

HIDDEN HILLS APARTMENTS LAND DEVELOPMENT ACTIVITY PERMIT

REVISED
JUN 22 2022

NOTE

THE APPROXIMATE LOCATION OF EXISTING UNDERGROUND UTILITIES ARE SHOWN ON THE PLANS. IT IS THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE THE LOCATION OF EXISTING UTILITIES PRIOR TO COMMENCING WORK. THE CONTRACTOR SHALL BE RESPONSIBLE FOR DAMAGES THAT MIGHT BE OCCASIONED BY THE CONTRACTOR'S FAILURE TO LOCATE, PRESERVE AND PROTECT UNDERGROUND UTILITIES.

**CALL 48 HOURS
BEFORE YOU DIG
811**

DESCRIPTION

RESULTANT PARCEL B OF BOUNDARY LINE ADJUSTMENT RECORDED UNDER AUDITOR'S FILE No. 200511B0443, BEING A PORTION OF THE NORTHWEST QUARTER OF THE SOUTHWEST QUARTER, SECTION 1, TOWNSHIP 23 NORTH, RANGE 1 EAST, W.M., IN KITSAP COUNTY, WASHINGTON, DESCRIBED AS FOLLOWS:

THAT PORTION OF THE NORTHWEST QUARTER OF THE SOUTHWEST QUARTER OF SECTION 1, TOWNSHIP 23 NORTH, RANGE 1 EAST, W.M., MORE PARTICULARLY DESCRIBED AS FOLLOWS: BEGINNING AT A 413.26 FEET SOUTH OF THE NORTHWEST CORNER OF THE NORTHWEST QUARTER OF THE SOUTHWEST QUARTER OF SECTION 1, TOWNSHIP 23 NORTH, RANGE 1 EAST W.M.; THENCE SOUTH 88°31' EAST 80 RODS MORE OR LESS TO THE EAST LINE OF SAID NORTHWEST QUARTER OF THE SOUTHWEST QUARTER; THENCE SOUTH 45 RODS MORE OR LESS TO A POINT WHICH IS 165 FEET NORTH OF THE SOUTHEAST CORNER OF THE SAID NORTHWEST QUARTER OF THE SOUTHWEST QUARTER; THENCE WEST PARALLEL WITH THE SOUTH LINE OF SAID NORTHWEST QUARTER OF THE SOUTHWEST QUARTER TO A POINT 649 FEET EAST OF THE WEST LINE OF SAID NORTHWEST QUARTER OF THE SOUTHWEST QUARTER; THENCE NORTH 0°36'30" EAST 10 FEET; THENCE NORTH 89°20' WEST TO THE WEST LINE OF SAID NORTHWEST QUARTER OF THE SOUTHWEST QUARTER; THENCE NORTH 45 RODS MORE OR LESS TO THE POINT OF BEGINNING;

EXCEPT A STRIP OF LAND 30 FEET WIDE CONVEYED TO THE STATE OF WASHINGTON FOR ROAD PURPOSES ON THE WEST SIDE OF SAID TRACT;

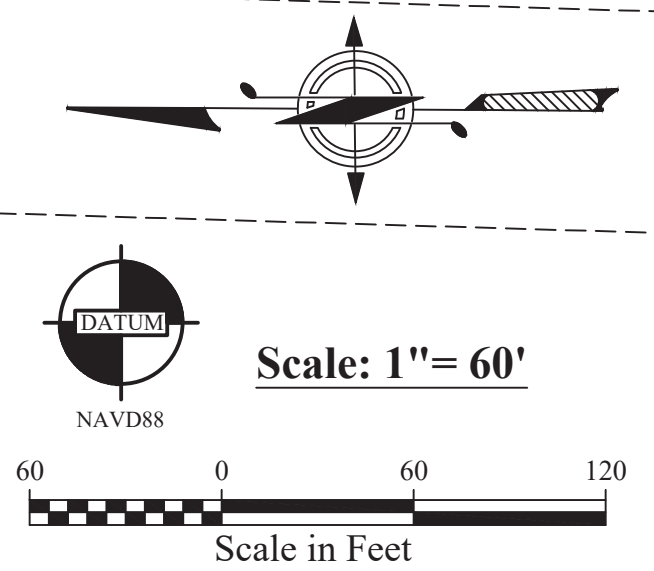
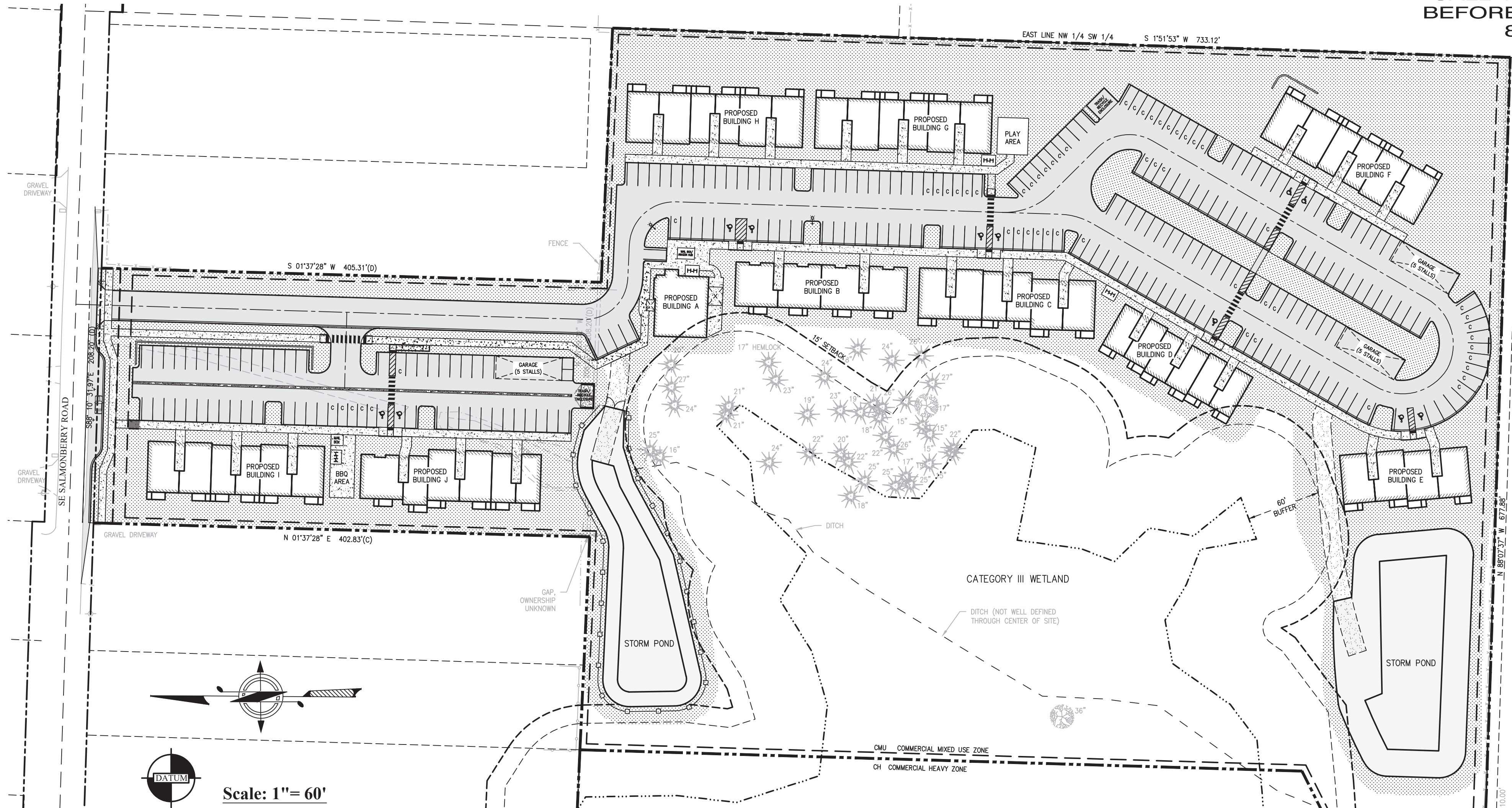
AND EXCEPT THE SOUTH 175 FEET OF THE WEST 260 FEET OF THE ABOVE DESCRIBED TRACT LYING EAST OF THE 30 FOOT WIDE STRIP CONVEYED TO THE STATE OF WASHINGTON FOR ROAD PURPOSES.

NOTES:

- SEE VOLUME 9 OF SHORT PLATS, PAGE 140 FOR SUBDIVISION OF THE SOUTHWEST QUARTER OF SECTION 19, TOWNSHIP 24 NORTH, RANGE 2 EAST, W.M.,
- THE KITSAP COUNTY, WASHINGTON, FLOOD INSURANCE RATE MAP (PANEL No. 530092 0315 B) PUBLISHED BY THE U.S. DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT (EFFECTIVE DATE: MAY 15, 1980) DESIGNATES THE SUBJECT PARCELS AS LYING WITHIN A ZONE 'C' AREA (AN AREA OF MINIMAL FLOODING).
- THIS PROPERTY IS SUBJECT TO AN EASEMENT, GRANTED TO PUGET SOUND POWER AND LIGHT Co., RECORDED SEPT. 10, 1993, UNDER AUDITOR'S FILE No. 9309100145.
- THE LOCATION OF UNDERGROUND UTILITIES ARE NOT SHOWN OR ARE SHOWN IN APPROXIMATE LOCATIONS ONLY BASED UPON TIE'S TO SURFACE STRUCTURES. BEFORE ANY CONSTRUCTION ACTIVITIES OCCUR IT WILL BE NECESSARY TO CONTACT THE LOCAL LOCATE SERVICE FOR UTILITY LOCATIONS.
- THE SANITARY SEWER INVERT ELEVATIONS WERE PROVIDED BY KARCHER CREEK SEWER DISTRICT FOR ALTA SURVEY BY N.L. OLSON AND ASSOCIATES IN JUNE 2006.
- CONTOUR DATA IS BASED ON SURVEY BY N.L. OLSON AND ASSOCIATES IN MAY 2006.

LEGEND

○ FOUND CORNER AS NOTED		PROPOSED BIORETENTION CELL
● SET 5/8" REBAR AND CAP, LS 41078		PROPOSED BUILDING
⊖ UTILITY POLE		PROPOSED CONCRETE
⊠ SIGN AS NOTED		PROPOSED HMA PAVEMENT
⊡ CATCH BASIN		PROPOSED LANDSCAPING
⊙ WATER METER		SITE PROPERTY LINE/BOUNDARY
⊙ WATER VALVE		RIGHT-OF-WAY
⊙ POWER JUNCTION BOX		PC CONCRETE CURB
⊙ SEWER MANHOLE		PC CONCRETE CURB AND GUTTER
⊡ TELEPHONE RISER		SYMBOL OF ACCESSIBILITY
⊠ LUMINAIRE		PROPOSED WATER LINE
⊡ CONTROL POINTS		PROPOSED SANITARY SEWER LINE
⊠ TEST HOLE		PROPOSED STORM PIPE
⊠ FENCE LINE AS NOTED		PROPOSED FOOTING DRAIN
⊠ SANITARY SEWER PIPE		PROPOSED SANITARY SEWER CLEANOUT
⊠ CULVERT		PROPOSED STORM TYPE 1 CATCH BASIN
⊠ WATER LINE		PROPOSED STORM TYPE 1 CB W/BEEHIVE GRATE
⊠ POWER PAINT MARK LINE		PROPOSED STORM TYPE 2 CATCH BASIN
⊠ GAS LINE		PROPOSED SANITARY SEWER MANHOLE
⊠ CHAIN LINK FENCE		PROPOSED FIRE HYDRANT
		EXISTING ASPHALT
		DECIDUOUS TREE/CEDAR TREE DIAMETER AS NOTED



WETLAND NOTES:

- WETLAND DELINEATION BY ECOLOGICAL LAND SERVICES IN OCTOBER/NOVEMBER 2019.
- WETLAND FLAG LOCATIONS SURVEYED BY N.L. OLSON AND ASSOCIATES IN DECEMBER 2019.
- AREAS: TOTAL PARCEL AREA = 20.896 AC.
AREA INSIDE WETLAND BUFFER = 5.69 AC.
TOTAL USABLE AREA = 15.20 AC.

APPROXIMATE EARTHWORK QUANTITY:*

CUT QUANTITY = 24,900± C.Y.
FILL QUANTITY = 42,500± C.Y. (17,600± C.Y. NET FILL)

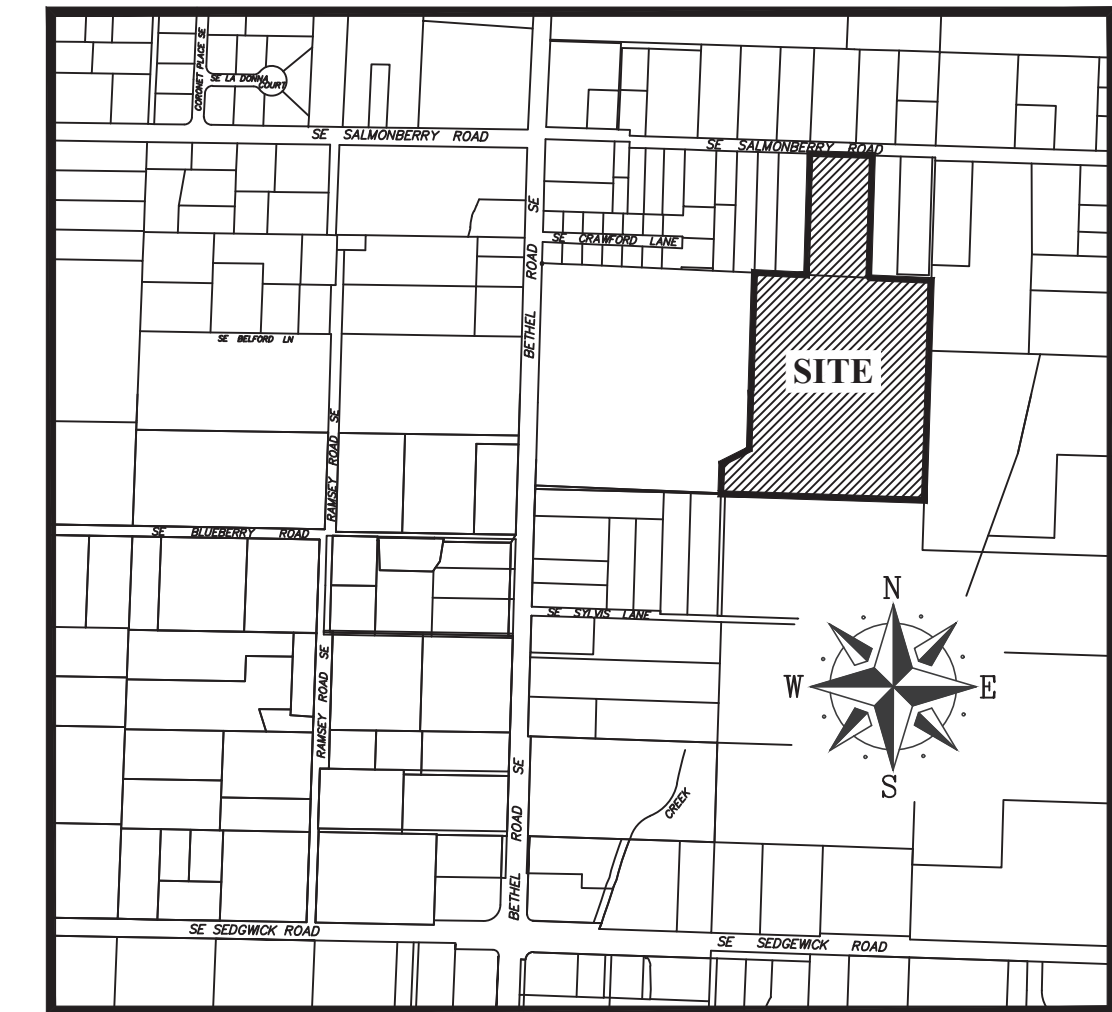
* NOTE:
IT IS THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE MATERIAL QUANTITIES. THE ESTIMATES PROVIDED MUST NOT BE USED FOR BIDDING PURPOSES.

OPEN SPACE REQUIRED

57 ONE BEDROOM UNITS x 100 SF OPEN SPACE/UNITS	5,700 SF
80 TWO BEDROOM UNITS x 150 SF OPEN SPACE/UNITS	12,000 SF
15 THREE BEDROOM UNITS x 150 SF OPEN SPACE/UNITS	2,250 SF
TOTAL	19,950 SF (MIN.)

OPEN SPACE PROVIDED

SHARED COURTYARDS	1,940 SF
PLAY AREA	750 SF
GARDEN AND CEDAR PLAYGROUND	6,200 SF
INDOOR RECREATION BUILDING	2,164 SF
PRIVATE BALCONIES (6'x10') 1 BED (57 UNITS x 60 SF)	3,420 SF
PRIVATE BALCONIES (6'x11') 2 BED (80 UNITS x 66 SF)	5,280 SF
PRIVATE BALCONIES (6'x11') 3 BED (15 UNITS x 66 SF)	990 SF
TOTAL OPEN SPACE PROVIDED	20,744 SF



VICINITY MAP
PORTION OF SECTION 1 TOWNSHIP 23N, RANGE 1 EAST, WM
NOT TO SCALE

LDAP SHEET INDEX

SHEET	DESCRIPTION
C1.00	COVER SHEET
C2.00	TOPOGRAPHIC SURVEY 1
C2.10	TOPOGRAPHIC SURVEY 2
C3.00	SITE PLAN
C3.10	ROAD PROFILE
C3.20	SITE SECTIONS
C3.30	SITE DETAILS
C3.40	SITE DETAILS
C3.50	SITE DETAILS
C4.00	T.E.S.C. & DEMOLITION PLAN
C4.10	T.E.S.C. NOTES & DETAILS
C4.20	T.E.S.C. DETAILS
C5.00	STORM DRAINAGE & GRADING PLAN
C5.10	STORM PROFILES
C5.20	STORM PROFILES
C5.30	STORM POND SECTIONS
C5.40	STORM DRAINAGE AND GRADING NOTES & DETAILS
C5.50	STORM DRAINAGE DETAILS
C5.60	STORM DRAINAGE DETAILS
C5.70	STORM WATER QUALITY DETAILS
C5.80	STORM WATER QUALITY DETAILS
C6.00	UTILITY PLAN
C6.10	SANITARY SEWER PROFILE
C6.20	SANITARY SEWER NOTES & DETAILS
C6.30	SANITARY SEWER DETAILS
C6.40	WATER NOTES & DETAILS
C6.50	WATER DETAILS

REVISIONS			
NO.	DATE	BY	DESCRIPTION
1	05/26/22	JFK	PLAN REVISED PER CITY OF PORT ORCHARD COMMENTS DATED 03/29/2022.

FOR: HE DEVELOPMENT, LLC

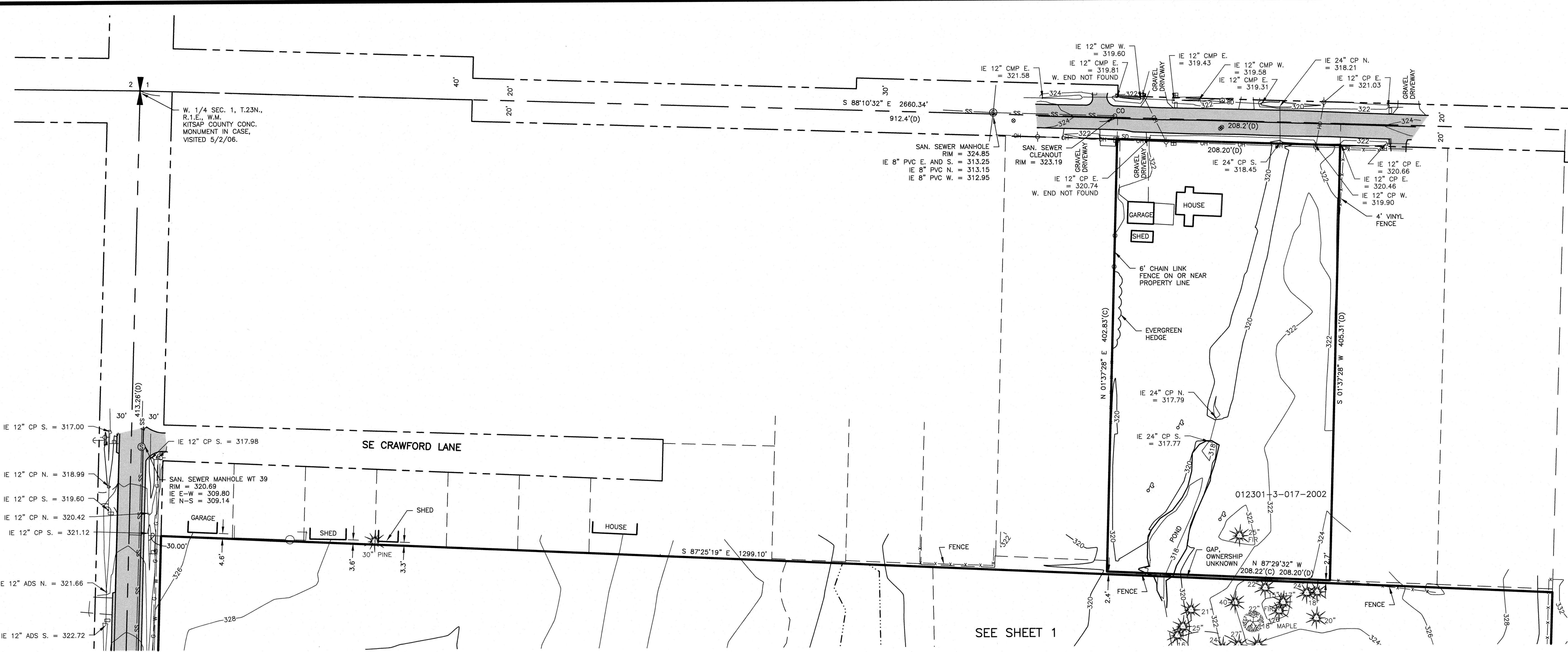
Attn: James He
4631 SE Bakken Court
Port Orchard, WA 98366
Phone: (360) 874-9966

N.L Olson & Associates, Inc.
Engineering, Planning and Surveying
(360) 895-2350 or (360) 876-2284
2453 Bethel Avenue, P.O. Box 637, Port Orchard, WA 98366



06.21.2022

I:\Users\james.he\OneDrive\Documents\Projects\19-10959\19-10959-C1.00 COVER SHEET.dwg 6/21/2022 2:32:40 PM A:\Encs



SCALE:
1" = 50'

N.G.V.D.
1929

LEGEND

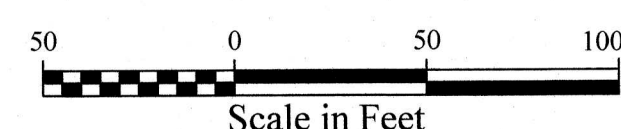
- ⊙ SANITARY SEWER MANHOLE
- ◇ UTILITY POLE
- ◊ GUY ANCHOR
- ⊠ TELEPHONE RISER
- ⊞ SIGN
- MAILBOX
- ⊕ FIRE HYDRANT
- ⊗ WATER METER
- ⊙ WATER VALVE
- ⊙ TEST HOLE
- SD—SD— CULVERT
- SS—SS— SANITARY SEWER PIPE
- W—W— WATER LINE
- G—G— GAS LINE
- x—x—x— FENCE LINE AS NOTED
- CHAIN LINK FENCE
- ▬ ASPHALT
- BUILDING LINE
- ⊙ DECIDUOUS TREE, DIAMETER AS NOTED
- ⊙ CEDAR TREE (UNLESS NOTE OTHERWISE), DIAMETER AS NOTED

DESCRIPTIONS

PARCEL 012301-3-125-2001
 RESULTANT PARCEL B OF BOUNDARY LINE ADJUSTMENT RECORDED UNDER AUDITOR'S FILE No. 200511180443, BEING A PORTION OF THE NORTHWEST QUARTER OF THE SOUTHWEST QUARTER, SECTION 1, TOWNSHIP 23 NORTH, RANGE 1 EAST, W.M., IN KITSAP COUNTY, WASHINGTON, DESCRIBED AS FOLLOWS:
 THAT PORTION OF THE NORTHWEST QUARTER OF THE SOUTHWEST QUARTER OF SECTION 1, TOWNSHIP 23 NORTH, RANGE 1 EAST, W.M., MORE PARTICULARLY DESCRIBED AS FOLLOWS: BEGINNING AT A POINT 413.26 FEET SOUTH OF THE NORTHWEST CORNER OF THE NORTHWEST QUARTER OF THE SOUTHWEST QUARTER OF SECTION 1, TOWNSHIP 23 NORTH, RANGE 1 EAST W.M.;
 THENCE SOUTH 88°31' EAST 80 RODS MORE OR LESS TO THE EAST LINE OF SAID NORTHWEST QUARTER OF THE SOUTHWEST QUARTER;
 THENCE SOUTH 45 RODS MORE OR LESS TO A POINT WHICH IS 165 FEET NORTH OF THE SOUTHEAST CORNER OF THE SAID NORTHWEST QUARTER OF THE SOUTHWEST QUARTER; THENCE WEST PARALLEL WITH THE SOUTH LINE OF SAID NORTHWEST QUARTER OF THE SOUTHWEST QUARTER TO A POINT 649 FEET EAST OF THE WEST LINE OF SAID NORTHWEST QUARTER OF THE SOUTHWEST QUARTER;
 THENCE NORTH 0°36'30" EAST 10 FEET;
 THENCE NORTH 89°20' WEST TO THE WEST LINE OF SAID NORTHWEST QUARTER OF THE SOUTHWEST QUARTER;
 THENCE NORTH 45 RODS MORE OR LESS TO THE POINT OF BEGINNING;
 EXCEPT A STRIP OF LAND 30 FEET WIDE CONVEYED TO THE STATE OF WASHINGTON FOR ROAD PURPOSES ON THE WEST SIDE OF SAID TRACT;
 AND EXCEPT THE SOUTH 175 FEET OF THE WEST 260 FEET OF THE ABOVE DESCRIBED TRACT LYING EAST OF THE 30 FOOT WIDE STRIP CONVEYED TO THE STATE OF WASHINGTON FOR ROAD PURPOSES.
 PARCEL 012301-3-017-2002
 THAT PORTION OF THE NORTHWEST QUARTER OF THE SOUTHWEST QUARTER OF SECTION 1, TOWNSHIP 23 NORTH, RANGE 1 EAST, W.M., MORE PARTICULARLY DESCRIBED AS FOLLOWS: BEGINNING AT A POINT WHICH IS SOUTH 89°12' EAST, 912.4 FEET FROM THE WEST QUARTER CORNER OF SAID SECTION 1;
 THENCE SOUTH 89°12' EAST, 208.2 FEET;
 THENCE SOUTH 0°36' WEST, 425.31 FEET;
 THENCE NORTH 88°31' WEST, 208.2 FEET;
 THENCE NORTH 0°36' EAST, 422.96 FEET TO THE POINT OF BEGINNING;
 EXCEPT S.E. SALMONBERRY ROAD.

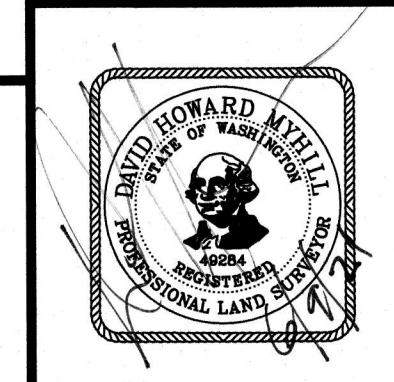
NOTES:

1. BASIS OF BEARINGS: THE WEST LINE OF THE SOUTHWEST QUARTER OF SECTION 1, TOWNSHIP 23 NORTH, RANGE 1 EAST, W.M., BEARS NORTH 1°42'11" E PER SURVEY, VOL. 66, PAGE 158, AFN 200608100061, RECORDS OF KITSAP COUNTY, WASHINGTON.
2. THE KITSAP COUNTY, WASHINGTON, FLOOD INSURANCE RATE MAP (PANEL No. 530092 0315 B) PUBLISHED BY THE U.S. DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT (EFFECTIVE DATE: MAY 15, 1980) DESIGNATES THE SUBJECT PARCELS AS LYING WITHIN A ZONE 'C' AREA (AN AREA OF MINIMAL FLOODING).
3. THIS PROPERTY IS SUBJECT TO AN EASEMENT, GRANTED TO PUGET SOUND POWER AND LIGHT Co., RECORDED SEPT. 10, 1993, UNDER AUDITOR'S FILE No. 9309100145.
4. THE LOCATION OF UNDERGROUND UTILITIES ARE NOT SHOWN OR ARE SHOWN IN APPROXIMATE LOCATIONS ONLY BASED UPON TIES TO SURFACE STRUCTURES. BEFORE ANY CONSTRUCTION ACTIVITIES OCCUR IT WILL BE NECESSARY TO CONTACT THE LOCAL LOCATE SERVICE FOR UTILITY LOCATIONS.
5. THE SANITARY SEWER INVERT ELEVATIONS ALONG BETHEL ROAD WERE PROVIDED BY KARCHER CREEK SEWER DISTRICT FOR ALTA SURVEY BY N.L. OLSON AND ASSOCIATES IN JUNE 2006.
6. CONTOUR DATA IS BASED ON FIELD SURVEY BY N.L. OLSON AND ASSOCIATES IN MAY 2006 AND JANUARY AND DECEMBER 2020. THE EXPECTED CONTOUR ACCURACY IS ONE-HALF THE CONTOUR INTERVAL.
7. REFERENCES: ALL RECORDS OF KITSAP COUNTY AUDITOR;
 A. STATUTORY WARRANTY DEEDS AFN 201412150228 AND 201908080162
 B. BOUNDARY LINE ADJUSTMENT AFN 200511180443
 C. SURVEYS AFN 200608100061 AND 201707280255



REVISIONS				BY	DATE
NO.	DATE	BY	DESCRIPTION		
				DESIGNED	
				DRAWN	DGP 1/2021
				CHECKED	DHM 1/2021
				APPROVED	
				ACCEPTED	

N.L. Olson & Associates, Inc.
 Engineering, Planning and Surveying
 (360) 876-2284
 2453 Bethel Avenue, P.O. Box 637, Port Orchard, WA 98366



TOPOGRAPHIC SURVEY SHEET 2
HIDDEN HILLS APARTMENTS
LAND DEVELOPMENT ACTIVITY PERMIT
 Portion of the Northwest Quarter of the Southeast Quarter Section 1,
 Township 23 North, Range 1 East, W.M. in Kitsap County, Washington

FOR: **James He**
 4332 Bethel Road SE
 Port Orchard, WA 98366
 Phone: (360) 874-9966

SCALE: 1"=50'
 DATE: June 9, 2021
 PROJECT NUMBER:
19-10959
 SHEET C2.10

NOTE

THE APPROXIMATE LOCATION OF EXISTING UNDERGROUND UTILITIES ARE SHOWN ON THE PLANS. IT IS THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE THE LOCATION OF EXISTING UTILITIES PRIOR TO COMMENCING WORK. THE CONTRACTOR SHALL BE RESPONSIBLE FOR DAMAGES THAT MIGHT BE OCCASIONED BY THE CONTRACTOR'S FAILURE TO LOCATE, PRESERVE AND PROTECT UNDERGROUND UTILITIES.

CALL 48 HOURS BEFORE YOU DIG 811

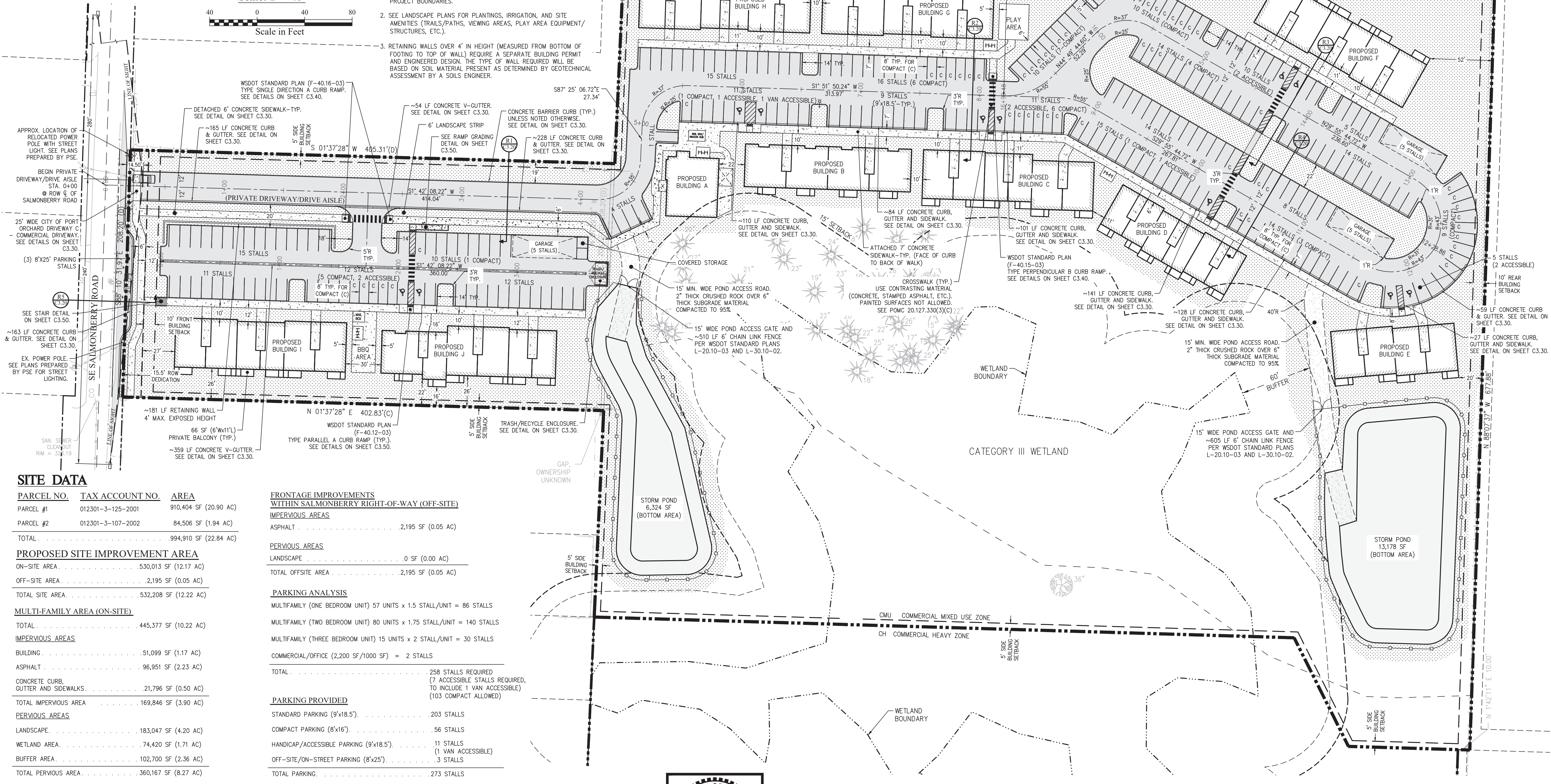
Scale: 1"=40'

Scale in Feet

SIGHT DISTANCE CALCULATION:

DESIGN SPEED: 25 MPH
 SIGHT DISTANCE LEFT TURN: 280 FT
 SIGHT DISTANCE CROSSING/RIGHT TURN: 240 FT
 (FROM AASHTO MANUAL TABLE III-2):
 ROADWAY GRADE (CROSSING/RIGHT TURN): ~2%
 ROADWAY GRADE (LEFT TURN): ~2%

- NOTES:**
- NO KNOWN FUEL STORAGE TANKS, WELLS, SEPTIC SYSTEMS, TANKS AND/OR DRAINFIELDS ARE LOCATED ON-SITE OR WITHIN 100' OF PROJECT BOUNDARIES.
 - SEE LANDSCAPE PLANS FOR PLANTINGS, IRRIGATION, AND SITE AMENITIES (TRAILS/PATHS, VIEWING AREAS, PLAY AREA EQUIPMENT/STRUCTURES, ETC.).
 - RETAINING WALLS OVER 4' IN HEIGHT (MEASURED FROM BOTTOM OF FOOTING TO TOP OF WALL) REQUIRE A SEPARATE BUILDING PERMIT AND ENGINEERED DESIGN. THE TYPE OF WALL REQUIRED WILL BE BASED ON SOIL MATERIAL PRESENT AS DETERMINED BY GEOTECHNICAL ASSESSMENT BY A SOILS ENGINEER.



SITE DATA

PARCEL NO.	TAX ACCOUNT NO.	AREA
PARCEL #1	012301-3-125-2001	910,404 SF (20.90 AC)
PARCEL #2	012301-3-107-2002	84,506 SF (1.94 AC)
TOTAL		994,910 SF (22.84 AC)

PROPOSED SITE IMPROVEMENT AREA

ON-SITE AREA	530,013 SF (12.17 AC)
OFF-SITE AREA	2,195 SF (0.05 AC)
TOTAL SITE AREA	532,208 SF (12.22 AC)

MULTI-FAMILY AREA (ON-SITE)

TOTAL	445,377 SF (10.22 AC)
--------------	------------------------------

IMPERVIOUS AREAS

BUILDING	51,099 SF (1.17 AC)
ASPHALT	96,951 SF (2.23 AC)
CONCRETE CURB, GUTTER AND SIDEWALKS	21,796 SF (0.50 AC)
TOTAL IMPERVIOUS AREA	169,846 SF (3.90 AC)

PERVIOUS AREAS

LANDSCAPE	183,047 SF (4.20 AC)
WETLAND AREA	74,420 SF (1.71 AC)
BUFFER AREA	102,700 SF (2.36 AC)
TOTAL PERVIOUS AREA	360,167 SF (8.27 AC)

FRONTAGE IMPROVEMENTS WITHIN SALMONBERRY RIGHT-OF-WAY (OFF-SITE)

IMPERVIOUS AREAS

ASPHALT	2,195 SF (0.05 AC)
---------	--------------------

PERVIOUS AREAS

LANDSCAPE	0 SF (0.00 AC)
TOTAL OFFSITE AREA	2,195 SF (0.05 AC)

PARKING ANALYSIS

MULTIFAMILY (ONE BEDROOM UNIT) 57 UNITS x 1.5 STALL/UNIT	= 86 STALLS
MULTIFAMILY (TWO BEDROOM UNIT) 80 UNITS x 1.75 STALL/UNIT	= 140 STALLS
MULTIFAMILY (THREE BEDROOM UNIT) 15 UNITS x 2 STALL/UNIT	= 30 STALLS
COMMERCIAL/OFFICE (2,200 SF/1000 SF)	= 2 STALLS
TOTAL	258 STALLS REQUIRED (7 ACCESSIBLE STALLS REQUIRED, TO INCLUDE 1 VAN ACCESSIBLE) (103 COMPACT ALLOWED)

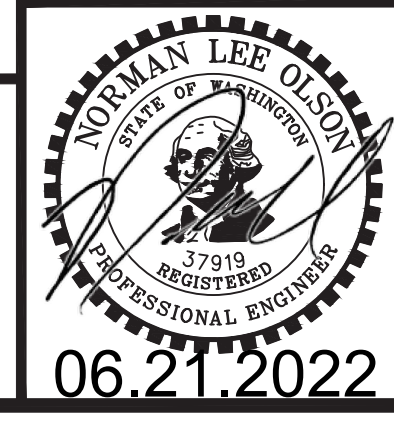
PARKING PROVIDED

STANDARD PARKING (9'x18.5')	203 STALLS
COMPACT PARKING (8'x16')	56 STALLS
HANDICAP/ACCESSIBLE PARKING (9'x18.5')	11 STALLS (1 VAN ACCESSIBLE)
OFF-SITE/ON-STREET PARKING (8'x25')	3 STALLS
TOTAL PARKING	273 STALLS

REVISIONS

NO.	DATE	BY	DESCRIPTION	DESIGNED	DATE
1	05/26/22	JFK	PLAN REVISED PER CITY OF PORT ORCHARD COMMENTS DATED 03/29/2022.	JFK	9/21
				AUE	9/21
				NLOII	9/21

N.L. Olson & Associates, Inc.
 Engineering, Planning and Surveying
 (360) 876-2284
 2453 Bethel Avenue, P.O. Box 637, Port Orchard, WA 98366

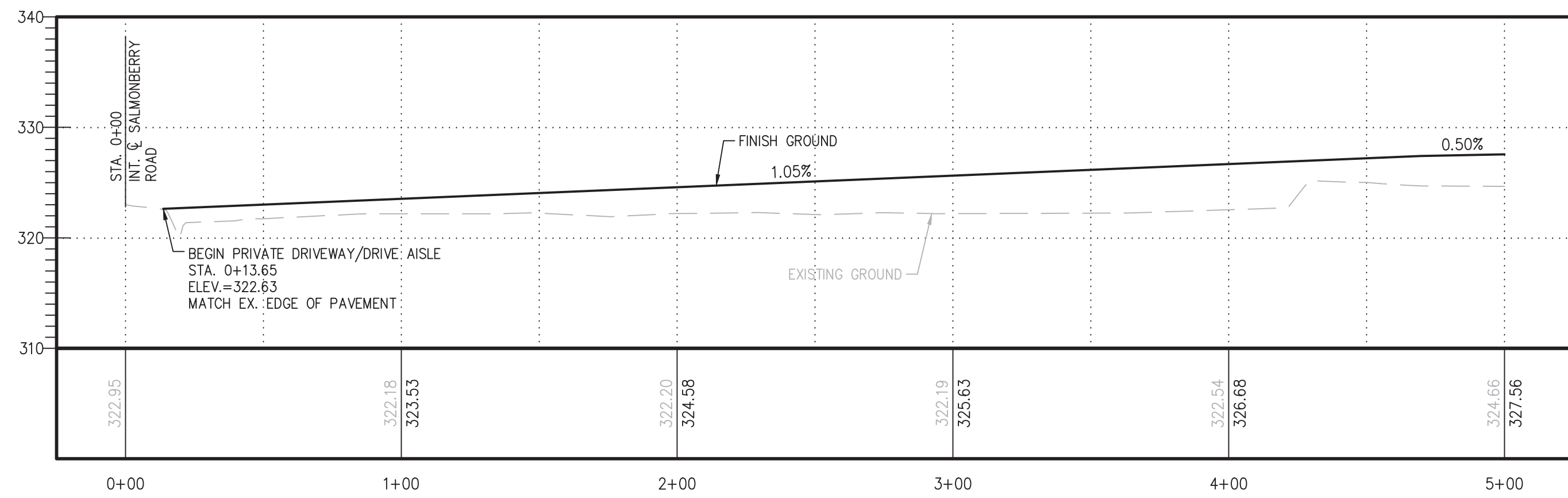


SITE PLAN
HIDDEN HILLS APARTMENTS
LAND DEVELOPMENT ACTIVITY PERMIT
 Portion of the Northwest Quarter of the Southeast Quarter Section 1,
 Township 23 North, Range 1 East, W.M. in Kitsap County, Washington

FOR: HE DEVELOPMENT, LLC
 Attn: James He
 4631 SE Bakken Court
 Port Orchard, WA 98366
 Phone: (360) 874-9966

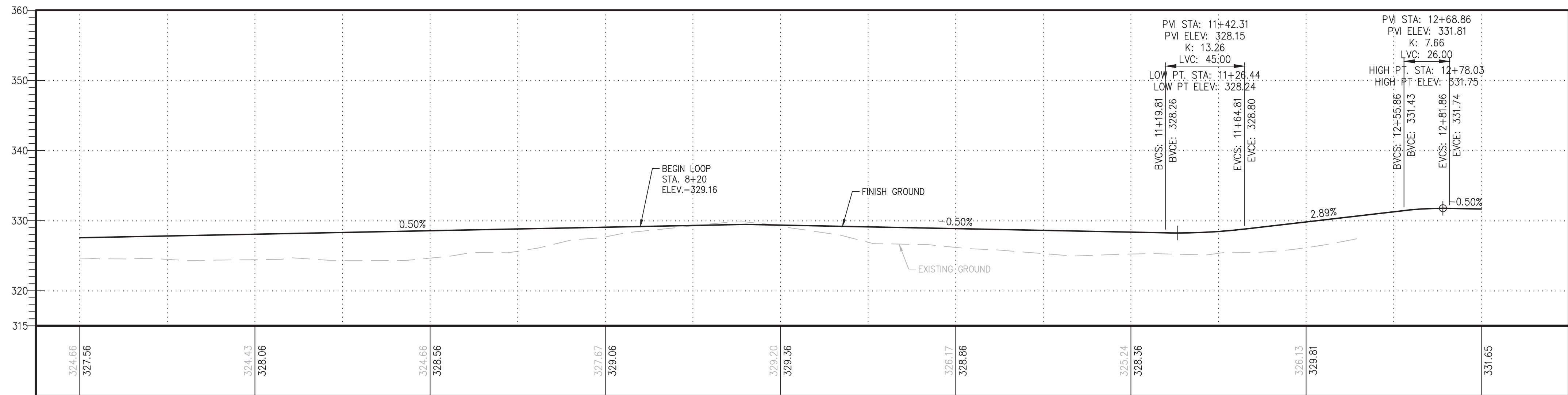
SCALE: 1"=40'
 DATE: June 21, 2022
 PROJECT NUMBER:
19-10959
 SHEET C3.00

I:\Users\james.he\OneDrive\Documents\19-10959\19-10959-10-SITE PLAN & ROAD PROFILE.dwg, 6/21/2022, 2:37:19 PM, A:\he



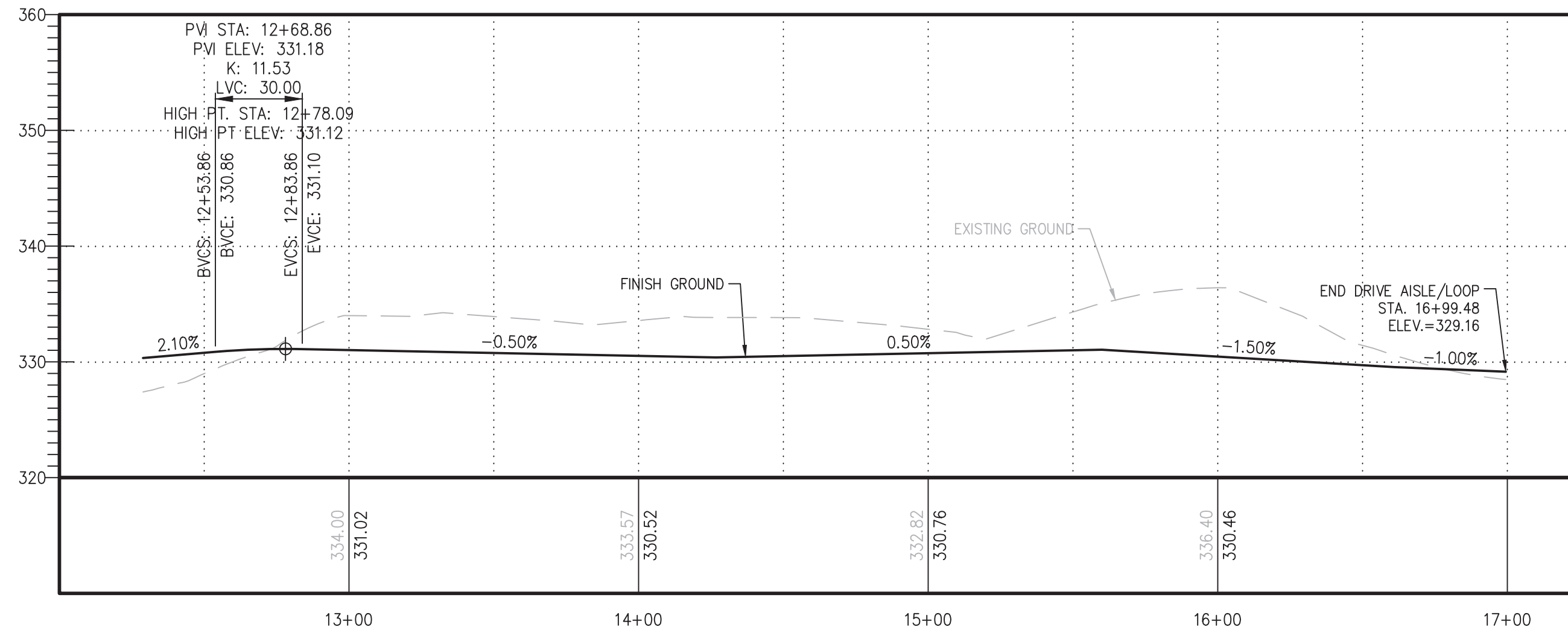
PRIVATE DRIVEWAY/DRIVE AISLE PROFILE - STA. 0+00 - 5+00

SCALE: HORZ: 1"=40'
VERT: 1"=10'



DRIVE AISLE PROFILE - STA. 5+00 - 12+28.86

SCALE: HORZ: 1"=40'
VERT: 1"=10'



DRIVE AISLE PROFILE - STA. 12+28.86 - 16+99.48

SCALE: HORZ: 1"=40'
VERT: 1"=10'

NOTE

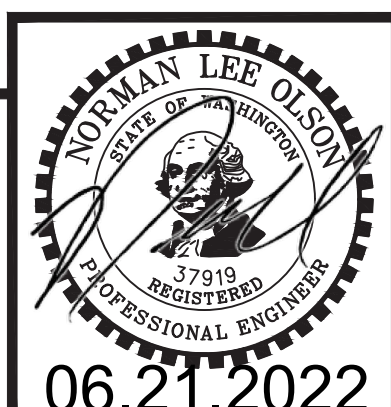
THE APPROXIMATE LOCATION OF EXISTING UNDERGROUND UTILITIES ARE SHOWN ON THE PLANS. IT IS THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE THE LOCATION OF EXISTING UTILITIES PRIOR TO COMMENCING WORK. THE CONTRACTOR SHALL BE RESPONSIBLE FOR DAMAGES THAT MIGHT BE OCCASIONED BY THE CONTRACTOR'S FAILURE TO LOCATE, PRESERVE AND PROTECT UNDERGROUND UTILITIES.

**CALL 48 HOURS
BEFORE YOU DIG
811**

REVISIONS

NO.	DATE	BY	DESCRIPTION	DESIGNED	BY	DATE
1	05/26/22	JFK	PLAN REVISED PER CITY OF PORT ORCHARD COMMENTS DATED 03/29/2022.	JFK	JFK	9/21
				AUE	AUE	9/21
				NLOII	NLOII	9/21

N.L.Olson & Associates, Inc.
Engineering, Planning and Surveying
(360) 876-2284
2453 Bethel Avenue, P.O. Box 637, Port Orchard, WA 98366

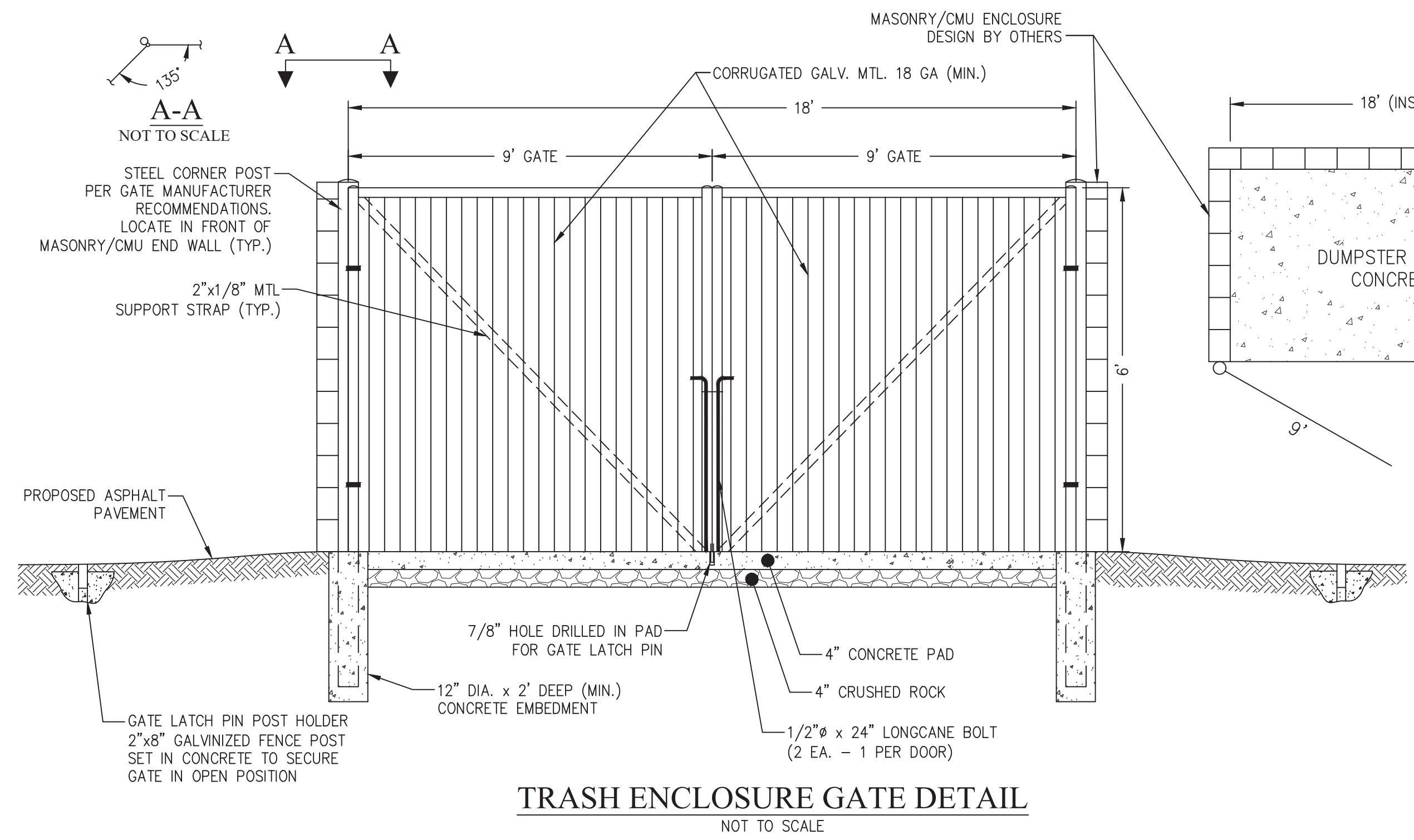


DRIVE AISLE PROFILE
HIDDEN HILLS APARTMENTS
LAND DEVELOPMENT ACTIVITY PERMIT
Portion of the Northwest Quarter of the Southeast Quarter Section 1,
Township 23, Range 1 East, W.M. in Kitsap County, Washington

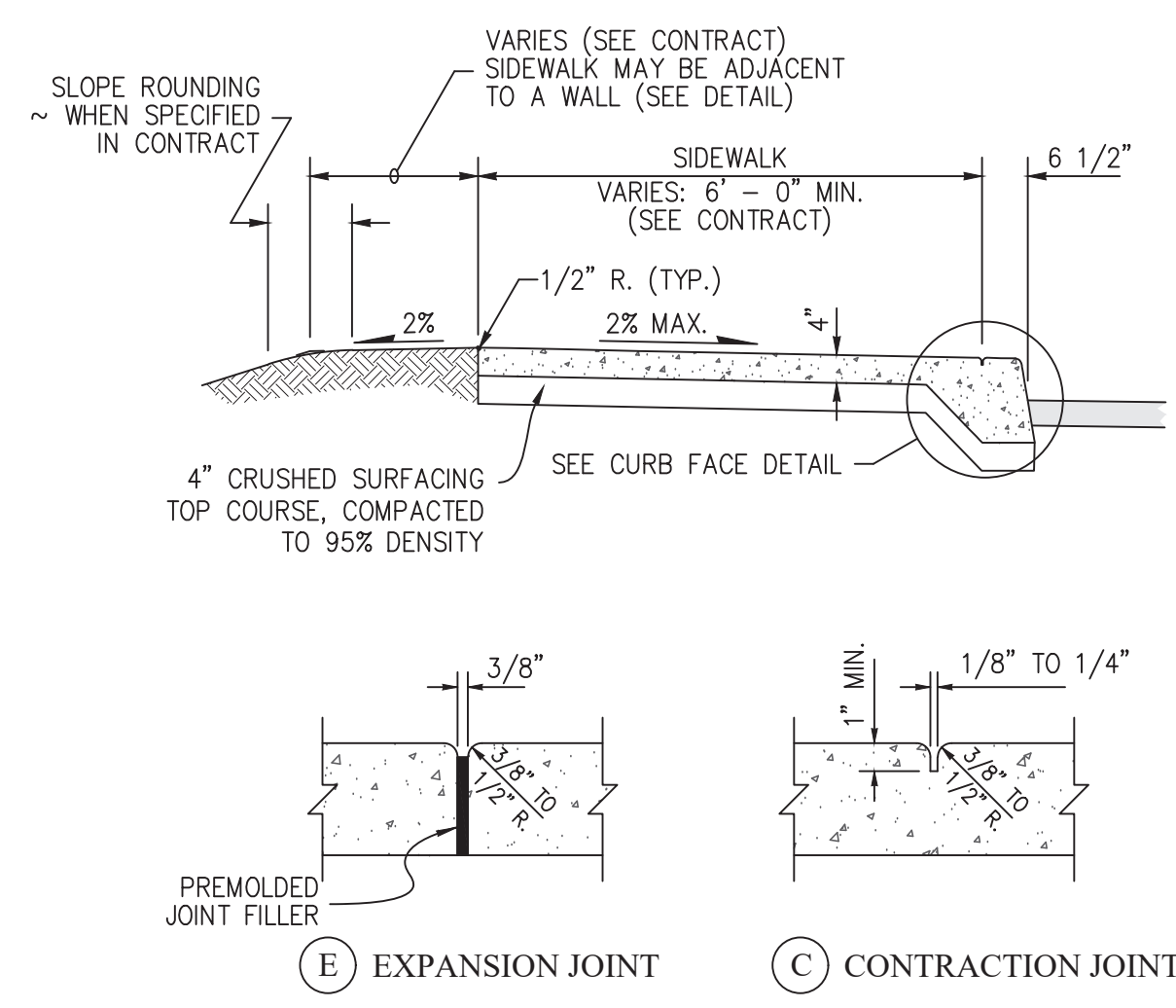
FOR: **HE DEVELOPMENT, LLC**
Attn: James He
4631 SE Bakken Court
Port Orchard, WA 98366
Phone: (360) 874-9966

SCALE: AS SHOWN
DATE: June 21, 2022
PROJECT NUMBER: 19-10959
SHEET C3.10

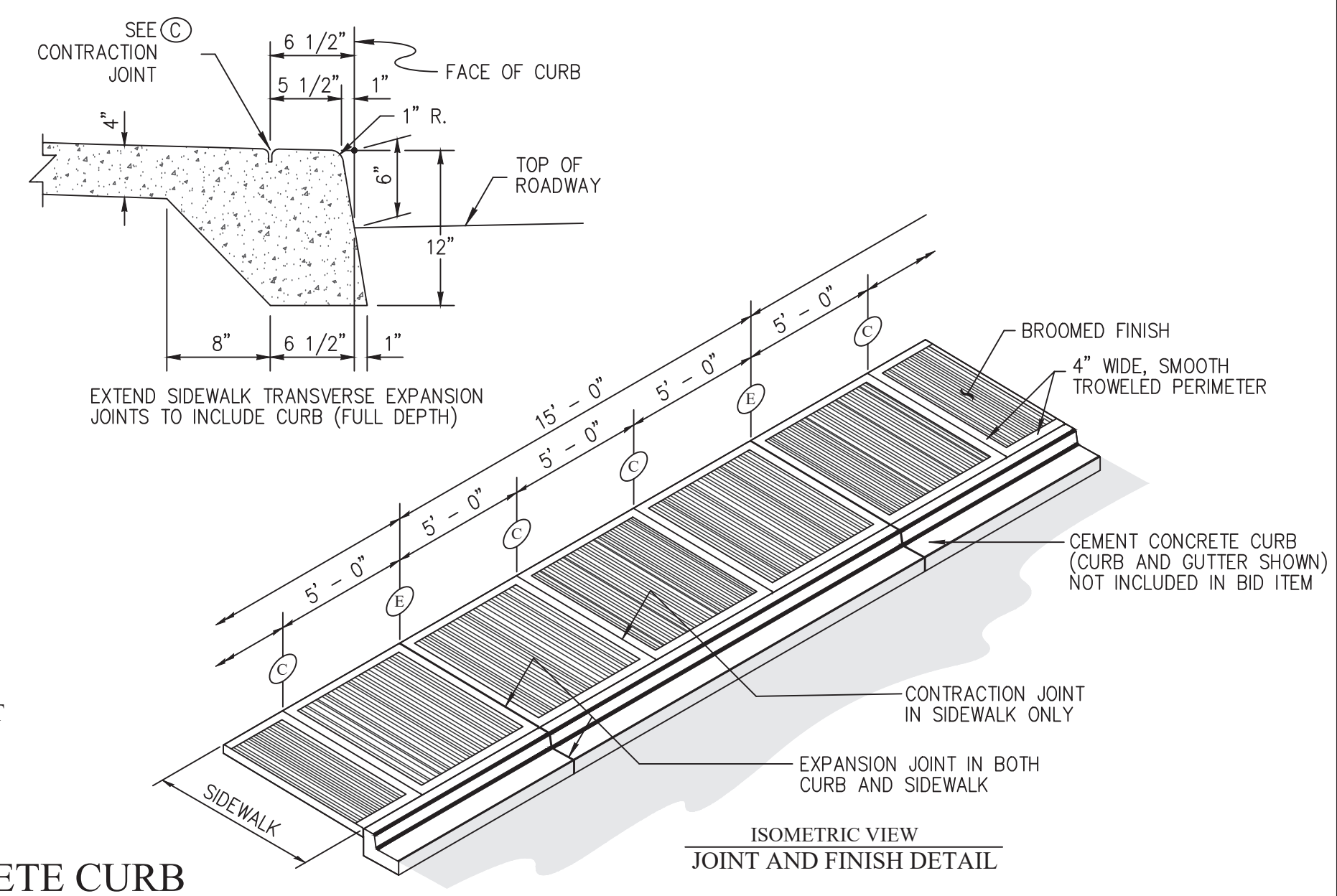
I:\envr\hnt\AutoCAD\Projects\10959\10959.DAT\10959_C3.10 SITE PLAN & ROAD PROFILE 2.dwg, 6/21/2022 10:04:23 AM, ALE:ebp



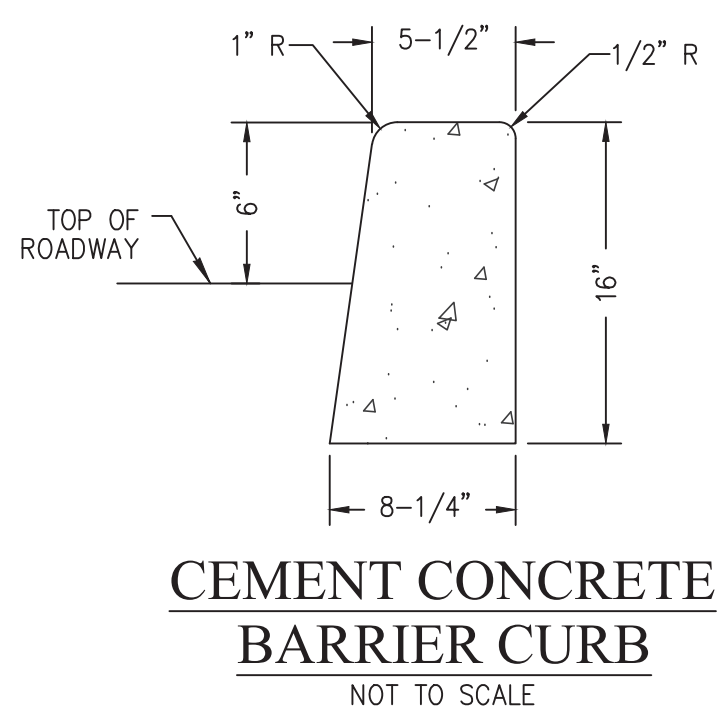
TRASH ENCLOSURE GATE DETAIL
NOT TO SCALE



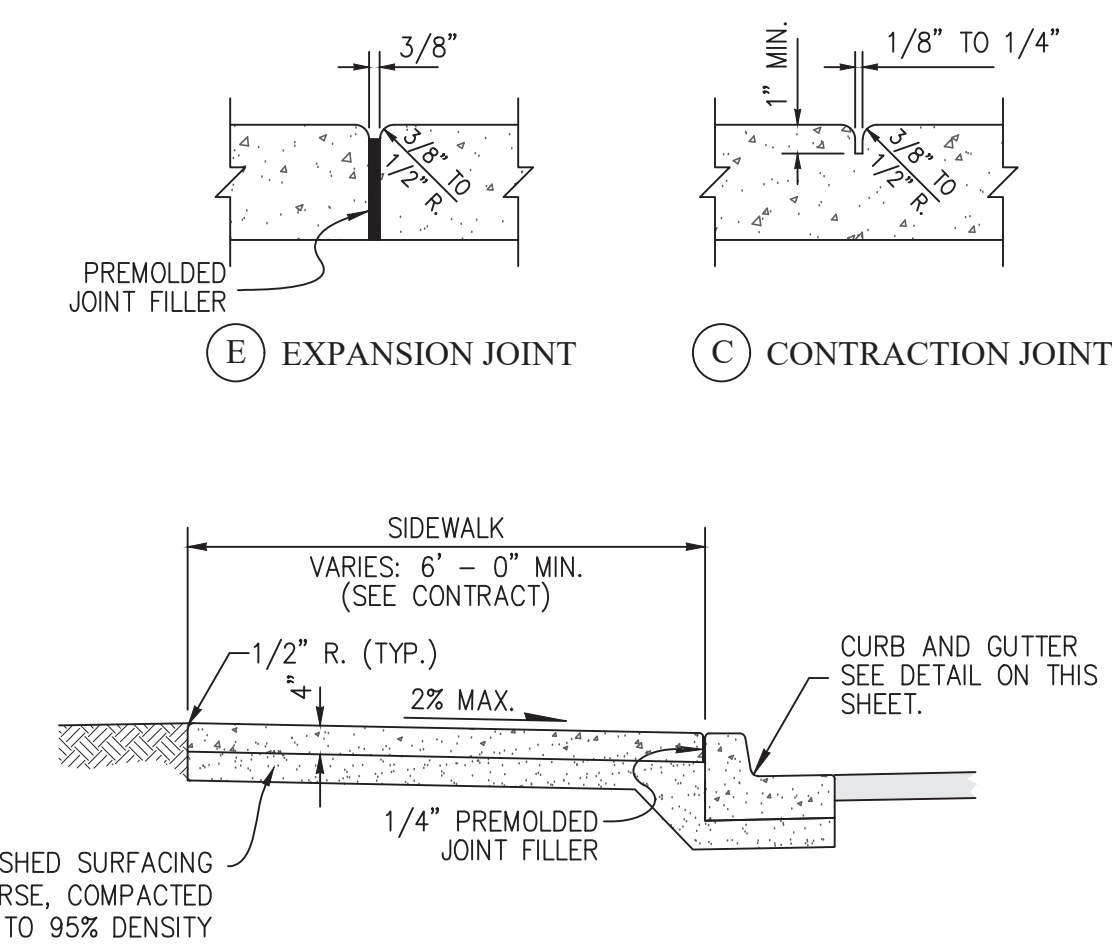
MONOLITHIC CEMENT CONCRETE CURB AND SIDEWALK
NOT TO SCALE



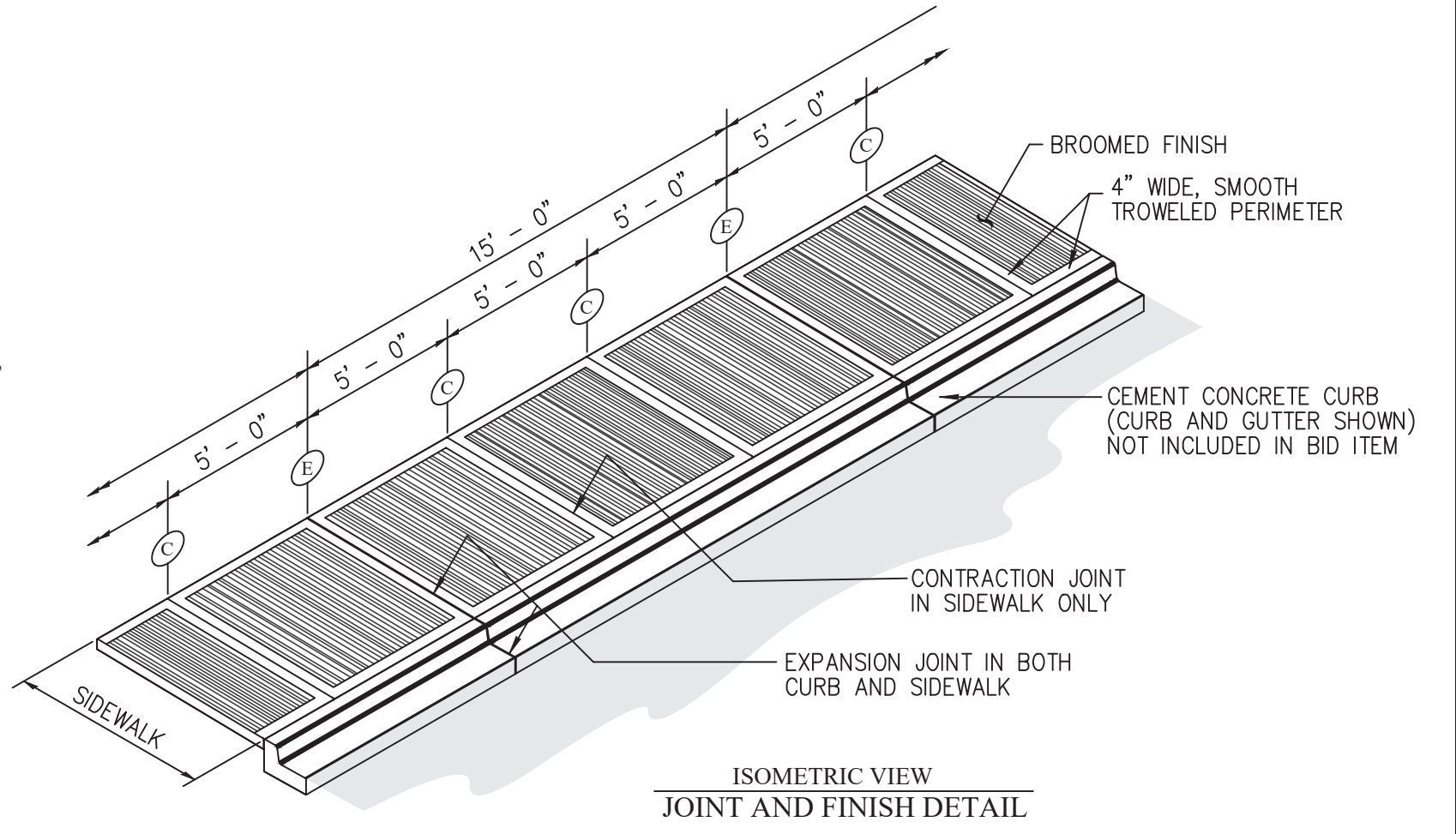
CEMENT CONCRETE CURB, GUTTER, AND SIDEWALK
NOT TO SCALE



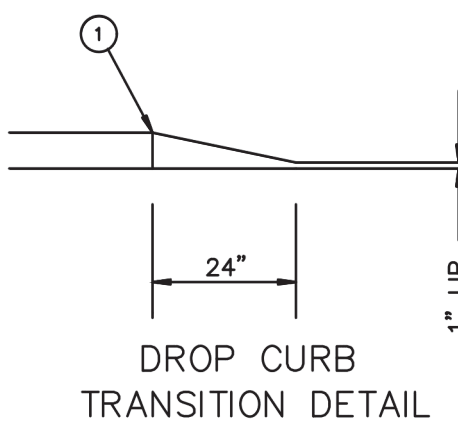
CEMENT CONCRETE BARRIER CURB
NOT TO SCALE



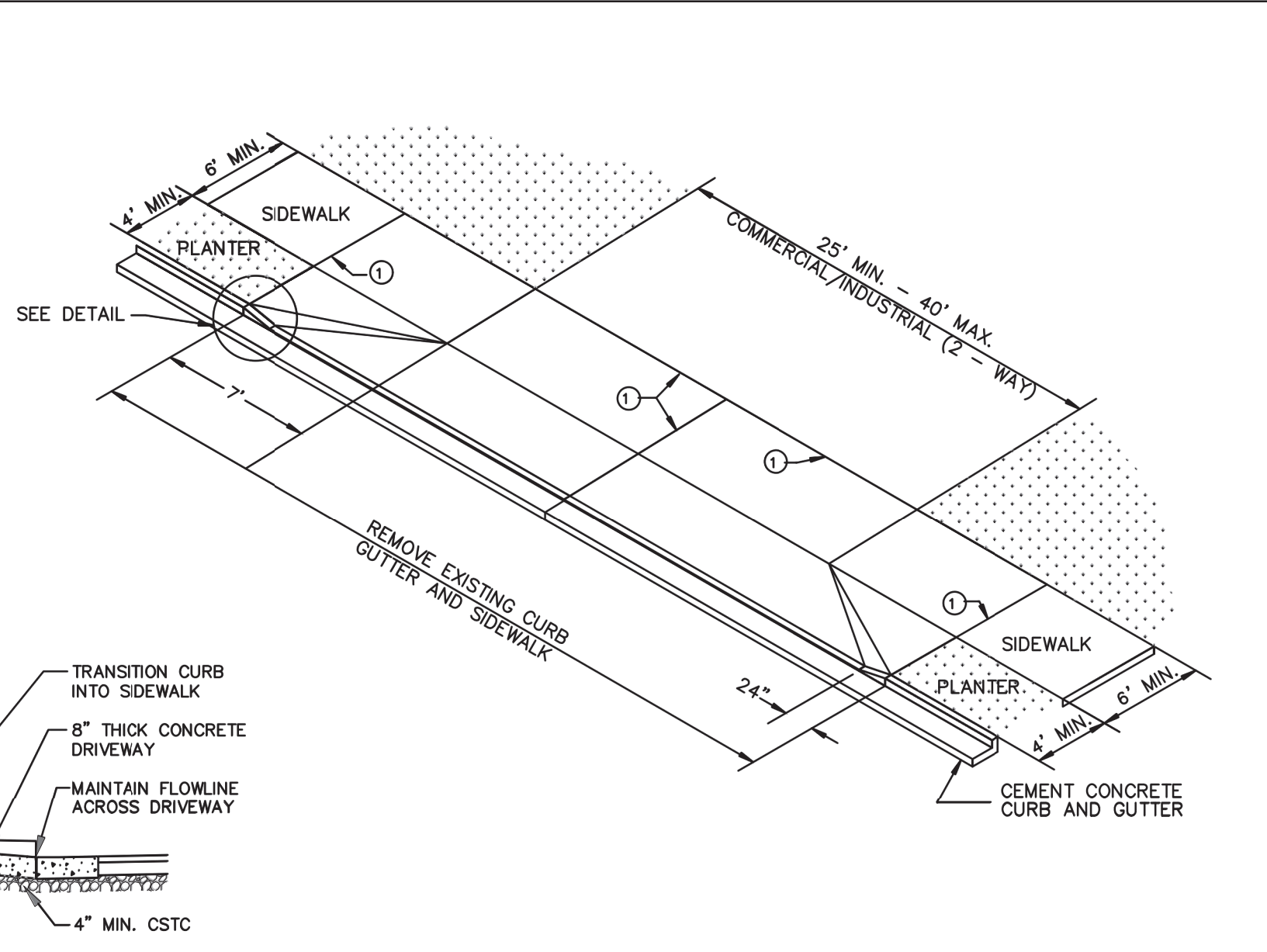
CEMENT CONCRETE TRAFFIC CURB AND GUTTER
NOT TO SCALE



CONCRETE V-GUTTER DETAIL
NOT TO SCALE



DROP CURB TRANSITION DETAIL



SECTION A-A

- NOTES:**
- FULL DEPTH EXPANSION JOINT, 3/8" MINIMUM THICKNESS.
 - DRIVEWAY SECTION WITHIN PUBLIC RIGHT-OF-WAY IS TO BE SURFACED WITH ASPHALT OR CONCRETE.
 - DRIVEWAY CEMENT CONCRETE DEPTH SHALL BE A MINIMUM OF 6" AND PLACED ON COMPACTED GRADE. DEPENDING ON VEHICLE LOADING, A STRUCTURAL DESIGN OF THE DRIVEWAY MAY BE REQUIRED BY THE ENGINEER.
 - CONCRETE SHALL BE COMMERCIAL CLASS CONCRETE PER WSDOT/APWA SPECIFICATIONS.
 - CLEAN AND EDGE ALL JOINTS.
 - COMMERCIAL AND INDUSTRIAL ACCESS WIDTHS SHOWN ARE FOR TWO-WAY ACCESS ONTO NON-ARTERIALS. MINIMUM WIDTH FOR ACCESS ONTO ARTERIALS IS 35 FEET.



DRIVEWAYS C
COMMERCIAL DRIVEWAY

DRAWN BY	IDS
DATE	1/31/2019
SCALE	NTS
DRAWING NUMBER	322

REVISIONS

NO.	DATE	BY	DESCRIPTION	DESIGNED	JFK	DATE
1	05/26/22	JFK	PLAN REVISED PER CITY OF PORT ORCHARD COMMENTS DATED 03/29/2022.	DRAWN	AUE	9/21
				CHECKED	NLOII	9/21
				APPROVED		
				ACCEPTED		

N.L. Olson & Associates, Inc.
Engineering, Planning and Surveying
(360) 876-2284
2453 Bethel Avenue, P.O. Box 637, Port Orchard, WA 98366



SITE DETAILS

HIDDEN HILLS APARTMENTS
LAND DEVELOPMENT ACTIVITY PERMIT
Portion of the Northwest Quarter of the Southeast Quarter Section 1,
Township 23, Range 1 East, W.M. in Kitsap County, Washington

FOR: **HE DEVELOPMENT, LLC**

Attn: James He
4631 SE Bakken Court
Port Orchard, WA 98366
Phone: (360) 874-9966

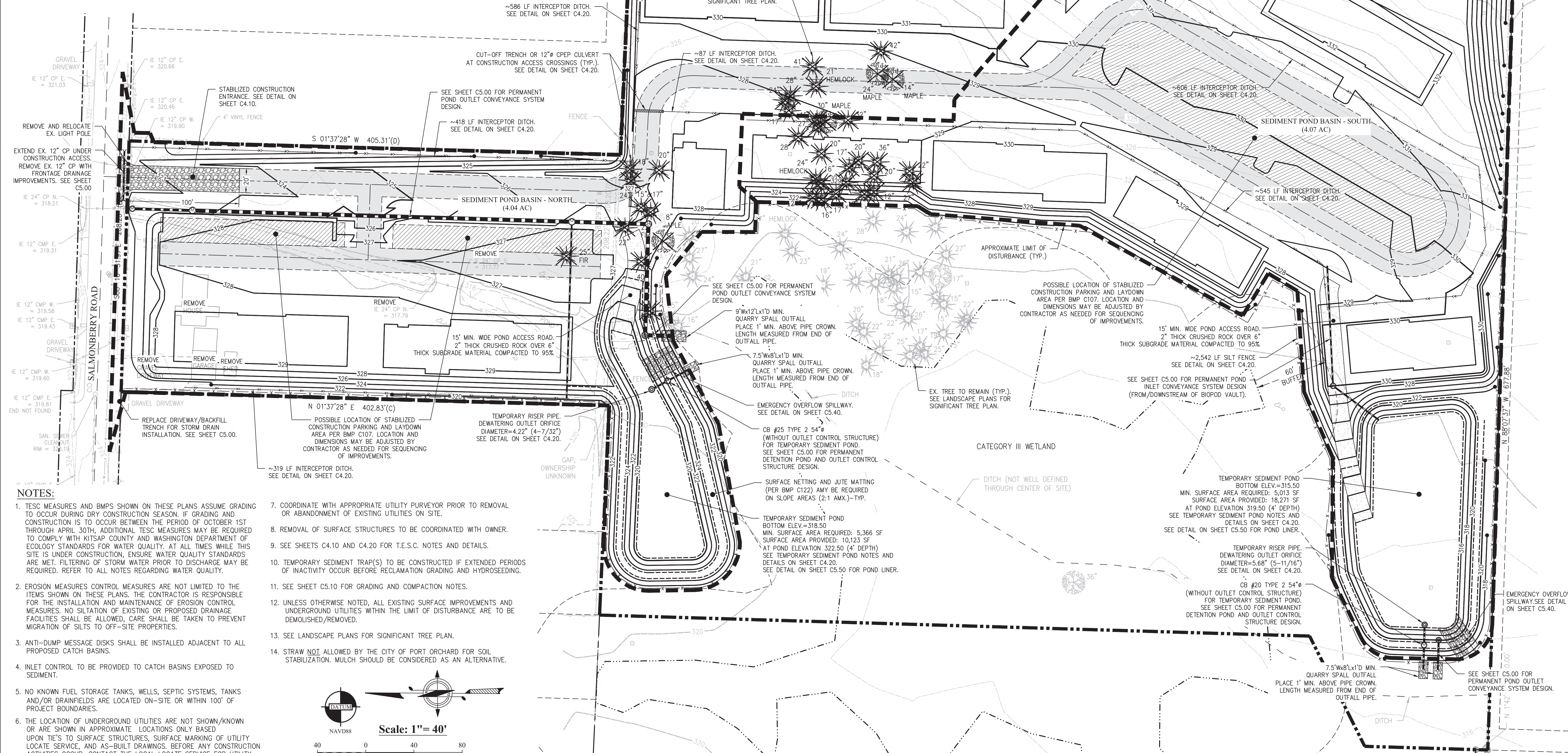
SCALE:	AS SHOWN
DATE:	June 21, 2022
PROJECT NUMBER:	19-10959
SHEET	C3.30

I:\env\port\atmic\cad\Project\10959\10959_10959_10959_C3.30_C3.30_SITE SECTIONS-DETAILS.dwg, 6/21/2022 10:06:58 AM, Alezio

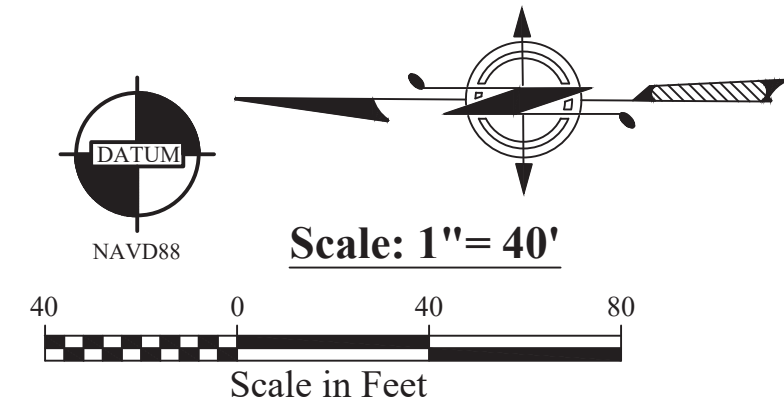
NOTE

THE APPROXIMATE LOCATION OF EXISTING UNDERGROUND UTILITIES ARE SHOWN ON THE PLANS. IT IS THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE THE LOCATION OF EXISTING UTILITIES PRIOR TO COMMENCING WORK. THE CONTRACTOR SHALL BE RESPONSIBLE FOR DAMAGES THAT MIGHT BE OCCASIONED BY THE CONTRACTOR'S FAILURE TO LOCATE, PRESERVE AND PROTECT UNDERGROUND UTILITIES.

CALL 48 HOURS BEFORE YOU DIG 811

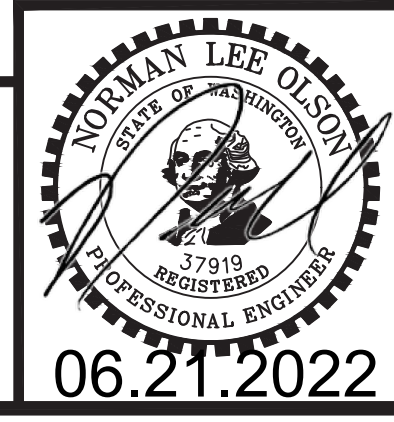


- NOTES:**
1. T.E.S.C MEASURES AND BMPs SHOWN ON THESE PLANS ASSUME GRADING TO OCCUR DURING DRY CONSTRUCTION SEASON. IF GRADING AND CONSTRUCTION IS TO OCCUR BETWEEN THE PERIOD OF OCTOBER 1ST THROUGH APRIL 30TH, ADDITIONAL T.E.S.C MEASURES MAY BE REQUIRED TO COMPLY WITH KITSAP COUNTY AND WASHINGTON DEPARTMENT OF ECOLOGY STANDARDS FOR WATER QUALITY. AT ALL TIMES WHILE THIS SITE IS UNDER CONSTRUCTION, ENSURE WATER QUALITY STANDARDS ARE MET. FILTERING OF STORM WATER PRIOR TO DISCHARGE MAY BE REQUIRED. REFER TO ALL NOTES REGARDING WATER QUALITY.
 2. EROSION MEASURES CONTROL MEASURES ARE NOT LIMITED TO THE ITEMS SHOWN ON THESE PLANS. THE CONTRACTOR IS RESPONSIBLE FOR THE INSTALLATION AND MAINTENANCE OF EROSION CONTROL MEASURES. NO SILTATION OF EXISTING OR PROPOSED DRAINAGE FACILITIES SHALL BE ALLOWED. CARE SHALL BE TAKEN TO PREVENT MIGRATION OF SILTS TO OFF-SITE PROPERTIES.
 3. ANTI-DUMP MESSAGE DISKS SHALL BE INSTALLED ADJACENT TO ALL PROPOSED CATCH BASINS.
 4. INLET CONTROL TO BE PROVIDED TO CATCH BASINS EXPOSED TO SEDIMENT.
 5. NO KNOWN FUEL STORAGE TANKS, WELLS, SEPTIC SYSTEMS, TANKS AND/OR DRAINFIELDS ARE LOCATED ON-SITE OR WITHIN 100' OF PROJECT BOUNDARIES.
 6. THE LOCATION OF UNDERGROUND UTILITIES ARE NOT SHOWN/KNOWN OR ARE SHOWN IN APPROXIMATE LOCATIONS ONLY BASED UPON TIE'S TO SURFACE STRUCTURES, SURFACE MARKING OF UTILITY LOCATE SERVICE, AND AS-BUILT DRAWINGS. BEFORE ANY CONSTRUCTION ACTIVITIES OCCUR, CONTACT THE LOCAL LOCATE SERVICE FOR UTILITY LOCATIONS.
 7. COORDINATE WITH APPROPRIATE UTILITY PURVEYOR PRIOR TO REMOVAL OR ABANDONMENT OF EXISTING UTILITIES ON SITE.
 8. REMOVAL OF SURFACE STRUCTURES TO BE COORDINATED WITH OWNER.
 9. SEE SHEETS C4.10 AND C4.20 FOR T.E.S.C. NOTES AND DETAILS.
 10. TEMPORARY SEDIMENT TRAP(S) TO BE CONSTRUCTED IF EXTENDED PERIODS OF INACTIVITY OCCUR BEFORE RECLAMATION GRADING AND HYDROSEEDING.
 11. SEE SHEET C5.10 FOR GRADING AND COMPACTION NOTES.
 12. UNLESS OTHERWISE NOTED, ALL EXISTING SURFACE IMPROVEMENTS AND UNDERGROUND UTILITIES WITHIN THE LIMIT OF DISTURBANCE ARE TO BE DEMOLISHED/REMOVED.
 13. SEE LANDSCAPE PLANS FOR SIGNIFICANT TREE PLAN.
 14. STRAW NOT ALLOWED BY THE CITY OF PORT ORCHARD FOR SOIL STABILIZATION. MULCH SHOULD BE CONSIDERED AS AN ALTERNATIVE.



REVISIONS				BY	DATE	
NO.	DATE	BY	DESCRIPTION	DESIGNED	JFK	9/21
1	05/26/22	JFK	PLAN REVISED PER CITY OF PORT ORCHARD COMMENTS DATED 03/29/2022.	DRAWN	AUE	9/21
				CHECKED	NLOII	9/21
				APPROVED		
				ACCEPTED		

N.L. Olson & Associates, Inc.
 Engineering, Planning and Surveying
 (360) 876-2284
 2453 Bethel Avenue, P.O. Box 637, Port Orchard, WA 98366



T.E.S.C AND DEMOLITION PLAN
HIDDEN HILLS APARTMENTS
LAND DEVELOPMENT ACTIVITY PERMIT
 Portion of the Northwest Quarter of the Southeast Quarter Section 1,
 Township 23, Range 1 East, W.M. in Kitsap County, Washington

FOR: **HE DEVELOPMENT, LLC**
 Attn: James He
 4631 SE Bakken Court
 Port Orchard, WA 98366
 Phone: (360) 874-9966

SCALE: 1"=40'
 DATE: June 21, 2022
 PROJECT NUMBER:
19-10959
 SHEET C4.00

GENERAL EROSION AND SEDIMENTATION CONTROL (ESC) NOTES

THE FOLLOWING EROSION AND SEDIMENTATION CONTROL NOTES APPLY TO ALL CONSTRUCTION SITE ACTIVITIES AT ALL TIMES, UNLESS OTHERWISE SPECIFIED ON THESE PLANS:

- APPROVAL OF THIS EROSION AND SEDIMENTATION CONTROL PLAN DOES NOT CONSTITUTE AN ACCEPTANCE OF THE PERMANENT ROAD OR DRAINAGE DESIGN.
- THE OWNER AND HIS/HER CONTRACTOR SHALL BE RESPONSIBLE AT ALL TIMES FOR PREVENTING SILT-LADEN RUNOFF FROM DISCHARGING FROM THE PROJECT SITE. FAILURE BY THE OWNER AND/OR CONTRACTOR CAN RESULT IN A FINE. THE DESIGNATED TEMPORARY CONTACT PERSON NOTED ON THIS PLAN MUST BE AVAILABLE FOR CONTACT BY TELEPHONE ON A 24 HOUR BASIS THROUGHOUT CONSTRUCTION AND UNTIL THE PROJECT HAS BEEN COMPLETED AND ACCEPTED BY THE CITY.
- THE IMPLEMENTATION OF THESE ESC PLANS AND THE CONSTRUCTION, MAINTENANCE, REPLACEMENT AND UPGRADING OF THESE FACILITIES IS THE RESPONSIBILITY OF THE OWNER AND/OR CONTRACTOR FROM THE BEGINNING OF CONSTRUCTION UNTIL ALL CONSTRUCTION IS COMPLETED AND ACCEPTED BY THE CITY AND THE SITE IS STABILIZED.
- PRIOR TO BEGINNING ANY WORK ON THE PROJECT SITE, A PRE-CONSTRUCTION CONFERENCE MUST BE HELD, AND SHALL BE ATTENDED BY THE GENERAL CONTRACTOR, THE PROJECT ENGINEER, REPRESENTATIVES FROM THE AFFECTED UTILITIES, AND A REPRESENTATIVE OF THE CITY.
- THE EROSION AND SEDIMENTATION CONTROL FACILITIES SHOWN ON THIS PLAN ARE TO BE CONSIDERED ADEQUATE BASIC REQUIREMENTS FOR THE ANTICIPATED SITE CONDITIONS. DURING CONSTRUCTION, DEVIATIONS FROM THIS PLAN MAY BE NECESSARY IN ORDER TO MAINTAIN WATER QUALITY. MINOR DEPARTURES FROM THIS PLAN ARE PERMITTED SUBJECT TO THE APPROVAL OF THE CITY INSPECTOR. HOWEVER, EXCEPT FOR EMERGENCY SITUATIONS, ALL OTHER DEVIATIONS FROM THIS PLAN MUST BE DESIGNED BY THE PROJECT ENGINEER AND APPROVED BY CITY PRIOR TO INSTALLATION.
- ALL EROSION AND SEDIMENTATION CONTROL MEASURES SHALL BE INSPECTED BY THE OWNER AND/OR CONTRACTOR ON A FREQUENT BASIS AND IMMEDIATELY AFTER EACH RAINFALL, AND MAINTAINED AS NECESSARY TO INSURE THEIR CONTINUED FUNCTIONING. ALL SEDIMENT MUST BE REMOVED FROM THE SILT FENCES, STRAW BALES, SEDIMENT PONDS, ETC. PRIOR TO THE SEDIMENT REACHING 1/2 ITS MAXIMUM POTENTIAL DEPTH.
- AT NO TIME SHALL CONCRETE, CONCRETE BYPRODUCTS, VEHICLE FLUIDS, PAINT, CHEMICALS, OR OTHER POLLUTING MATTER BE PERMITTED TO DISCHARGE TO THE TEMPORARY OR PERMANENT DRAINAGE SYSTEM, OR TO DISCHARGE FROM THE PROJECT SITE.
- PERMANENT DETENTION/RETENTION PONDS, PIPES, TANKS OR VAULTS MAY ONLY BE USED FOR SEDIMENT CONTAINMENT WHEN SPECIFICALLY INDICATED ON THESE PLANS.
- ALL WORKMANSHIP AND MATERIALS SHALL CONFORM TO THE MOST CURRENT STANDARD SPECIFICATIONS FOR ROAD, BRIDGE AND MUNICIPAL CONSTRUCTION PREPARED BY WSDOT AND APWA AS ADOPTED BY THE CITY.
- ANY REVISIONS TO THE ACCEPTED CONSTRUCTION PLANS SHALL BE REVIEWED AND APPROVED BY THE CITY PRIOR TO IMPLEMENTATION IN FIELD.
- THE CONTRACTOR SHALL MAINTAIN A SET OF ACCEPTED CONSTRUCTION DRAWINGS ON SITE AT ALL TIMES WHILE CONSTRUCTION IS IN PROGRESS.
- IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO OBTAIN ALL NECESSARY PERMITS FROM THE CITY PRIOR TO COMMENCING ANY WORK WITHIN CITY RIGHT-OF-WAY.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING ADEQUATE TRAFFIC CONTROL AT ALL TIMES DURING CONSTRUCTION ALONGSIDE OR WITHIN ALL PUBLIC ROADWAYS. TRAFFIC FLOW ON EXISTING PUBLIC ROADWAYS SHALL BE MAINTAINED AT ALL TIMES, UNLESS PERMISSION IS OBTAINED FROM THE CITY FOR ROAD CLOSURE AND/OR DETOURS.
- CONSTRUCTION SHALL FOLLOW THE RECOMMENDATIONS OF THE GEOTECHNICAL ENGINEERING INVESTIGATION (FEASIBILITY STUDY) PREPARED BY N.L. OLSON AND ASSOCIATES DATED MARCH 18, 2020.

CONSTRUCTION SEQUENCE

- APPLY FOR AND PICK UP ANY REQUIRED ROAD APPROACH, OR RIGHT OF WAY PERMITS FROM THE CITY.
- CONSTRUCT STABILIZED CONSTRUCTION ENTRANCE(S).
- CONSTRUCT FILTER FENCE BARRIERS.
- CONSTRUCT SEDIMENTATION BASINS AND DISCHARGE PIPES.
- CONSTRUCT RUNOFF INTERCEPTION AND DIVERSION DITCHES.
- CLEAR AND GRADE THE MINIMUM SITE AREA REQUIRED FOR CONSTRUCTION OF THE VARIOUS PHASES OF WORK.
- PROVIDE TEMPORARY HYDROSEEDING OR OTHER SOURCE CONTROL STABILIZATION MEASURES ON ALL DISTURBED SOILS.
- MAINTAIN ALL EROSION AND SEDIMENTATION CONTROL FACILITIES TO PROVIDE THE REQUIRED PROTECTION OF DOWNSTREAM WATER QUALITY.
- PROVIDE PERMANENT SITE STABILIZATION.
- EROSION AND SEDIMENTATION CONTROL FACILITIES SHALL NOT BE REMOVED UNTIL CONSTRUCTION IS COMPLETE AND ACCEPTED BY THE CITY.

NOTE

THE APPROXIMATE LOCATION OF EXISTING UNDERGROUND UTILITIES ARE SHOWN ON THE PLANS. IT IS THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE THE LOCATION OF EXISTING UTILITIES PRIOR TO COMMENCING WORK. THE CONTRACTOR SHALL BE RESPONSIBLE FOR DAMAGES THAT MIGHT BE OCCASIONED BY THE CONTRACTOR'S FAILURE TO LOCATE, PRESERVE AND PROTECT UNDERGROUND UTILITIES.

CALL 48 HOURS BEFORE YOU DIG 811

MINIMUM EROSION AND SEDIMENTATION CONTROL REQUIREMENTS

- STABILIZATION AND SEDIMENT TRAPPING.** ALL EXPOSED AND UNWORKED SOILS, INCLUDING SOIL STOCKPILES, SHALL BE STABILIZED BY SUITABLE APPLICATION OF BMP'S WHICH PROTECT SOIL FROM THE EROSION FORCES OF RAINDROP IMPACT AND FLOWING WATER. APPLICABLE PRACTICES INCLUDE, BUT ARE NOT LIMITED TO VEGETATIVE ESTABLISHMENT, MULCHING, PLASTIC COVERING, AND THE EARLY APPLICATION OF GRAVEL BASE ON AREAS TO BE PAVED. FROM OCTOBER 1 TO APRIL 30, NO SOILS SHALL REMAIN UNSTABILIZED FOR MORE THAN 2 DAYS. FROM MAY 1 TO SEPTEMBER 30, NO SOILS SHALL REMAIN UNSTABILIZED FOR MORE THAN 7 DAYS.
- AT ALL TIMES OF THE YEAR, THE CONTRACTOR SHALL HAVE SUFFICIENT MATERIALS, EQUIPMENT AND LABOR ON-SITE TO STABILIZE AND PREVENT EROSION FROM ALL DENUDIED AREAS WITHIN 12-HOURS AS SITE AND WEATHER CONDITIONS DICTATE.
- FROM OCTOBER 1ST TO APRIL 30TH, THE PROJECT ENGINEER SHALL VISIT THE DEVELOPMENT SITE A MINIMUM OF ONCE PER WEEK FOR THE PURPOSE OF INSPECTING THE EROSION AND SEDIMENTATION CONTROL FACILITIES, REVIEWING THE PROGRESS OF CONSTRUCTION, AND VERIFYING THE EFFECTIVENESS OF THE EROSION CONTROL MEASURES BEING UNDERTAKEN. THE PROJECT ENGINEER SHALL IMMEDIATELY INFORM THE CITY OF ANY PROBLEMS OBSERVED DURING SAID SITE VISITS, AND OF ANY RECOMMENDED CHANGES IN THE EROSION CONTROL MEASURES TO BE UNDERTAKEN. WHEN REQUESTED BY THE CITY, THE PROJECT ENGINEER SHALL PROVIDE THE CITY WITH WRITTEN RECORDS OF SAID WEEKLY SITE VISITS, INCLUDING DATES OF VISITS AND NOTED SITE OBSERVATIONS.
- IN THE EVENT THAT THE GROUND ON A PROJECT SITE IS LEFT BARE AFTER SEPTEMBER 30TH, THE CITY MAY ISSUE A STOP WORK ORDER FOR THE ENTIRE PROJECT UNTIL SATISFACTORY CONTROLS ARE PROVIDED. IN ADDITION, THE OWNER WILL BE SUBJECT TO THE PENALTIES PROVIDED IN CHAPTER 15.30 OF THE CITY OF PORT ORCHARD MUNICIPAL CODE.
- IN THE EVENT THAT GROUND ON A PROJECT SITE IS LEFT BARE AFTER SEPTEMBER 30TH, AND THE CITY IS UNSUCCESSFUL IN CONTACTING THE OWNER OR HIS/HER DESIGNATED EMERGENCY CONTACT PERSON, THE CITY MAY ENTER THE PROJECT SITE AND INSTALL TEMPORARY GROUND COVER MEASURES AND BILL THE OWNER FOR ALL EXPENSES INCURRED BY THE CITY. THESE COSTS WILL BE IN ADDITION TO ANY MONETARY PENALTIES LEVIED AGAINST THE OWNER.
- DEFINITION OF CLEARING AND EASEMENT LIMITS.** CLEARING LIMITS, SETBACKS, BUFFERS AND SENSITIVE OR CRITICAL AREAS SUCH AS STEEP SLOPES, WETLANDS AND RIPARIAN CORRIDORS SHALL BE CLEARLY MARKED IN THE FIELD AND INSPECTED BY CITY PRIOR TO COMMENCEMENT OF LAND CLEARING ACTIVITIES.
- PROTECTION OF ADJACENT PROPERTIES.** ADJACENT PROPERTIES SHALL BE PROTECTED FROM SEDIMENT DEPOSITION BY APPROPRIATE USE OF VEGETATIVE BUFFER STRIPS, SEDIMENT BARRIERS OR FILTERS, DIKES OR MULCHING, OR BY A COMBINATION OF THESE MEASURES AND OTHER APPROPRIATE BMP'S.
- TIMING AND STABILIZATION OF SEDIMENT TRAPPING MEASURES.** SEDIMENT PONDS AND TRAPS, PERIMETER DIKES, SEDIMENT BARRIERS AND OTHER BMP'S INTENDED TO TRAP SEDIMENT ON-SITE SHALL BE CONSTRUCTED AS A FIRST STEP IN GRADING. THIS BMP'S SHALL BE FUNCTIONAL BEFORE LAND DISTURBING ACTIVITIES TAKE PLACE. EARTHEN STRUCTURES SUCH AS DAMS, DIKES, AND DIVERSIONS SHALL BE STABILIZED ACCORDING TO THE TIMING INDICATED IN ITEM (1) ABOVE.
- SLOPE STABILIZATION.** CUT AND FILL SLOPES SHALL BE CONSTRUCTED IN A MANNER THAT WILL MINIMIZE EROSION. ROUGHENED SOIL SURFACES ARE PREFERRED TO SMOOTH SURFACES. INTERCEPTORS SHOULD BE CONSTRUCTED AT THE TOP OF LONG, STEEP SLOPES WHICH HAVE SIGNIFICANT AREAS ABOVE THAT CONTRIBUTE RUNOFF. CONCENTRATED RUNOFF SHOULD NOT BE ALLOWED TO FLOW DOWN THE FACE OF A CUT OR FILL SLOPE UNLESS CONTAINED WITHIN AN ADEQUATE CHANNEL OR PIPE SLOPE DRAIN. WHEREVER A SLOPE FACE CROSSES A WATER SEEPAGE PLANE, ADEQUATE DRAINAGE OR OTHER PROTECTION SHOULD BE PROVIDED. IN ADDITION, SLOPES SHOULD BE STABILIZED IN ACCORDANCE WITH ITEM (1) ABOVE.
- CONTROLLING OFF-SITE EROSION.** PROPERTIES AND WATERWAYS DOWNSTREAM FROM DEVELOPMENT SITES SHALL BE PROTECTED FROM EROSION DUE TO INCREASES IN THE VOLUME, VELOCITY, AND PEAK FLOW RATE OF STORMWATER RUNOFF FROM THE DEVELOPMENT SITE BY THE IMPLEMENTATION OF APPROPRIATE BMP'S TO MINIMIZE ADVERSE DOWNSTREAM IMPACTS.

TEMPORARY & PERMANENT HYDROSEEDING

- ALL AREAS CLEARED OR OTHERWISE DISTURBED SHALL BE APPROPRIATELY STABILIZED IN ACCORDANCE WITH THE NOTES & DETAILS SPECIFIED HEREWITH, AND THE TIMES SPECIFIED BY SECTION 8-01.3 OF THE CURRENT EDITION OF THE W.S.D.O.T. STANDARD SPECIFICATIONS FOR ROAD, BRIDGE, AND MUNICIPAL CONSTRUCTION.
 - MINIMUM 80 LBS./ACRE MIXTURE OF:
 - 15% KENTUCKY BLUEGRASS
 - 40% TALL FESCUE
 - 30% PERENNIAL RYE
 - 15% CHEWINGS FESCUE
 - FERTILIZER - 400 LBS./ACRE OF 10-20-20
 - MULCH - 2000 LBS./ACRE
- TEMPORARY HYDROSEEDING - IN ALL AREAS DISTURBED DURING CONSTRUCTION THAT WILL RECEIVE PERMANENT LANDSCAPING SHALL BE SEEDED WITH RYE GRASS AS REQUIRED TO PRODUCE A SUITABLE TEMPORARY GROUND COVER.

INSPECTION SCHEDULE

- THE CONTRACTOR SHALL NOTIFY THE CITY TO ARRANGE FOR INSPECTION OF THE VARIOUS PHASES OF WORK CHECKED BELOW. ALL INSPECTIONS SHALL BE COMPLETED PRIOR TO PROCEEDING WITH THE NEXT PHASE OF WORK.
 - LOCATION OF THE ROAD APPROACH
 - CLEARING LIMITS
 - IMPLEMENTATION OF THE VARIOUS PHASES OF THE EROSION AND SEDIMENTATION CONTROL PLAN
 - PLACEMENT OF DRAINAGE STRUCTURES PRIOR TO BACK FILLING, INCLUDING POND EMBANKMENTS
 - PRIOR TO PLACEMENT OF THE DETENTION OUTLET CONTROL STRUCTURE
 - INSPECTION OF PREPARED SUB-GRADE
 - INSPECTION OF GRAVEL BASE PLACEMENT
 - INSPECTION OF FINE-GRADING PRIOR TO PAVING
 - INSPECTION OF PAVING OPERATIONS
 - FINAL INSPECTION

- THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL WORK PERFORMED AND SHALL ENSURE THAT CONSTRUCTION IS ACCEPTABLE TO THE CITY.
- IF INSPECTION IS NOT CALLED FOR PRIOR TO COMPLETION OF ANY ITEM OF WORK SO DESIGNATED, SPECIAL DESTRUCTIVE AND/OR NON-DESTRUCTIVE TESTING PROCEDURES MAY BE REQUIRED TO ENSURE THE ACCEPTABILITY OF THE WORK. IF SUCH PROCEDURES ARE REQUIRED, THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL COSTS ASSOCIATED WITH THE TESTING AND/OR RESTORATION OF THE WORK.

T. E. S. C. MAINTENANCE REQUIREMENTS

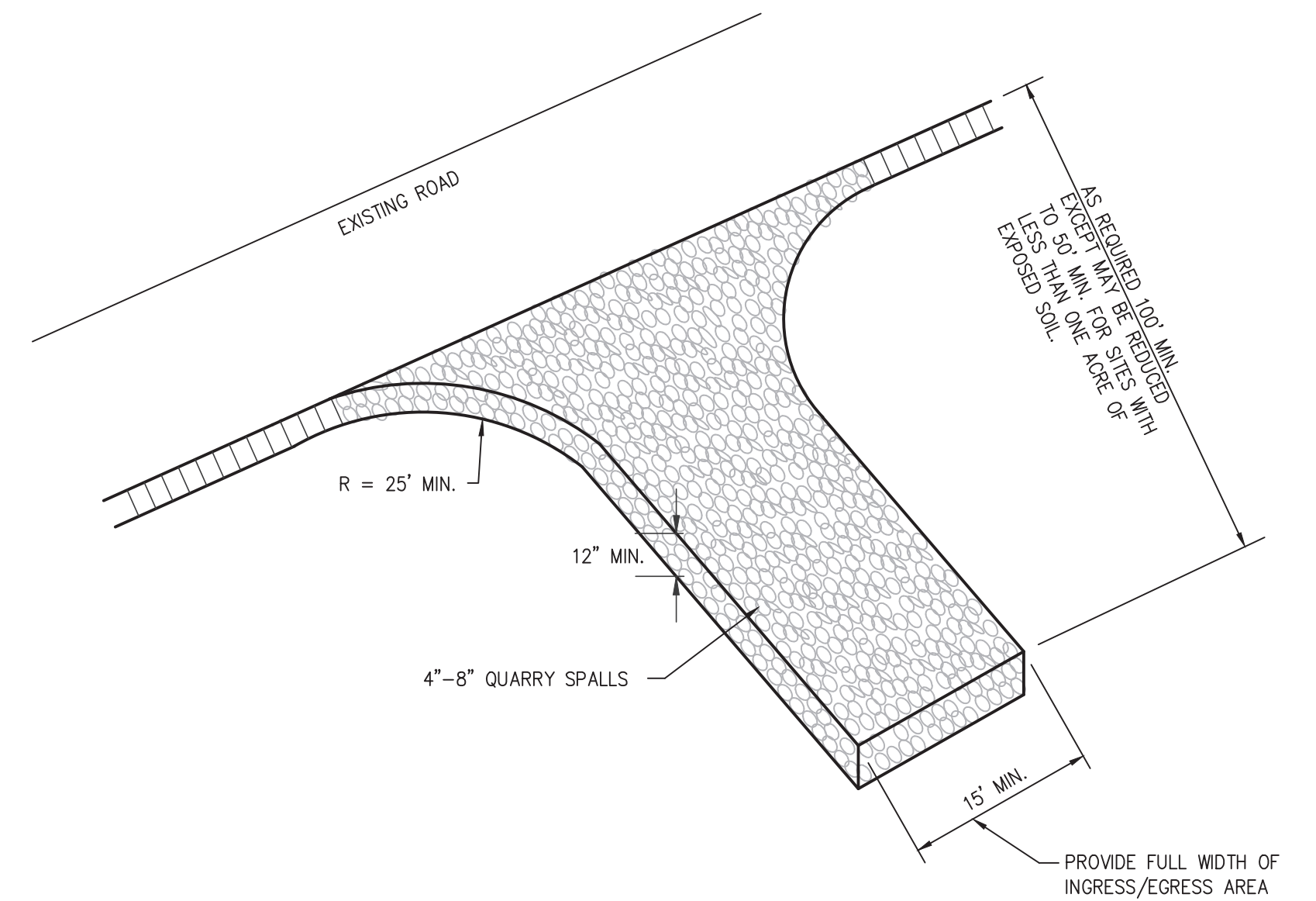
- EROSION AND SEDIMENTATION CONTROL FACILITIES SHALL BE INSPECTED AFTER EACH STORM EVENT AND DAILY DURING PROLONGED RAINFALL.
- NECESSARY REPAIRS OR REPLACEMENT OF FACILITIES SHALL BE ACCOMPLISHED PROMPTLY.
- SEDIMENT DEPOSITS SHALL BE REMOVED AFTER EACH STORM EVENT OR WHEN THE LEVEL OF DEPOSITION REACHES APPROXIMATELY ONE-HALF OF THE MAXIMUM POTENTIAL DEPTH.
- SEDIMENT DEPOSITS REMAINING IN PLACE AFTER THE ESC FACILITIES ARE NO LONGER REQUIRED SHALL BE DRESSED TO CONFORM TO THE EXISTING GRADE, PREPARED AND SEEDED.
- TEMPORARY EROSION AND SEDIMENTATION CONTROL FACILITIES SHALL BE MAINTAINED BY:
 - _____
 - _____
 - _____
 - _____
 - _____

EMERGENCY PHONE NUMBER

THE OWNER'S REPRESENTATIVE SHALL BE:

EMERGENCY PHONE NUMBER

- THE LOCATIONS OF EXISTING UTILITIES ON THIS PLAN ARE APPROXIMATE ONLY. THE CONTRACTOR SHALL CONTACT THE "UNDERGROUND LOCATE" CENTER AT PH: 1-800-424-5555, AND NON-SUBSCRIBING INDIVIDUAL UTILITY COMPANIES 48 HOURS IN ADVANCE OF THE COMMENCEMENT OF ANY CONSTRUCTION ACTIVITY. THE CONTRACTOR SHALL PROVIDE FOR PROTECTION OF EXISTING UTILITIES FROM DAMAGE CAUSED BY THE CONTRACTOR'S OPERATIONS.
- ROCKERIES OR OTHER RETAINING FACILITIES EXCEEDING 4 FT. IN HEIGHT (TOP OF WALL TO BOTTOM OF FOOTING) REQUIRE A SEPARATE PERMIT FROM CITY OF PORT ORCHARD BUILDING DEPARTMENT.
- A "FORESTRY PRACTICES" PERMIT MAY BE REQUIRED PRIOR TO CLEARING OF THE SITE. CONTACT CITY OF PORT ORCHARD DEPARTMENT OF COMMUNITY DEVELOPMENT FOR FURTHER INFORMATION.

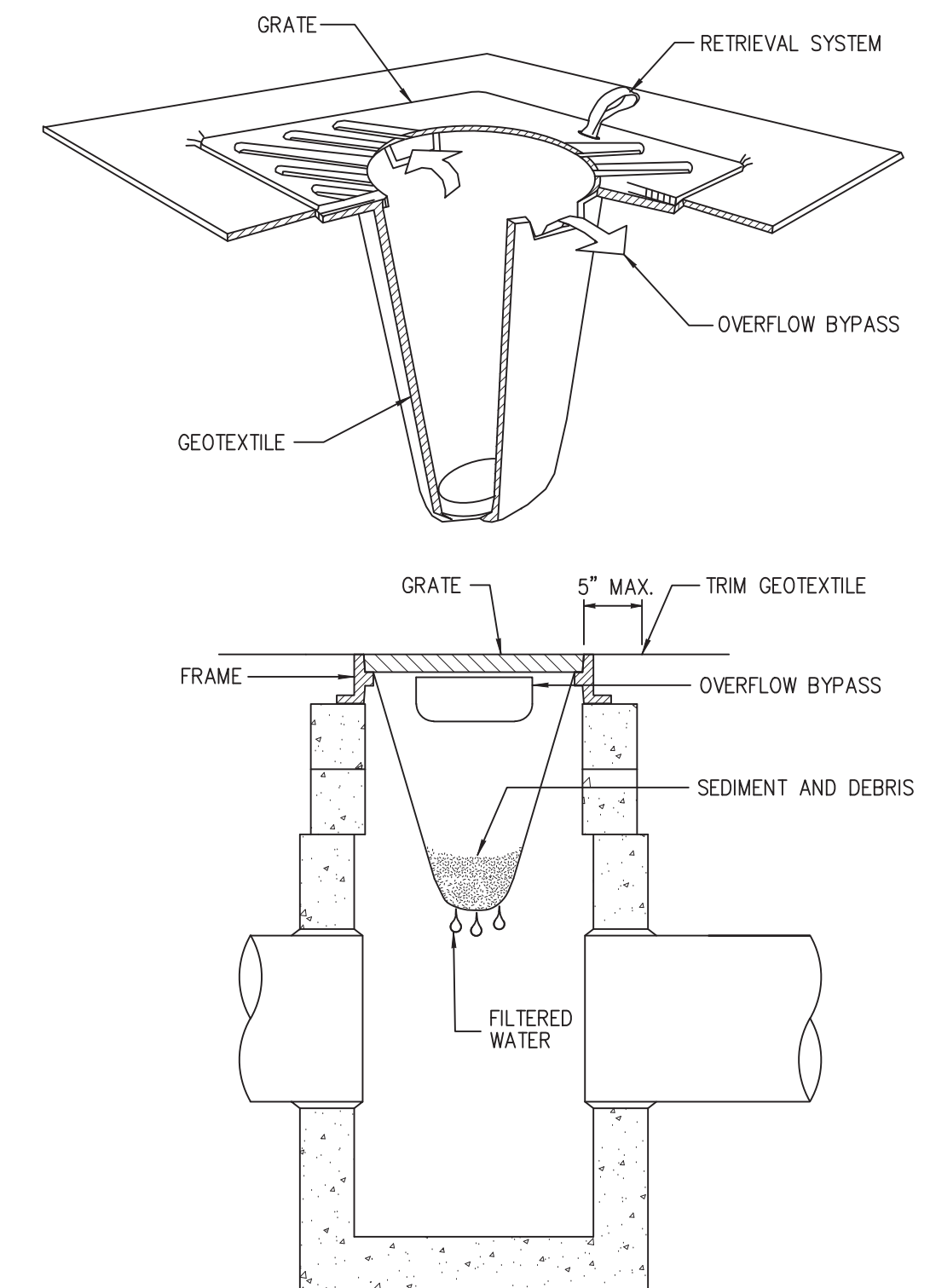


STABILIZED CONSTRUCTION ENTRANCE

NOT TO SCALE
(BMP E2.10)

NOTES:

- PERFORM MAINTENANCE IN ACCORDANCE WITH W.S.D.O.T. STANDARD SPECIFICATION 8-01.3(15).
- SIZE THE BELOW GRATE INLET DEVICE (BGID) FOR THE STORM WATER STRUCTURE IT WILL SERVICE.
- THE BGID SHALL HAVE A BUILT-IN HIGH-FLOW RELIEF SYSTEM (OVERFLOW BYPASS).
- THE RETRIEVAL SYSTEM MUST ALLOW REMOVAL OF THE BGID WITHOUT SPILLING THE COLLECTED MATERIAL.

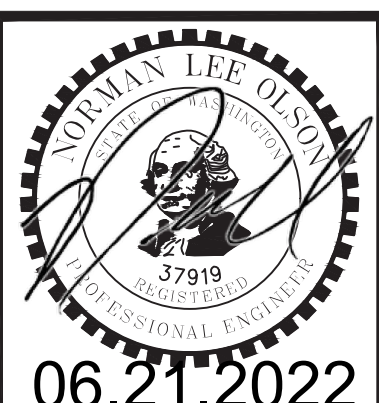


INLET PROTECTION DETAIL

NOT TO SCALE

REVISIONS				BY	DATE
NO.	DATE	BY	DESCRIPTION	DESIGNED	JFK 9/21
▲	05/26/22	JFK	PLAN REVISED PER CITY OF PORT ORCHARD COMMENTS DATED 03/29/2022.	DRAWN	AUE 9/21
				CHECKED	NLOII 9/21
				APPROVED	
				ACCEPTED	

N.L.Olson & Associates, Inc.
Engineering, Planning and Surveying
(360) 876-2284
2453 Bethel Avenue, P.O. Box 637, Port Orchard, WA 98366

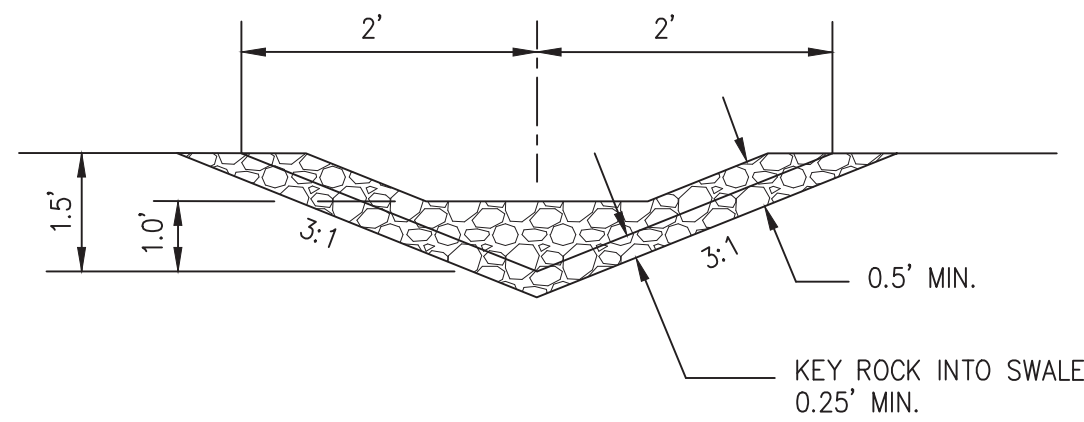


T.E.S.C. NOTES AND DETAILS
HIDDEN HILLS APARTMENTS
LAND DEVELOPMENT ACTIVITY PERMIT
Portion of the Northwest Quarter of the Southeast Quarter Section 1,
Township 23, Range 1 East, W.M. in Kitsap County, Washington

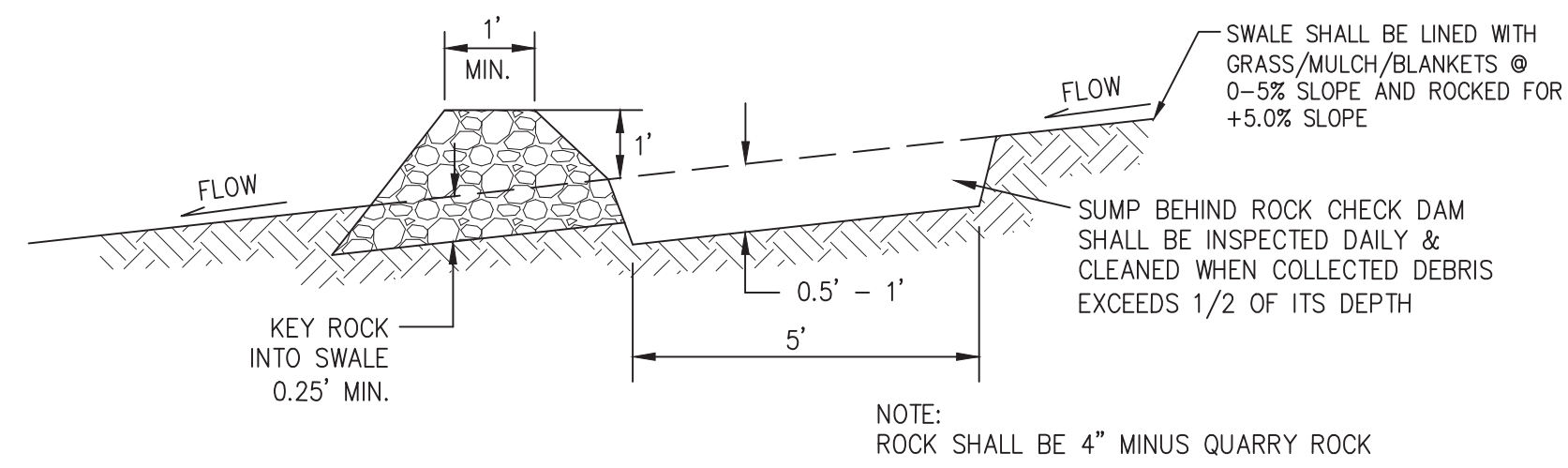
FOR: **HE DEVELOPMENT, LLC**
Attn: James He
4631 SE Bakken Court
Port Orchard, WA 98366
Phone: (360) 874-9966

SCALE: AS SHOWN
DATE: June 21, 2022
PROJECT NUMBER: 19-10959
SHEET C4.10

DITCH SLOPE	CHECK DAM SPACING
0 - 5%	150'
5 - 10%	100'
> - 10%	50'



INTERCEPTOR DITCH X-SECTION & ROCK CHECK DAM
(FRONT VIEW)

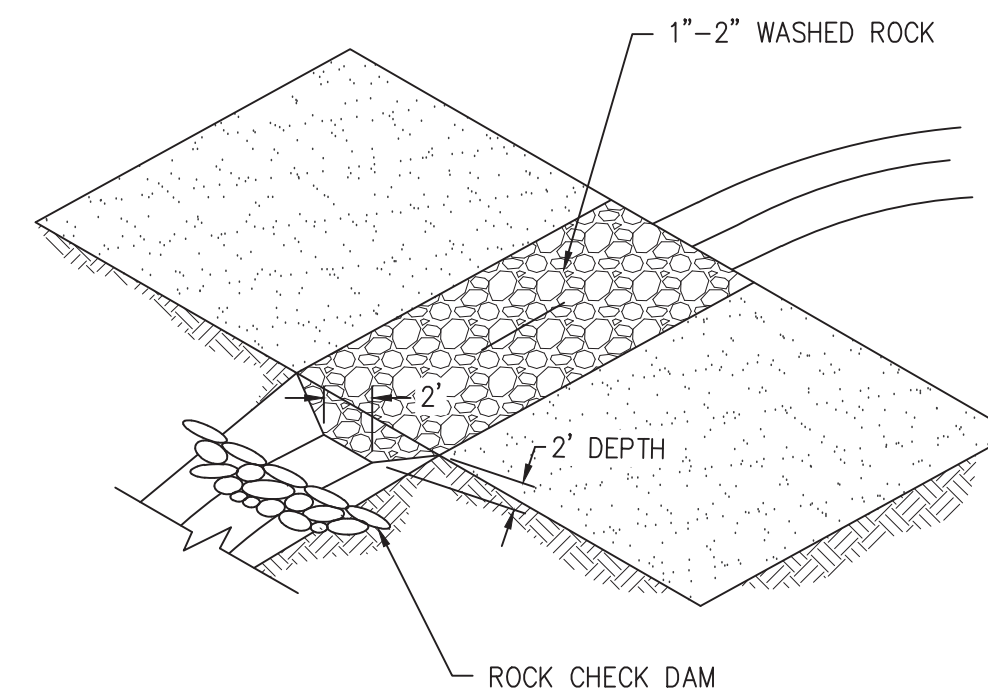


ROCK CHECK DAM X-SECTION
(SIDE VIEW)

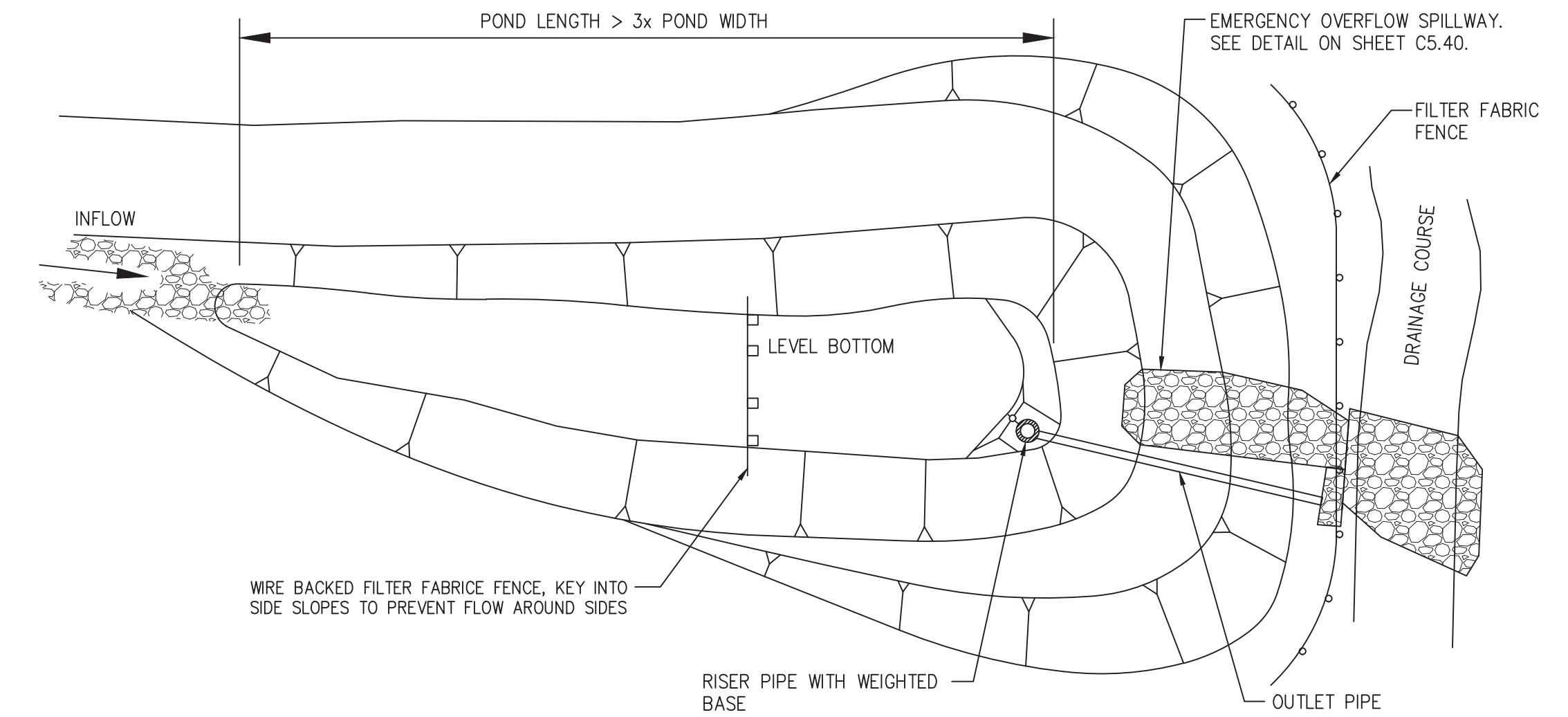
TYPICAL INTERCEPTOR DITCH W/ROCK CHECK DAM
NOT TO SCALE

POND BERM NOTES:

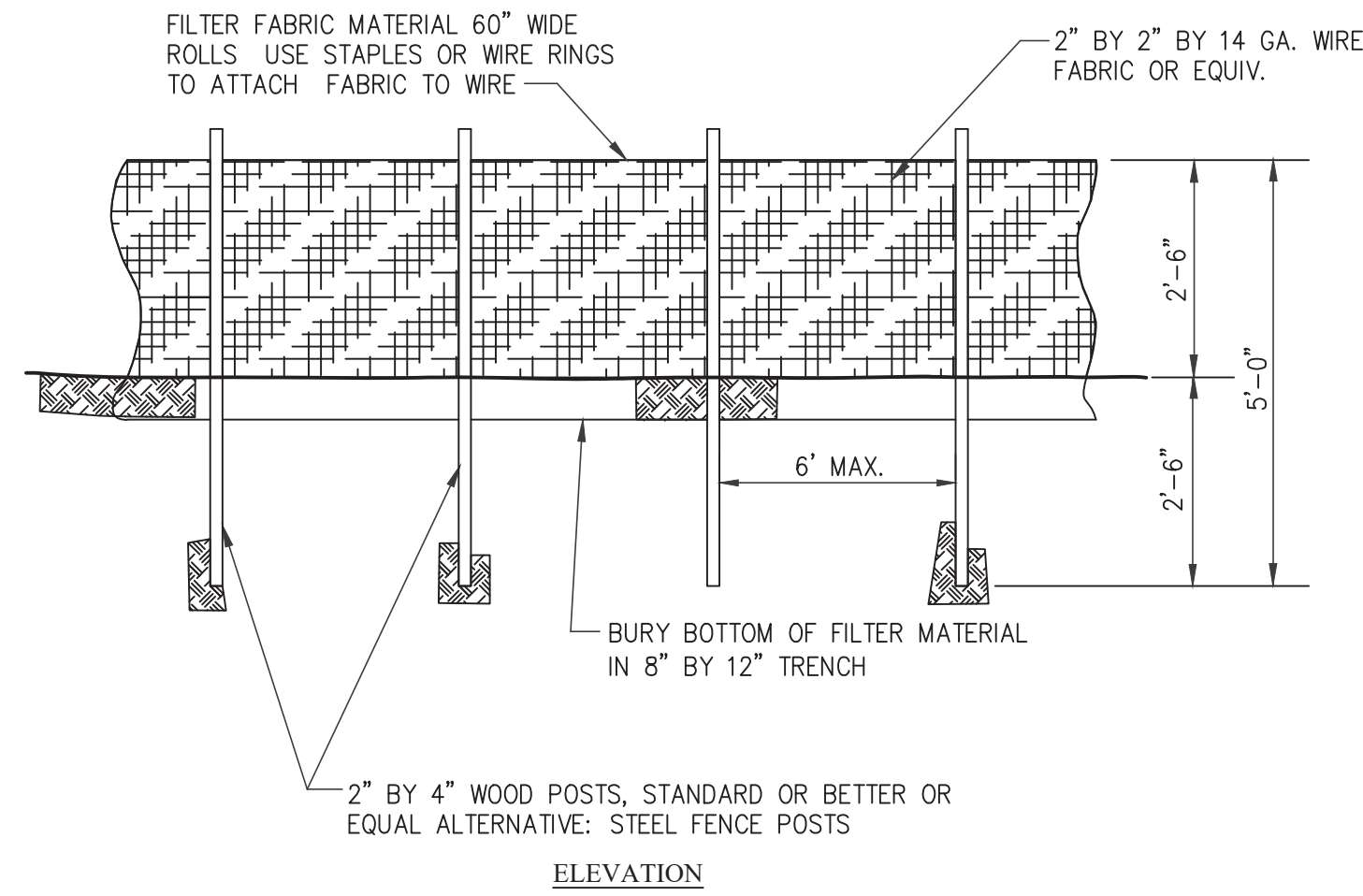
- POND BERM EMBANKMENTS SHALL BE CONSTRUCTED ON NATIVE CONSOLIDATED SOIL (OR ADEQUATELY COMPACTED AND STABLE FILL SOILS), WHICH IS FREE OF LOOSE SURFACE SOIL MATERIALS, ROOTS AND OTHER ORGANIC DEBRIS.
- POND BERM EMBANKMENTS SHALL BE CONSTRUCTED BY EXCAVATING A "KEY" EQUAL TO 50% OF THE BERM EMBANKMENT CROSS-SECTIONAL HEIGHT AND WIDTH MEASURED THROUGH THE CENTER OF THE BERM (EXCEPT ON TILL SOILS WHERE THE "KEY" MINIMUM DEPTH CAN BE REDUCED TO 1-FOOT OF EXCAVATION INTO THE TILL).
- THE BERM EMBANKMENT SHALL BE CONSTRUCTED OF COMPACTED SOIL (95% MAXIMUM DRY DENSITY, MODIFIED PROCTOR METHOD PER ASTM D1557) PLACED IN 6-8 INCH LIFTS WITH HAND HELD EQUIPMENT AND 10 TO 12 INCH LIFTS WITH HEAVY EQUIPMENT, WITH THE FOLLOWING SOIL CHARACTERISTICS PER USDA TEXTURE TRIANGLE: A MINIMUM OF 30% CLAY, A MAXIMUM OF 60% SAND, A MAXIMUM OF 60% SILT, WITH NOMINAL GRAVEL AND COBBLE CONTENT (NOTE: IN GENERAL, EXCAVATED GLACIAL TILL WILL BE WELL-SUITED FOR BERM EMBANKMENT MATERIAL).
- EXPOSED EARTH ON THE POND SIDE SLOPES SHALL BE SODED OR SEEDED WITH APPROPRIATE SEED MIXTURE PER KITSAP COUNTY REQUIREMENTS. ESTABLISHMENT OF PROTECTIVE VEGETATIVE COVER SHALL BE ENSURED WITH APPROPRIATE SURFACE PROTECTION BMP'S AND RESEEDED AS NECESSARY.



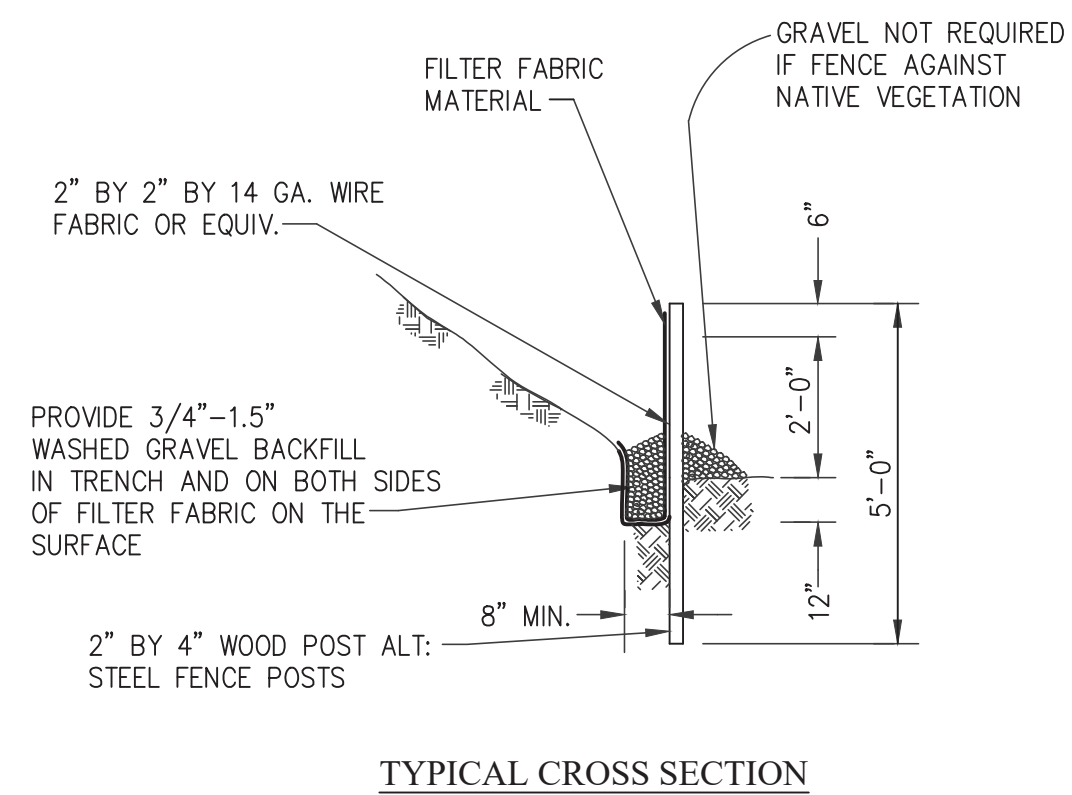
CUT-OFF TRENCH WITH GRAVEL FILTER DIKE DETAIL
NOT TO SCALE



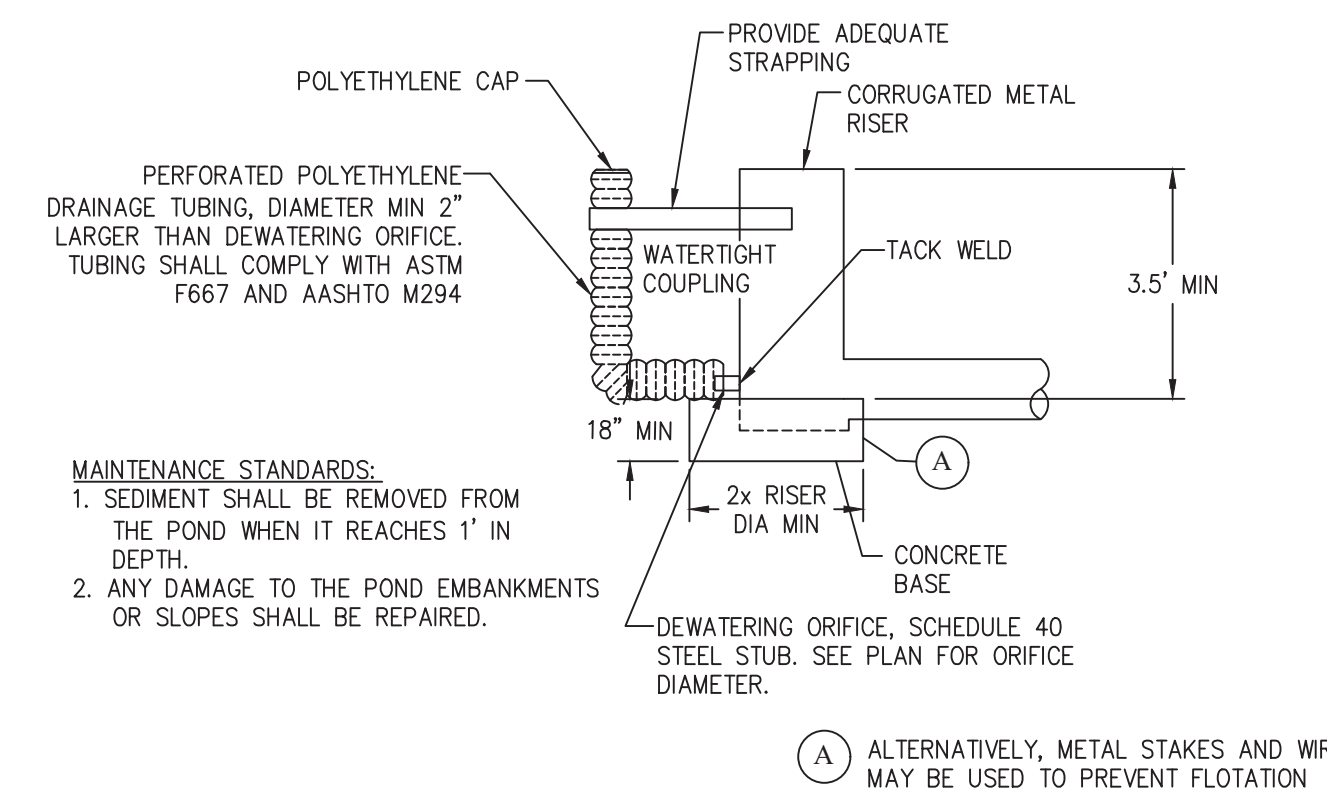
SEDIMENT POND
NOT TO SCALE



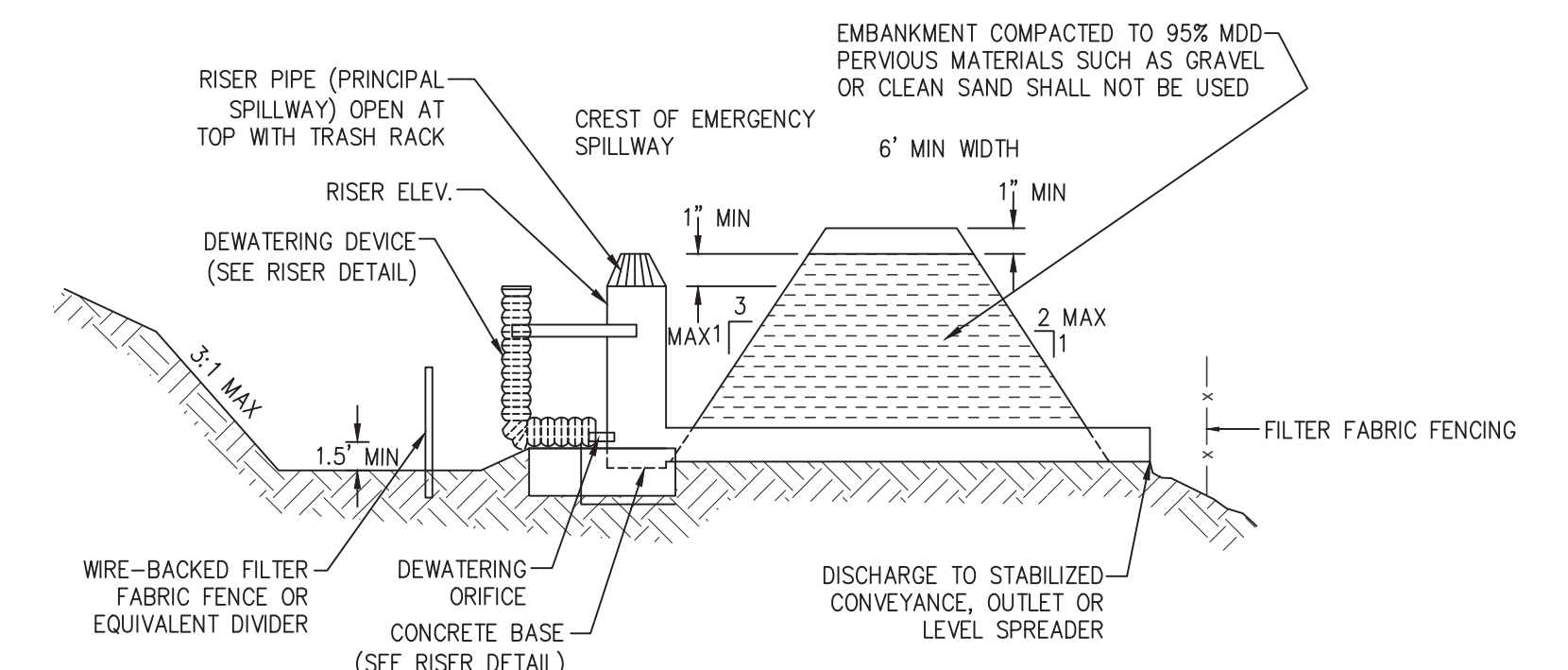
FILTER FABRIC FENCE
NOT TO SCALE
(BMP E3.10)



TYPICAL CROSS SECTION



SEDIMENT POND RISER DETAIL
NOT TO SCALE



SEDIMENT POND CROSS SECTION
NOT TO SCALE

NOTE

THE APPROXIMATE LOCATION OF EXISTING UNDERGROUND UTILITIES ARE SHOWN ON THE PLANS. IT IS THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE THE LOCATION OF EXISTING UTILITIES PRIOR TO COMMENCING WORK. THE CONTRACTOR SHALL BE RESPONSIBLE FOR DAMAGES THAT MIGHT BE OCCASIONED BY THE CONTRACTOR'S FAILURE TO LOCATE, PRESERVE AND PROTECT UNDERGROUND UTILITIES.

CALL 48 HOURS BEFORE YOU DIG 811

REVISIONS				BY	DATE
NO.	DATE	BY	DESCRIPTION	DESIGNED	JFK 9/21
1	05/26/22	JFK	PLAN REVISED PER CITY OF PORT ORCHARD COMMENTS DATED 03/29/2022.	DRAWN	AUE 9/21
				CHECKED	NLOII 9/21
				APPROVED	
				ACCEPTED	

N.L. Olson & Associates, Inc.
Engineering, Planning and Surveying
(360) 876-2284
2453 Bethel Avenue, P.O. Box 637, Port Orchard, WA 98366



T.E.S.C. DETAILS
HIDDEN HILLS APARTMENTS
LAND DEVELOPMENT ACTIVITY PERMIT
Portion of the Northwest Quarter of the Southeast Quarter Section 1,
Township 23, Range 1 East, W.M. in Kitsap County, Washington

FOR: **HE DEVELOPMENT, LLC**
Attn: James He
4631 SE Bakken Court
Port Orchard, WA 98366
Phone: (360) 874-9966

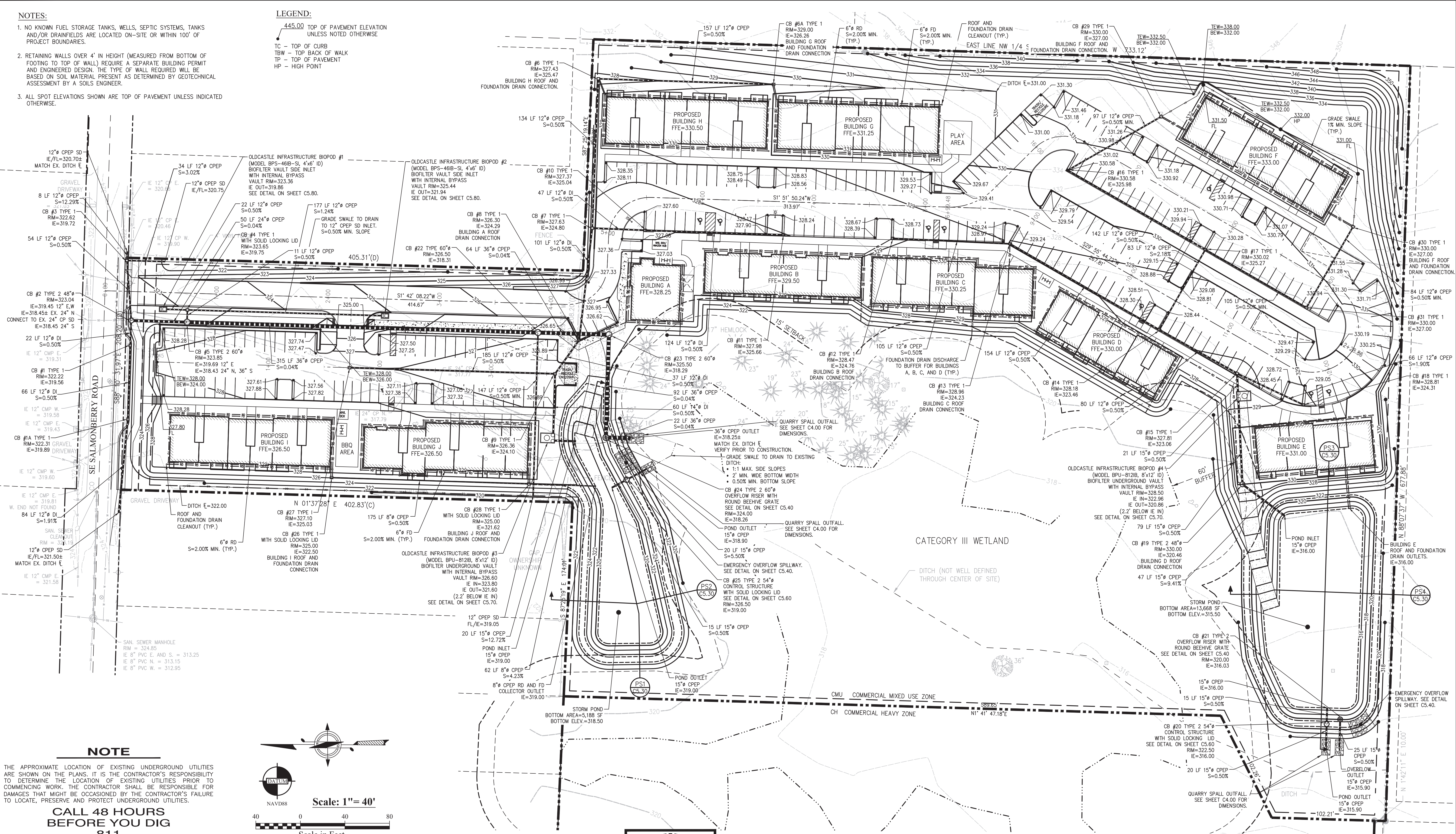
SCALE: AS SHOWN
DATE: June 21, 2022
PROJECT NUMBER:
19-10959
SHEET C4.20

NOTES:

- NO KNOWN FUEL STORAGE TANKS, WELLS, SEPTIC SYSTEMS, TANKS AND/OR DRAINFIELDS ARE LOCATED ON-SITE OR WITHIN 100' OF PROJECT BOUNDARIES.
- RETAINING WALLS OVER 4' IN HEIGHT (MEASURED FROM BOTTOM OF FOOTING TO TOP OF WALL) REQUIRE A SEPARATE BUILDING PERMIT AND ENGINEERED DESIGN. THE TYPE OF WALL REQUIRED WILL BE BASED ON SOIL MATERIAL PRESENT AS DETERMINED BY GEOTECHNICAL ASSESSMENT BY A SOILS ENGINEER.
- ALL SPOT ELEVATIONS SHOWN ARE TOP OF PAVEMENT UNLESS INDICATED OTHERWISE.

LEGEND:

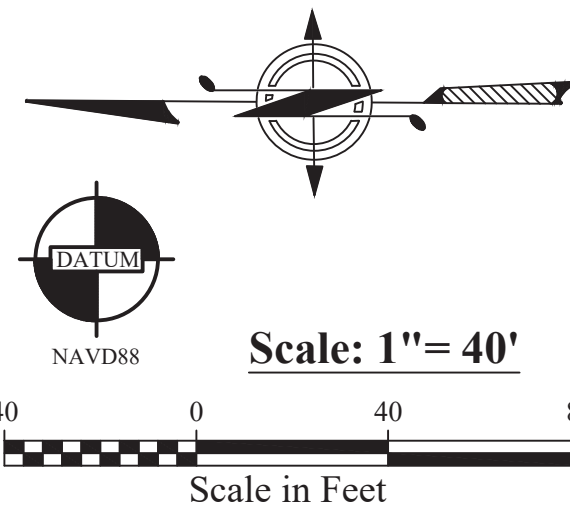
- 445.00 TOP OF PAVEMENT ELEVATION UNLESS NOTED OTHERWISE
- TC - TOP OF CURB
- TBW - TOP BACK OF WALK
- TP - TOP OF PAVEMENT
- HP - HIGH POINT



NOTE

THE APPROXIMATE LOCATION OF EXISTING UNDERGROUND UTILITIES ARE SHOWN ON THE PLANS. IT IS THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE THE LOCATION OF EXISTING UTILITIES PRIOR TO COMMENCING WORK. THE CONTRACTOR SHALL BE RESPONSIBLE FOR DAMAGES THAT MIGHT BE OCCASIONED BY THE CONTRACTOR'S FAILURE TO LOCATE, PRESERVE AND PROTECT UNDERGROUND UTILITIES.

CALL 48 HOURS BEFORE YOU DIG 811



REVISIONS

NO.	DATE	BY	DESCRIPTION	DESIGNED	BY	DATE
1	05/26/22	JFK	PLAN REVISED PER CITY OF PORT ORCHARD COMMENTS DATED 03/29/2022.	DRAWN	AUE	9/21
				CHECKED	NLOII	9/21
				APPROVED		
				ACCEPTED		

N.L.Olson & Associates, Inc.
 Engineering, Planning and Surveying
 (360) 876-2284
 2453 Bethel Avenue, P.O. Box 637, Port Orchard, WA 98366



STORM DRAINAGE AND GRADING PLAN

**HIDDEN HILLS APARTMENTS
 LAND DEVELOPMENT ACTIVITY PERMIT**

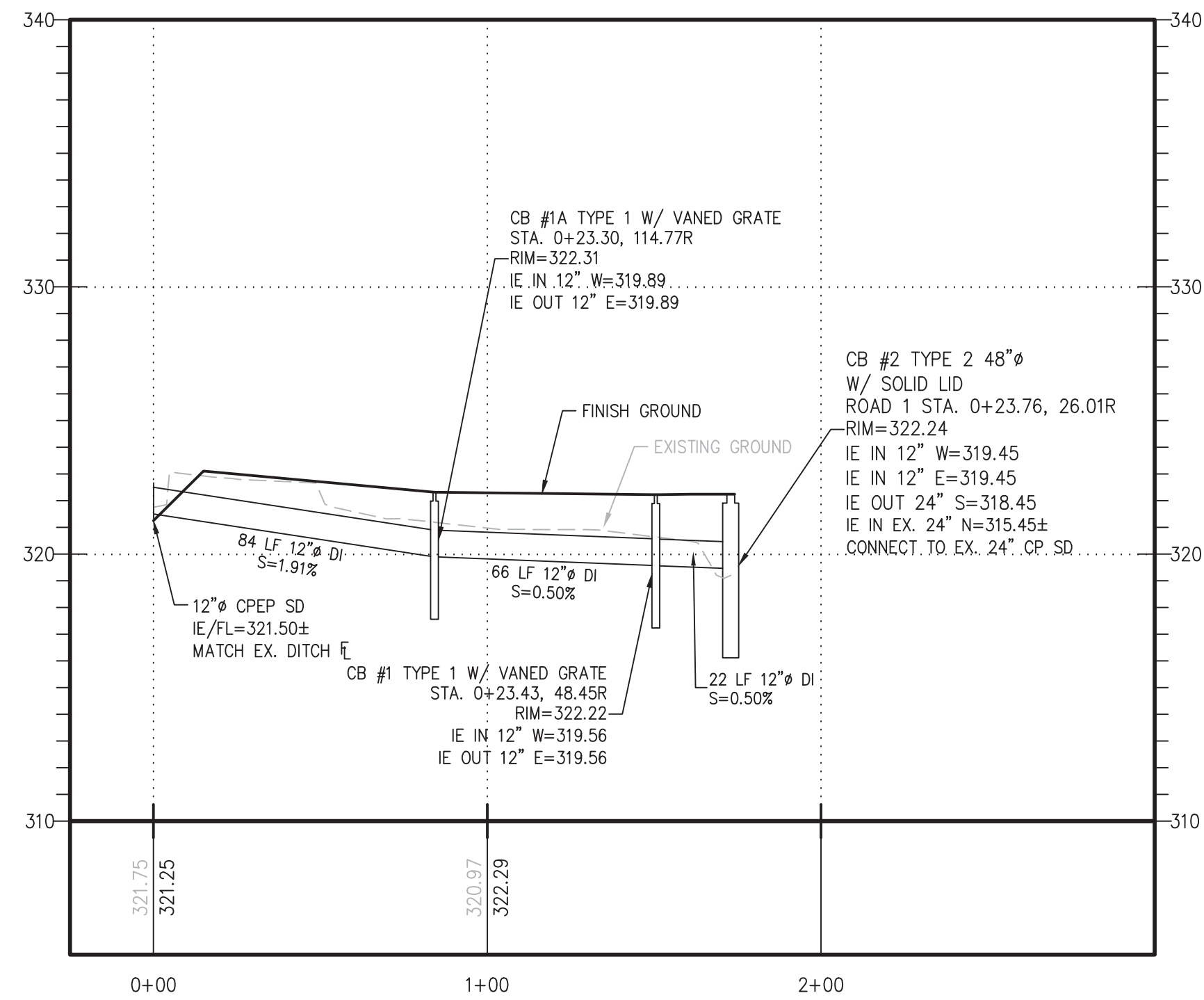
Portion of the Northwest Quarter of the Southeast Quarter Section 1,
 Township 23, Range 1 East, W.M. in Kitsap County, Washington

FOR:

HE DEVELOPMENT, LLC

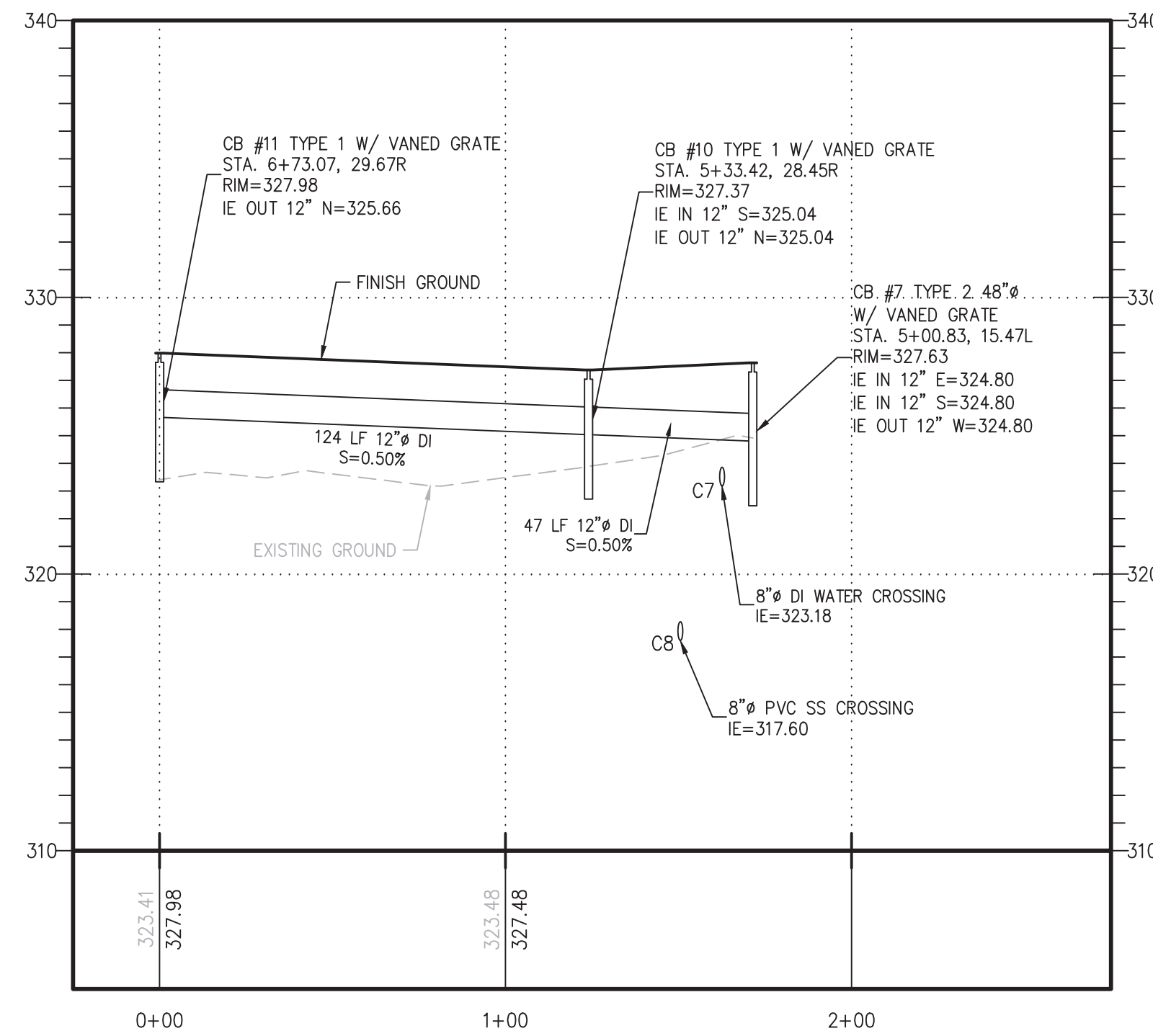
Attn: James He
 4631 SE Bakken Court
 Port Orchard, WA 98366
 Phone: (360) 874-9966

SCALE: 1"=40'
 DATE: June 21, 2022
 PROJECT NUMBER:
19-10959
 SHEET CS.00



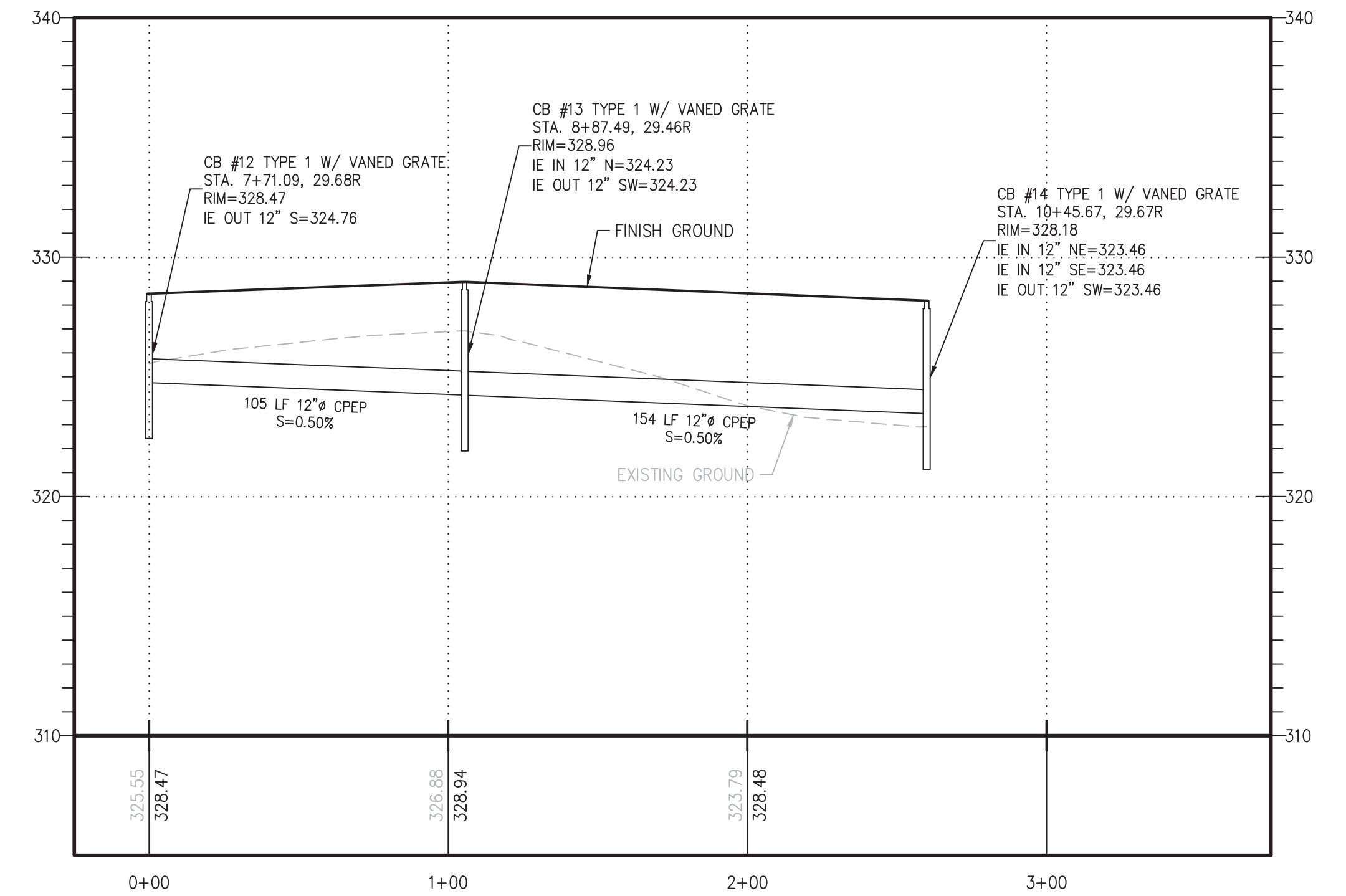
STORM PROFILE (EX. DITCH TO CB #2)

SCALE: HORIZ. 1"=40'
VERT. 1"=5'



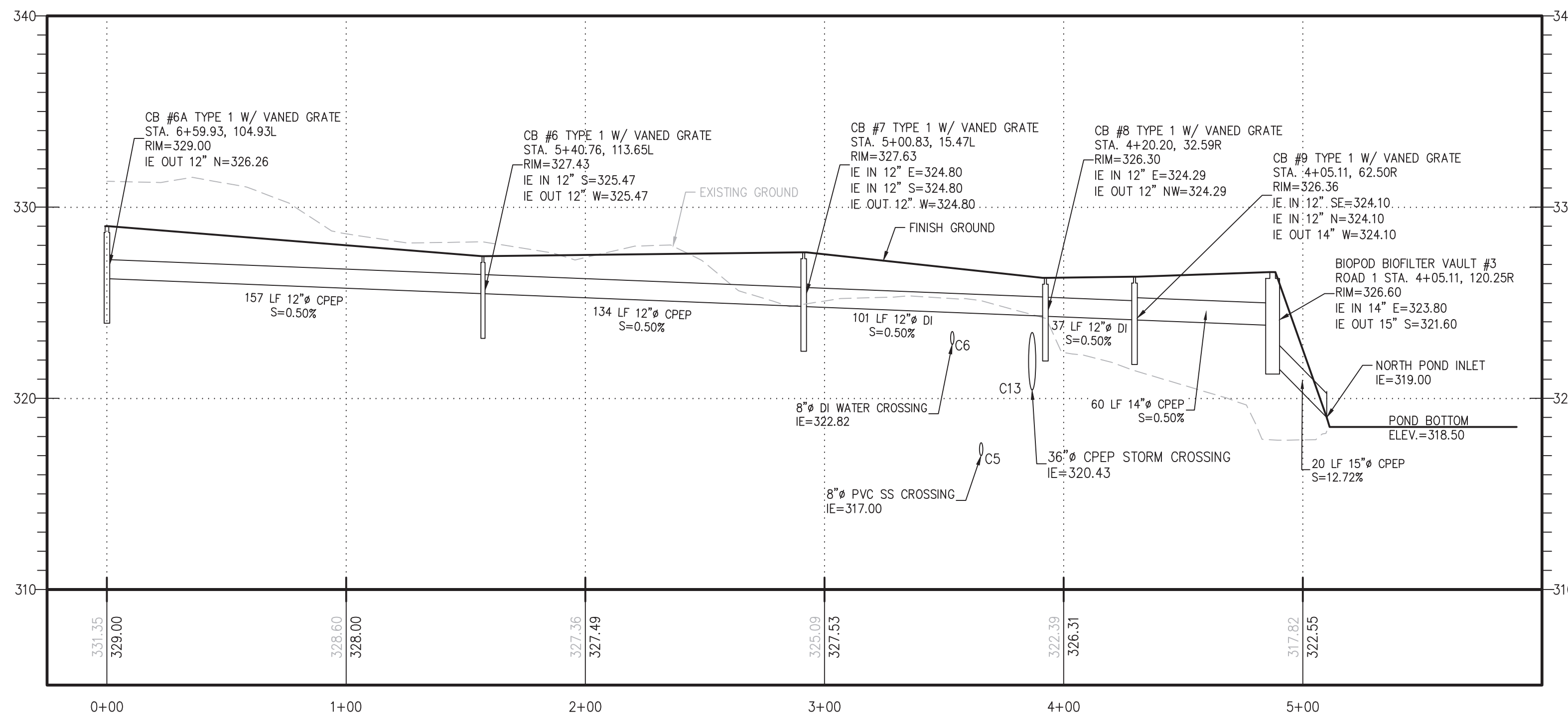
STORM PROFILE (CB #11 TO CB #7)

SCALE: HORIZ. 1"=40'
VERT. 1"=5'



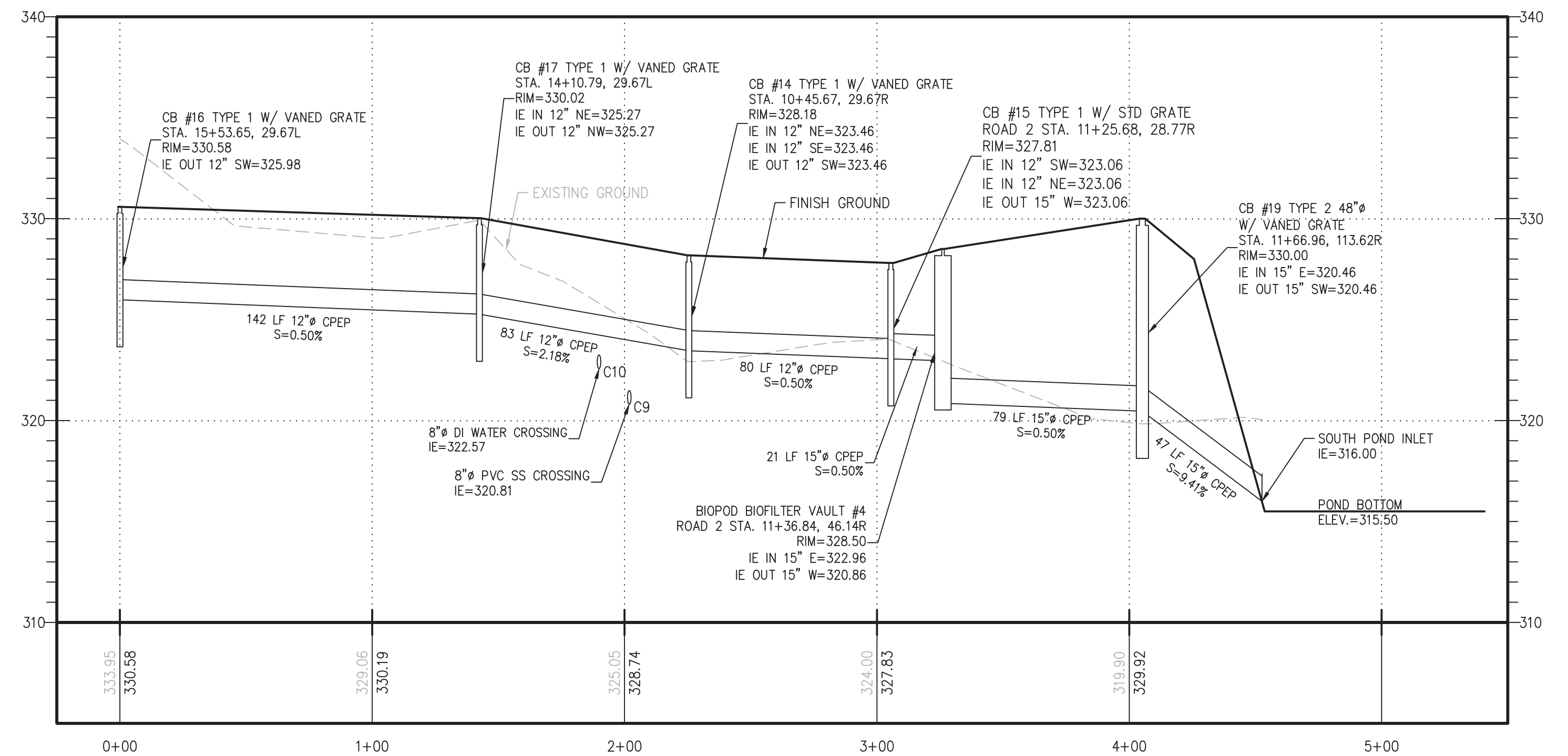
STORM PROFILE (CB #12 TO CB #14)

SCALE: HORIZ. 1"=40'
VERT. 1"=5'



STORM PROFILE (CB #6 TO POND OUTLET)

SCALE: HORIZ. 1"=40'
VERT. 1"=5'



STORM PROFILE (CB #16 TO CB #POND INLET)

SCALE: HORIZ. 1"=40'
VERT. 1"=5'

REVISIONS

NO.	DATE	BY	DESCRIPTION	DESIGNED	BY	DATE
1	05/26/22	JFK	PLAN REVISED PER CITY OF PORT ORCHARD COMMENTS DATED 03/29/2022.	JFK	JFK	9/21
				AUE	AUE	9/21
				NLOII	NLOII	9/21

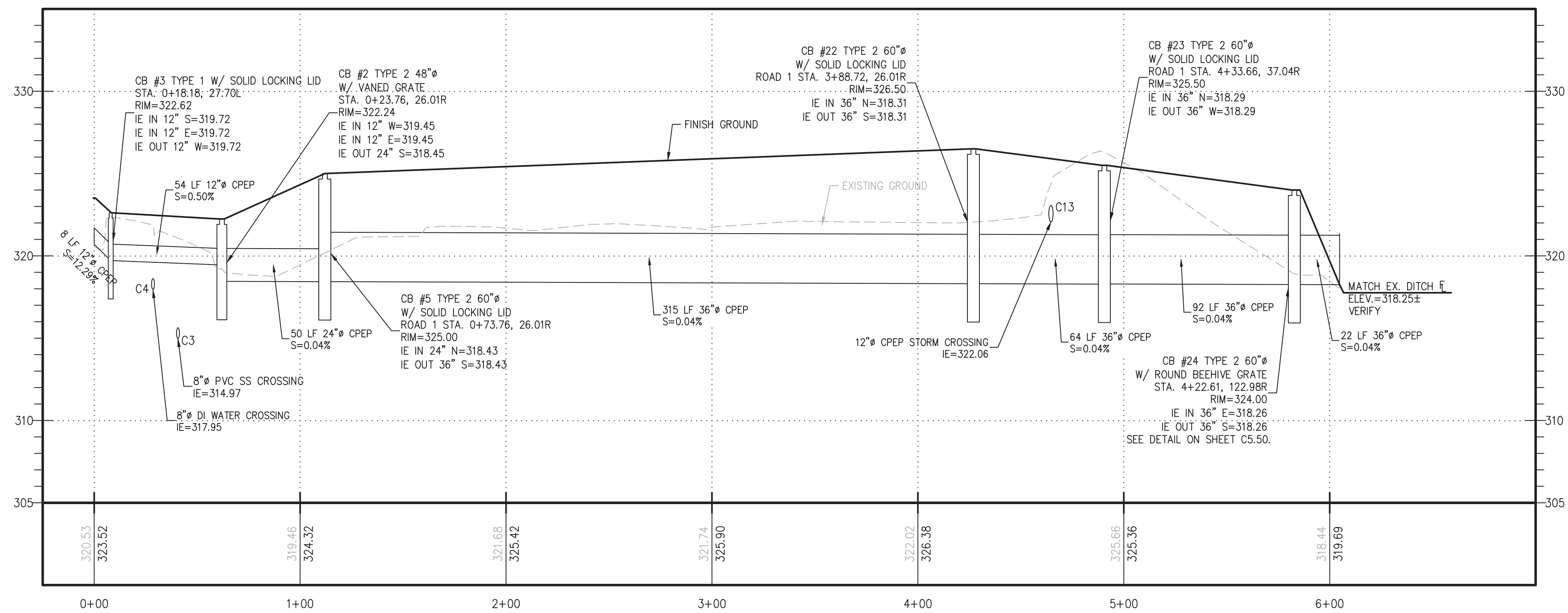
N.L. Olson & Associates, Inc.
Engineering, Planning and Surveying
(360) 876-2284
2453 Bethel Avenue, P.O. Box 637, Port Orchard, WA 98366



STORM PROFILES
HIDDEN HILLS APARTMENTS
LAND DEVELOPMENT ACTIVITY PERMIT
Portion of the Northwest Quarter of the Southeast Quarter Section 1,
Township 23, Range 1 East, W.M. in Kitsap County, Washington

FOR: **HE DEVELOPMENT, LLC**
Attn: James He
4631 SE Bakken Court
Port Orchard, WA 98366
Phone: (360) 874-9966

SCALE: AS SHOWN
DATE: June 21, 2022
PROJECT NUMBER:
19-10959
SHEET C5.10



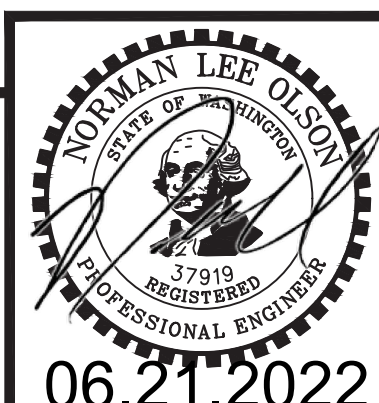
STORM PROFILE (CB #5 TO EX. DITCH FLOWLINE)

SCALE: HORIZ. 1"=40'
VERT. 1"=5'

REVISIONS

NO.	DATE	BY	DESCRIPTION	DESIGNED	BY	DATE
1	05/26/22	JFK	PLAN REVISED PER CITY OF PORT ORCHARD COMMENTS DATED 03/29/2022.	JFK	JFK	9/21
				AUE	AUE	9/21
				NLOII	NLOII	9/21

N.L.Olson & Associates, Inc.
Engineering, Planning and Surveying
(360) 876-2284
2453 Bethel Avenue, P.O. Box 637, Port Orchard, WA 98366



STORM PROFILES
HIDDEN HILLS APARTMENTS
LAND DEVELOPMENT ACTIVITY PERMIT
Portion of the Northwest Quarter of the Southeast Quarter Section 1,
Township 23, Range 1 East, W.M. in Kitsap County, Washington

FOR: **HE DEVELOPMENT, LLC**
Attn: James He
4631 SE Bakken Court
Port Orchard, WA 98366
Phone: (360) 874-9966

SCALE: AS SHOWN
DATE: June 21, 2022
PROJECT NUMBER: 19-10959
SHEET CS.20

STORM AND GRADING MATERIAL SPECIFICATIONS

- CATCH BASIN**
TYPE I, W.S.D.O.T. STANDARD PLAN B-5.20-00
TYPE II, W.S.D.O.T. STANDARD PLAN B-5.40-00
TYPE III, W.S.D.O.T. STANDARD PLAN B-10.20-00
STORM DRAIN MANHOLE
TYPE I, W.S.D.O.T. STANDARD PLAN B-15.20-00
- FRAME & GRATE:**
VANED GRATE, W.S.D.O.T. STANDARD PLAN B-2b
(AS NOTED ON PLANS).
STANDARD FRAME AND GRATE, W.S.D.O.T.
STANDARD B-30.50-00
CURB INLET WSDOT STANDARD PLAN B-25.20-00
- SOLID METAL COVER:**
3 BOLT LOCKING TYPE, OLYMPIC FOUNDRY
TYPE MH 30D/T OR EQUAL FOR TYPE II
CATCH BASINS.
OLYMPIC FOUNDRY TYPE SM 605 OR W.S.D.O.T.
STANDARD PLAN B-30.70-00 (OR EQUAL) FOR
TYPE I CATCH BASINS.
- STORM SEWER PIPE**
*CORRUGATED METAL PIPE n=0.024
(CMP) PER W.S.D.O.T. 9-05.9
*CONCRETE PIPE PER W.S.D.O.T. 9-05.7(1) &
9-05.7(2) n=0.012
*CORRUGATED HIGH DENSITY POLYETHYLENE
PIPE (HDPE), ADS N-12 OR HANCOR HI-Q
(ASSHTO M294 TYPE S) n=0.012
- DOWN SPOUT
TIGHTLINE:**
ADS N-12 (OR EQUAL.)
- PIPE BEDDING**
W.S.D.O.T. 9-03.12(3) GRAVEL BACKFILL FOR
PIPE BEDDING.
- INITIAL BACKFILL:**
NATIVE MATERIAL OBTAINED FROM EXCAVATION PER
W.S.D.O.T. 7-08.3(3)
- REMAINING BACKFILL:**
NATIVE MATERIAL OBTAINED FROM EXCAVATION PER
W.S.D.O.T. 2-09.3(1)E.
- SPALLS:**
W.S.D.O.T. 9-13.1, LOOSE RIPRAP IN SIZES
RANGING FROM 3" TO 1/3 CUBIC FOOT.
- PAVEMENT SECTION:**
HOT MIX ASPHALT (HMA) W.S.D.O.T. 5-04
TOP COURSE, W.S.D.O.T. 9-03.9(3)
BASE COURSE, W.S.D.O.T. 9-03.10

GRADING NOTES

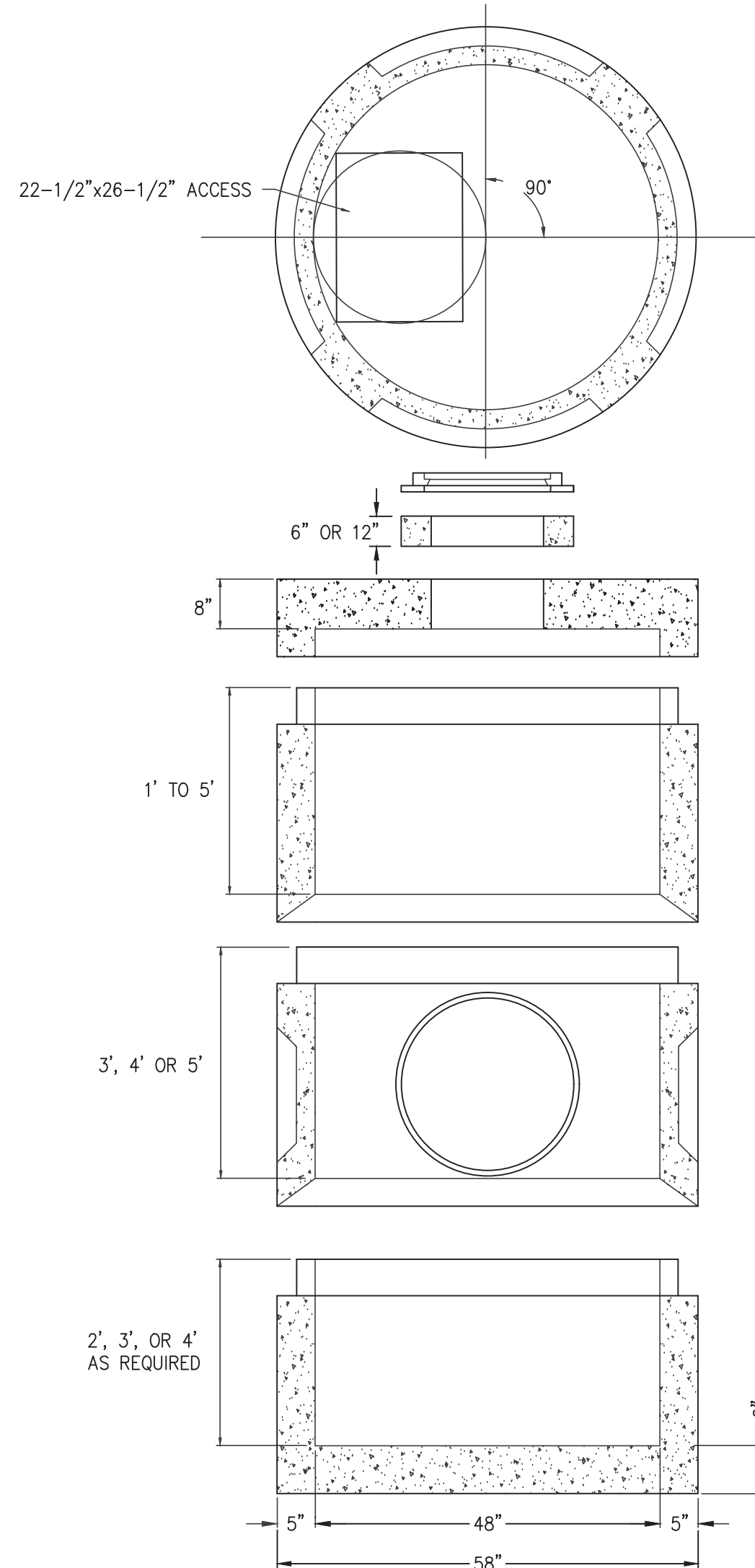
- THE CONTRACTOR SHALL NOTIFY THE ENGINEER IN THE EVENT OR DISCOVERY OF POOR SOILS, GROUNDWATER OR DISCREPANCIES IN THE EXISTING CONDITIONS AS NOTED ON THE PLANS.
- MAXIMUM SLOPE STEEPNESS SHALL BE 2:1 HORIZONTAL:VERTICAL FOR CUT AND FILL SLOPES.
- UNLESS OTHERWISE SPECIFIED, ALL EMBANKMENTS IN THE PLAN SET SHALL BE CONSTRUCTED IN ACCORDANCE WITH SECTION 2-03.3(14)B OF THE WSDOT STANDARD SPECIFICATIONS. EMBANKMENT COMPACTIONS SHALL CONFORM TO SECTION 2-03.3(14)C, METHOD B OF SAID STANDARD SPECIFICATION.
- EMBANKMENTS DESIGNED TO IMPOUND WATER SHALL BE COMPACTED TO 95% MAXIMUM DENSITY PER SECTION 2-03.3(14)C, METHOD C OF WSDOT STANDARD SPECIFICATIONS.
- ALL AREAS RECEIVING FILL MATERIAL SHALL BE PREPARED BY REMOVING VEGETATION, NONCOMPLYING FILL, TOPSOIL AND OTHER UNSUITABLE MATERIAL, BY SCARIFYING THE SURFACE TO PROVIDE A BOND WITH THE NEW FILL, AND WHERE THE SLOPES ARE STEEPER THAN 3 HORIZONTAL TO 1 VERTICAL AND THE HEIGHT IS GREATER THAN 5 FT., BY BENCHING INTO SOUND COMPETENT MATERIAL AS DETERMINED BY THE ENGINEER.

CONSTRUCTION NOTES

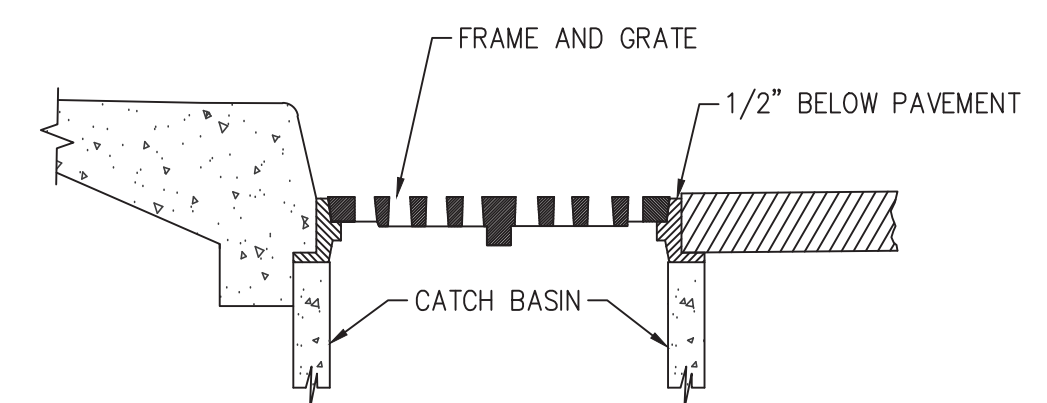
- ALL WORK SHALL BE IN CONFORMANCE WITH THE LATEST REVISION OF THE STANDARD SPECIFICATIONS FOR ROAD, BRIDGE, AND MUNICIPAL CONSTRUCTION" AS JOINTLY ADOPTED BY WASHINGTON STATE DEPARTMENT OF TRANSPORTATION AND THE AMERICAN PUBLIC WORKS ASSOCIATION (WASHINGTON STATE CHAPTER).
- ANY REVISIONS TO THESE PLANS MUST BE REVIEWED AND APPROVED BY CITY OF PORT ORCHARD PUBLIC WORKS PRIOR TO ANY IMPLEMENTATION IN THE FIELD.
- THE LOCATION OF EXISTING UTILITIES SHOWN ON THIS PLAN IS APPROXIMATE ONLY. THE CONTRACTOR SHALL CONTACT THE "UNDERGROUND LOCATE" CENTER AND NON-SUBSCRIBING INDIVIDUAL UTILITY COMPANIES 48 HOURS IN ADVANCE OF THE COMMENCEMENT OF ANY CONSTRUCTION ACTIVITY (PHONE #1-800-424-5555). THE CONTRACTOR SHALL PROVIDED PROTECTION OF EXISTING UTILITIES FROM DAMAGED CAUSED BY CONTRACTOR OPERATIONS.
- DRAINAGE SYSTEM SHALL BE INSTALLED AND FUNCTIONING PRIOR TO INSTALLATION OF PAVING.
- CONTRACTOR SHALL HAVE AVAILABLE, AT THE SITE AT ALL TIMES DURING CONSTRUCTION, A SET OF APPROVED FINAL CONSTRUCTION PLANS.
- BEFORE WORKING IN COUNTY RIGHT-OF-WAY, THE CONTRACTOR SHALL OBTAIN ALL NECESSARY PERMITS REQUIRED BY THE CITY.
- ALL SLOPES SHALL BE 2:1. (UNLESS OTHERWISE NOTED)
- CONTRACTOR WILL BE RESPONSIBLE FOR ALL TRAFFIC CONTROL REQUIRED AS A RESULT OF HIS/HER OPERATIONS.
- CONTRACTOR SHALL USE A PROFESSIONAL LAND SURVEYOR FOR ALL CONSTRUCTION STAKING.
- UNLESS OTHERWISE INDICATED ON PLANS, ALL STORM SEWER PIPE HAS BEEN SIZED TO MEET MANNING'S ROUGHNESS COEFFICIENT, N = 0.012. THE CONTRACTOR SHALL HAVE THE OPTION TO:
A. INSTALL STORM SEWER PIPE AS INDICATED ON PLANS USING PIPE WHICH MEETS, n=0.012
B. OR PROVIDE "ENGINEER" W/ REVISED PLANS W/ DIAMETERS AND OR SLOPE ADJUSTMENTS AS REQUIRED.
- ALL ROOF DRAINS, FOOTING DRAINS, ROCKWALL DRAINS, AND CRAWL SPACE DRAINS SHALL BE CONNECT TO THE STORM WATER CONVEYANCE SYSTEM.
- CONSTRUCTION SHALL FOLLOW THE RECOMMENDATIONS OF THE GEOTECHNICAL ENGINEERING INVESTIGATION (FEASIBILITY STUDY) PREPARED BY N.L. OLSON AND ASSOCIATES DATED MARCH 18, 2020.

ROAD & STORM DRAINAGE CONSTRUCTION INSPECTION REQUIREMENTS AND SCHEDULES

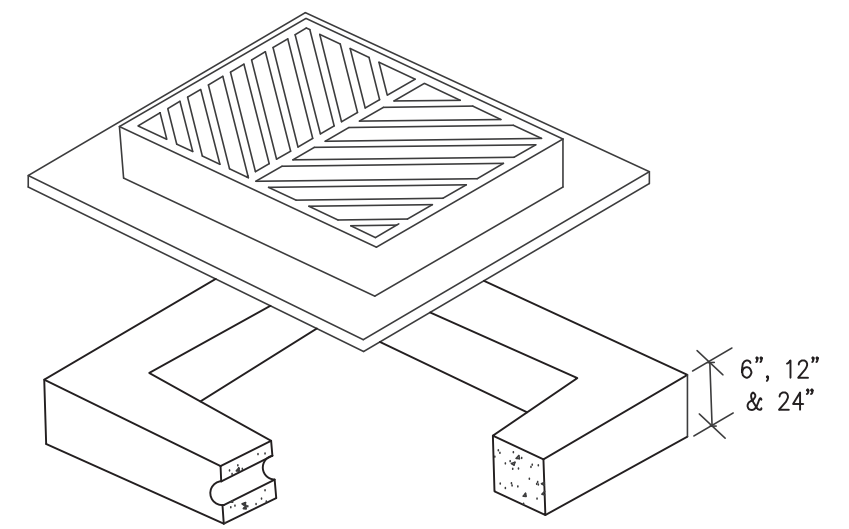
- THE CONTRACTOR SHALL NOTIFY THE CITY ENGINEER TO ARRANGE INSPECTION SCHEDULES FOR THOSE PHASES OF WORK CHECKED BELOW. INSPECTION SCHEDULES SHALL BE ARRANGED PRIOR TO PROCEEDING TO THE NEXT PHASE OF WORK. INSPECTIONS IN ADDITION TO THOSE INDICATED MAY BE REQUIRED BY THE CITY. THE CONTRACTOR SHALL VERIFY THE INSPECTIONS REQUIRED WITH THE CITY AND SHALL ARRANGE INSPECTIONS SCHEDULES BY CONTACTING THE CITY OF PORT ORCHARD.
 - A. IMPLEMENTATION OF VARIOUS PHASES OF TEMPORARY EROSION AND SEDIMENTATION CONTROL PLANS.
 - B. PLACEMENT OF THE MAJOR DRAINAGE STRUCTURES PRIOR TO BACKFILLING, INCLUDING DETENTION POND DIKES.
 - C. PRIOR TO THE INSTALLATION OF ORIFICE CONTROL STRUCTURE.
 - D. COMPLETION OF SUBGRADE PREPARATION
 - E. COMPLETION OF PLACEMENT OF GRAVEL BASE.
 - F. COMPLETION OF FINE GRADING PRIOR TO PAVING.
 - G. COMPLETION OF PAVEMENT INSTALLATIONS.
- IF ADEQUATE INSPECTION IS NOT CALLED FOR BEFORE COMPLETION OF THE PAVEMENT CONSTRUCTION, IT MAY BE NECESSARY FOR CORE DRILLING AND TESTING TO BE PERFORMED TO ASSURE AN ACCEPTABLE QUALITY OF ROADWAY. WHEN CORE DRILLING IS FOUND TO BE NECESSARY, THE CONTRACTOR WILL BE BILLED AND HELD RESPONSIBLE FOR ALL COSTS INCURRED.



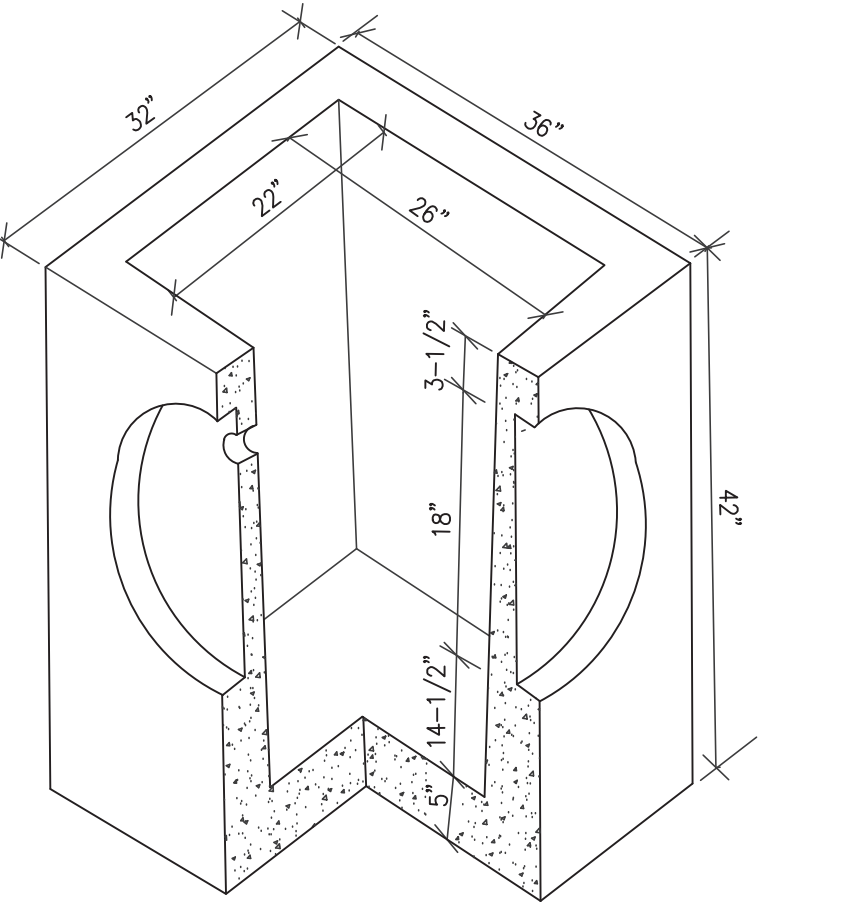
TYPE 2 CATCH BASIN
NOT TO SCALE



FRAME & GRATE INSTALLATION
STANDARD PLAN B-341



TOP UNIT
SHOWN WITH FRAME CAST IN IRON
CASTING-OLYMPIC FDY. #5435A STEEL
CASTING-OLYMPIC FDY. #5434. IWS
FRAME MAY BE PLACED DIRECTLY ON BASE
OR EXTENSION.



"S" EXTENSION UNITS.
AVAILABLE IN 6", 12" OR 24" HEIGHTS. USED
TO ADJUST TO A MAXIMUM CATCH BASIN
HEIGHTS OF 5'-0" FINISHED GRADE TO PIPE
INVERT.

BASE SECTION.
THIS UNIT IS PROVIDED WITH KNOCKOUTS FOR
18" CONCRETE PIPE ON ALL FOUR SIDES.

SPECIFICATIONS
ALL UNITS ARE MANUFACTURED TO THE
SPECIFICATIONS OF THE DEPARTMENT OF
TRANSPORTATION AND THE APWA STANDARD
PLAN B-1.

TYPE I CATCH BASIN
NOT TO SCALE

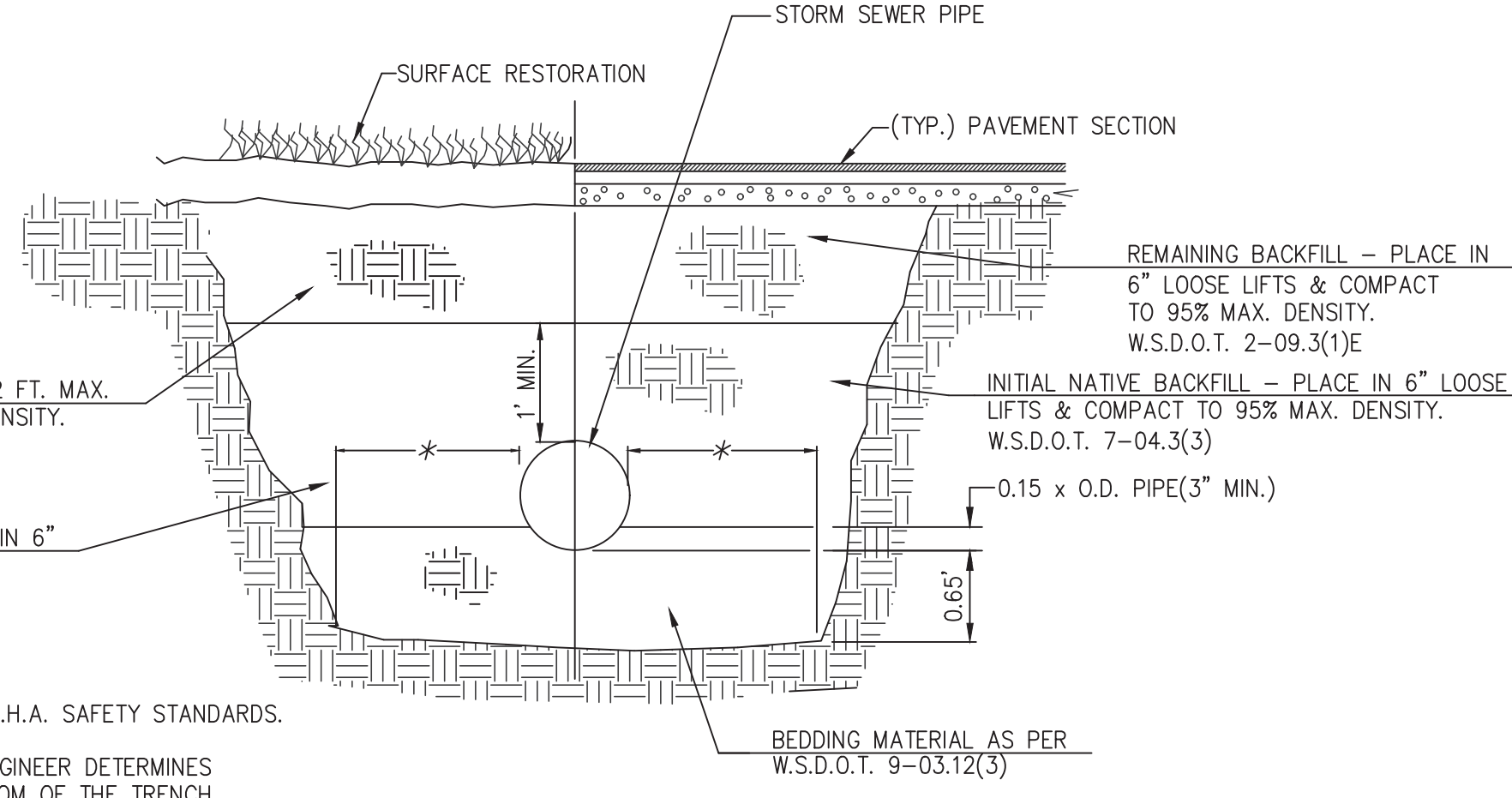
ALL UNITS ARE MANUFACTURED TO MEET THE REQUIREMENTS OF THE DEPARTMENT OF TRANSPORTATION AND APWA STANDARD PLAN B-1e.

SLAB TOP.
8 INCHES THICK. ROUNDED OR RECTANGULAR OPENINGS ARE PROVIDED WHERE NEEDED.

PRECAST SECTIONS.
UNITS ARE AVAILABLE IN VARIOUS HEIGHTS STANDARD JOINING IS BY RUBBER GASKETS. STEPS ARE AVAILABLE ON REQUEST. LIFT HOLES ARE PROVIDED.

KNOCKOUTS ARE PLACED FOR 16" PIPE STRAIGHT THROUGH AND OR 21" PIPE STRAIGHT THROUGH.

BASE SECTIONS.
THE BASE SECTIONS ARE AVAILABLE IN 2 FOOT OR 5 FOOT HEIGHTS. THE 5' BASE HAS 4 KNOCKOUTS, FOR 21" AND 18" PIPE.



STORM TRENCH
(PER W.S.D.O.T. 7-02.3(1))
NOT TO SCALE

- NOTES:**
- THE CONTRACTOR SHALL COMPLY W/ W.I.S.H.A. SAFETY STANDARDS.
 - PIPE BEDDING MAY BE DELETED IF THE ENGINEER DETERMINES THAT THE MATERIAL EXISTING IN THE BOTTOM OF THE TRENCH IS SATISFACTORY FOR PIPE BEDDING, PROVIDED THE EXISTING MATERIAL IS LOOSENEED, RE GRADED, & COMPACTED TO FORM A DENSE UNYIELDING BASE.
 - UNSATISFACTORY FOUNDATION MATERIAL BEING ROCK, UNYIELDING MATERIAL, OR SOFT MATERIAL SHALL BE REMOVED PRIOR TO PIPE INSTALLATION.

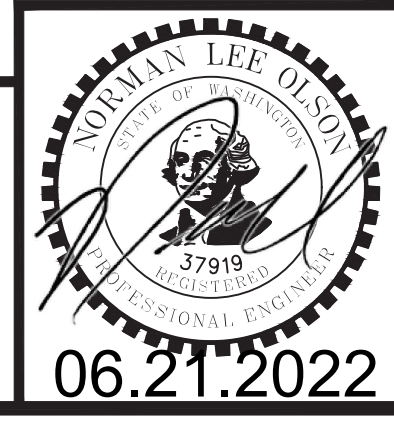
NOTE

THE APPROXIMATE LOCATION OF EXISTING UNDERGROUND UTILITIES ARE SHOWN ON THE PLANS. IT IS THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE THE LOCATION OF EXISTING UTILITIES PRIOR TO COMMENCING WORK. THE CONTRACTOR SHALL BE RESPONSIBLE FOR DAMAGES THAT MIGHT BE OCCASIONED BY THE CONTRACTOR'S FAILURE TO LOCATE, PRESERVE AND PROTECT UNDERGROUND UTILITIES.

**CALL 48 HOURS
BEFORE YOU DIG
811**

REVISIONS				BY	DATE	
NO.	DATE	BY	DESCRIPTION	DESIGNED	JFK	9/21
1	05/26/22	JFK	PLAN REVISED PER CITY OF PORT ORCHARD COMMENTS DATED 03/29/2022.	DRAWN	AUE	9/21
				CHECKED	NLOII	9/21
				APPROVED		
				ACCEPTED		

N.L.Olson & Associates, Inc.
Engineering, Planning and Surveying
(360) 876-2284
2453 Bethel Avenue, P.O. Box 637, Port Orchard, WA 98366



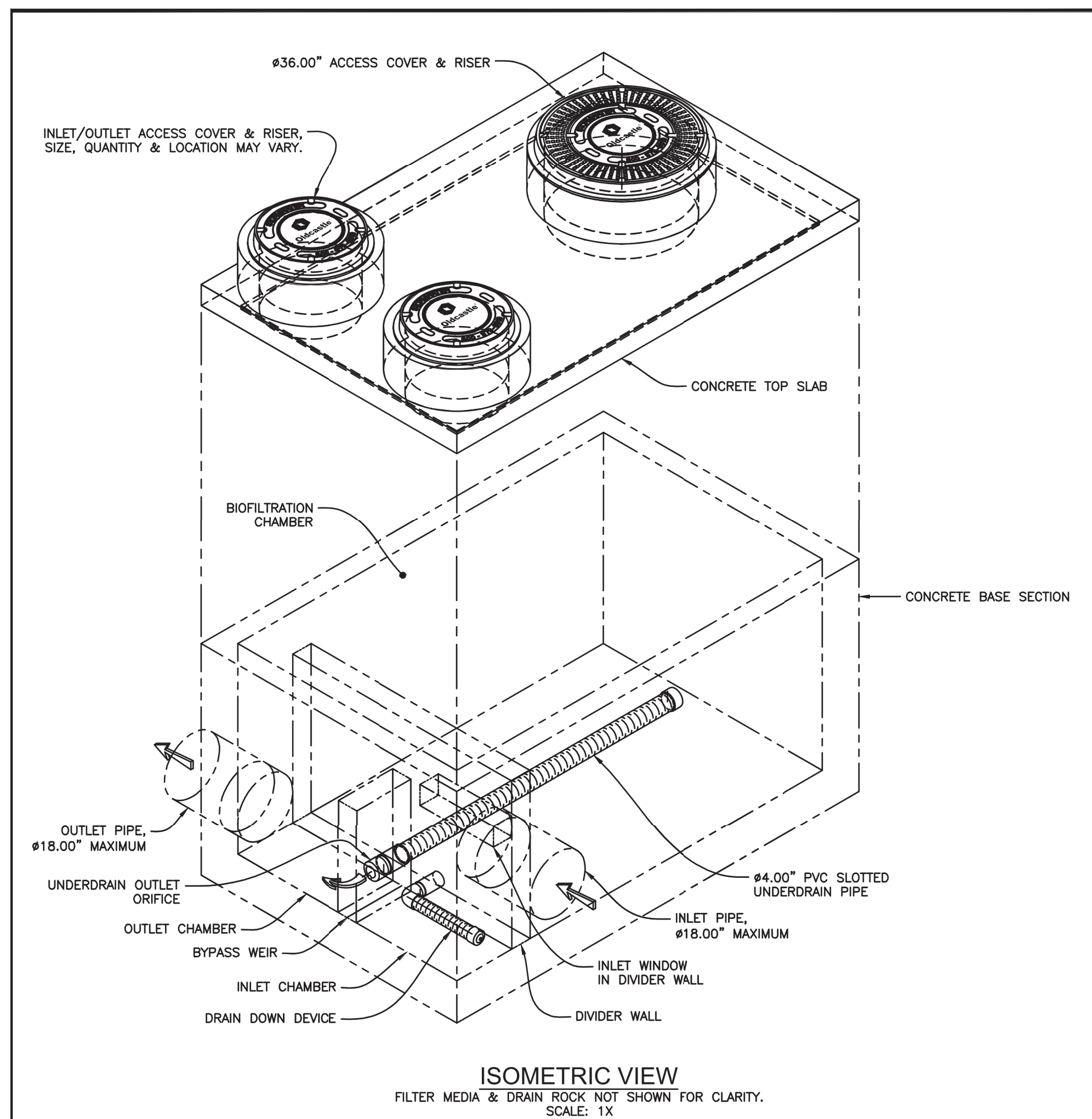
STORM DRAINAGE AND GRADING NOTES & DETAILS

**HIDDEN HILLS APARTMENTS
LAND DEVELOPMENT ACTIVITY PERMIT**

Portion of the Northwest Quarter of the Southeast Quarter Section 1,
Township 23, Range 1 East, W.M. in Kitsap County, Washington

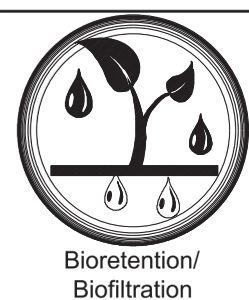
FOR: **HE DEVELOPMENT, LLC**
Attn: James He
4631 SE Bakken Court
Port Orchard, WA 98366
Phone: (360) 874-9966

SCALE: AS SHOWN
DATE: June 21, 2022
PROJECT NUMBER:
19-10959
SHEET C5.40



- NOTES:
- LEFT CONFIGURATION SHOWN, MIRROR RIGHT CONFIGURATION OF INLET AND OUTLET CHAMBER AVAILABLE.
 - CONTACT OLDCASTLE INFRASTRUCTURE FOR ENGINEERING ASSISTANCE AND DETAIL DRAWINGS.
 - CONCRETE COMPONENTS SHALL BE MANUFACTURED IN ACCORDANCE WITH ASTM C890 & C913.

US Patents Pending

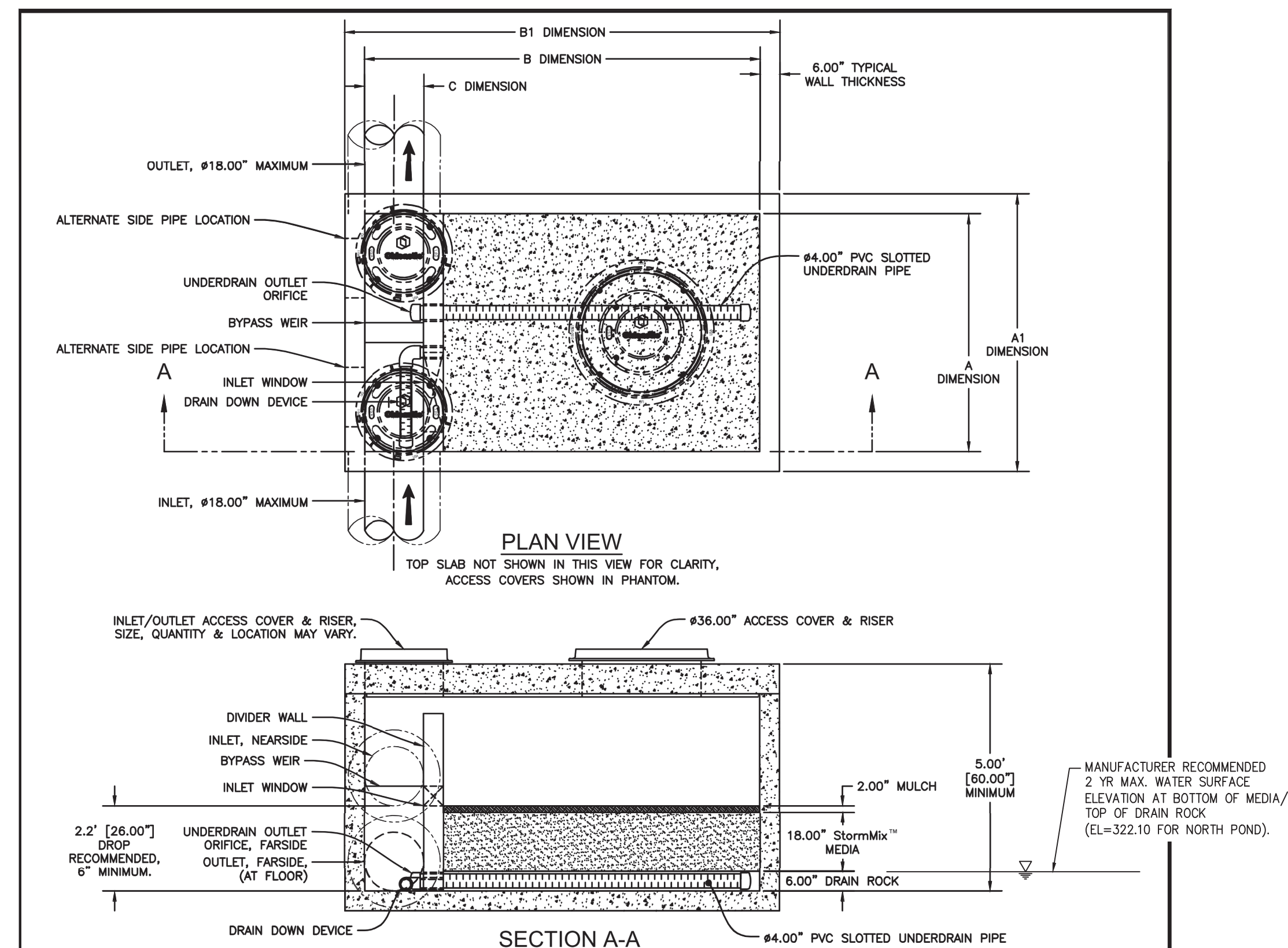


BioPod™ Biofilter
Underground
Vault with Internal Bypass



THIS DOCUMENT IS THE PROPERTY OF OLDCASTLE INFRASTRUCTURE, INC. IT IS SUBMITTED FOR REFERENCE PURPOSES ONLY AND SHALL NOT BE USED IN ANY WAY INJURIOUS TO THE INTERESTS OF SAID COMPANY. COPYRIGHT © 2020 OLDCASTLE INFRASTRUCTURE, INC. ALL RIGHTS RESERVED.

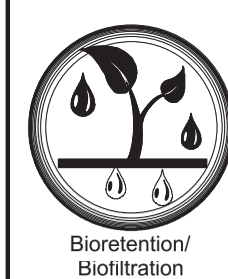
DRAWING NO.	REV	ECO	DATE	SHEET
BPU-IB	C	ECO-0169	PPS 3/9/20	1 OF 2



MODEL	VAULT SIZE ¹ (ID)			VAULT FOOTPRINT ¹ (OD)		TREATMENT FLOW CAPACITY (GPM/CFS)	
	A DIM	B DIM	C DIM	A1 DIM	B1 DIM	1.6 GPM/SF (WA GULD ²)	1.8 GPM/SF (NJCAT ³)
BPU-46IB	4'	6'	1.5'	5'	7'	25.6 / 0.057	28.8 / 0.064
BPU-48IB	4'	8'	1.5'	5'	9'	38.4 / 0.086	43.2 / 0.096
BPU-412IB	4'	12'	1.5'	5'	13'	64.0 / 0.143	72.0 / 0.160
BPU-66IB	6'	6'	1.5'	7'	7'	38.4 / 0.086	43.2 / 0.096
BPU-68IB	6'	8'	1.5'	7'	9'	57.6 / 0.128	64.8 / 0.144
BPU-612IB	6'	12'	2'	7'	13'	91.2 / 0.203	102.6 / 0.229
BPU-812IB	8'	12'	2'	9'	13'	121.6 / 0.271	136.9 / 0.305
BPU-816IB	8'	16'	2'	9'	17'	172.8 / 0.385	194.4 / 0.433

¹ All Dimensions are nominal, ID=Inside Dimension, OD=Outside Dimension.
² Treatment flow capacity at 1.6 gpm/sf media surface area based on an WA Ecology GULD Approval for Basic, Enhanced & Phosphorus.
³ Treatment flow capacity at 1.8 gpm/sf media surface area based on an NJCAT Verification & NJ DEP Certification.

US Patents Pending



BioPod™ Biofilter
Underground
Vault with Internal Bypass



THIS DOCUMENT IS THE PROPERTY OF OLDCASTLE INFRASTRUCTURE, INC. IT IS SUBMITTED FOR REFERENCE PURPOSES ONLY AND SHALL NOT BE USED IN ANY WAY INJURIOUS TO THE INTERESTS OF SAID COMPANY. COPYRIGHT © 2020 OLDCASTLE INFRASTRUCTURE, INC. ALL RIGHTS RESERVED.

DRAWING NO.	REV	ECO	DATE	SHEET
BPU-IB	C	ECO-0169	PPS 3/9/20	2 OF 2

SITE SPECIFIC DATA				
Structure ID				
Model Size				
Orientation (Left or Right)				
Treatment Flow Rate (cfs)				
Peak Flow Rate (cfs)				
Rim Elevation				
Pipe Data	Pipe Location (Front or Side)	Pipe Size	Pipe Type	Invert Elevation
Inlet				
Outlet				
Notes:				

NOTE

THE APPROXIMATE LOCATION OF EXISTING UNDERGROUND UTILITIES ARE SHOWN ON THE PLANS. IT IS THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE THE LOCATION OF EXISTING UTILITIES PRIOR TO COMMENCING WORK. THE CONTRACTOR SHALL BE RESPONSIBLE FOR DAMAGES THAT MIGHT BE OCCASIONED BY THE CONTRACTOR'S FAILURE TO LOCATE, PRESERVE AND PROTECT UNDERGROUND UTILITIES.

CALL 48 HOURS BEFORE YOU DIG 811

REVISIONS

NO.	DATE	BY	DESCRIPTION	DESIGNED	BY	DATE
1	05/26/22	JFK	PLAN REVISED PER CITY OF PORT ORCHARD COMMENTS DATED 03/29/2022.	JFK	JFK	9/21
				AUE	AUE	9/21
				NLOII	NLOII	9/21

N.L. Olson & Associates, Inc.
Engineering, Planning and Surveying
(360) 876-2284
2453 Bethel Avenue, P.O. Box 637, Port Orchard, WA 98366

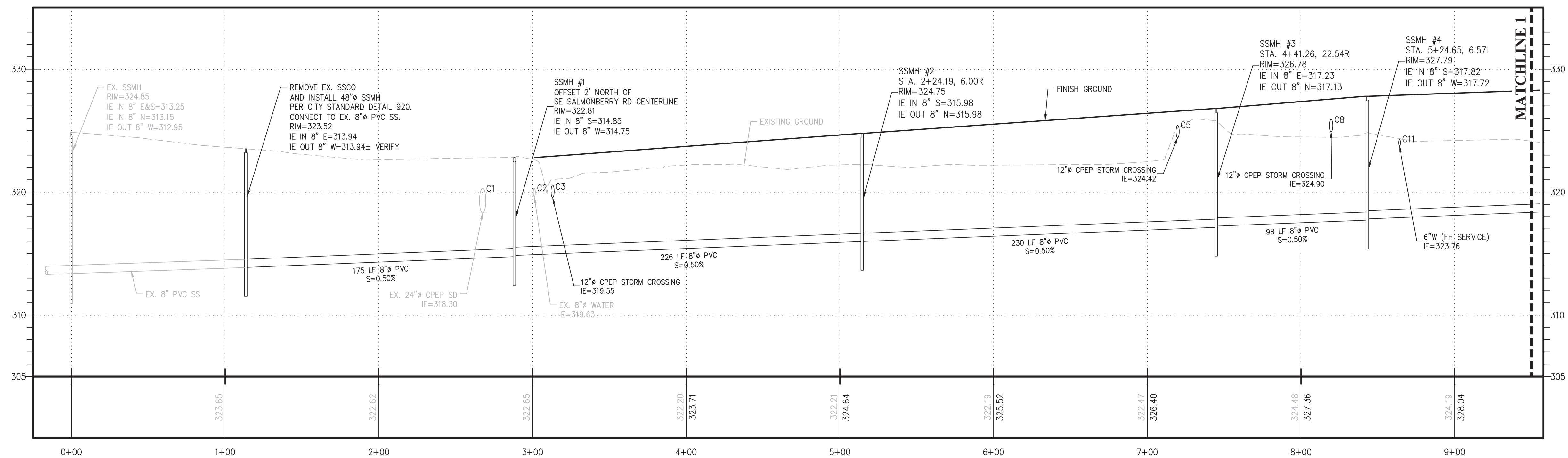


STORM WATER QUALITY DETAILS

HIDDEN HILLS APARTMENTS
LAND DEVELOPMENT ACTIVITY PERMIT
Portion of the Northwest Quarter of the Southeast Quarter Section 1, Township 23, Range 1 East, W.M. in Kitsap County, Washington

FOR: **HE DEVELOPMENT, LLC**
Attn: James He
4631 SE Bakken Court
Port Orchard, WA 98366
Phone: (360) 874-9966

SCALE: AS SHOWN
DATE: June 21, 2022
PROJECT NUMBER: 19-10959
SHEET C5.70



SANITARY SEWER PROFILE (EX. SSCO TO SSMH #6)

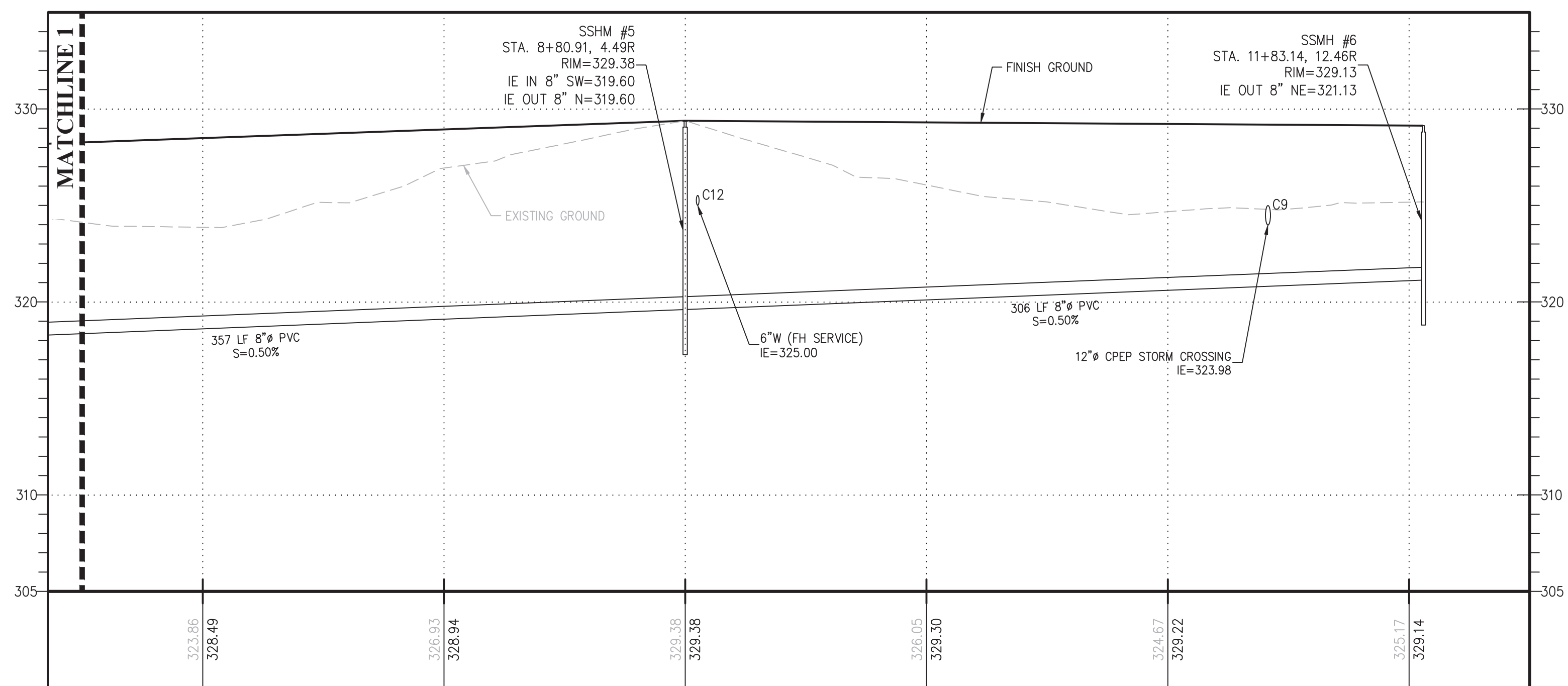
SCALE: HORIZ. 1"=40'
VERT. 1"=5'

CROSSING TABLE	
C1	EX. 10" CPEP STORM IE=318.30 8" PVC SDR-35 SS IE=314.64
C2	EX. 8" DI. CL-52 WATER IE=319.63 8" PVC SDR-35 SS IE=314.91
C3	12" CPEP STORM IE=319.55 8" PVC SDR-35 SS IE=314.97
C4	12" CPEP STORM IE=319.61 8" D.I. CL-52 WATER IE=317.95
C5	12" CPEP STORM IE=324.42 8" PVC SDR-35 SS IE=317.00
C6	12" CPEP STORM IE=324.48 8" D.I. CL-52 WATER IE=322.82
C7	12" CPEP STORM IE=324.82 8" D.I. CL-52 WATER IE=323.18
C8	12" CPEP STORM IE=324.90 8" PVC SDR-35 SS IE=317.60
C9	12" CPEP STORM IE=323.98 8" PVC SDR-35 SS IE=320.81
C10	12" CPEP STORM IE=324.24 8" D.I. CL-52 WATER IE=322.57
C11	6"W (FH SERVICE) IE=323.76 8" PVC SDR-35 SS IE=317.92
C12	6"W (FH SERVICE) IE=325.00 8" PVC SDR-35 SS IE=319.63
C13	12" CPEP STORM IE=324.32 36" CPEP STORM IE=318.30
C14	12" CPEP STORM IE=321.81 12" CPEP STORM IE=318.65
C15	8" CPEP STORM IE=321.35 12" CPEP STORM IE=319.00

NOTE

THE APPROXIMATE LOCATION OF EXISTING UNDERGROUND UTILITIES ARE SHOWN ON THE PLANS. IT IS THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE THE LOCATION OF EXISTING UTILITIES PRIOR TO COMMENCING WORK. THE CONTRACTOR SHALL BE RESPONSIBLE FOR DAMAGES THAT MIGHT BE OCCASIONED BY THE CONTRACTOR'S FAILURE TO LOCATE, PRESERVE AND PROTECT UNDERGROUND UTILITIES.

CALL 48 HOURS BEFORE YOU DIG 811

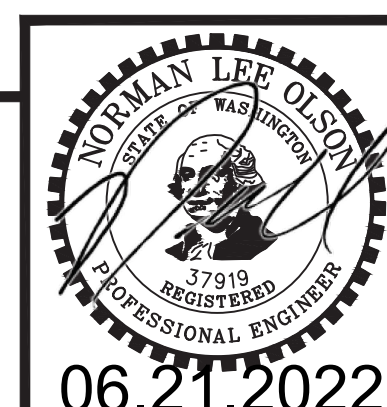


SANITARY SEWER PROFILE (EX. SSCO TO SSMH #6)

SCALE: HORIZ. 1"=40'
VERT. 1"=5'

REVISIONS				BY	DATE
NO.	DATE	BY	DESCRIPTION	DESIGNED	JFK 9/21
1	05/26/22	JFK	PLAN REVISED PER CITY OF PORT ORCHARD COMMENTS DATED 03/29/2022.	DRAWN	AUE 9/21
				CHECKED	NLOII 9/21
				APPROVED	
				ACCEPTED	

N.L.Olson & Associates, Inc.
Engineering, Planning and Surveying
(360) 876-2284
2453 Bethel Avenue, P.O. Box 637, Port Orchard, WA 98366



SANITARY SEWER PROFILE
HIDDEN HILLS APARTMENTS
LAND DEVELOPMENT ACTIVITY PERMIT
Portion of the Northwest Quarter of the Southeast Quarter Section 1,
Township 23, Range 1 East, W.M. in Kitsap County, Washington

FOR: **HE DEVELOPMENT, LLC**
Attn: James He
4631 SE Bakken Court
Port Orchard, WA 98366
Phone: (360) 874-9966

SCALE: AS SHOWN
DATE: June 21, 2022
PROJECT NUMBER:
19-10959
SHEET C6.10

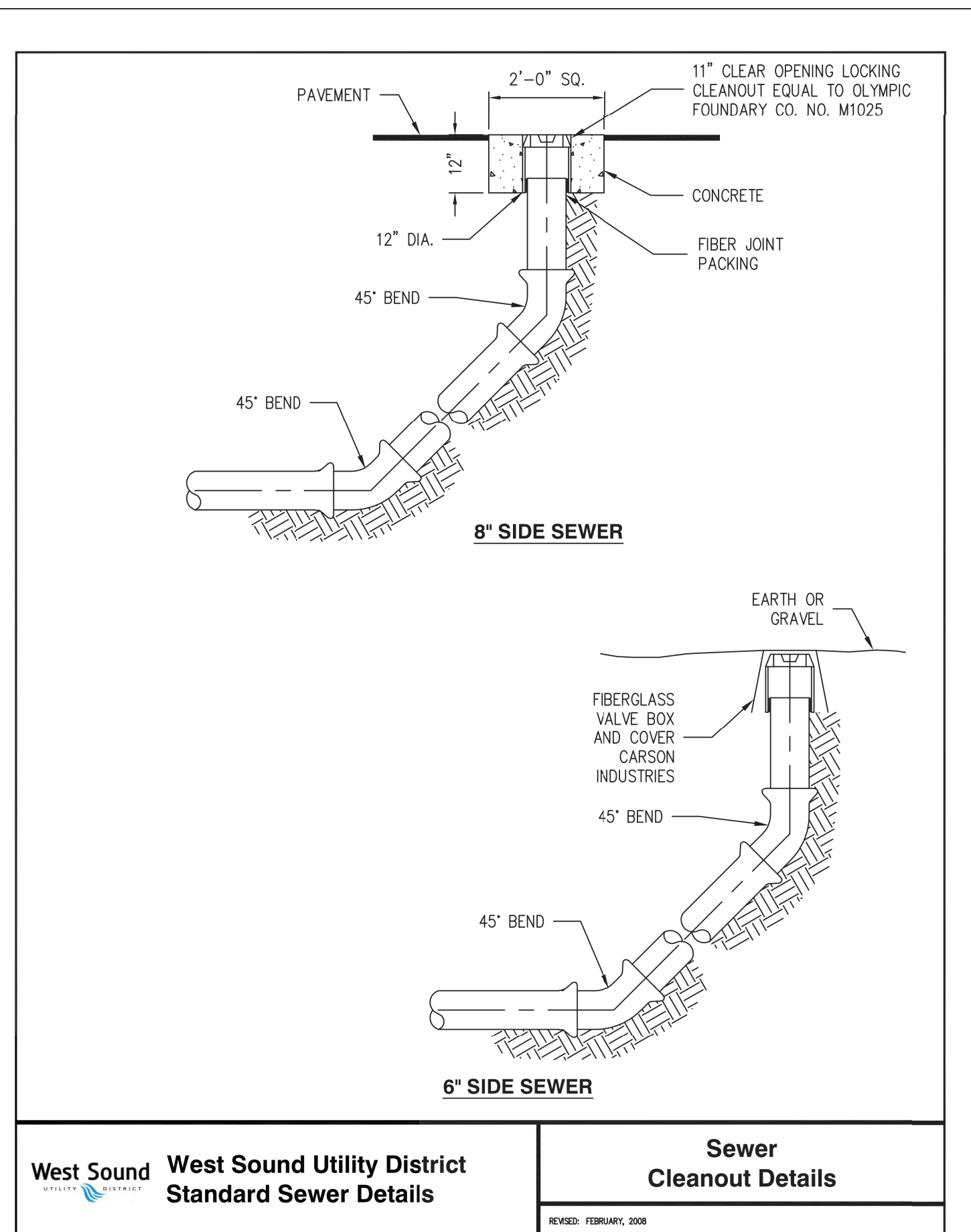
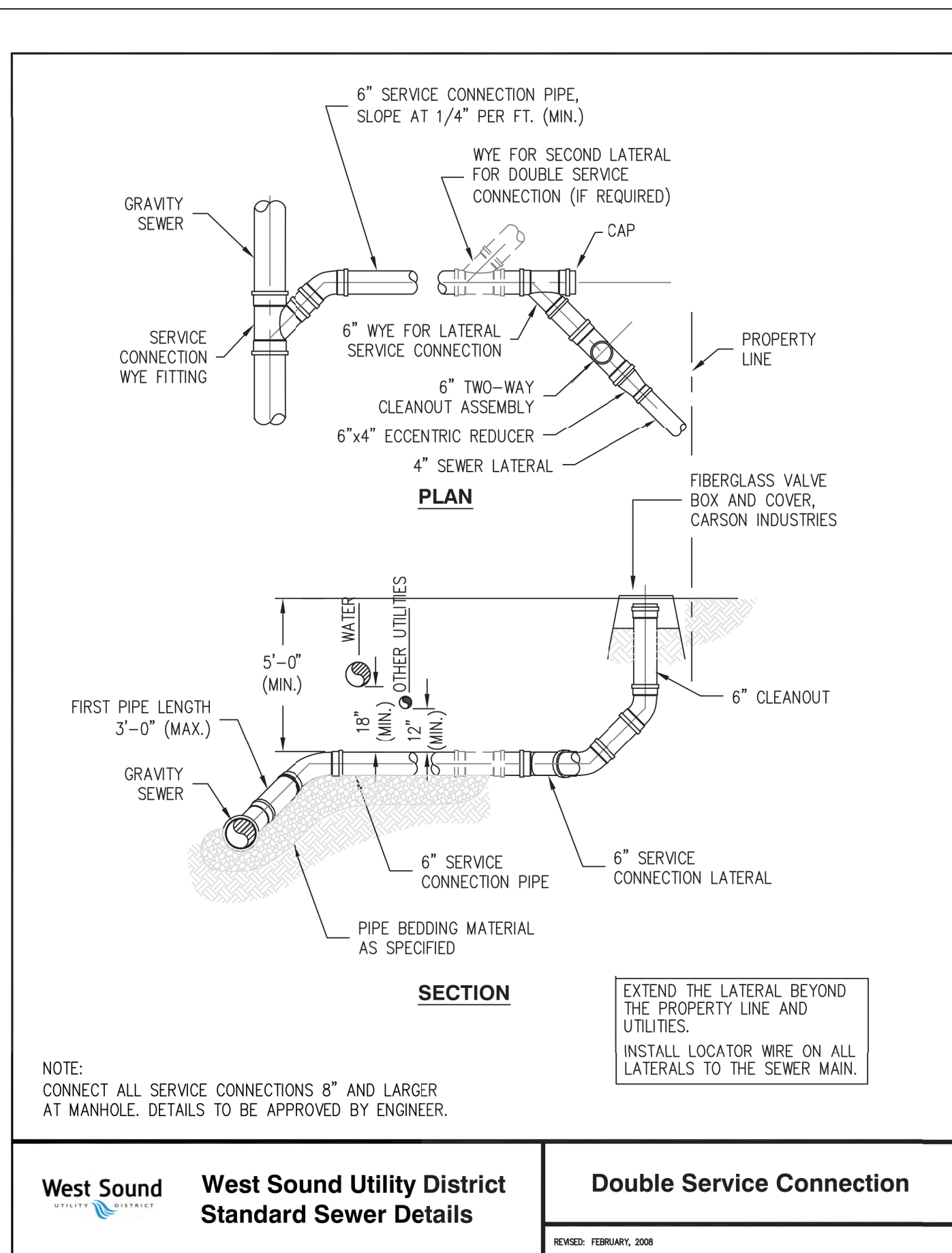
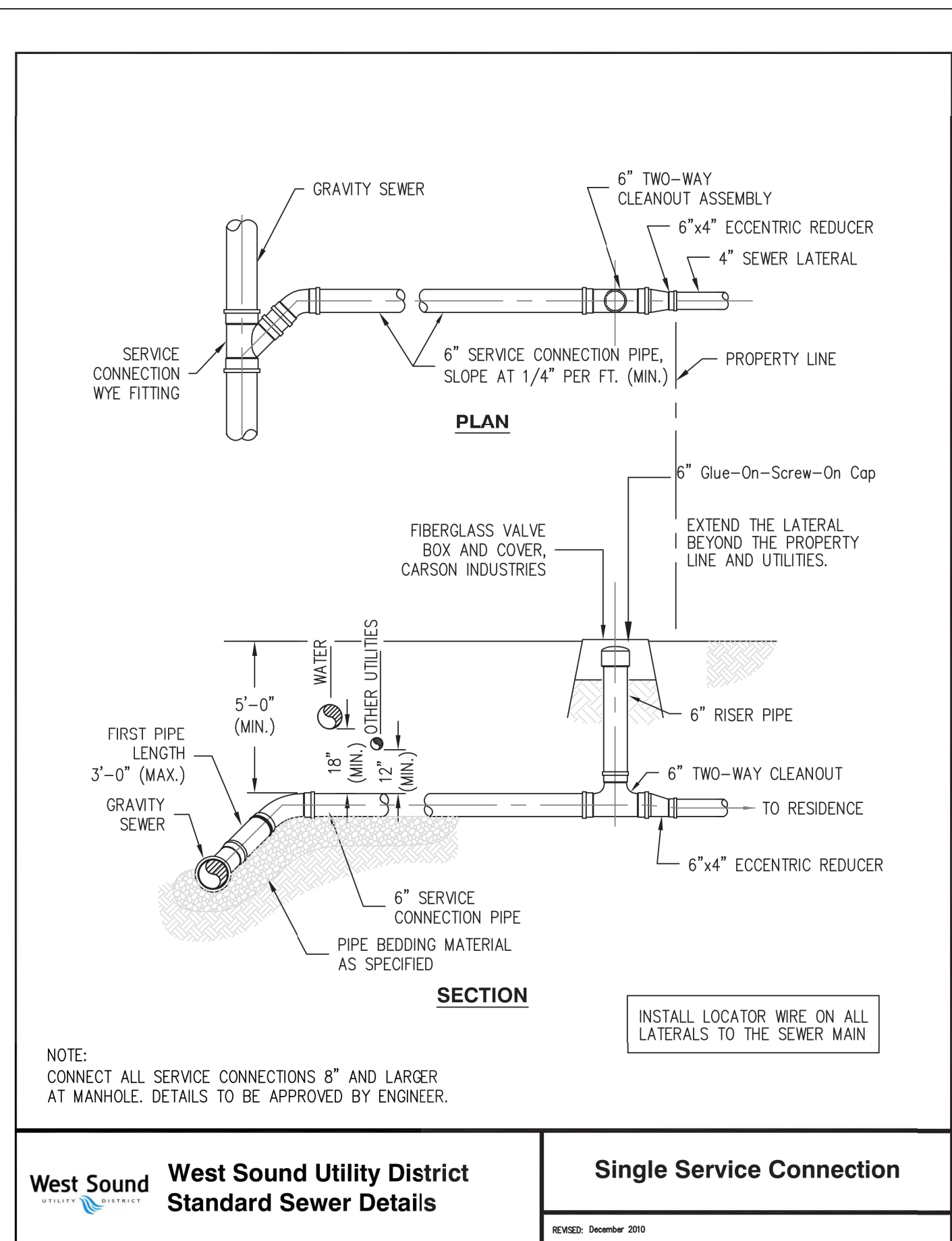
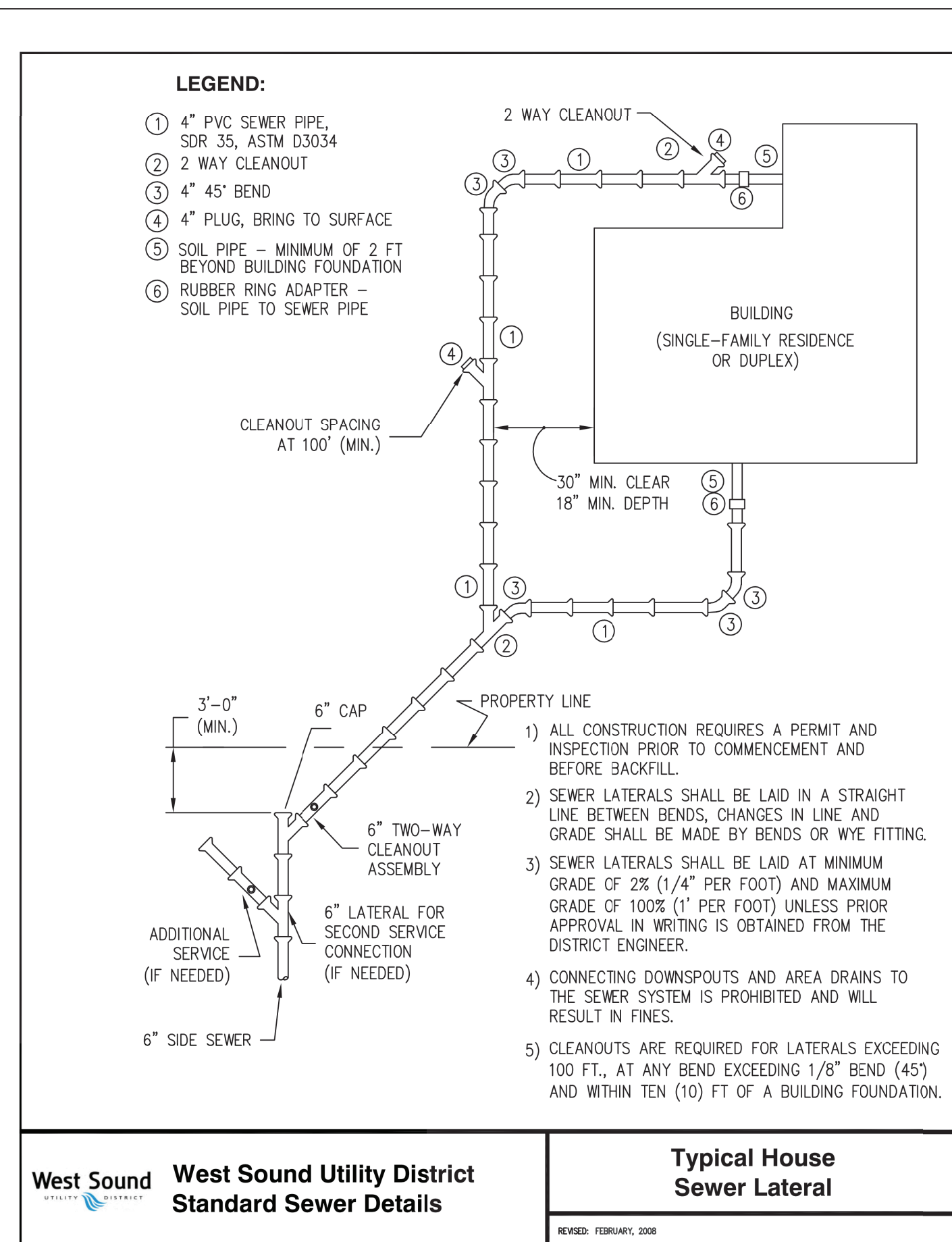
GENERAL SEWER NOTES

- ALL WORK SHALL BE ACCOMPLISHED IN ACCORDANCE WITH THE LATEST EDITION OF THE DEVELOPER'S EXTENSION AGREEMENT AS ADOPTED BY WEST SOUND UTILITY DISTRICT.
- ALL CONSTRUCTION REQUIRES A PERMIT PRIOR TO COMMENCEMENT AND BEFORE BACKFILL.
- SEWER LATERALS SHALL BE LAID IN A STRAIGHT LINE BETWEEN BENDS, CHANGES IN LINE AND GRADE SHALL BE 1/16 BEND (22 1/2') OR WYE.
- SEWER LATERALS SHALL BE LAID AT A MINIMUM GRADE OF 2% (1/4" PER FOOT) AND MAXIMUM GRADE OF 100% (1' PER FOOT) UNLESS PRIOR APPROVAL IN WRITING IS OBTAINED FROM THE DISTRICT ENGINEER.
- DOWNSPOUTS AND AREA DRAINS SHALL NOT BE CONNECTED TO THE SEWER SYSTEM.
- CLEANOUTS ARE REQUIRED FOR LATERALS EXCEEDING 100 FT. AT ANY BEND EXCEEDING 1/8" BEND (45') AND WITHIN (10) FT. OF A BUILDING FOUNDATION.
- PROVIDE A MINIMUM 2 FOOT WIDE COMPACTED PIPE BASE UNDER WYES INSTALLED IN TRENCHES.
- PIPE AND FITTINGS SHALL BE ASTM D 3034 SDR35 PVC MATERIAL THROUGHOUT.
- PLACE A NEW 2 X 4 (UTILITY GRADE OR BETTER) SERVICE CONNECTION MARKER AND A MAGNETIC TAPE MARKER AT THE END OF THE SIDE SEWER SERVICE STUB.
- DO NOT BACKFILL ANY SIDE SEWERS UNTIL THE DISTRICT HAS VISUALLY INSPECTED AND APPROVED THE INSTALLATION.
- SIDE SEWER CONNECTION TO EXISTING DISTRICT SEWER SHALL BE WITH USE OF A MECHANICAL SADDLE JOINT, BOLT ON THE RUBBER COMPRESSION GASKET SEAL AREA, AND WITH A 45 DEGREE ANGLE INPUT TO ALLOW ENTRY TO BE IN THE DIRECTION OF FLOW.
- CUT AN OVAL HOLE IN THE DISTRICT MAIN OF SUFFICIENT SIZE TO ACCEPT THE SIDE SEWER SERVICE PIPE AT A 45 DEGREE ANGLE OF ATTACK. THE INTERIOR OF THE DISTRICT MAIN AS SEEN FROM THE INTERIOR WILL SHOW THIS ENTRY POINT.
- PERMIT REQUIRED FROM THE CITY OF PORT ORCHARD PRIOR TO ANY WORK IN RIGHT-OF-WAY.
- CALL UTILITY LOCATE PRIOR TO EXCAVATION.
- SAWCUT & REMOVE ASPHALT AS REQUIRED TO MAKE CONNECTION TO SANITARY SEWER LINE. PROVIDE TEMPORARY ASPHALT PATCH UNTIL PERMANENT PATCH IS COMPLETED.
- PROVIDE TRAFFIC CONTROL AS REQUIRED TO COMPLETE WORK WITHIN R.O.W. OR TRAVELLED AREAS.

NOTE

THE APPROXIMATE LOCATION OF EXISTING UNDERGROUND UTILITIES ARE SHOWN ON THE PLANS. IT IS THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE THE LOCATION OF EXISTING UTILITIES PRIOR TO COMMENCING WORK. THE CONTRACTOR SHALL BE RESPONSIBLE FOR DAMAGES THAT MIGHT BE OCCASIONED BY THE CONTRACTOR'S FAILURE TO LOCATE, PRESERVE AND PROTECT UNDERGROUND UTILITIES.

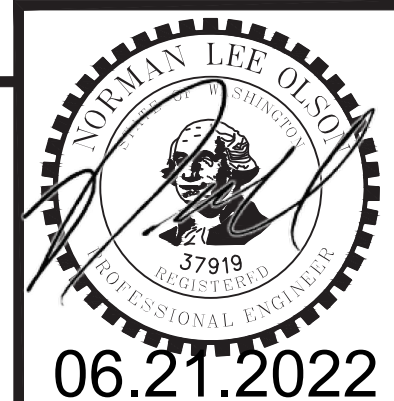
CALL 48 HOURS BEFORE YOU DIG 811



I:\env\hnt\AutoCAD\Projects\10959\10959.DWG\10959_C6_20_C6_30_SANITARY_SEWER_NOTES_AND_DETAILS.dwg, 6/21/2022 9:35:15 AM, A:\hnt

REVISIONS				BY	DATE
NO.	DATE	BY	DESCRIPTION	DESIGNED	JFK 9/21
				DRAWN	AUE 9/21
				CHECKED	NLOII 9/21
				APPROVED	
				ACCEPTED	

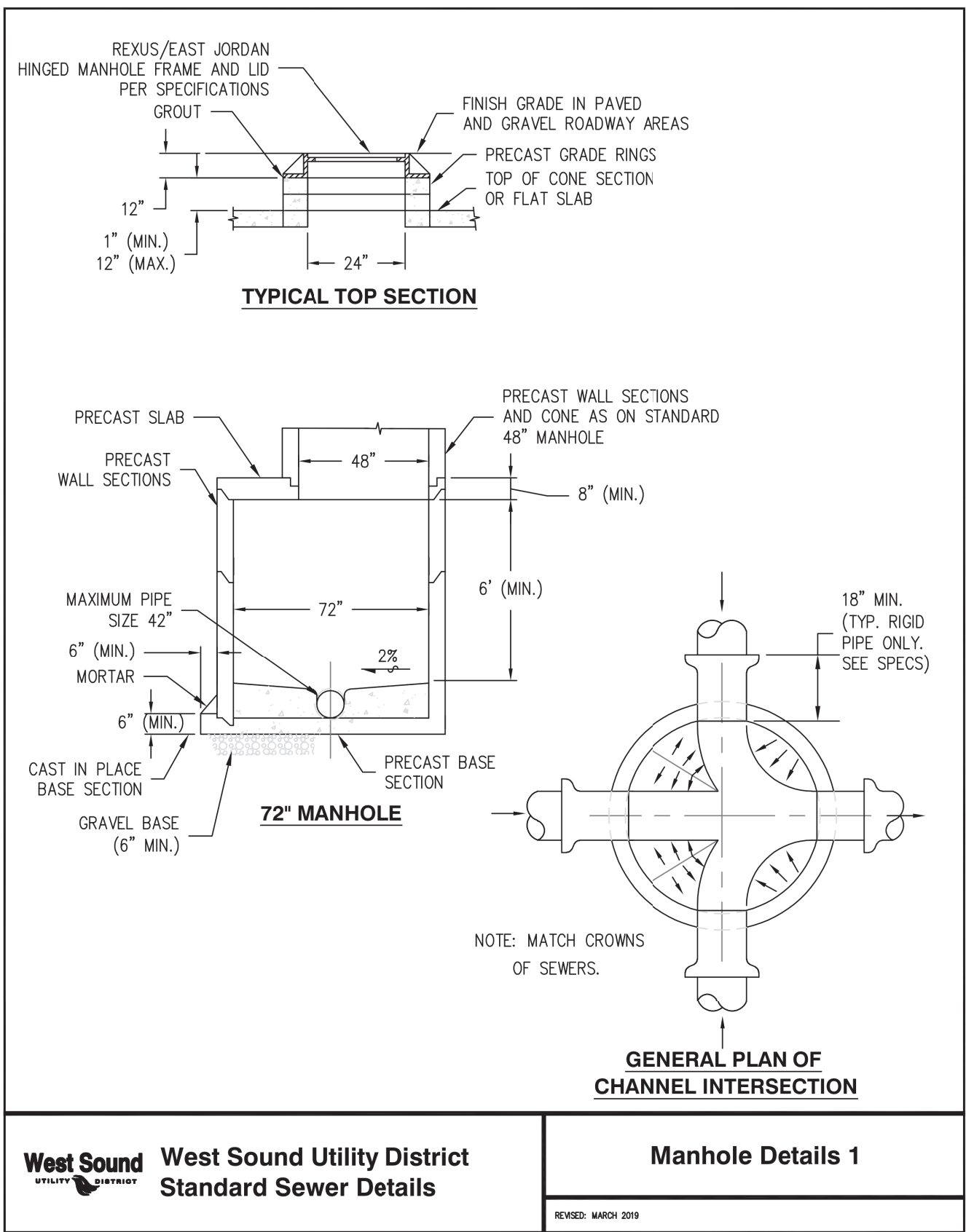
N.L. Olson & Associates, Inc.
Engineering, Planning and Surveying
(360) 876-2284
2453 Bethel Avenue, P.O. Box 637, Port Orchard, WA 98366



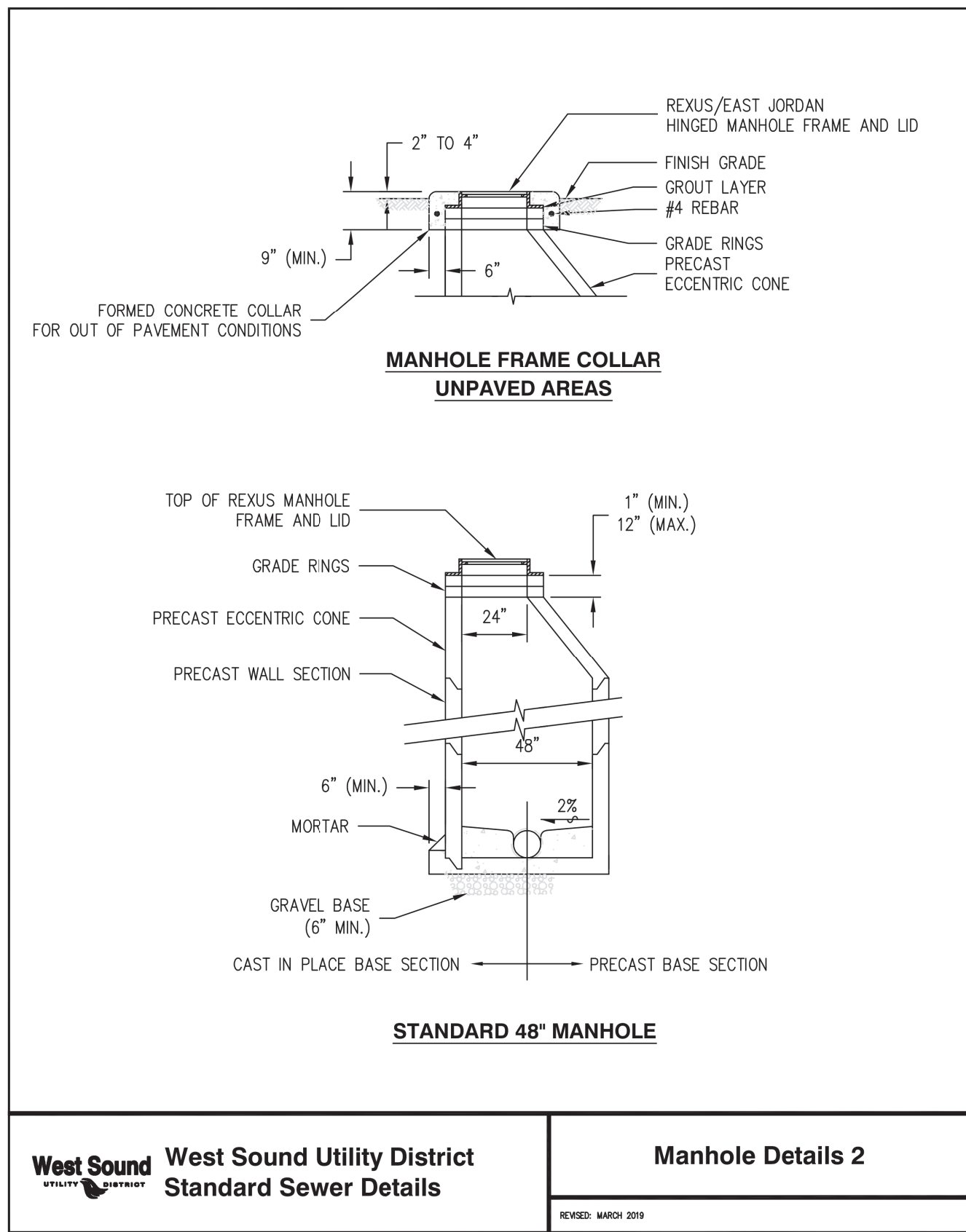
SANITARY SEWER NOTES AND DETAILS
HIDDEN HILLS APARTMENTS
LAND DEVELOPMENT ACTIVITY PERMIT
Portion of the Northwest Quarter of the Southeast Quarter Section 1,
Township 23, Range 1 East, W.M. in Kitsap County, Washington

FOR: **HE DEVELOPMENT, LLC**
Attn: James He
4631 SE Bakken Court
Port Orchard, WA 98366
Phone: (360) 874-9966

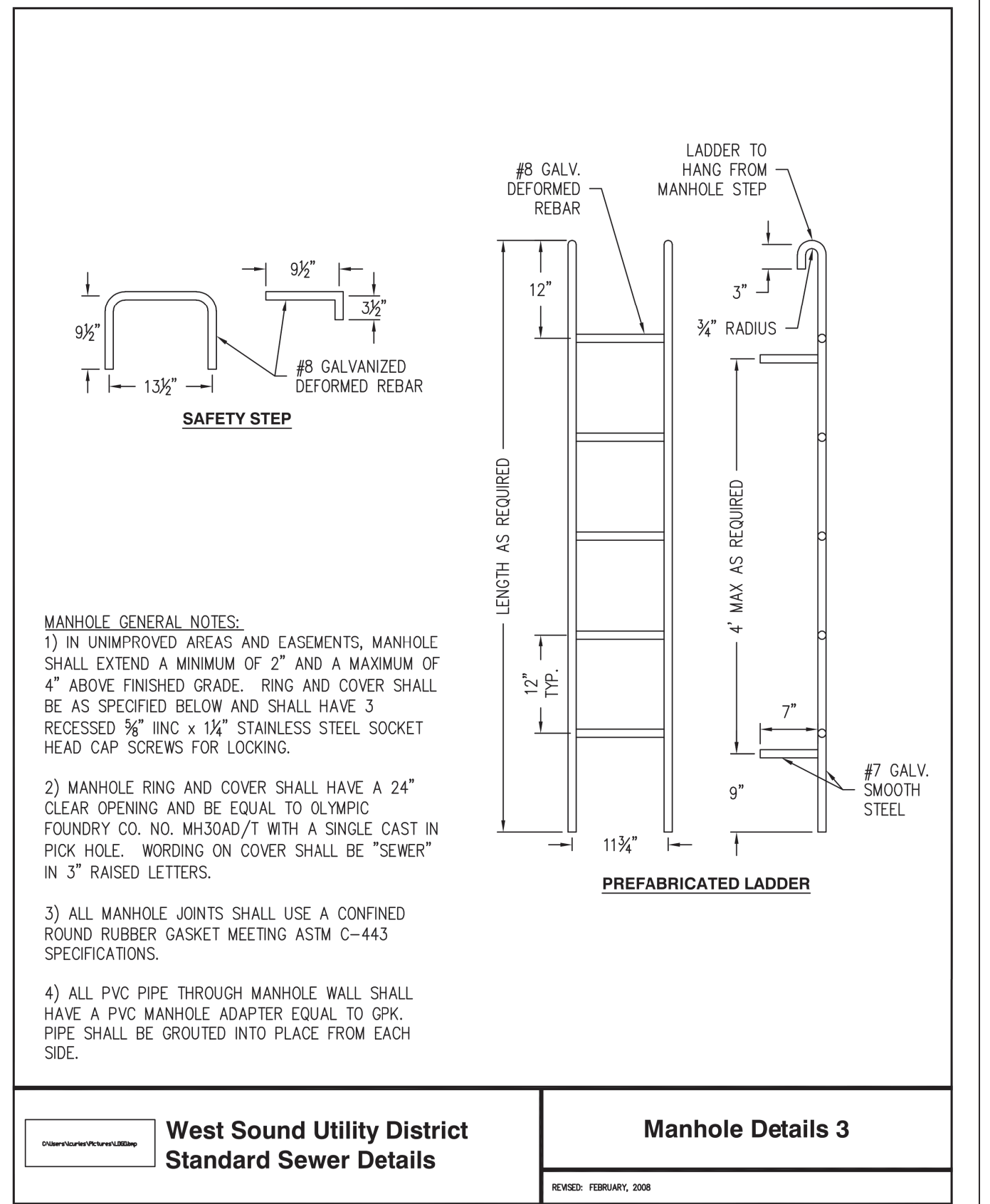
SCALE: AS SHOWN
DATE: June 21, 2022
PROJECT NUMBER: 19-10959
SHEET C6.20



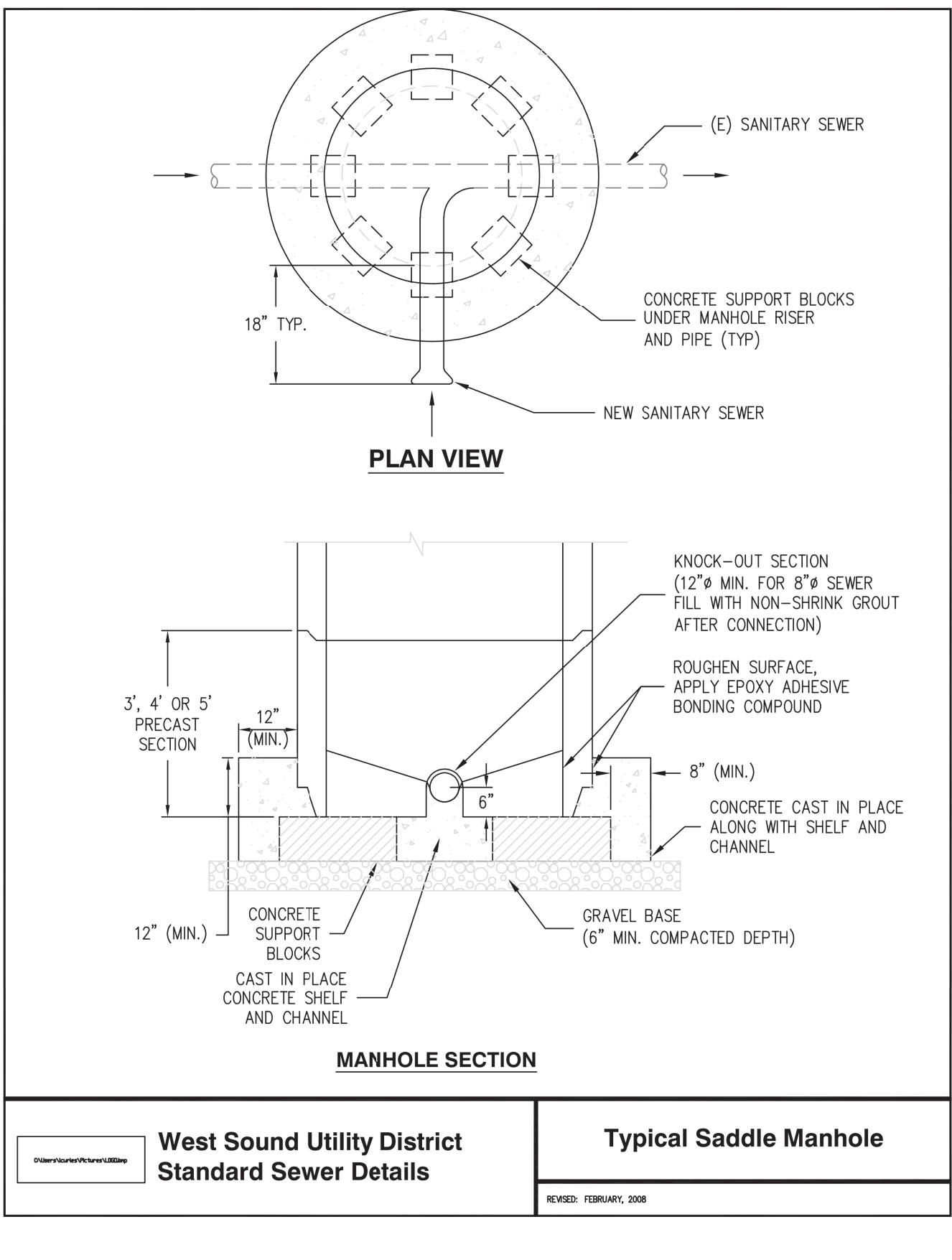
West Sound Utility District Standard Sewer Details
Manhole Details 1
 REVISED: MARCH 2013



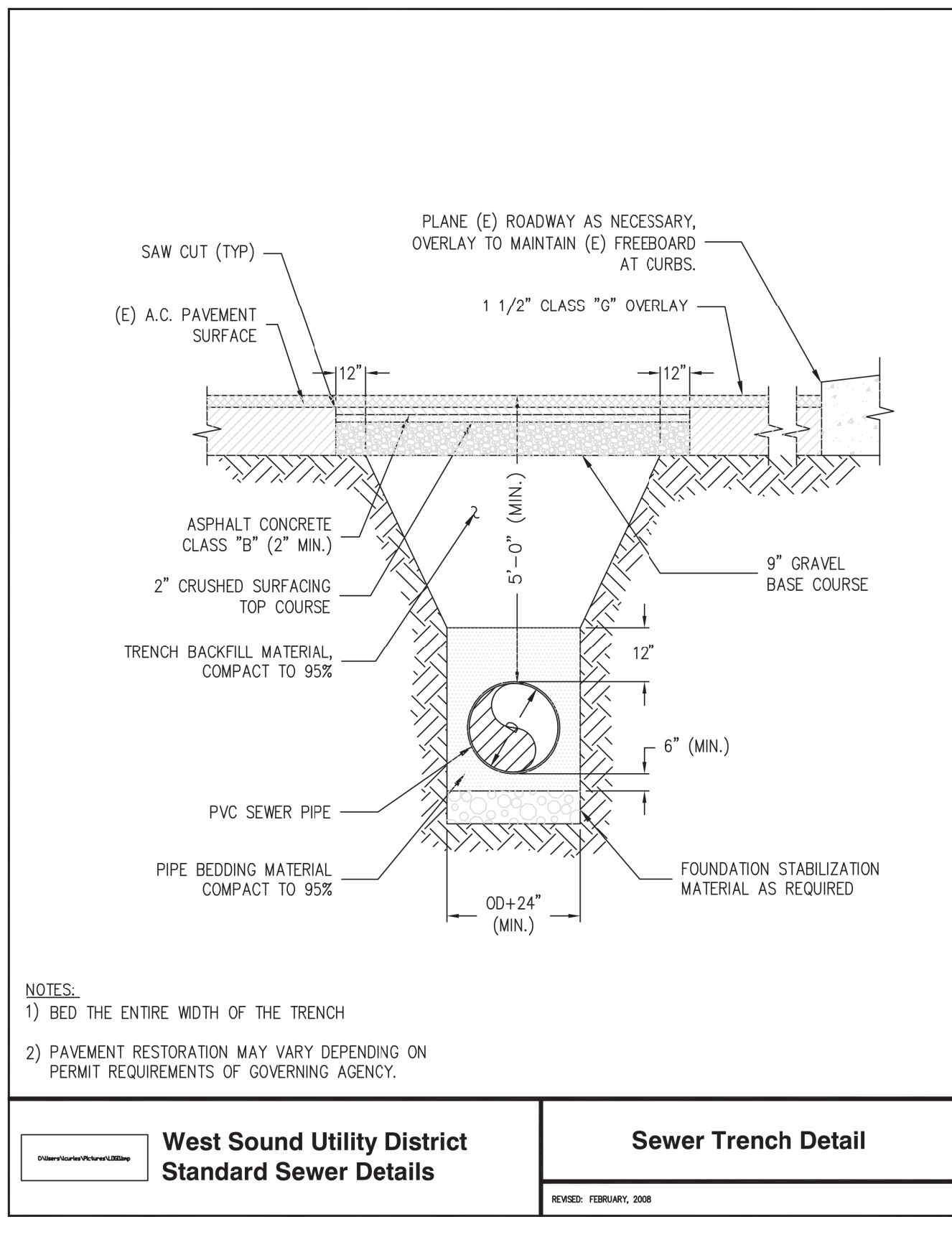
West Sound Utility District Standard Sewer Details
Manhole Details 2
 REVISED: MARCH 2013



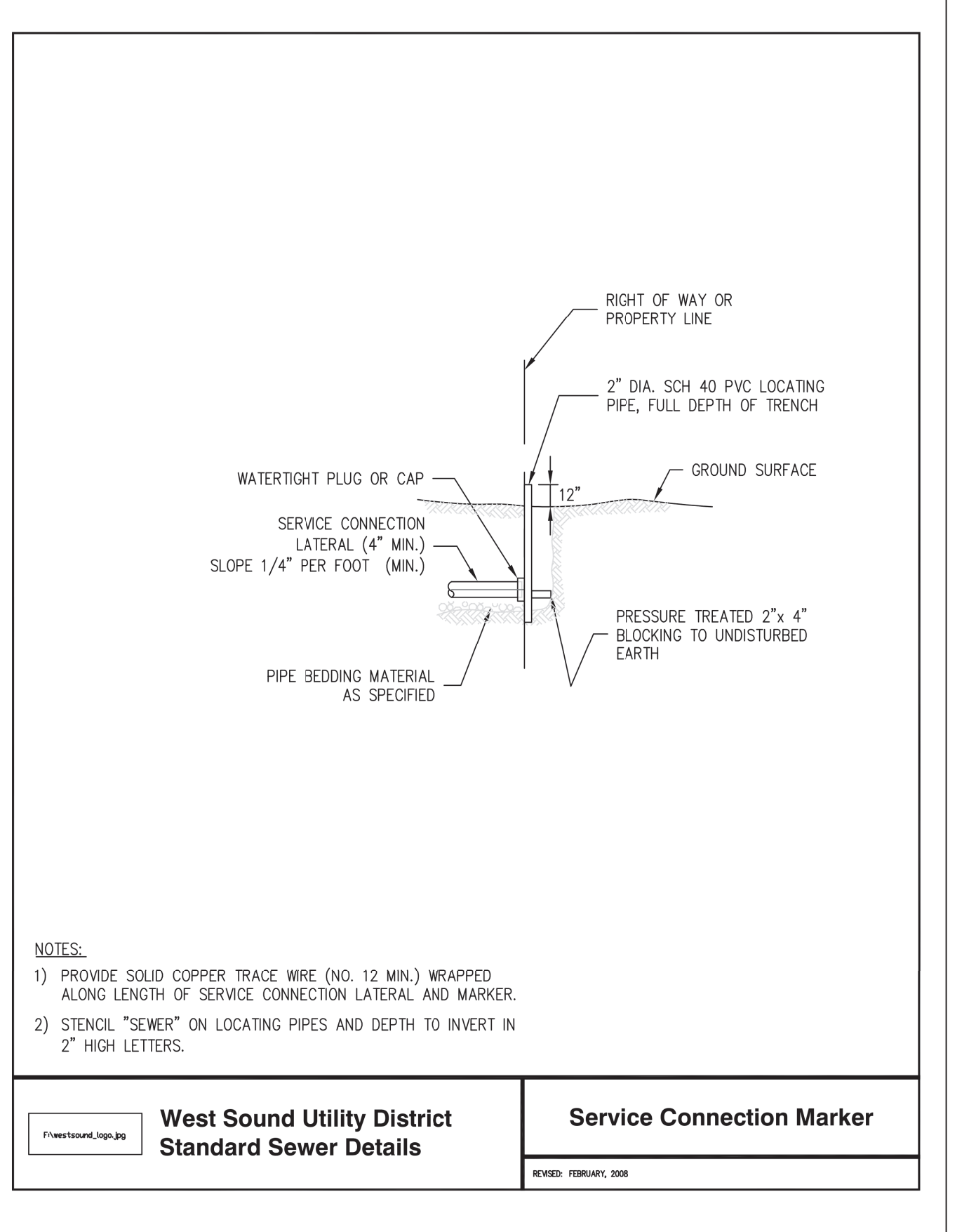
West Sound Utility District Standard Sewer Details
Manhole Details 3
 REVISED: FEBRUARY, 2008



West Sound Utility District Standard Sewer Details
Typical Saddle Manhole
 REVISED: FEBRUARY, 2008



West Sound Utility District Standard Sewer Details
Sewer Trench Detail
 REVISED: FEBRUARY, 2008



West Sound Utility District Standard Sewer Details
Service Connection Marker
 REVISED: FEBRUARY, 2008

NOTE

THE APPROXIMATE LOCATION OF EXISTING UNDERGROUND UTILITIES ARE SHOWN ON THE PLANS. IT IS THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE THE LOCATION OF EXISTING UTILITIES PRIOR TO COMMENCING WORK. THE CONTRACTOR SHALL BE RESPONSIBLE FOR DAMAGES THAT MIGHT BE OCCASIONED BY THE CONTRACTOR'S FAILURE TO LOCATE, PRESERVE AND PROTECT UNDERGROUND UTILITIES.

CALL 48 HOURS BEFORE YOU DIG 811

REVISIONS

NO.	DATE	BY	DESCRIPTION	BY	DATE
				DESIGNED	JFK 9/21
				DRAWN	AUE 9/21
				CHECKED	NLOII 9/21
				APPROVED	
				ACCEPTED	

N.L.Olson & Associates, Inc.
 Engineering, Planning and Surveying
 (360) 876-2284
 2453 Bethel Avenue, P.O. Box 637, Port Orchard, WA 98366



SANITARY SEWER DETAILS

**HIDDEN HILLS APARTMENTS
 LAND DEVELOPMENT ACTIVITY PERMIT**
 Portion of the Northwest Quarter of the Southeast Quarter Section 1,
 Township 23, Range 1 East, W.M. in Kitsap County, Washington

FOR: **HE DEVELOPMENT, LLC**
 Attn: James He
 4631 SE Bakken Court
 Port Orchard, WA 98366
 Phone: (360) 874-9966

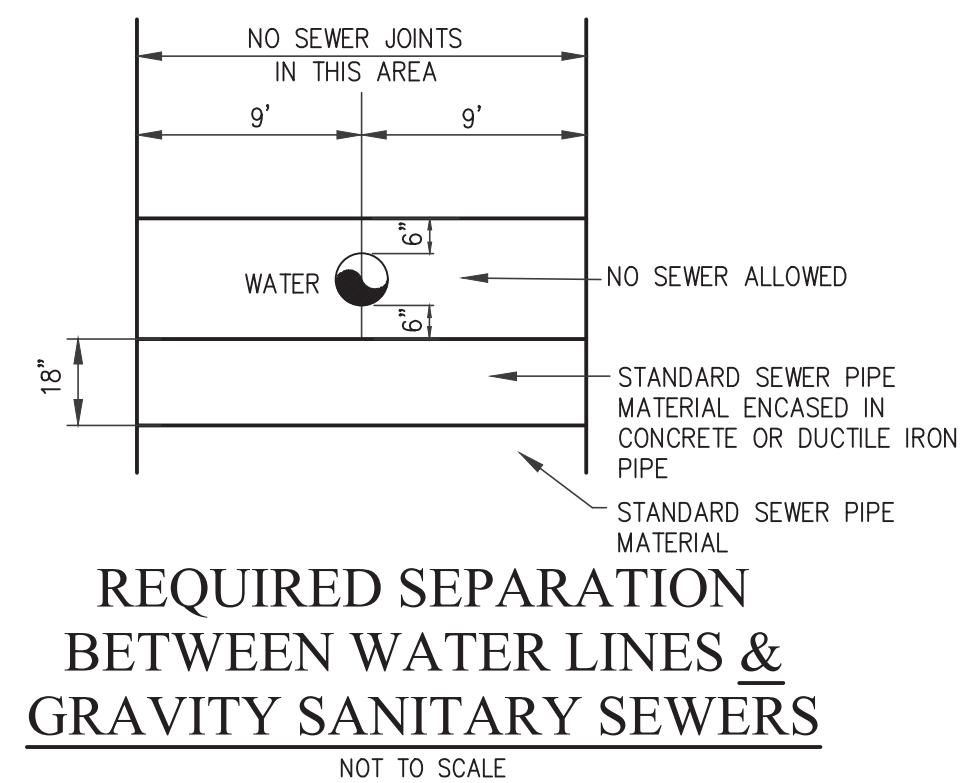
SCALE: AS SHOWN
 DATE: June 21, 2022
 PROJECT NUMBER:
19-10959
 SHEET C6.30

GENERAL WATER NOTES

- EXCEPT WHERE THE STANDARDS PROVIDE OTHERWISE, DESIGN DETAILS WORKMANSHIP AND MATERIALS SHALL BE IN ACCORDANCE WITH THE 2000 EDITION OF THE "STANDARD SPECIFICATIONS FOR ROAD, BRIDGE AND MUNICIPAL CONSTRUCTION" PREPARED BY THE WASHINGTON STATE CHAPTER OF AMERICAN PUBLIC WORKS ASSOCIATION AND THE WASHINGTON STATE DEPARTMENT OF TRANSPORTATION.
- ALL WORKMANSHIP AND MATERIALS SHALL CONFORM TO THE CITY OF PORT ORCHARD DEPT. OF PUBLIC WORKS.
- ALL PIPE SHALL BE DUCTILE IRON CL. 50 UNLESS OTHERWISE SHOWN.
- ALL PIPE AND FITTINGS NOT TO BE DISINFECTED IN PLACE SHALL BE SWABBED WITH 200 PPM CHLORINE SOLUTION PRIOR TO INSTALLATION.
- AFTER DISINFECTION OF THE WATERMAIN, DISPOSE OF CHLORINATED WATER BY DISCHARGING TO NEAREST OPERATING SANITARY SEWER.
- WATERMAIN SHUT-OFF SHALL BE COORDINATED WITH CITY OF PORT ORCHARD WATER DISTRICT OPERATIONS CREW FOR PREFERRED TIMING DURING FLOW CONTROL CONDITIONS. (876-4991)
- LOCATIONS OF EXISTING UTILITIES SHOWN IN THESE PLANS ARE APPROXIMATE AND MAY NOT BE COMPLETE. ACTUAL UTILITY LOCATIONS ARE TO BE DETERMINED IN THE FIELD BY THE CONTRACTOR.
- DEFLECT THE WATERMAIN ABOVE OR BELOW EXISTING UTILITIES AS REQUIRED TO MAINTAIN 3 FEET MINIMUM COVER AND 12 INCHES MINIMUM VERTICAL CLEARANCE BETWEEN UTILITIES UNLESS OTHERWISE SPECIFIED.
- THE WATERMAIN SHALL BE INSTALLED ONLY AFTER THE ROADWAY SUBGRADE IS BACKFILLED, GRADED AND COMPACTED IN CUT AND FILL AREAS.
- TRENCH BACKFILL AND SURFACE RESTORATION OF EXISTING ASPHALT PAVEMENT SHALL BE AS REQUIRED BY THE RIGHT-OF-WAY USE PERMIT.
- ALL FITTINGS SHALL BE BLOCKED PER STANDARD DETAILS UNLESS OTHERWISE SPECIFIED.
- THE CONTRACTOR SHALL PROVIDE PROTECTIVE CLOTHING AND EQUIPMENT TO CREWS WORKING WITH ASBESTOS CEMENT PIPE IN ORDER TO ASSURE THE WORKERS' EXPOSURE TO ASBESTOS MATERIALS BE AT OR BELOW THE LIMIT PRESCRIBED IN WAC 296-62-07705. PER STATE STANDARDS/REQUIREMENTS.
- THE CONTRACTOR SHALL USE A VACUUM STREET SWEEPER TO REMOVE DUST AND DEBRIS FROM PAVEMENT AREAS AS DIRECTED BY THE ENGINEER. FLUSHING OF STREETS SHALL NOT BE PERMITTED WITHOUT PRIOR CITY APPROVAL.
- BEFORE COMMENCEMENT OF TRENCHING, THE CONTRACTOR SHALL PROVIDE FILTER FABRIC FOR ALL DOWNHILL STORM DRAIN INLETS AND CATCH BASINS. THE CONTRACTOR SHALL PERIODICALLY INSPECT THE CONDITION OF ALL FILTER FABRIC AND REPLACE AS NECESSARY.

WATER SYSTEM SPECIFICATIONS

- METER TO BE FURNISHED AND INSTALLED BY THE CITY. WATER METERS SHALL BE SENSUS AND READ IN GALLONS.
- BACKFLOW PREVENTION DEVICES TO BE INSTALLED IN ACCORDANCE WITH STATE REQUIREMENTS.
- FIRE DEPARTMENT MUST APPROVE ALL FIRE HYDRANT SELECTIONS AND PLACEMENT PRIOR TO CONSTRUCTION. STORZ COUPLINGS ARE REQUIRED ON ALL HYDRANTS.
- ALL NEW MAINS WILL BE PRESSURE TESTED TO 'APWA' STANDARDS. THE MINIMUM TEST SHALL BE 175 POUNDS FOR 15 MINUTES.
- ALL NEW MAINS WILL BE DISINFECTED AND TESTED BY THE HEALTH DEPARTMENT PRIOR TO ACCEPTANCE BY THE CITY. THE CITY WILL ACTUALLY TAKE THE WATER SAMPLE FOR THE HEALTH DEPARTMENT TESTING.

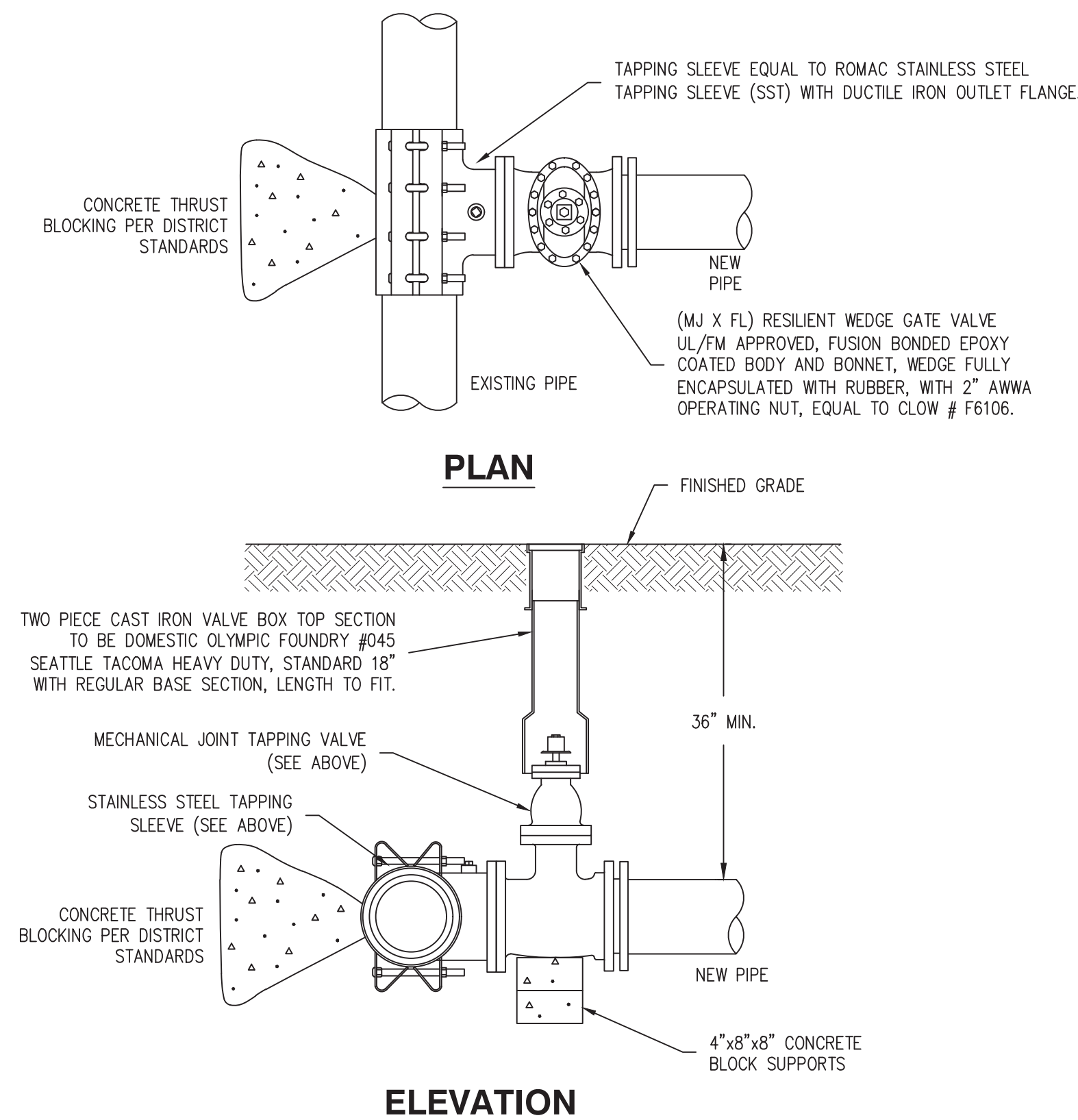


REQUIRED SEPARATION BETWEEN WATER LINES & GRAVITY SANITARY SEWERS
NOT TO SCALE

NOTE

THE APPROXIMATE LOCATION OF EXISTING UNDERGROUND UTILITIES ARE SHOWN ON THE PLANS. IT IS THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE THE LOCATION OF EXISTING UTILITIES PRIOR TO COMMENCING WORK. THE CONTRACTOR SHALL BE RESPONSIBLE FOR DAMAGES THAT MIGHT BE OCCASIONED BY THE CONTRACTOR'S FAILURE TO LOCATE, PRESERVE AND PROTECT UNDERGROUND UTILITIES.

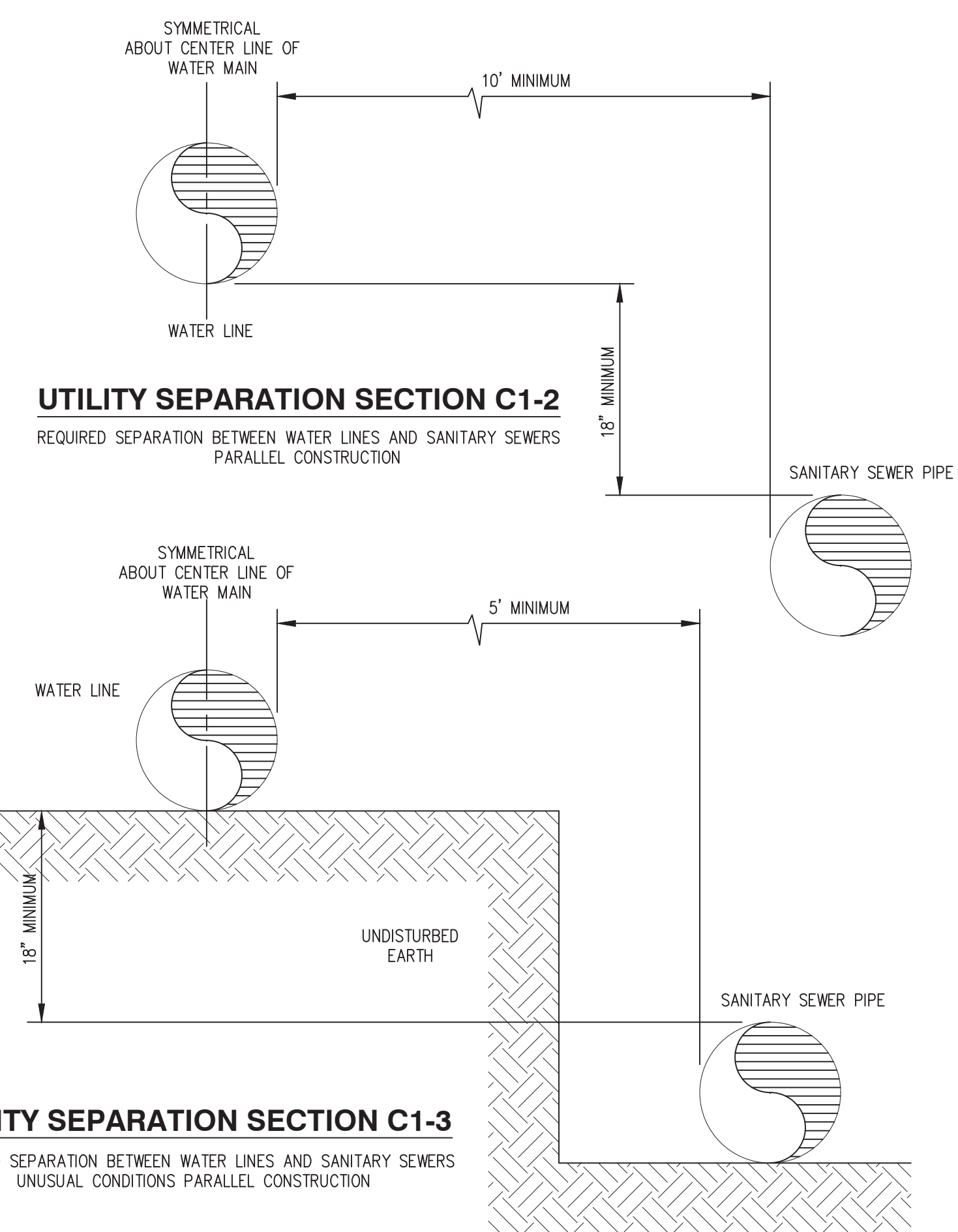
CALL 48 HOURS BEFORE YOU DIG 811



NOTES:
1. PRIOR TO BORING:
A. TAPPING SLEEVE AND VALVE SHALL BE PRESSURE TESTED AT 200 PSI FOR A PERIOD OF 15 MINUTES. PRESSURE LOSS DURING TESTING SHALL NOT EXCEED 5 PSI.
B. TAPPING SLEEVE AND VALVE SHALL BE STERILIZED PER SPECIFICATIONS
2. PRIOR TO FINAL CONNECTION OF TAPPING VALVE TO NEW PIPING, THE NEW PIPING SHALL BE PRESSURE TESTED AND STERILIZED PER SPECIFICATIONS

WET TAP DETAIL

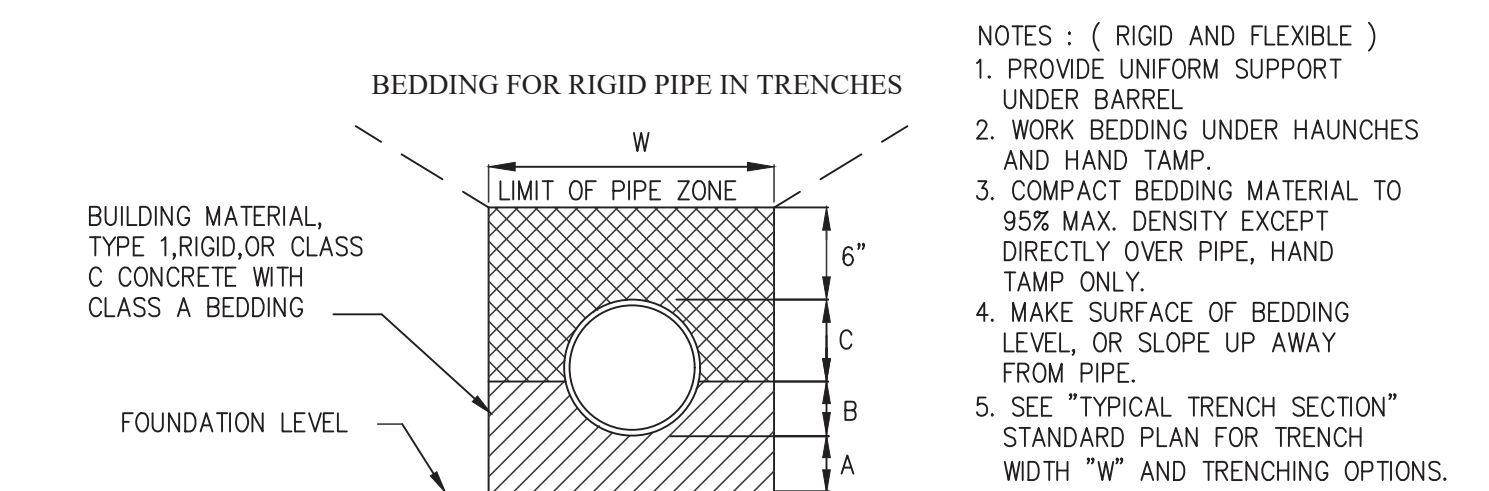
NOT TO SCALE



UTILITY SEPARATION SECTION C1-3
REQUIRED SEPARATION BETWEEN WATER LINES AND SANITARY SEWERS UNUSUAL CONDITIONS PARALLEL CONSTRUCTION

SEPARATION STANDARDS DETAIL

NOT TO SCALE



DIMENSION	CLASS A	CLASS B	CLASS C	CLASS D
A	1/4" I.D. 4" MIN. 12" MAX.	4" MIN. 27" & UNDER 6" MIN. OVER 27" I.D.	ZERO	ZERO
B	1/4 O.D.	1/2 O.D.	1/8 O.D.	ZERO
C	3/4 O.D.	1/2 O.D.	7/8 O.D.	O.D.

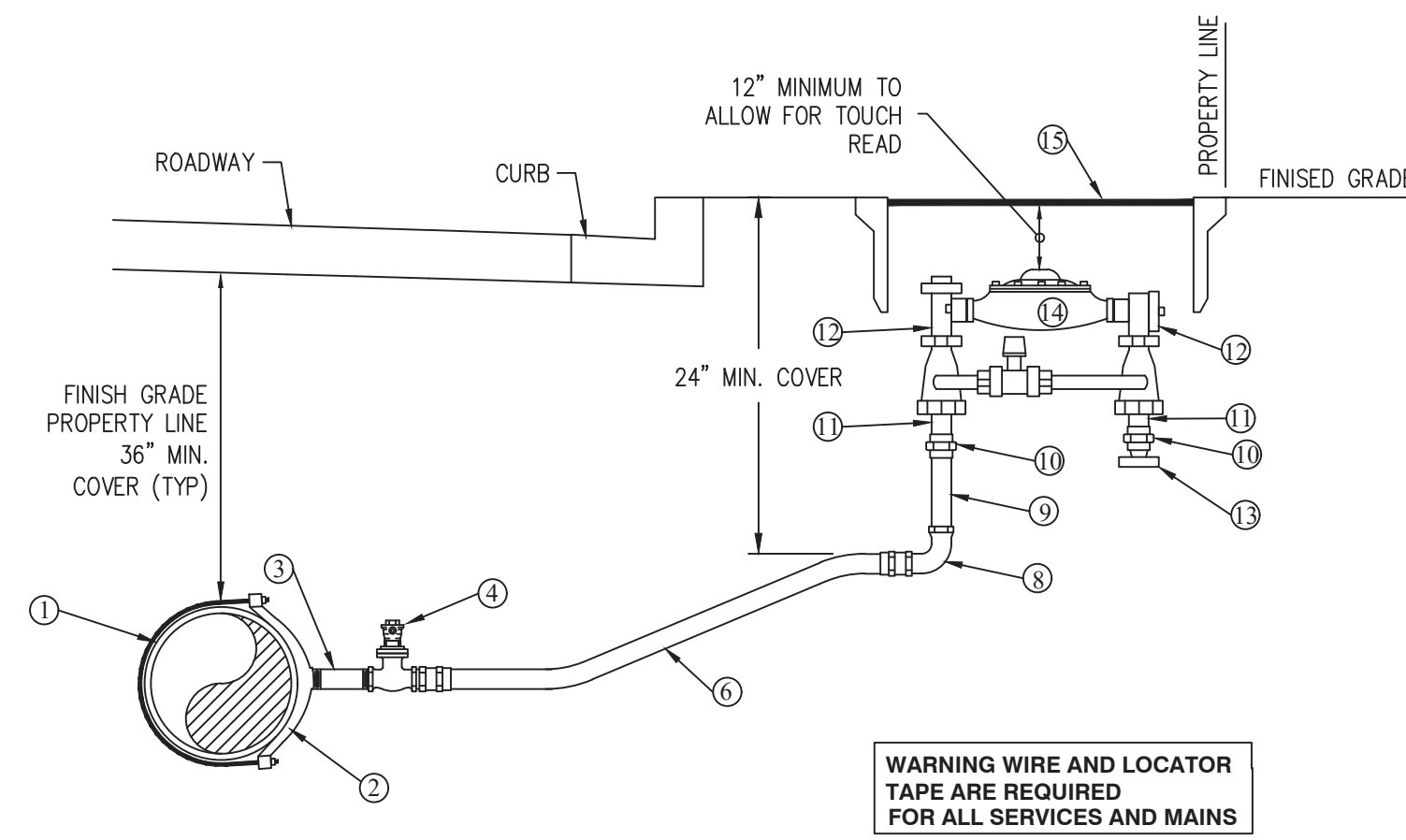
- NOTES :** (RIGID AND FLEXIBLE)
- PROVIDE UNIFORM SUPPORT UNDER BARREL
 - WORK BEDDING UNDER HAUNCHES AND HAND TAMP.
 - COMPACT BEDDING MATERIAL TO 95% MAX. DENSITY EXCEPT DIRECTLY OVER PIPE, HAND TAMP ONLY.
 - MAKE SURFACE OF BEDDING LEVEL, OR SLOPE UP AWAY FROM PIPE.
 - SEE "TYPICAL TRENCH SECTION" STANDARD PLAN FOR TRENCH WIDTH "W" AND TRENCHING OPTIONS.

BEDDING MATERIAL TYPE 1, RIDGID PIPE
PASSING 3/4" SQUARE SIEVE 100%
PASSING 3/8" SQUARE SIEVE 95-100%
PASSING #8 SIEVE 0-10
PASSING #20 SIEVE 0-3
SAND EQUIVALENT 35 MIN.

BEDDING MATERIAL TYPE 2, FLEXIBLE PIPE
PASSING 3/4" SQUARE SIEVE 100%
PASSING 3/8" SQUARE SIEVE 70-100%
PASSING #4 SIEVE 55-100%
PASSING #10 SIEVE 35-95
PASSING #20 SIEVE 20-80
PASSING #40 SIEVE 10-55
PASSING #100 SIEVE 0-10
PASSING #40 SIEVE 0-3
SAND EQUIVALENT 35 MIN.

PIPE BEDDING

NOT TO SCALE



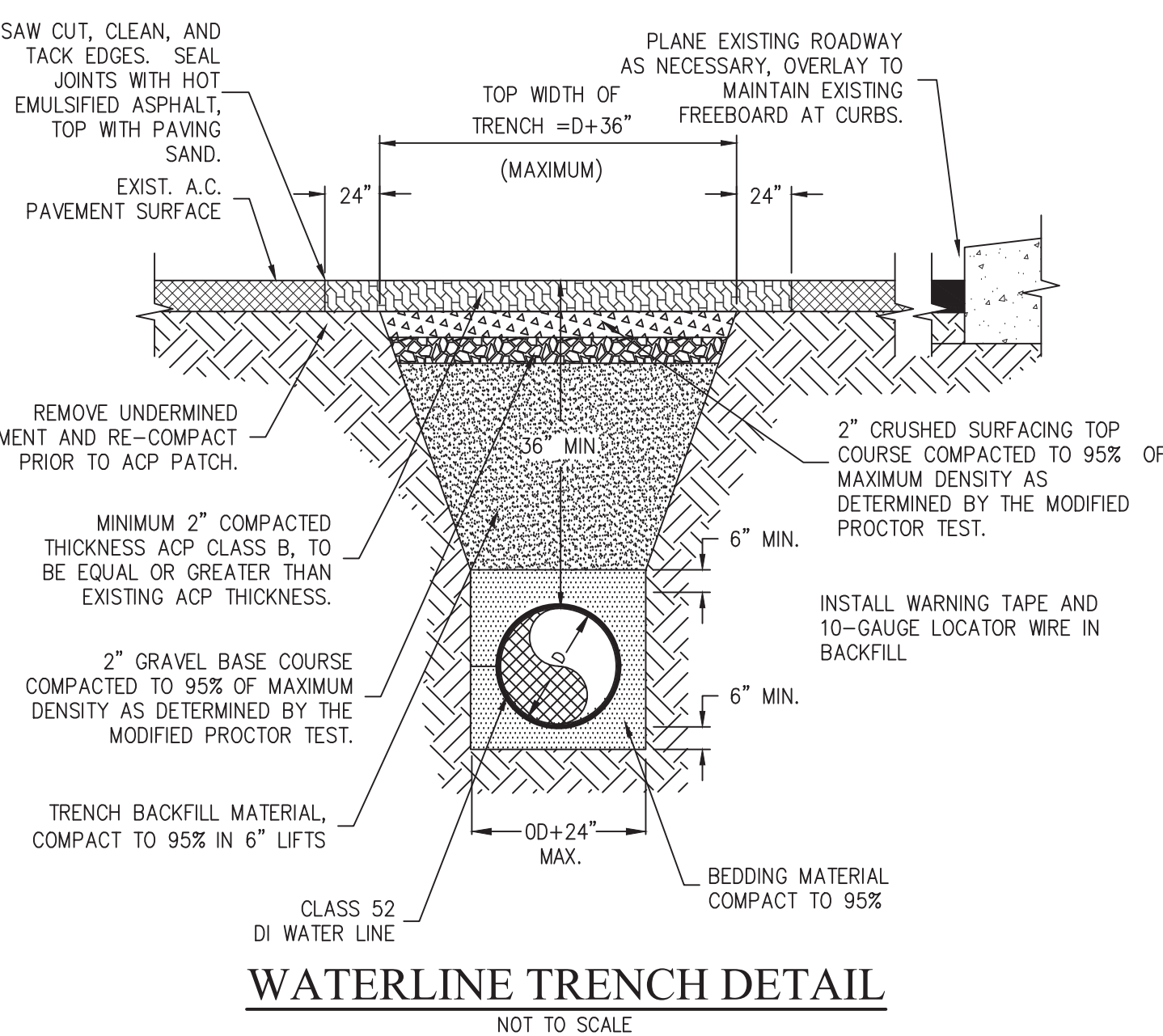
MATERIAL LIST FOR 1 1/2" OR 2" WATER SERVICE

- EXISTING WATER MAIN
- 2" (IP THREAD) DOUBLE STRAP SADDLE EQUAL TO ROMAC STYLE 2025
- 2" BRASS NIPPLE, 3" LONG
- CORP. STOP, FORD F101 OR EQUAL
- 2" MIPT X CTS GRIP JOINT EQUAL TO FORD C8477G
- 2" POLY, MAINTAIN 36" COVER FROM WATER MAIN TO WITHIN 48" OF METER BOX
- 2" FIPT X CTS. GRIP JOINT EQUAL TO FORD C14-77G
- 2" BRASS STREET ELL
- 2" BRASS NIPPLE, 6" LONG
- 2" BRASS UNION
- 2" BRASS NIPPLE, 3" LONG
- 2" METER SETTER WITH HIGH BYPASS EQUAL TO FORD SERIES 80. VERT. IN, VERT. OUT. FLANGED BALL VALVE WITH LOCK WINGS AND CHECK VALVE.
- SCHEDULE 40 2" PVC THREADED PLUG. REMOVED WHEN CONNECTION MADE TO CUSTOMER LINE
- WATER METER - TO BE SUPPLIED BY THE DISTRICT
- METER BOX SHALL BE EQUAL TO FOG TITE # 2 WITH TRAFFIC COVER AND HINGED INSPECTION LID. PROVIDE TOUCH READ PID LID. PLACE BACK OF METER BOX FLUSH WITH PROPERTY LINE.

NOTE: ALL FITTINGS TO BE BRASS. IF USING 1 1/2" METER MUST USE TWO FORD A-67'S OR APPROVED EQUAL.

1-1/2" OR 2" WATER SERVICE

NOT TO SCALE

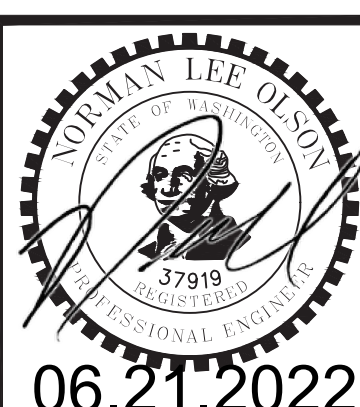


WATERLINE TRENCH DETAIL

NOT TO SCALE

REVISIONS				BY	DATE
NO.	DATE	BY	DESCRIPTION	DESIGNED	JFK 9/21
				DRAWN	AUE 9/21
				CHECKED	NLOII 9/21
				APPROVED	
				ACCEPTED	

N.L.Olson & Associates, Inc.
Engineering, Planning and Surveying
(360) 876-2284
2453 Bethel Avenue, P.O. Box 637, Port Orchard, WA 98366



WATER NOTES AND DETAILS

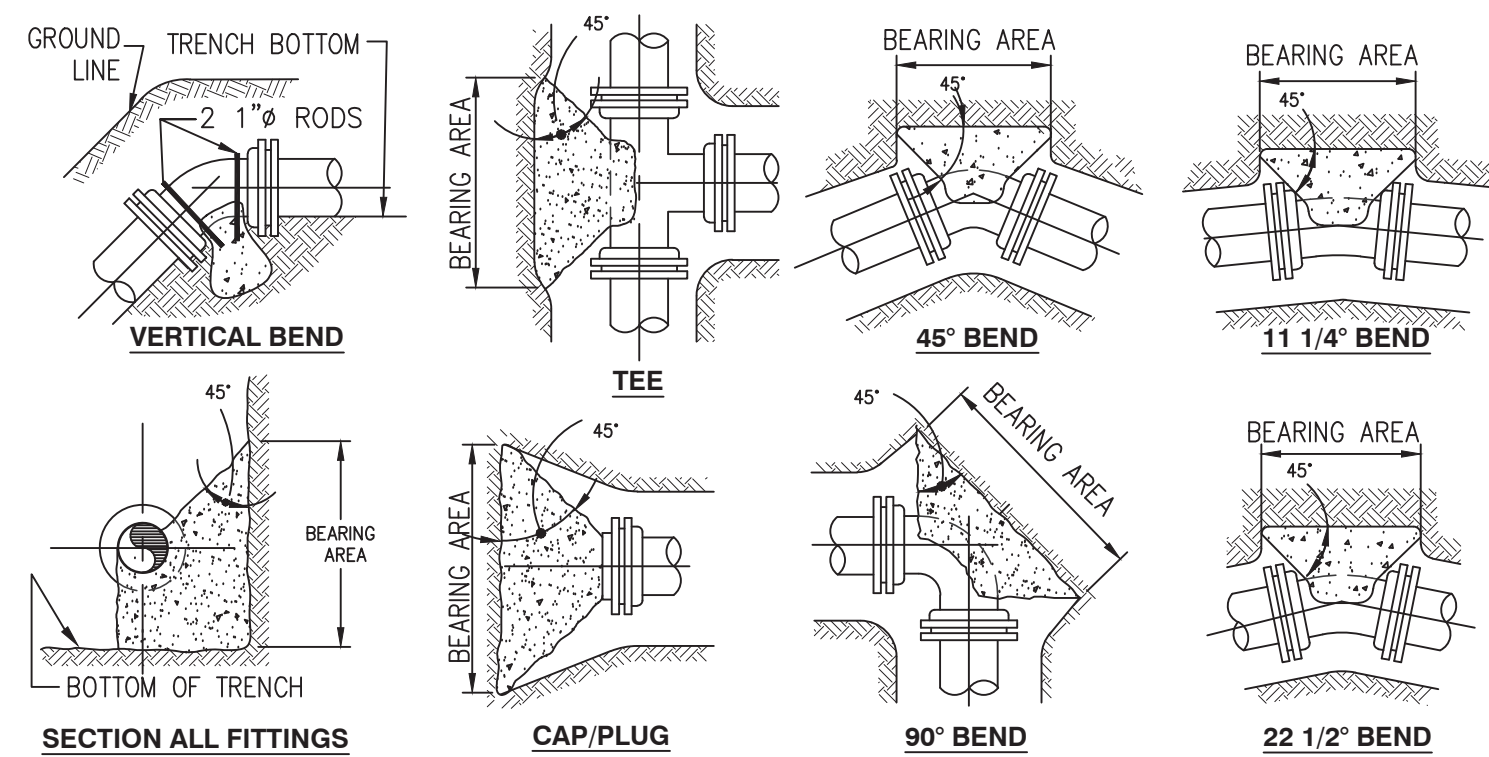
**HIDDEN HILLS APARTMENTS
LAND DEVELOPMENT ACTIVITY PERMIT**

Portion of the Northwest Quarter of the Southeast Quarter Section 1, Township 23, Range 1 East, W.M. in Kitsap County, Washington

FOR: **HE DEVELOPMENT, LLC**

Attn: James He
4631 SE Bakken Court
Port Orchard, WA 98366
Phone: (360) 874-9966

SCALE: AS SHOWN
DATE: June 21, 2022
PROJECT NUMBER: 19-10959
SHEET C6.40



THRUST BLOCK REQUIREMENTS																
BEARING AREA REQUIRED IN SQUARE FEET																
PIPE SIZE	PIPE SIZE	TEE/CAP OR PLUG			90 Degree BEND			45 Degree BEND			22.5 Degree BEND			11.25 Degree BEND		
		200	225	250	200	225	250	200	225	250	200	225	250	200	225	250
nominal	outside dia.	psi	psi	psi	psi	psi	psi	psi	psi	psi	psi	psi	psi	psi	psi	psi
4	4.80	1.8	2.0	2.3	2.6	2.9	3.2	1.4	1.6	1.7	0.7	0.8	0.9	0.4	0.4	0.4
6	6.90	3.7	4.2	4.7	5.3	5.9	6.6	2.9	3.2	3.6	1.5	1.6	1.8	0.7	0.8	0.9
8	9.05	6.4	7.2	8.0	9.1	10.2	11.4	4.9	5.5	6.2	2.5	2.8	3.1	1.3	1.4	1.6
12	13.20	13.7	15.4	17.1	19.4	21.8	24.2	10.5	11.8	13.1	5.3	6.0	6.7	2.7	3.0	3.4
16	17.40	23.8	26.8	29.7	33.6	37.8	42.0	18.2	20.5	22.7	9.3	10.4	11.6	4.7	5.2	5.8
18	19.50	29.9	33.6	37.3	42.2	47.5	52.8	22.9	25.7	28.6	11.7	13.1	14.6	5.9	6.6	7.3
24	25.80	52.3	58.8	65.3	73.9	83.2	92.4	40.0	45.0	50.0	20.4	22.9	25.5	10.2	11.5	12.8

NOTES:

- ALL CONCRETE BLOCKING SHALL BE POURED AGAINST DRY, UNDISTURBED SUBGRADE. TABLE IS BASED ON 2000 POUNDS PER SQUARE FOOT ALLOWABLE SOIL BEARING. WEAKER SOIL WILL REQUIRE INCREASED BEARING AREA. SEE SOIL BEARING LOAD CHART.
- KEEP CONCRETE CLEAR OF JOINTS AND ACCESSORIES. USE FORMING AS NECESSARY.
- HORIZONTAL ANCHOR BLOCKING CONFIGURATIONS FOR FITTINGS NOT SHOWN SHALL HAVE PRIOR APPROVAL.
- THE SQUARE FOOT AREAS REQUIRED FOR BEARING ARE CALCULATED BY THE FOLLOWING FORMULAS:
 FORMULA AT TEE & CAP OR PLUG:
 $T = PA$
 $T = K$ BEARING AREA REQUIRED IN SQUARE FEET
 FORMULA AT ALL PIPE BENDS:
 $T = 2PA (\sin 1/2 \Delta)$ WHERE $\Delta =$ THE DEGREE BEND OF THE FITTING.
 $T = K$ BEARING AREA REQUIRED IN SQUARE FEET
 WHERE:
 $T =$ THRUST IN POUNDS
 $P =$ TEST PRESSURE IN PSI
 $A =$ CROSS-SECTIONAL AREA OF PIPE IN SQUARE INCHES
 $K =$ ASSUMED 2000 PSF SOIL BEARING PRESSURE

SAFE BEARING LOADS IN LBS/SQ. FT.

SOIL	SAFE BEARING LOAD LBS/SQ. FT.
MUCK, PEAT, ETC	0
SOFT CLAY, SILT	1,000
SAND, SANDY SILT	2,000
SAND AND GRAVEL	3,000
SAND AND GRAVEL CEMENTED W/CLAY	4,000
HARD SHALE	10,000

IN MUCK OR PEAT, ALL THRUST SHALL BE RESTRAINED BY PILES OR TIE RODS TO SOLID FOUNDATIONS OR BY REMOVAL OF MUCK OR PEAT AND REPLACEMENT WITH BALLAST OF SUFFICIENT STABILITY TO RESIST THRUSTS.

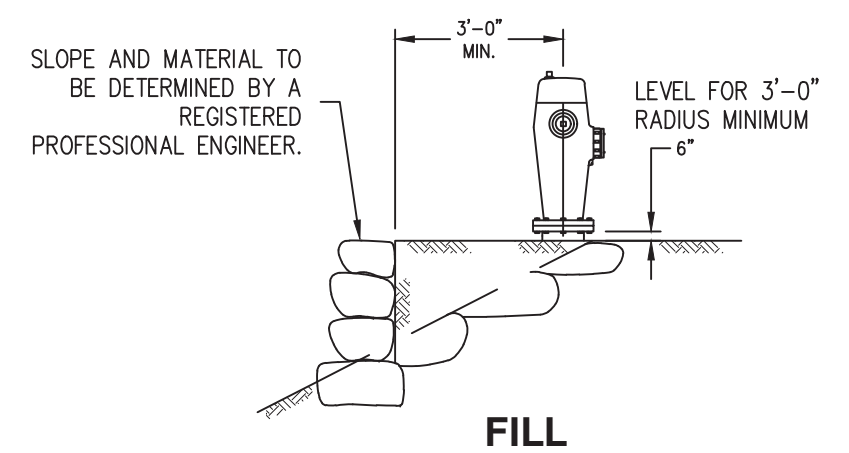
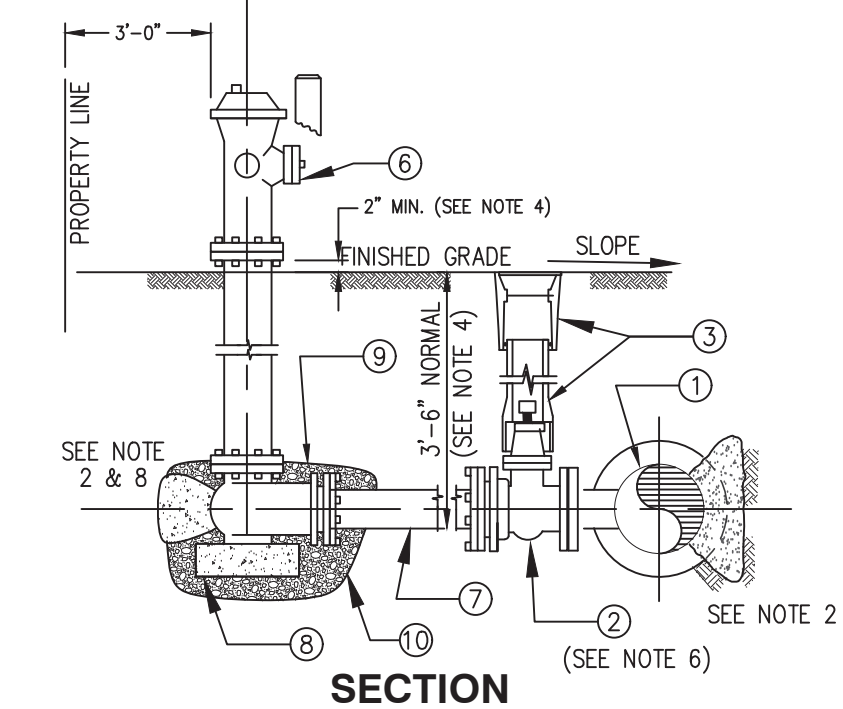
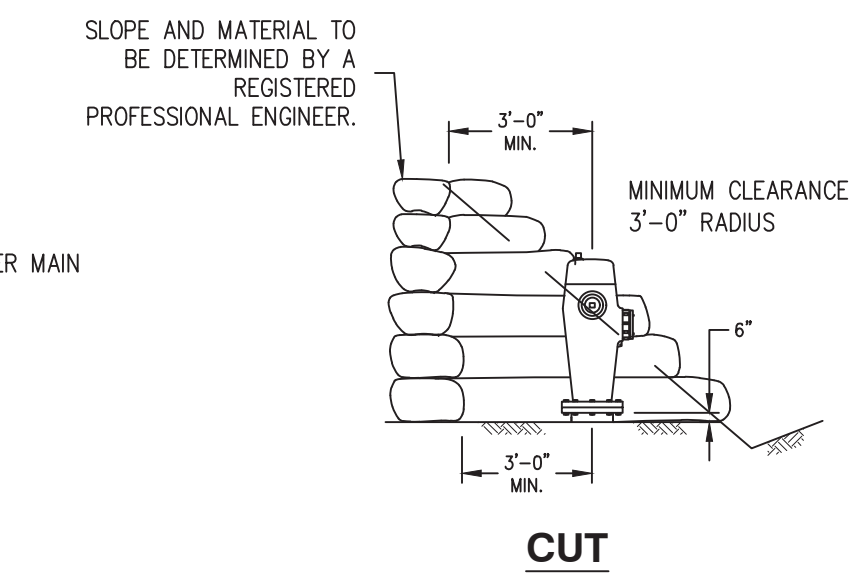
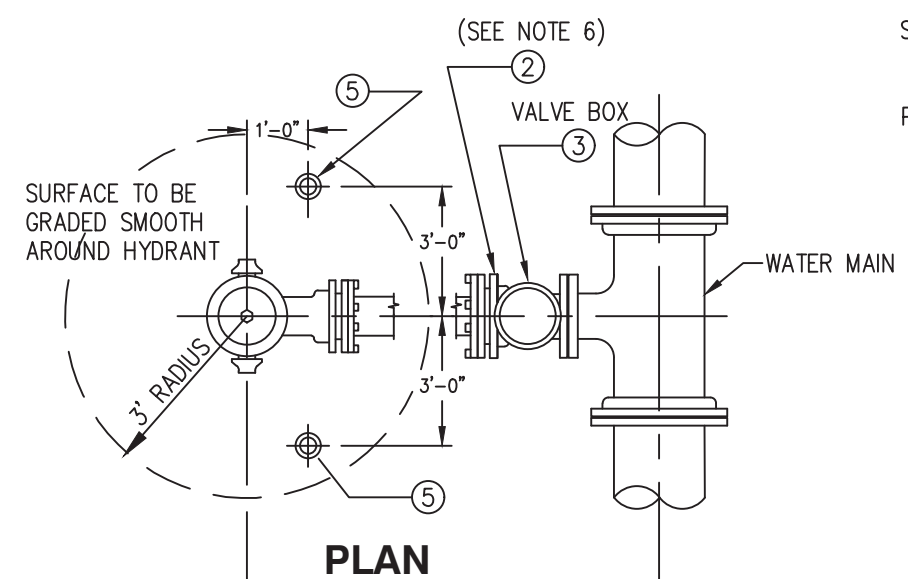
THRUST BLOCKING DETAILS

NOT TO SCALE

NOTE

THE APPROXIMATE LOCATION OF EXISTING UNDERGROUND UTILITIES ARE SHOWN ON THE PLANS. IT IS THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE THE LOCATION OF EXISTING UTILITIES PRIOR TO COMMENCING WORK. THE CONTRACTOR SHALL BE RESPONSIBLE FOR DAMAGES THAT MIGHT BE OCCASIONED BY THE CONTRACTOR'S FAILURE TO LOCATE, PRESERVE AND PROTECT UNDERGROUND UTILITIES.

CALL 48 HOURS BEFORE YOU DIG 811



FIRE HYDRANT LOCATION IN CUT AND FILL

NOTE: ANY HYDRANT RUN OVER ONE FULL LENGTH OF PIPE, SHALL HAVE A RESTRAINED JOINT GASKET EQUAL TO FIELD LOK GASKETS.

FIRE HYDRANT ASSEMBLY
NOT TO SCALE

BILL OF MATERIALS		
No.	NOMENCLATURE	REQUIRED
1	MJ x FL TEE	1
2	VALVE WITH FLG. x M.J. CONNECTIONS, SEE NOTE 6.	1
3	2 PIECE CAST IRON VALVE BOX	1
4	NOT USED	
5	REINFORCED CONCRETE GUARD POST 9"Ø x 6' (PRIVATE PROP. ONLY)	2
6	FIRE HYDRANT WITH STORTZ ADAPTER	1
7	PIPE, 6" CL. 52 D.I., FIELD CUT WITH MEGALUG RETAINER GLANDS	1
8	12" x 12" x 4" SOLID CONCRETE BEARING BLOCK	1
9	1/4 C.Y. DRAIN ROCK, 1-1/2" - 3/4", NO FINES, 7 C.F. OF 7/8" WASHED ROCK WRAPPED IN GEOTEXTILE FABRIC	
10	6 OZ. GEOTEXTILE FABRIC	

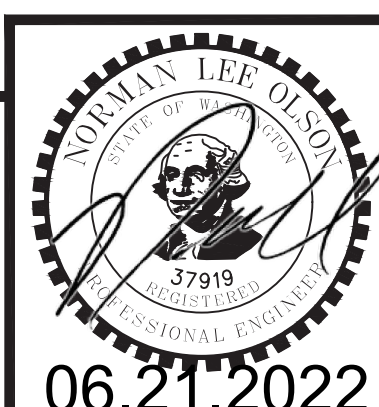
NOTES:

- ALL MATERIALS AND BRANDS MUST BE APPROVED BY CITY.
- BLOCK TEE AND HYDRANT WITH POURED CONCRETE AS REQUIRED PER BLOCKING DETAIL. IN ADDITION, 6" MEG-A-LUGS ARE TO BE INSTALLED AT VALVE AND HYDRANT M.J. OUTLETS.
- HYDRANT SHALL HAVE DISTRICT'S STANDARD HOSE THREADS AND OPERATING NUTS.
- HYDRANT LENGTH AND TRENCH DEPTH SHALL BE SO AS TO PROVIDE FOR HYDRANT SETTING AT CORRECT ELEVATION RELATIVE TO FINISH GRADE.
- SET HYDRANT VERTICAL. USE LEVEL. COMPACT ALL BACKFILL.
- VALVE SHALL BE AWWA STANDARD GATE "O" RING PACKING, NON-RISING STEM, 2" OPERATION NUT, RESILIENT WEDGE GATE.
- TOP OF GUARD POST TO BE LEVEL WITH TOP OF HYDRANT.
- WHEN GUARD POSTS ARE USED, THE TOP OF THE POST WILL BE LEVEL WITH THE HYDRANT.
- FOR CENTER STEM HYDRANTS THE CONCRETE BLOCK WILL BE BELOW THE DRAIN HOLES AND DRAIN ROCK. TAKE CARE TO NOT PLUG DRAIN HOLES OR CONTAMINATE DRAIN ROCK.
- ALL HYDRANTS SHALL BE FURNISHED WITH STORZ COUPLINGS.
- ALL HYDRANTS AND BENDS SHALL BE SECURED WITH MEGA-LUGS.
- STENCIL THE DISTANCE FROM THE FOOT VALVE ON THE HYDRANT BARREL WITH 1-1/2" LETTERS.

I:\env\hnt\AutoCAD Projects\10959\JAMES HE\10959.LDP\10959.C6.04.C6.50.WATER NOTES AND DETAILS.dwg 6/21/2022 10:39:27 AM. Alexio

REVISIONS				BY	DATE
NO.	DATE	BY	DESCRIPTION	DESIGNED	JFK 9/21
				DRAWN	AUE 9/21
				CHECKED	NLOII 9/21
				APPROVED	
				ACCEPTED	

N.L. Olson & Associates, Inc.
Engineering, Planning and Surveying
(360) 876-2284
2453 Bethel Avenue, P.O. Box 637, Port Orchard, WA 98366



WATER NOTES AND DETAILS

**HIDDEN HILLS APARTMENTS
LAND DEVELOPMENT ACTIVITY PERMIT**

Portion of the Northwest Quarter of the Southeast Quarter Section 1,
Township 23, Range 1 East, W.M. in Kitsap County, Washington

FOR: **HE DEVELOPMENT, LLC**
Attn: James He
4631 SE Bakken Court
Port Orchard, WA 98366
Phone: (360) 874-9966

SCALE: AS SHOWN
DATE: June 21, 2022
PROJECT NUMBER:
19-10959
SHEET C6.50