

# Utility Right of Way Construction Permit



Department of Executive Services  
Facilities Management Division  
**Real Estate Services Section**  
500 Fourth Ave., Suite 830  
Seattle, WA 98104-0237  
Permits 206-296-7456 Fax 206-296-0196  
Job Starts/Inspections 206-296-8122

Permit No. \_\_\_\_\_ Job No. 383173 Environmental Assessment  
 Required  
 Not Required  
 Date Received \_\_\_\_\_  
 Existing Assessment  
 Replacement  
 Categorically Exempt

Franchise No. \_\_\_\_\_ Kroll Page No. \_\_\_\_\_

Date \_\_\_\_\_ Section \_\_\_\_\_ TWP \_\_\_\_\_ Range \_\_\_\_\_

Applicant Seattle Public Utilities - DSO - Steve Resnick Phone No. 206-233-7234  
 Address 700 5TH AVE - FLOOR 27 ULID No. \_\_\_\_\_  
 City, State, ZIP SEATTLE WA 98101 Bond Amount \_\_\_\_\_  
 Emergency Contact Name SPU - Operations Response Center  
 Job Description & Location Emergency Contact Phone Number 206-386-1800

Requesting open cut in S Orr St approximately 10' northeast of center line for 8" DI sewer main extension. Total length of sewer extension is approximately 560LF in King County. See attachment for project limits. Pipe to be installed by contractor and inspected by SPU.


THIS PERMIT IS FOR KING COUNTY RIGHT OF WAY ONLY.  
 GIVE DISTANCE BY STREET OR ROAD WITH AN ON. FROM AND TO DESCRIPTION.  
 ALL WATER MAIN EXTENSIONS MUST HAVE APPROVAL FROM THE FIRE MARSHAL.  
 ALL UNDERGROUND UTILITY LINES MUST HAVE A MINIMUM 36" COVER.  
 ALL WORK TO BE DONE SUBJECT TO THE APPROVAL OF THE KING COUNTY ROAD ENGINEER.  
 ALL WORK SHALL BE PERFORMED IN CONFORMANCE WITH KING COUNTY ROAD STANDARDS.

The undersigned agrees to comply with provisions, conditions and requirements contained in the "Standards of Good Practice for County Road Departments" published by County Road Administration Board.

All work to be done in conformity with conditions and requirements of the King County Code 6.27, 13.24 and 14.44, and the petitioner agrees to prosecute with all diligence and speed with due regard for the rights, interests and convenience of the public. If at the end of 6 months after issuance of permit the grantee shall not have in operation said utilities, then the rights herein conferred shall cease and terminate, unless specific written provisions are made for a renewal or extension.

The undersigned, its successors and assigns, agrees if granted the above permit, to comply with the provisions, conditions, requirements, regulations and recommendations herein contained and as may apply to any utility franchise granted the applicant and under whose provisions same is issued. It will respect and protect all property contracts, person(s) and rights that might be affected by it.

**INDEMNITY AND HOLD HARMLESS:** The Permittee agrees to indemnify and hold harmless King County as provided herein to the maximum extent possible under law. Accordingly, the Permittee agrees for itself, its successors, and assigns, to defend, indemnify, and hold harmless King County, its appointed and elected officials and employees from and against liability for all claims, demands, suits, and judgments, including cost of defense thereof, for injury to persons, death, or property damage which is caused by, arises out of, or is incidental to Permittee's exercise of rights and privileges granted by this permit. The Permittee's obligations under this permit shall include: (a) Indemnification for such claims whether or not they arise from the sole negligence of either the County or the Permittee, the concurrent negligence of both parties, or the negligence of one or more third parties; (b) The duty to promptly accept tender of defense and provide defense to the County at the Permittee's own expense; (c) Indemnification of claims made by the Permittee's own employees or agents; and (d) Waiver of the Permittee's immunity under the industrial insurance provisions of Title 51 RCW, which waiver has been mutually negotiated by the parties. In the event it is necessary for the County to incur attorney's fees, legal expenses, or other costs to enforce the provisions of this section, all such fees, expenses, and costs shall be recoverable from the Permittee. In the event it is determined that RCW 4.24.115 applies to this permit, the Permittee agrees to defend, hold harmless, and indemnify King County to the maximum extent permitted thereunder.

Signature of Applicant  \_\_\_\_\_

Application Received \_\_\_\_\_ Entered \_\_\_\_\_ Permit Fee \$ \_\_\_\_\_  
 Permit Issued \_\_\_\_\_ By (Permit Clerk) \_\_\_\_\_

This application is granted subject to the requirements and conditions thereof as listed below and on back of page.

1. A King County inspector will be assigned to the project for inspection of road restoration. Costs of inspection applicable to the project will be reimbursed to the County monthly by applicant. Permittee is required to notify King County Department of Transportation at **206-296-8122 between 24 and 72 hours before starting work**. Failure to give notice will result in the assessment of a one hour inspection time charge against the permittee. This assessment is in addition to any other remedy available under law or equity which the County may wish to pursue and shall not be construed as an election of remedies by the County.
2. All hard surfaced roads to be jacked or bored. Exceptions will be on a case-by-case basis with the express permission of the King County Department of Transportation.
3. One-way traffic at all times. Signs and traffic control will be in accordance with the manual on uniform traffic control devices for streets and highways.
4. Asphalt to be neat-line cut by either saw cutting or jackhammering a continuous line 1 foot back from trench. Restoration as a minimum shall include 6.5" of crushed surfacing material and HMA the same thickness as the existing asphalt pavement or a minimum of 2 inches, whichever is greater.
5. It is the responsibility of the grantee to notify all utility districts and private property owners when such property is liable to injury or damage through the performance of the above work. Call 1-800-424-5555 48 hours in advance for underground utility location. This instruction does not relieve the grantee from *required* notification of County inspectors as specified in paragraph 1, above.

Approved by \_\_\_\_\_ Manager \_\_\_\_\_ Engineer \_\_\_\_\_

## Directions Regarding Permits

Note: Right of way shall mean any Street, Avenue, Alley, Road or Lane  
Public Place shall mean any Bridge, Trestle, or Wharf.

Applicants for permits to occupy County property with utilities, or holders of granted franchise rights, who are planning construction work upon, along, over, under or across any County right of way or public place must file an application with the King County Real Estate Services Section, King County Administration Building, 500 Fourth Avenue, Suite 830, Seattle, WA 98104-0237.

The application shall be accompanied by drawings (in triplicate) drawn to working scale, commonly 50 to 100 feet per inch. It shall describe the nature of the work, and show the location of same on a map, giving names, or numbers, and width of roads and streets. It must also show location of work with reference to platted subdivisions, and section, township and range, and must show the location of work relative to existing utility facilities which may be affected. Review of the application must conform to the County Environmental Policy Act (King County Code 20.44).

Applicants shall specify the type of construction in detail by submitting plans which show the class of material and equipment to be used. All such material and equipment shall be of the highest quality. The manner of excavation, filling, construction, installation, erection of temporary structures, traffic turn outs, road obstruction and barricades, shall conform with County standards and shall be approved by the County Engineer in advance of work.

Signs and barricades and traffic control in the vicinity of any work shall conform with provisions of "Part VI Manual of Uniform Traffic Control Devices for Streets and Highways."

Before the work is accepted for the County by the County Engineer, all of the direct costs and expenses involved in administering said permit must be paid to the County by the applicant. These include labor charges for examination, inspection and supervision of work in progress by field personnel.

Any deviation from the proposed plan, resulting in what is commonly known as the "As Built" location must be approved in advance by the County Engineer. Change notice must show "As Built" position relative to grade line and center line of right of way and any other installations in the right of way.

## Permit - Terms and Conditions

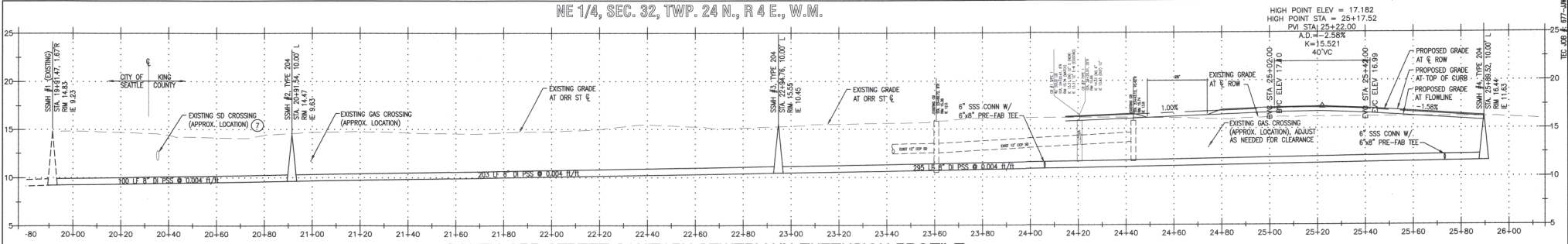
1. The grantee, its successors and assigns, is given and granted the right and authority to enter upon the right of way or public place for the purpose of performing the work described in this permit and approved by the County Engineer or the Engineer's agent.
2. Before any work commences the site must be inspected by a County Representative and approved by the County Engineer with respect to:
  - a. location
  - b. type of construction
  - c. materials and equipment to be installed
  - d. manner of erection or construction
  - e. Mode of operation of the installed facility
  - f. Manner of maintenance of installed facility
  - g. Method of safeguarding public traffic both during working hours and during non-working hours while the project is under construction
3. After the installation, operation, maintenance, or removal of a utility or facility the grantee shall restore all rights of way and public places to the condition which is equivalent in all respects to the condition they were in before starting work. All work to meet the approval of the County Road Engineer.
4. In the event that any damage of any kind is caused by the grantee in the course of performing work authorized by this permit, the grantee will repair said damage at its sole cost and expense. Repair work shall begin without delay and continue without interruption until completed. If damage is extensive, the time allowed for repair will be prescribed by the County Engineer or the Engineer's agent.
5. The County Engineer, or their representatives may at any time, do, order, or have done any and all work considered necessary to restore to a safe condition any area left by the grantee in a condition dangerous to life or property and upon demand the grantee shall pay to the County all costs of such work, materials, etc.
6. When the County deems it advisable to change the alignment or grade of any right of way or public place or structure by widening, grading, regrading, paving, improving, altering or repairing same, the grantee upon written notice by the County Engineer or the Engineer's representatives will at its own sole cost and expense, raise, lower, move, change or reconstruct such installations to conform with the plans of work contemplated or ordered by the County Engineer according to a time schedule contained in the written notice.
7. Penalties up to One Thousand (\$1,000) dollars per day may be imposed by the County Engineer, if the grantee delays relocation of facilities beyond the time limits prescribed by the County Engineer. The County Engineer reserves the right to order its own agents or representatives to accomplish the desired change, and all costs of relocation or removal shall be borne by the grantee.
8. All such changes, reconstruction or relocation by the grantee shall be done in such manner as will cause the least interference with any of the County's work. The grantee shall have seventy-two (72) hours written notice by the County Engineer or the Engineer's representatives of any blasting contiguous to the grantee's permit rights in order that it may protect its interests.
9. This grant or privilege shall not be deemed or construed to be an exclusive franchise. It does not prohibit the County from granting other permits or franchise rights of like nature to other public or private utilities, nor shall it prevent the County from using any of its roads, streets, public places for any and all public use, or affect its jurisdiction over all or any part of them.
10. All the provisions, conditions, requirements and regulations herein contained shall be binding upon the successors and assigns of the grantee and all privileges of the grantee shall be given to such successors and assigns as if they were specifically mentioned.
11. The County Road Engineer or Real Estate Services, Section Manager may unilaterally revoke, annul, or terminate, revise or amend this permit without cause and for any reason including, but not limited to:
  - (a) Grantee's failure to comply with any provision, requirement, or regulation herein set forth;
  - (b) Grantee's willful neglect of, or failure to heed or comply with, notices given it;
  - (c) Grantee's facilities are not installed, operated, or maintained in conformity with conditions herein set forth;
  - (d) Grantee's failure to conform to any applicable law or regulation as currently exists or may hereafter be enacted, adopted or amended.
12. Grantee by accepting this permit agrees to obtain information from all utility departments regarding location and current status of their installations before starting work. Private property owners adjoining, or in proximity to the right of way shall be notified when such property is exposed to the possibility of injury or damage through performance of this project. The grantee shall make all advance arrangements necessary to protect such property and/or utility from injury or damage.
13. The issuance of this permit to the grantee does not in any way relieve the grantee of any other applicable law in performing the work subject to this permit.
14. In all hiring or employment made possible resulting from the granting of this permit, there shall be no discrimination against any employee or applicant for employment because of sex, sexual orientation, age, race, color, ancestry, religion, national origin, marital status or the presence of any sensory, mental or physical handicap, unless based upon a bona fide occupational qualification, and this requirement shall apply to but not be limited to the following: employment, advertising, layoff or termination, rates of pay or other forms of compensation, and selection for training, including apprenticeship.

No person shall be denied or subjected to discrimination in receipt of the benefit of any services or activities made possible by or resulting from the granting of this permit on the ground of sex, sexual orientation, race, color, ancestry, religion, national origin, age (except minimum age and retirement provisions), marital status, parental status, or the presence of any sensory, mental or physical handicap.

Any violation of this-provision shall be considered a violation-of this permit and shall be grounds for cancellation, termination or suspension in whole or in part of the permit by the County and may result in ineligibility for further County permits.

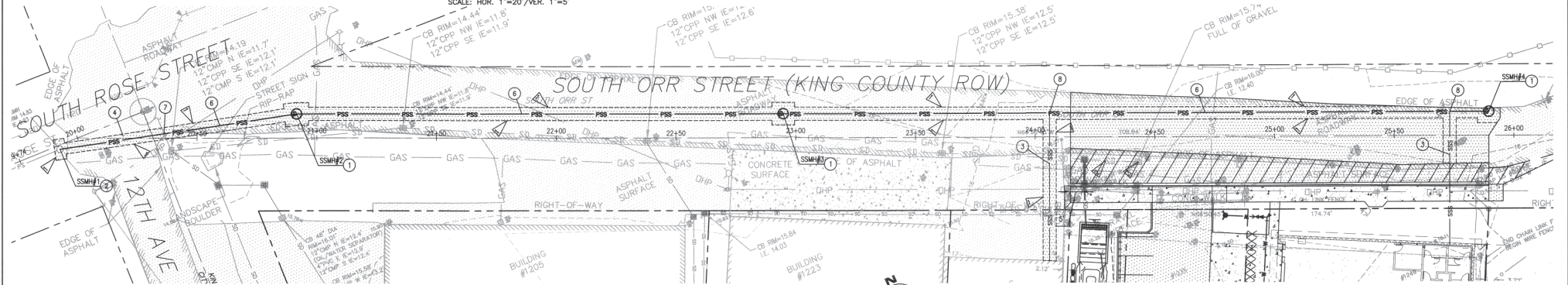
The permittee shall make the best efforts to make opportunities for employment and/or contracting services available to women and minority persons. The permittee recognizes that the County has a policy of promoting affirmative action, equal opportunity and has resources available to assist permittees in these efforts.
15. This permit and any underlying franchise does not authorize the cutting of trees with a trunk diameter greater than four (4) inches unless such authorization is specifically granted in writing by King County.
16. If the permittee fails to perform its obligations herein, vacate the premises, remove its facilities, restore the property as required, or comply with any condition or applicable regulation or law, the County shall have, at their option, the right to pursue any remedy or remedies available at law or equity including, but not limited to, the right to proceed under the provisions of Title 59 of the Revised Code of Washington.

NE 1/4, SEC. 32, TWP. 24 N., R 4 E., W.M.



**SOUTH ORR STREET SANITARY SEWERMAIN EXTENSION PROFILE**

SCALE: HOR. 1"=20' / VER. 1"=5'



**SOUTH ORR STREET SANITARY SEWERMAIN EXTENSION PLAN**

SCALE: 1"=20'

**MAINLINE CONVEYANCE AND DETENTION NOTES:**

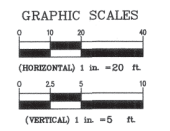
1. MAINLINE PIPE, CULVERT PIPE AND DETENTION PIPE MUST BE AS APPROVED BY SEATTLE PUBLIC UTILITIES (SPU) AND AS SHOWN ON THE PROFILE.
  - A) VCP MUST BE PER SPECIFICATION 9-05.5.
  - B) DIP MUST BE PER SPECIFICATION 9-05.3. FITTINGS MUST BE CEMENT MORTAR LINED DUCTILE IRON. JOINTS MUST BE RUBBER GASKET, PUSH-ON OR MECHANICAL.
  - C) ROP MUST BE PER SPECIFICATION 9-05.2.
2. POLYPROPYLENE PIPE PER SPECIFICATION 9-05.17. POLYPROPYLENE PIPE DETENTION, FOR PIPE DIAMETERS 30" AND GREATER MUST BE TRIPLE WALL (SMOOTH INTERIOR), CORRUGATED STRUCTURAL CORE, AND SMOOTH EXTERIOR POLYPROPYLENE PIPE. ALL JOINTS MUST BE BELL AND SPIGOT AND CONFORM TO ASTM D2512.
3. BEDDING MUST BE CLASS B FOR ALL PIPE, EXCEPT DUCTILE IRON PIPE THAT IS LESS THAN 30-INCH ID, WHICH MAY BE CLASS D. SEE STANDARD PLAN NO. 285 AND SPECIFICATION 7-17.3(1). CONTROLLED DENSITY FILL (CDF) MUST NOT BE IN CONTACT WITH THE PIPE. BEDDING MATERIAL MUST BE:
  - A) MINERAL AGGREGATE TYPE 22 FOR VCP AND POLYPROPYLENE PIPE.
  - B) MINERAL AGGREGATE TYPE 9 FOR ROP.
  - C) SELECT WASTE OR MINERAL AGGREGATE TYPE 9 OR MINERAL AGGREGATE TYPE 22 FOR DIP.
4. TIES ON NEW PIPE LESS THAN 24" IN DIAMETER SHALL BE PREFABRICATED. ALL NEW CONNECTIONS TO EXISTING MAINLINES OR STRUCTURES, OR CONNECTIONS TO NEW MAINLINES WITHOUT PREFABRICATED TIES, MUST BE PER SPU CORE TAP PROCEDURES.
5. DETENTION PIPE AND FLOW CONTROL STRUCTURES MUST BE PER STANDARD PLAN NO. 270, 270A AND 272B.
6. ALL PIPELINES AND APPURTENANCES MUST BE CLEANED AND TESTED AFTER BACKFILLING PER SPECIFICATION 7-17.3(3). DEFLECTION TESTING OF FLEXIBLE PIPE MUST BE NO LESS THAN 30 DAYS AFTER BACKFILL AND PRIOR TO PAVING PER SPECIFICATION 7-17.3(3)(F). TELEVISION INSPECTION OF MAINLINE MUST BE PER SPECIFICATION 7-17.3(3)(G).
7. WHERE A NEW PIPE CLEARS AN EXISTING OR NEW UTILITY BY 6" OR LESS, POLYETHYLENE PLASTIC FOAM MUST BE PLACED AS A CUSHION BETWEEN THE UTILITIES PER SPECIFICATION 1-07.1(2).
8. PIPE 12" DIAMETER AND LARGER TO BE ABANDONED MUST BE FILLED WITH A PUMPABLE, FLOWABLE CEMENT SLURRY. SEE SPECIFICATION 2-02.3(5).

**SPU INFRASTRUCTURE PROTECTION NOTES:**

1. CONTRACTOR SHALL EXERCISE CARE SHALL WHEN EXCAVATING NEAR CHARGED WATER MAINS, SANITARY SEWER AND STORM DRAIN INFRASTRUCTURE.
2. IF DAMAGED, CONTRACTOR SHALL NOT REPAIR DAMAGE TO CHARGED WATER MAINS OR WATER SERVICES BUT SHALL IMMEDIATELY NOTIFY THE SPU EMERGENCY DISPATCHER AT 206-388-1800.
3. IF A CAST IRON PIPE (CIP) PIPE BELL IS EXPOSED DURING CONSTRUCTION, CONTRACTOR SHALL CONTACT SPU EMERGENCY DISPATCHER AT 206-684-1800. A CREW WILL BE DISPATCHED TO INSPECT THE BELL AND DETERMINE IF IT SHOULD BE RE-CHALKED.
4. IF TYPE 165 INLET IS WITHIN THE PAVEMENT REMOVAL AREA, REPLACE THE INLET WITH TYPE 250A OR B AND INSTALL 8-INCH MIN. CL 50, DIP, FROM THE INLET TO THE CB. BENDS ARE NOT ALLOWED.
5. SPU WILL OBSERVE EXCAVATION WHICH COULD IMPACT ITS UTILITIES. CONTRACTOR SHALL CONTACT SPU ENGINEER, BILL DUTYMAN, (206-684-4217) AT LEAST 48 HOURS PRIOR TO START OF CONSTRUCTION.
6. CONTRACTOR SHALL VERIFY LOCATION AND DEPTH OF WATERMANS, WATER SERVICE LINES, PUBLIC SEWER AND STORM PIPES, SIDE SEWER LATERALS PRIOR TO EXCAVATION OR TUNNELING OVER OR BELOW THE PIPES.
7. POT-HOLING OR EXCAVATION WITHIN 2 FEET OF SPU PIPES SHALL BY SOIL-VACUUMING.
8. CONTRACTOR SHALL MAINTAIN A MINIMUM 5' HORIZONTAL AND 18" VERTICAL SEPARATION, OVER OR BELOW SPU PIPES PER COS STANDARD SPEC 1-07.1(2). WHEN TUNNELING UNDER THE PIPES, MAINTAIN AT LEAST 2 FEET SEPARATION, PER SECTION 2-16 OF THE C.O.S.
9. THE CONTRACTOR SHALL MAINTAIN MINIMUM 10' SEPARATION FROM THE EDGE OF EXCAVATION TO EXISTING WATER THURST BLOCKS. IF THE MINIMUM SEPARATION CAN NOT BE ACHIEVED, CONTACT SPU PRIOR TO EXCAVATION CLOSE TO THE BLOCK.
10. ANY STORM/SEWER PIPES DAMAGED DURING CONSTRUCTION SHALL BE REPLACED WITH AN APPROVED PIPE MATCHING THE EXISTING PIPE NOMINAL PIPE DIAMETER AND GRADE TO CONNECT EXISTING AND NEW PIPES, MISSION ARC STAINLESS SHIELDED COUPLINGS OR APPROVED EQUAL SHALL BE USED.
11. WHEN REQUIRED DUE TO PROJECT IMPACT, CONTRACTOR SHALL ADJUST VALVE BOXES AND CASTINGS IN ACCORDANCE WITH STANDARD SPECIFICATIONS, SECTION 7-20. CASTINGS, SUCH AS DRAINAGE INLETS, MAINTENANCE HOLES, VALVE CHAMBERS, AND METER BOXES SHALL BE ADJUSTED TO FINISH GRADE PRIOR TO CONSTRUCTION OF THE FINAL SURFACE COURSE (SEE STANDARD SPECIFICATIONS, SECTION 5-04.3 (9) (B)). CASTINGS OR LIDS THAT ARE WORN OR BROKEN SHALL BE REPLACED PRIOR TO INSTALLATION OF THE FINAL SURFACE.
12. WHEN EXCAVATION OR TUNNELING UNDER SPU PIPES, CONTRACTOR MAY BE REQUIRED TO SUBMIT A PIPE SUPPORT OR PROTECTION PLAN. THE PLAN SHALL SHOW HOW THE PIPE WILL BE SUPPORTED AND PROTECTED. EQUIPMENT AND METHOD OF EXCAVATION AROUND THE PIPE, FOR PIPES GREATER THAN 12 INCHES OR WHEN DIAGONAL CROSSING IS PROPOSED, SPU COULD REQUIRE THE PLAN TO BE PREPARED BY A REGISTERED ENGINEER.

**CONSTRUCTION NOTES:**

1. SS MAINTENANCE HOLE PER COS STANDARD PLAN 204B
2. CONNECT TO EXISTING SSMH, RECHANNEL FOR NEW PIPE INLET PER SPU STANDARDS
3. SIDE SEWER UNDER SEPARATE PERMIT
4. PAVEMENT RESTORATION PER COS STANDARD PLAN 404a AND ZONE OF INFLUENCE PER COS STD PLAN 404c, AND "RIGHT-OF-WAY OPENING AND RESTORATION RULE" 9.3
5. PAVEMENT RESTORATION PER KING COUNTY ROAD DESIGN AND CONSTRUCTION STANDARDS (KCRDCS)
6. PIPE TRENCH PER COS STD PLAN 284 AND BEDDING PER COS STD PLAN 285
7. POT-HOLE EXISTING STORM DRAIN PIPE TO CONFIRM LOCATION AND ELEVATION PRIOR TO CONSTRUCTION OF PSS
8. PROVIDE 6"x8" PREFABRICATED TEES PER SPU STANDARDS FOR SIDE SEWER CONNECTIONS

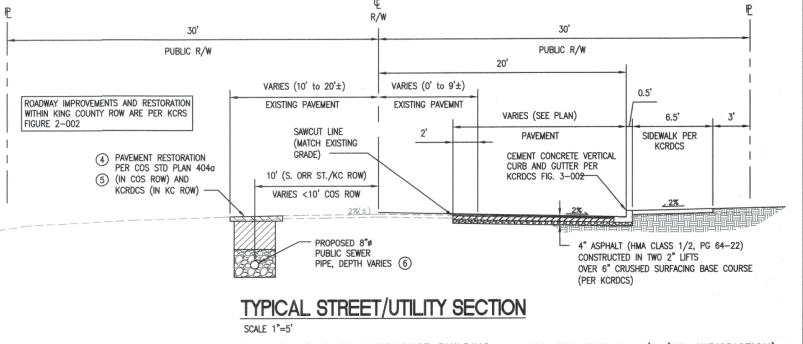


**DEMO/REMOVAL NOTES:**

1. SAWCUT AND REMOVE EXISTING ASPHALT PAVEMENT
2. REMOVE OR PLUG EXISTING STORM DRAIN PIPE
3. REMOVE EXISTING CATCH BASIN

**SHEET NOTES:**

1. SEE SHEET C.1 FOR PRIVATE SITE IMPROVEMENTS
2. SEE SHEET C.3.2 FOR PUBLIC STORM DRAINAGE CONNECTION



**TEC Engineering Consultants**  
 P.O. Box 1787, Issaquah, WA 98027  
 Tel. 425-391-1415 • www.tecchill.com

REVIEWED BY SPU/WATER ENGINEERING	DATE: 20.....	DESIGNED: WNT	DATE: 05/02/18
REVIEWED BY SPU/DRAINAGE	DATE: 10-18	CHECKED: LMT	DATE: 06/02/18
APPROVED BY SDOT STREET IMPROVEMENT PERMITTING	DATE: 11-2-2018	DRAWN: [ ]	CHECKED: [ ]

**City of Seattle**  
**Seattle Department of Transportation**

WORK ORDER NO. \_\_\_\_\_  
 PERMIT NO. \_\_\_\_\_  
 SCALE: H. V.

SPU NO. APPROVED  
 INSPECTOR'S BOOK

PROJECT NAME: NPI 8438 WAREHOUSE BUILDING DPD PROJECT #: N/A (KC JURISDICTION)

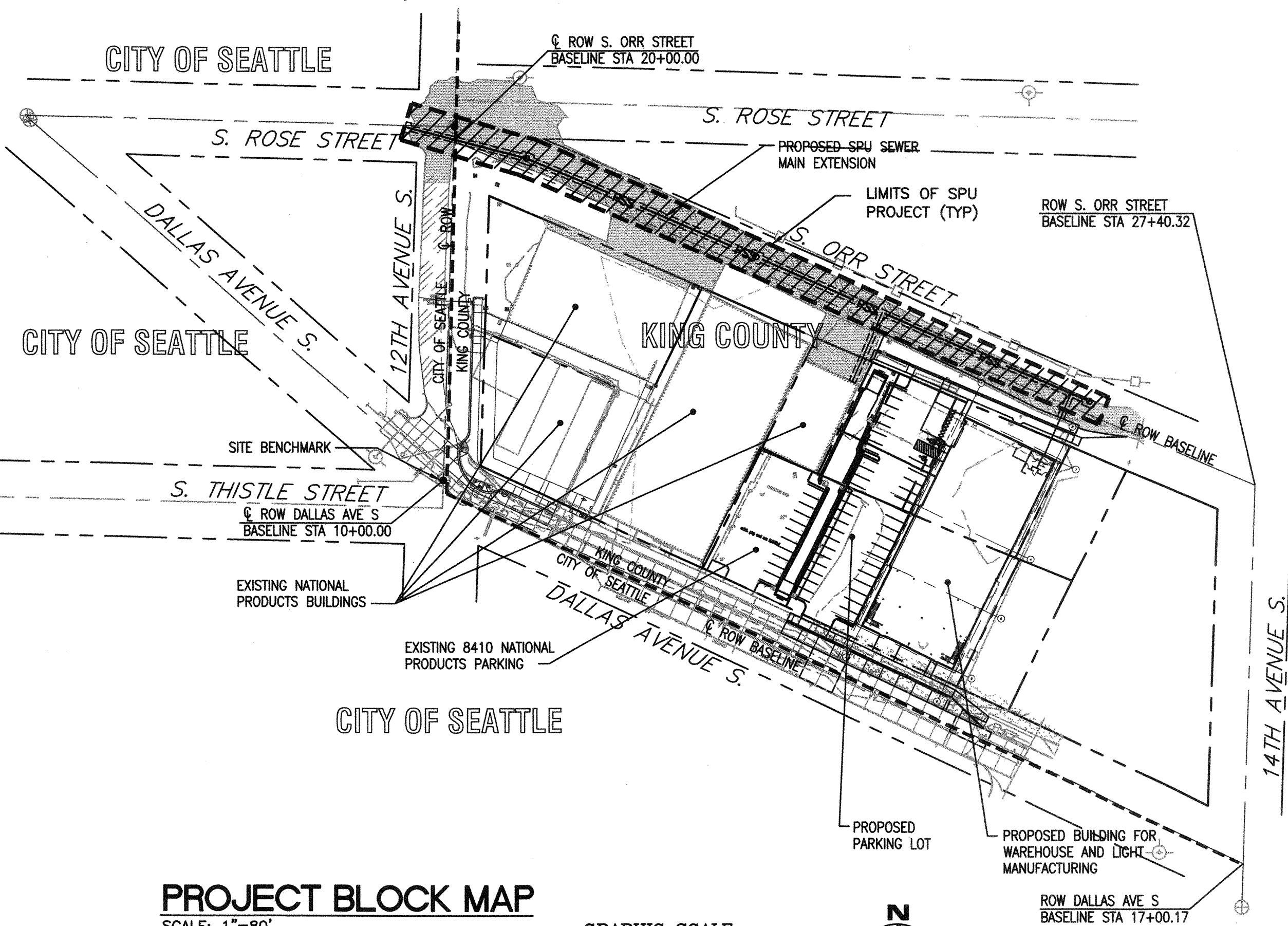
**NPI 8438 WAREHOUSE**  
**SOUTH ORR ST SEWER EXTENSION**  
**PLAN AND PROFILE**

SDOT PROJECT NO. 383173  
 VAULT PLAN NO. 790-771  
 VAULT SERIAL NO. 37519  
 SHEET 4 OF 4



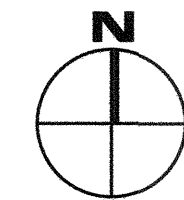
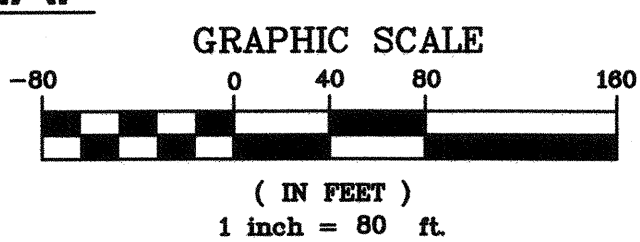
# NPI 8438 Building - PUBLIC SEWER EXTENSION

NE 1/4, SEC. 32, TWN. 24 N, R. 4 E W.M.



## PROJECT BLOCK MAP

SCALE: 1"=80'



## PROJECT DATA:

### PROJECT SURVEY/BASIS FOR DESIGN:

THE EXISTING TOPOGRAPHIC CONDITIONS SHOWN HEREON WERE PREPARED BY PLS, INC., AND PUBLISHED ON A SURVEY DATED 04-30-2018. TEC, INC. RELIES ON THE ACCURACY OF THE INFORMATION PROVIDED BY THE PLS SURVEY FOR THE PURPOSE OF THIS PROJECT. TEC, INC. HAS SUPPLEMENTED THE SURVEY DATA WITH AS-BUILT INFORMATION AND UTILITY RESEARCH AND OR FIELD OBSERVATIONS AS APPROPRIATE TO COMPLETE THE WORK.

### SURVEY CONTROL:

HORIZONTAL: THE OVERALL HORIZONTAL DATUM FOR THIS PROJECT IS NAD 83/2011, WASHINGTON COORDINATE SYSTEM, NORTH ZONE, BASED ON GPS MEASUREMENTS USING THE WASHINGTON STATE REFERENCE NETWORK.

OWNER: KING COUNTY

ID: N/A  
 DESCRIPTION: CONCRETE MONUMENT WITH PIN, 1.3 BELOW GRADE IN CASE  
 LOCATION: INTERSECTION OF SOUTH ROSE STREET AND 12TH AVENUE SOUTH  
 NORTHING: 196499.39  
 EASTING: 1273763.52

OWNER: KING COUNTY

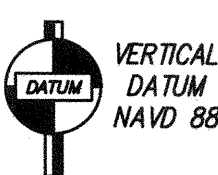
ID: N/A  
 DESCRIPTION: 2" BRASS CAP, 0.8" BELOW GRADE IN CASE  
 LOCATION: INTERSECTION OF DALLAS AVENUE SOUTH AND 12TH AVENUE SOUTH  
 NORTHING: 196212.51  
 EASTING: 1273754.87

VERTICAL: NAVD88

VERTICAL CONTROL FOR THIS SITE IS CITY OF SEATTLE MON NO. SNV-5287--BRASS CAP AT NW CORNER OF 14TH AVENUE SOUTH AND S. CLOVERDALE STREET--ELEVATION 19.563' NAVD88 SITE BENCHMARK IS TOP OF MONUMENT IN CASE AT INTERSECTION OF 12TH AVENUE SO. AND DALLAS AVENUE SO.--ELEVATION 15.49' NAVD88

### LEGAL DESCRIPTIONS OF PROJECT PROPERTY:

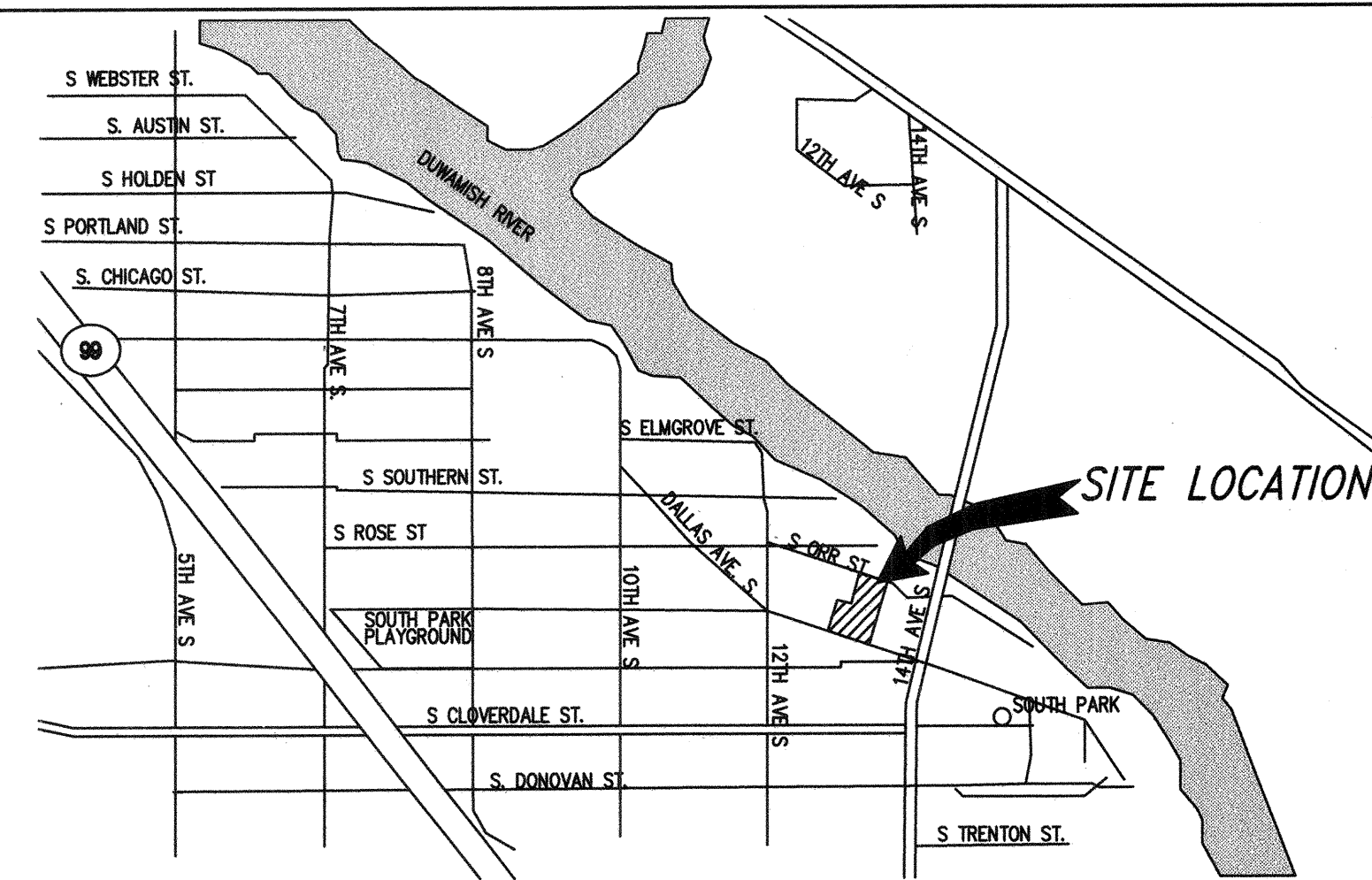
PARCEL NO. 218500-1105  
 EAST SOUTH PARK ADD WEST 4.00 FT OF LOT 8 TOGETHER WITH LOTS 9-10-11-12-13 AND 14  
 PARCEL NO. 218500-1250  
 EAST SOUTH PARK ADDITION  
 PARCEL NO. 218500-1245  
 EAST SOUTH PARK ADDITION 39 LESS THE WEST 2 FT & ALL OF 40  
 PARCEL NO. 218500-1240  
 EAST SOUTH PARK ADDITION 38 & WEST 2 FT OF 39  
 PARCEL NO. 218500-1270  
 EAST SOUTH PARK ADDITION  
 PARCEL NO. 218500-1107  
 EAST SOUTH PARK ADDITION



**CALL BEFORE YOU DIG**  
 811 FOR FIELD LOCATION OF UNDERGROUND UTILITIES

## GENERAL CONSTRUCTION NOTES:

- ALL WORK SHALL CONFORM TO THE 2017 EDITION OF CITY OF SEATTLE STANDARD SPECIFICATIONS, THE 2017 EDITION OF THE CITY OF SEATTLE STANDARD PLANS; AND SEATTLE DEPARTMENT OF TRANSPORTATION DIRECTOR'S RULE 05-2009 FOR STREET AND SIDEWALK PAVEMENT OPENING AND RESTORATION. A COPY OF THESE DOCUMENTS SHALL BE ON SITE DURING CONSTRUCTION.
- A COPY OF THE APPROVED PLAN MUST BE ON SITE WHENEVER CONSTRUCTION IS IN PROGRESS.
- ERRORS AND OMISSIONS ON THE PERMITTED PLANS MUST BE CORRECTED BY THE ENGINEER AND APPROVED BY THE CITY OF SEATTLE.
- ALL PERMITS REQUIRED FOR WORK WITHIN THE PUBLIC RIGHT OF WAY MUST BE OBTAINED PRIOR TO THE START OF CONSTRUCTION.
- PRIOR TO THE START OF CONSTRUCTION WITHIN THE RIGHT OF WAY, THE PERMITTEE SHALL SCHEDULE AND ATTEND A PRECONSTRUCTION MEETING WITH THE CITY OF SEATTLE DEPARTMENT OF TRANSPORTATION.
- PERMITTEE SHALL CONTACT SEATTLE DEPARTMENT OF TRANSPORTATION, STREET USE INSPECTOR A MINIMUM OF 2 BUSINESS DAYS PRIOR TO NEEDING AN INSPECTION.
- ALL DAMAGE TO CITY INFRASTRUCTURE CAUSED BY THE CONSTRUCTION SHALL BE REPAIRED AS REQUIRED BY THE SEATTLE DEPARTMENT OF TRANSPORTATION.
- THE APPROVED PLANS SHOW THE APPROXIMATE AREA OF PAVEMENT RESTORATION BASED ON THE DEPTH OF UTILITY CUTS AND/OR THE AREA OF CURB AND/OR PAVEMENT TO BE REMOVED AND REPLACED. THE ACTUAL LIMITS OF THE PAVEMENT RESTORATION SHALL BE PER THE STREET AND SIDEWALK PAVEMENT OPENING AND RESTORATION DIRECTOR'S RULE 05-2009 AND WILL BE DETERMINED IN THE FIELD BY THE SEATTLE DEPARTMENT OF TRANSPORTATION STREET USE INSPECTOR PRIOR TO THE PAVEMENT RESTORATION.
- DATUM: NAVD 88 AND NAD83 (1991).
- SURVEYING AND STAKING OF ALL IMPROVEMENTS IN THE PUBLIC RIGHT OF WAY SHALL BE COMPLETED PRIOR TO CONSTRUCTION. SURVEY CUT SHEETS MUST BE SUBMITTED AND APPROVED BY THE SEATTLE DEPARTMENT OF TRANSPORTATION AT LEAST 5 DAYS PRIOR TO CONSTRUCTION.
- IF AN EXISTING CURB IS TO BE REMOVED AND REPLACED IN THE SAME LOCATION THE PERMITTEE SHALL PROVIDE THE STREET USE INSPECTOR A PLAN WITH EXISTING FLOW LINE AND TOP OF CURB ELEVATIONS IDENTIFIED. PERMITTEE TO STAKE THE LOCATION OF THE EXISTING CURB PRIOR TO DEMOLITION.
- THE PERMITTEE SHALL BE RESPONSIBLE FOR REFERENCING AND REPLACING ALL MONUMENTS THAT MAY BE DISTURBED, DESTROYED OR REMOVED BY THE PROJECT AND SHALL FILE AN APPLICATION FOR PERMIT TO REMOVE OR DESTROY A SURVEY MONUMENT WITH THE WASHINGTON STATE DEPARTMENT OF NATURAL RESOURCES, PURSUANT TO RCW 58.24.040(8).
- THE PERMITTEE SHALL SUBMIT ALL APPLICABLE DOCUMENTS REQUIRED UNDER SECTION 1-05.3 OF THE STANDARD SPECIFICATIONS PRIOR TO CONSTRUCTION. A MATERIAL SOURCE FORM FOR ALL MATERIALS TO BE PLACED IN THE RIGHT OF WAY AND MIX DESIGNS FOR ALL ASPHALT, CONCRETE AND AGGREGATES TO BE PLACED IN THE RIGHT OF WAY MUST BE SUBMITTED TO THE SEATTLE DEPARTMENT OF TRANSPORTATION FOR REVIEW AND APPROVAL PRIOR TO BEGINNING CONSTRUCTION. A REVISED MATERIAL SOURCE FORM AND MIX DESIGNS MUST BE SUBMITTED FOR REVIEW AND APPROVAL PRIOR TO PLACEMENT OF ANY SUBSTITUTE MATERIALS.
- THE PERMITTEE SHALL NOTIFY THE SEATTLE FIRE DEPARTMENT DISPATCHER (206-386-1495) AT LEAST TWENTY-FOUR (24) HOURS IN ADVANCE OF ALL WATER SERVICE INTERRUPTIONS, HYDRANT SHUTOFFS, AND STREET CLOSURES OR OTHER ACCESS BLOCKAGE. THE PERMITTEE SHALL ALSO NOTIFY THE DISPATCHER OF ALL NEW, RELOCATED, OR ELIMINATED HYDRANTS RESULTING FROM THIS WORK.
- THE PERMITTEE SHALL LOCATE AND PROTECT ALL CASTINGS AND UTILITIES DURING CONSTRUCTION.
- THE PERMITTEE SHALL CONTACT THE UNDERGROUND UTILITIES LOCATOR SERVICE (1-800-424-5555) AT LEAST 48 HOURS PRIOR TO CONSTRUCTION.
- IT IS THE SOLE RESPONSIBILITY OF THE PERMITTEE TO VERIFY THE ACCURACY OF ALL UTILITY LOCATIONS SHOWN AND TO FURTHER DISCOVER AND AVOID ANY OTHER UTILITIES NOT SHOWN WHICH MAY BE AFFECTED BY THE IMPLEMENTATION OF THIS PLAN.
- THE PERMITTEE SHALL ADJUST ALL EXISTING MANHOLE RIMS, DRAINAGE STRUCTURE LIDS, VALVE BOXES, AND UTILITY ACCESS STRUCTURES TO FINISH GRADE WITHIN AREAS AFFECTED BY THE PROPOSED IMPROVEMENTS.
- SPU-DWW MUST PERFORM ALL CORE DRILL OPERATIONS INTO EXISTING MAINS OR STRUCTURES. CONTRACTORS ARE NOT ALLOWED TO CORE INTO MAINS OR STRUCTURES WITHOUT PRIOR APPROVAL FROM SPU-DWW. TO SCHEDULE CORE CUTS CONTACT SPU-DWW AT 206-615-0511 A MINIMUM OF 48 HOURS IN ADVANCE.
- UTILITY SERVICE CONNECTIONS SHOWN ON THIS PLAN REQUIRE SEPARATE PERMITS AND ARE TO BE MAINTAINED PRIVATELY AND NOT BY THE CITY OF SEATTLE.
- THE PERMITTEE SHALL PROVIDE FOR ALL TESTING AS REQUIRED BY THE STREET USE INSPECTOR.
- BACKFILL MATERIAL USED IN PUBLIC RIGHT-OF-WAY SHALL MEET STANDARD SPECIFICATIONS AND SHALL BE APPROVED BY SEATTLE DEPARTMENT OF TRANSPORTATION.
- INSPECTION AND ACCEPTANCE OF ALL WORK IN THE PUBLIC RIGHT-OF-WAY SHALL BE DONE BY REPRESENTATIVES OF THE CITY OF SEATTLE. IT SHALL BE THE PERMITTEE'S RESPONSIBILITY TO COORDINATE AND SCHEDULE APPROPRIATE INSPECTIONS ALLOWING FOR PROPER ADVANCE NOTICE. THE SEATTLE DEPARTMENT OF TRANSPORTATION STREET USE INSPECTOR MAY REQUIRE REMOVAL AND RECONSTRUCTION OF ANY ITEMS PLACED IN THE RIGHT OF WAY THAT DO NOT MEET CITY STANDARDS OR THAT WERE CONSTRUCTED WITHOUT APPROPRIATE INSPECTIONS.
- THE PERMITTEE SHALL PROVIDE AND MAINTAIN TEMPORARY EROSION CONTROL AND SEDIMENTATION COLLECTION FACILITIES TO ENSURE THAT SEDIMENT-LADEN WATER DOES NOT ENTER THE NATURAL OR PUBLIC DRAINAGE SYSTEM PER SECTION 8-01. AS CONSTRUCTION PROGRESSES AND UNEXPECTED (SEASONAL) CONDITIONS DICTATE, ADDITIONAL CONTROL FACILITIES MAY BE REQUIRED. DURING THE COURSE OF CONSTRUCTION IT SHALL BE THE OBLIGATION AND RESPONSIBILITY OF THE PERMITTEE TO ADDRESS ANY NEW CONDITIONS THAT MAY BE CREATED BY THE PERMITTEE'S ACTIVITIES AND TO PROVIDE ADDITIONAL FACILITIES THAT MAY BE NEEDED TO PROTECT ADJACENT PROPERTIES.
- THE PERMITTEE SHALL KEEP ALL PAVED SURFACES IN THE RIGHT OF WAY CLEAN BY SWEEPING PER SECTION 8-01.3(16).
- ALL DISTURBED SOILS MUST BE AMENDED PER STANDARD PLAN 142 AND SECTION 8-02 OF THE STANDARD SPECIFICATIONS UNLESS WITHIN ONE FOOT OF A CURB OR SIDEWALK, THREE FEET OF A UTILITY STRUCTURE (E.G. WATER METER, UTILITY POLE, HAND HOLE, ETC.), OR THE DRIPLINE OF AN EXISTING TREE.
- ALL TRAFFIC CONTROL SHALL BE IN ACCORDANCE WITH THE CITY OF SEATTLE TRAFFIC CONTROL MANUAL FOR IN-STREET WORK. AN APPROVED TRAFFIC CONTROL PLAN WILL BE REQUIRED FOR ALL ARTERIAL STREETS PRIOR TO BEGINNING CONSTRUCTION.
- PERMITTEE SHALL NOTIFY KING COUNTY METRO AT 684-2732 FOURTEEN DAYS IN ADVANCE OF ANY IMPACT TO TRANSIT OPERATIONS.
- COORDINATE SIGN AND PAY STATION AND/OR PARKING METER HEAD REMOVAL AND INSTALLATION WITH SEATTLE DEPARTMENT OF TRANSPORTATION AT 684-5370. SIGNPOSTS ARE TO BE INSTALLED IN ACCORDANCE WITH STANDARD PLANS 616, 620, 621A, 621B, 625, & 626.
- ALL STREET NAME SIGNS MUST BE INSTALLED BY SEATTLE DEPARTMENT OF TRANSPORTATION AT THE PERMITTEE'S EXPENSE.
- ALL WORK PERFORMED BY SEATTLE CITY LIGHT, SEATTLE PUBLIC UTILITIES, AND OTHER UTILITIES TO REMOVE OR RELOCATE EXISTING UTILITIES SHALL BE DONE AT THE PERMITTEE'S EXPENSE.
- PERMITTEE MUST CONTACT THE SEATTLE DEPARTMENT OF PARKS AND RECREATION TO APPLY FOR A SEPARATE PERMIT IF WORKING WITHIN A DESIGNATED PARK BOULEVARD.
- CARE SHALL BE EXERCISED WHEN EXCAVATING NEAR EXISTING CHARGED WATER MAINS.
- PERMITTEE SHALL CONTACT SEATTLE DEPARTMENT OF TRANSPORTATION, STREET USE INSPECTOR A MINIMUM OF 2 BUSINESS DAYS PRIOR TO PLANTING FOR INSPECTION OF STREET TREES AND LANDSCAPING.



## VICINITY MAP

SCALE: 1"=2,000'

## SPU/SIP SHEET LIST:

- SIP COVER SHEET
- BASE MAP TOPOGRAPHY
- BASE MAP CONTROL
- S ORR STREET SEWER EXTENSION PLAN AND PROFILE

## LEGEND:

---	G	---	EXIST. GAS LINE	---	---	---	PROPERTY LINE
---	W	---	EXIST. WATER LINE	---	---	---	RIGHT-OF-WAY LINE
---	PSS	---	EXIST. PIPE SEWER SANITARY	---	---	---	PROPERTY CORNER
---	PSD	---	EXIST. PIPE STORM DRAIN	---	---	---	SPOT ELEVATION
---	PSD	---	NEW PIPE STORM DRAIN	---	---	---	NEW CONCRETE PAVING
---	FD	---	FOOTING DRAIN	---	---	---	RETAINING WALL
---	D	---	DOWNSPOUT/ROOF DRAIN	---	---	---	

## ABBREVIATIONS:

AD	AREA DRAIN	LF	LINEAL FOOT
APWA	AMERICAN PUBLIC WORKS ASSOCIATION	LS	LANDSCAPE DESIGN
CB	CATCH BASIN	MAX.	MAXIMUM
C.O.	CLEANOUT	MIN.	MINIMUM
C.O.S.	CITY OF SEATTLE	MJ	MECHANICAL JOINT
CPEP	CORRUGATED POLYETHYLENE PIPE	N	NORTH
CSBC	CRUSHED SURFACING BASE COURSE	NTS	NOT TO SCALE
CSFC	CRUSHED SURFACING TOP COURSE	O.C.	ON-CENTERS
CSWPPP	CONSTRUCTION STORMWATER POLLUTION PREVENTION PLAN	O/W	OIL/WATER
DEV	DEVELOPMENT	PLS	PROFESSIONAL LAND SURVEYOR
DI	DUCTILE IRON	PS	PIPE SEWER - COMBINED
DISP.	DISPERSION	PSD	PIPE STORM DRAIN
E	EAST	PSDD	PIPE STORM DRAIN DETENTION
ESC	EROSION AND SEDIMENT CONTROL	PSS	PIPE SEWER SANITARY
EX	EXISTING	RD	ROOF DRAIN
FD	FOOTING DRAIN	R/W	RIGHT-OF-WAY
FDC	FIRE DEPARTMENT CONNECTION	S	SOUTH
FF	FINISH FLOOR	SD	STORM DRAIN
FH	FIRE HYDRANT	SF	SQUARE FEET
GV	GATE VALVE	SS	SANITARY SEWER
HYD	HYDRANT	STD	STANDARD
IE	INVERT ELEVATION	STL	STEEL
K.C.	KING COUNTY	TYP	TYPICAL
KCRDCS	KING COUNTY ROAD DESIGN AND CONSTRUCTION STANDARDS	W	WASHINGTON STATE DEPARTMENT OF TRANSPORTATION
KCSWDM	KING COUNTY SURFACE WATER DESIGN MANUAL	WSDOT	

NO.	DATE	REVISIONS	MADE BY	CHKD BY	REV'D
1	10/1/18	2ND SUBMITTAL BOX SP			
2	9/6/18	1ST SUBMITTAL BOX SP			
3	7/23/18	NATURE			



**TEC Taylor Engineering Consultants**  
 P.O. Box 1787, Issaquah, WA 98027  
 tel. 425-391-1415 • www.teccwi.com

REVIEWED BY SPU/WATER ENGINEERING	NAME OR INITIALS AND DATE	INITIALS AND DATE
20....	DESIGNED: .WNT . . . . . 05/02/18	REVIEWED: 10/26/18 LJK
REVIEWED BY SPU/DRAINAGE	CHECKED: .LMT . . . . . 05/02/18	PLAN REVIEW ANALYST
10-18 20.18	DRAWN	PLAN REVIEW SEC. MGR
	CHECKED	RECEIVED
APPROVED BY SDOT STREET IMPROVEMENT PERMITTING	DESIGN REVIEW	REVISED AS-BUILT
ST		

All work done in accordance with the City of Seattle Standard Plans and Specifications in effect on the date shown above, and supplemented by Special Provisions.

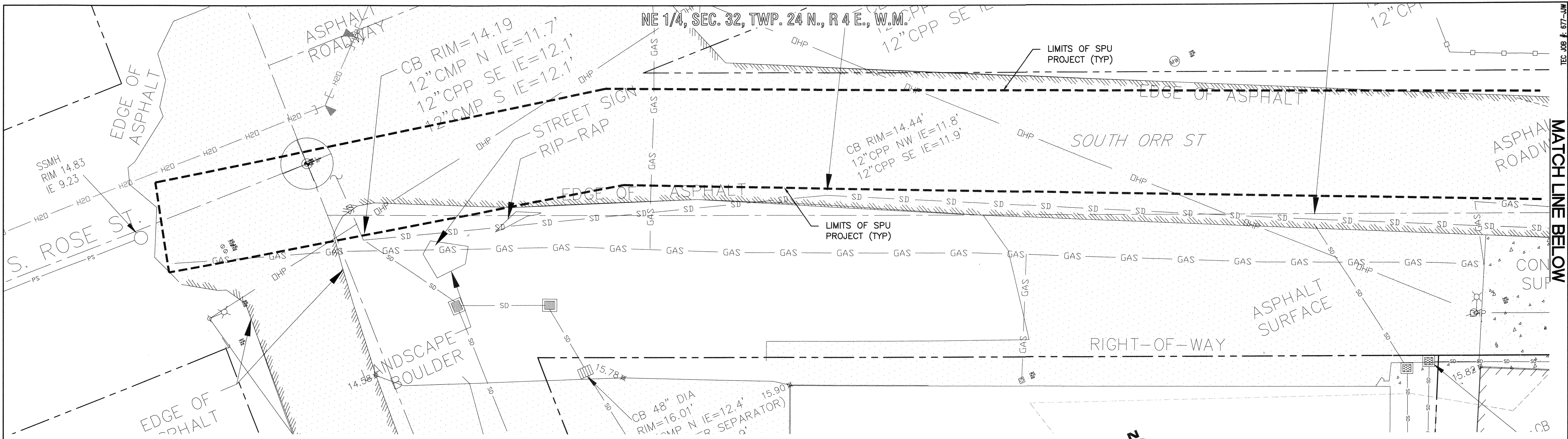
City of Seattle  
**Seattle Department of Transportation**  
 WORK ORDER NO. SPU NO.  
 PERMIT NO. APPROVED  
 SCALE: H. V. INSPECTOR'S BOOK

PROJECT NAME: NPI 8438 WAREHOUSE BUILDING DPD PROJECT #: N/A (KC JURISDICTION)

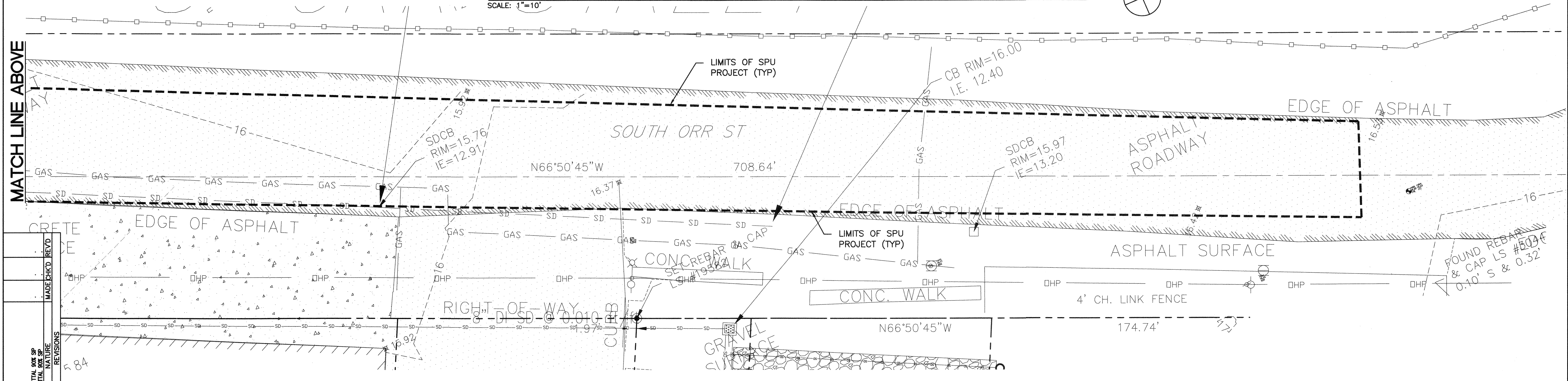
**NPI 8438 WAREHOUSE**  
**SOUTH ORR ST SEWER EXTENSION**  
**SIP COVER**

SDOT PROJECT NO. 383173  
 VAULT PLAN NO. 790-771  
 VAULT SERIAL NO. 37519  
 SHEET 1 OF 4



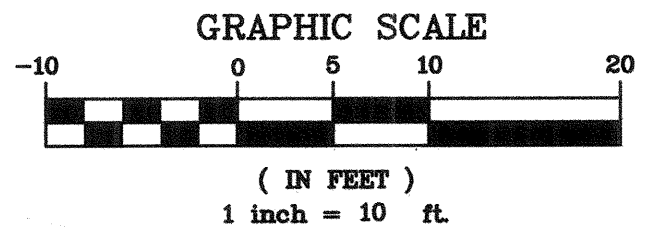


**SOUTH ORR STREET SANITARY SEWERMAIN EXTENSION BASE MAP - WEST**  
SCALE: 1"=10'



**SOUTH ORR STREET SANITARY SEWERMAIN EXTENSION BASE MAP - EAST**  
SCALE: 1"=10'

**UTILITY SOURCE INFORMATION:**  
THE EXISTING UTILITIES SHOWN HEREON ARE PRIMARILY FROM FIELD SURVEY BY A PROFESSIONAL LAND SURVEYOR (FOR SURFACE STRUCTURES) AND FIELD LOCATION BY PROFESSIONAL UTILITY LOCATION SERVICE (FOR BURIED LINES), BUT ALSO INCLUDE A COMBINATION OF SEWER CARDS AND AS-BUILT DOCUMENTS.



10/1/18	DATE	MARK	REVISIONS
3RD SUBMITTAL	09/28/18	SP	MADE CHD
2ND SUBMITTAL	09/28/18	SP	NATURE
1ST SUBMITTAL	09/28/18	SP	REVISIONS



**TEC Taylor Engineering Consultants**  
P.O. Box 1787, Issaquah, WA 98027  
tel. 425-391-1415 • www.teccivil.com

REVIEWED BY SPU/WATER ENGINEERING 20.....	NAME OR INITIALS AND DATE DESIGNED: WNT 05/02/18 CHECKED: LMT 05/02/18	INITIALS AND DATE REVIEWED: 10/25/18 PLAN REVIEW ANALYST: LK PLAN REVIEW SEC. MGR
REVIEWED BY SPU/DRAINAGE 10-18 20.18	DRAWN CHECKED	RECEIVED
APPROVED BY SDOT STREET IMPROVEMENT PERMITTING ST 11/2/2018	DESIGN REVIEW	REVISED AS-BUILT

All work done in accordance with the City of Seattle Standard Plans and Specifications in effect on the date shown above, and supplemented by Special Provisions.

City of Seattle  
**Seattle Department of Transportation**

WORK ORDER NO. \_\_\_\_\_ SPU NO. \_\_\_\_\_  
PERMIT NO. \_\_\_\_\_ APPROVED \_\_\_\_\_  
SCALE: H. V. INSPECTOR'S BOOK

PROJECT NAME: NPI 8438 WAREHOUSE BUILDING DPD PROJECT #: N/A (KC JURISDICTION)

**NPI 8438 WAREHOUSE  
SOUTH ORR ST SEWER EXTENSION  
BASE MAP TOPOGRAPHY**

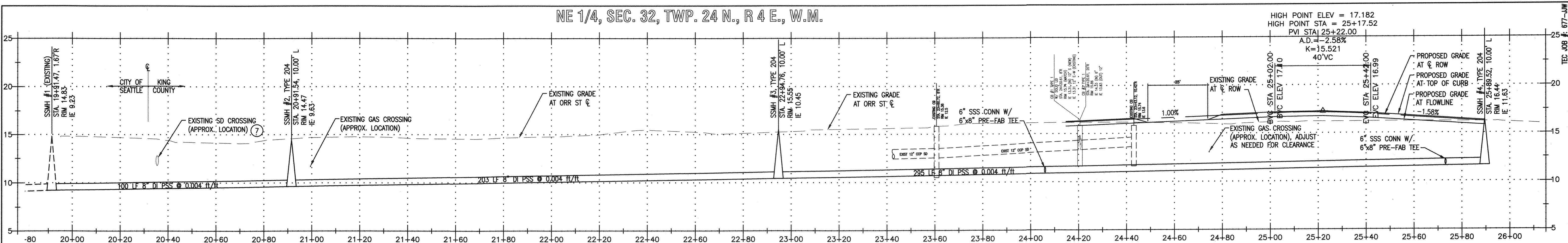
SDOT PROJECT NO. 383173  
VAULT PLAN NO. 790-771  
VAULT SERIAL NO. 37519  
SHEET 2 OF 4

Z:\FileShare\JOS\51600-699\A77-jhm\dwg\SP12\_Base\_Map.dwg, 10/19/2018 3:30:04 PM, DWG To PDF.pc3



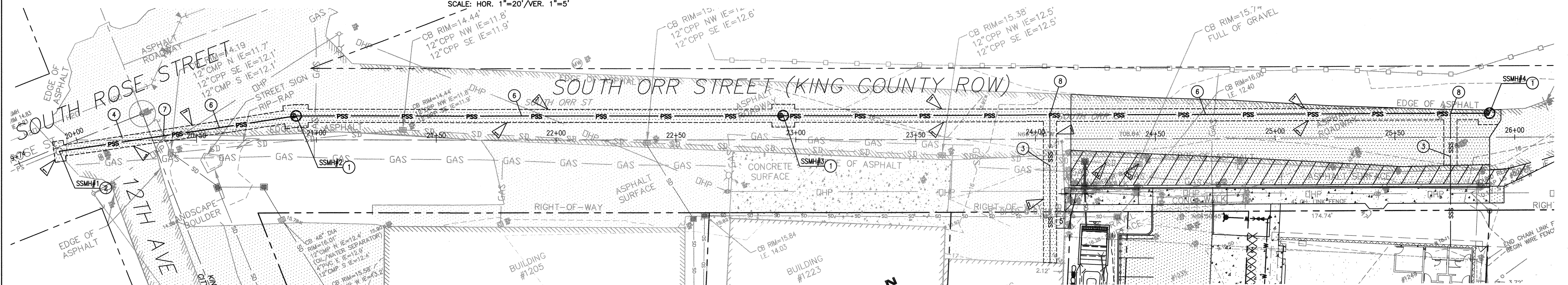






**SOUTH ORR STREET SANITARY SEWERMAIN EXTENSION PROFILE**

SCALE: HOR. 1"=20'/VER. 1"=5'



**SOUTH ORR STREET SANITARY SEWERMAIN EXTENSION PLAN**

SCALE: 1"=20'

**MAINLINE CONVEYANCE AND DETENTION NOTES:**

- MAINLINE PIPE, CULVERT PIPE AND DETENTION PIPE MUST BE AS APPROVED BY SEATTLE PUBLIC UTILITIES (SPU) AND AS SHOWN ON THE PROFILE.
  - VCP MUST BE PER SPECIFICATION 9-05.5.
  - DIP MUST BE PER SPECIFICATION 9-05.3. FITTINGS MUST BE CEMENT MORTAR LINED DUCTILE IRON. JOINTS MUST BE RUBBER GASKET, PUSH-ON OR MECHANICAL.
  - RCP MUST BE PER SPECIFICATION 9-05.2.
  - POLYPROPYLENE PIPE PER SPECIFICATION 9-05.17. POLYPROPYLENE PIPE DETENTION, FOR PIPE DIAMETERS 30" AND GREATER MUST BE TRIPLE WALL (SMOOTH INTERIOR), CORRUGATED STRUCTURAL CORE, AND SMOOTH EXTERIOR POLYPROPYLENE PIPE. ALL JOINTS MUST BE BELL AND SPIGOT AND CONFORM TO ASTM D3212.
- BEDDING MUST BE CLASS B FOR ALL PIPE, EXCEPT DUCTILE IRON PIPE THAT IS LESS THAN 30-INCH ID, WHICH MAY BE CLASS D. SEE STANDARD PLAN NO. 285 AND SPECIFICATION 7-17.3(1). CONTROLLED DENSITY FILL (CDF) MUST NOT BE IN CONTACT WITH THE PIPE. BEDDING MATERIAL MUST BE:
  - MINERAL AGGREGATE TYPE 22 FOR RCP AND POLYPROPYLENE PIPE.
  - MINERAL AGGREGATE TYPE 9 FOR VCP.
  - SELECT NATIVE OR MINERAL AGGREGATE TYPE 9 OR MINERAL AGGREGATE TYPE 22 FOR DIP.
- TEES ON NEW PIPE LESS THAN 24" IN DIAMETER MUST BE PREFABRICATED. ALL NEW CONNECTIONS TO EXISTING MAINLINES OR STRUCTURES, OR CONNECTIONS TO NEW MAINLINES WITHOUT PREFABRICATED TEES, MUST BE PER SPU CORE TAP PROCEDURES.
- DETENTION PIPE AND FLOW CONTROL STRUCTURES MUST BE PER STANDARD PLAN NO. 270, 270A AND 272B.
- ALL PIPELINES AND APPURTENANCES MUST BE CLEANED AND TESTED AFTER BACKFILLING PER SPECIFICATION 7-17.3(3). DEFLECTION TESTING OF FLEXIBLE PIPE MUST BE NO LESS THAN 30 DAYS AFTER BACKFILL AND PRIOR TO PAVING PER SPECIFICATION 7-17.3(3)F. TELEVISION INSPECTION OF MAINLINE MUST BE PER SPECIFICATION 7-17.3(3)G.
- WHERE A NEW PIPE CLEARS AN EXISTING OR NEW UTILITY BY 6" OR LESS, POLYETHYLENE PLASTIC FOAM MUST BE PLACED AS A CUSHION BETWEEN THE UTILITIES PER SPECIFICATION 1-07.1(2).
- PIPE 12" DIAMETER AND LARGER TO BE ABANDONED MUST BE FILLED WITH A PUMPABLE, FLOWABLE CEMENT SLURRY. SEE SPECIFICATION 2-02.3(5).

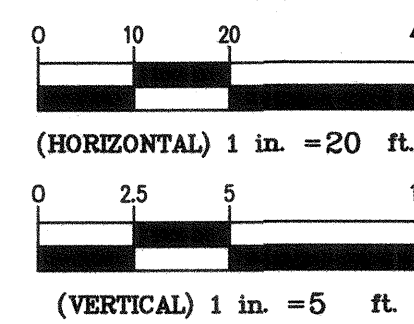
**SPU INFRASTRUCTURE PROTECTION NOTES:**

- CONTRACTOR SHALL EXERCISE CARE SHALL WHEN EXCAVATING NEAR CHARGED WATER MAINS, SANITARY SEWER AND STORM DRAIN INFRASTRUCTURE.
- IF DAMAGED, CONTRACTOR SHALL NOT REPAIR DAMAGE TO CHARGED WATER MAINS OR WATER SERVICES BUT SHALL IMMEDIATELY NOTIFY THE SPU EMERGENCY DISPATCHER AT 206-386-1800.
- IF A CAST IRON PIPE (CIP) PIPE BELL IS EXPOSED DURING CONSTRUCTION, CONTRACTOR SHALL CONTACT SPU EMERGENCY DISPATCHER AT 206-684-1800. A CREW WILL BE DISPATCHED TO INSPECT THE BELL AND DETERMINE IF IT SHOULD BE RE-CAULKED.
- IF TYPE 165 INLET IS WITHIN THE PAVEMENT REMOVAL AREA, REPLACE THE INLET WITH TYPE 250A OR B AND INSTALL 8-INCH MIN. CL 50, DIP, FROM THE INLET TO THE CB. BENDS ARE NOT ALLOWED.
- SPU WILL OBSERVE EXCAVATION WHICH COULD IMPACT ITS UTILITIES. CONTRACTOR SHALL CONTACT SPU ENGINEER, BILL DUYUNGAN, (206-684-4217) AT LEAST 48 HOURS PRIOR TO START OF CONSTRUCTION.
- CONTRACTOR SHALL VERIFY LOCATION AND DEPTH OF WATERMANS, WATER SERVICE LINES, PUBLIC SEWER AND STORM PIPES, SIDE SEWER LATERALS APRIOR TO EXCAVATION OR TUNNELING OVER OR BELOW THE PIPES.
- POTHOLES OR EXCAVATION WITHIN 2 FEET OF SPU PIPES SHALL BY SOIL-VACUUMING.
- CONTRACTOR SHALL MAINTAIN A MINIMUM 5' HORIZONTAL AND 18" VERTICAL SEPARATION, OVER OR BELOW SPU PIPES PER COS STANDARD SPEC 1-07.17(2). WHEN TUNNELING UNDER THE PIPES, MAINTAIN AT LEAST 2 FEET SEPARATION, PER SECTION 2-16 OF THE C.O.S.
- THE CONTRACTOR SHALL MAINTAIN MINIMUM 10' SEPARATION FROM THE EDGE OF EXCAVATION TO EXISTING WATER THRUST BLOCKS. IF THE MINIMUM SEPARATION CAN NOT BE ACHIEVED, CONTACT SPU PRIOR TO EXCAVATION CLOSE TO THE BLOCK.
- ANY STORM/SEWER PIPES DAMAGED DURING CONSTRUCTION SHALL BE REPLACED WITH AN APPROVED PIPE, MATCHING THE EXISTING PIPE NOMINAL PIPE DIAMETER AND GRADE. TO CONNECT EXISTING AND NEW PIPES, MISSION ARC STAINLESS SHIELDED COUPLINGS OR APPROVED EQUAL SHALL BE USED.
- WHEN REQUIRED DUE TO PROJECT IMPACT, CONTRACTOR SHALL ADJUST VALVE BOXES AND CASTINGS IN ACCORDANCE WITH STANDARD SPECIFICATIONS SECTION 7-20. CASTINGS, SUCH AS DRAINAGE INLETS, MAINTENANCE HOLES, VALVE CHAMBERS, AND METER BOXES SHALL BE ADJUSTED TO FINISH GRADE PRIOR TO CONSTRUCTION OF THE FINAL SURFACE COURSE (SEE STANDARD SPECIFICATIONS, SECTION 5-04.3 (9) B). CASTINGS OR LIDS THAT ARE WORN OR BROKEN SHALL BE REPLACED PRIOR TO INSTALLATION OF THE FINAL SURFACE.
- WHEN EXCAVATION OR TUNNELING UNDER SPU PIPES, CONTRACTOR MAY BE REQUIRED TO SUBMIT A PIPE SUPPORT OR PROTECTION PLAN. THE PLAN SHALL SHOW HOW THE PIPE WILL BE SUPPORTED AND PROTECTED, EQUIPMENT AND METHOD OF EXCAVATION AROUND THE PIPE. FOR PIPES GREATER THAN 12 INCHES OR WHEN DIAGONAL CROSSING IS PROPOSED, SPU COULD REQUIRE THE PLAN TO BE PREPARED BY A REGISTERED ENGINEER.

**CONSTRUCTION NOTES:**

- SS MAINTENANCE HOLE PER COS STANDARD PLAN 204b
- CONNECT TO EXISTING SSMH, RECHANNEL FOR NEW PIPE INLET PER SPU STANDARDS
- SIDE SEWER UNDER SEPARATE PERMIT
- PAVEMENT RESTORATION PER COS STANDARD PLAN 404c AND ZONE OF INFLUENCE PER COS STD PLAN 404c, AND "RIGHT-OF-WAY OPENING AND RESTORATION RULE" 9.3
- PAVEMENT RESTORATION PER KING COUNTY ROAD DESIGN AND CONSTRUCTION STANDARDS (KCRDCS)
- PIPE TRENCH PER COS STD PLAN 284 AND BEDDING PER COS STD PLAN 285
- POT HOLE EXISTING STORM DRAIN PIPE TO CONFIRM LOCATION AND ELEVATION PRIOR TO CONSTRUCTION OF PSS
- PROVIDE 6"x8" PREFABRICATED TEES PER SPU STANDARDS FOR SIDE SEWER CONNECTIONS

**GRAPHIC SCALES**

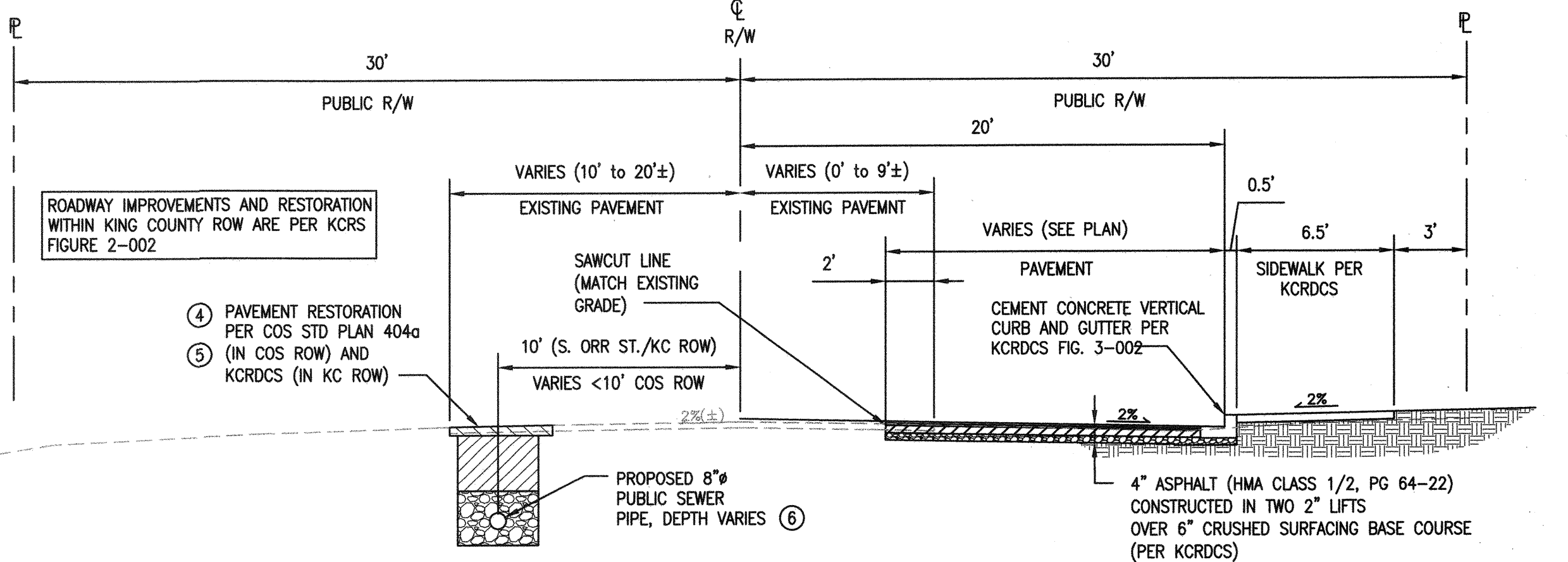


**DEMO/REMOVAL NOTES:**

- SAWCUT AND REMOVE EXISTING ASPHALT PAVEMENT
- REMOVE OR PLUG EXISTING STORM DRAIN PIPE
- REMOVE EXISTING CATCH BASIN

**SHEET NOTES:**

- SEE SHEET C1.1 FOR PRIVATE SITE IMPROVEMENTS
- SEE SHEET C3.2 FOR PUBLIC STORM DRAINAGE CONNECTION



**TYPICAL STREET/UTILITY SECTION**

SCALE 1"=5'

**CALL BEFORE YOU DIG**  
811 FOR FIELD LOCATION OF UNDERGROUND UTILITIES

PROJECT NAME: NPI 8438 WAREHOUSE BUILDING DPD PROJECT #: N/A (KC JURISDICTION)

NO.	DATE	DESCRIPTION	BY	CHKD	REV'D
1	08/06/18	2ND SUBMITTAL BOX SP			
2	07/23/18	1ST SUBMITTAL BOX SP			



**TEC Taylor Engineering Consultants**  
P.O. Box 1787, Issaquah, WA 98027  
tel. 425-391-1415 • www.teccivil.com

REVIEWED BY SPU/WATER ENGINEERING	NAME OR INITIALS AND DATE	INITIALS AND DATE
20....	DESIGNED: WNT 05/02/18	REVIEWED: 10/25/18
REVIEWED BY SPU/DRAINAGE	CHECKED: LMT 05/02/18	PLAN REVIEW ANALYST: LMK
10-18 20.18	DRAWN: [Signature]	PLAN REVIEW SEC. MGR
APPROVED BY SDOT STREET IMPROVEMENT PERMITTING	DESIGN REVIEW	RECEIVED
ST 11-2-2018	DESIGNED BY	REVISED AS-BUILT

City of Seattle <b>Seattle Department of Transportation</b>	WORK ORDER NO.	SPU NO.
	PERMIT NO.	APPROVED
	SCALE: H. V.	INSPECTOR'S BOOK

**NPI 8438 WAREHOUSE**  
SOUTH ORR ST SEWER EXTENSION  
PLAN AND PROFILE

SDOT PROJECT NO. 383173  
VAULT PLAN NO. 790-771  
VAULT SERIAL NO. 37519  
SHEET 4 OF 4



# Utility Right of Way Construction Permit - Sewer



Facilities Management Division  
Real Estate Services Section  
King County Administration Building  
500 Fourth Avenue Room 830  
Seattle, WA 98104

Job Starts/Close-outs 206-296-8122, FAX 206-205-7092  
KCUIU@Kingcounty.gov

Permits 206-477-9350, FAX 206-296-0196  
RES.PERMITS@Kingcounty.gov

Permit No. <u>ROWA18-1664</u>	Job No. <u>383173</u>	<b>Environmental Assessment</b>
		<input type="checkbox"/> Required      Date Received: 12/04/2018
Franchise No. _____	Kroll Page No./Thomas Guide <u>78/625</u>	<input checked="" type="checkbox"/> Not Required
Date <u>12/04/2018</u>	Section _____ TWP. _____ Range _____	<input type="checkbox"/> Existing Assessment
		<input type="checkbox"/> Replacement
		<input type="checkbox"/> Categorically Exempt

Applicant <u>SEATTLE PUBLIC UTILITIES, STEVE RESNICK</u>	Phone No. <u>(206)386-1800</u>
Address <u>700 5TH AVE FLOOR 27, SEATTLE WA 98104</u>	Bond Amount _____
Field Contact Name _____	Phone No. _____

**Location & Job Description:**

1205 S ORR ST, 98108

Requesting open cut in S Orr St approximately 10' northeast of center line for 8" DI sewer main extension. Total length of sewer extension is approximately 560LF in King County. Pipe to be installed by contractor and inspected by SPU

**See Attached Sheet for Special Conditions**

THIS PERMIT IS FOR KING COUNTY RIGHT OF WAY ONLY.  
GIVE DISTANCE BY STREET OR ROAD WITH AN ON, FROM AND TO DESCRIPTION.  
ALL WATER MAIN EXTENSIONS MUST HAVE APPROVAL FROM THE FIRE MARSHAL.  
ALL UNDERGROUND UTILITY LINES MUST HAVE A MINIMUM 36" COVER,  
ALL WORK TO BE DONE SUBJECT TO THE APPROVAL OF THE KING COUNTY ROAD ENGINEER.  
ALL WORK SHALL BE PERFORMED IN CONFORMANCE WITH KING COUNTY ROAD STANDARDS.

The undersigned agrees to comply with provisions, conditions and requirements contained in the "Standards of Good Practice for County Road Departments" published by County Road Administration Board.

All work to be done in conformity with conditions and requirements of the King County Code 6.27, 13.24 and 14.44, and the petitioner agrees to prosecute with all diligence and speed with due regard for the rights, interests and convenience of the public. **If at the end of 6 months after issuance of permit the grantee shall not have in operation said utilities, then the rights herein conferred shall cease and terminate, unless specific written provisions are made for a renewal or extension.**

The undersigned, its successors and assigns, agrees if granted the above permit, to comply with the provisions, conditions, requirements, regulations and recommendations herein contained and as may apply to any utility franchise granted the applicant and under whose provisions same is issued. It will respect and protect all property contracts, persons and rights that might be affected by it.

**INDEMNITY AND HOLD HARMLESS:** The Permittee agrees to indemnify and hold harmless King County as provided herein to the maximum extent possible under law. Accordingly, the Permittee agrees for itself, its successors, and assigns, to defend, indemnify, and hold harmless King County, its appointed and elected officials and employees from and against liability for all claims, demands, suits, and judgments, including cost of defense thereof, for injury to persons, death, or property damage which is caused by, arises out of, or is incidental to Permittee's exercise of rights and privileges granted by this permit. The Permittee's obligations under this permit shall include: (a) Indemnification for such claims whether or not they arise from the sole negligence of either the County or the Permittee, the concurrent negligence of both parties, or the negligence of one or more third parties; (b) The duty to promptly accept tender of defense and provide defense to the County at the Permittee's own expense; (c) Indemnification of claims made by the Permittee's own employees or agents; and (d) Waiver of the Permittee's immunity under the industrial insurance provisions of Title 51 RCW, which waiver has been mutually negotiated by the parties. In the event it is necessary for the County to incur attorney's fees, legal expenses, or other costs to enforce the provisions of this section, all such fees, expenses, and costs shall be recoverable from the Permittee. In the event it is determined that RCW 4.24.115 applies to this permit, the Permittee agrees to defend, hold harmless, and indemnify King County to the maximum extent permitted thereunder.

Signature of Applicant \_\_\_\_\_

Signature On File \_\_\_\_\_

Application Received	<u>12/04/2018</u>	Entered	<u>12/04/2018</u>	Permit Fee \$	<u>200.00</u>
Permit Issued	<u>12/05/2018</u>	By:	<u>Maihoa Pham</u>		
	<small>Date</small>		<small>Permit Clerk</small>		

This application is granted subject to the requirements and conditions thereof as listed below and on back of page.

- A King County inspector will be assigned to the project for inspection of road restoration. Cost of inspection applicable to the project will be reimbursed to the County monthly by applicant. Permittee is required to notify King County Department of Transportation at 206-477-2611 between 24 and 72 hours before starting work. Failure to give notice will result in the assessment of a one hour inspection time charge against the permittee. This assessment is in addition to any other remedy available under law or equity which the County may wish to pursue and shall not be construed as an election of remedies by the County.**
- All hard surfaced roads to be jacked or bored. Exceptions will be on a case-by-case basis with the express permission of the King County Department of Transportation.
- One-way traffic at all times. Signs and traffic control will be in accordance with the manual on uniform traffic control devices for streets and highways.
- Asphalt to be neat-line cut by either saw cutting or jackhammering a continuous line 1 foot back from trench. Restoration as a minimum shall include 6.5" of crushed surfacing material and HMA the same thickness as the existing asphalt pavement or a minimum of 2 inches, whichever is greater.
- It is the responsibility of the grantee to notify all utility districts and private property owners when such property is liable to injury or damage through the performance of the above work. Call 1-800-424-5555 48 hours in advance for underground utility location. This instruction does not relieve the grantee from required notification of County inspectors as specified in paragraph 1, above.

Approved by Bryan Hague, Real Estate Services Section Manager  
Manager

Approval on File \_\_\_\_\_  
Engineer



## Directions Regarding Permits

Note: Right of way shall mean any Street, Avenue, Alley, Road or Lane  
Public Place shall mean any Bridge, Trestle, or Wharf.

Applicants for permits to occupy County property with utilities, or holders of granted franchise rights, who are planning construction work upon, along, over, under or across any County right of way or public place must file an application with the King County Real Estate Services Section, King County Administration Building, 500 Fourth Avenue, Room 830, Seattle, WA 98104-2337.

The application shall be accompanied by drawings (in triplicate) drawn to working scale, commonly 50 to 100 feet per inch. It shall describe the nature of the work, and show the location of same on a map, giving names, or numbers, and width of roads and streets. It must also show location of work with reference to platted subdivisions, and section, township and range, and must show the location of work relative to existing utility facilities which may be affected. Review of the application must conform to the County Environmental Policy Act (King County Code 20.44).

Applicants shall specify the type of construction in detail by submitting plans which show the class of material and equipment to be used. All such material and equipment shall be of the highest quality. The manner of excavation, filling, construction, installation, erection of temporary structures, traffic turn outs, road obstruction and barricades, shall conform with County standards and shall be approved by the County Engineer in advance of work.

Signs and barricades and traffic control in the vicinity of any work shall conform with provisions of "Part VI Manual of Uniform Traffic Control Devices for Streets and Highways."

Before the work is accepted for the County by the County Engineer, all of the direct costs and expenses involved in administering said permit must be paid to the County by the applicant. These include labor charges for examination, inspection and supervision of work in progress by field personnel.

Any deviation from the proposed plan, resulting in what is commonly known as the "As Built" location must be approved in advance by the County Engineer. Change notice must show "As Built" position relative to grade line and centerline of right of way and any other installations in the right of way.

### Permit - Terms and Conditions

1. The grantee, its successors and assigns, is given and granted the right and authority to enter upon the right of way or public place for the purpose of performing the work described in this permit and approved by the County Engineer or the Engineer's agent.
2. Before any work commences the site must be inspected by a County Representative and approved by the County Engineer with respect to:
  - a. location
  - b. type of construction
  - c. materials and equipment to be installed
  - d. manner of erection or construction
  - e. Mode of operation of the installed facility
  - f. Manner of maintenance of installed facility
  - g. Method of safeguarding public traffic both during working hours and during non-working hours while the project is under construction.
3. After the installation, operation, maintenance, or removal of a utility or facility the grantee shall restore all rights of way and public places to the condition which is equivalent in all respects to the condition they were in before starting work. All work to meet the approval of the County Road Engineer.
4. In the event that any damage of any kind is caused by the grantee in the course of performing work authorized by this permit, the grantee will repair said damage at its sole cost and expense. Repair work shall begin without delay and continue without interruption until completed. If damage is extensive, the time allowed for repair will be prescribed by the County Engineer or the Engineer's agent.
5. The County Engineer, or their representatives may at any time, do, order, or have done any and all work considered necessary to restore to a safe condition any area left by the grantee in a condition dangerous to life or property and upon demand the grantee shall pay to the County all costs of such work, materials, etc.
6. When the County deems it advisable to change the alignment or grade of any right of way or public place or structure by widening, grading, regrading, paving, improving, altering or repairing same, the grantee upon written notice by the County Engineer or the Engineer's representatives will at its own sole cost and expense, raise, lower, move, change or reconstruct such installations to conform with the plans of work contemplated or ordered by the County Engineer according to a time schedule contained in the written notice.
7. Penalties up to One Thousand (\$1,000) dollars per day may be imposed by the County Engineer, if the grantee delays relocation of facilities beyond the time limits prescribed by the County Engineer. The County Engineer reserves the right to order its own agents or representatives to accomplish the desired change, and all costs of relocation or removal shall be borne by the grantee.
8. All such changes, reconstruction or relocation by the grantee shall be done in such manner as will cause the least interference with any of the County's work. The grantee shall have seventy-two (72) hours written notice by the County Engineer or the Engineer's representatives of any blasting contiguous to the grantee's permit rights in order that it may protect its interests.
9. This grant or privilege shall not be deemed or construed to be an exclusive franchise. It does not prohibit the County from granting other permits or franchise rights of like nature to other public or private utilities, nor shall it prevent the County from using any of its roads, streets, public places for any and all public use, or affect its jurisdiction over all or any part of them.
10. All the provisions, conditions, requirements and regulations herein contained shall be binding upon the successors and assigns of the grantee and all privileges of the grantee shall be given to such successors and assigns as if they were specifically mentioned.
11. The County Road Engineer or Real Estate Services, Section Manager may unilaterally revoke, annul, or terminate, revise or amend this permit without cause and for any reason including, but not limited to:
  - (a) Grantee's failure to comply with any provision, requirement, or regulation herein set forth;
  - (b) Grantee's willful neglect of, or failure to heed or comply with, notices given it;
  - (c) Grantee's facilities are not installed, operated, or maintained in conformity with conditions herein set forth;
  - (d) Grantee's failure to conform to any applicable law or regulation as currently exists or may hereafter be enacted, adopted or amended.
12. Grantee by accepting this permit agrees to obtain information from all utility departments regarding location and current status of their installations before starting work. Private property owners adjoining, or in proximity to the right of way shall be notified when such property is exposed to the possibility of injury or damage through performance of this project. The grantee shall make all advance arrangements necessary to protect such property and/or utility from injury or damage.
13. The issuance of this permit to the grantee does not in any way relieve the grantee of any other applicable law in performing the work subject to this permit.
14. In all hiring or employment made possible resulting from the granting of this permit, there shall be no discrimination against any employee or applicant for employment because of sex, sexual orientation, age, race, color, ancestry, religion, national origin, marital status or the presence of any sensory, mental or physical handicap, unless based upon a bona fide occupational qualification, and this requirement shall apply to but not to be limited to the following: employment, advertising, layoff or termination, rates of pay or other forms of compensation, and selection for training, including apprenticeship.

No person shall be denied or subjected to discrimination in receipt of the benefit of any services or activities made possible by or resulting from the granting of this permit on the ground of sex, sexual orientation, race, color, ancestry, religion, national origin, age (except minimum age and retirement provisions), marital status, parental status, or the presence of any sensory, mental or physical handicap.

Any violation of this provision shall be considered a violation of this permit and shall be grounds for cancellation, termination or suspension in whole or in part of the permit by the County and may result in ineligibility for further County permits.

The permittee shall make the best efforts to make opportunities for employment and/or contracting services available to women and minority persons. The permittee recognizes that the County has a policy of promoting affirmative action, equal opportunity and has resources available to assist permittee in these efforts.
15. This permit and any underlying franchise does not authorize the cutting of trees with a trunk diameter greater than four (4) inches unless such authorization is specifically granted in writing by King County.
16. If the permittee fails to perform its obligations herein, vacate the premises, remove its facilities, restore the property as required, or comply with any condition or applicable regulation or law, the County shall have, at their option, the right to pursue any remedy or remedies available at law or equity including, but not limited to, the right to proceed under the provisions of Title 59 of the Revised Code of Washington.

**Special Conditions:**

**Pre-Construction Conference** - A pre-construction conference shall be required. Contact KCDOT Utility Inspections, (206) 477-2611

**Traffic Control Plan** - A traffic control plan shall be submitted & approved prior to the pre-construction conference.

**Erosion-Sedimentation Plan** - An erosion/sedimentation plan shall be submitted & approved prior to the pre-construction conference.

**Open Cut is Acceptable** - Open cut is acceptable in accordance with K.C. Road Standards, Section 8.03B(3) on

**Overlay Utility** - In accordance with K.C. Road Standards, section 8.03A(2)d, roads shown on plans shall be patched & overlaid full width with a minimum 2" compacted state spec. HMA.



## Field Density of Soil / Aggregate by Nuclear Method

**ASTM D 6938**

**Project Information**

Client	
Project	NPI
Work Order No.	7121642-24
Technician	Steve Hallee
Date	5/1/19
Weather	Partly cloudy

**Gauge Information**

Make	<input checked="" type="checkbox"/> Troxler	<input type="checkbox"/> Other (Specify)
Model	3430	
Serial No.	37343	
Density Standard Count		
Moisture Standard Count		
Use Density/Moisture Equations	<input checked="" type="checkbox"/> False	
Mode	<input type="checkbox"/> Backscatter	<input checked="" type="checkbox"/> Direct Transmission

**Proctor Information**

Sample ID	Visual Classification	Max Dry Density, (lb/ft <sup>3</sup> )	Optimum Moisture %
	Native material - Brown/dark gray sand with small aggregate	108.0	10.0
Compaction Requirements (%):		Moisture Requirements (+/- %)	

**General Location:** 8" sewer pipeline backfill - S Rose St, south bound lane, 0' - 60' south of 12<sup>th</sup> AVE S.

**Test Results**

Test No.	Sample ID	Time Sampled	Gauge Probe Depth (in)	Elevation of Test or Depth	Wet Density (lb/ft <sup>3</sup> )	Moisture Content %	Dry Density (lb/ft <sup>3</sup> )	Percent Compaction	Comments
1		1:20	10"	2' BFG	117.2	13.4	103.4	95.7	6, A
Location 45' S of 12 <sup>th</sup> AVE S.									
2		1:58	10	F.G.	116.4	10.5	105.3	97.5	6, A
Location 20' S of 12 <sup>th</sup> AVE S.									
Location									
Location									
Location									
Location									
Location									

**Comments**

- |                      |                                                               |
|----------------------|---------------------------------------------------------------|
| 1. Base              | A = Test results comply with specifications                   |
| 2. Subbase           | B = Compaction percentage does not comply with specifications |
| 3. Subgrade          | C = Retest of previous test                                   |
| 4. Improved Subgrade | D = Moisture in excess of specifications                      |
| 5. Surface           | E = Moisture below specifications                             |
| 6. Fill              |                                                               |
| 7. Backfill          |                                                               |

**Remarks**

Material placed in 2-3' lifts, compacted by means of a Komatsu PC88MR track hoe with plate compactor.

The information presented in this report is preliminary in nature and presented for informational purposes only. The final report shall be conclusive as to Intertek-PSI's findings. The information included herein is not to be used for acceptance, compliance, or contractual purposes. This information is subject to review and change. These test results apply only to the specific locations noted and may not represent any other locations or elevations. Reports may not be reproduced, except in full, without written permission by Intertek-PSI.



## Field Density of Soil / Aggregate by Nuclear Method

**ASTM D 6938**

### Project Information

Client
Project
Work Order No. <i>07121642-25</i>
Technician <i>CHRISTOPHER</i>
Date <i>5-2</i>
Weather <i>overcast</i>

### Gauge Information

Make	<input type="checkbox"/> Troxler	<input type="checkbox"/> Other (Specify)
Model	<i>3430</i>	
Serial No.	<i>07661</i>	
Density Standard Count	<i>2113</i>	
Moisture Standard Count	<i>790</i>	
Use Density/Moisture Equations	<input checked="" type="checkbox"/> False	
Mode	<input type="checkbox"/> Backscatter	<input checked="" type="checkbox"/> Direct Transmission

### Proctor Information

Sample ID	Visual Classification	Max Dry Density, (lb/ft <sup>3</sup> )	Optimum Moisture %
<i>07121642-23-51</i>	<i>dark brown sand with</i>	<i>108</i>	<i>10</i>
	<i>grass</i>		
Compaction Requirements (%):		Moisture Requirements (+/- %)	

### General Location:

<i>MAN HOLE #2</i>
--------------------

### Test Results

Test No.	Sample ID	Time Sampled	Gauge Probe Depth (in)	Elevation of Test or Depth	Wet Density (lb/ft <sup>3</sup> )	Moisture Content %	Dry Density (lb/ft <sup>3</sup> )	Percent Compaction	Comments
			<i>12</i>	<i>-2.5'</i>	<i>118.5</i>	<i>12.7</i>	<i>105.2</i>	<i>97.6</i>	
Location									
			<i>12</i>	<i>-1.5'</i>	<i>115.4</i>	<i>9.2</i>	<i>105.7</i>	<i>97.8</i>	
Location									
Location									
Location									
Location									
Location									

### Comments

- |                                                                                                                                                                                            |                                                                                                                                                                                                                                                                                                        |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <ul style="list-style-type: none"> <li>1. Base</li> <li>2. Subbase</li> <li>3. Subgrade</li> <li>4. Improved Subgrade</li> <li>5. Surface</li> <li>6. Fill</li> <li>7. Backfill</li> </ul> | <ul style="list-style-type: none"> <li>A = Test results comply with specifications</li> <li>B = Compaction percentage does not comply with specifications</li> <li>C = Retest of previous test</li> <li>D = Moisture in excess of specifications</li> <li>E = Moisture below specifications</li> </ul> |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

### Remarks

---



---



---

The information presented in this report is preliminary in nature and presented for informational purposes only. The final report shall be conclusive as to Intertek-PSI's findings. The information included herein is not to be used for acceptance, compliance, or contractual purposes. This information is subject to review and change. These test results apply only to the specific locations noted and may not represent any other locations or elevations. Reports may not be reproduced, except in full, without written permission by Intertek-PSI.



## Field Density of Soil / Aggregate by Nuclear Method

**ASTM D 6938**

### Project Information

Client	
Project	NPI
Work Order No.	7121642-26
Technician	Steve Hallee
Date	5/3/19
Weather	Partly cloudy

### Gauge Information

Make	<input checked="" type="checkbox"/> Troxler	<input type="checkbox"/> Other (Specify)
Model	3430	
Serial No.	37343	
Density Standard Count		
Moisture Standard Count		
Use Density/Moisture Equations	<input checked="" type="checkbox"/> False	
Mode	<input type="checkbox"/> Backscatter	<input checked="" type="checkbox"/> Direct Transmission

### Proctor Information

Sample ID	Visual Classification	Max Dry Density, (lb/ft <sup>3</sup> )	Optimum Moisture %
	Native material	108.0	10.0
Compaction Requirements (%): 95.0		Moisture Requirements (+/- %)	

**General Location:** 8" sewer pipeline backfill - S Rose St, south bound lane, 50'-110' south of 12<sup>th</sup> AVE S,

### Test Results

Test No.	Sample ID	Time Sampled	Gauge Probe Depth (in)	Elevation of Test or Depth	Wet Density (lb/ft <sup>3</sup> )	Moisture Content %	Dry Density (lb/ft <sup>3</sup> )	Percent Compaction	Comments
1		12:20	10"	2' B.F.G.	112.6	9.1	103.2	95.6	6,A
Location 60' S of 12 <sup>th</sup> AVE S.									
2		12:54	10	F.G.	119.9	13.6	105.6	97.8	6,A
Location 100' S of 12 <sup>th</sup> AVE S.									
Location									
Location									
Location									
Location									

### Comments

- |                      |                                                               |
|----------------------|---------------------------------------------------------------|
| 1. Base              | A = Test results comply with specifications                   |
| 2. Subbase           | B = Compaction percentage does not comply with specifications |
| 3. Subgrade          | C = Retest of previous test                                   |
| 4. Improved Subgrade | D = Moisture in excess of specifications                      |
| 5. Surface           | E = Moisture below specifications                             |
| 6. Fill              |                                                               |
| 7. Backfill          |                                                               |

### Remarks

Material placed in 2'-3' lifts, compacted by means of a Komatsu PC88MR track hoe with plate compactor.

The information presented in this report is preliminary in nature and presented for informational purposes only. The final report shall be conclusive as to Intertek-PSI's findings. The information included herein is not to be used for acceptance, compliance, or contractual purposes. This information is subject to review and change. These test results apply only to the specific locations noted and may not represent any other locations or elevations. Reports may not be reproduced, except in full, without written permission by Intertek-PSI.



## Field Density of Soil / Aggregate by Nuclear Method

**ASTM D 6938**

**Project Information**

Client	
Project	NPI
Work Order No.	7121642-27
Technician	Steve Hallee
Date	5/6/19
Weather	Partly cloudy

**Gauge Information**

Make	<input checked="" type="checkbox"/> Troxler	<input type="checkbox"/> Other (Specify)
Model	3430	
Serial No.	<del>6266</del> 65366	
Density Standard Count		
Moisture Standard Count		
Use Density/Moisture Equations	<input checked="" type="checkbox"/> False	
Mode	<input type="checkbox"/> Backscatter	<input checked="" type="checkbox"/> Direct Transmission

**Proctor Information**

Sample ID	Visual Classification	Max Dry Density, (lb/ft <sup>3</sup> )	Optimum Moisture %
	Native material - Gray, brown sandy with small aggregate	108.0	10.0
Compaction Requirements (%):		95.0	Moisture Requirements (+/- %)

**General Location:** 8" sewer pipeline backfill - S Rose St, 110' - 210' south of 12th AVE S, south bound lane.

**Test Results**

Test No.	Sample ID	Time Sampled	Gauge Probe Depth (in)	Elevation of Test or Depth	Wet Density (lb/ft <sup>3</sup> )	Moisture Content %	Dry Density (lb/ft <sup>3</sup> )	Percent Compaction	Comments
1		1:48	10"	2' BFG	116.9	13.4	103.1	95.5	6,A
Location: 140' S of 12th AVE S.									
2		1:53	10	2' BFG	110.0	7.1	102.7	95.1	6,A
Location: 185' S of 12th AVE S.									
3		2:25	10	F.G.	115.4	11.5	103.5	95.9	6,A
Location: 130' S of 12th AVE S.									
4		2:30	10	F.G.	111.8	7.9	103.6	96.0	6,A
Location: 190' S of 12th AVE S.									
Location:									
Location:									

**Comments**

- |                      |                                                               |
|----------------------|---------------------------------------------------------------|
| 1. Base              | A = Test results comply with specifications                   |
| 2. Subbase           | B = Compaction percentage does not comply with specifications |
| 3. Subgrade          | C = Retest of previous test                                   |
| 4. Improved Subgrade | D = Moisture in excess of specifications                      |
| 5. Surface           | E = Moisture below specifications                             |
| 6. Fill              |                                                               |
| 7. Backfill          |                                                               |

**Remarks**

Material placed in 2'-3' lifts, compacted by means of a Komatsu PC 88 MR track hoe with plate compactor.

The information presented in this report is preliminary in nature and presented for informational purposes only. The final report shall be conclusive as to Intertek-PSI's findings. The information included herein is not to be used for acceptance, compliance, or contractual purposes. This information is subject to review and change. These test results apply only to the specific locations noted and may not represent any other locations or elevations. Reports may not be reproduced, except in full, without written permission by Intertek-PSI.



## Field Density of Soil / Aggregate by Nuclear Method

**ASTM D 6938**

### Project Information

Client	
Project	NPI
Work Order No.	7121642-28
Technician	Steve Hallee
Date	5/7/19
Weather	Clear

### Gauge Information

Make	<input checked="" type="checkbox"/> Troxler	<input type="checkbox"/> Other (Specify)
Model	3430	
Serial No.	37343	
Density Standard Count		
Moisture Standard Count		
Use Density/Moisture Equations	<input checked="" type="checkbox"/> False	
Mode	<input type="checkbox"/> Backscatter	<input checked="" type="checkbox"/> Direct Transmission

### Proctor Information

Sample ID	Visual Classification	Max Dry Density, (lb/ft <sup>3</sup> )	Optimum Moisture %
	Native material - Brown, gray sand with small aggregate,	108.0	10.0
Compaction Requirements (%):		95.0	Moisture Requirements (+/- %)

**General Location:** 8" sewer pipeline backfill - S Rose St, south bound lane, 210'-300' south of 12<sup>th</sup> AVE S.

### Test Results

Test No.	Sample ID	Time Sampled	Gauge Probe Depth (in)	Elevation of Test or Depth	Wet Density (lb/ft <sup>3</sup> )	Moisture Content %	Dry Density (lb/ft <sup>3</sup> )	Percent Compaction	Comments
1		12:12	10"	2' B.F.G.	111.9	6.8	104.8	97.1	6, A
Location: 240' S of 12 <sup>th</sup> AVE S.									
2		12:42	10"	F.G.	108.0	5.1	102.8	95.2	6, A
Location: 250' S of 12 <sup>th</sup> AVE S.									
Location									
Location									
Location									
Location									

### Comments

- |                                                                                                                                                                                            |                                                                                                                                                                                                                                                     |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <ol style="list-style-type: none"> <li>1. Base</li> <li>2. Subbase</li> <li>3. Subgrade</li> <li>4. Improved Subgrade</li> <li>5. Surface</li> <li>6. Fill</li> <li>7. Backfill</li> </ol> | <p>A = Test results comply with specifications</p> <p>B = Compaction percentage does not comply with specifications</p> <p>C = Retest of previous test</p> <p>D = Moisture in excess of specifications</p> <p>E = Moisture below specifications</p> |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

### Remarks

Material placed in 2'-3' lifts compacted by means of a Komatsu PC 88 MR track hoe with plate compactor.

The information presented in this report is preliminary in nature and presented for informational purposes only. The final report shall be conclusive as to Intertek-PSI's findings. The information included herein is not to be used for acceptance, compliance, or contractual purposes. This information is subject to review and change. These test results apply only to the specific locations noted and may not represent any other locations or elevations. Reports may not be reproduced, except in full, without written permission by Intertek-PSI.



## Field Density of Soil / Aggregate by Nuclear Method

**ASTM D 6938**

**Project Information**

Client
Project
Work Order No. <u>07121647-24</u>
Technician
Date <u>5-8</u>
Weather

**Gauge Information**

Make <input checked="" type="checkbox"/> Troxler <input type="checkbox"/> Other (Specify)
Model <u>3430</u>
Serial No. <u>67641</u>
Density Standard Count <u>2104</u>
Moisture Standard Count <u>786</u>
Use Density/Moisture Equations <input checked="" type="checkbox"/> False
Mode <input type="checkbox"/> Backscatter <input type="checkbox"/> Direct Transmission

**Proctor Information**

Sample ID	Visual Classification	Max Dry Density, (lb/ft <sup>3</sup> )	Optimum Moisture %
		<u>108</u>	
Compaction Requirements (%): <u>95</u>		Moisture Requirements (+/- %): <u>10</u>	

**General Location:**

Dallas Ave W - E man hole #3

**Test Results**

Test No.	Sample ID	Time Sampled	Gauge Probe Depth (in)	Elevation of Test or Depth	Wet Density (lb/ft <sup>3</sup> )	Moisture Content %	Dry Density (lb/ft <sup>3</sup> )	Percent Compaction	Comments
<u>1</u>			<u>12</u>	<u>-2</u>	<u>110.7</u>	<u>10.7</u>	<u>107.2</u>	<u>99.3</u>	
Location									
<u>2</u>			<u>12</u>	<u>-2</u>	<u>110.</u>	<u>7</u>	<u>102.8</u>	<u>95.2</u>	
Location									
<u>3</u>			<u>12</u>	<u>-2</u>	<u>115.5</u>	<u>12.2</u>	<u>102.4</u>	<u>95.3</u>	
Location									
<u>4</u>			<u>12</u>	<u>0</u>	<u>111.4</u>	<u>7.5</u>	<u>103.6</u>	<u>95.6</u>	
Location									
<u>5</u>			<u>12</u>	<u>0</u>	<u>111.7</u>	<u>7.2</u>	<u>103.6</u>	<u>95.9</u>	
Location									
Location									

**Comments**

- |                                                                                                                                                                                            |                                                                                                                                                                                                                                                                                                        |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <ul style="list-style-type: none"> <li>1. Base</li> <li>2. Subbase</li> <li>3. Subgrade</li> <li>4. Improved Subgrade</li> <li>5. Surface</li> <li>6. Fill</li> <li>7. Backfill</li> </ul> | <ul style="list-style-type: none"> <li>A = Test results comply with specifications</li> <li>B = Compaction percentage does not comply with specifications</li> <li>C = Retest of previous test</li> <li>D = Moisture in excess of specifications</li> <li>E = Moisture below specifications</li> </ul> |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

**Remarks**

---



---



---

The information presented in this report is preliminary in nature and presented for informational purposes only. The final report shall be conclusive as to Intertek-PSI's findings. The information included herein is not to be used for acceptance, compliance, or contractual purposes. This information is subject to review and change. These test results apply only to the specific locations noted and may not represent any other locations or elevations. Reports may not be reproduced, except in full, without written permission by Intertek-PSI.







## Field Density of Soil / Aggregate by Nuclear Method

**ASTM D 6938**

**Project Information**

Client	
Project	NPI
Work Order No.	07121642-31
Technician	Amani E.
Date	05/13/2019
Weather	Cloudy 57°F

**Gauge Information**

Make	<input checked="" type="checkbox"/> Troxler	<input type="checkbox"/> Other (Specify)
Model	3430	
Serial No.	65366	
Density Standard Count	2605	
Moisture Standard Count	638	
Use Density/Moisture Equations	<input checked="" type="checkbox"/> True <input type="checkbox"/> False	
Mode	<input type="checkbox"/> Backscatter	<input checked="" type="checkbox"/> Direct Transmission

**Proctor Information**

Sample ID	Visual Classification	Max Dry Density, (lb/ft <sup>3</sup> )	Optimum Moisture %
	Native Material	108.0	10.0
Compaction Requirements (%):		Moisture Requirements (+/- %):	
95%			

**General Location:**

S Rose St, Sewer Utility

**Test Results**

Test No.	Sample ID	Time Sampled	Test Depth (in)	Elevation of Test	Wet Density (lb/ft <sup>3</sup> )	Moisture Content %	Dry Density (lb/ft <sup>3</sup> )	Percent Compaction	Comments
1		1pm	8"	2"	112.8	8.2	108.8	96.5	PASS
Location 10 Ft From Trench 159 Ft From Main Hole M-9.0'									
2		1:22pm	8"	0"	107.7	8.9	103.3	96.0	PASS
Location 10 Ft From Trench 165 Ft From Main Hole M-7.2'									
Location									
Location									
Location									
Location									

**Comments**

- |                                                                                                                                                                       |                                                                                                                                                                                                                                                                                                        |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <ul style="list-style-type: none"> <li>1. Base</li> <li>2. Subbase</li> <li>3. Subgrade</li> <li>4. Improved Subgrade</li> <li>5. Surface</li> <li>6. Fill</li> </ul> | <ul style="list-style-type: none"> <li>A = Test results comply with specifications</li> <li>B = Compaction percentage does not comply with specifications</li> <li>C = Retest of previous test</li> <li>D = Moisture in excess of specifications</li> <li>E = Moisture below specifications</li> </ul> |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

**Remarks**

6. Fill

---



---



---

The information presented in this report is preliminary in nature and presented for informational purposes only. The final report shall be conclusive as to Intertek-PSI's findings. The information included herein is not to be used for acceptance, compliance, or contractual purposes. This information is subject to review and change. These test results apply only to the specific locations noted and may not represent any other locations or elevations. Reports may not be reproduced, except in full, without written permission by Intertek-PSI.