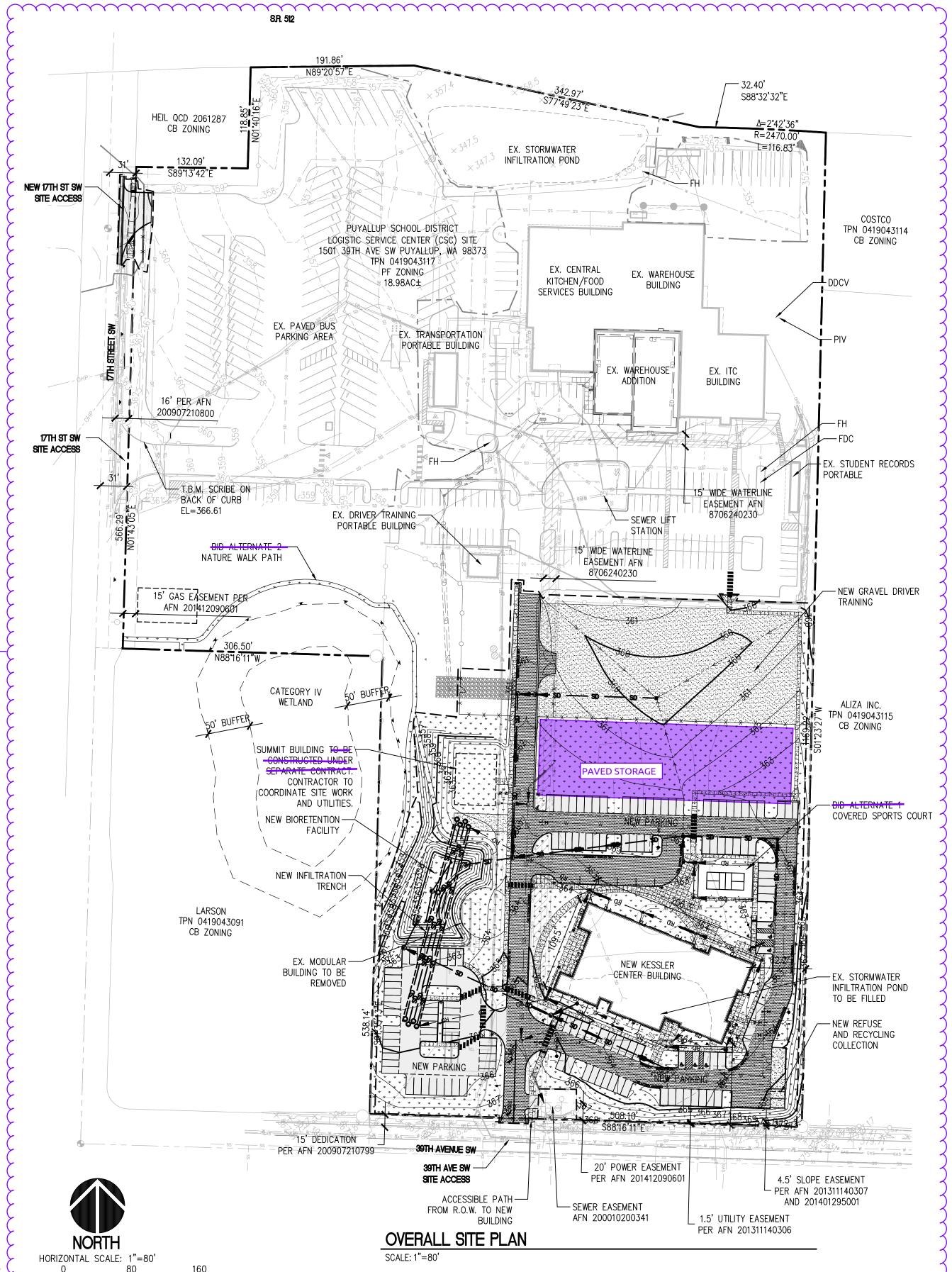
# A PORTION OF THE SW 1/4 OF THE SW 1/4 OF SECTION 4, TOWNSHIP 19 NORTH, RANGE 4 EAST, W.M. PIERCE COUNTY WASHINGTON



#### HORIZONTAL DATUM

WASHINGTON STATE PLAN COORDINATE SYSTEM, SOUTH ZONE, BASED ON GPS OBSERVATION UTILIZING THE WASHINGTON STATE REFERENCE NETWORK (WSRN)

#### VERTICAL DATUM

NAVD 88 BASED ON GPS OBSERVATION UTILIZING THE WSRN WITH NGS GEOID2012B LOADED

SITE TEMPORARY BENCHMARK ELEVATION = 366.61 DESCRIPTION: SCRIBE ON BACK OF CURB

TO CONVERT TO NGVD29 DATUM, SUBTRACT 3.51 FROM ALL ELEVATION VALUES MEASURED PUYALLUP PUBLISHED BENCHMARK "SW 31-09" NGVD 29 ELEVATION = 350.52

#### SITE DATA

TAX PARCEL NO. 0419043117 ADDRESS: 1501 39TH AVE S.W. LAND AREA: 18.35± ACRES

#### ZONING INFORMATION

PF PUBLIC FACILITIES

#### **PARKING**

NEW COMPACT STALLS: 27

NEW ADA STALLS: 6 (2 VAN)

TOTAL NEW STALLS: 141

#### SURFACE COVERAGE

IMPERVIOUS AREA: 538,776 SQ. FT. (67%)

LANDSCAPE AREA: 260,834 SQ. FT. (33%)

CIVIL DRAWING INDEX

CO.2 2 OF 33 PROJECT ABBREVIATIONS AND NOTES

C1.5 8 OF 33 EROSION CONTROL DETAILS

C2.1 9 OF 33 SURFACING PLAN

C2.2 10 OF 33 SURFACING PLAN

C2.3 11 OF 33 SURFACING PLAN

C2.4 12 OF 33 SURFACING DETAILS

C2.5 13 OF 33 SURFACING DETAILS

C2.6 14 OF 33 SURFACING DETAILS

C3.2 17 OF 33 GRADING AND DRAINAGE PLAN

C3.3 18 OF 33 GRADING AND DRAINAGE PLAN

C3.5 20 OF 33 SITE SECTIONS AND ENLARGEMENTS

C3.4 19 OF 33 CURB RAMP ENLARGEMENTS

C1.1 4 OF 33 DEMOLITION AND EROSION CONTROL PLAN - STAGE A

C1.2 5 OF 33 DEMOLITION AND EROSION CONTROL PLAN — STAGE A

C1.3 6 OF 33 DEMOLITION AND EROSION CONTROL PLAN - STAGE A

C1.4 7 OF 33 DEMOLITION AND EROSION CONTROL PLAN - STAGE B

C2.7 15 OF 33 NO PARKING SIGN PLACEMENT PLAN
C3.1 16 OF 33 GRADING AND DRAINAGE PLAN

CO.1 1 OF 33 OVERALL SITE PLAN

TOTAL SITE AREA: 799,610 SQ. FT.

### LEGAL DESCRIPTION

THE WEST HALF OF THE SOUTHWEST QUAR PPROVED PLANS. RECORD HALF OF THE WEST HALF OF THE EAST HA RAWING CHANGES ARE ON THE SOUTHWEST QUARTER OF SECTION 4, TOWN AD FILES SUBMITTED WITH THIS WILLAMETTE MERIDIAN;

EXCEPT THE FOLLOWING DESCRIBED PROPER BEGINNING 30 FEET NORTH AND 15 FEET

THENCE NORTH 553.14 FEET; THENCE EAST 315 FEET; THENCE SOUTH 553.14 FEET; THENCE WEST 315 FEET TO THE POINT O

ALSO EXCEPT THE FOLLOWING DESCRIBED BEGINNING AT THE SOUTHWEST CORNER OF THENCE NORTH 00°04'25" EAST ALONG THE 1148.90 FEET TO THE TRUE

POINT OF BEGINNING; THENCE NORTH 89°07'39" EAST A DISTANCE THENCE NORTH 00°04'25" EAST A DISTANCE THENCE SOUTH 89°07'39" WEST A DISTANC

THENCE SOUTH 00°04'25" WEST 148.00 FEET ALONG THE WEST LINE OF SAID SECTION TO

EXCEPT 86TH AVENUE EAST RESERVED FOR COUNTY ROAD (ALSO KNOWN AS 17TH STREET

ALSO EXCEPT THAT PORTION THEREOF CONVEYED TO THE STATE OF WASHINGTON BY INSTRUMENTS RECORDED UNDER RECORDING NUMBERS 2227151, 2239840, 9407070774 AND 9407070775;

ALSO EXCEPT THE SOUTHERLY 30 FEET THEREOF FOR 39TH AVENUE S.W. (ALSO KNOWN AS 112TH STREET EAST); SITUATE IN THE CITY OF PUYALLUP, COUNTY OF PIERCE, STATE OF WASHINGTON.

#### ECORD DRAWING INFORMATION IS

AND THE INSTALLATION

17 veron

ROVIDED BY PEASE & SONS, INC CITY OF PUYALLUP N 05-04-2022. RECORD DRAWING ENGINEERING SERVICES NFORMATION WAS REVIEWED BY R **IAND OF SITTS & HILL ENGINEERS** 

**NOTE**: THIS APPROVAL IS VOID AFTER 1 YEAR FROM APPROVAL

THE CITY WILL NOT BE RESPONSIBLE FOR ERRORS AND/OR OMISSIONS ON THESE PLANS. FIELD CONDITIONS MAY DICTATE CHANGES TO THESE PLANS AS DETERMINED BY THE ENGINEERING SERVICES MANAGER.



two business days

C3.6 21 OF 33 GRADING AND DRAINAGE DETAILS

C3.7 22 OF 33 GRADING AND DRAINAGE DETAILS C3.8 23 OF 33 GRADING AND DRAINAGE DETAILS

C4.1 24 OF 33 WATER UTILITY PLAN

C4.2 25 OF 33 WATER UTILITY DETAILS

C4.3 26 OF 33 WATER UTILITY DETAILS C4.4 27 OF 33 WATER UTILITY DETAILS AND NOTES

C4.5 28 OF 33 ENLARGED UTILITY PLAN

C5.1 29 OF 33 SANITARY SEWER UTILITY PLAN C5.2 30 OF 33 SANITARY SEWER PROFILES

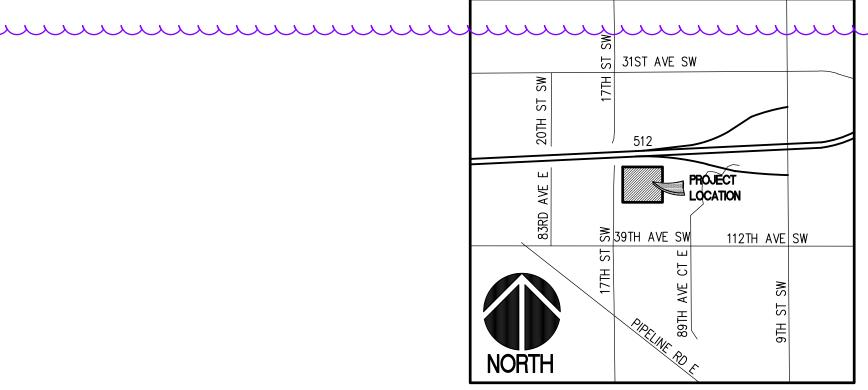
C5.3 31 OF 33 SANITARY SEWER UTILITY DETAILS AND NOTES

C5.4 32 OF 33 SANITARY SEWER UTILITY DETAILS AND NOTES

C6.1 33 OF 33 SUMMIT BUILDING GRADING AND DRAINAGE PLAN

# PROJECT LOCATION

1501 39TH AVE SW, PUYALLUP, WA 98373



VICINITY MAP

SCALE: 1" = 1000'

#### SITTS & HILL **ENGINEERS, INC.** CIVIL - STRUCTURAL - SURVEYING

4815 CENTER STREET | TACOMA, WA. 98409 PHONE: (253) 474-9449 | FAX: (253) 474-0153 http://www.sittshill.com/

ject No.:	18,328	Project Mgr.:	RCH
j. Engineer:	VMS	Proj. Drafter:	KLK

REVIEWED BY: **OVERALL SITE PLAN** 

03-16-2020 ADDENDUM 2

03-19-2020 ADDENDUM 3

03-31-2020 CITY RESUBMITTAL 04-03-2020 CONFORMED SET

06-03-2020 CITY RESUBMITTAL

10-17-2022 RECORD DRAWINGS

REVISIONS

02.26.2020

18103

BCRA 圙 SHEET CIVIL 01 OF 32

CITY RESUBMITTAL

WASHINGTON STATE DEPARTMENT OF TRANSPORATION

WATER SERVICE OR WATER SURFACE

TRANSFORMER

MEG

MH

MJ

MECH

MEMB

MATCH EXISTING GRADE

MECHANICAL JOINT

MANHOLE

MECHANICAL

<u>MEMBRANE</u>

WSDOT

XFMR

PROPOSED FEATURES-

CATCH BASIN PROTECTION

---///////DEMOLITION

---- STOCKPILE AREA

LANDSCAPING

CONCRETE

———FD ——— FOOTING DRAIN PIPE

---- GRADE BREAK

FIRE SPRINKLER PIPE

WATER METER

FIRE HYDRANT

GATE VALVE

X CHAINLINK FENCING

THRUST BLOCK

— SANITARY SEWER PIPE

ASPHALT PAVEMENT

GRAVEL SURFACING

QUARRY SPALL PAD

TYPE 1 CATCH BASIN

TYPE 2 CATCH BASIN

ROOF DRAIN CLEANOUT

FIRE DEPARTMENT CONNECTION

SANITARY SEWER CLEANOUT

SANITARY SEWER MANHOLE WITH ACCESS LOCATION

---- SAWCUT LINE

PROJECT SEQUENCING

1. HOLD A PRE-CONSTRUCTION MEETING WITH THE CITY

4. ESTABLISH CLEARING AND GRADING LIMITS.

CONTROL PLANS. NO UNCONTROLLED STORMWATER RI APPROVED PLANS. RECORD OFFSITE OR TO ADJACENT CRITICAL AREAS DURING G DRAWING CHANGES ARE ON THE

6. CONSTRUCT PROTECTION FENCING FOR CRITICAL ARE PROPOSED FOR RETENTION.

7. SCHEDULE EROSION CONTROL INSPECTION WITH THE

8. EXECUTE REQUIRED CLEARING, GRUBBING AND DEMOL 9. MAINTAIN STAGE A EROSION CONTROL BMP'S. NO UN

SHALL BE DISCHARGED OFFSITE OR TO ADJACENT CR

10. EXECUTE REQUIRED GRADING AND BUILDING PAD EAR

11. EXECUTE REQUIRED UTILITY WORK.

OPERATIONS.

12. PROVIDE STAGE B EROSION CONTROL BMP'S. NO UNC SHALL BE DISCHARGED OFFSITE OR TO ADJACENT CR OPERATIONS.

13. CONSTRUCT BUILDING IMPROVEMENTS.

14. MAINTAIN STAGE B TESC BMP'S. NO UNCONTROLLED STORMWATER RUNOFF SHALL BE DISCHARGED OFFSITE OR TO ADJACENT CRITICAL AREAS DURING GRADING OPERATIONS.

15. MAY 2021±, OBTAIN APPROVAL TO REDUCE SIZE OF TEMPORARY INFILTRATION POND.

16. COMPLETE SURFACING RESTORATION.

17. COMPLETE PROJECT LANDSCAPING EXCEPT FOR BIORETENTION AND TEMPORARY INFILTRATION POND FOOTPRINT.

18. INSTALL CB 210 AND PIPING IN AND OUT OF CB 210.

19. INSTALL BIORETENTION SOIL MEDIA.

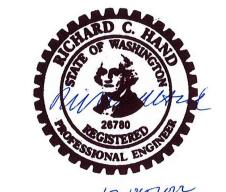
20. FILL IN TEMPORARY INFILTRATION POND.

21. FOLLOWING FINAL STABILIZATION OF THE ENTIRE PROJECT SITE, AND UPON APPROVAL BY SCHOOL DISTRICT, ENGINEER, AND CITY INSPECTOR, REMOVE ALL TESC MEASURES.

RECORD DRAWING ECORD DRAWING INFORMATION IS 2. PROVIDE SUBMITTALS AND OBTAIN APPROVALS FROM PROVIDED BY PEASE & SONS, INC ON 05-04-2022. RECORD DRAWING 3. COORDINATE WITH PROJECT LOGISTICS PLAN (SHEET INFORMATION WAS REVIEWED BY R HAND OF SITTS & HILL ENGINEERS

AND THE INSTALLATION 5. CONSTRUCT STAGE A EROSION CONTROL DEVICES AS SUBSTANTIALLY CONFORMS TO THE CAD FILES SUBMITTED WITH THIS

DOCUMENT.



17 vyron

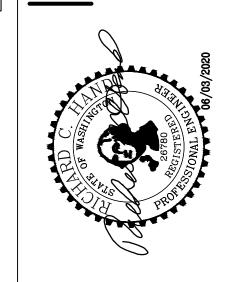
APPROVED CITY OF PUYALLUP

ENGINEERING SERVICES 06-09-20 DATE\_

**NOTE**: THIS APPROVAL IS VOID AFTER 1 YEAR FROM APPROVAL

THE CITY WILL NOT BE RESPONSIBLE FOR ERRORS AND/OR OMISSIONS ON THESE PLANS FIELD CONDITIONS MAY DICTATE CHANGES TO THESE PLANS AS DETERMINED BY THE ENGINEERING SERVICES MANAGER.





REVISIONS 03-16-2020 ADDENDUM 2 03-19-2020 ADDENDUM 3 03-31-2020 CITY RESUBMITTAL 04-03-2020 CONFORMED SET 06-03-2020 CITY RESUBMITTAL 10-17-2022 RECORD DRAWING

02.26.2020

18103 DRAWN BY: REVIEWED BY:

PROJECT ABBREVIATIONS AND NOTES

### SITTS & HILL **ENGINEERS, INC.**

CIVIL - STRUCTURAL - SURVEYING 4815 CENTER STREET | TACOMA, WA. 98409 PHONE: (253) 474-9449 | FAX: (253) 474-0153 http://www.sittshill.com/

Project No.: 18,328 | Project Mgr.: Proj. Engineer: VMS | Proj. Drafter: KLK

BCRA 圙 SHEET CIVIL 02 OF 32

CITY RESUBMITTAL

#### CITY OF PUYALLUP GENERAL NOTES

- 1. ALL WORK IN CITY RIGHT-OF-WAY REQUIRES A PERMIT FROM THE CITY OF PUYALLUP. PRIOR TO ANY WORK COMMENCING, THE GENERAL CONTRACTOR SHALL ARRANGE FOR A PRECONSTRUCTION MEETING AT THE DEVELOPMENT SERVICES CENTER TO BE ATTENDED BY ALL CONTRACTORS THAT WILL PERFORM WORK SHOWN ON THE APPROVED ENGINEERING PLANS, REPRESENTATIVES FROM ALL APPLICABLE UTILITY COMPANIES, THE PROJECT OWNER AND APPROPRIATE CITY STAFF. CONTACT ENGINEERING SERVICES AT (253-841-5568) TO SCHEDULE THE MEETING. THE CONTRACTOR IS RESPONSIBLE TO HAVE THEIR OWN SET OF APPROVED PLANS AT THE MEETING.
- 2. AFTER COMPLETION OF ALL ITEMS SHOWN ON THESE PLANS AND BEFORE ACCEPTANCE OF THE PROJECT THE CONTRACTOR SHALL OBTAIN A PUNCH LIST' PREPARED BY THE CITY'S INSPECTOR DETAILING REMAINING ITEMS OF WORK TO BE COMPLETED. ALL ITEMS OF WORK SHOWN ON THESE PLANS SHALL BE COMPLETED TO THE SATISFACTION OF THE CITY PRIOR TO ACCEPTANCE OF THE WATER SYSTEM AND PROVISION OF SANITARY SEWER SERVICE.
- 3. ALL MATERIALS AND WORKMANSHIP SHALL CONFORM TO THE STANDARD SPECIFICATIONS FOR ROAD, BRIDGE, AND MUNICIPAL CONSTRUCTION (HEREINAFTER REFERRED TO AS THE "STANDARD SPECIFICATIONS"), WASHINGTON STATE DEPARTMENT OF TRANSPORTATION AND AMERICAN PUBLIC WORKS ASSOCIATION, WASHINGTON STATE CHAPTER, LATEST EDITION, UNLESS SUPERSEDED OR AMENDED BY THE CITY OF PUYALLUP CITY STANDARDS FOR PUBLIC WORKS ENGINEERING AND CONSTRUCTION (HEREINAFTER REFERRED TO AS THE "CITY STANDARDS").
- 4. A COPY OF THESE APPROVED PLANS AND APPLICABLE CITY DEVELOPER SPECIFICATIONS AND DETAILS SHALL BE ON SITE DURING CONSTRUCTION.
- ANY REVISIONS MADE TO THESE PLANS MUST BE REVIEWED AND APPROVED BY THE DEVELOPER'S ENGINEER AND THE CITY PRIOR TO ANY IMPLEMENTATION IN THE FIELD. THE CITY SHALL NOT BE RESPONSIBLE FOR ANY ERRORS AND OR OMISSIONS ON THESE PLANS.
- 6. THE CONTRACTOR SHALL HAVE ALL UTILITIES VERIFIED ON THE GROUND PRIOR TO ANY CONSTRUCTION. CALL (811) AT LEAST TWO WORKING DAYS IN ADVANCE. THE OWNER AND HIS/HER ENGINEER SHALL BE CONTACTED IMMEDIATELY IF A CONFLICT EXISTS.
- 7. ANY STRUCTURE AND/OR OBSTRUCTION THAT REQUIRES REMOVAL OR RELOCATION RELATING TO THIS PROJECT SHALL BE DONE SO AT THE DEVELOPER'S EXPENSE.
- 8. LOCATIONS OF EXISTING UTILITIES ARE APPROXIMATE. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE THE TRUE ELEVATIONS AND LOCATIONS OF HIDDEN UTILITIES. ALL VISIBLE ITEMS SHALL BE THE ENGINEER'S RESPONSIBILITY.
- 9. THE CONTRACTOR SHALL INSTALL, REPLACE, OR RELOCATE ALL SIGNS, AS SHOWN ON THE PLANS OR AS AFFECTED BY CONSTRUCTION, PER CITY STANDARDS.
- 10. POWER, STREET LIGHT, CABLE, AND TELEPHONE LINES SHALL BE IN A TRENCH LOCATED WITHIN A 10-FOOT UTILITY EASEMENT ADJACENT TO PUBLIC RIGHT-OF-WAY. RIGHT-OF-WAY CROSSINGS SHALL HAVE A MINIMUM HORIZONTAL SEPARATION FROM OTHER UTILITIES (SEWER, WATER, AND STORM) OF 5
- 11. ALL CONSTRUCTION SURVEYING FOR EXTENSIONS OF PUBLIC FACILITIES SHALL BE DONE UNDER THE DIRECTION OF A WASHINGTON STATE LICENSED LAND SURVEYOR OR A WASHINGTON STATE LICENSED PROFESSIONAL CIVIL ENGINEER.
- 12. DURING CONSTRUCTION, ALL PUBLIC STREETS ADJACENT TO THIS PROJECT SHALL BE KEPT CLEAN OF ALL MATERIAL DEPOSITS RESULTING FROM ON-SITE CONSTRUCTION, AND EXISTING STRUCTURES SHALL BE PROTECTED AS DIRECTED BY THE CITY.
- 13. CERTIFIED RECORD DRAWINGS ARE REQUIRED PRIOR TO PROJECT ACCEPTANCE.
- 14. A NPDES STORMWATER GENERAL PERMIT MAY BE REQUIRED BY THE DEPARTMENT OF ECOLOGY FOR THIS PROJECT. FOR INFORMATION CONTACT THE DEPARTMENT OF ECOLOGY, SOUTHWEST REGION OFFICE AT (360)407-6300.
- 15. ANY DISTURBANCE OR DAMAGE TO CRITICAL AREAS AND ASSOCIATED BUFFERS, OR SIGNIFICANT TREES DESIGNATED FOR PRESERVATION AND PROTECTION SHALL BE MITIGATED IN ACCORDANCE WITH A MITIGATION PLAN REVIEWED AND APPROVED BY THE CITY'S PLANNING DIVISION. PREPARATION AND IMPLEMENTATION OF THE MITIGATION PLAN SHALL BE AT THE DEVELOPER'S EXPENSE.

#### CITY OF PUYALLUP STORMWATER NOTES

- 1. ALL WORK IN CITY RIGHT-OF-WAY REQUIRES A PERMIT FROM THE CITY OF PUYALLUP. PRIOR TO ANY WORK COMMENCING, THE GENERAL CONTRACTOR SHALL ARRANGE FOR A PRECONSTRUCTION MEETING AT THE DEVELOPMENT SERVICES CENTER TO BE ATTENDED BY ALL CONTRACTORS THAT WILL PERFORM WORK SHOWN ON THE ENGINEERING PLANS, REPRESENTATIVES FROM ALL APPLICABLE UTILITY COMPANIES, THE PROJECT OWNER AND APPROPRIATE CITY STAFF. CONTACT ENGINEERING SERVICES TO SCHEDULE THE MEETING (253) 841-5568. THE CONTRACTOR IS RESPONSIBLE TO HAVE THEIR OWN APPROVED SET OF PLANS AT THE MEETING.
- 2. AFTER COMPLETION OF ALL ITEMS SHOWN ON THESE PLANS AND BEFORE ACCEPTANCE OF THE PROJECT, THE CONTRACTOR SHALL OBTAIN A PUNCH LIST' PREPARED BY THE CITY'S INSPECTOR DETAILING REMAINING ITEMS OF WORK TO BE COMPLETED. ALL ITEMS OF WORK SHOWN ON THESE PLANS SHALL BE COMPLETED TO THE SATISFACTION OF THE CITY PRIOR TO ACCEPTANCE OF THE WATER SYSTEM AND PROVISION OF SANITARY SEWER SERVICE.
- 3. ALL MATERIALS AND WORKMANSHIP SHALL CONFORM TO THE STANDARD SPECIFICATIONS FOR ROAD, BRIDGE, AND MUNICIPAL CONSTRUCTION (HEREINAFTER REFERRED TO AS THE "STANDARD SPECIFICATIONS"), WASHINGTON STATE DEPARTMENT OF TRANSPORTATION AND AMERICAN PUBLIC WORKS ASSOCIATION, WASHINGTON STATE CHAPTER, LATEST EDITION, UNLESS SUPERSEDED OR AMENDED BY THE CITY OF PUYALLUP CITY STANDARDS FOR PUBLIC WORKS ENGINEERING AND CONSTRUCTION (HEREINAFTER REFERRED TO AS THE "CITY STANDARDS").
- 4. A COPY OF THESE APPROVED PLANS AND APPLICABLE CITY DEVELOPER SPECIFICATIONS AND DETAILS SHALL BE ON SITE DURING CONSTRUCTION.
- 5. ANY REVISIONS MADE TO THESE PLANS MUST BE REVIEWED AND APPROVED BY THE DEVELOPER'S ENGINEER AND THE ENGINEERING SERVICES STAFF PRIOR TO ANY IMPLEMENTATION IN THE FIELD. THE CITY SHALL NOT BE RESPONSIBLE FOR ANY ERRORS AND/OR OMISSIONS ON THESE PLANS.
- 6. THE CONTRACTOR SHALL HAVE ALL UTILITIES VERIFIED ON THE GROUND PRIOR TO ANY CONSTRUCTION. CALL (811) AT LEAST TWO WORKING DAYS IN ADVANCE. THE OWNER AND HIS/HER ENGINEER SHALL BE CONTACTED IMMEDIATELY IF A CONFLICT EXISTS.
- 7. ANY STRUCTURE AND/OR OBSTRUCTION WHICH REQUIRE REMOVAL OR RELOCATION RELATING TO THIS PROJECT, SHALL BE DONE SO AT THE DEVELOPER'S EXPENSE.
- 8. DURING CONSTRUCTION, ALL EXISTING AND NEWLY INSTALLED DRAINAGE STRUCTURES SHALL BE PROTECTED FROM SEDIMENTS.
- 9. ALL STORM MANHOLES SHALL CONFORM TO CITY STANDARD DETAIL NO. 02.01.01. FLOW CONTROL MANHOLE/OIL WATER SEPARATOR SHALL CONFORM TO CITY STANDARD DETAIL NO. 02.01.06 AND
- 10. MANHOLE RING AND COVER SHALL CONFORM TO CITY STANDARD DETAIL 06.01.02.
- 11. CATCH BASINS TYPE I SHALL CONFORM TO CITY STANDARD DETAIL NO.02.01.02 AND 02.01.03 AND SHALL BE USED ONLY FOR DEPTHS LESS THAN 5 FEET FROM TOP OF THE GRATE TO THE INVERT OF THE STORM PIPE.
- 12. CATCH BASINS TYPE II SHALL CONFORM TO CITY STANDARD DETAIL NO.02.01.04 AND SHALL BE USED FOR DEPTHS GREATER THAN 5 FEET FROM TOP OF THE GRATE TO THE INVERT OF THE STORM PIPE.
- 13. CAST IRON OR DUCTILE IRON FRAME AND GRATE SHALL CONFORM TO CITY STANDARD DETAIL NO.02.01.05. GRATE SHALL BE MARKED WITH "DRAINS TO STREAM". SOLID CATCH BASIN LIDS (SQUARE UNLESS NOTED AS ROUND) SHALL CONFORM TO WSDOT STANDARD PLAN B-30.20-04 (OLYMPIC FOUNDRY NO. SM60 OR EQUAL). VANED GRATES SHALL CONFORM TO WSDOT STANDARD PLAN B-30.30-03 (OLYMPIC FOUNDRY NO. SM60V OR EQUAL).
- 14. STORMWATER PIPE SHALL BE ONLY PVC, CONCRETE, DUCTILE IRON, OR DUAL WALLED POLYPROPYLENE
  - a. THE USE OF ANY OTHER TYPE SHALL BE REVIEWED AND APPROVED BY THE ENGINEERING SERVICES STAFF PRIOR TO INSTALLATION.
  - b. PVC PIPE SHALL BE PER ASTM D3034, SDR 35 FOR PIPE SIZE 15-INCH AND SMALLER AND F679 FOR PIPE SIZES 18 TO 27 INCH. MINIMUM COVER ON PVC PIPE SHALL BE 3.0 FEET.
  - c. CONCRETE PIPE SHALL CONFORM TO THE WSDOT STANDARD SPECIFICATIONS FOR CONCRETE UNDERDRAIN PIPE. MINIMUM COVER ON CONCRETE PIPE SHALL NOT LESS THAN 3.0 FEET.
  - d. DUCTILE IRON PIPE SHALL BE CLASS 50, CONFORMING TO AWWA C151. MINIMUM COVER ON DUCTILE IRON PIPE SHALL BE 1.0 FOOT.
  - e. POLYPROPYLENE PIPE (PP) SHALL BE DUAL WALLED, HAVE A SMOOTH INTERIOR AND EXTERIOR CORRUGATIONS AND MEET WSDOT 9-05.24(1). 12-INCH THROUGH 30-INCH PIPE SHALL MEET OR EXCEED ASTM F2736 AND AASHTO M330, TYPE S, OR TYPE D. 36-INCH THROUGH 60-INCH PIPE SHALL MEET OR EXCEED ASTM F2881 AND AASHTO M330, TYPE S, OR TYPE D. TESTING SHALL BE PER ASTM F1417. MINIMUM COVER OVER POLYPROPYLENE PIPE SHALL BE 3
- 15. TRENCHING, BEDDING, AND BACKFILL FOR PIPE SHALL CONFORM TO CITY STANDARD DETAIL NO.
- 16. STORM PIPE SHALL BE A MINIMUM OF 10 FEET AWAY FROM BUILDING FOUNDATIONS AND/OR ROOF
- 17. ALL STORM DRAIN MAINS SHALL BE TESTED AND INSPECTED FOR ACCEPTANCE AS OUTLINED IN SECTION 406 OF THE CITY OF PUYALLUP SANITARY SEWER SYSTEM STANDARDS.
- 18. ALL TEMPORARY SEDIMENTATION AND EROSION CONTROL MEASURES, AND PROTECTIVE MEASURES FOR CRITICAL AREAS AND SIGNIFICANT TREES SHALL BE INSTALLED PRIOR TO INITIATING ANY CONSTRUCTION ACTIVITIES.

#### CITY OF PUYALLUP GRADING, EROSION AND SEDIMENTATION NOTES:

- 1. ALL WORK IN CITY RIGHT-OF-WAY REQUIRES A PERMIT FROM THE CITY OF PUYALLUP. PRIOR TO ANY WORK COMMENCING. THE GENERAL CONTRACTOR SHALL ARRANGE FOR A PRECONSTRUCTION MEETING AT THE DEVELOPMENT SERVICES CENTER TO BE ATTENDED BY ALL CONTRACTORS THAT WILL PERFORM WORK SHOWN ON THE ENGINEERING PLANS, REPRESENTATIVES FROM ALL APPLICABLE UTILITY COMPANIES, THE PROJECT OWNER AND APPROPRIATE CITY STAFF. CONTACT ENGINEERING SERVICES TO SCHEDULE THE MEETING (253) 841-5568. THE CONTRACTOR IS RESPONSIBLE TO HAVE THEIR OWN APPROVED SET OF PLANS AT THE MEETING.
- 2. AFTER COMPLETION OF ALL ITEMS SHOWN ON THESE PLANS AND BEFORE ACCEPTANCE OF THE PROJECT. THE CONTRACTOR SHALL OBTAIN A 'PUNCH LIST" PREPARED BY THE CITY'S INSPECTOR DETAILING REMAINING ITEMS OF WORK TO BE COMPLETED. ALL ITEMS OF WORK SHOWN ON THESE PLANS SHALL BE COMPLETED TO THE SATISFACTION OF THE CITY PRIOR TO ACCEPTANCE OF THE WATER SYSTEM AND PROVISION OF SANITARY SEWER SERVICE.
- 3. ALL MATERIALS AND WORKMANSHIP SHALL CONFORM TO THE STANDARD SPECIFICATIONS FOR ROAD, BRIDGE, AND MUNICIPAL CONSTRUCTION (HEREINAFTER REFERRED TO AS THE "STANDARD SPECIFICATIONS"), WASHINGTON STATE DEPARTMENT OF TRANSPORTATION AND AMERICAN PUBLIC WORKS ASSOCIATION, WASHINGTON STATE CHAPTER, LATEST EDITION, UNLESS SUPERSEDED OR AMENDED BY THE CITY OF PUYALLUP CITY STANDARDS FOR PUBLIC WORKS ENGINEERING AND CONSTRUCTION (HERINAFTER REFERRED TO AS THE "CITY STANDARDS").
- 4. A COPY OF THESE APPROVED PLANS AND APPLICABLE CITY DEVELOPER SPECIFICATIONS AND DETAILS SHALL BE ON SITE DURING CONSTRUCTION.
- 5. ANY REVISIONS MADE TO THESE PLANS MUST BE REVIEWED AND APPROVED BY THE DEVELOPER'S ENGINEER AND THE CITY ENGINEER PRIOR TO ANY IMPLEMENTATION IN THE FIELD. THE CITY SHALL NOT BE RESPONSIBLE FOR ANY ERRORS AND/OR OMISSIONS ON THESE PLANS.
- 6. THE CONTRACTOR SHALL HAVE ALL UTILITIES VERIFIED ON THE GROUND PRIOR TO ANY CONSTRUCTION. CALL (811) AT LEAST TWO WORKING DAYS HOURS IN ADVANCE. THE OWNER AND HIS/HER ENGINEER SHALL BE CONTACTED IMMEDIATELY IF A CONFLICT EXISTS.
- 7. ALL LIMITS OF CLEARING AND AREAS OF VEGETATION PRESERVATION AS PRESCRIBED ON THE PLANS SHALL BE CLEARLY FLAGGED IN THE FIELD AND OBSERVED DURING CONSTRUCTION.
- 8. ALL REQUIRED SEDIMENTATION AND EROSION CONTROL FACILITIES MUST BE CONSTRUCTED AND IN OPERATION PRIOR TO ANY LAND CLEARING AND/OR OTHER CONSTRUCTION TO ENSURE THAT SEDIMENT LADEN WATER DOES NOT ENTER THE NATURAL DRAINAGE SYSTEM. THE CONTRACTOR SHALL SCHEDULE AN INSPECTION OF THE EROSION CONTROL FACILITIES PRIOR TO ANY LAND CLEARING AND/OR OTHER CONSTRUCTION. ALL EROSION AND SEDIMENT FACILITIES SHALL BE MAINTAINED IN A SATISFACTORY CONDITION AS DETERMINED BY THE CITY, UNTIL SUCH TIME THAT CLEARING AND/OR CONSTRUCTION IS COMPLETED AND THE POTENTIAL FOR ONSITE EROSION HAS PASSED. THE IMPLEMENTATION, MAINTENANCE, REPLACEMENT, AND ADDITIONS TO THE EROSION AND SEDIMENTATION CONTROL SYSTEMS SHALL BE THE RESPONSIBILITY OF THE PERMITTEE.
- 9. THE EROSION AND SEDIMENTATION CONTROL SYSTEM FACILITIES DEPICTED ON THESE PLANS ARE INTENDED TO BE MINIMUM REQUIREMENTS TO MEET ANTICIPATED SITE CONDITIONS. AS CONSTRUCTION PROGRESSES AND UNEXPECTED OR SEASONAL CONDITIONS DICTATE, FACILITIES WILL BE NECESSARY TO ENSURE COMPLETE SILTATION CONTROL ON THE SITE. 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 HIS ACTIVITIES AND TO PROVIDE ADDITIONAL FACILITIES, OVER AND ABOVE THE MINIMUM REQUIREMENTS, AS MAY BE NEEDED TO PROTECT ADJACENT PROPERTIES, SENSITIVE AREAS, NATURAL WATER COURSES, AND/OR STORM DRAINAGE SYSTEMS.
- 10. APPROVAL OF THESE PLANS IS FOR GRADING, TEMPORARY DRAINAGE, EROSION AND SEDIMENTATION CONTROL ONLY. IT DOES NOT CONSTITUTE AN APPROVAL OF PERMANENT STORM DRAINAGE DESIGN, SIZE OR LOCATION OF PIPES, RESTRICTORS, CHANNELS, OR RETENTION FACILITIES.
- 11. ANY DISTURBED AREA WHICH HAS BEEN STRIPPED OF VEGETATION AND WHERE NO FURTHER WORK IS ANTICIPATED FOR A PERIOD OF 30 DAYS OR MORE. MUST BE IMMEDIATELY STABILIZED WITH MULCHING, GRASS PLANTING, OR OTHER APPROVED EROSION CONTROL TREATMENT APPLICABLE TO THE TIME OF YEAR IN QUESTION. GRASS SEEDING ALONE WILL BE ACCEPTABLE ONLY DURING THE MONTHS OF APRIL THROUGH SEPTEMBER INCLUSIVE. SEEDING MAY PROCEED OUTSIDE THE SPECIFIED TIME PERIOD WHENEVER IT IS IN THE INTEREST OF THE PERMITTEE BUT MUST BE AUGMENTED WITH MULCHING. NETTING, OR OTHER TREATMENT APPROVED BY THE CITY.
- 12. IN CASE EROSION OR SEDIMENTATION OCCURS TO ADJACENT PROPERTIES, ALL CONSTRUCTION WORK WITHIN THE DEVELOPMENT THAT WILL FURTHER AGGRAVATE THE SITUATION MUST CEASE. AND THE OWNER/CONTRACTOR WILL IMMEDIATELY COMMENCE RESTORATION METHODS. RESTORATION ACTIVITY WILL CONTINUE UNTIL SUCH TIME AS THE AFFECTED PROPERTY OWNER IS SATISFIED.
- 13. NO TEMPORARY OR PERMANENT STOCKPILING OF MATERIALS OR EQUIPMENT SHALL OCCUR WITHIN CRITICAL AREAS OR ASSOCIATED BUFFERS, OR THE CRITICAL ROOT ZONE FOR VEGETATION PROPOSED FOR RETENTION.

RECORD DRAWING RECORD DRAWING INFORMATION IS PROVIDED BY PEASE & SONS, INC ON 05-04-2022. RECORD DRAWING INFORMATION WAS REVIEWED BY R. HAND OF SITTS & HILL ENGINEERS AND THE INSTALLATION SUBSTANTIALLY CONFORMS TO THE APPROVED PLANS. RECORD

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CITY OF PUYALLUP ENGINEERING SERVICES 06-09-20 DATE

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02.26.2020

REVIEWED BY:

REVISIONS

03-16-2020 ADDENDUM 2 03-19-2020 ADDENDUM 3 03-31-2020 CITY RESUBMITTAL 04-03-2020 CONFORMED SET 06-03-2020 CITY RESUBMITTAL 10-17-2022 RECORD DRAWINGS

18103

CITY OF PUYALLUP STANDARD NOTES

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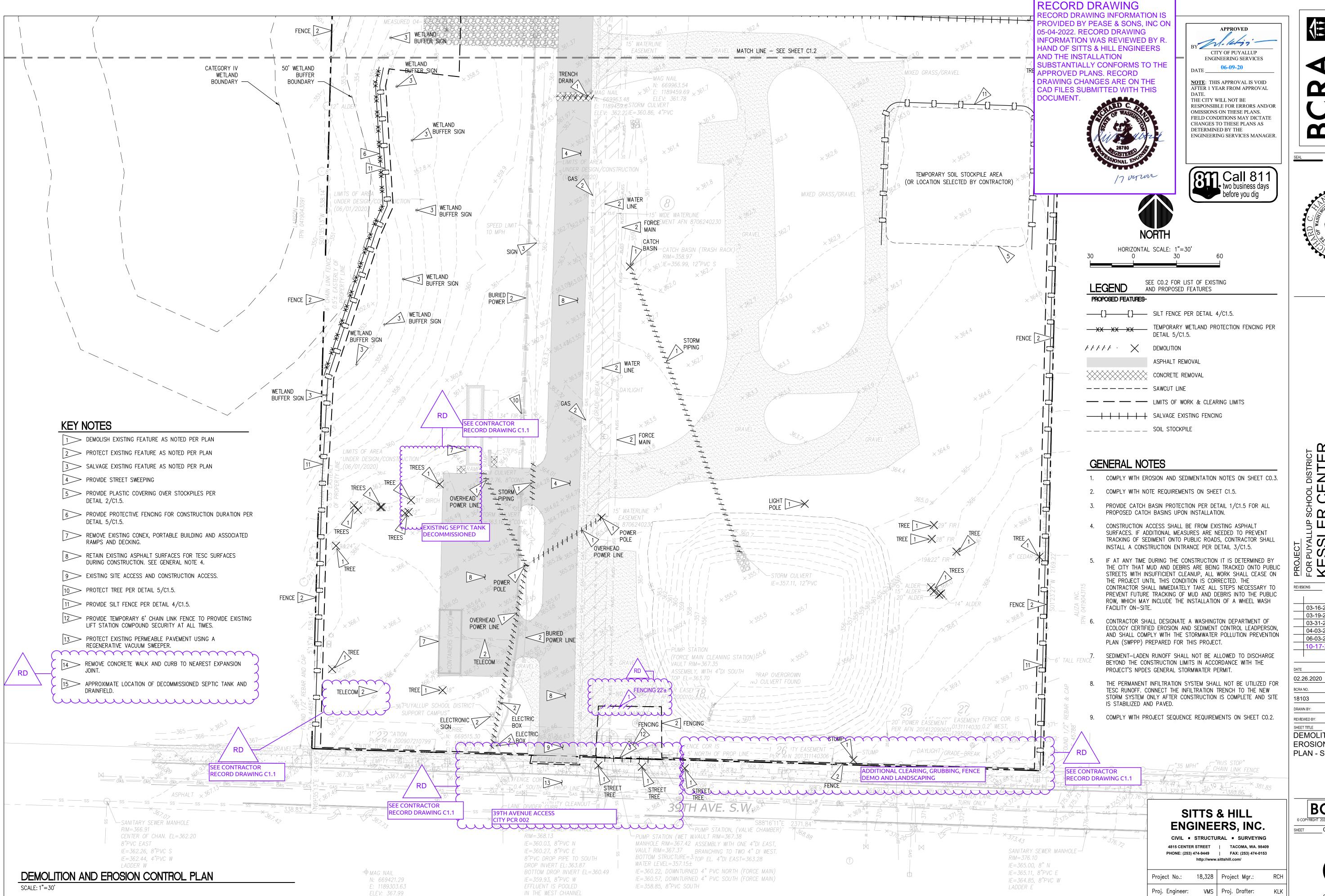
CITY RESUBMITTAL

SHEET CIVIL 03 OF 32

## SITTS & HILL **ENGINEERS, INC.**

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18,328 | Project Mgr.: Project No.: Proj. Drafter: Proj. Engineer:



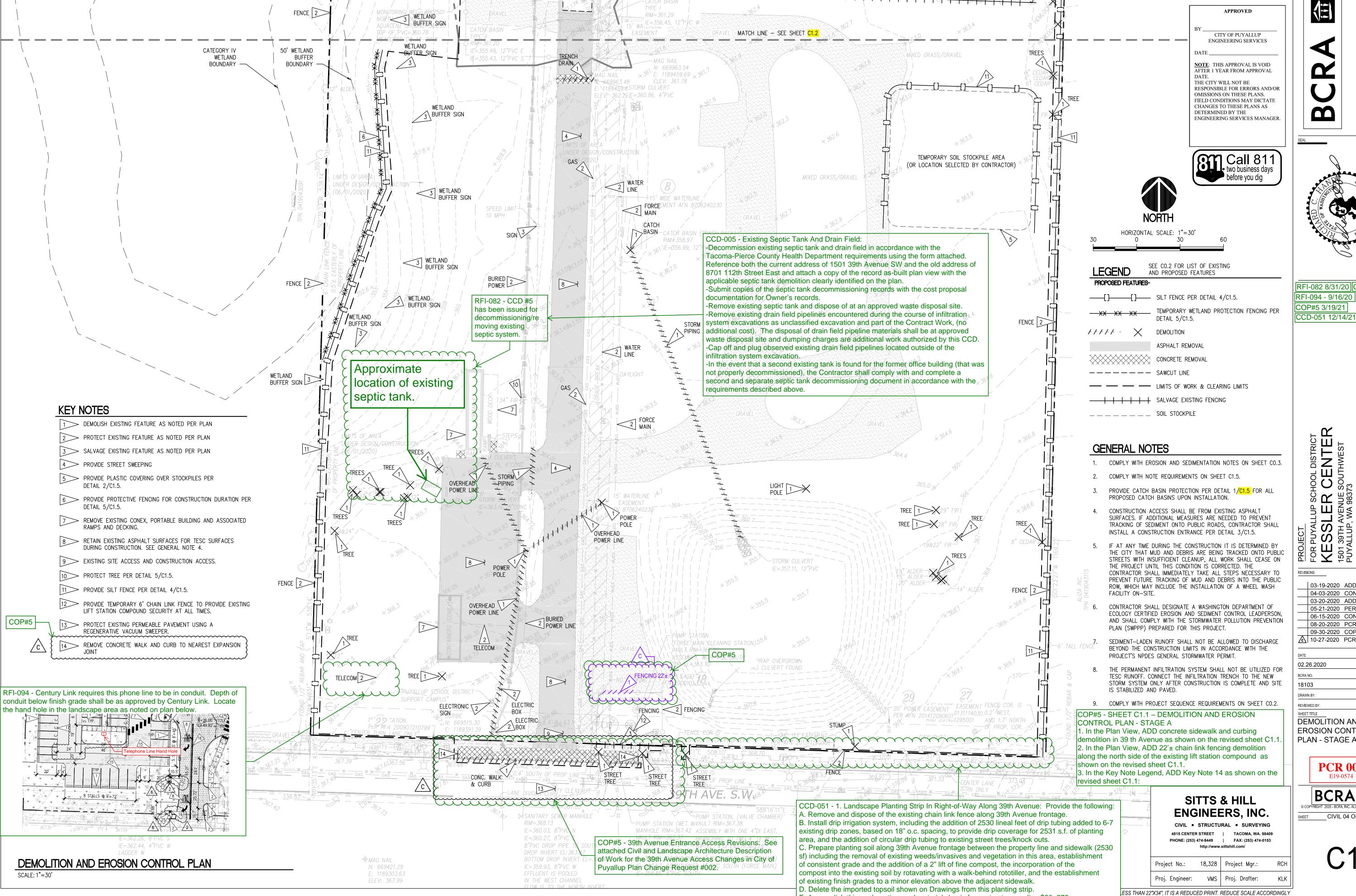


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**DEMOLITION AND EROSION CONTROL** PLAN - STAGE A

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E. Accomplish this work on time and materials basis for cost not exceeding \$20, 278.



RFI-082 8/31/20 CCD-005 8/28/20 RFI-094 - 9/16/20 COP#5 3/19/21

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03-19-2020 ADDENDUM 3 04-03-2020 CONFORMED SET 03-20-2020 ADDENDUM 4

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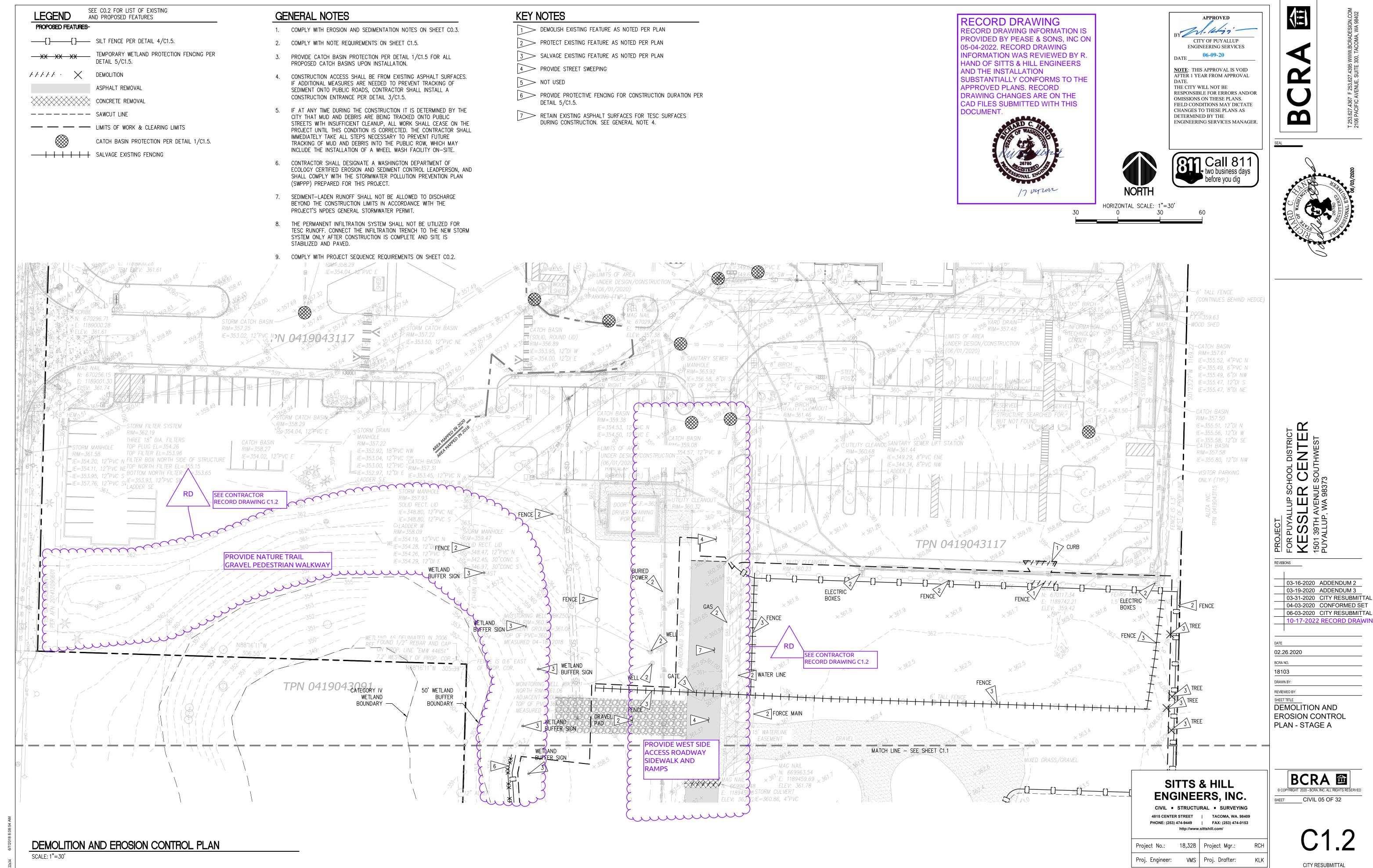
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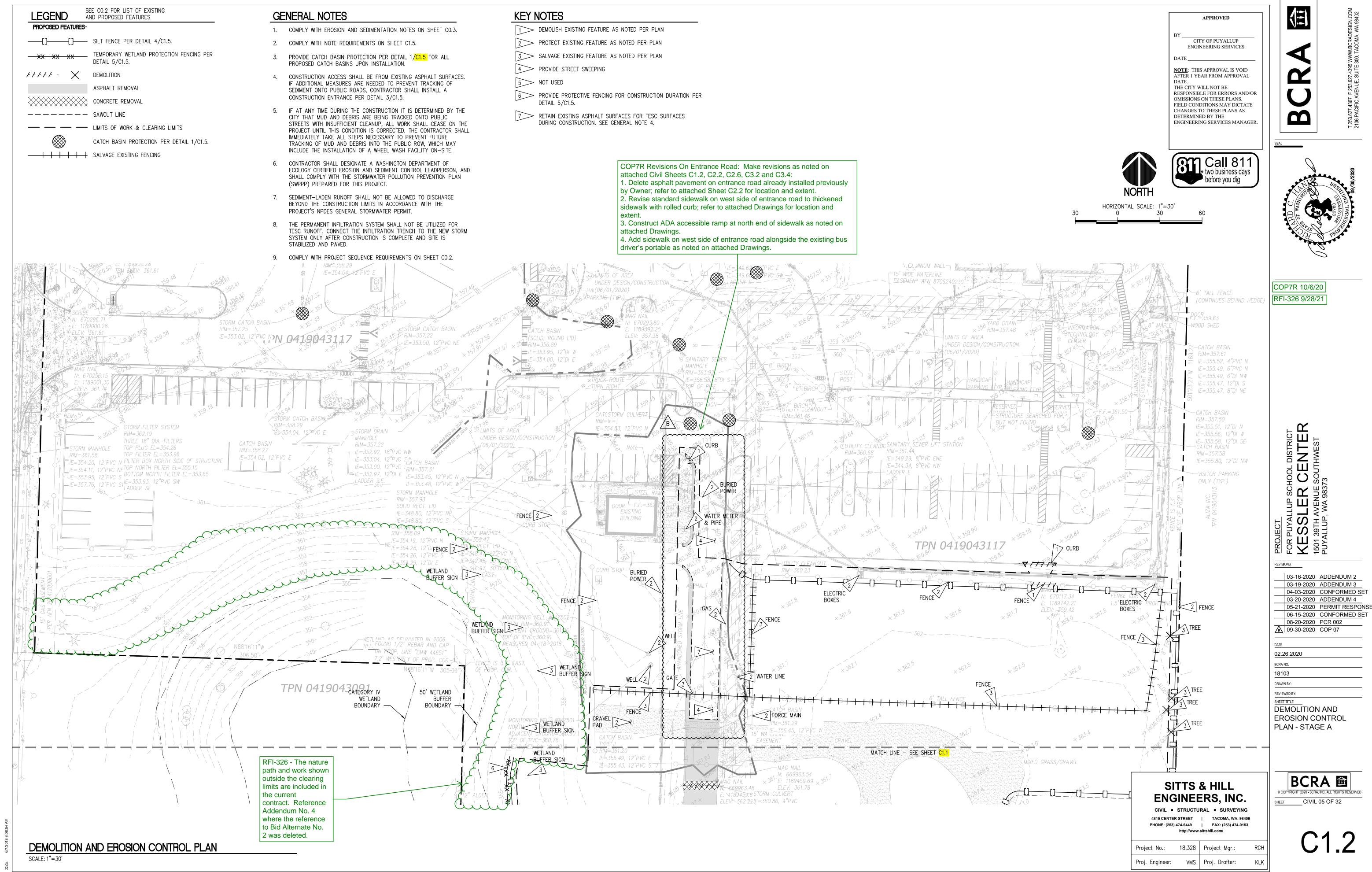
**DEMOLITION AND EROSION CONTROL** PLAN - STAGE A

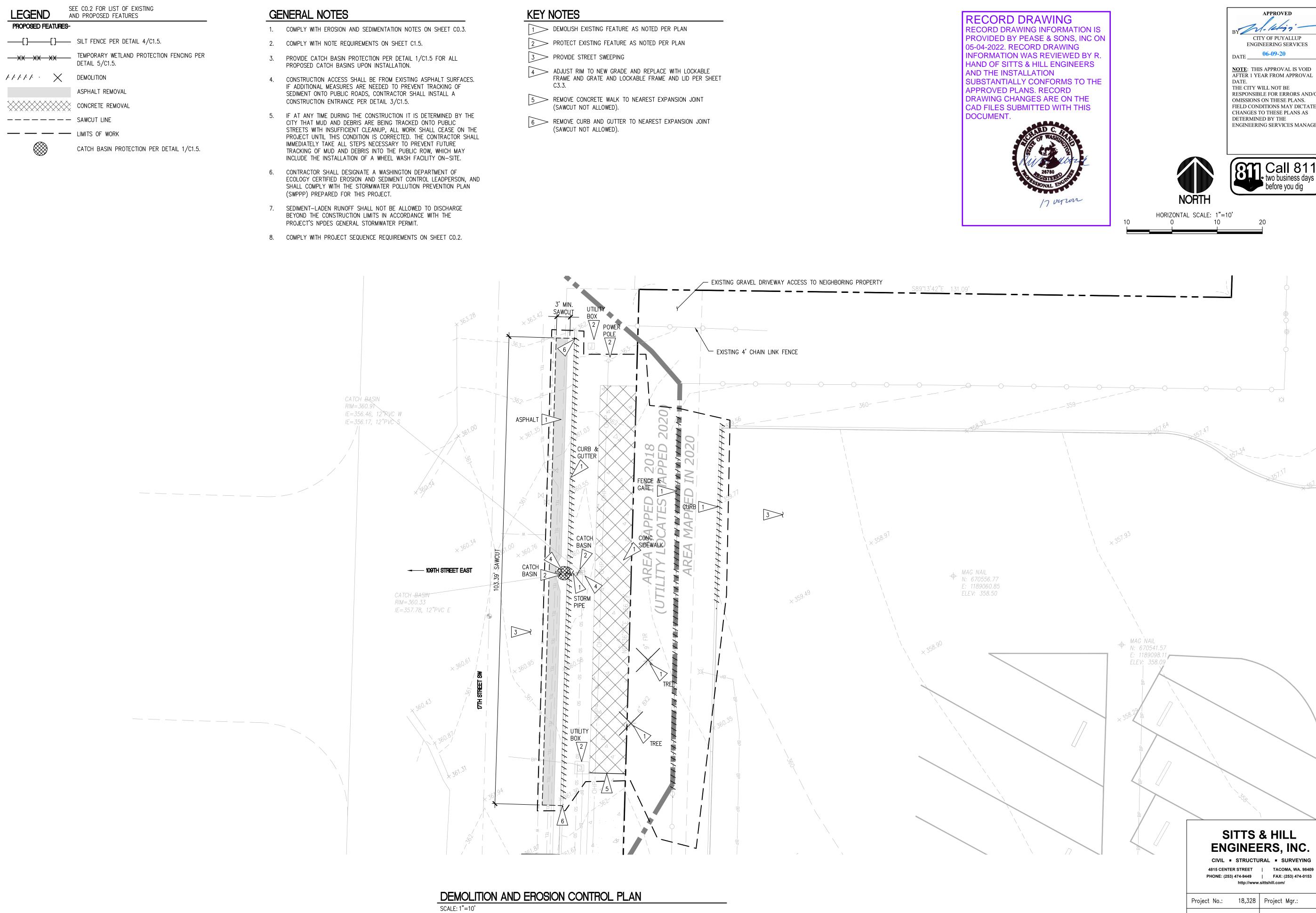
> **PCR 002** E19-0574

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CITY OF PUYALLUP ENGINEERING SERVICES 06-09-20

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02.26.2020

18103 REVIEWED BY:

DEMOLITION AND **EROSION CONTROL** PLAN - STAGE A

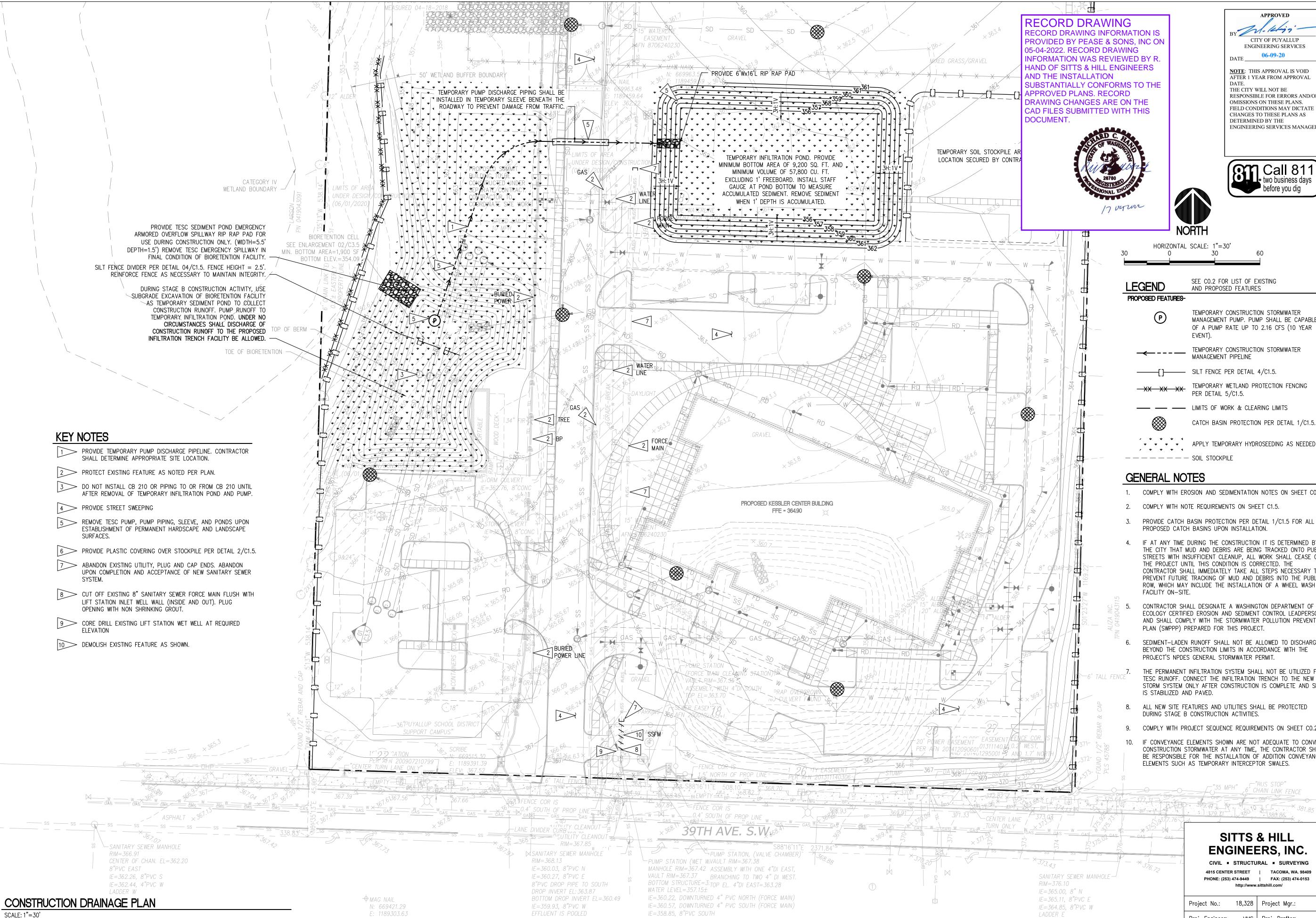
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Proj. Engineer:



IN THE WEST CHANNEL

CITY OF PUYALLUP ENGINEERING SERVICES

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TEMPORARY CONSTRUCTION STORMWATER MANAGEMENT PUMP. PUMP SHALL BE CAPABLE OF A PUMP RATE UP TO 2.16 CFS (10 YEAR

TEMPORARY CONSTRUCTION STORMWATER

SILT FENCE PER DETAIL 4/C1.5.

◆ ◆ ◆ APPLY TEMPORARY HYDROSEEDING AS NEEDED

1. COMPLY WITH EROSION AND SEDIMENTATION NOTES ON SHEET CO.3.

- 2. COMPLY WITH NOTE REQUIREMENTS ON SHEET C1.5.
- PROVIDE CATCH BASIN PROTECTION PER DETAIL 1/C1.5 FOR ALL PROPOSED CATCH BASINS UPON INSTALLATION.
- 4. IF AT ANY TIME DURING THE CONSTRUCTION IT IS DETERMINED BY THE CITY THAT MUD AND DEBRIS ARE BEING TRACKED ONTO PUBLIC STREETS WITH INSUFFICIENT CLEANUP, ALL WORK SHALL CEASE ON THE PROJECT UNTIL THIS CONDITION IS CORRECTED. THE CONTRACTOR SHALL IMMEDIATELY TAKE ALL STEPS NECESSARY TO PREVENT FUTURE TRACKING OF MUD AND DEBRIS INTO THE PUBLIC ROW, WHICH MAY INCLUDE THE INSTALLATION OF A WHEEL WASH
- CONTRACTOR SHALL DESIGNATE A WASHINGTON DEPARTMENT OF ECOLOGY CERTIFIED EROSION AND SEDIMENT CONTROL LEADPERSON, AND SHALL COMPLY WITH THE STORMWATER POLLUTION PREVENTION PLAN (SWPPP) PREPARED FOR THIS PROJECT.
- SEDIMENT-LADEN RUNOFF SHALL NOT BE ALLOWED TO DISCHARGE BEYOND THE CONSTRUCTION LIMITS IN ACCORDANCE WITH THE PROJECT'S NPDES GENERAL STORMWATER PERMIT.
- THE PERMANENT INFILTRATION SYSTEM SHALL NOT BE UTILIZED FOR TESC RUNOFF. CONNECT THE INFILTRATION TRENCH TO THE NEW STORM SYSTEM ONLY AFTER CONSTRUCTION IS COMPLETE AND SITE
- DURING STAGE B CONSTRUCTION ACTIVITIES.
- COMPLY WITH PROJECT SEQUENCE REQUIREMENTS ON SHEET CO.2.
- 10. IF CONVEYANCE ELEMENTS SHOWN ARE NOT ADEQUATE TO CONVEY CONSTRUCTION STORMWATER AT ANY TIME, THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE INSTALLATION OF ADDITION CONVEYANCE ELEMENTS SUCH AS TEMPORARY INTERCEPTOR SWALES.

# PLAN - STAGE B

**DEMOLITION AND** 

**EROSION CONTROL** 

02.26.2020

BCRA NO.

18103

DRAWN BY: REVIEWED BY:

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03-19-2020 ADDENDUM 3 03-31-2020 CITY RESUBMITTAL

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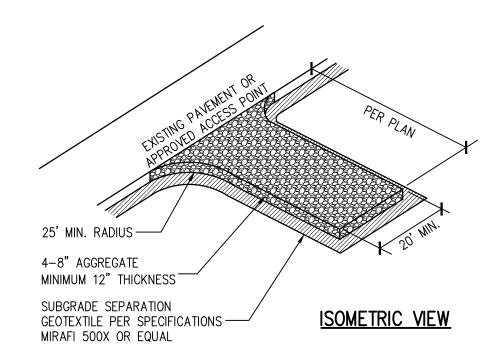
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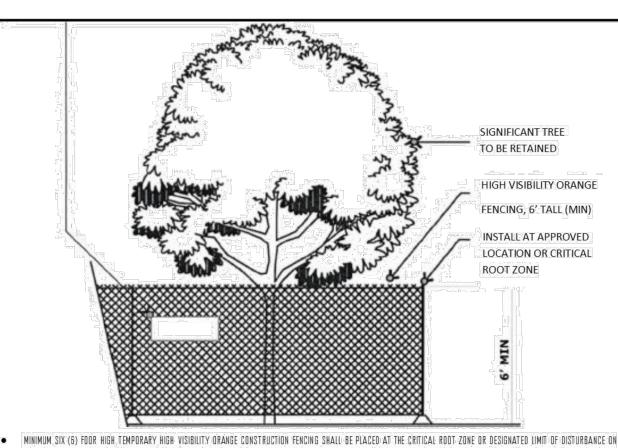
Proj. Engineer:



**\ CONSTRUCTION ENTRANCE** 

TREE PROTECTION ZONE (TPZ)

NO ENTRY. NO GRADE CHANGES, STORAGE/STOCKPILING OF MATERIALS OR EQUIPMENT, PLACEMENT OF FILL OR TOP SOIL, TRENCI ING OR VEHICULAR/FOOT TRAFFIC PERMITTED WITHIN THE TPZ. THIS TREE BARRIER SHALL NOT BE REMOVED WITHOUT AUTHORIZA TION FROM PUYALLUP PLANNING DEPARMENT SUBJECT TO FINES AND ENFORCEMENT ACTION BY THE CITY TO REPORT VIOLATIONS OR FOR MORE INFORMATION—CALL (253) 864.4165



APPROVED FINAL LANDSCAPE PLAN SET: FENCING SHALL BE INSTALLED USING POSTS DRIVEN INTO GROUND-PIER BLOCKS SHALL NOT BE USED. AVOID POSTS DRIVEN INTO ROOTS LARGER THAN I" DIAMETER! FENCING SHALL-BE INSTALLED PRIOR TO WORK COMMENCING ON SITE AND REMAIN IN PLACE THROUGHOUT ALL PHASES ON CONSTRUCTION — CALL THE CITY'S PLANNING DIVISION WITH REQUESTS TO MODIFY THE LOCATION OF THE TREE PROTECTION FENCING (253) 864-4165 TREATMENT OF ROOTS EXPOSED DURING CONSTRUCTION: FOR ROOTS OVER ONE (I) INCH DIAMETER DAMAGED DURING CONSTRUCTION, MAKE A CLEAN STRAIGHT CUT TO REMOVE DAMAGED PORTION OF ROOT. ALLIEXPOSED ROOTS SHALL BE TEMPORARILY COVERED WITH DAMP BURLAP TO PREVENT DRYING AND COVERED WITH SOIL AS SOON AS POSSIBLE. OTHER PRE-TREATMENT

MEASURES MAY BE REQUIRED TO PROTECT ROOT SYSTEM—SEE APPROVED TREE PROTECTION OR FINAL LANDSCAPE PLAN FOR FURTHER DETAILS. NO STOCKPILING OF MATERIALS, VEHICULAR TRAFFIC, PLACEMENT OF TOP SOIL-OR FILL MATERIALS STORAGE OF EQUIPMENT OR MACHINERY SHALL BE ALLOWED WITHIN THE LLIMITS OF THE

ESTABLISHED FENCING. FENCING SHALL NOT BE MOVED OR REMOVED UNLESS APPROVED BY THE CITY PLANNING DIVISION, WORK WHITIN PROTECTION FENCE SHALL BE DONE MANUALLY UNDER

THE SUPERVISION OF THE ON-SITE CARBORIST WITH PRIOR WRITTEN APPROVAL BY THE CITY PLANNING DIVISION. THE ABOVE REFERENCED TPZ SIGNS SHALL BE PLACED EVERY IS FEET ALONG THE FENCING AND SHALL REMAIN! IN PLACE THROUGHOUT ALL PHASES OF CONSTRUCTION.



TREE AND WETLAND PROTECTION

## - 2"x2"x3' WOODEN STAKE COVERING — STAKE AND SAND BAG (TYP.) 'OVERLAP - ALL SEAMS TO BE TAPED OR WEIGHTED DOWN 1' OVERLAP WITH SAND BAGS AT 10' CENTERS ALONG THE SEAM SECTION A-A ISOMETRIC VIEW OVERLAP DETAIL

YPLASTIC COVERING DETAIL

STAPLE OR WIRE RINGS-

FILTER FABRIC MATERIAL-

MIRAFI 100x OR EQUAL

(TYPICAL)

2"x4" DOUG. FIR AT 4' O.C.

6"x6" TRENCH

GA. W.W.F.

OR EQUAL —

(IF REQUIRED)

FILTER FABRIC—

2"x4" DOUG. FIR

MATERIAL 2"x2"x14

OVERLAP

2"x2"x14 GA. WELDED -

WIRE FABRIC\_OR EQUAL

TYPICAL CROSS-SECTION

**ELEVATION** 

1. PLACE 1' OF 3/4" - 1-1/2" WASHED

FENCE TO CREATE A BEVEL SHAPE.

ROCK OR PEA-GRAVEL ON BOTH SIDES OF

FABRIC SHALL COVER BOTTOM OF 6"x6"

OF THE GRAVEL IN ORDER TO MAINTAIN

AN EXCESS OVERLAP OF 2" MINIMUM AS

SHOWN IN TYPICAL CROSS-SECTION.

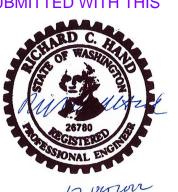
TRENCH AND EXTEND BEYOND THE LIMITS

## PLASTIC COVERING NOTES

ESTABLISHED.

- PLASTIC SHEETING SHALL HAVE A MINIMUM THICKN MEET THE REQUIREMENTS OF THE STATE STANDAR HAND OF SITTS & HILL ENGINEERS
- COVERING SHALL BE INSTALLED AND MAINTAINED SANDBAGS OR TIRES ON ROPES WITH A MAXIMUM DIRECTIONS. ALL SEAMS SHALL BE TAPED OR WEIG
- CLEAR PLASTIC COVERING SHALL BE INSTALLED IM BETWEEN NOVEMBER 1 AND MARCH 31 AND REMAI
- WHEN THE COVERING IS USED ON UN-SEEDED SLO PLACE UNTIL THE NEXT SEEDING PERIOD.
- PLASTIC COVERING SHEETS SHALL BE BURIED TWO IN ORDER TO PREVENT SURFACE WATER FLOW BEN PROPER MAINTENANCE INCLUDES REGULAR CHECKS

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(811 81)

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CITY OF PUYALLUP

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ENGINEERING SERVICES MANAGER

THE CITY WILL NOT BE

DETERMINED BY THE

ENGINEERING SERVICES

# SILT FENCE NOTES

- FILTER FABRIC SHALL BE PURCHASED IN A CONTINUOUS ROLL AND CUT TO THE LENGTH OF THE BARRIER TO AVOID USE OF JOINTS. WHEN JOINTS ARE NECESSARY, FILTER CLOTH SHALL BE SPLICED TOGETHER ONLY AT A SUPPORT POST WITH A MINIMUM 6 INCH OVERLAP, AND SECURELY FASTENED AT BOTH ENDS TO POSTS.
- POSTS SHALL BE SPACED A MAXIMUM OF 6 FEET APART AND DRIVEN SECURELY INTO THE GROUND (MINIMUM OF 30 INCHES).
- A TRENCH SHALL BE EXCAVATED APPROXIMATELY 8 INCHES WIDE AND 12 INCHES DEEP ALONG THE LINE OF POSTS AND UPSLOPE FROM THE BARRIER. THIS TRENCH SHALL BE BACKFILLED WITH WASHED GRAVEL.
- WHEN STANDARD STRENGTH FILTER FABRIC IS USED, A WIRE MESH SUPPORT FENCE SHALL BE FASTENED SECURELY TO THE UPSLOPE SIDE OF THE POSTS USING HEAVY-DUTY WIRE STAPLES AT LEAST 1 INCH LONG, TIE WIRES OR HOG RINGS. THE WIRE SHALL EXTEND INTO THE TRENCH A MINIMUM OF 4 INCHES AND SHALL NOT EXTEND MORE THAN 24 INCHES ABOVE THE ORIGINAL GROUND SURFACE.
- THE STANDARD STRENGTH FILTER FABRIC SHALL BE STAPLED OR WIRED TO THE FENCE, AND 20 INCHES OF THE FABRIC SHALL BE EXTENDED INTO THE TRENCH. THE FABRIC SHALL NOT EXTEND MORE THAN 24 INCHES ABOVE THE ORIGINAL GROUND SURFACE. FILTER FABRIC SHALL NOT BE STAPLED TO EXISTING TREES.
- WHEN EXTRA-STRENGTH FILTER FABRIC AND CLOSER POST SPACING IS USED, THE WIRE MESH SUPPORT FENCE MAY BE ELIMINATED. IN SUCH CASE, THE FILTER FABRIC IS STAPLED OR WIRED DIRECTLY TO THE POSTS WITH ALL OTHER PROVISION OF ABOVE NOTES APPLYING.
- FILTER FABRIC FENCES SHALL NOT BE REMOVED BEFORE THE UPSLOPE AREA HAS BEEN PERMANENTLY STABILIZED.
- FILTER FABRIC FENCES SHALL BE INSPECTED IMMEDIATELY AFTER EACH RAINFALL AND AT LEAST DAILY DURING PROLONGED RAINFALL. ANY REQUIRED REPAIRS SHALL BE MADE IMMEDIATELY.
- SILT FENCES WILL BE INSTALLED PARALLEL TO ANY SLOPE CONTOURS.

#### STOCKPILE NOTES

- STOCKPILES SHALL BE STABILIZED (WITH PLASTIC COVERING OR OTHER APPROVED DEVICE) DAILY BETWEEN NOVEMBER 1 AND MARCH 31.
- 2. IN ANY SEASON, SEDIMENT LEACHING FROM STOCKPILES MUST BE PREVENTED.
- TOPSOIL SHALL NOT BE PLACED WHILE IN A FROZEN OR MUDDY CONDITION, WHEN THE SUBGRADE IS EXCESSIVELY WET OR WHEN CONDITIONS EXIST THAT MAY OTHERWISE BE DETRIMENTAL TO PROPER GRADING OR PROPOSED SODDING OR SEEDING.
- 4. PREVIOUSLY ESTABLISHED GRADES ON THE AREAS TO BE TOPSOILED SHALL BE MAINTAINED ACCORDING TO THE APPROVED PLAN.

#### POLLUTION PREVENTION NOTES

- EQUIPMENT LUBRICATION AND FUELING OPERATIONS SHALL OCCUR AT EXISTING PAVED AREAS.
- PREVENT OILS AND FUELS FROM ENTERING THE STORM DRAINAGE SYSTEM WITH PROPER SPILL PREVENTION. CONTROL AND COUNTERMEASURE POLICIES.
- ACCESS TO CONSTRUCTION IS VIA ADJACENT EXISTING PAVED STREETS. SWEEP DIRT FROM PAVING DAILY OR AS NEEDED. THE INTENT IS TO PREVENT DIRT AND DEBRIS FROM VEHICLES AND EQUIPMENT FROM BEING DEPOSITED ON CITY STREET PAVEMENT. PROTECT EXISTING PERMEABLE PAVEMENTS. USE A REGENERATIVE VACUUM SWEEPER FOR PERMEABLE PAVEMENTS.
- 4. THE PROJECT SHALL COMPLY WITH 2017 DOE CONSTRUCTION STORMWATER, GENERAL PERMIT REQUIREMENTS AND PROJECT STORMWATER POLLUTION PREVENTION PLAN (SWPPP) REQUIREMENTS.

# EROSION CONTROL MAINTENANCE SCHEDULE

- EROSION CONTROL FACILITIES SHALL BE INSPECTED AFTER EACH HEAVY RAINFALL EVENT AND REPAIRED
- ALL VEHICLES AND EQUIPMENT TO BE ROUTED OVER CONSTRUCTION ENTRANCES PRIOR TO LEAVING THE
- DEBRIS TRACKED ONTO THE PAVEMENT SURFACES SHALL BE SWEPT UP PRIOR TO THE END OF EACH WORKING DAY. CARE MUST BE TAKEN TO KEEP DIRT OUT OF DRAINAGE STRUCTURES AND PUBLIC

## INSPECTION, MONITORING, DOCUMENTATION AND REPORTING SCHEDULE

- EROSION AND SEDIMENT CONTROL (ESC) FACILITIES SHALL NOT BE ALLOWED TO FALL INTO DISREPAIR. THE CONTRACTOR'S TESC LEAD SHALL INSPECT ALL PROJECT FACILITIES IN ACCORDANCE W/DOE NPDES
- 2. THE ESC LEAD SHALL IMPLEMENT THE TESC PLAN. IMPLEMENTATION SHALL INCLUDE BUT IS NOT LIMITED TO: INSTALLING, MAINTAINING, INSPECTING MONITORING, DOCUMENTING, REPORTING AND REPAIRING ALL TEMPORARY EROSION AND SEDIMENT CONTROL BEST MANAGEMENT PRACTICES INCLUDED IN THE PLAN. SEDIMENT CONTROL MEASURES SHALL BE INSPECTED AT LEAST ONCE EVERY FIVE WORKING DAYS, EACH WORKING DAY DURING A RUNOFF PRODUCING RAIN EVENT, AND WITHIN 24 HOURS AFTER A RUNOFF PRODUCING RAIN EVENT. ALL PROJECT CONSTRUCTION STORMWATER DISCHARGES SHALL COMPLY W/DOE

- OR REVISED FOR IMPROVED EFFECTIVENESS AS NECESSARY.

- CONSTRUCTION STORMWATER POLLUTION REQUIREMENTS.
- DISCHARGE REQUIREMENTS.

### SITTS & HILL **ENGINEERS, INC.**

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SHEET CIVIL 08 OF 32

**EROSION CONTROL** 

REVISIONS

02.26.2020

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DETAILS

03-16-2020 ADDENDUM 2

03-19-2020 ADDENDUM 3

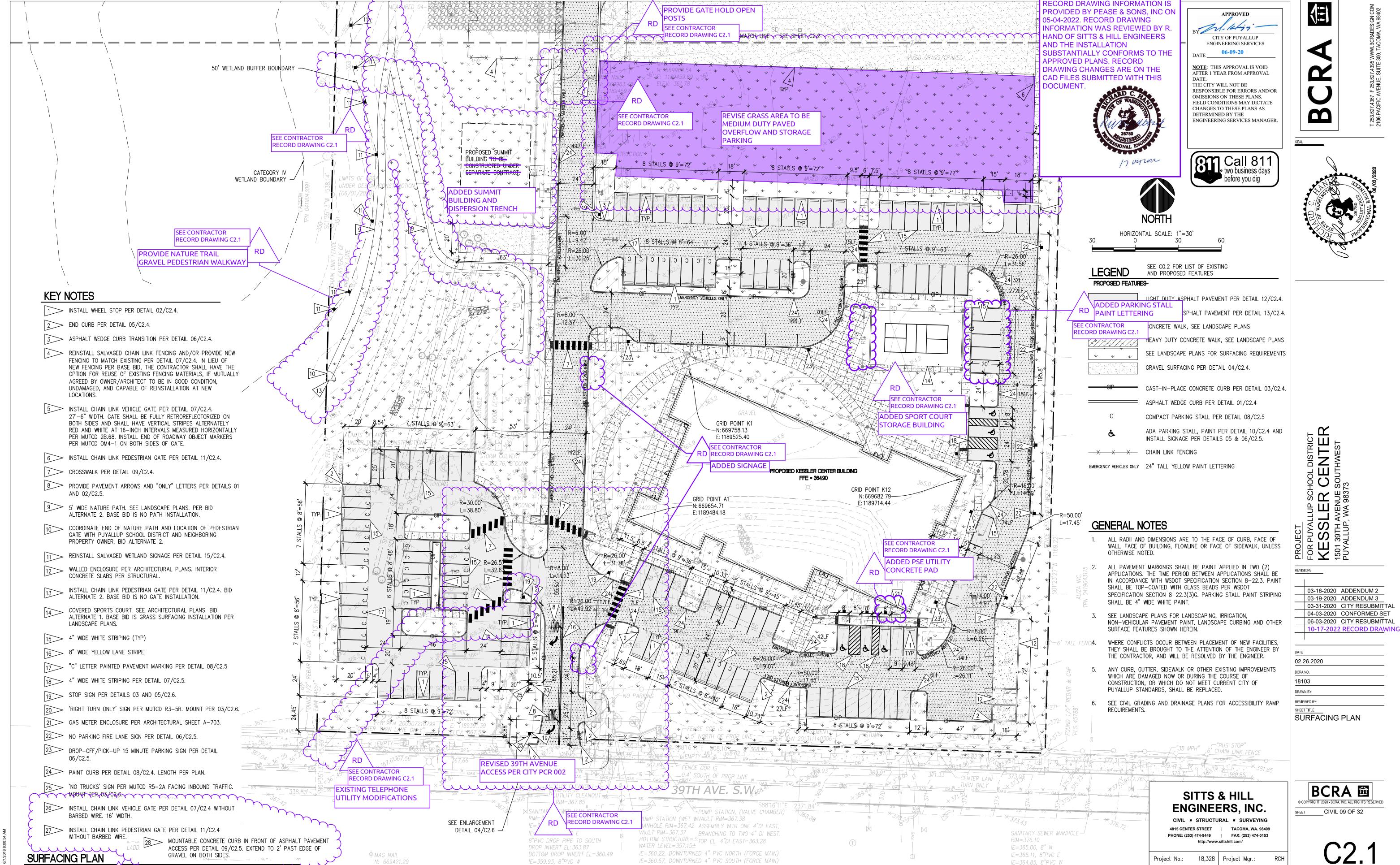
03-31-2020 CITY RESUBMITTAL

06-03-2020 CITY RESUBMITTAL

10-17-2022 RECORD DRAWINGS

04-03-2020 CONFORMED SET

CITY RESUBMITTAL



IE=358.85, 8"PVC SOUTH

IN THE WEST CHANNEL

SCALE: 1"=30'

ADDED FLAG NOTES 26-28

SEE CONTRACTOR

**ECORD DRAWING C2.1** 

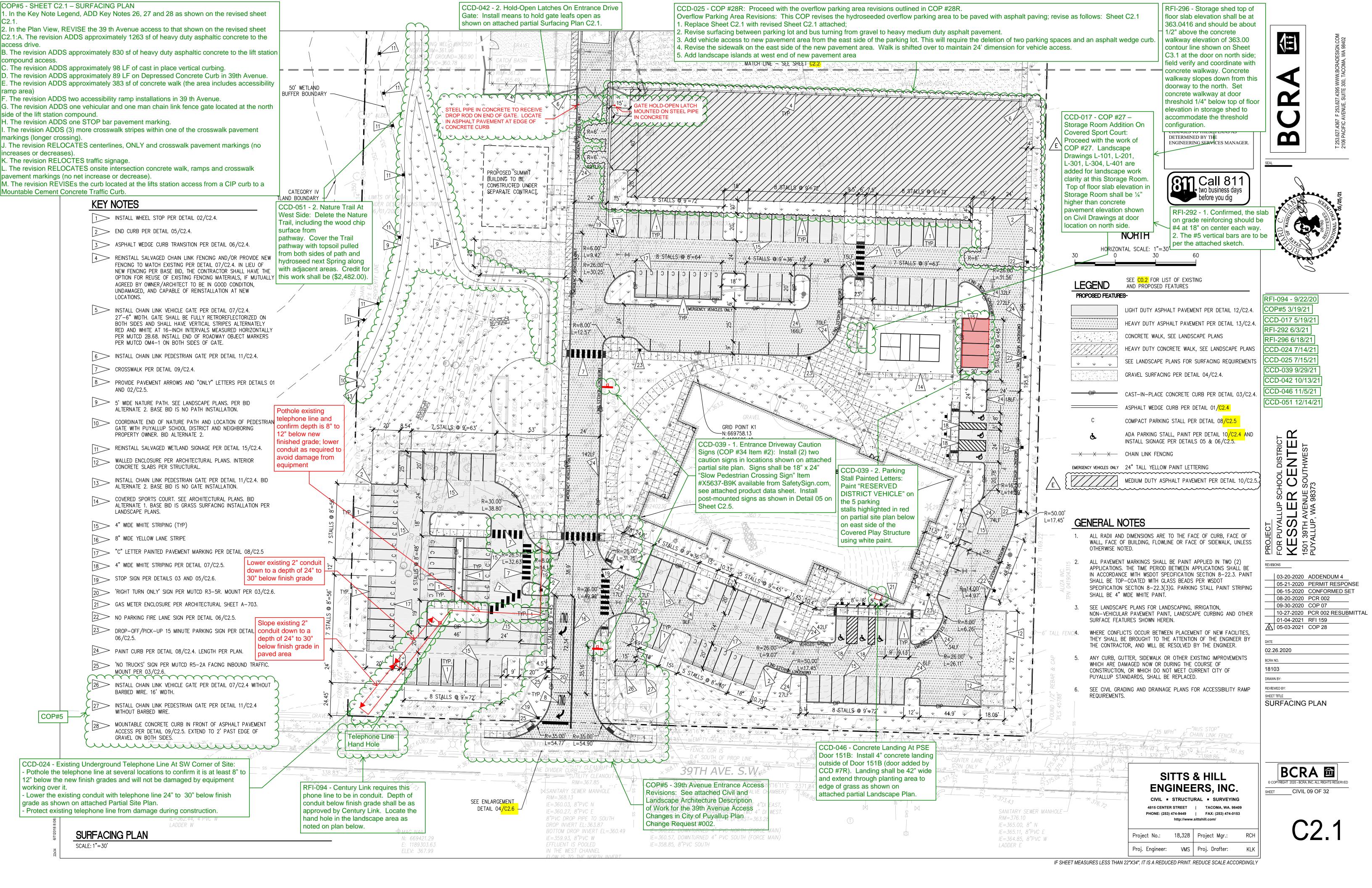
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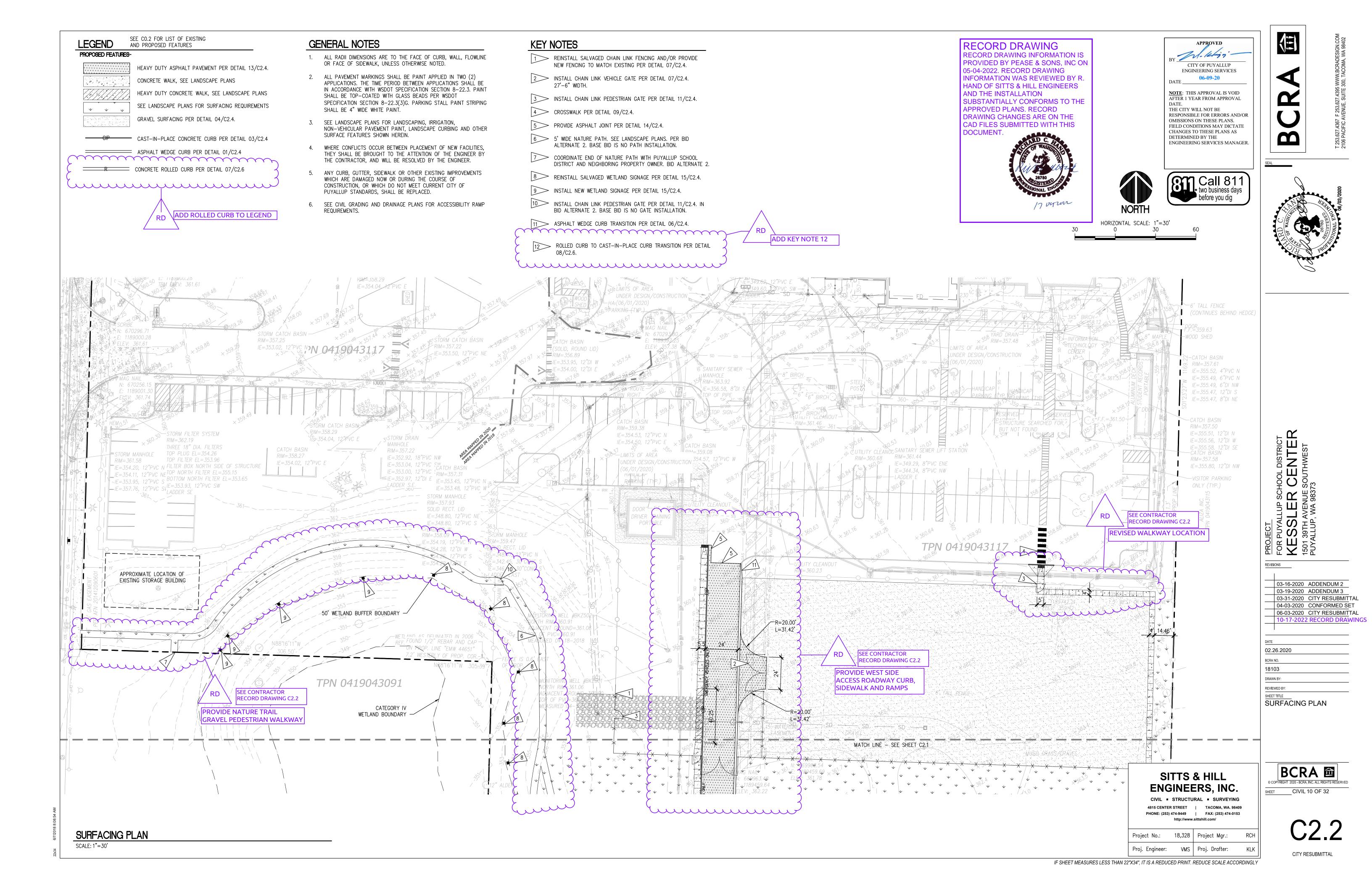
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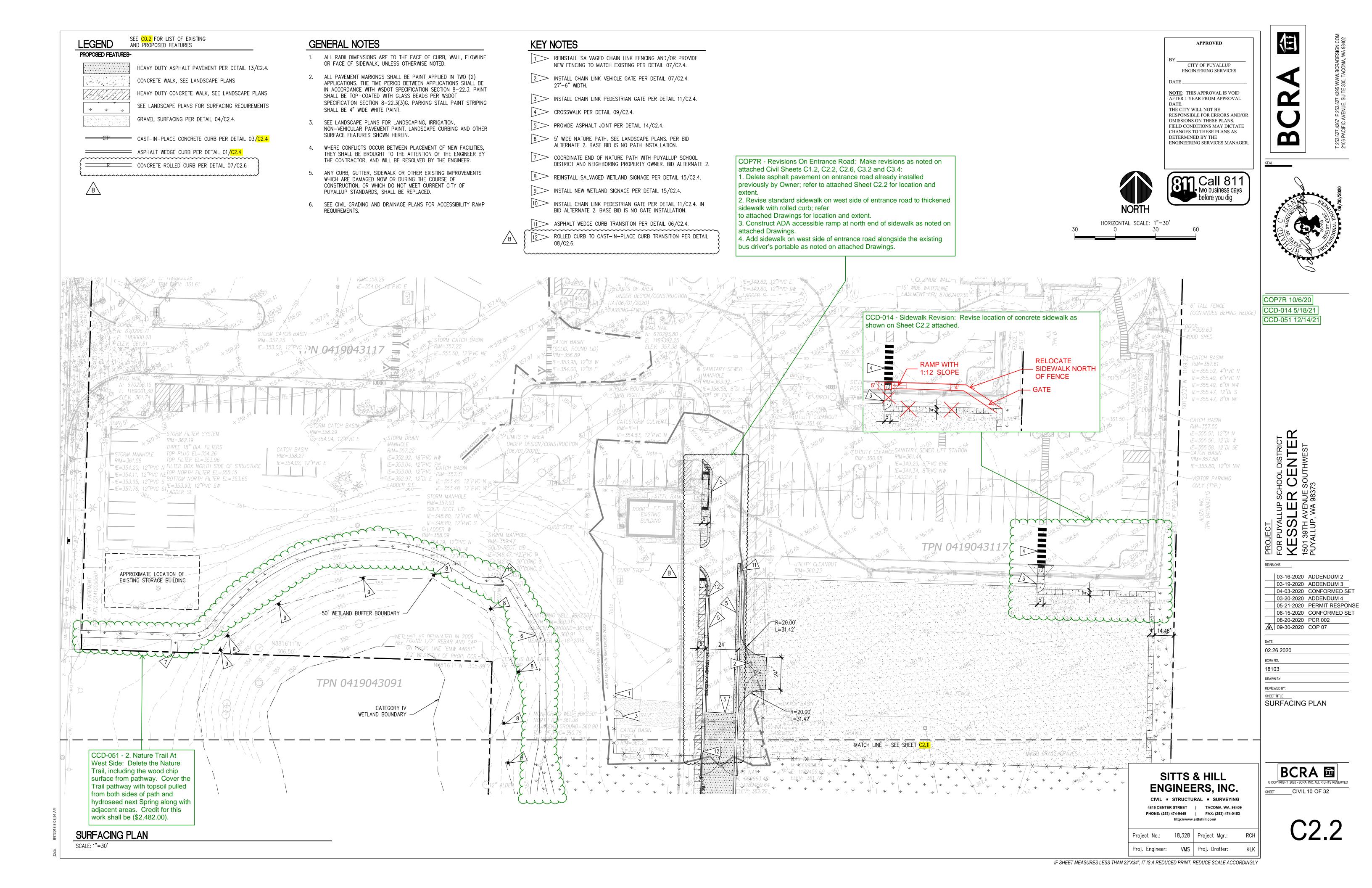
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RECORD DRAWING







X X CHAIN LINK FENCING

HEAVY DUTY ASPHALT PAVEMENT PER DETAIL 13/C2.4. CONCRETE WALK PER DETAIL 03/C2.5. LANDSCAPING, SEE LANDSCAPE PLANS

CURB AND GUTTER PER DETAIL 04/C2.5.

# GENERAL NOTES

- 1. ALL RADII DIMENSIONS ARE TO THE FACE OF CURB, WALL, FLOWLINE OR FACE OF SIDEWALK, UNLESS OTHERWISE NOTED.
- 2. ALL PAVEMENT MARKINGS SHALL BE PAINT APPLIED IN TWO (2) APPLICATIONS. THE TIME PERIOD BETWEEN APPLICATIONS SHALL BE IN ACCORDANCE WITH WSDOT SPECIFICATION SECTION 8-22.3. PAINT SHALL BE TOP-COATED WITH GLASS BEADS PER WSDOT SPECIFICATION SECTION 8-22.3(3)G. PARKING STALL PAINT STRIPING SHALL BE 4" WIDE WHITE PAINT.
- 3. SEE LANDSCAPE PLANS FOR LANDSCAPING, IRRIGATION, NON-VEHICULAR PAVEMENT PAINT, LANDSCAPE CURBING AND OTHER SURFACE FEATURES SHOWN HEREIN.
- 4. WHERE CONFLICTS OCCUR BETWEEN PLACEMENT OF NEW FACILITIES, THEY SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER BY THE CONTRACTOR, AND WILL BE RESOLVED BY THE ENGINEER.
- 5. SIDEWALK RAMPS SHALL CONFORM TO DETAIL 02/C2.3.
- ANY CURB, GUTTER, SIDEWALK OR OTHER EXISTING IMPROVEMENTS WHICH ARE DAMAGED NOW OR DURING THE COURSE OF CONSTRUCTION, OR WHICH DO NOT MEET CURRENT CITY OF PUYALLUP STANDARDS, SHALL BE REPLACED.

#### **KEY NOTES**

- 1 INSTALL SLIDING HIGH SECURITY VEHICLE GATE. 42' WIDTH. SEE SPECS. GATE SHALL BE FULLY RETROREFLECTORIZED ON BOTH SIDES AND SHALL HAVE VERTICAL STRIPES ALTERNATELY RED AND WHITE AT 16-INCH INTERVALS MEASURED HORIZONTALLY. INSTALL END OF ROADWAY OBJECT MARKERS PER MUTCD OM4-1 ON BOTH SIDES OF GATE.
- 2 PROVIDE ASPHALT JOINT PER DETAIL 14/C2.4.
- 3 CROSS GUTTER PER DETAIL 01 & 02/C2.3.
- 4 PROVIDE TYPE III BARRICADE PER DETAIL 02/C2.6.
- 5 NEW FENCING AS REQUIRED FOR NEW VEHICLE GATE. SEE SPECS.
- 6 PROVIDE GATE RAIL IN CONCRETE PAD. PAD TO BE 12" WIDE X 8" DEEP, REINFORCED WITH TWO #5 BARS.

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CITY OF PUYALLUP

ENGINEERING SERVICES

06-09-20

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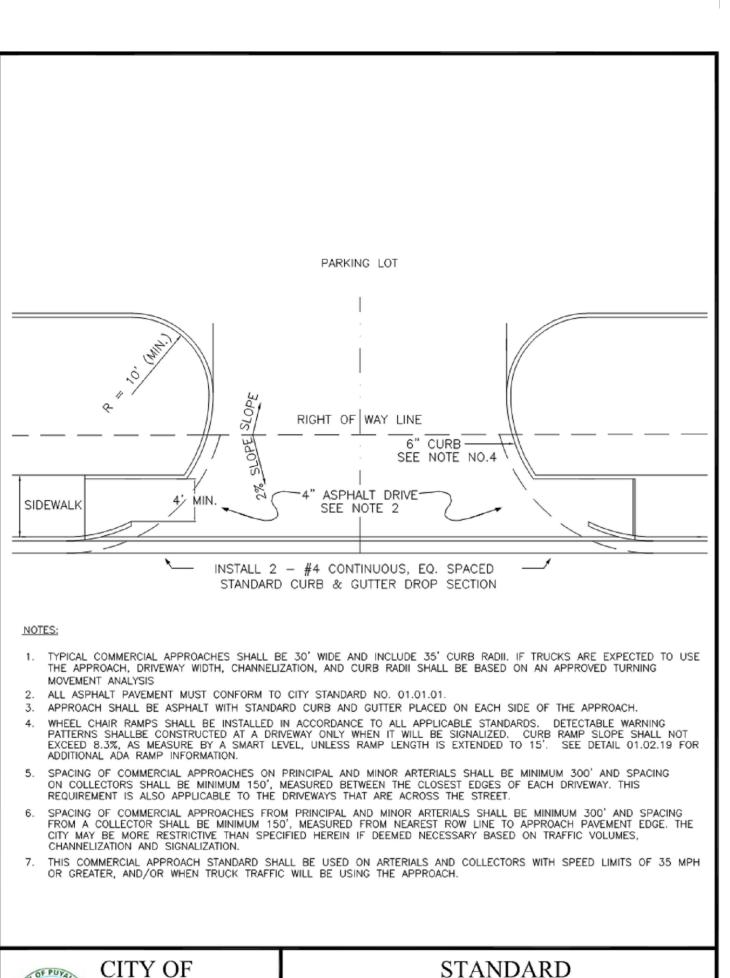
THE CITY WILL NOT BE

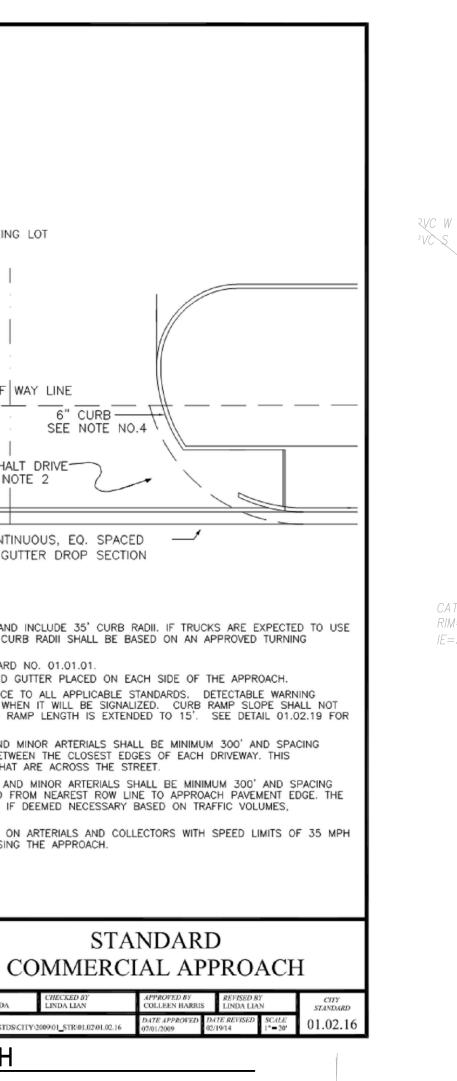
DETERMINED BY THE

DATE

811 Call 811 two business days two business days

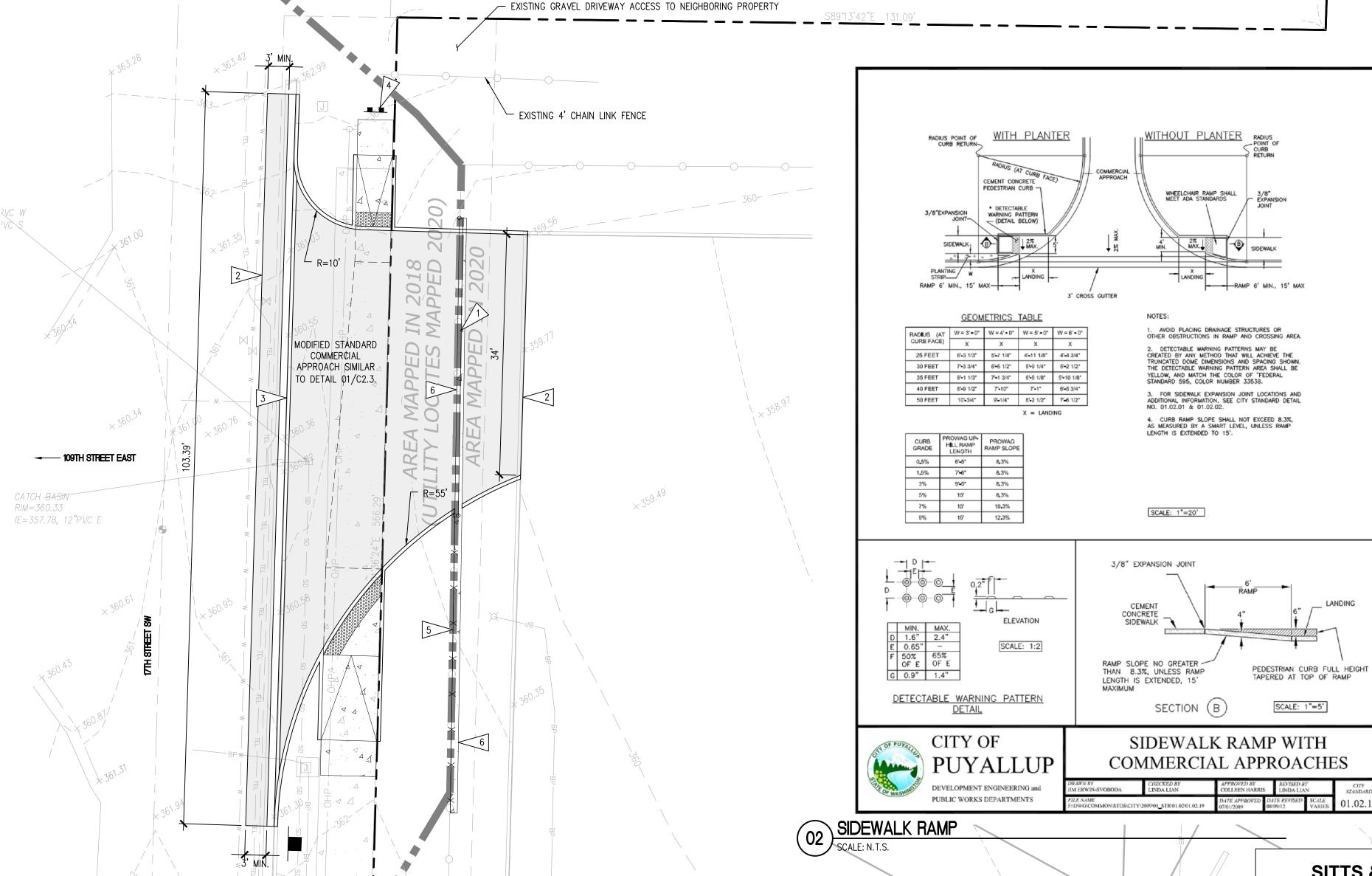
HORIZONTAL SCALE: 1"=10'





SURFACING PLAN

SCALE: 1"=10'



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4815 CENTER STREET | TACOMA, WA. 98409

IF SHEET MEASURES LESS THAN 22"X34", IT IS A REDUCED PRINT. REDUCE SCALE ACCORDINGLY

SCALE: 1"=5'

DEVELOPMENT ENGINEERING and PUBLIC WORKS DEPARTMENTS

STANDARD COMMERCIAL APPROACH
SCALE: N.T.S.

SHEET CIVIL 11 OF 32

SURFACING PLAN

REVISIONS

02.26.2020

18103

DRAWN BY:

REVIEWED BY:

03-16-2020 ADDENDUM 2

03-19-2020 ADDENDUM 3

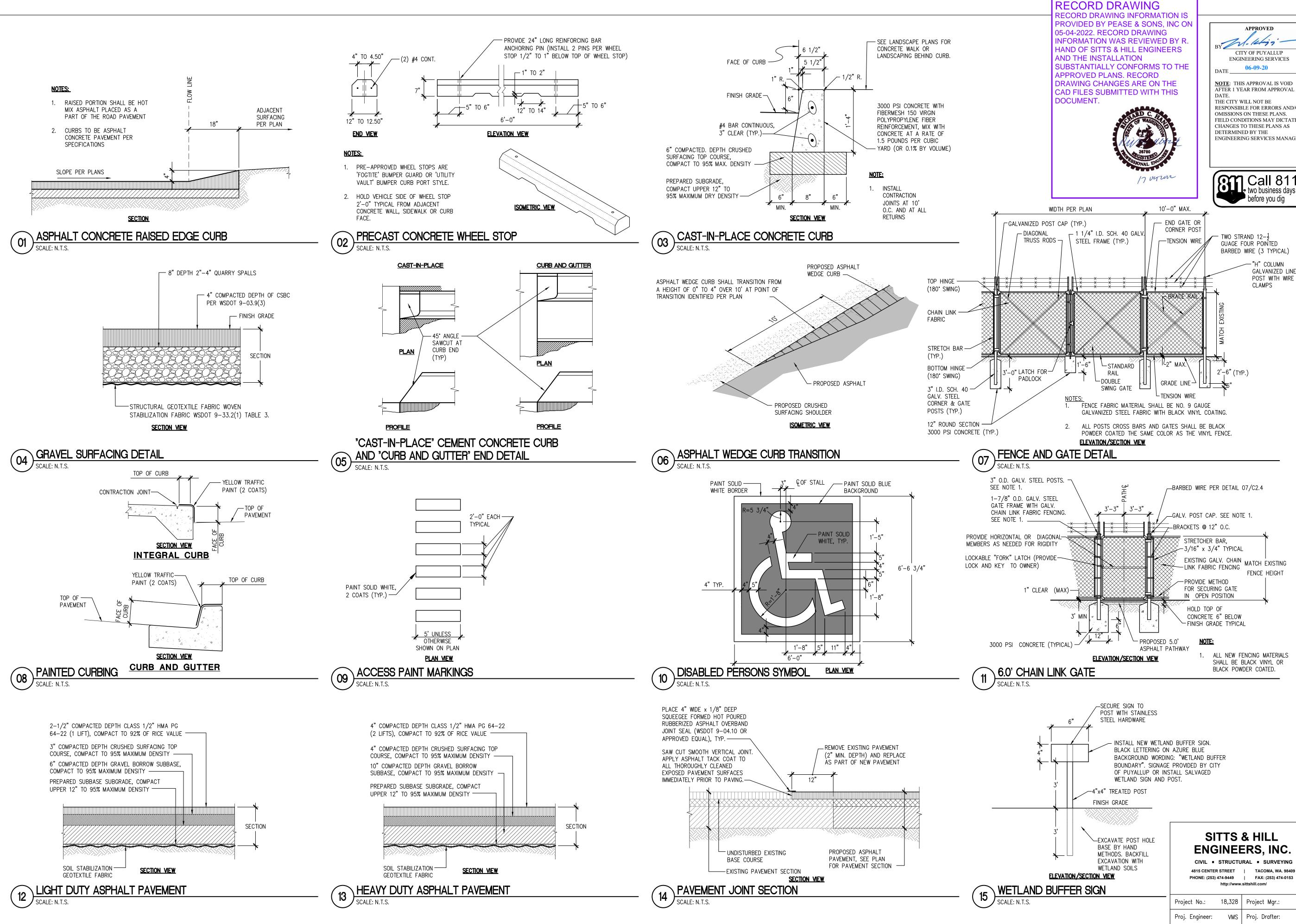
03-31-2020 CITY RESUBMITTAL

04-03-2020 CONFORMED SET

06-03-2020 CITY RESUBMITTAL

CITY RESUBMITTAL

BCRA 圙



APPROVED

CITY OF PUYALLUP

06-09-20

**NOTE**: THIS APPROVAL IS VOID

AFTER 1 YEAR FROM APPROVAL

RESPONSIBLE FOR ERRORS AND/OR

FIELD CONDITIONS MAY DICTATE

ENGINEERING SERVICES MANAGER.

Call 811

two business days

"H" COLUMN

GALVANIZED LINE

POST WITH WIRE

CLAMPS

FENCE HEIGHT

ALL NEW FENCING MATERIALS

SHALL BE BLACK VINYL OR

BLACK POWDER COATED.

http://www.sittshill.com/

18,328 | Project Mgr.:

Proj. Drafter:

before you dig

CHANGES TO THESE PLANS AS

OMISSIONS ON THESE PLANS.

THE CITY WILL NOT BE

DETERMINED BY THE

- TWO STRAND 12-⅓

GUAGE FOUR POINTED BARBED WIRE (3 TYPICAL)

ENGINEERING SERVICES

PROJECT
FOR PUYALLUP (
KESSLE!
1501 39TH AVENI
PUYALLUP, WA 9

REVISIONS 03-16-2020 ADDENDUM 2 03-19-2020 ADDENDUM 3 03-31-2020 CITY RESUBMITTAL 04-03-2020 CONFORMED SET 06-03-2020 CITY RESUBMITTAL 10-17-2022 RECORD DRAWING

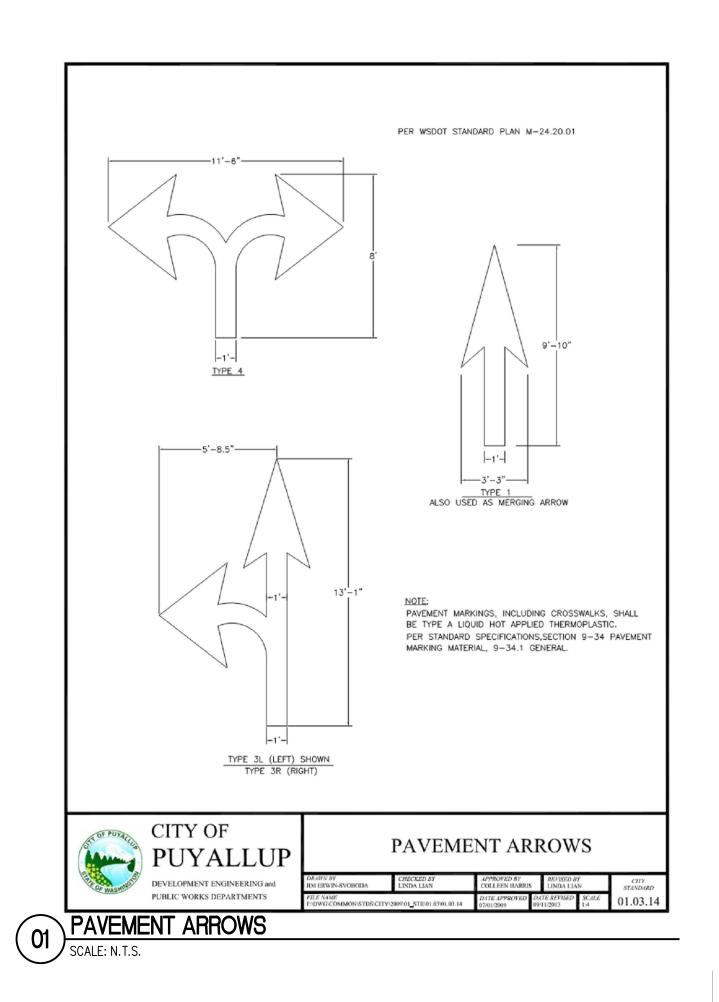
02.26.2020

18103 DRAWN BY REVIEWED BY:

SURFACING DETAILS

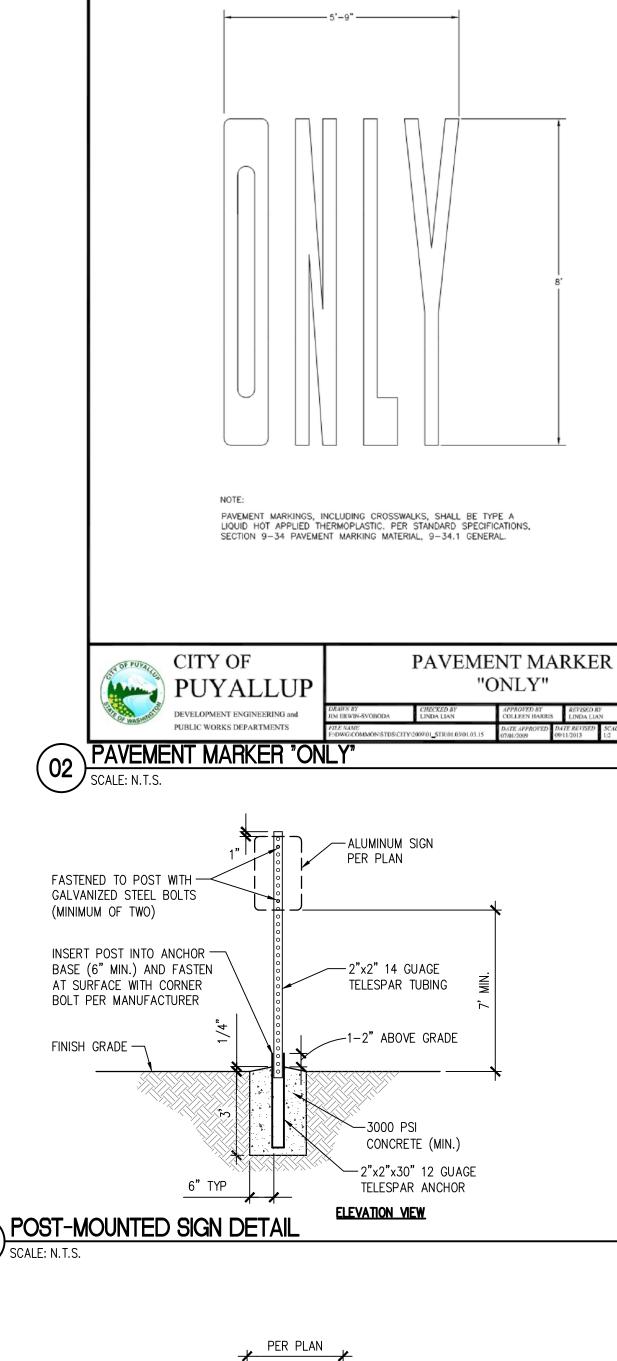
BCRA 圙 SHEET CIVIL 12 OF 32

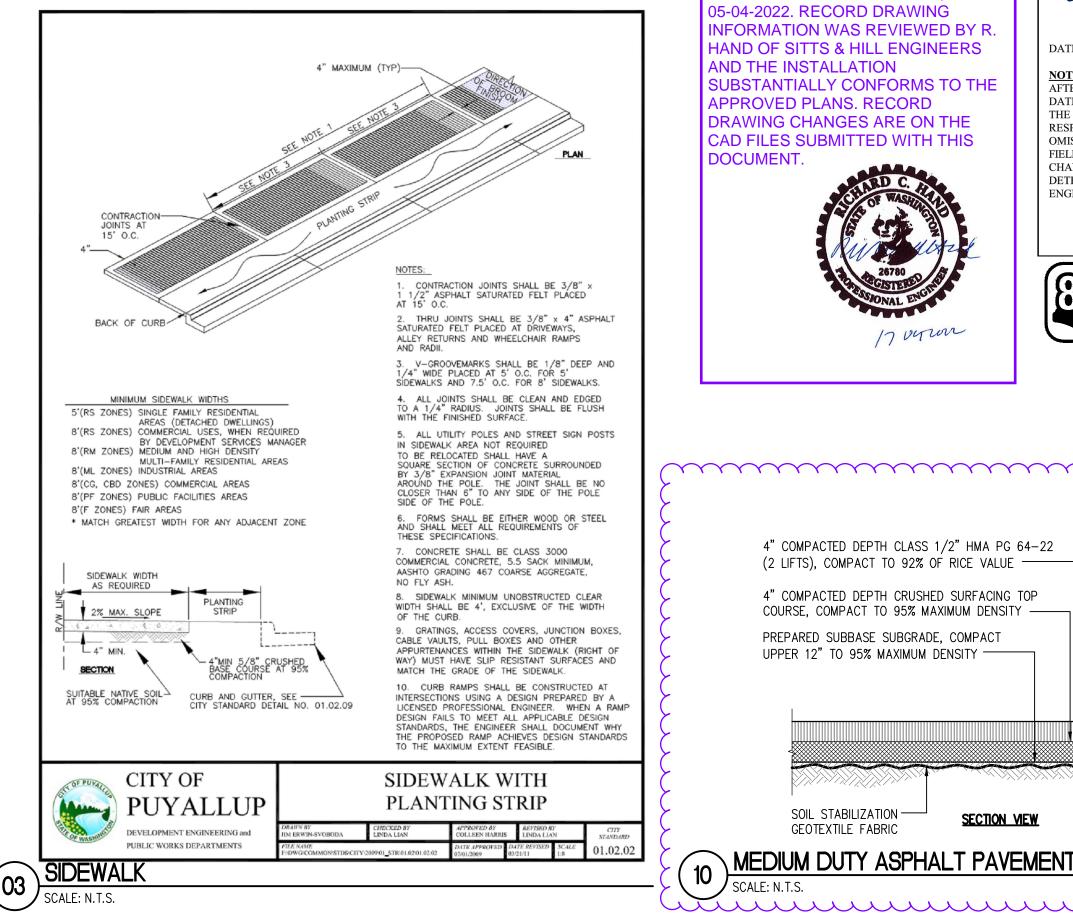
CITY RESUBMITTAL

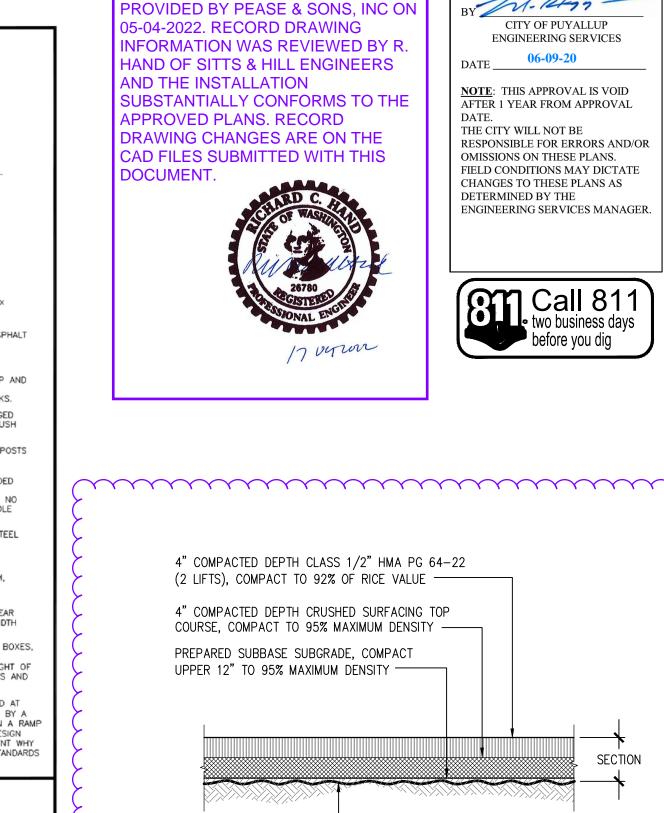


17 1/2" — 1/2" R COMPACTED AT 95% SUITABLE NATIVE SOIL COMPACTED AT 95% 1. CONTRACTION JOINTS SHALL BE 3/8" x 2 1/4" ASPHALT SATURATED FELT PLACED IN ALL EXPOSED SURFACES OF CURB AND GUTTER AND SPACED AT 15' MAX. 10' MIN. O.C. THRU JOINTS SHALL BE 3/8" ASPHALT SATURATED FELT PLACED AT POINTS OF TANGENCY ON CURVES, AT CATCH BASINS, AND AT EDGES OF ALLEY AND DRIVEWAYS. THE MAXIMUM DISTANCE BETWEEN THRU JOINTS SHALL BE 100'. 3. CONCRETE SHALL BE CLASS 3000 COMMERCIAL CONCRETE, 5.5 SACK MINIMUM, AASHTO GRADING 467 COARSE AGGREGATE, NO FLY ASH. 4. FORMS SHALL BE STEEL UNLESS PRIOR APPROVAL IS GIVEN BY THE CITY ENGINEER. FORMS SHALL BE SET TRUE TO LINE AND GRADE AND SECURELY STAKED PRIOR TO CONCRETE PLACEMENT. FULL DEPTH DIVISION PLATES ARE ONLY TO BE USED WHERE THRU JOINTS ARE TO BE PLACED. 5. THE 1" RADIUS ON THE UPPER FACE OF THE CURB MAY BE FORMED BY AN EDGER TOOL OR BUILT INTO THE FACE FORM. THE 1" RADIUS AT THE BOTTOM FACE OF THE CURB SHALL BE FORMED BY THE FACE FORM.

**CURB AND GUTTER** 



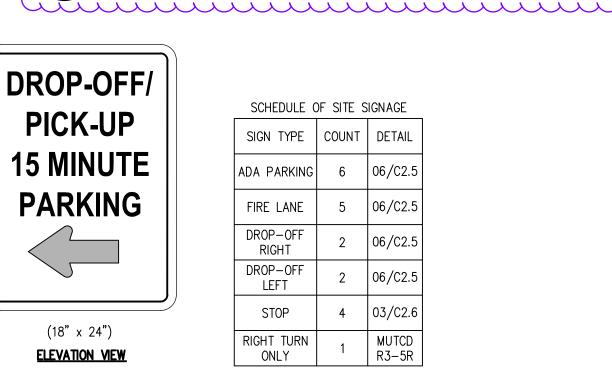




APPROVED

**RECORD DRAWING** 

RECORD DRAWING INFORMATION IS



SECTION VIEW

SOIL STABILIZATION -

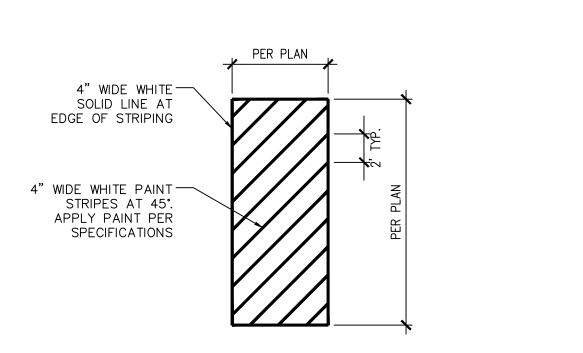
GEOTEXTILE FABRIC

 $\overline{\phantom{a}}$ 1. ALL SIGNS AND STRIPING SHALL BE INSTALLED PER WSDOT STANDARD PLANS AND MUTCD. SEE SITE SURFACING AND LAYOUT PLANS FOR SIGN LOCATIONS. VERIFY LOCATION WITH ARCHITECT PRIOR TO INSTALLATION. ALL SIGNS TO BE WHITE BACKGROUND WITH BLACK LEGEND, UNLESS OTHERWISE NOTED. 4. MOUNT EACH SIGN TO POST PER DETAIL 05/C2.5.

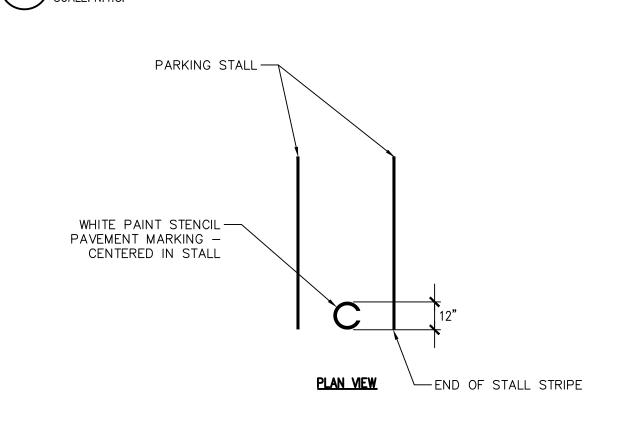
MOUNTABLE CEMENT

SCALE: N.T.S.

CONCRETE TRAFFIC CURB



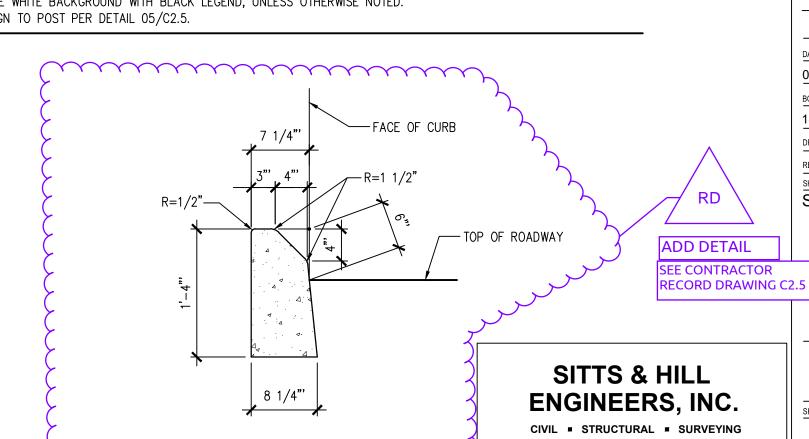
ADA LOADING/UNLOADING STRIPING



O8 COMPACT PARKING STALL PAVEMENT MARKING SCALE: N.T.S.

**ELEVATION VIEW** 

SIGN DETAILS



4815 CENTER STREET | TACOMA, WA. 98409 PHONE: (253) 474-9449 | FAX: (253) 474-0153 http://www.sittshill.com/

Project No.:

CURB AND GUTTER

CITY OF

**PUYALLUP** 

IF SHEET MEASURES LESS THAN 22"X34", IT IS A REDUCED PRINT. REDUCE SCALE ACCORDINGLY

RESERVED PARKING DROP-OFF/ **PARKING** 15 MINUTE SYMBOL **FIRE PARKING** STATE DISABLED PARKING PERMIT REQUIRED (18" x 24") — AT VAN STALL **ACCESSIBLE ELEVATION VIEW** 

(18" x 24") **ELEVATION VIEW** 

(18" x 24") **ELEVATION VIEW** 

REVISIONS 03-16-2020 ADDENDUM 2 03-19-2020 ADDENDUM 3 03-31-2020 CITY RESUBMITTAL

04-03-2020 CONFORMED SET 06-03-2020 CITY RESUBMITTAL 02.26.2020

RD

ADD DETAIL

DISTRICT

SEE CONTRACTOR

RECORD DRAWING C2.5

DRAWN BY: REVIEWED BY:

SURFACING DETAILS

18103

BCRA 圙

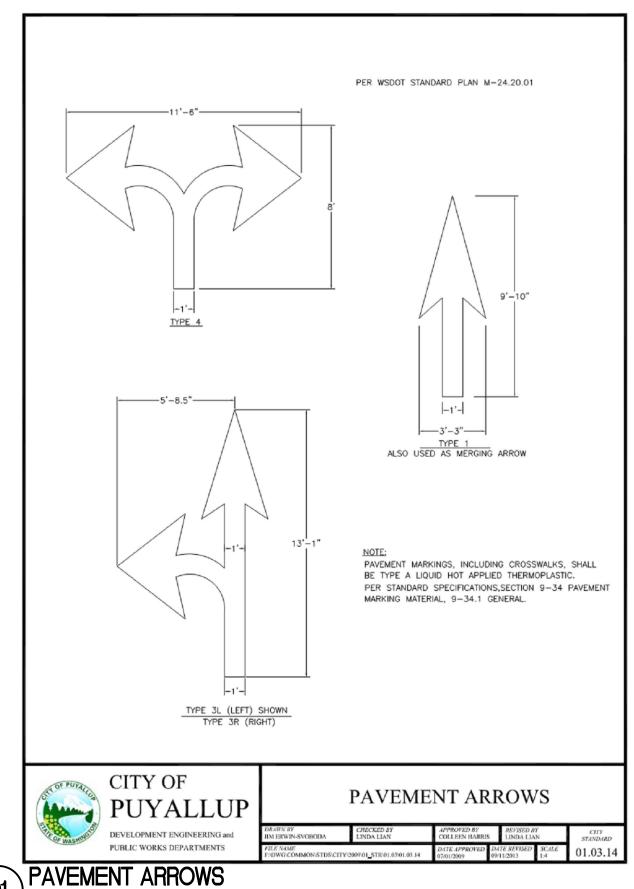
SHEET CIVIL 13 OF 32

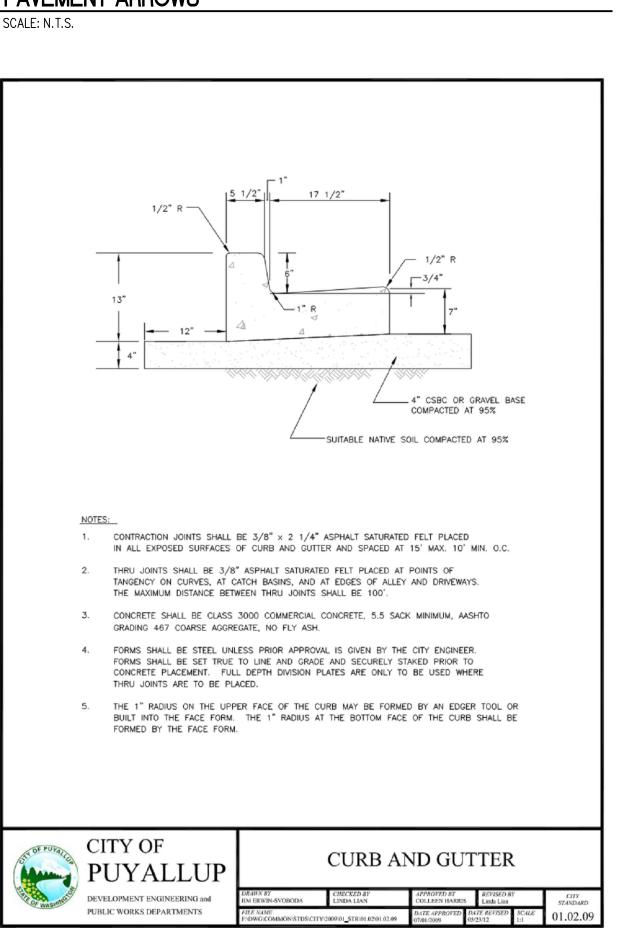
CITY RESUBMITTAL

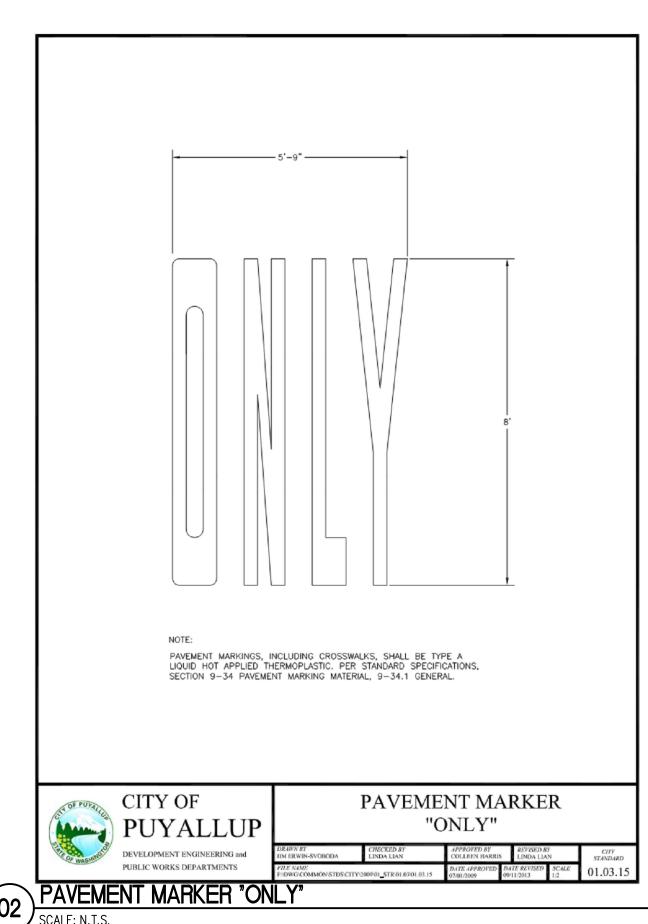
minimum

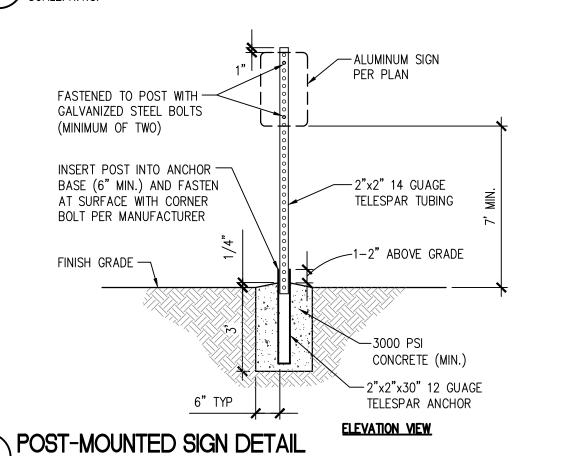
Proj. Engineer: Proj. Drafter:

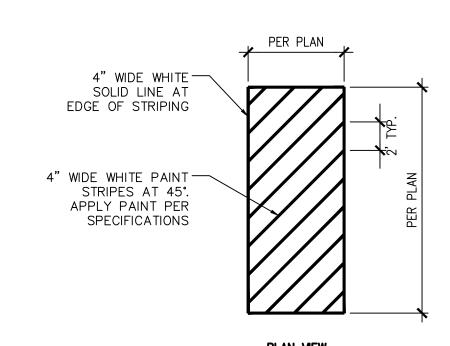
18,328 | Project Mgr.:







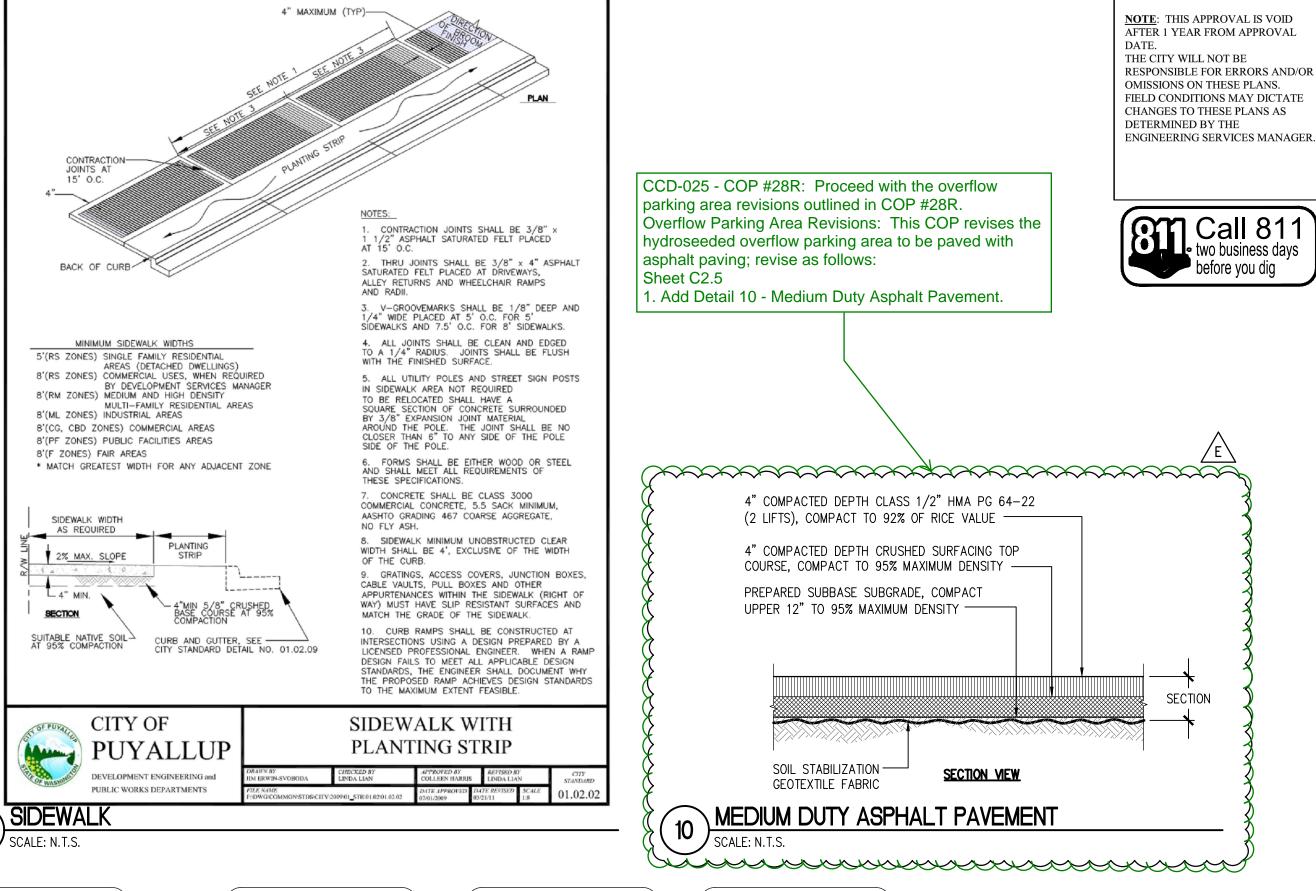


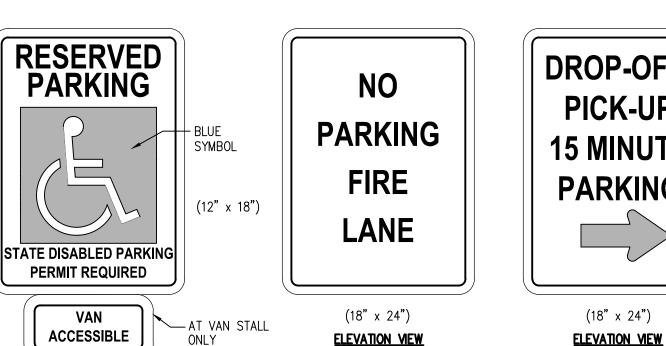


ADA LOADING/UNLOADING STRIPING

4" MAXIMUM (TYP)-1. CONTRACTION JOINTS SHALL BE  $3/8^{\prime\prime}$  x 1  $1/2^{\prime\prime}$  ASPHALT SATURATED FELT PLACED AT 15' O.C. 2. THRU JOINTS SHALL BE 3/8" x 4" ASPHALT SATURATED FELT PLACED AT DRIVEWAYS, ALLEY RETURNS AND WHEELCHAIR RAMPS 3. V-GROOVEMARKS SHALL BE 1/8" DEEP AND 1/4" WIDE PLACED AT 5' O.C. FOR 5' SIDEWALKS AND 7.5' O.C. FOR 8' SIDEWALKS. 4. ALL JOINTS SHALL BE CLEAN AND EDGED TO A  $1/4^{\prime\prime}$  RADIUS. JOINTS SHALL BE FLUSH WITH THE FINISHED SURFACE. MINIMUM SIDEWALK WIDTHS 5'(RS ZONES) SINGLE FAMILY RESIDENTIAL AREAS (DETACHED DWELLINGS) 8'(RS ZONES) COMMERCIAL USES, WHEN REQUIRED BY DEVELOPMENT SERVICES MANAGER 8'(RM ZONES) MEDIUM AND HIGH DENSITY 5. ALL UTILITY POLES AND STREET SIGN POSTS IN SIDEWALK AREA NOT REQUIRED

TO BE RELOCATED SHALL HAVE A
SQUARE SECTION OF CONCRETE SURROUNDED
BY 3/8" EXPANSION JOINT MATERIAL
AROUND THE POLE. THE JOINT SHALL BE NO
CLOSER THAN 6" TO ANY SIDE OF THE POLE
SIDE OF THE POLE MULTI-FAMILY RESIDENTIAL AREAS 8'(ML ZONES) INDUSTRIAL AREAS 8'(CG, CBD ZONES) COMMERCIAL AREAS 8'(PF ZONES) PUBLIC FACILITIES AREAS SIDE OF THE POLE. 8'(F ZONES) FAIR AREAS 6. FORMS SHALL BE EITHER WOOD OR STEEL AND SHALL MEET ALL REQUIREMENTS OF \* MATCH GREATEST WIDTH FOR ANY ADJACENT ZONE THESE SPECIFICATIONS. 7. CONCRETE SHALL BE CLASS 3000 COMMERCIAL CONCRETE, 5.5 SACK MINIMUM, AASHTO GRADING 467 COARSE AGGREGATE, SIDEWALK WIDTH 8. SIDEWALK MINIMUM UNOBSTRUCTED CLEAR WIDTH SHALL BE 4', EXCLUSIVE OF THE WIDTH OF THE CURB. 9. GRATINGS, ACCESS COVERS, JUNCTION BOXES, CABLE VAULTS, PULL BOXES AND OTHER APPURTENANCES WITHIN THE SIDEWALK (RIGHT OF WAY) MUST HAVE SLIP RESISTANT SURFACES AND SECTION MATCH THE GRADE OF THE SIDEWALK. O. CURB RAMPS SHALL BE CONSTRUCTED AT INTERSECTIONS USING A DESIGN PREPARED BY A LICENSED PROFESSIONAL ENGINEER. WHEN A RAMP DESIGN FAILS TO MEET ALL APPLICABLE DESIGN STANDARDS, THE ENGINEER SHALL DOCUMENT WHY THE PROPOSED RAMP ACHIEVES DESIGN STANDARDS TO THE MAXIMUM EXTENT FEASIBLE. CITY OF SIDEWALK WITH **PUYALLUP** PLANTING STRIP DEVELOPMENT ENGINEERING and PUBLIC WORKS DEPARTMENTS





PERMIT REQUIRED **ACCESSIBLE ELEVATION VIEW** 

**ELEVATION VIEW** 

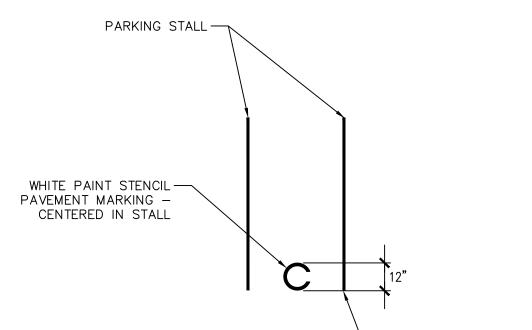
SIGN DETAILS

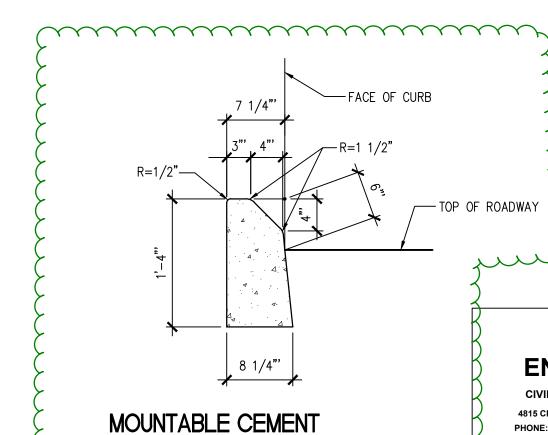
DROP-OFF/ DROP-OFF/ PICK-UP 15 MINUTE **PARKING** 

(18" x 24") **ELEVATION VIEW** 

SCHEDULE OF SITE SIGNAGE PICK-UP SIGN TYPE | COUNT | DETAIL 15 MINUTE ADA PARKING 06/C2.5 **PARKING** FIRE LANE 06/C2.5 DROP-OFF 06/C2.5 RIGHT DROP-OFF 06/C2.5 LEFT STOP RIGHT TURN MUTCD ONLY R3-5R

1. ALL SIGNS AND STRIPING SHALL BE INSTALLED PER WSDOT STANDARD PLANS AND MUTCD. SEE SITE SURFACING AND LAYOUT PLANS FOR SIGN LOCATIONS. VERIFY LOCATION WITH ARCHITECT PRIOR TO INSTALLATION. ALL SIGNS TO BE WHITE BACKGROUND WITH BLACK LEGEND, UNLESS OTHERWISE NOTED. 4. MOUNT EACH SIGN TO POST PER DETAIL 05/C2.5.





COP#5 - 39th Avenue Entrance Access Revisions: See attached Civil and Landscape Architecture Description of Work for the 39th Avenue Access Changes in City of Puyallup Plan Change Request #002. SHEET C2.5 -SURFACING DETAILS 1. ADD Detail 09 -Mountable Cement Concrete Traffic Curb as shown on the revised sheet C2.5.

APPROVED

CITY OF PUYALLUP ENGINEERING SERVICES

4815 CENTER STREET | TACOMA, WA. 98409 PHONE: (253) 474-9449 | FAX: (253) 474-0153 http://www.sittshill.com/

18,328 | Project Mgr.: Proj. Drafter:

SITTS & HILL **ENGINEERS, INC.** CIVIL - STRUCTURAL - SURVEYING

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O8 COMPACT PARKING STALL PAVEMENT MARKING SCALE: N.T.S.

IF SHEET MEASURES LESS THAN 22"X34", IT IS A REDUCED PRINT. REDUCE SCALE ACCORDINGLY

Proj. Engineer:

Project No.:

CURB AND GUTTER

-END OF STALL STRIPE

MOUNTABLE CEMENT CONCRETE TRAFFIC CURB

SHEET CIVIL 13 OF 32

COP#5 3/19/21

CCD-025 7/15/21

REVISIONS

02.26.2020

BCRA NO.

18103

REVIEWED BY:

03-20-2020 ADDENDUM 4

08-20-2020 PCR 002

09-30-2020 COP 07

01-04-2021 RFI 159

SURFACING DETAILS

**PCR 002** 

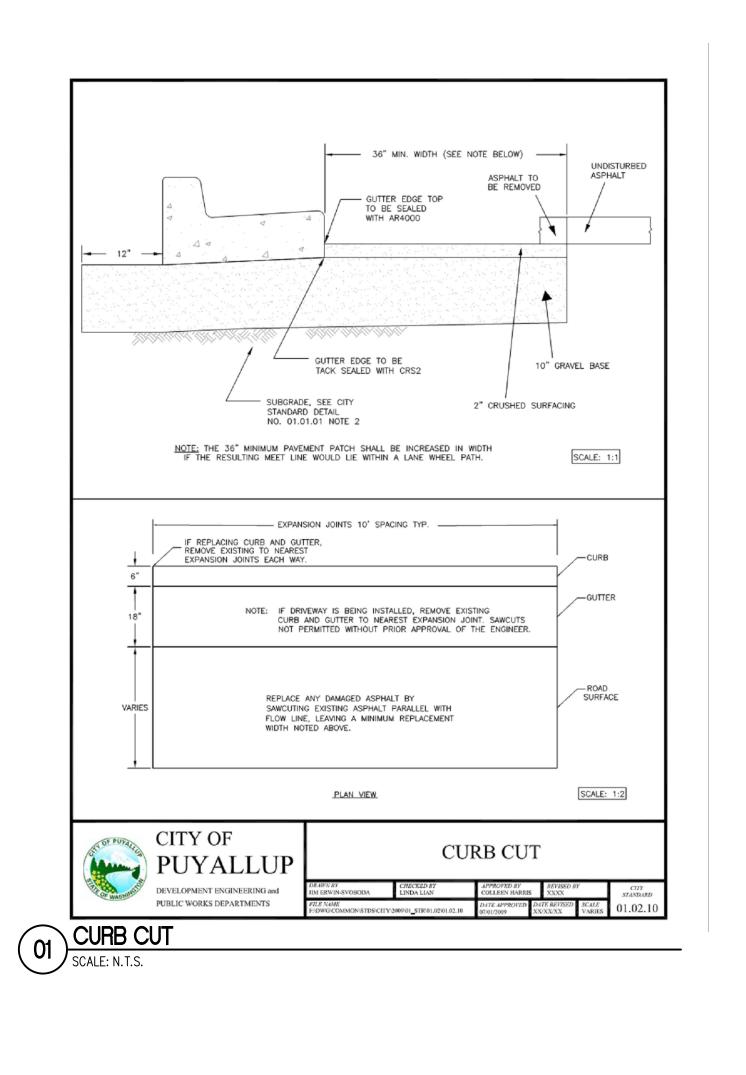
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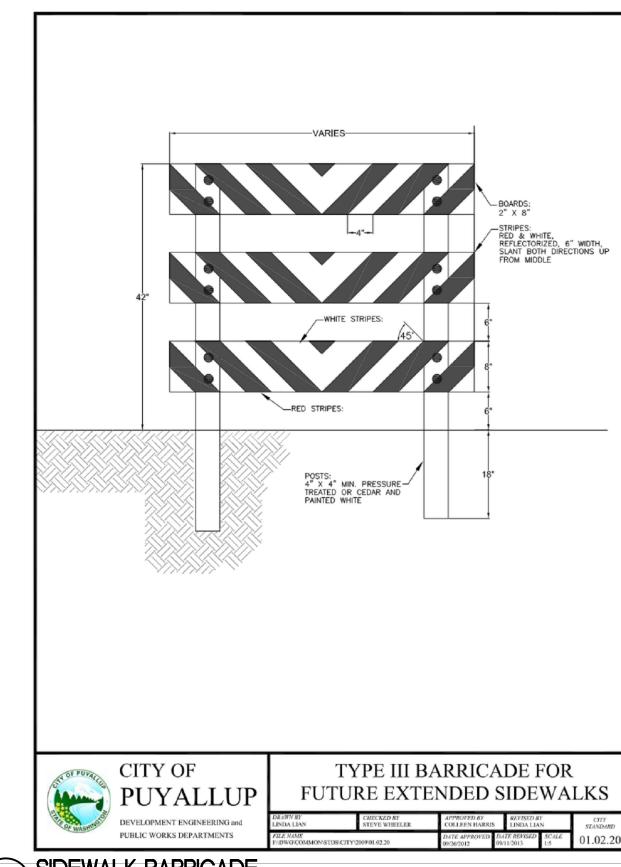
€ 05-03-2021 COP 28

05-21-2020 PERMIT RESPONSE

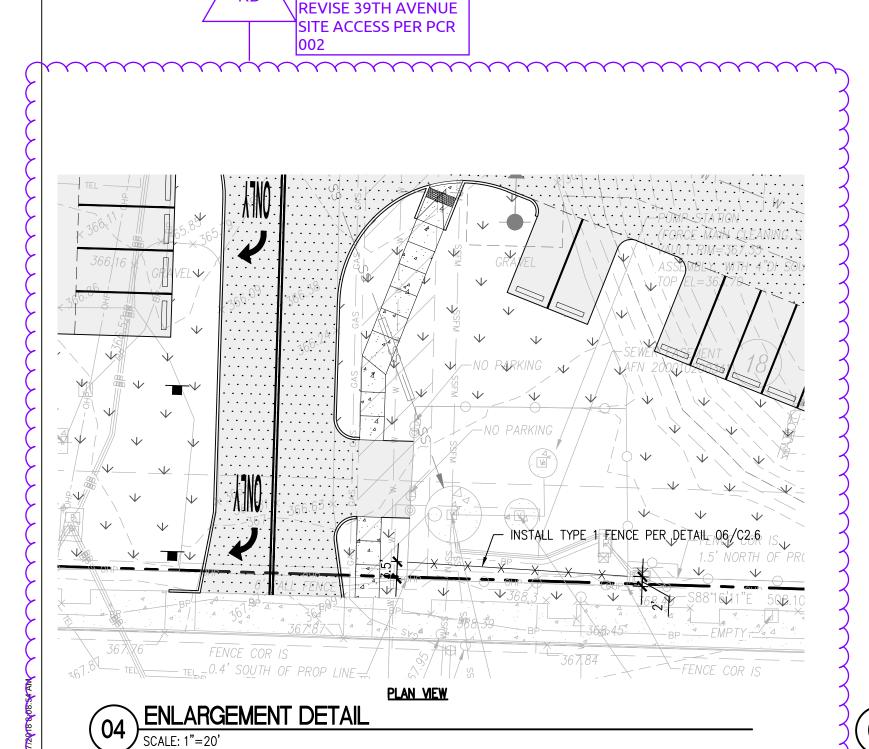
10-27-2020 PCR 002 RESUBMITTAL

06-15-2020 CONFORMED SET

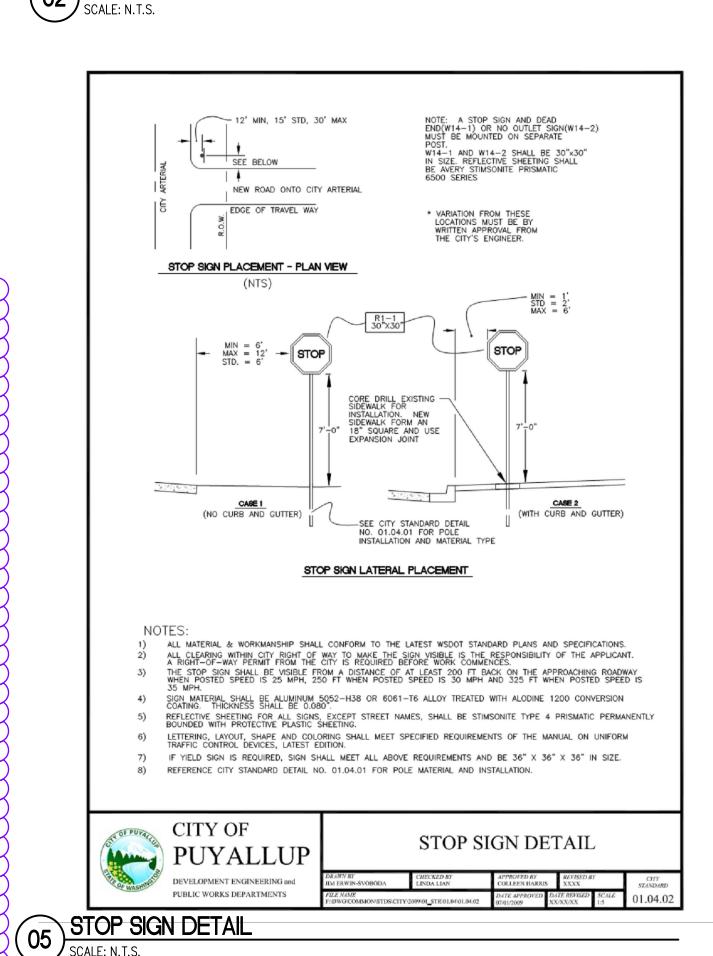


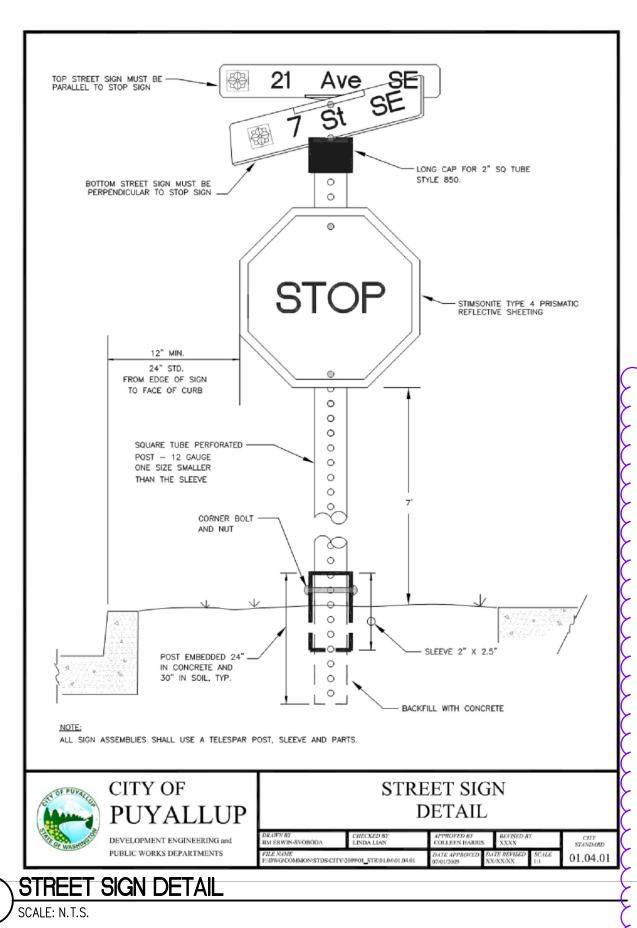


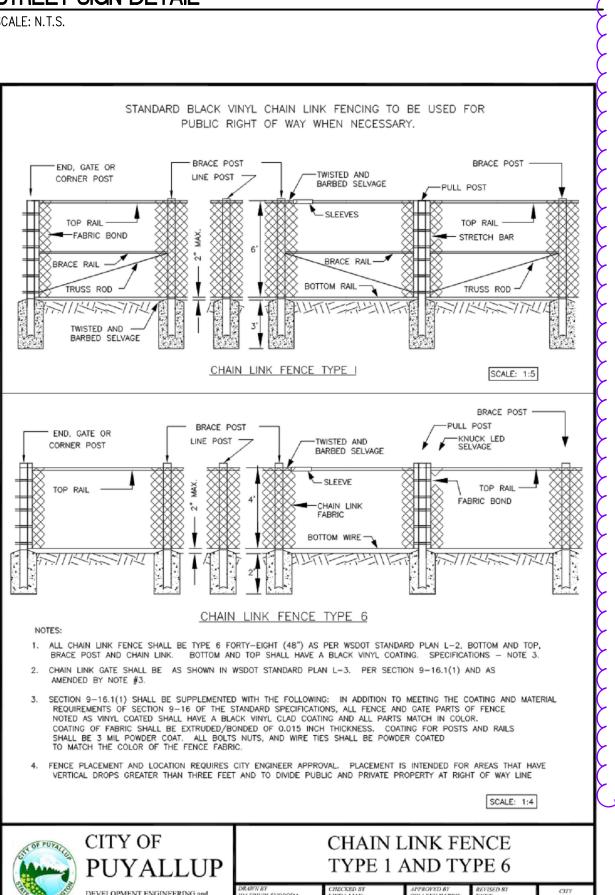
SIDEWALK BARRICADE



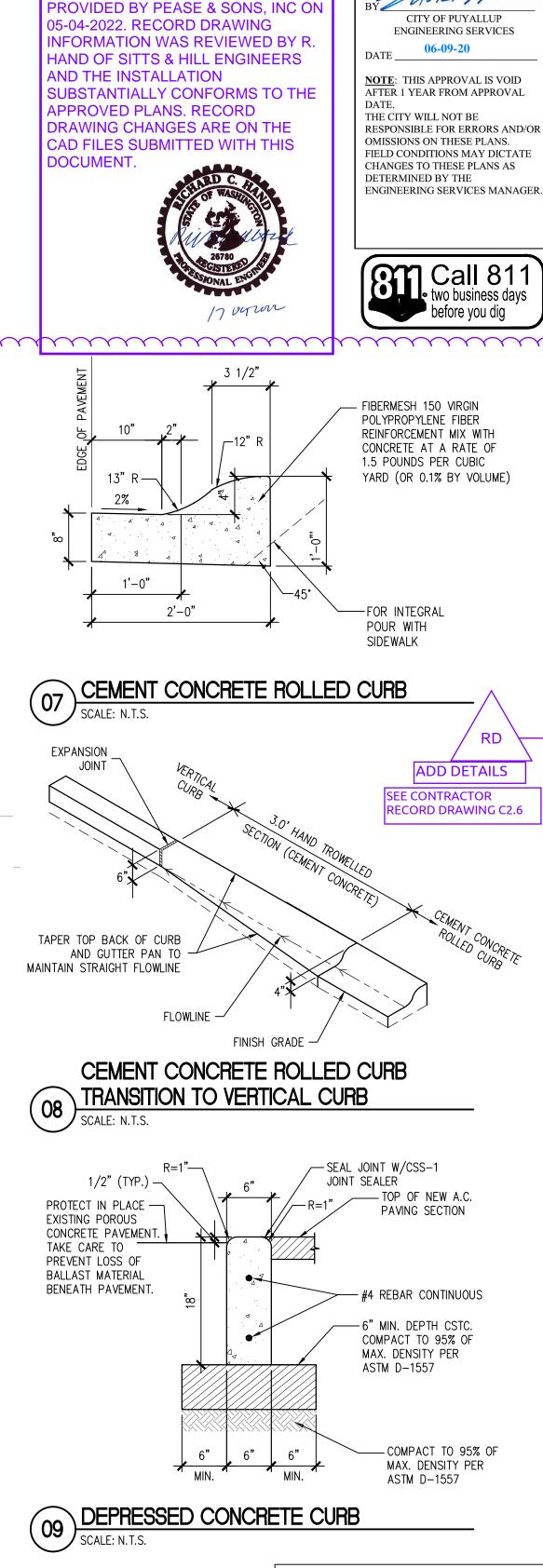
RECORD DRAWING C2.6







PUMP STATION FENCING



**RECORD DRAWING** 

RECORD DRAWING INFORMATION IS

ADD DETAILS SEE CONTRACTOR RECORD DRAWING C2.6 REVISIONS 03-16-2020 ADDENDUM 2 03-19-2020 ADDENDUM 3 03-31-2020 CITY RESUBMITTAL 04-03-2020 CONFORMED SET 06-03-2020 CITY RESUBMITTAL 10-17-2022 RECORD DRAWING 02,26.2020 18103 REVIEWED BY: SURFACING DETAILS COMPACT TO 95% OF MAX. DENSITY PER BCRA 圙 SITTS & HILL © COPYRIGHT 2020 - BCRA, INC. ALL RIGHTS RESERVE **ENGINEERS, INC.** SHEET CIVIL 14 OF 32 CIVIL = STRUCTURAL = SURVEYING 4815 CENTER STREET | TACOMA, WA. 98409 PHONE: (253) 474-9449 | FAX: (253) 474-0153

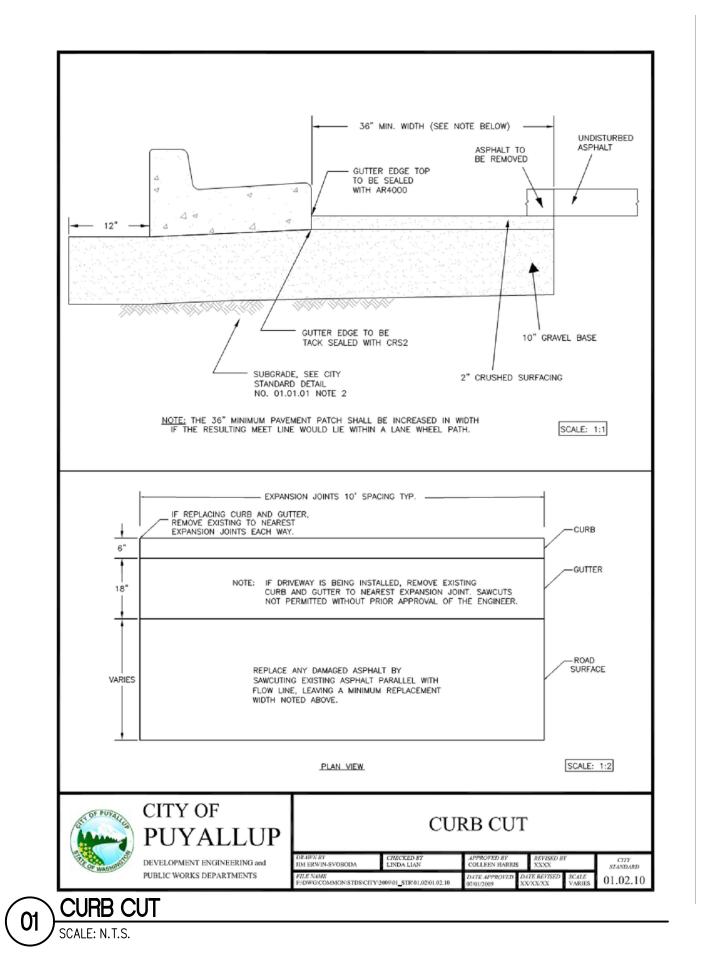
http://www.sittshill.com/ 18,328 | Project Mgr.:

IF SHEET MEASURES LESS THAN 22"X34", IT IS A REDUCED PRINT. REDUCE SCALE ACCORDINGLY

Project No.:

Proj. Engineer:

Proj. Drafter: CITY RESUBMITTAL



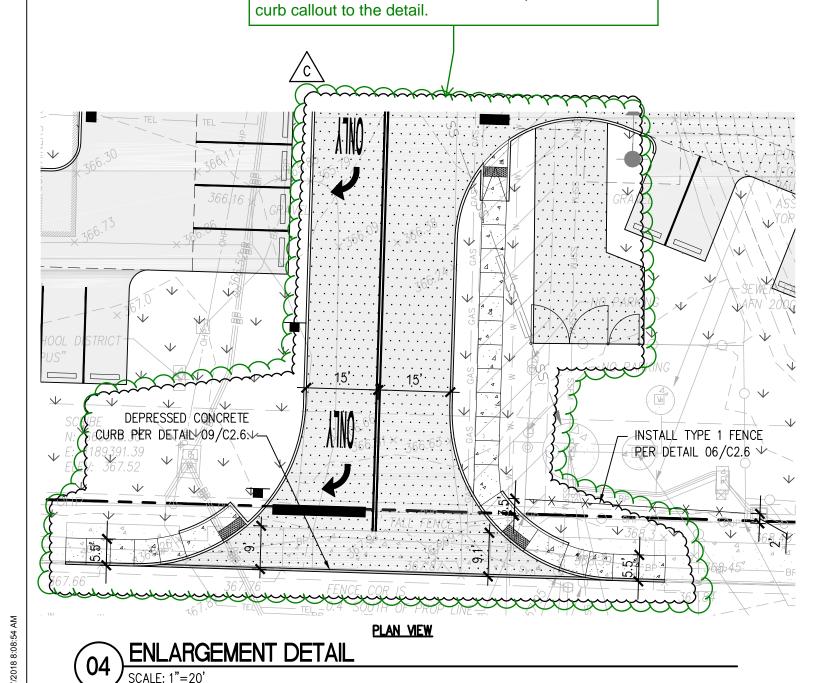
COP#5 - 39th Avenue Entrance Access Revisions: See

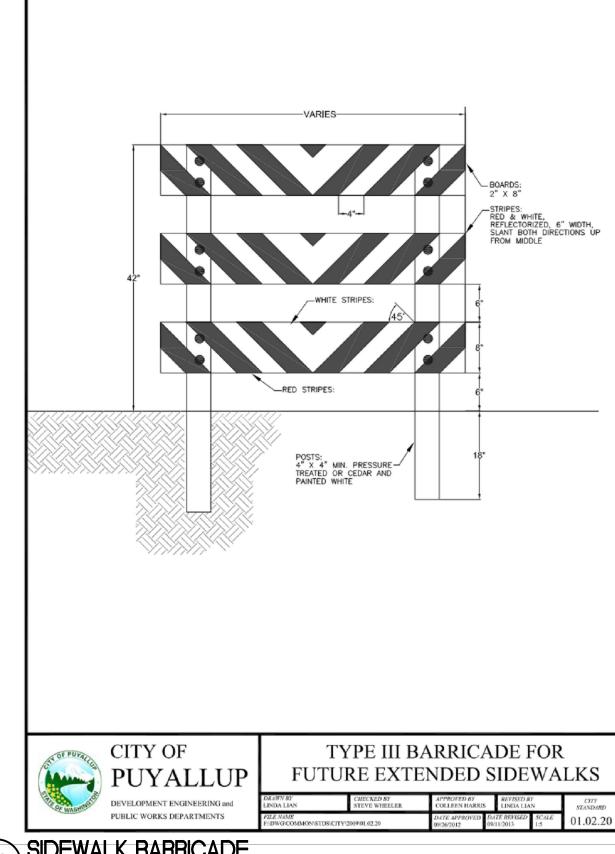
Puyallup Plan Change Request #002.

SHEET C2.6 – SURFACING DETAILS 1. REVISE Detail 04 - Enlargement Detail to graphically reflect the change described on Sheet C2.1 as shown on the revised sheet C2.6. ADDED depressed concrete

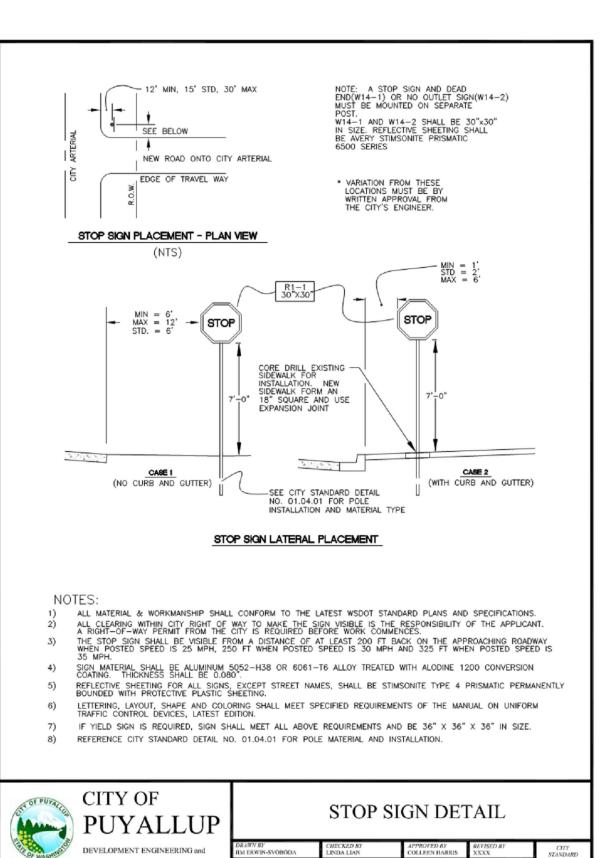
attached Civil and Landscape Architecture Description

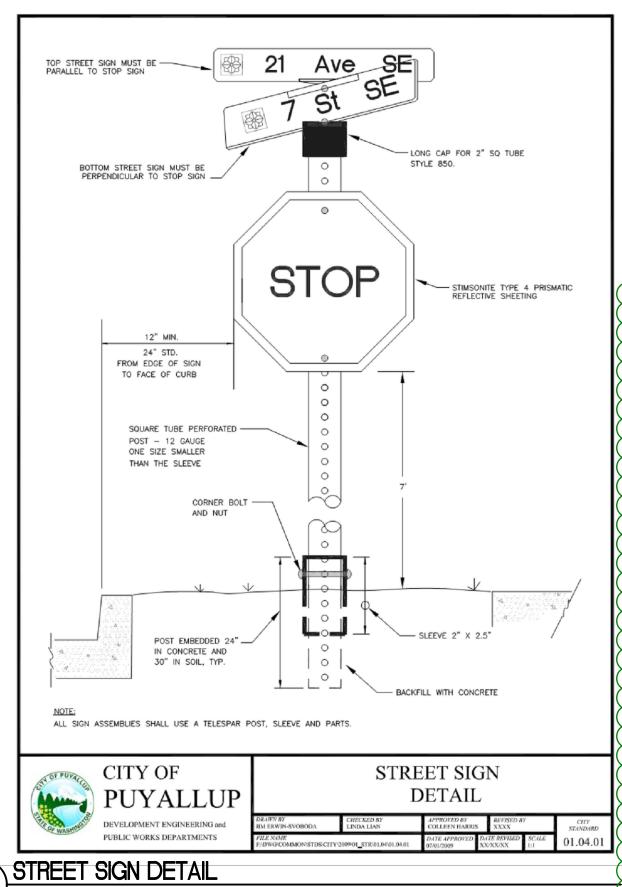
of Work for the 39th Avenue Access Changes in City of

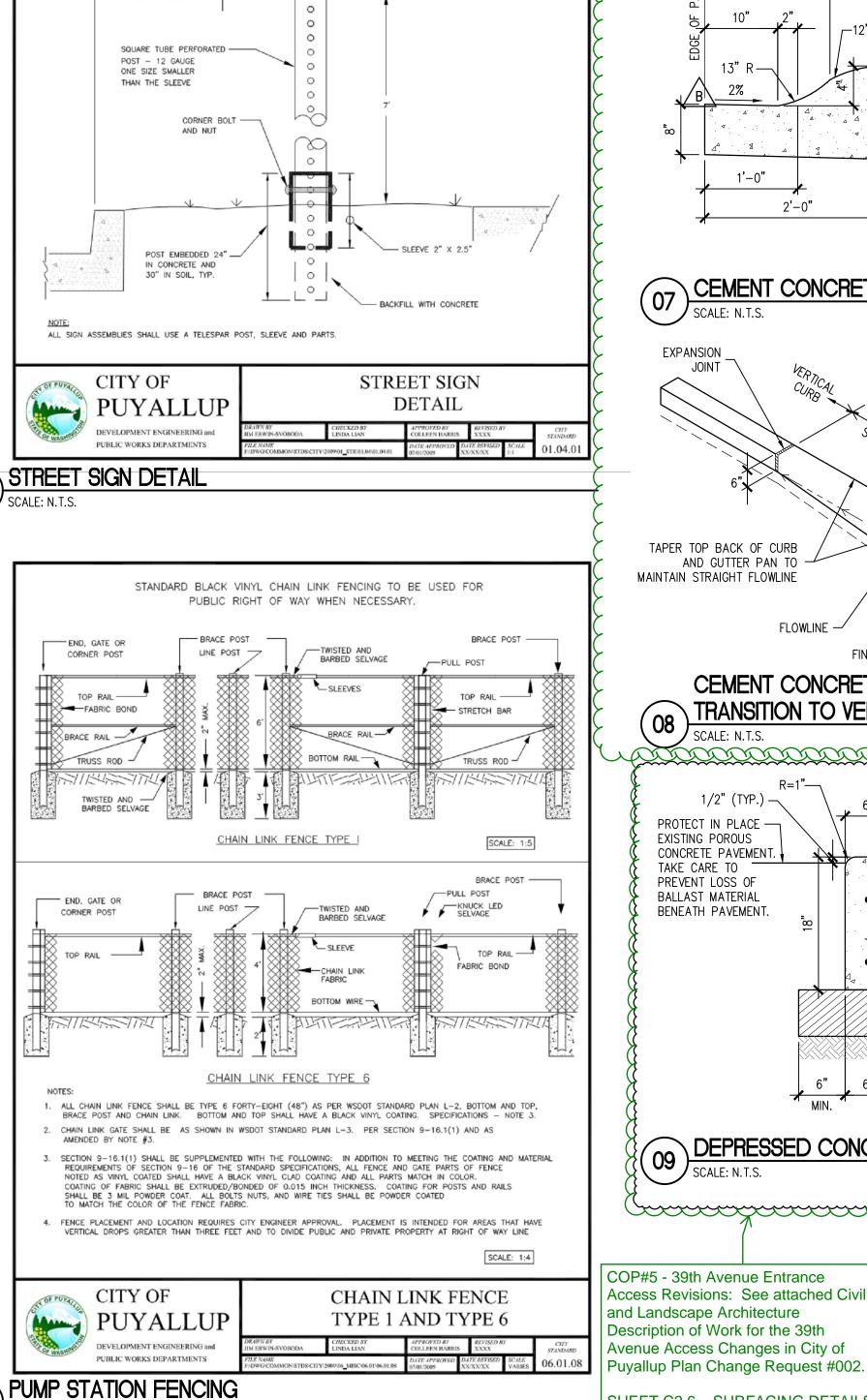




SIDEWALK BARRICADE SCALE: N.T.S.







SHEET C2.6 – SURFACING DETAILS 2. ADD Detail 09 – Depressed Concrete Curb detail as shown on the revised sheet C2.6.

COP7R - Revisions On Entrance Road: Make revisions as noted on attached Civil Sheets C1.2, C2.2, C2.6, C3.2 and C3.4: Delete asphalt pavement on entrance road

already installed previously by Owner; refer to attached Sheet C2.2 for location and

2. Revise standard sidewalk on west side of

entrance road to thickened sidewalk with rolled curb; refer to attached Drawings for

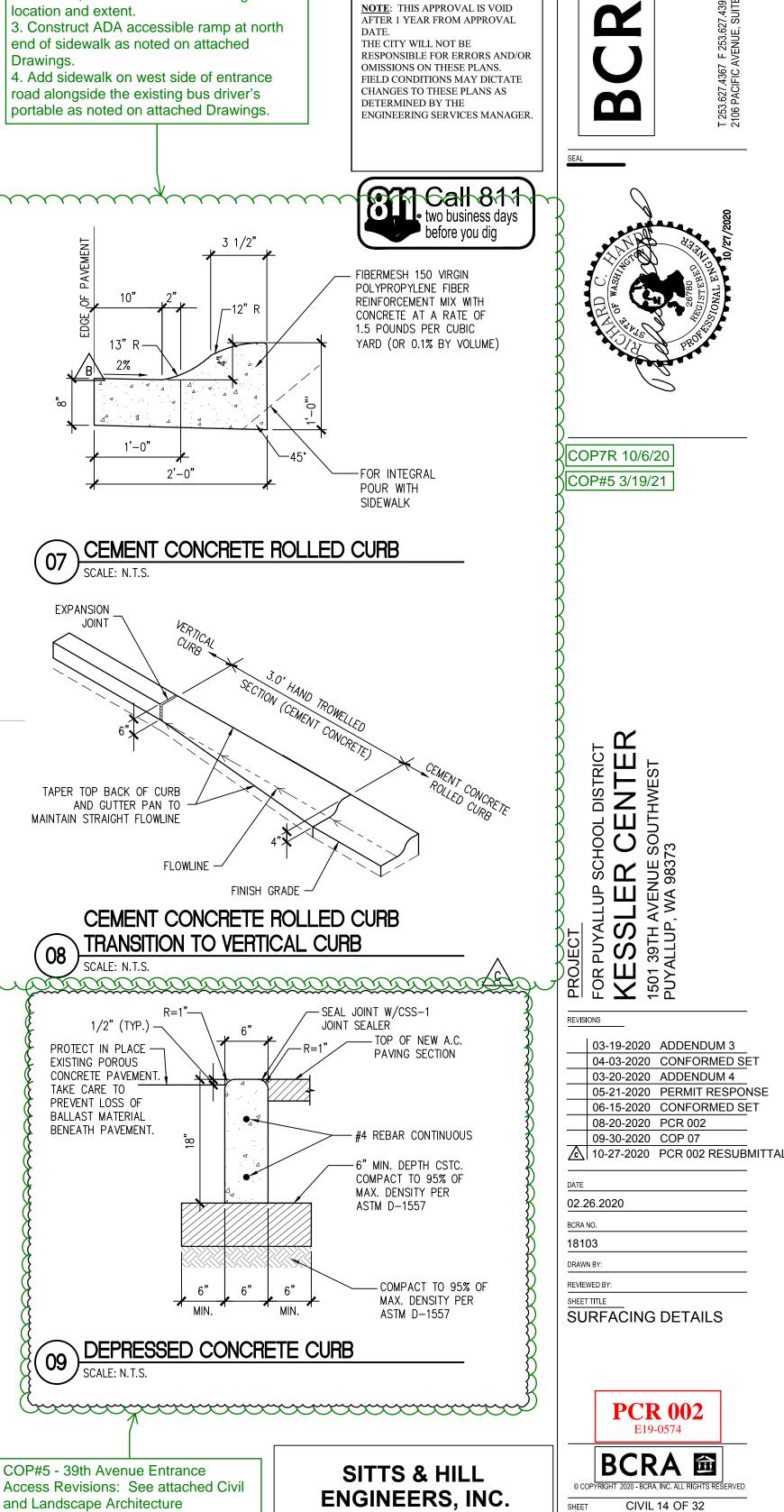
> SITTS & HILL CIVIL = STRUCTURAL = SURVEYING

4815 CENTER STREET | TACOMA, WA. 98409 PHONE: (253) 474-9449 | FAX: (253) 474-0153 http://www.sittshill.com/ Project No.: 18,328 | Project Mgr.:

VMS | Proj. Drafter:

Proj. Engineer:

IF SHEET MEASURES LESS THAN 22"X34", IT IS A REDUCED PRINT. REDUCE SCALE ACCORDINGLY

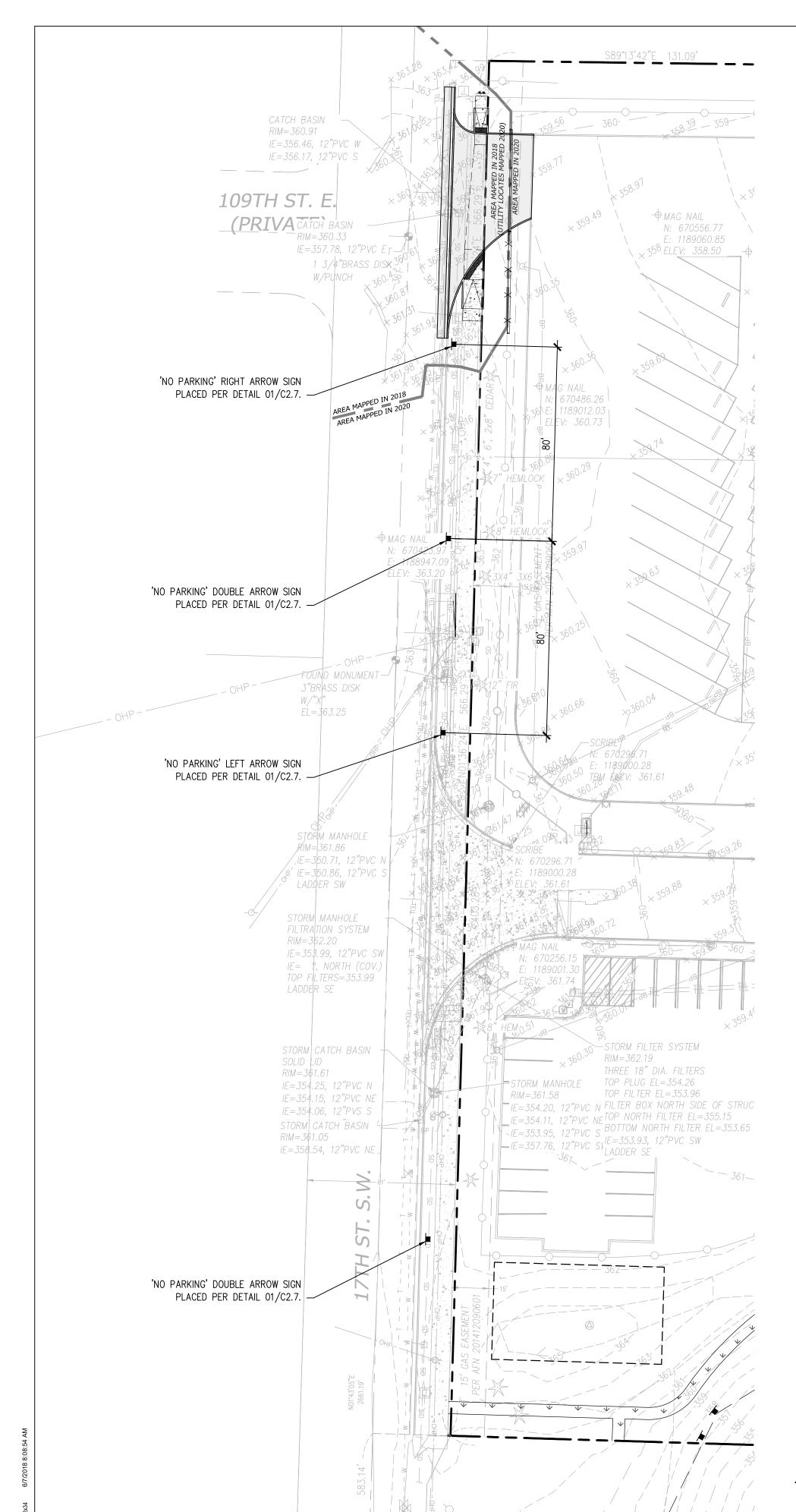


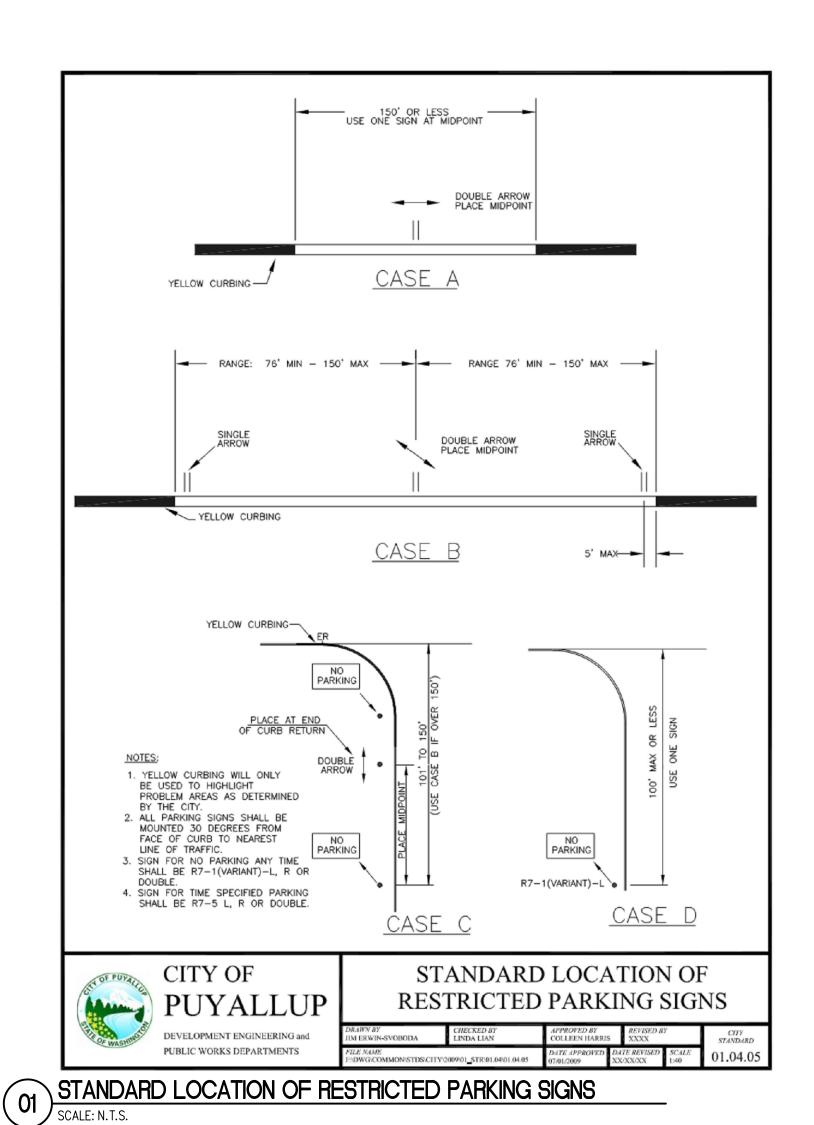
APPROVED

CITY OF PUYALLUP

ENGINEERING SERVICES

STOP SIGN DETAIL





HORIZONTAL SCALE: 1"=30' 0 30

NO PARKING SIGN PLACEMENT PLAN

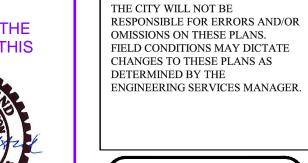
SCALE: 1"=30'

RECORD DRAWING RECORD DRAWING INFORMATION IS PROVIDED BY PEASE & SONS, INC ON 05-04-2022. RECORD DRAWING INFORMATION WAS REVIEWED BY R HAND OF SITTS & HILL ENGINEERS AND THE INSTALLATION SUBSTANTIALLY CONFORMS TO THE

APPROVED PLANS. RECORD DRAWING CHANGES ARE ON THE CAD FILES SUBMITTED WITH THIS DOCUMENT.



ENGINEERING SERVICES NOTE: THIS APPROVAL IS VOID AFTER 1 YEAR FROM APPROVAL DATE.

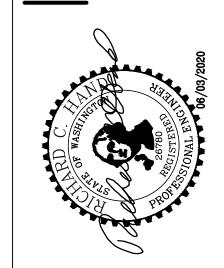




CITY OF PUYALLUP

06-09-20





REVISIONS 03-16-2020 ADDENDUM 2 03-19-2020 ADDENDUM 3 03-31-2020 CITY RESUBMITTAL 04-03-2020 CONFORMED SET 06-03-2020 CITY RESUBMITTAL 10-17-2022 RECORD DRAWING

02.26.2020

18103 REVIEWED BY:

NO PARKING SIGN PLACEMENT PLAN

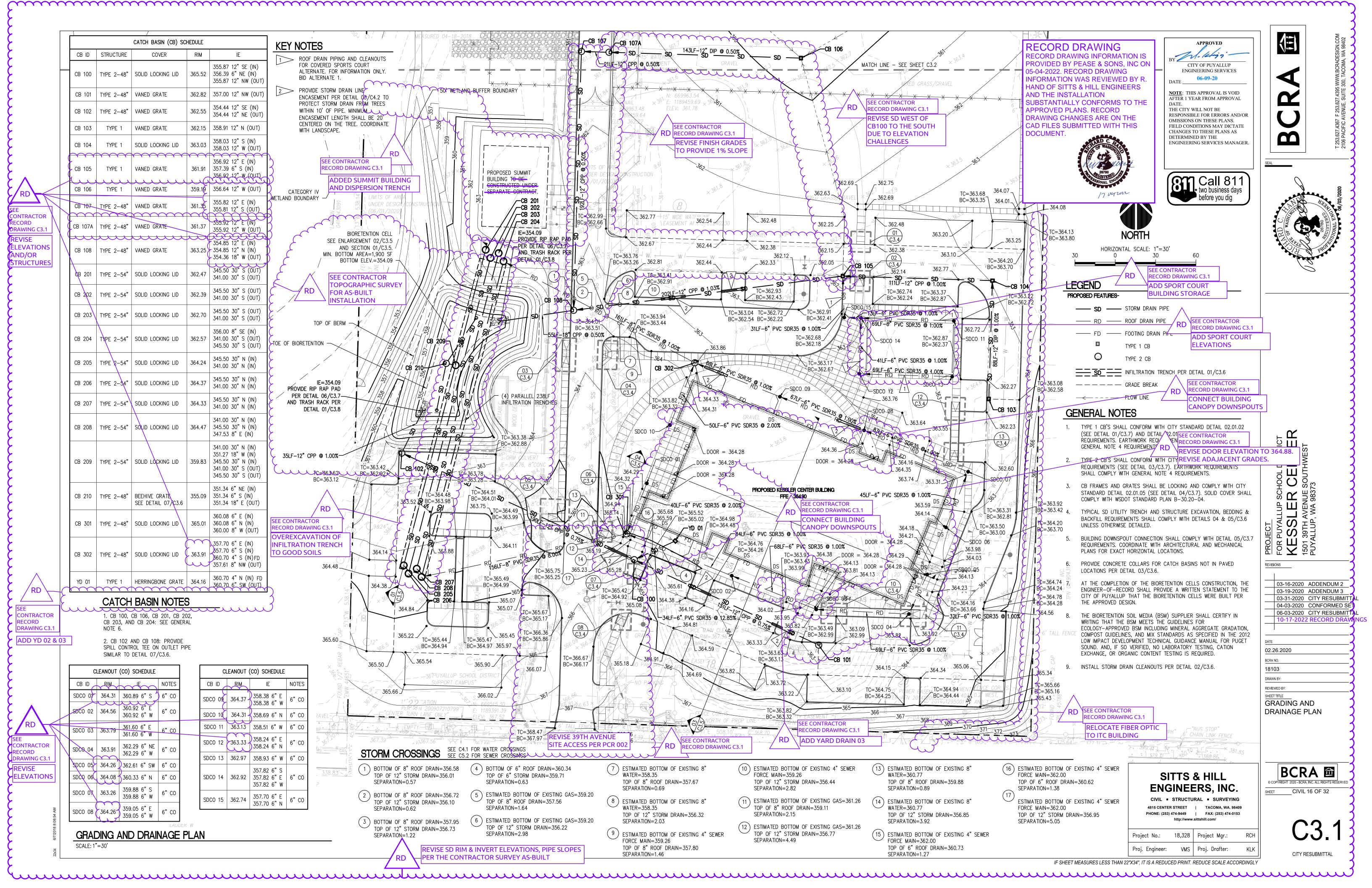
SITTS & HILL **ENGINEERS, INC.** 

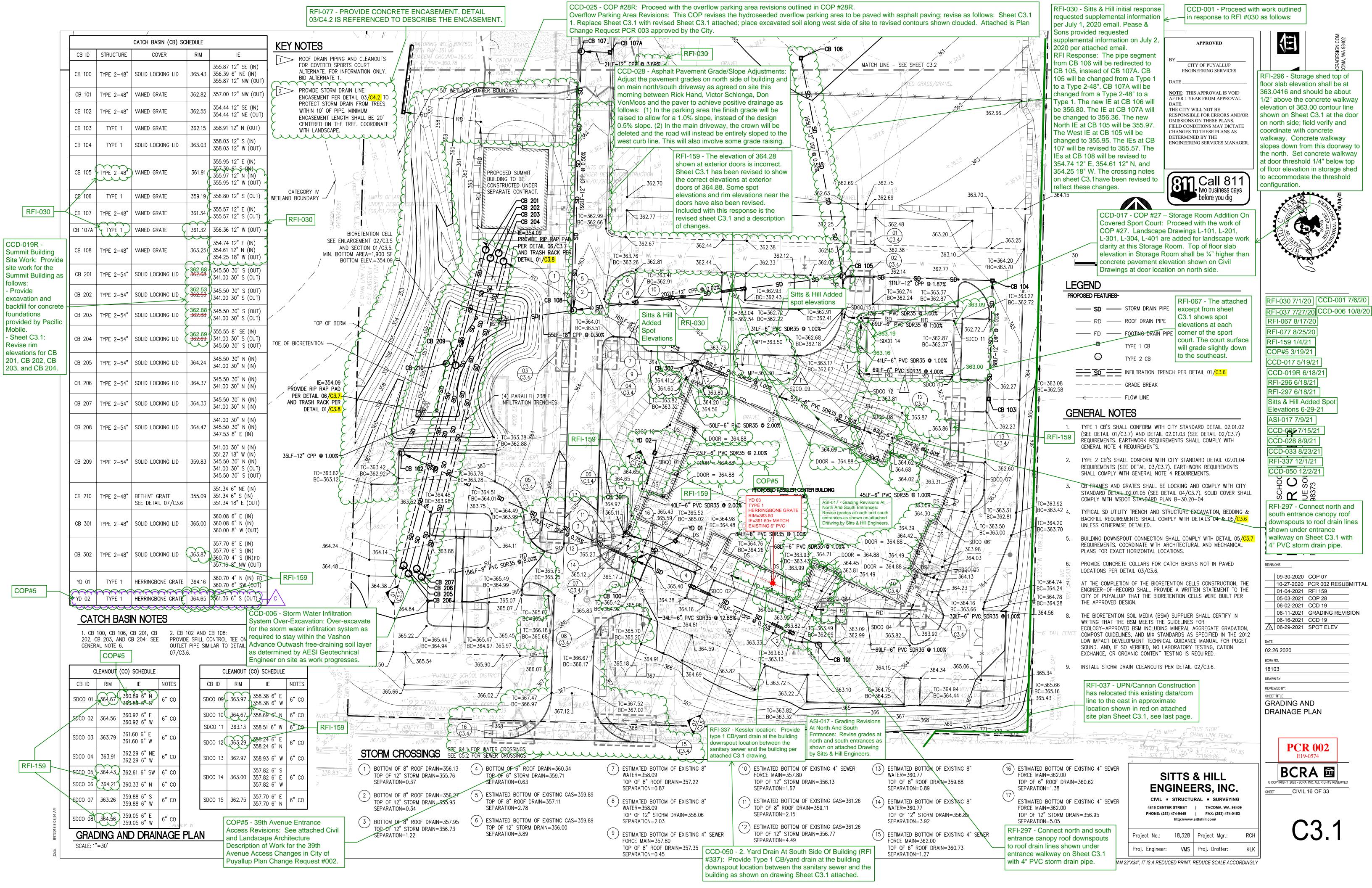
CIVIL - STRUCTURAL - SURVEYING 4815 CENTER STREET | TACOMA, WA. 98409 PHONE: (253) 474-9449 | FAX: (253) 474-0153 http://www.sittshill.com/

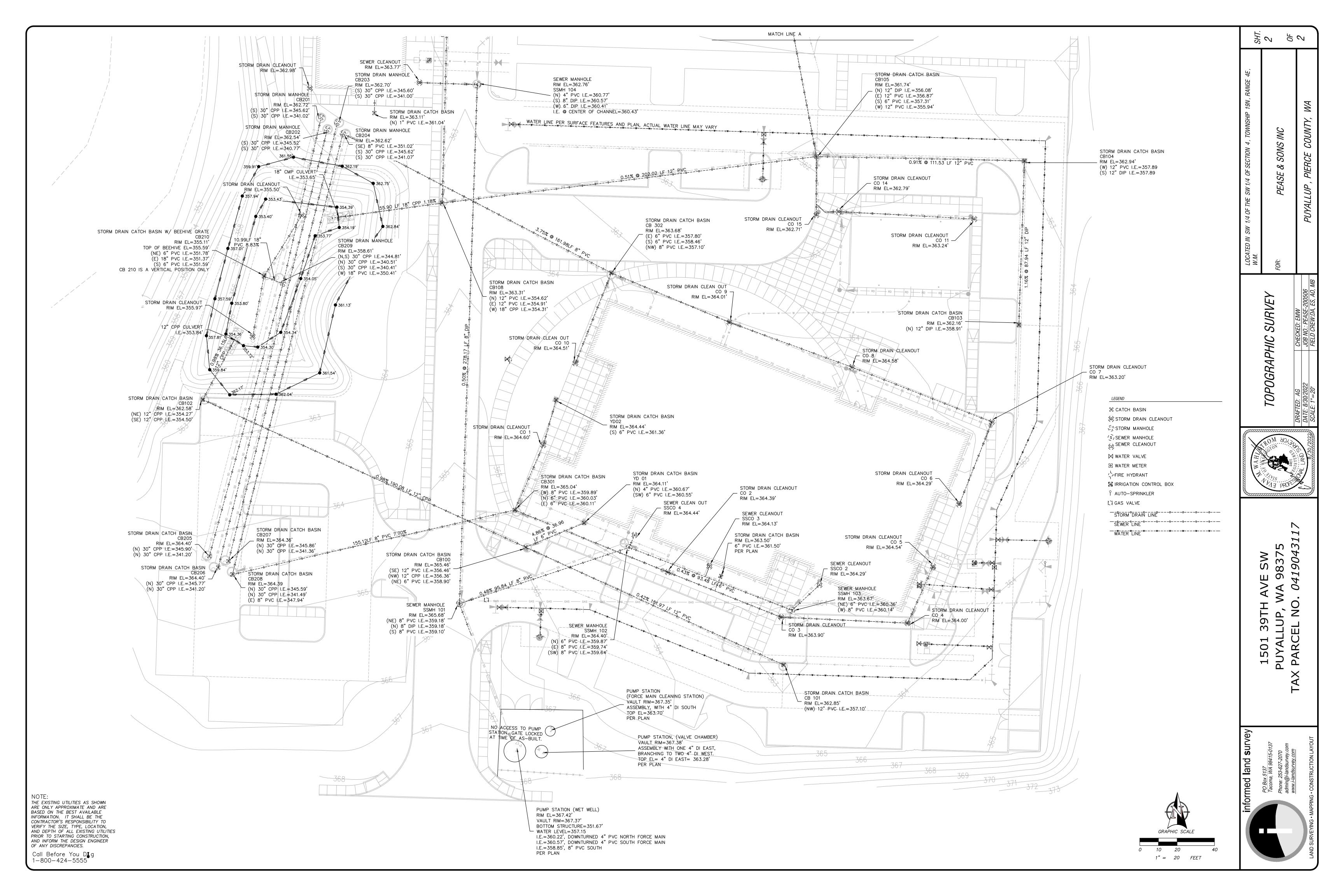
18,328 | Project Mgr.: Proj. Engineer: VMS | Proj. Drafter:

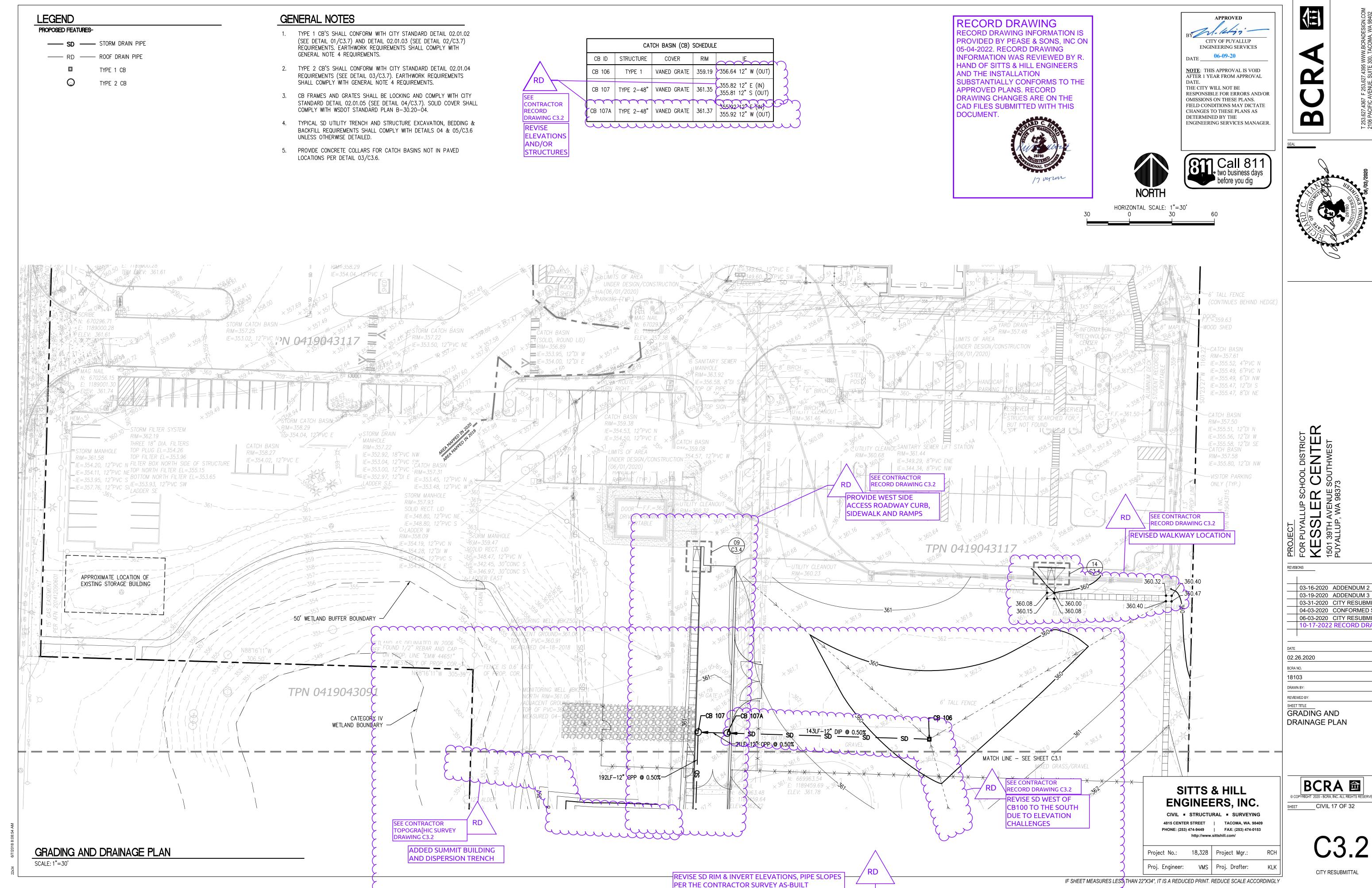
BCRA 圙 SHEET CIVIL 15 OF 32

CITY RESUBMITTAL



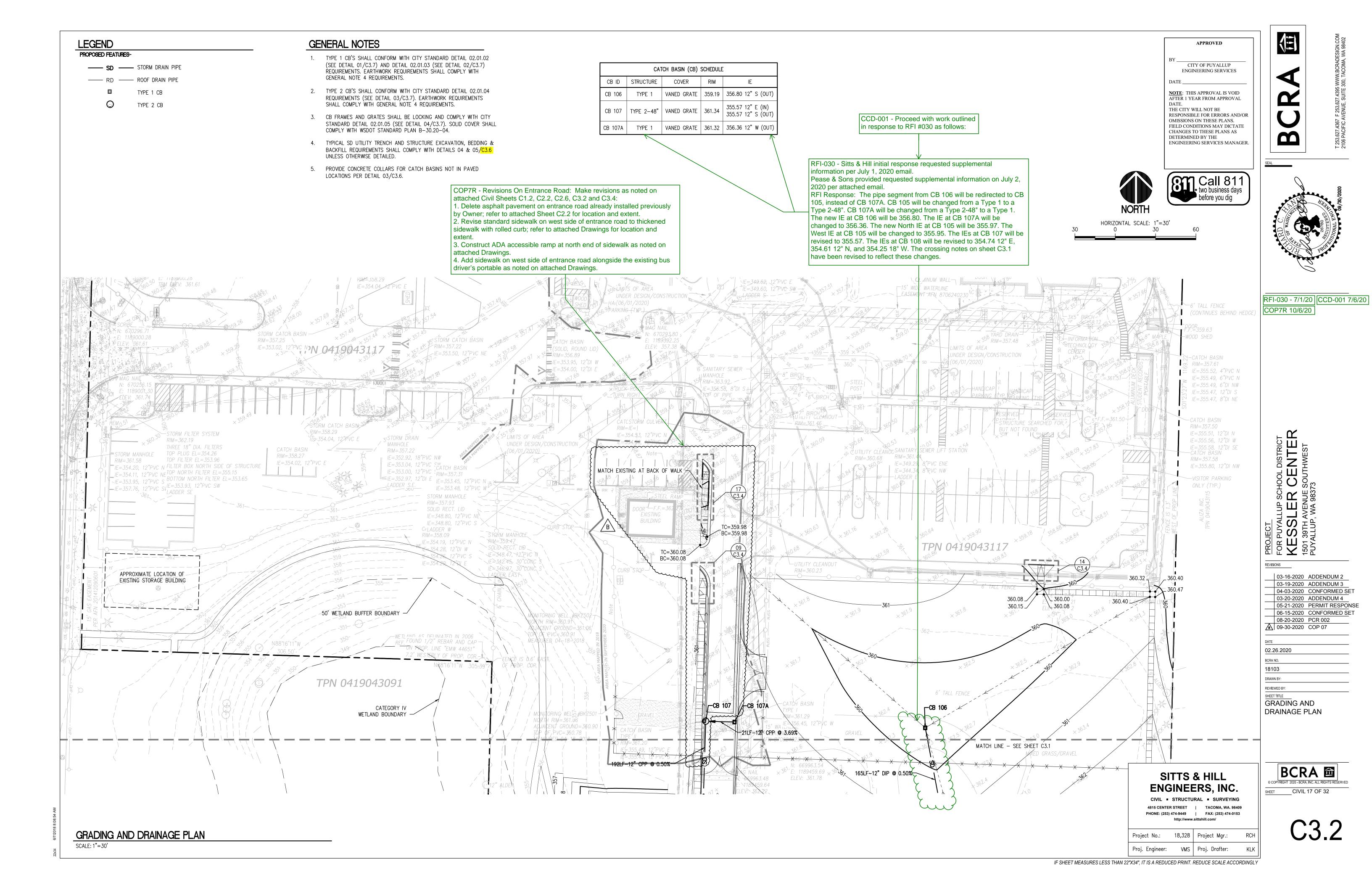






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03-19-2020 ADDENDUM 3 03-31-2020 CITY RESUBMITTAI 04-03-2020 CONFORMED SET 06-03-2020 CITY RESUBMITTAL



# **AS-BUILT SURVEY**

1. THE PURPOSE OF THIS SURVEY IS TO PROVIDE POST CONSTRUCTION AS-BUILTS.

THIS SURVEY WAS MADE BY FIELD TRAVERSE USING A GEOMAX ZOOM 90 2" ROBOTIC TOTAL STATION AND TOPCON HIPER SR GPS WITH RESULTING CLOSURES EXCEEDING THE MINIMUM ACCURACY STANDARDS AS SET FORTH BY WAC 332-130.

#### HORIZONTAL DATUM

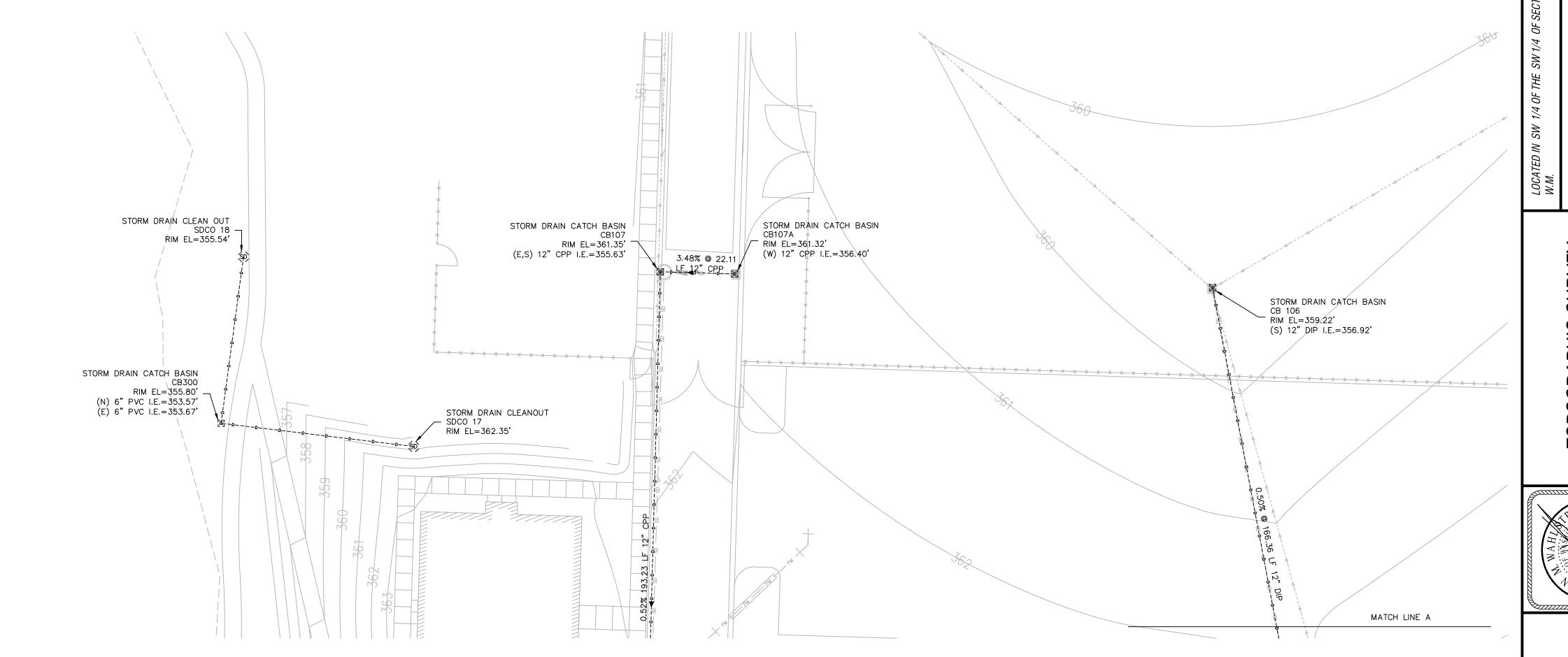
NAD 1983(2011) SOUTH ZONE; PER RTK GPS TIES AND THE WASHINGTON STATE REFERENCE NETWORK (WSRN). UNITS OF MEASUREMENT ARE U.S. SURVEY FEET.

#### VERTICAL DATUM

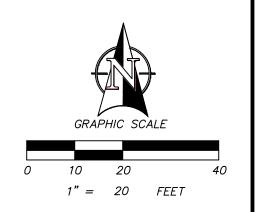
THE VERTICAL DATUM FOR THIS SURVEY IS NAVD88, PER TIES TO SITE BENCHMARK, ELEVATION 366.61 FEET. UNITS OF MEASUREMENT ARE U.S. SURVEY FEET.

#### LEGEND

- 国 STORM DRAIN CATCH BASIN
- (SD) STORM DRAIN CLEANOUT
- STORM DRAIN MANHOLE
- (c) SEWER CLEANOUT (s) SEWER MANHOLE



NOTE:
THE EXISTING UTILITIES AS SHOWN
ARE ONLY APPROXIMATE AND ARE
BASED ON THE BEST AVAILABLE
INFORMATION. IT SHALL BE THE
CONTRACTOR'S RESPONSIBILITY TO
VERIFY THE SIZE, TYPE, LOCATION,
AND DEPTH OF ALL EXISTING UTILITIES
PRIOR TO STARTING CONSTRUCTION,
AND INFORM THE DESIGN ENGINEER
OF ANY DISCREPANCIES. Call Before You D**J**g 1-800-424-5555





AVE SW 1A 98375 04190431

1501 39TH A PUYALLUP, W

#### **GENERAL NOTES**

CATCH BASIN

IE=356.46, 12"RVC W IE=356.17, 12"PVC\S

→ 109TH STREET EAST

CATCH BASIN

RIM = 360.33

IE=357.78, 12"PVC E

RIM=360.91

- ADJUST THE FRAMES OF EXISTING UTILITY STRUCTURES TO MATCH THE PROPOSED GRADE.
- 2. ADDITIONAL TRIMMING AND/OR REMOVAL OF TREES BEHIND THE SIDEWALK MAY BE REQUIRED TO ACHIEVE ADEQUATE ENTERING SIGHT DISTANCE ALONG 17TH STREET SW.

TC = 363.33BC=362.83

₹360.88

TC=361.84<sup>5</sup> BC=361.34

GRADING AND DRAINAGE PLAN

SCALE: 1"=10'

#### **KEY NOTES**

- REPLACE WITH LOCKABLE FRAME AND VANED GRATE PER DETAIL 04/C3.7. NEW RIM = 360.49
- 2 REPLACE WITH CITY STANDARD FRAME AND SOLID COVER PER DETAIL 02/C5.3. NEW RIM = 360.62
- REPLACE EXISTING 12" PVC PIPE WITH NEW 12" DI PIPE. MATCH 3 EXISTING PIPE SLOPE AND ELEVATIONS.

- EXISTING GRAVEL DRIVEWAY ACCESS TO NEIGHBORING PROPERTY

- EXISTING 4' CHAIN LINK FENCE

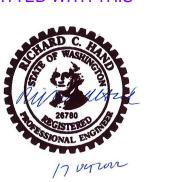
\_TC=360.05

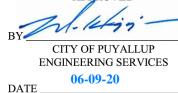
TC=361.03

BC=360.53

HORIZONTAL SCALE: 1"=10'

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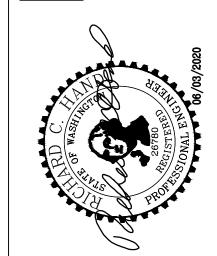




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REVISIONS

03-16-2020 ADDENDUM 2 03-19-2020 ADDENDUM 3 03-31-2020 CITY RESUBMITTAL 04-03-2020 CONFORMED SET 06-03-2020 CITY RESUBMITTAL

02.26.2020

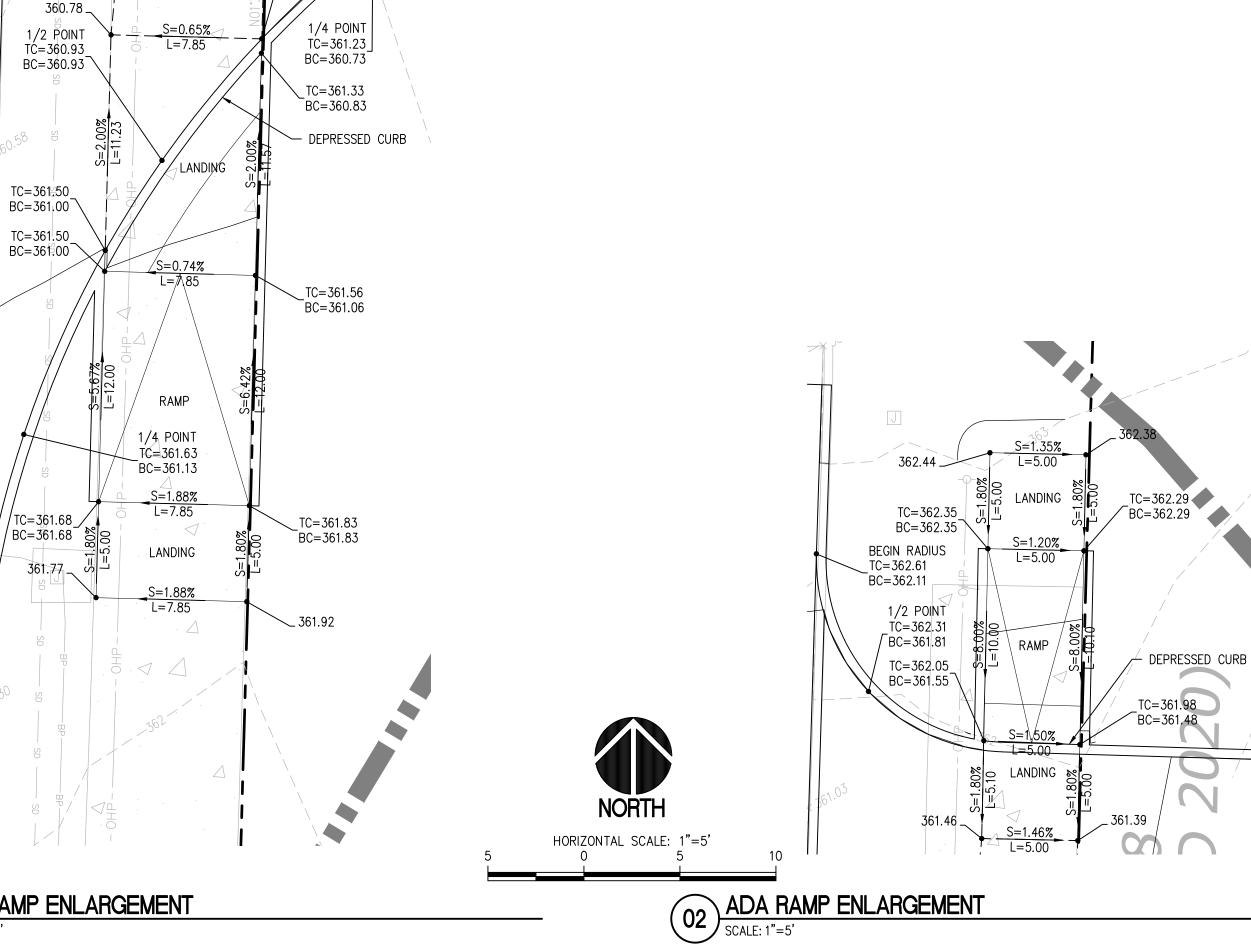
18103 DRAWN BY: REVIEWED BY:

GRADING AND DRAINAGE PLAN

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CITY RESUBMITTAL

SHEET CIVIL 18 OF 32



 $\int BC = 360.83$ 

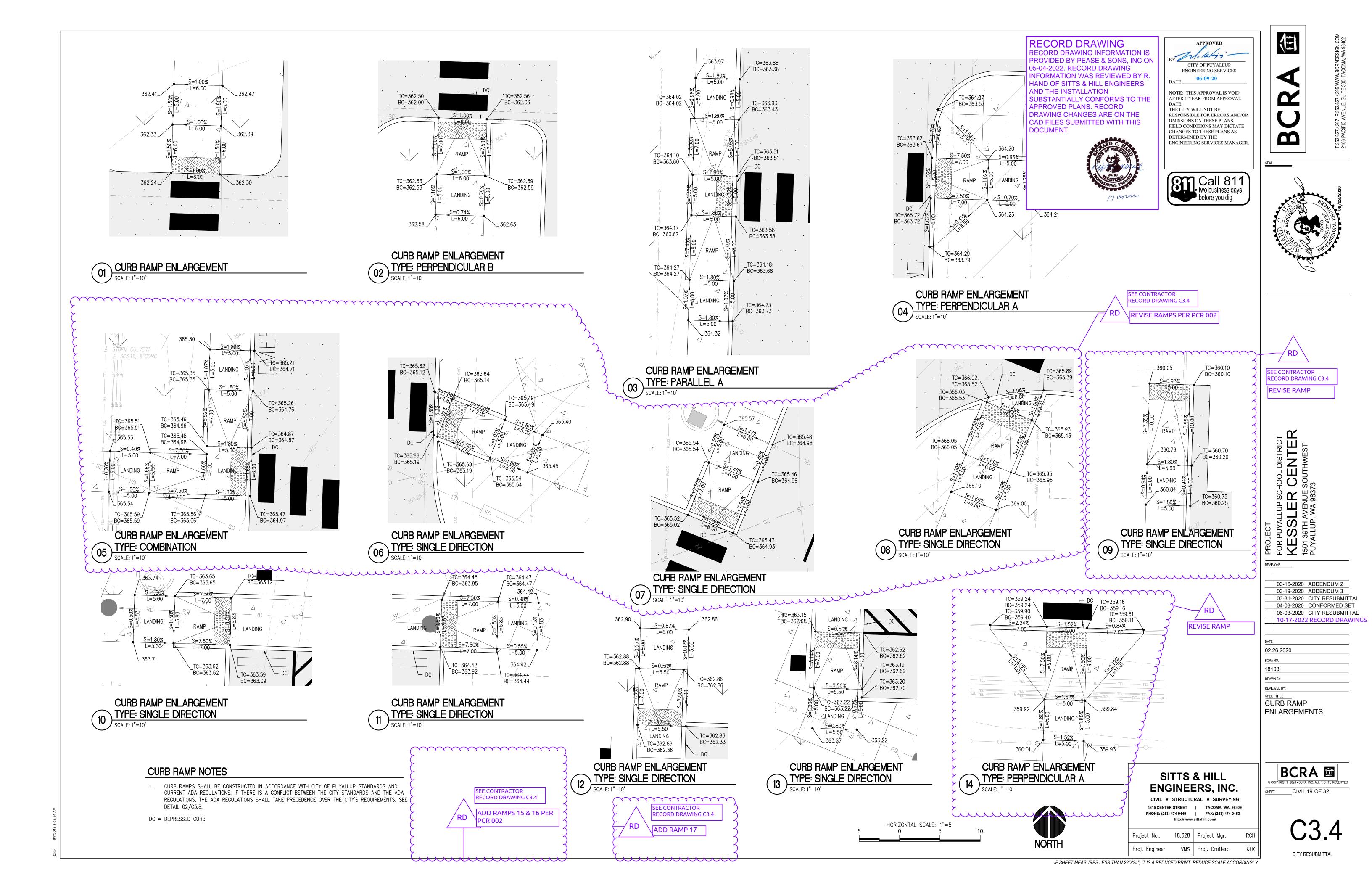


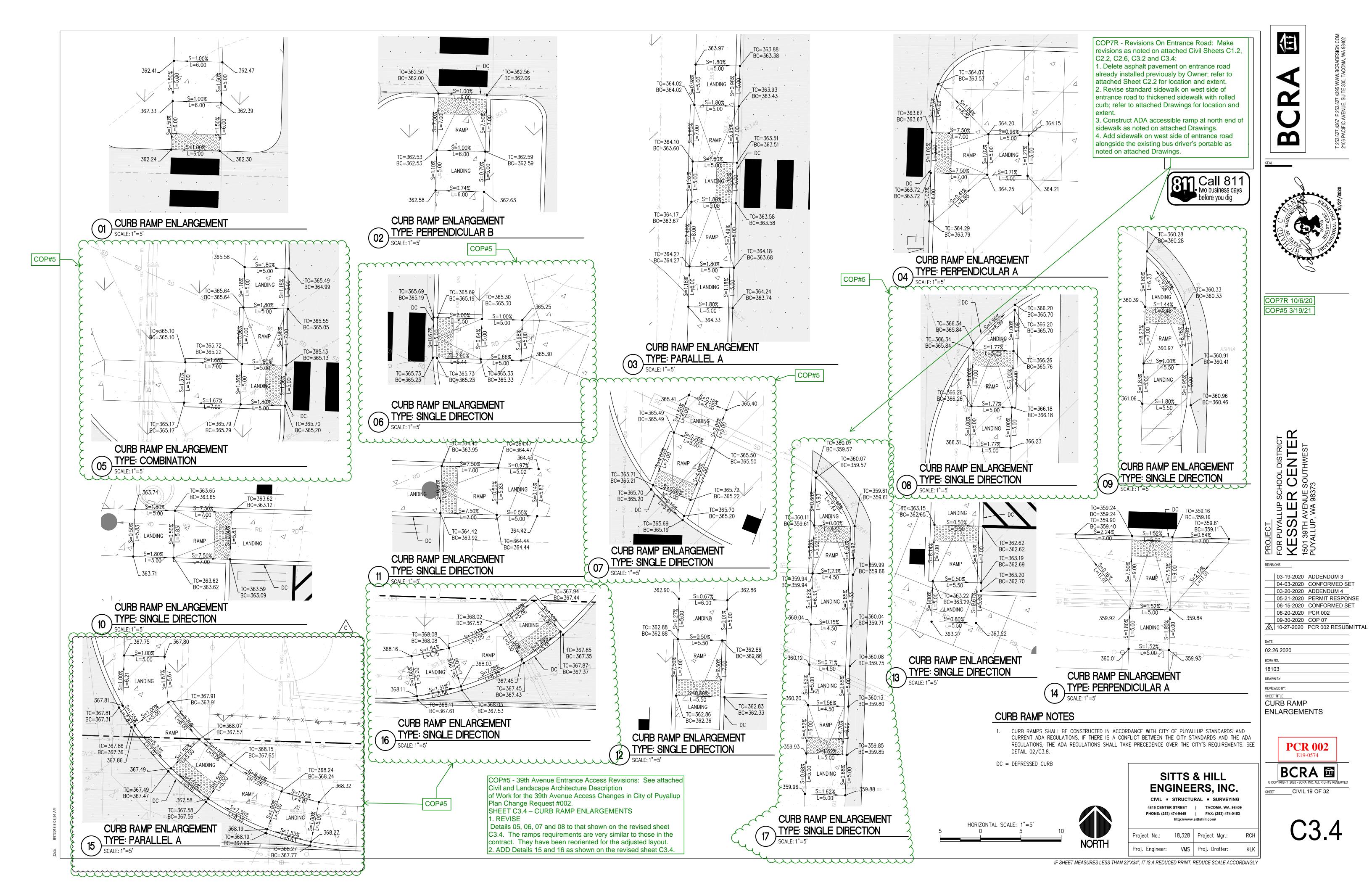
O1 ADA RAMP ENLARGEMENT
SCALE: 1"=5"

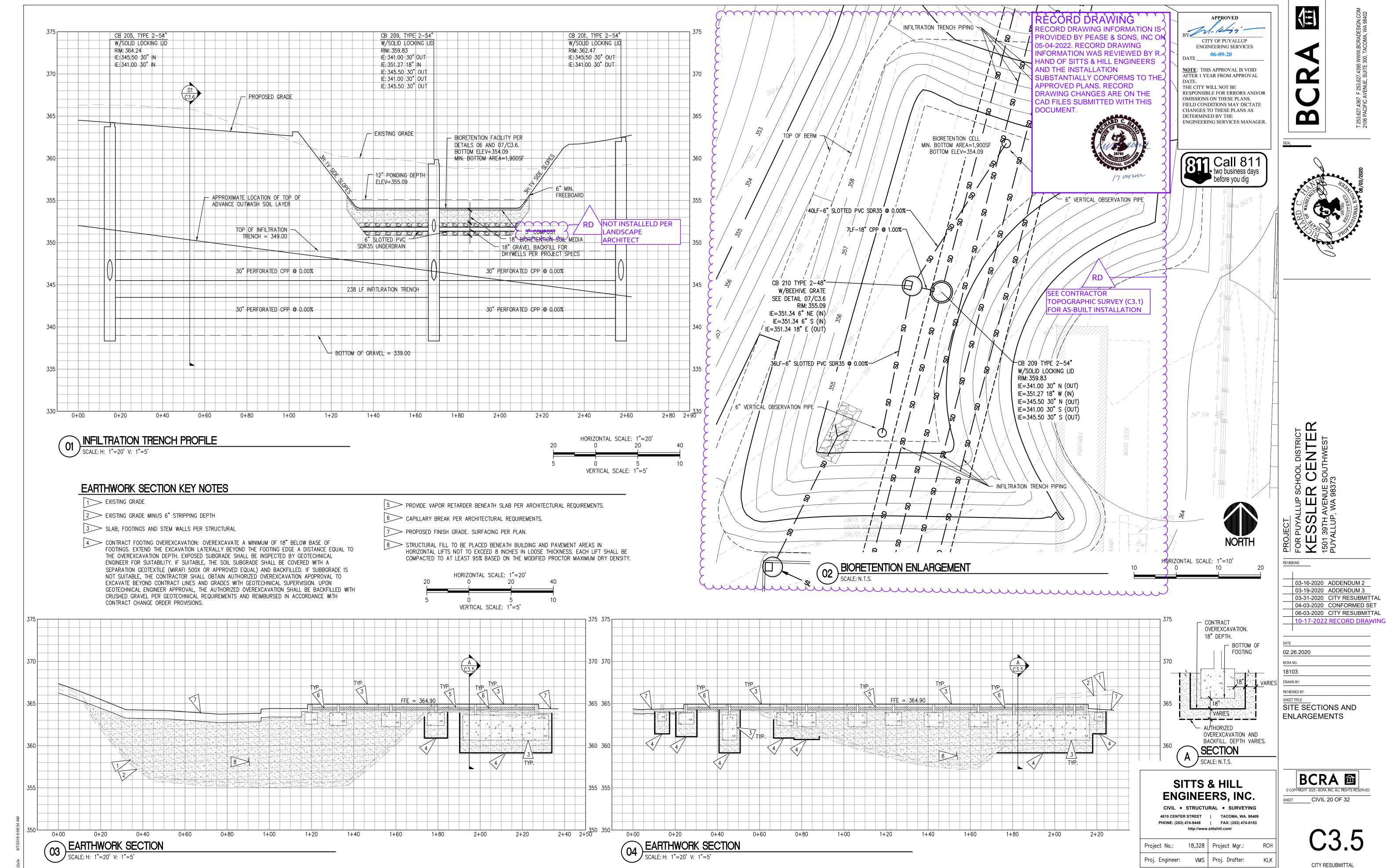
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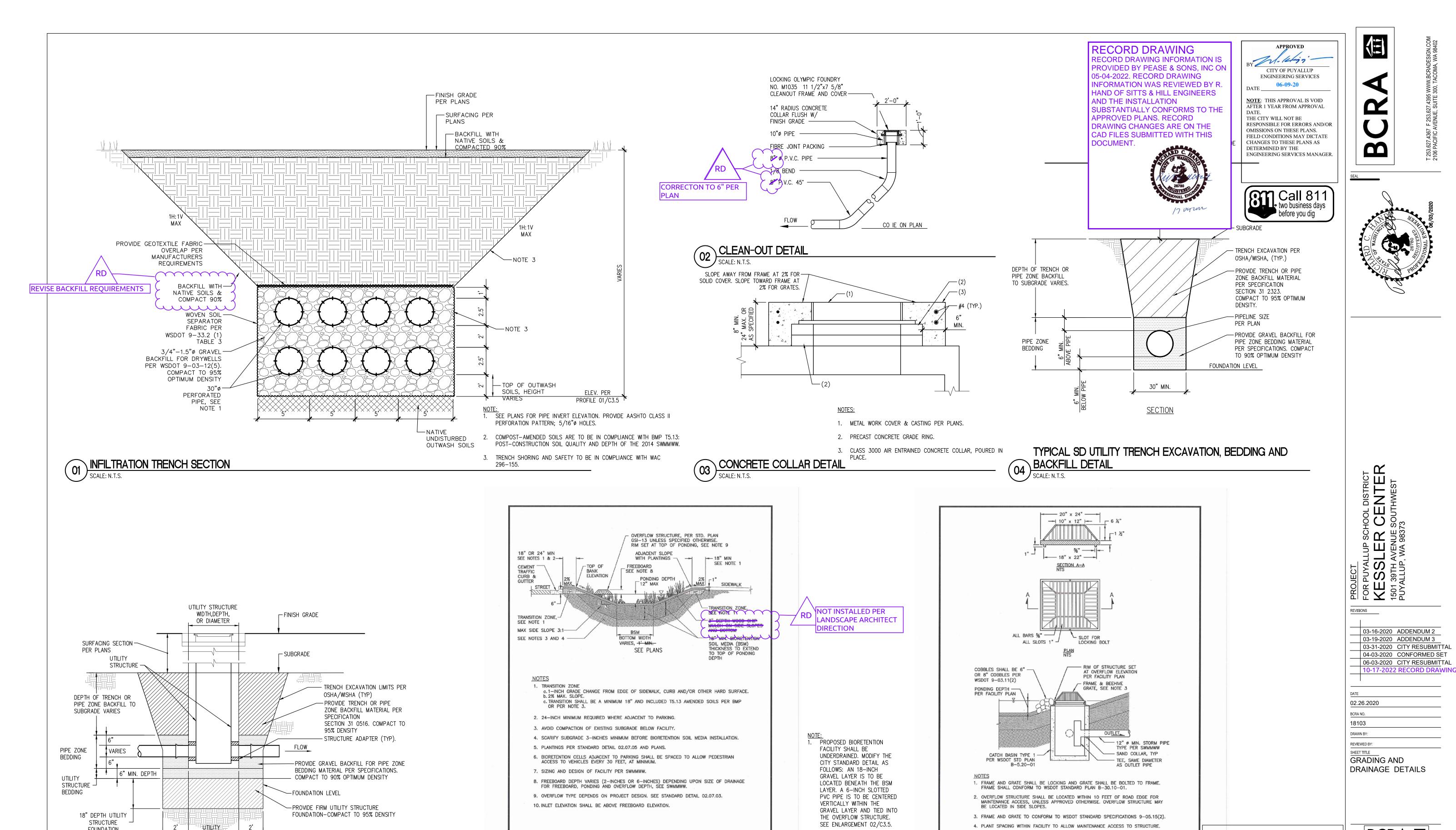
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18,328 | Project Mgr.: Proj. Engineer: Proj. Drafter:









**BIORETENTION SECTION** 

PUYALLUI

BIORETENTION SECTION
SCALE: N.T.S

OFFICE

2. SEE BSM REQUIREMENTS PER

GENERAL NOTE 8/C3.1.

GRAVEL BACKFILL FOR

DRYWELLS PER PROJECT

3. GRAVEL LAYER SHALL BE

SPECIFICATIONS.

CITY OF

PUYALLUI

OFFICE

HE CITY ENGINEER

BIORETENTION OVERFLOW OUTLET STRUCTURE

**BIORETENTION OVERFLOW** 

OUTLET STRUCTURE

FOUNDATION

STRUCTURE

STRUCTURE + 4'-0"

TYPICAL UTILITY STRUCTURE EXCAVATION, BEDDING AND

MIN.

MIN.

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18,328 | Project Mgr.:

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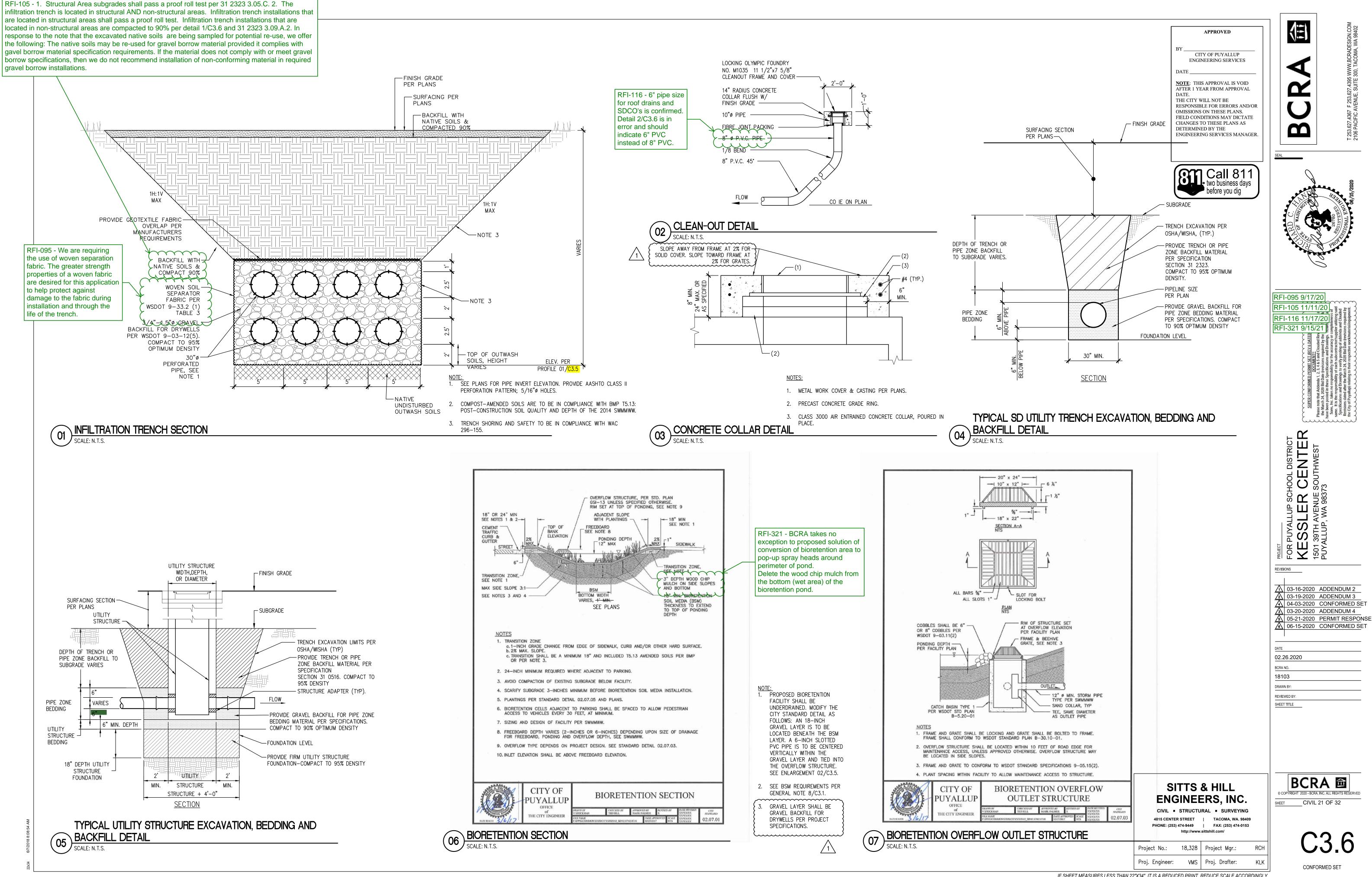
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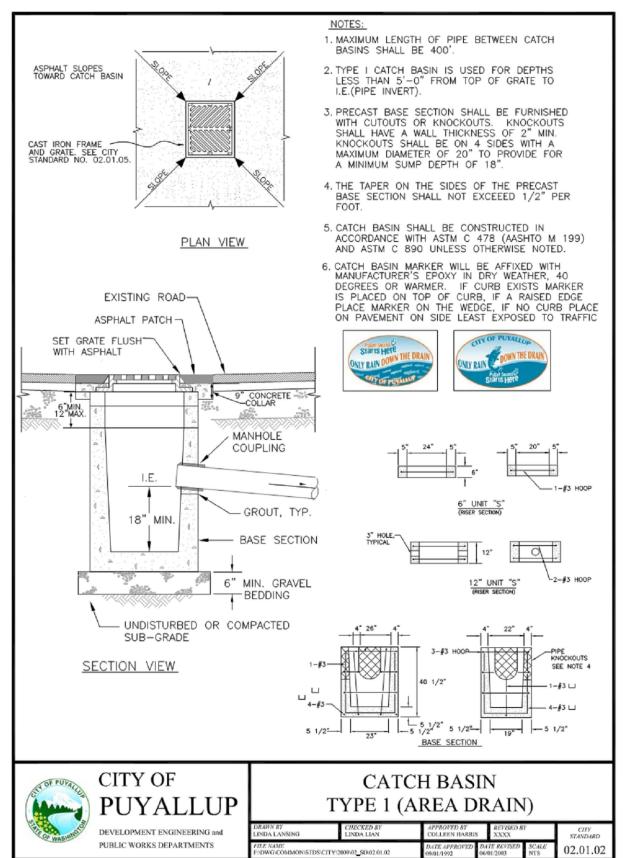
SHEET CIVIL 21 OF 32

IF SHEET MEASURES LESS THAN 22"X34", IT IS A REDUCED PRINT. REDUCE SCALE ACCORDINGLY

Project No.:

Proj. Drafter: Proj. Engineer:

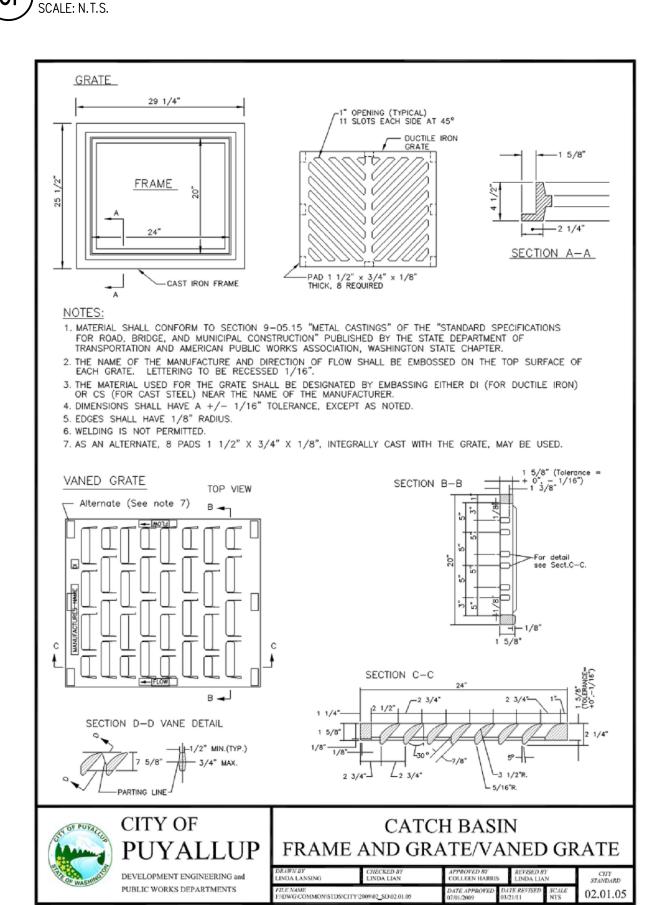


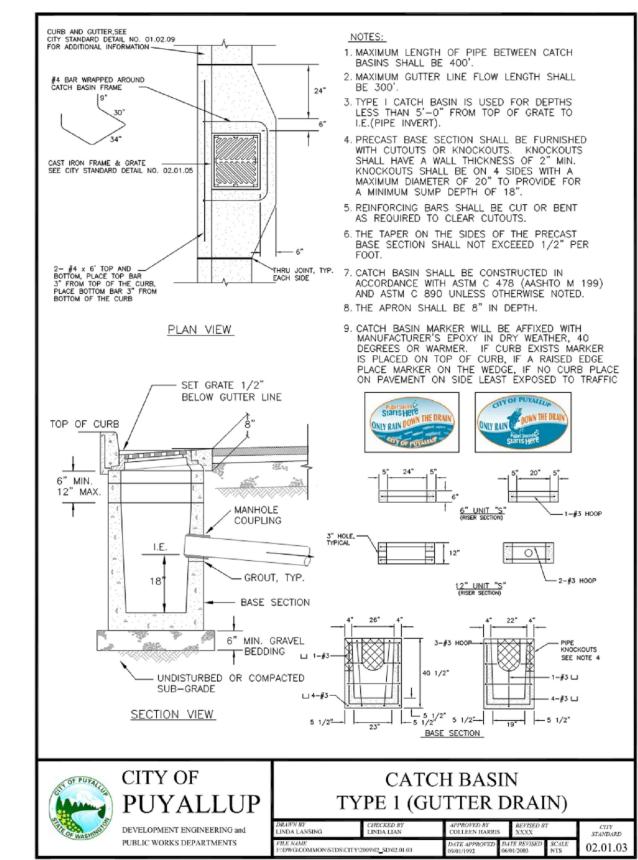


CATCH BASIN TYPE 1 (AREA DRAIN)

CATCH BASIN FRAME AND GRATE

SCALE: N.T.S.





\ CATCH BASIN TYPE 1 (GUTTER DRAIN) SCALE: N.T.S.

> DOWNSPOUT SYSTEM-(FROM FINISH GRADE)

PER ARCHITECTURAL PLANS.

WYE CLEANOUT WITH

WYE TO BE 2-INCHES

ABOVE FINISH GRADE -

FINISH GRADE (VARIES, SEE PLAN)

INSTALL 3/8" THICK X 4" TALL

PAVEMENT/LANDSCAPE SECTION.

DOWNSPOUT TERMINATION AND FOUNDATION DRAIN

4"x6" BUSHING

4"-45 DEGREE ELBOW-

FOOTING DRAIN

EXPANSION JOINT MATERIAL

BETWEEN VENEER AND

PAVEMENT/LANDSCAPE —

WYE ALONG ROOF DRAIN LINE (SIZE TO MATCH ROOF DRAIN WITH ADAPTER TO

MATCH DOWNSPOUT) SEE PLAN FOR LOCATIONS

UNLESS OTHERWISE NOTED

NON-WOVEN SEPARATION GEOTEXTILE PER WSDOT 9-33.2(1) TABLE 3-

WASHED ROCK (DEPRESS)

ROCK AT ROOF DRAIN

PIPE CROSSING) —

SCALE: N.T.S.

BOTTOM OF FOOTING

ROOF DRAIN 6"-

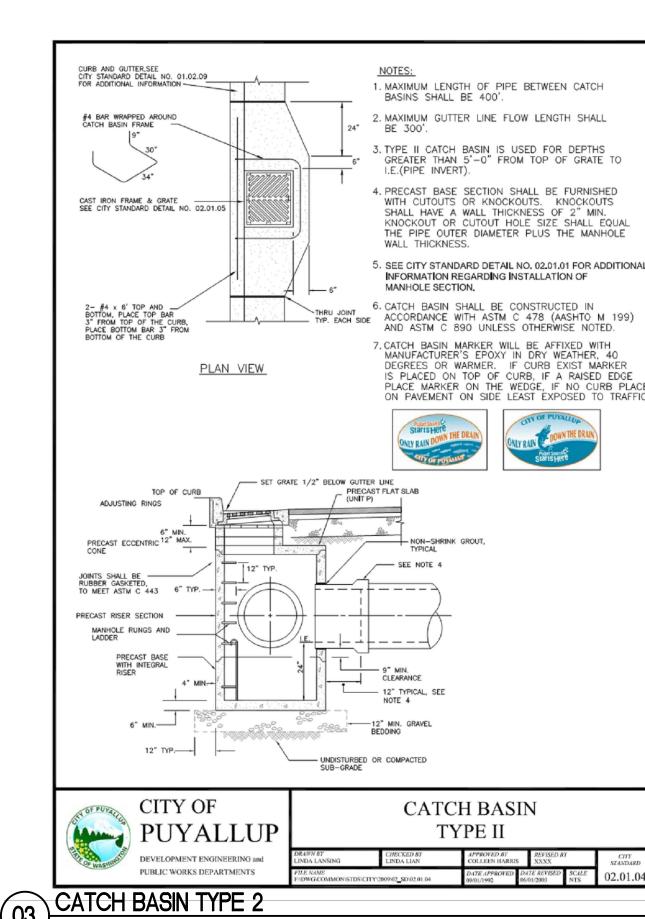
4"ø PERFORATED

FOOTING DRAIN. -

SECTION

SEE STRUCTURAL

PLAN REQUIREMENTS THREADED CAP BOTTOM OF



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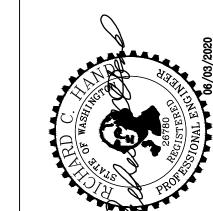


CITY OF PUYALLUP ENGINEERING SERVICES DATE

**NOTE**: THIS APPROVAL IS VOID AFTER 1 YEAR FROM APPROVAL

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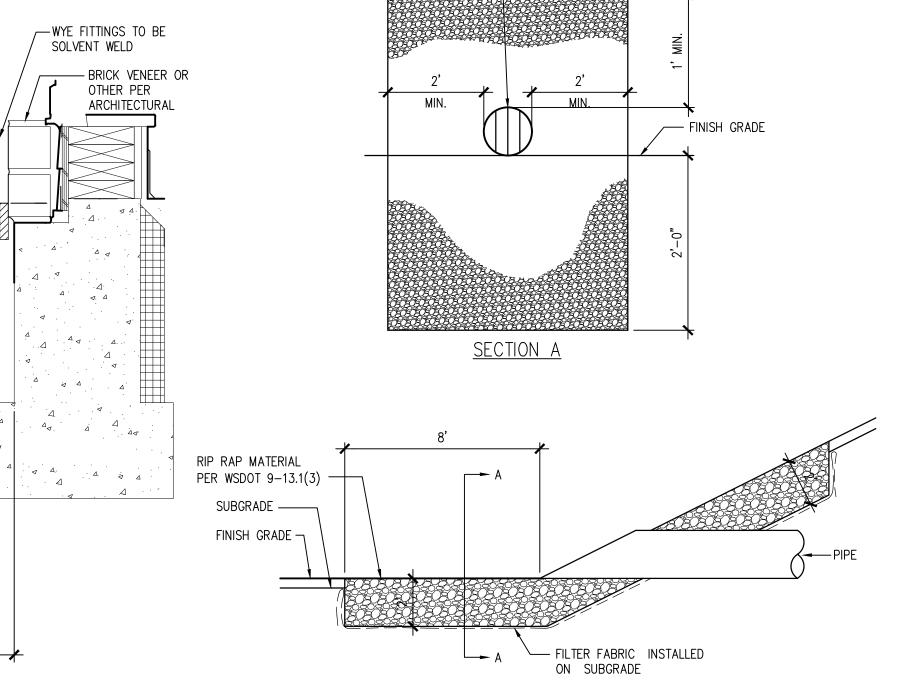


**CATCH BASIN SIGNAGE NOTES** 

PUBLICLY MAINTAINED STORMWATER CATCH BASINS SHALL BE SIGNED USING GLUE-DOWN MARKERS SUPPLIED BY THE CITY AND INSTALLED BY THE CONTRACTOR.

PRIVATELY MAINTAINED STORMWATER CATCH BASINS SHALL BE SIGNED WITH PRE-CUT 90ml TORCH DOWN HEAVY-DUTY, INTERSECTION-GRADE PREFORMED THERMOPLASTIC PAVEMENT MARKING MATERIAL. IT SHALL READ EITHER "ONLY RAIN DOWN THE DRAIN" OR "NO DUMPING, DRAINS TO STREAM".

ALTERNATIVELY, THE GLUE-DOWN MARKERS MAY BE PURCHASED FROM THE CITY FOR A NOMINAL FEE.



TRASH RACK PER DETAIL 01/C3.8 -

RIP RAP PAD SECTION
SCALE: N.T.S

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18,328 | Project Mgr.: Project No.: Proj. Drafter: Proj. Engineer:

**ENGINEERS, INC.** CIVIL - STRUCTURAL - SURVEYING

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CITY RESUBMITTAL

REVISIONS

02.26.2020

18103

REVIEWED BY:

**GRADING AND** 

DRAINAGE DETAILS

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SHEET CIVIL 22 OF 32

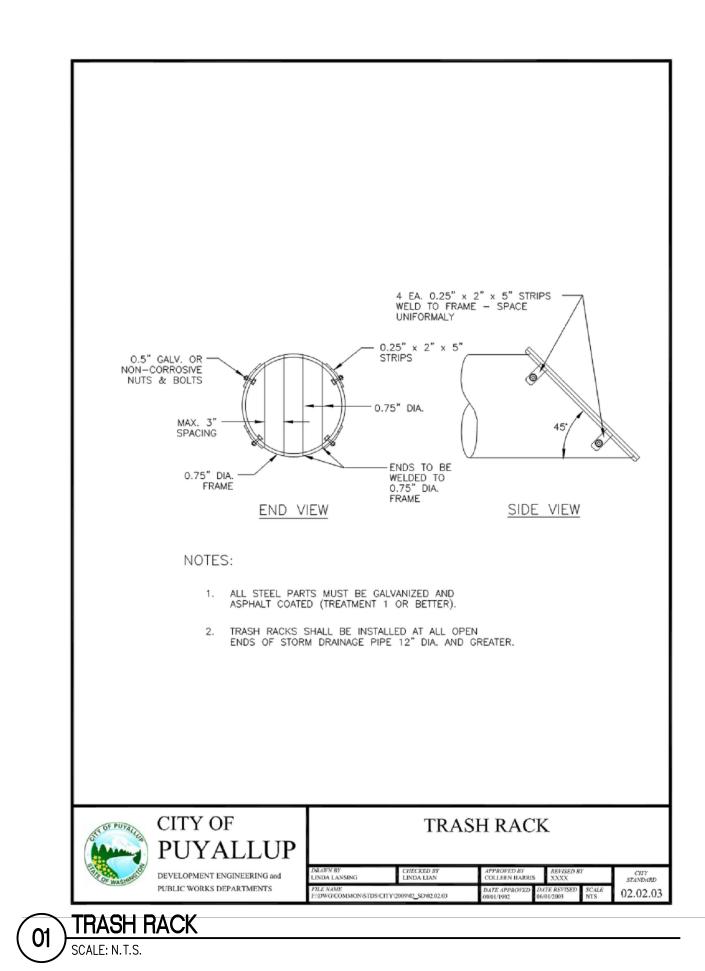
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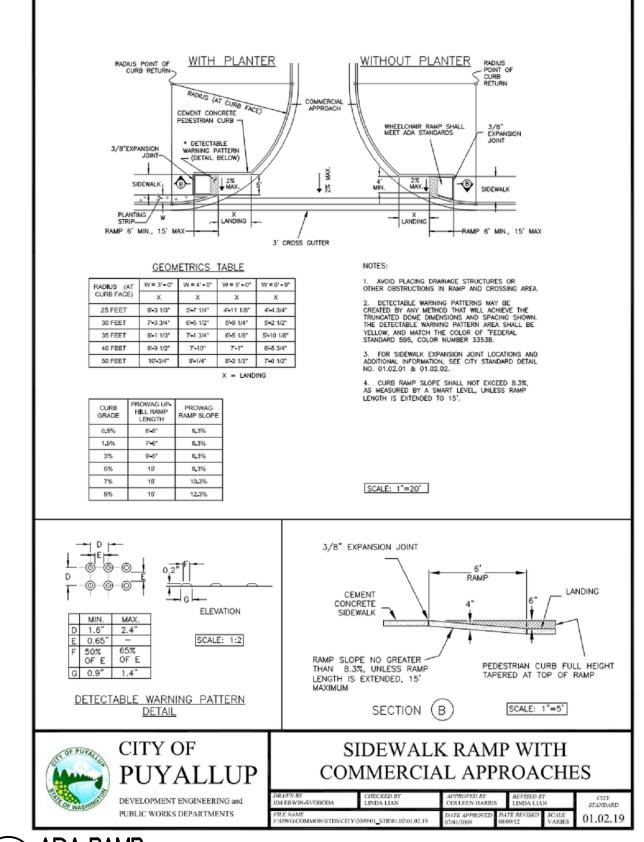
03-19-2020 ADDENDUM 3

03-31-2020 CITY RESUBMITTAL

04-03-2020 CONFORMED SET

06-03-2020 CITY RESUBMITTAL



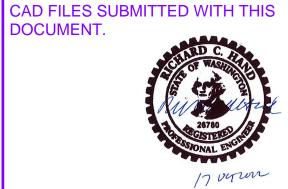


O2 ADA RAMP
SCALE: N.T.S.

RECORD DRAWING

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APPROVED CITY OF PUYALLUP ENGINEERING SERVICES DATE <u>06-09-20</u>

NOTE: THIS APPROVAL IS VOID AFTER 1 YEAR FROM APPROVAL

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03-19-2020 ADDENDUM 3 03-31-2020 CITY RESUBMITTAL 04-03-2020 CONFORMED SET 06-03-2020 CITY RESUBMITTAL 10-17-2022 RECORD DRAWING

02.26.2020 18103

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CITY RESUBMITTAL

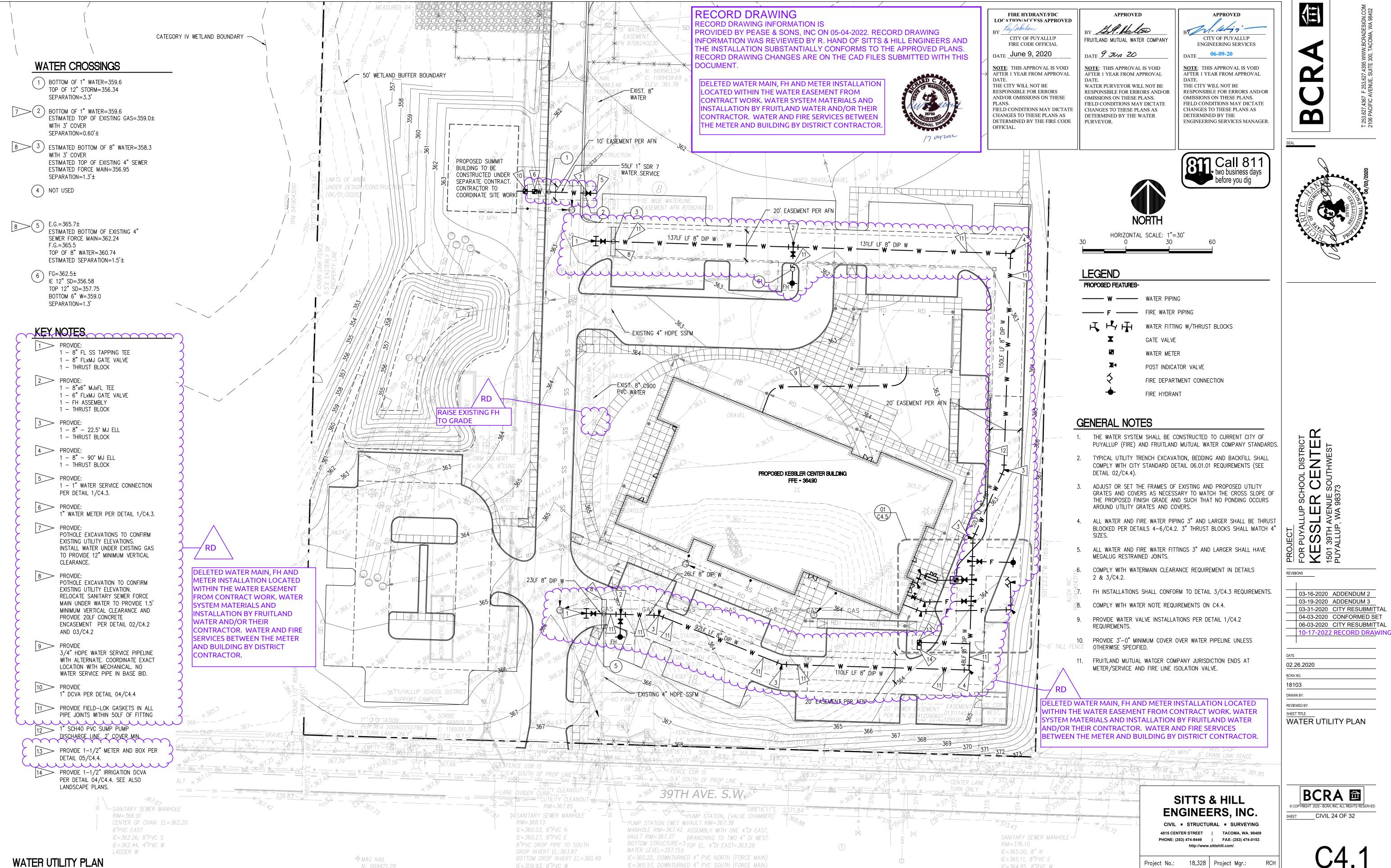
SHEET CIVIL 23 OF 32

REVIEWED BY: GRADING AND DRAINAGE DETAILS

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Project No.: 18,328 | Project Mgr.: VMS | Proj. Drafter: Proj. Engineer:



IE=358.85, 8"PVC SOUTH

IE=359.93, 8"PVC W

IN THE WEST CHANNEL

N: 669421.29

SCALE: 1"=30'

DISTRICT

03-16-2020 ADDENDUM 2 03-19-2020 ADDENDUM 3 03-31-2020 CITY RESUBMITTAL 04-03-2020 CONFORMED SET 06-03-2020 CITY RESUBMITTAL

WATER UTILITY PLAN

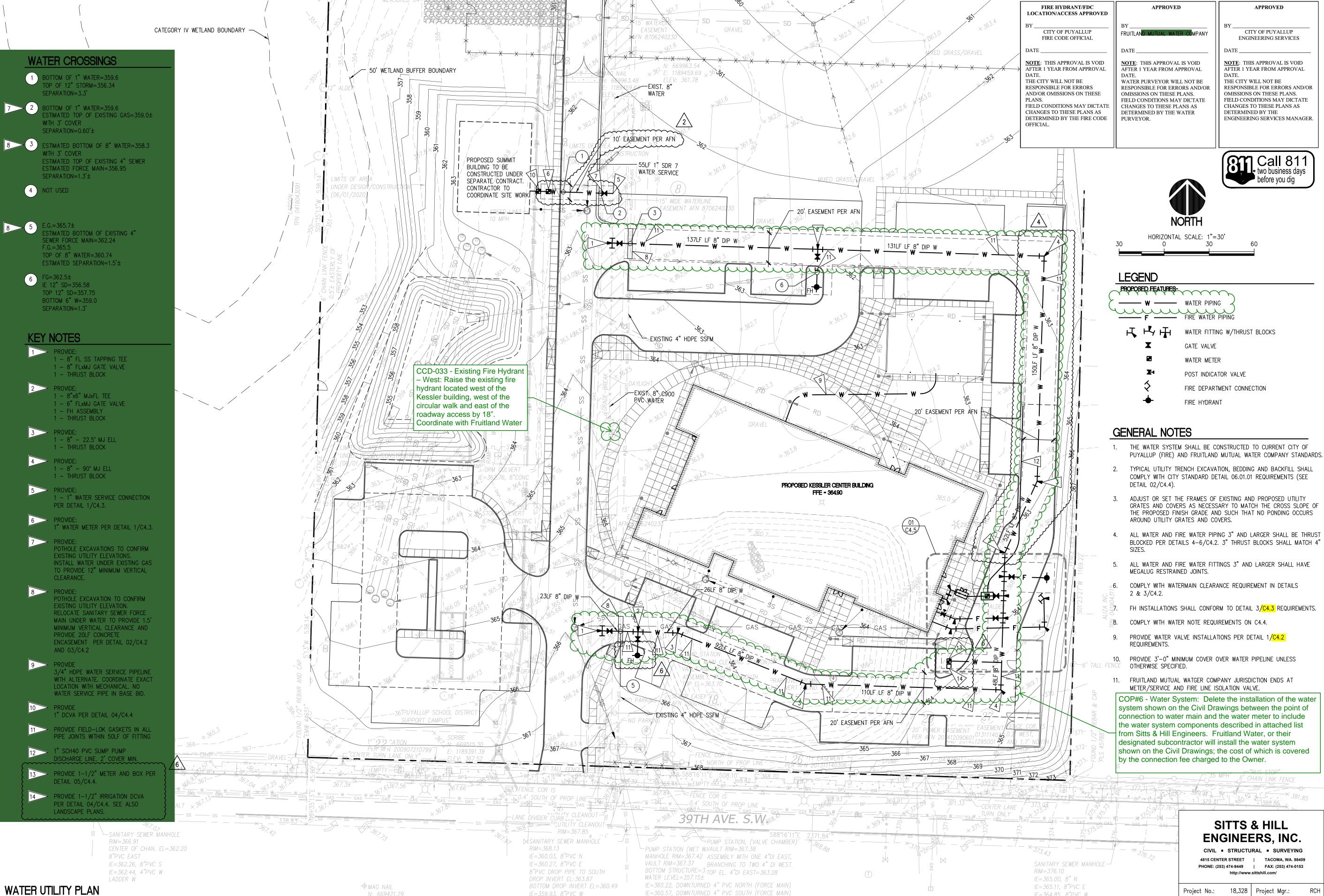
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CITY RESUBMITTAL

Proj. Engineer:

VMS | Proj. Drafter:

IE=364.85, 8"PVC W



IE=358.85, 8"PVC SOUTH

IE=359.93, 8"PVC W

IN THE WEST CHANNEL

N: 669421.29

SCALE: 1"=30'

NOTE: THIS APPROVAL IS VOID

RESPONSIBLE FOR ERRORS AND/OR OMISSIONS ON THESE PLANS. FIELD CONDITIONS MAY DICTATE CHANGES TO THESE PLANS AS ENGINEERING SERVICES MANAGER.

Call 811 two business days before you dig

- 1. THE WATER SYSTEM SHALL BE CONSTRUCTED TO CURRENT CITY OF
- TYPICAL UTILITY TRENCH EXCAVATION, BEDDING AND BACKFILL SHALL COMPLY WITH CITY STANDARD DETAIL 06.01.01 REQUIREMENTS (SEE
- ADJUST OR SET THE FRAMES OF EXISTING AND PROPOSED UTILITY GRATES AND COVERS AS NECESSARY TO MATCH THE CROSS SLOPE OF THE PROPOSED FINISH GRADE AND SUCH THAT NO PONDING OCCURS
- 4. ALL WATER AND FIRE WATER PIPING 3" AND LARGER SHALL BE THRUST BLOCKED PER DETAILS 4-6/C4.2. 3" THRUST BLOCKS SHALL MATCH 4"

COP#6 - Water System: Delete the installation of the water shown on the Civil Drawings; the cost of which is covered

COP#6 8/3/20

DISTRICT INTER SSLE 39TH AVEN ALLUP, WA 9

REVISIONS ↑ 03-16-2020 ADDENDUM 2 03-19-2020 ADDENDUM 3 ▲ 04-03-2020 CONFORMED SET 3 03-20-2020 ADDENDUM 4 5 05-21-2020 PERMIT RESPONSE 6 06-15-2020 CONFORMED SET

02.26.2020

18103

DRAWN BY: REVIEWED BY:

SHEET TITLE

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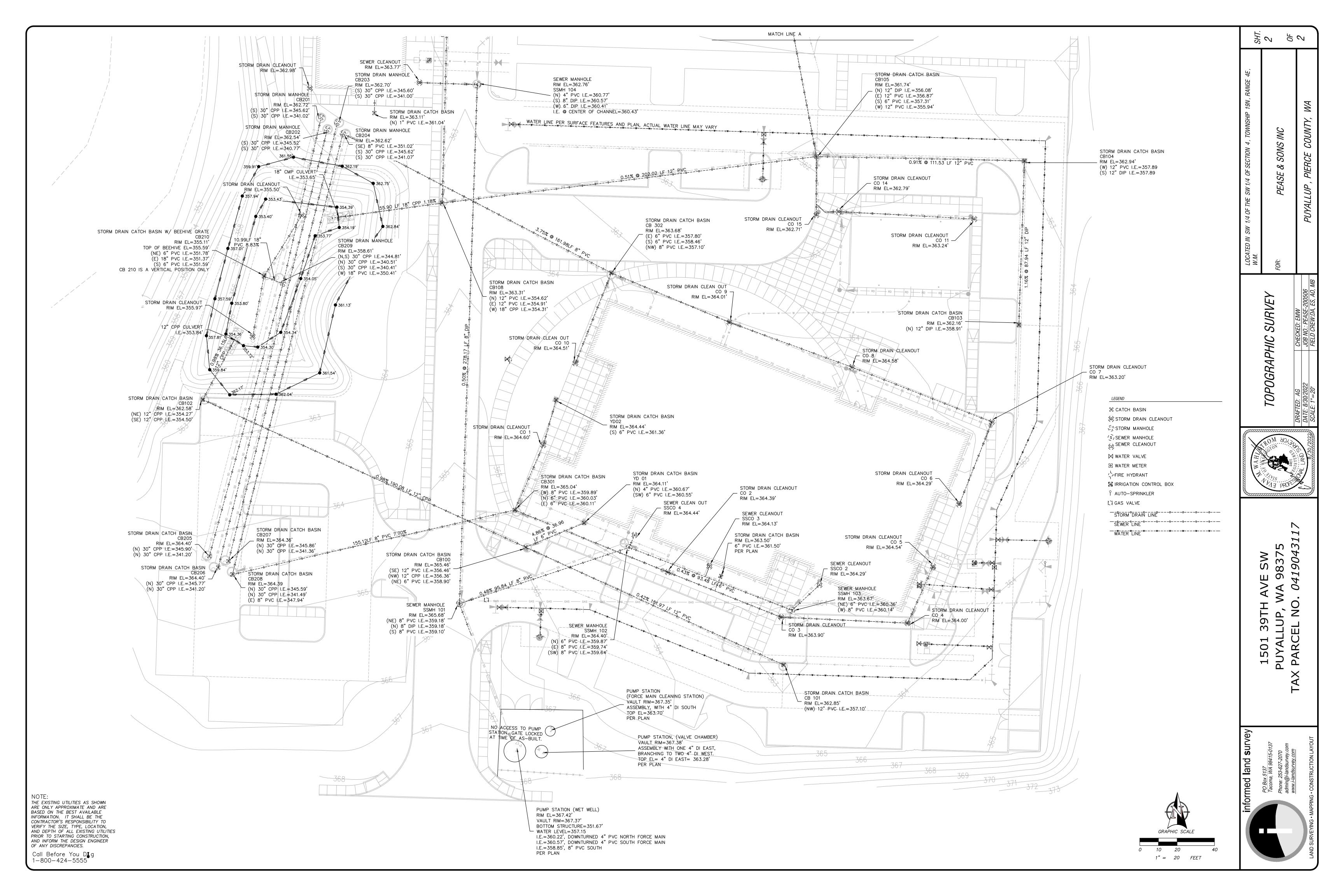
SHEET CIVIL 24 OF 32

CONFORMED SET

VMS | Proj. Drafter:

Proj. Engineer:

IE=364.85, 8"PVC W



NOTES:

1. WATER MAINS SHALL HAVE A MINIMUM COVER OF 36" FROM PAVED FINAL GRADE IN IMPROVED RIGHT-OF-WAY AND IMPROVED EASEMENTS, AND A MINIMUM OF 48" IN UNIMPROVED RIGHT-OF-WAY AND UNIMPROVED EASEMENTS. VALVE OPERATING NUT EXTENSIONS ARE REQUIRED WHEN THE VALVE NUT IS MORE THAN FIVE (5) FEET BELOW FINISHED GRADE. EXTENSIONS ARE TO BE A MINIMUM OF TWO (2) FEET LONG, ONLY ONE EXTENSION TO BE USED PER VALVE. TOP OF EXTENSION SHALL BE 2 FEET 6 INCHES TO 3 FEET BELOW FINISHED GRADE.

ALL VALVE OPERATING NUT EXTENSIONS ARE TO BE MADE OF STEEL, SIZED AS NOTED, AND PAINTED WITH TWO COATS OF METAL PAINT.

VALVE BOXES SHALL BE TWO-PIECE, ADJUSTABLE, CAST IRON WITH EXTENSION PIECES (IF NECESSARY), AS MANUFACTURED BY THE VANRICH #940 SEATTLE OR APPROVED EQUAL. THE WORD "WATER" SHALL BE CAST IN RELIEF ON THE VALVE BOX COVER. VALVE BOX TOPS INSTALLED IN ARTERIAL ROADWAYS SHALL BE MANUFACTURED BY EAST JORDAN (E.) IRONWORKS MODEL 8555 WITH VALVE BOX COVER MODEL 6800 OR APPROVED EQUAL. NEAT LINE CUTS SHALL BE SEALED WITH A HOT PAVING GRADE ASPHALT AND FACE OF CUT TACKED.

WATER MAINS SHALL BE CONSTRUCTED AND TESTED IN ACCORDANCE WITH DIVISION 7 OF THE WSDOT STANDARD SPECIFICATIONS SUPPLEMENTED WITH THE FOLLOWING:

A. DUCTILE IRON PIPE SHALL CONFORM TO AWWA C 151, THICKNESS CLASS 52, AND THE EXTERIOR SHALL BE COATED WITH COAL TAR VARNISH. PIPE AND FITTINGS SHALL BE MORTOR LINED AND SHALL CONFORM TO AWWA C 104. THE THICKNESS OF THE LINING SHALL BE NOT LESS THAN 1/16" THICK FOR 3" TO 12" PIPE, 3/32" THICK FOR 14" TO 24" PIPE, AND 1/8" THICK FOR 30" TO 54" PIPE. THE CEMENT LINING SHALL CONFORM TO THE REQUIREMENTS OF ASTM C 150.

B. JOINTS SHALL BE TYTON PUSH-ON JOINTS, OR APPROVED EQUAL, OR MECHANICAL JOINT TYPE PER AWWA C 111 EXCEPT WHERE FLANGED JOINTS ARE REQUIRED TO CONNECT TO VALVES OR OTHER EQUIPMENT.

BOLTS AND NUTS FOR BURIED FLANGES LOCATED OUTDOORS, ABOVE GROUND, OR IN OPEN VAULTS IN STRUCTURES SHALL BE TYPE 316 STAINLESS
STEEL COMFORMING TO ASTM A 193, GRADE BBM FOR BOLTS, AND ASTM A 194, GRADE 8M FOR NUTS. BOLTS AND NUTS LARGER THAN ONE AND ONE-QUARTER (1-1/4) INCHES SHALL BE STEEL, ASTM A 307, GRADE B, WITH CADMIUM PLATING, ASTM A 165, TYPE NS.

D. BOLTS USED IN FLANGE INSTALLATION SETS SHALL CONFORM TO ASTM B 193, GRADE B7. NUTS SHALL COMPLY WITH ASTM A 194, GRADE 2H.

E. PROVIDE A WASHER FOR EACH NUT, WHERE NEEDED. WASHERS SHALL BE OF THE SAME MATERIAL AS THE NUTS.

F. ALL FITTINGS SHALL CONFORM TO THE REQUIREMENTS OF AWWA C 110 AND AWWA C 111.

G. RESILIENT SEATED WEDGE GATE VALVES SHALL BE USED FOR TEN (10) INCH MAINS AND SMALLER. BUTTERFLY VALVES SHALL BE USED FOR MAINS 1) RESILIENT SEATED WEDGE GATE VALVE: GATE VALVES SHALL CONFORM TO THE LATEST AWWA SPECIFICATIONS FOR COLD WATER, DOUBLE-DISK GATE VALVES, 200 PSI WORKING PRESSURE. THEY SHALL BE IRON-BODIED, BRONZE MOUNTED, NON-RISING STEM, WITH TWO (2) INCH SQUARE NUT. COUNTER-CLOCKWISE OPENING, MECHANICAL JOINT AND / OR FLANGED ENDS (6" VALVES ON FIRE HYDRANT LINES WHICH SHALL BE MECHANICAL

2) BUTTERFLY VALVES: BUTTERFLY VALVES CONFORMING WITH AWWA C 504, CLASS 150 AND SHALL HAVE STANDARD AWWA TWO (2) INCH SQUARE NUT. DETECTABLE MARKING TAPE SHALL BE INSTALLED 18" ABOVE PIPE, BE BLUE IN COLOR, AND READ "CAUTION WATER LINE BELOW" MEETING WSDOT SPEC. 9-15.18.

> NOTE: DRAWINGS DEPICT BLOCK LOCATION, NOT SIZE. FOR SIZE SEE NOTES 3, 4, 5, AND CITY STD. 03.02.01-3

> > DIRECTION CHANGE

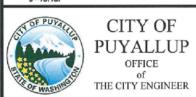
(COLUMN B)

THRU LINE CONNECTION.

CROSS USED AS TEE

TEE USED AS ELBOW

JOINTS BY FLANGED). VALVE STEMS SHALL BE PROVIDED WITH O-RING SEALS AND SHALL BE AS MANUFACTURED BY THE MUELLER COMPANY OR APPROVED EQUAL.



THRU LINE

CONNECTION, TEE

WATER VALVES AND MAINS



WATER VALVES AND MAINS

03.01.01

(COLUMNS B TO E)

CONNECTION, TEE

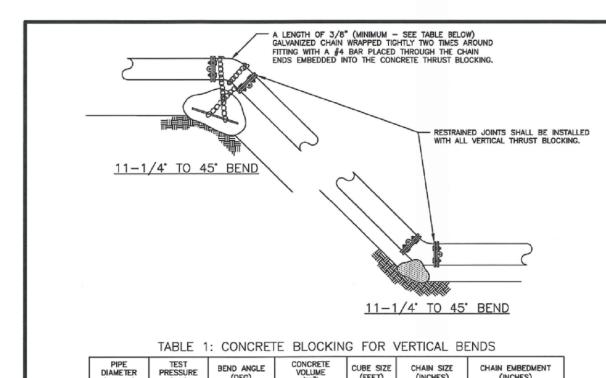
DIRECTION CHANGE,

CROSS USED AS ELBOW

PUYALLUP

OFFICE

18" (1.5") MINIMUM VERTICAL CLEARANCE OF WATER ABOVE SEWER MEASURED FROM OUTER EDGE OF PIPE TO OUTER EDGE OF PIPE



PIPE DIAMETER (INCHES)	TEST PRESSURE (PSI)	BEND ANGLE (DEG)	CONCRETE VOLUME (FT <sup>3</sup> )	CUBE SIZE (FEET)	CHAIN SIZE (INCHES)	CHAIN EMBEDMENT (INCHES)	
4"		11.25*	6	1.8			
	200	22.5*	12	2.3	3/8"	17"	
		45*	22	2.8			
		11.25°	14	2.4			
6"	200	22.5*	27	3.0	3/8"	17"	
		45°	50	3.7			
		11.25*	25	2.9	3/8"		
8"	200	22.5*	48	3.6		. 17"	
		45*	89	4.5			
	200	11.25°	38	3.4	3/8"	17"	
10"		22.5*	75	4.2			
		45*	139	5.2			
	200	11.25	55	3.8	3/8"	3/8"	17**
12"		22.5*	108	4.8			
		45*	200	5.8	1/2"	24"	
14"		11.25	75	4.2	3/8"	17"	
	200	22.5*	147	5.3	1/2"	20"	
		45*	272	6.5	1/2"	27"	
16"		11.25	98	4.6	3/8"	17"	
	200	22.5*	192	5.8	1/2"	24"	
		45'	355	7.1	3/4"	30"	

ALL PIPE SHALL BE PROPERLY BEDDED, SEE CITY OF PUYALLUP STANDARD BEDDING DETAIL NO. 06.01.01

E. BLOCKS MUST BE POSITIONED TO COUNTERACT THE DIRECTION OF THE RESULTANT THRUST FORCE.

D. RESTRAINED JOINTS SHALL BE INSTALLED, IN ADDITION TO CONCRETE THRUST BLOCKING.

DIMDE THRUST BY SAFE BEARING LOAD TO DETERMINE REQUIRED AREA (IN SQUARE FEET) OF CONCRETE TO DISTRIBUTE LOAD.

B. THE PIPE FITTING(S) AND BOLTS MUST BE ACCESSIBLE. WRAP IN PLASTIC BEFORE POURING CONCRETE BLOCKING.

BEARING SURFACE AREAS TO BE ADJUSTED BY THE ENGINEER FOR OTHER PRESSURE AND/OR SOIL CONDITIONS

THE FOLLOWING PRECAUTIONS MUST BE OBSERVED WHEN CONSTRUCTING THRUST BLOCKS:

A. BLOCKS MUST BE POURED OR PLACED AGAINST UNDISTURBED SOIL.



HORIZONTAL THRUST **BLOCKING** 

03.02.01-1

VERTICAL THRUST BLOCKING

PUYALLUI

OFFICE

NOTES FOR WATER MAIN CROSSING OTHER UTILITIES CITY STANDARD 03.01.03-1

WHEN LOCAL CONDITIONS PREVENT THE SEPARATIONS DESCRIBED ON CITY STANDARD 03.01.03-1, A SEWER MAY BE LAID CLOSER THAN 10-FEET HORIZONTALLY OR 18-INCHES VERTICALLY TO A WATER LINE, PROVIDED THE GUIDELINES BELOW ARE FOLLOWED:

1. SEWER LINE IS LAID IN A SEPARATE TRENCH FROM THE WATER LINE.

2. WHEN 18-INCHES VERTICAL SEPARATION CANNOT BE OBTAINED, THE SEWER SHALL BE CONSTRUCTED OF MATERIALS AND JOINTS THAT ARE EQUIVALENT TO WATER MAIN STANDARDS OF CONSTRUCTION AND SHALL BE PRESSURE TESTED TO ENSURE WATER TIGHTNESS PRIOR TO BACKET LING.

3. THE WATER LINE SHALL BE PLACED ON A BENCH OF UNDISTURBED EARTH WITH THE BOTTOM OF THE WATER PIPE AT LEAST 18-INCHES ABOVE THE CROWN OF THE SEWER, AND SHALL HAVE AT LEAST 5-FEET OF HORIZONTAL SEPARATION AT ALL TIMES. THE CITY RESERVES THE RIGHT TO REQUIRE SUPPLEMENTAL MITIGATION EFFORTS, SUCH AS IMPERMEABLE BARRIERS OR OTHER MEANS, FOR ADDITIONAL

4. THE SEWER SHALL NOT BE INSTALLED IN THE SAME DITCH AS A POTABLE WATER LINE WITHOUT PRIOR WRITTEN APPROVAL BY THE CITY OF PUYALLUP.

NUSUAL CONDITIONS (PERPENDICULAR SYSTEMS) CONDITION A - GRAVITY SEWERS PASSING UNDER WATER LINES (ALL OF THE FOLLOWING APPLY)

ONE FULL SEGMENT (NOT LESS THAN 18-FEET LONG) OF DUCTILE IRON CLASS 52 WATER PIPE, AND THE LONGEST STANDARD SEWER PIP LENGTH AVAILABLE FROM THE MANUFACTURER SHALL BE USED WITH THE PIPES CENTERED TO MAXIMIZE JOINT SEPARATION.

STANDARD GRAVITY-SEWER MATERIAL ENCASED IN CONCRETE OR IN A ONE-QUARTER-INCH THICK CONTINUOUS STEEL, DUCTILE IRON, OR PRESSURE RATED PVC PIPE WITH A DIMENSION RATIO (THE RATIO OF THE OUTSIDE DIAMETER TO THE PIPE WALL THICKNESS) OF 18 OR LESS, WITH ALL VOIDS PRESSURE-GROUTED WITH SAND-CEMENT GROUT OR BENTONITE. EXAMPLE OF DIMENSION RATIO (DR): OUTSIDE PIPE DIAMETER DIVIDED BY THE WALL THICKNESS OR OD/T. FOR 8-INCH SCH. 80 PVC PIPE (T=0.5 INCHES), THE DR IS 8.625/0.5=17.25

CONDITION B - GRAVITY SEWER PASSING OVER WATER LINES

WATER LINES SHALL BE PROTECTED BY PROVIDING: 1. A VERTICAL SEPARATION OF AT LEAST 18-INCHES BETWEEN THE INVERT OF THE SEWER AND THE CROWN OF THE WATER LINE.

ADEQUATE STRUCTURAL SUPPORT FOR THE SEWER LINE TO PREVENT EXCESSIVE DEFLECTION OF JOINTS AND SETTLING ON AND BREAKING OF THE WATER LINE.

3. THE SEWER PIPE SHALL BE THE LONGEST STANDARD SEWER PIPE LENGTH AVAILABLE FROM THE MANUFACTURER WITH THE WATER AND SEWER PIPES CENTERED TO MAXIMIZE JOINT SEPARATION.

WATER MAIN CROSSING

OTHER UTILITIES (NOTES)

03.01.03-2

4. THE SEWER LINE CASING EQUIVALENT TO THAT SPECIFIED IN A(2) ABOVE.

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WATER MAIN CROSSING OTHER UTILITIES NOTES

MUCK, PEAT, ETC.

SAND AND GRAVEL

TO DETERMINE THE BEARING AREA OF THE THRUST BLOCK IN SQUARE FEET (SF):

CONTRACTOR TO PROVIDE BLOCKING ADEQUATE TO WITHSTAND FULL TEST PRESSURE

FOR SAND AND GRAVEL BEARING VALUE FROM TABLE 3 IS 3,000 LBS/SF

SOFT CLAY/ALLUVIAL SOIL

SAND AND GRAVEL CEMENTED WITH CLAY

TABLE 2: THRUST AT FITTINGS AT 200 PSI

THRUST FITTINGS AT 200 PSI

TEE AND DEAD ENDS 90" BEND 45" BEND 22.5" BEND 11.25" BEND

SAFE BEARING LOAD LBS/SF

1,000

2,000

3,000

4,000

50,265 71,085 38,470 19,615

TABLE 3: BEARING VALUE OF SOIL

SEE CITY STANDARDS 03.02.01-1 AND 03.02.01-2 FOR ADDITIONAL INFORMATION.

TO DETERMINE THRUST AT PRESSURES OTHER THAN PSI SHOWN, MULTIPLY THE THRUST OBTAINED IN TABLE 2 BY THE RATIO OF THE PRESSURE TO 200 PSI.

**RECORD DRAWING** 

ECORD DRAWING INFORMATION IS PROVIDED BY PEASE & SONS, INC ON 05-04-2022. RECORD DRAWING INFORMATION WAS REVIEWED BY R. HAND OF SITTS & HILL ENGINEERS AND THE INSTALLATION SUBSTANTIALLY CONFORMS TO THE APPROVED PLANS. RECORD DRAWING CHANGES ARE ON THE CAD FILES SUBMITTED WITH THIS

DELETED WATER MAIN, FH AND METER INSTALLATION LOCATED WITHIN THE WATER EASEMENT FROM CONTRACT WORK. WATER SYSTEM MATERIALS AND INSTALLATION BY FRUITLAND WATER AND/OR THEIR CONTRACTOR. WATER AND FIRE SERVICES BETWEEN THE METER AND BUILDING BY DISTRICT CONTRACTOR.

DOCUMENT.



APPROVED GA. Helso FRUITLAND MUTUAL WATER COMPANY

DATE 9 JUN 20 **NOTE**: THIS APPROVAL IS VOID AFTER 1 YEAR FROM APPROVAL

WATER PURVEYOR WILL NOT BE RESPONSIBLE FOR ERRORS AND/OR OMISSIONS ON THESE PLANS. FIELD CONDITIONS MAY DICTATE CHANGES TO THESE PLANS AS DETERMINED BY THE WATER PURVEYOR.



ENGINEERING SERVICES **NOTE**: THIS APPROVAL IS VOID

AFTER 1 YEAR FROM APPROVAL THE CITY WILL NOT BE RESPONSIBLE FOR ERRORS AND/OR OMISSIONS ON THESE PLANS. FIELD CONDITIONS MAY DICTATE CHANGES TO THESE PLANS AS DETERMINED BY THE ENGINEERING SERVICES MANAGER.



REVISIONS 03-16-2020 ADDENDUM 2 03-19-2020 ADDENDUM 3 03-31-2020 CITY RESUBMITTAL 04-03-2020 CONFORMED SET 06-03-2020 CITY RESUBMITTAL

10-17-2022 RECORD DRAWING

02.26.2020

18103 REVIEWED BY:

WATER UTILITY DETAILS

BCRA 圙

CIVIL 25 OF 32

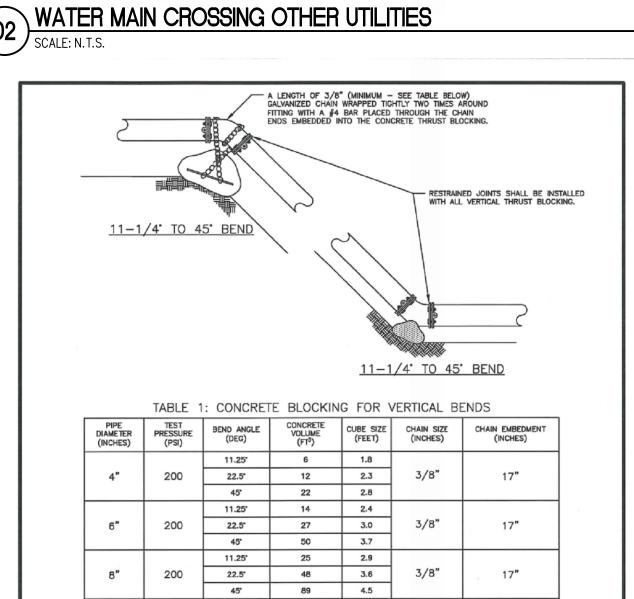
CIVIL - STRUCTURAL - SURVEYING 4815 CENTER STREET | TACOMA, WA. 98409 PHONE: (253) 474-9449 | FAX: (253) 474-0153 http://www.sittshill.com/

Project No.:	18,328	Project Mgr.:	RCH
Proj. Engineer:	VMS	Proj. Drafter:	KLK

SITTS & HILL **ENGINEERS, INC.** 

PUYALLUI OFFICE \ HORIZONTAL THRUST BLOCKING

NOTES:



FINISHED GRADE -

EXISTING UTILITY LINES -

SEE CITY STANDARD 03.01.03-2 FOR ADDITIONAL NOTES FOR THIS DETAIL

NOTE: CONTRACTOR SHALL VERIFY LOCATION

WATER MAIN CROSSING

OTHER UTILITIES

03.01.03-

AND DEPTH OF EXISTING AND/OR PROPOSED UTILITIES

VERTICAL THRUST **BLOCKING** 03.02.01-2

PUYALLUP OFFICE

59,978 LBS + 3000 LB/SF = 20 SF OF AREA

AREAS SHALL BE ADJUSTED FOR OTHER PRESSURE CONDITIONS.

EXAMPLE: THE THRUST ON A 12 INCH, 90° BEND AT 300 PSI.

 $39,985 \times \frac{300 \text{ PS}}{200 \text{ PS}} = 59,978 \text{ LBS}$ 

SEE TABLE 3, BEARING VALUE OF SOIL

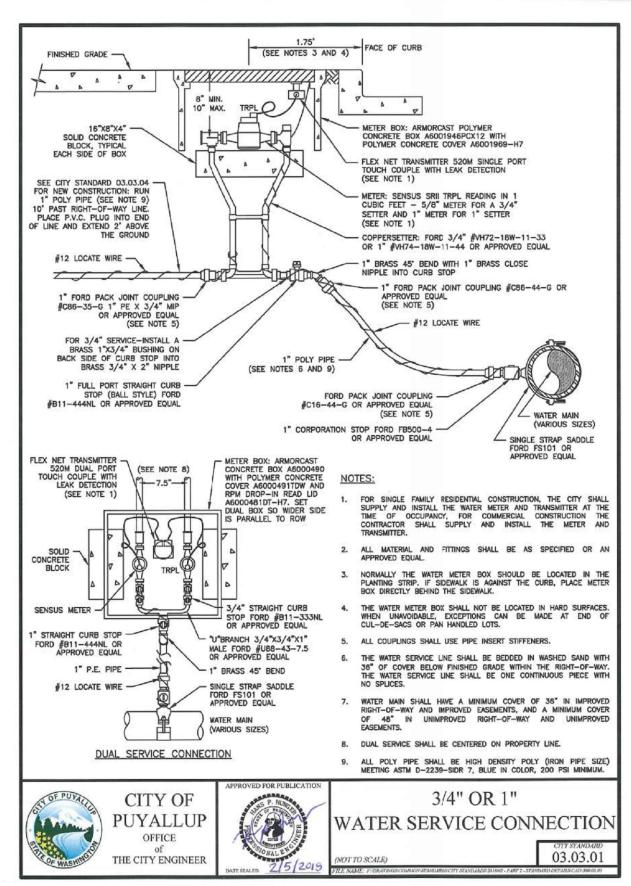


THRUST BLOCKING TABLE

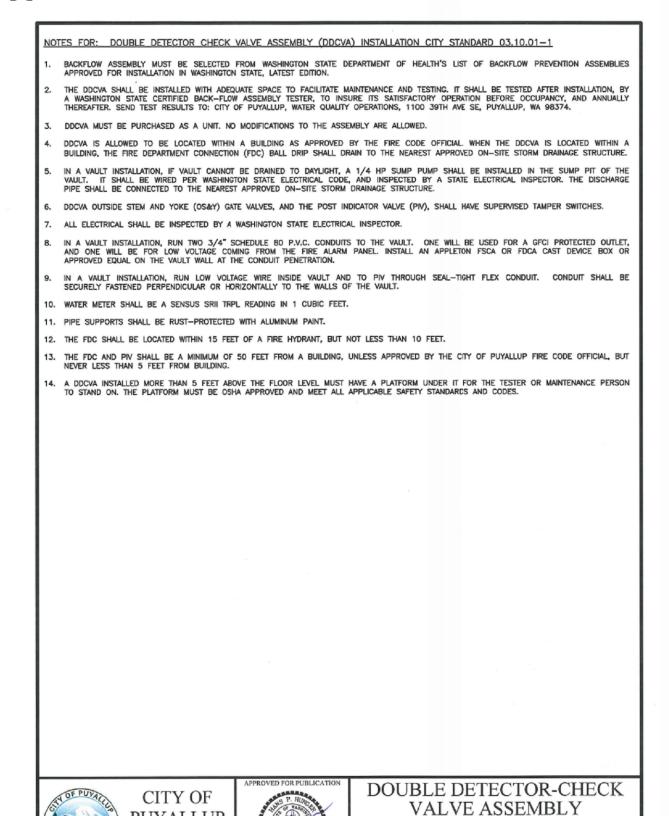
(S) NO WATER MAIN SHALL DEAD END AGAINST A MAIN LINE VALVE, DEAD END WATER MAINS SHALL BE BLOCKED AGAINST A RESTRAINED MECHANICAL JOINT (M.J.) PLUG OR CAP.

THRUST BLOCKING TABLE

IF SHEET MEASURES LESS THAN 22"X34", IT IS A REDUCED PRINT. REDUCE SCALE ACCORDINGLY









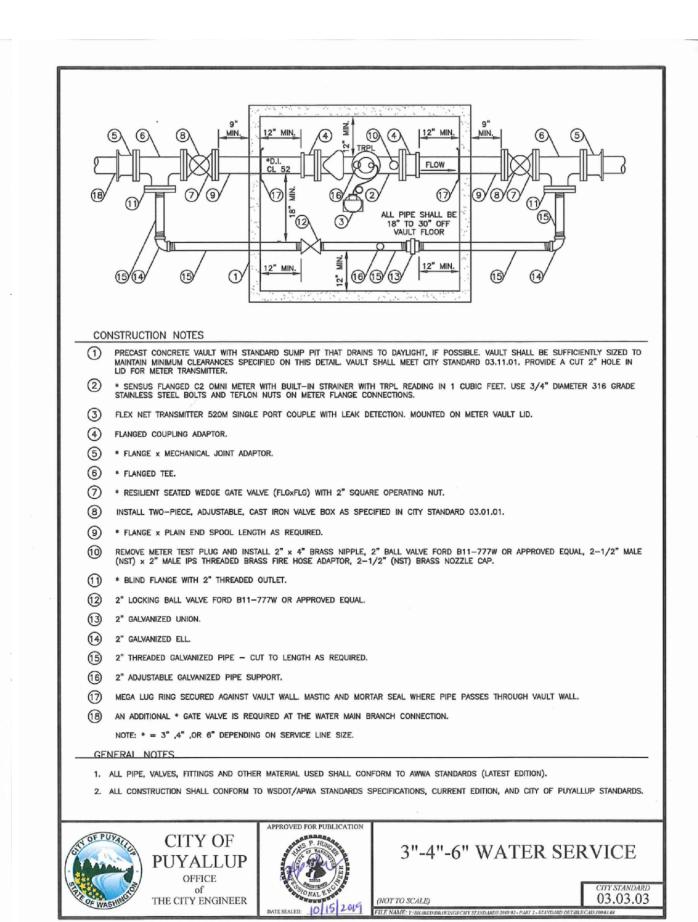
INSTALLATION (NOTES)

03.10.01-2

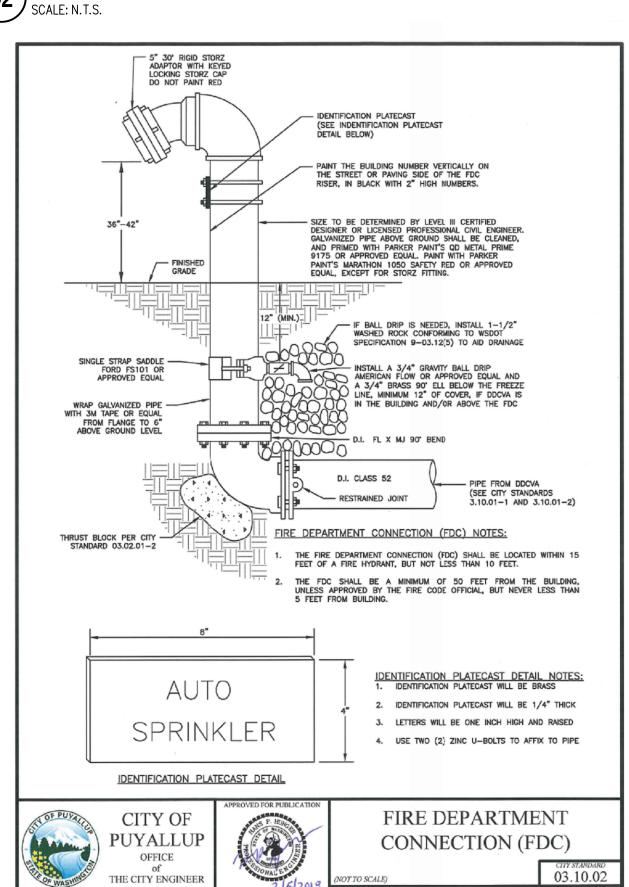
PUYALLUI

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THE CITY ENGINEER



## 3"-4"-6" WATER SERVICE



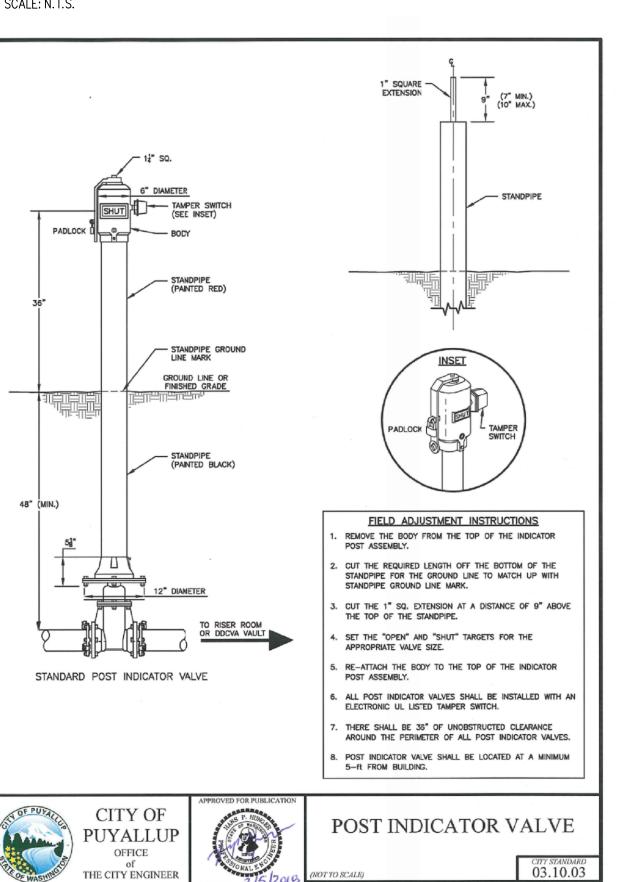
# FIRE DEPARTMENT CONNECTION (FDC)

DIA. X 6' LONG WITH 5-1/2" DIA. X 5'-8" LONG, REBAR EQUALLY SPACED. PAINT SAME AS FIRE HYDRANT NOTE:
CONCRETE GUARD POSTS SHALL
BE INSTALLED WHEN REQUIRED
BY THE CITY ENGINEER.
DO NOT INSTALL GUARD POSTS GUARD POST DETAIL FIRE HYDRANT (SEE NOTES 3, 4, AND 5) (SEE NOTES 3 AND 4) BREAKWAY FLANGE OR -HOLDING SPOOL (SEE NOTE 10) (FLG X VJ) (SEE NOTE 6) **PROFILE** . ALL MATERIALS AND FITTINGS SHALL BE AS SPECIFIED OR APPROVED EQUAL. WATER MAINS SHALL HAVE A MINIMUM COVER OF 36" IN IMPROVED RIGHT-OF-WAY AND IMPROVED EASEMENTS, AND A MINIMUM 48" IN UNIMPROVED RIGHT-OF-WAY AND UNIMPROVED EASEMENTS. THE FIRE HYDRANT AND CONCRETE GUARD POSTS SHALL BE PAINTED, RUST-OLEUM SAFETY YELLOW #7543 (TWO COATS) OR AN APPROVED EQUAL. THE STORZ FITTING SHALL NOT BE PAINTED. FIRE HYDRANTS SHALL HAVE TWO 2-1/2" HOSE PORTS (NATIONAL STANDARD THREAD) WITH CAPS AND CHAINS AND ONE 4" PUMPER PORT (#B TACOMA STEAMER PORT THREAD) WITH A 5" 'STORZ' COUPLING AND BLIND CAP INSTALLED ON THE STEAMER PORT, (STEAMER PORT SHALL FACE THE STREET), 1-1/4" PENTAGONAL OPERATING NUT (COUNTER-CLOCKWISE OPENING), O-RING TYPE STUFFING BOX, AUTOMATIC BARREL DRAINS AND 5-1/4" MAIN VALVE OPENING, HYDRANTS SHALL BE DESIGNED IN A MANNER THAT WILL PREVENT BARREL BREAKAGE WHEN STRUCK BY A VEHICLE. HYDRANTS SHALL CONFORM TO THE LATEST REVISION OF AWWA SPECIFICATIONS NO. C 502-73 FOR FIRE HYDRANTS FOR ORDINARY WATER SERVICE. FIRE HYDRANTS SHALL INCLUDE THE ENTIRE ASSEMBLY COMPLETE, INCLUDING HYDRANT, GATE VALVE AND BOX, CONNECTING PIPING. ETTINGS. AND ACCESSORIFS. FIRE HYDRANTS SHALL BE AVK, CLOW MEDALLION, M & H 929, MUELLER CENTURION, OR WATEROUS GATE VALVES SHALL CONFORM TO THE LATEST AWWA SPECIFICATIONS FOR COLD WATER, RESILIENT SEATED WEDGE GATE VALVES, 200 PSI WORKING PRESSURE. THEY SHALL BE IRON—BODIED BRONZE—MOUNTED, NON—RISING STEM, COUNTER—CLDCKWISE OPENING, MECHANICAL JOINT BY FLANCED. VALVE STEMS SHALL BE PROVIDED WITH 0—RING SEALS AND SHALL BE AS MANUFACTURED BY THE MUELLER COMPANY OR APPROVED EQUAL. THE HOLDING SPOOL SHALL BE A MECHANICAL-JOINT (M.J.) HOLDING SPOOL, WITH THE USE OF MEGA-LUG CONNECTORS OR APPROVED EQUAL WITH CLASS 52 DUCTILE IRON PIPE. IF DISTANCE BETWEEN WATER MAIN AND FIRE HYDRANT IS GREATER THAN 17 FEET, A RESTRAINED JOINT IS REQUIRED ON ADDITIONAL JOINT. MAXIMUM HYDRANT RUN ALLOWED IS 20 FEET. FIRE HYDRANTS SHALL BE LOCATED A MINIMUM OF 50 FEET FROM A BUILDING OR STRUCTURE O. THE CONTRACTOR SHALL PLACE A 6 OZ. GEDTEXTILE FABRIC AROUND THE WASHED ROCK AREA, ENDS TO OVERLAP. . A FLUORESCENT ORANGE BAG MUST COVER AND BE SECURED TO THE FIRE HYDRANT UNTIL APPROVED FOR USE BY CITY ENGINEER. . A MINIMUM THREE FOOT (3') RADIUS UNOBSTRUCTED CLEAR ZONE (WORK AREA) SHALL BE PROVIDED AROUND ALL FIRE HYDRANTS. ADDITIONALLY, NO WOODY LANDSCAPE SHALL BE PLANTED WITHIN TEN FEET (10') OF ANY FIRE HYDRANT. OVERREACHING BRANCHES OF TREES ADJACENT TO HYDRANTS SHALL HAVE A MAINTAINED VERTICAL CLEARANCE OF SEVEN (7') FEET ABOVE FINISHED GRADE OF THE FIRE HYDRANT. FIRE HYDRANT ASSEMBLY

#### FIRE HYDRANT ASSEMBLY SCALE: N.T.S.

PUYALLU:

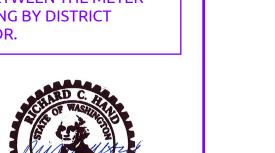
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POST INDICATOR VALVE

RECORD DRAWING ECORD DRAWING INFORMATION IS PROVIDED BY PEASE & SONS, INC ON 05-04-2022. RECORD DRAWING NFORMATION WAS REVIEWED BY R HAND OF SITTS & HILL ENGINEERS AND THE INSTALLATION SUBSTANTIALLY CONFORMS TO THE APPROVED PLANS. RECORD DRAWING CHANGES ARE ON THE CAD FILES SUBMITTED WITH THIS DOCUMENT.

DELETED WATER MAIN, FH AND METER INSTALLATION LOCATED WITHIN THE WATER EASEMENT FROM CONTRACT WORK. WATER SYSTEM MATERIALS AND INSTALLATION BY FRUITLAND WATER AND/OR THEIR CONTRACTOR. WATER AND FIRE SERVICES BETWEEN THE METER AND BUILDING BY DISTRICT CONTRACTOR.



17 veron

APPROVED FRUITLAND MUTUAL WATER COMPANY DATE 9 Jun 20 **NOTE**: THIS APPROVAL IS VOID AFTER 1 YEAR FROM APPROVAL WATER PURVEYOR WILL NOT BE

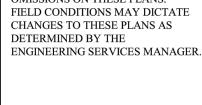
OMISSIONS ON THESE PLANS.

CHANGES TO THESE PLANS AS DETERMINED BY THE WATER

PURVEYOR.

CITY STANDARD .01-2, NOTE 9)

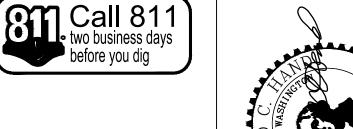
NOTE: THIS APPROVAL IS VOID AFTER 1 YEAR FROM APPROVAL THE CITY WILL NOT BE RESPONSIBLE FOR ERRORS AND/OR RESPONSIBLE FOR ERRORS AND/OR OMISSIONS ON THESE PLANS. FIELD CONDITIONS MAY DICTATE



APPROVED

CITY OF PUYALLUP

ENGINEERING SERVICES



POST INDICATOR VALVE -(SEE CITY STANDARD 03.10.01-2, NOTE 13) TO BLDG. --FROM MAIN FROM FIRE ALARM PANEL (SEE CITY STANDARD 03.10.01-2, NOTE 8) INCOMING POWER -3/4" BRASS 90" (DOWN) PRECAST CONCRETE VAULT WITH LADDER AND SAFETY POST. VAULT SHALL MEET CITY STANDARD 03.11.01 AND BE SUFFICIENT SIZED TO MEET THE MINIMUM CLEARANCES SPECIFIED ON THIS DETAIL. L FLOW FROM FIRE DEPARTMENT NOTES 12 AND 13, AND 03.10.02) POST INDICATOR VALVE (PIN (SEE CITY STANDARD 03.10.03 FOR ADDITIONAL INFORMATION) TAMPER DEVICE PUBLIC PRIVATE SAFETY POST -(SEE CITY STANDARD 03.11.01) (SEE CITY STANDARD 03.10.01-2 NOTE 6) FLOW --ADJUSTABLE STEEL
PE SUPPORTS
EEE CITY STANDARD
3.10.01-2 NOTE 11) 0888 **PROFILE** L SUMP PIT WITH OR WITHOUT DRAIN BED VAULT IN MINIMUM 6" OF CRUSHED ROCK CONFORMING TO NOTE 2, CITY STANDARD DETAIL 06.01.01 (SEE CITY STANDARDS 03.10.01-2 NOTE 5 AND 03.11.01)

DOUBLE DETECTOR-CHECK VALVE ASSEMBLY (DDCVA) MAY BE INSTALLED WITHIN A BUILDING. THE PLAN AND PROFILE VIEW OF THIS DETAIL SHOWS ALTERNATIVE EXTERIOR VAULT INSTALLATION.

DOUBLE DETECTOR-CHECK VALVE ASSEMBLY (DETAIL PROVIDED FOR REFERENCE ONLY. DDCVA TO BE LOCATED INSIDE BUILDING.)

CITY STANDARD 03.10.01-2 COVERS ADDITIONAL NOTES FOR THIS DETAIL.

INSTALLATION LOCATION NOTE:

PUYALLUF

OFFICE

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http://www.sittshill.com/

18,328 | Project Mgr.: RCH Project No.: Proj. Drafter: KLK Proj. Engineer:

SITTS & HILL **ENGINEERS, INC.** 

03.10.01-1

4815 CENTER STREET | TACOMA, WA. 98409 PHONE: (253) 474-9449 | FAX: (253) 474-0153

CITY RESUBMITTAL

SHEET CIVIL 26 OF 32

CIVIL - STRUCTURAL - SURVEYING

REVISIONS

02.26.2020

BCRA NO.

18103

DRAWN BY:

REVIEWED BY:

03-16-2020 ADDENDUM 2

03-19-2020 ADDENDUM 3

WATER UTILITY DETAILS

03-31-2020 CITY RESUBMITTAL

04-03-2020 CONFORMED SET

06-03-2020 CITY RESUBMITTAL

10-17-2022 RECORD DRAWING

IF SHEET MEASURES LESS THAN 22"X34", IT IS A REDUCED PRINT. REDUCE SCALE ACCORDINGLY

DOUBLE DETECTOR-CHECK

VALVE ASSEMBLY

INSTALLATION

(SEE NOTE 1)

IF POSSIBLE, DRAIN VAULT TO DAYLIGHT OR APPROVED STORM DRAINAGE STRUCTURE (2% MINIMUM SLOPE). VAULT DRAIN SHALL BE 4" SCH BI PVC PIPE WITH 1/4" GALVANIZED MESH SCREEN OR APPROVED EQUAL AFFIXED TO PIPE INLET AND OUTFALL. MASTIC AND MORTAR SEAL WHERE DRAIN PIPE PASSES THROUGH SUMP PIT AT FLOOR OF VAULT. WHEN VAULT DRAIN IS INFEASIBLE, A SUMP PUMP SHALL BE INSTALLED MEETING THE REQUIREMENTS OF NOTE 5. CITY STANDARD OF VAULT.

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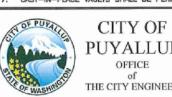
ROCK CONFORMING TO NOTE 2, CITY STANDARD 06.01.01

BED VAULT IN MINIMUM 6" OF CRUSHED

- WITHOUT WRITTEN APPROVAL FROM PRECAST SUPPLIER AND/OR ENGINEER OF RECORD.
- REMOVABLE DOORS SHALL BE A MINIMUM OF 6'-0" X 3'-0" ALUMINUM DIAMOND PLATE HINGED LOCKING DOORS, WITH HINGES LOCATED AT EACH END OF OPENING, AND WITH COVERED RECESSED PADLOCK HASP. DOORS SHALL BE SPRING LOADED AND LOCK IN THE OPEN POSITION. DOOR AND FRAME SHALL BE RATED FOR HS-20 LOADING.
- A GALYANIZED LADDER SHALL BE SET INSIDE THE VAULT FOR ACCESS. IT SHALL BE SECURED TO THE VAULT WITH 1/2 " DIA. BOLTS EPOXIED THE VAULT LID AND FLOOR.
- A BILCO LADDER UP SAFETY POST MODEL NO. 2 (OR APPROVED EQUAL) SHALL BE ATTACHED TO AND CENTERED ON THE LADDER STEPS.
- THE VAULT SHALL BE PLACED IN A UTILITY EASEMENT OUT OF VEHICLE AND PEDESTRIAN TRAFFIC. CAST-IN-PLACE VAULTS SHALL BE PERMITTED BY THE CITY'S BUILDING DIVISION PRIOR TO CONSTRUCTION

(SEE NOTE 4)

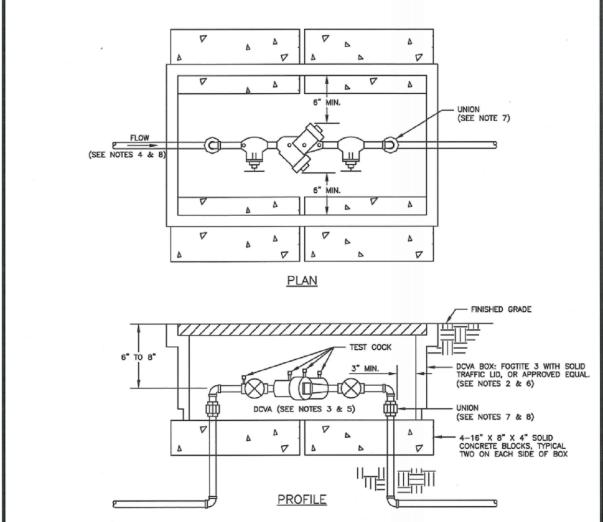
1" DEFORMED BAR





WATER VAULT DETAILS 03.11.01

## SCALE: N.T.S.



#### NOTES:

- BACKFLOW ASSEMBLY MUST BE SELECTED FROM WASHINGTON STATE DEPARTMENT OF HEALTH'S LIST OF BACKFLOW PREVENTION ASSEMBLIES APPROVED FOR INSTALLATION IN WASHINGTON STATE, LATEST EDITION.
- THE DCVA SHALL BE INSTALLED WITH ADEQUATE SPACE TO FACILITATE MAINTENANCE AND TESTING. IT SHALL BE TESTED AFTER INSTALLATION, BY A WASHINGTON STATE CERTIFIED BACK—FLOW ASSEMBLY TESTER, TO INSURE ITS SATISFACTORY OPERATION BEFORE OCCUPANCY, AND ANNUALLY THEREAFTER. SEND TEST RESULTS TO: CITY OF PUYALLUP, WATER QUALITY OPERATIONS, 1100 39TH AVE SE, PUYALLUP, WA 98374.
- DCVA MUST BE PURCHASED AS A UNIT. NO MODIFICATIONS TO THE ASSEMBLY ARE ALLOWED. DCVA SHALL BE PLACED IMMEDIATELY DOWNSTREAM OF WATER METER. WHEN IRRIGATION SYSTEM IS CONNECTED OFF DOMESTIC WATER LINE, IRRIGATION DCVA SHALL BE PLACED IMMEDIATELY DOWNSTREAM OF THE BRANCH CONNECTION.
- DCVA SHALL BE SIZED EQUAL OR COMPARABLE TO METER SIZE.
- METER BOX SHALL BE LARGE ENOUGH TO ALLOW THE MINIMUM SETBACKS ILLUSTRATED ABOVE. METER BOX LID SHALL BE A TRAFFIC LID WITH A H-20 LOADING.
- DIELECTRIC UNIONS MUST BE USED TO SEPARATE DISSIMILAR MATERIALS. USE ONLY BRASS OR COPPER BETWEEN THE METER AND THE UNION ON THE CUSTOMER'S SIDE OF THE DCVA.

PUYALLU. OFFICE THE CITY ENGINEER

SCALE: N.T.S



**\ 2" AND SMALLER DCVA INSALLATION** 

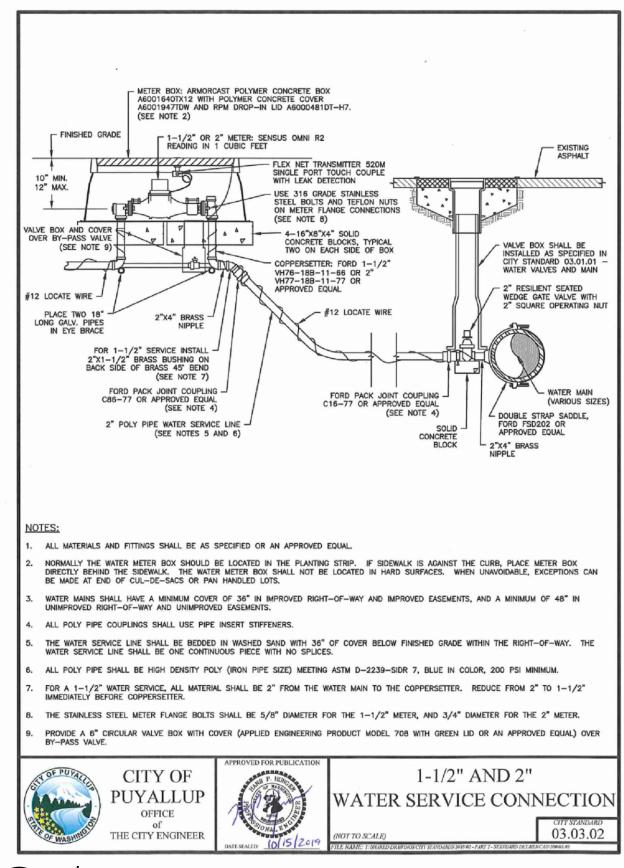
" AND SMALLER DOUBLE CHECK VALVE ASSEMBLY INSTALLATION 03.04.01

## 05) 1-1/2" AND 2" WATER SERVICE CONNECTION

## BACKFILL MATERIAL └╅╤┸┸╤┸┸╌┇┸╒┸╒ ╲╬╤╀╩╒┍╩╛┰╧┇╒╧┱╒╧┱┾╩╤┲╧┰┲╧┰ SEE NOTE 3 SEE NOTE 1 BEDDING MATERIAL, SEE NOTE 2 4" MIN. FOR 27" PIPE AND SMALLER 6" MIN. FOR PIPE LARGER THAN 27" UNDISTURBED OR COMPACTED SUB-GRADE 1. TRENCHING SHALL MEET THE REQUIREMENTS OF SECTION 7-08.3(1)A AND 2-06.3(1) 2. BEDDING MATERIAL SHALL CONFORM TO 9-03.12(3) GRAVEL BACKFILL FOR PIPE ZONE BEDDING. 3. GRAVEL BACKFILL SHALL CONFORM TO 9-03.12(1)A GRAVEL BACKFILL FOR PIPE TRENCHING BEDDING AND BACKFILL PUYALLU OFFICE

### PIPE TRENCHING BEDDING AND BACKFILL

SCALE: N.T.S.

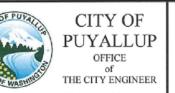


## - HOT BOX PROTECTIVE COVER OR APPROVED EQUAL (SEE NOTES 2, 4, & 5) (SEE NOTE 5) <u>PLAN</u> STE - OS&Y VALVE - HOT BOX PROTECTIVE COVER OR APPROVED EQUAL (SEE NOTES 2, 4, & 5) SET FLOOR OF PROTECTIVE **PROFILE** BACKFLOW ASSEMBLY MUST BE SELECTED FROM WASHINGTON STATE DEPARTMENT OF HEALTH'S LIST OF BACKFLOW PREVENTION ASSEMBLIES APPROVED FOR INSTALLATION IN WASHINGTON STATE, LASTEST EDITION. THE RPBA SHALL BE INSTALLED WITH ADEQUATE SPACE TO FACILITATE MAINTENANCE AND TESTING. IT SHALL BE TESTED AFTER INSTALLATION, BY A WASHINGTON STATE CERTIFIED BACK-FLOW ASSEMBLY TESTER, TO INSURE ITS SATISFACTORY OPERATION BEFORE OCCUPANCY, AND ANNUALLY THERAFTER. SEND TEST RESULTS TO: CITY OF PUYALLUP, WATER QUALITY OPERATIONS, 1100 39TH AVE SE, PUYALLUP, WA 98374. 5. THE RPBA MUST BE PURCHASED AS A UNIT. NO MODIFICATIONS TO THE ASSEMBLY ARE ALLOWED. . THE RPBA SHALL NOT BE INSTALLED IN A PIT BELOW GROUND LEVEL.

. THE RPBA SHALL BE LOCATED IMMEDIATELY DOWN STREAM OF THE METER, AND CANNOT BE INSTALLED INSIDE OF A BUILDING, DUE TO THE SEVERE HAZARD FROM THE WATER THAT POTENTIALLY COULD BE DISCHARGED FROM THE RELIEF VALVE PORT DURING A FOULED CHECK VALVE SITUATION. 3. ALL ELECTRICAL SHALL BE INSPECTED BY A WASHINGTON STATE ELECTRICAL INSPECTOR.

9. PIPE SUPPORTS SHALL BE RUST-PROTECTED WITH ALUMINUM PAINT.

 POUR A 4 INCH CONCRETE SLAB FOR RPBA PROTECTIVE COVER. PROVIDE A 2 INCH ANNULAR SPACE BETWEEN THE PIPE AND FLOOR. EXTEND THE CONCRETE SLAB 6 INCHES BEYOND THE PROTECTIVE COVERING TO PROVIDE ADEQUATE ANCHORING. 1. PROVIDE FREEZE PROTECTION AS DIRECTED BY OWNER.



3" AND ABOVE REDUCED PRESSURE BACKFLOW ASSEMBLY INSTALLATION 03.04.03

> 3" AND ABOVE RPBA INSTALLATION SCALE: N.T.S.

#### CITY OF PUYALLUP **WATER SYSTEM NOTES**

ALL WORK IN CITY RIGHT-OF-WAY REQUIRES A PERMIT FROM THE CITY OF PUYALLUP. PRIOR TO ANY WORK COMMENCING, THE GENERAL CONTRACTOR SHALL ARRANGE FOR A PRECONSTRUCTION MEETING AT THE DEVELOPMENT SERVICES CENTER TO BE ATTENDED BY ALL CONTRACTORS THAT WILL PERFORM WORK SHOWN ON THE ENGINEERING PLANS, REPRESENTATIVES FROM ALL APPLICABLE UTILITY COMPANIES. THE PROJECT OWNER AND APPROPRIATE CITY STAFF. CONTACT ENGINEERING SERVICES TO SCHEDULE THE MEETING 841-5568. THE CONTRACTOR IS RESPONSIBLE TO HAVE THEIR OWN APPROVED SET OF PLANS AT THE MEETING.

2. AFTER COMPLETION OF ALL ITEMS SHOWN ON THESE PLANS AND BEFORE ACCEPTANCE OF THE PROJECT, THE CONTRACTOR SHALL OBTAIN A "PUNCH LIST" PREPARED BY THE CITY'S INSPECTOR DETAILING REMAINING ITEMS OF WORK TO BE COMPLETED. ALL ITEMS OF WORK SHOWN ON THESE PLANS SHALL BE COMPLETED TO THE SATISFACTION OF THE CITY PRIOR TO ACCEPTANCE OF THE WATER SYSTEM AND PROVISION OF SANITARY SEWER SERVICE.

3. ALL MATERIALS AND WORKMANSHIP SHALL CONFORM TO THE STANDARD SPECIFICATIONS FOR ROAD, BRIDGE, AND MUNICIPAL CONSTRUCTION (HEREINAFTER REFERRED TO AS THE "STANDARD SPECIFICATIONS") WASHINGTON STATE DEPARTMENT OF TRANSPORTATION AND AMERICAN PUBLIC WORKS ASSOCIATION, WASHINGTON STATE CHAPTER, LATEST EDITION, UNLESS SUPERSEDED OR AMENDED BY THE CITY OF PUYALLUP CITY STANDARDS FOR PUBLIC WORKS ENGINEERING AND CONSTRUCTION (HEREINAFTER REFERRED TO AS THE "CITY STANDARDS"), OR AS DIRECTED BY FRUITLAND MUTUAL WATER COMPANY (FMWC), VALLEY WATER (VW), OR TACOMA CITY WATER (TCW) IS THE PURVEYOR.

4. A COPY OF THESE APPROVED PLANS AND APPLICABLE CITY DEVELOPER SPECIFICATIONS AND DETAILS SHALL BE ON SITE DURING CONSTRUCTION.

5. ANY REVISIONS MADE TO THESE PLANS MUST BE REVIEWED AND APPROVED BY THE DEVELOPER'S ENGINEER, THE ENGINEERING SERVICES STAFF, FMWC, VW, OR TWC WHEN SERVED BY THAT PURVEYOR PRIOR TO ANY IMPLEMENTATION IN THE FIELD. THE CITY SHALL NOT BE RESPONSIBLE FOR ANY ERRORS AND/OR OMISSIONS ON THESE PLANS.

6. THE CONTRACTOR SHALL HAVE ALL UTILITIES VERIFIED ON THE GROUND PRIOR TO ANY CONSTRUCTION. CALL (811) AT LEAST TWO WORKING DAYS IN ADVANCE. THE OWNER AND HIS/HER ENGINEER SHALL BE CONTACTED IMMEDIATELY IF A CONFLICT EXISTS.

7. ANY STRUCTURE AND/OR OBSTRUCTION WHICH REQUIRE REMOVAL OR RELOCATION RELATING TO THIS PROJECT SHALL BE DONE SO AT THE DEVELOPER'S EXPENSE.

8. BACTERIOLOGICAL (COLIFORM AND IRON BACTERIA) TEST SAMPLES WILL BE TAKEN BY THE CITY (OR FMWC, VW, TCW WHEN SERVED BY THAT PURVEYOR) AND PAID FOR BY THE CONTRACTOR, EXCEPT FOR CAPITOL IMPROVEMENT

PROJECTS (CIP) WHICH SHALL BE PAID FOR BY THE CITY. 9. WATER MAINS SHALL HAVE A MINIMUM COVER OF 3 INCHES FROM PAVED FINAL GRADE IN IMPROVED RIGHT-OF-WAY AND IMPROVED EASEMENTS, AND A MINIMUM OF 48INCHES IN UNIMPROVED RIGHT-OF-WAY AND UNIMPROVED EASEMENTS.

10. PIPE FOR WATER MAINS SHALL BE DUCTILE IRON CONFORMING TO SECTION 7-09 OF THE STANDARD SPECIFICATIONS, CLASS 52 WITH TYTON OR APPROVED EQUAL JOINTS. PIPE SHALL BE CEMENT LINED IN ACCORDANCE WITH A.S.A. SPECIFICATION A 21.4-1964.

11. CONNECTIONS TO EXISTING WATER MAINS TYPICALLY SHALL BE WET TAPS THROUGH A TAPPING TEE AND TAPPING VALVE AND SHALL BE MADE BY A CITY APPROVED CONTRACTOR. THE TAPPING SLEEVE SHALL BE ROMAC SST ALL STAINLESS STEEL TAPPING SLEEVE OR APPROVED EQUAL. A TWO-PIECE EPOXY COATED OR DUCTILE IRON TAPPING SLEEVE MAY BE USED ON DUCTILE IRON PIPE, WHEN THE TAP IS SMALLER THAN THE WATER MAIN SIZE I.E. 6 INCH TAP ON 8 INCH PIPE. THE CITY (OR FMWC, VW OR TCW WHEN SERVED BY THAT PURVEYOR) SHALL APPROVE THE TIME AND LOCATION FOR THESE CONNECTIONS.

**RECORD DRAWING** 

AND THE INSTALLATION

DOCUMENT.

PPROVED PLANS. RECORD

5-04-2022. RECORD DRAWING

RECORD DRAWING INFORMATION IS

PROVIDED BY PEASE & SONS, INC ON

NFORMATION WAS REVIEWED BY R

SUBSTANTIALLY CONFORMS TO THE

HAND OF SITTS & HILL ENGINEERS

DRAWING CHANGES ARE ON THE

CAD FILES SUBMITTED WITH THIS

DELETED WATER MAIN, FH AND

METER INSTALLATION LOCATED

FROM CONTRACT WORK. WATER

WITHIN THE WATER EASEMENT

INSTALLATION BY FRUITLAND

CONTRACTOR. WATER AND FIRE

SERVICES BETWEEN THE METER

AND BUILDING BY DISTRICT

SYSTEM MATERIALS AND

WATER AND/OR THEIR

CONTRACTOR.

12. ALL WATER MAINS AND APPURTENANCES SHALL BE HYDROSTATICALLY TESTED AT 200 PSI IN ACCORDANCE WITH STANDARD SPECIFICATION 7-09.3(23). PRESSURE TESTING SHALL NOT BE PERFORMED UNTIL SATISFACTORY PURITY SAMPLES HAVE BEEN RECEIVED, EXCEPT WHEN NEW WATER MAINS ARE INSTALLED INDEPENDENTLY FROM THE WATER SYSTEM PIPING.

13. FIRE HYDRANTS SHALL BE INSTALLED IN ACCORDANCE WITH CITY STANDARD DETAIL 03.05.01 AND AS DIRECTED BY THE CITY OF PUYALLUP FIRE CODE

14. VALVE MARKER POSTS SHALL BE INSTALLED WHERE VALVE BOXES ARE HIDDEN FROM VIEW OR IN UNPAVED AREAS. THE INSTALLATION SHALL BE IN ACCORDANCE WITH CITY STANDARD DETAIL 03.01.02.

15. RESILIENT SEATED WEDGE GATE VALVES SHALL BE USED FOR 10-INCH MAINS AND SMALLER. BUTTERFLY VALVES SHALL BE USED FOR MAINS GREATER THAN

16. PIPE FITTING FOR WATER MAINS SHALL BE DUCTILE IRON AND SHALL BE MECHANICAL JOINT CONFORMING TO AWWA SPECIFICATION C111-72.

17. WATER MAIN PIPE AND SERVICE CONNECTIONS SHALL BE A MINIMUM OF 10 FEET AWAY FROM BUILDING FOUNDATIONS AND/OR ROOF LINES. 18. WHERE A WATER MAIN CROSSES THE NORTHWEST GAS PIPELINE, THE WATER

LINE SHALL BE CASED WITH PVC PIPE A MINIMUM OF 10 FEET BEYOND EACH

SIDE OF THE GAS LINE EASEMENT. CONTACT WILLIAMS NORTHWEST PIPELINE

BEFORE THE CROSSING IS MADE. 19. TRENCHING, BEDDING, AND BACKFILL FOR WATER MAINS SHALL BE INSTALLED IN ACCORDANCE WITH CITY STANDARD DETAIL 06.01.01.

20. ALL COMMERCIAL AND INDUSTRIAL DEVELOPMENTS, IRRIGATION SYSTEMS, AND MULTI-FAMILY WATER SERVICE CONNECTIONS SHALL BE PROTECTED BY A DOUBLE CHECK VALVE ASSEMBLY OR A REDUCED PRESSURE BACKFLOW ASSEMBLY AS DIRECTED BY THE CITY (OR FMWC, VW OR TCW WHEN SERVED BY THAT PURVEYOR) CONFORMING TO CITY STANDARD DETAILS 03.04.01, 03.04.02, AND 03.04.03.

21. ANY LEAD JOINT FITTING DISTURBED DURING CONSTRUCTION SHALL BE

REPLACED WITH A MECHANICAL JOINT FITTING AT THE CONTRACTOR'S EXPENSE. 22. WHEN HYDRAULIC FIRE FLOW MODELING IS REQUIRED FOR A PROJECT, THE CITY WILL ISSUE A PERMIT. THE HYDRAULIC MODELING CRITERIA IS BASED ON THE PROJECTED 2030 WATER DEMAND, WHILE MAINTAINING A MINIMUM SYSTEM PRESSURE OF 20 POUNDS PER SQUARE INCH AND A MAXIMUM VELOCITY OF 10 FEET PER SECOND.

23. WHEN FILLING A NEW WATER MAIN FOR PURITY WITH HIGHLY CONCENTRATED CHLORINE WATER, THAT "SUPER" CHLORINATED WATER CANNOT SIT INSIDE THE NEW WATER MAIN FOR GREATER THAN 5 DAYS.

24. WHEN USING A FIRE HYDRANT FOR NON-FIREFIGHTING PURPOSES, A CITY HYDRANT METER MUST BE USED. COORDINATE THE ACQUISITION OF THE HYDRANT METER WITH THE CITY'S UTILITY BILLING DIVISION AT PUYALLUP CITY HALL. A CITY APPROVED BACKFLOW PROTECTION ASSEMBLY SHALL BE INSTALLED BY THE PERSON REQUESTING USE OF A FIRE HYDRANT. THE ASSEMBLY SHALL BE ACCOMPANIED BY A CURRENT BACKFLOW ASSEMBLY TEST REPORT. THE TEST REPORT SHALL BE AVAILABLE AT THE SITE FOR THE DURATION OF THE HYDRANT USE.

#### APPROVED GA. Helso FRUITLAND MUTUAL WATER COMPANY

DATE 9 JUN 20 NOTE: THIS APPROVAL IS VOID AFTER 1 YEAR FROM APPROVAL

WATER PURVEYOR WILL NOT BE RESPONSIBLE FOR ERRORS AND/OR OMISSIONS ON THESE PLANS. FIELD CONDITIONS MAY DICTATE CHANGES TO THESE PLANS AS DETERMINED BY THE WATER PURVEYOR.

APPROVED CITY OF PUYALLUP

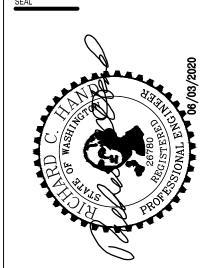
ENGINEERING SERVICES 06-09-20

NOTE: THIS APPROVAL IS VOID AFTER 1 YEAR FROM APPROVAL

THE CITY WILL NOT BE RESPONSIBLE FOR ERRORS AND/OR OMISSIONS ON THESE PLANS. FIELD CONDITIONS MAY DICTATE CHANGES TO THESE PLANS AS DETERMINED BY THE ENGINEERING SERVICES MANAGER.







YALLUP YALLUP SCE TH AVEN UP, WA

18103

REVISIONS 03-16-2020 ADDENDUM 2 03-19-2020 ADDENDUM 3 03-31-2020 CITY RESUBMITTAL 04-03-2020 CONFORMED SET 06-03-2020 CITY RESUBMITTAL

10-17-2022 RECORD DRAWING

02.26.2020

REVIEWED BY: WATER UTILITY DETAILS

AND NOTES

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Project No.:	18,328	Project Mgr.:	RCH
Proj. Engineer:	VMS	Proj. Drafter:	KLK

CIVIL 27 OF 32

FIELD CONDITIONS MAY DICTATE

Call 811 two business days

before you dig

CHANGES TO THESE PLANS AS

DETERMINED BY THE

ENGINEERING SERVICES MANAGER.

REVISIONS

03-16-2020 ADDENDUM 2 03-19-2020 ADDENDUM 3 03-31-2020 CITY RESUBMITTAL 04-03-2020 CONFORMED SET 06-03-2020 CITY RESUBMITTAL 10-17-2022 RECORD DRAWING

SIDE OF THE DISCHARGE CHECK VALVE OF THE FIRE PUMP.

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18,328 | Project Mgr.: Project No.: Proj. Engineer: VMS | Proj. Drafter: KLK

**RECORD DRAWING** RECORD DRAWING INFORMATION IS PROVIDED BY PEASE & SONS, INC ON 05-04-2022. RECORD DRAWING INFORMATION WAS REVIEWED BY R. HAND OF SITTS & HILL ENGINEERS AND THE INSTALLATION SUBSTANTIALLY CONFORMS TO THE APPROVED PLANS. RECORD DRAWING CHANGES ARE ON THE CAD FILES SUBMITTED WITH THIS DOCUMENT.

DELETED WATER MAIN, FH AND METER INSTALLATION LOCATED WITHIN THE WATER EASEMENT FROM CONTRACT WORK. WATER SYSTEM MATERIALS AND INSTALLATION BY FRUITLAND WATER AND/OR THEIR CONTRACTOR. WATER AND FIRE SERVICES BETWEEN THE METER AND BUILDING BY DISTRICT



17 veron

RD

DELETED WATER MAIN, FH AND METER

WORK. WATER SYSTEM MATERIALS AND

INSTALLATION BY FRUITLAND WATER

AND/OR THEIR CONTRACTOR. WATER

AND BUILDING BY DISTRICT

CONTRACTOR.

AND FIRE SERVICES BETWEEN THE METER

INSTALLATION LOCATED WITHIN THE

WATER EASEMENT FROM CONTRACT

FIRE HYDRANT/FDC

CITY OF PUYALLUP

FIRE CODE OFFICIAL

**NOTE**: THIS APPROVAL IS VOID

AFTER 1 YEAR FROM APPROVAL

Kay Cockerham

<sub>DATE</sub> June 9, 2020

THE CITY WILL NOT BE

PLANS.

OFFICIAL.

RESPONSIBLE FOR ERRORS

AND/OR OMISSIONS ON THESE

FIELD CONDITIONS MAY DICTATE

DETERMINED BY THE FIRE CODE

CHANGES TO THESE PLANS AS

LOCATION/ACCESS APPROVED

PROPOSED FEATURES-

**LEGEND** 

APPROVED

OMISSIONS ON THESE PLANS.

CHANGES TO THESE PLANS AS

DETERMINED BY THE WATER

PURVEYOR.

FIELD CONDITIONS MAY DICTATE

---- W ----- WATER PIPING FIRE WATER PIPING

HORIZONTAL SCALE: 1"=10"

WATER FITTING W/THRUST BLOCKS GATE VALVE

WATER METER

POST INDICATOR VALVE FIRE DEPARTMENT CONNECTION

FIRE HYDRANT

**GENERAL NOTES** 

THE WATER SYSTEM SHALL BE CONSTRUCTED TO CURRENT CITY OF PUYALLUP (FIRE) AND FRUITLAND MUTUAL WATER COMPANY STANDARDS.

2. TYPICAL UTILITY TRENCH EXCAVATION, BEDDING AND BACKFILL SHALL COMPLY WITH CITY STANDARD DETAIL 06.01.01 REQUIREMENTS (SEE DETAIL 02/C4.4).

ADJUST OR SET THE FRAMES OF EXISTING AND PROPOSED UTILITY GRATES AND COVERS AS NECESSARY TO MATCH THE CROSS SLOPE OF THE PROPOSED FINISH GRADE AND SUCH THAT NO PONDING OCCURS AROUND UTILITY GRATES AND COVERS.

4. ALL WATER AND FIRE WATER PIPING 3" AND LARGER SHALL BE THRUST BLOCKED PER DETAILS 4-6/C4.2. 3" THRUST BLOCKS SHALL MATCH 4"

ALL WATER AND FIRE WATER FITTINGS 3" AND LARGER SHALL HAVE

MEGALUG RESTRAINED JOINTS. 6. COMPLY WITH WATERMAIN CLEARANCE REQUIREMENT IN DETAILS

2 & 3/C4.2. 7. FH INSTALLATIONS SHALL CONFORM TO DETAIL 3/C4.3 REQUIREMENTS.

8. COMPLY WITH WATER NOTE REQUIREMENTS ON C4.4.

9. PROVIDE WATER VALVE INSTALLATIONS PER DETAIL 1/C4.2 REQUIREMENTS.

10. PROVIDE 3'-0" MINIMUM COVER OVER PIPELINE UNLESS OTHERWISE SPECIFIED.

11. FRUITLAND MUTUAL WATGER COMPANY JURISDICTION ENDS AT METER/SERVICE AND FIRE LINE ISOLATION VALVE.

12. COORDINATE WITH FIRE SPRINKLER / MECHANICAL DRAWING REQUIREMENTS FOR FIRE SPRINKLER PIPELINE INSTALLATION REQUIREMENTS WITHIN 5' OF BUILDING.

13. FOR INSTALLATION ON SYSTEMS WITH FIRE PUMP(S), THE FIRE DEPARTMENT CONNECTION (FDC) SHALL BE MADE ON THE SPRINKLER

02.26.2020 BCRA NO. 18103 DRAWN BY:

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CITY RESUBMITTAL

SHEET CIVIL 28 OF 32

REVIEWED BY:

SITTS & HILL **ENGINEERS, INC.** 

CONTRACTOR. —16LF 8" DIP W 7LF 3" DIP -12LF 8" DIP W PROPOSED KESSLER CENTER BUILDING FFE = 364.90 32LF 6" DIP <u>~</u>44LF 4" DIF **≥** \18> 34LF 1-1/2" HDPE

NENLARGED UTILITY PLAN

AVOID VERTICAL CONFLICT. PROVIDE VERTICAL

DEFLECT PROPOSED WATER MAIN TO AVOID VERTICAL CONFLICT. PROVIDE VERTICAL CLEARANCES PER DETAILS 02 & 03/C4.2.

19 PROVIDE 1-1/2" IRRIGATION DCVA PER DETAIL

PER DETAIL 05/C4.4. 15 PROVIDE FIELD-LOK GASKETS IN ALL PIPE JOINTS. 1" SCH40 PVC SUMP PUMP

**KEY NOTES** 

1 >> PROVIDE:

2 PROVIDE:

4 >> PROVIDE:

5 PROVIDE:

6 PROVIDE:

7 PROVIDE:

8 PROVIDE:

9 PROVIDE:

10 PROVIDE:

11 PROVIDE:

12 PROVIDE:

03/C4.4

PROVIDE:

| 3 → 1 − 8"x3" FL TEE

1 - 8"FCA

1 - THRUST BLOCK

1 - 6" - 22.5° MJ ELL 1 - THRUST BLOCK

6" MJ INDICATOR VALVE PER DETAIL 6/C4.3

1 - OLD CASTLE 676-LA VAULT

& 676-1-T-332P VAULT TOP

PER DETAILS 2/C4.3, 1/C4.4,

SUMP PUMP PER DETAILS

FOR POWER REQUIREMENTS.

4" FIRE DEPARTMENT CONNECTION

COORDINATE CONNECTION TO

BUILDING WITH MECHANICAL

1 - 4" - 22.5° MJ ELL

1 - THRUST BLOCK

1 - 4" - 90° ELL

1 - THRUST BLOCK

1 - CONCRETE PAD

1 - 3"REDUCED PRESSURE

EQUAL. COORDINATE WITH

ELECTRICAL FOR POWER

14 PROVIDE 1-1/2" METER AND BOX

REQUIREMENTS.

13 PROVIDE 1-1/2" IRRIGATION

BACKFLOW ASSEMBLY PER DETAIL

1 - SAFE-T-COVER ENCLOSURE

"HOT BOX" MODEL 400D-AL OR

SERVICE PER DETAIL 05/C4.4.

DISCHARGE LINE. 2' COVER MIN.

04/C4.3 AND 01/C4.4.

1 - 3" - 90° MJ ELL

1 - THRUST BLOCK

PER DETAIL 5/C4.3

3" WATER METER

AND 4/C4.3

PROVIDE:

1 – 8"x6" MJxFL TEE

1 - THRUST BLOCK

1 – 8"x6" MJxFL TEE

1 - 6" FLxMJ GATE VALVE 1 - THRUST BLOCK

1 – 3" FLxMJ GATE VALVE

1 - 8" FLxMJ GATE VALVE

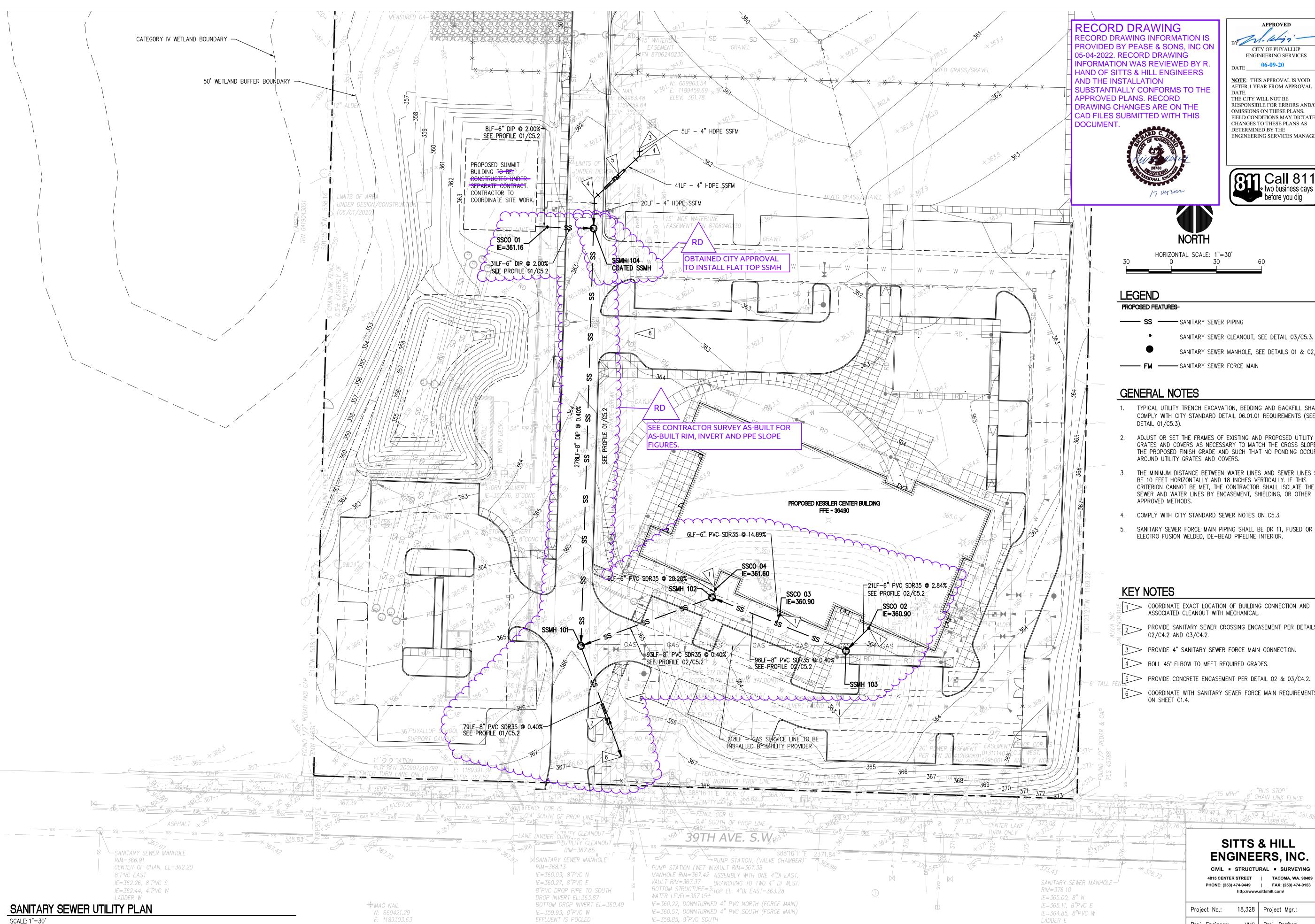
1 - 6" FLxMJ GATE VALVE 1 - FH ASSEMBLY

> 17 > 4" CHILLED WATER PIPING TO SERVICE YARD. SEE MECHANICAL. DEFLECT PROPOSED WATER MAIN TO CLEARANCES PER DETAILS 02 & 03/C4.2.

18 1" GAS LINE TO SERVICE YARD. SEE MECHANICAL.

04/C4.4. SEE ALSO LANDSCAPE PLANS.

IF SHEET MEASURES LESS THAN 22"X34", IT IS A REDUCED PRINT. REDUCE SCALE ACCORDINGLY



IN THE WEST CHANNEL

CITY OF PUYALLUP ENGINEERING SERVICES

**NOTE**: THIS APPROVAL IS VOID AFTER 1 YEAR FROM APPROVAL

THE CITY WILL NOT BE RESPONSIBLE FOR ERRORS AND/OR OMISSIONS ON THESE PLANS. FIELD CONDITIONS MAY DICTATE CHANGES TO THESE PLANS AS DETERMINED BY THE ENGINEERING SERVICES MANAGER.







SANITARY SEWER CLEANOUT, SEE DETAIL 03/C5.3.

SANITARY SEWER MANHOLE, SEE DETAILS 01 & 02/C5.3.

— FM — SANITARY SEWER FORCE MAIN

- 1. TYPICAL UTILITY TRENCH EXCAVATION, BEDDING AND BACKFILL SHALL COMPLY WITH CITY STANDARD DETAIL 06.01.01 REQUIREMENTS (SEE
- 2. ADJUST OR SET THE FRAMES OF EXISTING AND PROPOSED UTILITY GRATES AND COVERS AS NECESSARY TO MATCH THE CROSS SLOPE OF THE PROPOSED FINISH GRADE AND SUCH THAT NO PONDING OCCURS AROUND UTILITY GRATES AND COVERS.
- THE MINIMUM DISTANCE BETWEEN WATER LINES AND SEWER LINES SHALL BE 10 FEET HORIZONTALLY AND 18 INCHES VERTICALLY. IF THIS CRITERION CANNOT BE MET, THE CONTRACTOR SHALL ISOLATE THE SEWER AND WATER LINES BY ENCASEMENT, SHIELDING, OR OTHER
- 4. COMPLY WITH CITY STANDARD SEWER NOTES ON C5.3.
- SANITARY SEWER FORCE MAIN PIPING SHALL BE DR 11, FUSED OR ELECTRO FUSION WELDED, DE-BEAD PIPELINE INTERIOR.
- COORDINATE EXACT LOCATION OF BUILDING CONNECTION AND ASSOCIATED CLEANOUT WITH MECHANICAL.

PROVIDE SANITARY SEWER CROSSING ENCASEMENT PER DETAILS

3 PROVIDE 4" SANITARY SEWER FORCE MAIN CONNECTION.

6 COORDINATE WITH SANITARY SEWER FORCE MAIN REQUIREMENTS

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**ENGINEERS, INC.** 

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http://www.sittshill.com/

18,328 | Project Mgr.:

VMS | Proj. Drafter:

18103

02.26.2020

REVIEWED BY:

REVISIONS

03-16-2020 ADDENDUM 2

03-19-2020 ADDENDUM 3 03-31-2020 CITY RESUBMITTAL

04-03-2020 CONFORMED SET

06-03-2020 CITY RESUBMITTAL

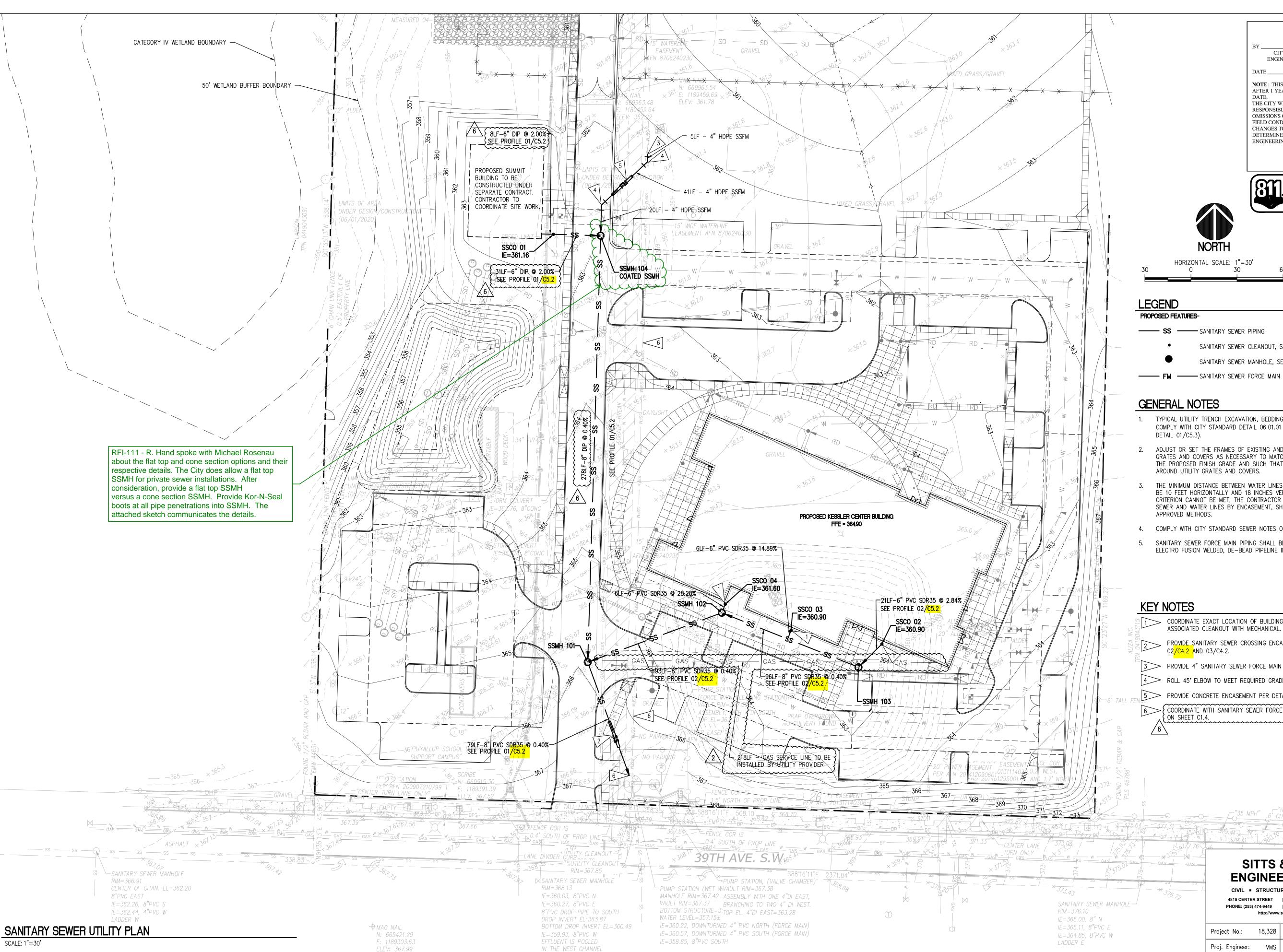
10-17-2022 RECORD DRAWING

SANITARY SEWER UTILITY PLAN

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CITY RESUBMITTAL

Proj. Engineer:



APPROVED

CITY OF PUYALLUP ENGINEERING SERVICES

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SANITARY SEWER CLEANOUT, SEE DETAIL 03/C5.3.

SANITARY SEWER MANHOLE, SEE DETAILS 01 & 02/C5.3.

- 1. TYPICAL UTILITY TRENCH EXCAVATION, BEDDING AND BACKFILL SHALL COMPLY WITH CITY STANDARD DETAIL 06.01.01 REQUIREMENTS (SEE
- ADJUST OR SET THE FRAMES OF EXISTING AND PROPOSED UTILITY GRATES AND COVERS AS NECESSARY TO MATCH THE CROSS SLOPE OF THE PROPOSED FINISH GRADE AND SUCH THAT NO PONDING OCCURS AROUND UTILITY GRATES AND COVERS.
- THE MINIMUM DISTANCE BETWEEN WATER LINES AND SEWER LINES SHALL BE 10 FEET HORIZONTALLY AND 18 INCHES VERTICALLY. IF THIS CRITERION CANNOT BE MET, THE CONTRACTOR SHALL ISOLATE THE SEWER AND WATER LINES BY ENCASEMENT, SHIELDING, OR OTHER
- 4. COMPLY WITH CITY STANDARD SEWER NOTES ON C5.3.
- SANITARY SEWER FORCE MAIN PIPING SHALL BE DR 11, FUSED OR

COORDINATE EXACT LOCATION OF BUILDING CONNECTION AND ASSOCIATED CLEANOUT WITH MECHANICAL.

PROVIDE SANITARY SEWER CROSSING ENCASEMENT PER DETAILS

3 PROVIDE 4" SANITARY SEWER FORCE MAIN CONNECTION.

4 ROLL 45° ELBOW TO MEET REQUIRED GRADES.

5 PROVIDE CONCRETE ENCASEMENT PER DETAIL 02 & 03/C4.2.

|6>> COORDINATE WITH SANITARY SEWER FORCE MAIN REQUIREMENTS

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18,328 | Project Mgr.:

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RFI-111 11/13/20

REVISIONS

① 03-16-2020 ADDENDUM 2 △ 03-19-2020 ADDENDUM 3 △ 04-03-2020 CONFORMED SET 3 03-20-2020 ADDENDUM 4 5 05-21-2020 PERMIT RESPONSE **6** 06-15-2020 CONFORMED SET

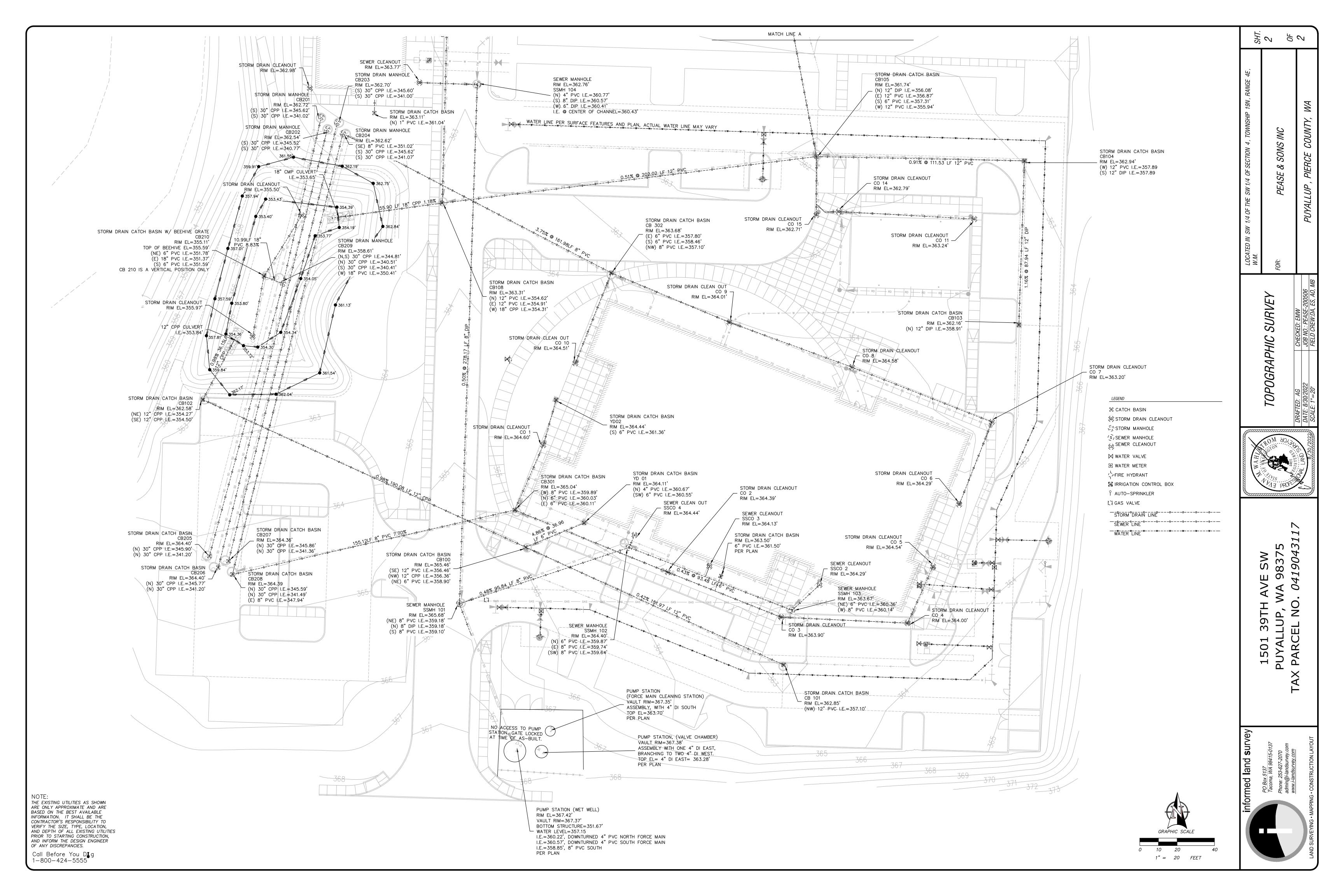
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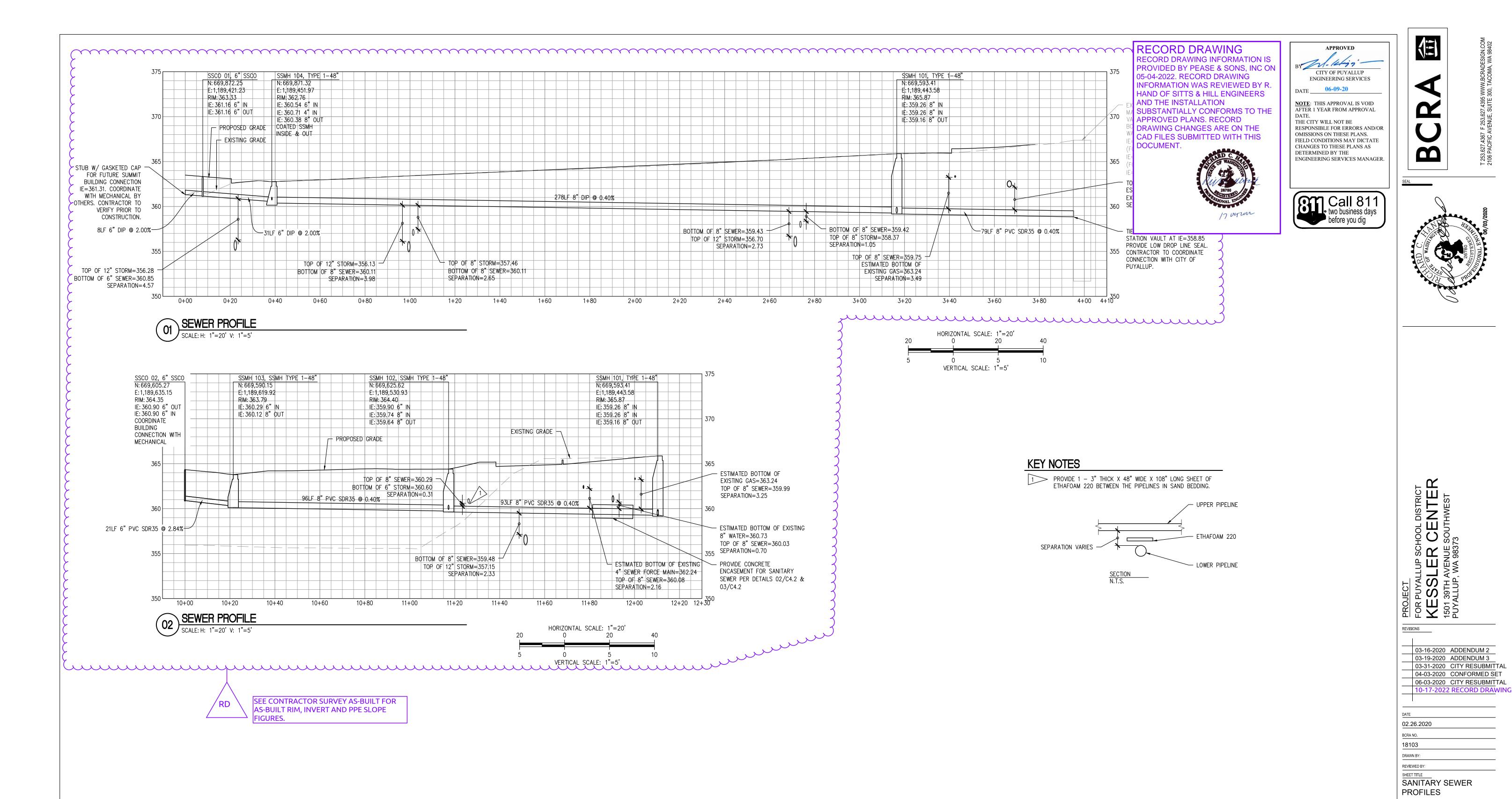
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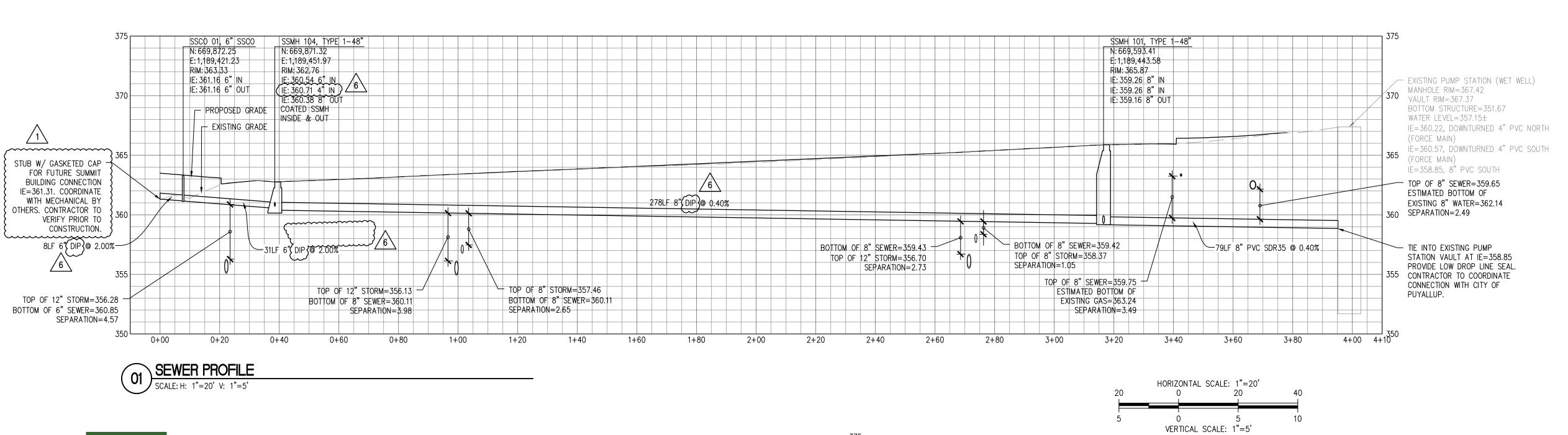
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Proj. Engineer:	VMS	Proj. Drafter:	KLK

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BCRA 圙 SHEET CIVIL 30 OF 32

CITY RESUBMITTAL



S\$MH 101, TYPE 1-48" N: 669,593.41

E: 1,189,443.58

IE: 359.26 8" IN

IE: 359.26 8" IN

IE: 359.16 8" OUT

► ESTIMATED BOTTOM OF EXISTING

TOP OF 8" SEWER=360.08

SEPARATION=2.16

12+00

HORIZONTAL SCALE: 1"=20'

VERTICAL SCALE: 1"=5"

4" SEWER FORCE MAIN=362.24

- ESTIMATED BOTTOM OF

EXISTING GAS=363.24

SEPARATION=3.25

8" WATER=360.73

SEPARATION=0.70

03<mark>/C4.2</mark>

TOP OF 8" SEWER=359.99

- ESTIMATED BOTTOM OF EXISTING

TOP OF 8" SEWER=360.03

ENCASEMENT FOR SANITARY

SEWER PER DETAILS 02/C4.2 &

RIM: 365.87

EXISTING GRADE

93LF 8" PVC SDR35 @ 0.40%

SSMH 103, SSMH TYPE 1-48" N: 669,590.15

E:1,189,619.92

IE: 360.29 6" N

IE: 360.12 8" OUT

RIM: 363.79

1.189.635.15

360.90 6" OL

360.90 6" IN

ORDINATE

21LF 6" PVC SDR35 @ 2.84%

SEWER PROFILE

SCALE: H: 1"=20' V: 1"=5'

IM: 364.35

SSMH 102, SSMH TYPE 1-48" N: 669,625.62

E: 1,189,530.93

RIM: 364.40

PROPOSED GRADE

96LF 8" PVC SDR35 @ 0.40%

IE: 359.90 6" IN

IE: 359.74 8" IN

IE: 359.64 8" OUT

TOP OF 8" SEWER=360.29 -

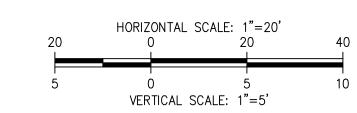
SEPARATION=0.31

BOTTOM OF 8" SEWER=359.48

TOP OF 12" STORM=357.15

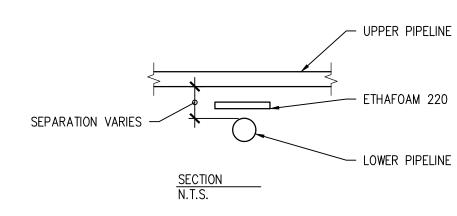
SEPARATION=2.33

BOTTOM OF 6" STORM=360.60



**KEY NOTES** 

PROVIDE 1 - 3" THICK X 48" WIDE X 108" LONG SHEET OF ETHAFOAM 220 BETWEEN THE PIPELINES IN SAND BEDDING.



APPROVED

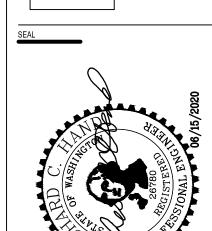
CITY OF PUYALLUP ENGINEERING SERVICES

DATE\_

**NOTE**: THIS APPROVAL IS VOID AFTER 1 YEAR FROM APPROVAL THE CITY WILL NOT BE

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SHEET TITLE

REVISIONS ↑ 03-16-2020 ADDENDUM 2 ↑ 03-19-2020 ADDENDUM 3 ↑ 04-03-2020 CONFORMED SET ↑ 03-20-2020 ADDENDUM 4 05-21-2020 PERMIT RESPONSE **6** 06-15-2020 CONFORMED SET

02.26.2020 18103 REVIEWED BY:

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SHEET CIVIL 30 OF 32

# SITTS & HILL

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Project No.:	18,328	Project Mgr.:	RCH
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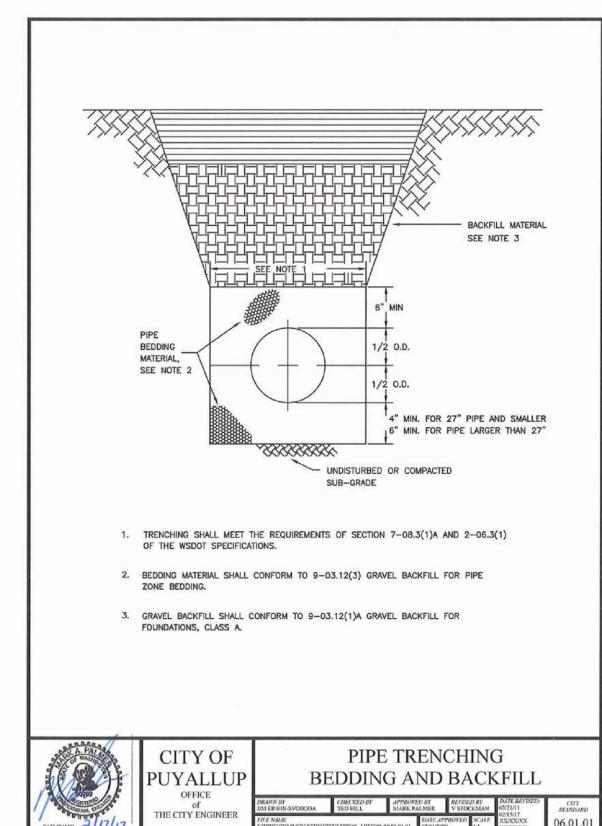
CONFORMED SET

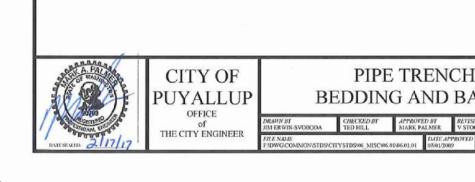
#### CITY OF PUYALLUP

#### SANITARY SEWER NOTES

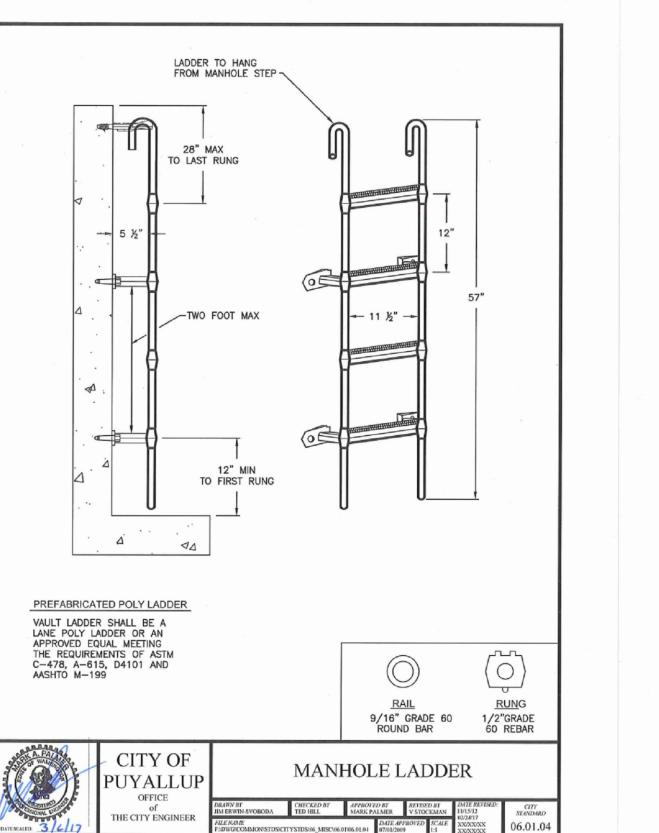
- 1. ALL WORK IN CITY RIGHT-OF-WAY REQUIRES A PERMIT FROM THE CITY OF PUYALLUP. PRIOR TO ANY WORK COMMENCING, THE GENERAL CONTRACTOR SHALL ARRANGE FOR A PRECONSTRUCTION MEETING AT THE DEVELOPMENT SERVICES CENTER TO BE ATTENDED BY ALL CONTRACTORS THAT WILL PERFORM WORK SHOWN ON THE ENGINEERING PLANS, REPRESENTATIVES FROM ALL APPLICABLE UTILITY COMPANIES, THE PROJECT OWNER AND APPROPRIATE CITY STAFF. CONTACT ENGINEERING SERVICES TO SCHEDULE THE MEETING (253) 841-5568. THE CONTRACTOR IS RESPONSIBLE TO HAVE THEIR OWN APPROVED SET OF PLANS AT THE MEETING.
- AFTER COMPLETION OF ALL ITEMS SHOWN ON THESE PLANS AND BEFORE ACCEPTANCE OF THE PROJECT, THE CONTRACTOR SHALL OBTAIN A "PUNCH LIST" PREPARED BY THE CITY'S INSPECTOR DETAILING REMAINING ITEMS OF WORK TO BE COMPLETED. ALL ITEMS OF WORK SHOWN ON THESE PLANS SHALL BE COMPLETED TO THE SATISFACTION OF THE CITY PRIOR TO ACCEPTANCE OF THE SEWER SYSTEM AND PROVISION OF SANITARY SEWER SERVICE.
- 3. ALL MATERIALS AND WORKMANSHIP SHALL CONFORM TO THE STANDARD SPECIFICATIONS FOR ROAD, BRIDGE, AND MUNICIPAL CONSTRUCTION (HEREINAFTER REFERRED TO AS THE "STANDARD SPECIFICATIONS"), WASHINGTON STATE DEPARTMENT OF TRANSPORTATION AND AMERICAN PUBLIC WORKS ASSOCIATION, WASHINGTON STATE CHAPTER, LATEST EDITION, UNLESS SUPERSEDED OR AMENDED BY THE CITY OF PUYALLUP CITY STANDARDS FOR PUBLIC WORKS ENGINEERING AND CONSTRUCTION (HEREINAFTER REFERRED TO AS THE "CITY STANDARDS").
- 4. A COPY OF THESE APPROVED PLANS AND APPLICABLE CITY DEVELOPER SPECIFICATIONS AND DETAILS SHALL BE ON SITE DURING CONSTRUCTION.
- 5. ANY REVISIONS MADE TO THESE PLANS MUST BE REVIEWED AND APPROVED BY THE DEVELOPER'S ENGINEER AND THE ENGINEERING SERVICES STAFF PRIOR TO ANY IMPLEMENTATION IN THE FIELD. THE CITY SHALL NOT BE RESPONSIBLE FOR ANY ERRORS AND/OR OMISSIONS ON THESE PLANS.
- 6. THE CONTRACTOR SHALL HAVE ALL UTILITIES VERIFIED ON THE GROUND PRIOR TO ANY CONSTRUCTION. CALL (811) AT LEAST TWO WORKING DAYS IN ADVANCE. THE OWNER AND HIS/HER ENGINEER SHALL BE CONTACTED IMMEDIATELY IF A CONFLICT EXISTS.
- 7. ANY STRUCTURE AND/OR OBSTRUCTION WHICH REQUIRE REMOVAL OR RELOCATION RELATING TO THIS PROJECT SHALL BE DONE SO AT THE DEVELOPER'S EXPENSE.
- MINIMUM GRADE ON ALL 4 INCH RESIDENTIAL SIDE SEWERS SHALL BE 2 PERCENT AND 6 INCH COMMERCIAL SIDE SEWERS SHALL BE 1 PERCENT; MAXIMUM SHALL BE 8 PERCENT. ALL SIDE SEWERS SHALL BE 6 INCHES WITHIN CITY RIGHT-OF-WAY.
- SIDE SEWERS SHALL BE INSTALLED IN ACCORDANCE WITH CITY STANDARD NOS. 04.03.01, 04.03.02, 04.03.03 AND 04.03.04. SIDE SEWER INSTALLATION WORK SHALL BE DONE IN ACCORDANCE WITH THE WASHINGTON INDUSTRIAL SAFETY AND HEALTH ACT (WISHA).

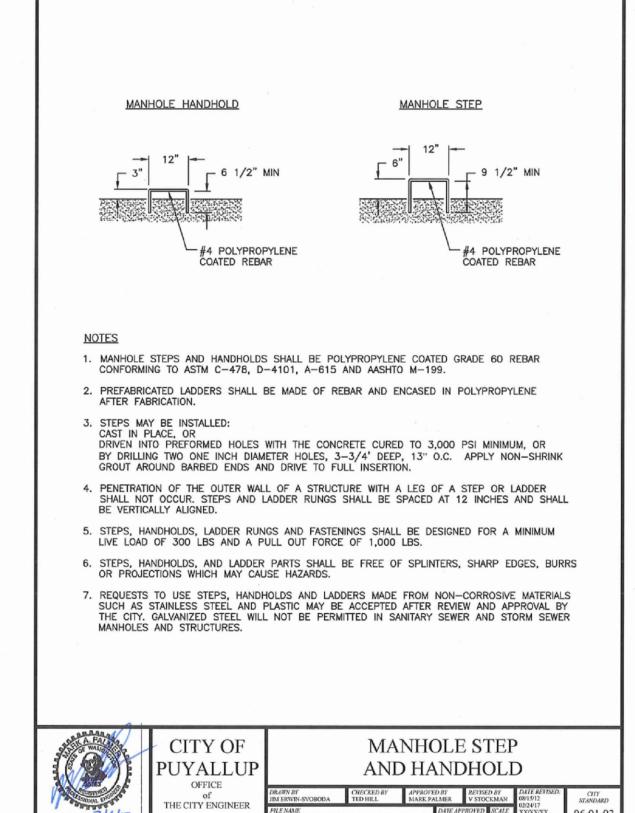
- 10. ALL SEWER PIPE SHALL BE PVC, POLYPROPYLENE, OR DUCTILE IRON. PVC SEWER PIPE SHALL CONFORM TO ASTM D-3034, SDR35 FOR PIPE SIZES 15-INCH AND SMALLER AND ASTM F679 FOR PIPE SIZES 18- TO 27-INCH, DUCTILE IRON PIPE SHALL BE CLASS 51 OR GREATER, LINED WITH PROTECTO 401TM CITY OF PUYALLUP - CITY STANDARDS SANITARY SEWER REVISED 10/2019 400-8 EPOXY LINING OR EQUIVALENT, UNLESS OTHERWISE NOTED. 12-INCH THROUGH 30-INCH POLYPROPYLENE PIPE (PP) SHALL BE DUAL WALLED, HAVE A SMOOTH INTERIOR AND EXTERIOR CORRUGATIONS AND MEET WSDOT 9-05.24(2). IT SHALL MEET OR EXCEED ASTM F2764. 36-INCH THROUGH 60-INCH PP PIPE SHALL BE TRIPLE WALLED AND MEET WSDOT 9-05.24(2). IT SHALL MEET OR EXCEED ASTM F2764. PP SHALL HAVE A MINIMUM PIPE STIFFNESS OF 46 PII WHEN TESTED IN ACCORDANCE WITH ASTM D2412. TESTING SHALL BE PER ASTM F1417. TRENCHING, BEDDING, AND BACKFILL SHALL BE IN ACCORDANCE WITH CITY STANDARD NO. 06.01.01. MINIMUM COVER ON PVC AND PP PIPE SHALL BE 3.0 FEET. MINIMUM COVER ON DUCTILE IRON PIPE SHALL BE 1.0 FOOT.
- 11. SANITARY SEWER MANHOLE FRAMES AND COVERS SHALL CONFORM TO CITY STANDARD NO. 06.01.02.
- 12. SANITARY SEWER MANHOLES SHALL CONFORM TO CITY STANDARD NOS. 04.01.01, 04.01.02. 04.01.03 AND 04.01.04. ALL MANHOLES SHALL BE CHANNELED FOR FUTURE LINES AS SPECIFIED ON THESE PLANS. MANHOLE STEPS AND LADDER SHALL CONFORM TO STANDARD NO. 06.01.03.
- 13. SANITARY SEWER PIPE AND SIDE SEWERS SHALL BE 10 FEET AWAY FROM BUILDING FOUNDATIONS AND/OR ROOF LINES.
- 14. NO SIDE SEWERS SHALL BE CONNECTED TO ANY HOUSE OR BUILDING UNTIL ALL MANHOLES ARE ADJUSTED TO THE FINISHED GRADE OF THE COMPLETED ASPHALT ROADWAY AND THE ASPHALT PATCH AND SEAL AROUND THE RING ARE ACCEPTED.
- 15. FOR COMMERCIAL DEVELOPMENTS IN WHICH SOURCES OF GREASE AND/OR OILS MAY BE INTRODUCED TO THE CITY SANITARY SEWER SYSTEM. A CITY APPROVED GREASE INTERCEPTOR SHALL BE INSTALLED DOWNSTREAM FROM THE SOURCE.
- 16. ONCE SEWER AND ALL OTHER UTILITY CONSTRUCTION IS COMPLETED, ALL SANITARY SEWER MAINS AND SIDE SEWERS SHALL BE TESTED PER SECTION 406 OF THE CITY STANDARDS.











MANHOLE FRAME AND COVER • - - -(1: I) SCALE 1:1

RECORD DRAWING RECORD DRAWING INFORMATION IS PROVIDED BY PEASE & SONS, INC ON EAST JORDAN IRON WORKS 24" "ERGO" FRAME & COVER 34**"**ø SECTION A-A MPIC® MULTI-TOOL PICKBAR DOCUMENT. FRAME AND COVER PLAN VIEW **COVER** OLYMPIC FOUNDRY MH41 RING & HINGE PUYALLUP COVER **COVER** - 1" O-RING 24"ø 34"ø SECTION A-A FRAME AND COVER PLAN VIEW FRAME AND COVER OPENING EAST JORDAN IRON WORKS 24" "ERGO" AND OLYMPIC FOUNDRY MH41 RING & HINGE PUYALLUP COVER ARE PRE-APPROVED PRODUCTS AND SHALL BE USED FOR PUBLICLY-OWNED INFRASTRUCTURE, ALL OTHERS REQUIRE WRITTEN APPROVAL OF THE ENGINEER PRIOR TO INSTALLATION. MANHOLE FRAME AND COVERS SHOULD NOT BE LOCATED IN PEDESTRIAN PATHWAYS (E.G. SIDEWALKS, CROSSWALKS, ETC.). WHERE EXISTING OR PROPOSED CONDITIONS REQUIRE A MANHOLE FRAME AND COVER TO BE INSTALLED WITHIN A PEDESTRIAN PATHWAY, THE MANHOLE FRAME AND COVER SHALL BE ADA COMPLIANT. NON-ROCKING FIT FOR MANHOLE COVERS. 4. CASTING TO BE SHOT BLASTED AND FREE FROM SURFACE SAND AND SCALE. CASTING TO BE SMOOTH, TRUE TO PATTERN, FREE FROM BLOWHOLES, POROSITY HARD SPOTS, SHRINK HOLES, WARP, OR ANY OTHER DEFECTS WHICH COULD IMPAIR SERVICEABILITY. CASTINGS SHALL BE UNCOATED. 7. FOR STORM APPLICATIONS CAST LETTERS SHALL READ "STORM". 8. INSTALL FRAME AND COVER IN ROADWAY WITH HINGED SIDE OF ASSEMBLY POINTED TOWARD ONCOMING TRAFFIC. 9. THE CITY SHALL HAVE THE RIGHT TO REQUIRE INSPECTION AND APPROVAL OF ALL CASTINGS PRIOR TO PAINTING. 10. REPAIR OR DEFECTS BY WELDING, OR BY THE USE OF "SMOOTH-ON" OR SIMILAR MATERIAL WILL NOT BE PERMITTED. MANHOLE RING AND COVER SHALL BE FREE OF POROSITY, SHRINK CAVITIES, COLD SHUTS OR CRACKS OR ANY SURFACE DEFECTS WHICH WOULD IMPAIR SERVICEABILITY. FRAME HEIGHT MAY BE 4" FOR OVERLAYS AND PAVEMENT REHABILITATION PROJECTS, WITH WRITTEN APPROVAL BY THE CITY ENGINEER. MANHOLE FRAME PUYALLUI AND COVER

05-04-2022. RECORD DRAWING NFORMATION WAS REVIEWED BY R → HAND OF SITTS & HILL ENGINEERS AND THE INSTALLATION SUBSTANTIALLY CONFORMS TO THE APPROVED PLANS. RECORD RAWING CHANGES ARE ON THE CAD FILES SUBMITTED WITH THIS OFFICE

CITY OF PUYALLUP ENGINEERING SERVICES AFTER 1 YEAR FROM APPROVAL

DATE **NOTE**: THIS APPROVAL IS VOID

THE CITY WILL NOT BE RESPONSIBLE FOR ERRORS AND/OR OMISSIONS ON THESE PLANS. FIELD CONDITIONS MAY DICTATE CHANGES TO THESE PLANS AS DETERMINED BY THE ENGINEERING SERVICES MANAGER.



REVISIONS

03-16-2020 ADDENDUM 2 03-19-2020 ADDENDUM 3 03-31-2020 CITY RESUBMITTAL 04-03-2020 CONFORMED SET 06-03-2020 CITY RESUBMITTAL 10-17-2022 RECORD DRAWING

02.26.2020 18103

REVIEWED BY:

DRAWN BY:

SANITARY SEWER UTILITY DETAILS AND NOTES

BCRA 圙 SITTS & HILL **ENGINEERS, INC.** 

SHEET CIVIL 31 OF 32 CIVIL - STRUCTURAL - SURVEYING 4815 CENTER STREET | TACOMA, WA. 98409 PHONE: (253) 474-9449 | FAX: (253) 474-0153

http://www.sittshill.com/ 18,328 | Project Mgr.: Proj. Drafter:

1. NEAT LINE CUT SHALL BE SEALED AT THE TOP WITH A HOT PAVING GRADE ASPHALT AND FACE OF CUT TACKED. 2. ALL MATERIAL SHALL CONFORM TO THE 1991 STANDARD SPECIFICATIONS FOR ROAD, BRIDGE, AND MUNICIPAL CONSTRUCTION PREPARED BY THE WASHINGTON STATE DEPARTMENT OF TRANSPORTATION AND AMERICAN PUBLIC WORKS ASSOCIATION,

10.75" ---

FRAME AND COVER SECTION

- CAST IRON FRAME AND COVER

SEE DETAIL ON THIS SHEET

CONCRETE

3. MACHINE BEARING FACES OF FRAME AND COVER TO INSURE POSITIVE FIT.

EACH CLEAN OUT ASSEMBLY SHALL CONSIST OF: ONE CLEAN OUT ADAPTOR (HUB X FEMALE INSIDE PIPE THREAD, P.V.C. SLIP IN), AND ONE CLEAN OUT PLUG (MALE OUTSIDE PIPE THREAD WITH RAISED NUT, P.V.C. SDR35).

SCALE 1:2 CITY OF

PUYALLUF PUBLIC WORKS DEPARTMENTS

SIDE SEWER CLEAN OUT WHEN PLACED IN DRIVEWAY

SIDE SEWER CLEAN OUT

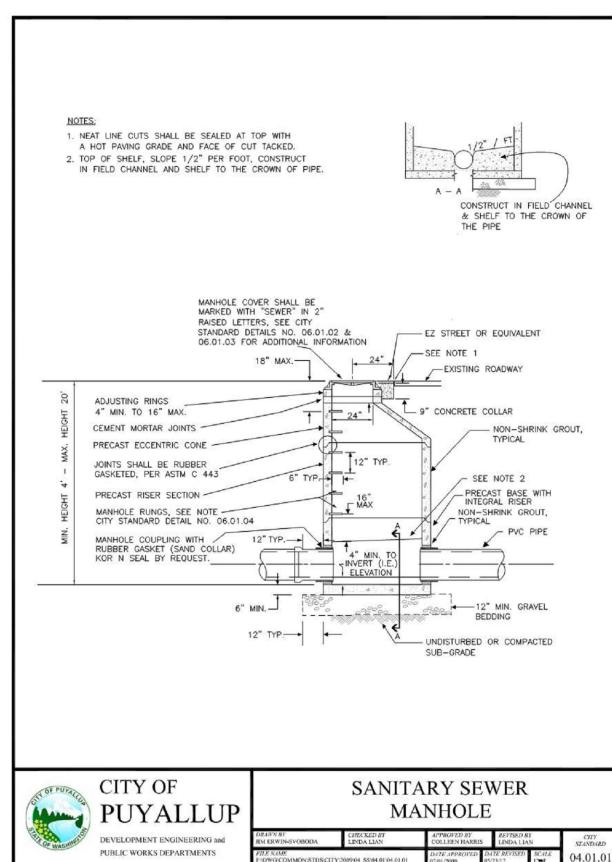
MANHOLE STEP AND HANDHOLD

IF SHEET MEASURES LESS THAN 22"X34", IT IS A REDUCED PRINT. REDUCE SCALE ACCORDINGLY

Project No.:

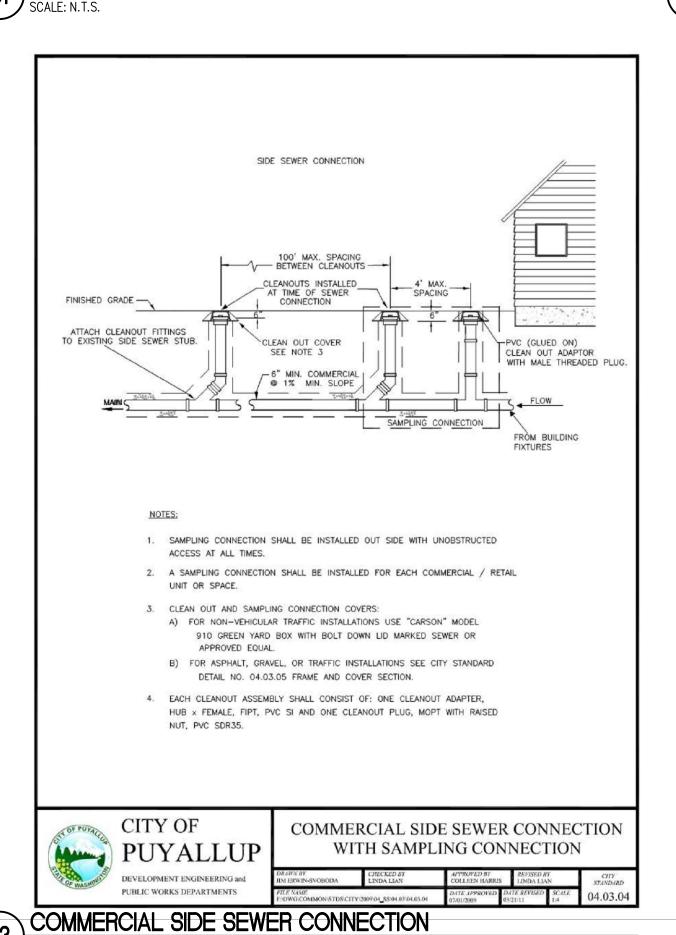
Proj. Engineer:

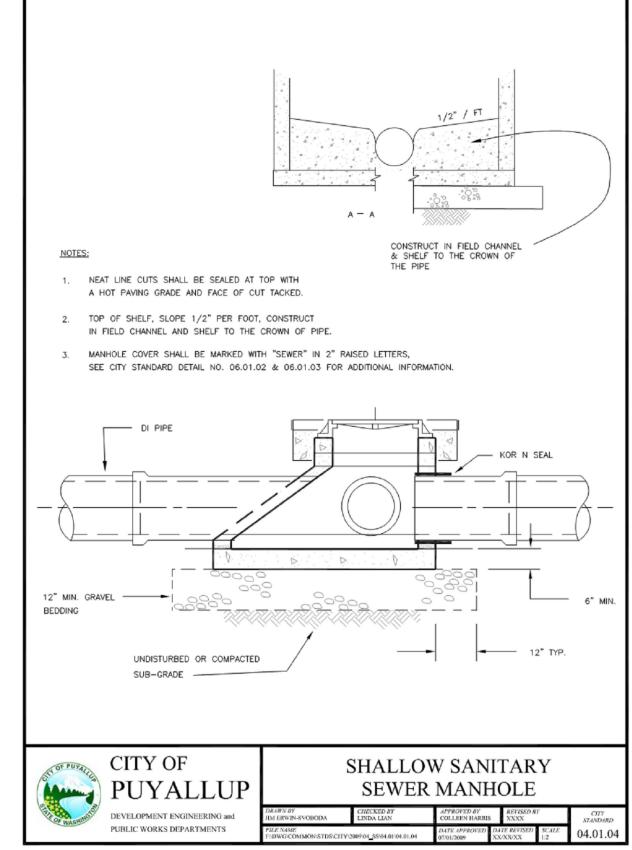
CITY RESUBMITTAL



SANITARY SEWER MANHOLE

SCALE: N.T.S.





SHALLOW SANITARY SEWER MANHOLE
SCALE: N.T.S.

RECORD DRAWING

**RECORD DRAWING INFORMATION IS** PROVIDED BY PEASE & SONS, INC ON 05-04-2022. RECORD DRAWING INFORMATION WAS REVIEWED BY R. HAND OF SITTS & HILL ENGINEERS AND THE INSTALLATION SUBSTANTIALLY CONFORMS TO THE APPROVED PLANS. RECORD DRAWING CHANGES ARE ON THE CAD FILES SUBMITTED WITH THIS DOCUMENT.



CITY OF PUYALLUP ENGINEERING SERVICES 06-09-20

NOTE: THIS APPROVAL IS VOID AFTER 1 YEAR FROM APPROVAL

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REVISIONS 03-16-2020 ADDENDUM 2 03-19-2020 ADDENDUM 3 03-31-2020 CITY RESUBMITTAL 04-03-2020 CONFORMED SET 06-03-2020 CITY RESUBMITTAL 10-17-2022 RECORD DRAWING

02.26.2020

18103 DRAWN BY: REVIEWED BY:

SANITARY SEWER UTILITY DETAILS AND NOTES

BCRA 圙

CITY RESUBMITTAL

SHEET CIVIL 32 OF 32

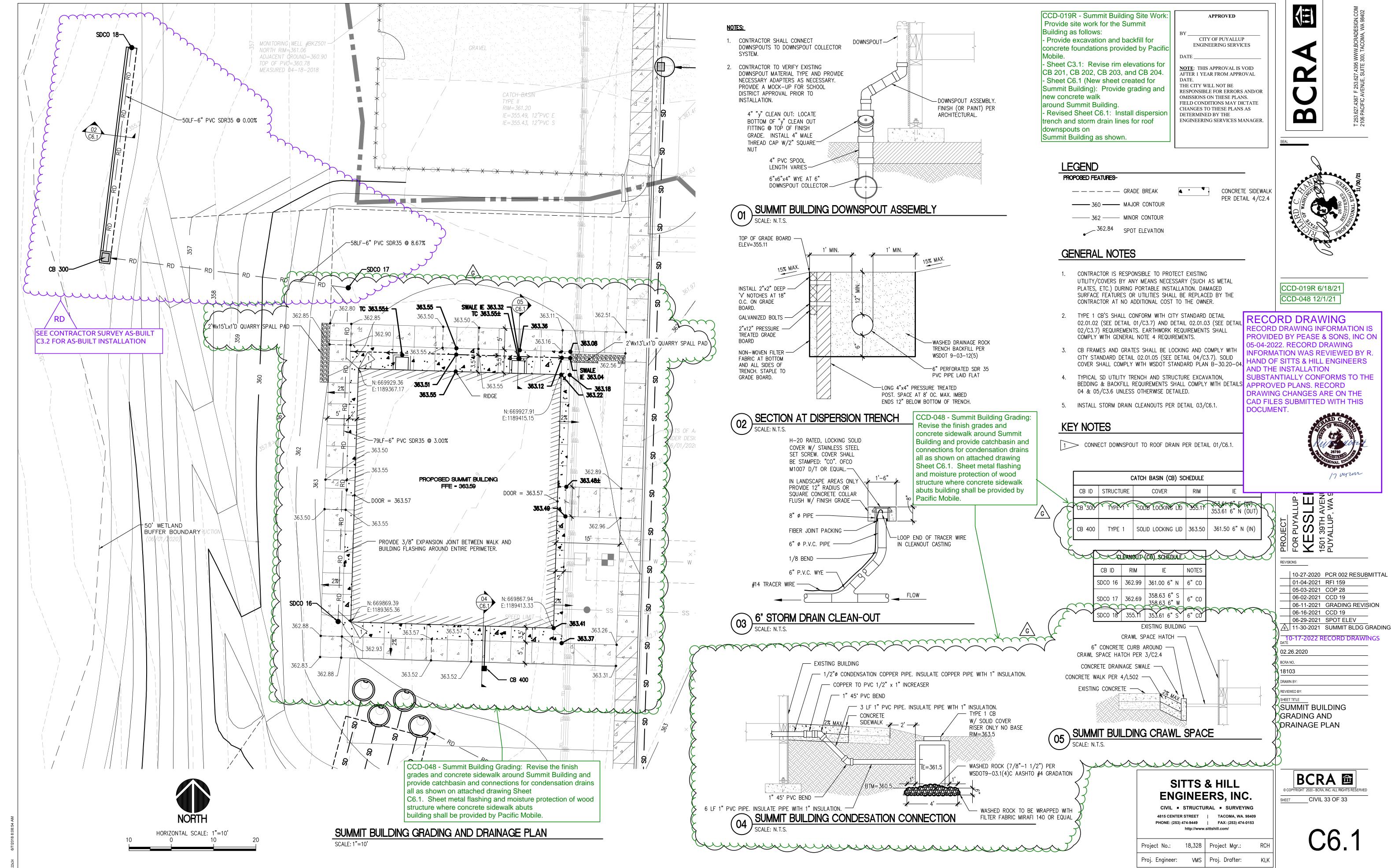
# SITTS & HILL

PHONE: (253) 474-9449 | FAX: (253) 474-0153

Project No.:	18,328	Project Mgr.:	RCH
Proj. Engineer:	VMS	Proj. Drafter:	KLK

4815 CENTER STREET | TACOMA, WA. 98409 http://www.sittshill.com/

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