30, 60. Below the scale, it reads "1 INCH = 30 FEET". To the left of the scale is a north arrow pointing towards the top right.


THE EXISTING SITE SURVEY, EXISTING TOPO INFORMATION AND LOCATION OF UTILITIES SHOWN ON THESE PLANS WERE PERFORMED AND SUPPLIED BY OTHERS. THE ENGINEER PROVIDES NO GUARANTEE OF THE ACCURACY OF THIS SURVEY AND UTILITY INFORMATION. IN THE EVENT OF ANY CONFLICTS OR DISCREPANCIES BETWEEN THESE PLANS AND THE ACTUAL FIELD CONDITIONS, THE CONTRACTOR SHALL NOTIFY AND CONSULT WITH DECIO ENGINEERING TO RESOLVE ALL PROBLEMS PRIOR TO PROCEEDING WITH CONSTRUCTION. CONFLICTS SHALL BE ADDRESSED AS FOLLOWS:

SURVEY CONFLICTS: ANY DISCREPANCIES BETWEEN THE SURVEY AND TOPO INFORMATION SHOWN ON THESE PLANS AND THE ACTUAL FIELD CONDITIONS ONCE THE SITE HAS BEEN CLEARED, SHALL BE BROUGHT TO THE ATTENTION OF DECCIO ENGINEERING TO RESOLVE ALL PROBLEMS PRIOR TO PROCEEDING WITH CONSTRUCTION.

LEGEND (EXISTING)

 Cased Cong. Mon. w/ "X" on Brass Disk

 Ex. Rebar w/ Cap "10446", or as noted

 TBM Temporary Bench Mark

 Utility Pole

 Sign


 Fire Hydrant

 Water Meter

 Water Valve

 Gas Meter

 Phone Pedestal

 Power Meter

 Gas Valve

 Storm Catchbasin

 Sanitary Sewer Manhole

 Building

 Drainage Arrows

T.B.R. To Be Removed

BSBL Building Setback Line

(A) SDMH RIM=514.67
IE 18" CPP(N)=505.32
IE 18" CPP(W)=505.27
TOP OVERFLOW=508.52

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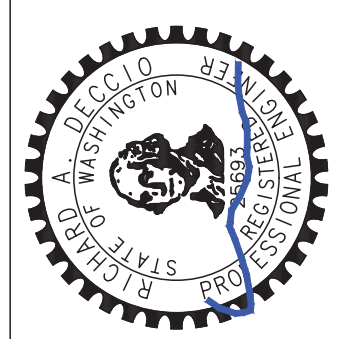
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THESE CONSTRUCTION PLANS HAVE BEEN REVIEWED AND
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CITY OF MUKILTEO PUBLIC WORKS DIRECTOR DATE

[illegible]

2-22-22

DECCIO Engineering

17217 7TH AVENUE WEST
BOTHELL, WA 98012
(206) 390-8374
Fax: (425) 741-8214

SPRING OF LIFE CHURCH 116TH STREET SW
CITY FILE NO:

EXISTING CONDITIONS

PLOT DATE: 1-20-22
LAST EDIT: 1-20-22

PROJECT NO. :	EX
FILE NAME:	

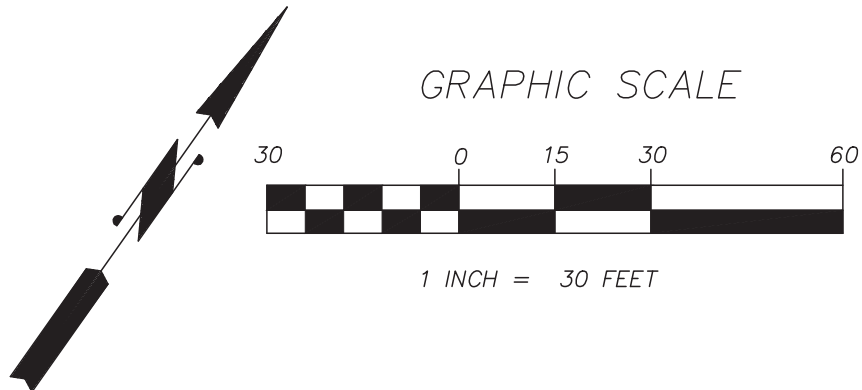
mukilteo

SCALE: AS SHOWN

SHEET 2 OF 8

C2

SE 1/4, SE 1/4, SEC.21, T.28N., R.4E., W.M.

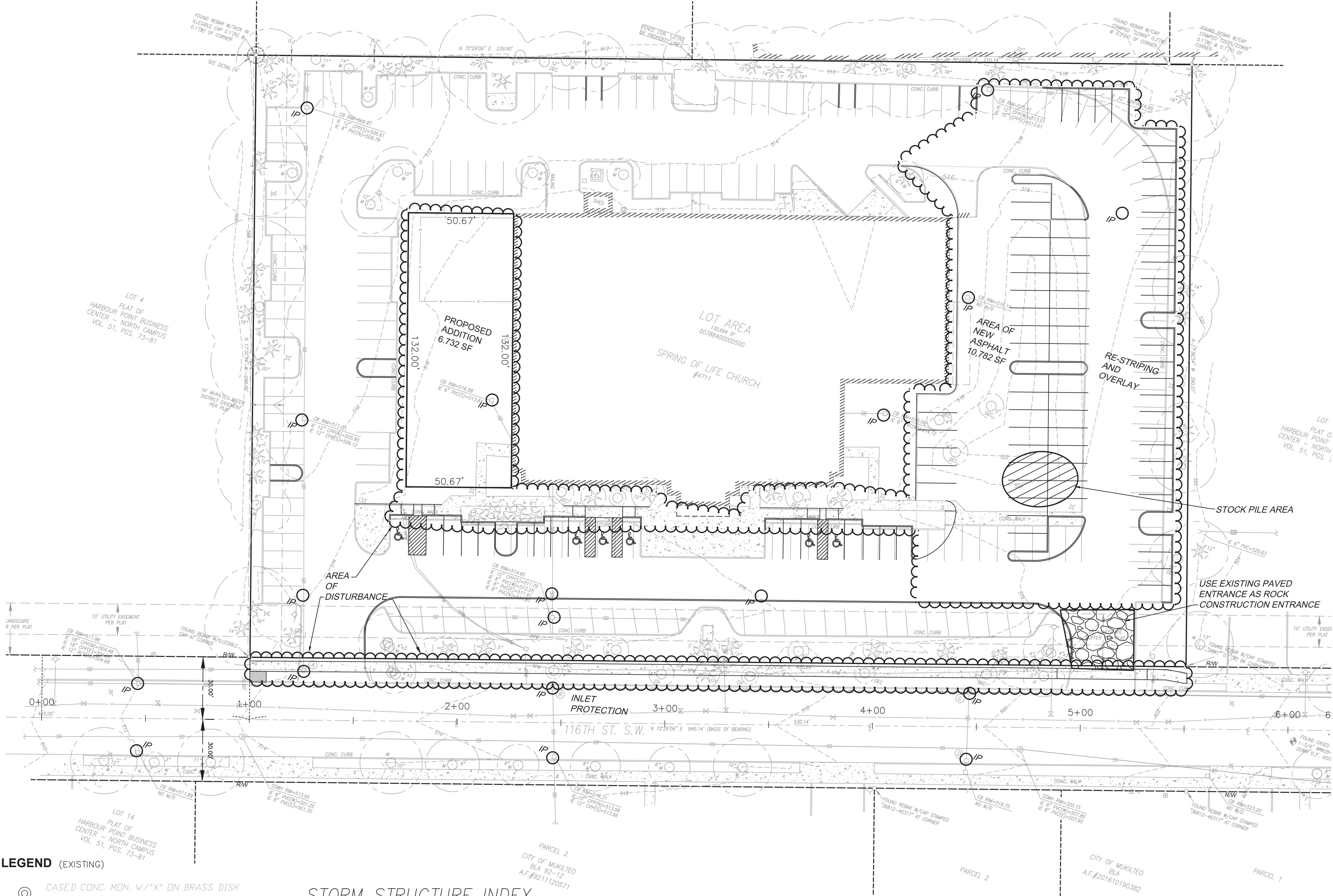


CONSTRUCTION SEQUENCE

1. SCHEDULE AND ATTEND PRE-CONSTRUCTION MEETING WITH CITY BUILDING INSPECTOR.
2. MARK AND FLAG CLEARING LIMITS. INSTALL SILT FENCE.
3. INSTALL GRAVEL CONSTRUCTION ENTRANCE DRIVEWAY.
4. POST SIGN WITH NAME AND PHONE NUMBER OF ESC SUPERVISOR.
5. INSTALL PERIMETER PROTECTION (SILT FENCE OR STRAW BALES AS REQUIRED)
6. CONSTRUCT ON-SITE STORM DRAINAGE AND SITE IMPROVEMENTS
7. CONSTRUCT DRIVEWAYS AND SIDEWALK FRONTAGE IMPROVEMENTS
8. COVER ALL AREAS THAT WILL BE UNWORKED FOR MORE THAN SEVEN DAYS DURING THE DRY SEASON OR TWO DAYS DURING THE WET SEASON WITH STRAW WOOD FIBER MULCH, COMPOST, PLASTIC SHEETING OR EQUIVALENT.
9. STABILIZE ALL AREAS THAT REACH FINAL GRADE WITHIN SEVEN DAYS.
10. INSTALL PERIMETER EROSION CONTROL MEASURES INCLUDING LANDSCAPING, SEEDING AND SOODING.
11. ONCE CONSTRUCTION IS COMPLETE INCLUDING ALL PERMANENT DRAINAGE FEATURES AND FINAL SITE STABILIZATION IS IN PLACE, CLEANUP DRAINAGE SYSTEM. DO NOT FLUSH SEDIMENT FROM SITE.
12. UPON COMPLETION OF THE PROJECT AND AFTER APPROVAL OF THE CITY CITY INSPECTOR REMOVE TEMPORARY EROSION CONTROL.

THE 13 ELEMENTS OF A CONSTRUCTION SWPPP

1. Preserve Vegetation/Mark Clearing Limits: The clearing limits are indicated on the plan sheet. Furthermore, clearing and grading will be limited to only areas that need to be disturbed for grading/construction of the site and frontage improvements. Construction will require regarding the entire site. Field marking the clearing limits shall be completed prior to clearing and grading activities. BMP's: Preserve Natural Vegetation (VEG)
2. Establish Construction Access: Access to the construction site shall be limited to the rock construction entrance. The rock construction entrance shall be installed off of the Street to provide access to the construction vehicle/equipment staging and employee parking areas. BMP's: Rock construction entrance (CE) See detail sheet C9 3. Control of Flow Rates: Storm water detention: No detention is proposed for the site since the work should be completed in a short period of time. BMP's: None Proposed
4. Installation of Sediment Controls: Sediment control will be provided through a combination of filtration through the surround on-site vegetation, or filter fence if required. BMP's: Silt Fence (SF) Sediment Trap (ST) I
5. Soils Stabilization: Temporary and permanent soil stabilization will be provided. Temporary stabilization will be provided through the application of straw and/or plastic sheeting to exposed, worked earth. From October 1 until April 30, no exposed soil may remain exposed and unworked for more than two days; after May 1, no exposed soil may remain exposed and unworked for more than seven days. BMP's: Straw Covering, Plastic Sheeting, Final Landscaping(as required)
6. Slope Protection: Stock piles shall be protected from erosion through cover and prevention of concentrated surface runoff flows on steep slopes as required. BMP's: Plastic Sheeting, (AS REQUIRED)
7. Protection of Permanent Drain Inlets: Inlet protection will be provided for all catch basins. BMP's: Inlet Protection (IP) See detail sheet (AS REQUIRED)
8. Stabilization of Channels and Outlets: All channel slopes shall be constructed and protected against erosion in accordance with County code. (None Required)
9. Pollutant Control: Pollutants shall be controlled through the on-site BMP's proposed above.
10. Dewatering Control: De-watering: Interception of the water table is expected to occur. (NOT REQUIRED)
11. BMP Maintenance: All BMP's and SWPPP elements shall be inspected daily and maintained as required.
12. Project Management: The project shall be managed in a cooperative effort by the project manager, contractor, engineer, and the city inspector. During the construction process, if unforeseen issues arise that cannot be resolved on site, construction activity (other than SWPPP maintenance) shall be halted and the owner's representative and the project engineer are to be contacted and informed of the situation.
13. Protect on-site stormwater management bmps for runoff from roofs and other hard surface on-site stormwater management bmps used for runoff from roofs and other hard surfaces include: full dispersion, roof downspout full infiltration or dispersion systems, perforated stubout connections, rain gardens, bioretention systems, permeable pavement, sheetflow dispersion, and concentrated flow dispersion. the areas on the site to be used for these bmps shall be protected from siltation and compaction during construction by sequencing the construction in a fashion to install these bmps at the latterpart of the construction grading operations, by excluding equipment from the mps and the associated areas, and by using the erosion and sedimentation control bmps listed below. relevant bmp's bmp c102: buffer zone



LEGEND (EXISTING)

- Cased CONC. MON. W/'X' ON BRASS DISK
- EX. REBAR W/CAP '10446', OR AS NOTED
- TEMPORARY BENCH MARK
- UTILITY POLE
- SIGN
- FIRE HYDRANT
- WATER METER
- WATER VALVE
- GAS METER
- PHONE PEDESTAL
- POWER METER
- GAS VALVE
- STORM CATCHBASIN
- SANITARY SEWER MANHOLE
- ▬ BUILDING
- ▬ DRAINAGE ARROWS
- T.B.R. TO BE REMOVED
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IE 12" CPP(N)=516.44
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CALL 2 BUSINESS DAYS
BEFORE YOU DIG
1-800-424-5555

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CITY OF MUKILTEO PUBLIC WORKS DIRECTOR DATE

DECCIO Engineering

17217 7TH AVENUE WEST
BOTHELL, WA 98012
(206) 390-8374
Fax: (425) 741-6214

SPRING OF LIFE CHURCH 116TH STREET SW
CITY FILE NO:

TESC PLAN

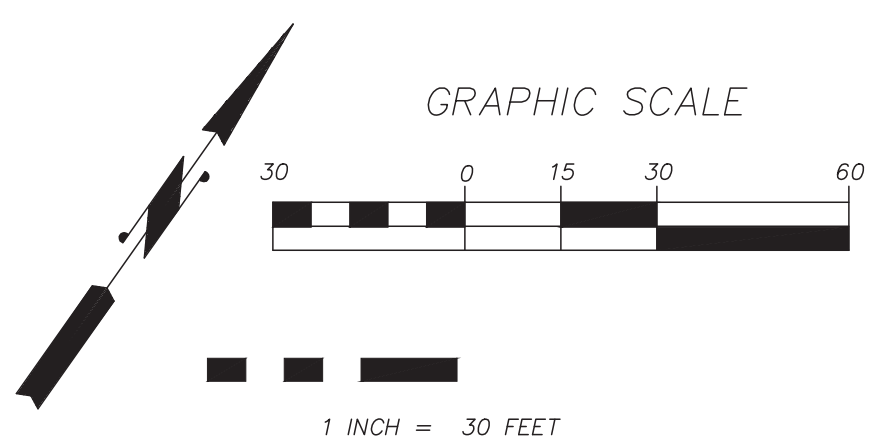
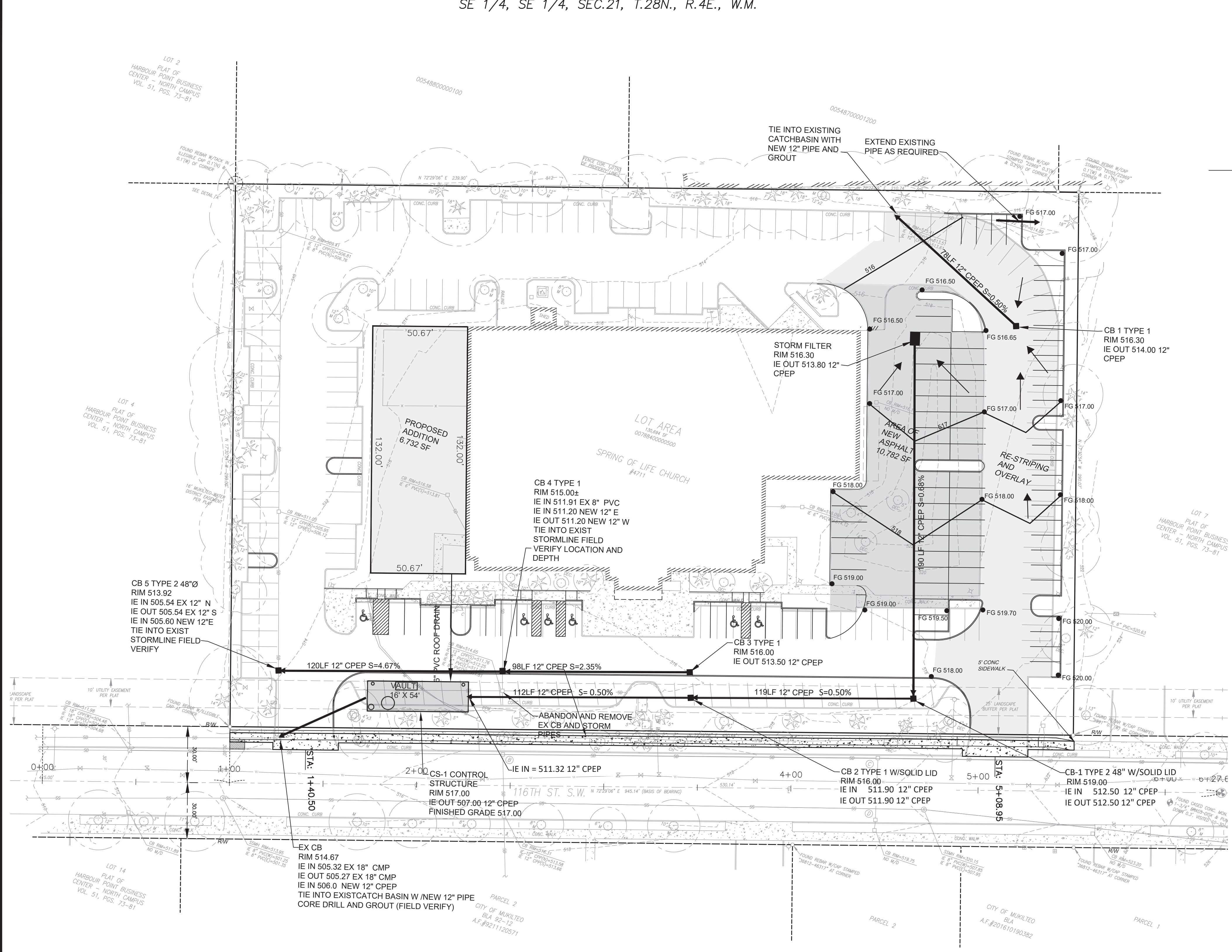
WASHINGTON
PLOT DATE: 1-20-22
LAST EDIT: 1-20-22
PROJECT NO.: TESC
FILE NAME: TESC
SCALE: AS SHOWN

SHEET 3 OF 8

C3

2-22-22

SE 1/4, SE 1/4, SEC.21, T.28N., R.4E., W.M.



STORM STRUCTURE INDEX

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- EX. REBAR W/CAP "10446", OR AS NOTED
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- UTILITY POLE
- SIGN
- FIRE HYDRANT
- WATER METER
- WATER VALVE
- GAS METER
- PHONE PEDESTAL
- POWER METER
- GAS VALVE
- STORM CATCHBASIN
- SANITARY SEWER MANHOLE
- BUILDING
- DRAINAGE ARROWS
- T.B.R. TO BE REMOVED
- BSBL BUILDING SETBACK LINE

NOTE:
CONTRACTOR TO VERIFY ALL EXISTING ON
AND OFF-SITE STORM DRAINAGE CATCH
BASINS AND PIPING PRIOR TO
CONSTRUCTION AND CHECK ALL EXSTING
UTILITITES FOR POSSIBLE CONFLICTS

CALL 2 BUSINESS DAYS
BEFORE YOU DIG
1-800-424-5555

THESE CONSTRUCTION PLANS HAVE BEEN REVIEWED AND
APPROVED BY THE DIRECTOR OF PUBLIC WORKS

CITY OF MUKILTEO PUBLIC WORKS DIRECTOR DATE

DESIGNED BY: RAD	CHECKED BY:	
DRAWN BY: CTS	APPROVED BY:	
DATE	BY	REVISION



DECCIO Engineering
17217 7TH AVENUE WEST
BOTHELL, WA 98012
(206) 390-8374
Fax: (425) 741-8214

SPRING OF LIFE CHURCH 116TH STREET SW
CITY FILE NO:

SITE GRADING AND DRAINAGE

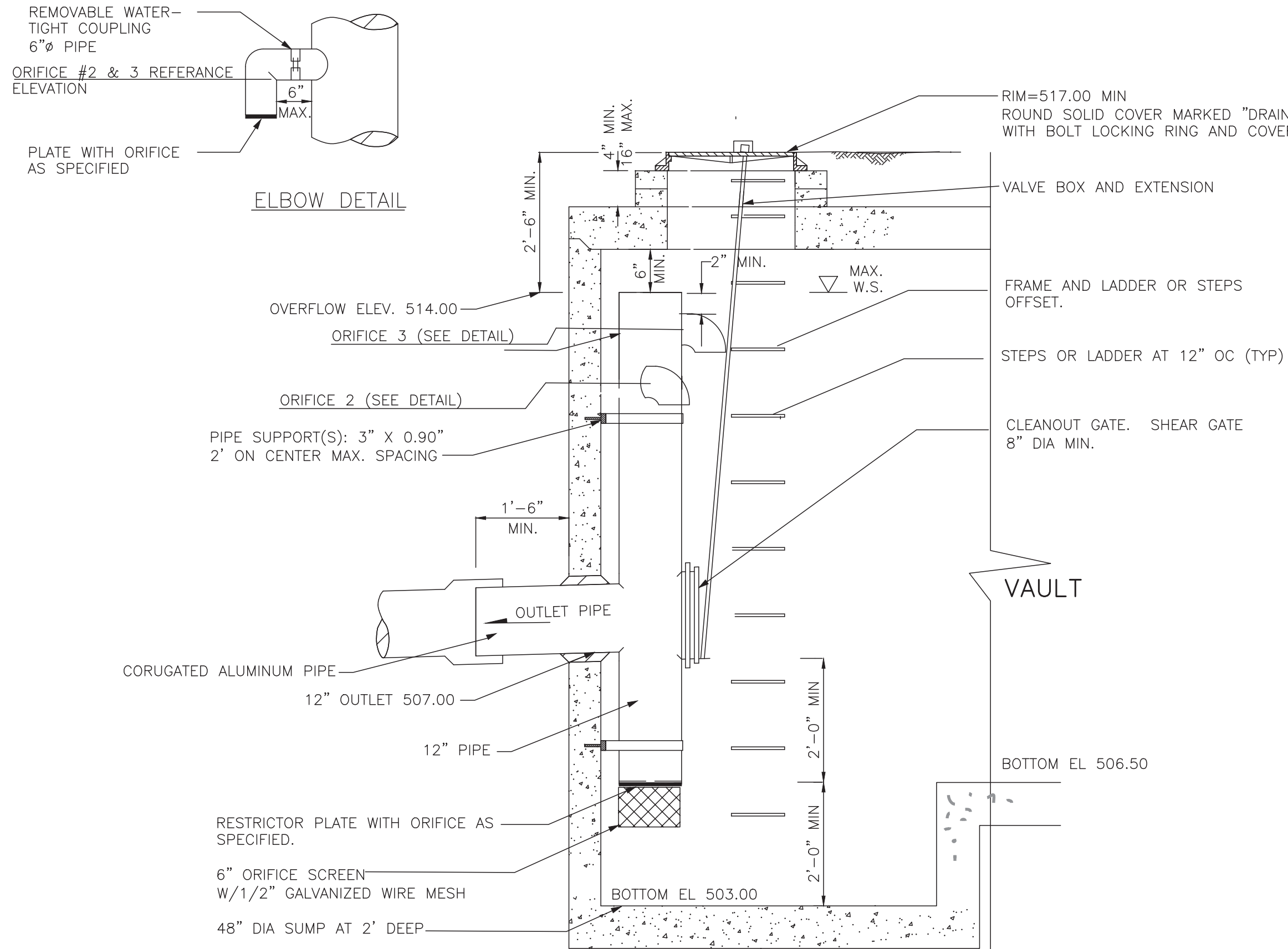
mukilteo

SCALE: AS SHOWN

PROJECT NO.: 1-20-22
PLOT DATE: 1-20-22
FILE NAME: ROAD PLAN AND PROFILE/STREET DATE: 1-20-22

SE 1/4, SE 1/4, SEC.21, T.28N., R.4E., W.M.

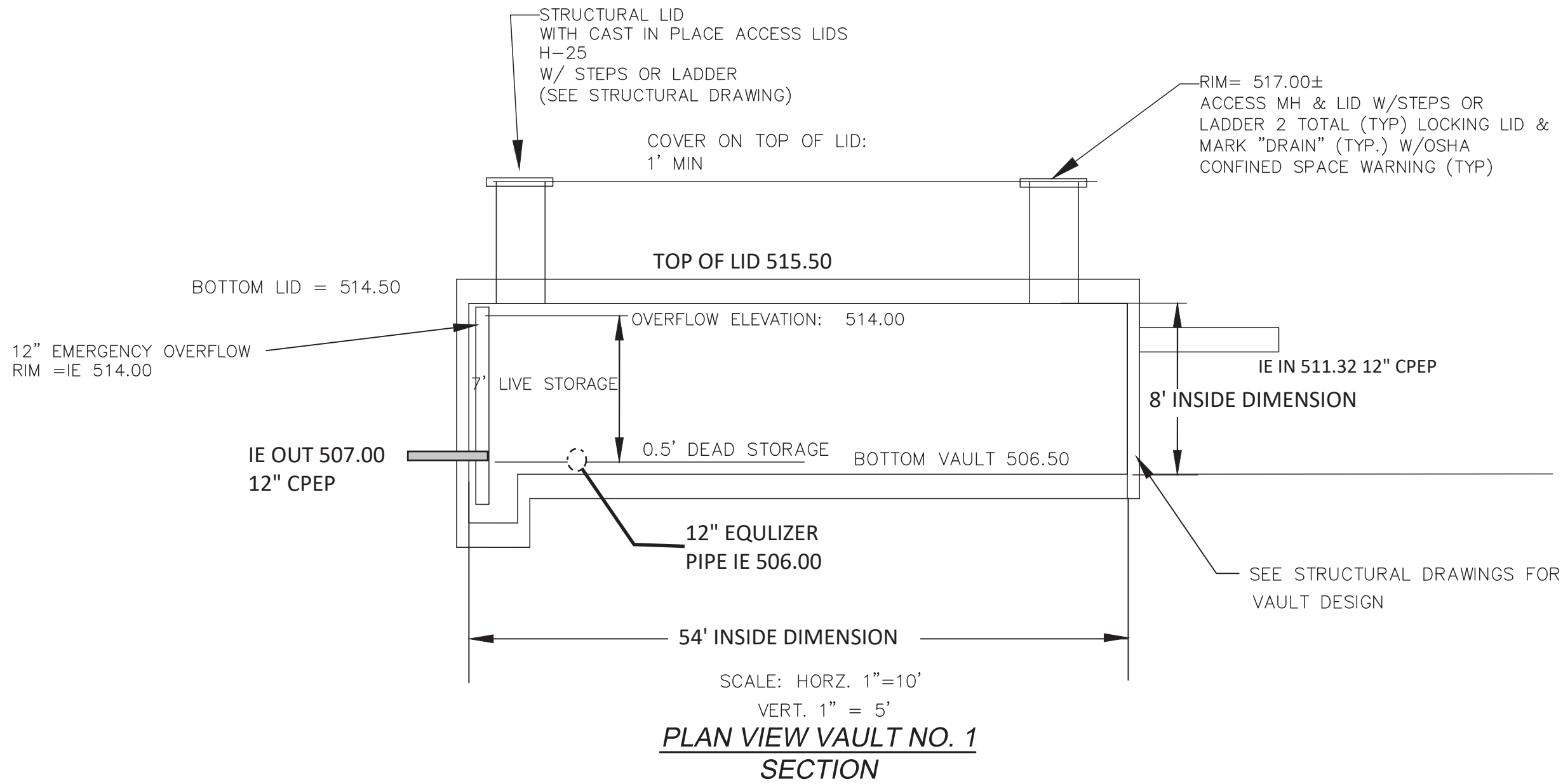
NOTES:
1. ALL METAL PARTS MUST BE CORROSION RESISTANT. STEEL PARTS MUST BE GALVANIZED AND ASPHALT COATED (TREATMENT 1 OR BETTER).
2. PROVIDE WATER STOP AT ALL CAST-IN-PLACE CONSTRUCTION JOINTS.
NOTE:
CONTRACTOR SHALL VERIFY THE LOCATION OF ALL EXISTING UTILITIES PRIOR TO THE START OF CONSTRUCTION. AGENCIES INVOLVED SHALL BE NOTIFIED WITHIN A REASONABLE TIME PRIOR TO THE START OF CONSTRUCTION.



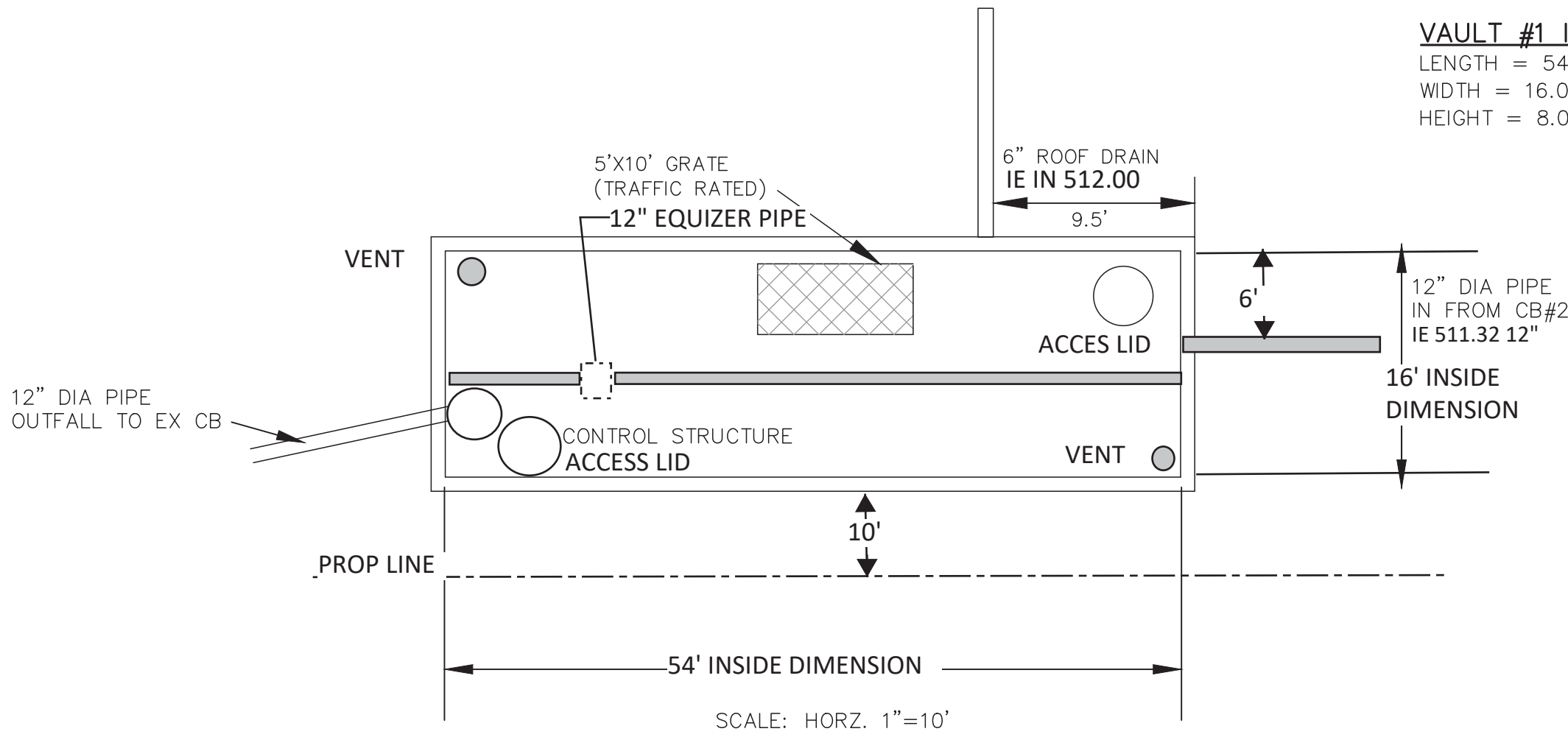
CONTROL STRUCTURE

FLOW RESTRICTOR/OIL POLLUTION CONTROL DEVICE, TEE TYPE (FROP-T)

VAULT RIM 517.00
OVERFLOW 12" ELEV. 514.00
#3 ORIFICE: 1/2"Ø 512.24
#2 ORIFICE: 9/16"Ø 511.11
#1 ORIFICE: 1/2"Ø 505.00
INVERT 12" Ø 507.00



VAULT #1 INSIDE DIMENSIONS
LENGTH = 54.00'
WIDTH = 16.00'
HEIGHT = 8.00'



PLAN VIEW VAULT NO. 1
SEE STRUCTURAL PLANS FOR BUILDING VAULT

DETENTION SUMMARY CHART									
STORM EVENT	LIVE STORAGE VOLUME (cf)			DEAD STORAGE VOLUME (cf)			RELEASE RATE (cfs)		
	REQUIRED	DESIGNED	AS-BUILT	REQUIRED	DESIGNED	AS-BUILT	REQUIRED	DESIGNED	AS-BUILT
2 YR	4,895 CF	4,895 CF		0.0260 CF	0.0269 CF		0.01963 CFS	0.01963 CFS	
50	6,014 CF	6,048 CF		0.0967 CF	0.0967 CF		0.0954 CFS	0.054 CFS	
List lots that flow to detention facility _____ BUILDING ADDITION AND NEW PAVEMENT AREA									
Design impervious area for development _____ 0.41 AC									

STORMFILTER STEEL CATCHBASIN DESIGN NOTES

STORMFILTER TREATMENT CAPACITY IS A FUNCTION OF THE CARTRIDGE SELECTION AND THE NUMBER OF CARTRIDGES. 1 CARTRIDGE CATCHBASIN HAS A MAXIMUM OF ONE CARTRIDGE. SYSTEM IS SHOWN WITH A 27" CARTRIDGE, AND IS ALSO AVAILABLE WITH AN 18" CARTRIDGE. STORMFILTER CATCHBASIN CONFIGURATIONS ARE AVAILABLE WITH A DRY INLET BAY FOR VECTOR CONTROL. PEAK HYDRAULIC CAPACITY PER TABLE BELOW. IF THE SITE CONDITIONS EXCEED PEAK HYDRAULIC CAPACITY, AN UPSTREAM BYPASS STRUCTURE IS REQUIRED.

CARTRIDGE SELECTION

CARTRIDGE HEIGHT	27"			18"			18" DEEP		
RECOMMENDED HYDRAULIC DROP (H)	0.05'			2.3'			3.3'		
SPECIFIC FLOW RATE (gpm/ft)	2 gpm/ft	1.87 gpm/ft	1 gpm/ft	2 gpm/ft	1.87 gpm/ft	1 gpm/ft	2 gpm/ft	1.87 gpm/ft	1 gpm/ft
CARTRIDGE FLOW RATE (gpm)	22.5	18.78	11.25	15	12.53	7.5	15	12.53	7.5
PEAK HYDRAULIC CAPACITY	1.0			1.0			1.8		
INLET PERMANENT POOL LEVEL (A)	1'-0"			1'-0"			2'-0"		
OVERALL STRUCTURE HEIGHT (B)	4'-9"			3'-9"			4'-9"		

* 1.67 gpm/ft SPECIFIC FLOW RATE IS APPROVED WITH PHOSPHOSORB® (PSORB) MEDIA ONLY.

GENERAL NOTES

- CONTRACTOR TO PROVIDE ALL MATERIALS UNLESS NOTED OTHERWISE.
- FOR SITE SPECIFIC DRAWINGS WITH DETAILED STORMFILTER CATCHBASIN STRUCTURE DIMENSIONS AND WEIGHTS, PLEASE CONTACT YOUR CONTECH ENGINEERED SOLUTIONS LLC REPRESENTATIVE. www.conteches.com
- STORMFILTER CATCHBASIN WATER QUALITY STRUCTURE SHALL BE IN ACCORDANCE WITH ALL DESIGN DATA AND INFORMATION CONTAINED IN THIS DRAWING.
- INLET SHOULD NOT BE LOWER THAN OUTLET. INLET (IF APPLICABLE) AND OUTLET PIPING TO BE SPECIFIED BY ENGINEER AND PROVIDED BY CONTRACTOR.
- MANUFACTURER TO APPLY A SURFACE BEAD WELD IN THE SHAPE OF THE LETTER "C" ABOVE THE OUTLET PIPE STUB ON THE EXTERIOR SURFACE OF THE STEEL SHEET.
- STORMFILTER CATCHBASIN EQUIPPED WITH 4 INCH (APPROXIMATE) LONG STUBS FOR INLET (IF APPLICABLE) AND OUTLET PIPING. STANDARD OUTLET STUB IS 6 INCHES IN DIAMETER. MAXIMUM OUTLET STUB IS 15 INCHES IN DIAMETER. CONNECTION TO COLLECTION PIPING CAN BE MADE USING FLEXIBLE COUPLING BY CONTRACTOR.
- STEEL STRUCTURE TO BE MANUFACTURED OF 1/4 INCH STEEL PLATE. CASTINGS SHALL MEET A515 TO M305 LOAD RATING. TO MEET HS20 LOAD RATING ON STRUCTURE, A CONCRETE COLLAR IS REQUIRED. WHEN REQUIRED, CONCRETE COLLAR WITH #4 REINFORCING BARS TO BE PROVIDED BY CONTRACTOR.
- FILTER CARTRIDGES SHALL BE MEDIA FILLED, PASSIVE, SIPHON ACTUATED, RADIAL FLOW, AND SELF CLEANING. RADIAL MEDIA DEPTH SHALL BE 7-INCHES. FILTER MEDIA CONTACT TIME SHALL BE AT LEAST 38 SECONDS.
- SPECIFIC FLOW RATE IS EQUAL TO THE FILTER TREATMENT CAPACITY (gpm) DIVIDED BY THE FILTER CONTACT SURFACE AREA (sq ft).

INSTALLATION NOTES

- ANY SUBBASE, BACKFILL DEPTH, AND/OR ANTI-FLOTATION PROVISIONS ARE SITE-SPECIFIC DESIGN CONSIDERATIONS AND SHALL BE SPECIFIED BY ENGINEER OF RECORD.
- CONTRACTOR TO PROVIDE EQUIPMENT WITH SUFFICIENT LIFTING AND REACH CAPACITY TO LIFT AND SET THE CATCH-BASIN (LIFTING CLUTCHES PROVIDED).
- CONTRACTOR TO TAKE APPROPRIATE MEASURES TO PROTECT CARTRIDGES FROM CONSTRUCTION-RELATED EROSION RUNOFF.

CATCHBASIN
BAPPLE
ELEVATION
ELEVATION

INLET BAY
SET
STUB
TYPICAL

2'-0" INSIDE
2'-0" OUTSIDE

LIFTING EYE
(TYP. 5'-4")

WEIR WALL - 2.5 FT

FLOW

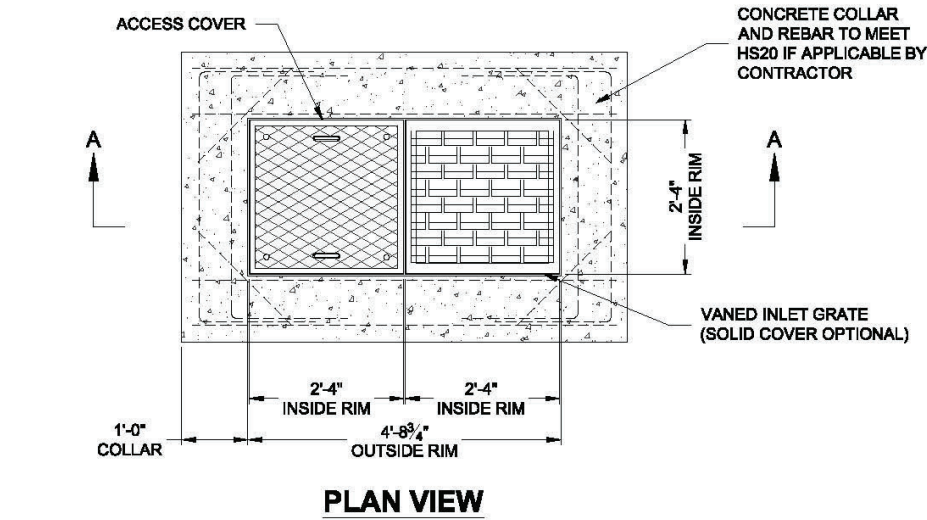
OUTLET STUB

OUTLET PIPE
FROM FLOWLINE

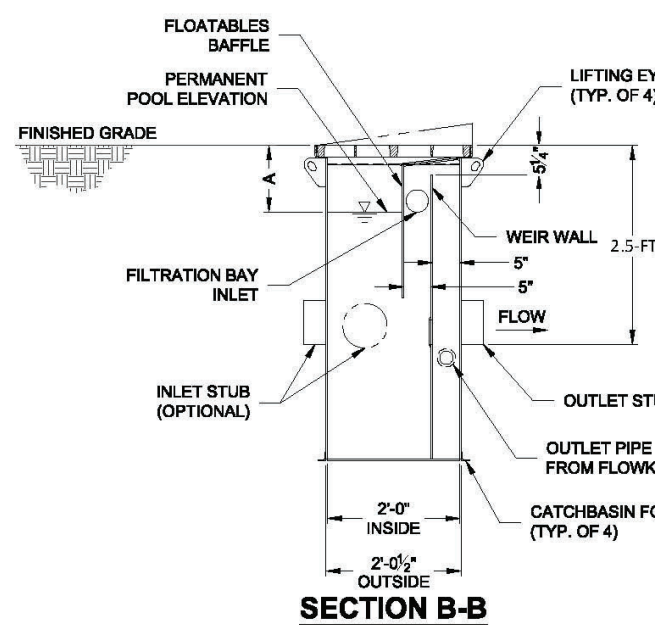
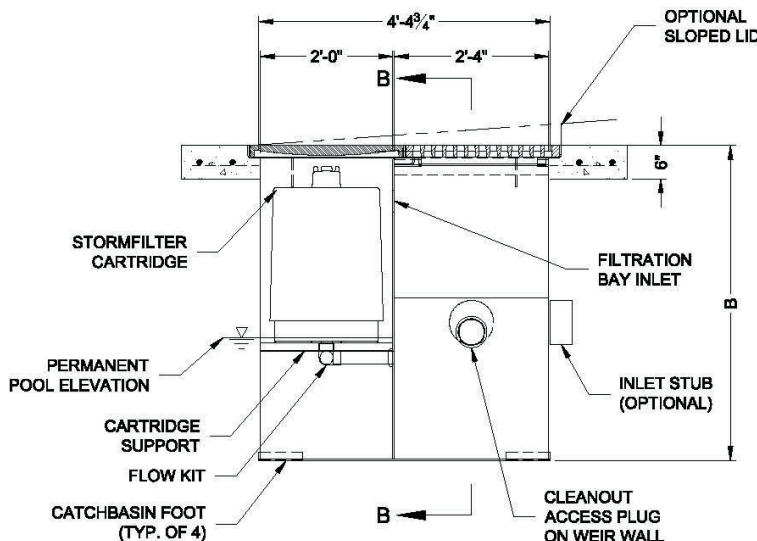
CATCHBASIN FOOT
(TYP. 0'-4")

1-CARTRIDGE CATCHBASIN STORMFILTER DATA

STRUCTURE ID	STORM
WATER FLOW RATE (cfs)	0.027 CFS
PEAK FLOW RATE (1 ft/s)	0.29 CFS
RETURN PERCENT OF PEAK FLOW (gms)	
CARTRIDGE HEIGHT (27", 18", 18" DEEP)	18 INCH
CARTRIDGE FLOW RATE (gpm)	1.67 GPM
MEDIA TYPE (PERLITE, ZPG, PSORB)	ZPG
RIM ELEVATION	516.30
PIPE DATA	
INLET STUB	N/A
OUTLET STUB	513.80 12-INCH
CONFIGURATION	
OUTLET	
INLET	INLET
OUTLET	INLET
SLOPED LID	NO
SOFT COVER	NO
SPECIAL REQUIREMENTS:	



SECTION A-A



1-CARTRIDGE CATCHBASIN STORMFILTER DATA	
STRUCTURE ID	STORM
WATER QUALITY FLOW RATE (cfs)	0.027 CFS
PEAK FLOW RATE (cfs)	0.29 CFS
RETURN PERIOD OF PEAK FLOW (yrs)	18-INCH
CARTRIDGE HEIGHT (27", 18", 18" DEEP)	1.67 GPM
CARTRIDGE FLOW RATE (gpm)	ZPG
MEDIA TYPE (PERLITE, ZPG, PSORB)	516.30
RIM ELEVATION	
PIPE DATA:	I.E. DIAMETER
INLET STUB	N/A
OUTLET STUB	513.80 12-INCH
CONFIGURATION	OUTLET INLET
SLOPED LID	YES/NO
SOLID COVER	YES/NO
NOTES/SPECIAL REQUIREMENTS:	

1 CARTRIDGE CATCHBASIN STORMFILTER STANDARD DETAIL

CONTECH
ENGINEERED SOLUTIONS LLC
www.conteches.com
3025 Centre Pointe Dr., Suite 400, West Chester, OH 45389
800-626-3999 513-645-7000 513-645-7988 FAX

DESIGNED BY: RAD	CHECKED BY:	
DRAWN BY: CTS	APPROVED BY:	
DATE	BY	REVISION



2-22-22

DECCIO Engineering

17217 7TH AVENUE WEST
BOTHELL, WA 98021
Phone: (206) 741-8214
Fax: (206) 741-8214

SPRING OF LIFE CHURCH 116TH STREET SW
CITY FILE NO:

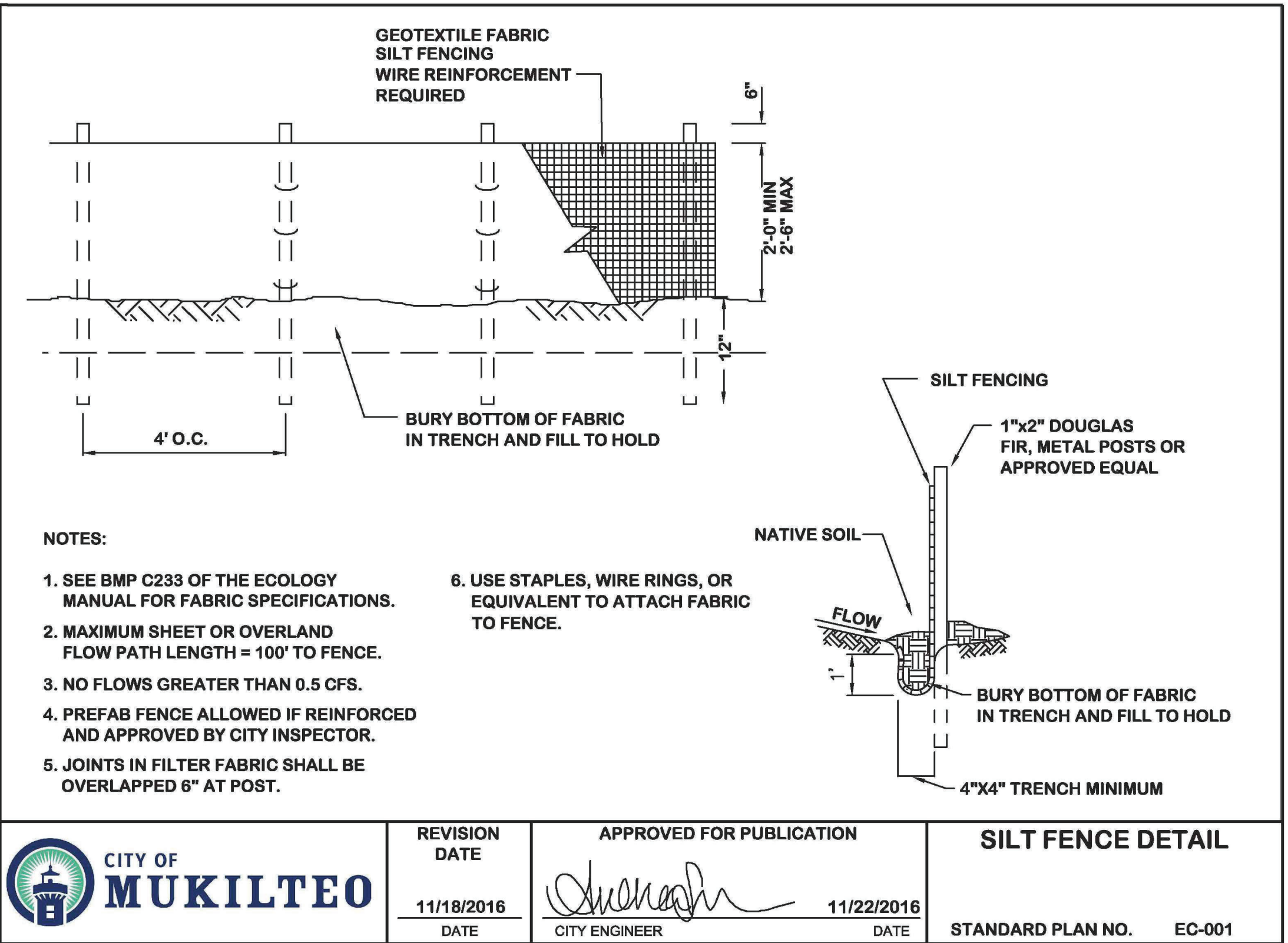
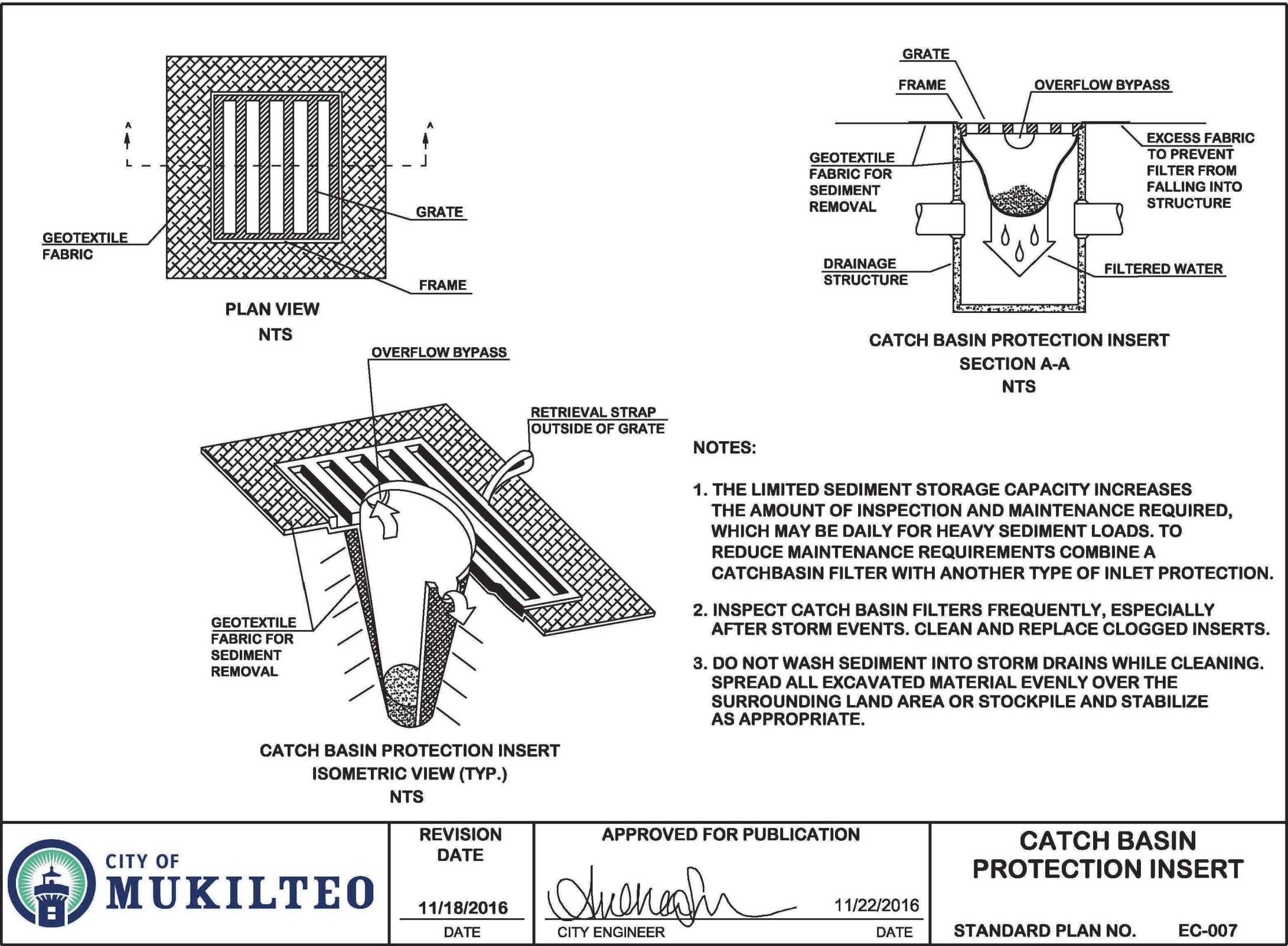
STORM VAULT PLAN AND DETAILS

WASHINGTON
PLOT DATE: 1-20-22
LAST EDIT: 1-20-22

PROJECT NO.:
FILE NAME: VAULT

SCALE:
AS SHOWN

SHEET 6 OF 8
C6



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THESE CONSTRUCTION PLANS HAVE BEEN REVIEWED AND
APPROVED BY THE DIRECTOR OF PUBLIC WORKS

CITY OF MUKILTEO PUBLIC WORKS DIRECTOR DATE

DESIGNED BY: RAD	CHECKED BY:	
DRAWN BY: CTS	APPROVED BY:	
DATE	BY	REVISION



2-22-22

DECCIO Engineering

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SPRING OF LIFE CHURCH 116TH STREET SW
CITY FILE NO:

DETAILS

WASHINGTON
PLOT DATE: 1-20-22
LAST EDIT: 1-20-22

PROJECT NO.: DT
FILE NAME:

SCALE: AS SHOWN

SHEET 7 OF 8

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- B.1 General Notes**
- All work and materials shall be in accordance with current City of Mukilteo Development Standards; 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.
 - All work within the plat and City right-of-way shall be subject to the inspection of the City.
 - 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 _____.
 - 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 _____.
 - Prior to any site work, the contractor shall contact the City of Mukilteo Community Development Department at 425-263-8000 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.
 - 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: _____ Phone: _____ Mobile: _____
- 24-Hour Emergency Contact and Phone: _____
- The Construction Stormwater Pollution Prevention (SWPPP) facilities shall be constructed in accordance with the approved SWPPP plans prior to any grading or 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.
 - A Certified Erosion and Sediment Control Lead (CESCL) or SWPPP Supervisor shall be responsible for maintaining the Construction SWPPP facilities, as outlined in the approved SWPPP, or as modified from time to time. Contact information for the CESCL (or SWPPP Supervisor) for the project shall be given to the City.
 - Noncompliance with the requirements for erosion controls, water quality and clearing limits may result in revocation of project permits, plan approval, and bond foreclosures.
 - 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) D of the WSDOT Standard Specifications.
 - 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 811.
 - Prior to construction the owner and/or contractor shall notify the project engineer and the Public Works Director 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.
 - 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 at completion of construction and prior to final acceptance of work.
 - 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.
- B.2 Site Grading and Construction SWPPP Notes**
- Prior to any site work, 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 _____.
 - Soils in Mukilteo often contain finer particles which will pass through sediment traps untreated and have extremely long settling times. Therefore, the need to control erosion from the site is the first priority and should be emphasized.
 - 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 passed.
 - Stockpiles are to be located in safe areas and adequately protected by temporary seeding and mulching. Hydroseeding is preferred.
 - The developer (or 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 ____.
 - If the project will disturb more than one (1) acre of land, then a Construction NPDES Permit is required and a Certified Erosion and Sediment Control Lead (CESCL) shall be assigned to the site. The CESCL's name, phone number, and CESCL certificate number is _____.
 - 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.
 - 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.
 - The surface of all slopes shall be compacted. This may be accomplished by over-building 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.
 - 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.
 - 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.
 - Upon completion of work, final reports must be submitted to the City in conformance with the current City adopted International Building Code.
 - A Wet Weather Erosion Control Plan must be submitted to the City for review and approval on or before September 1, if the project is proposing to actively clear, grade, or otherwise disturb 1,000 square feet or more of soil during the period between October 1 and April 30. Other thresholds for a Wet Weather Erosion Control Plan include projects that:
- Have area(s) that drain, by pipe, open ditch, sheet flow, or a combination of these to a tributary water, and the tributary water is one-quarter mile or less downstream; or
 - Have slopes steeper than 15 percent adjacent or on-site; or
 - Have high potential for sediment transport, as determined by the Construction Site Sediment Transport Potential Worksheet; or
 - Have a critical area or critical area buffer on-site, or within 50 feet of the site; or
 - Have high groundwater table or springs.
- B.3 Temporary Seeding General Notes**
- Use seeding throughout the project on disturbed areas that have reached final grade or that will remain unworked for more than 30 days.
 - The optimum seeding windows are April 1 through June 30 and September 1 through October 1.
 - Between October 1 and March 30 seeding requires a cover of mulch with straw or an erosion control blanket until 75 percent grass cover is established.
 - Review all disturbed areas in late August to early September and complete all seeding by the end of September.
- Mulch is required at all times for seeding. Mulch can be applied on top of the seed or simultaneously by hydroseeding (see Ecology BMP C121 Mulching for specifications).
 - Seed and mulch all disturbed areas not otherwise vegetated at final site stabilization.
- B.4 Maintenance of Siltation Barriers**
- 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 erosion control elements, especially end-runs and sediment build-up. Necessary repairs to barriers shall be accomplished the same day.
 - 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 check dam is no longer required shall be dressed to conform to the existing grade, prepared and seeded.

- B.1 Sediment Trap General Notes**
- Sediment traps are only effective in removing sediment down to about the medium silt size fraction. Soils in Mukilteo often contain fine silt and may not be adequately treated with sediment ponds. Therefore, erosion control practices should be emphasized and prioritized.
 - The pond shall be checked after each rain event, or weekly, whichever is sooner, to insure that it the walls are structurally sound, the pond has not been damaged by erosion or construction equipment, and to determine maintenance needs.
 - Any damage to the pond embankments or slopes shall be repaired immediately.
 - 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 (typically 1-foot in depth), it shall be removed and properly disposed of off-site.
 - Secondary treatment may be necessary if the sediment pond cannot effectively remove the fine grain soils.
- B.2 Storm Drainage General Notes**
- All pipe shall be placed according Division 7 of the WSDOT Standard Specifications.
 - Backfill shall be placed equally on both sides of the pipe or pipe-arch in 6" 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- 08.3(3) the WSDOT Standard Specifications.
 - All grates located in the gutter flow line (inlet and catch basin) shall be depressed 0.1 feet below pavement level.
 - All catch basins are to be Type I unless otherwise approved by the City or designated representative. The use and installation of inlets is not allowed.
 - 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.
 - 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.
 - 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.
 - Detention ponds with side slopes steeper than 3:1 or with a maximum water depth greater than 3 feet shall require a vinyl coated chain link perimeter fence. Side slope averaging shall not be allowed. All inlet and outfall pipes shall have a trash rack installed and a mortared riprap headwall.
 - 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. Stub-outs 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.
 - 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. An invoice detailing the flushing and cleaning shall be provided to the City.
- All pipes shall be installed with rubber gaskets as per manufacturer's recommendations.
 - Corrugated Polyethylene Pipe (CPP):
- All pipe shall be smooth interior. CPP shall be double-walled. All pipe shall meet AASHTO and ASTM specifications.
 - 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.
 - Upon request by the City inspector, pipe shall be subject to mandrel testing (mandrel size = 90% of nominal pipe diameter).
 - 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.
 - Minimum depth of cover shall be 2 feet.
 - Couplings shall be integral bell and spigot or double bell separate couplings. Split couplings will not be allowed.
 - Backfill shall comply with Section 7-08.3(3) of the WSDOT Standard Specifications for Road, Bridge, and Municipal Construction with the exception that the second paragraph of Section 7-08.3(3) is deleted and replaced with:
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 sieve.
- Culvert ends shall be beveled to match side slopes. Field cutting of culvert ends is permitted when approved by the City.
 - All field cut culvert pipe shall be treated as required in the Standard Specifications or General Special Provisions.

NOTE:
CONTRACTOR SHALL VERIFY THE LOCATION OF ALL EXISTING UTILITIES PRIOR TO THE START OF CONSTRUCTION. AGENCIES INVOLVED SHALL BE NOTIFIED WITHIN A REASONABLE TIME PRIOR TO THE START OF CONSTRUCTION.

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CITY OF MUKILTEO PUBLIC WORKS DIRECTOR DATE

DESIGNED BY: RAD		CHECKED BY: _____	
DRAWN BY: CTS		APPROVED BY: _____	
DATE	BY	REVISION	BY:



DECCIO Engineering

17217 7TH AVENUE WEST
BOTHELL, WA 98012
(206) 390-8374
Fax: (425) 741-6214

SPRING OF LIFE CHURCH 116TH STREET SW
CITY FILE NO:

NOTES

SCALE: AS SHOWN	PROJECT NO.: EX	WASHINGTON
	FILE NAME:	PLOT DATE: 1-20-22 LAST EDIT: 1-20-22

SHEET 8 OF 8

C8