

WAUKEE TRANSPORTATION CENTER PRELIMINARY PLAT / SITE PLAN

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EXISTING PROPERTY DESCRIPTION:

AN IRREGULAR SHAPED PORTION OF THE SOUTHWEST QUARTER OF SECTION 33, TOWNSHIP 79 NORTH RANGE 26 WEST OF THE 5TH P.M. WAUKEE, DALLAS COUNTY, IOWA. ALL MORE PARTICULARLY DESCRIBED AS FOLLOWS, COMMENCING AT THE SOUTHWEST CORNER OF SAID SECTION 33, THENCE S89°25'16" ALONG THE SOUTH LINE OF THE SOUTHWEST QUARTER OF SAID SECTION 33, A DISTANCE OF 834.89 FEET; THENCE N00°42'01"E, A DISTANCE OF 60.00 FEET TO THE POINT OF BEGINNING; THENCE CONTINUING N00°42'01"E, A DISTANCE OF 892.67 FEET; THENCE N67°55'32"E, A DISTANCE OF 162.19 FEET; THENCE NORTHEASTERLY ALONG A 918.55 FOOT RADIUS CURVE CONCAVE SOUTHERLY, A DISTANCE OF 479.71 FEET; SAID CURVE HAVING A CHORD BEARING OF N75°53'13"W AND A CHORD LENGTH OF 474.28 FEET; THENCE S89°27'10"E, A DISTANCE OF 165.51 FEET TO THE WEST RIGHT OF WAY LINE OF 6TH STREET AS IT IS PRESENTLY ESTABLISHED; THENCE S00°09'09"E ALONG SAID WEST RIGHT OF WAY LINE, A DISTANCE OF 446.81 FEET; THENCE NORTHWESTERLY ALONG A 521.00 FOOT RADIUS CURVE CONCAVE NORTHERLY, A DISTANCE OF 212.93 FEET; SAID CURVE HAVING A CHORD BEARING OF N76°12'55"W AND A CHORD LENGTH OF 211.45 FEET; THENCE NORTHWESTERLY ALONG A 416.88 FOOT RADIUS CURVE CONCAVE SOUTHERLY, A DISTANCE OF 32.20 FEET; SAID CURVE HAVING A CHORD BEARING OF N70°52'48"W AND A CHORD LENGTH OF 32.22 FEET; THENCE SOUTHEASTERLY ALONG A 275.00 FOOT RADIUS CURVE CONCAVE NORTHEASTERLY, A DISTANCE OF 232.11 FEET; SAID CURVE HAVING A CHORD BEARING OF S06°05'58"E AND A CHORD LENGTH OF 225.28 FEET; THENCE S30°16'47"E, A DISTANCE OF 211.67 FEET; THENCE SOUTHWESTERLY ALONG A 26.00 FOOT RADIUS CURVE CONCAVE WESTERLY, A DISTANCE OF 39.27 FEET; SAID CURVE HAVING A CHORD BEARING OF S14°43'13"W AND A CHORD LENGTH OF 35.36 FEET; THENCE S59°43'13"W, A DISTANCE OF 246.15 FEET; THENCE S11°47'17"W, A DISTANCE OF 164.51 FEET; THENCE S89°26'16"W, A DISTANCE OF 382.56 FEET, TO THE POINT OF BEGINNING.

TRACT CONTAINS 13.95 ACRES.

SUBJECT TO AND TOGETHER WITH ANY AND ALL EASEMENTS OF RECORD.

PROPOSED PROPERTY DESCRIPTION:

LOT 1 WAUKEE TRANSPORTATION FACILITY PLAT NO. 1.

ADDRESS:
WAREHOUSE FACILITY
1000 6TH STREET
WAUKEE, IA 50263

CONTRACT BUYER:
WAUKEE COMMUNITY SCHOOL DISTRICT
560 SOUTHEAST UNIVERSITY AVENUE
WAUKEE, IOWA 50263

MAINTENANCE FACILITY:
605 UNIVERSITY AVE
WAUKEE, IA 50263

PREPARED FOR:
WAUKEE COMMUNITY SCHOOL DISTRICT
560 SOUTHEAST UNIVERSITY AVENUE
WAUKEE, IOWA 50263

OWNER:
CITY OF WAUKEE, IOWA
230 W HICKMAN ROAD
WAUKEE, IOWA 50263

PREPARED BY/PROJECT MANAGER:
BISHOP ENGINEERING
ATTN: JOEL JACKSON
3501 104TH ST
URBANDALE, IA 50322
PH: (515) 276-0467

ZONING:
M-1: LIGHT INDUSTRIAL DISTRICT
BULK REGULATIONS:
FRONT YARD = 30 FEET
SIDE YARD = NONE, EXCEPT ADJACENT TO OR C-1, THEN 25 FEET
REAR YARD = 30 FEET
MAX. HEIGHT = 45 FEET
MAX. STORIES = 3

PARKING REQUIRED:
WAREHOUSE FACILITY:
REQUIREMENTS: 1 SPACE PER 1,000 SF OF WAREHOUSE AREA + 1 SPACE PER EMPLOYEE
PROVIDED = 5,525 (SF WAREHOUSE) X 1/11,000 + 8 (EMPLOYEES) = 14 STALLS REQUIRED
PROVIDED = 26 STALLS (INCL. 2 HC STALLS)

MAINTENANCE FACILITY:
REQUIREMENTS = 1 SPACE PER BUS STALL + 1 SPACE PER OFFICE EMPLOYEE
BUS PARKING PROVIDED = 81 STALLS
REQUIRED = 81 (BUS STALLS) + 4 (EMPLOYEES) = 85 STALLS REQUIRED
CAR PARKING PROVIDED = 85 STALLS (INCL. 4 HC STALLS)

IMPERVIOUS SURFACE:
BUILDING AREA = 28,281 SF
PAVEMENT AREA = 308,000 SF
IMPERVIOUS SURFACE = 336,281 SF

BENCHMARK:
BM 1
TOP OF BURY BOLT ON HYDRANT LOCATED 25 FEET SOUTHWEST OF MAIN BUILDING ENTRANCE AND 175 FEET SOUTH OF NORTHEAST CORNER PUBLIC WORKS BUILDING.
ELEVATION=1023.67

BM 2
TOP OF NORTHEAST BOLT OF HYDRANT W/ CHISELED X LOCATED ON NORTH SIDE OF UNIVERSITY AVENUE, SOUTHWEST OF PUBLIC WORKS BUILDING AT APPROXIMATELY 815 FEET WEST OF CENTERLINE OF 6TH STREET.
ELEVATION=1013.13

TBM
BURY BOLT ON HYDRANT LOCATED APPROXIMATELY 75 FEET SOUTH OF THE CENTERLINE OF THE NORTHERNMOST ENTRANCE TO THE CEMETERY.
ELEVATION = 1012.37

GENERAL NOTES:

- ALL WORK SHALL BE DONE IN ACCORDANCE WITH WAUKEE STANDARD SPECIFICATIONS FOR PUBLIC IMPROVEMENTS AND SUDAS STANDARD SPECIFICATIONS. THE CITY OF WAUKEE DEVELOPMENT SERVICE DEPARTMENT MUST BE NOTIFIED BY ALL CONTRACTORS 48 HOURS PRIOR TO COMMENCING WORK AND PRIOR TO ANY WEEKEND OR HOLIDAY WORK. CONTRACTOR SHALL BE RESPONSIBLE FOR CONTACTING WAUKEE DEVELOPMENT SERVICES DEPARTMENT 1 WEEK PRIOR TO ANY PLANNED WORK TO SCHEDULE A PRE-CONSTRUCTION MEETING.
- IN EVENT OF A DISCREPANCY BETWEEN THE QUANTITY ESTIMATES AND THE DETAILED PLANS, THE DETAILED PLANS SHALL GOVERN.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE LOCATION OF ALL UTILITIES. ANY DAMAGE TO SAID UTILITIES SHALL BE REPAIRED AT THE CONTRACTORS EXPENSE.
- ALL WORK SHALL BE DONE IN ACCORDANCE WITH THE CURRENT O.S.H.A. CODES AND STANDARDS. NOTHING INDICATED ON THESE PLANS SHALL RELIEVE THE CONTRACTOR FROM COMPLYING WITH THE APPROPRIATE SAFETY REGULATIONS.
- ALL NECESSARY CONSTRUCTION SIGNS, BARRICADES AND OTHER TRAFFIC CONTROL DEVICES REQUIRED DURING CONSTRUCTION WILL BE FURNISHED BY THE CONTRACTOR. SIGNS, BARRICADES AND OTHER TRAFFIC CONTROL DEVICES MUST BE IN CONFORMANCE WITH THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS.
- BISHOP ENGINEERING SHALL NOT BE LIABLE FOR ANY INJURIES THAT HAPPEN ON SITE. THIS SHALL INCLUDE BUT NOT BE LIMITED TO TRENCH COLLAPSES FROM VARYING SOIL CONDITIONS OR INJURIES CAUSED BY UNDERGROUND UTILITIES INCLUDING UTILITIES THAT ARE NOT SHOWN ON PLAN.
- THE CONTRACTOR IS LIABLE FOR ALL DAMAGES TO PUBLIC OR PRIVATE PROPERTY CAUSED BY THEIR ACTION OR INACTION IN PROVIDING FOR STORM WATER FLOW DURING CONSTRUCTION. DO NOT RESTRICT FLOWS IN EXISTING DRAINAGE CHANNELS, STORM SEWER, OR FACILITIES.
- THE CONTRACTOR SHALL SUBMIT TO THE ENGINEER A SCHEDULE FOR PERFORMANCE OF WORK ITEMS. THIS SCHEDULE SHALL BE PROVIDED BY THE CONTRACTOR AT THE PROJECT PRECONSTRUCTION CONFERENCE. NO WORK SHALL BEGIN UNTIL A SCHEDULE HAS BEEN SUBMITTED AND ACCEPTED. THE CONTRACTOR SHALL THEN PERFORM WORK TO CONFORM TO THE ACCEPTED SCHEDULE.
- LABORATORY TESTS SHALL BE PERFORMED BY THE OWNER UNLESS OTHERWISE NOTED. THE CONTRACTOR SHALL PROVIDE SAMPLES OF MATERIAL REQUIRED FOR LABORATORY TESTS AND TESTING IN ACCORDANCE WITH THE URBAN STANDARD SPECIFICATIONS FOR PUBLIC IMPROVEMENTS.
- SOIL IMPORT OR EXPORT ON THIS PROJECT SHALL BE CONSIDERED INCIDENTAL AND WILL NOT BE MEASURED OR PAID FOR SEPARATELY.
- THE CONTRACTOR SHALL PROTECT ALL STRUCTURES NOT SHOWN AS REMOVALS ON THE PLANS.
- THE CONTRACTOR SHALL OBTAIN ANY AND ALL NECESSARY PERMITS PRIOR TO ANY CONSTRUCTION. CONTRACTOR SHALL WORK WITH OWNER OR OWNERS REPRESENTATIVE ON ALL REQUIRED STORM WATER DISCHARGE PERMITS FROM THE IOWA DEPARTMENT OF NATURAL RESOURCES AND THE CITY OF WAUKEE.
- GRADING AND EROSION CONTROL SHALL BE DONE IN ACCORDANCE WITH THE APPROVED GRADING PLAN, SWPPP, NPDES DOCUMENTS, AND IOWA DEPARTMENT OF NATURAL RESOURCES REQUIREMENTS.
- THE CONTRACTOR SHALL PICK UP ANY DEBRIS SPILLED ONTO THE ADJACENT RIGHT OF WAY OR ABUTTING PROPERTIES AS THE RESULT OF CONSTRUCTION, AT THE END OF EACH WORK DAY AND PRIOR TO A RAIN EVENT.
- THE CONTRACTOR IS RESPONSIBLE FOR THE PROMPT REMOVAL OF ALL MUD THAT HAS BEEN TRACKED OR WASHED UNTO ADJACENT PROPERTY OR RIGHT OF WAY UNTIL SUCH TIME THAT PERMANENT VEGETATION HAS BEEN ESTABLISHED.
- DISPOSE OF ALL EXCESS MATERIALS AND TRASH IN ACCORDANCE WITH FEDERAL, STATE, AND LOCAL REQUIREMENTS. PROVIDE WASTE AREAS OR DISPOSAL SITES FOR EXCESS MATERIALS NOT DESIRABLE FOR INCORPORATION INTO THE PROJECT.
- ALL MONUMENT SIGNS ARE SUBJECT TO REVIEW BY THE CITY OF WAUKEE DEVELOPMENT SERVICES DEPARTMENT.
- ANY PROPOSED CHANGES TO THE APPROVED PLAN SET DURING CONSTRUCTION MUST RECEIVE WRITTEN APPROVAL FROM THE CITY OF WAUKEE DEVELOPMENT SERVICES DEPARTMENT AND DESIGN ENGINEER. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY CHANGES MADE DURING CONSTRUCTION THAT HAVE NOT RECEIVED WRITTEN APPROVAL FROM THE CITY OF WAUKEE DEVELOPMENT SERVICES DEPARTMENT.
- CONTRACTOR SHALL PROVIDE THE CITY OF WAUKEE ENGINEERING DEPARTMENT WITH A LIST OF QUANTITIES FOR SCHEDULING INSPECTION PURPOSES.

PAVING NOTES:

- THE PAVING/ GRADING CONTRACTOR SHALL BACKFILL THE PAVING SLAB AND FINE GRADE THE RIGHT OF WAY AS SOON AFTER THE PAVING AS POSSIBLE. ALL AREAS SHALL BE SEEDED IN ACCORDANCE WITH CITY OF WAUKEE STANDARD SPECIFICATIONS AND THE CURRENT VERSION OF SUDAS.
- SUBGRADE PREPARATION AND PAVEMENTS WILL BE CONSTRUCTED FOLLOWING RECOMMENDATIONS IN THE SOILS REPORT. APPROVED SOILS ENGINEER MUST SIGN OFF ON SUBASE PRIOR TO ANY PAVEMENT BEING PLACED.
- SEE DETAILS FOR ALL PAVEMENT THICKNESS.
- DETECTABLE WARNING PANELS CALLED OUT ON PLANS SHALL BE PER A.D.A. REGULATIONS. PANEL TYPE & COLOR SHALL BE PER CITY STANDARD.
- ALL WALKS, PARKING LOTS, HANDICAP PARKING, RAMPS, ETC. SHALL COMPLY WITH ALL A.D.A. AND CITY CODES. HANDICAP PARKING SIGNAGE IS REQUIRED FOR ALL HANDICAP STALLS AND SHALL BE CONSIDERED INCIDENTAL. IN EVENT OF A DISCREPANCY BETWEEN THE PLANS AND THE A.D.A./CITY CODES THE A.D.A./CITY CODES SHALL GOVERN. CONTRACTOR SHALL BE RESPONSIBLE FOR ENSURING A.D.A. CODES ARE MET.
- ALL PAVEMENT REPLACEMENT SHALL COMPLY WITH THE WAUKEE STANDARD SPECIFICATIONS FOR PUBLIC IMPROVEMENTS.

UTILITY NOTES:

- QUANTITY CALLOUTS ON PIPE LENGTHS ARE APPROXIMATE AND SHOULD BE USED FOR REFERENCE ONLY.
- THE CONTRACTOR SHALL PROVIDE AS-BUILTS OF ALL UTILITIES, INCLUDING DEPTH AND LOCATION OF ALL SERVICES.
- THE CONTRACTOR SHALL COORDINATE THE ADJUSTMENT OF ANY AND ALL EXISTING AND PROPOSED UTILITIES TO PROPOSED GRADES. EXISTING UTILITIES SHALL BE RAISED OR LOWERED IN ACCORDANCE WITH THE UTILITY OWNER REQUIREMENTS. ANY NECESSARY ADJUSTMENTS SHALL BE CONSIDERED INCIDENTAL TO CONSTRUCTION.
- ACTIVE EXISTING FIELD TILES ENCOUNTERED DURING CONSTRUCTION SHALL BE REPAIRED, REROUTED, OR CONNECTED TO PUBLIC OR PRIVATE STORM SEWER TO REMAIN IN SERVICE AND LOCATIONS SHALL BE NOTED ON AS-BUILT DRAWINGS.
- ALL PROPOSED RCP STORM SEWER PIPE JOINTS SHALL BE FABRIC WRAPPED AND THE LAST 3 PIPE SECTIONS ON THE APRON SHALL BE TIED WITH RF-14 TYPE II CONNECTORS. ALL APRONS SHALL HAVE A STANDARD FOOTING AND TRASH GUARD. ALL FLARED END SECTIONS SHALL HAVE A 3' WIDE CLAY WATERSTOP (SUDAS SW-105).
- ALL RIP RAP CALLED OUT ON PLANS SHALL BE UNDERLAIN WITH ENGINEERING FABRIC.
- ALL STRUCTURE SIZES CALLED OUT ON PLANS ARE MINIMUM INSIDE WALL DIMENSIONS.
- SANITARY SEWER SERVICE CONNECTIONS SHALL BE PLACED AT A SLOPE OF NO LESS THAN 2%. SERVICES SHALL MAINTAIN 18" OF VERTICAL SEPARATION FROM THE WATER MAIN WITH 18" OF COMPACTED LOW PERMEABILITY SOIL BETWEEN THE UTILITIES WITHIN 10' OF THE CROSSING.
- MANHOLE AND PRESSURE TESTS SHALL BE REQUIRED FOR ALL PROPOSED SANITARY LINES. ALL SANITARY MANHOLES SHALL BE VACUUM TESTED. ALL SANITARY AND STORM LINES SHALL BE CLEANED AND TELEVIEWED PRIOR TO PAVING. THE CITY SHALL WITNESS ALL CLEANING AND TELEVIEWING. COPIES OF THE REPORTS AND VIDEOS SHALL BE PROVIDED TO THE CITY OF WAUKEE ENGINEERING DEPARTMENT.
- ALL UTILITIES SHALL BE TESTED TO CITY OF WAUKEE STANDARDS AND THE CITY OF WAUKEE ENGINEERING DEPARTMENT SHALL WITNESS ALL TESTING.
- WATERMANS SHALL BE C-900. SIZE OF WATERMAIN AS SHOWN ON PLANS.
- THROST BLOCKS SHALL BE INSTALLED AS REQUIRED AND SHALL BE CONSIDERED INCIDENTAL TO WATERMAIN CONSTRUCTION.
- PROPOSED WATERMAIN SHALL BE PRESSURE TESTED. BACTERIA TESTED AND CHLORINATED. THE FILLING OF THE WATER MAIN SHALL BE DONE BY THE CITY OF WAUKEE.
- TRACER WIRE SHALL BE ADDED TO ALL WATER MAIN, AND BROUGHT TO THE SURFACE AT EVERY HYDRANT.
- ALL HYDRANTS WILL IMMEDIATELY BE COVERED WITH A BLACK PLASTIC BAG (OR EQUIVALENT) ONCE THE HYDRANT IS INSTALLED. THE CITY OF WAUKEE WILL NOTIFY THE CONTRACTOR WHEN THE BAGS CAN BE REMOVED.
- THE MINIMUM HYDRANT LEAD SHALL BE 3.5 FEET.
- FIRE HYDRANT ASSEMBLY SHALL INCLUDE TEE, BRANCH, VALVE & HYDRANT AND A STORZ CONNECTION.
- ANY AND ALL HYDRANT AND VALVE EXTENSIONS, TOGETHER WITH VERTICAL BENDS, SHALL BE CONSIDERED INCIDENTAL TO WATER MAIN CONSTRUCTION. NO ADDITIONAL PAYMENT WILL BE PROVIDED FOR INCIDENTAL ITEMS.
- ALL UTILITY CONNECTIONS TO EXISTING UTILITIES SHALL BE COORDINATED WITH THE CITY OF WAUKEE ENGINEERING DEPARTMENT.

UTILITY CONFLICT NOTES:

- UTILITY CONFLICTS MAY EXIST ACROSS THE SITE WITH NEW UTILITIES, GRADING, PAVING ETC. MOST UTILITY CONFLICTS HAVE BEEN CALLED OUT FOR CONTRACTOR CONVENIENCE.
- CONTRACTOR IS RESPONSIBLE FOR ALL UTILITY CONFLICTS THAT ARE EITHER CALLED OUT ON THE PLANS OR THAT CAN BE SEEN ON THE PLANS BETWEEN AND EXISTING UTILITY AND PROPOSED CONSTRUCTION.
- CONTRACTOR SHALL USE O-RING GASKET JOINTS FOR STORM SEWER AND SANITARY SEWER AT CROSSINGS WITH WATER WHERE STORM OR SANITARY SEWER CROSSED OVER OR LESS THAN 18 INCHES BELOW WATER. O-RING GASKET JOINTS SHALL BE EXTENDED UNTIL WATER AND SEWER ARE AT LEAST 10 FEET APART. ALL O-RING GASKET JOINTS SHALL BE CONSIDERED INCIDENTAL TO BID.

MONUMENT AND BUILDING SIGNAGE:

CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL SIGN PERMITS PRIOR TO INSTALLATION OF ANY GROUND OR BUILDING SIGNAGE AND SHALL ENSURE COMPLIANCE WITH ALL CITY REGULATIONS.

PAVEMENT THICKNESS NOTES:

- SEE NOTES AND DETAILS FOR PAVEMENT THICKNESSES ON LAYOUT PLANS.

STAKING NOTES:

- CONTRACTOR IS REQUIRED TO HAVE ALL STAKING (INCLUDING ALL PEDESTRIAN FACILITIES) DONE UNDER THE SUPERVISION OF A LICENSED LAND SURVEYOR.
- STAKING DOES NOT RELIEVE CONTRACTOR OF ULTIMATE RESPONSIBILITY TO CONSTRUCT THE PROJECT PER PLAN.

SOILS REPORT:

REFERENCE ALLENDER BUTZKE SOILS REPORT FOR ADDITIONAL SOILS INFORMATION INCLUDING BUT NOT LIMITED TO SUBGRADE INFORMATION, FOOTING DESIGN, PAVEMENT THICKNESS RECOMMENDATIONS, AND ANY POSSIBLE OVER EXCAVATION DUE TO POOR SOILS.

SPECIFICATIONS NOTES:

- IN THE EVENT OF A DISCREPANCY BETWEEN THE WAUKEE TRANSPORTATION CENTER PROJECT SPECIFICATIONS AND CITY OF WAUKEE REQUIREMENTS AND SPECIFICATIONS, PLUMBING CODE, AND URBAN STANDARD SPECIFICATIONS FOR PUBLIC IMPROVEMENT (SUDAS 2013), THE CITY OF WAUKEE STANDARD SPECIFICATIONS SHALL GOVERN.
- FOR ALL SPECIFICATION DISCREPANCIES, PROJECT ENGINEER SHALL BE CONTACTED PRIOR TO PROCEEDING WITH CONSTRUCTION. IF ENGINEER IS NOT CONTACTED, CONTRACTOR SHALL BE RESPONSIBLE FOR ANY PROBLEMS THAT RESULT FROM SAID DISCREPANCIES.
- FOR ALL SPECIFICATION DISCREPANCIES, CONTRACTOR MUST OBTAIN WRITTEN APPROVAL FROM THE CITY OF WAUKEE ENGINEERING DEPARTMENT FOR ANY CHANGES TO PROPOSED SITE INFRASTRUCTURE OR GRADES PRIOR TO PROCEEDING WITH ANY CHANGES.

PAVEMENT SAWCUT NOTES:

- CONTRACTOR TO PROVIDE SAWCUT JOINTING PLAN TO DAVID BENTZ, BISHOP ENGINEERING (515-276-0467 OR DBBENTZ@BISHOPENGR.COM) PRIOR TO ANY PCC PAVEMENT INSTALLATION.
- PAVEMENT MAY BE REQUIRED TO BE REMOVED AND REPLACED IF PLACED WITHOUT AN APPROVED PLAN.
- LONGITUDINAL JOINTS IN DRIVE LANES & THE OUTER MOST JOINT OF ALL PARKING AREAS SHALL BE SUDAS TYPE 'L-1' OR 'L-2' OR TYPE 'KT-1' OR 'KT-2' JOINTS AND HAVE STEEL. INTERIOR PARKING LOT JOINTS, OTHER THAN THE OUTER MOST JOINT, DO NOT NEED STEEL AND SHALL BE SUDAS TYPE 'B' OR TYPE 'X' JOINTS.
- ALL TRANSVERSE JOINTS IN TYPE 1 AND TYPE 2 PAVEMENT TYPES SHALL BE SUDAS TYPE 'C' OR TYPE 'DW' JOINTS WITH STEEL IN THE CASE OF A DAY'S WORK JOINT.
- ALL TRANSVERSE JOINTS IN TYPE 3 PAVEMENT TYPES SHALL BE SUDAS TYPE 'CJ' JOINTS.

WETLAND NOTES:

BISHOP ENGINEERING DOES NOT PERFORM WETLAND STUDIES OR WETLAND MITIGATION. IT IS THE OWNERS RESPONSIBILITY TO DETERMINE IF ANY WETLANDS ARE LOCATED ON THE PROJECT SITE AND PERFORM ANY NECESSARY MITIGATION PRIOR TO THE COMMENCEMENT OF CONSTRUCTION ACTIVITIES.

SWPPP & TOPSOIL NOTES:

- STORM WATER POLLUTION PREVENTION PLAN HAS BEEN PREPARED BY BISHOP ENGINEERING. CONTACT JAMES ROEDENBER (515-276-0467) FOR A COPY OF THE SWPPP.
- CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFYING ALLENDER BUTZKE ENGINEERS (515-252-1885) WHEN TOPSOIL HAS BEEN PLACED / RE-SPREAD ON SITE. ALLENDER BUTZKE WILL THEN INVESTIGATE AND PROVIDE WRITTEN VERIFICATION TO THE OWNER THAT AT LEAST 6" OF TOPSOIL HAS BEEN PLACED IN ALL PVIOUS AREAS OF THE SITE. CONTRACTOR SHALL BE RESPONSIBLE FOR THE COST OF HAULING IN ADDITIONAL TOPSOIL IN AREAS THAT ARE DEFICIENT. CONTRACTOR SHALL ALSO BE RESPONSIBLE FOR ADDITIONAL COSTS FOR SUBSEQUENT TOPSOIL DEPTH TESTING PERFORMED BY ALLENDER BUTZKE IF SITE IS FOUND TO BE DEFICIENT.
- UPON COMPLETION OF TOPSOIL VERIFICATION BY ALLENDER BUTZKE, THE OWNER SHALL PROVIDE SIGNED, WRITTEN VERIFICATION TO THE CITY OF WAUKEE THAT TOPSOIL REQUIREMENTS HAVE BEEN MET.

DETENTION BASIN AS-BUILTS:

THE CONTRACTOR SHALL BE RESPONSIBLE FOR COST OF AS-BUILT TOPO OF ALL DETENTION PONDS & DETENTION POND STORM SEWER. CONTRACTOR SHALL CONTACT BISHOP ENGINEERING (DAVID BENTZ AT 515-276-0467) TO PERFORM SAID AS-BUILT SURVEY. IF DETENTION PONDS HAVE BEEN GRADED INCORRECTLY, CONTRACTOR SHALL BE RESPONSIBLE FOR ALL SUBSEQUENT AS-BUILT TOPO SURVEYS UNTIL ISSUES HAVE BEEN RECTIFIED.

AS-BUILTS WILL INCLUDE:
-TOPO SURVEY
-VERIFY RESTRICTOR PLATES
-CAPACITY VOLUME CALCULATIONS
-STORM SEWER RIM AND INVERT AS-BUILTS AROUND PONDS.

****CONTRACTOR SHALL CONTACT BISHOP ENGINEERING FOR POND AS-BUILTS AFTER TOPSOIL RE-SPREAD AND BEFORE SEEDING HAS TAKEN PLACE****

AFTER DETENTION BASINS HAVE BEEN AS-BUILT AND APPROVED, BISHOP ENGINEERING SHALL PROVIDE A SIGNED CERTIFICATION STATEMENT TO THE CITY OF WAUKEE INDICATING THAT FACILITIES WERE CONSTRUCTED AS DESIGNED.

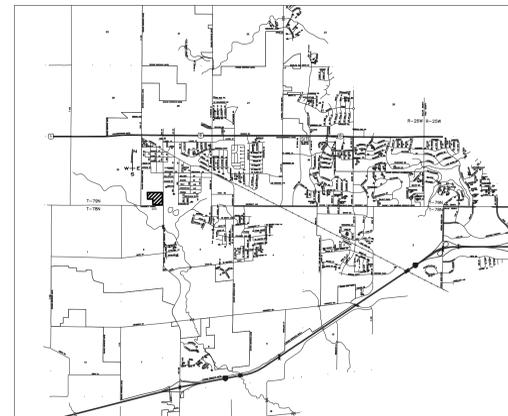
DETENTION BASIN INSPECTION AND MAINTENANCE REQUIREMENTS:

ADEQUATE ACCESS MUST BE PROVIDED FOR ALL DETENTION FACILITIES FOR INSPECTION, MAINTENANCE, AND LANDSCAPING UPKEEP, INCLUDING APPROPRIATE EQUIPMENT AND VEHICLES.

TYPICAL MAINTENANCE ACTIVITIES FOR DETENTION AREAS & RESTRICTOR PLATES INCLUDE BUT ARE NOT LIMITED TO:

ACTIVITY SCHEDULE	WEEKLY DURING SUMMER MONTHS
MOWING OF GRASS	AS NEEDED
PRUNING AND WEEDING TO MAINTAIN APPEARANCE	AS NEEDED
REMOVE TRASH AND DEBRIS	AS NEEDED
INSPECT INFLOW POINTS FOR CLOGGING.	AS NEEDED
REMOVE ANY SEDIMENT.	AS NEEDED
INSPECT RESTRICTOR PLATE	SEMI-ANNUALLY
REMOVE TRASH AND DEBRIS	SEMI-ANNUALLY
REMOVE ANY SEDIMENT	SEMI-ANNUALLY
INSPECT GRASS CHANNELS FOR EROSION OR GULLING.	SEMI-ANNUALLY
RE-SEED OR SOO AS NECESSARY.	SEMI-ANNUALLY
TREES AND SHRUBS SHOULD BE INSPECTED TO EVALUATE THEIR HEALTH AND REMOVE ANY DEAD OR SEVERELY DISEASED VEGETATION.	SEMI-ANNUALLY

- NOTES:
- AN OPERATION AND MAINTENANCE PLAN SHOULD BE PREPARED PRIOR TO PLACING THE BASIN INTO OPERATION.
 - FOLLOWING CONSTRUCTION, INSPECT THE BASIN MONTHLY, AS WELL AS AFTER EVERY MAJOR STORM TO ENSURE THE BASIN IS DRAINING AS DESIGNED.
 - INSPECT ANNUALLY OR SEMI-ANNUALLY FOR SETTLING, CRACKING, EROSION, LEAKAGE, TREE GROWTH ON THE EMBANKMENTS, CONDITION OF THE INLET AND OUTLET CHANNELS, SEDIMENT ACCUMULATION IN THE BASIN BOTTOM, AND THE CONDITION OF THE GRASS TURF.
 - DO NOT MOW WHEN THE GROUND IS WET TO AVOID COMPACTION OF THE BOTTOM SOILS.
 - REMOVE TRASH AND DEBRIS AT LEAST TWICE A YEAR, OR MORE OFTEN AS NECESSARY.



VICINITY MAP
SCALE: 1" = 1,000'

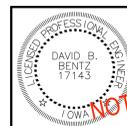
LEGEND:

- SAN — SANITARY SEWER
- ST — STORM SEWER
- W — WATER LINE
- G — GAS LINE
- UE — UNDERGROUND ELECTRIC
- OE — OVERHEAD ELECTRIC
- TELE — TELEPHONE LINE
- FIO — FIBER OPTIC
- CATV — CABLE TV

- ⊞ STORM MANHOLE
- ⊞ CURB INTAKE
- ⊞ SURFACE INTAKE
- ⊞ FLARED END SECTION
- ⊞ SANITARY MANHOLE
- ⊞ CLEANOUT
- ⊞ FIRE HYDRANT
- ⊞ SPRINKLER
- ⊞ IRRIGATION CONTROL VALVE
- ⊞ WATER MANHOLE
- ⊞ WELL
- ⊞ WATER VALVE
- ⊞ WATER SHUT OFF
- ⊞ YARD HYDRANT
- ⊞ ELECTRIC MANHOLE
- ⊞ ELECTRIC RISER
- ⊞ ELECTRIC VAULT
- ⊞ POWER POLE
- ⊞ TRANSFORMER POLE
- ⊞ LIGHT POLE
- ⊞ ELECTRIC JUNCTION BOX
- ⊞ ELECTRIC PANEL
- ⊞ TRANSFORMER
- ⊞ GROUND LIGHT
- ⊞ GUY WIRE
- ⊞ ELECTRIC HANDHOLE
- ⊞ GAS METER
- ⊞ GAS VALVE
- ⊞ AIR CONDITIONING UNIT
- ⊞ FINISHED FLOOR
- ⊞ TELEPHONE RISER
- ⊞ TELEPHONE VAULT
- ⊞ TELEPHONE MANHOLE
- ⊞ TRAFFIC SIGNAL MANHOLE
- ⊞ FIBER OPTIC RISER
- ⊞ FIBER OPTIC FAULT
- ⊞ PUBLIC UTILITY EASEMENT
- ⊞ CABLE TV RISER
- SIGN
- ⑦ DENOTES NUMBER OF PARKING STALLS
- PROPERTY CORNER - FOUND AS NOTED
- PROPERTY CORNER - PLACED 3/4" IRON PIPE WITH YELLOW PLASTIC CAP ID #14775
- ⊞ SECTION CORNER - FOUND AS NOTED

ABBREVIATIONS:

AC	ACRES
ASPH	ASPHALT
BK	BOOK
CONC	CONCRETE
D	DEEDED DISTANCE
EX	EXISTING
ENCL	ENCLOSURE
FF	FINISHED FLOOR
FL	FLOW LINE
FRAC	FRACTIONAL
M	MEASURED DISTANCE
MH	MANHOLE
OPC	ORANGE PLASTIC CAP
P	PLATTED DISTANCE
PG	PAGE
POB	POINT OF BEGINNING
POC	POINT OF COMMENCEMENT
PRA	PREVIOUSLY RECORDED AS
PUE	PUBLIC UTILITY EASEMENT
R/W	RIGHT OF WAY
RCP	RED PLASTIC CAP
SAN	SANITARY
TFP	TYPICAL
YPC	YELLOW PLASTIC CAP
N	NORTH
S	SOUTH
E	EAST
W	WEST



I HEREBY CERTIFY THAT THIS ENGINEERING DOCUMENT WAS PREPARED BY ME OR UNDER MY DIRECT PERSONAL SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF IOWA.
SIGNED: DAVID B. BENTZ, PE, 17143 DATE: _____
FOR CONSTRUCTION
LICENSE RENEWAL DATE: DEC. 31, 2015
PAGES OR SHEETS COVERED BY THIS SEAL:



UTILITY NOTE:
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DESIGN & DEVELOPMENT
TRANSPORTATION & OPERATIONS BUILDINGS
WAUKEE COMMUNITY SCHOOL DISTRICT
WAUKEE, IOWA

PROJECT NO.:
1018i01
DATE:
FEBRUARY 10 16

REVISIONS:

DRAWING TITLE:
CIVIL INFO SHEET

DRAWING NO.:
C-001
BE PROJECT # 140455

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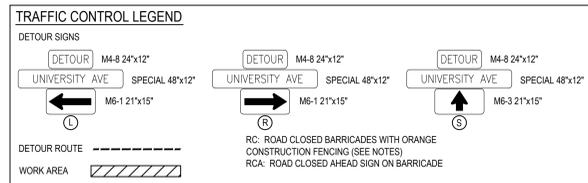
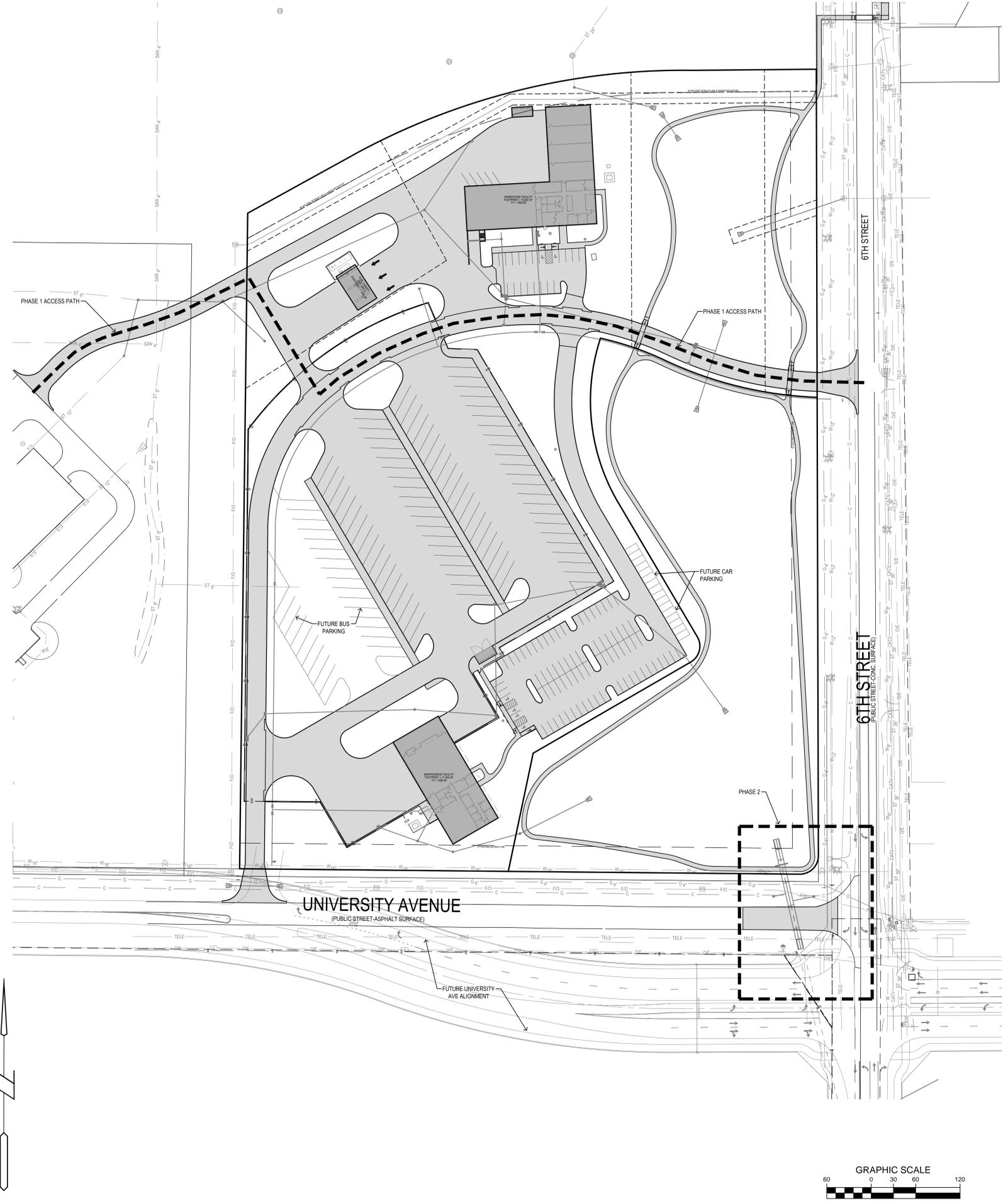
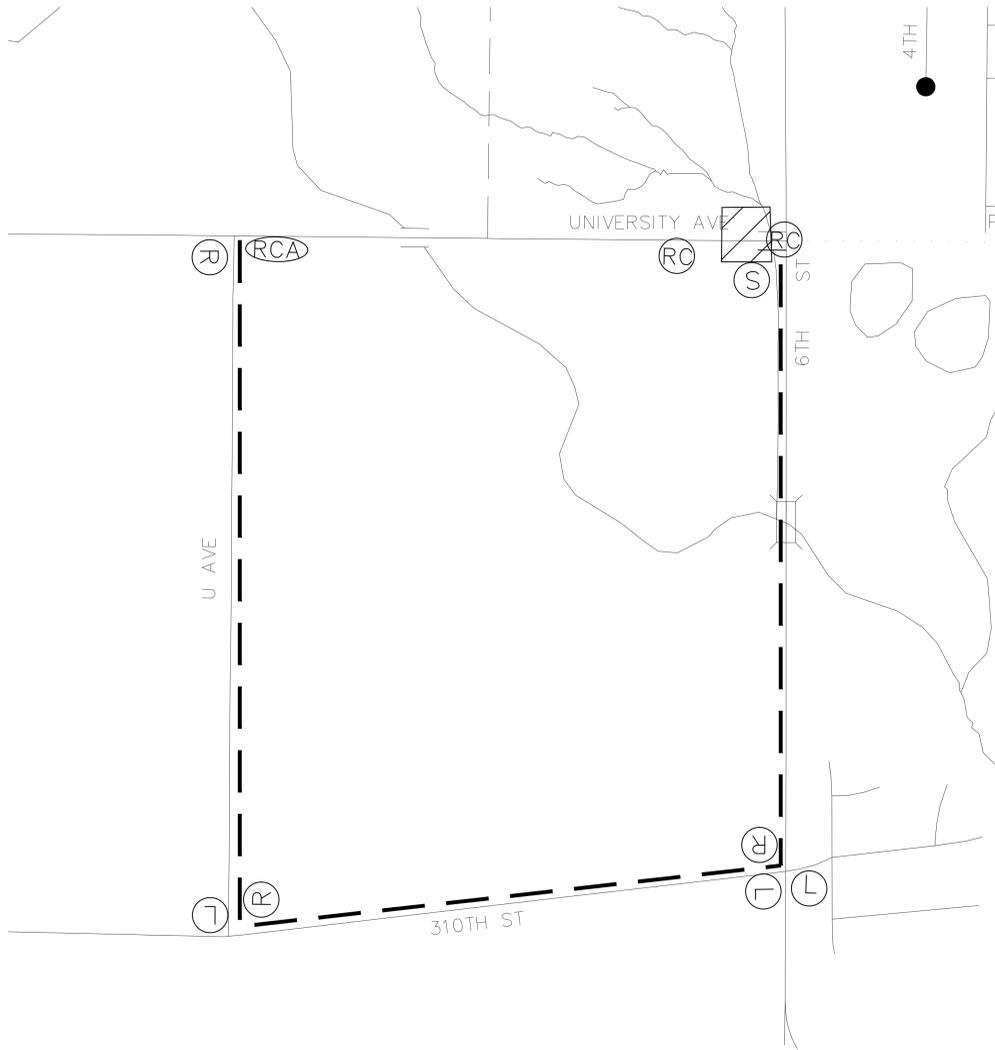
TRAFFIC CONTROL PLAN:

THE CONTRACTOR SHALL EMPLOY SOUND PRACTICES OF SAFETY AND TRAFFIC CONTROL. THESE METHODS AND PRACTICES SHALL INCLUDE, BUT NOT BE LIMITED TO THE FOLLOWING:

1. THE CONTRACTOR SHALL COORDINATE TRAFFIC CONTROL WITH ANY AND ALL OTHER PROJECTS IN THE AREA.
2. TRAFFIC CONTROL ON THIS PROJECT SHALL BE IN ACCORDANCE WITH SPECIFIC LAYOUTS SHOWN ON THESE PLANS AND PER IOWA DOT STANDARD ROAD PLAN TC-252. TRAFFIC CONTROL DEVICES, PROCEDURES AND LAYOUTS SHALL BE AS PER CURRENT PART 6 OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD).
3. ALL TRAFFIC CONTROL DEVICES SHALL BE FURNISHED, ERECTED, MAINTAINED AND REMOVED BY THE CONTRACTOR.
4. ALL TRAFFIC CONTROL SIGNS SHALL BE PLACED AT A MINIMUM OF 2 FEET CLEAR OF THE BACK OF CURB OR OUTSIDE EDGE OF SHOULDER WHERE POSSIBLE.
5. PORTABLE MOUNTINGS FOR WARNING SIGNS MAY BE USED FOR TEMPORARY INSTALLATIONS OF 3 DAYS OR LESS.
6. THE PROPOSED SIGNING MAY BE MODIFIED TO MEET FIELD CONDITIONS. PREVENT OBSTRUCTIONS AND TO ACCOMMODATE CONSTRUCTION SCHEDULING UPON APPROVAL OF THE PROJECT ENGINEER.
7. ORANGE SAFETY FENCE SHALL BE PLACED ENTIRELY ACROSS THE TRAVELED PORTION OF THE ROADWAY AT ALL LOCATIONS WHERE TYPE III BARRICADES WITH "ROAD CLOSED" SIGNS ARE USED.
8. ALL TYPE III BARRICADES SHALL HAVE TYPE 'A' LOW INTENSITY FLASHING WARNING LIGHTS. THE BACK SIDE OF THE TYPE III BARRICADES SHALL BE REFLECTORIZED BY A MINIMUM OF SIX YELLOW REFLECTORS, ONE AT EACH END OF EACH RAIL, OR AT LEAST ONE RAIL ON EACH BARRICADE SHALL HAVE REFLECTORIZED STRIPES PROPERLY SLOPED AT EACH END. AT FULL CLOSURE LOCATIONS, CONTRACTOR SHALL PROVIDE ENOUGH TYPE III BARRICADES TO COMPLETELY CROSS THE ROAD.
9. LONG TERM OR PERMANENT TRAFFIC CONTROL SIGNS THAT CONFLICT WITH SPECIFIC LAYOUTS SHOWN ON THESE PLANS ARE TO BE COVERED AS DIRECTED BY THE PROJECT ENGINEER.
10. SIGN WASHING SHALL BE CONSIDERED INCIDENTAL TO TRAFFIC CONTROL AND REQUIRED AS DIRECTED BY THE PROJECT ENGINEER.
11. ALL CONSTRUCTION SIGNS SHALL BE DIAMOND GRADE FLUORESCENT ORANGE OR WHITE V.I.P. SHEETING OR EQUIVALENT (IOWA DOT TYPE VII SHEETING).
12. THE CONTRACTOR SHALL CONTACT THE CITY OF WAUKEE TO REMOVE ALL PERMANENT STREET SIGNS CONFLICTING WITH PROPOSED IMPROVEMENTS. THE CONTRACTOR SHALL REMOVE ALL OTHER SIGNS AS DETERMINED BY THE ENGINEER AND THEY SHALL REMAIN THE PROPERTY OF THE RESPECTIVE OWNERS. THIS WORK SHALL BE CONSIDERED INCIDENTAL TO OTHER WORK.
13. THE CONTRACTOR SHALL FURNISH AND INSTALL ALL PERMANENT ROAD SIGNS BEFORE THE ROADWAY IS REOPENED TO TRAFFIC. THE CONTRACTOR SHALL NOTIFY THE CITY ONE (1) WEEK PRIOR TO CHANGES IN TRAFFIC PATTERNS.

PHASING NOTES:

- PHASE 1:**
1. PHASE ONE PAVING ALONG THE ACCESS PATH SHOWN MUST BE COMPLETED AND OPEN TO TRAFFIC PRIOR TO PHASE 2 STARTING. THIS INCLUDES BUT NOT LIMITED TO ALL CONSTRUCTION NECESSARY FOR THIS PHASE: GRADING, UTILITY WORK AND PAVING INCLUDING 28 DAY CURE TIME.
- PHASE 2:**
1. PHASE TWO INVOLVES THE CLOSING OF UNIVERSITY AVE FOR THE INSTALLATION OF THE BOX CULVERT AND ASSOCIATED WORK. MARKED DETOUR MUST BE IN PLACE PRIOR TO ROAD CLOSING. ROAD CAN BE CLOSED FOR A MAXIMUM OF 10 WEEKS.
 2. CONTRACTOR SHALL NOTIFY CITY AND PUBLIC WORKS STAFF A MINIMUM OF 2 WEEKS PRIOR TO THE CLOSING OF UNIVERSITY AVE.
 3. A PRE-NOTIFICATION MESSAGE BOARD SHALL BE INSTALLED AT LEAST ONE WEEK PRIOR TO THE CLOSURE OF UNIVERSITY AVE.
- PHASE 3:**
1. PHASE THREE ACCOUNTS FOR ALL REMAINDER WORK ON SITE. CONTRACTOR MAY DO THIS WORK AT ANY TIME AND ONLY RESTRICTIONS ON THIS WORK ARE IN THE PROJECT SPECIFICATION FRONT END DOCUMENTS.



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DESIGN & DEVELOPMENT
TRANSPORTATION & OPERATIONS BUILDINGS
 WAUKEE COMMUNITY SCHOOL DISTRICT
 WAUKEE, IOWA

PROJECT NO.:
1018i01
 DATE:
 FEBRUARY 2016
 REVISIONS:

DRAWING TITLE:
PHASING PLAN

DRAWING NO.:
C-002
 BE PROJECT #140455

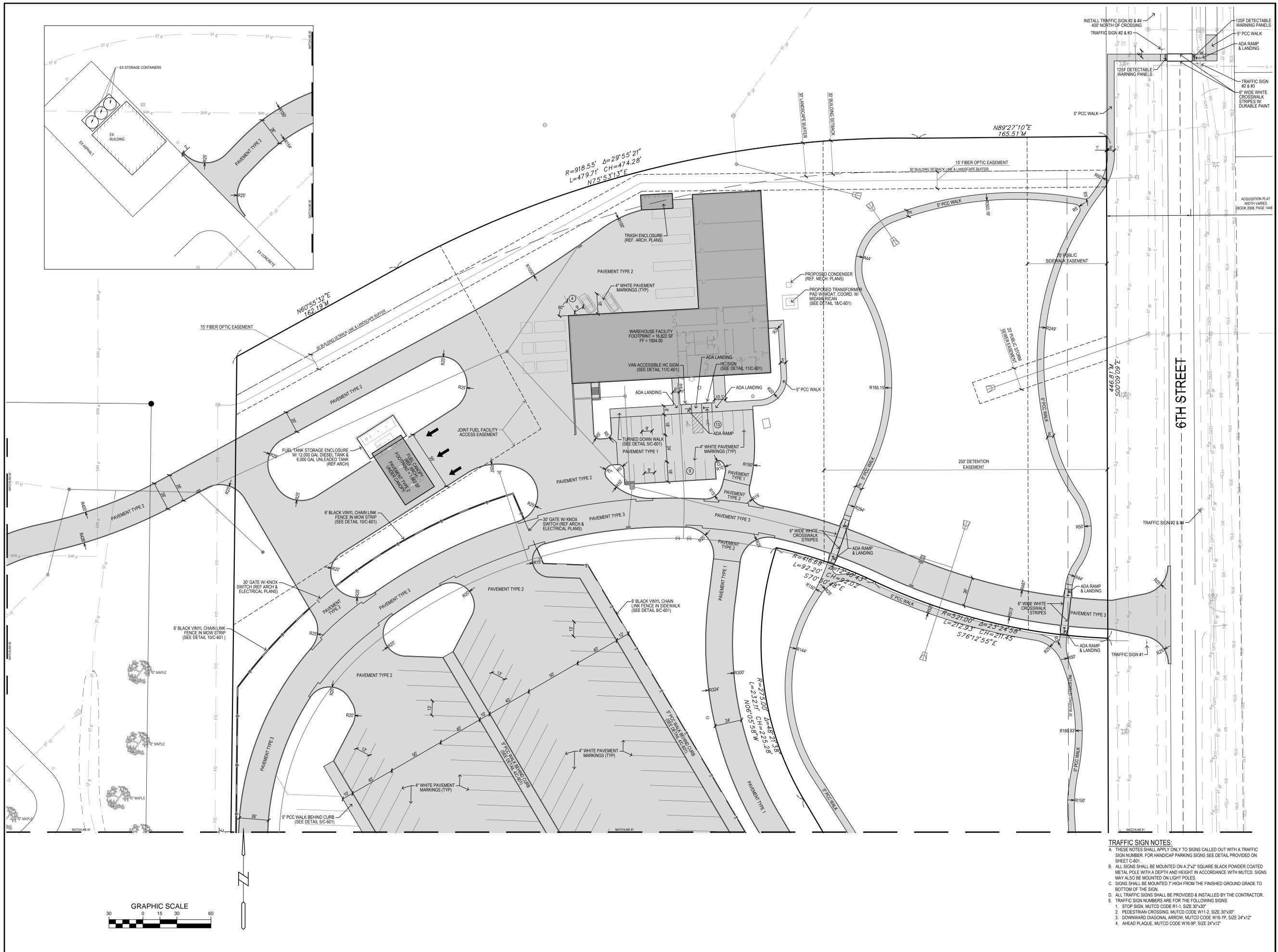
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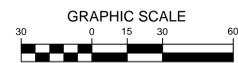
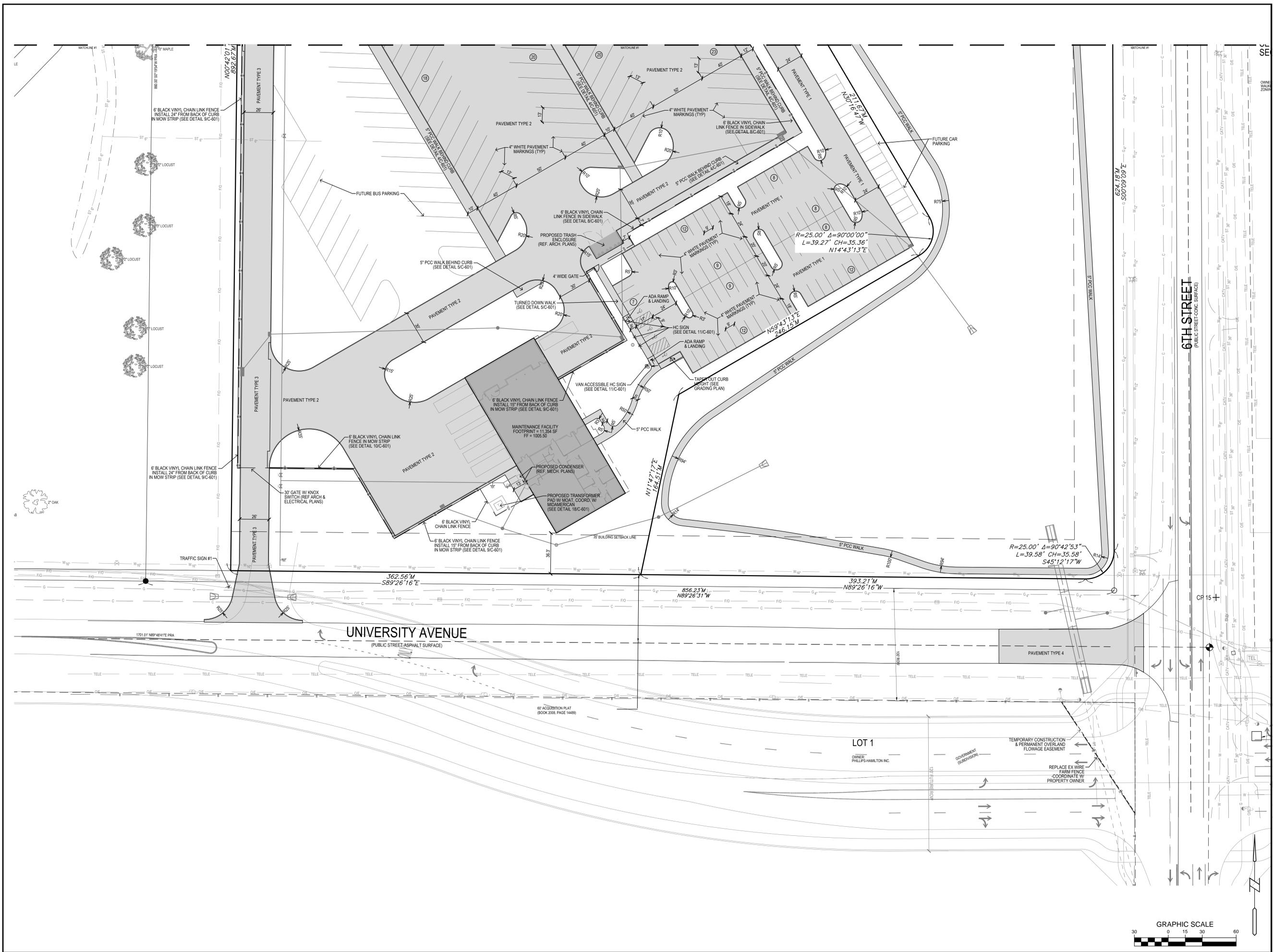
DEMO NOTES:
 1. SAWCUT & REMOVE ALL PAVEMENT TO FULL DEPTH OF SLAB
 2. PROTECT ALL TREES NOT CALLED OUT FOR REMOVAL WITH ORANGE CONSTRUCTION FENCE AT THE DRIP LINE.
 3. PAVEMENT STRIPING CALLED OUT FOR REMOVAL SHALL BE SANDBLASTED. NO GRINDING WILL BE ALLOWED.



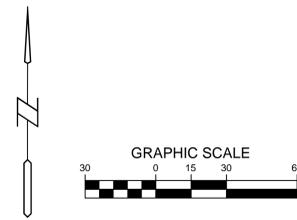
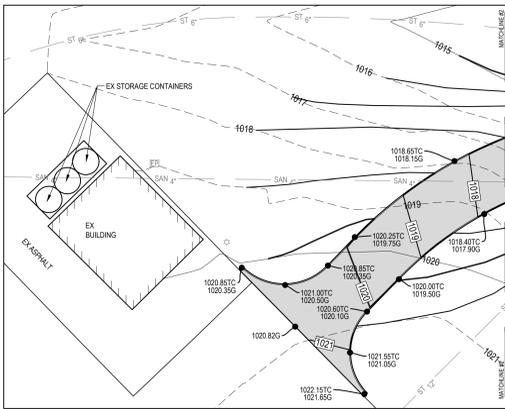
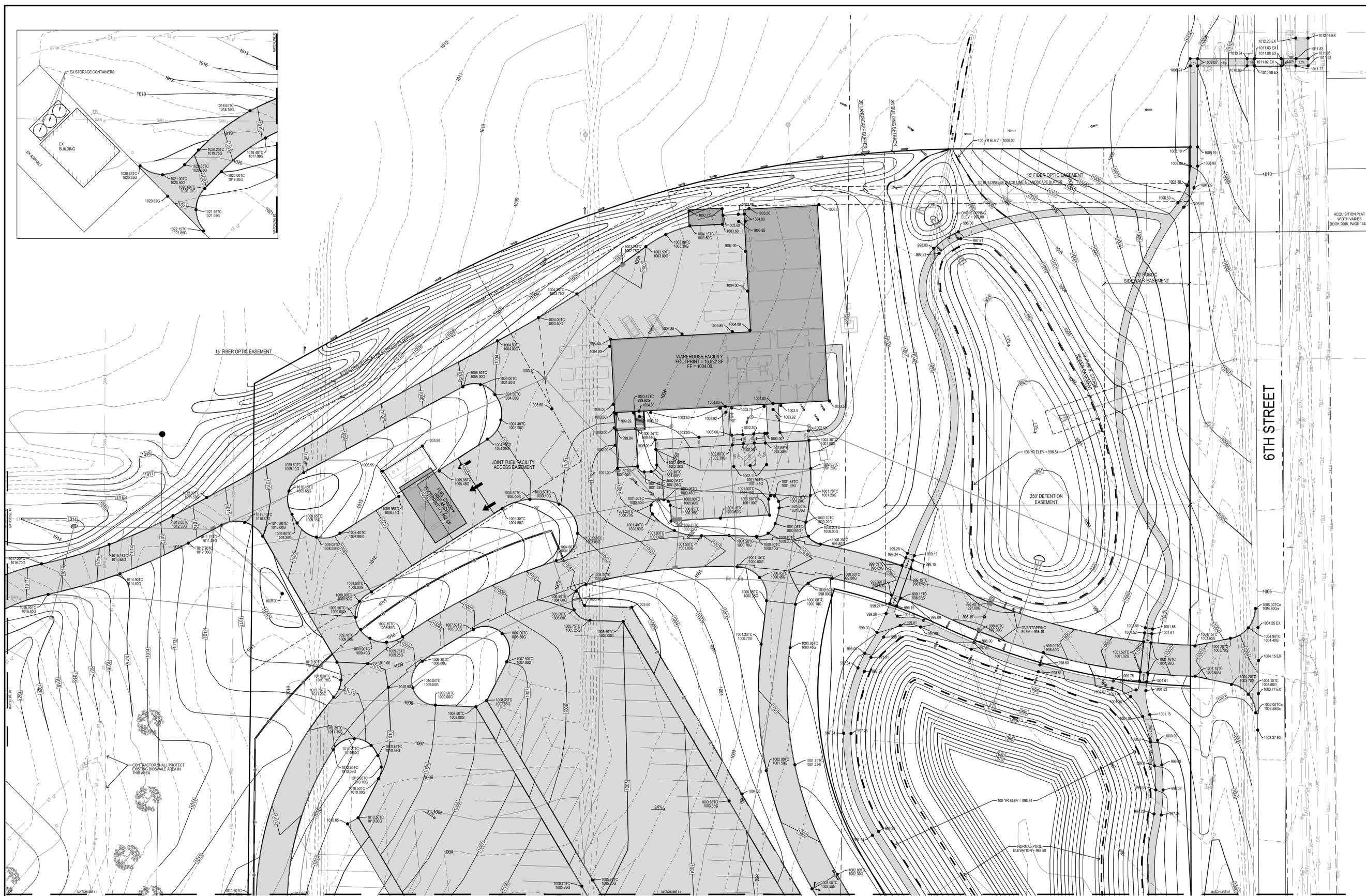
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TRAFFIC SIGN NOTES:
 A. THESE NOTES SHALL APPLY ONLY TO SIGNS CALLED OUT WITH A TRAFFIC SIGN NUMBER. FOR HANDICAP PARKING SIGNS SEE DETAIL PROVIDED ON SHEET C-601.
 B. ALL SIGNS SHALL BE MOUNTED ON A 2"x2" SQUARE BLACK POWDER COATED METAL POLE WITH A DEPTH AND HEIGHT IN ACCORDANCE WITH MUTCD. SIGNS MAY ALSO BE MOUNTED ON LIGHT POLES.
 C. SIGNS SHALL BE MOUNTED 7' HIGH FROM THE FINISHED GROUND GRADE TO BOTTOM OF THE SIGN.
 D. ALL TRAFFIC SIGNS SHALL BE PROVIDED & INSTALLED BY THE CONTRACTOR.
 E. TRAFFIC SIGN NUMBERS ARE FOR THE FOLLOWING SIGNS:
 1. STOP SIGN, MUTCD CODE R1-1, SIZE 30"x30"
 2. PEDESTRIAN CROSSING, MUTCD CODE W11-2, SIZE 30"x30"
 3. DOWNWARD DIAGONAL ARROW, MUTCD CODE W16-7P, SIZE 24"x12"
 4. AHEAD PLAQUE, MUTCD CODE W16-9P, SIZE 24"x12"



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TOPSOIL NOTES:

1. STRIP THE TOPSOIL ON ALL DISTURBED AREAS AND STOCKPILE TO MEET GENERAL PERMIT #2 REQUIREMENTS.
2. RESPREAD TOPSOIL TO A MINIMUM DEPTH OF 8" ON ALL GREEN (NON PAVED) AREAS. IMPORT TOPSOIL AS NECESSARY TO ACHIEVE A MINIMUM DEPTH OF 8".
3. TOPSOIL SHALL BE FREE OF ALL ROCK AND DEBRIS LARGER THAN 3/4" IN SIZE.
4. TOPSOIL IS DEFINED AS: FERTILE, FRABLE LOAM, CAPABLE OF SUSTAINING VIGOROUS PLANT GROWTH, FROM WELL DRAINED SITE FREE FROM FLOODING, NOT IN FROZEN OR MUDDY CONDITIONS, REASONABLE FREE FROM SUBSOIL, CLAY LUMPS, ROOTS, GRASS, WEEDS, STONES LARGER THAN 3/4 INCH IN DIAMETER, AND FOREIGN MATTER. ACIDITY RANGE (PH) OF 5.5 TO 7.5, CONTAINING MINIMUM 2 PERCENT AND MAXIMUM 20 PERCENT ORGANIC MATTER.
5. CONTRACTOR SHALL BE RESPONSIBLE FOR ENSURING ALL TOPSOIL REQUIREMENTS OF NPDES GENERAL PERMIT NO. 2 ARE MET.

GRADING LEGEND:

EXISTING CONTOUR	---	150
PROPOSED CONTOUR	---	150
FINISHED GROUND ELEVATION	●	150.50
TOP OF CURB ELEVATION	●	150.50TC
GUTTER ELEVATION	●	150.50G
TOP OF WALL ELEVATION	●	150.50TW
BOTTOM OF WALL ELEVATION	●	150.50BW
EDGE OF WALK ELEVATION	●	150.50EW
TOP OF STAIR ELEVATION	●	150.50TS
BOTTOM OF STAIR ELEVATION	●	150.50BS

NOTE: WALL ELEVATIONS SHOWN ON PLAN ARE FINISHED GROUND GRADES AT THE TOP AND BOTTOM OF THE WALL.

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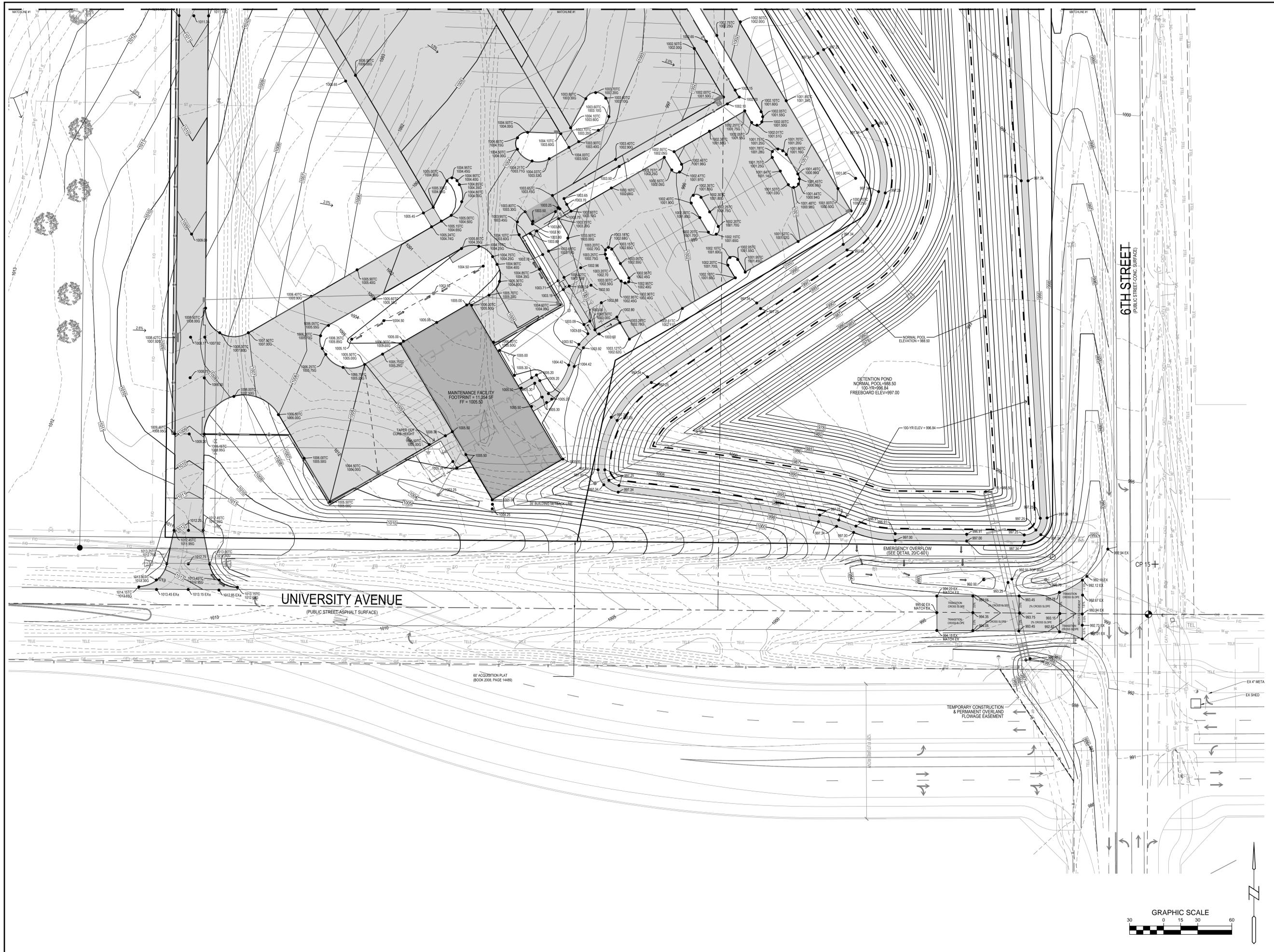
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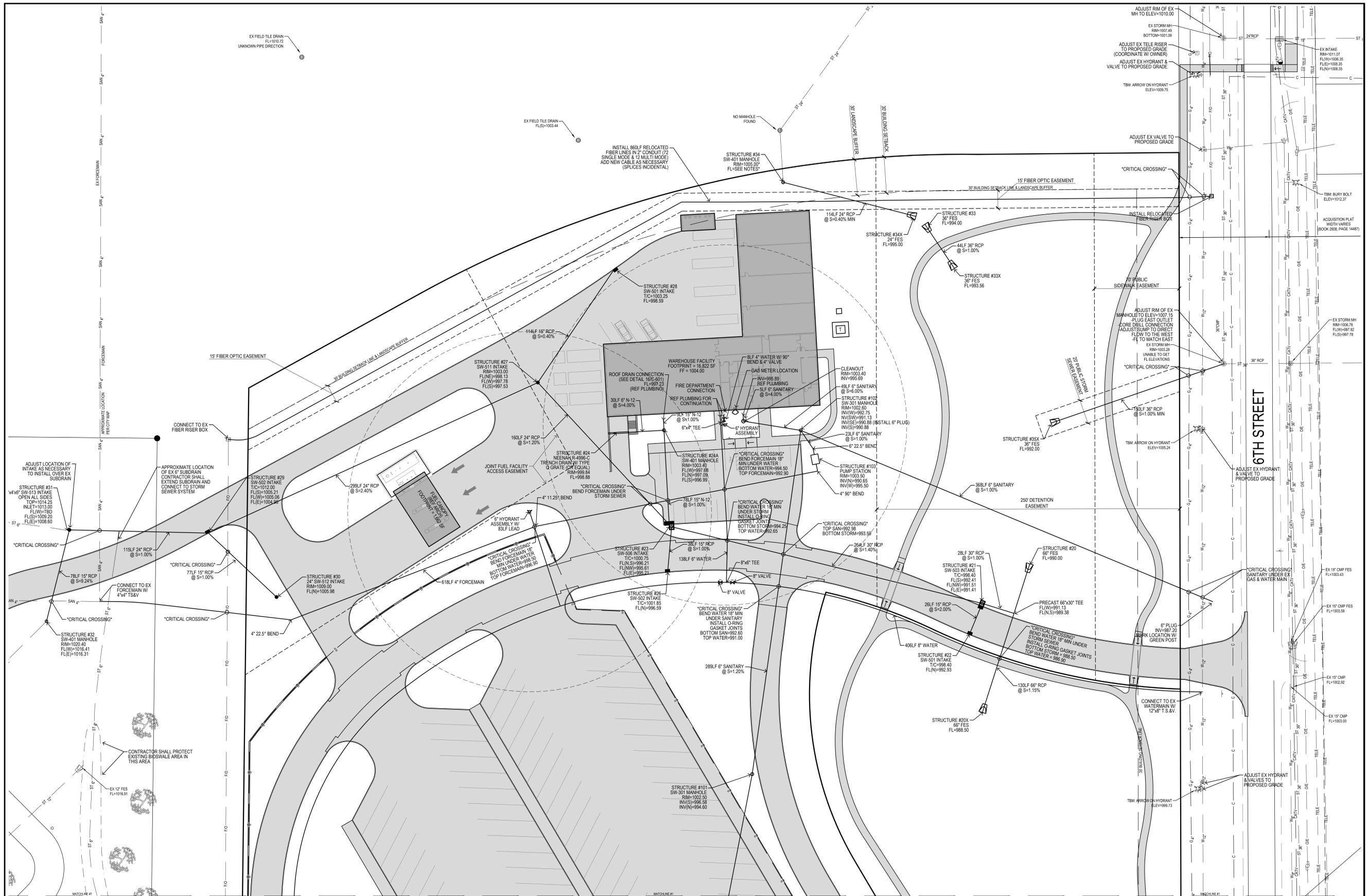
PROJECT NO.:
1018i01
 DATE:
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REVISIONS:
 DRAWING TITLE:
GRADING PLAN
 DRAWING NO.:
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 BE PROJECT #14D455

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UTILITY NOTE:
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STRUCTURE #34 STORM SEWER NOTES:

- CONTRACTOR SHALL FIELD VERIFY EXISTING 24" STORM SEWER FIELD TILE LOCATION AND ELEVATION PRIOR TO CONSTRUCTION TO DETERMINE IF CONNECTION TO STORM SEWER IS FEASIBLE.
- CONTRACTOR SHALL PROVIDE BISHOP ENGINEERING EXACT LOCATION AND ELEVATION OF 24" STORM FLOW LINE.
- IF CONTRACTOR DOES NOT PROVIDE INFORMATION TO BISHOP ENGINEERING PRIOR TO ORDERING ANY STRUCTURES, CONTRACTOR WILL BE RESPONSIBLE FOR ANY COSTS ASSOCIATED WITH REMOVING STORM SEWER STRUCTURES INSTALLED OR RECONSTRUCTION UNINSTALLED STRUCTURES.

FIELD TILE NOTES:

- FIELD TILE EXISTS AROUND THE SITE.
- CONTRACTOR SHALL NOT CONNECT ALL ENCOUNTERED FIELD TILE INTO THE STORM SEWER SYSTEM.
- IF ELEVATION DOESN'T ALLOW FOR THE CONNECTION TO STORM SEWER AT ALL LOCATIONS EXCEPTION STRUCTURE #34 NOTES ABOVE, CONTRACTOR SHALL RECONNECT UP FIELD TILE INSTEAD.
- CONTRACTOR REQUIRED TO PROVIDE AS-BUILT COORDINATES AND ELEVATION OF ALL FIELD TILE THAT IS ENCOUNTERED DURING CONSTRUCTION.

UTILITY NOTES:

- ALL PROPOSED UTILITIES SHALL BE PRIVATE, UNLESS NOTED OTHERWISE.
- ALL WATER LINES SHALL HAVE A MINIMUM OF 5.5' OF COVER UNLESS NOTED OTHERWISE.
- FIRE HYDRANT ASSEMBLY SHALL INCLUDE THE TEE, BRANCH, VALVE AND HYDRANT.
- PIPE LENGTHS CALLED OUT ON PLANS INCLUDE FLARED END SECTION, WHERE APPLICABLE.
- STORM SEWER CALLED OUT AS RCP MUST BE CLASS III RCP.
- STORM SEWER CALLED OUT AS N-12 MAY BE EITHER N-12 OR CLASS III RCP.
- TRANSFORMER PAD IS SHOWN FOR REFERENCE ONLY AND MAY NOT BE DRAWN TO ACTUAL SIZE. PAD SHALL CONFORM TO ALL UTILITY COMPANY DESIGN STANDARDS AND SPECIFICATIONS.
- GREASE INTERCEPTOR IS SHOWN FOR REFERENCE ONLY AND MAY NOT BE DRAWN TO ACTUAL SIZE. REFER TO PLUMBING PLANS FOR DETAILED DRAWINGS AND SPECIFICATIONS. PLUMBING PLANS SHALL TIE INTO SANITARY SEWER AT LOCATION AND ELEVATION SHOWN ON SITE PLAN.

GENERAL NOTES :

- IT IS THE INTENT OF THIS DESIGN TO CONSTRUCT A CAST IN PLACE 6' x 4' x 15' REINFORCED CONCRETE BOX CULVERT. THE NORTH HEADWALL SHALL FUNCTION AS A DETENTION BASIN CONTROL STRUCTURE, WITH A RESTRICTION DETAIL.
- THIS CULVERT SHALL BE CONSTRUCTED ACCORDING TO THE IOWA DEPARTMENT OF TRANSPORTATION SINGLE REINFORCED CONCRETE BOX CULVERT STANDARDS, DATED APRIL 2012. SEE TABULATION FOR STANDARD CULVERT PLANS THAT APPLY.
- EXCESS CLASS 20 EXCAVATION MATERIAL SUITABLE FOR BACKFILLING SHALL BE STOCKPILED AT THE CONSTRUCTION SITE, AS DIRECTED BY THE ENGINEER.
- CLASS 20 EXCAVATION MATERIAL UNSUITABLE FOR BACKFILLING SHALL BE PLACED ELSEWHERE ON SITE.
- ALL REINFORCING BARS AND BARS NOTED AS DOWELS SUPPLIED FOR THIS STRUCTURE SHALL BE DEFORMED REINFORCEMENT UNLESS OTHERWISE NOTED OR SHOWN.
- ALL REINFORCING STEEL SHALL BE SECURELY WIRED IN PLACE BEFORE CONCRETE IS PLACED. BAR CHAIRS SPACED AT NOT MORE THAN 3'-0" CENTERS IN EITHER DIRECTION SHALL BE USED TO SUPPORT ALL REINFORCING IN ACCORDANCE WITH SECTION 2404 OF THE STANDARD SPECIFICATIONS.
- ALL REINFORCING STEEL LOCATED IN AND EXTENDING INTO THE SLAB SHALL BE EPOXY COATED.
- TWO -18" DIAMETER REINFORCED CONCRETE PIPES ARE TO BE CAST IN THE WALLS AT THE LOCATIONS INDICATED. THE CONTRACTOR SHALL INSTALL A 4 FOOT SECTION OF PIPE. THE PIPE IS CONSIDERED TO BE INCIDENTAL TO THE STRUCTURAL CONCRETE. THE LONGITUDINAL AND TRANSVERSE BARS ARE TO BE FIELD CUT AND BENT TO PROVIDE FOR 2" MINIMUM CLEARANCE ALL AROUND THE OPENING.
- BARREL FLOOR AND HEADWALL APRONS SHALL HAVE A BURLAP DRAG FINISH. ALL OTHER SURFACES EXPOSED IN THE COMPLETED STRUCTURE SHALL HAVE A CLASS 3, SPECIAL SURFACE FINISH, PER SECTION 2403.23C OF THE STANDARD SPECIFICATIONS.
- THE CONTRACTOR IS TO VISIT THE SITE TO ENSURE THAT HE IS FAMILIAR WITH THE EXISTING SITE CONDITIONS. UTILITIES ARE INDICATED ON THE DRAWINGS TO PROVIDE GENERAL LOCATION INFORMATION ONLY. THE CONTRACTOR WILL BE RESPONSIBLE FOR DETERMINING THE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK. SHOULD ANY UNDERGROUND UTILITIES BE FOUND DIFFERENT THAN SHOWN ON DRAWINGS, THEY SHALL BE PROTECTED IN PLACE AND THE ENGINEER SHALL BE IMMEDIATELY NOTIFIED. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MIGHT BE OCCASIONED BY HIS FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL UNDERGROUND UTILITIES.
- THE CONTRACTOR IS REQUIRED TO UTILIZE THE UTILITY ONE-CALL SERVICE AT (800) 292-8889 AT LEAST 48 HOURS PRIOR TO EXCAVATING ANYWHERE ON THE PROJECT.
- THE CONTRACTOR SHALL COORDINATE UTILITY RELOCATIONS WITH HIS WORK. BOTH REMOVAL AND RELOCATION WILL REQUIRE HIS ASSISTANCE. THIS WORK SHALL BE CONSIDERED INCIDENTAL TO OTHER WORK ON THE PROJECT. NO CLAIMS FOR ADDITIONAL COMPENSATION WILL BE ALLOWED TO THE CONTRACTOR FOR ANY INTERFERENCE OR DELAY CAUSED BY SUCH WORK.
- THE CONTRACTOR SHALL BACKFILL THE PROPOSED STRUCTURE AS SHOWN ON THE PLANS, WITH COHESIVE SOILS ON THE POND SIDE OF THE STRUCTURE AND GRANULAR MATERIAL ON THE ROADWAY SIDE.
- ESTIMATED CONSTRUCTION ITEMS AND QUANTITIES ARE FOR REFERENCE ONLY. ANY DISCREPANCY BETWEEN THE QUANTITY ESTIMATE AND THE DETAILED PLANS, THE DETAILED PLANS SHALL GOVERN. ALL ITEMS, LISTED AND NOT LISTED, REQUIRED TO CONSTRUCT THE CULVERT AS SHOWN SHALL BE INCLUDED WITH THIS LUMP SUM PROJECT.
- ANY AND ALL DEWATERING SHALL BE CONSIDERED INCIDENTAL TO CULVERT CONSTRUCTION.

SPECIFICATIONS FOR CULVERT:

CONSTRUCTION: IOWA DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR HIGHWAY AND BRIDGE CONSTRUCTION, SERIES 2015, PLUS APPLICABLE GENERAL SUPPLEMENTAL SPECIFICATIONS, DEVELOPMENTAL SPECIFICATIONS, SUPPLEMENTAL SPECIFICATIONS AND SPECIAL PROVISIONS SHALL APPLY TO CONSTRUCTION WORK ON SHEETS C-403 AND SHEET C-404.

IDOT STANDARD CULVERT PLANS

STANDARD	ISSUED	REVISED
RCB G1-12	APRIL 2012	10-12
RCB G2-12	APRIL 2012	07-14
RCB G4-12	APRIL 2012	---
PHW G1-12	APRIL 2012	---
PHW G2-12	APRIL 2012	---
PHW G3-12	APRIL 2012	---
PHW G4-12	APRIL 2012	---
PHW G8-12	APRIL 2012	---

TRAFFIC CONTROL PLAN NOTE:
THE ROADWAY WILL BE CLOSED TO THRU TRAFFIC. SEE PHASING PLAN, SHEET C-002.

NOTE:
POLLUTION PREVENTION PLAN INCLUDED WITH PROJECT GRADING PLANS, SEE SHEET C-701.

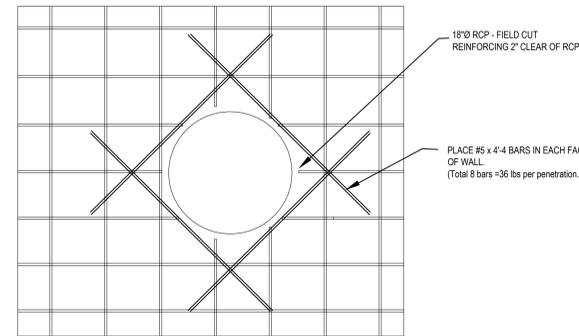
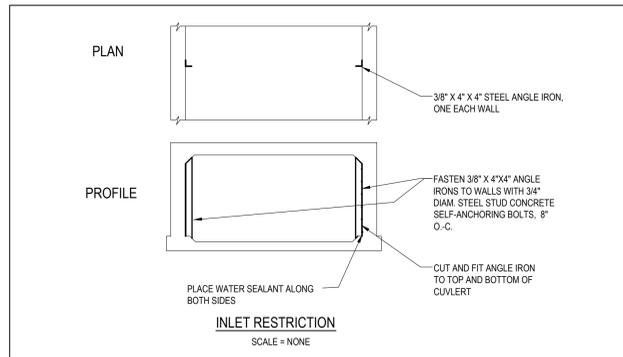
ESTIMATED CULVERT QUANTITIES

ITEM NO.	ITEM	UNIT	TOTAL
1.	SUBGRADE COMPACTION	SY	182
2.	EXCAVATION, CLASS 20	CY	394
3.	COHESIVE SOIL BACKFILL	CY	461
4.	GRANULAR BACKFILL	CY	216
5.	STRUCTURAL CONCRETE (RCB CULVERT)	CY	113
6.	REINFORCING STEEL	LB	15,677
7.	SUBDRAIN, 6" SLOTTED	LF	164
8.	ENGINEERING FABRIC	SY	340
9.	REVEITEMENT, CLASS D	TN	175
10.	CHAIN LINK FENCE	LF	66
* QUANTITIES FOR INFORMATION ONLY, BID LUMP SUM.			

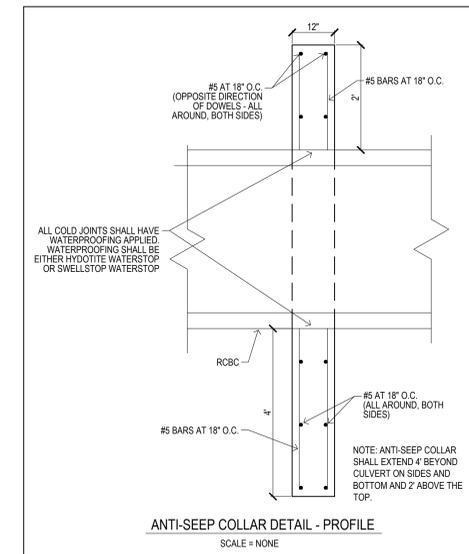
ESTIMATE REFERENCE INFORMATION

ITEM NO.	DESCRIPTION
1.	---
2.	---
3.	INCLUDES FILLING AND COMPACTING LOW AREAS AROUND PROPOSED CULVERT.
4.	IN-PLACE QUANTITY
5.	---
6.	INCLUDES INLET RESTRICTION
7.	---
8.	SHALL BE MATERIAL AS SPECIFIED FOR EMBANKMENT EROSION CONTROL.
9.	ESTIMATED AT 1.6 TONS PER CY.
10.	---

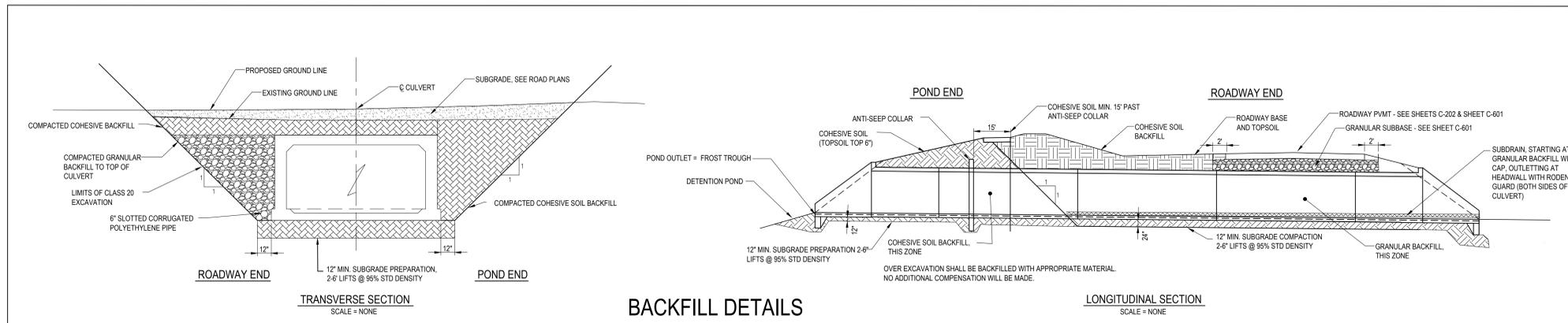
- CHAIN LINK FENCE AND PIPE RAILINGS:
 1. CHAIN LINK FENCE SHALL BE PLACED AT THE INLET AND OUTLET ENDS OF THE CULVERT ON THE HEADWALLS & WING WALLS.
 2. ALL POSTS ARE TO BE SET VERTICAL. SELECT THE BASE PLATE DETAIL SO THAT THE POSTS CAN BE REPLACED EASILY.
 3. THE FENCE AND POST SHALL BE BLACK VINYL COATED. (SEE SPECS IN PROJECT SPECIFICATIONS)
 4. THE HEIGHT OF THE FENCE SHALL BE 42" TALL.
 5. APPROXIMATELY 33 LINEAR FEET OF FENCE AT EACH LOCATION.



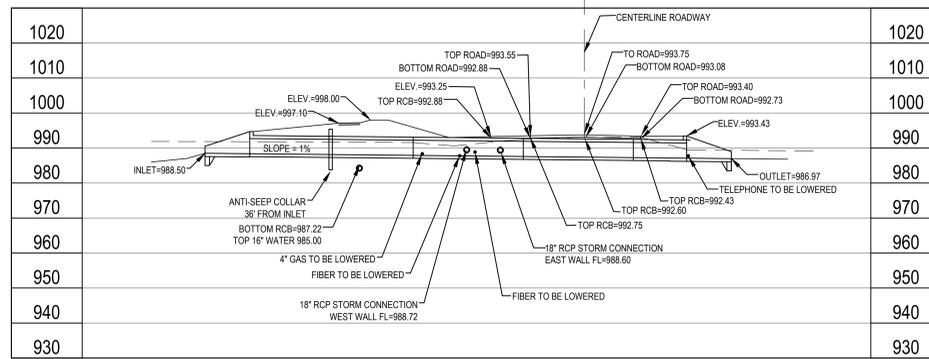
PIPE PENETRATION DETAIL



ANTI-SEEP COLLAR DETAIL - PROFILE
SCALE = NONE

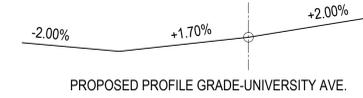


BACKFILL DETAILS



PROFILE VIEW ALONG ϵ CULVERT

DESIGN FILL HEIGHT = 0'
SETTLEMENT = EST. TO BE NEGLIGIBLE.



BENCH MARK:
TOP OF BURY BOLT ON HYDRANT LOCATED 25 FEET SOUTHEAST OF MAIN BUILDING ENTRANCE AND 175 FEET SOUTH OF NORTHEAST CORNER PUBLIC WORKS BUILDING. ELEVATION=1023.67

ESTIMATED REVETMENT QUANTITIES		
LOCATION	REVETMENT CLASS "D" (TN)	
INLET	0	
OUTLET	175	
TOTAL	175	

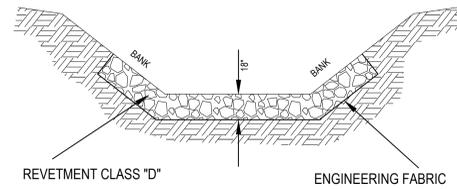
SUMMARY OF REINFORCING STEEL		
LOCATION	QUANTITY	TOTAL
6' X 4' HEADWALLS 0' SKEW	2 AT 1280 LB	2560 LB
32' BARREL SECTION (3 REQ'D)	3 AT 3333 LB	9999 LB
14'6" END SECTION (2 REQ'D)	2 AT 1510 LB	3020 LB
5/1 x 3'-6" DOWEL BARS	3 SETS AT 26 LB	78 LB
TOTAL (LB)		15677 LB

CONCRETE PLACEMENT QUANTITIES				
LOCATION	FOOTING	WALLS	SLAB	TOTAL
6' X 4' HEADWALLS 0' SKEW	2 @ 5.4 = 10.8	2 @ 2.5 = 5.0	*2 @ 1.0 = 2.0	17.8
32' BARREL SECTION (3 REQ'D)	3 AT 9.1 = 27.3	3 @ 6.5 = 19.5	3 @ 8.8 = 26.4	73.1
14'6" END SECTION (2 REQ'D)	2 AT 4.1 = 8.2	2 @ 2.9 = 5.8	2 @ 4.0 = 8.0	22.0
TOTAL (CY)	46.3	30.3	36.4	113.0

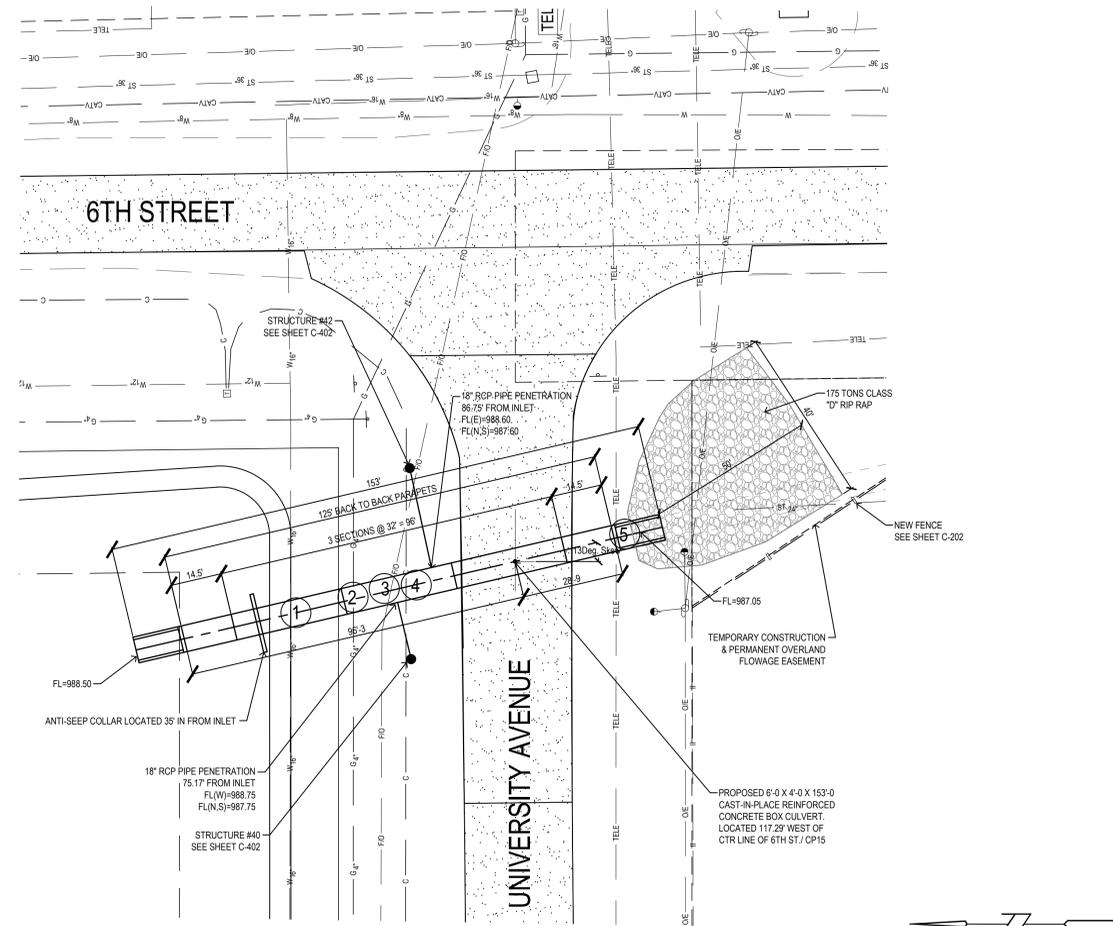
* INCLUDES PARAPET AND TOP OF WINGWALL.

LOCATION:
ON UNIVERSITY AVE. OVER DRAINAGE SWALE
IN THE CITY OF WAUKEE, DALLAS CO.

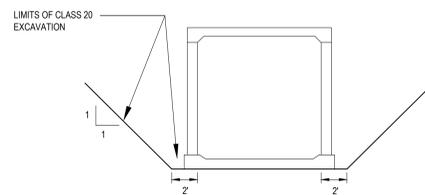
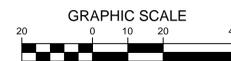
- CRITICAL CROSSINGS:
1. WATER LINE UNDER CULVERT
 2. GAS LINE UNDER CULVERT
 3. FIBER OPTIC TO BE LOWERED
 4. FIBER OPTIC TO BE LOWERED
 5. TELEPHONE LINE UNDER CULVERT



REVETMENT SECTION
SEE PLANS FOR EXTENTS



PLAN VIEW



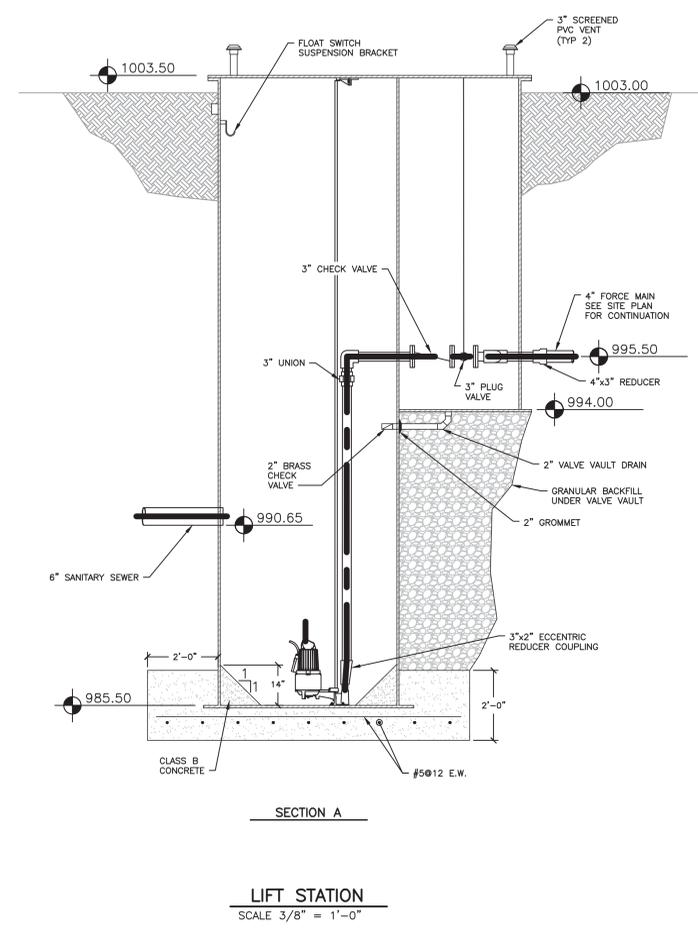
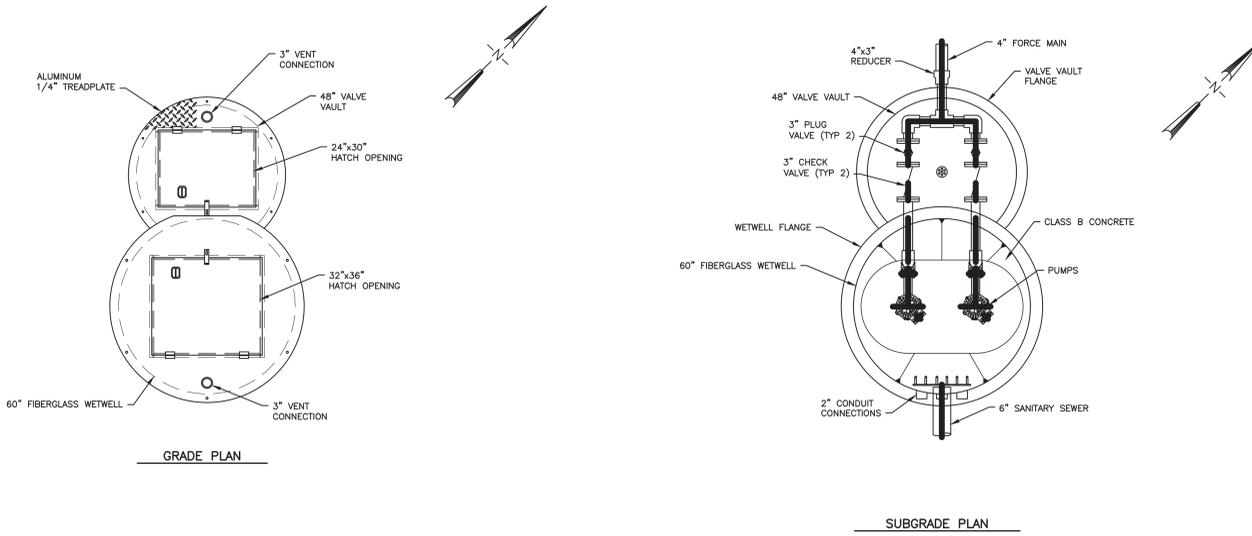
CLASS 20 EXCAVATION
(TYPICAL SECTION NORMAL TO ϵ CULVERT)

6'-0" X 4'-0" X 153'-0" REINFORCED
CONCRETE BOX CULVERT
PARALLEL WING HEADWALL
13° SKEW

PLAN AND PROFILE LAYOUT

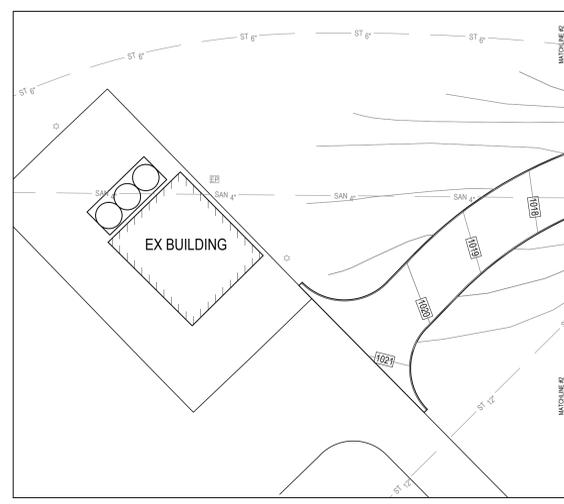
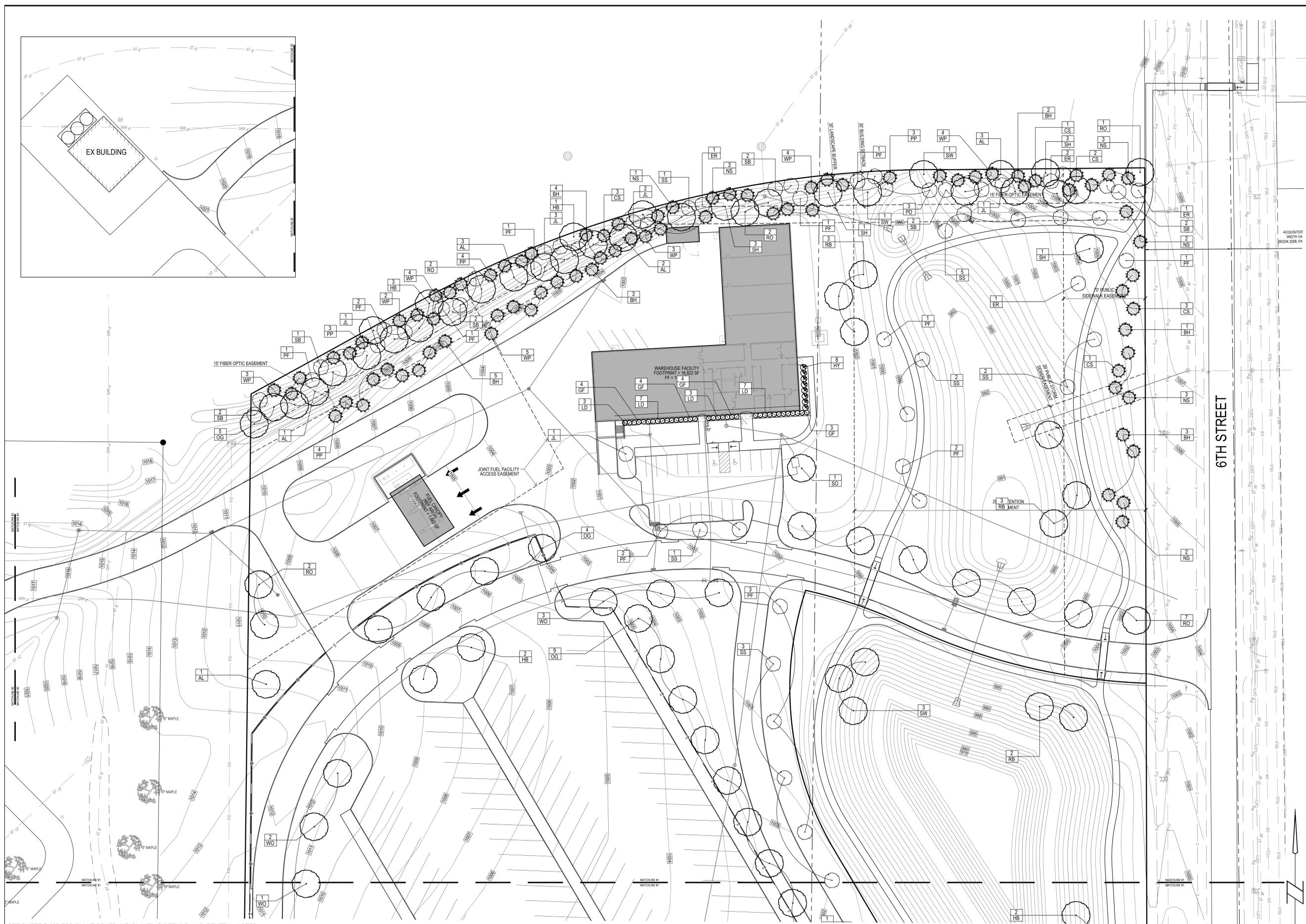
UNIVERSITY AVE, W. OF 6th ST.

WAUKEE, IA DECEMBER 2015

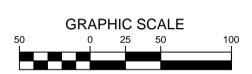


- NOTES:**
1. MEET REQUIREMENTS OF WAUKEE STANDARD SPECIFICATIONS FOR PUBLIC IMPROVEMENTS FOR CONSTRUCTION OF SANITARY SEWER LIFT STATION AND FORCE MAIN.
 2. PROVIDE COMPACTED BACKFILL FOR FORCE MAIN.
 3. PROVIDE COMPACTED BACKFILL FOR LIFT STATION.
 4. FORCE MAIN PIPE: PVC AWWA C900 WITH LOCATING TAPE OR TRACER WIRE. INSTALL FLAT OR WITH CONTINUOUS SLOPE UPWARDS TOWARD CONNECTION TO EXISTING FORCE MAIN. MAINTAIN MIN. 5' OF COVER.
 5. LIFT STATION WET WELL AND VALVE VAULT: FIBERGLASS WITH UNSATURATED POLYESTER RESIN, GRADE E CLASS FIBER REINFORCING AND NO FILLERS. MANUFACTURER PUMPCON AS SUPPLIED BY ELECTRIC PUMP.
 6. HATCH: REINFORCED 1/4" ALUMINUM DIAMOND PLATE DOOR LEAVES WITH 1/4" ALUMINUM ANGLE FRAMES. DESIGN FOR MIN. 150 PSF LIVE LOAD. REMOVEABLE SQUARE KEY WRENCH WITH PLUG. STAINLESS STEEL HARDWARE. AUTOMATIC LOCK TO HOLD OPEN LIFTING MECHANISM AT 90°.
 7. GRINDER PUMPS. FLYGT MODEL MP3102.890-267. PUMP MOTOR 3 HP, 230 VOLT, SINGLE PHASE, 60 HZ. 2-INCH DISCHARGE CONNECTION. INSTALL IN LIFT STATION.
 8. PROVIDE AND INSTALL PUMP ACCESSORIES INCLUDING CAST IRON BASE DISCHARGE CONNECTIONS, 3/4" DIA. STAINLESS STEEL GUIDE RAILS, STAINLESS STEEL GUIDE RAIL BRACKETS, STAINLESS STEEL CABLE HOLDERS, STAINLESS STEEL CHAIN SLING WITH STAINLESS STEEL CABLE FOR EACH PUMP AND STAINLESS STEEL SAFETY CHAIN FOR EACH PUMP.
 9. CHECK VALVES: ONE FOR EACH PUMP. CAST IRON BODY WITH REMOVEABLE COVER, ADJUSTABLE OUTSIDE LEVER AND WEIGHT, AND AIR CUSHION CYLINDER ASSEMBLY. CLOW, GOLDEN ANDERSON OR VALMATIC.
 10. PLUG VALVES: ONE FOR EACH PUMP. NON-LUBRICATED ECCENTRIC STYLE. CAST IRON BODY, PLUG AND GEAR UNIT HOUSING, STAINLESS STEEL BEARINGS. 2-INCH OPERATING NUT AND STEM EXTENSION TO HATCH COVER. CLOW, DEZURIK OR VALMATIC.
 11. LIFT STATION PIPING: SCH. 80 PVC WITH SOCKET WELD OR FLANGED JOINTS.
 12. VENT PIPES: PVC WITH STAINLESS STEEL SCREEN.
 13. FIELD PAINT ALL EXPOSED METAL PIPING, VALVES AND FITTINGS. CHECK AND PLUG VALVES AND PUMP DISCHARGE CONNECTION. TNEC SERIES 446 PERMA SHIELD MCU, OR EQUAL. PUMPS AND CONTROL PANEL DO NOT NEED TO BE PAINTED.
 14. CONTROL PANEL. MOUNT ON 4'x4'x6" THICK CONCRETE PAD.
 15. CONTROL PUMPS WITH FLYGT MULTITRODE LIQUID LEVEL CONTROL SYSTEM. CONNECT TO CONTROL PANEL THROUGH BURIED CONDUIT. PROVIDE TWO FLOATS FOR HIGH AND LOW WATER ALARM AND FOR BACKUP FOR MULTITRODE LEVEL SYSTEM. CONNECT FLOATS TO CONTROL PANEL THROUGH BURIED CONDUITS. FLOATS CONERY MODEL 2900 MERCURY SERIES, OR EQUAL.
 16. CONNECT MOTOR OVER TEMPERATURE SWITCH AND PUMP SEAL LEAKAGE SENSOR FOR EACH PUMP TO CONTROL PANEL THROUGH BURIED CONDUIT.

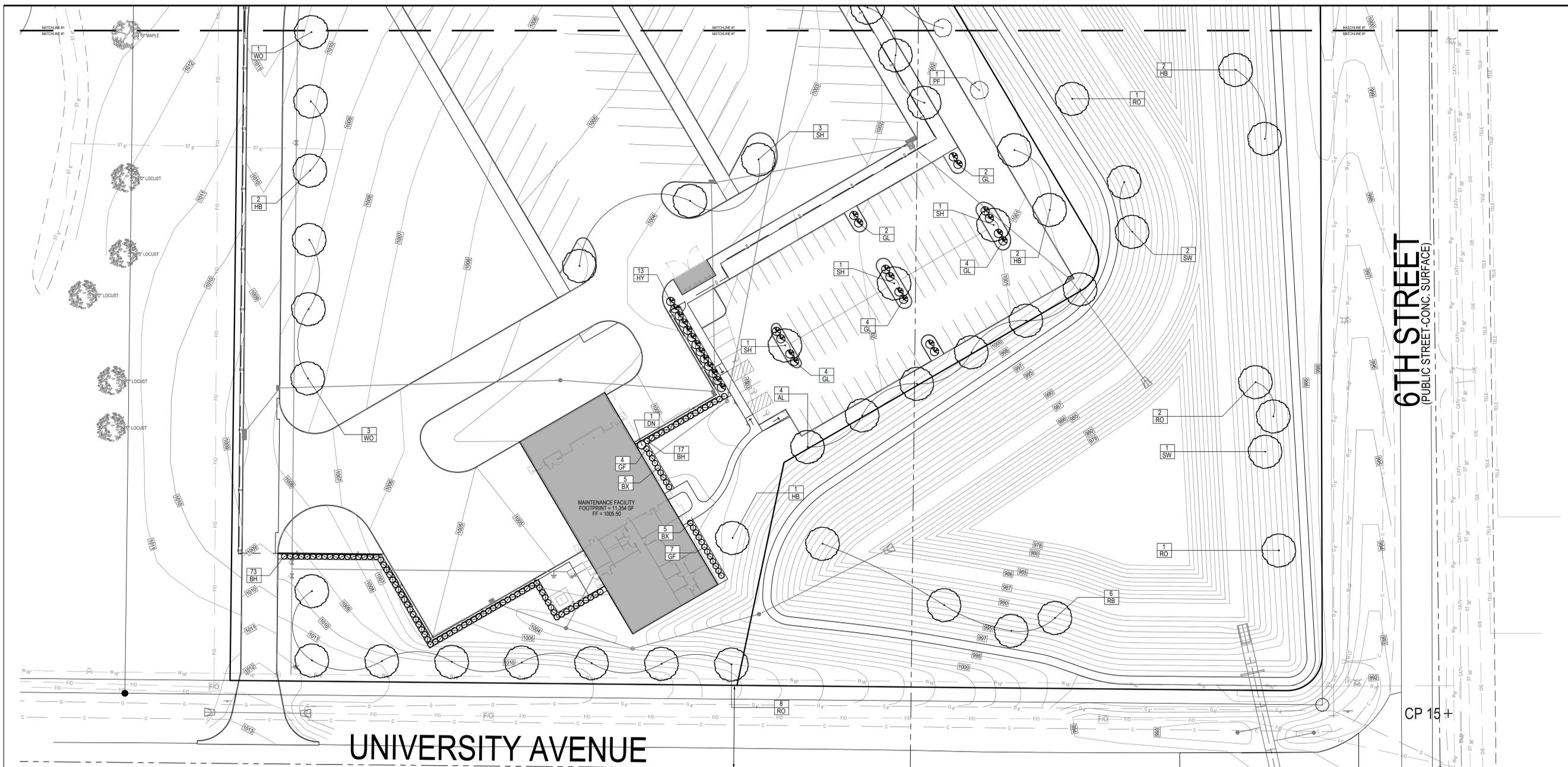
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SEE SHEET C-502 FOR PLANT SCHEDULE, PLANTING DETAILS, AND GENERAL NOTES.



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UNIVERSITY AVENUE

6TH STREET
(PUBLIC STREET-CONC. SURFACE)

CP 15+

- LANDSCAPE NOTES:**
- ALL SEEDING & LANDSCAPE PLANTINGS SHALL BE INSTALLED IN ACCORDANCE WITH THE URBAN STANDARD SPECIFICATIONS, UNLESS SPECIFIED OTHERWISE.
 - SEED ALL DISTURBED AREAS WITHIN THE CONTRACT LIMITS, UNLESS NOTED OTHERWISE. SEE SHEET C-503 FOR SEED TYPES, LOCATIONS, AND APPROXIMATE EXTENTS.
 - PLANT QUANTITIES ARE FOR CONTRACTORS CONVENIENCE, THE DRAWING SHALL PREVAIL IF A CONFLICT OCCURS.
 - ALL PLANT MATERIAL SHALL CONFORM TO THE LATEST EDITION OF AMERICAN STANDARD FOR NURSERY STOCK (ANSI Z60.1).
 - CONTRACTOR SHALL GUARANTEE ALL PLANT MATERIAL FOR A PERIOD OF ONE YEAR FROM THE DATE OF ACCEPTANCE.
 - IT IS THE CONTRACTORS RESPONSIBILITY TO REMOVE IDENTIFICATION TAGS AND CORDS ON ALL PLANT MATERIAL PRIOR TO THE COMPLETION OF THE CONTRACT. TAGS ARE NOT TO BE REMOVED UNTIL AFTER FINAL ACCEPTANCE OF PLANT MATERIALS.
 - CONTRACTOR SHALL PLACE SHREDDED HARDWOOD MULCH AROUND ALL TREES, SHRUBS AND GROUND COVER BEDS TO A DEPTH OF 3 INCHES, UNLESS NOTED.
 - WRAP ALL DECIDUOUS TREES IMMEDIATELY AFTER PLANTING. CONTRACTOR TO SUBMIT WRAP TYPE FOR APPROVAL.
 - STAKE ALL TREES ACCORDING TO THE STAKING DETAILS. CONTRACTOR SHALL ADJUST AND MAINTAIN GUYING TENSION THROUGHOUT THE PLANT ESTABLISHMENT PERIOD.
 - THE LANDSCAPING CONTRACTOR SHALL HAVE ALL UTILITIES LOCATED BEFORE STARTING ANY SITE WORK OR PLANTING. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF ALL EXISTING UTILITIES.
 - NO LANDSCAPE MATERIAL SHALL BE SUBSTITUTED WITHOUT THE AUTHORIZATION OF THE LANDSCAPE ARCHITECT AND THE CITY OF WAUKEE.
 - ALL EDGING SHALL BE DURAMEDGE 1/8" STEEL EDGING - COLOR GREEN, OR APPROVED EQUAL.
 - CONTRACTOR SHALL BE RESPONSIBLE MAINTAINING APPROPRIATE LEVEL OF WATERING FOR ALL NEW PLANTS FOR A PERIOD OF 30 DAYS.
 - ALL SHRUB PLANTING BEDS SHALL INCORPORATE TYPAR 3301 NONWOVEN LANDSCAPE FABRIC (OR SIMILAR) AND A 3" THICK LAYER OF WASHED RIVER ROCK (1 1/2" NOMINAL SIZE).
 - ALL BEDS TO RECEIVE PRE-EMERGENT WEED CONTROL AFTER ROCK IS INSTALLED.

PLANTING SCHEDULE

CODE	QUAN	COMMON NAME	LATIN NAME	SIZE	ROOT	NOTES
OG	11	OCTOBER GLORY MAPLE	ACER RUBRUM 'OCTOBER GLORY'	2.5" CAL	B&B	MATCHED SPECIMENS
RB	12	RIVER BIRCH	BETULANIGRA	8" HT	B&B	MATCHED SPECIMENS (CLUMP FORM)
HB	16	HACKBERRY	CELTIS OCCIDENTALIS	2.5" CAL	B&B	MATCHED SPECIMENS
WO	9	WHITE OAK	QUERCUS ALBA	2.5" CAL	B&B	MATCHED SPECIMENS
SW	8	SWAMP WHITE OAK	QUERCUS BICOLOR	2.5" CAL	B&B	MATCHED SPECIMENS
SD	4	SCARLET OAK	QUERCUS COCCINEA	2.5" CAL	B&B	MATCHED SPECIMENS
RO	27	RED OAK	QUERCUS RUBRA	2.5" CAL	B&B	MATCHED SPECIMENS
SH	15	SKYLINE HONEYLOCUST	GLEDITIA TRICANTHOS INERMIS 'SKYCOLE'	2.5" CAL	B&B	MATCHED SPECIMENS
AL	16	AMERICAN LINDEN	TILIA AMERICANA	2.5" CAL	B&B	MATCHED SPECIMENS
JL	8	JAPANESE TREE LILAC	SYRINGA RETICULATA	1.5" CAL	B&B	MATCHED SPECIMENS (SINGLE TRUNK)
SB	11	AUTUMN BRILLIANCE SERVICEBERRY	AMELANCHIER GRANDIFLORA 'AUTUMN BRILLIANCE'	8" HT	B&B	MATCHED SPECIMENS (CLUMP FORM)
ER	5	EASTERN REDBUD	CERCIS CANADENSIS	1.5" CAL	B&B	MATCHED SPECIMENS (SINGLE TRUNK)
PF	17	PRAIRIE FIRE CRABAPPLE	MALUS X 'PRAIRIE FIRE'	1.5" CAL	B&B	MATCHED SPECIMENS
SS	14	SPRING SNOW CRABAPPLE	MALUS X 'SPRING SNOW'	1.5" CAL	B&B	MATCHED SPECIMENS
PD	3	PAGODA DOGWOOD	CORNUS ALTERNIFOLIA	1.5" CAL	B&B	MATCHED SPECIMENS
WP	25	WHITE PINE	PINUS STROBUS	6"	B&B	FULL FORM TO GROUND
NS	14	NORWAY SPRUCE	PICEA ABIES	6"	B&B	FULL FORM TO GROUND
BH	18	BLACK HILLS SPRUCE	PICEA GLAUCADENSATA	6"	B&B	FULL FORM TO GROUND
CS	10	COLORADO SPRUCE	PICEA PUNGENS	6"	B&B	FULL FORM TO GROUND
PP	14	PONDEROSA PINE	PINUS PONDEROSA	6"	B&B	FULL FORM TO GROUND
LD	20	LITTLE DEVIL NINEBARK	PHYSCARPUS OPULIFOLIUS 'LITTLE DEVIL'	#3	CONT	FULL FORM - MATCHED
GL	16	GROW LO SUMAC	RHUS AROMATICA 'GROW LOW'	#5	CONT	FULL FORM - MATCHED
BH	30	DWARF BUSH HONEYSUCKLE	DIERILLA LONICERA	#5	CONT	FULL FORM - MATCHED
GF	26	GOLD FLAME SPRUCE	SPRUCAX 'GOLD FLAME'	#5	CONT	FULL FORM - MATCHED
DN	1	DIABLO NINEBARK	PHYSCARPUS OPULIFOLIUS 'MONLO'	#5	CONT	FULL FORM - MATCHED
BX	10	CHICAGO LIND BOXWOOD	BUXUS X 'CHICAGO LIND'	36"	B&B	FULL FORM - MATCHED
HY	21	HICKS YEW	TAXUS MEDIA 'HICKS Y'	36"	B&B	FULL FORM - MATCHED

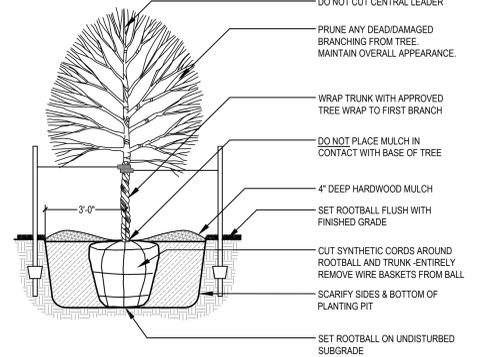
- LANDSCAPE REQUIREMENTS:**
- OPEN SPACE PLANTING REQUIREMENTS
 TOTAL SIZE OF LOT: 607,583 SF
 TOTAL REQUIRED OPEN SPACE (20%): 121,523 SF
 TOTAL TREES REQUIRED (1 PER 1000 SF OPEN SPACE): 122
 TOTAL SHRUBS REQUIRED (1 PER 1000 SF OPEN SPACE): 122
- 50% OVERSTORY MINIMUM: 61
 25% EVERGREEN MINIMUM: 31
 BALANCE - ORNAMENTAL: 30
- BUFFER PLANTING REQUIREMENTS (30' WIDTH)
 TOTAL LENGTH OF BUFFER PLANTING: 808 LF
 TOTAL OVERSTORY REQUIRED (2 PER 50 LF): 33
 TOTAL EVERGREEN REQUIRED (2 PER 50 LF): 49
 TOTAL ORNAMENTAL REQUIRED (2 PER 50 LF): 33
- OVERSTORY TREES BETWEEN PARKING AREAS AND PUBLIC R.O.W.: 640 LF (1 PER 40 LF)
 NOTE: INCLUDED AS PART OF OPEN SPACE REQUIREMENTS: 16

- LANDSCAPE PROVIDED:**
- OPEN SPACE PLANTING
 TOTAL TREES PROVIDED: 122
 50% OVERSTORY MINIMUM: 65
 25% EVERGREEN MINIMUM: 32
 BALANCE - ORNAMENTAL: 25
- TOTAL SHRUBS PROVIDED: 174
- BUFFER PLANTING PROVIDED
 TOTAL OVERSTORY REQUIRED: 33
 TOTAL EVERGREEN REQUIRED: 49
 TOTAL ORNAMENTAL REQUIRED: 33
- TREES PROVIDED AROUND SOUTH POND: 20
- TOTAL TREES ON SITE: 237
 TOTAL SHRUBS ON SITE: 174

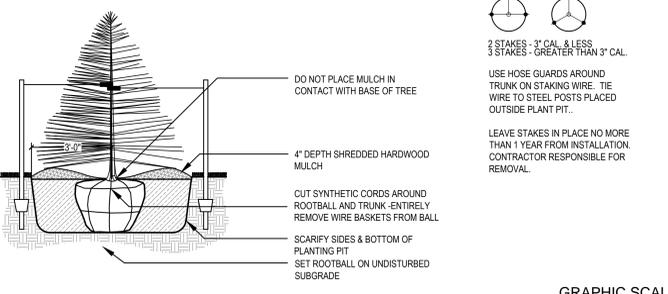


DECIDUOUS SHRUB DETAIL
 EVERGREEN SHRUB DETAIL
 PLANTING ON SLOPES

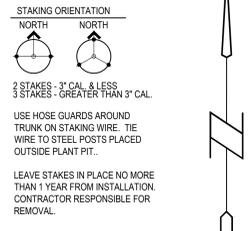
SHRUB PLANTING (TYP)
 SCALE: NOT TO SCALE



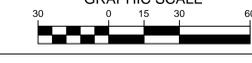
DECIDUOUS TREE PLANTING (TYP.)
 SCALE: NOT TO SCALE



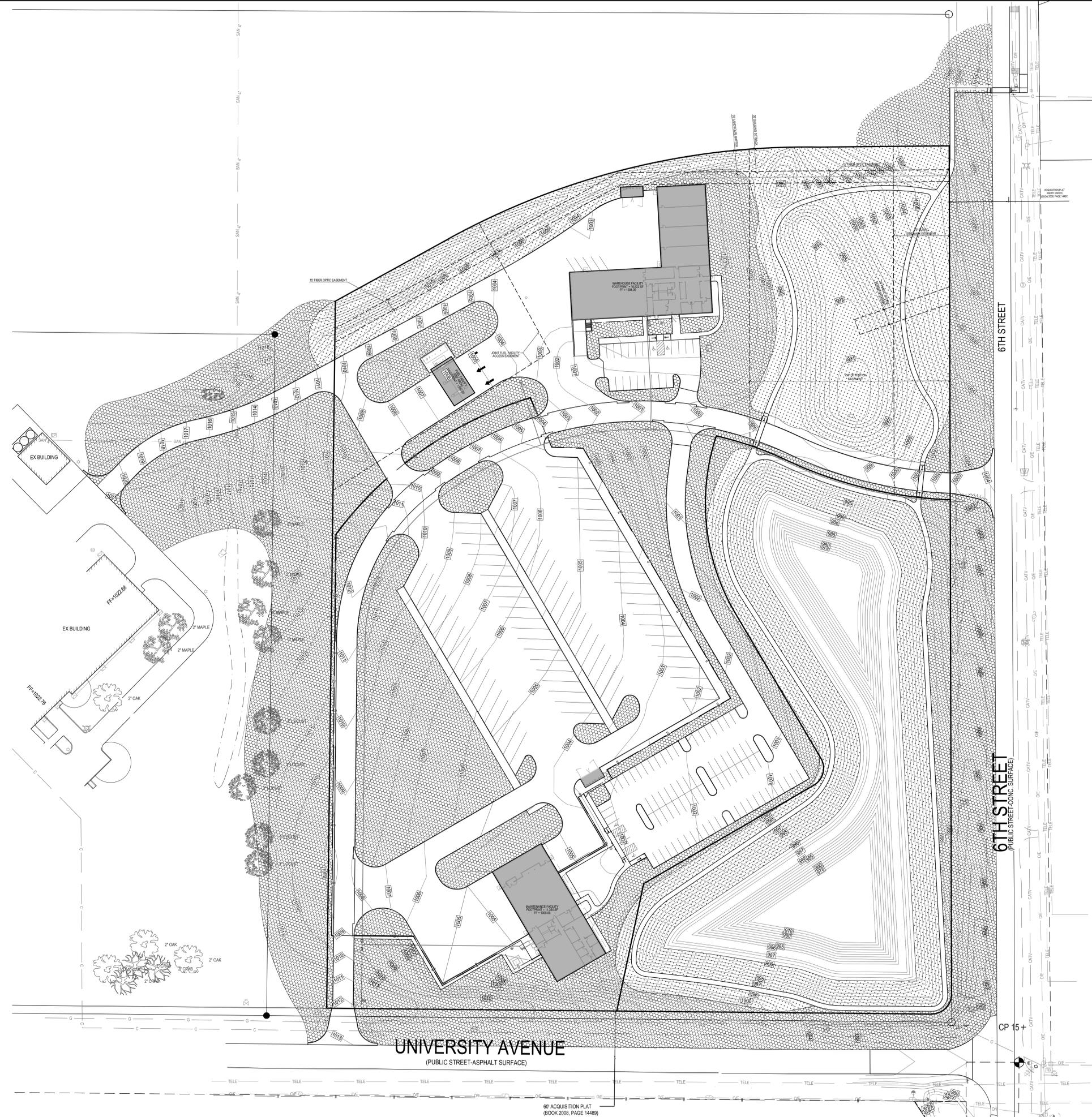
EVERGREEN TREE PLANTING (B&B)
 SCALE: NOT TO SCALE



STAKING ORIENTATION
 NORTH NORTH
 2 STAKES - 3" CAL. & LESS
 3 STAKES - GREATER THAN 3" CAL.
 USE HOSE GUARDS AROUND TRUNK ON STAKING WIRE. TIE WIRE TO STEEL POSTS PLACED OUTSIDE PLANT PIT.
 LEAVE STAKES IN PLACE NO MORE THAN 1 YEAR FROM INSTALLATION. CONTRACTOR RESPONSIBLE FOR REMOVAL.



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HYDRAULIC MULCH: ALL SEEDING SHALL BE HYDRO-MULCHED. WOOD CELLULOSE HYDRAULIC MULCH WITH TACKIFIER SHALL BE APPLIED AT A RATE OF 2500 LBS/ACRE.

SEED INSTALLATION: ALL SEEDING SHALL BE INSTALLED PER SEED SUPPLIER'S RECOMMENDATIONS FOR ESTABLISHMENT.

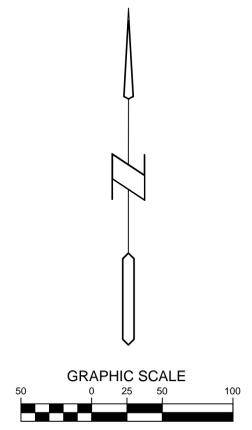
MAINTENANCE OF NATIVE AREAS: FOLLOW SUPPLIER'S RECOMMENDATIONS FOR MAINTENANCE AND ESTABLISHMENT OF THE NATIVE GRASS AREAS.

DORMANT SEEDING AND ESTABLISHMENT
 TYPE II (NATIVE) SEED MIX INTENDED FOR DORMANT SEEDING IN FALL OF 2016. OVERSEEDING AS NECESSARY TO BE COMPLETED IN THE SPRING OF 2017. ANY DISTURBED AREAS THAT ARE READY FOR SEEDING OUTSIDE THE DORMANT SEED DATES (PER MANUFACTURER'S RECOMMENDATIONS) ARE TO BE STABILIZED WITH AN ANNUAL RYE COVER CROP.

TEMPORARY SEEDING
 ANY TEMPORARY SEEDING NECESSARY TO COMPLY WITH NPDES GENERAL PERMIT NO. 2 SHALL BE SUDAS TYPE 4 URBAN TEMPORARY EROSION CONTROL MIXTURE AND BE CONSIDERED INCIDENTAL TO CONSTRUCTION.

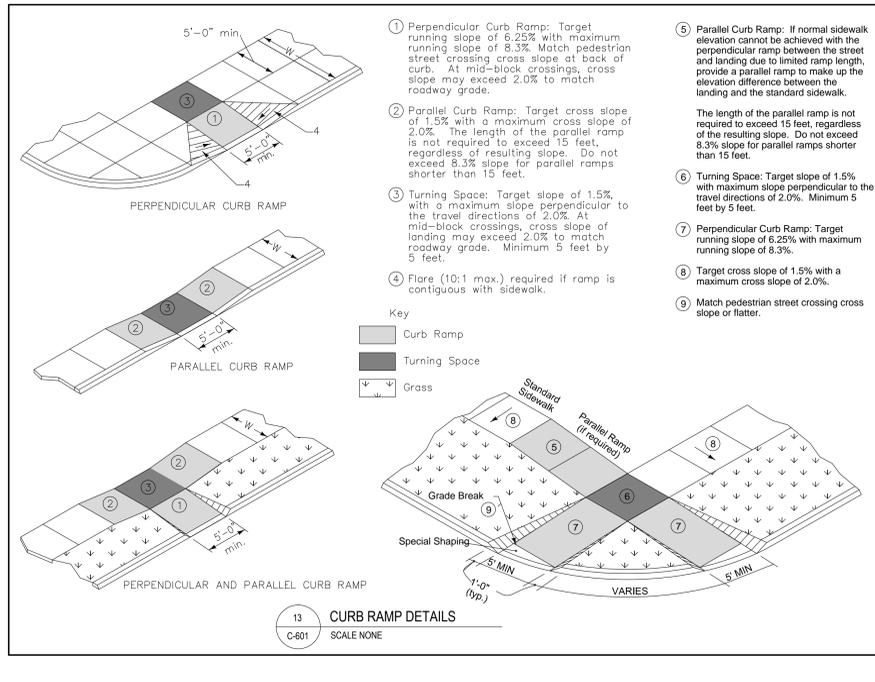
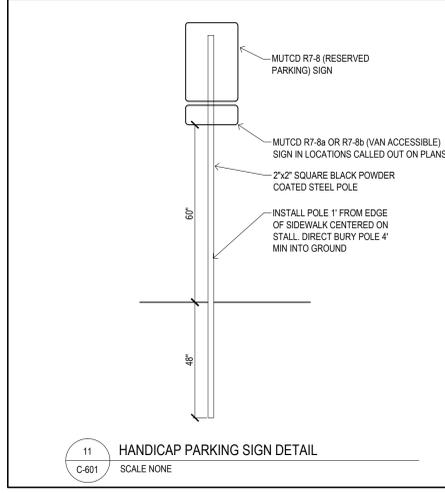
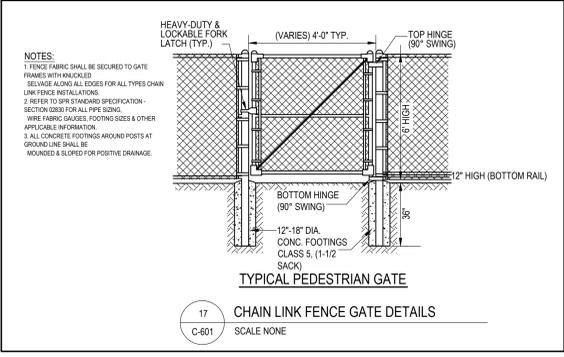
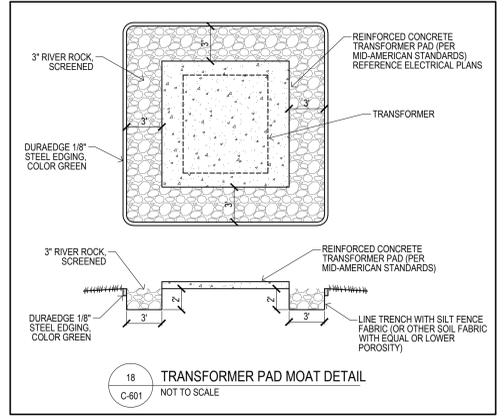
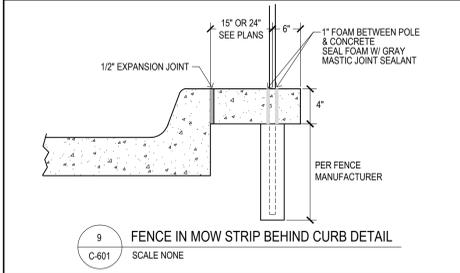
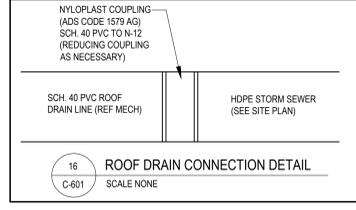
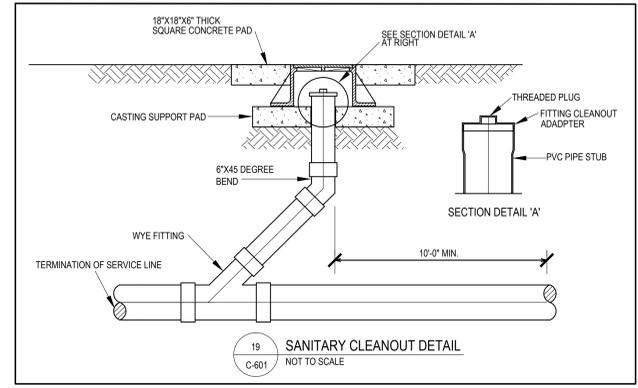
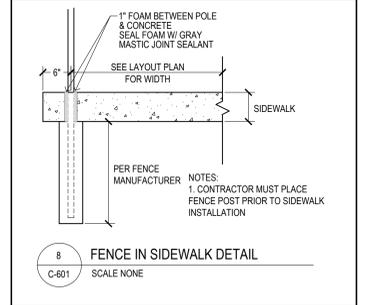
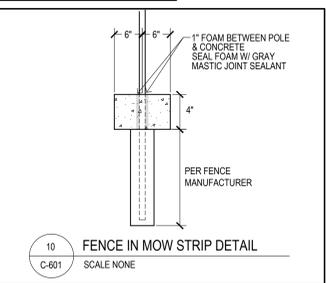
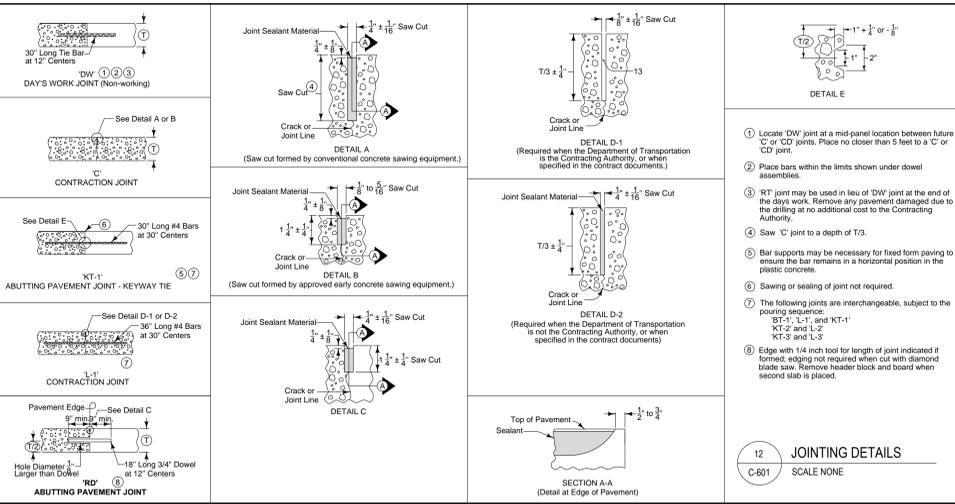
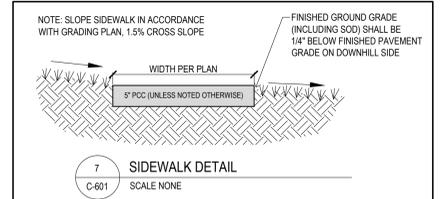
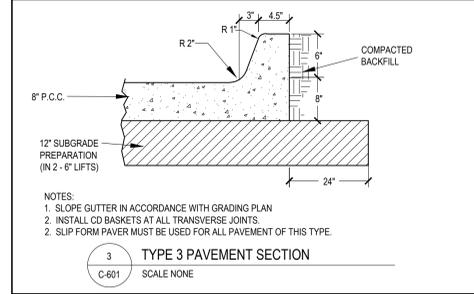
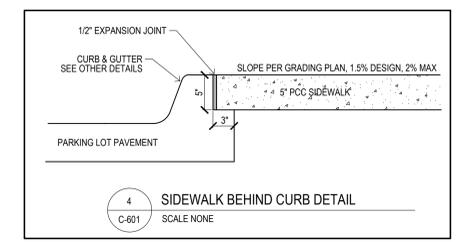
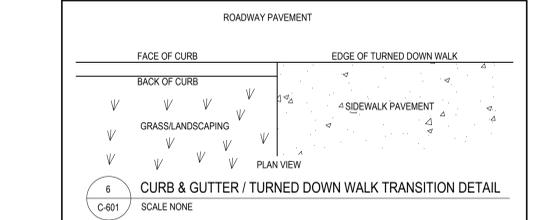
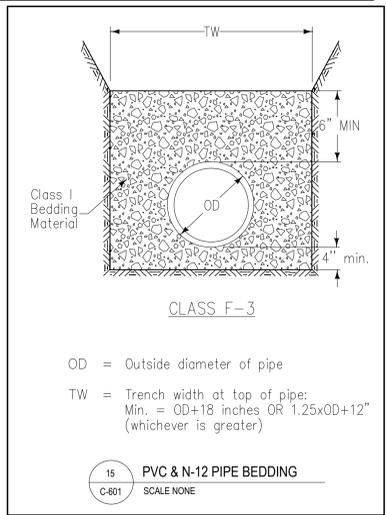
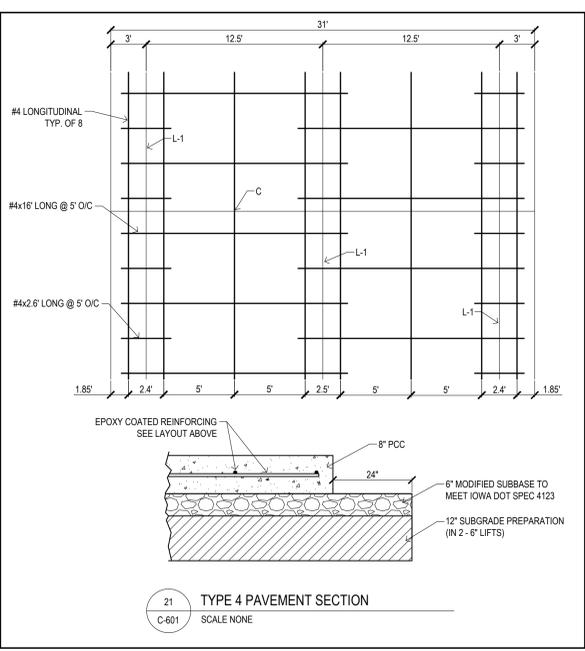
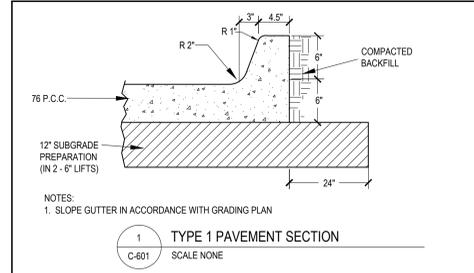
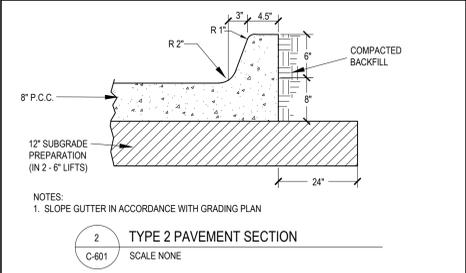
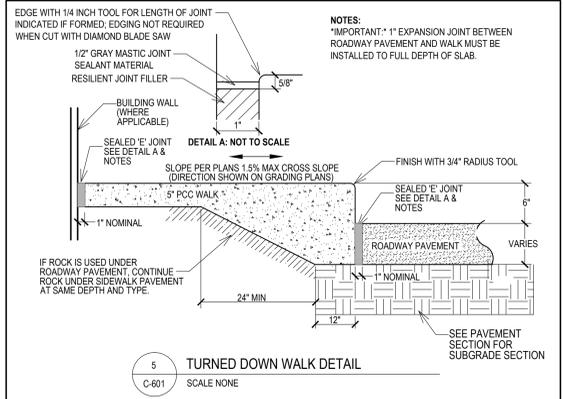
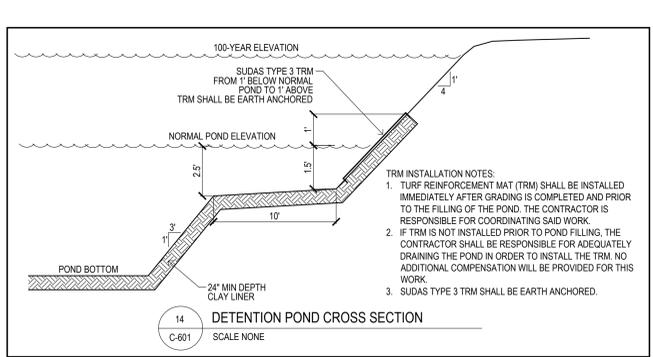
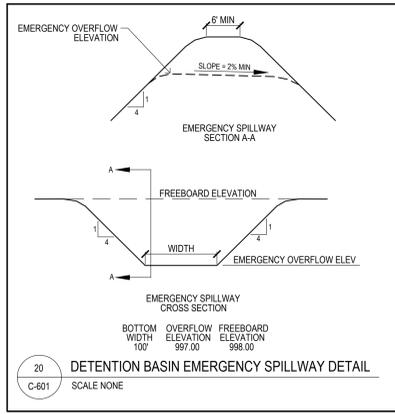
HATCH LEGEND

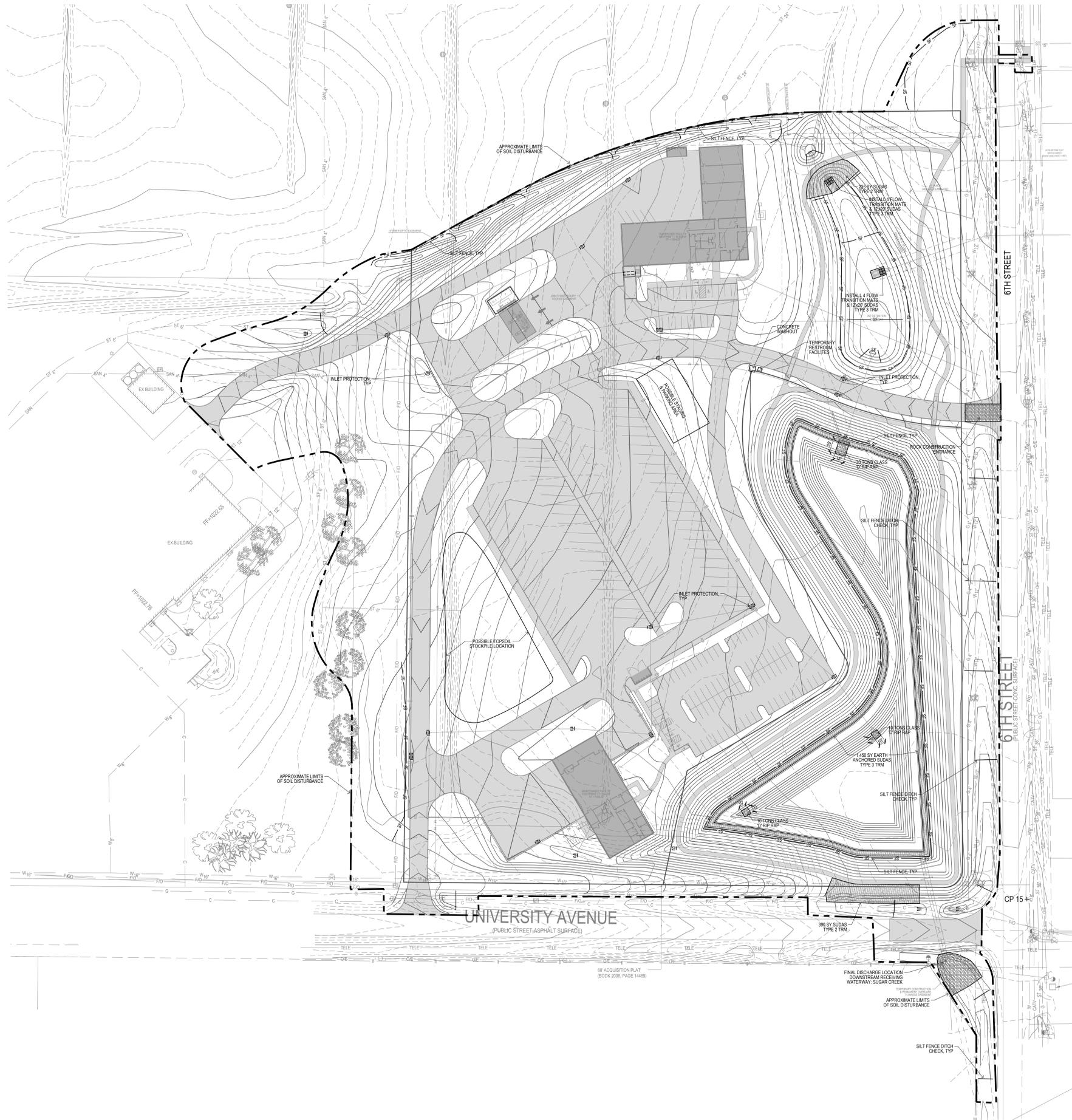
-  SEED TYPE I - SUDAS TYPE 1: PERMANENT LAWN MIX (SEE SPECIFICATIONS)
-  SEED TYPE II (NATIVE): UNITED SEEDS - LOW GROW NATIVE GRASS MIX (SEE SPECIFICATIONS)
-  SOD - LOCALLY PRODUCED AND HARVESTED (SEE SPECIFICATIONS)



60' ACQUISITION PLAT
(BOOK 2008, PAGE 14489)

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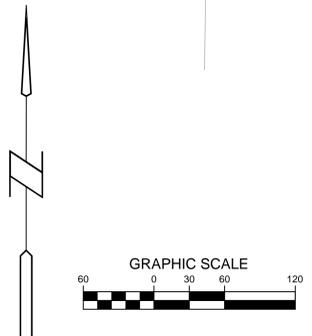
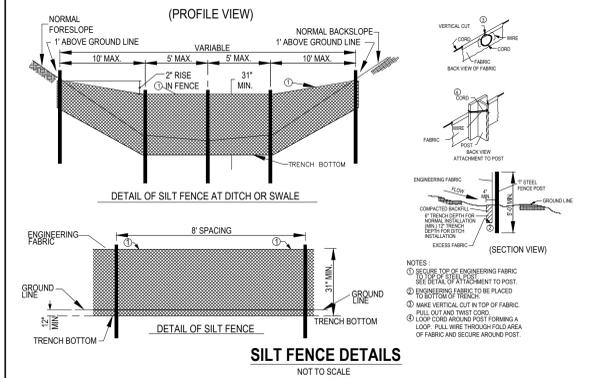
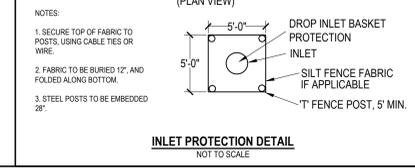
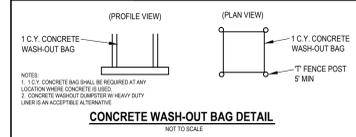
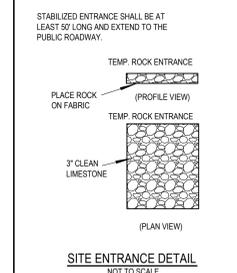




- EROSION CONTROL NOTES:**
- SEE SUPPLEMENTAL DETAIL STORM WATER POLLUTION PLAN NARRATIVE FOR ALL EROSION CONTROL MEASURES. ADDITIONAL DETAILS AND NOTE. ADDITIONAL NOTES AND MEASURES IN NARRATIVE SHALL BE CONSIDERED INCIDENTAL AND SHALL BE INCLUDED IN THE ORIGINAL BID.
 - SWPPP PLAN AND NARRATIVE ARE CONSIDERED A LIVING DOCUMENT AND WILL NEED PERIODIC UPDATES AND ADJUSTMENTS AS NECESSARY DEPENDING ON SITE CONDITIONS TO ASSURE COMPLIANCE WITH NPDES GENERAL PERMIT NO. 2. IT IS THE CONTRACTOR'S RESPONSIBILITY TO UPDATE THE SWPPP AND IMPLEMENT ANY AND ALL MEASURES NECESSARY TO COMPLY WITH SAID PERMIT NO. 2.
 - INSTALL PERIMETER SILT FENCE AS SHOWN ON PLANS PRIOR TO CONSTRUCTION.
 - INSTALL INTAKE PROTECTION WITH SILT FENCE IMMEDIATELY AFTER STORM SEWER CONSTRUCTION.
 - INSTALL FINISHED PAVING INLET PROTECTION IMMEDIATELY AFTER PAVING IS COMPLETED AROUND INTAKE.
 - OTHER EROSION CONTROL TYPES MAY NOT BE SUBSTITUTED FOR SILT FENCE.
 - CONTRACTOR SHALL BE RESPONSIBLE FOR SUPPLYING A CONCRETE WASHOUT THAT MEETS THE EPA STORM WATER BEST MANAGEMENT PRACTICES DURING ALL CONCRETE WORK.
 - CONTRACTOR SHALL BE RESPONSIBLE FOR SUPPLYING TEMPORARY RESTROOM FACILITIES. SANITARY WASTE SHALL BE DISPOSED OF PER ALL FEDERAL, STATE AND LOCAL REGULATIONS.
 - CONTRACTOR SHALL BE RESPONSIBLE FOR ENSURING ALL TOPSOIL REQUIREMENTS OF NPDES GENERAL PERMIT NO. 2 ARE MET.
 - CONTRACTOR SHALL PROVIDE PARKING AREA FOR ALL CONSTRUCTION TRADES ON SITE FOR THE DURATION OF SITE AND BUILDING CONSTRUCTION. PARKING IS NOT PERMITTED ON ANY PUBLIC ROADS. POSSIBLE LOCATION SHOWN ON PLAN.

- EROSION CONTROL REMOVAL NOTES:**
- AFTER FINAL STABILIZATION HAS OCCURRED, AS DEFINED IN NPDES GENERAL PERMIT NO. 2, CONTRACTOR SHALL BE RESPONSIBLE FOR THE REMOVAL OF ALL TEMPORARY EROSION CONTROL DEVICES INCLUDING, BUT NOT LIMITED TO SILT FENCE, INLET PROTECTION, AND TEMPORARY STANDPIPES.
- DISTURBED AREA:**
- DISTURBED AREA = 24 ACRES MORE OR LESS
 - SEDIMENT STORAGE REQUIREMENTS = 3,600 CF/ACRE DISTURBED.
 - SEDIMENT VOLUME REQUIRED = 86,400 CF
 - SEDIMENT STORAGE VOLUME PROVIDED = 86,500 CF
- PROVIDED IN BOTTOM 4 FEET OF DETENTION POND (ELEV 977 TO 981)

- SEEDING NOTES:**
- SEE SEEDING PLAN (SHEET C-803) FOR ALL SEEDING REQUIREMENTS
 - ANY TEMPORARY SEEDING NECESSARY TO COMPLY WITH NPDES GENERAL PERMIT NO. 2 SHALL BE SUDAS TYPE 4 URBAN TEMPORARY EROSION CONTROL MIXTURE AND BE CONSIDERED INCIDENTAL TO CONSTRUCTION.



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