- ALL CONSTRUCTION AND MATERIALS SHALL CONFORM TO THESE PLANS, THE PROJECT SPECIFICATIONS AND THE APPLICABLE REQUIREMENTS OF THE 2008 OREGON PLUMBING SPECIALTY CODE AND REQUIREMENTS OF THE CITY OF EUGENE.
- THE COMPLETED INSTALLATION SHALL CONFORM TO ALL APPLICABLE FEDERAL, STATE. AND LOCAL CODES, ORDINANCES AND REGULATIONS. ALL PERMITS, LICENSES AND INSPECTIONS REQUIRED BY THE GOVERNING AUTHORITIES FOR THE EXECUTION AND COMPLETION OF WORK SHALL BE SECURED BY THE CONTRACTOR PRIOR TO COMMENCING CONSTRUCTION.
- ATTENTION: OREGON LAW REQUIRES YOU TO FOLLOW RULES ADOPTED BY THE OREGON UTILITY NOTIFICATION CENTER. THOSE RULES ARE SET FORTH IN OAR 952-001-0010 THROUGH OAR 952-001-0090. YOU MAY OBTAIN COPIES OF THE RULES BY CALLING THE CENTER. (NOTE: THE TELEPHONE NUMBER FOR THE OREGON UTILITY NOTIFICATION CENTER IS (503) 232-1987). EXCAVATORS MUST NOTIFY ALL PERTINENT COMPANIES OR AGENCIES WITH UNDERGROUND UTILITIES IN THE PROJECT AREA AT LEAST 48 BUSINESS-DAY HOURS, BUT NOT MORE THAN 10 BUSINESS DAYS PRIOR TO COMMENCING AN EXCAVATION. SO UTILITIES MAY BE ACCURATELY LOCATED.
- CONTACT ERIC GRAPE WITH CAMPUS FACILITIES A WEEK PRIOR TO CONSTRUCTION FOR UTILITY LOCATES BY THE UNIVERSITY.
- 6. THE LOCATION OF EXISTING UNDERGROUND UTILITIES SHOWN ON THE PLANS ARE FOR INFORMATION ONLY AND ARE NOT GUARANTEED TO BE COMPLETE OR ACCURATE. CONTRACTOR SHALL VERIFY ELEVATIONS. PIPE SIZE. AND MATERIAL TYPES OF ALL UNDERGROUND UTILITIES PRIOR TO COMMENCING WITH CONSTRUCTION AND SHALL BRING ANY DISCREPANCIES TO THE ATTENTION OF KPFF CONSULTING ENGINEERS, 72 HOURS PRIOR TO START OF CONSTRUCTION TO PREVENT GRADE AND ALIGNMENT CONFLICTS.
- THE ENGINEER OR OWNER IS NOT RESPONSIBLE FOR THE SAFETY OF THE CONTRACTOR OR HIS CREW. ALL O.S.H.A. REGULATIONS SHALL BE STRICTLY ADHERED TO IN THE PERFORMANCE OF THE WORK.
- TEMPORARY AND PERMANENT EROSION CONTROL MEASURES SHALL BE IMPLEMENTED. THE CONTRACTOR SHALL ADHERE TO THE CITY OF EUGENE EROSION CONTROL PERMIT, FOR MINIMUM EROSION CONTROL MEASURES. THE ESC FACILITIES SHOWN IN THESE PLANS ARE THE MINIMUM REQUIREMENTS FOR ANTICIPATED SITE CONDITIONS. DURING THE CONSTRUCTION PERIOD, ESC FACILITIES SHALL BE UPGRADED AS NEEDED FOR UNEXPECTED STORM EVENTS AND TO ENSURE THAT SEDIMENT AND SEDIMENT LADEN WATER DO NOT LEAVE THE SITE.
- THE CONTRACTOR IS RESPONSIBLE FOR MAINTAINING ALL ROADWAYS, KEEPING THEM CLEAN AND FREE OF CONSTRUCTION MATERIALS AND DEBRIS, AND PROVIDING DUST CONTROL AS REQUIRED.
- 10. TRAFFIC CONTROL AND PEDESTRIAN SAFETY SHALL BE PROVIDED BY THE CONTRACTOR THROUGHOUT CONSTRUCTION. CONTRACTOR SHALL PROVIDE A PLAN TO UNIVERSITY OF OREGON FOR REVIEW AND APPROVAL PRIOR TO COMMENCING CONSTRUCTION.
- 11. CONTRACTOR SHALL MAINTAIN ALL UTILITIES TO BUILDINGS AT ALL TIMES DURING CONSTRUCTION.
- 12. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING AND SCHEDULING ALL WORK WITH THE UNIVERSITY OF OREGON.
- 13. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONTACTING AND COORDINATING WITH EWEB. EWEB WORK TO INCLUDE TAPS TO THE PUBLIC MAIN.
- 14. NOTIFY ENGINEER 72 HOURS BEFORE STARTING WORK. A PRECONSTRUCTION MEETING WITH THE UNIVERSITY OF OREGON'S ENGINEER AND CONTRACTOR IS REQUIRED.
- 15. CONTRACTOR TO SUBMIT FIRE PLAN TO CITY FIRE MARSHAL PRIOR TO CONSTRUCTION. SUBMITTAL TO INCLUDE PRODUCT SUBMITTALS AND EXACT LOCATIONS OF FIRE PREVENTION DEVICES. ALL MATERIALS SHALL COMPLY WITH NFPA 24 AND 13. COORDINATE WITH FIRE MARSHAL.
- 16. CONTRACTOR MUST MAINTAIN FULL ACCESS TO CAMPUS FIRE LANES AT ALL TIMES, INCLUDING 13TH AVE.
- 17. CONTRACTOR TO COORDINATE WITH UNIVERSITY OF OREGON TO REMOVE BOLLARDS PRIOR TO CONSTRUCTION.
- 18. CONTRACTOR TO SECURE WORK ZONE USING CHAIN LINK FENCE AND SIGNAGE APPROVED BY ENGINEER AND UNIVERSITY OF OREGON.

ALL WATER MAIN CROSSINGS SHALL CONFORM TO THE OREGON STATE HEALTH DEPARTMENT, CHAPTER 333. WATER MAINS SHALL CROSS OVER SANITARY SEWERS

WITH A 18" MINIMUM CLEARANCE BETWEEN OUTSIDE DIAMETERS OF PIPE WITH ALL PIPE

JOINTS EQUIDISTANT FROM CROSSING. HORIZONTAL SEPARATION BETWEEN WATER MAINS

MINIMUM VERTICAL DISTANCE FOR ALL OTHER UTILITY CROSSINGS AND 12" HORIZONTAL

PARALLEL DISTANCE. IN CASES WHERE IT IS NOT POSSIBLE TO MAINTAIN THE MINIMUM

10' HORIZONTAL SEPARATION, THE WATER MAIN SHALL BE LAID ON A SEPARATE SHELF

DESCRIPTION

AND SANITARY SEWERS IN PARALLEL INSTALLATIONS SHALL BE 10'. MAINTAIN 12"

CONSTRUCTION NOTES

- THE CONTRACTOR SHALL BE RESPONSIBLE FOR DEMOLITION AND DISPOSAL OF EXISTING A.C., CURBS, SIDEWALKS AND OTHER SITE ELEMENTS WITHIN THE SITE AREA IDENTIFIED IN THE PLANS.
- 2. EXCEPT FOR MATERIALS INDICATED TO BE STOCKPILED OR TO REMAIN ON UNIVERSITY'S PROPERTY, CLEARED MATERIALS SHALL BECOME CONTRACTOR'S PROPERTY, REMOVED FROM THE SITE, AND DISPOSED OF PROPERLY.
- 3. ITEMS INDICATED TO BE SALVAGED SHALL BE CAREFULLY REMOVED, DELIVERED AND STORED AT THE PROJECT SITE AS DIRECTED BY THE UNIVERSITY.
- 4. ALL LANDSCAPING, PAVEMENT, CURBS AND SIDEWALKS, BEYOND THE IDENTIFIED SITE AREA, DAMAGED DURING THE CONSTRUCTION SHALL BE REPLACED TO THEIR ORIGINAL CONDITION OR BETTER.
- CONCRETE SIDEWALKS AND PAVEMENTS SHOWN FOR DEMOLITION SHALL BE REMOVED TO THE NEAREST EXISTING CONSTRUCTION JOINT.
- 6. SAWCUT STRAIGHT MATCHLINES TO CREATE A BUTT JOINT BETWEEN THE EXISTING AND **NEW PAVEMENT**
- 7. CONDUIT TO BE PVC SCHD. 80 OR HDPE.
- 8. PULL STRING TO BE MINIMUM 3/8" POLYPROPYLENE.

WATER DISTRIBUTION PIPING SPECIFICATIONS

1.1 SUMMARY

- A. THIS SECTION INCLUDES ON-SITE WATER-DISTRIBUTION PIPING AND RELATED COMPONENTS OUTSIDE THE BUILDING FOR WATER SERVICE AND FIRE-SERVICE MAINS.
- B. THIS SECTION DOES NOT INCLUDE PUBLIC WATER SYSTEM CONSTRUCTION. ALL PUBLIC WATER SYSTEM PIPING AND RELATED COMPONENTS ARE TO BE CONSTRUCTED BY EUGENE WATER AND ELECTRIC BOARD (EWEB). CONTRACTOR IS TO COORDINATE AND ARRANGE FOR INSTALLATION OF PUBLIC WATER IMPROVEMENTS WITH EWEB. PUBLIC WATER SYSTEM IMPROVEMENTS INCLUDE. BUT ARE NOT LIMITED TO. THE INSTALLATION OF WATER METERS AND VAULTS AND CONNECTION TO THE EXISTING PUBLIC WATER MAIN.
- 1.2 SUBMITTALS
- A. PRODUCT DATA: FOR THE FOLLOWING:
- 1. VALVES AND ACCESSORIES.
- 2. DOMESTIC WATER AND FIRE SERVICE PIPING
- B. SHOP DRAWINGS: DETAIL PRECAST CONCRETE VAULT ASSEMBLIES AND INDICATE DIMENSIONS, METHOD OF FIELD ASSEMBLY, AND COMPONENTS.
- C. FIELD QUALITY-CONTROL TEST REPORTS.

1.3 QUALITY ASSURANCE

- A. REGULATORY REQUIREMENTS:
- 1. COMPLY WITH EWEB REQUIREMENTS. INCLUDE TAPPING OF WATER MAINS AND BACKFLOW PREVENTION.
- 2. COMPLY WITH STANDARDS OF AUTHORITIES HAVING JURISDICTION FOR POTABLE-WATER-SERVICE PIPING, INCLUDING MATERIALS, INSTALLATION, TESTING, AND DISINFECTION.
- 3. COMPLY WITH STANDARDS OF AUTHORITIES HAVING JURISDICTION FOR FIRE-SUPPRESSION WATER-SERVICE PIPING, INCLUDING MATERIALS, HOSE THREADS, INSTALLATION, AND TESTING.
- B. PIPING MATERIALS SHALL BEAR LABEL, STAMP, OR OTHER MARKINGS OF SPECIFIED TESTING AGENCY.
- C. COMPLY WITH FMG'S "APPROVAL GUIDE" OR UL'S "FIRE PROTECTION EQUIPMENT DIRECTORY" FOR FIRE-SERVICE-MAIN PRODUCTS.
- D. NFPA COMPLIANCE: COMPLY WITH NFPA 24 AND 13 FOR MATERIALS, INSTALLATIONS, TESTS, FLUSHING, AND VALVE AND HYDRANT SUPERVISION FOR FIRE-SERVICE-MAIN PIPING FOR FIRE SUPPRESSION.
- E. NSF COMPLIANCE:
- 1. COMPLY WITH NSF 61 FOR MATERIALS FOR WATER-SERVICE PIPING AND SPECIALTIES FOR DOMESTIC WATER.

1.4 PROJECT CONDITIONS

- A. INTERRUPTION OF EXISTING WATER-DISTRIBUTION SERVICE: DO NOT INTERRUPT SERVICE TO FACILITIES OCCUPIED BY OWNER OR OTHERS UNLESS PERMITTED UNDER THE FOLLOWING CONDITIONS AND THEN ONLY AFTER ARRANGING TO PROVIDE TEMPORARY WATER-DISTRIBUTION SERVICE ACCORDING TO REQUIREMENTS INDICATED:
- 1. NOTIFY ENGINEER NO FEWER THAN TWO DAYS IN ADVANCE OF PROPOSED INTERRUPTION OF SERVICE.
- 2. DO NOT PROCEED WITH INTERRUPTION OF WATER-DISTRIBUTION SERVICE WITHOUT ENGINEER'S WRITTEN PERMISSION.

1.5 MATERIALS

- A. UNDERGROUND FIRE-SERVICE-MAIN PIPING:
- 1. DUCTILE-IRON, PUSH-ON-JOINT CLASS 350 PIPE PER AWWA C151 AND FITTINGS PER AWWA C110.
- 2. DUCTILE-IRON, GROOVED-END CLASS 350 PIPE PER AWWA C151 AND DUCTILE-IRON-PIPE APPURTENANCES PER AWWA C110.
- B. ABOVEGROUND AND VAULT FIRE-SERVICE MAIN PIPING: DUCTILE-IRON, GROOVED-END PIPE AND DUCTILE-IRON-PIPE APPURTENANCES.

1.6 MANUFACTURED UNITS

- A. POST-INDICATOR VALVES:
- 1. DYNATORQUE GROUND LEVEL POSITION INDICATOR SEALED (MODEL #: GPI-S 20-38 TURNS TO OPEN: 25-1/2).

EARTHWORK SPECIFICATIONS

1.1 SUBMITTALS

- A. PRODUCT DATA FOR THE FOLLOWING:
- 1. SUBBASE COURSE
- BEDDING COURSE ENGINEERED FILL
- 4. INITIAL TRENCH BACKFILL

1.2 PRODUCTS

A. SOIL MATERIALS

- 1. SATISFACTORY SOILS: ASTM D 2487 SOIL CLASSIFICATION GROUPS GW, GP, GM, SW, SP, AND SM, OR A COMBINATION OF THESE GROUPS; FREE OF ROCK OR GRAVEL LARGER THAN 3 INCHES IN ANY DIMENSION, DEBRIS, WASTE, FROZEN MATERIALS, VEGETATION, AND OTHER DELETERIOUS MATTER.
- 2. SUBBASE COURSE: NATURALLY OR ARTIFICIALLY GRADED MIXTURE OF NATURAL OR CRUSHED SAND; ASTM D 2940; WITH AT LEAST 90 PERCENT PASSING A 1-1/2-INCH SIEVE AND NOT MORE THAN 12 PERCENT PASSING A NO. 200 SIEVE.
- BEDDING COURSE: NATURALLY OR ARTIFICIALLY GRADED MIXTURE OF NATURAL OR CRUSHED GRAVEL, CRUSHED STONE, AND NATURAL OR CRUSHED SAND; ASTM D 2940; MATCHING ODOT 3/4-INCH - 0-INCH BASE AGGREGATE.
- 4. ENGINEERED FILL: NATURALLY OR ARTIFICIALLY GRADED MIXTURE OF NATURAL OR CRUSHED GRAVEL, CRUSHED STONE, AND NATURAL OR CRUSHED SAND; ASTM D 2940; WITH AT LEAST 90 PERCENT PASSING A 1-1/2-INCH SIEVE AND NOT MORE THAN 12 PERCENT PASSING A NO. 200 SIEVE.
- 5. INITIAL TRENCH BACKFILL: USE ODOT 3/4-INCH O-INCH BASE AGGREGATE
- 6. FINAL TRENCH BACKFILL: REFER TO ENGINEERED FILL

B. ACCESSORIES.

- DETECTABLE WARNING TAPE: ACID AND ALKALI RESISTANT POLYETHYLENE FILM WARNING TAPE MANUFACTURED FOR MARKING AND IDENTIFYING UNDERGROUND UTILITIES, 6 INCHES WIDE AND 5 MILS THICK, CONTINUOUSLY INSCRIBED WITH A DESCRIPTION OF THE UTILITY, WIT HA METALLIC CORE ENCASED IN A PROTECTIVE JACKET FOR CORROSION PROTECTION, DETECTABLE BY METAL DETECTOR WHEN TAPE IS BURIED UP TO 30 INCHES DEEP, COLORED AS FOLLOWS:
- 1.1. RED: ELECTRIC
- 1.2. BLUE: WATER SYSTEMS
- 1.3. GREEN: SEWER SYSTEMS.

ASPHALT PAVING SPECIFICATIONS

1.1 SUBMITTALS

1. CITY OF EUGENE APPROVED MIX DESIGN.

1.2 PRODUCTS AND MIXES

A. PROVIDE AND INSTALL LEVEL 3, 1 INCH DENSE HMAC PER SECTION 00745 OF THE CITY OF EUGENE 2008 STANDARD SPECIFICATIONS (CURRENT AMENDMENT).

CONCRETE PAVING SPECIFICATIONS

1.1 SUBMITTALS 1. PRODUCT DATA FOR CEMENTITIOUS MATERIALS AND STEEL REINFORCEMENT.

- 2. DESIGN MIXTURES
- 1.2 PRODUCTS
- A. STEEL REINFORCING BARS: ASTM A 615, GRADE 60; DEFORMED.
- B. CONCRETE MATERIALS
- PORTLAND CEMENT: ASTM C 150, TYPE I OR II.
- 2. NORMAL WEIGHT AGGREGATES: ASTM C33 CLASS 4S COURSE AGGREGATE, UNIFORMLY GRADED. PROVIDE AGGREGATES FROM A SINGLE SOURCE. MAXIMUM COURSE AGGREGATES SIZE: 1 INCH. FINE AGGREGATE TO BE FREE OF MATERIALS WITH DELETERIOUS REACTIVITY TO ALKALI IN CEMENT.
- 3. WATER: ASTM C 94.

CENTER.

4. AIR-ENTRAINING ADMIXTURE: ASTM C 260.

ATTENTION: OREGON LAW REQUIRES YOU

TO FOLLOW RULES ADOPTED BY THE

952-001-0010 THROUGH OAR

CENTER IS (503)-232-1987).

952-001-0090. YOU MAY OBTAIN

OREGON UTILITY NOTIFICATION CENTER.

THOSE RULES ARE SET FORTH IN OAR

COPIES OF THE RULES BY CALLING THE

POTENTIAL UNDERGROUND FACILITY OWNERS

Dig | Safely

Call the Oregon One-Call Center

1-800-332-2344

(NOTE: THE TELEPHONE NUMBER FOR THE OREGON UTILITY NOTIFICATION

5. CHEMICAL ADMIXTURES: ASTM C 494.

NOTICE TO EXCAVATORS:

PROIECT CONTACTS

OWNER: UNIVERSITY OF OREGON 1276 UNIVERSITY OF OREGON EUGENE, OREGON 97403-1276 TEL: 541-346-2287 CONTACT: DARIN C. DEHLE

CIVIL ENGINEER/PROJECT MANAGER: KPFF CONSULTING ENGINEERS 1201 OAK STREET, SUITE 100 EUGENE, OREGON 97401 TEL: 541-684-4902 CONTACT: MATT KEENAN

DIP DW **EWEB**

EXIST./EX. EXISTING FIRE HYDRANT FLANGE FIRE PROTECTION INVERT ELEVATION LINEAL FEET MAX MAXIMUM MIN MINIMUM NTS NOT TO SCALE

ON CENTER

THRUST BLOCK

RADIUS

SLOPE

WATER

POST INDICATOR VALVE

ABBREVIATIONS

CITY OF EUGENE

DOMESTIC WATER

DUCTILE IRON PIPE

EUGENE WATER AND ELECTRIC BOARD

PROJECT SITE

E 13th Ave

Boynton

Bean West

Hamilton Dunn

Knight Arena

Caswell Bean Graduate Village

E 15th Ave

Town Pizza Wendy's

Maude Kerns

Market of

Complex Streisinger

Stafford South

E 15th Ave

Straub Earl

Tennis Court

Howe Field

E 13th Ave

and Testing

North of Oregon

Sweetser

E 11th Av

Johnson Lane

Pioneer Memorial

Cemetery

VICINITY MAP

SOURCE: GOOGLE MAPS

SCALE: NTS

Complex zie Sacred H

Medical C

OC PIV

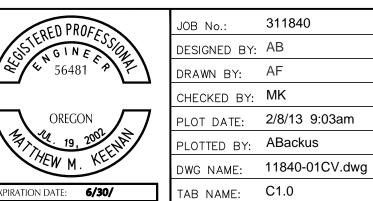
SHEET INDEX

| SHEET | | SHEET DESCRIPTION |
|-------|-------|-------------------|
| NO. | TITLE | SHEET DESCRIPTION |
| 1 | C1.0 | COVER SHEET |
| 2 | C2.0 | UTILITY PLAN |
| 3 | C3.0 | DETAILS |
| 4 | C3.1 | DETAILS |









UNIVERSITY OF OREGON FENTON HALL FIRE LINE

CIVIL NOTES, LEGEND, & ABBREVIATIONS

ECORD NO.

SHEET NO

CONSTRUCTION/BID

CITY OF EUGENE PROJECT NO. 12-03782-01

SEPARATION STATEMENT

REVISION

DATE

IN THE TRENCH 18" ABOVE THE SEWER.

2. CITY INSPECTION OF FIRE PROTECTION SYSTEM REQUIRED. CONTRACTOR TO COORDINATE WITH FIRE MARSHAL'S OFFICE FOR INSPECTION. INSPECTION TO BE COMPLETED PRIOR TO BACKFILLING.

3. SEE CONSTRUCTION NOTES ON SHEET C1.0 FOR DEMOLITION AND REPAIR OF EXISTING IMPROVEMENTS.

4. CONTRACTOR TO PROVIDE FIRE PROTECTION CONSTRUCTION SUBMITTAL TO THE FIRE MARSHALL, AS REQUIRED BY THE APPROVED PERMIT.

SHEET NOTES

INSTALL NEW 8-INCH FIRE PROTECTION LINE PER DETAIL 3/C3.0.

CUT EXISTING 8-INCH FP LINE AND CONNECT TO EXISTING FIRE PROTECTION LINE OUTSIDE OF TUNNEL. CAP ABANDONED LINE WITH CONCRETE AT CUT.

NEW TAP BY EWEB. CONTRACTOR TO COORDINATE WITH EWEB AND THE UNIVERSITY OF OREGON FOR INSTALLATION SCHEDULE AND EXACT LOCATION OF TAP.

INSTALL 8-INCH DOUBLE DETECTOR CHECK ASSEMBLY AND CONCRETE VAULT. VALVE AND VAULT TO BE INSTALLED PER EWEB DETAIL AND 5/C3.0.

REMOVE AND REPLACE EXISTING SIDEWALK WITH HEAVY SIDEWALK SECTION AND THICKENED EDGE PER DETAIL 6/C3.0. PROTECT EXISTING CURB TO REMAIN.

SAWCUT AT CURB, STAIRS AND IN PLACES SHOWN. SAWCUT AT NEAREST EXISTING JOINT. PROTECT EXISTING CURB, STAIRS, WALLS TO REMAIN.

INSTALL 8-INCH BELOW GRADE PIV.

(8) REMOVE EXIST. 8" PIPE.

INSTALL 8" TEE WITH THRUST BLOCK PER 1/C3.0.

CONNECT TO EXISTING FIRE PROTECTION SERVICE TO FENTON HALL WITH 90 DEGREE BEND AND REDUCER. MAKE CONNECTION AT LOCATION OF NEW FENTON SERVICE. POTHOLE FOR EXACT SERVICE LOCATION AND SIZE PRIOR TO START OF CONSTRUCTION.

PROTECT EXISTING HYDRANT TO REMAIN. INSTALL NEW 6-INCH HYDRANT LATERAL AND VALVE WITH THRUST BLOCKS, AND CONNECT TO NEW 8-INCH FP WITH 8" TEE AND 6"X8" REDUCER WITH THRUST BLOCK PER DETAIL 2/C3.0.

INSTALL 90 DEGREE 8-INCH BEND WITH THRUST BLOCK PER 1/C3.0.

EXISTING UTILITY CROSSING. POTHOLE PRIOR TO CONSTRUCTION USING VAC-X, 541-505-5074, OR APPROVED EQUAL. PROTECT EXISTING UTILITY AND ADJUST NEW WATER LINE TO CLEAR EXISTING UTILITY. SEE DETAIL 4/C3.0.

PROTECT EXISTING BIKE RACKS.

PROTECT EXISTING UTILITY AND ADJUST TO FINISHED GRADE.

REMOVE EXISTING WATER VAULT. CAP EXIST. 8" PIPE AT EDGE OF VAULT WITH CONCRETE.

ADA RAMP PER DETAIL 7/C3.0. MATCH EXISTING RAMP LOCATION AND SIZE AT CURB.

INSTALL 2-INCH STORM DRAIN (PVC ASTM 3034 SCH. 80) FROM WATER VAULT SUMP TO TRENCH DRAIN INSIDE EXISTING ELECTRICAL VAULT TO THE EAST WITH 2% MIN. SLOPE. SECURE PIPE TO INTERIOR OF ELECTRICAL VAULT. GROUT PIPE/VAULT PENETRATION.

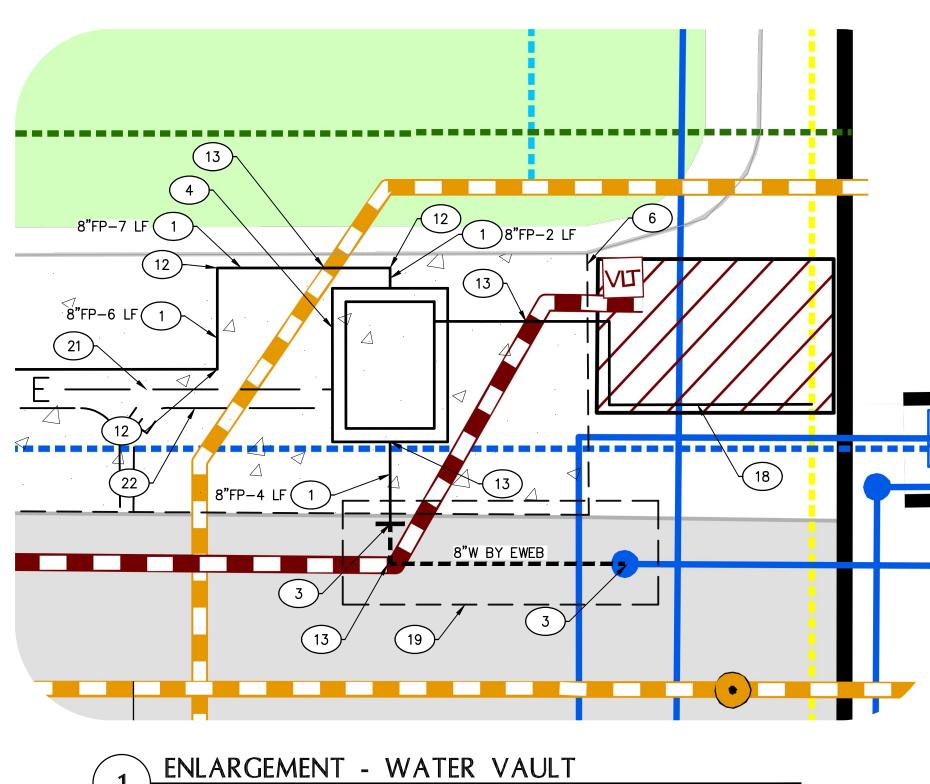
SAWCUT, REMOVE AND REPLACE AC PAVEMENT AND CURB AS NEEDED FOR CONSTRUCTION. AC TO MATCH EXISTING SECTION.

PROTECT EXISTING LIGHT POLE AND JUNCTION BOX.

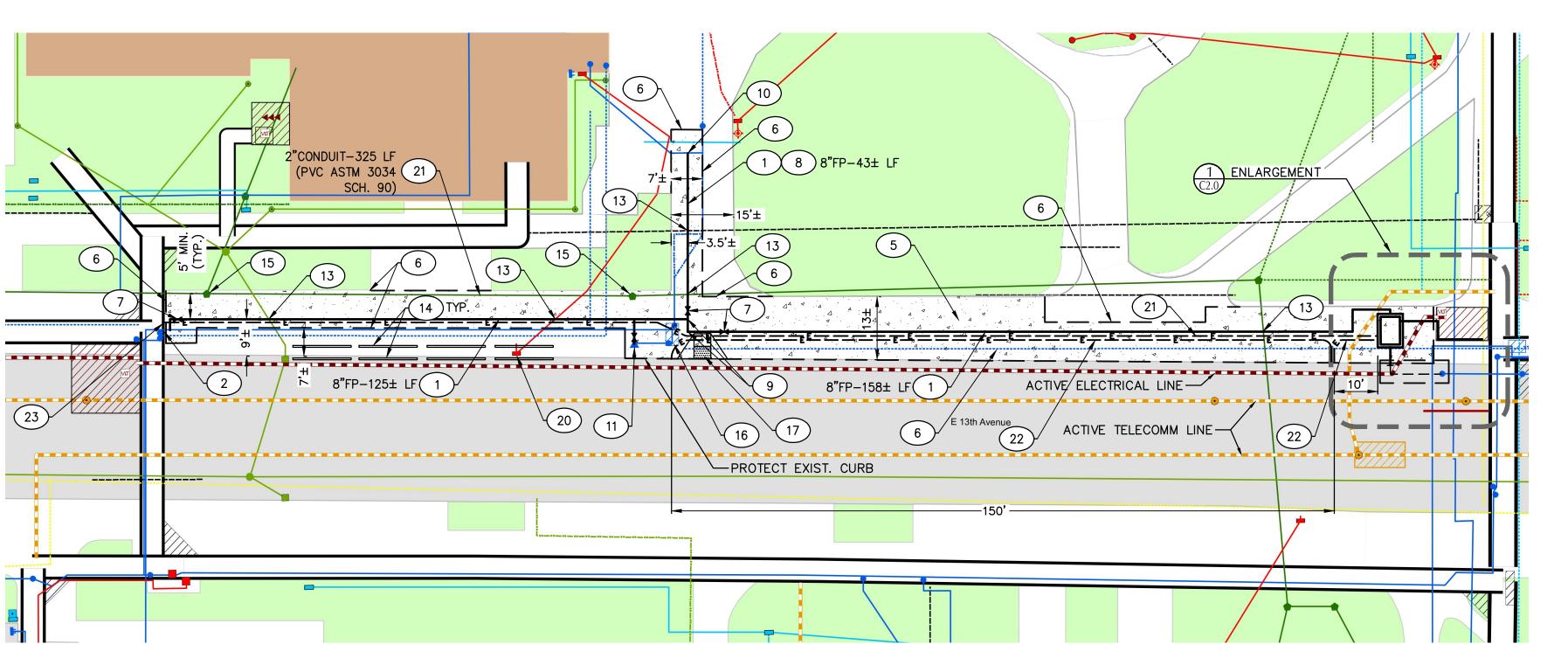
INSTALL NEW 2-INCH CONDUIT WITH PULL STRING IN COMMON TRENCH WITH WATER LINE.

INSTALL NEW 1 1/4 INCH CONDUIT WITH PULL STRING AND TRACER WIRE IN COMMON TRENCH WITH WATER LINE. SWEEP CONDUIT UNDER EXISTING CURB AS SHOW AND CAP ENDS.

EXTEND CONDUIT INTO TUNNEL. GROUT CONDUIT/TUNNEL PENETRATION.



APPROXIMATE SCALE: 1" = 5'



APPROXIMATE SCALE: 1 INCH = 20 FEET



Consulting Engineers 1201 Oak Street Suite 100 Eugene, Oregon 97401 Phone: (541) 684-4902

Fax: (541) 684-4909



JOB No.: 311840 ESIGNED BY: AB DRAWN BY: AF CHECKED BY: MK LOT DATE: 2/8/13 9:50am OTTED BY: ABackus WG NAME: 11840-01WTRep.dwg TAB NAME: C2.0

UNIVERSITY OF OREGON FENTON HALL FIRE LINE

FIRE LINE **IMPROVEMENT**

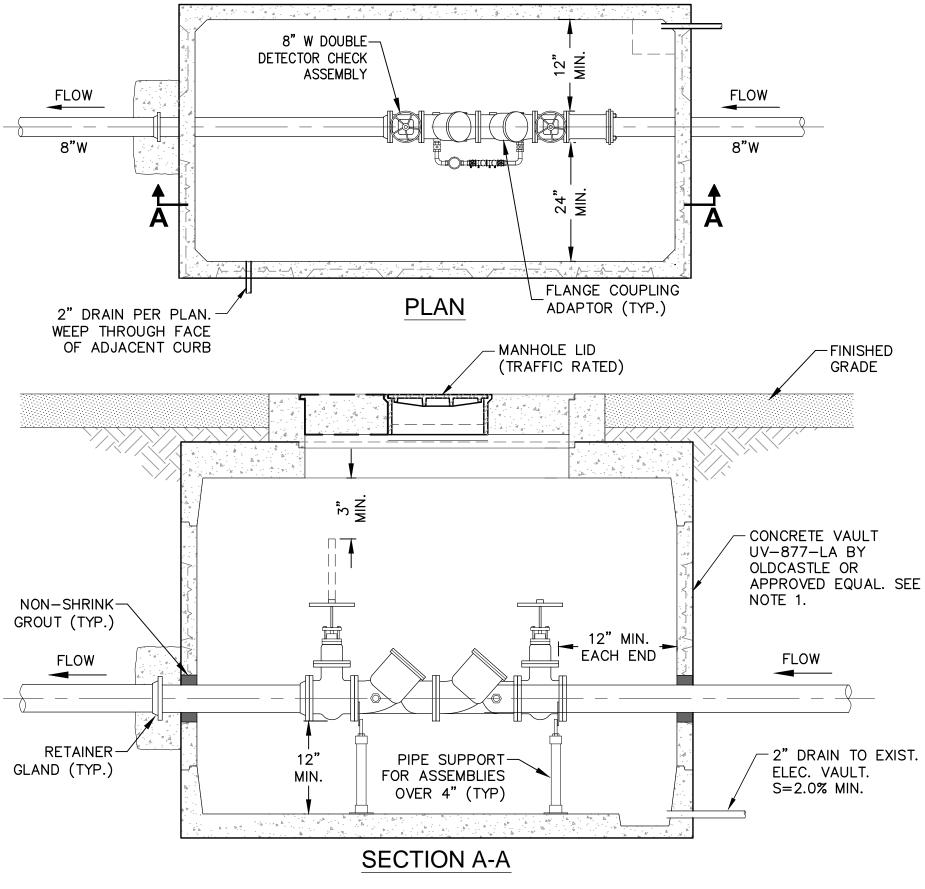
SHEET NO

2/11/13 CONSTRUCTION/BID

REVISION

DATE

DESCRIPTION



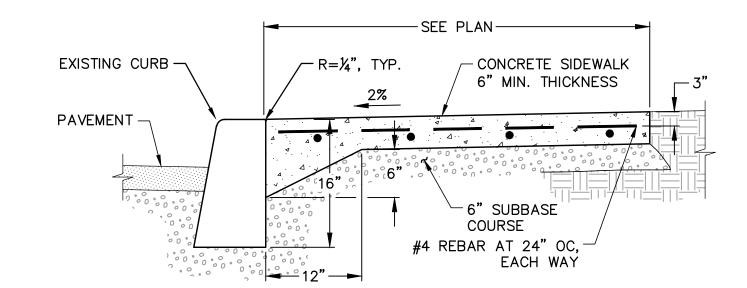
DESCRIPTION

REVISION

DATE

- 1. THE CONTRACTOR SHALL BE RESPONSIBLE FOR SIZING OF UTILITY VAULT TO ACCOMMODATE THE VALVE EQUIPMENT THE CONTRACTOR SELECTS AND EWEB REQUIRED CLEARANCES. VAULT SIZE AS NOTED FOR REFERENCE ONLY AND IS NOT GUARANTEED TO MEET REQUIREMENTS.
- 2. CONTRACTOR TO PROVIDE CONCRETE BALLASTING FOR BUOYANCY OF VAULT, ASSUMING FULLY SATURATED GROUND WATER ELEVATION. CONTRACTOR TO PROVIDE ENGINEER WITH BUOYANCY CALCULATION FOR REVIEW AND APPROVAL.

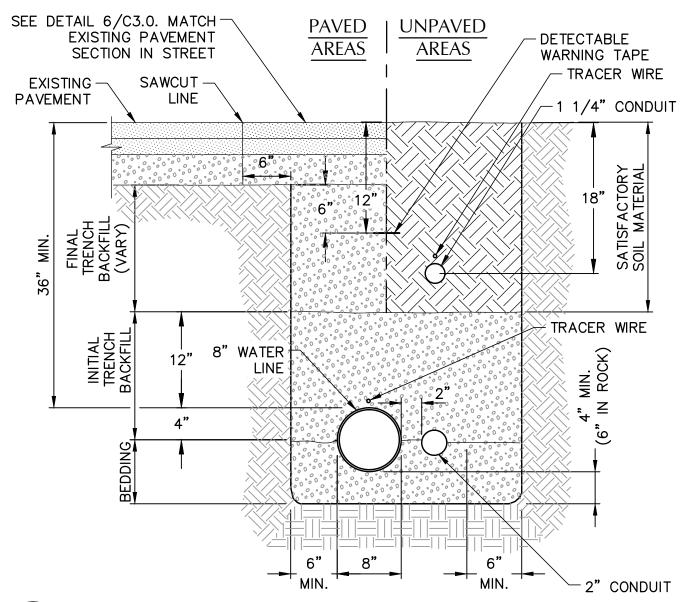
DOUBLE DETECTOR CHECK VALVE ASSEMBLY



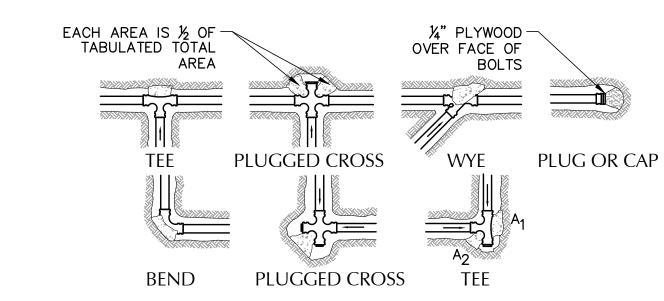
NOTES: 1. CONCRETE TO BE 3,500 PSI MINIMUM.

- 2. CONSTRUCT CONTRACTION JOINTS AT 15' MAX. SPACING AND AT RAMPS. CONSTRUCT EXPANSION JOINTS AT 200' MAX SPACING, AT POINTS OF TANGENCY AND AT ENDS OF EACH DRIVEWAY, UNLESS NOTED OTHERWISE.
- 3. SCORE JOINTS TO BE HAND TOOLED. JOINT TYPE AND LOCATION TO MATCH EXISTING CONDITION AND APPROVED BY THE UNIVERSITY.





typical pipe bedding and backfill



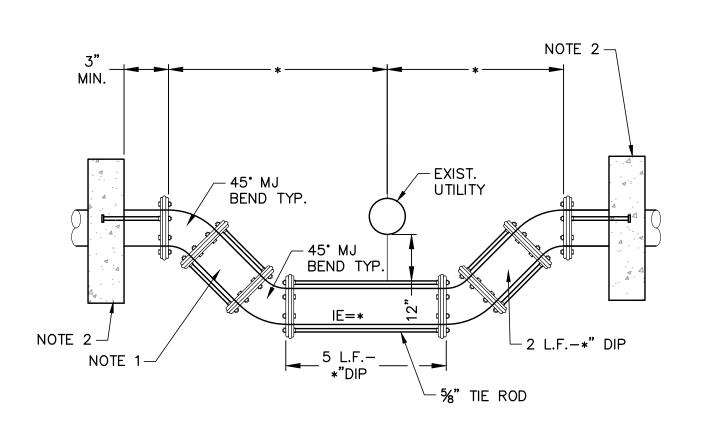
- 1. CONCRETE THRUST BLOCKING TO BE POURED AGAINST UNDISTURBED EARTH.
- 2. KEEP CONCRETE CLEAR OF JOINT AND ACCESSORIES.
- 3. THE REQUIRED THRUST BEARING AREAS FOR SPECIAL CONNECTIONS ARE SHOWN ENCIRCLED ON THE PLAN; e.g. (15) INDICATES 15 SQUARE FEET BEARING AREA REQUIRED.
- 4. IF NOT SHOWN ON PLANS REQUIRED BEARING AREAS AT FITTING SHALL BE AS INDICATED BELOW, ADJUST IF NECESSARY, TO CONFORM TO THE TEST PRESSURE(S) AND ALLOWABLE SOIL BEARING STRESS (ES) STATED IN THE SPECIAL SPECIFICATIONS.
- 5. BEARING AREAS AND SPECIAL BLOCKING DETAILS SHOWN ON PLANS TAKE PRECEDENCE OVER BEARING AREAS AND BLOCKING DETAILS SHOWN ON THIS STANDARD DETAIL.

BEARING AREA OF THRUST BLOCK IN SQUARE FOOT

| | | | PLUC ON | | | | |
|-----------------|---------------------------------|---------------------------------|------------|-----|-------------|--------------|--------------|
| FITTING SIZE | TEE, WYE, PLUG, OR CAP | 90° BEND PLUGGED CROSS | A1 | A2 | 45° BEND | 22½° BEND | 11¼° BEND |
| 4 | 1.0 | 1.4 | 1.9 | 1.4 | 1.0 | | |
| 6 | 2.1 | 3.0 | 4.3 | 3.0 | 1.6 | 1.0 | |
| 8 | 3.8 | 5.3 | 7.6 | 5.4 | 2.9 | 1.5 | 1.0 |
| 10 | 5.9 | 8.4 | 11.8 | 8.4 | 4.6 | 2.4 | 1.2 |

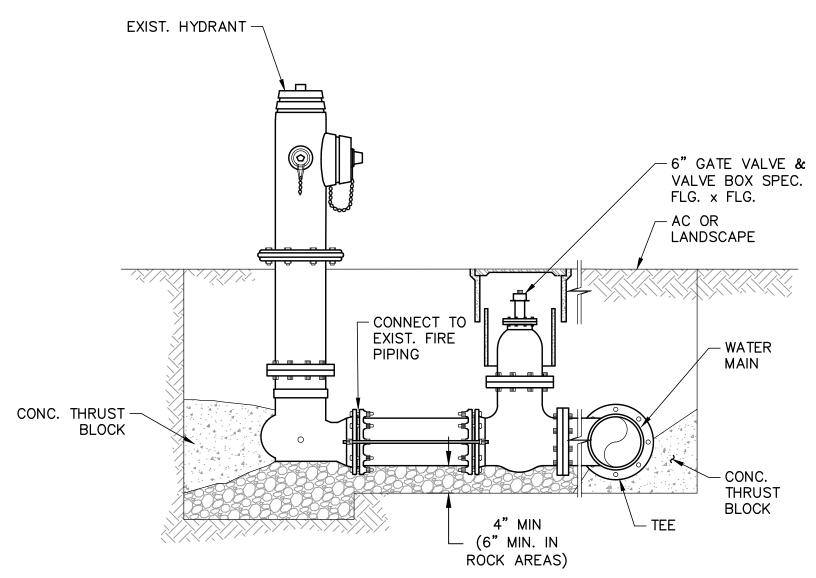
NOTE:
ABOVE BEARING AREAS BASED ON TEST PRESSURE OF 150 p.s.i. AND AN ALLOWABLE SOIL BEARING STRESS OF 2000 p.s.i.. TO COMPUTE BEARING AREAS FOR DIFFERENT TEST PRESSURE AND SOIL BEARING STRESSES, USE THE FOLLOWING EQUATION: BEARING AREA = (TEST PRESSURE/150)X(2000/ SOIL BEARING STRESS)X(TABLE VALUE).

THRUST BLOCK SCALE: NTS



1. DIP MJ SPOOL. * L.F.-* DIP CONTRACTOR TO VERIFY LENGTH OF * DIP NECESSARY TO MEET WATERLINE CLEARANCE TYP. 2. CONC. ANCHOR BLOCK W/ TIE BOLTS, DUCT LUGS OR STEEL PLATE AS

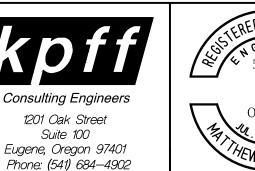
TYPICAL WATERLINE UTILITY CROSSING SCALE: NTS



NOTE:
ALL FIRE HYDRANT ASSEMBLIES INCLUDE A TEE VALVE & BOX GATE VALVE AS SHOWN

FIRE HYDRANT ASSEMBLY - M.J. SCALE: NTS





Fax: (541) 684-4909



| PROFESSION FEET OF THE | JOB No.: | 311840 |
|--|--------------|----------------|
| INESSO | DESIGNED BY: | AB |
| 56481 **\ P | DRAWN BY: | AF |
| | CHECKED BY: | MK |
| REGON , | PLOT DATE: | 2/8/13 9:51am |
| 19, 2002 M. KEEUR | PLOTTED BY: | ABackus |
| M. KEE | DWG NAME: | 11840-01WTRep. |
| E: 6/30/ | TAB NAME: | C3.0 |
| | | |

UNIVERSITY OF OREGON FENTON HALL FIRE LINE

DETAILS

RECORD NO.

SHEET NO

-EXIST. CURB _ DEPRESSED _ CURB AREA PLAN EDGE OF RAMP TO — BE FLUSH WITH AC 6" CONCRETE 6
SIDEWALK C3.0 1:12 MAX. -BASE MATERIAL - COMPACTED SUBGRADE SECTION 'A' NOTES: 1. CONCRETE SHALL BE 3,000 PSI. 2. PROVIDE RAMP TEXTURING WITH AN EXPANDED METAL GRATE PLACED ON AND REMOVED FROM WET CONCRETE TO LEAVE A DIAMOND PATTERN. EACH DIAMOND SHALL BE 11/4" LONG BY 1/2" WIDE WITH THE LONG SECTION AXIS ORIENTED PERPENDICULAR TO THE CURB. THE GROOVES SHALL BE 1/8" DEEP BY 1/4" WIDE. * RAMP SLOPES ADJ. TO ROADWAYS WITH RUNNING SLOPE GREATER THAN 1:12 CAN EXCEED 1:12. CURB RAMP - TYPE 1 SCALE: NTS 1.6"-2.4"-- TOP DIAMETER OF 50% - 65% OF THE BASE DIAMETER 1.6"-2.4" TAPERED EDGES WHERE EXPOSED

SECTION 'A'

NOTES:

1. THERMOPLASTIC DETECTABLE WARNINGS SHALL BE INSTALLED 24 INCHES IN THE DIRECTION OF TRAVEL AND EXTEND THE FULL WIDTH OF THE CURB RAMP OR

FLUSH SURFACE. THE DETECTABLE WARNING SHALL BE LOCATED SO THAT THE EDGE NEAREST THE CURB LINE OR OTHER POTENTIAL HAZARD IS 6 TO 8 INCHES FROM THE CURB LINE OR OTHER POTENTIAL HAZARD.

2. THERMOPLASTIC DETECTABLE WARNING SHALL BE INSTALLED PER

MANUFACTURER'S RECOMMENDATIONS.

3. MANUFACTURER OF DETECTABLE WARNING: TOPMARK BY FLINT TRADING INC.

DETECTABLE WARNING

PH: (336) 475-6600 WWW.FLINTTRADING.COM

OR APPROVED EQUAL

SCALE: NTS

EXIST.

NOTE 2.

BACK OF WALK BLDG., FACE, OR OBSTRUCTION

2 ADA DETECTABLE WARNING TILE

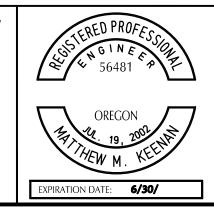
STAS OREGO LEVISIS - ALL AND COCCUS AGITAT NO.

DATE

REVISION

DESCRIPTION





| JOB No.: | 311840 |
|--------------|-------------------|
| DESIGNED BY: | AB |
| DRAWN BY: | AF |
| CHECKED BY: | MK |
| PLOT DATE: | 2/8/13 10:38am |
| PLOTTED BY: | ABackus |
| DWG NAME: | 11840-01WTRep.dwg |
| TAB NAME: | C3.1 |

UNIVERSITY OF OREGON FENTON HALL FIRE LINE

DETAILS

C3.1

SHEET 4 OF

RECORD NO.

SHEET NO