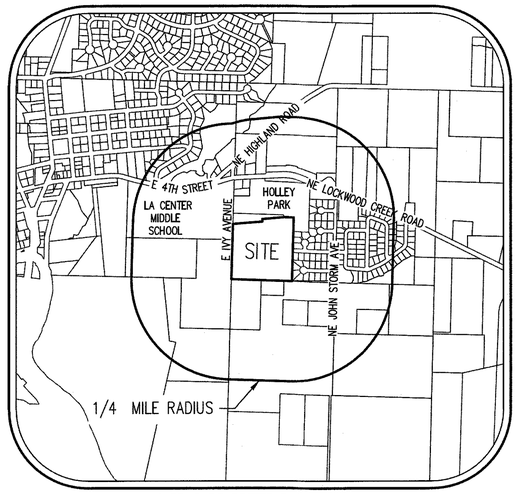
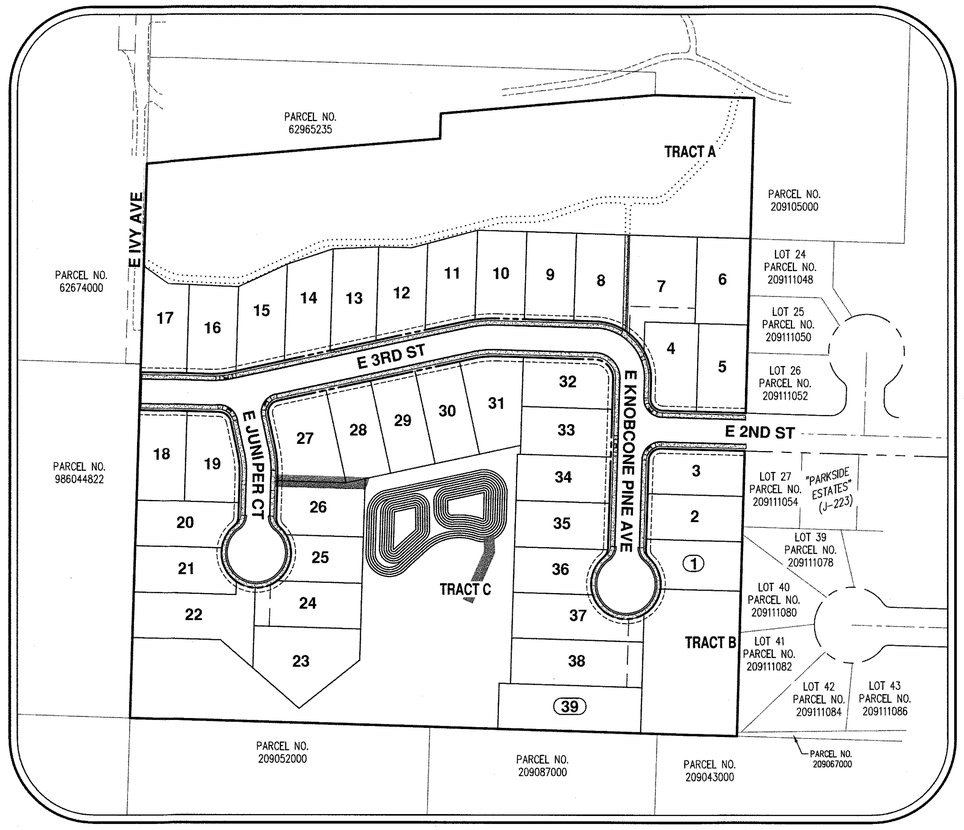
HOLLEY PARK SUBDIVISION

CONSTRUCTION PLANS



VICINITY MAP
N.T.S.

SHEET INDEX



SITE MAP
N.T.S.

APPLICANT
COMPASS GROUP, LLC.
CONTACT: KEVIN TAPANI
1904 SE 6TH PLACE
BATTLE GROUND, WA 98604
PH: 360-687-1148
E-MAIL: KEVINT@TAPANI.COM

OWNER
MINIHAN ANGELA J & GERALD T III
357 NE IVY AVENUE
LA CENTER, WA 98629

CONTACT
AKS ENGINEERING & FORESTRY, LLC.
CONTACT: SETH HALLING
9600 NE 126TH AVENUE, SUITE 2520
VANCOUVER, WA 98682
PH: 360-882-0419
FAX: 360-882-0426
E-MAIL: SETHH@AKS-ENG.COM

PROPERTY DESCRIPTION
LOCATED IN THE NORTHWEST 1/4 OF SECTION 02, TOWNSHIP 4 NORTH, RANGE 1 EAST, WILLAMETTE MERIDIAN, CLARK COUNTY, WA. PARCEL SERIAL # 209055000, 209059000, AND 62965242.

EXISTING LAND USE
SINGLE FAMILY RESIDENCE WITH AGRICULTURE

PROJECT PURPOSE
39 SINGLE-FAMILY RESIDENTIAL LOTS AND ASSOCIATED ROAD IMPROVEMENTS.

SITE AREA
14.54 AC (633,340 SF)

VERTICAL DATUM
VERTICAL DATUM: ELEVATIONS ARE BASED ON CLARK COUNTY BENCHMARK NO. GPS-52, A 3-1/2" BRASS DISK INSCRIBED "WOODAIR 1990". LOCATED AT WOODLAND AIRPORT, 7' SOUTH OF THE NORTH FENCE ON THE PROJECTED CENTERLINE OF THE RUNWAY. ELEVATION=23.13' (NGVD 29(47)).

ARCHAEOLOGY NOTE
IN THE EVENT THAT ARCHAEOLOGICAL DEPOSITS ARE ENCOUNTERED DURING CONSTRUCTION, WORK SHALL BE HALTED IMMEDIATELY AND THE WASHINGTON STATE DEPARTMENT OF ARCHAEOLOGY AND HISTORIC PRESERVATION SHALL BE NOTIFIED IN ORDER FOR THE FINDINGS TO BE INVESTIGATED AND ASSESSED BY A PROFESSIONAL ARCHAEOLOGIST.

UTILITY CONTACTS

WATER
CLARK PUBLIC UTILITIES
ATTN: BARRY LOVINGOOD
8600 NE 117TH AVENUE
VANCOUVER, WA 98662
PH: 360-696-8552

POWER
CLARK PUBLIC UTILITIES
ATTN: DAVID TETZ
8600 NE 117TH AVENUE
VANCOUVER, WA 98662
PH: 360-992-8808

SEWER
CITY OF LA CENTER
ATTN: MATT JENKINS
305 NW PACIFIC HWY
LA CENTER, WA 98629
PH: 360-263-2782

TELEPHONE
CENTURY LINK
ATTN: MARILYN PERRY
214 E 24TH STREET
VANCOUVER, WA 98663
PH: 360-699-3992

GAS
NW NATURAL
ATTN: BRIAN KELLY
220 NW 2ND AVENUE
PORTLAND, OR 97209
PH: 503-220-2427

CABLE
COMCAST
ATTN: DEAN ANDERSON
3075 NE SANDY BOULEVARD
PORTLAND, OR 97232
PH: 888-632-2253

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

FIRE DISTRICT
CLARK COUNTY FIRE AND RESCUE

APPROVED FOR CONSTRUCTION: _____
FIRE CHIEF SIGNATURE DATE

CLARK PUBLIC UTILITIES - WATER
UTILITY WORK ORDER NO. _____
_____ _____
SIGNED BY DATE

CLARK PUBLIC UTILITIES - WATER SERVICES
DEVELOPER INSTALLED WATER MATERIAL LIST

INSTALLED WATER ITEM	MATERIAL	QUANTITY	UNITS
8" WATER MAIN	*PVC C900*	*1,230*	*LF*
8" WATER MAIN	*DIP*	*180*	*LF*
6" WATER MAIN	*DIP*	*30*	*LF*
FIRE HYDRANT	*N/A*	*2*	*EA*
1" WATER SERVICE LINE	*PE 3406*	*39*	*EA*

NOTES:
1. PIPE MATERIAL ABBREVIATIONS:
   - PVC - POLYVINYL CHLORIDE PIPE
   - DIP - DUCTILE IRON PIPE
   - HDPE - HIGH DENSITY POLYETHYLENE PIPE
2. QUANTITIES LISTED WITHIN THIS TABLE ARE NOT FOR BIDDING PURPOSES, BUT FOR USE BY CLARK PUBLIC UTILITIES TO DETERMINE THE INSTALLED WATER SYSTEM VALUE.

ALL CONSTRUCTION SHALL CONFORM TO THE REQUIREMENTS OF THE CITY OF LA CENTER ENGINEERING STANDARDS FOR CONSTRUCTION.

APPROVED FOR CONSTRUCTION
CITY OF LA CENTER
City Engineer Approval Date:
Public Works Director Date:

AKS ENGINEERING & FORESTRY, LLC
9600 NE 126TH AVE STE 2520
VANCOUVER, WA 98682
P: 360.882.0419
F: 360.882.0426
aks-eng.com

ENGINEERING · SURVEYING · NATURAL RESOURCES
FORESTRY · PLANNING · LANDSCAPE ARCHITECTURE

HOLLEY PARK SUBDIVISION
CONSTRUCTION PLANS
LA CENTER **WASHINGTON**
PARCEL NO. 209055000, 209059000 AND 62965242 NW 1/4 OF SEC 2 T4N, R1E, W.M.

COVER SHEET

DESIGNED BY: JRS
DRAWN BY: MRE
MANAGED BY: SMH
CHECKED BY: JRS
DATE: 5/13/19

SETH MICHAEL HALLING — STATE OF WASHINGTON — 49813 — REGISTERED PROFESSIONAL ENGINEER

REVISIONS

JOB NUMBER 6962

SHEET **C000**

AKS DRAWING FILE: 6962 C000 COVER.DWG | LAYOUT: C000

GENERAL NOTES

1. ALL CONSTRUCTION SHALL CONFORM TO THE REQUIREMENTS OF THE CITY OF LA CENTER ENGINEERING STANDARDS FOR CONSTRUCTION. IT SHALL BE THE SOLE RESPONSIBILITY OF THE APPLICANT AND THE PROFESSIONAL CIVIL ENGINEER TO CORRECT ANY ERROR, OMISSION, OR VARIATION FROM THE ABOVE REQUIREMENTS FOUND IN THESE PLANS.
2. APPROVAL OF ROADWAYS, GRADING, EROSION CONTROL AND DRAINAGE PLAN BY CITY OF LA CENTER DOES NOT CONSTITUTE AN APPROVAL OF ANY OTHER CONSTRUCTION (E.G., DOMESTIC WATER CONVEYANCE, GAS, ELECTRICAL, ETC.).
3. BEFORE ANY CONSTRUCTION OR DEVELOPMENT ACTIVITY, A PRE-CONSTRUCTION MEETING MUST BE HELD WITH THE CITY AT WHICH TIME CONSTRUCTION INSPECTION WILL BE SCHEDULED. A PRE-CONSTRUCTION LETTER NOTING REQUIREMENTS TO BE COMPLETED PRIOR TO CONSTRUCTION SHALL BE PROVIDED AT THIS MEETING.
4. A COPY OF THESE APPROVED PLANS MUST BE ON THE JOB SITE WHENEVER CONSTRUCTION IS IN PROGRESS.
5. CONSTRUCTION NOISE SHALL BE MINIMIZED BY THE USE OF PROPER ENGINE MUFFLERS, PROTECTIVE SOUND REDUCING ENCLOSURES, AND OTHER SOUND BARRIERS. CONSTRUCTION ACTIVITIES PRODUCING EXCESSIVE NOISE THAT CANNOT BE REDUCED BY MECHANICAL MEANS SHALL BE RESTRICTED TO LOCATIONS WHERE THEIR SOUND IMPACT IS REDUCED TO A MINIMUM AT THE EDGE OF THE WORK AREA.
6. IT SHALL BE THE APPLICANT'S/CONTRACTOR'S RESPONSIBILITY TO OBTAIN ALL CONSTRUCTION EASEMENTS AND/OR RIGHT OF ENTRIES PRIOR TO CONSTRUCTION WORK.
7. ALL FRANCHISED UTILITIES (I.E. GAS, ELECTRIC, PHONE) OR OTHER INSTALLATIONS THAT ARE NOT SHOWN ON THESE APPROVED PLANS SHALL NOT BE CONSTRUCTED UNLESS AN APPROVED SET OF PLANS THAT MEETS ALL REQUIREMENTS OF CITY OF LA CENTER MUNICIPAL CODE (LCMC 12.10.060) IS SUBMITTED TO THE DIRECTOR OF PUBLIC WORKS PRIOR TO CONSTRUCTION.
8. DATUM SHALL BE CLARK COUNTY DATUM NGVD 1929(47) UNLESS OTHERWISE APPROVED BY CITY OF LA CENTER.
9. ALL UTILITY TRENCHES SHALL BE BACKFILLED AND COMPACTED TO 95 PERCENT MAXIMUM DENSITY AS DETERMINED BY AASHTO T-99, WITHIN THE ROADWAY PRISM (WSDOT 2-06.3).
10. ALL ROADWAY SUBGRADE WITHIN THE ROADWAY PRISM SHALL BE BACKFILLED AND COMPACTED TO 95 PERCENT MAXIMUM DENSITY AS DETERMINED BY AASHTO T-99 (WSDOT 2-06.3).
11. OPEN CUTTING OF EXISTING ROADWAYS IS NOT ALLOWED UNLESS SPECIFICALLY APPROVED BY THE DIRECTOR OF PUBLIC WORKS AND NOTED ON THESE APPROVED PLANS. ANY OPEN CUT SHALL BE RESTORED IN ACCORDANCE WITH CITY OF LA CENTER MUNICIPAL CODE.
12. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING ADEQUATE SAFEGUARDS, SAFETY DEVICES, PROTECTIVE EQUIPMENT, FLAGGERS, AND ANY OTHER NEEDED ACTIONS TO PROTECT THE LIFE, HEALTH, AND SAFETY OF THE PUBLIC, AND TO PROTECT PROPERTY IN CONNECTION WITH THE PERFORMANCE OF WORK COVERED BY THE CONTRACTOR. ANY WORK WITHIN THE TRAVELED RIGHT-OF-WAY THAT MAY INTERRUPT NORMAL TRAFFIC FLOW SHALL REQUIRE AT LEAST ONE FLAGGER FOR EACH LANE OF TRAFFIC AFFECTED. SECTION 1-07.23, "TRAFFIC CONTROL," OF THE WSDOT STANDARD SPECIFICATIONS SHALL APPLY IN ITS ENTIRETY.
13. IF ANY CULTURAL RESOURCES AND/OR HUMAN REMAINS ARE DISCOVERED IN THE COURSE OF UNDERTAKING THE DEVELOPMENT ACTIVITY, THE DEPARTMENT OF ARCHAEOLOGY AND HISTORIC PRESERVATION IN OLYMPIA SHALL BE NOTIFIED. FAILURE TO COMPLY WITH THESE STATE REQUIREMENTS MAY CONSTITUTE A CLASS C FELONY, SUBJECT TO IMPRISONMENT AND/OR FINES.
14. ALL MATERIALS AND WORKMANSHIP SHALL BE IN CONFORMANCE WITH THE STANDARD SPECIFICATIONS FOR ROAD, BRIDGE, AND MUNICIPAL CONSTRUCTION PREPARED BY THE WASHINGTON STATE CHAPTER OF THE AMERICAN PUBLIC WORKS ASSOCIATION (APWA) AND THE WASHINGTON STATE DEPARTMENT OF TRANSPORTATION (WSDOT). WHERE CONFLICTS EXIST THE MORE STRINGENT SPECIFICATION SHALL APPLY AS APPROVED BY THE CITY OF LA CENTER.

MISCELLANEOUS NOTES

1. THE LOCATIONS, DEPTH, AND DESCRIPTION OF EXISTING UTILITIES ARE COMPILED FROM AVAILABLE RECORDS AND/OR FIELD SURVEYS. THE ENGINEER OR UTILITY COMPANIES DO NOT GUARANTEE THE ACCURACY OR COMPLETENESS OF SUCH RECORDS. ADDITIONAL UTILITIES MAY EXIST WITHIN THE WORK AREA.
2. THE LOCATIONS SHOWN FOR EXISTING UTILITIES ARE APPROXIMATE AND ARE SHOWN FOR INFORMATIONAL PURPOSES ONLY. THE CONTRACTOR SHALL HAVE ALL UTILITIES LOCATED PRIOR TO COMMENCING CONSTRUCTION. NOTIFY ENGINEER OF ANY DISCREPANCIES PRIOR TO CONSTRUCTION.
3. CONTRACTOR MUST VERIFY ALL EXISTING UTILITIES FOR BOTH VERTICAL ELEVATION AND HORIZONTAL LOCATION PRIOR TO START OF WORK (POTHOLE IF NECESSARY). IF THE CONTRACTOR PROCEEDS WITH UTILITY INSTALLATION WITHOUT FIRST VERIFYING EXISTING UTILITY LOCATIONS AND POTENTIAL CONFLICTS, ANY REDESIGN OR RELOCATION OF FACILITIES SHALL BE DONE AT THE CONTRACTOR'S EXPENSE. CHANGES MUST BE APPROVED BY THE PROJECT ENGINEER AND CITY IN ADVANCE OF WORK. CONTRACTOR SHALL COORDINATE THE WORK WITH UTILITY AGENCIES.
4. CONTRACTOR SHALL MAINTAIN BENCHMARKS, PROPERTY CORNERS, MONUMENTS, AND OTHER REFERENCE POINTS. IF SUCH POINTS ARE DISTURBED OR DESTROYED BY CONSTRUCTION ACTIVITIES, THE CONTRACTOR SHALL NOTIFY THE PROJECT ENGINEER AND PAY FOR THEIR REPLACEMENT BY EMPLOYING A PROFESSIONAL LAND SURVEYOR TO RESET PROPERTY CORNERS AND OTHER SUCH MONUMENTS.
5. PRIOR TO FINAL ACCEPTANCE AND PAYMENT, THE CONTRACTOR SHALL CLEAN THE WORK SITE AND ADJACENT AREAS OF ANY DEBRIS, DISCARDED ASPHALTIC CONCRETE MATERIAL, OR OTHER ITEMS DEPOSITED BY THE CONTRACTOR'S PERSONNEL DURING THE PERFORMANCE OF THIS CONTRACT.
6. THE CONTRACTOR IS TO NOTIFY PRIVATE UTILITIES FOR RELOCATION OF POWER POLES, VAULTS, ETC.
7. PROJECT ENGINEER RESERVES THE RIGHT TO ADJUST GRADES OR ALIGNMENT TO ACCOMMODATE OTHER UTILITIES AS REQUIRED; SUCH ADJUSTMENTS OR REVISIONS SHALL BE REVIEWED BY THE CITY ENGINEERING STAFF AND APPROVED PRIOR TO COMMENCEMENT OF WORK.
8. PIPE LENGTHS SHOWN ARE APPROXIMATE, FINAL LENGTHS TO BE DETERMINED BY FIELD CONDITIONS.
9. PROPERTY AND RIGHT-OF-WAY LINES SHOWN ARE APPROXIMATE. THESE PLANS ARE NOT MEANT TO SERVE BOUNDARY SURVEY PURPOSES.
10. ANY INSPECTION/OBSERVATION BY THE PROJECT ENGINEER OR PROJECT INSPECTORS SHALL NOT, IN ANY WAY, RELIEVE THE CONTRACTOR FROM OBLIGATION TO PERFORM THE WORK IN COMPLIANCE WITH THE APPLICABLE CODES, REGULATIONS, CITY STANDARDS, ENGINEERING PLANS, AND PROJECT CONTRACT DOCUMENTS
11. ANY DEVIATION FROM THE PLANS, STANDARD DETAILS, PROJECT CONTRACT DOCUMENTS, APPLICABLE CODES, REGULATIONS, OR CITY STANDARDS MUST BE APPROVED BY THE PROJECT ENGINEER AND CITY ENGINEERING STAFF.
12. A MINIMUM OF 2 FULL WORKING DAYS AND A MAXIMUM OF 10 WORKING DAYS PRIOR TO BEGINNING CONSTRUCTION, THE CONTRACTOR SHALL CALL 1-800-424-5555 (NORTHWEST UTILITIES NOTIFICATION CENTER) FOR LOCATION MARK-UP OF EXISTING UTILITIES.
13. ALL WORK IN THE CITY RIGHT-OF-WAY SHALL CONFORM TO THE REQUIREMENTS OF THE CITY OF LA CENTER.
14. ALL CONSTRUCTION WITHIN THE CITY RIGHT-OF-WAY SHALL HAVE AN APPROVED TRAFFIC CONTROL PLAN PRIOR TO ANY CONSTRUCTION ACTIVITY. THE TRAFFIC CONTROL PLAN SHALL BE APPROVED BY THE CITY OF LA CENTER PUBLIC WORKS DEPARTMENT.
15. THE PROJECT ENGINEER MUST BE NOTIFIED OF ALL CONSTRUCTION MODIFICATIONS. PRIOR APPROVAL MUST BE PROVIDED BY THE PROJECT ENGINEER BEFORE MODIFICATIONS TO THE APPROVED DESIGN ARE INITIATED.
16. THE CONTRACTOR SHALL TAKE NO ADVANTAGE OF ANY ERRORS, OMISSIONS, OR DISCREPANCIES IN THE PLANS. WHEN ERRORS, OMISSIONS, OR DISCREPANCIES ARE FOUND, THE ENGINEER SHALL BE NOTIFIED. WORK PERFORMED BY THE CONTRACTOR AS A RESULT OF AN ERROR, OMISSION, OR DISCREPANCY IN THE PLANS SHALL BE AT THE CONTRACTOR'S RISK AND EXPENSE WHEN SUCH ERROR, OMISSION, OR DISCREPANCY HAS NOT BEEN BROUGHT TO THE ATTENTION OF THE PROJECT ENGINEER.
17. THE CONTRACTOR SHALL PERFORM ALL WORK NECESSARY TO COMPLETE THIS PROJECT IN ACCORDANCE WITH THE PLANS AND SPECIFICATIONS INCLUDING SUCH INCIDENTALS AS MAY BE NECESSARY TO MEET THE INTENT OF THE PROJECT CONTRACT DOCUMENTS, APPLICABLE AGENCY REQUIREMENTS, AND OTHER WORK AS NECESSARY TO PROVIDE A COMPLETE PROJECT.
18. THESE PLANS ASSUME THAT CONSTRUCTION STAKING WILL BE NECESSARY TO CONSTRUCT THE IMPROVEMENTS SHOWN. AKS ENGINEERING & FORESTRY LLC. DOES NOT ACCEPT ANY RESPONSIBILITY FOR ITEMS CONSTRUCTED INCORRECTLY BASED ON MISINTERPRETATIONS OF THESE PLANS.
19. UTILITIES SHOWN ARE DRAWN SCHEMATICALLY. UTILITY PLANS MAY NOT REFLECT THE ACTUAL SPACING AND HORIZONTAL/VERTICAL LOCATION OF NEW OR EXISTING UTILITIES. PLANS DO NOT SHOW ALL BENDS, REDUCERS, WYES, GASKETS, CLEANOUTS, FITTINGS, AND STRUCTURES. CONTRACTOR IS RESPONSIBLE FOR MATERIALS AND LABOR NECESSARY TO CONSTRUCT UTILITIES SHOWN AS INTENDED IN ACCORDANCE WITH APPLICABLE MANUFACTURER, LOCAL, STATE, AND FEDERAL REQUIREMENTS.
20. THE CONTRACTOR SHALL REPAIR ALL EXISTING IMPROVEMENTS DAMAGED BY CONSTRUCTION TO AS GOOD AS OR BETTER CONDITION.

AKS DRAWING FILE: 6962 C000 COVER.DWG | LAYOUT: C001

1. ALL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE IN PLACE AND IN WORKING CONDITION PRIOR TO ANY LAND DISTURBING ACTIVITY CAUSED BY CLEARING OR GRADING. EROSION AND SEDIMENT CONTROL MEASURES SHALL BE APPROVED BY THE CITY PRIOR TO THE COMMENCEMENT OF WORK. THE CONTRACTOR SHALL CALL FOR AN ON-SITE INSPECTION WHEN EROSION AND SEDIMENT CONTROL MEASURES ARE IN PLACE AND PRIOR TO COMMENCEMENT OF WORK.
2. THE EROSION AND SEDIMENT CONTROL MEASURES SHALL BE SITED, DESIGNED AND CONSTRUCTED IN ACCORDANCE WITH THE REQUIREMENTS IN THE CITY OF LA CENTER ENGINEERING STANDARDS FOR PUBLIC WORKS CONSTRUCTION.
3. THE DEVELOPER IS RESPONSIBLE FOR MAINTAINING EROSION PREVENTION AND SEDIMENT CONTROL MEASURES DURING AND AFTER INSTALLATION OF ALL UTILITY WORK ASSOCIATED WITH UTILITY TRENCHES.
4. PRIOR TO ANY SITE EXCAVATION, ALL STORM DRAINAGE INLETS SHALL BE PROTECTED DOWN SLOPE FROM ANY DISTURBED OR CONSTRUCTION AREAS PER THE STANDARD DETAILS TO PREVENT SEDIMENT FROM ENTERING THE STORM DRAINAGE SYSTEM PRIOR TO PERMANENT STABILIZATION OF THE DISTURBED AREAS. CLEAN THE FILTER FABRIC AS NECESSARY TO MAINTAIN DRAINAGE. REMOVE FILTER AND CLEAN CATCH BASINS FOLLOWING COMPLETION OF SITEWORK.
5. THE CONTRACTOR SHALL NOT ALLOW SEDIMENT OR DEBRIS TO ENTER NEW OR EXISTING PIPES, CATCH BASINS OR INFILTRATION SYSTEMS.
6. NEWLY CONSTRUCTED OR MODIFIED INLETS AND CATCH BASINS ARE TO BE PROTECTED IMMEDIATELY UPON INSTALLATION.
7. TEMPORARY SEEDING AND MULCHING OF FILL SLOPES AND DIVERSION DIKES SHALL BE COMPLETED WITHIN ONE WEEK AFTER ROUGH GRADING.
8. ALL EXPOSED AND UNWORKED SOILS SHALL BE STABILIZED BY THE APPROPRIATE BEST MANAGEMENT PRACTICES (BMPs). DURING THE PERIOD FROM OCTOBER 1 TO APRIL 30 NO SOIL SHALL BE EXPOSED FOR MORE THAN TWO (2) DAYS. FROM MAY 1 TO SEPTEMBER 30 NO SOIL SHALL BE EXPOSED FOR MORE THAN SEVEN (7) DAYS.
9. MATERIAL STOCKPILES ARE TO BE PROTECTED BY THE FOLLOWING MEANS:
   - –TEMPORARY: COVER PILES WITH TARPS OR PLASTIC SHEETING WEIGHTED WITH CONCRETE BLOCKS, LUMBER OR TIRES.
   - –PERMANENT: COVER PILES WITH TARPS OR PLASTIC, OR RESEED. PERIMETER AREAS AROUND PILES ARE TO BE SURROUNDED WITH EROSION CONTROL FILTER FABRIC FENCES UNTIL SOIL SURFACE IS STABILIZED WITH RESEEDING.
10. THE CONTRACTOR SHALL MAINTAIN ON SITE A WRITTEN DAILY LOG OF EROSION CONTROL BMP MAINTENANCE.
11. IF THE CITY INSPECTOR OR ENGINEER HAS EVIDENCE OF POOR CONSTRUCTION PRACTICES OR IMPROPER EROSION PREVENTION BMPs, CITATIONS AND/OR A STOP WORK ORDER SHALL BE ISSUED UNTIL PROPER MEASURES HAVE BEEN TAKEN AND APPROVED BY THE CITY OF LA CENTER. IF THE BMPs APPLIED TO A SITE ARE INSUFFICIENT TO PREVENT SEDIMENT FROM REACHING WATER BODIES, ADJACENT PROPERTIES, OR PUBLIC RIGHT-OF-WAY, THEN THE CITY SHALL REQUIRE ADDITIONAL BMPs.
12. ALTERNATIVE BMP'S NOT SHOWN IN THESE DETAILS ARE ACCEPTABLE PROVIDED THEY ARE PART OF ECOLOGY'S WESTERN WASHINGTON STORMWATER MANAGEMENT MANUAL AND THE CITY ENGINEER REVIEWS AND APPROVES THE ALTERNATIVE BMP'S AS PART OF THE EROSION CONTROL PLAN PRIOR TO THE START OF CONSTRUCTION.

EROSION CONTROL GENERAL NOTES I

PLAN # ER-1A

CITY OF LA CENTER APPROVED

Bart Stepp, PE 7/23/09

CITY ENGINEER DATE

REVISIONS:	DATE:	DRAWN:	DESIGNED:

LEGEND

	EXISTING	PROPOSED		EXISTING	PROPOSED
DECIDUOUS TREE	✿	●	STORM DRAIN CLEAN OUT	○	●
CONIFEROUS TREE	✳	✱	STORM DRAIN CATCH BASIN	□	■
FIRE HYDRANT	♁	●	STORM DRAIN AREA DRAIN	□	■
WATER BLOWOFF	♀	↑	STORM DRAIN MANHOLE	◎	◉
WATER METER	▭	▬	GAS METER	⊠	◘
WATER VALVE	⋈	⧓	GAS VALVE	◫	◧
DOUBLE CHECK VALVE	⊠	▣	GUY WIRE ANCHOR	←	←
AIR RELEASE VALVE	♂	●	UTILITY POLE	-○-	-●-
SANITARY SEWER CLEAN OUT	○	●	POWER VAULT	P	P
SANITARY SEWER MANHOLE	○	●	POWER JUNCTION BOX	◬	▣
SIGN	-○-	-●-	POWER PEDESTAL	□	■
STREET LIGHT	☼	✹	COMMUNICATIONS VAULT	C	C
MAILBOX	▣	▣	COMMUNICATIONS JUNCTION BOX	△	▲
			COMMUNICATIONS RISER	⬠	⬟

	EXISTING	PROPOSED
RIGHT-OF-WAY LINE	— — - — —	— — - — —
BOUNDARY LINE	———	———
PROPERTY LINE	———	———
CENTERLINE	— - — - —	— - — - —
DITCH	— — > — — >	— — > — — >
CURB	═══	═══
EDGE OF PAVEMENT	- - - - -	———
EASEMENT	- - - - -	- - - - -
FENCE LINE	—○—○—○—	—●—●—●—
GRAVEL EDGE	········	········
POWER LINE	— — PWR — —	— PWR —
OVERHEAD WIRE	— — OHW — —	— OHW —
COMMUNICATIONS LINE	— — COM — —	— COM —
FIBER OPTIC LINE	— — CFO — —	— CFO —
GAS LINE	— — GAS — —	— GAS —
STORM DRAIN LINE	— — STM — —	— STM —
SANITARY SEWER LINE	— — SAN — —	— SAN —
WATER LINE	— — WAT — —	— WAT —

13. PROVIDE A 12-INCH DEEP PAD OF CRUSHED ROCK FOR A DISTANCE OF 100 FEET INTO THE SITE FOR ALL ACCESS POINTS UTILIZED BY CONSTRUCTION EQUIPMENT AND TRUCKS. WIDTH OF THE PAD SHALL BE A MINIMUM OF 20 FEET. ALL TRUCKS LEAVING THE SITE SHALL EGRESS ACROSS THE PAD. ACCUMULATED SOIL SHALL BE PERIODICALLY REMOVED, OR ADDITIONAL ROCK SHALL BE PLACED UPON THE PAD SURFACE. ROCK SHALL BE CLEAN 4 INCH TO 8 INCH QUARRY SPALLS. ALL MATERIALS SPILLED, DROPPED, WASHED OR TRACKED FROM VEHICLES ONTO ROADWAYS OR INTO STORM DRAINS MUST BE REMOVED IMMEDIATELY.
14. PAVEMENT SWEEPING AND SHOVELING IS REQUIRED. WASHING THE PAVEMENT INTO THE STORM SYSTEM IS NOT PERMITTED.
15. AT SITES WITH LESS THAN 1 ACRE OF EXPOSED SOIL, PAD LENGTH MAY BE REDUCED TO 50 FEET. SINGLE FAMILY LOT ENTRANCES MAY HAVE THE PAD LENGTH REDUCED TO 20 FEET.
16. INSTALL SEDIMENT FENCE IN ACCORDANCE WITH DETAIL ER-3 PRIOR TO BUILDING CONSTRUCTION AND/OR EXCAVATION TO PREVENT SILT INTRUSION UPON ADJACENT LOTS. IF CONSTRUCTION OCCURS SIMULTANEOUSLY ON ADJACENT LOTS AND THE LOTS HAVE THE SAME OWNER DURING CONSTRUCTION, THE SILT FENCE ALONG THE COMMON LOT LINE MAY BE ELIMINATED.
17. CONSTRUCTION ROADS AND PARKING AREAS SHALL BE STABILIZED WHEREVER THEY ARE CONSTRUCTED, WHETHER PERMANENT OR TEMPORARY, FOR THE USE OF CONSTRUCTION TRAFFIC.
18. MAINTAIN AND REMOVE ALL SEDIMENT CONTROLS AS SPECIFIED IN THE STANDARD DETAILS. THE CONTRACTOR SHALL REMOVE ALL ACCUMULATED SEDIMENT FROM THE CATCH BASINS, DRYWELLS, UTILITY TRENCHES AND STORM PIPES PRIOR TO ACCEPTANCE BY THE CITY.
19. SEDIMENT CONTROL BMPs SHALL BE INSPECTED WEEKLY AND AFTER ANY STORM EVENT PRODUCING RUNOFF. THE INSPECTION FREQUENCY FOR STABILIZED, INACTIVE SITES SHALL BE ONCE EVERY TWO WEEKS OR MORE FREQUENTLY AS DETERMINED BY THE LOCAL PERMITTING AUTHORITY BASED ON THE LEVEL OF SOIL STABILITY AND POTENTIAL FOR ADVERSE ENVIRONMENTAL IMPACTS.
20. ALL TEMPORARY EROSION PREVENTION AND SEDIMENT CONTROL MEASURES SHALL BE REMOVED WITHIN 30 DAYS AFTER SITE STABILIZATION IS ACHIEVED OR AFTER TEMPORARY BMPs ARE NO LONGER NEEDED. TRAPPED SEDIMENT SHALL BE REMOVED OR STABILIZED ON SITE. DISTURBED SOIL AREAS RESULTING FROM REMOVAL SHALL BE PERMANENTLY STABILIZED.
21. IN AREAS SUBJECT TO SURFACE AND AIR MOVEMENT OF DUST ONE OR MORE OF THE FOLLOWING PREVENTATIVE MEASURES SHALL BE TAKEN FOR DUST CONTROL:
   - –MINIMIZE THE PERIOD OF SOIL EXPOSURE THROUGH THE USE OF TEMPORARY GROUND COVER AND OTHER TEMPORARY STABILIZATION PRACTICES.
   - –SPRINKLE THE SITE WITH WATER UNTIL THE SURFACE IS WET.
   - –SPRAY EXPOSED SOIL AREAS WITH A DUST PALLIATIVE. NOTE: USE OF PETROLEUM PRODUCTS OR POTENTIALLY HAZARDOUS MATERIALS ARE PROHIBITED
22. EXPOSED SURFACES THAT WILL NOT BE BROUGHT TO FINAL GRADING OR GIVEN A PERMANENT COVER TREATMENT WITHIN 30 DAYS OF THE EXPOSURE SHALL HAVE SEED MIX AND MULCH PLACED TO STABILIZE THE SOIL AND REDUCE EROSION SEDIMENTATION. SEEDED AREAS SHALL BE CHECKED REGULARLY TO ASSURE A GOOD STAND OF GRASS IS BEING MAINTAINED. AREAS THAT FAIL TO ESTABLISH VEGETATION COVER ADEQUATE TO PREVENT EROSION WILL BE RESEEDED AS SOON AS SUCH AREAS ARE IDENTIFIED.
23. APPLY AN APPROVED TEMPORARY SEEDING MIXTURE TO THE PREPARED SEED BED AT A RATE OF 120 LBS/ACRE. NOTE: "HYDROSEEDING" APPLICATIONS WITH APPROVED SEED-MULCH-FERTILIZER MIXTURES MAY ALSO BE USED.

EROSION CONTROL GENERAL NOTES II

PLAN # ER-1B

CITY OF LA CENTER APPROVED

Bart Stepp, PE 7/23/09

CITY ENGINEER DATE

REVISIONS:	DATE:	DRAWN:	DESIGNED:

1. ALL MATERIALS, WORKMANSHIP AND INSTALLATION OF STORM SEWERS SHALL BE IN CONFORMANCE WITH THE LATEST EDITION OF THE "CITY OF LA CENTER ENGINEERING STANDARDS FOR PUBLIC WORKS CONSTRUCTION" AND THE LATEST EDITION OF THE "WSDOT STANDARD SPECIFICATIONS FOR ROAD, BRIDGE, AND MUNICIPAL CONSTRUCTION", HEREINAFTER REFERRED TO AS THE "STANDARD SPECIFICATIONS", PREPARED BY THE WASHINGTON STATE CHAPTER OF THE AMERICAN PUBLIC WORKS ASSOCIATION (APWA) AND THE WASHINGTON STATE DEPARTMENT OF TRANSPORTATION, EXCEPT AS NOTED HEREIN OR ON THE STANDARD PLANS.
2. THE CONTRACTOR IS TO VERIFY ALL INVERT AND TOP ELEVATIONS OF EXISTING STORM SEWERS, CENTERLINE AND TOP OF CURB ELEVATIONS, AND REPORT ANY DISCREPANCIES IMMEDIATELY TO THE ENGINEER.
3. ALL STORM SEWER CONSTRUCTION IS SUBJECT TO INSPECTION, AND APPROVAL, PRIOR TO COVER BY THE CITY OF LA CENTER. THE CONTRACTOR SHALL NOTIFY THE CONSTRUCTION OFFICE AT LEAST 48 HOURS PRIOR TO THE START OF CONSTRUCTION. A PRE-CONSTRUCTION MEETING IS REQUIRED PRIOR BEGINNING OF THE CONSTRUCTION.
4. THE CONTRACTOR SHALL BE RESPONSIBLE FOR DETERMINING THE LOCATION OF ALL UNDERGROUND UTILITIES PRIOR TO THE START OF CONSTRUCTION AND TO NOTIFY THE ENGINEER OF ANY POTENTIAL CONFLICTS. THE CONTRACTOR SHALL DIG TEST HOLES OVER ALL EXISTING UTILITIES PRIOR TO CONSTUCTION TO DETERMINE THEIR EXACT LOCATION. CALL 1-800-424-5555, (NORTHWEST UTILITY NOTIFICATION CENTER), FOR MARK-UP OF EXISTING UTILITIES, A MINIMUM OF 2 WORKING DAYS PRIOR TO START OF CONSTRUCTION.
5. IT SHALL BE THE RESPONSIBILITY OF THE DEVELOPER AND/OR CONTRACTOR TO PROCURE ALL APPLICABLE PERMITS, LICENSES AND CERTIFICATES RELATIVE TO THE TRADES TO COMPLETE THE PROJECT AND FOR THE USE OF SUCH WORK WHEN COMPLETED. COMPLIANCE SHALL BE AT ALL LEVELS, FEDERAL, STATE AND CITY, RELATING TO THE PERFORMANCE OF THIS WORK.
6. THE CONTRACTOR SHALL OBTAIN ALL OFFSITE CONSTRUCTION EASEMENTS PRIOR TO THE START OF CONSTRUCTION. THE CONTRACTOR SHALL VERIFY THAT ALL OFFSITE UTILITIES EASEMENTS HAVE BEEN OBTAINED BY THE OWNER PRIOR TO THE COMMENCEMENT OF ANY OFFSITE CONSTRUCTION.
7. THE CONTRACTOR SHALL SUBMIT A TRAFFIC CONTROL PLAN TO THE PUBLIC WORKS DEPARTMENT THAT MUST BE APPROVED BY THE PUBLIC WORKS DEPARTMENT PRIOR TO CONSTRUCTION.
8. ALL CATCH BASINS AND CURB INLETS SHALL BE STENCILED AS FOLLOWS: "DUMP NO WASTE-DRAINS TO STREAM".
9. SIGNS THAT READ: "WATER QUALITY FILTER-PLEASE LEAVE VEGETATED" SHALL BE INSTALLED EVERY 50 FEET ON FENCE OR POSTS ALONG WATER QUALITY BIOFILTRATION SYSTEMS.
10. VEGETATION IN BIOFILTRATION SYSTEMS SHALL BECOME FULLY ESTABLISHED PRIOR TO COMMENCING WITH INSTALLATION OF A.C. PAVEMENT FOR ALL AREAS DRAINING INTO THE WATER QUALITY SYSTEM. VEGETATION IN BIOFILTRATION SYSTEMS TO BE THE FOLLOWING GRASS SEED MIX (PROPORTIONS GIVEN BY WEIGHT):

    40% REDTOP BENTGRASS, 30% RED FESCUE, 20% TALL FESCUE, 5% PERENNIAL RYE, 5% RUSSIAN WILDRYE.
11. PIPES OVER 12" DIA. SHALL HAVE A CHILD PROTECTION DEVICE AT INFLUENT END.
12. ALL STORM MANHOLES INSTALLED WITHIN AN EASEMENT OR OUTSIDE THE CITY RIGHT-OF-WAY SHALL HAVE LOCKING LID COVERS.
13. MATERIAL CERTIFICATION FOR ALL STORM MANHOLES, CATCHBASINS, AND CURB INLETS SHALL BE PROVIDED TO THE CITY INSPECTOR.
14. ALL ROOF AND LOWPOINT DRAINS TO BE DIRECTED TO APPROVED DRAINAGE PER PLANS.
15. ALL TRENCH BACKFILLING WILL CONFORM TO STANDARD DETAIL SS-4. PIPE BEDDING WILL CONFORM TO STANDARD DETAIL SS-5.
16. ALL STORM SEWER CLEANOUTS WILL MEET THE REQUIREMENTS OF STANDARD DETAIL SS-14.

GENERAL STORMWATER NOTES

PLAN # SM-1

CITY OF LA CENTER APPROVED

Bart Stepp, PE 7/23/09

CITY ENGINEER DATE

REVISIONS:	DATE:	DRAWN:	DESIGNED:

SANITARY SEWER GENERAL NOTES:

1. ALL MATERIALS, WORKMANSHIP AND INSTALLATION OF SANITARY SEWERS SHALL BE IN CONFORMANCE WITH THE LATEST EDITION OF THE "CITY OF LA CENTER STANDARDS" AND THE LATEST EDITION OF THE "WSDOT STANDARD SPECIFICATIONS FOR ROAD, BRIDGE, AND MUNICIPAL CONSTRUCTION", HEREINAFTER REFERRED TO AS THE "STANDARD SPECIFICATIONS", PREPARED BY THE WASHINGTON STATE CHAPTER OF THE AMERICAN PUBLIC WORKS ASSOCIATION (APWA) AND THE WASHINGTON STATE DEPARTMENT OF TRANSPORTATION, EXCEPT AS NOTED HEREIN OR ON THE STANDARD PLANS.
2. ALL SANITARY SEWER CONSTRUCTION IS SUBJECT TO INSPECTION, AND APPROVAL, PRIOR TO COVER BY THE CITY OF LA CENTER. THE CONTRACTOR SHALL NOTIFY THE CONSTRUCTION OFFICE AT LEAST 48 HOURS PRIOR TO THE START OF CONSTRUCTION. A PRE-CONSTRUCTION MEETING IS REQUIRED PRIOR BEGINNING OF THE CONSTRUCTION.
3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR DETERMINING THE LOCATION OF ALL UNDERGROUND UTILITIES PRIOR TO THE START OF CONSTRUCTION AND TO NOTIFY THE ENGINEER OF ANY POTENTIAL CONFLICTS. THE CONTRACTOR SHALL DIG TEST HOLES OVER ALL EXISTING UTILITIES PRIOR TO CONSTUCTION TO DETERMINE THEIR EXACT LOCATION. CALL 1-800-424-5555, (NORTHWEST UTILITY NOTIFICATION CENTER), FOR MARK-UP OF EXISTING UTILITIES, A MINIMUM OF 2 WORKING DAYS PRIOR TO START OF CONSTRUCTION.
4. ALL PIPE AND FITTINGS SHALL CONFORM TO LCMC 13.10.150 AND THE FOLLOWING:
   - A. POLYVINYLCHLORIDE (PVC) SEWER PIPE 15" DIAMETER OR LESS SHALL CONFORM TO ASTM D3034, SDR 35. PVC PIPE 18" DIAMETER AND LARGER SHALL CONFORM TO ASTM F 679. ALL PVC PIPE SHALL HAVE AN INTEGRAL BELL GASKETED JOINT WITH ELASTOMERIC GASKET AND SHALL BE FURNISHED IN 12-1/2 FOOT LAYING LENGTHS.
   - B. DUCTILE IRON (DI) PIPE SHALL CONFORM TO ANSI A21.51 OR AWWA C-151, WITH PUSH-ON JOINTS, UNLESS OTHERWISE NOTED.
5. MANHOLES, CLEANOUTS, SERVICE LATERAL CONNECTIONS, TRENCH EXCAVATION, PIPE BEDDING AND STREET RESTORATION, AND APPURTENANCES SHALL CONFORM TO THE DETAILS SHOWN ON THE STANDARD PLANS. ALL OTHER CONSTRUCTION SHALL CONFORM TO THE LATEST STANDARD DETAILS CONTAINED IN THE WSDOT "STANDARD PLANS FOR ROAD, BRIDGE AND MUNICIPAL CONSTRUCTION".
6. ALL SANITARY MANHOLES INSTALLED WITHIN AN EASEMENT OR OUTSIDE THE CITY RIGHT-OF-WAY SHALL HAVE LOCKING LID COVERS AND EXTEND ONE FOOT (1') ABOVE GRADE.
7. THE CONTRACTOR SHALL OBTAIN A RIGHT-OF-WAY PERMIT FOR WORK WITHIN THE PUBLIC RIGHT OF WAY. THE CONTRACTOR SHALL SUBMIT AN APPROVED TRAFFIC CONTROL PLAN. INSIDE THE CITY THIS PLAN SHALL BE APPROVED BY THE CITY OF LA CENTER PUBLIC WORKS DIRECTOR OR DESIGNEE AND OUTSIDE THE CITY IT SHALL BE APPROVED BY THE CLARK COUNTY TRAFFIC ENGINEER (360-397-2446). APPROVAL SHALL BE OBTAINED PRIOR TO BEGINNING CONSTRUCTION.
8. ALL PIPES SHALL BE PLUGGED AT THE END OF EACH WORKING DAY.
9. ALL TRENCHES SHALL BE FILLED AND COMPACTED UP TIGHT AT THE END OF EACH WORKING DAY.
10. A CLEANOUT OR MANHOLE IS REQUIRED AT THE END OF ALL LINES.
11. PRE-PAVEMENT AS-BUILTS ARE REQUIRED.

GENERAL SANITARY SEWER NOTES

PLAN # SS-1

CITY OF LA CENTER APPROVED

Bart Stepp, PE 7/23/09

CITY ENGINEER DATE

REVISIONS:	DATE:	DRAWN:	DESIGNED:

1. MATERIALS AND CONSTRUCTION METHODS SHALL BE IN CONFORMANCE WITH THE "CITY OFLA CENTER STANDARDS" AND THE LATEST EDITION OF THE "WSDOT STANDARD SPECIFICATIONS FOR ROAD, BRIDGE & MUNICIPAL CONSTRUCTION" AS PREPARED BY WSDOT AND THE WASHINGTON STATE CHAPTER OF THE APWA.
2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR DETERMINING THE LOCATION OF ALL UNDERGROUND UTILITIES PRIOR TO THE START OF CONSTRUCTION AND TO NOTIFY THE ENGINEER OF ANY POTENTIAL CONFLICTS. THE CONTRACTOR SHALL DIG TEST HOLES OVER ALL EXISTING UTILITIES PRIOR TO CONSTUCTION TO DETERMINE THEIR EXACT LOCATION. CALL 1-800-424-5555, (NORTHWEST UTILITY NOTIFICATION CENTER), FOR MARK-UP OF EXISTING UTILITIES, A MINIMUM OF 2 WORKING DAYS PRIOR TO START OF CONSTRUCTION.
3. THE CONTRACTOR SHALL NOTIFY THE CITY INSPECTOR TWO WORKING DAYS PRIOR TO THE START OF CONSTRUCTION, AND APPROVAL OF THE CONSTRUCTION WILL BE BY THE CITY PUBLIC WORKS DEPARTMENT.
4. AN APPROVED TRAFFIC CONTROL PLAN WILL BE REQUIRED PRIOR TO THE START OF CONSTRUCTION WITHIN A CITY OR COUNTY RIGHT-OF-WAY.
5. COMPACTION SHALL BE AS FOLLOWS:
   - -SUBGRADE SHALL BE COMPACTED TO A DEPTH OF 6" AT 95% OF THE RELATIVE DRY DENSITY.
   - -ASPHALT CONCRETE SHALL BE COMPACTED TO 95% OF THE MAXIMUM RELATIVE DENSITY.
   - -CRUSHED ROCK SHALL BE COMPACTED TO 95% STANDARD DENSITY.
6. STREET SIGNS SHALL BE INSTALLED BY THE DEVELOPER. THE CITY WILL PROVIDE STREET SIGNS TO THE DEVELOPER.
7. THE DEVELOPER SHALL BE RESPONSIBLE FOR PROVIDING ALL CROSSWALK SIGNS, CENTERLINE STRIPING, AND CURB RETURN PAINTING. ALL PERMANENT STRIPING TO BE THERMOPLASTIC.
8. THE DEVELOPER SHALL BE RESPONSIBLE FOR THE COST OR PROPORTIONAL SHARE OF THE STREET LIGHT INSTALLATION.
9. MAIL BOXES SHALL HAVE 12" MINIMUM CLEARANCE FROM THE BACK OF THE SIDEWALK.
10. A PRE-CONSTRUCTION MEETING SHALL BE SCHEDULED WITH THE CITY PRIOR TO BEGINNING OF CONSTRUCTION.
11. TRENCH BACKFILL REQUIREMENTS WILL BE PER STANDARD DETAIL SS-4 AND ST17 - ST19. PIPE BEDDING REQUIREMENTS WILL BE PER STANDARD DETAIL SS-5.
12. ALL WATER SYSTEM IMPROVEMENTS WILL BE APPROVED BY CLARK PUBLIC UTILITIES PRIOR TO THE START OF CONSTRUCTION.
13. ALL SIGNING AND STRIPING WILL MEET THE REQUIREMENTS OF THE LATEST EDITION OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS (MUTCD), AS AMENDED BY WSDOT.

STREETS & SIDEWALKS GENERAL NOTES

PLAN # ST-1

CITY OF LA CENTER APPROVED

Bart Stepp, PE 7/23/09

CITY ENGINEER DATE

REVISIONS:	DATE:	DRAWN:	DESIGNED:

ADDITIONAL REFERENCES

1. REFERENCE SHEET C055 FOR GRADING AND EROSION CONTROL NOTES AND DETAILS.
2. REFERENCE SHEET C150–C151 FOR STREET AND SIDEWALK CONSTRUCTION NOTES AND DETAILS.
3. REFERENCE SHEET C250–C251 FOR STORMWATER CONSTRUCTION NOTES AND DETAILS.
4. REFERENCE SHEET C350–C351 FOR SANITARY SEWER CONSTRUCTION NOTES AND DETAILS.
5. REFERENCE SHEET C450–C451 FOR WATER CONSTRUCTION NOTES AND DETAILS.

STRUCTURAL NOTES

1. THESE PLANS ARE APPROVED FOR STANDARD ROAD AND DRAINAGE IMPROVEMENTS ONLY. PLANS FOR STRUCTURES SUCH AS BRIDGES, VAULTS, AND RETAINING WALLS REQUIRE A SEPARATE REVIEW AND APPROVAL BY CITY OF LA CENTER BUILDING DEPARTMENT AND/OR PUBLIC WORKS DEPARTMENT, AND WSDOT BRIDGE SECTION PRIOR TO CONSTRUCTION.

811

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HOLLEY PARK SUBDIVISION
CONSTRUCTION PLANS

LA CENTER WASHINGTON
PARCEL NO. 209055000, 209059000 AND 62965242
NW 1/4 OF SEC 2 T4N, R1E, W.M.

GENERAL NOTES AND LEGEND

DESIGNED BY: JRS
DRAWN BY: MRE
MANAGED BY: SMH
CHECKED BY: JRS
DATE: 5/13/19

SETH MICHAEL HALLING
48813

REVISIONS

JOB NUMBER
6962

SHEET
C001

GENERAL NOTES

1. UTILITIES SHOWN ARE BASED ON UNDERGROUND UTILITY LOCATE MARKINGS AS PROVIDED BY OTHERS, PER UTILITY LOCATE TICKET NUMBERS 18487484 AND 18487503. THE SURVEYOR MAKES NO GUARANTEE THAT THE UNDERGROUND LOCATES REPRESENT THE ONLY UTILITIES IN THE AREA. CONTRACTORS ARE RESPONSIBLE FOR VERIFYING ALL EXISTING CONDITIONS PRIOR TO BEGINNING CONSTRUCTION.
2. FIELD WORK WAS CONDUCTED NOVEMBER 15, 2018 – MARCH 21, 2019.
3. VERTICAL DATUM: ELEVATIONS ARE BASED ON CLARK COUNTY BENCHMARK NO. GPS-52, A 3-1/2" BRASS DISK INSCRIBED "WOODAIR 1990". LOCATED AT THE WOODLAND AIRPORT, 7' SOUTH OF THE NORTH FENCE ON THE PROJECTED CENTERLINE OF THE RUNWAY. ELEVATION = 23.13 FEET (NGVD 29(47)).
4. THIS MAP DOES NOT CONSTITUTE A PROPERTY BOUNDARY SURVEY.
5. SURVEY IS ONLY VALID WITH SURVEYOR'S STAMP AND SIGNATURE.
6. BUILDING FOOTPRINTS ARE MEASURED TO SIDING UNLESS NOTED OTHERWISE. CONTACT SURVEYOR WITH QUESTIONS REGARDING BUILDING TIES.
7. CONTOUR INTERVAL IS 1 FOOT. CONTOURS SHOWN ARE A COMBINATION OF SURVEYED DATA AND LIDAR DATA.
8. TREES WITH DIAMETER OF 5" AND GREATER ARE SHOWN. TREE DIAMETERS WERE DETERMINED BY VISUAL INSPECTION. TREE INFORMATION IS SUBJECT TO CHANGE UPON ARBORIST INSPECTION.
9. WETLAND BOUNDARIES SHOWN WERE DELINEATED BY AKS ENGINEERING & FORESTRY, LLC. ON NOVEMBER 14, 2018 AND WERE PROFESSIONALLY SURVEYED BY AKS ON NOVEMBER 15 – DECEMBER 2, 2018.

LEGEND

EXISTING GROUND CONTOUR (1 FT) —— 121 ——

EXISTING GROUND CONTOUR (5 FT) —— 125 ——

SCALE: 1"=50 FEET

50 0 20 30 40 50

ORIGINAL PAGE SIZE: 34" x 22"

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HOLLEY PARK SUBDIVISION CONSTRUCTION PLANS

LA CENTER WASHINGTON

NW 1/4 OF SEC 2 TAN, R1E, W.M.

PARCEL NO. 209055000, 209059000 AND 62965242

EXISTING CONDITIONS PLAN

DESIGNED BY:
DRAWN BY: BRE
MANAGED BY: SMH
CHECKED BY: JOH
DATE: 4/29/2019

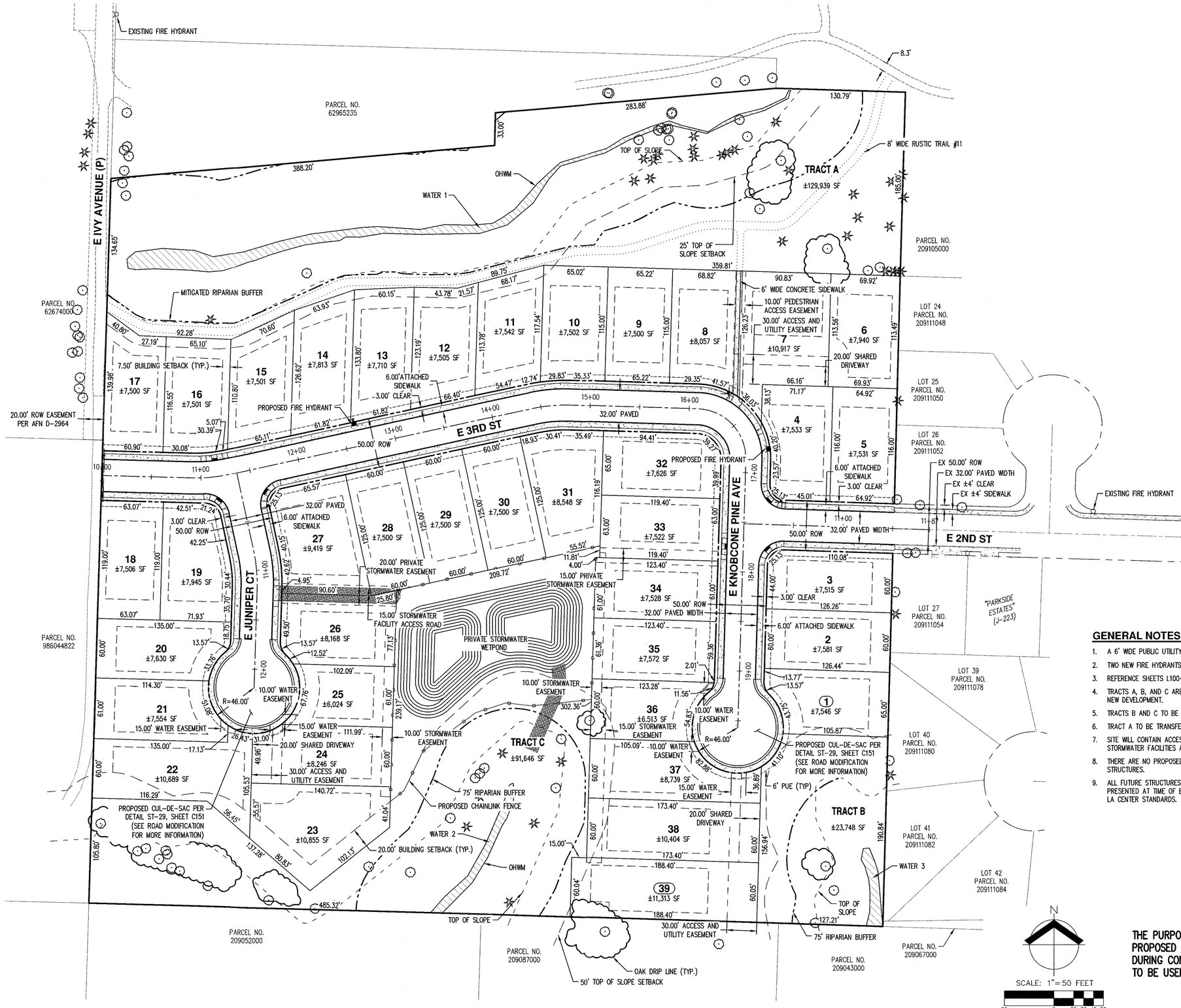
JAMES O. HANNON — STATE OF WASHINGTON — 54200 — REGISTERED PROFESSIONAL LAND SURVEYOR

REVISIONS

JOB NUMBER 6962

SHEET C002

AKS DRAWING FILE: 6962 C003 EXCOND.DWG | LAYOUT: C002



SITE STATISTICS

GROSS AREA:	633,340 SF (14.54 AC)
ROW DEDICATION:	73,010 SF (1.67 AC)
TRACT AREAS:	245,333 SF (5.63 AC)
NET AREA:	314,997 SF (7.23 AC)
MIN LOT DEPTH:	90 FT
MIN LOT WIDTH:	60 FT
NUMBER OF PROP LOTS:	39 EA
MIN LOT AREA:	7,500 SF**
MAX LOT AREA:	11,000 SF***
PROP MIN LOT AREA:	6,024 SF
PROP MAX LOT AREA:	11,313 SF

** 10% OF LOTS MAY BE REDUCED TO A MINIMUM LOT AREA OF 6,000 SQUARE FEET.
*** PER THE LCMC, THE MAXIMUM LOT AREA OF A LOT ABUTTING THE URBAN GROWTH BOUNDARY MAY EXCEED 11,000 SQUARE FEET.

DENSITY STATISTICS

GROSS RESIDENTIAL AREA:	524,206 SF (12.03 AC)
ROW AREA:	73,010 SF (1.67 AC)
CRITICAL AREAS:	79,670 SF (1.83 AC)*
NET SITE AREA:	371,526 SF (8.53 AC)
MIN DENSITY (8.53 X 4):	35
NUMBER OF PROP LOTS:	39

* CRITICAL AREAS INCLUDE STREAM BUFFERS AND STEEP SLOPES.

GENERAL NOTES

1. A 6' WIDE PUBLIC UTILITY EASEMENT IS LOCATED ALONG THE EDGE OF THE PUBLIC RIGHT-OF-WAY AT ALL NEW LOTS.
2. TWO NEW FIRE HYDRANTS ARE PROPOSED WITH LOCATIONS AS SHOWN.
3. REFERENCE SHEETS L100-L101 FOR LANDSCAPE PLANS.
4. TRACTS A, B, AND C ARE CRITICAL AREAS TRACTS. TRACT C ALSO CONTAINS A STORMWATER FACILITY TO SERVE THE NEW DEVELOPMENT.
5. TRACTS B AND C TO BE PRIVATELY OWNED AND MAINTAINED.
6. TRACT A TO BE TRANSFERRED TO THE CITY OF LA CENTER IN EXCHANGE FOR PARK IMPACT FEE CREDITS.
7. SITE WILL CONTAIN ACCESS, INSPECTION, AND MAINTENANCE EASEMENTS TO THE CITY OF LA CENTER FOR ALL STORMWATER FACILITIES AS SHOWN.
8. THERE ARE NO PROPOSED LOADING AREAS, SOLID WASTE STORAGE AREAS, RECYCLABLE STORAGE AREAS, OR STRUCTURES.
9. ALL FUTURE STRUCTURES WITHIN THIS DEVELOPMENT WILL BE RESIDENTIAL. DESIGN FOR STRUCTURES WILL BE PRESENTED AT TIME OF BUILDING PERMIT APPLICATION. STRUCTURE HEIGHT AND APPEARANCE WILL BE PER CITY OF LA CENTER STANDARDS.

THE PURPOSE OF THIS PRELIMINARY PLAT IS TO SHOW THE PROPOSED LOT DIMENSIONS AND AREAS TO AID THE CONTRACTOR DURING CONSTRUCTION. THIS IS NOT AN OFFICIAL PLAT AND IS NOT TO BE USED FOR SURVEY PURPOSES.

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HOLLEY PARK SUBDIVISION CONSTRUCTION PLANS

LA CENTER WASHINGTON
NW 1/4 OF SEC 2 T4N, R1E, W.M.
PARCEL NO. 209055000, 209059000 AND 62965242

PROPOSED DEVELOPMENT PLAN

DESIGNED BY:	JRS
DRAWN BY:	MRE
MANAGED BY:	SMH
CHECKED BY:	JRS
DATE:	5/13/19

SETH MICHAEL HALTING
STATE OF WASHINGTON
48813
REGISTERED
PROFESSIONAL ENGINEER

REVISIONS

JOB NUMBER
6962

SHEET
C010

AKS DRAWING FILE: 6962 C010 SITEDWG | LAYOUT: C010

EROSION CONTROL KEYED NOTES (#)

1. ESTABLISH GRAVEL CONSTRUCTION ENTRANCE PER DETAIL ER-2, SHEET C055 (TYP).
2. INSTALL SEDIMENT FENCE PER DETAIL ER-3, SHEET C055 (TYP).
3. INSTALL INLET PROTECTION PER DETAIL ER-4, SHEET C055 (TYP).
4. PERMANENT STORMWATER WETPOND FACILITY TO BE USED AS TEMPORARY SEDIMENT POND DURING CONSTRUCTION. SEDIMENT TO BE REMOVED BEFORE STORMWATER WETPOND FACILITY IS PLANTED. INSTALL TEMPORARY SEDIMENT POND PER DETAIL ER-9, SHEET C055.
5. TEMPORARY STOCKPILE LOCATION.

GENERAL NOTES

1. REFERENCE DEMOLITION PLAN ON SHEET C051 TO COORDINATE DEMOLITION AND EROSION CONTROL. EROSION CONTROL FEATURES SHALL BE IN PLACE PRIOR TO ANY SOIL DISTURBANCE OR DEMOLITION.
2. REFERENCE TREE PRESERVATION PLAN ON SHEET C052 TO COORDINATE TREE PROTECTION AND EROSION CONTROL. TREE PROTECTION FENCING SHALL BE IN PLACE PRIOR TO ANY SOIL DISTURBANCE OR DEMOLITION.
3. SEE ARBORIST NOTES ON SHEET C052 AND C053 FOR PRECAUTIONS WHEN WORKING AROUND TREES ON SITE.
4. DEMOLITION AND REMOVAL OF ALL STRUCTURES TOGETHER WITH DECOMMISSIONING OF ALL WELLS, SEPTIC TANKS, AND UNDERGROUND STORAGE TANKS (IF ANY EXIST) SHALL BE COMPLETED PRIOR TO SITE GRADING.
5. THE CONTRACTOR SHALL BE RESPONSIBLE TO ENSURE THAT INLET PROTECTION IS MAINTAINED DURING CONSTRUCTION AND NO SEDIMENT ENTERS THE STORM SEWER SYSTEM.
6. PER INTERNATIONAL BUILDING CODE (IBC) APPENDIX J, THERE SHALL BE NO GRADING WITHIN 2' OF ADJACENT PARCELS UNLESS A CONSTRUCTION EASEMENT IS OBTAINED.
7. GRADE ALL LOTS WITH POSITIVE GRADIENT TO STREET.
8. FINISH GRADE CONTOURS SHOWN REPRESENT TOP OF STRUCTURAL FILL. STRIPPINGS (NON-STRUCTURAL FILL) MAY BE PLACED TO A MAXIMUM OF 0.5 FEET ABOVE FINISH GRADE SHOWN.
9. THESE PLANS WERE PREPARED UNDER THE ASSUMPTION THAT CONSTRUCTION WILL TAKE PLACE DURING DRY WEATHER CONDITIONS. SIGNIFICANT VARIATION IN DEGREE OF REQUIRED EROSION CONTROL EFFORT WILL BE DICTATED BY WEATHER CONDITIONS. FINE GRAINED AND UNCONSOLIDATED SOILS ON SLOPING SITES MAY BECOME UNSTABLE WHEN SUBJECT TO EXCESSIVE MOISTURE.

GRADING QUANTITIES

CUT: 15,200 CY
FILL: 14,600 CY

6" STRIPPINGS: 7,900 C.Y. (CUT)

STRIPPINGS TO REMAIN ONSITE AND BE REDISTRIBUTED OVER THE LOTS AFTER ALL GRADING ACTIVITIES ARE COMPLETED.

CUT AND FILL QUANTITIES SHOWN ARE BASED ON GENERAL SITE GRADING ESTABLISHED FROM THE STRIPPING GRADE TO THE PROPOSED FINISHED SUBGRADE AND TRENCH SPOILS. THESE VOLUMES DO NOT TAKE INTO ACCOUNT ANY UNKNOWN UNSUITABLE SOIL DEPOSITS OR OVER-EXCAVATION OF NON-ORGANIC MATERIALS THAT ARE DISCOVERED ON SITE, NOR WET WEATHER CONDITIONS. CONTRACTOR SHALL BE RESPONSIBLE TO PRODUCE INDEPENDENT GRADING VOLUMES AS WELL AS ACCOUNT FOR ANY OBSERVATION OF MEASURES DIRECTED WITHIN THE GEOTECHNICAL REPORT OR AS DIRECTED BY THE GEOTECHNICAL ENGINEER DURING THE COURSE OF CONSTRUCTION.

LEGEND

- EXISTING GRADE CONTOUR (1 FT) — 101
- EXISTING GRADE CONTOUR (5 FT) — 105
- FINISHED GRADE CONTOUR (1 FT) — 101
- FINISHED GRADE CONTOUR (5 FT) — 105
- DISTURBED AREA
- FINISHED GRADE FLOW ARROW
- INLET PROTECTION PER DETAIL ER-4, SHEET C055
- GRAVEL CONSTRUCTION ENTRANCE PER DETAIL ER-2, SHEET C055
- SEDIMENT FENCE (INSTALLED PRIOR TO GRADING) PER DETAIL ER-3, SHEET C055 — x
- POTENTIAL STAGING/ SOIL STOCKPILE AREA

NOTE:
DEMOLITION AND REMOVAL OF ALL STRUCTURES TOGETHER WITH DECOMMISSIONING OF ALL WELLS, SEPTIC TANKS, AND UNDERGROUND STORAGE TANKS (IF ANY EXIST) SHALL BE COMPLETED PRIOR TO SITE GRADING.

N

SCALE: 1"=50 FEET
50 0 20 30 40 50
ORIGINAL PAGE SIZE: 34" x 22"

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HOLLEY PARK SUBDIVISION CONSTRUCTION PLANS

LA CENTER WASHINGTON
NW 1/4 OF SEC 2 T4N, R1E, W.M.
PARCEL NO. 209055000, 209059000 AND 62965242

GRADING AND EROSION CONTROL PLAN

DESIGNED BY:	JRS
DRAWN BY:	MRE
MANAGED BY:	SMH
CHECKED BY:	JRS
DATE:	5/13/19

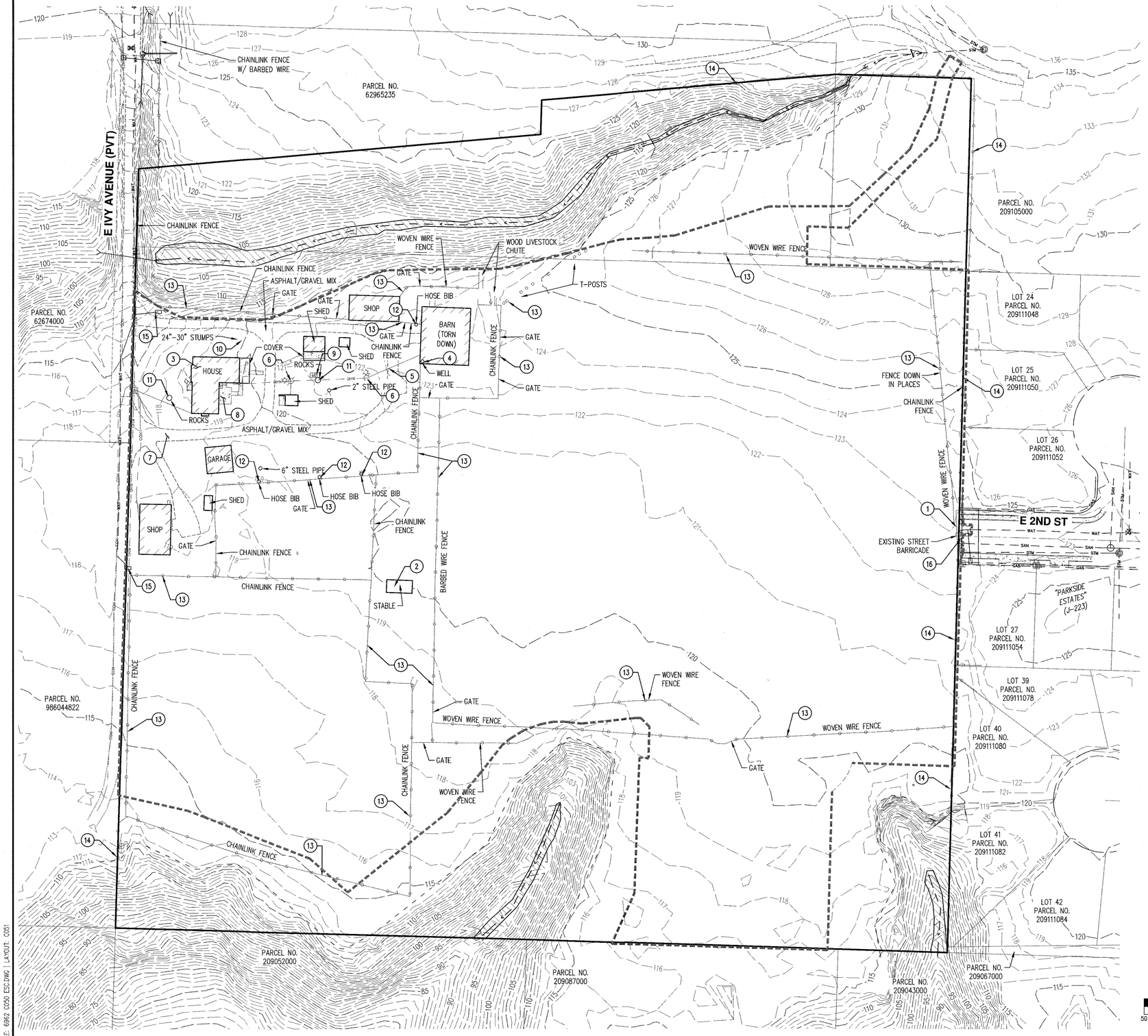
SETH MICHAEL HALLING — STATE OF WASHINGTON — 48813 — REGISTERED PROFESSIONAL ENGINEER

REVISIONS

JOB NUMBER 6962

SHEET C050

AKS DRAWING FILE: 6962 C050 ESC.DWG | LAYOUT: C050



DEMOLITION KEYED NOTES

1. REMOVE EXISTING STREET BARRICADE.
2. REMOVE ALL EXISTING BUILDINGS AND ASSOCIATED FOUNDATIONS, UTILITIES, AND RELATED FEATURES (TYP).
3. ABANDON EXISTING SEPTIC SYSTEM PER CLARK COUNTY PUBLIC HEALTH (CCPH) REQUIREMENTS, AND PROVIDE WRITTEN VERIFICATION TO CCPH.
4. DECOMMISSION EXISTING GROUNDWATER WELL. DECOMMISSIONING SHALL BE COMPLETED PER THE STATE OF WASHINGTON REQUIREMENTS AND FINAL WRITTEN APPROVAL SHALL BE DELIVERED TO ENGINEER OF RECORD.
5. REMOVE EXISTING OVERHEAD POWER LINES. CONTACT APPROPRIATE UTILITY FOR COORDINATION.
6. REMOVE EXISTING UTILITY POLE AND GUY ANCHOR (WHERE APPLICABLE). CONTACT APPROPRIATE UTILITY FOR COORDINATION.
7. REMOVE EXISTING ASPHALT/GRAVEL DRIVEWAY (TYP).
8. REMOVE ALL EXISTING CONCRETE SLABS AND SIDEWALKS ON SITE (TYP).
9. REMOVE EXISTING MAILBOX.
10. REMOVE EXISTING 24"–30" TREE STUMPS.
11. REMOVE EXISTING LANDSCAPE BOULDERS.
12. REMOVE EXISTING EXTERIOR HOSE BIB/FARM FAUCET.
13. REMOVE EXISTING 6' CHAIN–LINK FENCE AND GATES.
14. EXISTING 6' CHAIN–LINK FENCE TO REMAIN.
15. REMOVE EXISTING WATER METER AND WATER LATERAL TO PROPERTY LINE.
16. SAWCUT LINE. SAWCUT EXISTING ASPHALT TO PROVIDE 1' OVERLAP WITH EXISTING. MATCH EXISTING ELEVATION.

GENERAL NOTES

1. REFERENCE EROSION CONTROL PLAN ON SHEET C050 TO COORDINATE DEMOLITION AND EROSION CONTROL. EROSION CONTROL FEATURES SHALL BE IN PLACE PRIOR TO ANY SOIL DISTURBANCE OR DEMOLITION.
2. REFERENCE TREE PRESERVATION PLAN ON SHEET C052 TO COORDINATE TREE PROTECTION AND DEMOLITION. TREE PROTECTION FENCING SHALL BE IN PLACE PRIOR TO ANY SOIL DISTURBANCE OR DEMOLITION.
3. SEE ARBORIST NOTES ON SHEET C052 AND C053 FOR PRECAUTIONS WHEN WORKING AROUND TREES ON SITE.
4. DEMOLITION AND REMOVAL OF ALL STRUCTURES TOGETHER WITH DECOMMISSIONING OF ALL WELLS, SEPTIC TANKS, AND UNDERGROUND STORAGE TANKS (IF ANY EXIST) SHALL BE COMPLETED PRIOR TO SITE GRADING.
5. IF ANY PUBLIC, OR PRIVATE, CURB, GUTTER, SIDEWALK, OR ASPHALT IS DAMAGED DURING CONSTRUCTION IT SHALL BE REPAIRED TO CITY OF LA CENTER STANDARDS.
6. ALL DEMOLITION DEBRIS SHALL BE REMOVED FROM SITE.

LEGEND

- EXISTING GRADE CONTOUR (1 FT) —— 101 ——
- EXISTING GRADE CONTOUR (5 FT) —— 105 ——
- DISTURBED AREA

N

SCALE: 1"= 50 FEET

50 0 20 30 40 50

ORIGINAL PAGE SIZE: 34" x 22"

NOTE:
DEMOLITION AND REMOVAL OF ALL STRUCTURES TOGETHER WITH DECOMMISSIONING OF ALL WELLS, SEPTIC TANKS, AND UNDERGROUND STORAGE TANKS (IF ANY EXIST) SHALL BE COMPLETED PRIOR TO SITE GRADING.

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

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AKS ENGINEERING - SURVEYING - NATURAL RESOURCES
FORESTRY - PLANNING - LANDSCAPE ARCHITECTURE

HOLLEY PARK SUBDIVISION CONSTRUCTION PLANS

LA CENTER WASHINGTON
PARCEL NO. 209055000, 209059000 AND 62965242 NW 1/4 OF SEC 2 T4N, R1E, W.M.

DEMOLITION PLAN

DESIGNED BY:	JRS
DRAWN BY:	MRE
MANAGED BY:	SMH
CHECKED BY:	JRS
DATE:	5/13/19

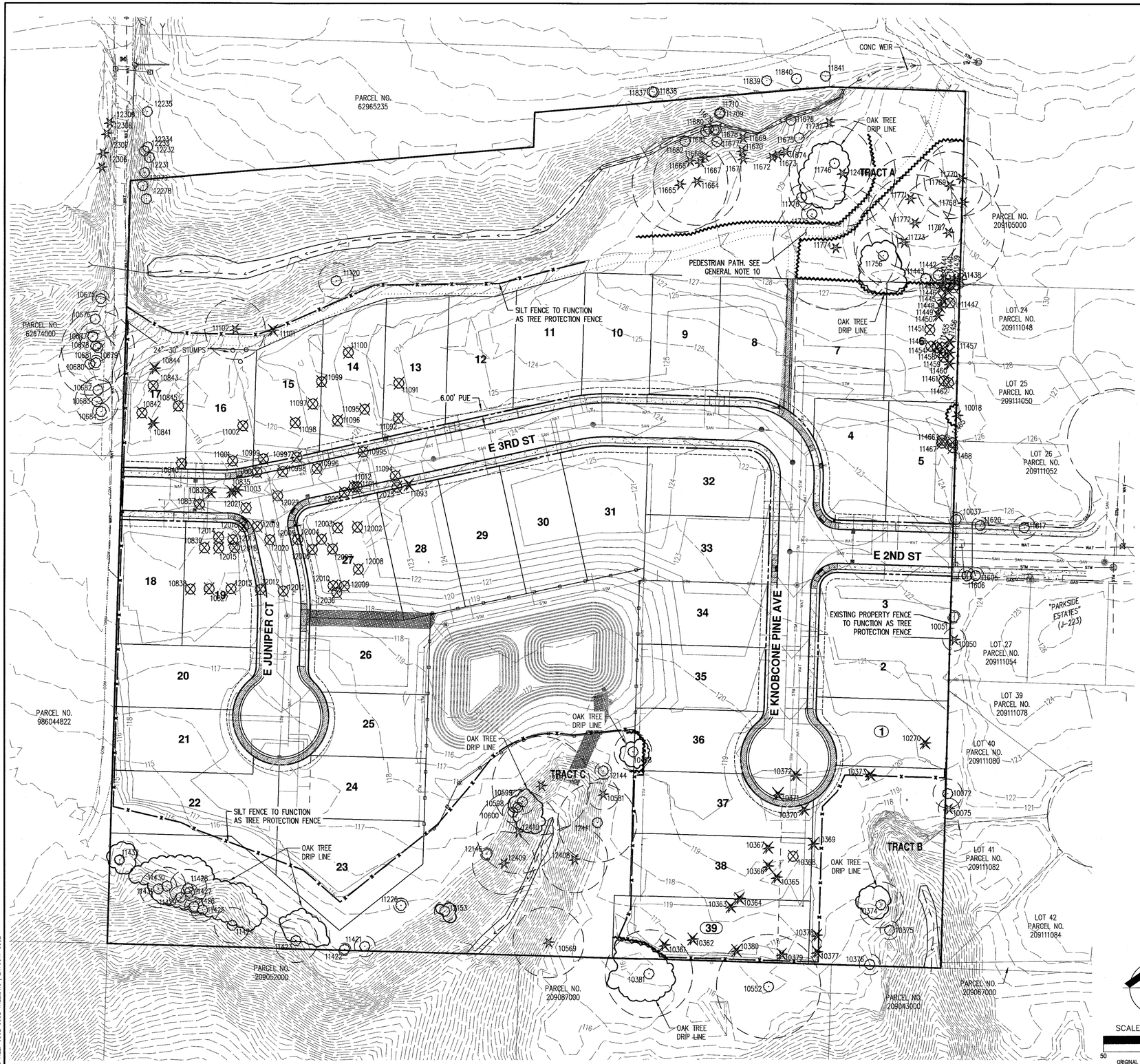
SCOTT MICHAEL HALLING — STATE OF WASHINGTON — 48813 — REGISTERED PROFESSIONAL ENGINEER

REVISIONS

JOB NUMBER 6962

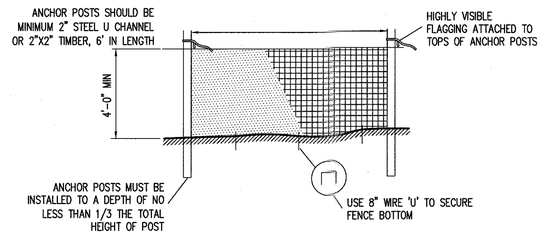
SHEET C051

AKS DRAWING FILE: 6962 C050 ESC.DWG | LAYOUT: C051



GENERAL NOTES

1. TREE PROTECTION FENCING SHALL BE INSTALLED PRIOR TO DEMOLITION AND SITE GRADING ACTIVITIES. SEE DETAIL ON THIS SHEET.
2. A CERTIFIED ARBORIST SHALL BE PRESENT DURING EXCAVATION ACTIVITIES WITHIN TREE PROTECTION ZONE OF PRESERVED TREES. SEE TREE PROTECTION NOTES ON SHEET C053 FOR MORE INFORMATION.
3. ALL SHRUBS WITHIN SIGHT DISTANCE TRIANGLES SHALL BE MAINTAINED SO THAT THE FOLIAGE HEIGHT ABOVE THE PAVEMENT DOES NOT EXCEED 2.5 FEET. STREET TREES WITHIN SIGHT DISTANCE TRIANGLES SHALL BE LIMBED UP TO A HEIGHT OF 10 FEET CONSISTENT WITH ANSI A300 STANDARDS TO PROVIDE SIGHT DISTANCE VISIBILITY.
4. SEE SHEET C053 FOR TREE PROTECTION NOTES.
5. SEE SHEET C054 FOR DETAILED TREE INVENTORY TABLE.
6. TREE PROTECTION MEASURES SHALL BE INSTITUTED PRIOR TO ANY DEVELOPMENT ACTIVITIES, INCLUDING, BUT NOT LIMITED TO, CLEARING, GRADING, EXCAVATION OR DEMOLITION WORK, AND SHALL BE REMOVED ONLY AFTER COMPLETION OF ALL CONSTRUCTION ACTIVITY, INCLUDING LANDSCAPING AND IRRIGATION INSTALLATION.
7. TREE PROTECTION FENCING SHALL BE FLUSH WITH THE INITIAL UNDISTURBED GRADE.
8. NO CONSTRUCTION ACTIVITY SHALL OCCUR WITHIN THE TREE PROTECTION ZONE, INCLUDING, BUT NOT LIMITED TO, DUMPING OR STORAGE OF MATERIALS SUCH AS BUILDING SUPPLIES, SOIL, WASTE ITEMS OR PARKED VEHICLES OR EQUIPMENT.
9. NO EXCAVATION, TRENCHING, GRADING, ROOT PRUNING OR OTHER ACTIVITIES SHALL OCCUR WITHIN THE TREE PROTECTION ZONE UNLESS DIRECTED BY AN ARBORIST PRESENT ON-SITE AND APPROVED BY THE DIRECTOR.
10. MINIMAL EXCAVATION TO OCCUR FOR THE PEDESTRIAN PATH CONSTRUCTION AROUND TREE PROTECTION ZONE. SEE CONSTRUCTION PLANS FOR PATH CONSTRUCTION. A CERTIFIED ARBORIST SHALL BE CONSULTED PRIOR TO PATH CONSTRUCTION OR BE ON-SITE DURING PATH EXCAVATION.
11. NOT ALL TREES WERE SURVEYED AND/OR INSPECTED WITHIN THE CRITICAL AREAS. ONLY TREES ADJACENT TO THE PROPOSED DEVELOPMENT ACTIVITIES WERE INSPECTED AND INCLUDED WITHIN THE TREE SURVEY.
12. FOLLOWING CLEARING AND GRADING ACTIVITIES, A CERTIFIED ARBORIST SHALL INSPECT RETAINED TREES FOR POTENTIALLY HAZARDOUS TREE CONDITIONS. COORDINATION WITH THE CITY SHALL OCCUR PRIOR TO ANY ADDITIONAL TREE REMOVALS FOR HAZARD ABATEMENT.



PLASTIC MESH TREE PROTECTION FENCE

TREE PROTECTION NOTES:

1. BLAZE ORANGE OR BLUE PLASTIC MESH FENCE FOR TREE PROTECTION DEVICE, ONLY.
2. BOUNDARIES OF PROTECTION AREA WILL BE ESTABLISHED IN THE FIELD BY THE ARBORIST PRIOR TO CONSTRUCTION
3. BOUNDARIES OF PROTECTION AREA SHOULD BE STAKED AND FLAGGED BY THE ARBORIST, OR UNDER THE SUPERVISION OF THE ARBORIST, PRIOR TO INSTALLING DEVICES.
4. AVOID DAMAGE TO CRITICAL ROOT ZONE. DO NOT DAMAGE OR SEVER LARGE ROOTS WHEN INSTALLING POSTS.
5. TREE PROTECTION TO BE INSTALLED PRIOR TO CONSTRUCTION AND REMAIN IN PLACE UNTIL CONSTRUCTION IS COMPLETED.

ARBORIST DISCLOSURE STATEMENT

ARBORISTS ARE TREE SPECIALISTS WHO USE THEIR EDUCATION, KNOWLEDGE, TRAINING, AND EXPERIENCE TO EXAMINE TREES, RECOMMEND MEASURES TO ENHANCE THE HEALTH OF TREES, AND ATTEMPT TO REDUCE THE RISK OF LIVING NEAR TREES. THE CLIENT AND JURISDICTION MAY CHOOSE TO ACCEPT OR DISREGARD THE RECOMMENDATIONS OF THE ARBORIST, OR SEEK ADDITIONAL ADVICE.

ARBORISTS CANNOT DETECT EVERY CONDITION THAT COULD POSSIBLY LEAD TO THE STRUCTURAL FAILURE OF A TREE. TREES ARE LIVING ORGANISMS THAT FAIL IN WAYS WE DO NOT FULLY UNDERSTAND. CONDITIONS ARE OFTEN HIDDEN WITHIN TREES AND BELOW GROUND. ARBORISTS CANNOT GUARANTEE THAT A TREE WILL BE HEALTHY OR SAFE UNDER ALL CIRCUMSTANCES, OR FOR A SPECIFIED PERIOD OF TIME. LIKEWISE, REMEDIAL TREATMENTS, LIKE MEDICINE, CANNOT BE GUARANTEED.

TREES CAN BE MANAGED, BUT THEY CANNOT BE CONTROLLED. TO LIVE NEAR TREES IS TO ACCEPT SOME DEGREE OF RISK. THE ONLY WAY TO ELIMINATE ALL RISK ASSOCIATED WITH TREES IS TO ELIMINATE ALL TREES.

AT THE COMPLETION OF CONSTRUCTION, ALL TREES MUST ONCE AGAIN BE REVIEWED TO EVALUATE THEIR HAZARD RATING. LAND CLEARING AND REMOVAL OF ADJACENT TREES CAN EXPOSE PREVIOUSLY UNSEEN DEFECTS AND OTHERWISE HEALTHY TREES CAN BE DAMAGED DURING CONSTRUCTION.

TREE INFORMATION TO BE GATHERED UNDER THE SUPERVISION OF BRYCE HANSON, CERTIFIED ARBORIST, WITH AKS ENGINEERING AND FORESTRY, LLC.

TREES SHOWN TO BE SAVED WILL BE EVALUATED BY THE PROJECT ARBORIST PRIOR TO, DURING, AND AFTER CONSTRUCTION. TREES ADVERSELY AFFECTED BY CONSTRUCTION AND/OR DETERMINED TO BE A SAFETY HAZARD WILL BE REMOVED.

N

SCALE: 1"=50 FEET
50 0 20 30 40 50
ORIGINAL PAGE SIZE: 34" x 22"

LEGEND

	DECIDUOUS	CONIFEROUS
EXISTING TREE TO BE REMOVED	⊗	✳
EXISTING TREE TO REMAIN	○	✳
OPTIMAL TREE ROOT PROTECTION ZONE (1 FOOT RADIUS PER INCH DBH)	○	✳
TREE PROTECTION FENCE	~~~	
SILT FENCE		

NOTE: SEE LANDSCAPE PLAN L100 FOR PROPOSED TREE MITIGATION PLAN.

5.13.19

CERTIFIED ARBORIST ISA®

BRYCE D. HANSON
CERTIFICATE NUMBER: PN 7554A
EXPIRATION DATE: 06/30/19

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HOLLEY PARK SUBDIVISION CONSTRUCTION PLANS

LA CENTER WASHINGTON
NW 1/4 OF SEC 2 TAN, R1E, W.M.
PARCEL NO. 209055000, 209059000 AND 62965242

TREE PRESERVATION PLAN

DESIGNED BY:	CJS
DRAWN BY:	CJS
MANAGED BY:	SMH
CHECKED BY:	BDH
DATE:	

REVISIONS

JOB NUMBER 6962

SHEET C052

AKS DRAWING FILE: 6962 C052 TREE.DWG | LAYOUT: C052

TREE PROTECTION NOTES

A. PLACING MATERIALS NEAR TREES – NO PERSON MAY CONDUCT ANY ACTIVITY WITHIN THE PROTECTED AREA OF ANY TREE DESIGNATED TO REMAIN, INCLUDING, BUT NOT LIMITED TO, PARKING EQUIPMENT, PLACING SOLVENTS, STORING BUILDING MATERIALS AND SOIL DEPOSITS, DUMPING CONCRETE WASHOUT, ETC.

B. ATTACHMENTS TO TREES – DURING CONSTRUCTION, NO PERSON SHALL ATTACH ANY OBJECT TO ANY TREE DESIGNATED FOR PROTECTION.

C. PROTECTIVE BARRIER – BEFORE DEVELOPMENT, LAND CLEARING, FILLING OR ANY LAND ALTERATION FOR WHICH A TREE REMOVAL PERMIT IS REQUIRED, THE CONTRACTOR:

C.A. SHALL ERECT AND MAINTAIN READILY VISIBLE PROTECTIVE TREE FENCING ALONG THE OUTER EDGE AND COMPLETELY SURROUNDING THE PROTECTED AREA OF ALL PROTECTED TREES OR GROUP OF TREES. FENCES SHALL BE CONSTRUCTED PER THE DETAIL ON THIS SHEET.

C.B. MAY BE REQUIRED TO COVER WITH MULCH TO A DEPTH OF AT LEAST SIX (6) INCHES OR WITH PLYWOOD OR SIMILAR MATERIAL IN THE AREAS ADJOINING THE CRITICAL ROOT ZONE OF A TREE IN ORDER TO PROTECT ROOTS FROM DAMAGE CAUSED BY HEAVY EQUIPMENT.

C.C. SHALL PROHIBIT EXCAVATION OR COMPACTING OF EARTH OR OTHER POTENTIALLY DAMAGING ACTIVITIES WITHIN THE BARRIERS.

C.D. MAY BE REQUIRED TO MINIMIZE ROOT DAMAGE BY EXCAVATING A TWO (2) FOOT DEEP TRENCH, AT EDGE OF CRITICAL ROOT ZONE, TO CLEANLY SEVER THE ROOTS OF TREES TO BE RETAINED. ROOTS ONE (1) INCH DIAMETER OR GREATER SHALL BE CLEANLY CUT WITH A SAW OR PRUNERS.

C.E. MAY BE REQUIRED TO HAVE CORRECTIVE PRUNING PERFORMED ON PROTECTED TREES IN ORDER TO AVOID DAMAGE FROM MACHINERY OR BUILDING ACTIVITY. MAY BE REQUIRED TO MAINTAIN TREES THROUGHOUT THE CONSTRUCTION PERIOD BY WATERING AND FERTILIZING.

C.F. SHALL MAINTAIN THE PROTECTIVE BARRIERS IN PLACE UNTIL THE PROJECT ARBORIST AUTHORIZES THEIR REMOVAL OR A FINAL CERTIFICATE OF OCCUPANCY IS ISSUED, WHICHEVER OCCURS FIRST.

C.G. SHALL ENSURE THAT ANY LANDSCAPING DONE IN THE PROTECTED ZONE SUBSEQUENT TO THE REMOVAL OF THE BARRIERS SHALL BE ACCOMPLISHED WITH LIGHT MACHINERY OR HAND LABOR.

D. GRADE

D.A. THE GRADE SHALL NOT BE ELEVATED OR REDUCED WITHIN THE CRITICAL ROOT ZONE OF TREES TO BE PRESERVED WITHOUT THE PROJECT ARBORISTS'S AUTHORIZATION. THE PROJECT ARBORIST MAY ALLOW COVERAGE OF UP TO ONE HALF OF THE AREA OF THE TREE'S CRITICAL ROOT ZONE WITH LIGHT SOILS (NO CLAY) TO THE MINIMUM DEPTH NECESSARY TO CARRY OUT GRADING OR LANDSCAPING PLANS, IF IT WILL NOT IMPERIL THE SURVIVAL OF THE TREE. AERATION DEVICES MAY BE REQUIRED TO ENSURE THE TREE'S SURVIVAL.

D.B. IF THE GRADE ADJACENT TO A PRESERVED TREE IS RAISED SUCH THAT IT COULD SLOUGH OR ERODE INTO THE TREES CRITICAL ROOT ZONE, IT SHALL BE PERMANENTLY STABILIZED TO PREVENT SUFFOCATION OF THE ROOTS.

D.C. THE APPLICANT SHALL NOT INSTALL AN IMPERVIOUS SURFACE WITHIN THE CRITICAL ROOT ZONE OF ANY TREE TO BE RETAINED WITHOUT THE AUTHORIZATION OF THE PROJECT ARBORIST. THE PROJECT ARBORIST MAY REQUIRE SPECIFIC CONSTRUCTION METHODS AND/OR USE OF AERATION DEVICES TO ENSURE THE TREE'S SURVIVAL AND TO MINIMIZE THE POTENTIAL FOR ROOT INDUCED DAMAGE TO THE IMPERVIOUS SURFACE.

D.D. TO THE GREATEST EXTENT PRACTICAL, UTILITY TRENCHES SHALL BE LOCATED OUTSIDE OF THE CRITICAL ROOT ZONE OF TREES TO BE RETAINED. THE PROJECT ARBORIST MAY REQUIRE THAT UTILITIES BE TUNNELED UNDER THE ROOTS OF TREES TO BE RETAINED IF THE PROJECT ARBORIST DETERMINES THAT TRENCHING WOULD SIGNIFICANTLY REDUCE THE CHANCES OF THE TREE'S SURVIVAL.

D.E. TREE AND OTHER VEGETATION TO BE RETAINED SHALL BE PROTECTED FROM EROSION AND SEDIMENTATION. CLEARING OPERATIONS SHALL BE CONDUCTED SO AS TO EXPOSE THE SMALLEST PRACTICAL AREA OF SOIL TO EROSION FOR THE LEAST POSSIBLE TIME. TO CONTROL EROSION, SHRUBS, GROUND COVER, AND STUMPS SHALL BE MAINTAINED ON THE INDIVIDUAL LOTS, WHERE FEASIBLE. WHERE NOT FEASIBLE, APPROPRIATE EROSION CONTROL PRACTICES SHALL BE IMPLEMENTED PURSUANT TO LA CENTER MUNICIPAL CODE (LCMC) 18.320.

E. DIRECTIONAL FELLING OF TREES SHALL BE USED TO AVOID DAMAGE TO TREES DESIGNATED FOR RETENTION.

F. ADDITIONAL REQUIREMENTS – THE PROJECT ARBORIST MAY REQUIRE ADDITIONAL TREE PROTECTION MEASURES WHICH ARE CONSISTENT WITH ACCEPTED URBAN FORESTRY PRACTICES.

G. ENCROACHMENT INTO THE ROOT PROTECTION ZONE IS ALLOWED WITH PROJECT ARBORIST APPROVAL AS DESCRIBED IN THE FOLLOWING NOTES:

G.A. EXCAVATION IN THE TOP 24 INCHES OF THE SOIL IN THE CRITICAL ROOT ZONE AREA SHOULD BEGIN AT THE EXCAVATION LINE THAT IS CLOSEST TO THE TREE.

G.B. THE EXCAVATION SHOULD BE DONE BY HAND/SHOVEL OR WITH A BACKHOE AND A MAN WITH A SHOVEL, PRUNING SHEARS, AND A PRUNING SAW.

G.C. IF DONE BY HAND, ALL ROOTS 1 INCH OR LARGER SHOULD BE PRUNED AT THE EXCAVATION LINE.

G.D. IF DONE WITH BACKHOE (MOST LIKELY SCENARIO), THEN THE OPERATOR SHALL START THE CUT AT THE EXCAVATION LINE AND CAREFULLY "FEEL" FOR ROOT/RESISTANCE. WHEN THERE IS RESISTANCE, THE MAN WITH THE SHOVEL HAND DIGS AROUND THE ROOTS AND PRUNES THE ROOTS LARGER THAN 1 INCH DIAMETER.

G.E. THE BACKHOE IS TO REMAIN OFF OF THE TREE ROOTS TO BE PRESERVED AT ALL TIMES.

G.F. ALL ROOTS SHALL BE CUT CLEANLY WITH PRUNING SHEARS OR A PRUNING SAW.

G.G. PROJECT ARBORIST MUST BE ONSITE DURING ANY WORK WITHIN THE TREE ROOT PROTECTION ZONE.

H. TREE PROTECTION ZONE IS DEFINED AS ALL AREAS BOUND AND PROTECTING THE OPTIMAL TREE PROTECTION ZONE.

I. TIMELINE FOR CLEARING, GRADING, AND INSTALLATION OF TREE PROTECTION MEASURES: WORK WILL BEGIN IMMEDIATELY FOLLOWING FINAL APPROVAL BY THE CITY. TREE PROTECTION MEASURES WILL BE DONE DURING CLEARING AND ANY GRADING WILL FOLLOW.

J. PRUNING/TREE REMOVAL NOTES: THE WORK TO BE COMPLETED UNDER THIS PROJECT SHALL CONSIST OF TREE REMOVAL AND TREE TRIMMING AS LISTED.

J.A. THE CONTRACTOR SHALL PROVIDE ADEQUATE CREW OF MEN, EQUIPMENT AND MATERIALS TO SAFELY AND EFFICIENTLY COMPLETE THE ASSIGNED WORK. EACH SUCH CREW SHALL INCLUDE AN INDIVIDUAL WHO SHALL BE DESIGNATED AS THE CREW SUPERVISOR AND WHO SHALL BE RESPONSIBLE FOR THE CREW'S ACTIVITIES AND WHO SHALL RECEIVE INSTRUCTION FROM THE OWNER OR THE OWNER'S REPRESENTATIVE AND DIRECT THE CREW TO ACCOMPLISH SUCH WORK.

J.B. WHENEVER A TREE, WHICH IS NOT SCHEDULED TO BE REMOVED, MUST BE TRIMMED OR PRUNED, THE CONTRACTOR SHALL INSURE THAT SUCH TRIMMING AND PRUNING IS CARRIED OUT UNDER THE DIRECT SUPERVISION OF A LICENSED ARBORIST. ALL PRUNING AND TRIMMING SHALL BE PERFORMED IN ACCORDANCE WITH THE PROVISIONS OF ANSI A300 "STANDARD PRACTICES FOR TREE, SHRUB AND OTHER WOODY PLANT MAINTENANCE".

J.C. THE CONTRACTOR SHALL BE REQUIRED TO CUT TREES TO A HEIGHT OF APPROXIMATELY 12". THE STUMPS AND ROOTS SHALL BE GROUND DOWN A MINIMUM OF TWELVE (12) INCHES BELOW NORMAL GROUND LEVEL.

J.D. THE CONTRACTOR SHALL PERFORM ALL WORK IN ACCORDANCE WITH THE LATEST GOVERNMENTAL SAFETY REGULATIONS. ALL WORK SHALL BE PERFORMED IN STRICT ACCORDANCE WITH ANSI Z133.1 "PRUNING, TRIMMING, REPAIRING, MAINTAINING AND REMOVING TREES AND CUTTING BRUSH–SAFETY REQUIREMENTS" WITH SPECIAL EMPHASIS GIVEN TO THE REQUIREMENT THAT ONLY QUALIFIED LINE–CLEARANCE TREE TRIMMERS BE ASSIGNED TO WORK WHERE A POTENTIAL ELECTRICAL HAZARD EXISTS.

J.E. THE CONTRACTOR SHALL MAKE ALL THE NECESSARY ARRANGEMENTS WITH ANY UTILITY THAT MUST BE PROTECTED OR RELOCATED IN ORDER TO ACCOMPLISH THE WORK. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR THE PROTECTION OF THE OPERATING CONDITION OF ALL ACTIVE UTILITIES WITHIN THE AREA OF CONSTRUCTION AND THEY SHALL TAKE ALL NECESSARY PRECAUTIONS TO AVOID DAMAGE TO EXISTING UTILITIES.

J.F. ANY MATERIAL RESULTING FROM THE TRIMMING OR REMOVAL OF ANY TREES SHALL BECOME THE RESPONSIBILITY OF THE CONTRACTOR.

J.G. HAZARDOUS TREES–REPORTING – ANY PERSON ENGAGED IN TRIMMING OR PRUNING WHO BECOMES AWARE OF A TREE OF DOUBTFUL STRENGTH, THAT COULD BE DANGEROUS TO PERSONS AND PROPERTY, SHALL REPORT SUCH TREE(S) TO THE OWNER OR THE OWNERS REPRESENTATIVE. SUCH TREES SHALL INCLUDE THOSE THAT ARE OVER MATURE, DISEASED, OR SHOWING SIGNS OF DECAY OR OTHER STRUCTURAL WEAKNESS.

J.H. DAMAGES–ANY DAMAGE CAUSED BY THE CONTRACTOR, INCLUDING, BUT NOT LIMITED TO, BROKEN SIDEWALK, CURB, RUTTED LAWN, BROKEN WATER SHUT–OFFS, WIRE DAMAGE, BUILDING DAMAGE, STREET DAMAGE, ETC., WILL BE REPAIRED OR REPLACED IN A TIMELY MANNER, TO THE OWNER'S SATISFACTION, AND ALL COSTS PAID BY THE CONTRACTOR.

J.I. ANY BRUSH CLEARING REQUIRED WITHIN THE TREE PROTECTION ZONE SHALL BE ACCOMPLISHED WITH HAND OPERATED EQUIPMENT.

J.J. TREES TO BE REMOVED SHALL BE FELLED SO AS TO FALL AWAY FROM TREE ROOT PROTECTION ZONES AND TO AVOID PULLING AND BREAKING OF ROOTS TO REMAIN.

J.K. ALL DOWNED BRUSH AND TREES SHALL BE REMOVED FROM THE TREE PROTECTION ZONE EITHER BY HAND OR WITH EQUIPMENT SITTING OUTSIDE THE TREE ROOT PROTECTION ZONE. EXTRACTION SHALL OCCUR BY LIFTING THE MATERIAL OUT, NOT BY SKIDDING IT ACROSS THE GROUND.

J.L. IF TEMPORARY HAUL OR ACCESS ROADS MUST PASS OVER THE ROOT AREA OF TREES TO BE RETAINED A ROADBED OF 6 INCHES OF MULCH OR GRAVEL SHALL BE CREATED TO PROTECT THE SOIL. THE ROADBED MATERIAL SHALL BE REPLENISHED AS NECESSARY TO MAINTAIN A 6–INCH DEPTH.

J.M. PRUNING. TREES SHALL BE PRUNED PRIOR TO THE START OF CONSTRUCTION. TREES SHALL BE CROWN CLEANED TO REMOVE THE DEADWOOD 2 INCHES IN DIAMETER AND OVER. TREES SHALL BE CROWN THINNED BY 10–20%. CROWNS MAY BE RAISED BY REMOVING BOTTOM BRANCHES AS NECESSARY UP TO 14 FEET HIGH TO GIVE CLEARANCE FOR ANY CONSTRUCTION TRAFFIC, ACTIVITIES, ETC. ALL WORK TO BE DONE IN ACCORDANCE WITH ANSI A300 PRUNING STANDARDS. REMOVE ANY LIMBS OF DOUBTFUL STRENGTH THAT COULD BE DANGEROUS TO PERSONS AND PROPERTY.

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TREE INFORMATION TO BE GATHERED UNDER THE SUPERVISION OF BRYCE HANSON, CERTIFIED ARBORIST, WITH AKS ENGINEERING AND FORESTRY, LLC.

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5.13.19

CERTIFIED ARBORIST ISA®

BRYCE D. HANSON
CERTIFICATE NUMBER: PN 7504A
EXPIRATION DATE: 08/30/19

Bryce D Hanson

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HOLLEY PARK SUBDIVISION CONSTRUCTION PLANS

LA CENTER WASHINGTON
PARCEL NO. 209055000, 209059000 AND 62965242
NW 1/4 OF SEC 2 TAN, R1E, W.M.

TREE PRESERVATION NOTES

DESIGNED BY:	CJS
DRAWN BY:	CJS
MANAGED BY:	SMH
CHECKED BY:	BDH
DATE:	

REVISIONS

JOB NUMBER 6962

SHEET C053

Detailed Tree Inventory for Holley Park Subdivision

AKS JOB NO. 6962

AKS Reference #	Total DBH (In)	Tree Species Common Name (Scientific name)	Condition/Comments	Windthrow Rating	Reason for Removal	Action
10018	10, 9	Cypress (Chamaecyparis spp.)	Off-site, 2-parallel stems, pruned high	B		
10037	10	Cherry (Prunus avium)	Off-site, some decay pockets	B		
10050	11	Douglas-fir (Pseudotsuga menziesii)	Off-site	B		
10051	6	Orchard Apple (Malus spp.)	Off-site	B		
10072	14	Red Alder (Alnus rubra)	Off-site	B		
10075	10, 8	Western redcedar (Thuja plicata)	Off-site	B		
10270	32	Douglas-fir (Pseudotsuga menziesii)	Large bole, wide root collar	B	Heavy root impacts from lot grading	Removed
10361	32	Douglas-fir (Pseudotsuga menziesii)	Large crown and oversized branches	B	Heavy root impacts from lot grading	Removed
10362	40	Douglas-fir (Pseudotsuga menziesii)	Large crown and oversized branches	B	Heavy root impacts from lot grading	Removed
10363	30	Douglas-fir (Pseudotsuga menziesii)	Large crown and oversized branches	B	Heavy root impacts from lot grading	Removed
10364	32	Douglas-fir (Pseudotsuga menziesii)	Large crown and oversized branches	B	Heavy root impacts from lot grading	Removed
10365	26	Douglas-fir (Pseudotsuga menziesii)	Large crown and oversized branches	B	Heavy root impacts from lot grading	Removed
10366	32	Douglas-fir (Pseudotsuga menziesii)	Large crown and oversized branches	B	Heavy root impacts from lot grading	Removed
10367	52	Douglas-fir (Pseudotsuga menziesii)	Large crown and oversized branches	B	Heavy root impacts from lot grading	Removed
10368	12, 9	Hawthorn (Crataegus spp.)	Shrub-like	A	Future driveway location	Removed
10369	36	Douglas-fir (Pseudotsuga menziesii)	Large crown and oversized branches	B	Impacts from future driveway location	Removed
10370	32	Douglas-fir (Pseudotsuga menziesii)	Large crown and oversized branches	B	Located within future road	Removed
10371	44	Douglas-fir (Pseudotsuga menziesii)	Large crown and oversized branches	B	Located within future road	Removed
10372	50	Douglas-fir (Pseudotsuga menziesii)	Large crown and oversized branches	B	Located within future road	Removed
10373	44	Douglas-fir (Pseudotsuga menziesii)	Crown sweep, oversized branches	B	Heavy root impacts from lot grading	Removed
10374	22	Oregon White Oak (Quercus garryana)	Within critical area	B		Retain
10375	9	Red Alder (Alnus rubra)	Within critical area	B		Retain
10376	10	Red Alder (Alnus rubra)	Within critical area	B		Retain
10377	38	Douglas-fir (Pseudotsuga menziesii)	Large crown and oversized branches	B	Heavy root impacts from lot grading	Removed
10378	41	Douglas-fir (Pseudotsuga menziesii)	Large crown and oversized branches	B	Heavy root impacts from lot grading	Removed
10379	30	Douglas-fir (Pseudotsuga menziesii)	Large crown and oversized branches	B	Heavy root impacts from lot grading	Removed
10380	40	Douglas-fir (Pseudotsuga menziesii)	Large crown and oversized branches	B	Heavy root impacts from lot grading	Removed
10381	42	Oregon White Oak (Quercus garryana)	2 large stems growing close, included bark, Off-site	B		
10498	18	Oregon White Oak (Quercus garryana)	Slight lean	B		Retain
10552	50, 33, 15	Bigleaf Maple (Acer macrophyllum)	Large multi-stem Off-site	B		
10569	34	Douglas-fir (Pseudotsuga menziesii)	Within critical area	B		Retain
10581	15	Douglas-fir (Pseudotsuga menziesii)	Within critical area	B		Retain
10598	5	Oregon White Oak (Quercus garryana)	Within critical area	B		Retain
10599	12	Oregon White Oak (Quercus garryana)	Within critical area	B		Retain
10600	10	Oregon White Oak (Quercus garryana)	Within critical area	B		Retain
10675	8	Bigleaf Maple (Acer macrophyllum)	Off-site	B		
10676	22	Bigleaf Maple (Acer macrophyllum)	Off-site	B		
10677	13	Cottonwood (Populus spp.)	Off-site	B		
10678	15	Cottonwood (Populus spp.)	Off-site	B		
10679	35	Cottonwood (Populus spp.)	Off-site	B		
10680	30	Cottonwood (Populus spp.)	Off-site	B		
10681	7	Cottonwood (Populus spp.)	Off-site	B		
10682	13	Cottonwood (Populus spp.)	Off-site	B		
10683	21	Cottonwood (Populus spp.)	Off-site	B		
10684	8	Cottonwood (Populus spp.)	Off-site	B		
10827	18	Maple (Acer spp.)	Poor branch structure, dead hangers	C	Lot grading impacting root zone	Removed
10835	18	Douglas-fir (Pseudotsuga menziesii)	Crooked top/crown, exposed and damaged roots	B	Located within future road	Removed
10836	17	Douglas-fir (Pseudotsuga menziesii)	Good condition, straight trunk, evidence of insect damage	B	Located within future road	Removed
10837	32	Maple (Acer spp.)	Large wide crown, single branch union location at 8 ft	B	Located within future road	Removed
10838	14, 10	Orchard Apple (Malus spp.)	Poor branch structure, pruning cavities/decay, dead hangers	B	Lot grading impacting root zone	Removed
10839	8	Orchard Apple (Malus spp.)	Poor branch structure, pruning cavities/decay, dead hangers	B	Lot grading impacting root zone	Removed
10840	22	Orchard Apple (Malus spp.)	Poor branch structure, large pruning cavities/decay, dead hangers	B	Located in future sidewalk location	Removed
10841	8, 7	Bishop Pine (Pinus muricata)	Shrub-like, 2 stems, heavy lean	C	Located in buildable area of lot	Removed
10842	6, 6	Ginkgo (Ginkgo biloba)	Tall and slender, tight branch union at base, slight lean (S)	B	Located in buildable area of lot	Removed
10843	44	Maple (Acer spp.)	All large branch union at 10', small branch angle, included bark	B	Root impacts from grading/demo	Removed
10844	10	Sitka Spruce (Picea sitchensis)	Thin crown, shaded by oak and maple in front lawn	B	Lot grading impacting root zone	Removed
10845	35	Oregon White Oak (Quercus garryana)	Dead hangers, very close to house foundation, slight lean	B	Root impacts from grading/demo	Removed
10995	22, 28, 19	Maple (Acer spp.)	3 large trees, heavy lean on all stems, steep branch angle	A	Located within future road	Removed
10996	13	English Walnut (Juglans regia)	Orchard pruning, cavities/decay present	B	Located within future road	Removed
10997	17	Orchard Apple (Malus spp.)	Poor branch structure, pruning cavities/decay, dead hangers	B	Located in future sidewalk location	Removed
10998	18	English Walnut (Juglans regia)	Large bulge at ground, cavities/decay	B	Located within future road	Removed
10999	9	Orchard Apple (Malus spp.)	Poor branch structure, pruning cavities/decay, dead hangers	B	Lot grading impacting root zone	Removed
11000	8	Orchard Apple (Malus spp.)	Poor branch structure, pruning cavities/decay, dead hangers	B	Grading impacts/poor canidate for retention	Removed
11001	12, 8	Orchard Apple (Malus spp.)	Large pruned branches, cavities/decay, suckers at base	B	Lot grading impacting root zone	Removed
11002	15	Orchard Apple (Malus spp.)	Poor branch structure, pruning cavities/decay, dead hangers	B	Lot grading impacting root zone	Removed
11003	17	Sitka Spruce (Picea sitchensis)	Shallow wide and exposed roots, forked crown	B	Located within future road	Removed
11011	6, 6, 6	Japanese Maple (Acer palmatum)	Poor branch structure, pruned for landscaping	C	Located within future road	Removed
11012	6	Orchard Apple (Malus spp.)	Poor branch structure, pruning cavities/decay, dead hangers	B	Located within future road	Removed
11091	10, 6, 6	Orchard Apple (Malus spp.)	Poor branch structure, pruning cavities/decay, dead hangers	B	Root impacts from grading	Removed
11092	8, 10	Orchard Apple (Malus spp.)	Poor branch structure, pruning cavities/decay, dead hangers	B	Root impacts from grading	Removed
11093	37	Giant Sequoia (Sequoiadendron giganteum)	Trunk sweep, fence tight	B	Located in future sidewalk location	Removed
11094	11, 9, 9, 5	Cherry (Prunus avium)	Poor branch structure, heavy pruning and cavities/decay	B	Located within future road	Removed
11095	11	Orchard Apple (Malus spp.)	Poor branch structure, pruning cavities/decay, dead hangers	B	Grading impacts/poor canidate for retention	Removed
11096	6	Willow (Salix spp.)	Multi-stem (5+) heavily pruned with shoots, shrub-like	C	Lot grading impacting root zone	Removed
11097	18	Maple (Acer spp.)	Large pruning scars, dead hangers, acute branch unions	B	Root impacts from grading/demo	Removed
11098	18	Orchard Apple (Malus spp.)	Poor branch structure, pruning cavities/decay, dead hangers	B	Grading impacts/poor canidate for retention	Removed
11099	32	Catalpa (Catalpa)	Wide branching, dead hangers, pruning cavities	B	Root impacts from grading	Removed
11100	7, 5	Orchard Apple (Malus spp.)	Poor branch structure, pruning cavities/decay, dead hangers	B	Root impacts from grading	Removed
11101	32	Sitka Spruce (Picea sitchensis)	Large base and large lower limbs, directly adjacent to ex driveway	C	Lowering grade for foot path, root impacts	Removed
11102	32	Port Orford Cedar (Chamaecyparis lawsoniana)	Very straight, forked stem	C		Retain
11120	17	Cherry (Prunus avium)	Within critical area	A		Retain
11226	7, 4	Hawthorn (Crataegus spp.)	Shrub-like	C		Retain
11421	10	Red Alder (Alnus rubra)	Within critical area	C		Retain
11422	6, 6	Red Alder (Alnus rubra)	Within critical area	C		Retain
11423	21	Oregon White Oak (Quercus garryana)	Within critical area	C		Retain
11424	17	Oregon White Oak (Quercus garryana)	Within critical area	C		Retain
11425	11	Oregon White Oak (Quercus garryana)	Within critical area	C		Retain
11426	9	Oregon White Oak (Quercus garryana)	Within critical area	C		Retain
11427	8	Oregon White Oak (Quercus garryana)	Within critical area	C		Retain
11428	18	Oregon White Oak (Quercus garryana)	Within critical area	B		Retain
11429	11	Oregon White Oak (Quercus garryana)	Within critical area	C		Retain
11430	18	Oregon White Oak (Quercus garryana)	Within critical area	B		Retain
11431	18	Oregon White Oak (Quercus garryana)	Within critical area	B		Retain
11432	4	Oregon White Oak (Quercus garryana)	Within critical area	C		Retain
11438	6	Douglas-fir (Pseudotsuga menziesii)	Clumped, intertwined crown and roots	B		Retain
11439	10	Douglas-fir (Pseudotsuga menziesii)	Clumped, intertwined crown and roots	B		Retain
11440	8	Douglas-fir (Pseudotsuga menziesii)	Clumped, intertwined crown and roots	B		Retain
11441	11	Douglas-fir (Pseudotsuga menziesii)	Clumped, intertwined crown and roots	B		Retain
11442	8	Vine Maple (Acer circumnatum)	Shrub-like	C		Retain
11443	5	Vine Maple (Acer circumnatum)	Shrub-like	C		Retain
11444	10	Douglas-fir (Pseudotsuga menziesii)	Dead branches, tight crown with adjacent trees	B	Lot grading impacting root zone	Removed
11445	11	Douglas-fir (Pseudotsuga menziesii)	Dead branches, tight crown with adjacent trees	B	Lot grading impacting root zone	Removed
11446	11	Cottonwood (Populus spp.)	Trunk lean, poor crown condition	B	Poor canidate for retention, lot grading	Removed
11447	7	Red Alder (Alnus rubra)	Heavy lean off-site, forked, thin crown	A	Lot grading impacting root zone	Removed
11448	12	Douglas-fir (Pseudotsuga menziesii)	High crown, exposed root collar	B	Lot grading impacting root zone	Removed
11449	14	Douglas-fir (Pseudotsuga menziesii)	High crown	B	Lot grading impacting root zone	Removed
11450	15	Douglas-fir (Pseudotsuga menziesii)	Tight crown with adjacent trees	B	Lot grading impacting root zone	Removed
11451	8	Cascara Buckthorn (Rhamnus Purshiana)	2-stemmed, suppressed crown	C	Located withing middle of future lot	Removed
11453	10	Cascara Buckthorn (Rhamnus Purshiana)	Included bark, suppressed crown, poor structure	B	Lot grading impacting root zone	Removed
11454	11	White Birch (Betula papyrifera)	Slight lean, included bark at branch unions	B	Lot grading impacting root zone	Removed
11455	8	Red Alder (Alnus rubra)	Leaning, exposed roots with scars	B	Lot grading impacting root zone	Removed
11456	13	Douglas-fir (Pseudotsuga menziesii)	Exposed roots, declining health, suppressed crown	A	Lot grading impacting root zone	Removed
11457	14	Douglas-fir (Pseudotsuga menziesii)	Exposed roots, suppressed crown	B	Lot grading impacting root zone	Removed
11458	10, 6, 5, 7	Maple (Acer spp.)	Leaning, exposed roots with scars	B	Lot grading impacting root zone	Removed
11459	12, 9	Maple (Acer spp.)	Heavy lean with exposed decay within limbs	A	Lot grading impacting root zone	Removed
11460	18	Douglas-fir (Pseudotsuga menziesii)	Exposed roots, declining health, suppressed crown	B	Lot grading impacting root zone	Removed
11461	Cluster	Unknown Deciduous	Multi-stem, max 10", exposed roots	B	Lot grading impacting root zone	Removed
11462	9, 8, 6, 8	Unknown Deciduous	Multi-stem, max 10", exposed roots, very twisted trunk	B	Lot grading impacting root zone	Removed
11465	6, 6, 6, 6	Unknown Deciduous	All stems come together at ground, shrub-like	B	Lot grading impacting root zone	Removed
11466	11	Oregon Ash (Fraxinus latifolia)	Some dead branches, steep branch angle	B	Lot grading impacting root zone	Removed
11467	9	Oregon Ash (Fraxinus latifolia)	Some dead branches, steep branch angle	B	Lot grading impacting root zone	Removed
11468	6, 6	Unknown Deciduous	Stems combine at ground, large lean	B	Lot grading impacting root zone	Removed
11605	8, 8	Unknown Deciduous	Off-site	C		
11606	8, 7	Unknown Deciduous	Off-site	C		
11617	11	Flowing Plum (Prunus spp.)	Off-site	C		
11620	8, 6, 6	Flowing Plum (Prunus spp.)	Off-site	C		
11664	42	Douglas-fir (Pseudotsuga menziesii)	Within critical area	B		Retain
11665	46	Douglas-fir (Pseudotsuga menziesii)	Within critical area	B		Retain
11666	36	Douglas-fir (Pseudotsuga menziesii)	Within critical area	B		Retain
11667	30	Douglas-fir (Pseudotsuga menziesii)	Within critical area	B		Retain
11668	36	Douglas-fir (Pseudotsuga menziesii)	Within critical area	B		Retain
11669	28	Douglas-fir (Pseudotsuga menziesii)	Within critical area	B		Retain
11670	38	Douglas-fir (Pseudotsuga menziesii)	Within critical area	B		Retain
11671	38	Douglas-fir (Pseudotsuga menziesii)	Within critical area	B		Retain
11672	40	Douglas-fir (Pseudotsuga menziesii)	Within critical area	B		Retain
11673	32	Douglas-fir (Pseudotsuga menziesii)	Within critical area	B		Retain
11674	18	Douglas-fir (Pseudotsuga menziesii)	Within critical area	B		Retain
11675	36	Red Alder (Alnus rubra)	Within critical area	B		Retain
11676	4	Red Alder (Alnus rubra)	Within critical area	B		Retain
11677	4	Maple (Acer spp.)	Within critical area	C		Retain
11678	4	Red Alder (Alnus rubra)	Within critical area	C		Retain
11679	4	Red Alder (Alnus rubra)	Within critical area	C		Retain
11680	13	Red Alder (Alnus rubra)	Within critical area	B		Retain
11681	8	Red Alder (Alnus rubra)	Within critical area	C		Retain
11682	17	Red Alder (Alnus rubra)	Within critical area	B		Retain
11709	12	Red Alder (Alnus rubra)	Within critical area	B		Retain
11710	16	Red Alder (Alnus rubra)	Within critical area	B		Retain
11732	48	Douglas-fir (Pseudotsuga menziesii)	Within critical area	B		Retain
11746	36	Oregon White Oak (Quercus garryana)	Tract A preserved area	B		Retain
11756	26	Oregon White Oak (Quercus garryana)	Tract A preserved area	B		Retain
11767	54	Douglas-fir (Pseudotsuga menziesii)	Tract A preserved area	B		Retain
11768	36	Douglas-fir (Pseudotsuga menziesii)	Tract A preserved area	B		Retain
11769	32	Douglas-fir (Pseudotsuga menziesii)	Tract A preserved area	B		Retain
11770	36	Douglas-fir (Pseudotsuga menziesii)	Tract A preserved area	B		Retain
11771	40	Douglas-fir (Pseudotsuga menziesii)	Tract A preserved area	B		Retain
11772	46	Douglas-fir (Pseudotsuga menziesii)	Tract A preserved area	B		Retain
11773	48	Douglas-fir (Pseudotsuga menziesii)	Tract A preserved area	B		Retain
11774	60	Douglas-fir (Pseudotsuga menziesii)	Tract A preserved area	B		Retain
11775	10	Orchard Apple (Malus spp.)	Tract A preserved area	B		Retain
11776	12	Hawthorn (Crataegus spp.)	Tract A preserved area	C		Retain
11837	8	Unknown Deciduous	off-site	C		
11838	10	Unknown Deciduous	off-site	C		
11839	12	Unknown Deciduous	off-site	C		
11840	8	Unknown Deciduous	off-site	C		
11841	12	Unknown Deciduous	off-site	C		
12001	9	Cherry (Prunus avium)	Large pruning scar with decay present	C	Located in future sidewalk location	Removed
12002	8, 10, 6	Plum (Prunus domestica)	Multi-stemmed tree, shrub-like with shoots	C	Poor canidate for retention, lot grading	Removed
12003	6	Orchard Apple (Malus spp.)	Poor branch structure, pruning cavities/decay, dead hangers	C	Lot grading impacting root zone	Removed
12004	6, 7, 8	English Walnut (Juglans regia)	Orchard pruning, cavities/decay present	C	Lot grading impacting root zone	Removed
12005	6, 7, 7	English Walnut (Juglans regia)	Orchard pruning, cavities/decay present	C	Located in future sidewalk location	Removed
12006	6, 8	Plum (Prunus domestica)	Heavy branches, needs pruning, pruning cavities/decay	C	Lot grading impacting root zone	Removed
12007	6, 8	Cherry (Prunus avium)	Pruning cavities/decay, dead branches	C	Lot grading impacting root zone	Removed
12008	9, 10, 10	Red Maple (Acer rubrum)	Poor branch union	C	Lot grading impacting root zone	Removed
12009	7, 7, 6	Orchard Apple (Malus spp.)	Poor branch structure, pruning cavities/decay, dead hangers	B	Lot grading impacting root zone	Removed
12010	6, 6, 5	Orchard Apple (Malus spp.)	Poor branch structure, pruning cavities/decay, dead hangers	B	Lot grading impacting root zone	Removed
12011	11	White Birch (Betula papyrifera)	Some dead branches, needs pruning	C	Located in future road	Removed
12012	6	Orchard Apple (Malus spp.)	Poor branch structure, pruning cavities/decay, dead hangers	B	Located in future sidewalk location	Removed
12013	16	Orchard Apple (Malus spp.)	Poor branch structure, pruning cavities/decay, dead hangers	B	Lot grading impacting root zone	Removed
12014	9	Orchard Apple (Malus spp.)	Poor branch structure, pruning cavities/decay, dead hangers	C	Lot grading impacting root zone	Removed
12015	8	Orchard Apple (Malus spp.)	Poor branch structure, pruning cavities/decay, dead hangers	C	Lot grading impacting root zone	Removed
12016	6	Orchard Apple (Malus spp.)	Poor branch structure, pruning cavities/decay, dead hangers	C	Lot grading impacting root zone	Removed
12017	6	Orchard Apple (Malus spp.)	Poor branch structure, pruning cavities/decay, dead hangers	C	Lot grading impacting root zone	Removed
12018	6	Cherry (Prunus avium)	Orchard pruning, straight stem	C	Located in future sidewalk location	Removed
12019	12, 10	Cherry (Prunus avium)	Orchard pruning, cavities/decay present	B	Located within future road	Removed
12020	10, 10, 8	Orchard Apple (Malus spp.)	Poor branch structure, pruning cavities/decay, dead hangers	B	Located within future road	Removed
12021	6	Orchard Apple (Malus spp.)	Poor branch structure, pruning cavities/decay, dead hangers	B	Located within future road	Removed
12022	6, 6	Cascara Buckthorn (Rhamnus Purshiana)	Heavy branches, needs pruning	C	Located within future road	Removed
12036	5, 7	Orchard Apple (Malus spp.)	Poor branch structure, pruning cavities/decay, dead hangers	B	Lot grading impacting root zone	Removed
12075	7	Cherry (Prunus avium)	Poor branch structure, pruning cavities/decay, heavy lean	B	Located in future sidewalk location	Removed
12144	8	Bigleaf Maple (Acer macrophyllum)	Within critical area	C		Retain
12146	6	Bigleaf Maple (Acer macrophyllum)	Within critical area	C		Retain
12153	10	Oregon White Oak (Quercus garryana)	Within critical area	C		Retain
12231	15, 16	Bigleaf Maple (Acer macrophyllum)	Off-site	B		
12232	12	Bigleaf Maple (Acer macrophyllum)	Off-site	B		
12233	10	Bigleaf Maple (Acer macrophyllum)	Off-site	B		
12234	12	Bigleaf Maple (Acer macrophyllum)	Off-site	B		
12235	12, 17	Bigleaf Maple (Acer macrophyllum)	Off-site	B		
12278	17	Bigleaf Maple (Acer macrophyllum)	Within critical area	B		Retain
12279	14	Bigleaf Maple (Acer macrophyllum)	Within critical area	B		Retain
12306	6	Douglas-fir (Pseudotsuga menziesii)	Off-site	C		
12307	6	Douglas-fir (Pseudotsuga menziesii)	Off-site	C		
12308	6	Douglas-fir (Pseudotsuga menziesii)	Off-site	C		
12309	6	Western redcedar (Thuja plicata)	Off-site	C		
12406	51	Douglas-fir (Pseudotsuga menziesii)	Tract A preserved area	B		Retain
12407	47	Douglas-fir (Pseudotsuga menziesii)	Within critical area	B		Retain
12408	32	Douglas-fir (Pseudotsuga menziesii)	Within critical area	B		Retain
12409	30	Douglas-fir (Pseudotsuga menziesii)	Within critical area	B		Retain
12410	40	Douglas-fir (Pseudotsuga menziesii)	Within critical area	B		Retain
12411	38	Bigleaf Maple (Acer macrophyllum)	Within critical area, large dead branches	A		Retain

NOTE: Onsite trees existed during the site visit performed on 04/23/2019.

Windthrow Rating:

A=Least windthrow resistant

B=Moderate windthrow resistant

C=Most windthrow resistant

Total # of On-site Existing Trees= 173

Total # of On-site Trees Retained= 75

Total # of Existing Trees Removed= 98

ARBORIST DISCLOSURE STATEMENT

ARBORISTS ARE TREE SPECIALISTS WHO USE THEIR EDUCATION, KNOWLEDGE, TRAINING, AND EXPERIENCE TO EXAMINE TREES, RECOMMEND MEASURES TO ENHANCE THE HEALTH OF TREES, AND ATTEMPT TO REDUCE THE RISK OF LIVING NEAR TREES. THE CLIENT AND JURISDICTION MAY CHOOSE TO ACCEPT OR DISREGARD THE RECOMMENDATIONS OF THE ARBORIST, OR SEEK ADDITIONAL ADVICE.

ARBORISTS CANNOT DETECT EVERY CONDITION THAT COULD POSSIBLY LEAD TO THE STRUCTURAL FAILURE OF A TREE. TREES ARE LIVING ORGANISMS THAT FAIL IN WAYS WE DO NOT FULLY UNDERSTAND. CONDITIONS ARE OFTEN HIDDEN WITHIN TREES AND BELOW GROUND. ARBORISTS CANNOT GUARANTEE THAT A TREE WILL BE HEALTHY OR SAFE UNDER ALL CIRCUMSTANCES, OR FOR A SPECIFIED PERIOD OF TIME. LIKEWISE, REMEDIAL TREATMENTS, LIKE MEDICINE, CANNOT BE GUARANTEED.

TREES CAN BE MANAGED, BUT THEY CANNOT BE CONTROLLED. TO LIVE NEAR TREES IS TO ACCEPT SOME DEGREE OF RISK. THE ONLY WAY TO ELIMINATE ALL RISK ASSOCIATED WITH TREES IS TO ELIMINATE ALL TREES.

AT THE COMPLETION OF CONSTRUCTION, ALL TREES MUST ONCE AGAIN BE REVIEWED TO EVALUATE THEIR HAZARD RATING. LAND CLEARING AND REMOVAL OF ADJACENT TREES CAN EXPOSE PREVIOUSLY UNSEEN DEFECTS AND OTHERWISE HEALTHY TREES CAN BE DAMAGED DURING CONSTRUCTION.

TREE INFORMATION TO BE GATHERED UNDER THE SUPERVISION OF BRYCE HANSON, CERTIFIED ARBORIST, WITH AKS ENGINEERING AND FORESTRY, LLC.

TREES SHOWN TO BE SAVED WILL BE EVALUATED BY THE PROJECT ARBORIST PRIOR TO, DURING, AND AFTER CONSTRUCTION. TREES ADVERSELY AFFECTED BY CONSTRUCTION AND/OR DETERMINED TO BE A SAFETY HAZARD WILL BE REMOVED.

5.13.19

CERTIFIED ARBORIST ISA®

BRYCE D. HANSON

CERTIFICATE NUMBER: PN 7554A

EXPIRATION DATE: 06/30/19

Bryce D Hanson

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HOLLEY PARK SUBDIVISION
CONSTRUCTION PLANS

LA CENTER WASHINGTON

PARCEL NO. 209055000, 209056000 AND 62965242 NW 1/4 OF SEC 2 T4N, R1E, W.M.

TREE INVENTORY TABLE

DESIGNED BY: CJS
DRAWN BY: CJS
MANAGED BY: SMH
CHECKED BY: BDH
DATE:

REVISIONS

JOB NUMBER 6962

SHEET C054

AKS DRAWING FILE: 6962 C052 TREE.DWG | LAYOUT: C054

STANDARD GRADING NOTES

1. IF EARLY GRADING ACTIVITY IS APPROVED, IT IS TO BE PERFORMED AT APPLICANT'S RISK.
2. FILL/GRADING SHALL BE PERFORMED IN COMPLIANCE WITH APPENDIX CHAPTER 33 OF THE UNIFORM BUILDING CODE (UBC).
3. ALL SUBGRADE UNDER PAVED SURFACES, CURBS, BUILDINGS, FOOTINGS, SLABS AND CONCRETE WALKS SHALL BE COMPACTED TO 95% OF MAXIMUM RELATIVE DENSITY (T-99) OR AS SPECIFIED BY THE PROJECT GEOTECHNICAL ENGINEER. WHERE FILLING IS REQUIRED, THE FILL MATERIAL SHALL BE PLACED IN 8" LIFTS WITH EACH LIFT BEING COMPACTED TO 95% OF MAXIMUM RELATIVE DENSITY OF THE FILL MATERIAL BEFORE THE NEXT LIFT OR FINISHED SURFACE IS PLACED. WHERE FILLING IS REQUIRED OUTSIDE THE ABOVE-MENTIONED STRUCTURAL AREAS, COMPACTION REQUIREMENTS SHALL BE 90% OF MAXIMUM RELATIVE DENSITY. PROJECT GEOTECHNICAL ENGINEER SHALL SUBMIT COMPACTION TEST RESULTS TO CITY INSPECTOR FOR PROPER CERTIFICATION OF FILL PLACEMENT.
4. UNDER WET WEATHER CONDITIONS (OCT – APR) SUBGRADE THAT CAN NOT MEET COMPACTION MAY REQUIRE ADDITIONAL TESTING TO DETERMINE THE DEPTH OF OVER EXCAVATION, ADDITIONAL AGGREGATE AND GEOTEXTILE TO BE INSTALLED. UPON INSPECTION OF THE SUBGRADE, THE CITY INSPECTOR MAY REQUEST A GEOTECHNICAL ENGINEER TO SUBMIT AN ALTERNATE WET WEATHER STREET SECTION FOR REVIEW AND APPROVAL BY ENGINEERING SERVICES.
5. SITE PREPARATION MUST INCLUDE THE REMOVAL OF VEGETATION, NON-COMPLYING FILL, TOPSOIL, OR OTHER UNSUITABLE MATERIAL PRIOR TO PLACEMENT OF THE FILL. FILL SLOPES SHALL NOT EXCEED A GRADE OF 2 HORIZONTAL TO 1 VERTICAL.
6. NO CUT OR FILL SHALL EXCEED A GRADE OF 2 HORIZONTAL TO 1 VERTICAL UNLESS APPROVED BEFOREHAND BY THE GEOTECHNICAL ENGINEER, PROJECT ENGINEER, AND CITY.
7. APPROPRIATE BENCHING OF FILLS IS REQUIRED FOR FILLS OVER 5 FEET IN HEIGHT ON SLOPES IN EXCESS OF 5 HORIZONTAL TO 1 VERTICAL. BENCHING MUST BE DONE AS PER THE APPROVED PLANS.
8. CUT AND FILL SLOPES SHALL BE PROTECTED FROM EROSION. SUCH CONTROL MAY CONSIST OF APPROPRIATE REVEGETATION OR OTHER ACCEPTABLE MEANS AND METHODS. EROSION CONTROL MEASURES SHALL BE IN PLACE PRIOR TO EARTHWORK OR SITE STRIPPING.
9. THE CONTRACTOR SHALL COORDINATE WITH THE PROJECT ENGINEER AND THE PROJECT'S GEOTECHNICAL ENGINEER FOR REQUIRED INSPECTIONS AT THE FOLLOWING STAGES OF CONSTRUCTION (ADDITIONAL INSPECTIONS MAY BE REQUIRED):
   - A. INSPECTION OF SITE STRIPPING, BUT PRIOR TO FILL PLACEMENT. EROSION CONTROL MEASURES SHALL BE IN PLACE AT THIS TIME.
   - B. IN PREPARATION OF BENCH CONSTRUCTION PRIOR TO FILL PLACEMENT.
   - C. AFTER PLACEMENT OF EACH 500 YARDS OF FILL.
   - D. AFTER THE MAJORITY OF FILL HAS BEEN PLACED AND IS IN "ROUGH" GRADE BUT PRIOR TO FINAL GRADING.
   - E. WHEN FINAL GRADING IS COMPLETED.
   - F. DURING FINAL GRADING, BUT PRIOR TO BASE ROCK AND PAVEMENT CONSTRUCTION.
10. PROJECT GRADING LIMITS SHALL BE WITHIN THE PROJECT'S PROPERTY BOUNDARY AND/OR STREET RIGHT-OF-WAY, UNLESS OTHERWISE SHOWN ON PLANS. NO GRADING SHALL BE CONDUCTED IN WETLANDS OR OTHER ENVIRONMENTALLY SENSITIVE AREAS UNLESS SPECIFICALLY SHOWN ON THE APPROVED PLANS. THE GRADING LIMITS SHALL BE FENCED WITH STANDARD SILT FENCING.
11. THE IDENTIFICATION OR REMOVAL OF UNSUITABLE MATERIAL SHALL BE DONE WITH CONSULTATION WITH THE PROJECT ENGINEER OR PROJECT'S GEOTECHNICAL ENGINEER.
12. REMOVE AND DISPOSE OF ALL ORGANIC AND/OR UNSUITABLE MATERIALS, INCLUDING TREES, STUMPS, ROOTS, BRUSH, AND GRASS IN SUCH A MANNER TO MEET ALL APPLICABLE REGULATIONS. ON-SITE DISPOSAL SHALL BE AS DETERMINED BY THE PROJECT ENGINEER OR PROJECT'S GEOTECHNICAL ENGINEER.
13. THE CONTRACTOR SHALL PROTECT ALL TREES THAT ARE NOT SPECIFICALLY SHOWN TO BE REMOVED ON APPROVED PLANS. ALL TREES TO BE PRESERVED SHALL BE FENCED WITH STANDARD 4' ORANGE CONSTRUCTION FENCING. SEE THIS SHEET FOR TREES PRESERVATION NOTES.
14. GRADE THE SITE TO THE ELEVATIONS SHOWN ON THE DRAWING WITH THE NECESSARY ADJUSTMENTS TO ACCOMMODATE THE FINISHED GRADES AS SPECIFIED. SHAPE FUTURE PAVED AREAS PER THE PLANS TO A SUBGRADE ELEVATION THAT WILL ACCOMMODATE FUTURE BASE ROCK AND PAVING.
15. STRAIGHT GRADES SHALL BE RUN BETWEEN FINISH GRADE AND/OR FINISH CONTOUR LINES SHOWN, UNLESS OTHERWISE NOTED. FINISH GRADES ARE TO DRAIN AS INDICATED ON THE PLANS. ROUGH GRADING SHALL BE FINISHED BY BLADING AND RAKING TO REASONABLE SMOOTH CONTOURS WITH GENTLE TRANSITIONS.
16. AREAS TO RECEIVE FILL MATERIALS SHALL BE PREPARED BY REMOVING ALL ORGANIC AND UNSUITABLE MATERIALS AND PROOF ROLLING. BENCHING IS REQUIRED ON FILLS WHERE THE EXISTING GROUND SLOPE EXCEEDS 5H:1V. BENCHING TO BE IN ACCORDANCE WITH PROJECT GEOTECHNICAL ENGINEER'S RECOMMENDATIONS. MATERIAL IN SOFT SPOTS WITHIN PROPOSED BUILDING, PAVED OR SIDEWALK AREAS SHALL BE REMOVED TO THE DEPTH REQUIRED (AS DIRECTED BY THE PROJECT ENGINEER OR THE PROJECT'S GEOTECHNICAL ENGINEER) TO PROVIDE A FIRM FOUNDATION AND SHALL BE REPLACED WITH SUITABLE BACKFILL. FILLS TO BE CONSTRUCTED IN HORIZONTAL LIFTS NOT TO EXCEED 8 INCHES LOOSE MEASURE.
17. FINISHED GRADE CONTOURS SHOWN ARE APPROXIMATE FINAL GRADE ELEVATIONS.
18. ALL CUT AND FILL AREAS SHALL BE STRIPPED OF SOD AND OTHER NON-STRUCTURAL MATERIAL (DEPTH TO BE DETERMINED BY PROJECT'S GEOTECHNICAL ENGINEER).
19. STRIPPINGS SHALL BE STOCKPILED AND LATER SPREAD EVENLY OVER SURFACES NOT RECEIVING A HARD, DURABLE SURFACE (PAVEMENT, ETC.) UPON COMPLETION OF FINAL GRADING. THE STRIPPING REDISTRIBUTION SHALL NOT EXCEED 6" IN DEPTH. STRIPPINGS SHALL BE FREE OF VEGETATION AND TREE ROOTS. EXCESS STRIPPINGS SHALL BE DISPOSED OF OFF-SITE. STRIPPINGS SHALL NOT BE PLACED ON SLOPES GREATER THAN 25%.
20. THESE PLANS AND SPECIFICATIONS ASSUME "DRY WEATHER" CONSTRUCTION. ADDITIONAL MEASURES MAY BE REQUIRED FOR "WET WEATHER" CONSTRUCTION.
21. ALL TRENCH SPOILS SHALL BE UTILIZED ON-SITE AS STRUCTURAL FILL, UNLESS OTHERWISE DIRECTED BY THE PROJECT ENGINEER AND OWNER.
22. PER INTERNATIONAL BUILDING CODE (IBC) APPENDIX J, THERE SHALL BE NO GRADING WITHIN 2' OF ADJACENT PARCELS UNLESS A CONSTRUCTION EASEMENT IS OBTAINED.
23. EROSION CONTROL DEVICES WITHIN WETLAND AREAS SHALL BE HANDPLACED AND MAINTAINED.
24. SITE STRIPPINGS SHALL BE 8" OR AS REQUIRED TO REMOVE ALL ORGANIC MATERIAL.

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

DEPARTMENT OF ECOLOGY STANDARD NOTES FOR EROSION CONTROL PLAN

1. APPROVAL OF THIS EROSION/SEDIMENTATION CONTROL (ESC) PLAN DOES NOT CONSTITUTE AN APPROVAL OF PERMANENT ROAD OR DRAINAGE DESIGN (E.G. SIZE AND LOCATION OF ROADS, PIPES, RESTRICTORS, CHANNELS, RETENTION FACILITIES, UTILITIES, ETC.).
2. THE IMPLEMENTATION OF THESE ESC PLANS AND THE CONSTRUCTION, MAINTENANCE, REPLACEMENT, AND UPGRADING OF THESE ESC FACILITIES IS THE RESPONSIBILITY OF THE APPLICANT/CONTRACTOR UNTIL ALL CONSTRUCTION IS COMPLETED AND APPROVED AND VEGETATION/LANDSCAPING IS ESTABLISHED.
3. THE BOUNDARIES OF THE CLEARING LIMITS SHOWN ON THIS PLAN SHALL BE CLEARLY FLAGGED IN THE FIELD PRIOR TO CONSTRUCTION. DURING THE CONSTRUCTION PERIOD, NO DISTURBANCE BEYOND THE FLAGGED CLEARING LIMITS SHALL BE PERMITTED. THE FLAGGING SHALL BE MAINTAINED BY THE APPLICANT/CONTRACTOR FOR THE DURATION OF CONSTRUCTION.
4. THE ESC FACILITIES SHOWN ON THIS PLAN MUST BE CONSTRUCTED IN CONJUNCTION WITH ALL CLEARING AND GRADING ACTIVITIES, AND IN SUCH A MANNER AS TO INSURE THAT SEDIMENT AND SEDIMENT LADEN WATER DO NOT ENTER THE DRAINAGE SYSTEM, ROADWAYS, OR VIOLATE APPLICABLE WATER STANDARDS.
5. THE ESC FACILITIES SHOWN ON THIS PLAN ARE THE MINIMUM REQUIREMENTS FOR ANTICIPATED SITE CONDITIONS. DURING THE CONSTRUCTION PERIOD, THESE ESC FACILITIES SHALL BE UPGRADED AS NEEDED FOR UNEXPECTED STORM EVENTS AND TO ENSURE THAT SEDIMENT AND SEDIMENT-LADEN WATER DO NOT LEAVE THE SITE.
6. THE ESC FACILITIES SHALL BE INSPECTED DAILY BY THE APPLICANT/CONTRACTOR AND MAINTAINED AS NECESSARY TO ENSURE THEIR CONTINUED FUNCTIONING.
7. THE ESC FACILITIES ON INACTIVE SITES SHALL BE INSPECTED AND MAINTAINED A MINIMUM OF ONCE A MONTH OR WITHIN THE 48 HOURS FOLLOWING A MAJOR STORM EVENT.
8. AT NO TIME SHALL MORE THAN ONE FOOT OF SEDIMENT BE ALLOWED TO ACCUMULATE WITHIN A TRAPPED CATCH BASIN. ALL CATCH BASINS AND CONVEYANCE LINES SHALL BE CLEANED PRIOR TO PAVING. THE CLEANING OPERATION SHALL NOT FLUSH SEDIMENT LADEN WATER INTO THE DOWNSTREAM SYSTEM.
9. STABILIZED CONSTRUCTION ENTRANCES SHALL BE INSTALLED AT THE BEGINNING OF CONSTRUCTION AND MAINTAINED FOR THE DURATION OF THE PROJECT. ADDITIONAL MEASURES MAY BE REQUIRED TO INSURE THAT ALL PAVED AREAS ARE KEPT CLEAN FOR THE DURATION OF THE PROJECT.

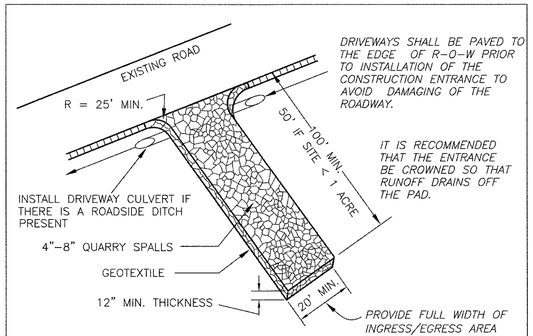
RECOMMENDED CONSTRUCTION SEQUENCE FOR EROSION CONTROL

1. PRE-CONSTRUCTION MEETING.
2. FLAG OR FENCE CLEARING LIMITS.
3. POST NOTICE OF CONSTRUCTION ACTIVITY SIGN WITH NAME AND PHONE NUMBER OF EROSION SEDIMENT CONTROL SUPERVISOR.
4. INSTALL CATCH BASIN PROTECTION, IF REQUIRED.
5. INSTALL PERIMETER PROTECTION (SILT FENCE, BRUSH BARRIER, ETC.).
6. INSTALL TREE PROTECTION FENCING.
7. GRADE AND INSTALL CONSTRUCTION ENTRANCE(S).
8. CONSTRUCT SEDIMENT PONDS AND TRAPS.
9. GRADE AND STABILIZE CONSTRUCTION ROADS.
10. CONSTRUCT SURFACE WATER CONTROLS (INTERCEPTOR DIKES, PIPE SLOPE DRAINS, ETC.) SIMULTANEOUSLY WITH CLEARING AND GRADING FOR PROJECT DEVELOPMENT.
11. MAINTAIN EROSION CONTROL MEASURES IN ACCORDANCE WITH STORMWATER MANAGEMENT MANUAL FOR WESTERN WASHINGTON AND MANUFACTURER'S RECOMMENDATIONS.
12. RELOCATE SURFACE WATER CONTROLS AND EROSION CONTROL MEASURES OR INSTALL NEW MEASURES SO THAT AS SITE CONDITIONS CHANGE THE EROSION AND SEDIMENT CONTROL IS ALWAYS IN ACCORDANCE WITH THE CLARK COUNTY EROSION AND SEDIMENT CONTROL STANDARDS.
13. 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.
14. STABILIZE ALL AREAS THAT REACH FINAL GRADE WITHIN SEVEN DAYS.
15. SEED OR SOD ANY AREAS TO REMAIN UNWORKED FOR MORE THAN 30 DAYS.
16. UPON COMPLETION OF THE PROJECT, ALL DISTURBED AREAS MUST BE STABILIZED AND BEST MANAGEMENT PRACTICES REMOVED IF APPROPRIATE.

DEMOLITION AND REMOVAL OF ALL STRUCTURES TOGETHER WITH DECOMMISSIONING OF ALL WELLS, SEPTIC TANKS, AND UNDERGROUND STORAGE TANKS (IF ANY EXIST) SHALL BE COMPLETED PRIOR TO SITE GRADING.

COMPACTION TABLE

FILL TYPE:	FILL LOCATION:	COMPACTION REQUIREMENT (%):	AASHTO TEST METHODOLOGY:
	PIPE ZONE	95	T-99
BACKFILL:	ABOVE PIPE ZONE-STRUCTURAL AREAS	95	T-99
	ABOVE PIPE ZONE-NON-STRUCTURAL AREAS	95	T-99
EMBANKMENT:	STRUCTURAL AREAS	95	T-99(FINE-GRAINED SOILS) T-180(COARSE-GRAINED SOILS)
	NON-STRUCTURAL AREAS	90	T-99(FINE-GRAINED SOILS) T-180(COARSE-GRAINED SOILS)
SUBGRADE:	ROADWAY	95	T-99
BASE ROCK:	ROADWAY AND BUILDINGS	95	T-180
ASPHALT:	ROADWAYS	95	T-209



NOTES:

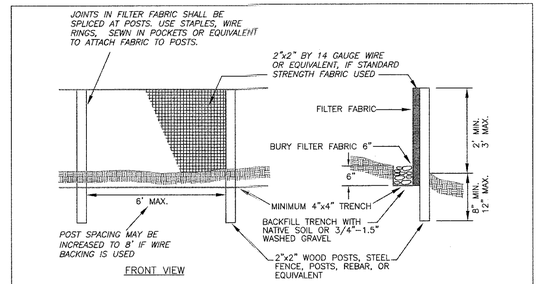
1. *IF THE ENTRANCE SITS ON A SLOPE, PLACE A FILTER FABRIC FENCE DOWN GRADIENT.*
2. *TOP DRESS THE PAD WITH CLEAN 3" MINUS ROCK WHEN THE CONSTRUCTION ENTRANCE BECOMES CLOGGED WITH SEDIMENTS.*
3. *ANY SEDIMENT CARRIED FROM THE SITE ONTO THE STREET SHALL BE CLEANED UP IMMEDIATELY.*
4. *IF EQUIPMENT TRAVELS EXTENSIVELY ON UNSTABILIZED ROADS ON THE SITE, A TIRE AND VEHICLE UNDERCARRIAGE WASH NEAR THE ENTRANCE WILL BE NEEDED. PERFORM WASHING ON CRUSHED ROCK. WASH WATER WILL REQUIRE TREATMENT IN A SEDIMENT POND OR TRAP.*

STANDARD CONSTRUCTION ENTRANCE — PLAN # ER-2

CITY OF LA CENTER APPROVED

Barb Stipp, PE 7/23/09
CITY ENGINEER DATE

REVISIONS:	DATE:	DRAWN:	DESIGNED:



NOTE: FILTER FABRIC FENCES SHALL BE INSTALLED ALONG CONTOUR WHENEVER POSSIBLE

MAINTENANCE STANDARDS:

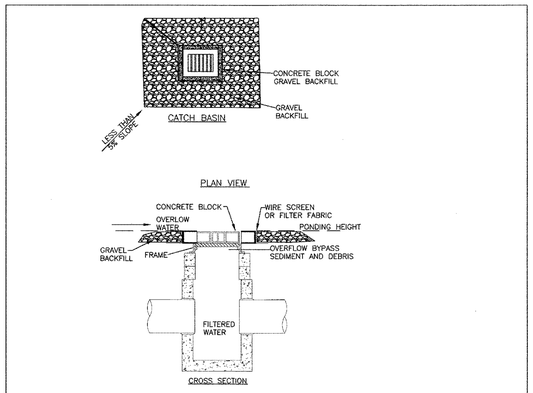
1. *SILT FENCES AND FILTER BARRIERS SHALL BE INSPECTED IMMEDIATELY AFTER EACH RAINFALL AND AT LEAST DAILY DURING PROLONGED RAINFALL. ANY REQUIRED REPAIRS SHALL BE MADE IMMEDIATELY.*
2. *IF CONCENTRATED FLOWS ARE EVIDENT UPHILL OF THE FENCE, THEY MUST BE INTERCEPTED AND CONVEYED TO A SEDIMENT POND.*
3. *IT IS IMPORTANT TO CHECK THE UPHILL SIDE OF THE FENCE FOR SIGNS OF THE FENCE CLOGGING AND ACTING AS A BARRIER TO FLOW AND THEN CAUSING CHANNELIZATION OF FLOWS PARALLEL TO THE FENCE. IF THIS OCCURS, REPLACE THE FENCE OR REMOVE THE TRAPPED SEDIMENT.*
4. *SEDIMENT DEPOSITS SHALL EITHER BE REMOVED WHEN THE DEPOSIT REACHES APPROXIMATELY ONE-THIRD THE HEIGHT OF THE SILT FENCE, OR A SECOND SILT FENCE SHALL BE INSTALLED.*
5. *SHOULD THE FABRIC ON A SILT FENCE DECOMPOSE OR BECOME INEFFECTIVE PRIOR AND THE BARRIER IS STILL NECESSARY, THE FABRIC SHALL BE REPLACED IMMEDIATELY.*
6. *ANY SEDIMENT DEPOSITS REMAINING IN PLACE AFTER THE SILT FENCE OR FILTER BARRIER IS NO LONGER REQUIRED SHALL BE DRESSED TO CONFORM WITH THE EXISTING GRADE, PREPARED AND SEEDED.*

FILTER FABRIC FENCE — PLAN # ER-3

CITY OF LA CENTER APPROVED

Barb Stipp, PE 7/23/09
CITY ENGINEER DATE

REVISIONS:	DATE:	DRAWN:	DESIGNED:



NOTES:

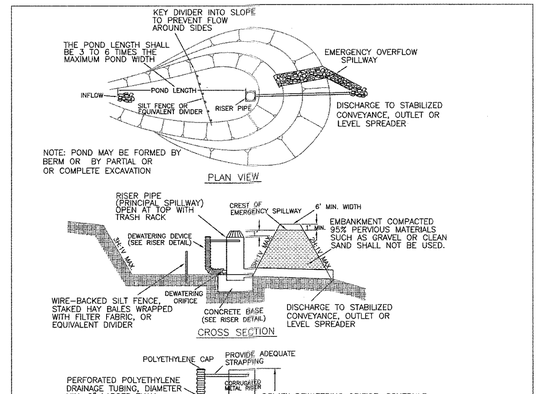
1. DROP INLET SEDIMENT BARRIERS ARE TO BE USED FOR SMALL, NEARLY LEVEL DRAINAGE AREAS (LESS THAN 5%)
2. EXCAVATE A BASIN OF SUFFICIENT SIZE ADJACENT TO THE DROP INLET.
3. THE TOP OF THE STRUCTURE (PONDING HEIGHT) MUST BE WELL BELOW THE GROUND ELEVATION DOWNSLOPE TO PREVENT RUNOFF FROM BYPASSING THE INLET. A TEMPORARY DIKE MAY BE NECESSARY ON THE DOWNSLOPE SIDE OF THE STRUCTURE.

BLOCK AND GRAVEL INLET PROTECTION — PLAN # ER-4

CITY OF LA CENTER APPROVED

Anthony Geiger 4-5-17
CITY ENGINEER DATE

REVISIONS:	DATE:	DRAWN:	DESIGNED:



NOTES:

1. *STRUCTURES HAVING A MAXIMUM STORAGE CAPACITY AT THE TOP OF THE DAM OF 10 ACRE-FT (435,600 FT^3) OR MORE ARE SUBJECT TO THE WASHINGTON DAM SAFETY REGULATIONS (CHAPTER 173-175 WAC).*
2. *GRADE BOTTOM OF BASIN AS LEVEL AS POSSIBLE.*
3. *SPILLWAY SHALL BE LINED WITH 2"-4" ROCKS.*
4. *ALL INLETS AND OUTLETS SHALL BE PROTECTED WITH RIPRAP.*
5. *IF THE POND POSES A SAFETY HAZARD, IT SHALL BE FENCED.*
6. *REMOVE SEDIMENT BEFORE 1-FOOT ACCUMULATES.*

TEMPORARY SEDIMENT POND — PLAN # ER-9

CITY OF LA CENTER APPROVED

Barb Stipp, PE 7/23/09
CITY ENGINEER DATE

REVISIONS:	DATE:	DRAWN:	DESIGNED:

SEE SHEET C001 FOR CITY OF LA CENTER STANDARD EROSION CONTROL NOTES. (IF NOTES ON SHEET C055 CONFLICT WITH CITY OF LA CENTER STANDARD NOTES, THE CITY OF LA CENTER STANDARD NOTES SHALL TAKE PRECEDENCE.)

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HOLLEY PARK SUBDIVISION CONSTRUCTION PLANS

LA CENTER WASHINGTON
NW 1/4 OF SEC 2 T4N, R1E, W.M.
PARCEL NO. 209055000, 209059000 AND 62965242

GRADING AND EROSION CONTROL NOTES AND DETAILS

DESIGNED BY:
DRAWN BY: MRE
MANAGED BY: SMH
CHECKED BY: JRS
DATE: 5/13/19

SETH MICHAEL HALLING — STATE OF WASHINGTON — 44813 — REGISTERED PROFESSIONAL ENGINEER

REVISIONS

JOB NUMBER 6962

SHEET C055

AKS DRAWING FILE: 6962 COSD ESC.DWG | LAYOUT: C055

LOT GRADING KEYED NOTES

1. INSTALL WEEP HOLES DURING SITE CONSTRUCTION PER DETAIL SM-16 ON SHEET C065 (TYP).

GENERAL NOTES

1. PER INTERNATIONAL BUILDING CODE (IBC) APPENDIX J, THERE SHALL BE NO GRADING WITHIN 2' OF ADJACENT PARCELS UNLESS A CONSTRUCTION EASEMENT IS OBTAINED.
2. FINISH GRADE CONTOURS SHOWN REPRESENT TOP OF STRUCTURAL FILL. STRIPPINGS (NON-STRUCTURAL FILL) MAY BE PLACED TO A MAXIMUM OF 0.5 FEET ABOVE FINISH GRADE SHOWN.

LEGEND

- DIRECTION OF POST-DEVELOPED RUNOFF
- EXISTING GROUND CONTOUR (1 FT) — 101 —
- EXISTING GROUND CONTOUR (5 FT) — 105 —
- FINISHED GRADE CONTOUR (1 FT) — 101 —
- FINISHED GRADE CONTOUR (5 FT) — 105 —
- LOT GRADING DETAIL (SEE SHEET C065) A

NOTE: CONTOUR ELEVATIONS SHOWN REFLECT ELEVATIONS PRIOR TO STRIPPING REPLACEMENT.

LOT GRADING TYPE	
LOT #	GRADING TYPE
1	C
2	C
3	C
4	C
5	A
6	C
7	C
8	A
9	A
10	A
11	A
12	A
13	A
14	A
15	A
16	C
17	A
18	A
19	B
20	C
21	C
22	C
23	B
24	B
25	B
26	B
27	B
28	B
29	B
30	B
31	B
32	A
33	B
34	B
35	B
36	B
37	B
38	B
39	B

Know what's below. Call before you dig.

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HOLLEY PARK SUBDIVISION CONSTRUCTION PLANS

LA CENTER WASHINGTON
NW 1/4 OF SEC 2 T4N, R1E, W.M.
PARCEL NO. 209055000, 209059000 AND 62965242

FINAL LOT GRADING PLAN

DESIGNED BY:	JRS
DRAWN BY:	MRE
MANAGED BY:	SMH
CHECKED BY:	JRS
DATE:	5/13/19

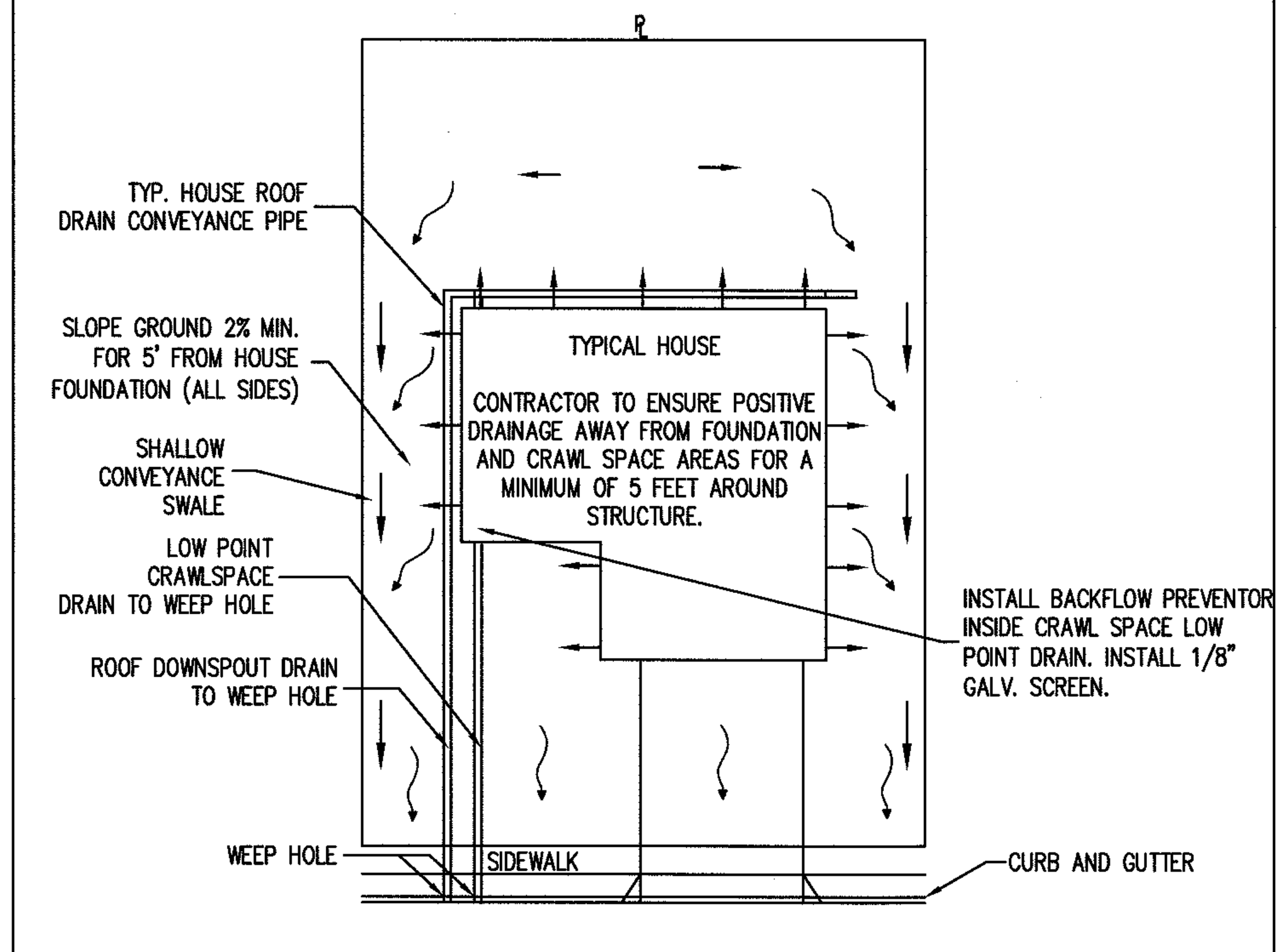
SETH MICHAEL HATTING — STATE OF WASHINGTON — 46813 — REGISTERED PROFESSIONAL ENGINEER

REVISIONS

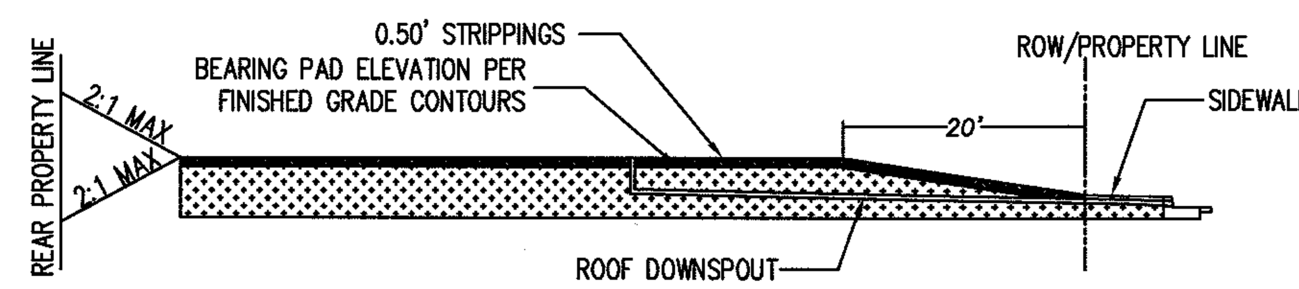
JOB NUMBER 6962

SHEET C060

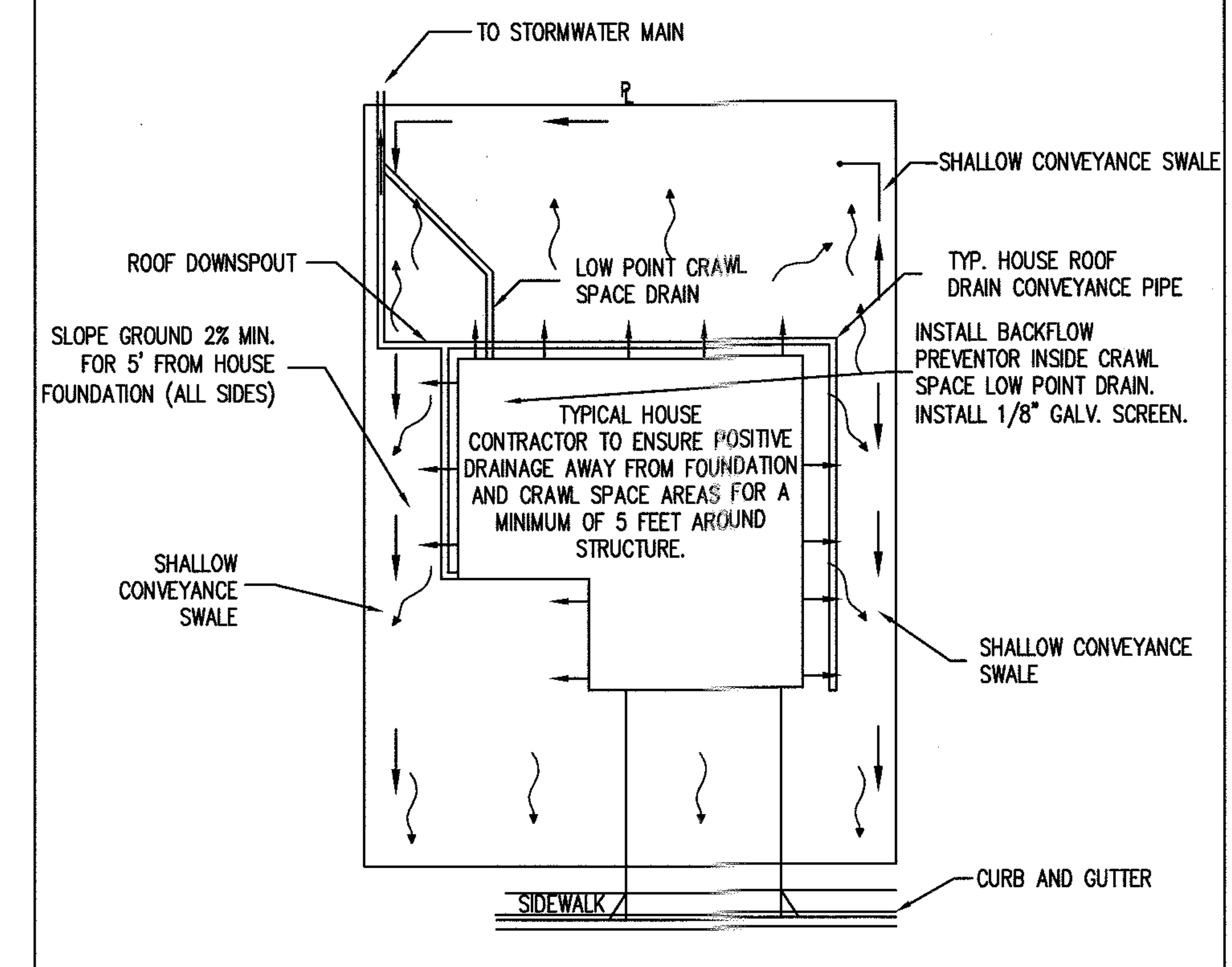
AKS DRAWING FILE: 6962 C060 GRADING.DWG | LAYOUT: C060



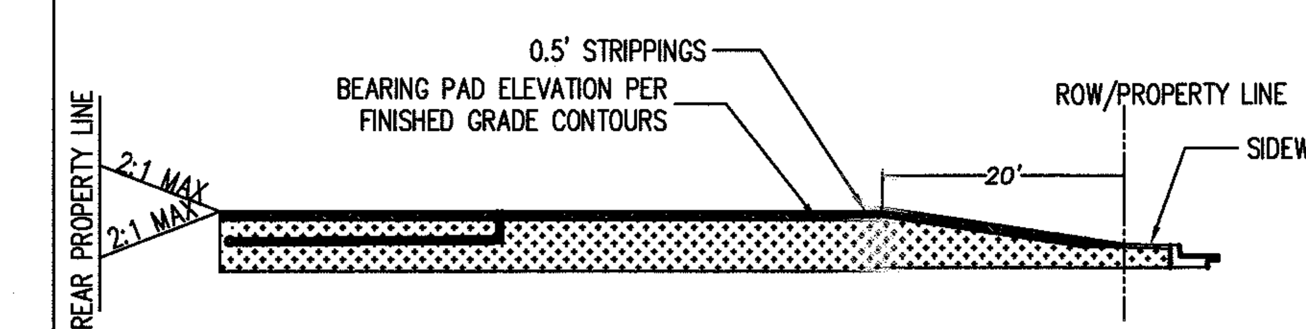
A TYPICAL LOT GRADING (TYPE A)
NO SCALE



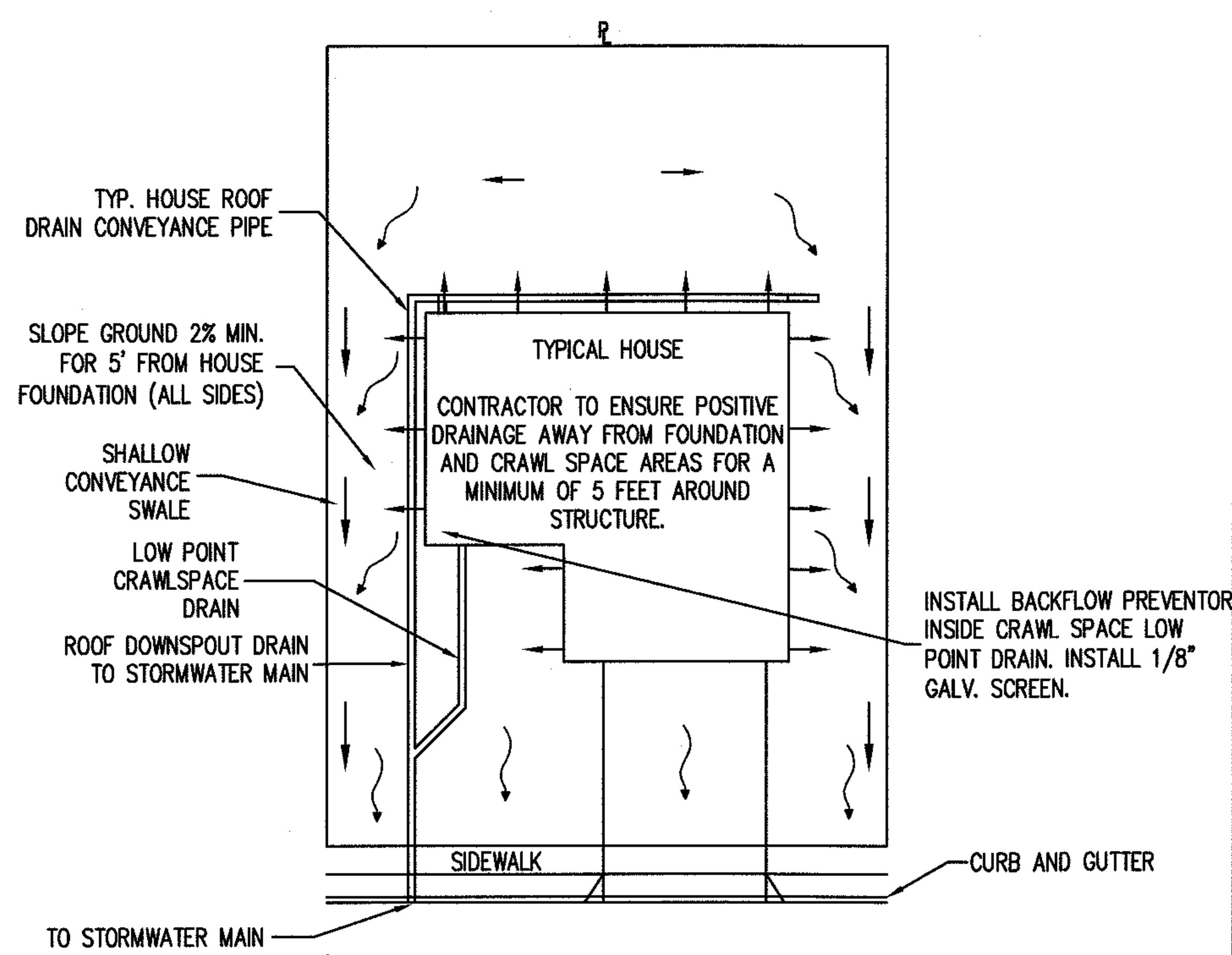
TYPE A



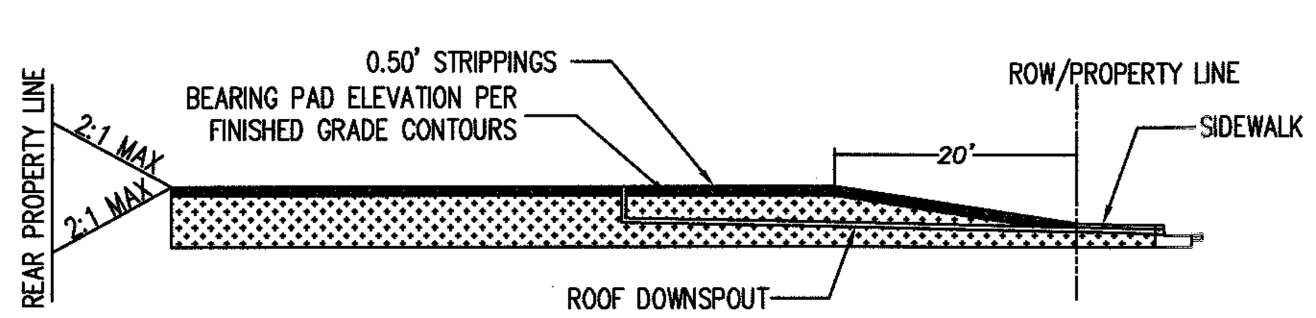
B TYPICAL LOT GRADING (TYPE B)
NO SCALE



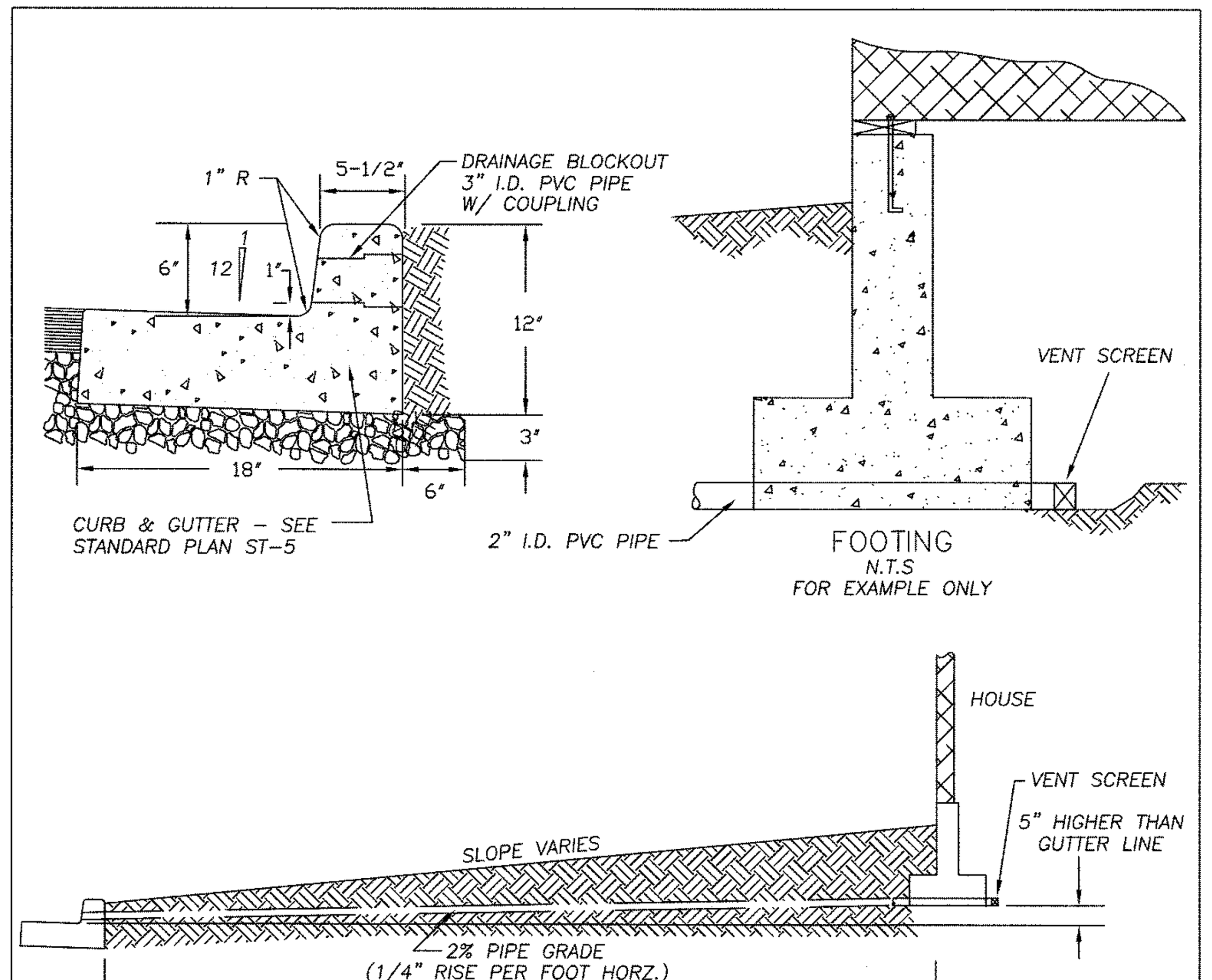
TYPE B



C TYPICAL LOT GRADING (TYPE C)
NO SCALE



TYPE C

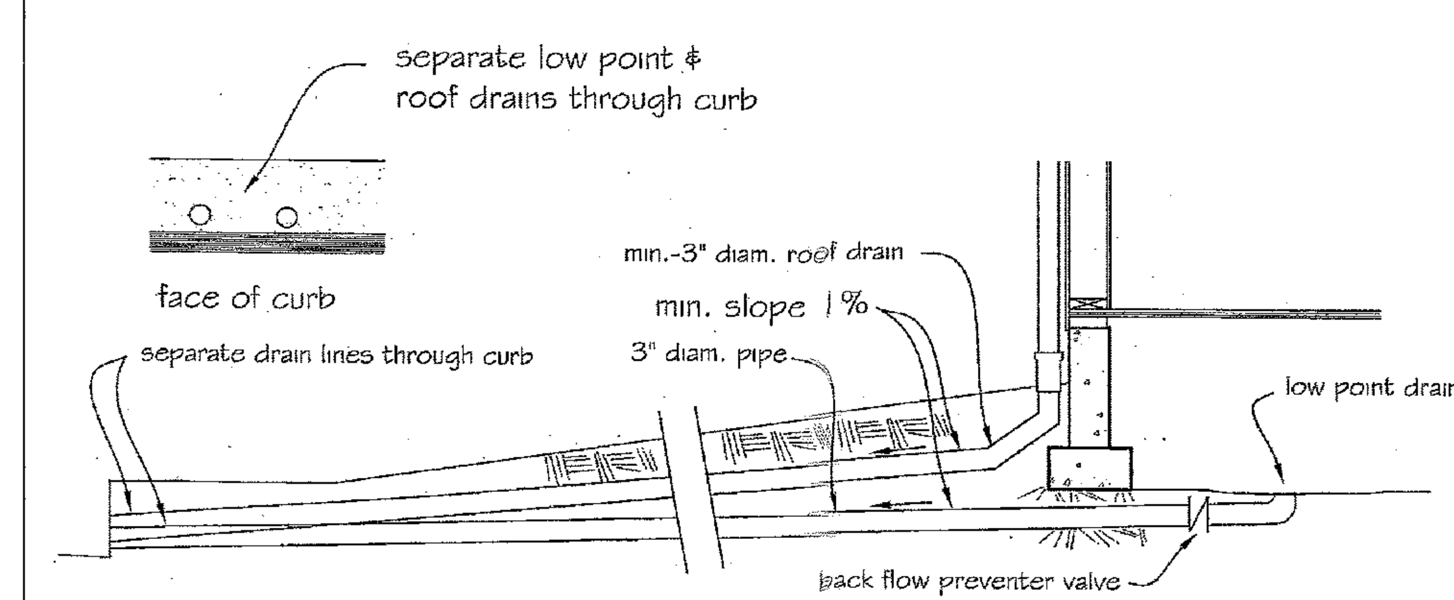


ALL LOTS MUST BE DESIGNED TO PROVIDE POSITIVE DRAINAGE FROM BOTTOM OF FOOTINGS TO AN APPROVED STORMWATER SYSTEM. POSITIVE DRAINAGE MAY BE ACCOMPLISHED BY SWALES, DRYWELLS, FRENCH DRAINS, LATERALS TO THE STREET, LATERALS BEHIND THE CURB OR WITHIN A PUBLIC UTILITY EASEMENT, AN APPROVED BACKYARD OR SIDE YARD SYSTEM, OR SOME OTHER METHOD ACCEPTABLE TO THE BUILDING OFFICIAL AND/OR DIRECTOR.

LOW POINT FOOTING DRAIN — PLAN # SM-16

CITY OF LA CENTER APPROVED — CITY ENGINEER — DATE 7/23/09

REVISIONS:	DATE:	DRAWN:	DESIGNED:



CURB DRAIN DETAIL

RESIDENTIAL SITE DRAINAGE NOTES

THE 1st CHOICE IS HARD PIPE CONNECTION TO PUBLIC STORM SYSTEM. DRAINAGE TO CURB IS ALLOWED ONLY IF THE FIRST CHOICE IS NOT FEASIBLE.

FOR RESIDENTIAL PROJECTS, IF NO UNDERGROUND STORM SYSTEM IS AVAILABLE, THE OWNER IS REQUIRED TO EITHER HIRE A PROFESSIONAL ENGINEER TO COMPLETE A DOWNSTREAM ANALYSIS PER THE CITY ORDINANCE OR CONSTRUCT AN ON-SITE UNDERGROUND DETENTION SYSTEM OR ABOVE GROUND DETENTION POND. THE DETENTION SYSTEM WILL BE SIZED FOR THE SITE ADDED IMPERVIOUS AREA AND SITE AREA PER THE ORDINANCE. SEE DETAIL SM-19 AND SM-20.

AS A FINAL OPTION ROOF DRAINAGE MAY BE INFILTRATED FOR SINGLE FAMILY HOMES ON-SITE (SEE SM-14 AND SM-15). THIS OPTION CAN ONLY BE USED IF A LICENSED GEOTECHNICAL ENGINEER COMPLETES A SOIL INVESTIGATION AND BORING TO DETERMINE THE FEASIBILITY AND SIZE OF THE INFILTRATION SYSTEM.

3" SCH. 40 PVC SLEEVE WEEP HOLES ARE REQUIRED AT THE PROPERTY LINES THROUGH THE SIDEWALK AND CURB.

RESIDENTIAL DOWNSPOUT DRAINAGE — PLAN # SM-17

CITY OF LA CENTER APPROVED — CITY ENGINEER — DATE 4-4-17

REVISIONS:	DATE:	DRAWN:	DESIGNED:
1	4-4-17	ALC	ALC

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HOLLEY PARK SUBDIVISION CONSTRUCTION PLANS

LA CENTER WASHINGTON
PARCEL NO. 209055000, 209059000 AND 62965242 NW 1/4 OF SEC 2 T4N, R1E, W.M.

FINAL LOT GRADING DETAILS

DESIGNED BY: JRS
DRAWN BY: MRE
MANAGED BY: SMH
CHECKED BY: JRS
DATE: 5/13/19

REVISIONS

JOB NUMBER 6962

SHEET C065

AKS DRAWING FILE: 6962 C060 GRADING.DWG | LAYOUT: C065

GENERAL NOTES

1. ALL CURBS SHALL BE CONSTRUCTED PER STANDARD DETAIL ST-5, SHEET C150 UNLESS OTHERWISE SPECIFIED.
2. CONTRACTOR SHALL NOTIFY PROJECT ENGINEER, SURVEYOR AND CITY OF LA CENTER INSPECTOR AFTER STRING LINE IS IN PLACE AND BEFORE CURB IS POURED TO CHECK CURB GRADE.
3. CONSTRUCT PUBLIC ROADWAYS PER CORRESPONDING ROADWAY DESIGNATION AND STANDARD DETAILS ON SHEETS C150-C151 USING CONVENTIONAL CONSTRUCTION AND TYPE A-5 SOIL FOR ALL PUBLIC ROADWAYS.
4. ALL PEDESTRIAN PATHWAYS SHALL BE CONSTRUCTED TO MEET ADA STANDARDS AND SHALL NOT EXCEED SLOPES SPECIFIED. ANY DEVIATION WITHOUT ARCHITECT OR PROJECT ENGINEERS APPROVAL SHALL BE SUBJECT TO REMOVAL AND REPLACEMENT AT THE CONTRACTORS EXPENSE.

   MINIMUM ADA STANDARDS ON ACCESSIBLE ROUTES INCLUDE:
   a. MAXIMUM 2.0% CROSS-SLOPE ON PATHWAYS AND RAMPS.
   b. PATHWAYS WITH SLOPES GREATER THAN 5% AND WITH GREATER THAN A 0.5' DROP IN ELEVATION SHALL UTILIZE HAND RAILS ON BOTH SIDES OF THE PATHWAY.
   c. NO RAMPS SHALL EXCEED 8.33% SLOPE.
   d. RAMPS AND PATHWAYS SHALL HAVE A CLEAR WIDTH OF 4 FEET AND IN NO CASE SHALL THE CLEAR WIDTH BE LESS THAN 3 FEET.
   e. MAXIMUM REVEAL ALLOWED IS 1/4" ALONG ACCESSIBLE PATH (SIDEWALK JOINTS, DOORWAYS, ETC.)

℄TX TANGENT TABLE

LINE #	LENGTH	BEARING
℄T2	269.85'	S1° 42' 38.00"W
℄T3	129.90'	S88° 16' 58.66"E
℄T4	314.68'	N77° 46' 45.62"E
℄T5	90.93'	S88° 17' 22.05"E

℄CX CURVE TABLE

CURVE #	RADIUS	LENGTH	DELTA	CHORD	CHORD BEARING
℄C2	50.00'	78.53'	89°59'37"	70.71'	S43° 17' 10.33"E
℄C3	150.00'	36.49'	13°56'16"	36.40'	N84° 44' 53.48"E
℄C4	150.00'	36.47'	13°55'52"	36.38'	N84° 44' 41.78"E

SIDEWALK LEGEND

- SIDEWALK AND RAMPS TO BE INSTALLED BY SITE DEVELOPMENT CONTRACTOR
- FUTURE SIDEWALK TO BE INSTALLED BY HOME BUILDER

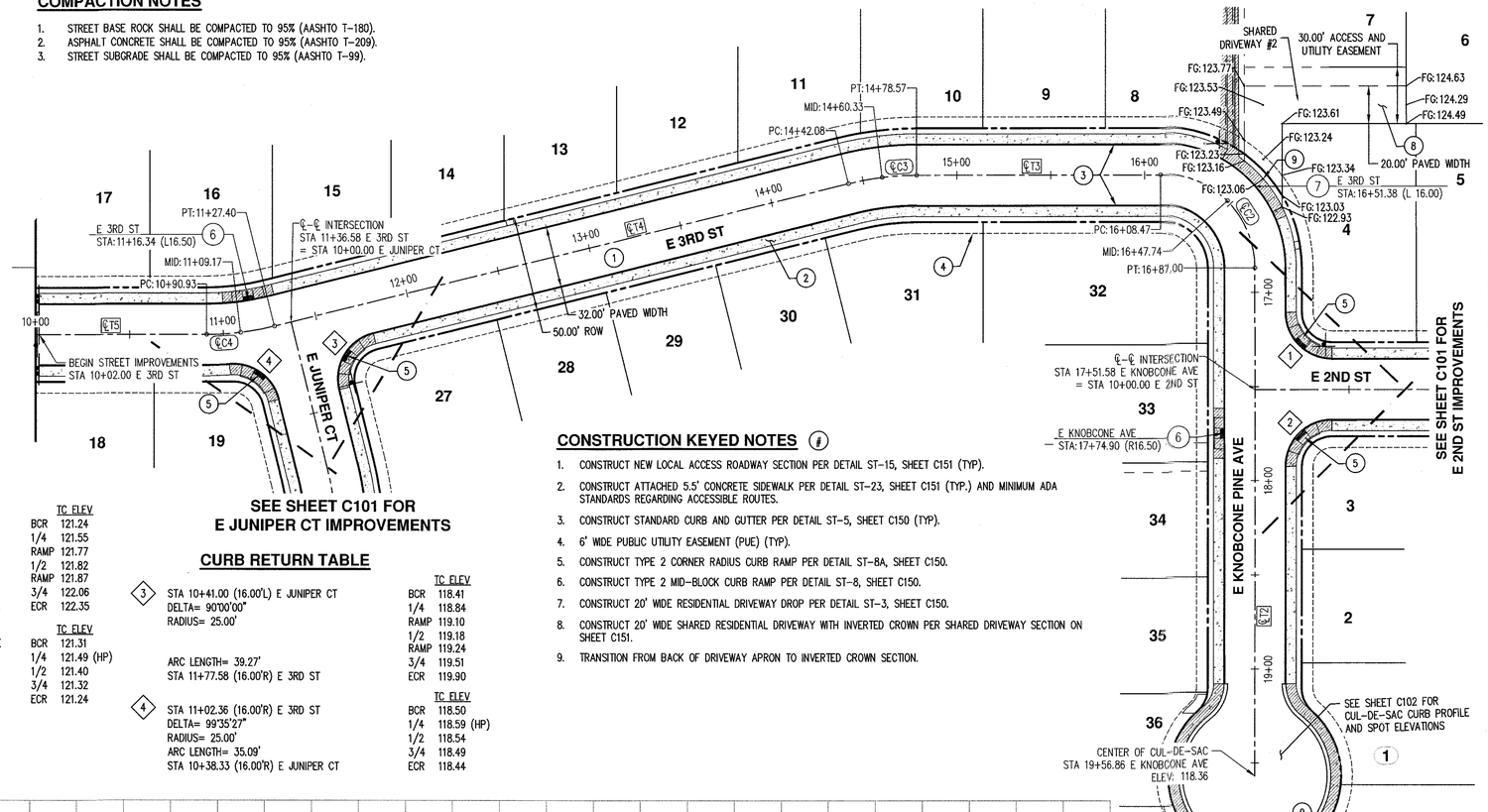
SIGHT DISTANCE TRIANGLE LEGEND

80' SIGHT DISTANCE TRIANGLE

NOTE:
SIGHT DISTANCE EASEMENTS ACROSS LOTS WILL BE SHOWN ON THE PLAT.

COMPACTION NOTES

1. STREET BASE ROCK SHALL BE COMPACTED TO 95% (AASHTO T-180).
2. ASPHALT CONCRETE SHALL BE COMPACTED TO 95% (AASHTO T-209).
3. STREET SUBGRADE SHALL BE COMPACTED TO 95% (AASHTO T-99).



CURB RETURN TABLE

1. STA 10+41.00 (16.00'L) E 2ND ST
   DELTA= 90°00'00"
   RADIUS= 25.00'
   ARC LENGTH= 39.27'
   STA 17+10.64 (16.00'L) E KNOBCONE PINE AVE

	TC ELEV
BCR	121.24
1/4	121.55
RAMP	121.77
1/2	121.82
RAMP	121.87
3/4	122.06
ECR	122.35

2. STA 17+92.64 (16.00'L) E KNOBCONE PINE AVE
   DELTA= 90°00'00"
   RADIUS= 25.00'
   ARC LENGTH= 39.27'
   STA 10+41.00 (16.00'R) E 2ND ST

	TC ELEV
BCR	121.31
1/4	121.49 (HP)
1/2	121.40
3/4	121.32
ECR	121.24

CURB RETURN TABLE

3. STA 10+41.00 (16.00'L) E JUNIPER CT
   DELTA= 90°00'00"
   RADIUS= 25.00'
   ARC LENGTH= 39.27'
   STA 11+77.58 (16.00'R) E 3RD ST

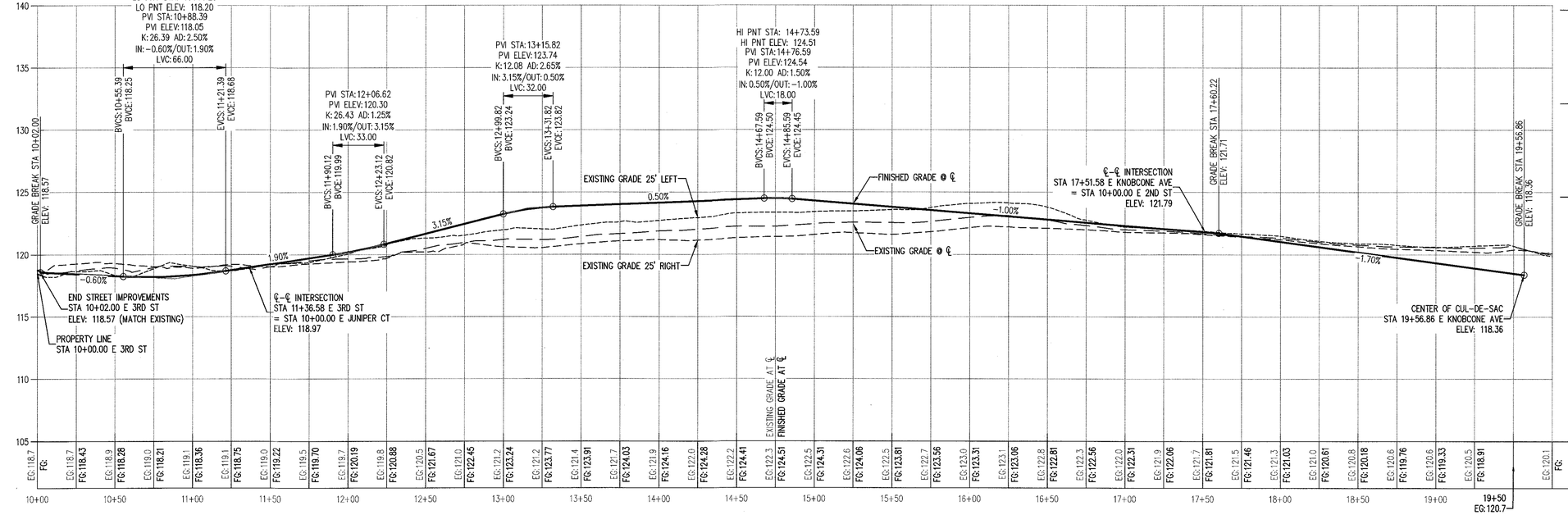
	TC ELEV
BCR	118.41
1/4	118.84
RAMP	119.10
1/2	119.18
RAMP	119.24
3/4	119.51
ECR	119.90

4. STA 11+02.36 (16.00'R) E 3RD ST
   DELTA= 99°35'27"
   RADIUS= 25.00'
   ARC LENGTH= 35.09'
   STA 10+38.33 (16.00'R) E JUNIPER CT

	TC ELEV
BCR	118.50
1/4	118.59 (HP)
1/2	118.54
3/4	118.49
ECR	118.44

CONSTRUCTION KEYED NOTES (#)

1. CONSTRUCT NEW LOCAL ACCESS ROADWAY SECTION PER DETAIL ST-15, SHEET C151 (TYP).
2. CONSTRUCT ATTACHED 5.5' CONCRETE SIDEWALK PER DETAIL ST-23, SHEET C151 (TYP.) AND MINIMUM ADA STANDARDS REGARDING ACCESSIBLE ROUTES.
3. CONSTRUCT STANDARD CURB AND GUTTER PER DETAIL ST-5, SHEET C150 (TYP).
4. 6' WIDE PUBLIC UTILITY EASEMENT (PUE) (TYP).
5. CONSTRUCT TYPE 2 CORNER RADIUS CURB RAMP PER DETAIL ST-8A, SHEET C150.
6. CONSTRUCT TYPE 2 MID-BLOCK CURB RAMP PER DETAIL ST-8, SHEET C150.
7. CONSTRUCT 20' WIDE RESIDENTIAL DRIVEWAY DROP PER DETAIL ST-3, SHEET C150.
8. CONSTRUCT 20' WIDE SHARED RESIDENTIAL DRIVEWAY WITH INVERTED CROWN PER SHARED DRIVEWAY SECTION ON SHEET C151.
9. TRANSITION FROM BACK OF DRIVEWAY APRON TO INVERTED CROWN SECTION.



E 3RD ST AND E KNOBCONE AVE
HOR. SCALE: 1"= 40'
VERT. SCALE: 1"= 5'
ALL STATIONING MEASURED ALONG
STREET CENTERLINE UNLESS NOTED OTHERWISE

LEGEND

AC:	ASPHALT CONCRETE
BCR:	BEGINNING OF CURB RETURN
BVCE:	BEGIN VERTICAL CURVE ELEVATION
BVCS:	BEGIN VERTICAL CURVE STATION
CL:	CENTERLINE
EG:	EXISTING GRADE
ECR:	END OF CURB RETURN
EP:	EDGE OF PAVEMENT
EVCS:	END VERTICAL CURVE STATION
EVCE:	END VERTICAL CURVE ELEVATION
EX:	EXISTING
FG:	FINISHED GRADE
FL:	FLOW LINE
HP:	HIGH POINT
LP:	LOW POINT
LVC:	LENGTH OF VERTICAL CURVE
MID:	MIDPOINT
PC:	POINT OF CURVE
PT:	POINT OF TANGENT
PUE:	PUBLIC UTILITY EASEMENT
R/W:	RIGHT-OF-WAY
SW:	SIDEWALK
TFC:	TOP FACE OF CURB
TBC:	TOP BACK OF CURB

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HOLLEY PARK SUBDIVISION
CONSTRUCTION PLANS
LA CENTER WASHINGTON
NW 1/4 OF SEC 2 T4N, R1E, W.M.
PARCEL NO. 209055000, 209059000 AND 62985242

STREET PLAN AND PROFILE (E 3RD ST AND E KNOBCONE PINE AVE)

DESIGNED BY: JRS
DRAWN BY: MRE
MANAGED BY: SMH
CHECKED BY: JRS
DATE: 5/13/19

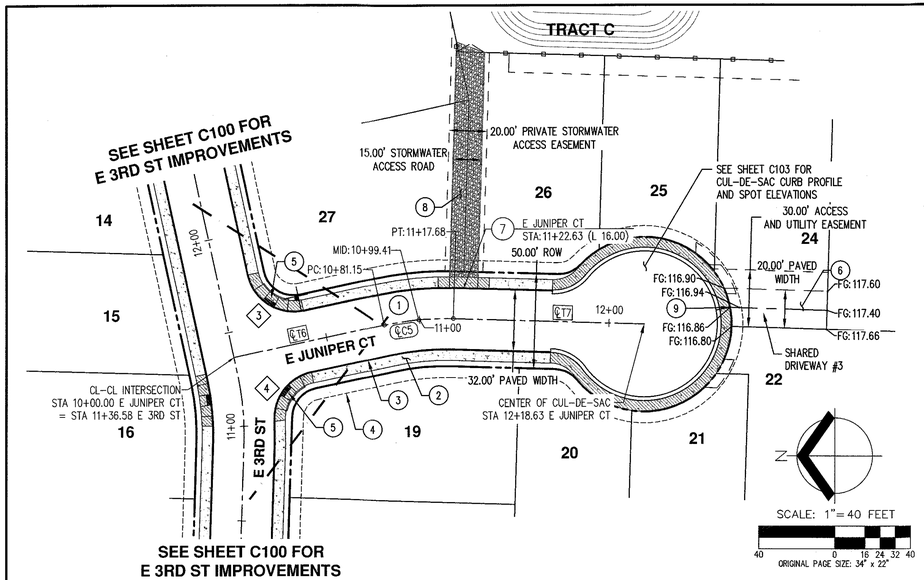
SETH MICHAEL HALLING
STATE OF WASHINGTON
48813
REGISTERED
PROFESSIONAL ENGINEER

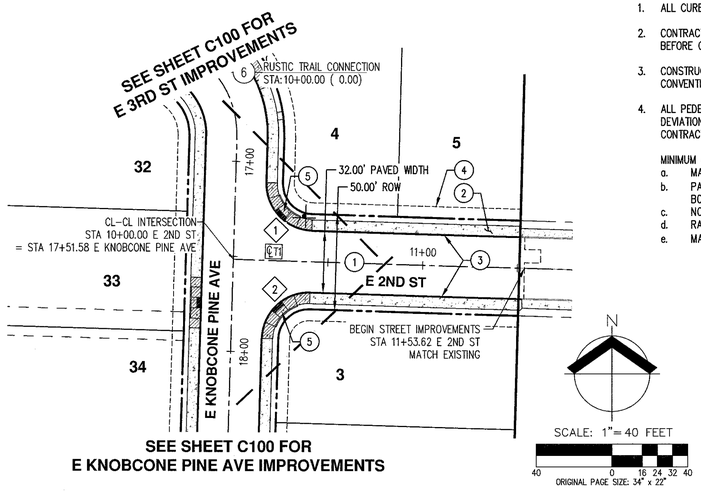
REVISIONS:

JOB NUMBER
6962

SHEET
C100

AKS DRAWING FILE: 6962 C100 STR.DWG | LAYOUT: C100





GENERAL NOTES

1. ALL CURBS SHALL BE CONSTRUCTED PER STANDARD DETAIL ST-5, SHEET C150 UNLESS OTHERWISE SPECIFIED.
2. CONTRACTOR SHALL NOTIFY PROJECT ENGINEER, SURVEYOR AND CITY OF LA CENTER INSPECTOR AFTER STRING LINE IS IN PLACE AND BEFORE CURB IS POURED TO CHECK CURB GRADE.
3. CONSTRUCT PUBLIC ROADWAYS PER CORRESPONDING ROADWAY DESIGNATION AND STANDARD DETAILS ON SHEETS C150-C151 USING CONVENTIONAL CONSTRUCTION AND TYPE A-5 SOIL FOR ALL PUBLIC ROADWAYS.
4. ALL PEDESTRIAN PATHWAYS SHALL BE CONSTRUCTED TO MEET ADA STANDARDS AND SHALL NOT EXCEED SLOPES SPECIFIED. ANY DEVIATION WITHOUT ARCHITECT OR PROJECT ENGINEERS APPROVAL SHALL BE SUBJECT TO REMOVAL AND REPLACEMENT AT THE CONTRACTORS EXPENSE.

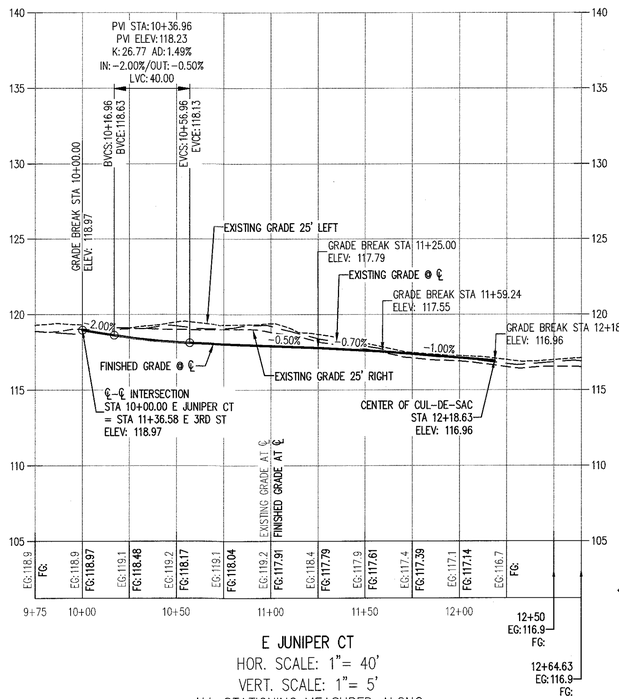
MINIMUM ADA STANDARDS ON ACCESSIBLE ROUTES INCLUDE:
a. MAXIMUM 2.0% CROSS-SLOPE ON PATHWAYS AND RAMPS.
b. PATHWAYS WITH SLOPES GREATER THAN 5% AND WITH GREATER THAN A 0.5' DROP IN ELEVATION SHALL UTILIZE HAND RAILS ON BOTH SIDES OF THE PATHWAY.
c. NO RAMPS SHALL EXCEED 8.33% SLOPE.
d. RAMPS AND PATHWAYS SHALL HAVE A CLEAR WIDTH OF 4 FEET AND IN NO CASE SHALL THE CLEAR WIDTH BE LESS THAN 3 FEET.
e. MAXIMUM REVEAL ALLOWED IS 1/4" ALONG ACCESSIBLE PATH (SIDEWALK JOINTS, DOORWAYS, ETC.)

COMPACTION NOTES

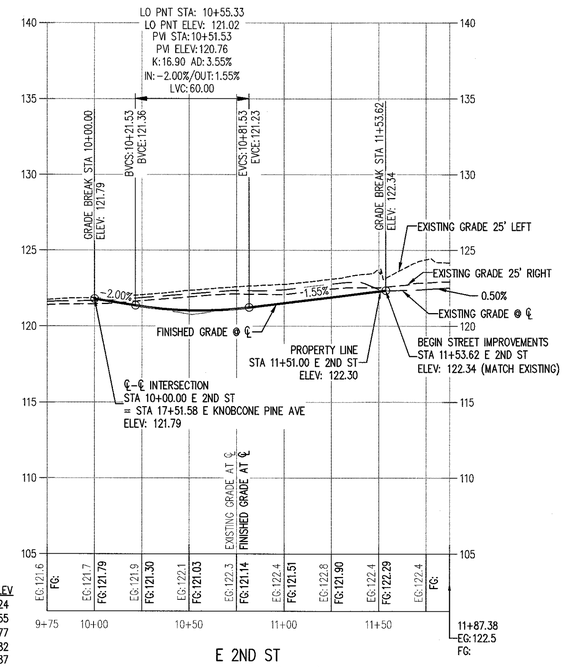
1. STREET BASE ROCK SHALL BE COMPACTED TO 95% (AASHTO T-180).
2. ASPHALT CONCRETE SHALL BE COMPACTED TO 95% (AASHTO T-209).
3. STREET SUBGRADE SHALL BE COMPACTED TO 95% (AASHTO T-99).

CONSTRUCTION KEYED NOTES (#)

1. CONSTRUCT NEW LOCAL ACCESS ROADWAY SECTION PER DETAIL ST-15, SHEET C151 (TYP).
2. CONSTRUCT ATTACHED 5.5' CONCRETE SIDEWALK PER DETAIL ST-23, SHEET C151 (TYP.) AND MINIMUM ADA STANDARDS REGARDING ACCESSIBLE ROUTES.
3. CONSTRUCT STANDARD CURB AND GUTTER PER DETAIL ST-5, SHEET C150 (TYP).
4. 6' WIDE PUBLIC UTILITY EASEMENT (PUE) (TYP).
5. CONSTRUCT TYPE 2 CORNER RADIUS CURB RAMP PER DETAIL ST-8A, SHEET C150.
6. CONSTRUCT 20' WIDE SHARED RESIDENTIAL DRIVEWAY PER SHARED DRIVEWAY SECTION ON SHEET C151.
7. CONSTRUCT 15' WIDE COMMERCIAL DRIVEWAY DROP PER DETAIL ST-3, SHEET C150.
8. CONSTRUCT 15' WIDE ACCESS ROAD FOR STORMWATER FACILITY PER DETAIL ON SHEET C201.
9. TRANSITION FROM INVERTED CROWN SECTION TO BACK OF DRIVEWAY APRON.



E JUNIPER CT
HOR. SCALE: 1"= 40'
VERT. SCALE: 1"= 5'
ALL STATIONING MEASURED ALONG
STREET CENTERLINE UNLESS NOTED OTHERWISE



E 2ND ST
HOR. SCALE: 1"= 40'
VERT. SCALE: 1"= 5'
ALL STATIONING MEASURED ALONG
STREET CENTERLINE UNLESS NOTED OTHERWISE

CURB RETURN TABLE

		TC ELEV
1	STA 10+41.00 (16.00'L) E 2ND ST	BCR 121.24
	DELTA= 90°00'00"	1/4 121.55
	RADIUS= 25.00'	RAMP 121.77
		1/2 121.82
	ARC LENGTH= 39.27'	RAMP 121.87
	STA 17+10.64 (16.00'L) E KNOBCONE PINE AVE	3/4 122.06
		ECR 122.35
2	STA 17+92.64 (16.00'L) E KNOBCONE PINE AVE	TC ELEV
	DELTA= 90°00'00"	BCR 121.31
	RADIUS= 25.00'	1/4 121.49 (HP)
	ARC LENGTH= 39.27'	1/2 121.40
	STA 10+41.00 (16.00'R) E 2ND ST	3/4 121.32
		ECR 121.24
3	STA 10+41.00 (16.00'L) E JUNIPER CT	TC ELEV
	DELTA= 90°00'00"	BCR 118.41
	RADIUS= 25.00'	1/4 118.84
		RAMP 119.10
	ARC LENGTH= 39.27'	1/2 119.18
	STA 11+77.58 (16.00'R) E 3RD ST	RAMP 119.24
		3/4 119.51
		ECR 119.90
4	STA 11+02.36 (16.00'R) E 3RD ST	TC ELEV
	DELTA= 99°35'27"	BCR 118.50
	RADIUS= 25.00'	1/4 118.59 (HP)
	ARC LENGTH= 35.09'	1/2 118.54
	STA 10+38.33 (16.00'R) E JUNIPER CT	3/4 118.49
		ECR 118.44

SIDEWALK LEGEND

- SIDEWALK AND RAMPS TO BE INSTALLED BY SITE DEVELOPMENT CONTRACTOR
- FUTURE SIDEWALK TO BE INSTALLED BY HOME BUILDER

SIGHT DISTANCE TRIANGLE LEGEND

80' SIGHT DISTANCE TRIANGLE

NOTE:
SIGHT DISTANCE EASEMENTS ACROSS LOTS WILL BE SHOWN ON THE PLAT.

LEGEND

AC:	ASPHALT CONCRETE
BCR:	BEGINNING OF CURB RETURN
BVCE:	BEGIN VERTICAL CURVE ELEVATION
BVCS:	BEGIN VERTICAL CURVE STATION
CL:	CENTERLINE
EG:	EXISTING GRADE
ECR:	END OF CURB RETURN
EP:	EDGE OF PAVEMENT
EVCS:	END VERTICAL CURVE STATION
EVCE:	END VERTICAL CURVE ELEVATION
EX:	EXISTING
FG:	FINISHED GRADE
FL:	FLOW LINE
HP:	HIGH POINT
LP:	LOW POINT
LVC:	LENGTH OF VERTICAL CURVE
MID:	MIDPOINT
PC:	POINT OF CURVE
PT:	POINT OF TANGENT
PUE:	PUBLIC UTILITY EASEMENT
R/W:	RIGHT-OF-WAY
SW:	SIDEWALK
TFC:	TOP FACE OF CURB
TBC:	TOP BACK OF CURB

℄T TANGENT TABLE

LINE #	LENGTH	BEARING
℄T1	187.38'	S88° 17' 22.00"E
℄T6	81.15'	S12° 13' 14.38"E
℄T7	100.95'	S1° 44' 03.25"W

℄C CURVE TABLE

CURVE #	RADIUS	LENGTH	DELTA	CHORD	CHORD BEARING
℄C5	150.00'	36.53'	13°57'18"	36.44'	S5° 14' 35.57"E

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HOLLEY PARK SUBDIVISION
CONSTRUCTION PLANS

LA CENTER WASHINGTON
NW 1/4 OF SEC 2 T4N, R1E, W.M.
PARCEL NO. 209055000, 209059000 AND 62365242

STREET PLAN AND PROFILE (E 2ND ST AND E JUNIPER CT)

DESIGNED BY:	JRS
DRAWN BY:	MRE
MANAGED BY:	SMH
CHECKED BY:	JRS
DATE:	5/13/19

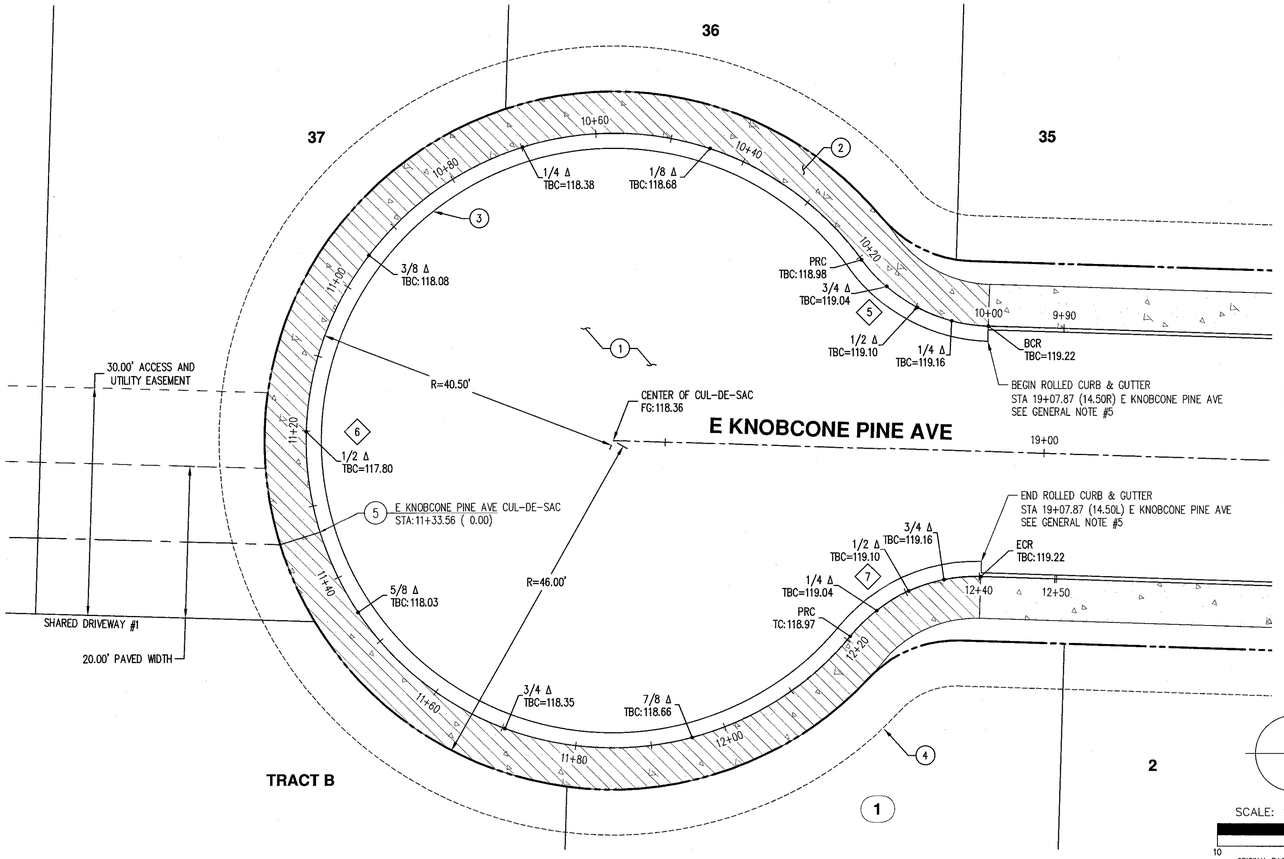
SETH MICHAEL HALLOCK
STATE OF WASHINGTON
22813
REGISTERED
PROFESSIONAL ENGINEER

REVISIONS

JOB NUMBER
6962

SHEET
C101

AKS DRAWING FILE: 6962 C100 STR.DWG | LAYOUT: C101



CURB RETURN TABLE

		TBC ELEV
5	STA 19+07.93 (16.50'R) E KNOBCONE PINE AVE	BCR 119.22
	DELTA= 52°12'01"	1/4 119.16
	RADIUS= 21.50'	1/2 119.10
	ARC LENGTH= 19.59'	3/4 119.04
	STA 19+24.92 (24.82'R) E KNOBCONE PINE AVE	PRC 118.98

		TBC ELEV
6	STA 19+24.92 (24.82'R) E KNOBCONE PINE AVE	PRC 118.98
	DELTA= 284°24'02"	1/4 118.38
	RADIUS= 40.50'	1/2 117.80
	ARC LENGTH= 201.03'	3/4 118.35
	STA 19+24.84 (24.82'L) E KNOBCONE PINE AVE	PRC 118.97

		TBC ELEV
7	STA 19+24.84 (24.82'L) E KNOBCONE PINE AVE	PRC 118.97
	DELTA= 52°12'01"	1/4 119.04
	RADIUS= 21.50'	1/2 119.10
	ARC LENGTH= 19.59'	3/4 119.16
	STA 19+07.89 (16.50'L) E KNOBCONE PINE AVE	ECR 119.22

LEGEND

AC: ASPHALT CONCRETE
BCR: BEGIN CURB RETURN
BVCE: BEGIN VERTICAL CURVE ELEVATION
BVCS: BEGIN VERTICAL CURVE STATION
CL: CENTERLINE
EG: EXISTING GRADE
ECR: END CURB RETURN
EVCS: END VERTICAL CURVE STATION
EVCE: END VERTICAL CURVE ELEVATION
EX: EXISTING
FG: FINISHED GRADE
FL: FLOW LINE
HP: HIGH POINT
LP: LOW POINT
LVC: LENGTH OF VERTICAL CURVE
MP: MIDPOINT
PC: POINT OF CURVATURE
PRC: POINT OF REVERSE CURVATURE
PT: POINT OF TANGENT
PUE: PUBLIC UTILITY EASEMENT
R/W: RIGHT-OF-WAY
SW: SIDEWALK
TFC: TOP FACE OF CURB
TBC: TOP BACK OF CURB

SIDEWALK LEGEND

SIDEWALK AND RAMPS TO BE INSTALLED BY SITE DEVELOPMENT CONTRACTOR

FUTURE SIDEWALK TO BE INSTALLED BY HOME BUILDER

STREET CONSTRUCTION KEYED NOTES

1. CONSTRUCT NEW CUL-DE-SAC SECTION PER DETAIL ST-29, SHEET C151.
2. CONSTRUCT ATTACHED 5.5' CONCRETE SIDEWALK PER DETAIL ST-23, SHEET C151 (TYP.) AND MINIMUM ADA STANDARDS REGARDING ACCESSIBLE ROUTES.
3. CONSTRUCT ROLLED CURB AND GUTTER PER DETAIL ON SHEET C151 (TYP).
4. 6' WIDE PUBLIC UTILITY EASEMENT (PUE) (TYP).
5. CONSTRUCT 20' WIDE RESIDENTIAL DRIVEWAY PER SHARED DRIVEWAY SECTION, SHEET C150.

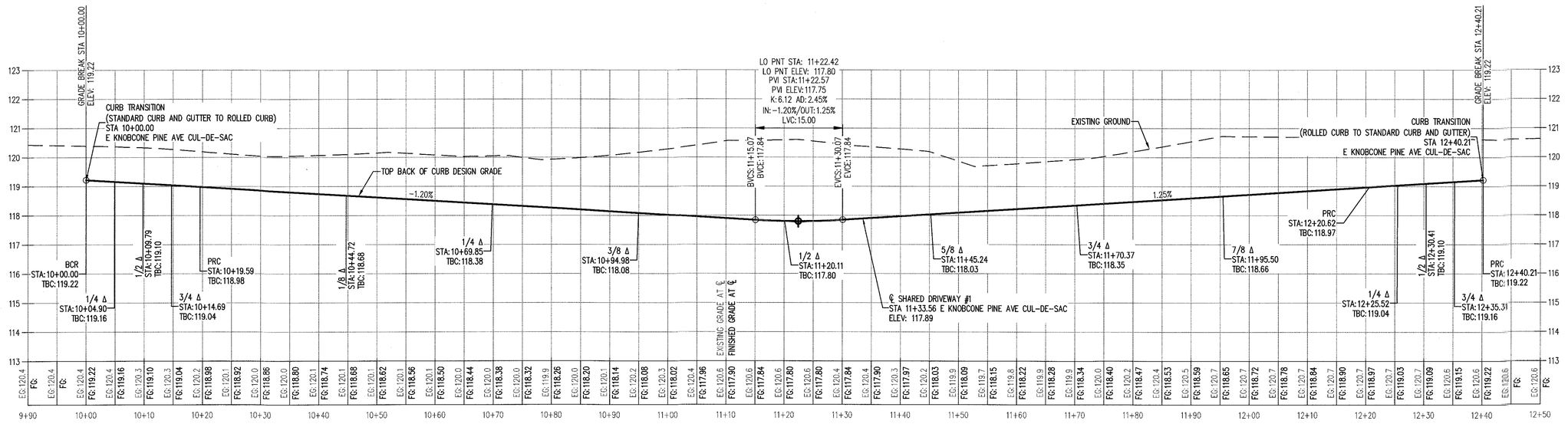
GENERAL NOTES

1. ALL CURBS SHALL BE CONSTRUCTED PER STANDARD DETAIL ST-5, SHEET C150 UNLESS OTHERWISE SPECIFIED.
2. CONTRACTOR SHALL NOTIFY PROJECT ENGINEER, SURVEYOR AND COUNTY INSPECTOR AFTER STRING LINE IS IN PLACE AND BEFORE CURB IS POURED TO CHECK CURB GRADE.
3. CONSTRUCT PUBLIC ROADWAYS PER CORRESPONDING ROADWAY DESIGNATION AND STANDARD DETAILS ON SHEET C150-C151 USING CONVENTIONAL CONSTRUCTION AND TYPE A-5 SOIL FOR ALL PUBLIC ROADWAYS.
4. ALL PEDESTRIAN PATHWAYS SHALL BE CONSTRUCTED TO MEET ADA STANDARDS AND SHALL NOT EXCEED SLOPES SPECIFIED. ANY DEVIATION WITHOUT ARCHITECT OR PROJECT ENGINEERS APPROVAL SHALL BE SUBJECT TO REMOVAL AND REPLACEMENT AT THE CONTRACTORS EXPENSE.

   MINIMUM ADA STANDARDS ON ACCESSIBLE ROUTES INCLUDE:
   a. MAXIMUM 2.0% CROSS-SLOPE ON PATHWAYS AND RAMPS.
   b. PATHWAYS WITH SLOPES GREATER THAN 5% AND WITH GREATER THAN A 0.5' DROP IN ELEVATION SHALL UTILIZE HAND RAILS ON BOTH SIDES OF THE PATHWAY.
   c. NO RAMPS SHALL EXCEED 8.33% SLOPE.
   d. RAMPS AND PATHWAYS SHALL HAVE A CLEAR WIDTH OF 4 FEET AND IN NO CASE SHALL THE CLEAR WIDTH BE LESS THAN 3 FEET.
   e. MAXIMUM REVEAL ALLOWED IS 1/4" ALONG ACCESSIBLE PATH (SIDEWALK JOINTS, DOORWAYS, ETC.)
5. WHERE STANDARD TYPE A-1 CURB MEETS ROLLED CURB, THE TC ELEVATION IS 2.0" (0.17') HIGHER THAN THE TOP OF THE ROLLED CURB. TYPE A-1 CURB HAS A 6" REVEAL WHERE ROLLED CURB HAS A 4" REVEAL TRANSITION FROM TYPE A-1 CURB TO ROLLED CURB WITHIN THE CUL-DE-SAC RETURNS.

COMPACTION NOTES

1. STREET BASE ROCK SHALL BE COMPACTED TO 95% (AASHTO T-180).
2. ASPHALT CONCRETE SHALL BE COMPACTED TO 95% (AASHTO T-209).
3. STREET SUBGRADE SHALL BE COMPACTED TO 95% (AASHTO T-99).



E KNOBCONE PINE AVE CUL-DE-SAC
HOR. SCALE: 1"= 10'
VERT. SCALE: 1"= 2'
ALL STATIONING AND ELEVATIONS ARE MEASURED ALONG TOP BACK OF CURB UNLESS NOTED OTHERWISE

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HOLLEY PARK SUBDIVISION
CONSTRUCTION PLANS
LA CENTER WASHINGTON
NW 1/4 OF SEC 2 TAN, R1E, W.M.
PARCEL NO. 209055000, 209059000 AND 62965242

CUL-DE-SAC CURB PROFILE (E KNOBCONE PINE AVE)

DESIGNED BY: JRS
DRAWN BY: MRE
MANAGED BY: SMH
CHECKED BY: JRS
DATE: 5/13/19

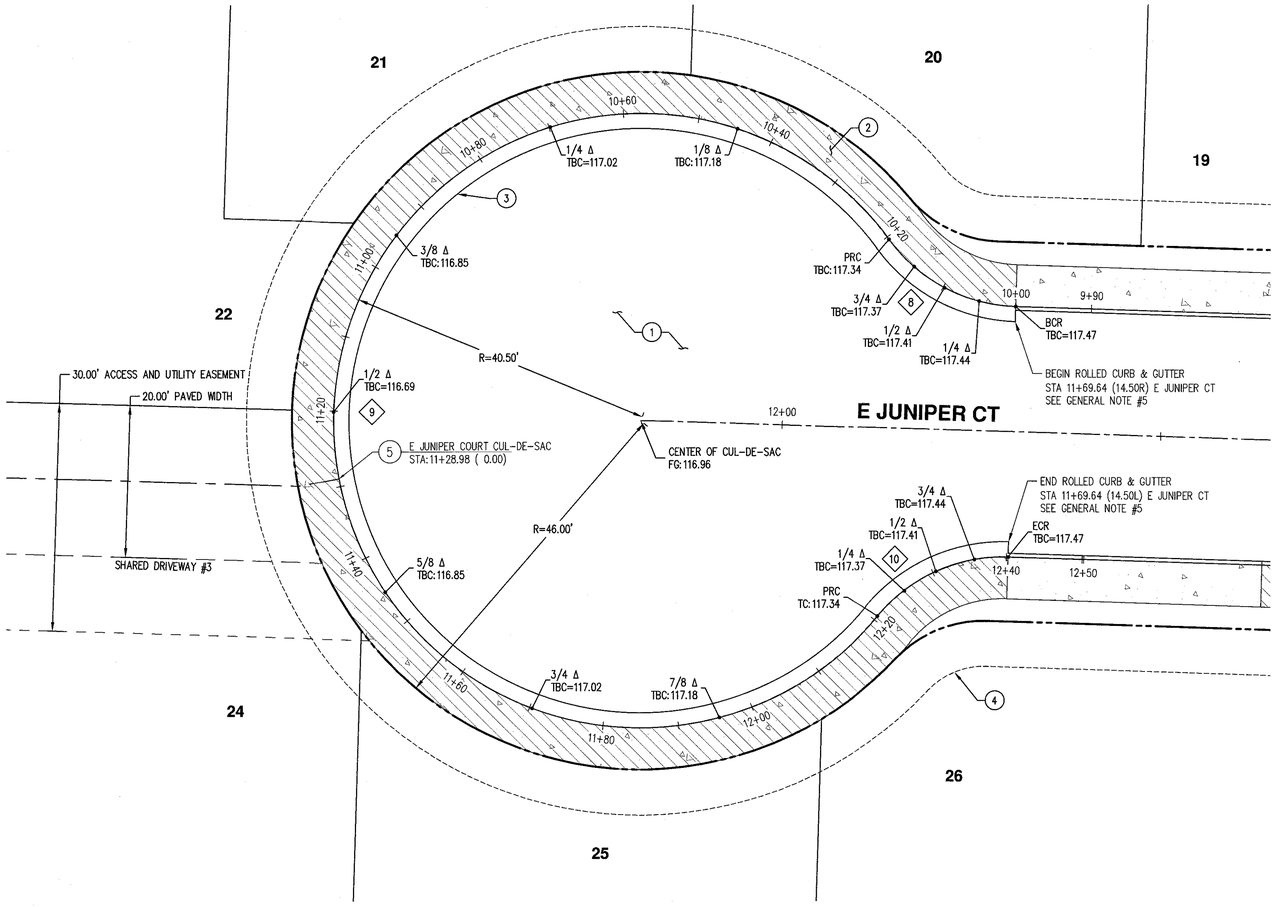
STATE OF WASHINGTON
MICHAEL R. ELLINGSON
48813
REGISTERED
PROFESSIONAL ENGINEER

REVISIONS

JOB NUMBER
6962

SHEET
C102

AKS DRAWING FILE: 6962 C100 CUL DE SAC.DWG | LAYOUT: C102



SCALE: 1"=10 FEET

ORIGINAL PAGE SIZE: 34" x 22"

CURB RETURN TABLE

		TBC ELEV
8	STA 11+69.64 (16.50'R) E JUNIPER CT	BCR 117.47
	DELTA= 52°12'01"	1/4 117.44
	RADIUS= 21.50'	1/2 117.41
	ARC LENGTH= 19.59'	3/4 117.37
	STA 11+86.63 (24.82'R) E JUNIPER CT	PRC 117.34

		TBC ELEV
9	STA 11+86.63 (24.82'R) E JUNIPER CT	PRC 117.34
	DELTA= 284°24'02"	1/4 117.02
	RADIUS= 40.50'	1/2 116.69
	ARC LENGTH= 201.03'	3/4 117.02
	STA 11+86.63 (24.82'L) E JUNIPER CT	PRC 117.34

		TBC ELEV
10	STA 11+86.63 (24.82'L) E JUNIPER CT	PRC 117.34
	DELTA= 52°12'01"	1/4 117.37
	RADIUS= 21.50'	1/2 117.41
	ARC LENGTH= 19.59'	3/4 117.44
	STA 11+69.64 (16.50'L) E JUNIPER CT	ECR 117.47

LEGEND

AC:	ASPHALT CONCRETE
BCR:	BEGIN CURB RETURN
BVCE:	BEGIN VERTICAL CURVE ELEVATION
BVCS:	BEGIN VERTICAL CURVE STATION
CL:	CENTERLINE
EG:	EXISTING GRADE
ECR:	END CURB RETURN
EVCS:	END VERTICAL CURVE STATION
EVCE:	END VERTICAL CURVE ELEVATION
EX:	EXISTING
FG:	FINISHED GRADE
FL:	FLOW LINE
HP:	HIGH POINT
LP:	LOW POINT
LVC:	LENGTH OF VERTICAL CURVE
MP:	MIDPOINT
PC:	POINT OF CURVATURE
PRC:	POINT OF REVERSE CURVATURE
PT:	POINT OF TANGENT
PUE:	PUBLIC UTILITY EASEMENT
R/W:	RIGHT-OF-WAY
SW:	SIDEWALK
TFC:	TOP FACE OF CURB
TBC:	TOP BACK OF CURB

STREET CONSTRUCTION KEYED NOTES (f)

1. CONSTRUCT CUL-DE-SAC SECTION PER DETAIL ST-29, SHEET C151.
2. CONSTRUCT ATTACHED 5.5' CONCRETE SIDEWALK PER DETAIL ST-23, SHEET C151 (TYP.) AND MINIMUM ADA STANDARDS REGARDING ACCESSIBLE ROUTES.
3. CONSTRUCT ROLLED CURB AND GUTTER PER DETAIL ON SHEET C151 (TYP).
4. 6' WIDE PUBLIC UTILITY EASEMENT (PUE) (TYP).
5. CONSTRUCT 20' WIDE RESIDENTIAL DRIVEWAY PER SHARED DRIVEWAY SECTION, SHEET C150.

GENERAL NOTES

1. ALL CURBS SHALL BE CONSTRUCTED PER STANDARD DETAIL ST-5, SHEET C150 UNLESS OTHERWISE SPECIFIED.
2. CONTRACTOR SHALL NOTIFY PROJECT ENGINEER, SURVEYOR AND COUNTY INSPECTOR AFTER STRING LINE IS IN PLACE AND BEFORE CURB IS POURED TO CHECK CURB GRADE.
3. CONSTRUCT PUBLIC ROADWAYS PER CORRESPONDING ROADWAY DESIGNATION AND STANDARD DETAILS ON SHEET C150-C151 USING CONVENTIONAL CONSTRUCTION AND TYPE A-5 SOIL FOR ALL PUBLIC ROADWAYS.
4. ALL PEDESTRIAN PATHWAYS SHALL BE CONSTRUCTED TO MEET ADA STANDARDS AND SHALL NOT EXCEED SLOPES SPECIFIED. ANY DEVIATION WITHOUT ARCHITECT OR PROJECT ENGINEERS APPROVAL SHALL BE SUBJECT TO REMOVAL AND REPLACEMENT AT THE CONTRACTORS EXPENSE.

   MINIMUM ADA STANDARDS ON ACCESSIBLE ROUTES INCLUDE:
   a. MAXIMUM 2.0% CROSS-SLOPE ON PATHWAYS AND RAMPS.
   b. PATHWAYS WITH SLOPES GREATER THAN 5% AND WITH GREATER THAN A 0.5" DROP IN ELEVATION SHALL UTILIZE HAND RAILS ON BOTH SIDES OF THE PATHWAY.
   c. NO RAMPS SHALL EXCEED 8.33% SLOPE.
   d. RAMPS AND PATHWAYS SHALL HAVE A CLEAR WIDTH OF 4 FEET AND IN NO CASE SHALL THE CLEAR WIDTH BE LESS THAN 3 FEET.
   e. MAXIMUM REVEAL ALLOWED IS 1/4" ALONG ACCESSIBLE PATH (SIDEWALK JOINTS, DOORWAYS, ETC.)
5. WHERE STANDARD TYPE A-1 CURB MEETS ROLLED CURB, THE TC ELEVATION IS 2.0" (0.17') HIGHER THAN THE TOP OF THE ROLLED CURB. TYPE A-1 CURB HAS A 6" REVEAL WHERE ROLLED CURB HAS A 4" REVEAL. TRANSITION FROM TYPE A-1 CURB TO ROLLED CURB WITHIN THE CUL-DE-SAC RETURNS.

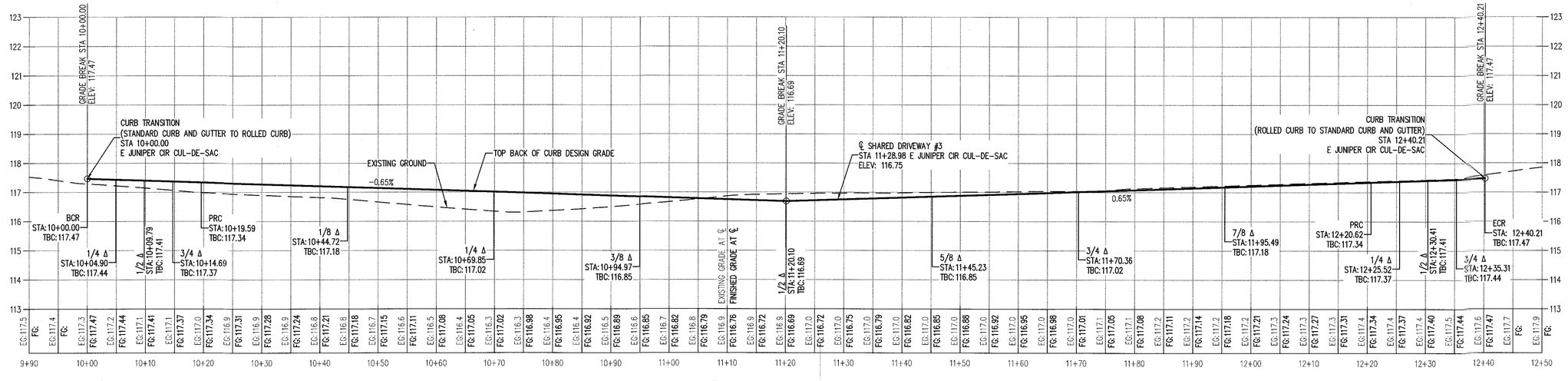
COMPACTION NOTES

1. STREET BASE ROCK SHALL BE COMPACTED TO 95% (AASHTO T-180).
2. ASPHALT CONCRETE SHALL BE COMPACTED TO 95% (AASHTO T-209).
3. STREET SUBGRADE SHALL BE COMPACTED TO 95% (AASHTO T-99).

SIDEWALK LEGEND

SIDEWALK AND RAMPS TO BE INSTALLED BY SITE DEVELOPMENT CONTRACTOR

FUTURE SIDEWALK TO BE INSTALLED BY HOME BUILDER



E JUNIPER CIR CUL-DE-SAC
HOR. SCALE: 1"= 10'
VERT. SCALE: 1"= 2'
ALL STATIONING AND ELEVATIONS ARE MEASURED ALONG TOP BACK OF CURB UNLESS NOTED OTHERWISE

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ENGINEERING - SURVEYING - NATURAL RESOURCES
FORESTRY - PLANNING - LANDSCAPE ARCHITECTURE

HOLLEY PARK SUBDIVISION CONSTRUCTION PLANS

LA CENTER WASHINGTON
NW 1/4 OF SEC 2 TAN, R1E, W.M.
PARCEL NO. 209055000, 209059000 AND 62965242

CUL-DE-SAC CURB PLAN AND PROFILE (E JUNIPER CT)

DESIGNED BY:	JRS
DRAWN BY:	MRE
MANAGED BY:	SMH
CHECKED BY:	JRS
DATE:	5/13/19

SETH MICHAEL HALAND
STATE OF WASHINGTON
22813
REGISTERED
PROFESSIONAL ENGINEER

REVISIONS

JOB NUMBER 6962

SHEET C103

AKS DRAWING FILE: 6962 C103 CUL DE SAC.DWG | LAYOUT: C103

℄TX TANGENT TABLE

LINE #	LENGTH	BEARING
℄T8	33.33'	S56° 12' 06.26"E
℄T9	65.66'	S87° 21' 03.99"E
℄T10	97.87'	N65° 13' 00.03"E
℄T11	90.57'	N89° 51' 06.79"E
℄T12	104.09'	N75° 43' 40.71"E
℄T13	30.92'	N89° 03' 25.95"E
℄T14	62.83'	N71° 44' 21.56"E
℄T15	64.21'	S88° 30' 13.86"E
℄T16	75.30'	N45° 36' 49.53"E
℄T17	22.00'	N13° 13' 32.18"E
℄T18	14.28'	N30° 46' 33.48"E
℄T19	171.56'	N1° 30' 54.80"E

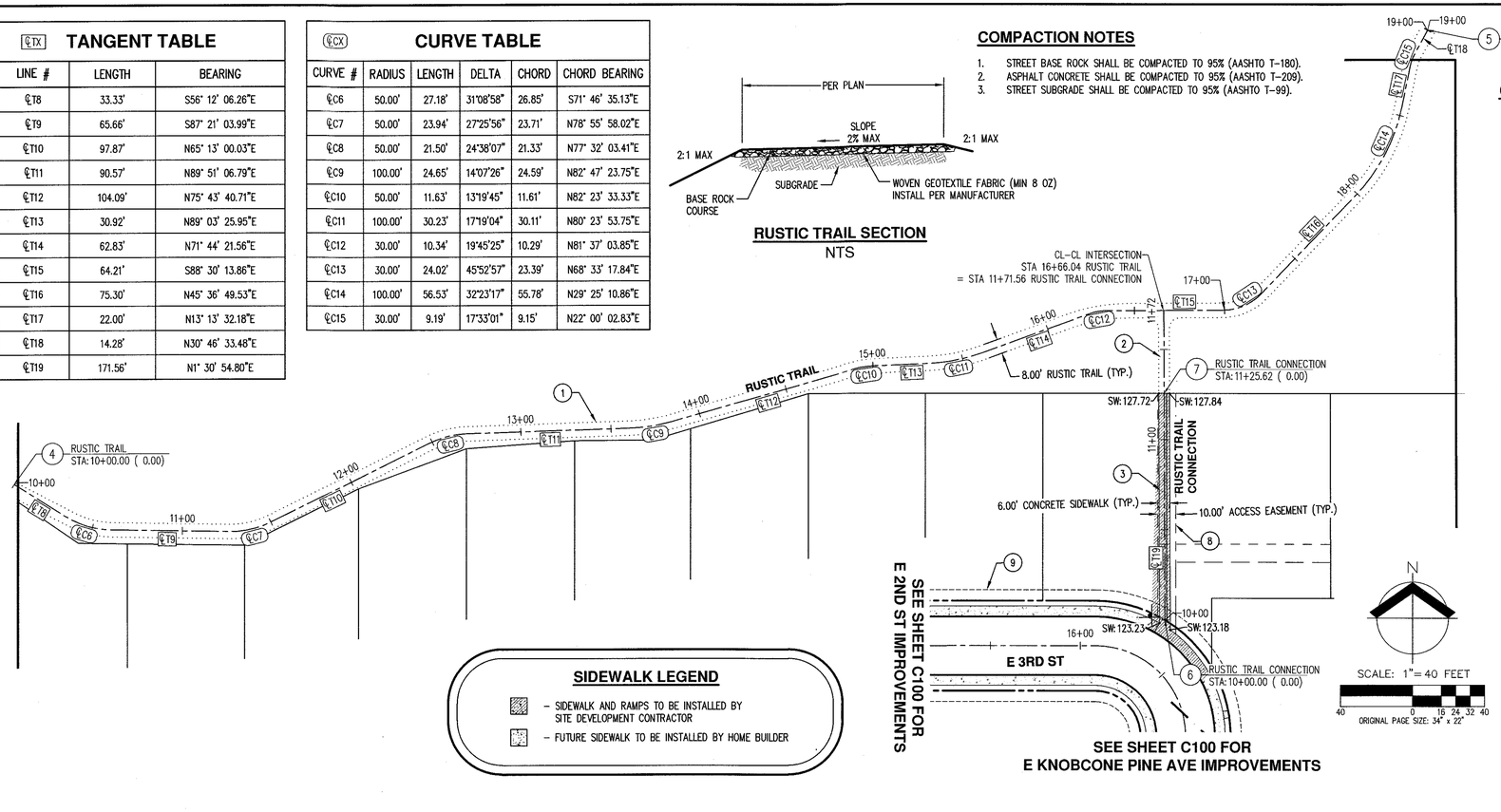
℄CX CURVE TABLE

CURVE #	RADIUS	LENGTH	DELTA	CHORD	CHORD BEARING
℄C6	50.00'	27.18'	31°08'58"	26.85'	S71° 46' 35.13"E
℄C7	50.00'	23.94'	27°25'56"	23.71'	N78° 55' 58.02"E
℄C8	50.00'	21.50'	24°38'07"	21.33'	N77° 32' 03.41"E
℄C9	100.00'	24.65'	14°07'26"	24.59'	N82° 47' 23.75"E
℄C10	50.00'	11.63'	13°19'45"	11.61'	N82° 23' 33.33"E
℄C11	100.00'	30.23'	17°19'04"	30.11'	N80° 23' 53.75"E
℄C12	30.00'	10.34'	19°45'25"	10.29'	N81° 37' 03.85"E
℄C13	30.00'	24.02'	45°52'57"	23.39'	N68° 33' 17.84"E
℄C14	100.00'	56.53'	32°23'17"	55.78'	N29° 25' 10.86"E
℄C15	30.00'	9.19'	17°33'01"	9.15'	N22° 00' 02.83"E

RUSTIC TRAIL SECTION
NTS

COMPACTION NOTES

1. STREET BASE ROCK SHALL BE COMPACTED TO 95% (AASHTO T-180).
2. ASPHALT CONCRETE SHALL BE COMPACTED TO 95% (AASHTO T-209).
3. STREET SUBGRADE SHALL BE COMPACTED TO 95% (AASHTO T-99).



SIDEWALK LEGEND

- SIDEWALK AND RAMPS TO BE INSTALLED BY SITE DEVELOPMENT CONTRACTOR
- FUTURE SIDEWALK TO BE INSTALLED BY HOME BUILDER

GENERAL NOTES

1. ALL CURBS SHALL BE CONSTRUCTED PER STANDARD DETAIL ST-5, SHEET C150 UNLESS OTHERWISE SPECIFIED.
2. CONTRACTOR SHALL NOTIFY PROJECT ENGINEER, SURVEYOR AND CITY OF LA CENTER INSPECTOR AFTER STRING LINE IS IN PLACE AND BEFORE CURB IS POURED TO CHECK CURB GRADE.
3. CONSTRUCT PUBLIC ROADWAYS PER CORRESPONDING ROADWAY DESIGNATION AND STANDARD DETAILS ON SHEETS C150-C151 USING CONVENTIONAL CONSTRUCTION AND TYPE A-5 SOIL FOR ALL PUBLIC ROADWAYS.
4. ALL PEDESTRIAN PATHWAYS SHALL BE CONSTRUCTED TO MEET ADA STANDARDS AND SHALL NOT EXCEED SLOPES SPECIFIED. ANY DEVIATION WITHOUT ARCHITECT OR PROJECT ENGINEERS APPROVAL SHALL BE SUBJECT TO REMOVAL AND REPLACEMENT AT THE CONTRACTORS EXPENSE.

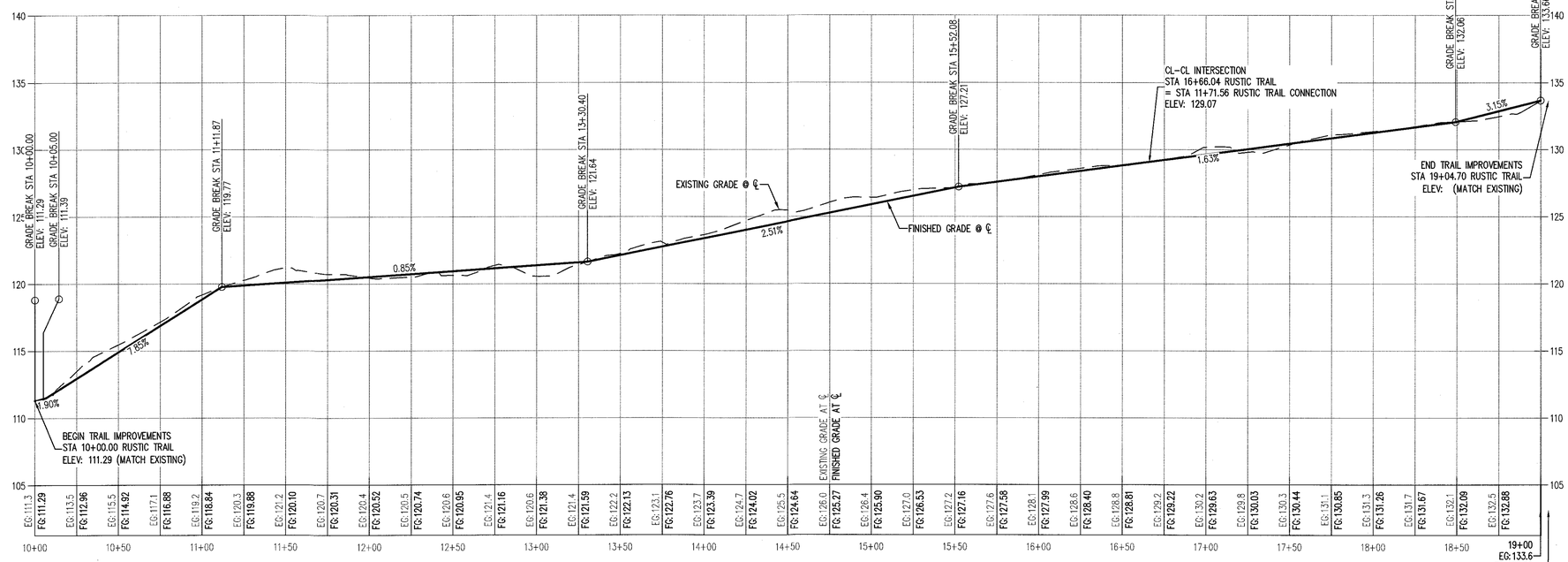
   MINIMUM ADA STANDARDS ON ACCESSIBLE ROUTES INCLUDE:
   a. MAXIMUM 2.0% CROSS-SLOPE ON PATHWAYS AND RAMPS.
   b. PATHWAYS WITH SLOPES GREATER THAN 5% AND WITH GREATER THAN A 0.5' DROP IN ELEVATION SHALL UTILIZE HAND RAILS ON BOTH SIDES OF THE PATHWAY.
   c. NO RAMPS SHALL EXCEED 8.33% SLOPE.
   d. RAMPS AND PATHWAYS SHALL HAVE A CLEAR WIDTH OF 4 FEET AND IN NO CASE SHALL THE CLEAR WIDTH BE LESS THAN 3 FEET.
   e. MAXIMUM REVEAL ALLOWED IS 1/4" ALONG ACCESSIBLE PATH (SIDEWALK JOINTS, DOORWAYS, ETC.)

CONSTRUCTION KEYED NOTES (#)

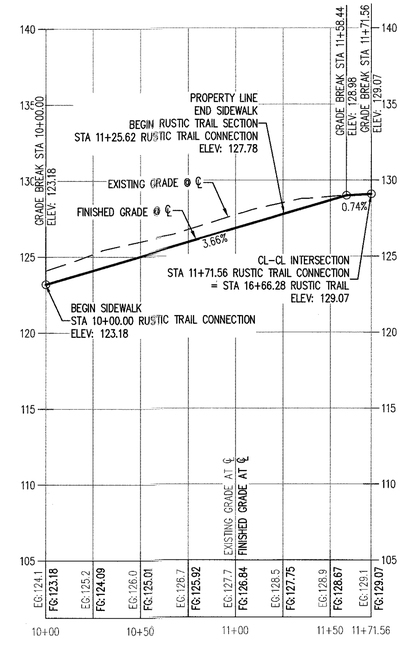
1. CONSTRUCT 8' WIDE RUSTIC TRAIL PER RUSTIC TRAIL SECTION ON THIS SHEET.
2. CONSTRUCT 6' WIDE RUSTIC TRAIL PER RUSTIC TRAIL SECTION ON THIS SHEET.
3. CONSTRUCT 6' WIDE CONCRETE SIDEWALK PER DETAIL ST-23, SHEET C151.
4. BEGIN TRACT A RUSTIC TRAIL IMPROVEMENTS.
5. END TRACT A RUSTIC TRAIL IMPROVEMENTS. MATCH ELEVATION AT EXISTING ASPHALT PATH.
6. BEGIN RUSTIC TRAIL CONNECTION IMPROVEMENTS. MATCH ELEVATION AT BACK OF NEW SIDEWALK.
7. END 6' WIDE CONCRETE SIDEWALK BEGIN 6' WIDE RUSTIC TRAIL.
8. 10' WIDE PEDESTRIAN ACCESS EASEMENT (TYP).
9. 6' WIDE PUBLIC UTILITY EASEMENT (PUE) (TYP).

LEGEND

AC:	ASPHALT CONCRETE
BCR:	BEGINNING OF CURB RETURN
BVCE:	BEGIN VERTICAL CURVE ELEVATION
BVCS:	BEGIN VERTICAL CURVE STATION
CL:	CENTERLINE
EG:	EXISTING GRADE
ECR:	END OF CURB RETURN
EP:	EDGE OF PAVEMENT
EVCS:	END VERTICAL CURVE STATION
EVCE:	END VERTICAL CURVE ELEVATION
EX:	EXISTING
FG:	FINISHED GRADE
FL:	FLOW LINE
HP:	HIGH POINT
LP:	LOW POINT
LVC:	LENGTH OF VERTICAL CURVE
MID:	MIDPOINT
PC:	POINT OF CURVE
PT:	POINT OF TANGENT
PUE:	PUBLIC UTILITY EASEMENT
R/W:	RIGHT-OF-WAY
SW:	SIDEWALK
TFC:	TOP FACE OF CURB
TBC:	TOP BACK OF CURB



RUSTIC TRAIL
HOR. SCALE: 1"= 40'
VERT. SCALE: 1"= 5'
ALL STATIONING MEASURED ALONG
STREET CENTERLINE UNLESS NOTED OTHERWISE



RUSTIC TRAIL CONNECTION
HOR. SCALE: 1"= 40'
VERT. SCALE: 1"= 5'
ALL STATIONING MEASURED ALONG
STREET CENTERLINE UNLESS NOTED OTHERWISE

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HOLLEY PARK SUBDIVISION CONSTRUCTION PLANS

LA CENTER WASHINGTON
NW 1/4 OF SEC 2 T4N, R1E, W.M.
PARCEL NO. 209055000, 209059000 AND 62965242

RUSTIC TRAIL PLAN AND PROFILE (TRACT A)

DESIGNED BY:	JRS
DRAWN BY:	MRE
MANAGED BY:	SMH
CHECKED BY:	JRS
DATE:	5/13/19

SETH MICHAEL TALLING
STATE OF WASHINGTON
48813
REGISTERED
PROFESSIONAL ENGINEER

REVISIONS

JOB NUMBER
6962

SHEET
C104

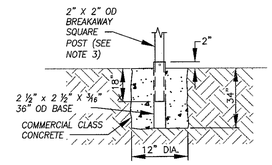
AKS DRAWING FILE: 6962 C100 STR.DWG | LAYOUT: C104

CONSTRUCTION KEYED NOTES (#)

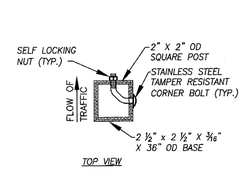
1. REMOVE EXISTING STREET BARRICADE.
2. INSTALL STREET NAME SIGN (D3) PER ANCHOR INSTALLATION DETAILS AND SIGN MOUNTING DETAIL ON THIS SHEET. CONTRACTOR TO VERIFY STREET NAMES WITH PROJECT ENGINEER PRIOR TO ORDERING STREET SIGNS.
3. INSTALL 32' TYPE III STREET BARRICADE PER DETAIL ST-2, SHEET C150.
4. INSTALL 6' TYPE II SIDEWALK BARRICADE PER DETAIL ST-2A, SHEET C150.

GENERAL NOTES

1. DEVELOPER/CONTRACTOR SHALL BE RESPONSIBLE TO PROVIDE AND INSTALL ALL TRAFFIC CONTROL SIGNS AND DEVICES.
2. ALL STRIPING AND SIGNAGE SHALL BE PROVIDED AND INSTALLED PER THE LATEST EDITION OF THE MUTCD.
3. CITY ENGINEER SHALL REVIEW AND APPROVE ALL TRAFFIC CONTROL DEVICES.
4. DEVELOPER/CONTRACTOR SHALL BE RESPONSIBLE TO PROVIDE ADEQUATE TEMPORARY TRAFFIC CONTROL DURING CONSTRUCTION. ALL TEMPORARY TRAFFIC CONTROL SHALL BE PER THE LATEST EDITION OF THE MUTCD.

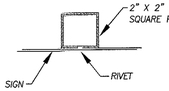


ANCHOR INSTALLATION DETAIL



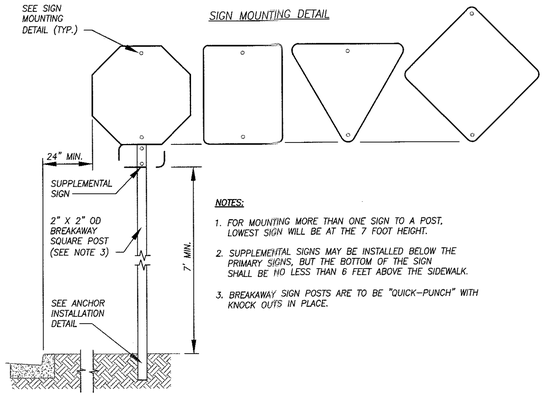
TOP VIEW

ANCHOR DETAIL



TOP VIEW

SIGN MOUNTING DETAIL



NOTES:

1. FOR MOUNTING MORE THAN ONE SIGN TO A POST, LOWEST SIGN WILL BE AT THE 7 FOOT HEIGHT.
2. SUPPLEMENTAL SIGNS MAY BE INSTALLED BELOW THE PRIMARY SIGNS, BUT THE BOTTOM OF THE SIGN SHALL BE NO LESS THAN 6 FEET ABOVE THE SIDEWALK.
3. BREAKAWAY SIGN POSTS ARE TO BE "QUICK-PUNCH" WITH KNOCK OUTS IN PLACE.

SIGNAGE LEGEND

- STREET NAME SIGN
- STREET BARRICADE
- SIDEWALK BARRICADE
- STREET SIGN

N

SCALE: 1"=50 FEET

50 0 20 30 40 50

ORIGINAL PAGE SIZE: 34" x 22"

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HOLLEY PARK SUBDIVISION CONSTRUCTION PLANS

LA CENTER WASHINGTON
PARCEL NO. 209055000, 209059000 AND 62965242 NW 1/4 OF SEC 2 TAN, R1E, W.M.

SIGNING AND STRIPING PLAN

DESIGNED BY:	JRS
DRAWN BY:	MRE
MANAGED BY:	SMH
CHECKED BY:	JRS
DATE:	5/13/19

SETH MICHAEL HALING
STATE OF WASHINGTON
48813
REGISTERED
PROFESSIONAL ENGINEER

REVISIONS

JOB NUMBER 6962

SHEET C120

AKS DRAWING FILE: 6962 C120 SIGN.DWG | LAYOUT: C120

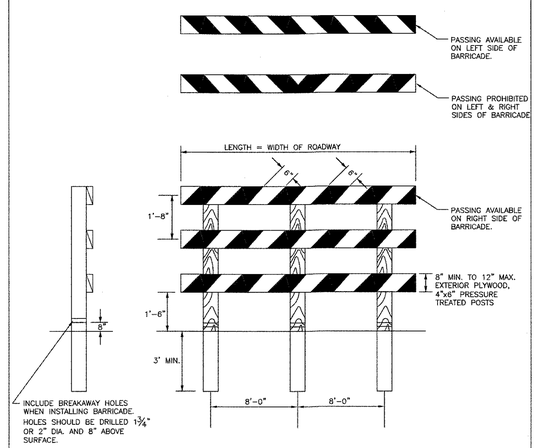
1. MATERIALS AND CONSTRUCTION METHODS SHALL BE IN CONFORMANCE WITH THE "CITY OFLA CENTER STANDARDS" AND THE LATEST EDITION OF THE "WSDOT STANDARD SPECIFICATIONS FOR ROAD, BRIDGE & MUNICIPAL CONSTRUCTION" AS PREPARED BY WSDOT AND THE WASHINGTON STATE CHAPTER OF THE APWA.
2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR DETERMINING THE LOCATION OF ALL UNDERGROUND UTILITIES PRIOR TO THE START OF CONSTRUCTION AND TO NOTIFY THE ENGINEER OF ANY POTENTIAL CONFLICTS. THE CONTRACTOR SHALL DIG TEST HOLES OVER ALL EXISTING UTILITIES PRIOR TO CONSTUCTION TO DETERMINE THEIR EXACT LOCATION. CALL 1-800-424-5555, (NORTHWEST UTILITY NOTIFICATION CENTER), FOR MARK-UP OF EXISTING UTILITIES, A MINIMUM OF 2 WORKING DAYS PRIOR TO START OF CONSTRUCTION.
3. THE CONTRACTOR SHALL NOTIFY THE CITY INSPECTOR TWO WORKING DAYS PRIOR TO THE START OF CONSTRUCTION, AND APPROVAL OF THE CONSTRUCTION WILL BE BY THE CITY PUBLIC WORKS DEPARTMENT.
4. AN APPROVED TRAFFIC CONTROL PLAN WILL BE REQUIRED PRIOR TO THE START OF CONSTRUCTION WITHIN A CITY OR COUNTY RIGHT-OF-WAY.
5. COMPACTION SHALL BE AS FOLLOWS:
   -SUBGRADE SHALL BE COMPACTED TO A DEPTH OF 6" AT 95% OF THE RELATIVE DRY DENSITY.
   -ASPHALT CONCRETE SHALL BE COMPACTED TO 95% OF THE MAXIMUM RELATIVE DENSITY.
   -CRUSHED ROCK SHALL BE COMPACTED TO 95% STANDARD DENSITY.
6. STREET SIGNS SHALL BE INSTALLED BY THE DEVELOPER. THE CITY WILL PROVIDE STREET SIGNS TO THE DEVELOPER.
7. THE DEVELOPER SHALL BE RESPONSIBLE FOR PROVIDING ALL CROSSWALK SIGNS, CENTERLINE STRIPING, AND CURB RETURN PAINTING. ALL PERMANENT STRIPING TO BE THERMOPLASTIC.
8. THE DEVELOPER SHALL BE RESPONSIBLE FOR THE COST OR PROPORTIONAL SHARE OF THE STREET LIGHT INSTALLATION.
9. MAIL BOXES SHALL HAVE 12" MINIMUM CLEARANCE FROM THE BACK OF THE SIDEWALK.
10. A PRE-CONSTRUCTION MEETING SHALL BE SCHEDULED WITH THE CITY PRIOR TO BEGINNING OF CONSTRUCTION.
11. TRENCH BACKFILL REQUIREMENTS WILL BE PER STANDARD DETAIL SS-4 AND ST17 - ST19. PIPE BEDDING REQUIREMENTS WILL BE PER STANDARD DETAIL SS-5.
12. ALL WATER SYSTEM IMPROVEMENTS WILL BE APPROVED BY CLARK PUBLIC UTILITIES PRIOR TO THE START OF CONSTRUCTION.
13. ALL SIGNING AND STRIPING WILL MEET THE REQUIREMENTS OF THE LATEST EDITION OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS (MUTCD), AS AMENDED BY WSDOT.

STREETS & SIDEWALKS GENERAL NOTES

PLAN # ST-1

CITY OF LA CENTER APPROVED
Barb Stapp, PE 7/23/09
CITY ENGINEER DATE

REVISIONS:	DATE:	DRAWN:	DESIGNED:

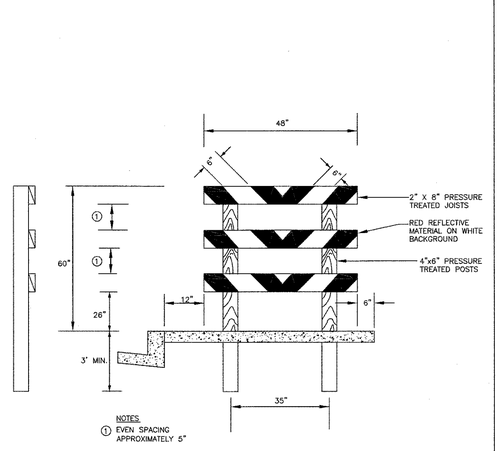


TYPE III BARRICADE

PLAN # ST-2

CITY OF LA CENTER APPROVED
Barb Stapp, PE 7/23/09
CITY ENGINEER DATE

REVISIONS:	DATE:	DRAWN:	DESIGNED:

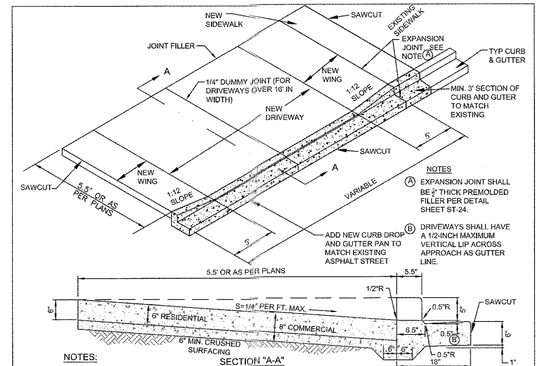


SIDEWALK BARRICADE

PLAN # ST-2A

CITY OF LA CENTER APPROVED
Anthony Peelooper 12/9/14
CITY ENGINEER DATE

REVISIONS:	DATE:	DRAWN:	DESIGNED:



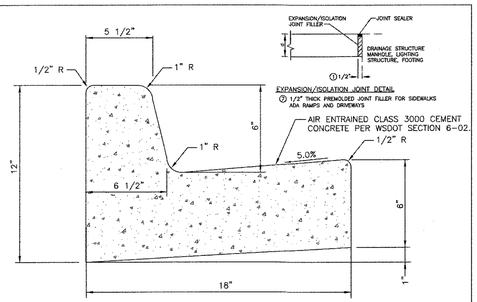
NOTES:
1. CONCRETE SHALL BE CLASS 4000 PER WSDOT 6-02 THE FULL WIDTH OF THE DRIVEWAY, MEDIUM BROOM FINISH PARALLEL TO DRIVEWAY CENTERLINE.
2. TO BE USED FOR SIDEWALK ADJACENT TO CURB ONLY.
3. ALL JOINTS SHALL BE FINISHED WITH A 1/4" RADIUS EDGE UNLESS OTHERWISE NOTED.
4. DRIVEWAYS EXCEEDING 15' IN TOTAL WIDTH SHALL HAVE ADDITIONAL LONGITUDINAL JOINTS AS DIRECTED. 1-1/2" DEEP CUT JOINT SPACING SHALL NOT EXCEED 15'.
5. COMMERCIAL DRIVEWAYS REQUIRE REINFORCING STEEL (6x6-W2.9xW2.9 WWF, MIN)
6. ALL EXISTING EDGES OF S/W, AND CURB AND GUTTER SHALL BE SAW CUT WHEN CONSTRUCTING NEW DRIVEWAY.
7. COMPACT SUBGRADE TO 95 % OF MAXIMUM DENSITY.
8. EXISTING CURB SHALL BE REMOVED TO EXISTING JOINT OR SAWCUT SUCH THAT A MINIMUM OF 3' SECTION OF CURB WILL BE CONSTRUCTED ADJACENT TO THE NEW DRIVEWAY WING.
9. RESIDENTIAL DRIVEWAY LOCATION SHALL BE A MINIMUM OF 5' FROM THE PROPERTY LINE.
10. RESIDENTIAL DRIVEWAY WIDTH CAN NOT EXCEED 40% OF TOTAL LOT FRONTAGE. THE MAXIMUM RESIDENTIAL DRIVEWAY WIDTH IS 25' FOR TWO CAR GARAGES (MINIMUM LOT FRONTAGE OF 62.5') & 30' FOR THREE CAR GARAGES (MINIMUM LOT FRONTAGE OF 75').
11. 6" OF CRUSHED SURFACING PER WSDOT 9-03.9(3) SHALL BE USED UNDER DRIVEWAY AND SIDEWALK.
12. WHEN CUTTING EXISTING CURB AND GUTTER TO PLACE DRIVEWAY, THE CURB AND GUTTER WILL BE REPLACED TO MATCH EXISTING CURB. FOR THE NEW DRIVEWAY NEW CURB DROP AND GUTTER MUST BE CONSTRUCTED TO CONNECT TO THE EXISTING STREET SECTION. CONTRACTOR IS RESPONSIBLE FOR COMPLETING NEW CURB, DRIVEWAY, AND SIDEWALK TO EXPANSION JOINTS.
13. DRIVEWAY WINGS SHALL HAVE A MAXIMUM SLOPE OF 1:12. IF A 1:12 SLOPE CANNOT BE ACHIEVED WITHIN 15' DUE TO THE SLOPE OF THE ROAD, THE WING LENGTH WILL BE 15' REGARDLESS OF THE RESULTING SLOPE.

RESIDENTIAL/COMMERCIAL DRIVEWAY (WITHOUT PLANTER STRIP)

PLAN # ST-3

CITY OF LA CENTER APPROVED
Anthony Peelooper 4/3/17
CITY ENGINEER DATE

REVISIONS:	DATE:	DRAWN:	DESIGNED:
1	4/7/10	BES	BES
2	1/9/13	ALC	ALC
3	7/18/13	ALC	ALC
4	4/3/17	ALC	ALC



NOTES:
1. CURB AND GUTTER CUTS FOR DRIVEWAYS SHALL NOT BE DONE UNTIL ISSUANCE OF BUILDING AND OR RIGHT-OF-WAY PERMIT.
2. CURB AND GUTTER REPLACEMENT SECTIONS WILL BE REPLACED AS ONE CONTINUOUS UNIT, MONOLITHIC, AS THE DETAIL DEPICTS.
3. CONTRACTION JOINTS SHALL BE PLACED EVERY 15'.
4. CONCRETE SHALL BE AIR ENTRAINED CLASS 3000 CEMENT PER WSDOT SPECIFICATION 6-02 EXCEPT AT DRIVEWAYS WHERE CONCRETE WILL BE CLASS 4000.
5. USE CURB & GUTTER ON ALL NEW ROADS.
6. PROVIDE A 15' TRANSITION BETWEEN EXISTING CURBS AND NEW CURB AND GUTTERS WHERE REQUIRED.
7. INSTALL EXPANSION JOINT PER THIS DETAIL AT 60' ALONG LENGTH OF THE CURB AND GUTTER. THE EXPANSION JOINT SHALL BE PLACED AT THE SAME LOCATION OF THE SIDEWALK EXPANSION JOINT WHEN THE CURB IS ADJACENT TO THE SIDEWALK.

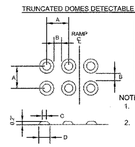
CURB & GUTTER DETAIL

PLAN # ST-5

CITY OF LA CENTER APPROVED
TONY COOPER 9/22/10
CITY ENGINEER DATE

REVISIONS:	DATE:	DRAWN:	DESIGNED:
1	9/22/10	BES	BES
2	7/17/13	ALC	ALC

TRUNCATED DOMES DETECTABLE WARNING PATTERN DETAIL



	MIN.	MAX.
A	1.6"	2.4"
B	0.65"	1.5"
C	50% TO 65% OF D	
D	0.9"	1.4"

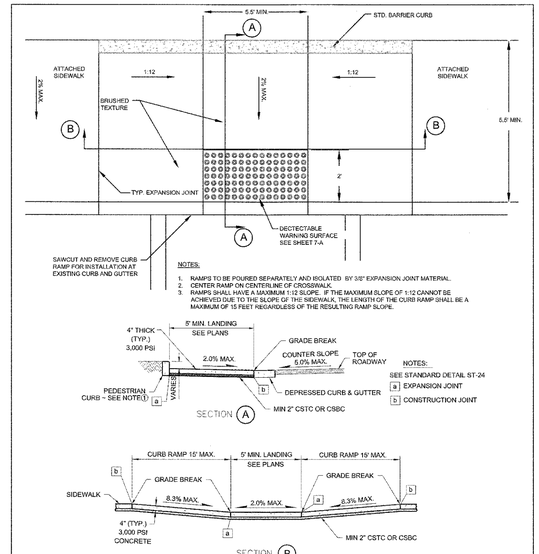
NOTES:
1. THE DETECTABLE WARNING PATTERNS CAN BE CREATED BY ACCEPTABLE MEANS THAT WILL ACHIEVE THE TRUNCATED DOME DIMENSIONS AND SPACING SHOWN.
2. PLACE TRUNCATED DOME DETECTABLE WARNING TEXTURE IN THE LOWER 24" OF THE THROAT OF THE RAMP ONLY. COLOR OF TEXTURE COATING SHALL BE SAFETY YELLOW IN COMPLIANCE WITH WSDOT STANDARD SPECIFICATIONS.

TRUNCATED DOME DETAIL

PLAN # ST-7A

CITY OF LA CENTER APPROVED
Anthony Peelooper 4-3-17
CITY ENGINEER DATE

REVISIONS:	DATE:	DRAWN:	DESIGNED:

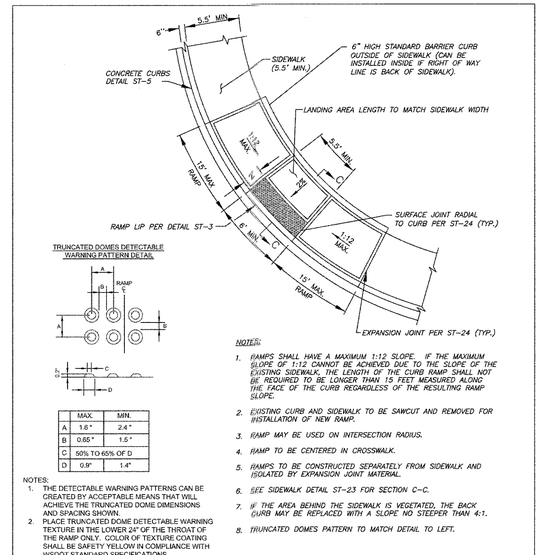


TYPE 2 CURB RAMP-MIDBLOCK

PLAN # ST-8

CITY OF LA CENTER APPROVED
Anthony Peelooper 4/3/17
CITY ENGINEER DATE

REVISIONS:	DATE:	DRAWN:	DESIGNED:
1	9/23/10	BES	BES
2	4/3/17	ALC	ALC



	MAX.	MIN.
A	1.6"	2.4"
B	0.65"	1.5"
C	50% TO 65% OF D	
D	0.9"	1.4"

NOTES:
1. THE DETECTABLE WARNING PATTERNS CAN BE CREATED BY ACCEPTABLE MEANS THAT WILL ACHIEVE THE TRUNCATED DOME DIMENSIONS AND SPACING SHOWN.
2. PLACE TRUNCATED DOME DETECTABLE WARNING TEXTURE IN THE LOWER 24" OF THE THROAT OF THE RAMP ONLY. COLOR OF TEXTURE COATING SHALL BE SAFETY YELLOW IN COMPLIANCE WITH WSDOT STANDARD SPECIFICATIONS.

NOTES:
1. RAMPS SHALL HAVE A MAXIMUM 1:12 SLOPE. IF THE MAXIMUM SLOPE OF 1:12 CANNOT BE ACHIEVED DUE TO THE SLOPE OF THE EXISTING SIDEWALK, THE LENGTH OF THE CURB RAMP SHALL NOT BE REQUIRED TO BE LONGER THAN 15 FEET MEASURED ALONG THE FACE OF THE CURB REGARDLESS OF THE RESULTING RAMP SLOPE.
2. EXISTING CURB AND SIDEWALK TO BE SAWCUT AND REMOVED FOR INSTALLATION OF NEW RAMP.
3. RAMP MAY BE USED ON INTERSECTION RADIUS.
4. RAMP TO BE CENTERED IN CROSSWALK.
5. RAMPS TO BE CONSTRUCTED SEPARATELY FROM SIDEWALK AND ISOLATED BY EXPANSION JOINT MATERIAL.
6. SEE SIDEWALK DETAIL ST-23 FOR SECTION C-C.
7. IF THE AREA BEHIND THE SIDEWALK IS VEGETATED, THE BACK CURB MAY BE REPLACED WITH A SLOPE NO STEEPER THAN 4:1.
8. TRUNCATED DOMES PATTERN TO MATCH DETAIL TO LEFT.

TYPE 2 CORNER RADIUS CURB RAMP

PLAN # ST-8A

CITY OF LA CENTER APPROVED
Barb Stapp, PE 9/22/10
CITY ENGINEER DATE

REVISIONS:	DATE:	DRAWN:	DESIGNED:
1	9/22/10	BES	BES

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ENGINEERING - SURVEYING - NATURAL RESOURCES
FORESTRY - PLANNING - LANDSCAPE ARCHITECTURE

HOLLEY PARK SUBDIVISION CONSTRUCTION PLANS

LA CENTER WASHINGTON
PARCEL NO. 209055000, 209059000 AND 62965242
NW 1/4 OF SEC 2 T4N, R1E, W.M.

STREET DETAILS

DESIGNED BY: JRS
DRAWN BY: MRE
MANAGED BY: SMH
CHECKED BY: JRS
DATE: 5/13/19

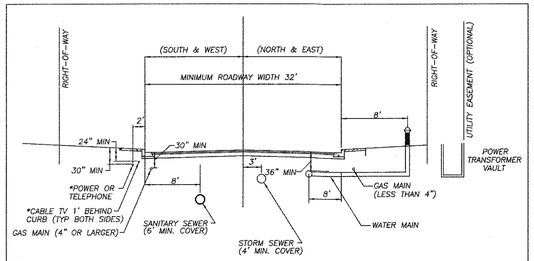
SETH MICHAEL HALLING — STATE OF WASHINGTON — 43813 — REGISTERED PROFESSIONAL ENGINEER

REVISIONS

JOB NUMBER 6962

SHEET C150

AKS DRAWING FILE: 6962 C150 STR DETAILS.DWG | LAYOUT: C150



*JOINT TRENCH DETAIL (OPTIONAL)

NOTES:

1. THE PUBLIC WORKS DIRECTOR MAY REQUIRE INSTALLATION OF SANITARY SEWER AT A DEPTH GREATER THAN 6 FEET.
2. ALTERNATE LOCATIONS CONSIDERED ONLY TO SALVAGE CORE ROADWAY, OR TO AVOID SUBSTANTIAL CONFLICT WITH EXISTING UTILITIES.
3. MANHOLES CONES TO BE ROTATED TO KEEP MANHOLE COVER LOCATED OUTSIDE OF WHEEL PATH.
4. GAS VALVES ARE TO BE LOCATED 2' MINIMUM FROM FACE OF CURB.
5. MODIFICATION TO THIS STANDARD IS SUBJECT TO THE REVIEW AND APPROVAL OF THE CITY ENGINEER.
6. PULL BOXES AND VAULTS OF PRIVATE UTILITIES WILL BE LOCATED OUTSIDE OF THE SIDEWALK.

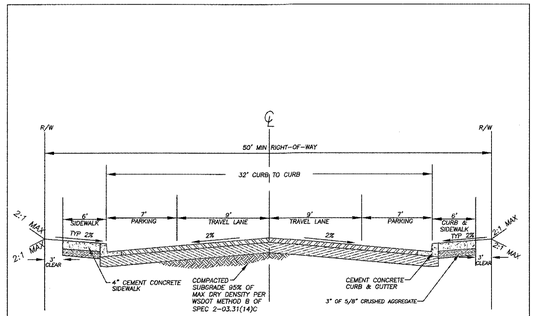
UTILITY PLACEMENT DETAIL

PLAN # ST-10

CITY OF LA CENTER APPROVED

Brett Stapp, PE 7/23/09
CITY ENGINEER DATE

REVISIONS:	DATE:	DRAWN:	DESIGNED:



CONVENTIONAL CONSTRUCTION

AASHTO SOIL TYPE	ASPHALT THICKNESS	BASE ROCK THICKNESS
A-1	0.35'	0.50'
A-2	0.35'	0.50'
A-3	0.35'	0.50'
A-4	0.35'	0.60'
A-5	0.50'	0.90'
A-6	0.50'	1.20'
A-7	0.40'	1.80'
OTHER	NO SECTION	ESTIMATED

THICK ASPHALT CONSTRUCTION

AASHTO SOIL TYPE	ASPHALT THICKNESS	BASE ROCK THICKNESS
A-1	0.42'	0.25'
A-2	0.42'	0.25'
A-3	0.42'	0.25'
A-4	0.42'	0.25'
A-5	0.55'	0.25'
A-6	0.55'	0.25'
A-7	0.65'	0.25'
OTHER	NO SECTION	ESTIMATED

NOTES:

1. WIDER SIDEWALKS MAY BE REQUIRED BY REVIEWING AUTHORITY UNDER CERTAIN CIRCUMSTANCES.
2. SUBGRADE REINFORCEMENT GEOTEXTILES SHALL BE INSTALLED OVER A-6 AND A-7 SOILS PRIOR TO CONSTRUCTING THE BASE AND SURFACING.
3. ASPHALT SURFACE FOR ALL ROADS SHALL BE CLASS ½" PG 64-22 HMA PER WSDOT STANDARD SPECIFICATIONS.
4. THE PAVEMENT STRUCTURE THICKNESSES IDENTIFIED FOR THESE SOIL TYPES ARE REQUIRED UNLESS A SITE SPECIFIC PAVEMENT DESIGN IS DONE. THE TOTAL PAVEMENT STRUCTURE SHALL NOT EXCEED 2.5 FEET.
4. EITHER CONVENTIONAL OR THICK ASPHALT CONSTRUCTION IS ALLOWED.
5. BASE ROCK SECTION SHALL BE TWO (2) INCHES OF 5/8"- 0" TOP COURSE, OVER REMAINING DEPTH OF BASE COURSE PER WSDOT STANDARD SPECIFICATION SECTION 9-03.9(3). TOTAL BASE ROCK SECTION THICKNESS AS INDICATED IN THE TABLES.

TOP OF CURB ELEVATION = CENTERLINE ELVATION + 0.18'

LOCAL ACCESS

PLAN # ST-15

CITY OF LA CENTER APPROVED

Brett Stapp, PE 9/27/10
CITY ENGINEER DATE

REVISIONS:	DATE:	DRAWN:	DESIGNED:
1	9/27/10	BES	BES

SURFACING:

1. ALL HMA SHALL BE SAW CUT TO PROVIDE A STRAIGHT, CLEAN EDGE PRIOR TO PAVING.
2. THE CUT LINE SHALL BE ONE CONTINUOUS STRAIGHT LINE FROM THE OUTER EXCAVATION LIMITS OF MANHOLE, VALVE BOX, ETC. TO MANHOLE, VALVE BOX, ETC.
3. PAVE WITH AN 0.35 FT. MINIMUM COMPACTED DEPTH HMA OR MATCH EXISTING, WHICHEVER IS GREATER.
4. LIFTS FOR HMA SHALL BE AN 0.15 FT. MINIMUM AND 0.35 FT. MAXIMUM FOR NON-SURFACE LIFTS (0.25' MAXIMUM FOR SURFACE LIFT); THE TEMPERATURE SHALL BE 250 DEGREE MINIMUM, 350 DEGREE MAXIMUM, COMPACTED TO THE SATISFACTION OF THE ENGINEER.
5. ALL JOINTS SHALL BE TACKED, SEALED AND SANDED.
6. WHEN SURFACING EXISTS ON BOTH SIDES OF THE TRENCH, NEW HMA WILL BE A MINIMUM OF 40' WIDE.
7. TRENCH SHALL BE PLATED UNTIL PAVED.

TOP COURSE:

1. 0.20 FT. MINIMUM DEPTH (5/8" MINUS) C.S.T.C. (W.S.D.O.T. APPROVED MATERIAL).
2. COMPACTED TO 95% OF MAXIMUM DENSITY. SEE TRENCH ZONE.
3. EQUIVALENT DEPTH OF A.T.B. MAY BE SUBSTITUTED.

BASE COURSE:

1. 0.30 FT. MINIMUM DEPTH (1-1/4" MINUS) C.S.B.C. (W.S.D.O.T. APPROVED MATERIAL).
2. COMPACTED TO 95% OF MAXIMUM DENSITY. SEE TRENCH ZONE.
3. EQUIVALENT DEPTH OF A.T.B. MAY BE SUBSTITUTED.

TRENCH ZONE:

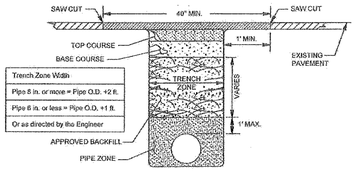
1. FOR RESIDENTIAL STREETS 1 ½" MINUS C.S.B.C. SHALL BE USED FOR TRENCH BACKFILL. COMPACTED TO 95% OF MAXIMUM DENSITY IN THE TRENCH ZONE USING METHOD C COMPACTIONAS PER SECTION 2-03.3 (14)C.
2. NATIVE MATERIAL MAY BE USED IF APPROVED PRIOR TO CONSTRUCTION.
3. TRENCH ZONE WIDTH--SEE BELOW.

PIPE ZONE:

1. PIPE ZONE MATERIAL OPTIONAL, OR AS SPECIFIED BY UTILITY OWNER AND APPROVED BY THE CITY.
2. 1.0 FT. MAXIMUM FROM TOP OF THE PIPE.

CONDITIONS:

1. A COPY OF THE ROW PERMIT AND REQUIREMENTS SHALL BE ON THE JOB SITE AT ALL TIMES.
2. THE PERMIT HOLDER SHALL BE RESPONSIBLE FOR ALL RESTORATION AND MAINTENANCE OF DITCHES, SHOULDERS, DRIVEWAYS, LANDSCAPING, ETC.
3. ALL PAVEMENT CUTS, AT A MINIMUM TO BE TEMP PATCHED @ THE END OF EACHDAY WITH PERMANENT PATCH TO BE DONE ON THE 1ST SUITABLE DAY.
4. WORK SHALL BE DONE IN A TIMELY MANNER TO MINIMIZE THE IMPACT TO THE PUBLIC.
5. CALL THE CITY AT 263-7665 TWENTY-FOUR HOURS PRIOR TO COMMENCING WORK.



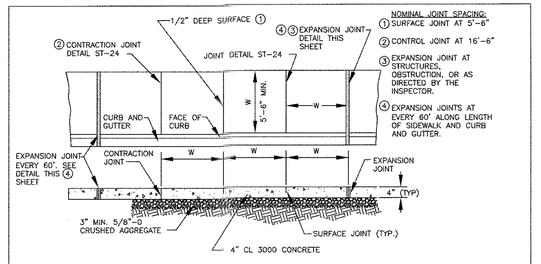
OPEN CUT UTILITY TRENCH BACKFILL DETAIL (NEIGHBORHOOD AND LOCAL ACCESS STREETS)

PLAN # ST-18

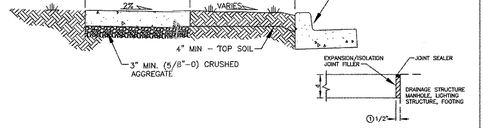
CITY OF LA CENTER APPROVED

12/19/18
CITY ENGINEER DATE

REVISIONS:	DATE:	DRAWN:	DESIGNED:
1	9/28/10	BES	BES
1	12/19/18	ALC	ALC



NOMINAL JOINT SPACING:
① SURFACE JOINT AT 5'-6"
② CONTROL JOINT AT 16'-6"
③ EXPANSION JOINT AT STRUCTURES, OBSTRUCTION, OR AS DIRECTED BY THE INSPECTOR.
④ EXPANSION JOINTS AT EVERY 60' ALONG LENGTH OF SIDEWALK AND CURB AND GUTTER.



EXPANSION/ISOLATION JOINT DETAIL
① 1/2" THICK PREMOLDED JOINT FILLER FOR SIDEWALKS ADA RAMPS AND DRIVEWAYS

NOTES:

1. CONCRETE SHALL BE 3000 PSI MIN. (CL 3000), 3 1/2" SLUMP (MAX.).
2. COMPACT SUBGRADE AND AGGREGATE TO 95% OF MAXIMUM DRY DENSITY (3" MIN.).
3. FINISH SHALL BE MEDIUM BROOM PERPENDICULAR TO PEDESTRIAN TRAFFIC UNLESS OTHERWISE DIRECTED.
4. IN EXISTING SIDEWALK AREAS MATCH 2" SMOOTH FINISH BORDER AROUND EACH SIDEWALK PANEL IF PRESENT.
5. IF REPLACING EXISTING SIDEWALK THAT IS LESS THAN 5'-6" IN WIDTH THE MINIMUM WIDTH SHALL BE 5'.
6. ALL EXISTING EDGES SHALL BE SAWCUT.
7. CROSS SLOPE OF PLANTER STRIP SHALL BE 2% (TYP.) AND 4:1 (MAX.).
8. PLANTER STRIP IS REQUIRED ONLY FOR MAJOR AND SECONDARY ARTERIALS.

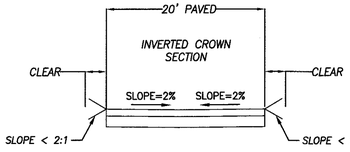
SIDEWALK DETAIL

PLAN # ST-23

CITY OF LA CENTER APPROVED

TONY COOPER 9/28/10
CITY ENGINEER DATE

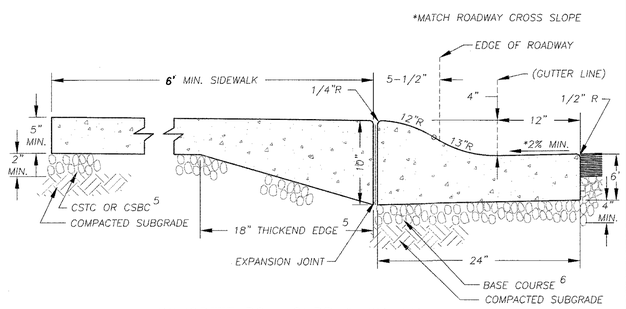
REVISIONS:	DATE:	DRAWN:	DESIGNED:
1	9/28/10	BES	BES
2	7/17/13	ALC	ALC



SHARED DRIVEWAY SECTION

N.T.S.

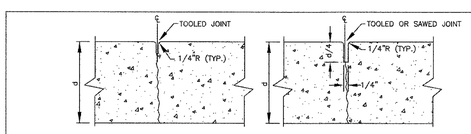
0.2' ASPHALT CONCRETE'
0.6' CRUSHED BASE ROCK (1-1/2"-0)
COMPACTED SUBGRADE

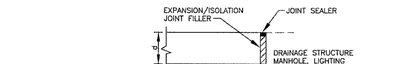


CONCRETE ROLL CURB & GUTTER

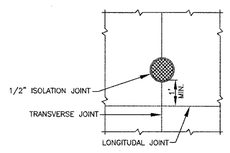
NOTES:

1. CONCRETE SHALL BE 3000 PSI MIN. (CLASS 3000) 3 1/2" SLUMP (MAX.).
2. CURBS ADJACENT TO PAVEMENT OR SIDEWALK TO HAVE EXPANSION AND/OR CONTRACTION JOINTS TO MATCH EXISTING PATTERNS.
3. EXPANSION JOINTS TO BE PROVIDED AT THE BEGINNING AND END OF CURB RETURNS, ALL CHANGES IN DIRECTION, COLD JOINTS WITH EXISTING CURB, DRAINAGE STRUCTURES AND DRIVEWAYS. SEE STD. DETAIL **ST-24.**
4. CONTROL JOINT TO BE PLACED AT 15' MAXIMUM SPACING. SEE STD. DETAIL **ST-24.**
5. THICKENED EDGE SIDEWALK SHALL BE PLACED ON 2" (MIN.) CSTC OR CSBC. SUBGRADE AND BASE COURSE COMPACTED TO 95% MAX. DRY DENSITY.
6. BASE COURSE UNDER ROLL CURB & GUTTER SHALL BE TO SUBGRADE OF STREET SECTION OR 4 INCHES, WHICHEVER IS GREATER, AND SHALL EXTEND 6" BEHIND THE CURB.
7. CURB TO BE BRUSH FINISHED. ALL EXISTING EDGES SHALL BE SAWCUT.
8. USE OF ROLL CURB & GUTTER WITH COMMERCIAL DRIVEWAYS WILL REQUIRE REINFORCING STEEL (6"x6"x10 GA. WIRE MESH) MIN. 3" COVER.
9. SEE STD. DETAIL **ST-24** FOR CONCRETE JOINTS.

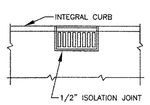




EXPANSION/ISOLATION JOINT DETAIL
① 1/2" PREMOLDED JOINT FILLER FOR SIDEWALKS ADA RAMPS AND DRIVEWAYS



MANHOLES



CATCH BASINS

NOTES:

1. CONTRACTION JOINTS MAY BE USED IN PLACE OF SURFACE JOINTS.
2. CONSTRUCTION COLD JOINTS MAY BE USED IN PLACE OF CONTRACTION JOINTS.
3. CONCRETE PAVEMENT LOAD TRANSFER REQUIREMENTS ACROSS JOINTS SHALL BE DETERMINED BY PCC PAVEMENT DESIGN.
4. PARALLEL JOINTS SHALL BE SEPARATED BY A MINIMUM OF 2'.

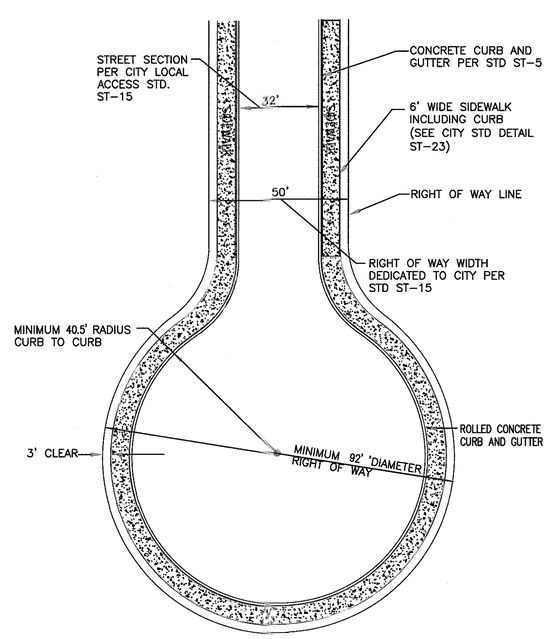
CONCRETE JOINTS DETAIL

PLAN # ST-24

CITY OF LA CENTER APPROVED

TONY COOPER 7/17/13
CITY ENGINEER DATE

REVISIONS:	DATE:	DRAWN:	DESIGNED:



ST-29

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ENGINEERING - SURVEYING - NATURAL RESOURCES
FORESTRY - PLANNING - LANDSCAPE ARCHITECTURE

HOLLEY PARK SUBDIVISION CONSTRUCTION PLANS

LA CENTER WASHINGTON
NW 1/4 OF SEC 2 TN1, R1E, W.M.
PARCEL NO. 209055000, 209059000 AND 62965242

STREET DETAILS

DESIGNED BY:	JRS
DRAWN BY:	MRE
MANAGED BY:	SMH
CHECKED BY:	JRS

DATE: 5/13/19

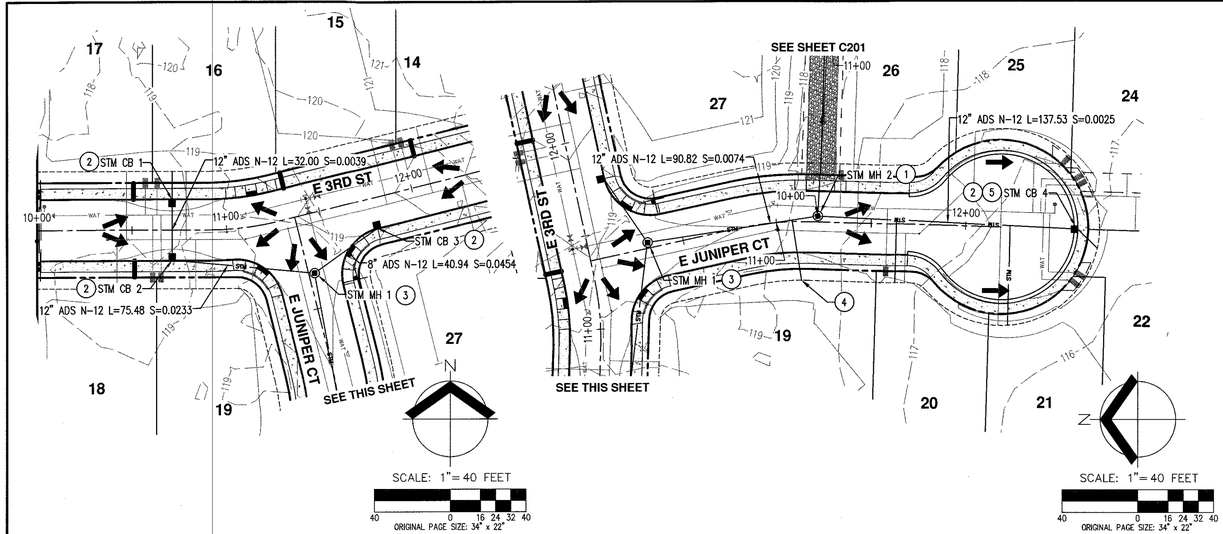
SCOTT MICHAEL HALLING
STATE OF WASHINGTON
46813
REGISTERED
PROFESSIONAL ENGINEER

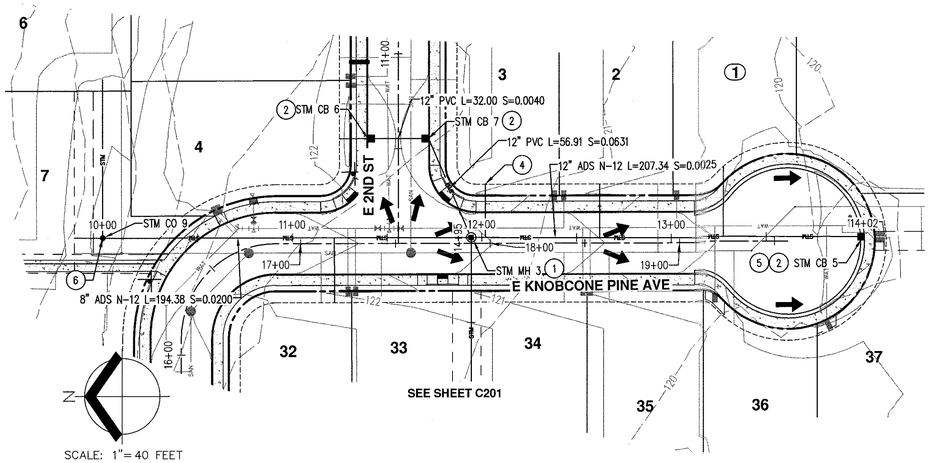
REVISIONS

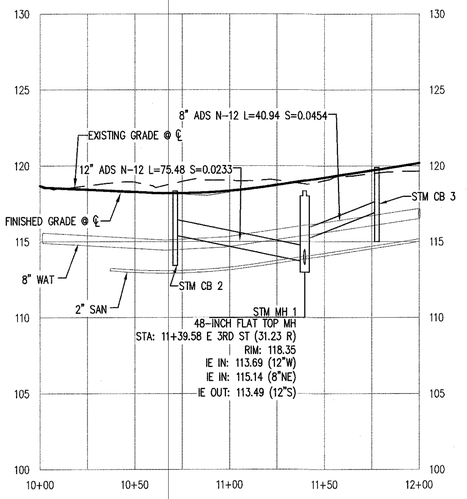
JOB NUMBER 6962

SHEET C151

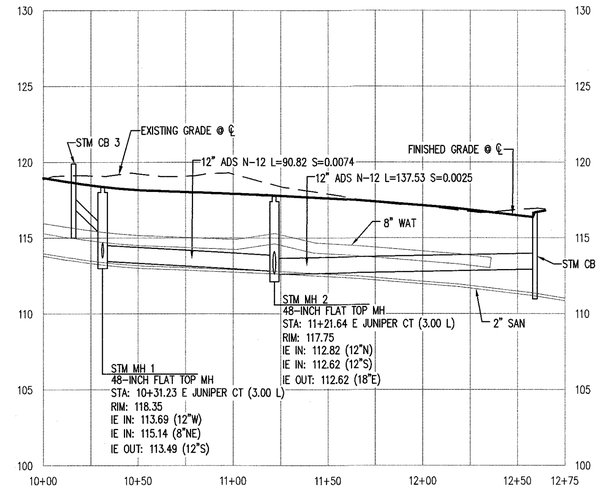
AKS DRAWING FILE: 6962 C150 STR DETAILS.DWG | LAYOUT: C151



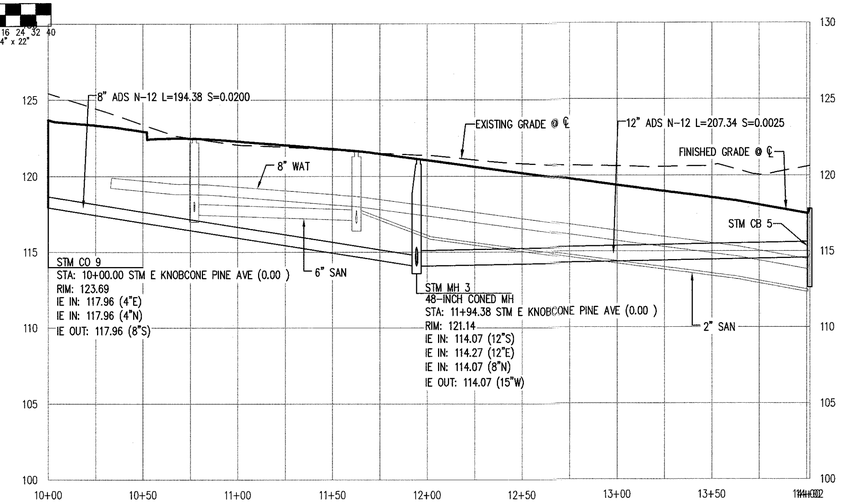




E 3RD ST STORMWATER
HOR: 1"= 40'
VERT: 1"= 5'
STATIONING IS BASED ON STREET CENTERLINE
UNLESS NOTED OTHERWISE



E JUNIPER CT STORMWATER
HOR: 1"= 40'
VERT: 1"= 5'
STATIONING IS BASED ON STREET CENTERLINE
UNLESS NOTED OTHERWISE



STM E KNOBCONE PINE AVE
HOR: 1"= 40'
VERT: 1"= 5'
STATIONING IS BASED ON PIPE CENTERLINE
UNLESS NOTED OTHERWISE

STORMWATER CATCH BASIN TABLE

CB	RIM	IE OUT	SUMP	PIPE	SLOPE	LENGTH	DS MH	STATION & OFFSET	ALIGNMENT
STM CB 1	118.36*	115.57	1.50'	12" ADS N-12	0.0039	32.00 LF	STM CB 2	10+71.23 16.00 L	E 3RD ST
STM CB 2	118.36*	115.45	1.50'	12" ADS N-12	0.0233	75.48 LF	STM MH 1	10+71.23 16.00 R	E 3RD ST
STM CB 3	119.90*	117.00	1.50'	8" ADS N-12	0.0454	40.94 LF	STM MH 1	11+77.58 16.00 R	E 3RD ST
STM CB 4	116.69**	112.96	1.50'	12" ADS N-12	0.0025	137.53 LF	STM MH 2	11+20.10 0.00	E JUNIPER COURT CUL-DE-SAC
STM CB 5	117.80**	114.59	1.50'	12" ADS N-12	0.0025	207.34 LF	STM MH 3	11+22.42 0.00	E KNOBCONE PINE AVE CUL-DE-SAC
STM CB 6	121.18*	117.99	1.50'	12" ADS N-12	0.0040	32.00 LF	STM CB 7	10+55.33 16.00 L	E 2ND ST
STM CB 7	121.18*	117.86	1.50'	12" ADS N-12	0.0631	56.91 LF	STM MH 3	10+55.33 16.00 R	E 2ND ST

*ELEVATION SHOWN IS AT TOP FACE OF CURB
**ELEVATION SHOWN IS AT TOP BACK OF CURB

STORMWATER CONSTRUCTION KEYED NOTES (#)

1. INSTALL 48" CONED MANHOLE PER DETAILS SM-2 AND SM-3, SHEET C250.
2. INSTALL CATCH BASIN PER DETAIL SM-5, SHEET C250.
3. INSTALL 48" FLAT SLAB MANHOLE PER DETAIL SM-2 AND SM-3, SHEET C250 AND DETAIL SS-8, SHEET C350.
4. INSTALL STORMWATER LATERAL PER LENGTH AND ELEVATION SPECIFIED IN THE LATERAL TABLE ON THIS SHEET (TYP).
5. INSTALL ROLLED CURB GRATE PER DETAIL ON C250.
6. INSTALL STORMWATER CLEANOUT PER DETAIL SS-14 ON SHEET C351.

GENERAL NOTES

1. STORM SEWER PIPE MATERIALS SHALL BE N-12 OR PVC C900 PIPE WITH BEDDING AND BACKFILL PER DETAILS SS-4 AND SS-5 ON SHEET C350 UNLESS OTHERWISE SPECIFIED.
2. AS BUILT DRAWINGS SHALL BE PROVIDED TO INSPECTOR AND PROJECT ENGINEER PRIOR TO PAVING.
3. ALL NEW MANHOLES SHALL BE STANDARD STORM MANHOLES WITH STANDARD FRAMES AND COVERS PER CITY OF LA CENTER DETAILS SM-2 AND SM-3 ON SHEET C250.
4. DUCTILE IRON PIPE IS AN ACCEPTABLE ALTERNATE TO PVC C900 PIPE.
5. ALL PROPOSED STORMWATER INFRASTRUCTURE LOCATED IN THE PUBLIC RIGHT-OF-WAY WILL BE PUBLICLY OWNED AND MAINTAINED BY THE CITY OF LA CENTER.
6. ALL PROPOSED STORMWATER INFRASTRUCTURE NOT LOCATED IN THE PUBLIC RIGHT-OF-WAY WILL BE PRIVATELY OWNED AND MAINTAINED.
7. THE STORMWATER FACILITY LOCATED IN TRACT C WILL BE PRIVATELY OWNED AND MAINTAINED.
8. ALL PIPE LENGTHS AND ASSOCIATED SLOPES ARE COMPUTED FROM CENTERLINE OF STRUCTURES AND FITTINGS AT EACH END OF THE PIPE.
9. LOTS #4-18 AND LOT #32 ROOF DRAINS, FOUNDATION DRAINS, CRAWLSPACE DRAINS TO BE DIRECTED TO WEEP HOLES IN THE CURB AND CONVEYED TO THE STORMWATER WET POND.
10. ALL CATCH BASIN GRATES SHALL BE HERRING BONE PATTERN GRATES PER DETAIL SM-7, SHEET C250.

STORMWATER LATERAL TABLE

LOT	STATION AT MAIN	ALIGNMENT	PIPE DIA./TYPE	LENGTH	SLOPE	COVER AT LOT	LAT IE AT END
LOT 1	19+22.95	E 3RD ST	4" ADS N-12	36.69	0.0200	2.8	116.16
LOT 2	18+57.82	E 3RD ST	4" ADS N-12	28.11	0.0200	4.0	115.82
LOT 3	17+97.41	E 3RD ST	4" ADS N-12	28.01	0.0200	5.2	115.67
LOT 4	10+55.33	E 2ND ST	4" ADS N-12	15.00	0.0200	2.5	118.29
LOT 16	10+71.23	E 3RD ST	4" ADS N-12	15.00	0.0200	2.1	115.87
LOT 19	11+08.27	E JUNIPER CT	4" ADS N-12	32.11	0.0200	3.1	115.05
LOT 20	11+63.37	E JUNIPER CT	4" ADS N-12	34.00	0.0200	3.3	114.41
LOT 21	12+23.39	E JUNIPER CT	4" ADS N-12	52.56	0.0200	2.0	114.94
LOT 22	12+59.13	E JUNIPER CT	4" ADS N-12	14.37	0.0200	2.5	113.90
LOT 32	17+17.81	E 3RD ST	4" ADS N-12	34.00	0.0803	3.0	118.91

STORMWATER LATERAL TABLE

LOT	PIPE DIA./TYPE	LENGTH	SLOPE	COVER AT LOT	LAT IE AT END
LOT 6	4" ADS N-12	83.60	0.0294	4.2	120.42
LOT 7	4" ADS N-12	15.00	0.0727	5.2	119.05

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HOLLEY PARK SUBDIVISION CONSTRUCTION PLANS

LA CENTER WASHINGTON
NW 1/4 OF SEC 2 T4N, R1E, W.M.
PARCEL NO. 209055000, 209059000 AND 62965242

STORMWATER PLAN AND PROFILE

DESIGNED BY: JRS
DRAWN BY: MRE
MANAGED BY: SMH
CHECKED BY: JRS
DATE: 5/13/19

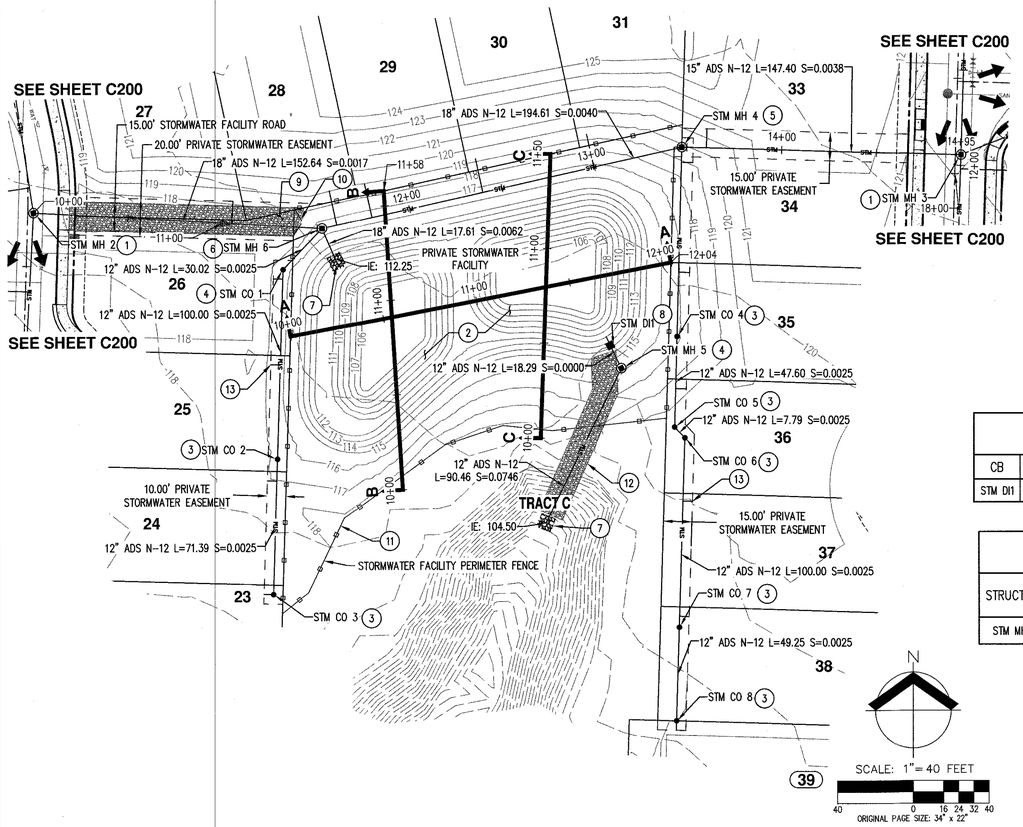
SETH MICHAEL HALLINAN
STATE OF WASHINGTON
48813
REGISTERED
PROFESSIONAL ENGINEER

REVISIONS

JOB NUMBER
6962

SHEET
C200

AKS DRAWING FILE: 6962 C200 STM.DWG | LAYOUT: C200



STORMWATER CONSTRUCTION KEYED NOTES (#)

1. INSTALL 48" FLAT SLAB MANHOLE PER DETAILS SM-2 AND SM-3, SHEET C250.
2. 1.5' MINIMUM THICK CLAY LINER SHALL BE COMPACTED TO 95% OF STANDARD PROCTOR DENSITY (ASTM D-2216). GEOTECH TO VERIFY CLAY LINER MEETS SPECIFICATIONS AS LISTED IN 1992 PUGET SOUND MANUAL. REFERENCE PROJECT TIR FOR CLAY LINER SPECIFICATIONS.
3. INSTALL STORMWATER CLEANOUT PER DETAIL SS-14 ON SHEET C351.
4. INSTALL FLOW CONTROL MANHOLE PER DETAIL B-10.40-01 ON SHEET C251 AND FLOW CONTROL STRUCTURE TABLE ON THIS SHEET.
5. INSTALL 48" CONED MANHOLE WITH LOCKING LID PER DETAILS SM-2 AND SM-3, SHEET C250.
6. INSTALL 60" FLAT SLAB MANHOLE WITH LOCKING LID PER DETAILS SM-2 AND SM-3, SHEET C250.
7. INSTALL RIP-RAP OUTFALL PROTECTION PER DETAIL SM-13, SHEET C250.
8. INSTALL FIELD INLET PER DETAIL SM-9, SHEET C250.
9. INSTALL 15' WIDE STORMWATER FACILITY ACCESS ROAD PER DETAIL ON THIS SHEET.
10. INSTALL 15' WIDE STORMWATER FACILITY GATE PER DETAIL ON SHEET C251.
11. INSTALL CHAIN LINK FENCE ENCLOSURE FOR STORMWATER FACILITY PER DETAIL ON C251.
12. CONSTRUCT EMERGENCY SPILLWAY PER DETAIL ON THIS SHEET.
13. INSTALL STORMWATER LATERAL PER LENGTH AND ELEVATION SPECIFIED IN THE LATERAL TABLE ON THIS SHEET (TYP.).

GENERAL NOTES

1. STORM SEWER PIPE MATERIALS SHALL BE N-12 OR PVC C900 PIPE WITH BEDDING AND BACKFILL PER DETAILS SS-4 AND SS-5 ON SHEET C350 UNLESS OTHERWISE SPECIFIED.
2. AS BUILT DRAWINGS SHALL BE PROVIDED TO INSPECTOR AND PROJECT ENGINEER PRIOR TO PAVING.
3. ALL NEW MANHOLES SHALL BE STANDARD STORM MANHOLES WITH STANDARD FRAMES AND COVERS PER CITY OF LA CENTER DETAILS SM-2 AND SM-3 ON SHEET C250.
4. DUCTILE IRON PIPE IS AN ACCEPTABLE ALTERNATE TO PVC C900 PIPE.
5. ALL PROPOSED STORMWATER INFRASTRUCTURE LOCATED IN THE PUBLIC RIGHT-OF-WAY WILL BE PUBLICLY OWNED AND MAINTAINED BY THE CITY OF LA CENTER.
6. ALL PROPOSED STORMWATER INFRASTRUCTURE NOT LOCATED IN THE PUBLIC RIGHT-OF-WAY WILL BE PRIVATELY OWNED AND MAINTAINED.
7. THE STORMWATER FACILITY LOCATED IN TRACT C WILL BE PRIVATELY OWNED AND MAINTAINED.
8. ALL PIPE LENGTHS AND ASSOCIATED SLOPES ARE COMPUTED FROM CENTERLINE OF STRUCTURES AND FITTINGS AT EACH END OF THE PIPE.
9. LOTS #4-18 AND LOT #32 ROOF DRAINS, FOUNDATION DRAINS, CRAWLSPACE DRAINS TO BE DIRECTED TO WEEP HOLES IN THE CURB AND CONVEYED TO THE STORMWATER WET POND.
10. ALL CATCH BASIN GRATES SHALL BE HERRING BONE PATTERN GRATES PER DETAIL SM-7, SHEET C250.

STORMWATER CATCH BASIN TABLE

CB	RIM	IE OUT	SUMP	PIPE	SLOPE	LENGTH	DS MH
STM DI1	113.25		109.75				

FLOW CONTROL STRUCTURE TABLE

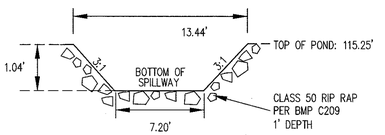
STRUCTURE	RIM	IE IN/OUT	SUMP	BOTTOM ORIFICE PLATE ELEVATION	OVERFLOW ELEVATION/SIZE
STM MH 5	115.83	111.25/111.25	107.25	109.25 / 5.4"	113.25 / 12"

STORMWATER LATERAL TABLE

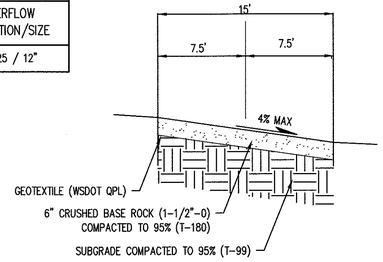
LOT	STATION AT MAIN	ALIGNMENT	PIPE DIA./TYPE	LENGTH	SLOPE	COVER AT LOT	LAT IE AT END
LOT 28	11+60.64	STM ALIGNMENT	4" ADS N-12	18.57	0.0200	4.5	114.17
LOT 29	11+79.68	STM ALIGNMENT	4" ADS N-12	18.46	0.0200	4.4	114.24
LOT 30	12+39.68	STM ALIGNMENT	4" ADS N-12	18.10	0.0200	4.4	114.46
LOT 31	12+99.68	STM ALIGNMENT	4" ADS N-12	17.75	0.0200	4.4	114.69
LOT 33	13+60.25	STM ALIGNMENT	4" ADS N-12	10.00	0.0200	6.4	114.78

STORMWATER LATERAL TABLE

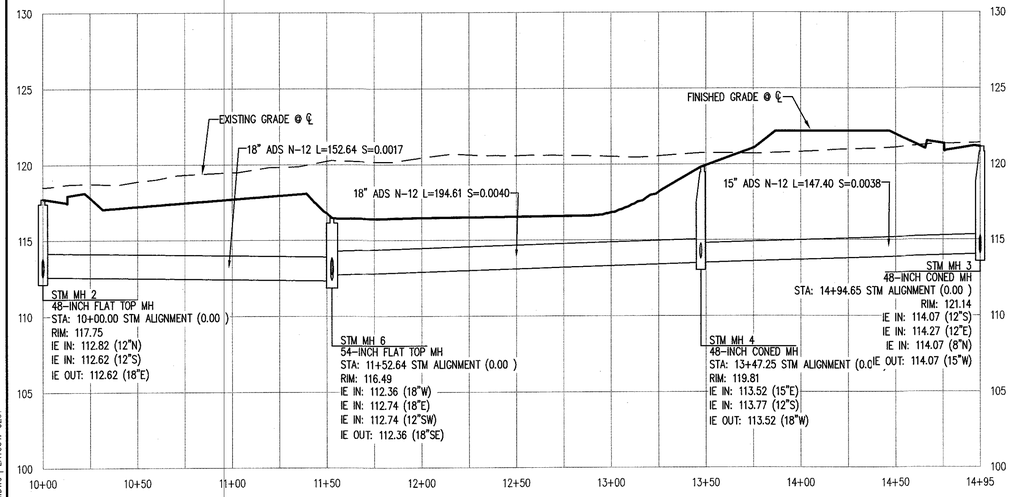
LOT	PIPE DIA./TYPE	LENGTH	SLOPE	COVER AT LOT	LAT IE AT END
LOT 23	4" ADS N-12	5.00	0.0200	3.0	114.30
LOT 24	4" ADS N-12	5.00	0.0200	2.3	114.42
LOT 25	4" ADS N-12	4.98	0.0200	2.2	114.18
LOT 26	4" ADS N-12	5.00	0.0200	2.5	114.00
LOT 34	4" ADS N-12	5.99	0.0200	4.1	114.67
LOT 35	4" ADS N-12	5.78	0.0200	2.3	114.90
LOT 36	4" ADS N-12	5.58	0.0200	3.3	115.11
LOT 37	4" ADS N-12	5.00	0.0200	3.3	115.37
LOT 38	4" ADS N-12	5.00	0.0200	2.7	115.60
LOT 39	4" ADS N-12	5.00	0.0200	2.8	115.46



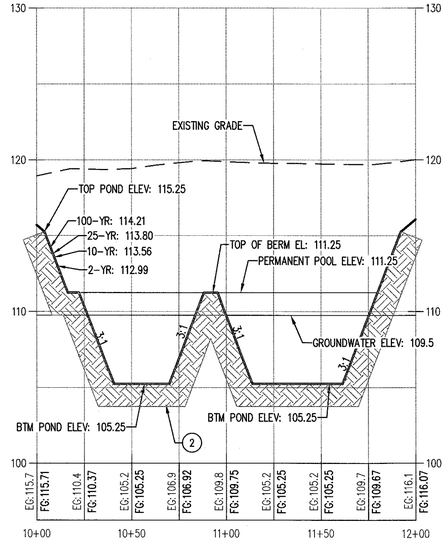
EMERGENCY SPILLWAY
N.T.S



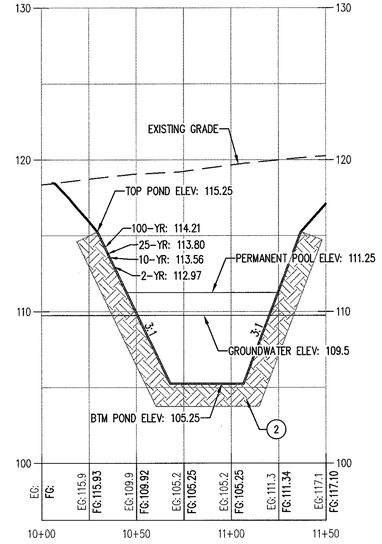
STORMWATER FACILITY ACCESS ROAD
TYPICAL SECTION
N.T.S.



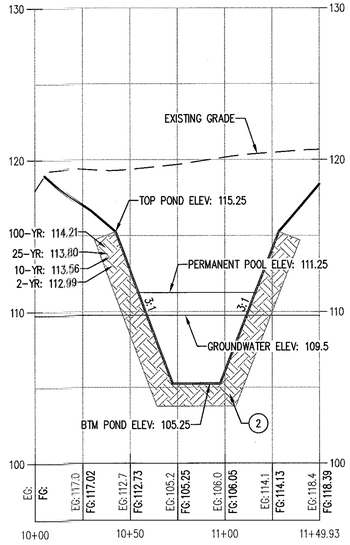
STM ALIGNMENT
HOR: 1"= 40'
VERT: 1"= 5'
STATIONING IS BASED ON PIPE CENTERLINE
UNLESS OTHERWISE NOTED



POND SECTION A-A
HOR. SCALE: 1"= 40'
VERT. SCALE: 1"= 5'



POND SECTION B-B
HOR. SCALE: 1"= 40'
VERT. SCALE: 1"= 5'



POND SECTION C-C
HOR. SCALE: 1"= 40'
VERT. SCALE: 1"= 5'

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HOLLEY PARK SUBDIVISION
CONSTRUCTION PLANS
LA CENTER WASHINGTON
NW 1/4 OF SEC 2 T4N, R1E, W.M.
PARCEL NO. 209055000, 209059000 AND 62965242

STORMWATER PLAN AND PROFILE (TRACT C)

DESIGNED BY: JRS
DRAWN BY: MRE
MANAGED BY: SMH
CHECKED BY: JRS
DATE: 5/13/19

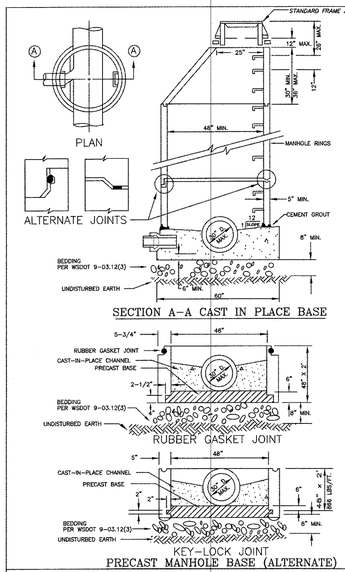
SETH MICHAEL HALLING
STATE OF WASHINGTON
42813
REGISTERED
PROFESSIONAL ENGINEER

REVISIONS

JOB NUMBER
6962

SHEET
C201

AKS DRAWING FILE: 6962 C200 STM.DWG | LAYOUT: C201



1. ALL PRECAST MANHOLE RINGS AND CONES SHALL CONFORM TO ASTM C-478 WITH CAST IN STEPS. (SEE SS-11)
2. IN OVER EXCAVATED AREA PROVIDE SUPPORT FOR THE PIPE AS FOLLOWS: PLACE 3/4" MINUS CRUSHED ROCK OVER UNDISTURBED GROUND IN 6" LAYERS AND COMPACT USING HAND TAMPER.
3. BASE CONCRETE SHALL BE 3000 P.S.I., 2-4 IN. SLUMP. FLOW LINES AND INSIDE SURFACES SHALL BE TROWLED SMOOTH & UNIFORM AT TIME OF POUR. MANHOLE BASE MAY BE MONOLITHICALLY CAST TO 8" ABOVE BARREL OF MAIN SEWER.
4. CHANNELS SHALL CONFORM ACCURATELY TO SEWER GRADE. INSTALL BENCHES TO ELEVATION OF SPRINGLINE OF PIPE.
5. CAST-IN-PLACE, MONOLITHIC MANHOLE MAY BE SUBSTITUTED WITH SPECIFIC APPROVAL OF THE ENGINEER. (SEE SS-9)
6. JOINTS SHALL BE CONSTRUCTED SO AS TO BE WATERTIGHT, KENT-SEAL NO. 2 OR APPROVED EQUAL SHALL BE USED ON TONGUE & GROOVE SECTIONS, AND ON RISER RINGS PREMOLDED "O-RING" MAY BE SUBSTITUTED ON BELL & SPIGOT SECTIONS. ALL JOINTS SHALL BE GROUTED WITH PORTLAND CEMENT CONCRETE GROUT & STRUCK EVEN WITH THE WALL.
7. MANHOLES UNDER 6'-0" IN DEPTH FROM RIM TO SHELF SHALL HAVE A TOP SLAB IN LIEU OF CONE. (SEE SS-8)
8. ALL SEWER MANHOLES TO BE CAPSULATED WITH A HEAT SHRINKABLE SLEEVE SYSTEM, RAPID SEAL OR APPROVED EQUAL
9. VACUUM TESTING OF MANHOLES WILL BE REQUIRED.
10. LOCKING COVERS ARE REQUIRED IN EASEMENTS, OR AT THE DIRECTION OF THE PUBLIC WORKS DIRECTOR.

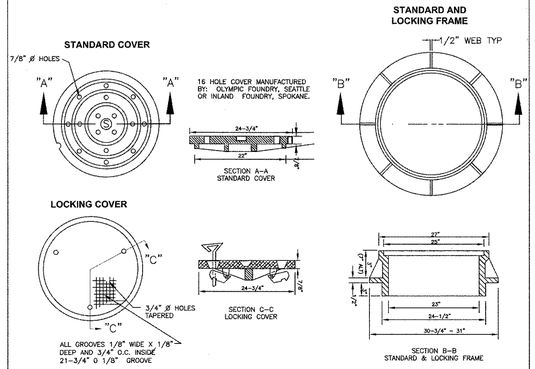
STANDARD STORM MANHOLE

PLAN # SM-2

CITY OF LA CENTER APPROVED

Bart Stapp, PE 7/23/09
CITY ENGINEER DATE

REVISIONS:	DATE:	DRAWN:	DESIGNED:



NOTES:

1. COVER & FRAME TO BE MACHINED TO A TRUE BEARING ALL AROUND.
2. MATERIAL SHALL BE OF GREY CAST IRON, A.S.T.M. A-48, CLASS 30.
3. LOCKING LIDS SHALL BE USED ON ALL MANHOLES INSTALLED WITHIN EASEMENTS, OUTSIDE A PAVED SURFACE, OR OUTSIDE THE CITY RIGHT-OF-WAY.

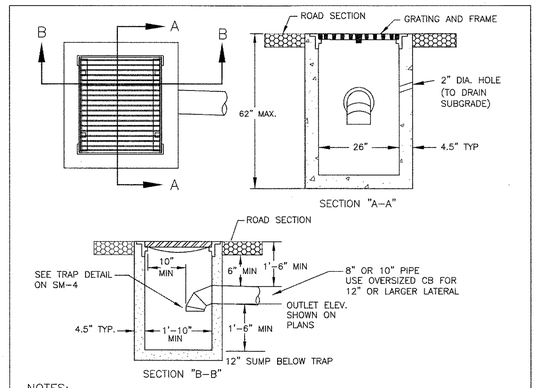
STANDARD MANHOLE FRAMES & COVERS

PLAN # SM-3

CITY OF LA CENTER APPROVED

Bart Stapp, PE 7/23/09
CITY ENGINEER DATE

REVISIONS:	DATE:	DRAWN:	DESIGNED:



NOTES:

1. LATERALS WILL BE CONSTRUCTED TO ENTER THE BASIN PERPENDICULAR TO THE BASIN WALL. THE LATERAL WILL ENTER ONLY AT THE FRONT OR SIDE OF THE BASIN WITH NO LATERALS ALLOWED TO ENTER THE CATCH BASIN AT THE CORNERS. IF NEEDED, A BEND MAY BE USED AS THE FIRST SECTION OF PIPE OUTSIDE THE BASIN WALL. THE MAXIMUM BEND ALLOWED IS 45 DEGREES.
2. ALL REINFORCED STEEL SHALL HAVE A 1-1/2" CLEAR COVER UNLESS OTHERWISE NOTED, AND SHALL BE GRADE 40 OR GRADE 60 (ASTM A-615).
3. ANY PROTRUDING ENDS OF PIPES SHALL BE TRIMMED FLUSH WITH THE INSIDE WALLS AND GROUTED.
4. THE METAL FRAME AND GRATE SHALL BE SET TO A SLOPE TO CONFORM TO THE PARTICULAR DRAINAGE PROBLEM.
5. ELBOW SECTION SHALL BE REMOVABLE FOR MAINTENANCE PURPOSES USING A BALL AND SPIGOT JOINT.

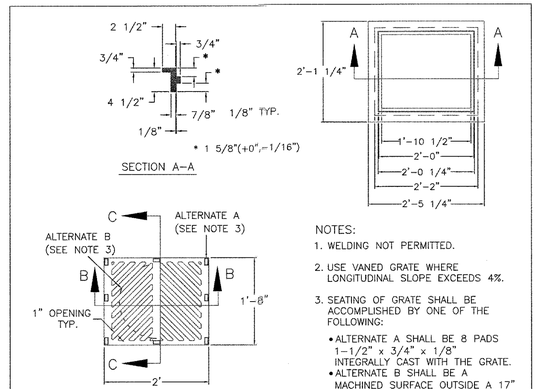
CATCH BASIN

PLAN # SM-5

CITY OF LA CENTER APPROVED

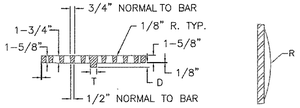
Bart Stapp, PE 7/23/09
CITY ENGINEER DATE

REVISIONS:	DATE:	DRAWN:	DESIGNED:



NOTES:

1. WELDING NOT PERMITTED.
2. USE VANED GRATE WHERE LONGITUDINAL SLOPE EXCEEDS 4%.
3. SEATING OF GRATE SHALL BE ACCOMPLISHED BY ONE OF THE FOLLOWING:
   - ALTERNATE A SHALL BE 8 PADS 1-1/2" x 3/4" x 1/8" INTEGRALLY CAST WITH THE GRATE.
   - ALTERNATE B SHALL BE A MACHINED SURFACE OUTSIDE A 17" CIRCLE, BOTTOM ONLY.



DIMENSIONS			
W1 & W2	T	R	D
1" MIN 1-3/4" MAX	1-3/4"	26"	1-5/8"
1" MIN 1-3/4" MAX	1-1/2"	21"	2-3/4"

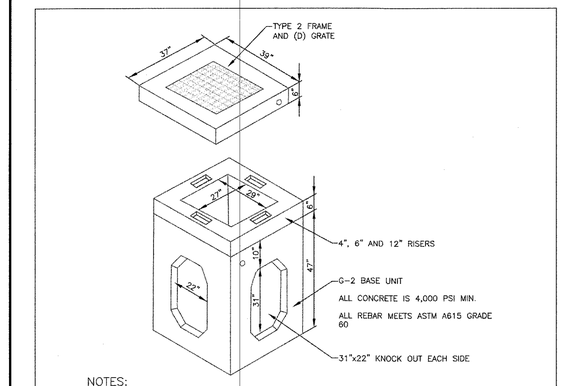
HERRINGBONE GRATE DETAIL

PLAN # SM-7

CITY OF LA CENTER APPROVED

Bart Stapp, PE 7/23/09
CITY ENGINEER DATE

REVISIONS:	DATE:	DRAWN:	DESIGNED:



NOTES:

1. LATERALS WILL BE CONSTRUCTED TO ENTER THE BASIN PERPENDICULAR TO THE BASIN WALL. NO LATERALS ARE ALLOWED TO ENTER THE CATCH BASIN AT THE CORNERS. IF NEEDED, A BEND MAY BE USED AS THE FIRST SECTION OF PIPE OUTSIDE THE BASIN WALL. THE MAXIMUM BEND ALLOWED IS 45 DEGREES.
2. ALL REINFORCED STEEL SHALL HAVE A 1-1/2" CLEAR COVER UNLESS OTHERWISE NOTED, AND SHALL BE GRADE 40 OR GRADE 60 (ASTM A-615).
3. ANY PROTRUDING ENDS OF PIPES SHALL BE TRIMMED FLUSH WITH THE INSIDE WALLS AND GROUTED.
4. THE METAL FRAME AND GRATE SHALL BE SET TO A SLOPE TO CONFORM TO THE PARTICULAR DRAINAGE PROBLEM.
5. ELBOW SECTION SHALL BE REMOVABLE FOR MAINTENANCE PURPOSES USING A BALL AND SPIGOT JOINT.

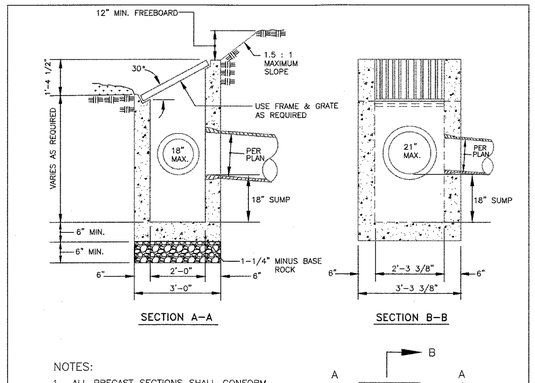
G-2 CATCH BASIN

PLAN # SM-8

CITY OF LA CENTER APPROVED

Bart Stapp, PE 7/23/09
CITY ENGINEER DATE

REVISIONS:	DATE:	DRAWN:	DESIGNED:



NOTES:

1. ALL PRECAST SECTIONS SHALL CONFORM TO THE REQUIREMENTS OF ASTM C-478.
2. ALL POURED IN PLACE CONCRETE SHALL HAVE A 28 DAY STRENGTH OF 3,000 P.S.I. AND 2" TO 4" SLUMP.
3. STEEL TO BE NEW STRUCTURAL STEEL, ASTM A-7, A-36, OR A-373.
4. USE SLANTED OR BOX FRAME AND GRATE AS REQUIRED BY CITY.

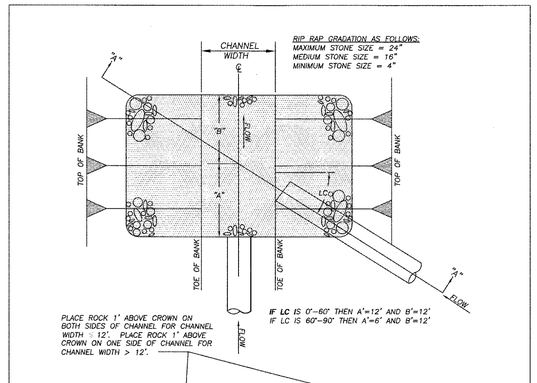
SLOPED FIELD INLET

PLAN # SM-9

CITY OF LA CENTER APPROVED

Bart Stapp, PE 7/23/09
CITY ENGINEER DATE

REVISIONS:	DATE:	DRAWN:	DESIGNED:



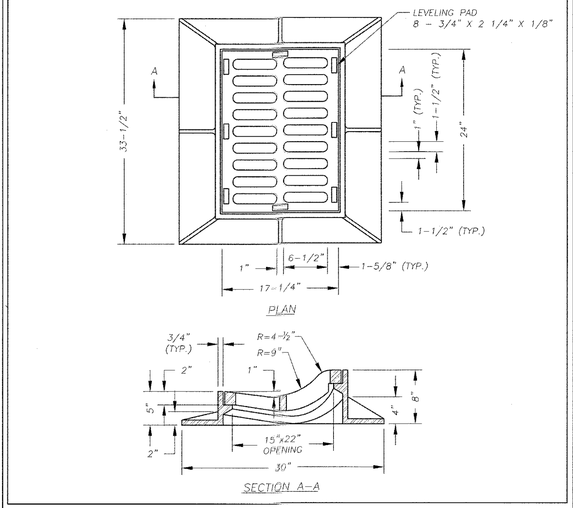
RIPRAP ENERGY DISSIPATER

PLAN # SM-13

CITY OF LA CENTER APPROVED

Bart Stapp, PE 7/23/09
CITY ENGINEER DATE

REVISIONS:	DATE:	DRAWN:	DESIGNED:



ROLLED CURB FRAME AND GRATE DETAIL

HOLLEY PARK SUBDIVISION CONSTRUCTION PLANS

LA CENTER WASHINGTON
NW 1/4 OF SEC 2 TAN, R1E, W.M.
PARCEL NO. 209055000, 209058000 AND 62965242

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VANCOUVER, WA 98682
P: 360.882.0419
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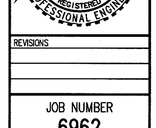
aks-eng.com

AKS
ENGINEERING · SURVEYING · NATURAL RESOURCES
FORESTRY · PLANNING · LANDSCAPE ARCHITECTURE

STORMWATER NOTES AND DETAILS

DESIGNED BY: JRS
DRAWN BY: MRE
MANAGED BY: SMH
CHECKED BY: JRS
DATE: 5/13/19

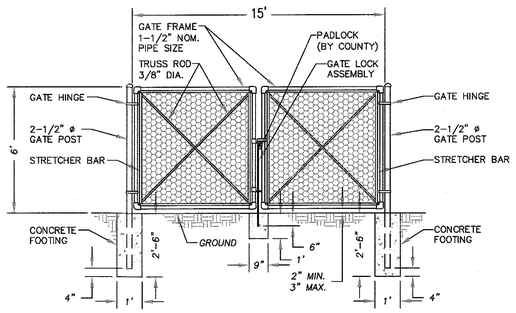


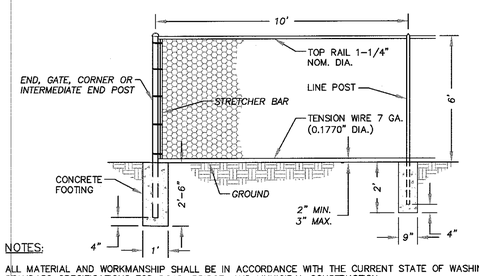
REVISIONS

JOB NUMBER 6962

SHEET C250

AKS DRAWING FILE: 6962 C200 STM.DWG | LAYOUT: C250



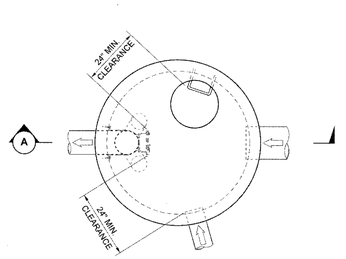


NOTES:

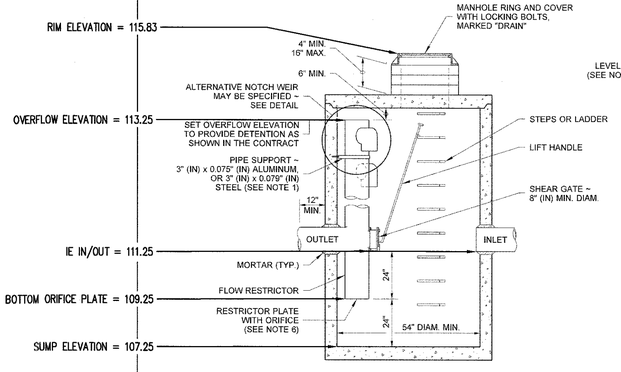
1. ALL MATERIAL AND WORKMANSHIP SHALL BE IN ACCORDANCE WITH THE CURRENT STATE OF WASHINGTON STANDARD SPECIFICATIONS FOR ROAD, BRIDGE, AND MUNICIPAL CONSTRUCTION.

CHAIN LINK FENCE FOR STORMWATER FACILITY

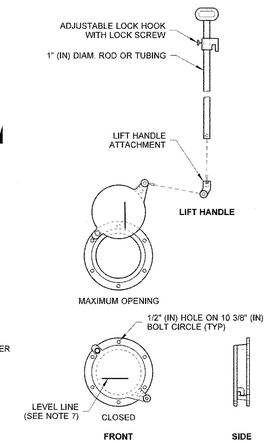
DRAWN BY: FERN LUDDELL



PLAN VIEW



SECTION (A)



SHEAR GATE DETAILS

NOTES

1. The pipe supports and the flow restrictor shall be constructed of the same material and be anchored at a maximum spacing of 36" (in). Attach the pipe supports to the manhole with 5/8" (in) stainless steel expansion bolts or embed the supports into the manhole wall 2" (in).
2. The vertical riser stem of the flow restrictor shall be the same diameter as the horizontal outlet pipe with a minimum diameter of 8" (in).
3. The flow restrictor shall be fabricated from one of the following materials:

   0.060" (in) Corrugated Aluminum Alloy Drain Pipe
   0.064" (in) Corrugated Galvanized Steel Drain Pipe with Treatment 1
   0.064" (in) Corrugated Aluminized Steel Drain Pipe
   0.060" (in) Aluminum alloy flat sheet, in accordance with **ASTM B 209, 5052 H32 or EPS** High Density Polyethylene Storm Sewer Pipe
4. The frame and ladder or steps are to be offset so that: the shear gate is visible from the top; the climb-down space is clear of the riser and gate; the frame is clear of the curb.
5. The multi-orifice elbows may be located as shown, or all placed on one side of the riser to assure ladder clearance. The size of the elbows and their placement shall be specified in the Contract.
6. Restrictor plate with orifice as specified in the Contract. The opening is to be cut round and smooth.
7. The shear gate shall be made of aluminum alloy in accordance with **ASTM B 26 and ASTM B 275**, designation **ZG32A**; or cast iron in accordance with **ASTM A 48, Class 30B**.

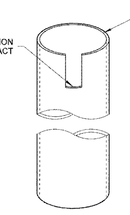
   The lift handle shall be made of a similar metal to the gate (to prevent galvanic corrosion), it may be of solid rod or hollow tubing, with adjustable hook as required.

   A neoprene rubber gasket is required between the riser mounting flange and the gate flange.

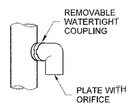
   Install the gate so that the level-line mark is level when the gate is closed.

   The mating surfaces of the lid and the body shall be machined for proper fit.

   All shear gate bolts shall be stainless steel.
8. The shear gate maximum opening shall be controlled by limited hinge movement, a stop tab, or some other device.
9. Alternative shear gate designs are acceptable if material specifications are met.



NOTCH WEIR DETAIL



ELBOW DETAIL

JULIE HELMAN — STATE OF WASHINGTON — REGISTERED PROFESSIONAL ENGINEER — 41813

Julie Helman
Helman, Julie
Jan 25 2017 2:57 PM

CATCH BASIN TYPE 2 WITH FLOW RESTRICTOR

STANDARD PLAN B-10.40-01

SHEET 1 OF 1 SHEET

APPROVED FOR PUBLICATION
Carpenter, Jeff
Jan 26 2017 6:49 AM
STATE DESIGN ENGINEER
Washington State Department of Transportation

AKS DRAWING FILE: 6962 C200 STMLDWG | LAYOUT: C251

HOLLEY PARK SUBDIVISION
CONSTRUCTION PLANS

LA CENTER **WASHINGTON**
PARCEL NO. 209055000, 209059000 AND 62965242 NW 1/4 OF SEC 2 T4N, R1E, W.M.

AKS ENGINEERING & FORESTRY, LLC
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aks-eng.com

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STORMWATER NOTES AND DETAILS

DESIGNED BY:	JRS
DRAWN BY:	MRE
MANAGED BY:	SMH
CHECKED BY:	JRS
DATE:	5/13/19

SCOTT MICHAEL MALLING — STATE OF WASHINGTON — 48813 — REGISTERED PROFESSIONAL ENGINEER

REVISIONS

JOB NUMBER
6962

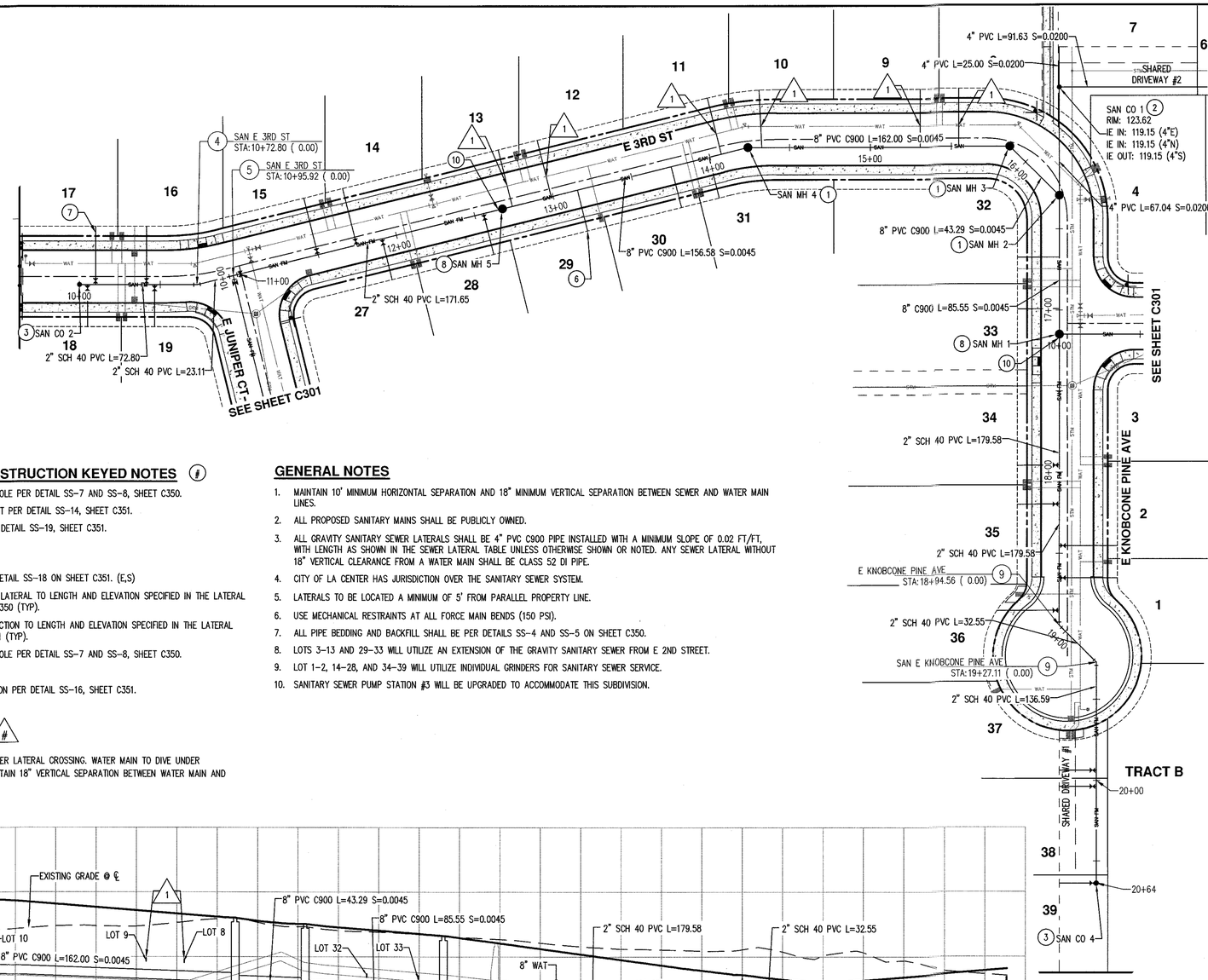
SHEET
C251

SANITARY SEWER LATERAL TABLE

LOT #	DOWNSTREAM MH#	DISTANCE FROM DOWNSTREAM MH (FT)	COVER (FT) AT END (TYP)	LAT IE (FT) AT END (TYP)	PIPE SIZE AND MATERIAL	LENGTH (FT)
LOT 6	SAN MH 2	0	3.57	120.98	4" PVC C900	91.63
LOT 7	SAN MH 2	0	4.67	119.65	4" PVC C900	25.00
LOT 8	SAN MH 5	31.63	3.51	119.67	4" PVC C900	36.00
LOT 9	SAN MH 5	55.18	3.63	119.78	4" PVC C900	36.00
LOT 10	SAN MH 5	153.25	4.12	120.16	4" PVC C900	35.73
LOT 11	SAN MH 4	16.90	3.62	120.53	4" PVC C900	35.98
LOT 12	SAN MH 4	125.35	2.64	120.97	4" PVC C900	36.00
LOT 13	SAN MH 4	150.20	2.19	121.08	4" PVC C900	35.91
LOT 29	SAN MH 4	108.66	2.95	120.75	4" PVC C900	26.00
LOT 30	SAN MH 4	48.81	3.52	120.48	4" PVC C900	26.00
LOT 31	SAN MH 4	24.73	3.75	120.37	4" PVC C900	26.00
LOT 32	SAN MH 1	47.52	3.42	118.56	4" PVC C900	26.00
LOT 33	SAN MH 1	15.66	3.25	118.42	4" PVC C900	26.00

SANITARY PRESSURE SERVICE LATERAL

LOT #	COVER (FT) AT END (TYP)	LAT IE (FT) AT END (TYP)	PIPE SIZE AND MATERIAL	LENGTH (FT)	STA + OFFSET @ END	ZONE
LOT 1	3.00	115.97	2" SCH 40 PVC	36.00	18+65.28 36.01 L	2
LOT 2	3.00	116.30	2" SCH 40 PVC	36.00	18+45.28 36.00 L	2
LOT 14	3.00	117.22	2" SCH 40 PVC	36.00	11+74.60 36.00 L	7
LOT 15	3.00	116.67	2" SCH 40 PVC	36.00	11+49.79 36.00 L	7
LOT 16	3.00	114.99	2" SCH 40 PVC	36.00	10+41.58 36.00 L	5
LOT 17	3.00	115.07	2" SCH 40 PVC	36.00	10+10.02 36.00 L	5
LOT 18	3.00	115.10	2" SCH 40 PVC	26.00	10+05.00 26.00 R	5
LOT 19	3.00	115.01	2" SCH 40 PVC	26.00	10+46.57 26.00 R	6
LOT 27	3.00	117.70	2" SCH 40 PVC	26.00	11+90.79 26.00 R	7
LOT 28	3.00	119.74	2" SCH 40 PVC	26.00	12+55.56 26.00 R	7
LOT 34	3.00	117.14	2" SCH 40 PVC	26.00	17+95.72 26.00 R	2
LOT 35	3.00	116.74	2" SCH 40 PVC	26.00	18+19.62 26.00 R	2
LOT 36	3.00	115.83	2" SCH 40 PVC	38.56	18+85.28 38.56 R	2
LOT 37	3.21	115.05	2" SCH 40 PVC	23.00	19+93.70 23.00 R	1
LOT 38	3.28	114.98	2" SCH 40 PVC	23.00	20+03.70 23.00 R	1
LOT 39	3.48	115.30	2" SCH 40 PVC	23.00	??? ??? ???	1



SANITARY SEWER CONSTRUCTION KEYED NOTES (#)

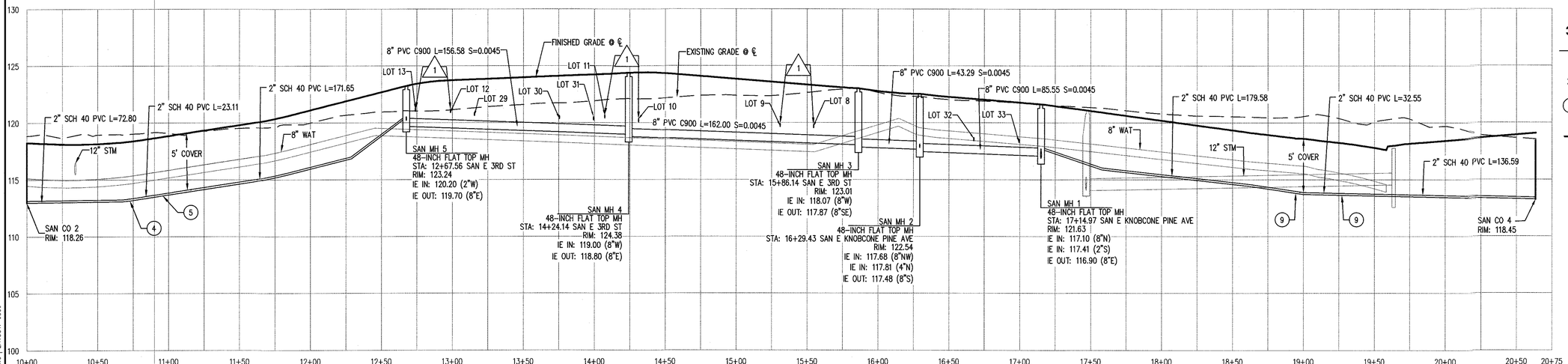
1. INSTALL FLAT TOP SANITARY MANHOLE PER DETAIL SS-7 AND SS-8, SHEET C350.
2. INSTALL SANITARY SEWER CLEANOUT PER DETAIL SS-14, SHEET C351.
3. INSTALL PRESSURE CLEANOUT PER DETAIL SS-19, SHEET C351.
4. INSTALL 2" 11.25° BEND.
5. INSTALL 2" TEE
   INSTALL (2) 2" GATE VALVE PER DETAIL SS-18 ON SHEET C351. (E,S)
6. INSTALL GRAVITY SANITARY SEWER LATERAL TO LENGTH AND ELEVATION SPECIFIED IN THE LATERAL TABLE. SEE DETAIL SS-2, SHEET C350 (TYP).
7. INSTALL PRESSURE SERVICE CONNECTION TO LENGTH AND ELEVATION SPECIFIED IN THE LATERAL TABLE. SEE DETAIL 53, SHEET C351 (TYP).
8. INSTALL FLAT TOP SANITARY MANHOLE PER DETAIL SS-7 AND SS-8, SHEET C350.
9. INSTALL 2" 45° BEND.
10. INSTALL PRESSURE MAIN CONNECTION PER DETAIL SS-16, SHEET C351.

GENERAL NOTES

1. MAINTAIN 10' MINIMUM HORIZONTAL SEPARATION AND 18" MINIMUM VERTICAL SEPARATION BETWEEN SEWER AND WATER MAIN LINES.
2. ALL PROPOSED SANITARY MAINS SHALL BE PUBLICLY OWNED.
3. ALL GRAVITY SANITARY SEWER LATERALS SHALL BE 4" PVC C900 PIPE INSTALLED WITH A MINIMUM SLOPE OF 0.02 FT/FT, WITH LENGTH AS SHOWN IN THE SEWER LATERAL TABLE UNLESS OTHERWISE SHOWN OR NOTED. ANY SEWER LATERAL WITHOUT 18" VERTICAL CLEARANCE FROM A WATER MAIN SHALL BE CLASS 52 DI PIPE.
4. CITY OF LA CENTER HAS JURISDICTION OVER THE SANITARY SEWER SYSTEM.
5. LATERALS TO BE LOCATED A MINIMUM OF 5' FROM PARALLEL PROPERTY LINE.
6. USE MECHANICAL RESTRAINTS AT ALL FORCE MAIN BENDS (150 PSI).
7. ALL PIPE BEDDING AND BACKFILL SHALL BE PER DETAILS SS-4 AND SS-5 ON SHEET C350.
8. LOTS 3-13 AND 29-33 WILL UTILIZE AN EXTENSION OF THE GRAVITY SANITARY SEWER FROM E 2ND STREET.
9. LOT 1-2, 14-28, AND 34-39 WILL UTILIZE INDIVIDUAL GRINDERS FOR SANITARY SEWER SERVICE.
10. SANITARY SEWER PUMP STATION #3 WILL BE UPGRADED TO ACCOMMODATE THIS SUBDIVISION.

UTILITY CONFLICTS (#)

1 WATER MAIN AND SANITARY SEWER LATERAL CROSSING. WATER MAIN TO DIVE UNDER SANITARY SEWER LATERAL. MAINTAIN 18" VERTICAL SEPARATION BETWEEN WATER MAIN AND SANITARY SEWER LATERALS.



SAN E 3RD ST AND E KNOBCONE PINE AVE PROFILE

HOR: 1"= 40'

VERT: 1"= 5'

SATIONING IS BASED ON PIPE CENTERLINE UNLESS OTHERWISE NOTED

SCALE: 1"= 40 FEET

40 0 16 24 32 40

ORIGINAL PAGE SIZE: 34" x 22"

AKS DRAWING FILE: 6962 C300 SANDWG | LAYOUT: C300

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HOLLEY PARK SUBDIVISION
CONSTRUCTION PLANS
LA CENTER WASHINGTON

NW 1/4 OF SEC 2 T4N, R1E, W.M.

PARCEL NO. 209055000, 209059000 AND 62965242

SAN SEWER PLAN AND PROFILE (E 3RD ST AND E KNOBCONE PINE AVE)E)

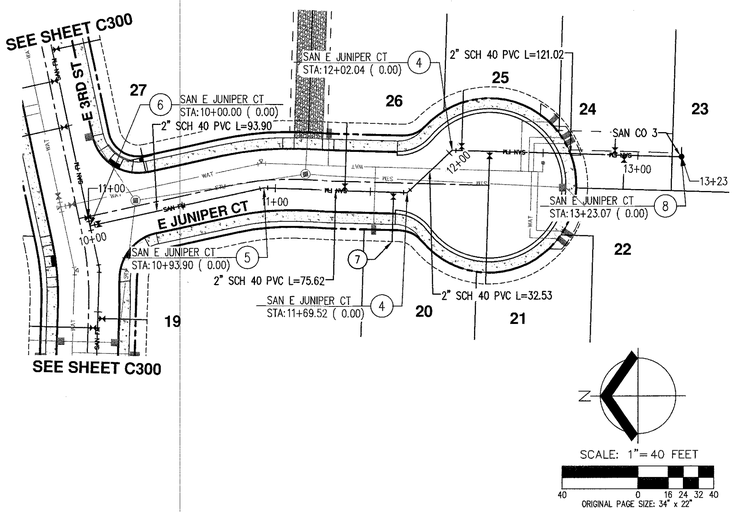
DESIGNED BY:	JRS
DRAWN BY:	MRE
MANAGED BY:	SMH
CHECKED BY:	JRS

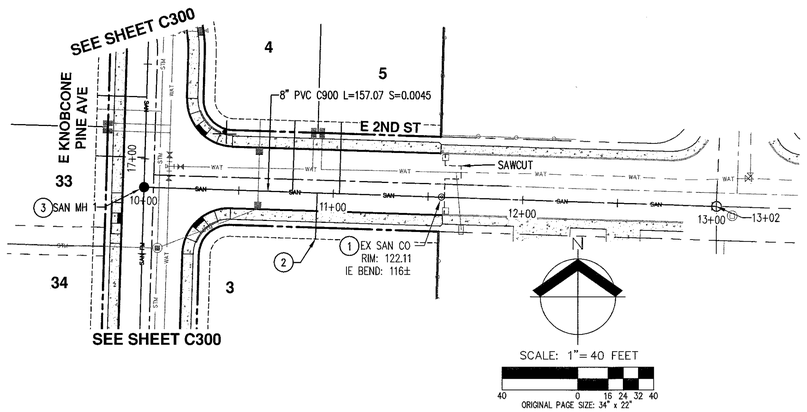
DATE: 5/13/19

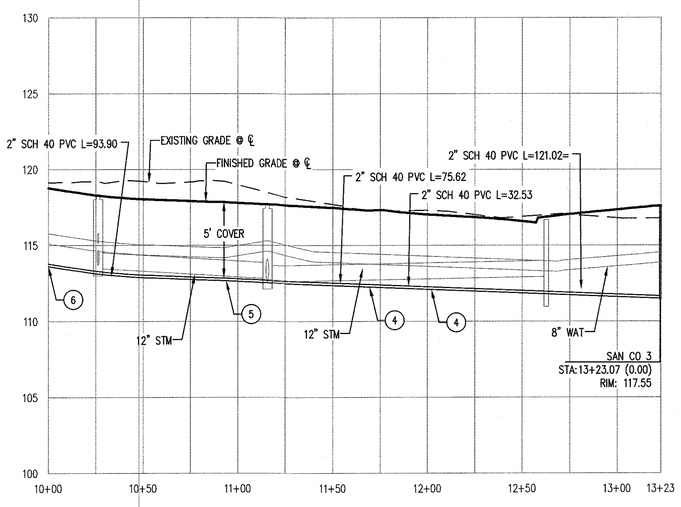
REVISIONS

JOB NUMBER 6962

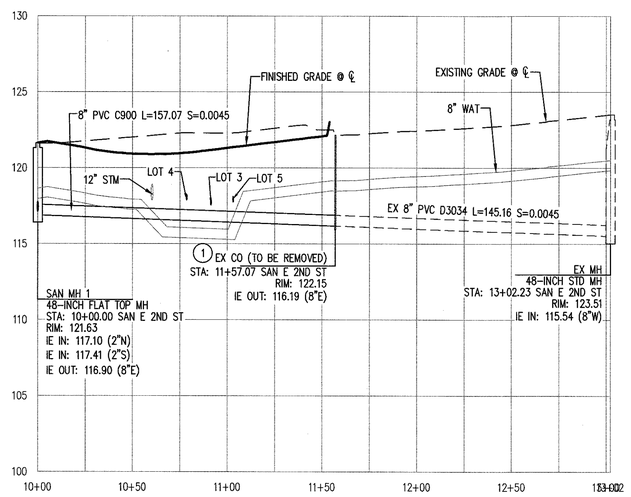
SHEET C300







SAN E JUNIPER CT PROFILE
HOR: 1"= 40'
VERT: 1"= 5'
SATIONING IS BASED ON PIPE
CENTERLINE UNLESS OTHERWISE NOTED



SAN E 2ND ST PROFILE
HOR: 1"= 40'
VERT: 1"= 5'
SATIONING IS BASED ON PIPE
CENTERLINE UNLESS OTHERWISE NOTED

SANITARY SEWER CONSTRUCTION KEYED NOTES (#)

1. REMOVE EXISTING SANITARY CLEANOUT AND CONNECT TO SANITARY SEWER BY MATCHING AND MAINTAINING EXISTING TYPE AND SLOPE.
2. INSTALL GRAVITY SANITARY SEWER LATERAL TO LENGTH AND ELEVATION SPECIFIED IN THE LATERAL TABLE. SEE DETAIL SS-2, SHEET C350 (TYP).
3. INSTALL FLAT TOP SANITARY MANHOLE PER DETAIL SS-7 AND SS-8, SHEET C350.
4. INSTALL 2" 45° BEND.
5. INSTALL 2" 11.25° BEND.
6. INSTALL 2" TEE
   INSTALL (2) 2" GATE VALVE PER DETAIL SS-18, SHEET C351. (E,S)
7. INSTALL PRESSURE SERVICE CONNECTION TO LENGTH AND ELEVATION SPECIFIED IN THE LATERAL TABLE. SEE DETAIL 53, SHEET C351 (TYP).
8. INSTALL PRESSURE CLEANOUT PER DETAIL SS-19, SHEET C351.

GENERAL NOTES

1. MAINTAIN 10' MINIMUM HORIZONTAL SEPARATION AND 18" MINIMUM VERTICAL SEPARATION BETWEEN SEWER AND WATER MAIN LINES.
2. ALL PROPOSED SANITARY MAINS SHALL BE PUBLICLY OWNED.
3. ALL GRAVITY SANITARY SEWER LATERALS SHALL BE 4" PVC C900 PIPE INSTALLED WITH A MINIMUM SLOPE OF 0.02 FT/FT, WITH LENGTH AS SHOWN IN THE SEWER LATERAL TABLE UNLESS OTHERWISE SHOWN OR NOTED. ANY SEWER LATERAL WITHOUT 18" VERTICAL CLEARANCE FROM A WATER MAIN SHALL BE CLASS 52 DI PIPE.
4. CITY OF LA CENTER HAS JURISDICTION OVER THE SANITARY SEWER SYSTEM.
5. LATERALS TO BE LOCATED A MINIMUM OF 5' FROM PARALLEL PROPERTY LINE.
6. USE MECHANICAL RESTRAINTS AT ALL FORCE MAIN BENDS (150 PSI).
7. ALL PIPE BEDDING AND BACKFILL SHALL BE PER DETAILS SS-4 AND SS-5 ON SHEET C350.
8. LOTS 3-13 AND 29-33 WILL UTILIZE AN EXTENSION OF THE GRAVITY SANITARY SEWER FROM E 2ND STREET.
9. LOT 1-2, 14-28, AND 34-39 WILL UTILIZE INDIVIDUAL GRINDERS FOR SANITARY SEWER SERVICE.
10. SANITARY SEWER PUMP STATION #3 WILL BE UPGRADED TO ACCOMMODATE THIS SUBDIVISION.

SANITARY SEWER LATERAL TABLE

LOT #	DOWNSTREAM MH#	DISTANCE FROM DOWNSTREAM MH (FT)	COVER (FT) AT END (TYP)	LAT IE (FT) AT END (TYP)	PIPE SIZE AND MATERIAL	LENGTH (FT)
LOT 3	EX SAN MH	210.74	3.64	117.73	4" PVC C900	24.25
LOT 4	EX SAN MH	223.77	2.92	117.99	4" PVC C900	37.73
LOT 5	EX SAN MH	199.00	3.39	117.88	4" PVC C900	37.78

SANITARY PRESSURE SERVICE LATERAL

LOT #	COVER (FT) AT END (TYP)	LAT IE (FT) AT END (TYP)	PIPE SIZE AND MATERIAL	LENGTH (FT)	STA + OFFSET @ END	ZONE
LOT 20	3.00	114.68	2" SCH 40 PVC	26.00	11+62.34 26.00 R	4
LOT 21	3.00	113.93	2" SCH 40 PVC	70.00	11+69.52 63.59 R	4
LOT 22	3.04	113.88	2" SCH 40 PVC	18.00	12+92.86 18.00 R	3
LOT 23	3.07	114.21	2" SCH 40 PVC	5.00	13+23.07 5.00 L	3
LOT 24	3.01	114.15	2" SCH 40 PVC	12.00	12+87.86 12.00 L	3
LOT 25	3.00	114.14	2" SCH 40 PVC	31.77	12+07.05 31.77 L	4
LOT 26	3.00	114.64	2" SCH 40 PVC	36.00	11+36.59 36.00 L	4

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HOLLEY PARK SUBDIVISION
CONSTRUCTION PLANS
LA CENTER WASHINGTON
NW 1/4 OF SEC 2 T4N, R1E, W.M.
PARCEL NO. 209055000, 209059000 AND 62965242

SANITARY SEWER PLAN AND PROFILE (E 2ND ST AND E JUNIPER CT)

DESIGNED BY: JRS
DRAWN BY: MRE
MANAGED BY: SMH
CHECKED BY: JRS
DATE: 5/13/19

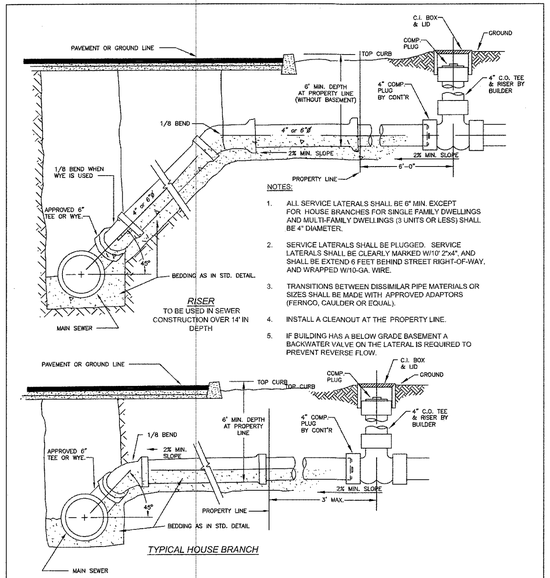
SCOTT MICHAEL MALING
STATE OF WASHINGTON
48813
REGISTERED
PROFESSIONAL ENGINEER

REVISIONS

JOB NUMBER
6962

SHEET
C301

AKS DRAWING FILE: 6962 C300 SANDWG | LAYOUT: C301



NOTES:

1. ALL SERVICE LATERALS SHALL BE 6" MIN. EXCEPT FOR HOUSE BRANCHES FOR SINGLE FAMILY DWELLINGS AND MULTI-FAMILY DWELLINGS (3 UNITS OR LESS) SHALL BE 4" DIAMETER.
2. SERVICE LATERALS SHALL BE PLUGGED. SERVICE LATERALS SHALL BE CLEARLY MARKED W/10' 2"x4", AND SHALL BE EXTEND 6 FEET BEHIND STREET RIGHT-OF-WAY, AND WRAPPED W/10-GA. WIRE.
3. TRANSITIONS BETWEEN DISSIMILAR PIPE MATERIALS OR SIZES SHALL BE MADE WITH APPROVED ADAPTORS (FERNCO, CAULDER OR EQUAL).
4. INSTALL A CLEANOUT AT THE PROPERTY LINE.
5. IF BUILDING HAS A BELOW GRADE BASEMENT A BACKWATER VALVE ON THE LATERAL IS REQUIRED TO PREVENT REVERSE FLOW.

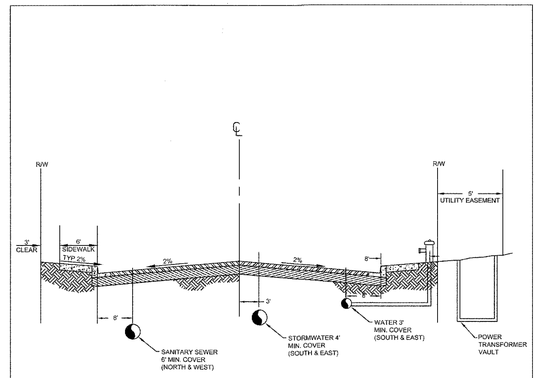
TYPICAL LATERAL CONNECTION

PLAN # SS-2

CITY OF LA CENTER APPROVED

Bart Stapp, PE 7/23/09
CITY ENGINEER DATE

REVISIONS:	DATE:	DRAWN:	DESIGNED:



NOTE:

1. THE PUBLIC WORKS DIRECTOR MAY REQUIRE INSTALLATION OF SANITARY SEWER AT A DEPTH GREATER THAN 6 FEET
2. MODIFICATION TO THIS STANDARD IS SUBJECT TO THE CITY ENGINEER REVIEW AND APPROVAL

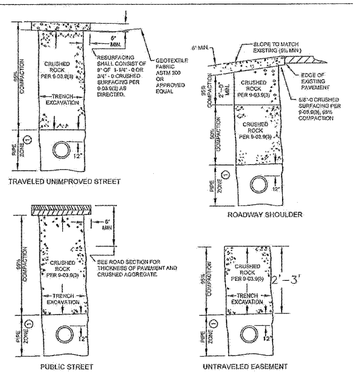
TYPICAL UTILITY LOCATION

PLAN # SS-3

CITY OF LA CENTER APPROVED

Bart Stapp, PE 10/4/10
CITY ENGINEER DATE

REVISIONS:	DATE:	DRAWN:	DESIGNED:
1	10/4/10	BES	BES



NOTES:

1. FOR PIPE ZONE BEDDING REQUIREMENTS, SEE SS-5.
2. COMPACTION PERCENTAGES REFER TO RELATIVE DRY DENSITY AS DETERMINED ACCORDING TO STANDARD SPECIFICATIONS SECTION 2-03.3(14)D.
3. CONTRACTOR MAY USE UP TO 2-1/2" OF 5/8" - 0 GR 3/4" - 0 CRUSHED AGGREGATE IN LIEU OF 1-1/4" - 0 BASE ROCK UNDER SURFACING FOR LEVELING COURSE.
4. ALL EXISTING PAVED SURFACES SHALL BE SAW CUT A MINIMUM OF 6" OUTSIDE OF EDGE OF TRENCH TO PROVIDE A NEAT STRAIGHT EDGE.
5. THE EDGES OF ALL EXISTING ASPHALT SURFACES SHALL BE CLEANED AND A TACK COAT SHALL BE APPLIED. A JOINT SEALER SHALL BE APPLIED AND SHALL CONFORM TO WSDOT STANDARD SPECIFICATIONS, (9-04). ALL JOINTS WILL BE SEALED AND SANDED.
6. ALL BACKFILL SHALL BE MECHANICALLY COMPACTED IN LIFTS WHICH IN NO CASE EXCEED 12" LOOSE.

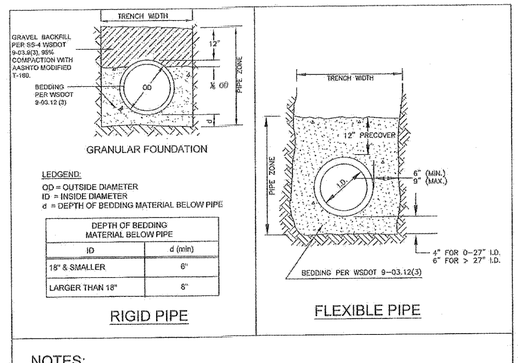
TYPICAL TRENCH BACKFILL

PLAN # SS-4

CITY OF LA CENTER APPROVED

Bart Stapp, PE 10/4/10
CITY ENGINEER DATE

REVISIONS:	DATE:	DRAWN:	DESIGNED:



LEGEND:
OD = OUTSIDE DIAMETER
ID = INSIDE DIAMETER
d = DEPTH OF BEDDING MATERIAL BELOW PIPE

DEPTH OF BEDDING MATERIAL BELOW PIPE	
ID	d (min)
18" & SMALLER	6"
LARGER THAN 18"	8"

RIGID PIPE

NOTES:

1. WHERE DIRECTED BY THE PUBLIC WORKS DIRECTOR, CRUSHED ROCK PER WSDOT 9-03.12(3) STABILIZATION SHALL BE PLACED PRIOR TO PLACEMENT OF THE BEDDING. SIZE AND DEPTH ARE DEPENDENT ON SOIL CONDITIONS.
2. BEDDING AND BACKFILL MATERIALS IN THE PIPE ZONE SHALL BE COMPACTED AS SPECIFIED PRIOR TO BACKFILLING THE REMAINDER OF THE TRENCH.
3. FOR ROCK AND OTHER INCOMPRESSIBLE MATERIALS, THE TRENCH SHALL BE OVER EXCAVATED A MINIMUM OF 6" AND REFILLED WITH GRANULAR MATERIALS AS DIRECTED BY THE CITY ENGINEER.
4. TRENCH WIDTH SHALL NOT EXCEED ONE AND ONE-HALF THE INSIDE DIAMETER OF THE PIPE PLUS 18" AT THE TOP OF THE PIPE ZONE.

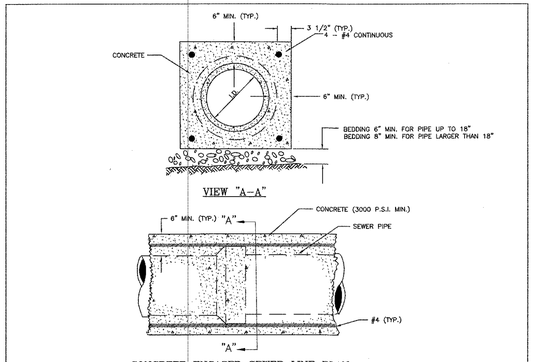
PIPE BEDDING (RIGID AND FLEXIBLE PIPE)

PLAN # SS-5

CITY OF LA CENTER APPROVED

Bart Stapp, PE 10/4/10
CITY ENGINEER DATE

REVISIONS:	DATE:	DRAWN:	DESIGNED:
1	11/16/18		ALC



NOTES:

1. WITH 18" MINIMUM CLEARANCE, USE FULL LENGTHS OF PIPE WITH CROSSING AT MIDPOINT OF BOTH WATER AND SEWER LINE.
2. SEWER LINE AT CROSSING WILL BE EITHER DUCTILE IRON OR C-900 PVC.
3. WHERE THERE ISN'T 18" OF CLEARANCE BETWEEN WATERLINE AND SEWER LINE, CONCRETE IS TO EXTEND 10' ON BOTH SIDES OF WATER CROSSING.

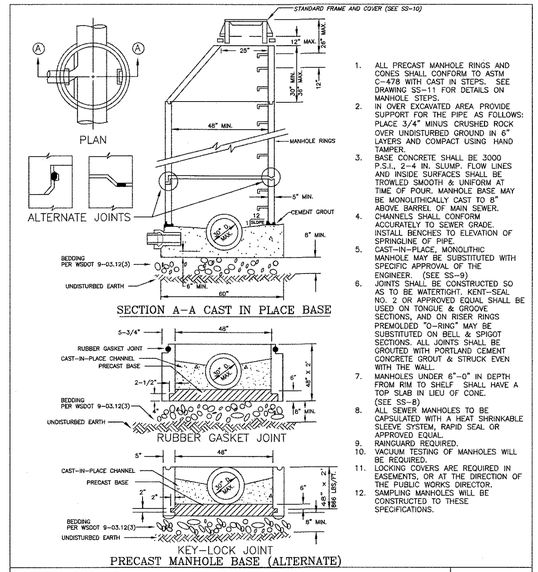
TYPICAL WATER MAIN/SANITARY CROSSING

PLAN # SS-6

CITY OF LA CENTER APPROVED

Bart Stapp, PE 7/23/09
CITY ENGINEER DATE

REVISIONS:	DATE:	DRAWN:	DESIGNED:



1. ALL PRECAST MANHOLE RINGS AND CONES SHALL CONFORM TO ASTM C-478 WITH CAST IN STEPS. SEE DRAWING SS-11 FOR DETAILS ON MANHOLE STEPS.
2. IN OVER EXCAVATED AREA PROVIDE SUPPORT FOR THE PIPE AS FOLLOWS: PLACE 3/4" MINUS CRUSHED ROCK OVER UNDISTURBED GROUND IN 6" LAYERS AND COMPACT USING HAND TAMPER.
3. BASE CONCRETE SHALL BE 3000 P.S.I., 2-4 IN. SLUMP. FLOW LINES AND INSIDE SURFACES SHALL BE TROWLED SMOOTH & UNIFORM AT TIME OF POUR. MANHOLE BASE MAY BE MONOLITHICALLY CAST TO 8" ABOVE BARREL OF MAIN SEWER.
4. CHANNELS SHALL CONFORM ACCURATELY TO SEWER GRADE. INSTALL BENCHES TO ELEVATION OF SPRINGLINE OF PIPE.
5. CAST-IN-PLACE, MONOLITHIC MANHOLE MAY BE SUBSTITUTED WITH SPECIFIC APPROVAL OF THE ENGINEER. (SEE SS-9)
6. JOINTS SHALL BE CONSTRUCTED SO AS TO BE WATERTIGHT. KENT-SEAL NO. 2 OR APPROVED EQUAL SHALL BE USED ON TONGUE & GROOVE SECTIONS, AND ON RISER RINGS PREMOLDED "O-RING" MAY BE SUBSTITUTED ON BELL & SPIGOT SECTIONS. ALL JOINTS SHALL BE GROUTED WITH PORTLAND CEMENT CONCRETE GROUT & STRUCK EVEN WITH THE WALL.
7. MANHOLES UNDER 6'-0" IN DEPTH FROM RIM TO SHELF SHALL HAVE A TOP SLAB IN LIEU OF CONE. (SEE SS-8)
8. ALL SEWER MANHOLES TO BE CAPSULATED WITH A HEAT SHRINKABLE SLEEVE SYSTEM. RAPID SEAL OR APPROVED EQUAL.
9. RAINGUARD REQUIRED.
10. VACUUM TESTING OF MANHOLES WILL BE REQUIRED.
11. LOCKING COVERS ARE REQUIRED IN EASEMENTS, OR AT THE DIRECTION OF THE PUBLIC WORKS DIRECTOR.
12. SAMPLING MANHOLES WILL BE CONSTRUCTED TO THESE SPECIFICATIONS.

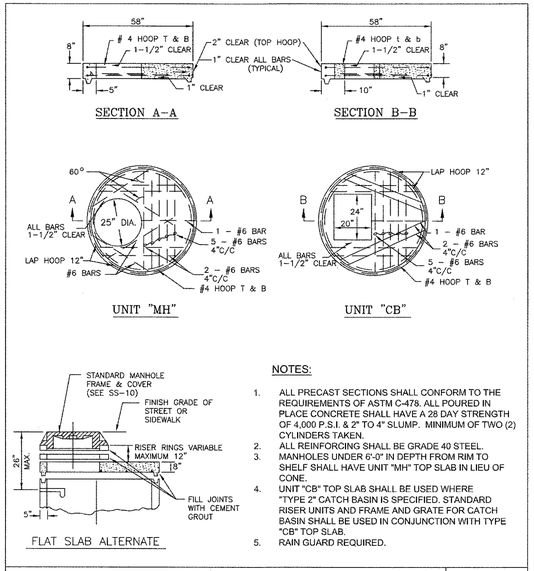
STANDARD PRECAST MANHOLE

PLAN # SS-7

CITY OF LA CENTER APPROVED

Bart Stapp, PE 7/23/09
CITY ENGINEER DATE

REVISIONS:	DATE:	DRAWN:	DESIGNED:



NOTES:

1. ALL PRECAST SECTIONS SHALL CONFORM TO THE REQUIREMENTS OF ASTM C-478. ALL POURED IN PLACE CONCRETE SHALL HAVE A 28 DAY STRENGTH OF 4,000 P.S.I. & 2" TO 4" SLUMP. MINIMUM OF TWO (2) CYLINDERS TAKEN.
2. ALL REINFORCING SHALL BE GRADE 40 STEEL.
3. MANHOLES UNDER 6'-0" IN DEPTH FROM RIM TO SHELF SHALL HAVE UNIT "MH" TOP SLAB IN LIEU OF CONE.
4. UNIT "CB" TOP SLAB SHALL BE USED WHERE "TYPE 2" CATCH BASIN IS SPECIFIED. STANDARD RISER UNITS AND FRAME AND GRATE FOR CATCH BASIN SHALL BE USED IN CONJUNCTION WITH TYPE "CB" TOP SLAB.
5. RAIN GUARD REQUIRED.

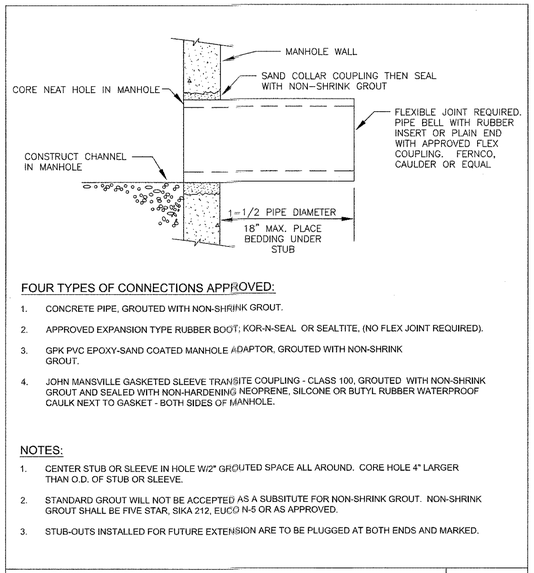
TOP SLAB FOR STANDARD PRECAST MANHOLE

PLAN # SS-8

CITY OF LA CENTER APPROVED

Bart Stapp, PE 10/4/10
CITY ENGINEER DATE

REVISIONS:	DATE:	DRAWN:	DESIGNED:
1	10/4/10	BES	BES



FOUR TYPES OF CONNECTIONS APPROVED:

1. CONCRETE PIPE, GROUTED WITH NON-SHRINK GROUT.
2. APPROVED EXPANSION TYPE RUBBER BOOT; KOR-N-SEAL OR SEALTITE, (NO FLEX JOINT REQUIRED).
3. GPK PVC EPOXY-SAND COATED MANHOLE ADAPTOR, GROUTED WITH NON-SHRINK GROUT.
4. JOHN MANSVILLE GASKETED SLEEVE TRANSITE COUPLING - CLASS 100, GROUTED WITH NON-SHRINK GROUT AND SEALED WITH NON-HARDENING NEOPRENE, SILCONE OR BUTYL RUBBER WATERPROOF CAULK NEXT TO GASKET - BOTH SIDES OF MANHOLE.

NOTES:

1. CENTER STUB OR SLEEVE IN HOLE W/2" GROUTED SPACE ALL AROUND. CORE HOLE 4" LARGER THAN O.D. OF STUB OR SLEEVE.
2. STANDARD GROUT WILL NOT BE ACCEPTED AS A SUBSITUTE FOR NON-SHRINK GROUT. NON-SHRINK GROUT SHALL BE FIVE STAR, SIKA 212, EUCO N-5 OR AS APPROVED.
3. STUB-OUTS INSTALLED FOR FUTURE EXTENSION ARE TO BE PLUGGED AT BOTH ENDS AND MARKED.

MANHOLE CONNECTION DETAILS

PLAN # SS-9

CITY OF LA CENTER APPROVED

Bart Stapp, PE 7/23/09
CITY ENGINEER DATE

REVISIONS:	DATE:	DRAWN:	DESIGNED:

AKS ENGINEERING & FORESTRY, LLC
9600 NE 126TH AVE STE 2520
VANCOUVER, WA 98682
P: 360.882.0419
F: 360.882.0426
aks-eng.com

ENGINEERING - SURVEYING - NATURAL RESOURCES
FORESTRY - PLANNING - LANDSCAPE ARCHITECTURE

HOLLEY PARK SUBDIVISION CONSTRUCTION PLANS

LA CENTER WASHINGTON
NW 1/4 OF SEC 2 TAN, R1E, W.M.
PARCEL NO. 209055000, 209059000 AND 62965242

SANITARY SEWER NOTES AND DETAILS

DESIGNED BY: JRS
DRAWN BY: MRE
MANAGED BY: SMH
CHECKED BY: JRS
DATE: 5/13/19

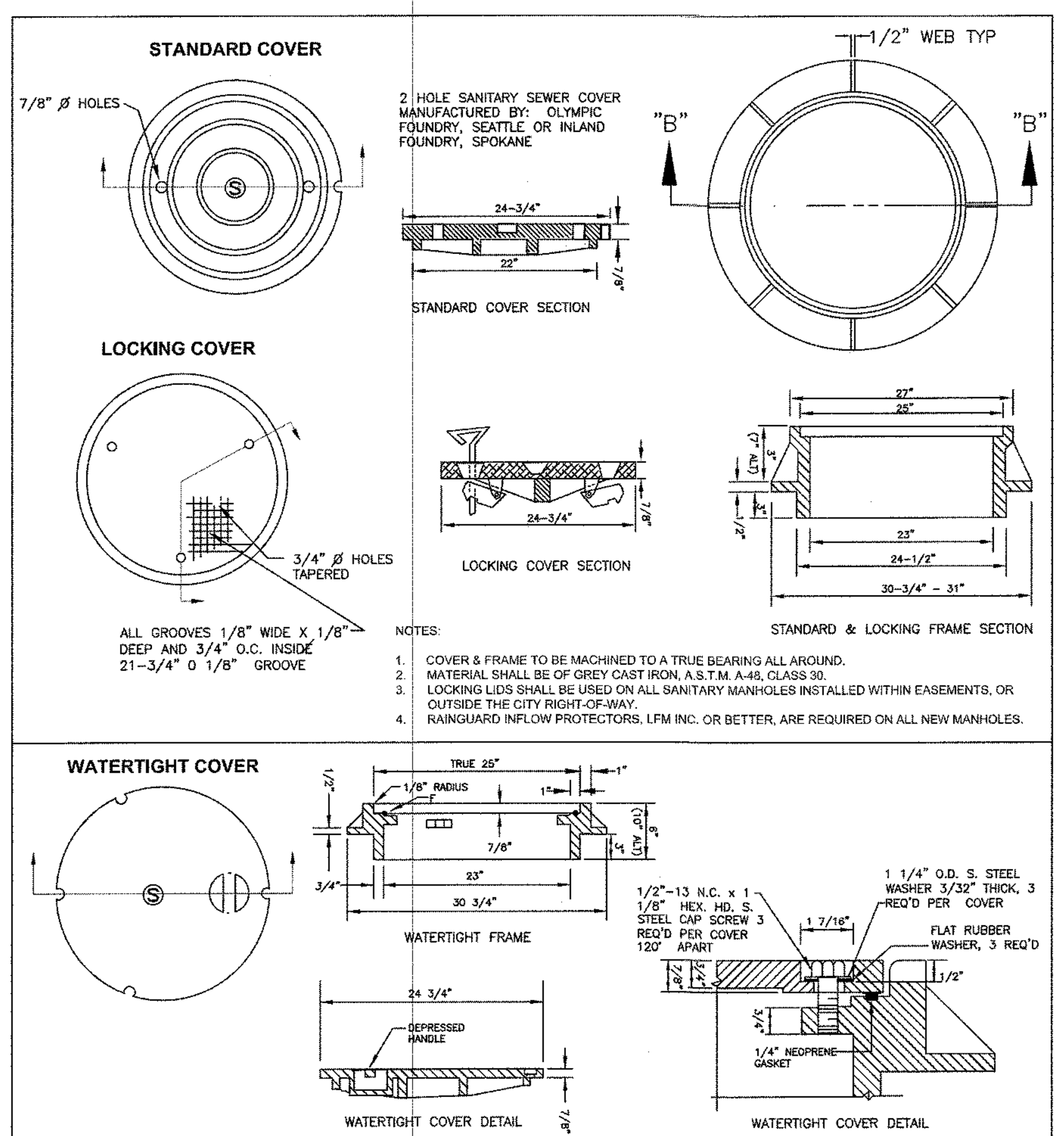
SETH MICHAEL HALLINAN — STATE OF WASHINGTON — 45813 — REGISTERED PROFESSIONAL ENGINEER

REVISIONS

JOB NUMBER 6962

SHEET C350

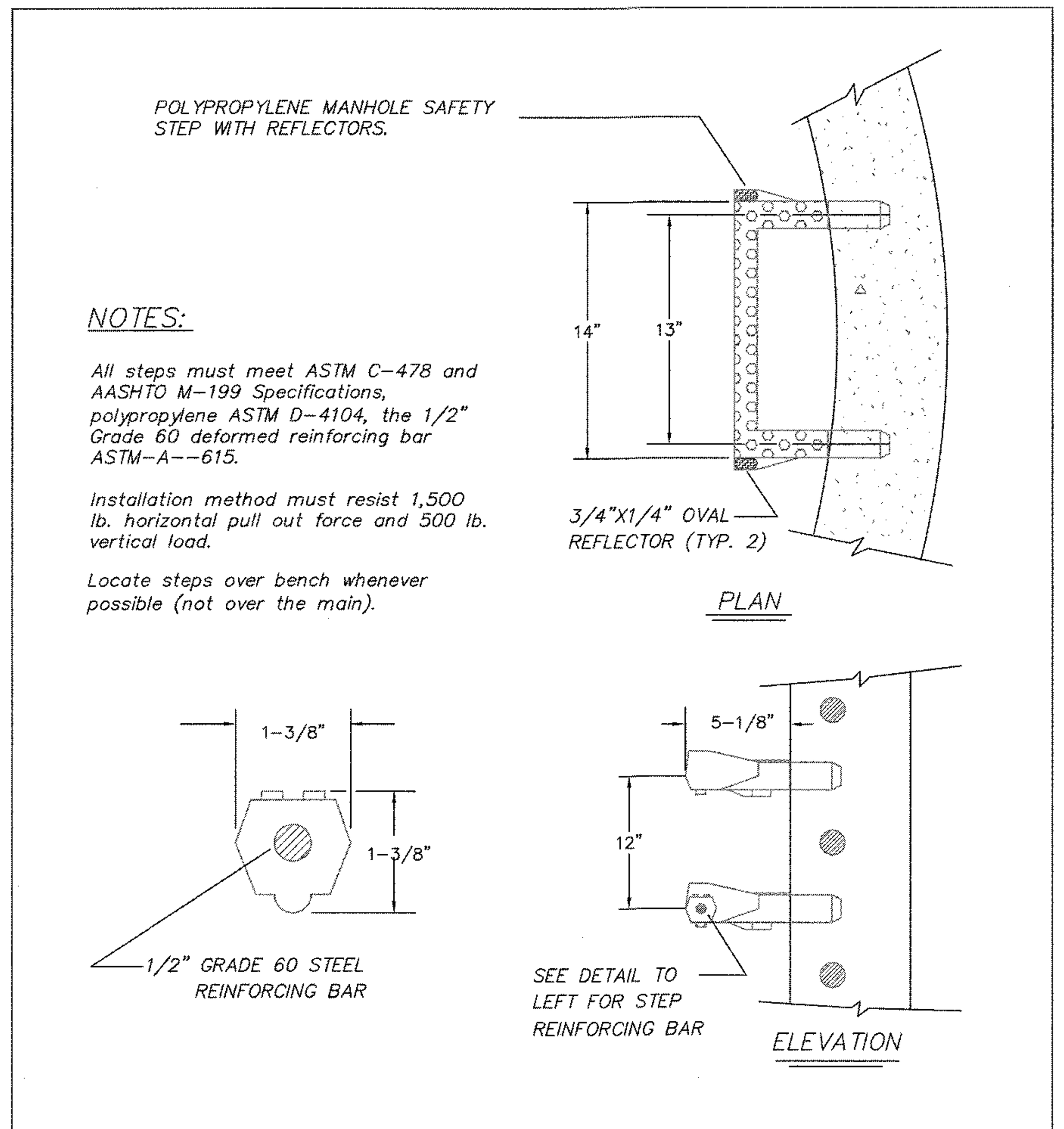
AKS DRAWING FILE: 6962 C300 SAN.DWG | LAYOUT: C350



STANDARD MANHOLE FRAMES & COVERS — PLAN # SS-10

CITY OF LA CENTER APPROVED — Bart Stepp, PE 7/23/09 — CITY ENGINEER — DATE

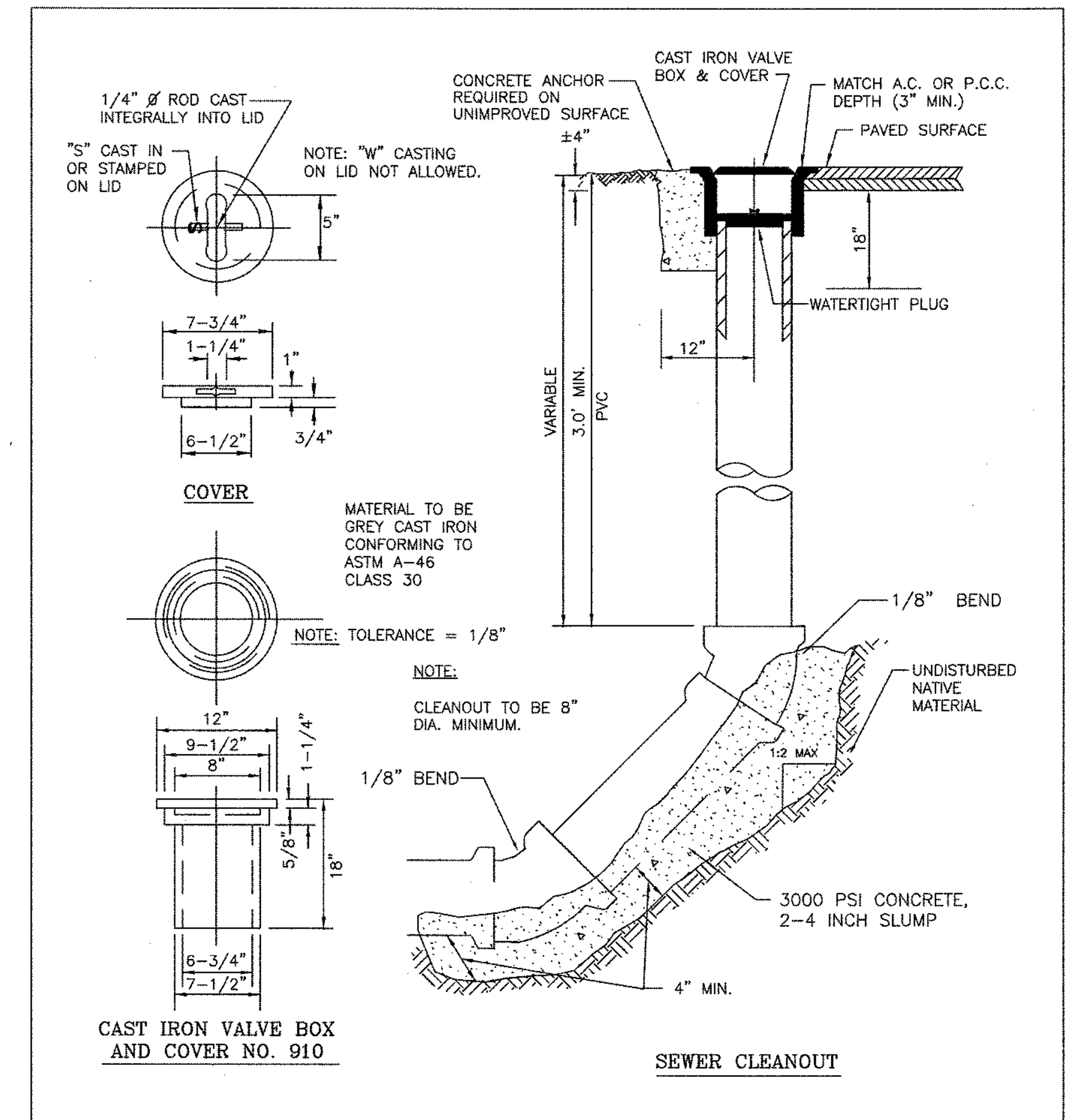
REVISIONS:	DATE:	DRAWN:	DESIGNED:



MANHOLE STEP DETAIL — PLAN # SS-11

CITY OF LA CENTER APPROVED — Bart Stepp, PE 7/23/09 — CITY ENGINEER — DATE

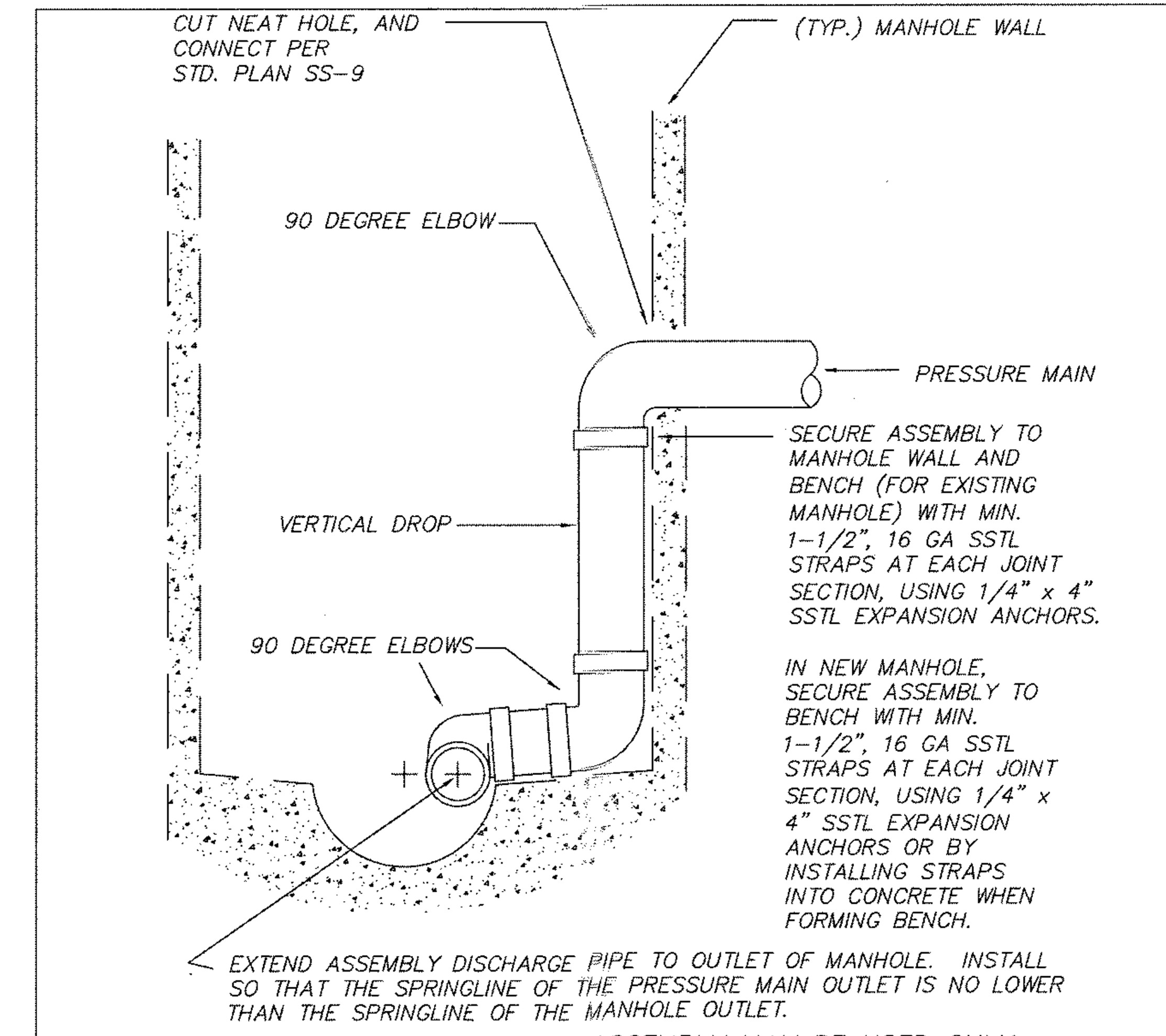
REVISIONS:	DATE:	DRAWN:	DESIGNED:



STANDARD SEWER CLEANOUT — PLAN # SS-14

CITY OF LA CENTER APPROVED — Bart Stepp, PE 7/23/09 — CITY ENGINEER — DATE

REVISIONS:	DATE:	DRAWN:	DESIGNED:



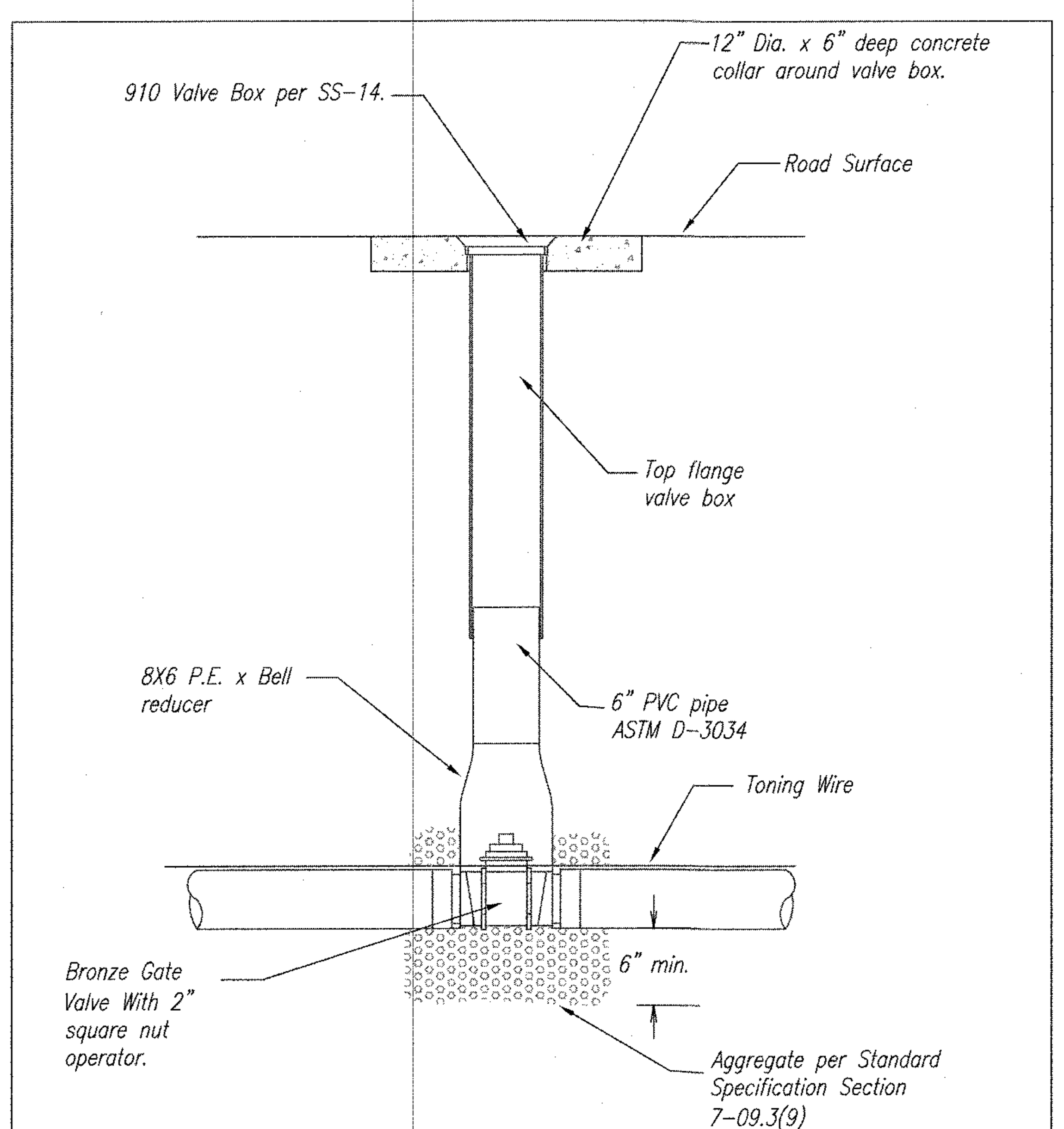
NOTE: PRESSURE MAIN CONNECTION ASSEMBLY MAY BE USED ONLY WHEN SPECIFICALLY APPROVED BY THE CITY ENGINEER. MAXIMUM OF ONE ASSEMBLY PER 48" MANHOLE.

ALL PIPES AND JOINTS SHALL BE CONSTRUCTED OF MATERIALS APPROVED FOR FORCE MAIN CONSTRUCTION. ALL JOINTS, PIPES AND ANCHORS SHALL BE DESIGNED TO HANDLE THE PRESSURES AND FORCES GENERATED BY THE FORCE MAIN FLOW.

PRESSURE MAIN CONNECTION DETAILS — PLAN # SS-16

CITY OF LA CENTER APPROVED — Bart Stepp, PE 7/23/09 — CITY ENGINEER — DATE

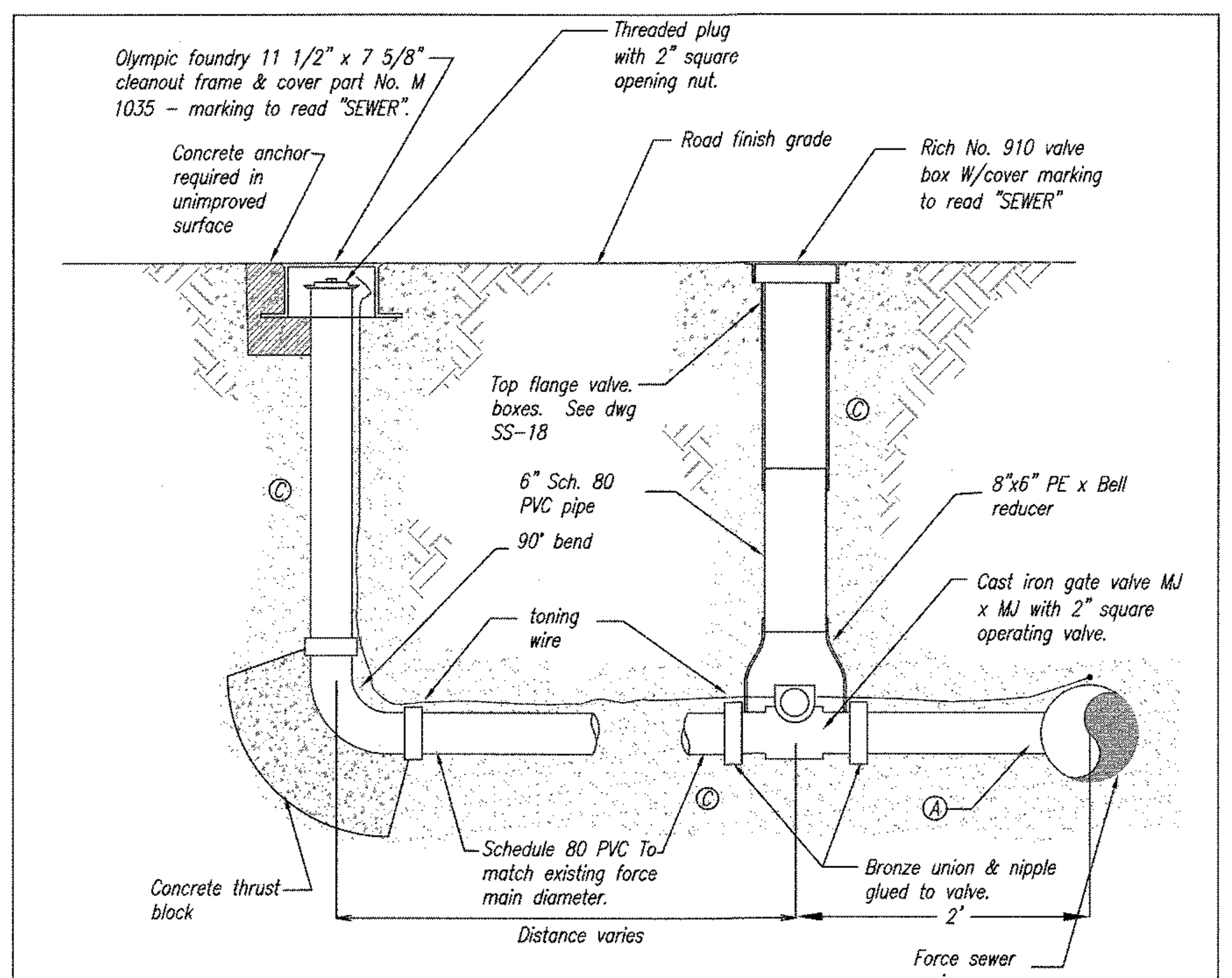
REVISIONS:	DATE:	DRAWN:	DESIGNED:



PRESSURE MAIN BURIED GATE VALVE — PLAN # SS-18

CITY OF LA CENTER APPROVED — Bart Stepp, PE 7/23/09 — CITY ENGINEER — DATE

REVISIONS:	DATE:	DRAWN:	DESIGNED:



NOTES:

(A) MJ x MJ x MJ Wye or MJ x MY sleeve.

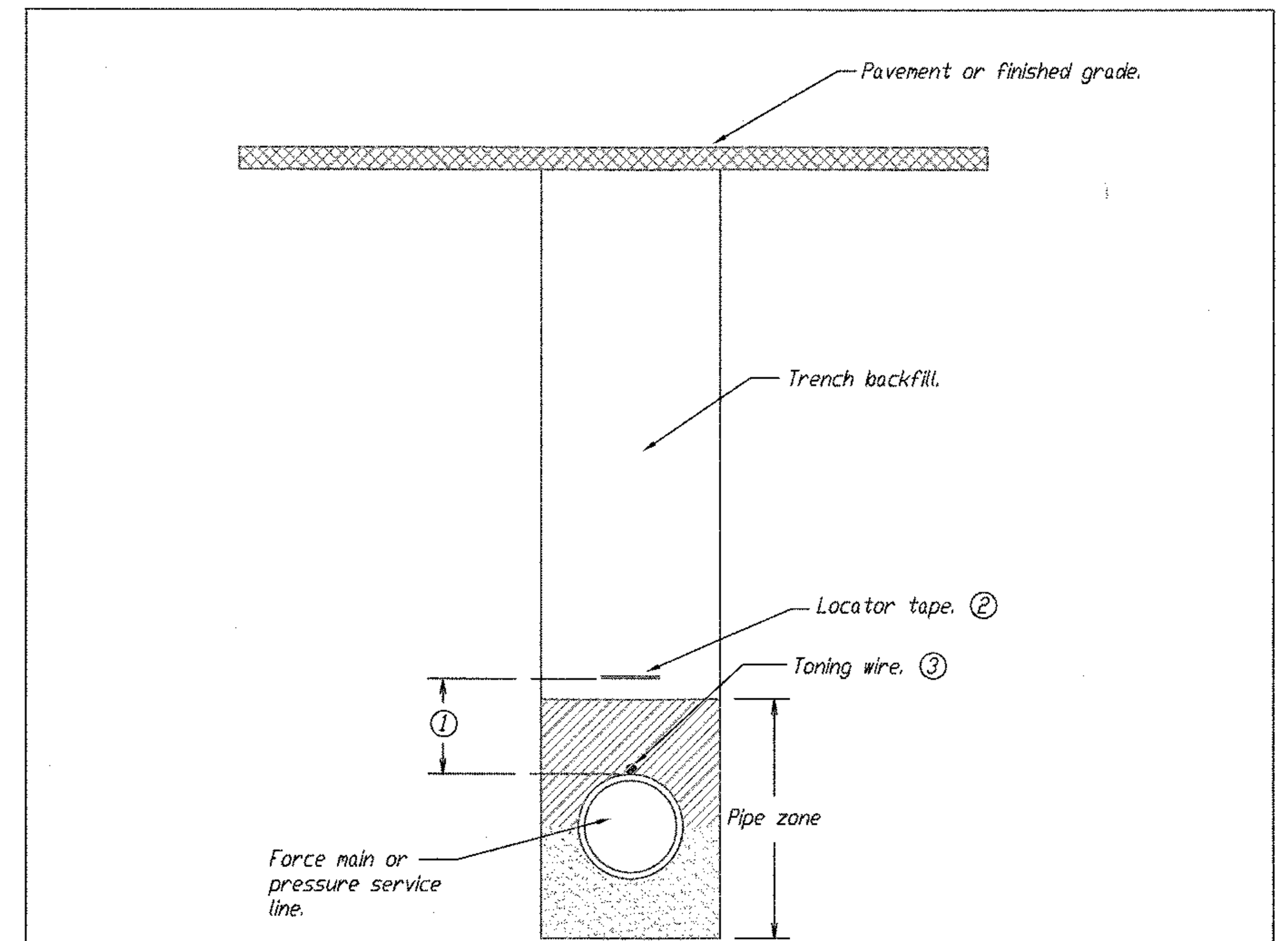
(B) Concrete shall be 3,000 P.S.I.

(C) Bedding and backfill to conform with class of bedding and type of backfill specified for sewer line extension.

TYPICAL PRESSURE CLEANOUT — PLAN # SS-19

CITY OF LA CENTER APPROVED — Bart Stepp, PE 10/4/10 — CITY ENGINEER — DATE

REVISIONS:	DATE:	DRAWN:	DESIGNED:
1	10/4/10	BES	BES



(1) Locator tape to be located eighteen (18) inches above a force main and twelve (12) inches above a pressure service line.

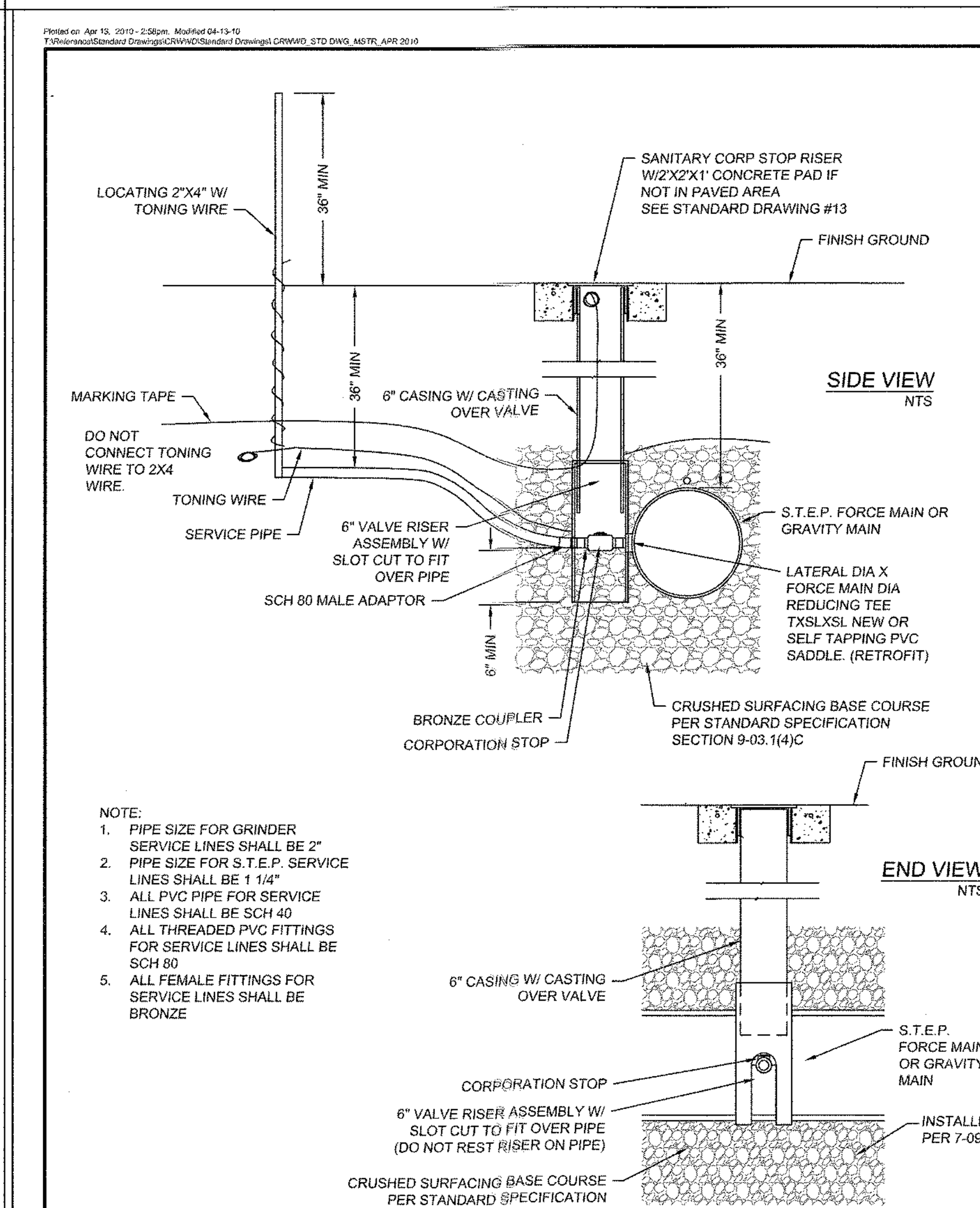
(2) The locator tape should be marked with continuous three (3) inch wide green six (6) mil thick locator three (3) inch high black letters every three (3) feet with "Warning - Buried Pressure Sewer".

(3) A continuous toning wire shall be attached to the top of the pressure service line. The toning wire shall be coated #10 AWG solid copper wire. The toning wire shall end in the valve box with a minimum of one (1) foot coil of wire. The toning wire shall be tested for continuity prior to acceptance. All splices will be soldered a minimum of two (2) inches in length and encased with 3M Scotch #220 vinyl mastic pads (3 1/2" by 4 1/2") or 3M Scotch 33 electrical tape and coated with Scotchkote electrical coating #1485 (repeat process after first coating dries), or approved equal.

TONING WIRE AND LOCATOR TAPE — PLAN # SS-20

CITY OF LA CENTER APPROVED — Bart Stepp, PE 7/23/09 — CITY ENGINEER — DATE

REVISIONS:	DATE:	DRAWN:	DESIGNED:



CLARK REGIONAL WASTEWATER DISTRICT — GRINDER / S.T.E.P.

RESIDENTIAL PRESSURE SERVICE CONNECTION — STANDARD DRAWING — 53 — APPROVED: APR 2010

HOLLEY PARK SUBDIVISION CONSTRUCTION PLANS

LA CENTER — WASHINGTON

PARCEL NO. 209055000, 209059000 AND 62965242 — NW 1/4 OF SEC. 2 T4N, R1E, W.M.

SANITARY SEWER NOTES AND DETAILS

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DESIGNED BY:	JRS
DRAWN BY:	MRE
MANAGED BY:	SMH
CHECKED BY:	JRS
DATE:	5/13/19

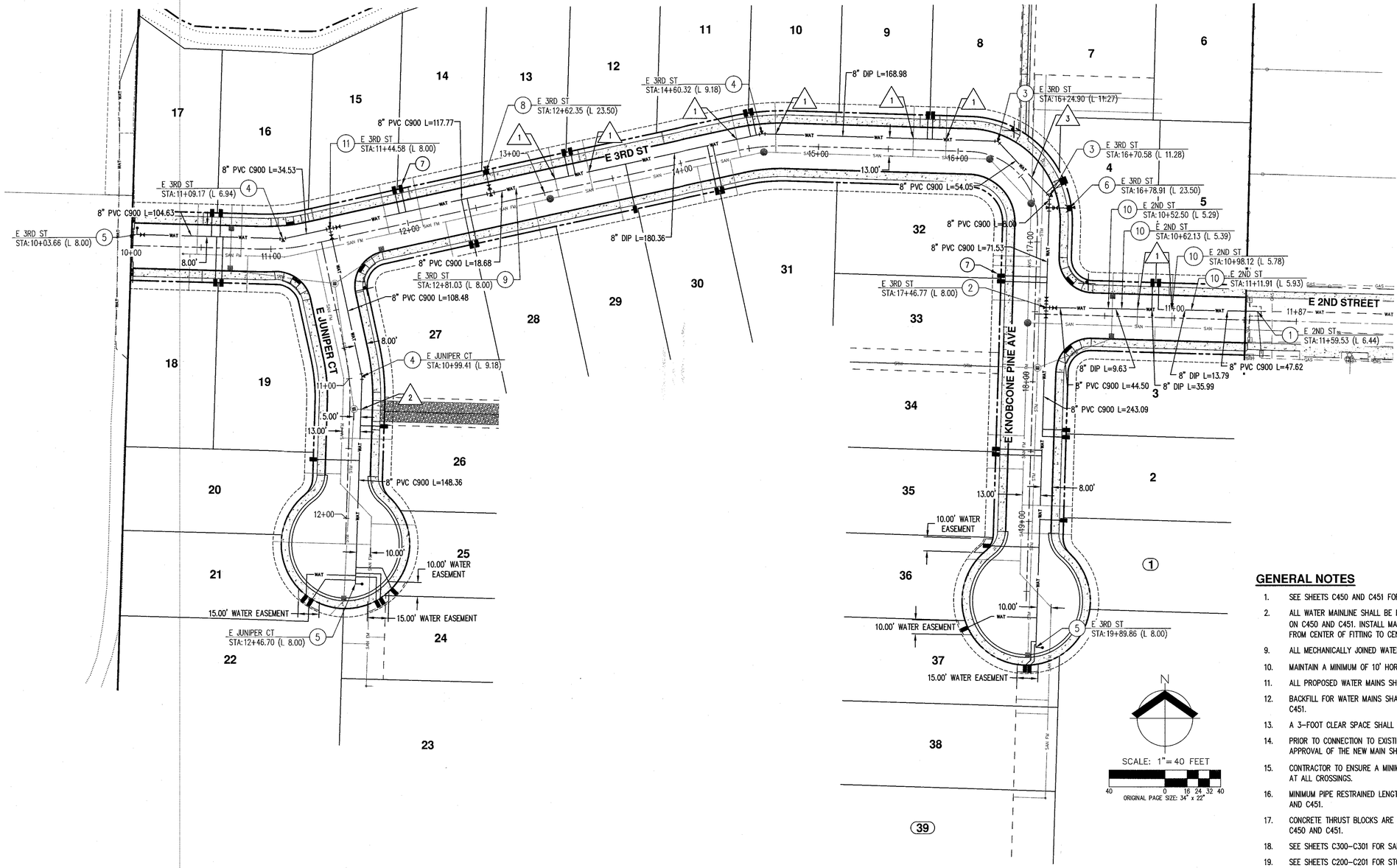
SETH MICHAEL HALLING — STATE OF WASHINGTON — 48813 REGISTERED PROFESSIONAL ENGINEER

REVISIONS

JOB NUMBER 6962

SHEET C351

AKS DRAWING FILE: 6962 C300 SAN.DWG | LAYOUT: C351



WATER CONSTRUCTION KEYED NOTES

1. CONNECT TO EXISTING 8" WATER MAIN. REMOVE EXISTING WATER BLOWOFF ASSEMBLY AND THRUST BLOCK AND CONNECT TO EXISTING 8" PVC PIPE BELL. BEGIN NEW WATER MAIN CONSTRUCTION FROM THIS POINT.
2. INSTALL:
   (1) 8" FLG TEE
   (2) 8" FLG X MJ GATE VALVE (N,S)
   (1) 8" FLG X MJ ADAPTOR (E)
   REFERENCE DETAILS ON SHEETS C450 AND C451.
3. INSTALL:
   (1) 8" 45° BEND WITH THRUST BLOCK.
   REFERENCE DETAILS ON SHEETS C450 AND C451.
4. INSTALL:
   (1) 8" 11.25° BEND WITH THRUST BLOCK
   REFERENCE DETAILS ON SHEETS C450 AND C451.
5. INSTALL
   (1) 8" TEMPORARY WATER BLOWOFF ASSEMBLY WITH THRUST BLOCK
   REFERENCE DETAILS ON SHEETS C450 AND C451.
6. INSTALL:
   (1) 8" X 6" MJ X SIDE FLG TEE WITH THRUST BLOCK
   (1) 6" FLG X MJ GATE VALVE
   (1) 14.54 LF 6" DIP-USE RESTRAINT LOCK GASKET ON ALL PIPE JOINTS
   (1) FIRE HYDRANT ASSEMBLY WITH THRUST BLOCK, RESTRAIN ALL PIPE ON EACH SIDE OF TEE AND TO HYDRANT PER DETAIL ON SHEET C451.
7. INSTALL:
   (1) 1" WATER SERVICE (TYP).
   (1) 1" X 3/4" ANGLE METER STOP WITH 3/4" WATER METER (TYP) FOR LOTS 8–14 AND 27–33 PER DETAIL ON SHEET C451.
   (1) 1" X 1" ANGLE METER STOP WITH 1" WATER METER (TYP) FOR LOTS 1–7, 15–26, AND 34–39 PER DETAIL ON SHEET C451.
8. INSTALL:
   (1) 8" X 6" MJ X SIDE FLG TEE WITH THRUST BLOCK
   (1) 6" FLG X MJ GATE VALVE
   (1) 15.50 LF 6" DIP-USE RESTRAINT LOCK GASKET ON ALL PIPE JOINTS
   (1) FIRE HYDRANT ASSEMBLY WITH THRUST BLOCK, RESTRAIN ALL PIPE ON EACH SIDE OF TEE AND TO HYDRANT PER DETAIL ON SHEET C451.
9. INSTALL 8" MJ LONG PATTERN SLEEVE. SEE SHEET C401 FOR PROFILE VIEW.
10. INSTALL
    (1) 8" 11.25° VERTICAL BEND WITH THRUST BLOCK
    REFERENCE DETAILS ON SHEETS C450 AND C451.
11. INSTALL
    (1) 8" FLG TEE
    (2) 8" FLG X MJ GATE VALVE (E,S)
    (1) FLG X MJ ADAPTOR (W)
    REFERENCE DETAILS ON SHEETS C450 AND C451.

NOTE: ALL MJ FITTINGS SHOULD BE RESTRAINED.

GENERAL NOTES

1. SEE SHEETS C450 AND C451 FOR GENERAL WATER CONSTRUCTION NOTES AND DETAILS.
2. ALL WATER MAINLINE SHALL BE PVC C900 OR DIP WITH PIPE BEDDING AND BACKFILL PER CPU STANDARD DETAILS ON C450 AND C451. INSTALL MAINLINE WITH 36" COVER (MIN.) UNLESS SHOWN OTHERWISE. LENGTHS SHOWN ARE FROM CENTER OF FITTING TO CENTER OF FITTING.
9. ALL MECHANICALLY JOINED WATER CONNECTIONS SHALL BE MECHANICALLY RESTRAINED.
10. MAINTAIN A MINIMUM OF 10' HORIZONTAL AND 18" VERTICAL CLEARANCE BETWEEN SEWER AND WATER LINES.
11. ALL PROPOSED WATER MAINS SHALL BE PUBLICLY OWNED.
12. BACKFILL FOR WATER MAINS SHALL BE IN ACCORDANCE WITH CPU STANDARDS PER DETAILS ON SHEET C450 AND C451.
13. A 3-FOOT CLEAR SPACE SHALL BE MAINTAINED AROUND ALL FIRE HYDRANTS.
14. PRIOR TO CONNECTION TO EXISTING WATER MAIN; DISINFECTION, PRESSURE TESTING, BACTERIOLOGICAL TESTING, AND APPROVAL OF THE NEW MAIN SHALL BE COMPLETED.
15. CONTRACTOR TO ENSURE A MINIMUM OF 18" VERTICAL CLEARANCE BETWEEN WATER MAIN AND SANITARY LATERALS AT ALL CROSSINGS.
16. MINIMUM PIPE RESTRAINED LENGTHS NEAR FITTINGS ARE DETAILED IN THE CPU STANDARD DETAILS SHEETS C450 AND C451.
17. CONCRETE THRUST BLOCKS ARE REQUIRED AT ALL TEES, BENDS, BLOW OFFS, AND DEAD ENDS. SEE DETAILS, SHEET C450 AND C451.
18. SEE SHEETS C300–C301 FOR SANITARY SEWER CROSSINGS.
19. SEE SHEETS C200–C201 FOR STORM SEWER CROSSINGS.
20. LOTS 1–7, 15–26, AND 34–39 WILL INSTALL FIRE SPRINKLERS WITH HOME CONSTRUCTION.
21. ALL WATER METERS SHALL BE WITHIN PUBLIC RIGHT-OF-WAY OR A MINIMUM OF 5'X10' EASEMENT TO CPU AND PLACED IN A NON-PAVED SURFACE.
22. NO STRUCTURES INCLUDING TREES AND SHRUBS SHALL BE PERMITTED WITHIN ANY WATER EASEMENT.

UTILITY CONFLICTS: (#)

1 WATER MAIN AND SANITARY SEWER LATERAL CROSSING. WATER MAIN TO DIVE UNDER SANITARY SEWER LATERAL. MAINTAIN 18" OF VERTICAL CLEARANCE. SEE SHEET C401 AND C403 FOR MORE DETAILS.

2 WATER MAIN AND STORMWATER MAIN CROSSING. WATER TO CROSS ABOVE STORMWATER MAIN. MAINTAIN 6" OF VERTICAL CLEARANCE. SEE SHEET C402 FOR MORE DETAILS.

3 WATER MAIN AND SANITARY SEWER LATERAL CROSSING. WATER MAIN TO CROSS OVER SANITARY SEWER LATERAL. MAINTAIN 18" OF VERTICAL CLEARANCE. SEE SHEET C401 FOR MORE DETAILS.

CLARK PUBLIC UTILITIES - WATER SERVICES CONSTRUCTION INSPECTION CHECKLIST

UTILITY INSPECTOR INITIALS	DATE	PRIOR TO FINAL ACCEPTANCE
_____	_____	SATISFACTORY WATER SYSTEM BACTERIAL AND PRESSURE TESTS SUCCESSFULLY COMPLETED BY THE CLARK PUBLIC UTILITIES WATER SERVICES INSPECTOR
_____	_____	ALL STATE APPROVED BACKFLOW ASSEMBLIES INSTALLED, AND TEST REPORTS SUBMITTED TO CLARK COUNTY AND CLARK PUBLIC UTILITIES WATER SERVICES
N/A	N/A	ALL REQUIRED SIGNED EASEMENTS SUBMITTED TO CLARK PUBLIC UTILITIES WATER SERVICES FOR RECORDING

WATER SERVICE PRESSURE NOTE

1A THE STATIC WATER PRESSURE AT THE METERS WILL BE APPROXIMATELY 75 PSI, DEPENDING ON RESERVOIR LEVEL, NUMBER OF OPERATING WELLS, AND METER ELEVATION.

CLARK PUBLIC UTILITIES - WATER

UTILITY WORK ORDER NO. _____

_____ _____

SIGNED BY DATE

AKS ENGINEERING & FORESTRY, LLC
9600 NE 126TH AVE STE 2520
VANCOUVER, WA 98682
P: 360.882.0419
F: 360.882.0426
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ENGINEERING · SURVEYING · NATURAL RESOURCES
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HOLLEY PARK SUBDIVISION CONSTRUCTION PLANS

LA CENTER WASHINGTON
NW 1/4 OF SEC 2 T4N, R1E, W.M.
PARCEL NO. 209055000, 209059000 AND 62965242

WATER PLAN

DESIGNED BY: JRS
DRAWN BY: MRE
MANAGED BY: SMH
CHECKED BY: JRS
DATE: 5/13/19

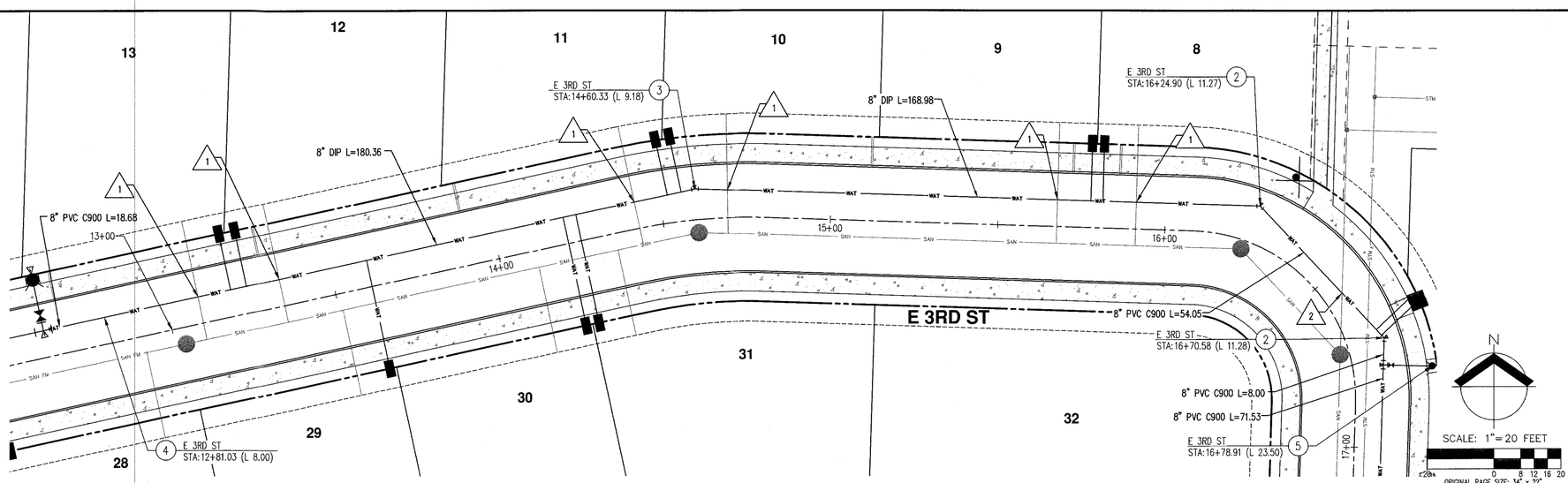
SETH MICHAEL HALLING
STATE OF WASHINGTON
49813
REGISTERED
PROFESSIONAL ENGINEER

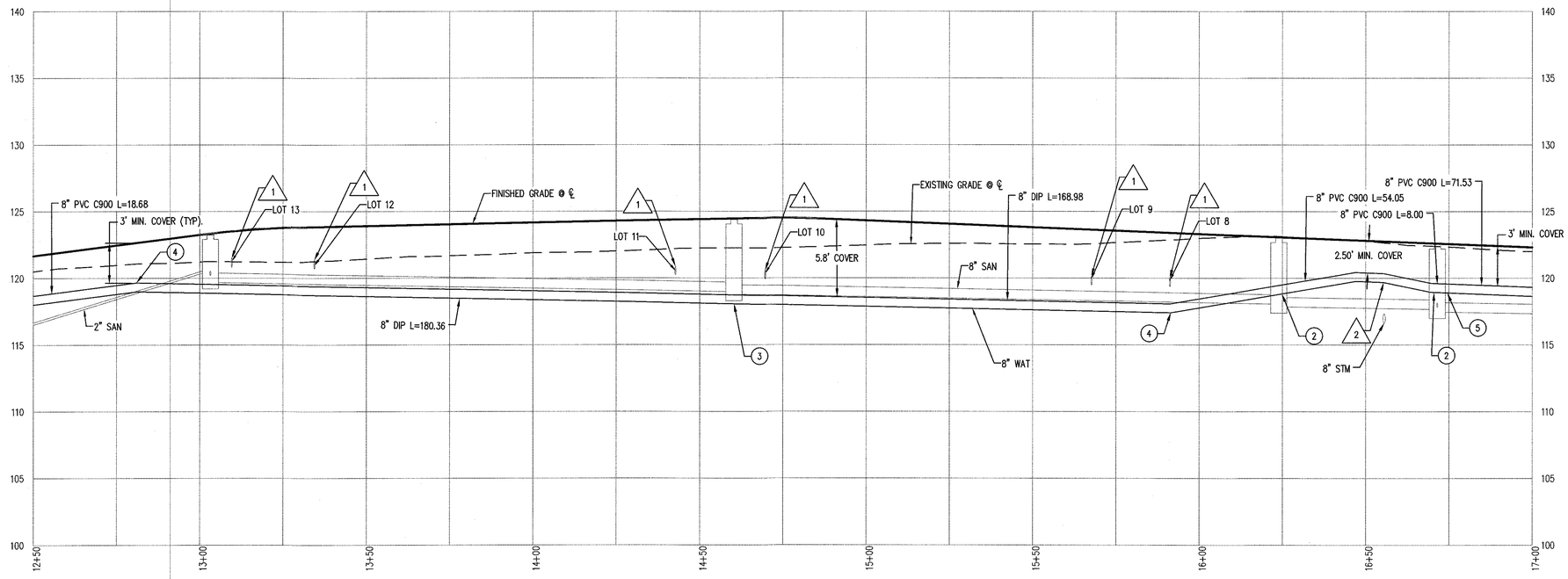
REVISIONS

JOB NUMBER
6962

SHEET
C400

AKS DRAWING FILE: 6962 C400 WATER.DWG | LAYOUT: C400





E 3RD ST PROFILE
HOR: 1"= 40'
VERT: 1"= 10'
STATIONING IS BASED ON STREET CENTERLINE UNLESS OTHERWISE NOTED

UTILITY CONFLICTS: (#)

1 WATER MAIN AND SANITARY SEWER LATERAL CROSSING. WATER MAIN TO DIVE UNDER SANITARY SEWER LATERAL. THE SANITARY SEWER LATERAL ELLIPSE SHOWN IN PROFILE VIEW IS AT THE CROSSING OF THE WATER MAIN. MAINTAIN 18" CLEARANCE. THE LENGTH OF SEWER PIPE SHALL BE CENTERED AT THE POINTS OF CROSSING SO THAT THE JOINTS WILL BE EQUIDISTANT AND AS FAR AS POSSIBLE FROM THE WATER LINE. SEE LATERAL CROSSING DETAIL ON THIS SHEET FOR MORE INFORMATION.

2 WATER MAIN AND SANITARY SEWER LATERAL CROSSING. WATER MAIN TO CROSS OVER SANITARY SEWER LATERAL. MAINTAIN 18" OF VERTICAL CLEARANCE. SEE SHEET C401 FOR MORE DETAILS.

CLARK PUBLIC UTILITIES - WATER

UTILITY WORK ORDER NO. _____

SIGNED BY _____ DATE _____

CLARK PUBLIC UTILITIES - WATER SERVICES CONSTRUCTION INSPECTION CHECKLIST

UTILITY INSPECTOR INITIALS	DATE	PRIOR TO FINAL ACCEPTANCE
_____	_____	SATISFACTORY WATER SYSTEM BACTERIAL AND PRESSURE TESTS SUCCESSFULLY COMPLETED BY THE CLARK PUBLIC UTILITIES WATER SERVICES INSPECTOR
_____	_____	ALL STATE APPROVED BACKFLOW ASSEMBLIES INSTALLED, AND TEST REPORTS SUBMITTED TO CLARK COUNTY AND CLARK PUBLIC UTILITIES WATER SERVICES
N/A	N/A	ALL REQUIRED SIGNED EASEMENTS SUBMITTED TO CLARK PUBLIC UTILITIES WATER SERVICES FOR RECORDING

WATER SERVICE PRESSURE NOTE

1A THE STATIC WATER PRESSURE AT THE METERS WILL BE APPROXIMATELY 75 PSI, DEPENDING ON RESERVOIR LEVEL, NUMBER OF OPERATING WELLS, AND METER ELEVATION.

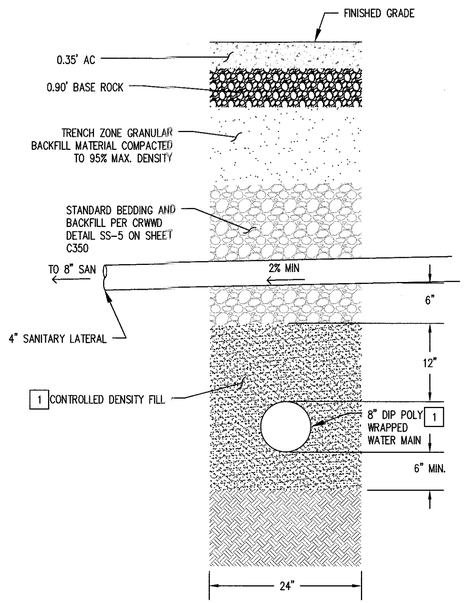
WATER CONSTRUCTION KEYED NOTES (i)

1. CENTER A FULL STICK OF 8" DUCTILE IRON PIPE AT SANITARY SEWER LATERAL CROSSING. CONTROLLED DENSITY FILL AND POLY WRAP TO BE 25' LONG AND ENCLOSE THE FULL STICK OF 8" DUCTILE IRON PIPE AND ADJOINING PIPE JOINTS.
2. INSTALL:
   (1) 8" 45° BEND WITH THRUST BLOCK
   REFERENCE DETAILS ON SHEETS C450 AND C451.
3. INSTALL:
   (1) 8" 11.25° BEND WITH THRUST BLOCK
   REFERENCE DETAILS ON SHEETS C450 AND C451.
4. INSTALL 8" MJ LONG PATTERN SLEEVE.
5. INSTALL:
   (1) 8" X 6" MJ X SIDE FLG TEE WITH THRUST BLOCK
   (1) 6" FLG X MJ GATE VALVE
   (1) 14.00 LF 6" DIP–USE RESTRAINT LOCK GASKET ON ALL PIPE JOINTS
   (1) FIRE HYDRANT ASSEMBLY WITH THRUST BLOCK
   RESTRAIN ALL PIPE ON EACH SIDE OF TEE AND TO HYDRANT PER DETAIL ON SHEET C451.

   NOTE: ALL MJ FITTINGS SHOULD BE RESTRAINED.

GENERAL NOTES

1. SEE SHEETS C450 AND C451 FOR GENERAL WATER CONSTRUCTION NOTES AND DETAILS.
2. ALL WATER MAINLINE SHALL BE PVC C900 OR DIP WITH PIPE BEDDING AND BACKFILL PER CPU STANDARD DETAILS ON C450 AND C451. INSTALL MAINLINE WITH 36" COVER (MIN.) UNLESS SHOWN OTHERWISE. LENGTHS SHOWN ARE FROM CENTER OF FITTING TO CENTER OF FITTING.
9. ALL MECHANICALLY JOINED WATER CONNECTIONS SHALL BE MECHANICALLY RESTRAINED.
10. MAINTAIN A MINIMUM OF 10' HORIZONTAL AND 18" VERTICAL CLEARANCE BETWEEN SEWER AND WATER LINES.
11. ALL PROPOSED WATER MAINS SHALL BE PUBLICLY OWNED.
12. BACKFILL FOR WATER MAINS SHALL BE IN ACCORDANCE WITH CPU STANDARDS PER DETAILS ON SHEET C450 AND C451.
13. A 3–FOOT CLEAR SPACE SHALL BE MAINTAINED AROUND ALL FIRE HYDRANTS.
14. PRIOR TO CONNECTION TO EXISTING WATER MAIN; DISINFECTION, PRESSURE TESTING, BACTERIOLOGICAL TESTING, AND APPROVAL OF THE NEW MAIN SHALL BE COMPLETED.
15. CONTRACTOR TO ENSURE A MINIMUM OF 18" VERTICAL CLEARANCE BETWEEN WATER MAIN AND SANITARY LATERALS AT ALL CROSSINGS.
16. MINIMUM PIPE RESTRAINED LENGTHS NEAR FITTINGS ARE DETAILED IN THE CPU STANDARD DETAILS SHEETS C450 AND C451.
17. CONCRETE THRUST BLOCKS ARE REQUIRED AT ALL TEES, BENDS, BLOW OFFS, AND DEAD ENDS. SEE DETAILS, SHEET C450 AND C451.
18. SEE SHEETS C300–C301 FOR SANITARY SEWER CROSSINGS.
19. SEE SHEETS C200–C201 FOR STORM SEWER CROSSINGS.
20. LOTS 1–7, 15–26, AND 34–39 WILL INSTALL FIRE SPRINKLERS WITH HOME CONSTRUCTION.
21. ALL WATER METERS SHALL BE WITHIN PUBLIC RIGHT–OF–WAY OR A MINIMUM OF 5'X10' EASEMENT TO CPU AND PLACED IN A NON–PAVED SURFACE.
22. NO STRUCTURES INCLUDING TREES AND SHRUBS SHALL BE PERMITTED WITHIN ANY WATER EASEMENT.



LATERAL CROSSING DETAIL
NTS

AKS ENGINEERING & FORESTRY, LLC
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VANCOUVER, WA 98682
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AKS
ENGINEERING · SURVEYING · NATURAL RESOURCES
FORESTRY · PLANNING · LANDSCAPE ARCHITECTURE

HOLLEY PARK SUBDIVISION CONSTRUCTION PLANS

LA CENTER WASHINGTON
NW 1/4 OF SEC 2 TAN, R1E, W.M.
PARCEL NO. 209055000, 209059000 AND 62965242

WATER PLAN AND PROFILE (E 3RD ST)

DESIGNED BY: JRS
DRAWN BY: MRE
MANAGED BY: SMH
CHECKED BY: JRS
DATE: 5/13/19

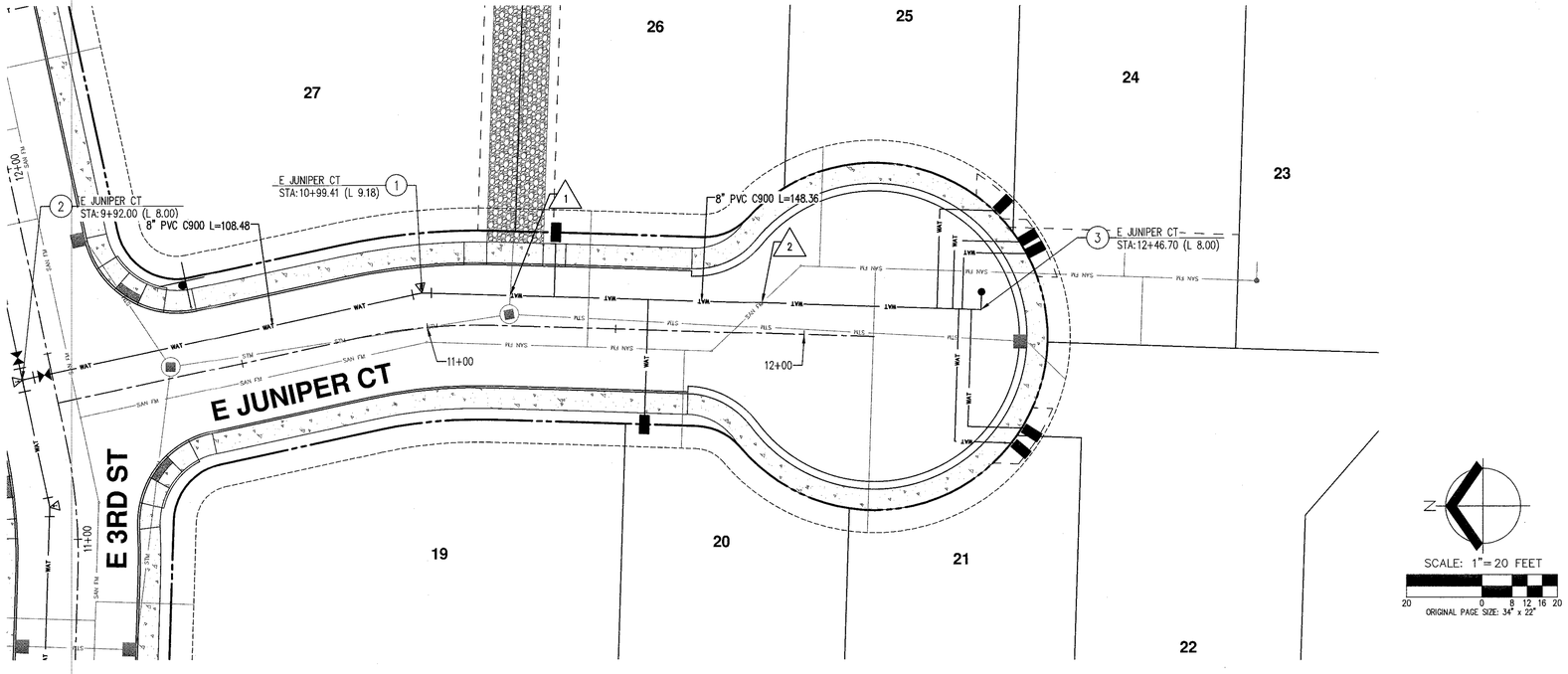
SETH MICHAEL HALLOCK
STATE OF WASHINGTON
48813
REGISTERED
PROFESSIONAL ENGINEER

REVISIONS

JOB NUMBER
6962

SHEET
C401

AKS DRAWING FILE: 6962 C400 WATJNG | LAYOUT: C401



SCALE: 1"= 20 FEET

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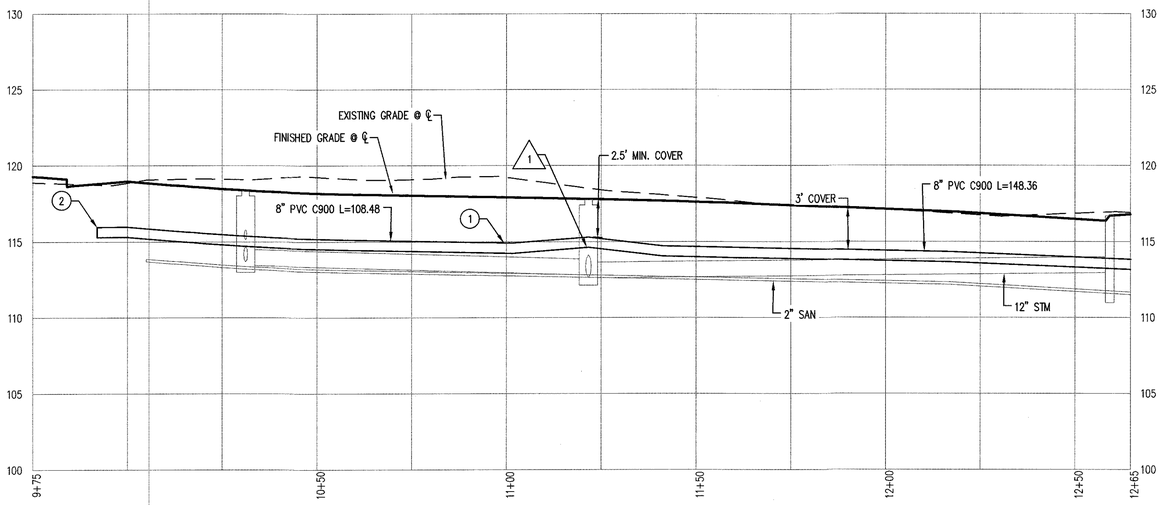
ORIGINAL PAGE SIZE: 34" x 22"



E JUNIPER CT PROFILE
HOR: 1"= 40'
VERT: 1"= 10'
STATIONING IS BASED ON STREET CENTERLINE UNLESS OTHERWISE NOTED

WATER CONSTRUCTION KEYED NOTES (#)

1. INSTALL:
   (1) 8" 11.25° BEND WITH THRUST BLOCK.
   REFERENCE DETAILS ON SHEETS C450 AND C451.
2. INSTALL:
   (1) 8" FLG TEE
   (2) 8" FLG X MJ GATE VALVE (N,S)
   (1) 8" FLG ADAPTOR (E)
   REFERENCE DETAILS ON SHEETS C450 AND C451.
3. (1) 8" WATER BLOWOFF ASSEMBLY WITH THRUST BLOCK
   REFERENCE DETAILS ON SHEETS C450 AND C451.

   NOTE: ALL MJ FITTINGS SHOULD BE RESTRAINED.

UTILITY CONFLICTS: (#)

1 WATER MAIN AND STORMWATER MAIN CROSSING. WATER TO CROSS ABOVE STORMWATER MAIN. MAINTAIN 6" OF VERTICAL CLEARANCE.

2 WATER MAIN AND SANITARY MAIN CROSSING. WATER TO CROSS ABOVE SANITARY MAIN. MAINTAIN 18" OF VERTICAL CLEARANCE.

GENERAL NOTES

1. SEE SHEETS C450 AND C451 FOR GENERAL WATER CONSTRUCTION NOTES AND DETAILS.
2. ALL WATER MAINLINE SHALL BE PVC C900 OR DIP WITH PIPE BEDDING AND BACKFILL PER CPU STANDARD DETAILS ON C450 AND C451. INSTALL MAINLINE WITH 36" COVER (MIN.) UNLESS SHOWN OTHERWISE. LENGTHS SHOWN ARE FROM CENTER OF FITTING TO CENTER OF FITTING.
9. ALL MECHANICALLY JOINED WATER CONNECTIONS SHALL BE MECHANICALLY RESTRAINED.
10. MAINTAIN A MINIMUM OF 10' HORIZONTAL AND 18" VERTICAL CLEARANCE BETWEEN SEWER AND WATER LINES.
11. ALL PROPOSED WATER MAINS SHALL BE PUBLICLY OWNED.
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21. ALL WATER METERS SHALL BE WITHIN PUBLIC RIGHT-OF-WAY OR A MINIMUM OF 5'X10' EASEMENT TO CPU AND PLACED IN A NON-PAVED SURFACE.
22. NO STRUCTURES INCLUDING TREES AND SHRUBS SHALL BE PERMITTED WITHIN ANY WATER EASEMENT.

CLARK PUBLIC UTILITIES - WATER

UTILITY WORK ORDER NO. _____

SIGNED BY _____ DATE _____

CLARK PUBLIC UTILITIES - WATER SERVICES CONSTRUCTION INSPECTION CHECKLIST

UTILITY INSPECTOR INITIALS	DATE	PRIOR TO FINAL ACCEPTANCE
		SATISFACTORY WATER SYSTEM BACTERIAL AND PRESSURE TESTS SUCCESSFULLY COMPLETED BY THE CLARK PUBLIC UTILITIES WATER SERVICES INSPECTOR
		ALL STATE APPROVED BACKFLOW ASSEMBLIES INSTALLED, AND TEST REPORTS SUBMITTED TO CLARK COUNTY AND CLARK PUBLIC UTILITIES WATER SERVICES
N/A	N/A	ALL REQUIRED SIGNED EASEMENTS SUBMITTED TO CLARK PUBLIC UTILITIES WATER SERVICES FOR RECORDING

WATER SERVICE PRESSURE NOTE

1A THE STATIC WATER PRESSURE AT THE METERS WILL BE APPROXIMATELY 75 PSI, DEPENDING ON RESERVOIR LEVEL, NUMBER OF OPERATING WELLS, AND METER ELEVATION.

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FORESTRY - PLANNING - LANDSCAPE ARCHITECTURE

HOLLEY PARK SUBDIVISION CONSTRUCTION PLANS

LA CENTER WASHINGTON
NW 1/4 OF SEC 2 T4N, R1E, W.M.
PARCEL NO. 209055000, 209059000 AND 62865242

WATER PLAN AND PROFILE (E JUNIPER CT)

DESIGNED BY: JRS
DRAWN BY: MRE
MANAGED BY: SMH
CHECKED BY: JRS
DATE: 5/13/19

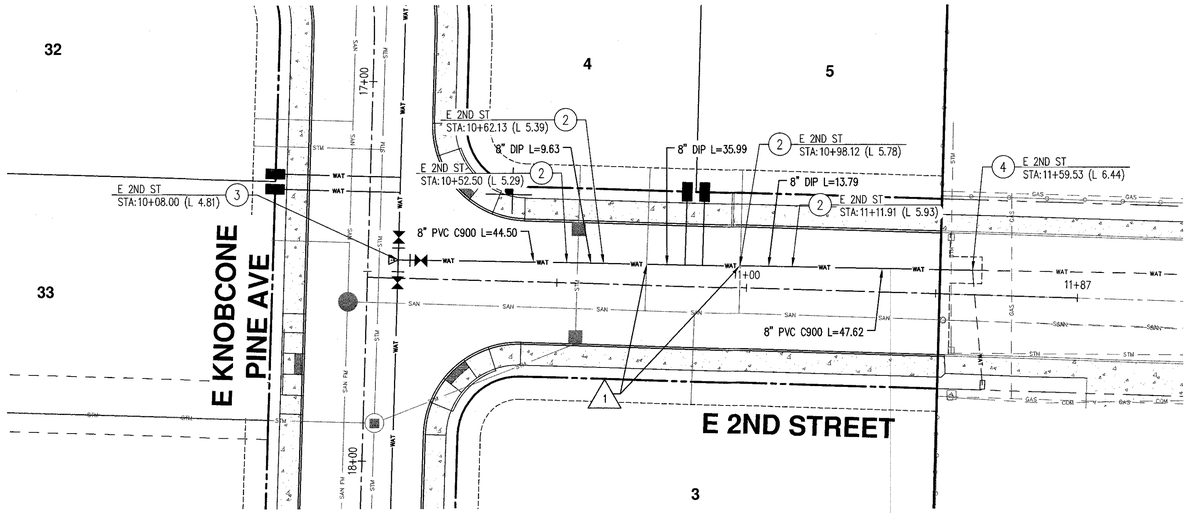
SETH MICHAEL HALTING
STATE OF WASHINGTON
48813
REGISTERED PROFESSIONAL ENGINEER

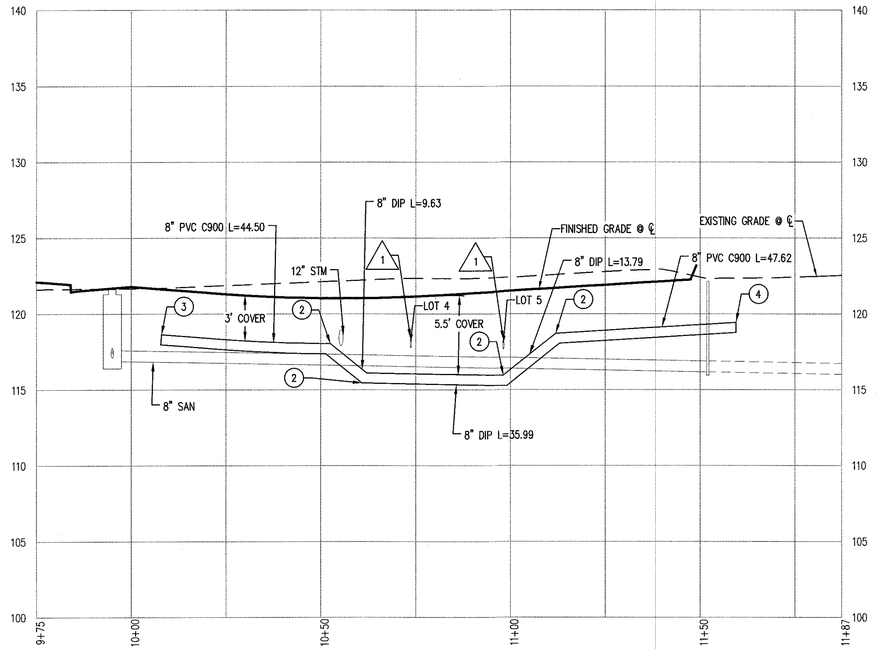
REVISIONS

JOB NUMBER
6962

SHEET
C402

AKS DRAWING FILE: 6962 C400 WATJOINT LAYOUT C402





E 2ND ST PROFILE
HOR: 1"= 40'
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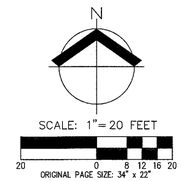
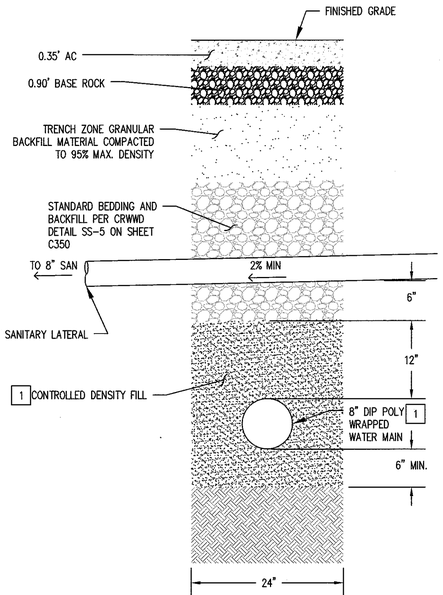
STATIONING IS BASED ON STREET CENTERLINE UNLESS OTHERWISE NOTED





LATERAL CROSSING DETAIL
NTS

WATER CONSTRUCTION KEYED NOTES (#)

1. CENTER A FULL STICK OF 8" DUCTILE IRON PIPE AT SANITARY SEWER LATERAL CROSSING. CONTROLLED DENSITY FILL AND POLY WRAP TO BE 25' LONG AND ENCLOSE THE FULL STICK OF 8" DUCTILE IRON PIPE AND ADJOINING PIPE JOINTS.
2. INSTALL:
   (1) 8" 45° VERTICAL BEND WITH THRUST BLOCK
   REFERENCE DETAILS ON SHEETS C450 AND C451.
3. INSTALL:
   (1) 8" FLG TEE
   (2) 8" FLG X MJ GATE VALVE (N,S)
   (1) 8" FLG ADAPTOR (E)
   REFERENCE DETAILS ON SHEETS C450 AND C451.
4. CONNECT TO EXISTING 8" PVC C900 WATER MAIN. REMOVE EXISTING WATER BLOWOFF ASSEMBLY AND THRUST BLOCK AND CONNECT TO EXISTING 8" PVC PIPE BELL. BEGIN NEW WATER MAIN CONSTRUCTION FROM THIS POINT.

   NOTE: ALL MJ FITTINGS SHOULD BE RESTRAINED.

UTILITY CONFLICTS: (#)

1 WATER MAIN AND SANITARY SEWER LATERAL CROSSING. WATER MAIN TO DIVE UNDER SANITARY SEWER LATERAL. THE SANITARY SEWER LATERAL ELLIPSE SHOWN IN PROFILE VIEW IS AT THE CROSSING OF THE WATER MAIN. MAINTAIN 18" CLEARANCE. THE LENGTH OF SEWER PIPE SHALL BE CENTERED AT THE POINTS OF CROSSING SO THAT THE JOINTS WILL BE EQUIDISTANT AND AS FAR AS POSSIBLE FROM THE WATER LINE. SEE LATERAL CROSSING DETAIL ON THIS SHEET FOR MORE INFORMATION.

GENERAL NOTES

1. SEE SHEETS C450 AND C451 FOR GENERAL WATER CONSTRUCTION NOTES AND DETAILS.
2. ALL WATER MAINLINE SHALL BE PVC C900 OR DIP WITH PIPE BEDDING AND BACKFILL PER CPU STANDARD DETAILS ON C450 AND C451. INSTALL MAINLINE WITH 36" COVER (MIN.) UNLESS SHOWN OTHERWISE. LENGTHS SHOWN ARE FROM CENTER OF FITTING TO CENTER OF FITTING.
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22. NO STRUCTURES INCLUDING TREES AND SHRUBS SHALL BE PERMITTED WITHIN ANY WATER EASEMENT.

CLARK PUBLIC UTILITIES - WATER SERVICES CONSTRUCTION INSPECTION CHECKLIST

UTILITY INSPECTOR INITIALS	DATE	PRIOR TO FINAL ACCEPTANCE
_____	_____	SATISFACTORY WATER SYSTEM BACTERIAL AND PRESSURE TESTS SUCCESSFULLY COMPLETED BY THE CLARK PUBLIC UTILITIES WATER SERVICES INSPECTOR
_____	_____	ALL STATE APPROVED BACKFLOW ASSEMBLIES INSTALLED, AND TEST REPORTS SUBMITTED TO CLARK COUNTY AND CLARK PUBLIC UTILITIES WATER SERVICES
N/A	N/A	ALL REQUIRED SIGNED EASEMENTS SUBMITTED TO CLARK PUBLIC UTILITIES WATER SERVICES FOR RECORDING

WATER SERVICE PRESSURE NOTE

1A THE STATIC WATER PRESSURE AT THE METERS WILL BE APPROXIMATELY 75 PSI, DEPENDING ON RESERVOIR LEVEL, NUMBER OF OPERATING WELLS, AND METER ELEVATION.

CLARK PUBLIC UTILITIES - WATER

UTILITY WORK ORDER NO. _____

SIGNED BY _____ DATE _____

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ENGINEERING - SURVEYING - NATURAL RESOURCES
FORESTRY - PLANNING - LANDSCAPE ARCHITECTURE

HOLLEY PARK SUBDIVISION CONSTRUCTION PLANS

LA CENTER WASHINGTON
NW 1/4 OF SEC 2 T4N, R1E, W.M.
PARCEL NO. 209055000, 209059000 AND 62965242

WATER PLAN AND PROFILE (E 2ND ST)

DESIGNED BY: JRS
DRAWN BY: MRE
MANAGED BY: SMH
CHECKED BY: JRS
DATE: 5/13/19

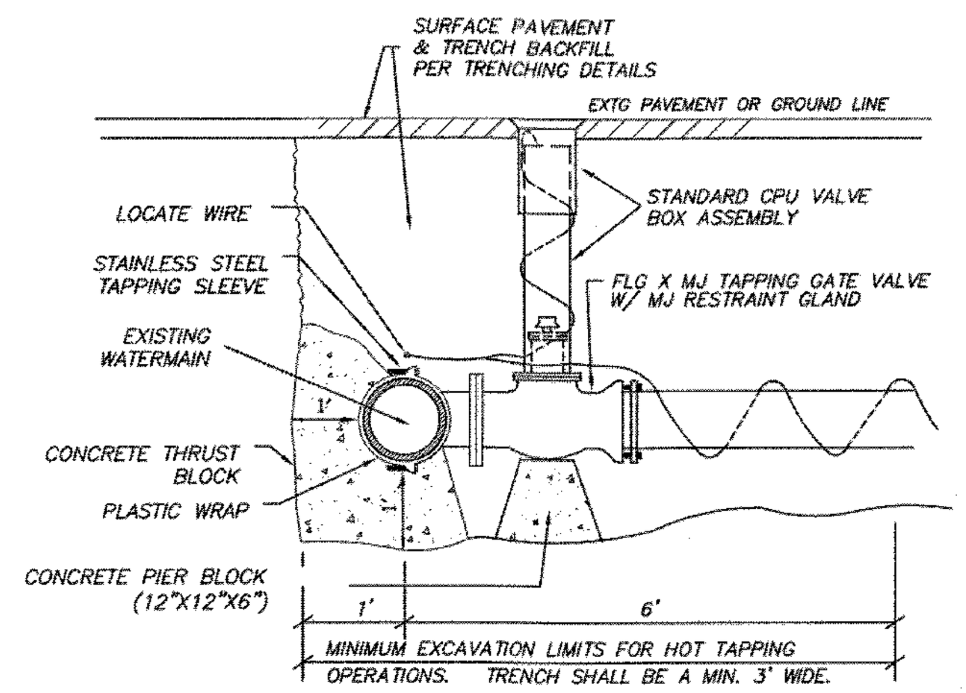
SETH MICHAEL TALLEN
STATE OF WASHINGTON
48813
REGISTERED
PROFESSIONAL ENGINEER

REVISIONS

JOB NUMBER 6962

SHEET C403

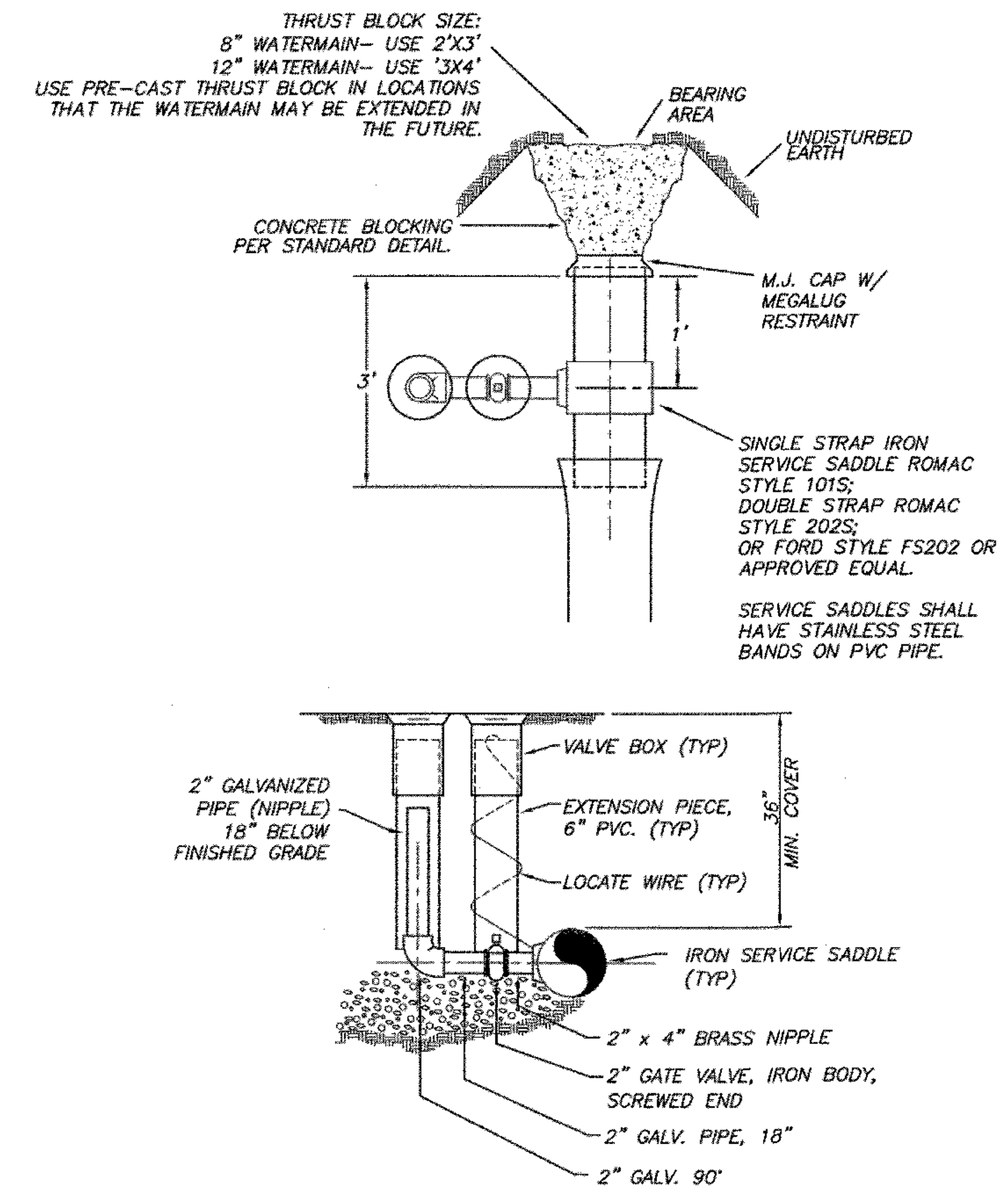
AKS DRAWING FILE: 6962 C400 WATDWG | LAYOUT: C403



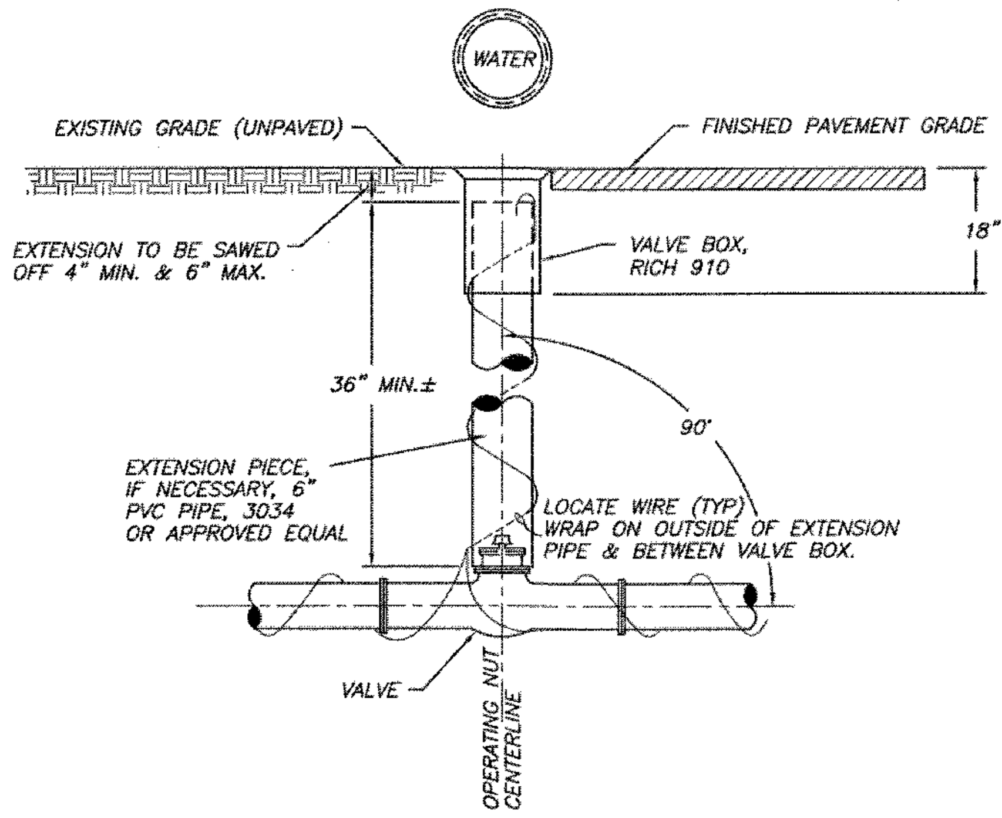
NOTES

1. LAYOUT AND TAP LOCATION SHALL BE APPROVED BY THE CPU INSPECTOR PRIOR TO EXCAVATING. CONTACT THE CPU INSPECTOR 2 DAYS IN ADVANCE PRIOR TO SCHEDULING THE HOT TAP.
2. HOT TAPS MAY ONLY BE DONE BY A CPU APPROVED TAPPING CONTRACTOR
3. THE CPU INSPECTOR SHALL BE AT THE WORKSITE DURING TAPPING OPERATIONS.
4. THRUST BLOCK SHALL BE POURED AGAINST FIRM UNDISTURBED SOIL. USE PLASTIC OR OTHER PROTECTIVE MATERIAL BETWEEN PIPE/FITTINGS AND THRUST BLOCK.
5. TRENCH EXCAVATIONS OVER 4' WILL REQUIRE SHORING OR OTHER MEASURES CONSISTANT WITH APPLICABLE LOCAL, STATE OR FEDERAL SAFETY CODES.

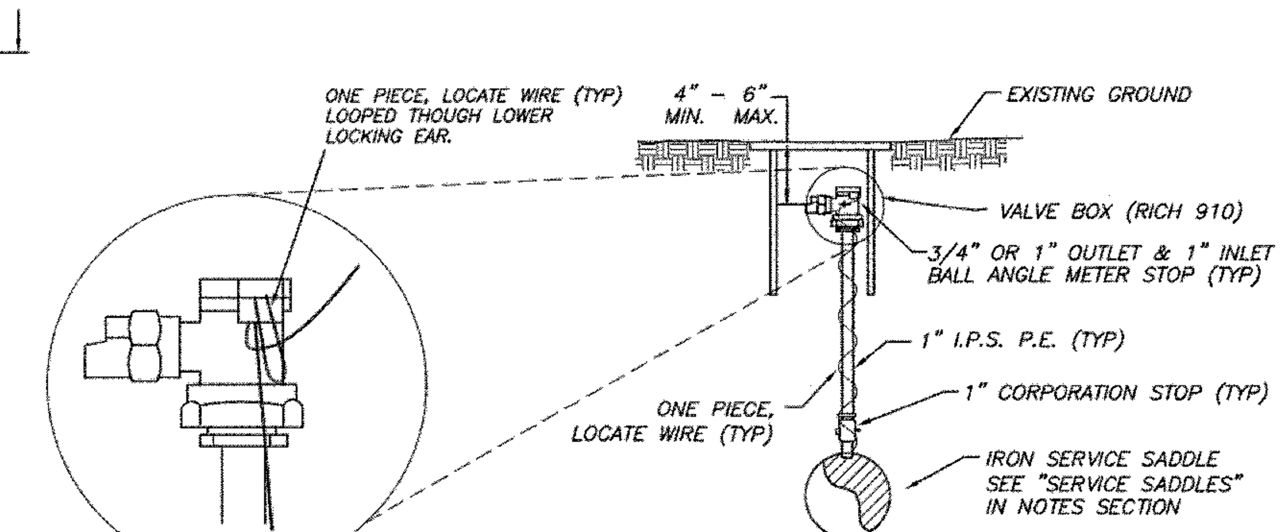
STANDARD HOT TAP



STANDARD BLOW-OFF ASSEMBLY (PERMANENT)

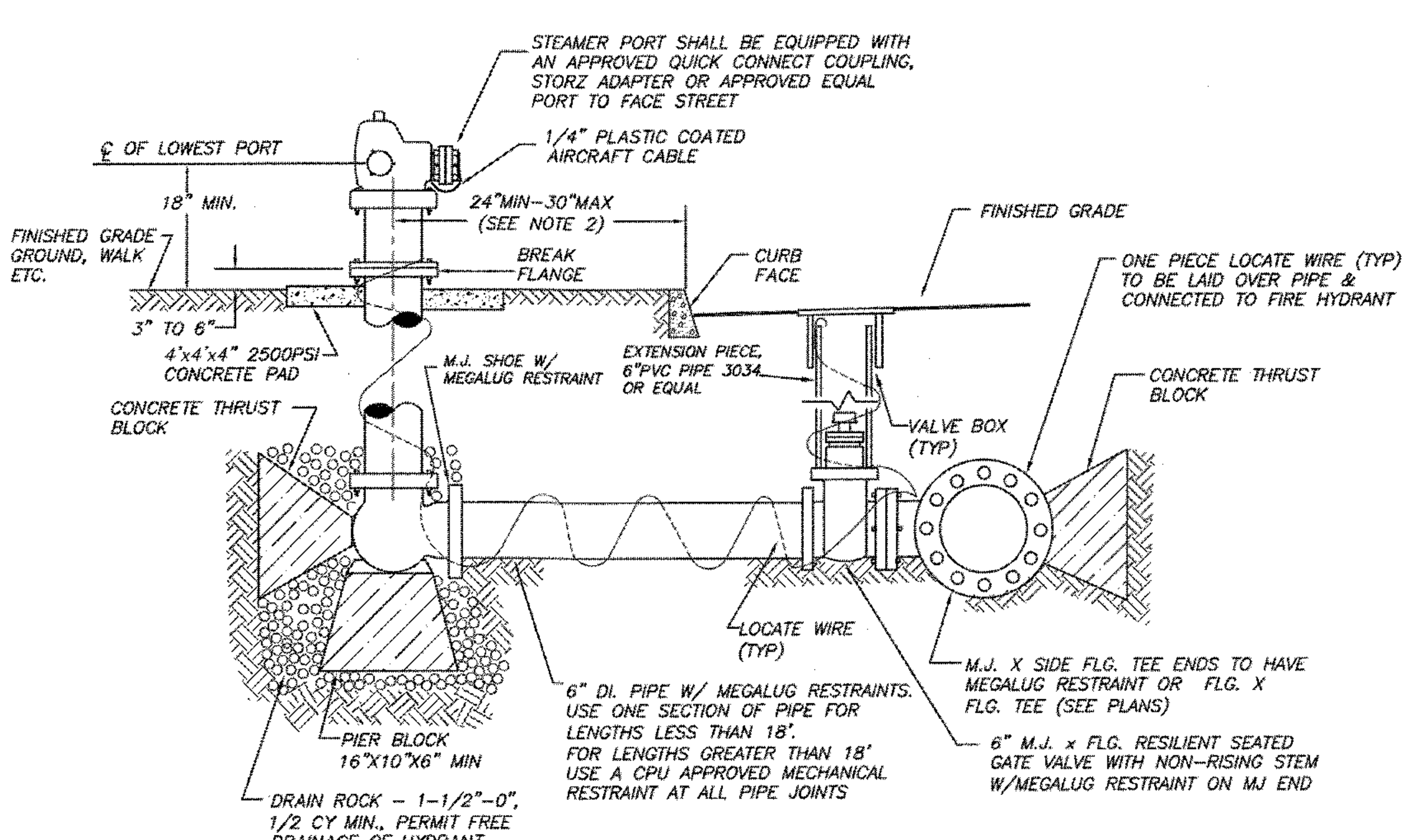


STANDARD VALVE BOX ASSEMBLY



1. ALL COMPRESSION FITTINGS TO HAVE STAINLESS STEEL INSERTS.

STANDARD MANUAL AIR RELEASE VALVE



FIRE HYDRANT NOTES:

1. FIRE HYDRANT INSTALLATIONS SHALL BE INSPECTED PRIOR TO BACKFILLING.
2. WHERE HYDRANTS ARE SET BEHIND SIDEWALK, DISTANCE FROM BACK OF SIDEWALK TO HYDRANT C/L SHALL BE 18" MIN., 24" MAX.
3. FIRE HYDRANTS SHALL BE SHOP PAINTED PRIOR TO INSTALLATION W/STANDARD A.W.W.A, GLOSS B, YELLOW

APPROVED HYDRANTS

WATEROUS	WB67-90 AND/OR -250
MUELLER	CENTURION
CLOW	MEDALLION
M&H	929
KENNEDY	K 81 D
AVK	SERIES 29
EJ	73527D

STANDARD FIRE HYDRANT ASSEMBLY

EXISTING WATER SERVICES:

THE CONTRACTOR SHALL TRANSFER, MOVE AND/OR ABANDON EXISTING WATER SERVICES AS DIRECTED BY THE CLARK PUBLIC UTILITIES INSPECTOR.

1. EXISTING WATER SERVICES TO BE ABANDONED SHALL BE EXCAVATED TO THE CORP. STOP AT THE WATER MAIN AND THE CORP STOP SHALL BE CLOSED.
THE METER BOX SHALL BE REMOVED AND THE WATER SERVICE LINE CAN BE ABANDONED IN PLACE. THE EXISTING METER SHALL BE RETURNED TO CLARK PUBLIC UTILITIES WATER DEPT. ROAD REPAIR SHALL BE AS REQUIRED BY THE CLARK COUNTY RIGHT OF WAY PERMIT REQUIREMENTS.

2. WHEN AN EXISTING WATER SERVICE IS TO BE MOVED, THE CONTRACTOR SHALL EXPOSE A PORTION OF THE EXISTING WATER SERVICE SO THAT THE CLARK PUBLIC UTILITIES INSPECTOR CAN EVALUATE THE MATERIAL SIZE AND CONDITION OF THE EXISTING WATER SERVICE LINE.

THE INSPECTOR WILL DETERMINE WHETHER THE WATER SERVICE LINE CAN BE EXTENDED OR SHORTENED. IF THE INSPECTOR DETERMINES THE EXISTING WATER SERVICE LINE IS SUBSTANDARD, THEN A NEW POLYETHYLENE (PE) SERVICE LINE SHALL BE INSTALLED FROM THE WATER MAIN (MINIMUM SIZE 1" DIA).
ALL EXISTING WATER SERVICE LINES THAT ARE LESS THAN 1" DIAMETER SHALL BE CONSIDERED SUBSTANDARD AND SHALL BE REPLACED WITH A NEW 1", 1-1/2", OR 2" WATER SERVICE LINE PER CLARK PUBLIC UTILITIES STANDARDS.

MAIN LINE PIPE MATERIAL:

UNLESS OTHERWISE STATED ON THE PLAN, ALL MAIN LINE PIPE SHALL BE EITHER DUCTILE IRON PIPE (DIP) OR POLYVINYL CHLORIDE PIPE (PVC).

A. DUCTILE IRON PIPE SHALL MEET THE FOLLOWING REQUIREMENTS:

1. PIPE.

A. DUCTILE IRON PIPE SHALL CONFORM TO ANSI A21.51 OR AWWA C151. USE PUSH-ON JOINTS EXCEPT WHERE OTHER JOINT TYPES ARE NOTED ON THE CONTRACT DRAWINGS. ALL DUCTILE IRON PIPE SHALL BE GAUGED FOR DIP 12" DIAMETER AND SMALLER. UNLESS SPECIFICALLY NOTED ON THE CONTRACT DRAWINGS, 3"-12" PIPE SHALL BE PRESSURE CLASS 350. PIPE SIZES GREATER THAN 12" DIAMETER SHALL BE THICKNESS CLASS 52, UNLESS OTHERWISE NOTED ON THE DRAWINGS.

B. POLYVINYL CHLORIDE (PVC) PRESSURE PIPE (4"-30"). PROVIDE UN-PLASTICIZED PVC PLASTIC PIPE WITH INTEGRAL BELL AND SPIGOT JOINTS. PIPE SHALL BE SUITABLE FOR POTABLE WATER SERVICE. PVC PIPE SHALL MEET THE FOLLOWING REQUIREMENTS:

1. PIPE.

A. LARGE DIAMETER PIPE (14"-30"). PIPE SHALL MEET THE REQUIREMENTS OF AWWA C905. PROVIDE PIPE MEETING THE REQUIREMENTS OF DR 18, UNLESS OTHERWISE NOTED ON THE DRAWING. USE PUSH-ON JOINTS EXCEPT WHERE OTHER JOINT TYPES ARE NOTED ON THE CONTRACT DRAWINGS.

B. SMALL DIAMETER PIPE (4"-12"). PIPE SHALL MEET THE REQUIREMENTS OF AWWA C900. PROVIDE PIPE MEETING THE REQUIREMENTS OF DR 18, UNLESS OTHERWISE NOTED ON THE DRAWINGS. USE PUSH-ON JOINTS EXCEPT WHERE OTHER JOINT TYPES ARE NOTED ON THE CONTRACT DRAWINGS.

GENERAL INSTALLATION NOTES:

1. INSTALL WATER MAIN WITH 3.0 FEET OF MINIMUM COVER UNLESS OTHERWISE NOTED. DEPTH MAY INCREASE AT UTILITY AND CULVERT CROSSINGS.

2. LOCATE WIRE SHALL BE COATED (BLUE INSULATED), NO. 14 GA. SOFT DRAWN SOLID COPPER. USE WATERPROOF CONNECTORS AT ALL WIRE SPLICES.

3. DRY CALCIUM HYPO CHLORIDE IN TABLET FORM, FAST DISSOLVING, WITH 65% MIN. AVAILABLE CHLORINE SHALL BE USED TO CHLORINATE ALL NEW MAINS. THE DOSAGE RATE SHALL BE A MINIMUM OF 25mg/L. THE NUMBER OF 5-g TABLETS TO BE APPLIED PER 20 FOOT LENGTH OF PIPE SHALL BE AS FOLLOWS:

PIPE SIZE	NUMBER OF TABLETS
4"	1
6"	1
8"	2
10"	3
12"	4

4. WHENEVER A PIPE IS CUT AND NOT RECONNECTED, THE CUT ENDS SHALL BE CAPPED OR PLUGGED, AS DIRECTED BY THE CPU INSPECTOR.

5. ALL WATER SERVICES, BLOW-OFF ASSEMBLIES, AIR RELEASE VALVES, FIRE HYDRANT ASSEMBLIES, VALVE BOXES AND THRUST BLOCKING SHALL BE INSTALLED PER THE STANDARD SPECIFICATIONS AND DETAILS.

6. WATER MAINS BEING INSTALLED NEAR TELEPHONE/CABLE COMMUNICATIONS SHALL HAVE A MINIMUM 12" HORIZONTAL AND 6" VERTICAL CLEARANCE.

7. WATER MAINS BEING INSTALLED NEAR UNDERGROUND POWERLINES SHALL HAVE A MINIMUM 48" (MAYBE REDUCED TO 24" FOR SHORT DISTANCES) HORIZONTAL AND 6" VERTICAL CLEARANCE.

8. REQUIRED SEPARATION BETWEEN WATER LINES AND SANITARY SEWER LINES SHALL BE AS FOLLOWS:

HORIZONTAL SEPARATIONS (PARALLEL)
A MINIMUM SEPARATION OF TEN (10) FEET (MEASURED EDGE TO EDGE) BETWEEN SANITARY SEWER LINES AND WATER LINES SHALL BE MAINTAINED WHENEVER POSSIBLE. WHEN CONDITIONS PREVENT THE MINIMUM TEN (10) FOOT HORIZONTAL SEPARATION THE ENGINEER SHALL BE NOTIFIED.

VERTICAL SEPARATION (PERPENDICULAR)
WATER LINES CROSSING SANITARY SEWER LINES SHALL BE LAID ABOVE THE SEWER LINES TO PROVIDE A SEPARATION OF AT LEAST 18" BETWEEN THE INVERT OF THE WATER PIPE AND THE CROWN OF THE SANITARY SEWER PIPE. A LENGTH OF WATER PIPE SHALL BE CENTERED AT THE POINT OF CROSSING AND SHALL BE THE LONGEST STANDARD LENGTH AVAILABLE FROM THE MANUFACTURER.

9. THE CONTRACTOR SHALL USE CONSTRUCTION METHODS THAT PROTECT THE PIPE INTERIORS, FITTINGS AND VALVES AGAINST CONTAMINATION.

10. ANY PIPE, FITTINGS OR VALVES THAT CANNOT BE DISINFECTED WITH THE MAIN LINE BY CHLORINE FOR 24 HOURS SHALL HAVE THE INTERIORS SWABBED WITH A 1% HYPOCHLORITE SOLUTION BEFORE INSTALLATION.

11. CONCRETE THRUST BLOCKS SHALL BE CONSTRUCTED AT ALL TEES, BENDS, BLOW-OFFS, DEAD ENDS AND WHERE INDICATED ON THE PLANS.

12. ALL MJ FITTINGS SHALL BE RESTRAINED USING MJ MECHANICAL RESTRAINT FOLLOWER GLANDS.

13. 6" WATER PIPE LEADING TO FIRE HYDRANTS SHALL BE DIP AND SHALL BE ONE CONTINUOUS PIECE OF PIPE. IF THE RUN IS LONGER THAN ONE PIECE OF PIPE, THEN ALL PIPE JOINTS SHALL BE MECHANICALLY RESTRAINED WITH "FIELD-LOK" GASKETS OR OTHER CPU APPROVED RESTRAINTS.

EROSION CONTROL NOTES:

1. CONSTRUCTION EROSION CONTROL SHALL BE AS REQUIRED AND CONFORMING WITH THE CLARK COUNTY DRAINAGE AND EROSION CONTROL ORDINANCE. REFER TO THE CLARK COUNTY DEPARTMENT OF PUBLIC WORKS STANDARD EROSION CONTROL DETAILS.

2. ALL EXPOSED SOILS SHALL BE STABILIZED, IN A TIMELY MANNER, BY THE APPLICATION OF BEST MANAGEMENT PRACTICES, INCLUDING BUT NOT LIMITED TO SOD, SEED, OR OTHER VEGETATION, PLASTIC COVERINGS, MULCHING, OR APPLICATION OF CRUSHED AGGREGATE ON THOSE AREAS TO BE PAVED.

3. WHEN EXCAVATION OCCURS IN ROADSIDE DITCHES, EXCAVATE AND KEY INTO DITCH ONE BIOFILTER BAG CHECK DAM PER 100' OF DITCH, OR WHERE NOTED ON THE PLANS. REMOVE SILT WHEN IT IS EVEN WITH THE TOP OF THE CHECK DAM. REPLACE OR ADD BIOFILTER BAGS AS NECESSARY TO PROPERLY FILTER THE STORM WATER.

4. INSTALL BIOFILTER BAGS (POLYESTER FABRIC PILLOW (ASTM-D191 OR EQUAL)FILLED W/ 15-16 LBS. OF WOOD CHIPS) AT EACH INLET. REMOVE SILT AND ADD BIOFILTER BAGS AS NECESSARY TO PROPERLY FILTER STORM WATER.

5. IF SEDIMENT IS TRANSPORTED ONTO THE ROAD SURFACE, THE ROADS SHALL BE CLEANED THOROUGHLY AT THE END OF THE WORKDAY, OR MORE IF NECESSARY. SIGNIFICANT SOIL DEPOSITS SHALL BE REMOVED FROM THE ROAD BY SHOVELING OR SWEEPING.

6. THE LENGTH OF THE TRENCH OPEN AT ONE TIME SHALL BE MINIMIZED AND WHERE CONSISTENT WITH SAFETY AND SPACE CONSIDERATION, EXCAVATED MATERIALS SHALL BE PLACED ON THE UPHILL SIDE OF THE TRENCH.

FITTING & VALVE SPECIFICATIONS:

1. PIPE FITTINGS SHALL BE GRAY-IRON OR DUCTILE IRON AND SHALL CONFORM TO AWWA STANDARD C110. DUCTILE IRON (COMPACT) FITTINGS CONFORMING TO AWWA STANDARD C153 MAY BE SUBSTITUTED IN LIEU OF AWWA C110 FITTINGS FOR FITTING SIZES 3-INCHES THROUGH 24-INCHES IN DIAMETER. FITTINGS SHALL BE MECHANICAL JOINT OR FLANGED AS REQUIRED AND SHOWN ON THE PLANS.
2. DUCTILE IRON AND GREY IRON MECHANICAL JOINT FITTINGS SHALL BE PRESSURE RATED FOR 350 PSI. DUCTILE IRON AND GREY IRON FLANGED JOINT FITTINGS SHALL BE PRESSURE RATED FOR 250 PSI.
3. FITTINGS SHALL BE MORTAR LINED AND SEAL COATED.
4. BELOW GROUND USE FLANGE ADAPTERS – THE FLANGE ADAPTER TO CONNECT PLAIN END PVC PIPE OR DIP TO FLANGED FITTINGS SHALL BE A DUCTILE IRON FITTING CONFORMING TO ANSI/AWWA C153/A21.53. FITTING SHALL BE MECHANICAL JOINT ON ONE END AND FLANGED ON THE OPPOSITE END.
5. DUCTILE IRON AND GREY IRON SOLID SLEEVES SHALL BE OF THE LONG BODY DESIGN AND BOTH ENDS MECHANICAL JOINT.
6. GASKETS FOR FLANGED JOINTS SHALL BE FULL FACED, RED RUBBER, AND 1/8" THICK.
7. MECHANICAL JOINT GASKETS SHALL BE STANDARD STYRENE BUTADIENE RUBBER (SBR) GASKETS
8. BOLTS AND NUTS SHALL BE CARBON STEEL AND SHALL CONFORM TO THE REQUIREMENTS OF ASTM A307 OR ASTM A193 GRADE B7 WITH ASTM A194 GRADE 2H HEAVY HEX NUTS.
9. GATE VALVES (4" AND LARGER) – GATE VALVES FOR BURIED SERVICE SHALL BE THE RESILIENT-SEAT TYPE, WITH AN IRON BODY, NON-RISING STEM, BOLTED BONNET, LEFT OPENING AND SHALL CONFORM TO AWWA STANDARD C509 AND C515. THE WEDGE SHALL BE TOTALLY ENCAPSULATED WITH RUBBER. ALL GATE VALVES SHALL BE RATED AT 250 PSI FOR AWWA SERVICE. THE INTERIOR AND EXTERIOR SHALL BE FUSION-BONDED EPOXY AND ALL COATINGS AND/OR LININGS SHALL CONFORM TO AWWA STANDARD C550 AND SHALL BE SUITABLE FOR POTABLE WATER SERVICE AND NSF CERTIFIED.
10. BUTTERFLY VALVES – BUTTERFLY VALVES SHALL BE SHORT BODY CLASS 250 VALVES CONFORMING TO THE REQUIREMENTS OF AWWA STANDARD C504. BUTTERFLY VALVES SHALL BE RUBBER SEATED AND TIGHT CLOSING. VALVE BODIES SHALL BE HIGH STRENGTH CAST IRON OR HIGH STRENGTH DUCTILE IRON. VALVE INTERIOR AND EXTERIOR SURFACES SHALL BE COATED WITH EPOXY IN ACCORDANCE WITH AWWA C504 AND SHALL BE SUITABLE FOR POTABLE WATER SERVICE AND NSF 61 CERTIFIED.

GENERAL NOTES:

1. ALL CONSTRUCTION MATERIALS AND WORKMANSHIP SHALL CONFORM TO THE CLARK PUBLIC UTILITIES (CPU) WATER CONSTRUCTION SPECIFICATIONS, STANDARD DETAILS AND THE MOST CURRENT EDITION OF THE "STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION" PUBLISHED BY WASHINGTON STATE DEPARTMENT OF TRANSPORTATION (WSDOT).

2. A CPU WATER UTILITY INSPECTOR SHALL BE AT THE JOB SITE DURING CONSTRUCTION OF ALL WATER FACILITIES. CONTACT 360-992-8019 TWO WORKING DAYS PRIOR TO COMMENCING WORK.

3. WORK WITHIN COUNTY RIGHT-OF-WAY SHALL CONFORM WITH CLARK COUNTY PUBLIC WORKS UTILITY PERMIT REQUIREMENTS AND DETAILS. WORK WITHIN STATE RIGHT-OF=WAY SHALL CONFORM TO WSDOT UTILITY PERMIT REQUIREMENTS AND DETAILS.

4. VALVE SHALL BE 2" SQUARE OPERATING NUT OR AS SPECIFIED ON PLANS.

5. THE LOCATION OF THE UTILITIES SHALL BE VERIFIED IN ADVANCE TO ALLOW FOR ALIGNMENT ADJUSTMENTS. CALL UTILITY LOCATES TWO (2) WORKING DAYS PRIOR TO CONSTRUCTION (1-800-424-5555).

6. ONLY TAPPING COMPANIES APPROVED BY CLARK PUBLIC UTILITIES SHALL BE USED TO MAKE ALL TAPS.

7. ACTUAL ROAD ALIGNMENTS MAY VARY FROM RIGHT-OF-WAY INDICATED. THE CONTRACTOR SHALL VERIFY THE PROPOSED PIPE ALIGNMENT AND REPORT DIFFERENCES TO THE CPU INSPECTOR. ALL ALIGNMENT CHANGES MUST BE APPROVED BY THE CPU INSPECTOR PRIOR TO INSTALLATION.

8. DRIVEWAYS DISTURBED BY CONSTRUCTION SHALL BE RESTORED BY THE CONTRACTOR TO "LIKE" OR BETTER CONDITION. REFER TO PLAN FOR APPROXIMATE LOCATIONS AND TYPES.

9. CONTRACTOR SHALL VERIFY EXISTING UTILITY CULVERTS, CONDUITS AND LINE LOCATION PRIOR TO CONSTRUCTION. DUE TO FIELD CONDITIONS, THE CONTRACTOR SHALL FIELD ADJUST THE VERTICAL AND HORIZONTAL ALIGNMENT OF THE WATER MAIN TO CLEAR THE UTILITY IN CONFLICT AND PROVIDE THE MIN. 3.0 FEET OF COVER AS APPROVED BY THE CPU INSPECTOR. ALL CULVERTS WHICH ARE DISTURBED BY CONSTRUCTION SHALL BE RESTORED BY THE CONTRACTOR IN ACCORDANCE WITH THE SPECIFICATIONS.

10. FENCES DISTURBED BY CONSTRUCTION SHALL BE RESTORED BY THE CONTRACTOR TO "LIKE" OR BETTER CONDITION.

11. CONTRACTOR SHALL VERIFY EXISTING SIGN AND MAILBOX LOCATIONS PRIOR TO CONSTRUCTION. SIGNS & MAILBOXES THAT ARE DISTURBED BY CONSTRUCTION SHALL BE RELOCATED BACK FROM EDGE OF PAVEMENT, 1.0 FEET CLEAR OF WATER MAIN. ANY SIGNS OR MAILBOXES DAMAGED SHALL BE REPAIRED OR REPLACED AS PER THE SPECIFICATIONS.

12. THE LOCATIONS OF ALL EXISTING UTILITIES ARE FOR INFORMATIONAL PURPOSES ONLY. MANY LOCATIONS ARE PER SCHEMATIC RECORD DRAWINGS. THE CURRENT AND EXACT LOCATIONS OF FACILITIES MUST BE VERIFIED PRIOR TO CONSTRUCTION. THE CONTRACTOR PERFORMING THE WORK SHALL COMPLY WITH THE PROVISIONS OF FACILITIES AT LEAST 48 BUSINESS DAY HOURS PRIOR TO EXCAVATION. CALL 1-800-553-4344 FOR UTILITY LOCATE SERVICE.

13. THE WATER FACILITIES SHALL BECOME THE PROPERTY OF CLARK PUBLIC UTILITIES AFTER A SATISFACTORY BACTERIA AND PRESSURE TEST HAVE BEEN PERFORMED BY THE UTILITY. ALL MATERIALS AND WORKMANSHIP ARE SUBJECT TO A ONE YEAR WARRANTY, COMMENCING AT ACCEPTANCE OF FINAL TESTING. REPLACEMENT AND/OR REPAIRS OF DEFECTIVE MATERIALS SHALL BE THE DEVELOPERS/OWNERS RESPONSIBILITY.

14. WHEN ASBESTOS CONCRETE PIPE IS ENCOUNTERED, THE CONTRACTOR SHALL SUPPLY WORKERS WHO ARE CERTIFIED TO WORK ON ASBESTOS CONCRETE PIPE.

15. THE CONTRACTOR SHALL TRANSFER AND/OR ABANDON EXISTING SERVICES AS DIRECTED BY THE INSPECTOR.

16. THE INSTALLED WATER MAIN SHALL BE PRESSURE TESTED AT A MINIMUM OF 150 PSI OR 1.5 TIMES THE WORKING PRESSURE, WHICHEVER IS GREATER. THE TEST WILL BE PERFORMED BY THE CLARK PUBLIC UTILITIES INSPECTOR. THE CONTRACTOR SHALL PROVIDE ASSISTANCE AS NEEDED.

17. THE INSTALLED WATER MAIN SHALL BE THOROUGHLY DISINFECTED AND FLUSHED IN ACCORDANCE WITH THE CLARK PUBLIC UTILITIES STANDARDS AND REQUIREMENTS. ONLY CLARK PUBLIC UTILITIES EMPLOYEES ARE PERMITTED TO FILL AND FLUSH THE WATER MAIN. THE CONTRACTOR SHALL PROVIDE ASSISTANCE AS NEEDED. IN AREAS WHERE THE DE-CHLORINATION OF FLUSHED WATER IS NOT POSSIBLE, THE CONTRACTOR SHALL PROVIDE WATER TRUCKS TO FLUSH INTO.

18. PRIOR TO ACCEPTING THE SYSTEM OR ALLOWING THE MAIN TO BE PUT IN SERVICE, A WATER SAMPLE SHALL BE TAKEN BY THE CLARK PUBLIC UTILITIES INSPECTOR AND A TEST PERFORMED BY AN ACCREDITED LAB TO INSURE NO HAZARD EXISTS.

MECHANICAL JOINT & PIPE JOINT RESTRAINT SPECIFICATIONS:

MECHANICAL JOINT RESTRAINT SPECIFICATIONS
1. MECHANICAL JOINT RESTRAINT SHALL BE ACCOMPLISHED BY A RESTRAINT DEVICE CONSISTING OF A FOLLOWER GLAND UTILIZING MULTIPLE GRIPPING WEDGES. GLAND BODY AND WEDGES SHALL BE DUCTILE IRON AND EPOXY COATED.
2. T-BOLTS AND NUTS SHALL BE HIGH STRENGTH LOW ALLOY STEEL T-BOLTS AND STEEL SHALL MEET AWWA C111 COMPOSITION SPECIFICATIONS.
3. RESTRAINT GLAND SHALL UTILIZE A STANDARD MECHANICAL JOINT GASKET.
4. THE FOLLOWING IS THE APPROVED LIST OF RESTRAINED JOINT SYSTEMS FOR MECHANICAL JOINTS AND DIP:
   - 4.1 "ROMAGRIP", ROMAC INDUSTRIES.
   - 4.2 "SERIES 1000 TUFGRIP", TYLER UNION.
   - 4.3 "MEGALUG", EBAA IRON, INC.
   - 4.4 APPROVED EQUIVALENT
5. THE FOLLOWING IS THE APPROVED LIST OF RESTRAINED JOINT SYSTEMS FOR MECHANICAL JOINTS AND PVC:
   - 5.1 "ROMAGRIP FOR PVC", ROMAC INDUSTRIES.
   - 5.2 "SERIES 2000 FOR PVC TUFGRIP", TYLER UNION.
   - 5.3 "MEGALUG SERIES 2000 PV", EBAA IRON, INC.
   - 5.4 APPROVED EQUIVALENT

DUCTILE IRON PIPE RESTRAINED JOINT SPECIFICATIONS
1. PIPE JOINT RESTRAINT FOR DIP SHALL BE ACCOMPLISHED WITH A PIPE BELL/SPIGOT INTEGRAL LOCK MECHANISM.
2. AS AN ALTERNATIVE AND WHERE ALLOWED BY CLARK PUBLIC UTILITIES, A BOLTLESS RESTRAINING GASKETS FOR DIP TYTON JOINT STYLE PIPE MAY BE USED. THE RESTRAINT GASKET SHALL BE A BOLTLESS GASKET WITH INTEGRAL RESTRAINING SYSTEM UTILIZING STAINLESS STEEL PARTS AND SHALL BE PRESSURE RATED FOR 350 PSI. THE GASKETS SHALL BE IN CONFORMANCE WITH ANSI/AWWA C111/A21.11 AND CERTIFIED TO NSF/ANSI 6. THE FOLLOWING IS THE APPROVED LIST OF DIP PIPE JOINT RESTRAINED GASKET SYSTEMS:
   - 2.1 "FIELD LOK 350 GASKET", U.S. PIPE AND FOUNDRY CO.
   - 2.2 "GRIPPER GASKET", GRIPPER GASKET LLC.
   - 2.3 APPROVED EQUIVALENT

PVC PIPE RESTRAINED JOINT SPECIFICATIONS
1. PVC PIPE JOINT RESTRAINT FOR MAY BE ACCOMPLISHED BY UTILIZING A PROPRIETARY PVC PIPE WHICH UTILIZES A PIPE BELL/SPIGOT INTEGRAL JOINT RESTRAINT MECHANISM. THE FOLLOWING IS THE APPROVED LIST OF PROPRIETARY PVC C-900 PIPE JOINT RESTRAINED SYSTEMS:
   - 1.1 "EAGLE LOC 900", JM EAGLE
   - 1.2 "CERTA-LOK C900/RJ", CERTAINTEED
   - 1.3 "DIAMOND LOK-21", DIAMOND PLASTICS INC.
   - 1.4 APPROVED EQUIVALENT
2. AS AN ALTERNATIVE, PVC PIPE MAY BE COUPLED TO CREATE A RESTRAINED JOINT BY UTILIZING A GREY IRON OR DUCTILE IRON MECHANICAL JOINT LONG PATTERN SLEEVE WITH A RESTRAINT FOLLOWER GLAND UTILIZING MULTIPLE GRIPPING WEDGES.

Clark Public Utilities

CALL 48 HOURS BEFORE YOU DIG
1-800-553-4344
"It's the Law"
NORTHWEST UTILITY NOTIFICATION CENTER

DATE	MARK	REVISION
2/8/17	JAS	Meter box Specifications

WATER MAIN INSTALLATION STANDARD DETAILS
CLARK PUBLIC UTILITIES

RIO	NNNNNN
DESIGNED	XXX
DRAWN	XXX
CHECKED	XXX
SCALE	NTS
DATE	03/27/2018
SHEET	1 OF 3

HOLLEY PARK SUBDIVISION
CONSTRUCTION PLANS
LA CENTER WASHINGTON
PARCEL NO. 209055000, 209059000 AND 62965242 NW 1/4 OF SEC 2 T4N, R1E, W.M.

WATER NOTES AND DETAILS

DESIGNED BY:	JRS
DRAWN BY:	MRE
MANAGED BY:	SMH
CHECKED BY:	JRS

DATE: 5/13/19

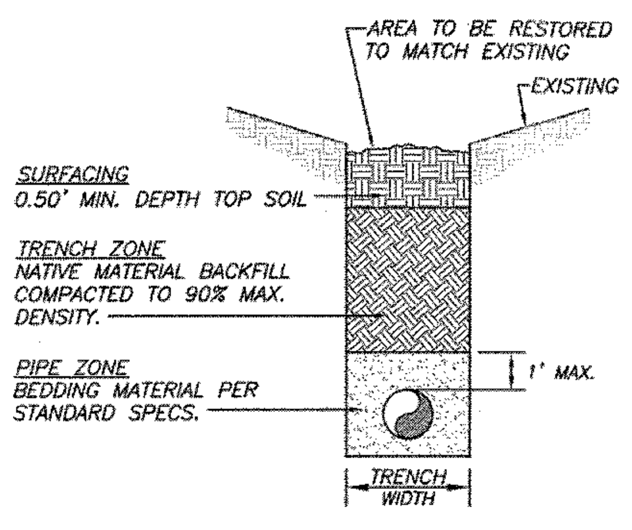
SETH MICHAEL HALLING, STATE OF WASHINGTON, 48813, REGISTERED PROFESSIONAL ENGINEER

REVISIONS

JOB NUMBER 6962

SHEET C450

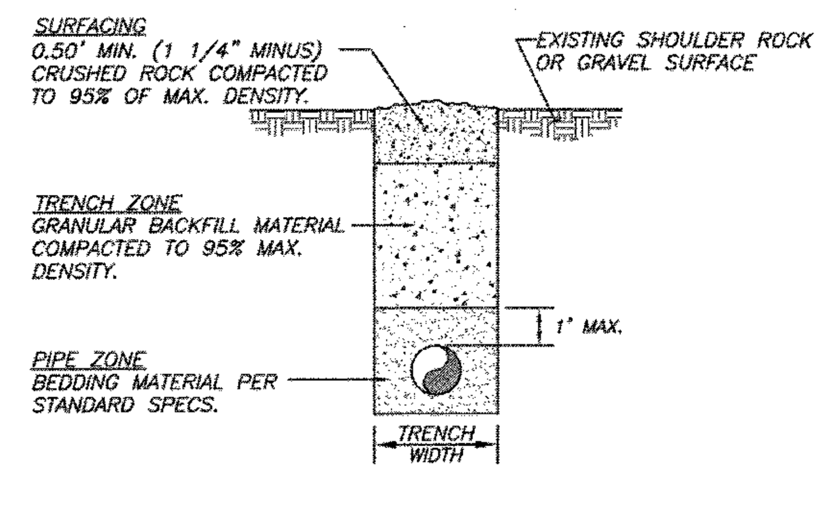
AKS DRAWING FILE: 6962 C400 WAT.DWG | LAYOUT: C450



NATIVE BACKFILL —OUTSIDE ROADWAY PRISM—

—11W—

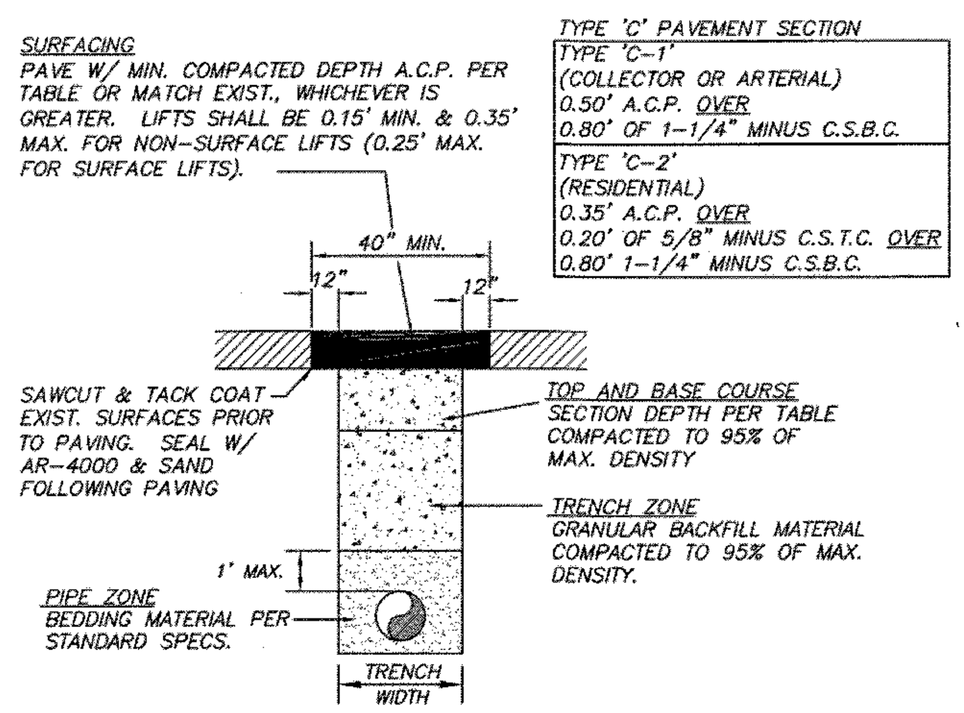
(TYPE 'A' RESTORATION)



ROADWAY SHOULDERS, GRAVEL SURFACE

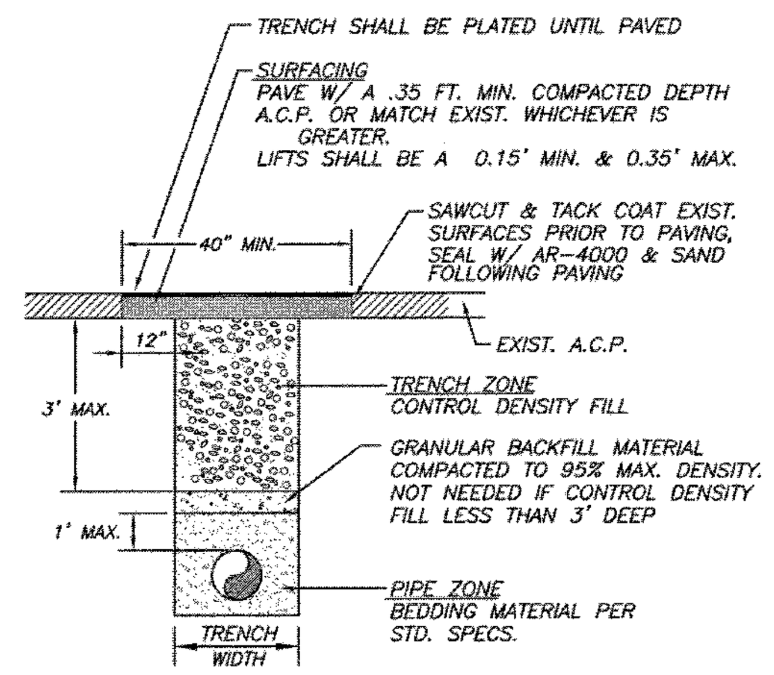
—12W—

(TYPE 'B' RESTORATION)



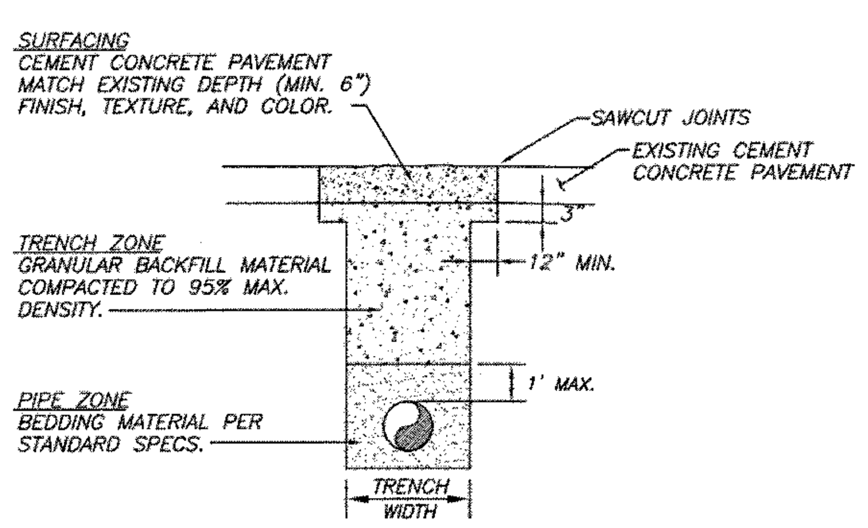
ASPHALT CONCRETE PAVEMENT

(TYPE 'C-1' & 'C-2' RESTORATION)



CONTROL DENSITY FILL — A.C.P.

(TYPE 'D' RESTORATION)



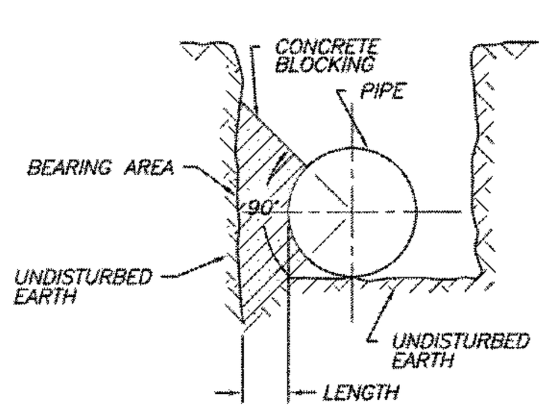
CEMENT CONCRETE PAVEMENT

(TYPE 'E' RESTORATION)

TRENCHING NOTES:

1. SEE CLARK COUNTY OR WSDOT UTILITY PERMIT, WHICHEVER IS APPLICABLE, FOR ADDITIONAL TRENCH BACKFILL AND SURFACING REQUIREMENTS.
2. NATIVE MATERIALS MAY BE SUBSTITUTED FOR IMPORTED GRANULAR MATERIAL PROVIDING IT IS PRE-APPROVED BY THE COUNTY ENGINEER OR AUTHORIZED REPRESENTATIVE.
3. TRENCH EXCAVATION, BEDDING, AND BACKFILL FOR WATER MAINS SHALL BE IN ACCORDANCE WITH SECTION 7-10 OF THE MOST CURRENT STANDARD SPECIFICATIONS. BED PIPE PER SECTION 7-10.3(9) OF THE STANDARD SPECIFICATIONS.
4. IN THE TRENCH ZONE, USE METHOD C COMPACTION PER SECTION 2-03.3(14).

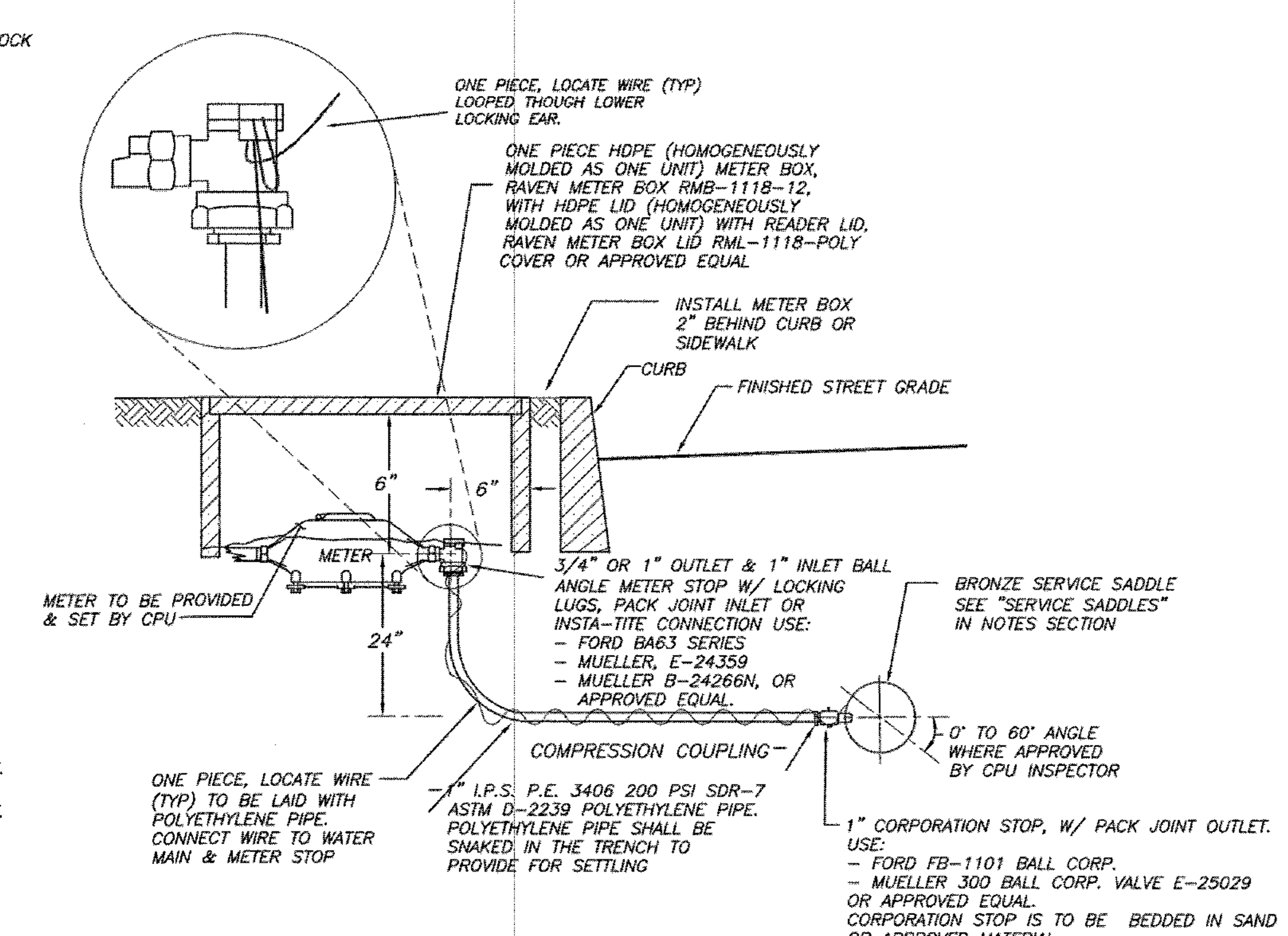
PIPE SIZE	HORIZ. FITTINGS (BENDS)	BEARING AREA (SF)	MINIMUM BLOCK SIZE (FT.)	VOL. OF BLOCKING (CF)	MINIMUM LENGTH OF BLOCKING (FT.-IN.)
4"	TEE	1.2	1.0' x 1.0'	0.3	0'-6"
	90°	1.7	1.5' x 1.5'	0.6	0'-6"
	45°	0.9	1.0' x 1.0'	0.3	0'-6"
	22-1/2°	0.5	1.0' x 1.0'	0.3	0'-6"
6"	TEE	2.4	1.5' x 1.5'	0.6	0'-6"
	90°	3.4	2.0' x 2.0'	1.4	0'-8"
	45°	1.9	1.5' x 1.5'	0.6	0'-6"
	22-1/2°	1.0	1.0' x 1.0'	0.3	0'-6"
	11-1/4°	0.5	1.0' x 1.0'	0.3	0'-6"
8"	TEE	4.0	2.0' x 2.0'	1.5	0'-8"
	90°	5.6	2.5' x 2.5'	2.8	0'-10"
	45°	3.1	2.0' x 2.0'	1.5	0'-8"
	22-1/2°	1.6	1.5' x 1.5'	0.7	0'-6"
	11-1/4°	0.8	1.0' x 1.0'	0.3	0'-6"
10"	TEE	6.2	2.5' x 2.5'	3.0	0'-10"
	90°	8.7	3.0' x 3.0'	4.5	1'-0"
	45°	4.8	2.5' x 2.5'	2.5	0'-8"
	22-1/2°	2.5	2.0' x 2.0'	1.4	0'-6"
	11-1/4°	1.3	1.5' x 1.5'	0.8	0'-6"
12"	TEE	8.6	3.0' x 3.0'	5.0	1'-0"
	90°	12.2	3.5' x 3.5'	7.8	1'-3"
	45°	6.6	2.5' x 2.5'	3.0	0'-9"
	22-1/2°	3.4	2.0' x 2.0'	1.5	0'-6"
	11-1/4°	1.7	1.5' x 1.5'	0.8	0'-6"
16"	TEE	15.2	4.0' x 4.0'	12	1'-3"
	90°	21.4	4.5' x 4.5'	17	1'-6"
	45°	11.6	3.5' x 3.5'	7.5	1'-0"
	22-1/2°	5.9	2.5' x 2.5'	2.7	0'-6"
	11-1/4°	3.0	2.0' x 2.0'	1.7	0'-6"
18"	TEE	19.1	4.0' x 4.0'	12	1'-3"
	90°	27.1	5.0' x 5.0'	23	1'-9"
	45°	14.7	4.0' x 4.0'	12	1'-2"
	22-1/2°	7.5	3.0' x 3.0'	4.7	0'-8"
	11-1/4°	3.8	2.0' x 2.0'	1.9	0'-6"
SOIL BEARING = 2000 LB/SQFT					11/98



THRUST BLOCK NOTES:

1. POURED BLOCKING SHALL BE POURED IN PLACE WITHOUT DIRECT CONTACT TO THE PIPE OR FITTINGS. SOME PROTECTIVE MATERIAL SUCH AS PLASTIC SHALL BE PLACED BETWEEN THE CONCRETE AND PIPE OR FITTING.
2. POURED BLOCKING SHALL BE POURED AGAINST FIRM UNDISTURBED SOIL.
3. CONCRETE FOR ALL BLOCKING SHALL HAVE A 28-DAY MINIMUM COMPRESSIVE STRENGTH OF 2,500 PSI
4. CONCRETE BLOCKING FOR VERTICAL BENDS SHALL BE PER APWA STD. PLAN NO. B-22.
5. LAYOUT TO BE APPROVED BY THE CPU INSPECTOR PRIOR TO AND AFTER CONCRETE POUR.
6. ALL PRE-CAST THRUST BLOCKS SHALL BE PLACED IN CENTER OF TEE OR BEND.

STANDARD THRUST BLOCK



WATER SERVICE & MANUAL AIR RELEASE NOTES:

1. NO CONNECTIONS WILL BE ALLOWED TO AN EXISTING SERVICE PRIOR TO AN APPROVED PURITY TEST. PURITY TEST SHALL PRECEDE PRESSURE TEST.
2. STUB SERVICES SHALL BE PRESSURE TESTED WITH THE MAIN LINE AND BE CAPABLE OF WITH-STANDING THE MAINS TEST PRESSURE.
3. ALL COMPRESSION FITTINGS TO HAVE STAINLESS STEEL INSERTS.

STANDARD 3/4" & 1" WATER SERVICE

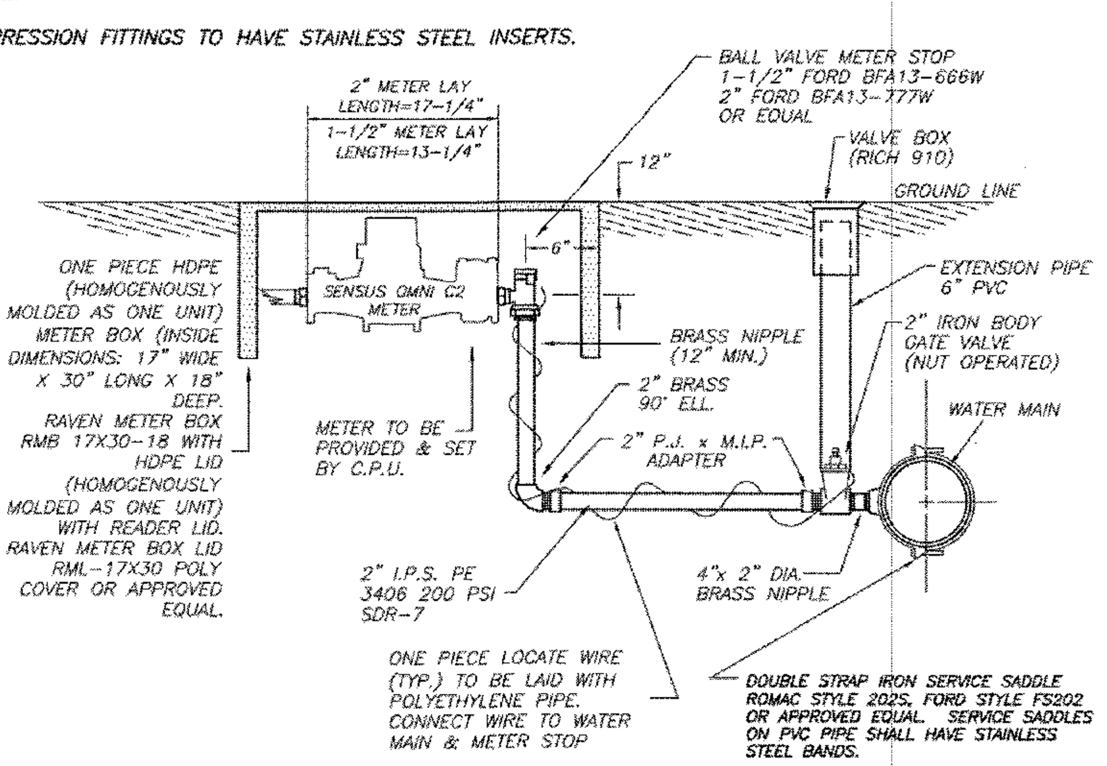
SERVICE SADDLES:

PROVIDE BRONZE SERVICE SADDLES WITH NEOPRENE GASKETS CEMENTED IN PLACE AND I.P.S. TAP AS SPECIFIED ON THE CONTRACT DRAWINGS. SADDLES SHALL BE SPECIFICALLY DESIGNED FOR THE TYPE OF PIPE TO WHICH THEY ARE BEING INSTALLED.

1. SADDLES FOR 1" AND 2" SERVICE LINES ON WATER MAINS 8" AND SMALLER SHALL BE "ROMAC 101B" OR MUELLER BR1S OR MUELLER S13000 OR APPROVED EQUAL.
2. SADDLES FOR 1" AND 2" SERVICE LINES ON WATER MAINS 10" AND LARGER SHALL BE "ROMAC 202B" OR MUELLER BR2S OR APPROVED EQUAL.

2" SERVICE WITH 1-1/2 OR 2" METER NOTES:

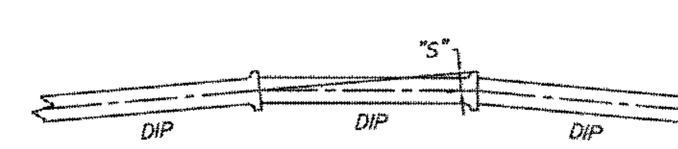
1. ALL CONSTRUCTION MATERIALS AND WORKMANSHIP SHALL CONFORM TO THE CLARK PUBLIC UTILITIES (CPU) WATER CONSTRUCTION SPECIFICATIONS, STANDARD DETAILS AND THE LATEST EDITION OF THE "STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION" PUBLISHED BY WASHINGTON STATE DEPARTMENT OF TRANSPORTATION (WSDOT).
2. A CPU WATER UTILITY INSPECTOR SHALL BE AT THE JOB SITE DURING CONSTRUCTION OF ALL WATER FACILITIES. CONTACT 360-992-8019 TWO WORKING DAYS PRIOR TO COMMENCING WORK.
3. WORK WITHIN COUNTY RIGHT-OF-WAY SHALL CONFORM WITH CLARK COUNTY PUBLIC WORKS UTILITY PERMIT REQUIREMENTS AND DETAILS. WORK WITHIN STATE RIGHT-OF-WAY SHALL CONFORM TO WSDOT UTILITY PERMIT REQUIREMENTS AND DETAILS.
4. THE LOCATION OF THE UTILITIES SHALL BE VERIFIED IN ADVANCE TO ALLOW FOR ALIGNMENT ADJUSTMENTS. CALL UTILITY LOCATES TWO (2) WORKING DAYS PRIOR TO CONSTRUCTION (1-800-553-4344).
5. A TAPPING COMPANY APPROVED BY CLARK PUBLIC UTILITIES SHALL BE USED TO MAKE ALL TAPS.
6. LOCATE WIRE SHALL BE BLUE COATED, NO. 14 GA. SOFT DRAWN SOLID COPPER.
7. NO CONNECTIONS WILL BE ALLOWED TO AN EXISTING SERVICE PRIOR TO AN APPROVED PURITY TEST. PURITY TEST SHALL PRECEDE PRESSURE TEST.
8. STUB SERVICES SHALL BE PRESSURE TESTED WITH THE MAIN LINE AND BE CAPABLE OF WITHSTANDING THE MAINS TEST PRESSURE.
9. ALL COMPRESSION FITTINGS TO HAVE STAINLESS STEEL INSERTS.



2" WATER SERVICE

ALLOWABLE DIP JOINT DEFLECTION			
PIPE SIZE	ALLOWABLE DEFLECTION ANGLE	ALLOWABLE OFFSET "S"	
		PIPE L=18'	PIPE L=20'
6"	3°	11"	12"
8"	3°	11"	12"
12"	3°	11"	12"

NOTE: DEFLECTIONS IN ALIGNMENT FOR DIP SHALL BE MADE BY DEFLECTING THE PIPE JOINTS PER THE ATTACHED DEFLECTION TABLE

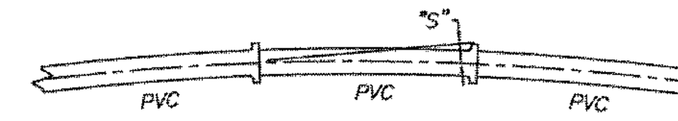


DUCTILE PIPE DEFLECTION DETAIL

NTS

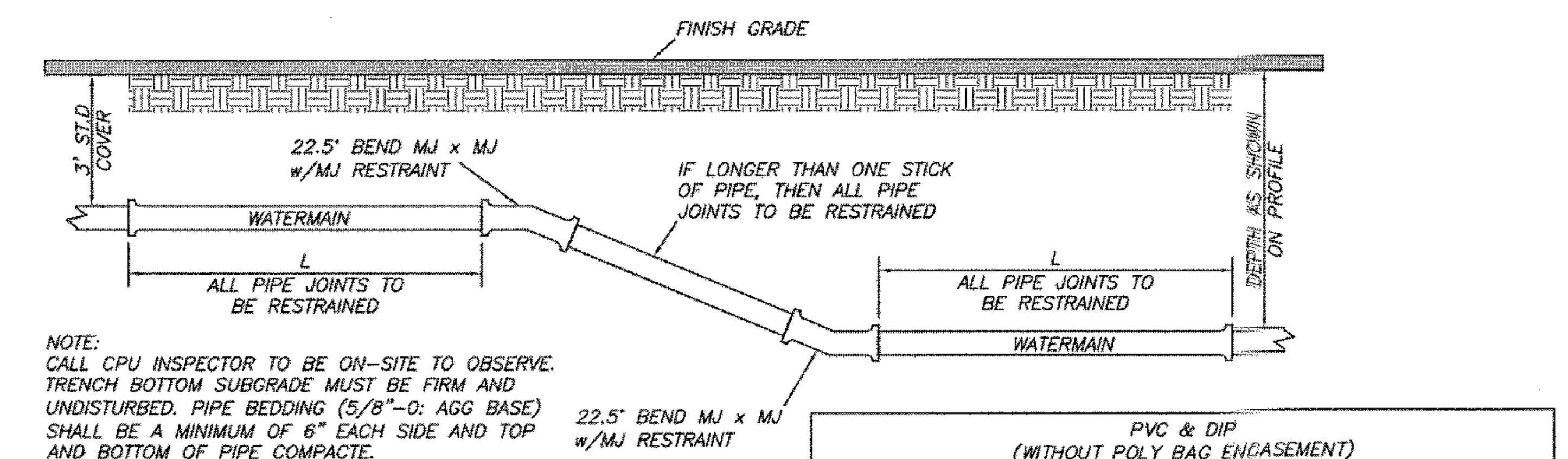
ALLOWABLE PVC PIPE BENDING		
PIPE SIZE	ALLOWABLE MINIMUM BENDING RADIUS	ALLOWABLE OFFSET "S"
6"	200'	12"
8"	250'	9.5"
12"	350'	7"
NO BENDING OF PVC PIPE ALLOWED FOR PIPE LARGER THAN 12" DIAMETER		

NOTE: DEFLECTIONS IN ALIGNMENT FOR PVC PIPE SHALL BE MADE BY BENDING THE PIPE AND NOT DEFLECTING PIPE JOINTS



PVC PIPE BEND DETAIL

NTS



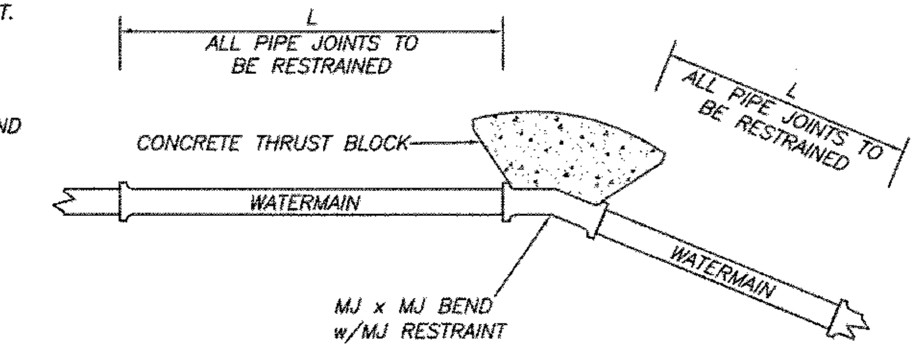
NOTE:
CALL CPU INSPECTOR TO BE ON-SITE TO OBSERVE. TRENCH BOTTOM SUBGRADE MUST BE FIRM AND UNDISTURBED. PIPE BEDDING (5/8"-0: AGG BASE) SHALL BE A MINIMUM OF 6" EACH SIDE AND TOP AND BOTTOM OF PIPE COMPACTE.

PVC & DIP (WITHOUT POLY BAG ENCASEMENT)				
FITTING	6" DIA PIPE L	8" DIA PIPE L	12" DIA PIPE L	16" DIA PIPE L
11-1/4° BEND	10'	10'	12'	14'
22-1/2° BEND	12'	15'	21'	27'

NOTE: THESE ARE THE MINIMUM PIPE RESTRAINT LENGTHS UNLESS STATED OTHERWISE ON THE PLANS

WATERMAIN VERTICAL FITTING INSTALLATION DETAIL

NTS



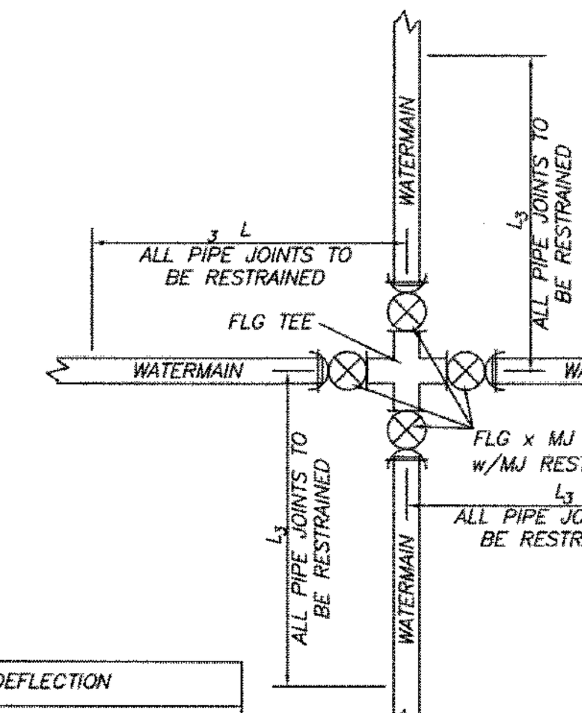
PVC PIPE				
FITTING	6" DIA PIPE L	8" DIA PIPE L	12" DIA PIPE L	16" DIA PIPE L
11-1/4° BEND	10'	10'	10'	10'
22-1/2° BEND	10'	10'	10'	12'
45° BEND	10'	13'	20'	24'
90° BEND	24'	32'	45'	60'

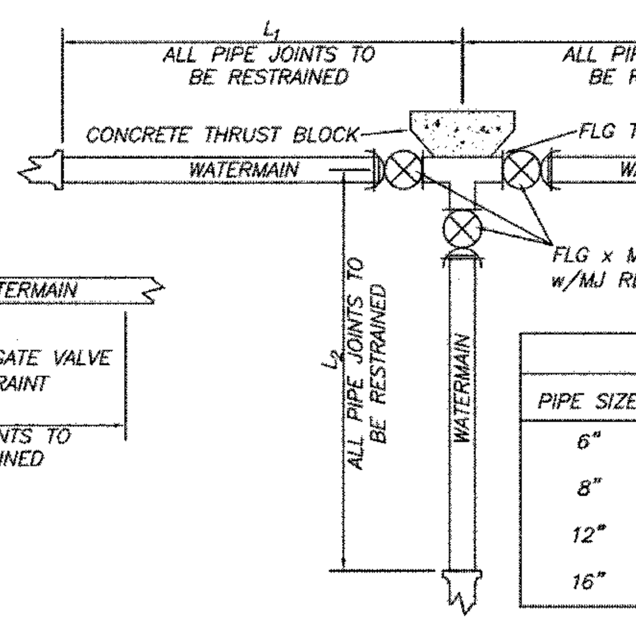
DIP PIPE (WITHOUT POLY BAG ENCASEMENT)				
FITTING	6" DIA PIPE L	8" DIA PIPE L	12" DIA PIPE L	16" DIA PIPE L
11-1/4° BEND	10'	10'	10'	10'
22-1/2° BEND	10'	10'	10'	10'
45° BEND	10'	11'	15'	20'
90° BEND	19'	26'	36'	46'

NOTE: THESE ARE THE MINIMUM PIPE RESTRAINT LENGTHS UNLESS STATED OTHERWISE ON THE PLANS

PIPE HORIZONTAL BEND INSTALLATION DETAIL

NTS





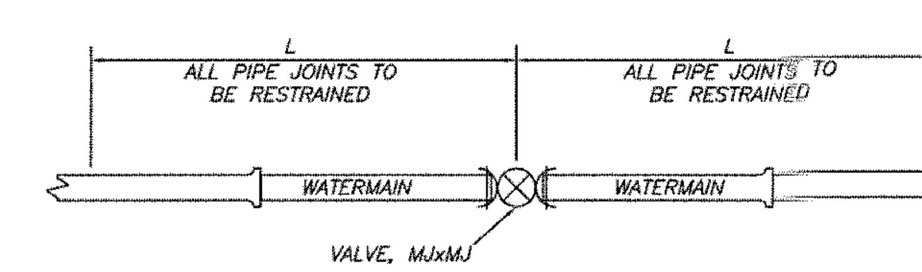
PVC PIPE			
PIPE SIZE	L_1	L_2	L_3
6"	12'	12'	12'
8"	15'	15'	15'
12"	20'	20'	20'
16"	20'	52'	52'

DIP PIPE (WITHOUT POLY BAG ENCASEMENT)			
PIPE SIZE	L_1	L_2	L_3
6"	10'	10'	10'
8"	14'	14'	14'
12"	19'	19'	19'
16"	20'	34'	34'

NOTE: THESE ARE THE MINIMUM PIPE RESTRAINT LENGTHS UNLESS STATED OTHERWISE ON THE PLANS

TYPICAL FITTING & VALVE INSTALLATION DETAIL

NTS



PVC PIPE		
PIPE SIZE	L_1	L_2
6"	60'	30'
8"	80'	40'
12"	110'	55'
16"	140'	70'

DIP PIPE (WITHOUT POLY BAG ENCASEMENT)		
PIPE SIZE	L_1	L_2
6"	40'	20'
8"	50'	25'
12"	70'	35'
16"	90'	45'

L_1: REQUIRED LENGTH WHEN PIPE JOINT RESTRAINT IS ONLY EFFECTIVE IN TENSION (SUCH AS FIELD-LOK GASKETS OR OTHER SIMILAR RESTRAINT SYSTEMS)

L_2: REQUIRED LENGTH WHEN PIPE JOINT RESTRAINT IS ONLY EFFECTIVE IN BOTH TENSION AND COMPRESSION (SUCH AS A MJ SLEEVE WITH MJ RESTRAINT OR A PROPRIETARY INTEGRAL BELL & SPIGOT RESTRAINT SYSTEM).

TYPICAL IN-LINE VALVE INSTALLATION DETAIL

NTS

RIO	NNNNNN
DESIGNED	XXX
DRAWN	XXX
CHECKED	XXX
SCALE	NTS
DATE	03/27/2018
SHEET	2 OF 3

WATER MAIN INSTALLATION STANDARD DETAILS

CLARK PUBLIC UTILITIES

DATE	MARK	REVISION
2/8/17	JAS	Meter box Specifications

CALL 48 HOURS BEFORE YOU DIG
1-800-553-4344
"It's the Law"
NORTHWEST UTILITIES NOTIFICATION CENTER

Clark Public Utilities

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HOLLEY PARK SUBDIVISION CONSTRUCTION PLANS

LA CENTER WASHINGTON

PARCEL NO. 209055000, 209059000 AND 62965242 NW 1/4 OF SEC 2 T4N, R1E, W.M.

AKS ENGINEERING & FORESTRY, LLC
9600 NE 126TH AVE STE 2520
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F: 360.882.0426
aks-eng.com
ENGINEERING · SURVEYING · NATURAL RESOURCES
FORESTRY · PLANNING · LANDSCAPE ARCHITECTURE

WATER NOTES AND DETAILS

DESIGNED BY: JRS
DRAWN BY: MRE
MANAGED BY: SMH
CHECKED BY: JRS
DATE: 5/13/19

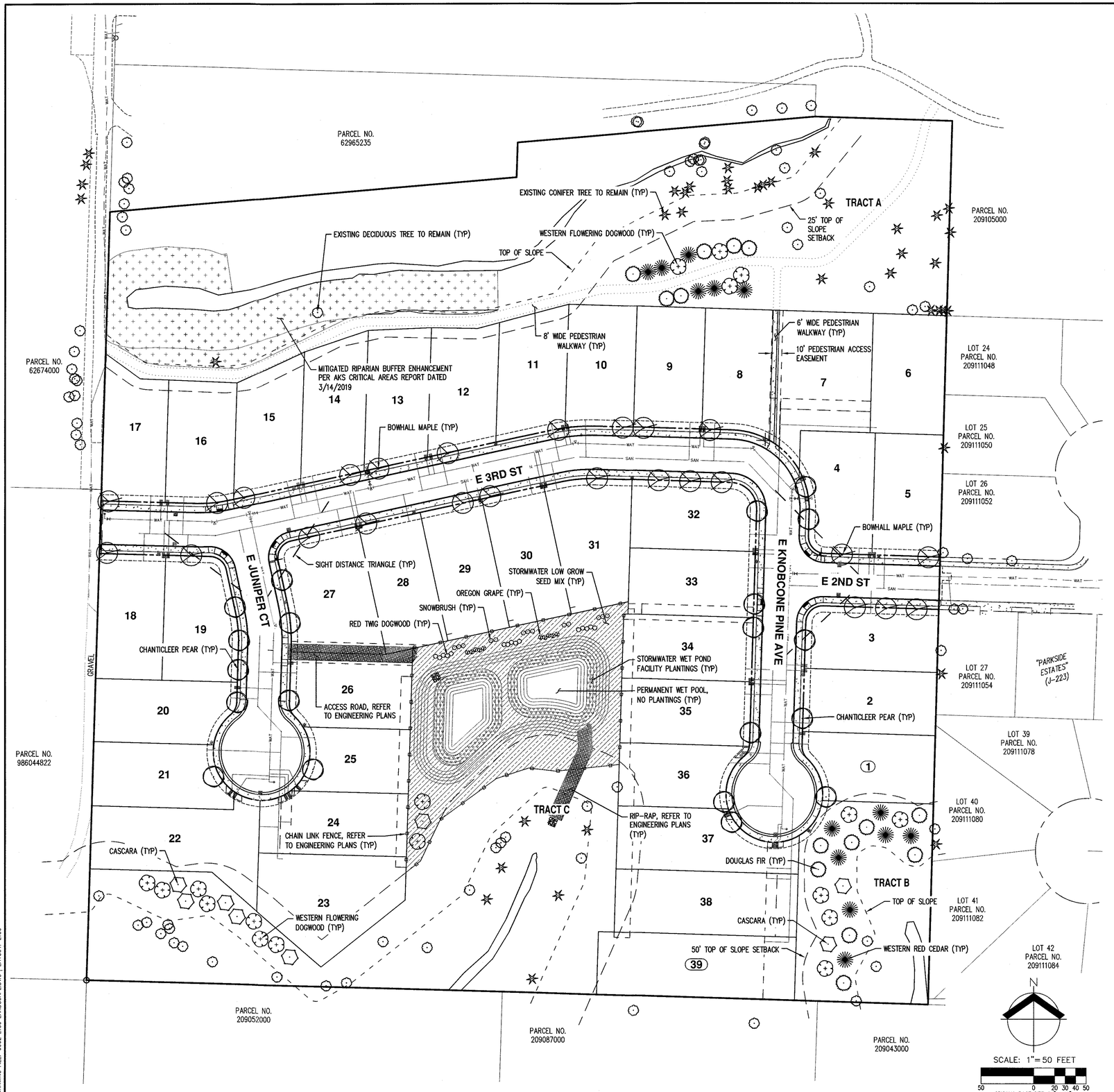
SETH MICHAEL HALLING
STATE OF WASHINGTON
48813
REGISTERED
PROFESSIONAL ENGINEER

REVISIONS

JOB NUMBER
6962

SHEET
C451

AKS DRAWING FILE: 6962 C400 WAT.DWG | LAYOUT: C451



PLANT SCHEDULE

SITE TREES	QTY	BOTANICAL NAME	COMMON NAME	SIZE/CONTAINER	SPACING
	18	CORNUS NUTTALLII	WESTERN FLOWERING DOGWOOD	2" CAL. B&B	AS SHOWN
	14	PSEUDOTSUGA MENZIESII	DOUGLAS FIR	6' HT. B&B	AS SHOWN
	8	RHAMNUS PURSHIANA	CASCARA	2" CAL. B&B	AS SHOWN
	13	THUJA PLICATA	WESTERN RED CEDAR	6' HT. B&B	AS SHOWN

STREET TREES	QTY	BOTANICAL NAME	COMMON NAME	SIZE/CONTAINER	SPACING
	25	ACER RUBRUM 'BOWHALL'	BOWHALL MAPLE	2" CAL. B&B	AS SHOWN
	20	PYRUS CALLERYANA 'CHANTICLEER'	CHANTICLEER PEAR	2" CAL. B&B	AS SHOWN

SHRUBS	QTY	BOTANICAL NAME	COMMON NAME	SIZE/CONTAINER	SPACING
	13	CEANOTHUS VELUTINUS	SNOWBRUSH	2 GAL CONT.	48" o.c.
	15	CORNUS SERICEA	RED TWIG DOGWOOD	2 GAL CONT.	48" o.c.
	10	MAHONIA AQUIFOLIUM	OREGON GRAPE	2 GAL CONT.	48" o.c.

STORMWATER	QTY	DESCRIPTION
	APPROX. 21,081 SF	STORMWATER LOW GROW SEED MIX (OR APPROVED EQUAL) – 40% DWARF TALL FESCUE – 30% DWARF PERENNIAL RYE "BARCLAY" – 25% RED FESCUE – 5% COLONIAL BENTGRASS APPLY AT A RATE OF 2 LBS. PER 1,000 SF OR AS RECOMMENDED BY SUPPLIER
	APPROX. 4,161 SF	STORMWATER WETPOND FACILITY PLANTINGS (OR APPROVED EQUAL): A MIX OF THE FOLLOWING SHALL BE PLANTED ON THE SIDE SLOPE BELOW THE PERMANENT WATER LEVEL OF THE STORMWATER WETLAND FACILITY: 241 – CAREX OBNUPTA (SLOUGH SEDGE) INUNDATION 1 TO 3 FEET 241 – SCIRPUS ACUTUS (HARDSTEM BULRUSH) INUNDATION 1 TO 3 FEET 241 – JUNCUS EFFUSUS (SOFT RUSH) INUNDATION 1 TO 2 FEET 241 – SCIRPUS MICROCARPUS (SMALL-FRUITED BULRUSH) INUNDATION 1 TO 2 FEET 241 – ELEOCHARIS PALUSTRIS (SPIKE RUSH) INUNDATION 1 TO 2 FEET ALL PLANTINGS SHALL BE 6" PLUGS, 24" O.C., IN MASS GROUPINGS OF LIKE KIND FOR A NATURAL APPEARANCE. GROUPINGS SHALL HAVE A MINIMUM OF 15 PLANTS PER GROUPING. HATCHED AREAS ARE DIAGRAMMATIC; PLANT FOR FULL COVERAGE OF AREAS SHOWN.
		RIPARIAN BUFFER ENHANCEMENT AREA, REFER TO AKS CRITICAL AREAS REPORT DATED 3/14/2019

GENERAL LANDSCAPE NOTES

1. CONTRACTOR IS RESPONSIBLE FOR VERIFYING PLANT MATERIAL AND QUANTITIES. IF DISCREPANCIES OCCUR, DESIGN INTENT PREVAILS OVER QUANTITIES LISTED.
2. ALL LANDSCAPING SHALL CONFORM TO THE CITY OF LA CENTER DESIGN STANDARDS. PLANT IN ACCORDANCE WITH BEST PRACTICE INDUSTRY STANDARDS SUCH AS THOSE ADOPTED BY THE WASHINGTON ASSOCIATION OF LANDSCAPE PROFESSIONALS (WALP). STREET TREES SHALL BE HEALTHY, TYPICAL FOR THEIR SPECIES, AND HAVE A SINGLE, STRONG CENTRAL LEADER.
3. REVISIONS OR SUBSTITUTIONS TO PLANTINGS, INCLUDING CHANGES TO LOCATION, QUANTITIES, SPECIES, SIZES, SPACING, ETC. DUE TO UNFORESEEN SITE CONDITIONS, PLANT AVAILABILITY, ETC. MAY BE APPROVED WHERE ALLOWED BY CITY OF LA CENTER LANDSCAPE DESIGN STANDARDS, PRIOR TO FINAL INSTALLATION.
4. ALL PLANT MATERIAL SHALL MEET THE REQUIREMENTS OF THE AMERICAN ASSOCIATION OF NURSERYMEN (AAN) STANDARDS FOR NURSERY STOCK (ANSI Z60.1) INCLUDING SIZE AND QUALITY GRADES. ALL PLANT MATERIAL SHALL BE HEALTHY, WELL-FORMED, SYMMETRICAL AND FULLY ROOTED IN THE CONTAINERS IN WHICH THEY ARE PURCHASED. THEY SHOULD BE TYPICAL FOR THEIR SPECIES AND BE FREE FROM DISEASE, PESTS, AND MECHANICAL INJURY.
5. DOUBLE STAKE ALL TREES, UNLESS OTHERWISE SPECIFIED. ADJUST TREES AS NECESSARY ON SITE TO AVOID CONFLICT WITH DRIVEWAYS, UTILITIES, HYDRANTS, LIGHT POLES, METERS, ETC.
6. STREET TREES SHALL BE INSTALLED AT TIME OF INDIVIDUAL HOME CONSTRUCTION.
7. KEEP SHRUBS AND GROUNDCOVER A MINIMUM OF 24" O.C. FROM PAVING AND 3' O.C. FROM TREES. ADJUST AS NECESSARY ON SITE TO AVOID CONFLICT WITH DRIVEWAYS, UTILITIES, HYDRANTS, LIGHT POLES, METERS, ETC.
8. PLANT COVERAGE, SPACING, AND LAYOUT SHALL BE CONSISTENT WITH THE SPACING LISTED IN THE PLANT LEGEND FOR FULL COVERAGE; FIELD ADJUST AS REQUIRED TO FIT ON-SITE CONDITIONS AT TIME OF INSTALLATION.
9. MULCH: APPLY 3" DEEP WELL-AGED MEDIUM GRIND OR SHREDDED DARK HEMLOCK OR FIR BARK MULCH UNDER AND AROUND ALL TREES AND GROUNDCOVER.
10. SOIL PREPARATION: ALL PLANTING AREAS SHALL HAVE CLEAN TOPSOIL OF SUFFICIENT DEPTH FOR HEALTHY PLANT GROWTH. EXISTING NATIVE SOIL OR STOCKPILED TOPSOIL STRIPPINGS MAY BE USED. TOPSOIL SHALL BE RICH DARK BROWN IN COLOR AND VOID OF ROOTS, PLANTS, WEED SEEDS, SOD, STONES, CLAY LUMPS, ALKALI SALTS, DEBRIS, AND OTHER EXTRANEOUS MATERIALS HARMFUL TO PLANT GROWTH. SOIL PLACEMENT AND PLANTING SHALL OCCUR IN CONDITIONS THAT DO NOT RESULT IN OVER-COMPACTION OR EROSION, SATURATED SOILS OR OTHER CONDITIONS SUCH AS FREEZING, ABOVE AVERAGE TEMPERATURES, RAINY CONDITIONS, ETC. TOPSOIL SHALL BE PLACED AND WORKED IN FRIABLE (WORKABLE) CONDITION WHEN PLACED. FINISHED GRADE OF NEW PLANTING AREAS SHALL SEAMLESSLY MEET FINISH GRADE ON GRADING PLANS. PLANTS PLACED WITHIN OTHER PLANTING BED AREAS SHALL BE POCKET PLANTED WITH NATIVE 3-WAY BLEND NON-COMPACTED SOIL. IF SOIL BECOMES COMPACTED DURING CONSTRUCTION AND/OR IS OTHERWISE INSUFFICIENT FOR HEALTHY PLANT GROWTH, CONTRACTOR SHALL ROTOTILL AND/OR AMEND SOIL WITH ORGANIC COMPOST AS NEEDED TO A MINIMUM DEPTH OF 8 INCHES.
11. ALL REQUIRED SITE TREES SHALL BE WATERED MANUALLY WITH TREE-WATERING BAGS FOR THE FIRST FULL GROWING SEASON (12-MONTHS) DURING DRY WEATHER FOR THE ESTABLISHMENT AND LONG TERM HEALTH AND SURVIVAL. ALL STREET TREES SHALL BE WATERED AND MAINTAINED BY THE ADJACENT HOME OWNER.
12. REFER TO SHEET L101 FOR LANDSCAPE DETAILS.

TREE DATA

TOTAL TREES REMOVED: 98
TOTAL TREES PROPOSED TO BE PLANTED: 98

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HOLLEY PARK SUBDIVISION CONSTRUCTION PLANS

LA CENTER WASHINGTON
NW 1/4 OF SEC 2 T4N, R1E, W.M.
PARCEL NO. 209055000, 209059000 AND 62965242

LANDSCAPE PLAN

DESIGNED BY:	TEB
DRAWN BY:	TEB
MANAGED BY:	SMH
CHECKED BY:	KAH

DATE: 5/15/2019

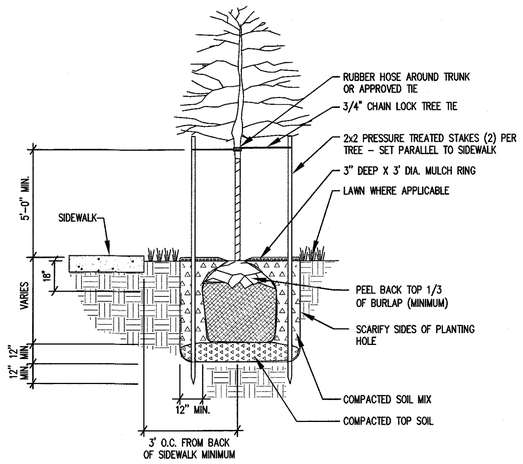
STATE OF WASHINGTON
KRISTI ANN HAUSMANN
NO. 1309 EXP. 11-20-2019
LICENSED LANDSCAPE ARCHITECT

REVISIONS

JOB NUMBER 6962

SHEET L100

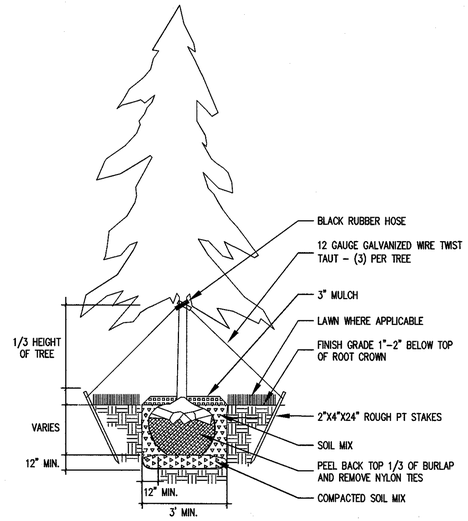
AKS DRAWING FILE: 6962 L100 LANDSCAPE.DWG | LAYOUT: L100



1 L101 TYPICAL STREET TREE PLANTING DETAIL

NTS

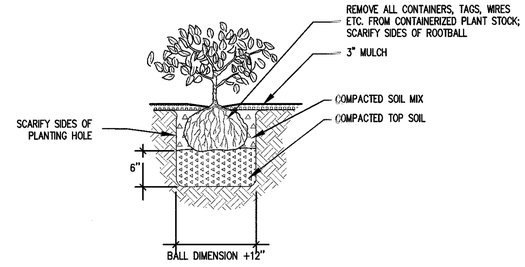
NOTES:
1. DRIVE STAKES OUTSIDE OF ROOTBALL PARALLEL TO STREET AND SIDEWALK.
2. SET TREE 3" ABOVE FINISH GRADE TO ALLOW FOR SETTLING OF SOIL AND BARK MULCH APPLICATION. FINISH GRADE OF SOIL/BARK MULCH SHALL NOT COVER NATURAL ROOT FLARE. KEEP MULCH A MINIMUM OF 2" FROM BARK OF TREE.
3. BACKFILL SOIL MIX FOR TREE PLANTING TO BE 1/3 ORGANIC MATERIALS, 1/3 TOPSOIL, AND 1/3 SANDY LOAM.
4. REMOVE ALL WIRES, METAL BASKETS, TWINE, AND OTHER NON-BIODEGRADABLE MATERIALS FROM TREE ROOTBALL PRIOR TO PLANTING.
5. CONTRACTOR SHALL WATER-SETTLE PLANTING HOLES TO REMOVE AIR POCKETS PRIOR TO SPREADING MULCH.



2 L101 TYPICAL CONIFEROUS TREE PLANTING DETAIL

NTS

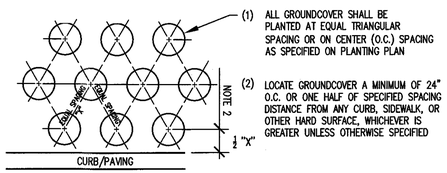
NOTES:
1. BACKFILL SOIL MIX FOR TREE PLANTING TO BE 1/3 ORGANIC MATERIALS, 1/3 TOPSOIL, AND 1/3 SANDY LOAM.
2. REMOVE ALL WIRES, METAL BASKETS, TWINE, AND OTHER NON-COMPOSTABLE MATERIALS FROM TREE ROOTBALL PRIOR TO PLANTING.



3 L101 TYPICAL SHRUB PLANTING DETAIL

NTS

NOTES:
1. BACKFILL SOIL MIX SHALL BE 1/3 ORGANIC MATERIALS, 1/3 TOPSOIL, AND 1/3 SANDY LOAM.
2. REMOVE ALL CONTAINERS, METAL, TWINE, TAGS, AND OTHER NON-BIODEGRADABLE MATERIALS PRIOR TO PLANTING.
3. ALL CONTAINERIZED PLANT STOCK SHALL BE VIGOROUS, FREE OF DISEASE AND PESTS, EVENLY FORMED, AND BE FULLY ROOTED IN THE CONTAINER IN WHICH THEY ARE DELIVERED. ALL PLANTS SHALL FOLLOW ANSI Z60.1 STANDARDS FOR NURSERY STOCK FOR CONTAINER SIZE, HEIGHT, ETC.
4. CONTRACTOR SHALL WATER-SETTLE PLANTING HOLES TO REMOVE AIR POCKETS PRIOR TO SPREADING MULCH.
5. CARE SHALL BE TAKEN TO AVOID COVERING ROOT CROWN OR FOLIAGE OF PLANTS WITH BARK MULCH.



4 L101 TYPICAL GROUNDCOVER PLANTING DETAIL

NTS

NOTES:
1. BACKFILL SOIL MIX SHALL BE 1/3 ORGANIC MATERIALS, 1/3 TOPSOIL, AND 1/3 SANDY LOAM.
2. REMOVE ALL CONTAINERS, METAL, TWINE, TAGS, AND OTHER NON-BIODEGRADABLE MATERIALS PRIOR TO PLANTING.
3. ALL CONTAINERIZED PLANT STOCK SHALL BE VIGOROUS, FREE OF DISEASE AND PESTS, EVENLY FORMED, AND BE FULLY ROOTED IN THE CONTAINER IN WHICH THEY ARE DELIVERED. ALL PLANTS SHALL FOLLOW ANSI Z60.1 STANDARDS FOR NURSERY STOCK FOR CONTAINER SIZE, HEIGHT, ETC.
4. CONTRACTOR SHALL WATER-SETTLE PLANTING HOLES TO REMOVE AIR POCKETS PRIOR TO SPREADING MULCH. DO NOT COVER FOLIAGE OR ROOT CROWN OF GROUNDCOVER PLANTS.

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HOLLEY PARK SUBDIVISION CONSTRUCTION PLANS

LA CENTER WASHINGTON
NW 1/4 OF SEC 2 T4N, R1E, W.M.
PARCEL NO. 209055000, 209059000 AND 62965242

LANDSCAPE DETAILS

DESIGNED BY:	TEB
DRAWN BY:	TEB
MANAGED BY:	SMH
CHECKED BY:	KAH

DATE: 5/13/2019

STATE OF WASHINGTON
TROY I ANN HAUBRICH
LICENSED LANDSCAPE ARCHITECT
NO 1909 EXP 11/2019

REVISIONS

JOB NUMBER
6962

SHEET
L101

AKS DRAWING FILE: 6962 L100 LANDSCAPE.DWG | LAYOUT: L101