

**GENERAL NOTES:**

- ALL CONSTRUCTION SHALL CONFORM TO THE MOST RECENT EDITION OF THE CITY OF WAUKEE STANDARD SPECIFICATIONS FOR PUBLIC IMPROVEMENTS, WITH APPLICABLE SUPPLEMENTAL SPECIFICATIONS, AND THE LATEST EDITION OF IOWA SUDAS STANDARDS AND SPECIFICATIONS. THE CITY OF WAUKEE STANDARD SPECIFICATIONS SHALL GOVERN IF ANY DISCREPANCIES ARE FOUND.
- THE LOCATION OF ALL UTILITIES INDICATED ON THE PLANS ARE TAKEN FROM EXISTING PUBLIC RECORDS. THE EXACT LOCATION AND ELEVATION OF ALL PUBLIC UTILITIES MUST BE DETERMINED BY THE CONTRACTOR(S). IT SHALL BE THE DUTY OF THE CONTRACTOR TO ASCERTAIN WHETHER ANY ADDITIONAL FACILITIES OTHER THAN THOSE SHOWN ON THE PLANS MAY BE PRESENT.
- ALL DEBRIS SPILLED ON THE STREETS OR ADJACENT PROPERTY SHALL BE PROMPTLY REMOVED BY THE CONTRACTOR - AT LEAST AT THE END OF EACH WORK DAY; PRIOR TO ANY RAIN EVENT; AND AS DIRECTED.
- ALL CONSTRUCTION PROCEDURES AND MATERIALS SHALL MEET OR EXCEED MINIMUM REQUIREMENTS OF THE CITY. THE CONTRACTOR(S) SHALL SUBMIT SHOP DRAWINGS, CUT SHEETS, OR MATERIAL SPECIFICATIONS TO CITY PUBLIC WORKS ON ALL CONSTRUCTION MATERIALS USED PRIOR TO CONSTRUCTION.
- ALL WORK SHALL BE DONE IN ACCORDANCE WITH CURRENT OSHA CODES AND STANDARDS. NOTHING INDICATED ON THESE PLANS SHALL RELIEVE THE CONTRACTOR(S) FROM COMPLYING WITH ANY AND ALL APPROPRIATE SAFETY REGULATIONS.
- THE CONTRACTOR(S) SHALL BE RESPONSIBLE FOR ALL REQUIRED WORK ZONE TRAFFIC CONTROL (VEHICULAR, BICYCLE, AND/OR PEDESTRIAN) REQUIRED DURING ANY AND ALL OPERATIONS. THESE SHALL BE INSTALLED PRIOR TO BEGINNING WORK ON THE SITE.
- THE CONTRACTOR(S) SHALL FURNISH AND PLACE ALL NECESSARY TEMPORARY SIGNS AND BARRICADES DURING CONSTRUCTION IN ACCORDANCE WITH THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (MUTCD) FOR STREETS AND HIGHWAYS. ALL ROADS SHALL BE BARRICADED UNTIL ACCEPTANCE BY CITY.
- THE CONTRACTOR(S) SHALL BE RESPONSIBLE FOR GIVING THE CITY AND OTHER INSPECTION AGENCIES PROPER NOTICE FOR THEIR REQUIRED INSPECTIONS.
- THE CONTRACTOR(S) SHALL BE RESPONSIBLE FOR OBTAINING ANY AND ALL REQUIRED PERMITS FOR PERFORMING THE WORK.
- ALL PERMITS FROM IDNR, IDOT, COUNTY, CITY, AND/OR OTHER PERMITTING AGENCIES SHALL BE OBTAINED PRIOR TO THE START OF CONSTRUCTION. THE CONTRACTOR(S) SHALL HAVE PAPER COPY ON SITE BEFORE COMMENCING CONSTRUCTION.
- ANY DAMAGE DONE TO THE EXISTING AND/OR PROPOSED FENCES, YARDS, OR OTHER IMPROVEMENTS SHALL BE REPAIRED AT THE CONTRACTOR'S EXPENSE.
- THE CONTRACTOR(S) SHALL NOTIFY THE CITY PUBLIC WORKS/ENGINEERING DEPARTMENT 48 HOURS PRIOR TO THE BEGINNING OF CONSTRUCTION, WEEKEND WORK, AND/OR HOLIDAY WORK.
- THE CONTRACTOR(S) SHALL PROVIDE SUBMITTALS OF CONSTRUCTION MATERIALS PRIOR TO CONSTRUCTION.
- ALL CONSTRUCTION STAKING TO BE DONE UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER OR LAND SURVEYOR.
- ANY CHANGES TO THE PROPOSED PLAN SHALL BE SUBMITTED TO THE CITY OF WAUKEE ENGINEERING DEPARTMENT IN WRITING PRIOR TO IMPLEMENTATION. CONTRACTOR SHALL BE RESPONSIBLE FOR COSTS ASSOCIATED WITH CHANGES MADE WITHOUT CITY APPROVAL.
- SOILS REPORT PREPARED BY TERRACON (DATED FEBRUARY 19, 2004) IS REFERENCED FOR THIS PROJECT. SUBBASE AND SOIL RECOMMENDATIONS SHALL SUPERCEDE ANY CONTRADICTION NOTES OR DETAILS IN THIS PLAN SET.
- SEE ALL OTHER PLAN SHEETS FOR ADDITIONAL NOTES AND INFORMATION.
- MAINTENANCE/PERFORMANCE BONDS SHALL BE PROVIDED AS REQUIRED BY CITY ORDINANCE OR CODE.
- ALL TESTING SHALL BE TO CITY OF WAUKEE STANDARDS AND CITY STAFF SHALL PRESENT DURING AND WITNESS ALL TESTING.

**PCC PAVING NOTES:**

- ALL SUBGRADE UNDER SLAB TO BE COMPACTED TO AT LEAST 95 PERCENT STANDARD PROCTOR DENSITY FOR A MINIMUM OF 12 INCHES - INSTALLED IN AT LEAST TWO (2) SIX (6") INCH COMPACTED LIFTS. RECOMMENDED MOISTURE CONTENT RANGE 0% TO +4% OF OPTIMUM.
- MOISTEN SUBGRADE PRIOR TO PLACING CONCRETE.
- ALL CONCRETE SHALL HAVE MINIMUM 28-DAY COMPRESSIVE STRENGTH OF 4,000 PSI.
- AGGREGATE SHALL BE CLASS 4.
- CONCRETE SURFACES SHALL BE BURLAP FINISH. CHECK SURFACE WITH TEMPLATE. NO DEVIATION OVER 1/8" IN TEN (10') FEET IS PERMITTED. ALL CONCRETE SHALL SLOPE TO DRAIN.
- ALL CONCRETE SHALL BE CURED WITH AN ASTM C309 TYPE 2, WATER BASED WHITE PIGMENTED CURING COMPOUND PER IDOT SEC. 4105.
- SAW CUT JOINTS AS SOON AS CONCRETE HAS SET ENOUGH TO PREVENT RAVELING AND PRIOR TO ANY CRACKING.
- SAW CUTS TO BE 1/8" TO 1/4" WIDE; AND DEPTH: LONGITUDINAL T/3, TRANSVERSE T/4.
- LONGITUDINAL JOINT SPACING SHALL NOT BE GREATER THAN 12 FEET. JOINT LAYOUT SHALL BE PER SUDAS, OR AS APPROVED BY THE ENGINEER AND CITY. ADDITIONALLY, TRANSVERSE SPACING SHALL NOT BE GREATER THAN 15 FEET.
- BARS AT LONGITUDINAL JOINTS TO BE 5/8" (#5) X 30" DEFORMED AT 30 INCHES O.C. ALL BARS SHALL BE EPOXY COATED.
- ALL JOINTS SHALL BE FILLED WITH W-R MEADOWS D-164 HOT POUR RUBBER BASE JOINT SEALER OR APPROVED EQUAL.
- THE CONTRACTOR SHALL BARRICADE SLAB(S) FOR AT LEAST 14 DAYS AFTER PLACING CONCRETE.
- SIDEWALKS SHALL BE FOUR (4") INCHES PCC AND FIVE (5) FEET WIDE, UNLESS OTHERWISE NOTED AND PARKING STALLS AND DRIVES SHALL BE SIX (6") INCHES NON-REINFORCED PCC PAVEMENT.
- THE CONTRACTOR(S) SHALL SUBMIT DESIGN MIX AS DESIGNED BY INDEPENDENT TESTING LABORATORY PRIOR TO PLACING ANY CONCRETE.
- ALL WORK TO COMPLY WITH CURRENT ACI STANDARDS.

**H.C. STALLS, RAMPS, AND SIDEWALK NOTES:**

- ALL INTERSECTION SIDEWALK RAMPS AND RELATED TURNING SPACE/CONNECTIONS SHALL BE INSTALLED AS PART OF THE PLAT/ROADWAY IMPROVEMENTS; AND AT LOCATIONS AND/OR LIMITS AS NOTED.

- GENERAL SIDEWALK CONSTRUCTION IS THE RESPONSIBILITY OF INDIVIDUAL LOT OWNERS. SEE "PCC PAVING NOTES" FOR DEPTHS.
- THE CONTRACTOR(S) SHALL BE RESPONSIBLE FOR FOLLOWING THE PROPOSED SPOT ELEVATIONS. SPOT ELEVATIONS GOVERN OVER CONTOURS AND NOTED SLOPES.
- ALL PEDESTRIAN FACILITIES - INCLUDING, BUT NOT LIMITED TO: SIDEWALK SLOPES, DROP CURBS, GRADING, STRIPING, SIGNAGE, AND RAMP DETAILS - SHALL BE CONSTRUCTED TO MEET THE CURRENT REQUIREMENTS/STANDARDS OF SUDAS, MUTCD, DOJ, ADAAG, AND PROWAG.
- THE CONTRACTOR(S) SHALL VERIFY WITH THE ENGINEER THAT THE RAMP, SIDEWALK, AND PARKING AREAS ARE CONSTRUCTED PROPERLY TO MEET STANDARDS.
- SHOULD DISCREPANCIES OCCUR ON THE PLAN OR WHAT IS REQUIRED BY THE INSPECTOR, THE CONTRACTOR SHALL NOTIFY THE ENGINEER.
- PERFORMING THE WORK THE WAY THE CONTRACTOR HAS FOR THE LAST XX YEARS ON OTHER APPROVED PROJECTS WILL NOT BE AN EXCUSE FOR NON-COMPLIANCE WITH THESE REQUIREMENTS.

**OPEN SPACE:**  
PROVIDED:  
27,055 SF = 75%

**SETBACKS:**  
FRONT & REAR: 15'  
SIDE: 5'

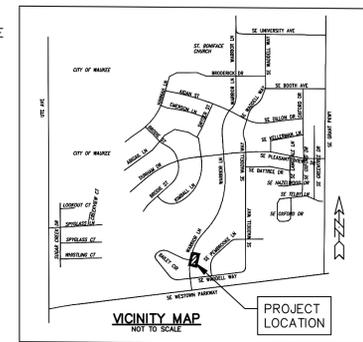
**SITE ADDRESS:**  
2265 WARRIOR LANE

**PROJECT BENCHMARK:**  
SE TAB BOLT ON HYDRANT AT SW CORNER WARRIOR LANE & SE UNIVERSITY AVENUE  
ELEVATION = 1028.39 (NAVD 88 - IOWA STATE PLANE COORDINATE SYSTEM)

**OWNER/DEVELOPER:**  
HUBBELL METROPOLITAN DEVELOPMENT FUND I, LLC (SERIES E)  
6900 WESTOWN PARKWAY  
WEST DES MOINES, IOWA 50266  
515/243-3228

**LEGAL DESCRIPTION:**  
LOT 141 OF GLYNN VILLAGE PLAT 10  
CONTAINING 35,858 SF

**ZONING:**  
PUD/R-4



**NOTE:**

THE LOCATION OF ALL UTILITIES INDICATED ON THE PLANS ARE TAKEN FROM EXISTING PUBLIC RECORDS. THE EXACT LOCATION AND ELEVATION OF ALL PUBLIC UTILITIES MUST BE DETERMINED BY THE CONTRACTOR. IT SHALL BE THE DUTY OF THE CONTRACTOR TO ASCERTAIN WHETHER ANY ADDITIONAL FACILITIES OTHER THAN THOSE SHOWN ON THE PLANS MAY BE PRESENT.

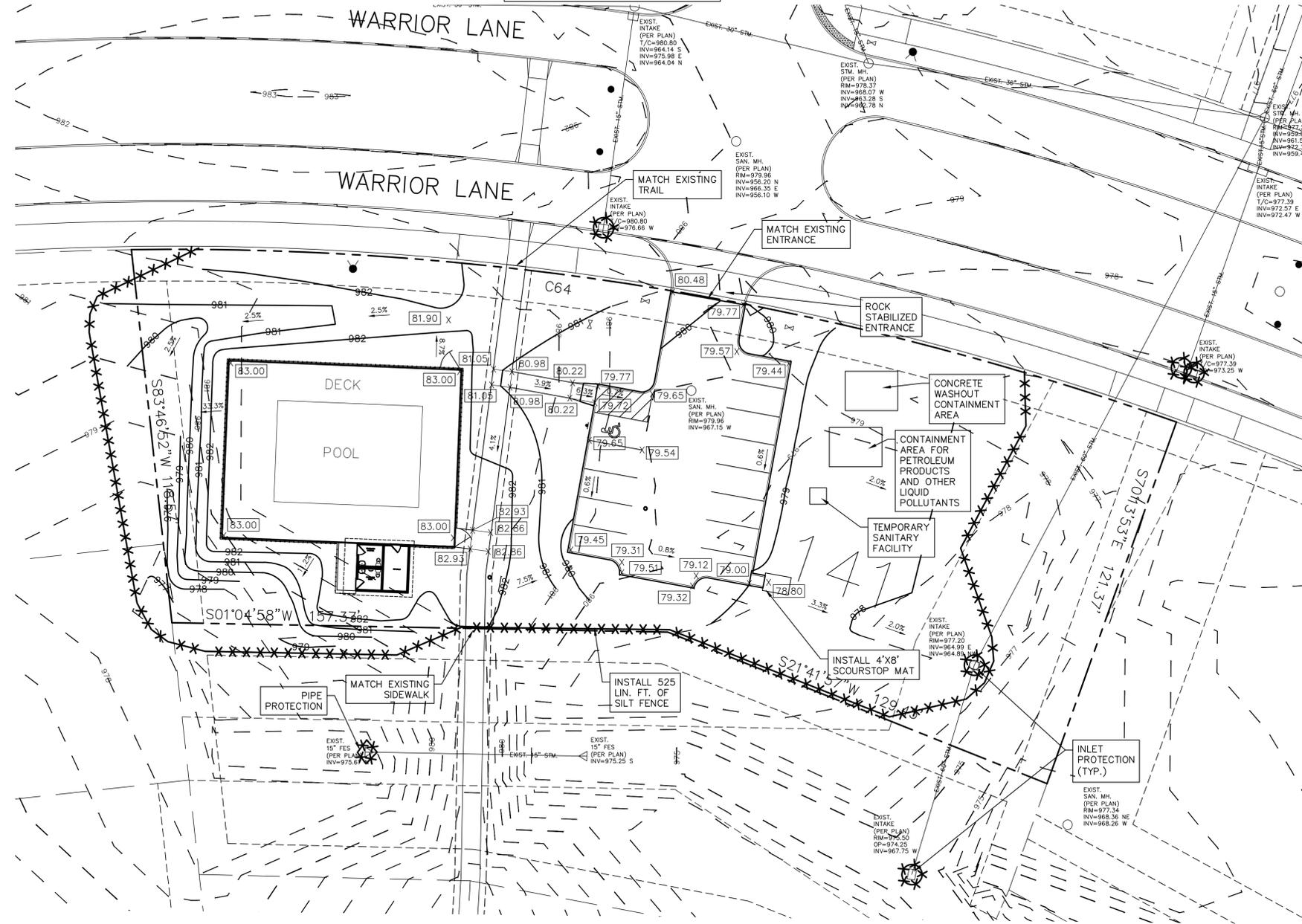
**GRADING NOTES:**

- CITY OF WAUKEE STANDARD SPECIFICATIONS SHALL GOVERN IF DISCREPANCIES WITH NOTES.
- REMOVE AN ADEQUATE AMOUNT OF TOPSOIL FROM THE UPPER 12 INCHES OF THE EXISTING ON-SITE ORGANIC MATERIAL TO ALLOW FOR A FINISHED GRADE OF A MINIMUM TOPSOIL DEPTH OF SIX (6") INCHES THROUGHOUT.
- PROOF ROLL THE EXPOSED SUBGRADE AND REPLACE WITH COMPACTED FILL TO BOTTOM OF PAVEMENT, CONCRETE DRIVES, CURBS, WALKS, AND BUILDING FLOOR ELEVATIONS.
- NATIVE OR EXISTING ON-SITE SOILS MAY BE REUSED FOR COMMON FILL AFTER THEY ARE SORTED TO REMOVE ALL DELETERIOUS MATERIALS SUCH AS CONCRETE, BRICKS, AND OTHER RUBBLE. DELETERIOUS MATERIALS SHALL BE REMOVED FROM THE PROJECT SITE. ALL EXCESS MATERIALS SHALL BE REMOVED FROM THE SITE BY THE CONTRACTOR(S). SEE DEMOLITION PLAN NOTES FOR DETAILS ON REMOVAL AND LEGAL DISPOSAL OF MATERIALS.
- ANY SOFT SPOTS DISCOVERED DURING PROOF ROLLING SHALL BE UNDERCUT AND RECOMPACTED.
- ALL PAVEMENTS SHALL HAVE A MINIMUM OF 12 INCHES OF SELECT, COMPACTED MATERIAL OF CL OR ML CLASSIFICATION DIRECTLY BELOW THE BOTTOM OF SLAB; OR OTHER ACCEPTED MATERIAL BY THE ENGINEER. PROOF ROLL PRIOR TO PLACEMENT.
- FILL SHALL BE PLACED IN UNIFORM LIFTS HAVING A MAXIMUM LOOSE THICKNESS OF NINE (9") INCHES. COMPACTION BELOW SLABS AND PAVING AND WALKS SHALL BE AT LEAST 95 PERCENT OF STANDARD PROCTOR (ASTM D-698) MAXIMUM DRY DENSITY. COMPACT TO AT LEAST 90 PERCENT AT ALL OTHER LOCATIONS. MAINTAIN MOISTURE CONTENT OF CONTROLLED FILL ABOVE OPTIMUM DURING PLACEMENT AND COMPACTION.
- THE ENTIRE SITE SHALL BE FINE GRADED WITH ELEVATION TOLERANCE OF ONE-TENTH (0.10) FOOT; OR FIVE-HUNDREDTHS (0.05) FEET UNDER PAVED AREAS.
- OBSERVATION AND TESTING OF FILL AND OVER-EXCAVATION OPERATIONS SHALL BE BY THE SOILS ENGINEER HIRED BY THE OWNER.
- ALL CONTRACTORS SHALL ADHERE TO ALL RECOMMENDATIONS FROM THE GEOTECHNICAL ENGINEERING REPORT AS NOTED IN THE "GENERAL NOTES"; AND INCLUDED THE THE STORMWATER CALCULATIONS, AND IN THE SWPPP PACKET.
- EXISTING ON-SITE FILL SHALL BE FREE OF CONCRETE, GRAVEL, BRICK, CINDERS, GLASS, ORGANICS, AND OTHER LOW DENSITY/DEGRADABLE OR FROZEN MATERIAL.
- ALL SPOT ELEVATIONS ARE TO THE TOP OF THE FINISHED SURFACE, UNLESS OTHERWISE SPECIFIED.
  - SPOT ELEVATIONS SHOWN IN THE PAVED AREAS ARE AT THE BOTTOM OF THE CURB. ADD SIX (6") INCHES TO COMPUTE THE TOP OF CURB ELEVATIONS.
  - SPOT ELEVATIONS ARE TO TOP OF PAVEMENT OR TOP OF GROUND (INCLUDING SOD) UNLESS OTHERWISE NOTED.
  - SPOT ELEVATIONS GOVERN OVER CONTOURS.
- STRIP AND STOCKPILE ALL TOPSOIL FOR REUSE ON SITE. ALL AREAS NOT COVERED BY POND, PAVEMENT, OR BUILDINGS SHALL BE GRASS. SEEDING AREAS SHALL BE PREPARED AS SPECIFIED IN SUDAS, AND NO LESS THAN SIX (6) INCHES OF TOPSOIL SHALL BE IN PLACE BEFORE PERMANENT (FINAL STABILIZATION) SEEDING OPERATIONS COMMENCE. IF LESS THAN SIX (6) INCHES OF TOPSOIL IS LOCATED ON SITE AS DOCUMENTED BY SOILS REPORT, THEN RETAIN AND RESPREAD ALL AVAILABLE MATERIAL AT AN EQUAL DEPTH.
- PROVIDE POSITIVE DRAINAGE FOR ALL LOCATIONS.
- ALL RIPRAP SHALL BE PLACED OVER ENGINEERING FABRIC. AS HATCHED IN CONSTRUCTION PLANS. ALL AREAS OF THE EXISTING DITCH BOTTOM AROUND END SECTIONS, AND EXISTING END SECTIONS DISCHARGING INTO DITCH SHALL BE COVERED WITH RIPRAP.
- ALL GRADING WORK SHALL BE DONE IN ACCORDANCE WITH THE PROJECT GEOTECHNICAL REPORT.

MINIMUM DISTANCE FROM SITE TO RECEIVING WATERS OF UNNAMED STREAM/CREEK: 1,100 FEET

PLACE SILT FENCE OR FILTER SOCK AROUND STORM INTAKE AND/OR STRUCTURE AFTER CONSTRUCTED. PLACE BELOW GRADE INLET PROTECTION FOR ALL STORM STRUCTURES WITHIN PUBLIC STREETS OR RIGHT-OF-WAY ONCE PAVING IS COMPLETED.

SWPPP MANAGER (PRINT NAME)	COMPANY	DATES
SWPPP INSPECTOR (PRINT NAME)	COMPANY	DATES



**STORMWATER POLLUTION PREVENTION PLAN**

- LEGEND**
- SP = SADDLE POINT
  - R = RIM EL FOR INTAKE
  - X = SPOT GRADE MARK (PAVED SURFACE)
  - T/C = TOP OF CURB ELEVATION
  - T/W = TOP OF SIDEWALK
  - 155 — DENOTES EXISTING CONTOUR
  - 156 — DENOTES PROPOSED CONTOUR
  - X [56.85] DENOTES PROPOSED SPOT ELEVATION
  - T/W DENOTES TOP OF WALL ELEVATION
  - B/W DENOTES BOTTOM OF WALL ELEVATION
  - X=77.08G DENOTES EXISTING GUTTER ELEVATION
  - X=74.02TC DENOTES EXISTING TOP OF CURB ELEVATION
  - EX DENOTES EXISTING FLOW/DRAINAGE DIRECTION
  - PR DENOTES PROPOSED FLOW/DRAINAGE DIRECTION
  - DENOTES PROPOSED INLET/PIPE PROTECTION
  - ⊙ DENOTES PROPOSED SCOURSTOP OR RIPRAP (SEE STORM SEWER PLANS)
  - ⊕ DENOTES PROPOSED DITCH CHECK/CHECK DAM (SILT FENCE)
  - ⊕ DENOTES PROPOSED DITCH CHECK/CHECK DAM (AGGREGATE)

NO.	REVISION	DATE



**NOTICE:**  
ALL CONTRACTORS AND SUB-CONTRACTORS MUST SIGN THE NPDES CERTIFICATION STATEMENT PRIOR TO PERFORMING ANY WORK ON SITE. BY SIGNING THE CERTIFICATION STATEMENT, THE CONTRACTOR AND/OR SUBCONTRACTOR AGREES TO BECOME A CO-PERMITTEE WITH THE OWNER AND OTHER CO-PERMITTEES. AS A CO-PERMITTEE, YOU AND YOUR COMPANY ARE LEGALLY REQUIRED UNDER THE CLEAN WATER ACT AND THE CODE OF IOWA TO ENSURE COMPLIANCE WITH THE TERMS AND CONDITIONS OF THE STORM WATER POLLUTION PREVENTION PLAN DEVELOPED UNDER THE NPDES PERMIT. SIGNIFICANT PENALTIES MAY BE IMPOSED BY THE EPA AND/OR THE IDNR SHOULD A PERMITTEE OR CO-PERMITTEE VIOLATE NPDES PERMIT REQUIREMENTS.

**GLYNN VILLAGE PLAT 10 POOL - GRADING PLAN & SWPPP**

NO. \_\_\_\_\_ REVISION \_\_\_\_\_ DATE \_\_\_\_\_ BY \_\_\_\_\_ FOR \_\_\_\_\_  
 SCALE: 1" = 20'  
 DWG: 15-227-GRD.dwg  
 LOCATION: \_\_\_\_\_  
 DESIGNED BY: JRK  
 CHECKED BY: DJS  
 SHEET 2 OF 5  
 DRAWN BY: BWS  
 DATE: 10/07/16  
 FIELD BOOK: \_\_\_\_\_  
 FILE NO.: 15-227

**ERG**  
 Engineering Resource Group, Inc.  
 Engineers and Surveyors  
 2413 GRAND AVENUE  
 DES MOINES, IOWA 50312  
 (515) 288-4823

**NOTE:**

THE LOCATION OF ALL UTILITIES INDICATED ON THE PLANS ARE TAKEN FROM EXISTING PUBLIC RECORDS. THE EXACT LOCATION AND ELEVATION OF ALL PUBLIC UTILITIES MUST BE DETERMINED BY THE CONTRACTOR. IT SHALL BE THE DUTY OF THE CONTRACTOR TO ASCERTAIN WHETHER ANY ADDITIONAL FACILITIES OTHER THAN THOSE SHOWN ON THE PLANS MAY BE PRESENT.

**UTILITIES GENERAL:**

1. WORK SHALL INCLUDE CONNECTION TO EXISTING PUBLIC UTILITIES AND ANY AND ALL FITTINGS, CLEANOUTS, AND APPURTENANCES REQUIRED BY CODES.
2. STORM AND SANITARY SEWER LENGTHS AND LINEWORK ARE SHOWN FROM THE SUDAS REFERENCE POINT LOCATIONS. CONTRACTOR SHALL MODIFY THE PIPE LENGTHS DUE TO OPEN AREA INSIDE OF STRUCTURE AND CONNECTION LOCATIONS.
3. ALL TRENCHES SHALL BE COMPACTED TO AT LEAST 95 PERCENT STANDARD PROCTOR.
4. TRACER WIRE SHALL BE ADDED TO ALL NON-METALLIC WATERMAIN. A GROUNDING ROD SHALL BE PLACED AS PER SUDAS.
5. ALL TERMINI OF MAINS AND SERVICES SHOULD BE MARKED WITH A PAINTED STEEL POST. (PER CITY OF WAUKEE STANDARDS WITH WATER = BLUE, STORM = GREEN, SANITARY = RED). POSTS SHOULD BE AT LEAST SIX (6) FOOT STEEL POST WITH FOUR (4) FEET EXPOSED ABOVE GROUND.
6. MAINTAIN A MINIMUM HORIZONTAL SEPARATION OF TEN (10) FEET BETWEEN SANITARY AND STORM SEWERS WITH WATERMANS.
7. MAINTAIN A MINIMUM VERTICAL CLEARANCE OF 18 INCHES BETWEEN SANITARY SEWER AND WATERMAIN, AND STORM SEWER AND WATERMAIN. O-RING GASKET JOINTS ARE TO BE INSTALLED IN SITUATIONS LESS THAN 18 INCHES OR ANY TIME SANITARY SEWER OR STORM SEWER CROSSES OVER ANY WATERMAIN.
8. ALL SERVICES LINES TO THE BUILDING AND ALL UTILITY LINES IN THE ADJOINING RIGHT-OF-WAY SHALL BE LOCATED UNDERGROUND. THE UTILITY CONTRACTOR(S) SHALL BE RESPONSIBLE FOR ENSURING REQUIRED SEPARATIONS OF SERVICES TO MAINS; AVOID CONFLICTS; AND/OR ENSURE POSITIVE DRAINAGE (GRAVITY FLOW SERVICES) WHEN CROSSING OTHER ITEMS.
9. ALL CASTING(S) ARE PER THE RESPECTIVE SUDAS DETAIL, UNLESS OTHERWISE NOTED.
10. THE CONTRACTOR(S) SHALL COORDINATE ALL UTILITY TIE-INS WITH THE CITY OF WAUKEE ENGINEERING DEPARTMENT.
11. ALL NOTED UTILITIES SHALL BE TESTED TO CITY OF WAUKEE STANDARDS AND THE CITY SHALL WITNESS ALL TESTING.
12. PER CITY OF WAUKEE REQUIREMENTS, ALL MANHOLES OUTSIDE OF THE ROADWAY PAVEMENT AND WITHIN ROW SHALL HAVE A MINIMUM OF ONE (1) FOUR (4") INCH ADJUSTING RING TO ALLOW FOR FUTURE ADJUSTMENT SHOULD THE MANHOLE BE LOCATED IN A DRIVEWAY.
13. SEE OTHER PLAN SHEETS; SUDAS DESIGN MANUAL AND SPECIFICATIONS; AND CITY STANDARD SPECIFICATIONS FOR WORK REQUIREMENTS; ANY ADDITIONAL REQUIREMENTS; AND ANY COORDINATION ITEMS.

**WATERMANS/WATER SERVICES:**

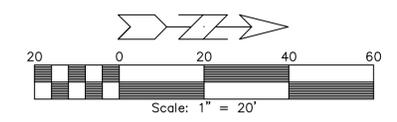
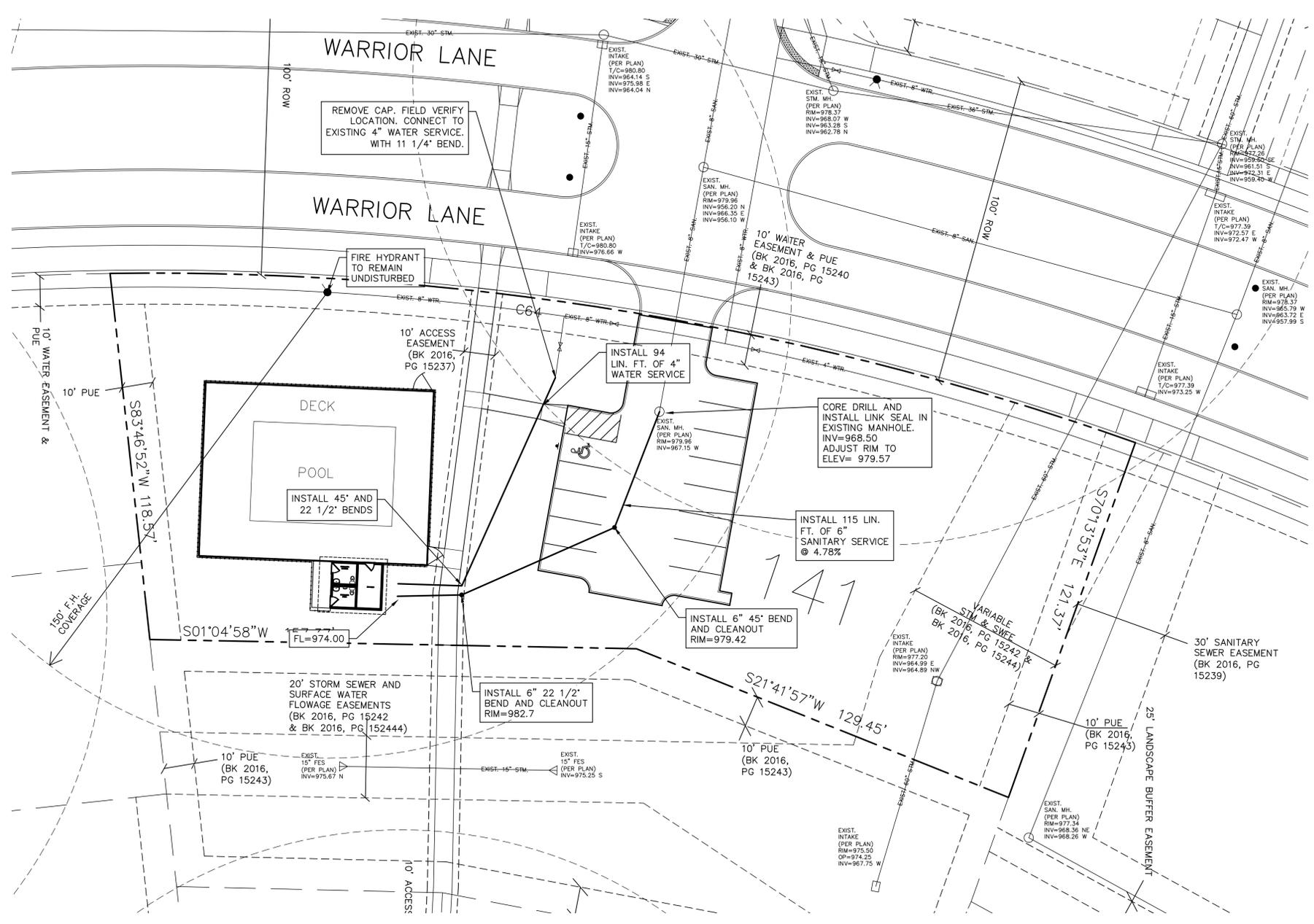
1. ALL WATERMANS SHALL HAVE A MINIMUM OF FIVE AND ONE-HALF (5.5) FEET COVER OVER THE TOP OF THE PIPE.
2. ALL WATERMANS SHALL BE CONSTRUCTED AND TESTED AS SPECIFIED ON IDNR PERMIT APPLICATION.
3. ALL PROPOSED HYDRANTS SHALL HAVE STORZ FITTINGS.
4. THE CONTRACTOR(S) SHALL PROVIDE AND INSTALL NECESSARY CONNECTIONS, FITTINGS, BENDS, TEES, BLOCKING, SUPPORTS, ETC. NOTED PIPE LENGTHS DO NOT INCLUDE VERTICAL AND/OR FITTING ADJUSTMENTS.
5. SITE WATERMAIN PIPING SHALL BE PVC, C900 DR14, UNLESS OTHERWISE LABELED.
6. SITE WATER SERVICE PIPING SHALL BE TYPE K COPPER, UNLESS OTHERWISE LABELED.
7. ALL VALVES SHALL BE LOCATED OUTSIDE OF STREET PAVEMENT AND SIDEWALK RAMP.
8. INSTALL WATER SERVICE LINE TO 5 FEET OF BUILDING AND CAP OR CONNECT TO INSTALLED/EXISTING LINE. NOTED LENGTH IS TO 5 FEET OF BUILDING.
9. MARK END OF WATER TERMINUS WITH PAINTED (BLUE) STEEL POST.
10. SERVICES SHALL BE C900 DR18.

**SANITARY SEWERS:**

1. THE SANITARY SEWER PIPE BEDDING SHALL BE GRANULAR ENCASEMENT.
2. ALL PIPE SHALL BE PVC TRUSS.
3. THE ADJUSTMENT OF EXISTING MANHOLE RIM SHALL INCLUDE NEW BARREL SECTION(S), NEW RISER(S), AND VACUUM TESTING.
4. ALL CONNECTIONS TO EXISTING SANITARY MANHOLES SHALL BE CORE DRILLED AND USE A LINK SEAL.
5. SANITARY SERVICE STUBS SHALL BE 6" SERVICES @ 1.00% (MIN); AND INSTALLED PER SUDAS TYPICAL DETAIL SW-201. UNLESS OTHERWISE NOTED.
6. EACH SERVICE (TYPICAL), UNLESS OTHERWISE NOTED - SANITARY CLEANOUT, TYPE A, 6 FEET FROM BUILDING AND AT ALL BENDS. INSTALL SANITARY SERVICE LINE TO 5 FEET OF BUILDING AND PLUG/CAP OR CONNECT TO INSTALLED/EXISTING LINE. NOTED LENGTH IS TO 5 FEET OF BUILDING.
7. MARK END OF SERVICE WITH PAINTED (GREEN) STEEL POST.
8. SERVICES SHALL BE SDR 23.5 AND PRESSURE TESTED.

**STORM SEWER:**

1. THE CONTRACTOR(S) SHALL PLACE SILT FENCE AROUND ALL STORM SEWER INLET LOCATIONS, STEEP SLOPES, OR AS DIRECTED BY THE CITY. ALL EROSION AND SEDIMENTATION CONTROL SHALL BE SET UP PRIOR TO CONSTRUCTION.
2. ANY STORM PIPE LOCATED UNDER PAVEMENT WITH LESS THAN TWO (2) FEET OF COVER SHALL PROVIDE 24"x24" REINFORCEMENT ABOVE AND USE CLASS V RCP.
3. ALL INTAKE CASTINGS SHALL BE BICYCLE SAFE.
4. ALL PROPOSED STORM SEWER LINES SHALL BE AS NOTED FOR SIZE.
5. RCP STORM SEWER TO BE 2000D (MINIMUM), USE STRENGTH REQUIRED BY SUDAS.
6. ALL STORM SEWERS ARE TO BE CLEANED AND TELEVIEWED WITH COPIES OF THE VIDEO INSPECTION PROVIDED TO THE CITY OF WAUKEE ENGINEERING DEPARTMENT.
7. ANY FIELD TILE DISCOVERED OR DAMAGED DURING CONSTRUCTION SHALL BE TIED INTO THE STORM SEWER SYSTEM OR REPAIRED/REPLACED; WITH THE ENGINEER NOTIFIED; AND THE LOCATION SHALL BE NOTED ON THE AS-BUILTS.
8. THE LAST THREE (3) PIPE SECTIONS AND THE FLARED END SECTION ON ALL CULVERTS SHALL BE TIED. ALL STORM SEWER JOINTS SHALL BE WRAPPED WITH ENGINEERING FABRIC.
9. THE CONTRACTOR(S) WILL LAY SEWER PIPE AS SHOWN WITHIN THE PLAN SET.
10. ALL PIPE SLOPES EQUAL TO OR GREATER THAN TEN (10%) PERCENT SHALL REQUIRE RESTRAINED JOINTS.
11. ALL STORM SEWER RUNS HAVE BEEN DESIGNED TO CARRY THE 100-YEAR STORM EVENT HGL (HYDRAULIC GRADE LINE) BELOW THE ADJOINING STRUCTURE RIMS.



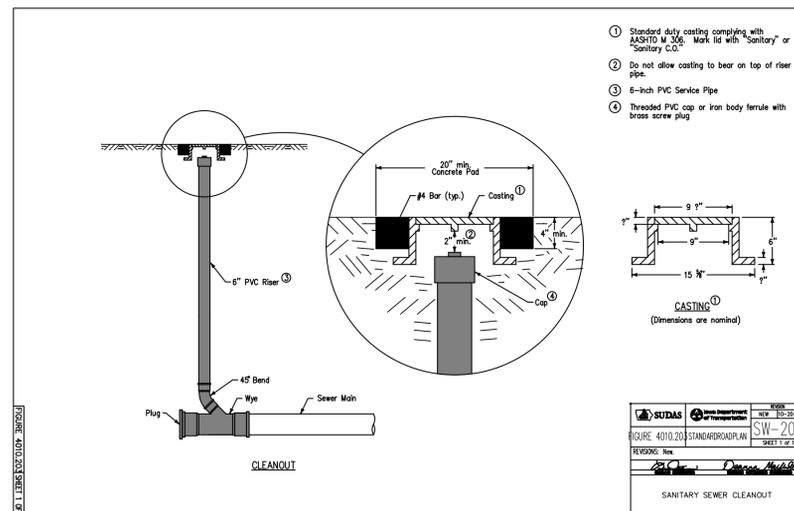
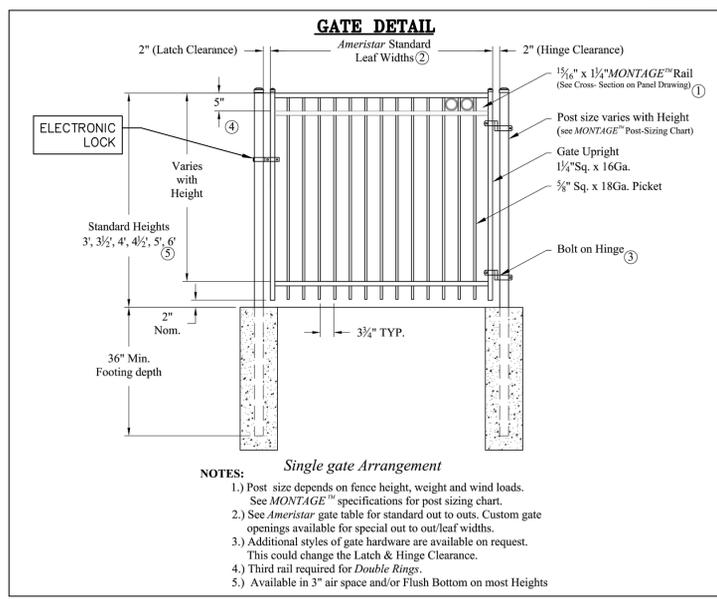
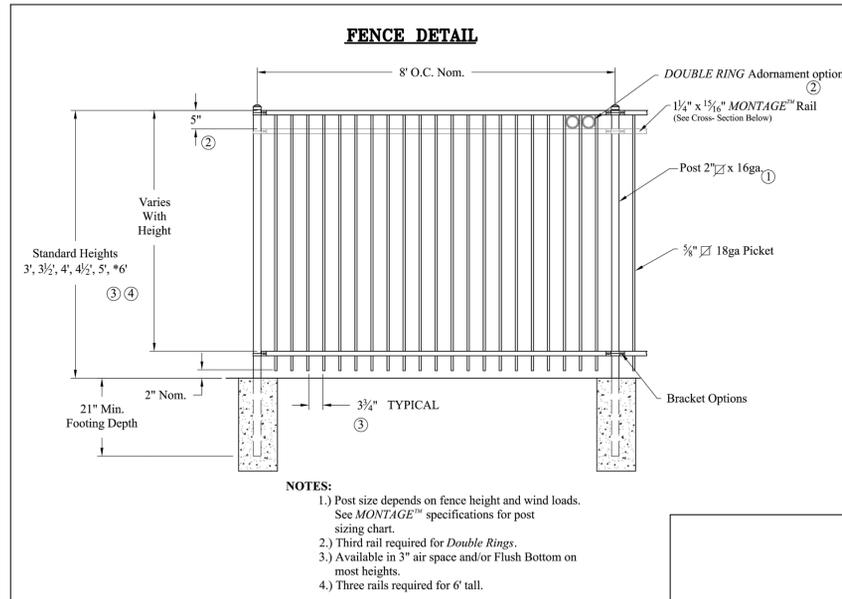
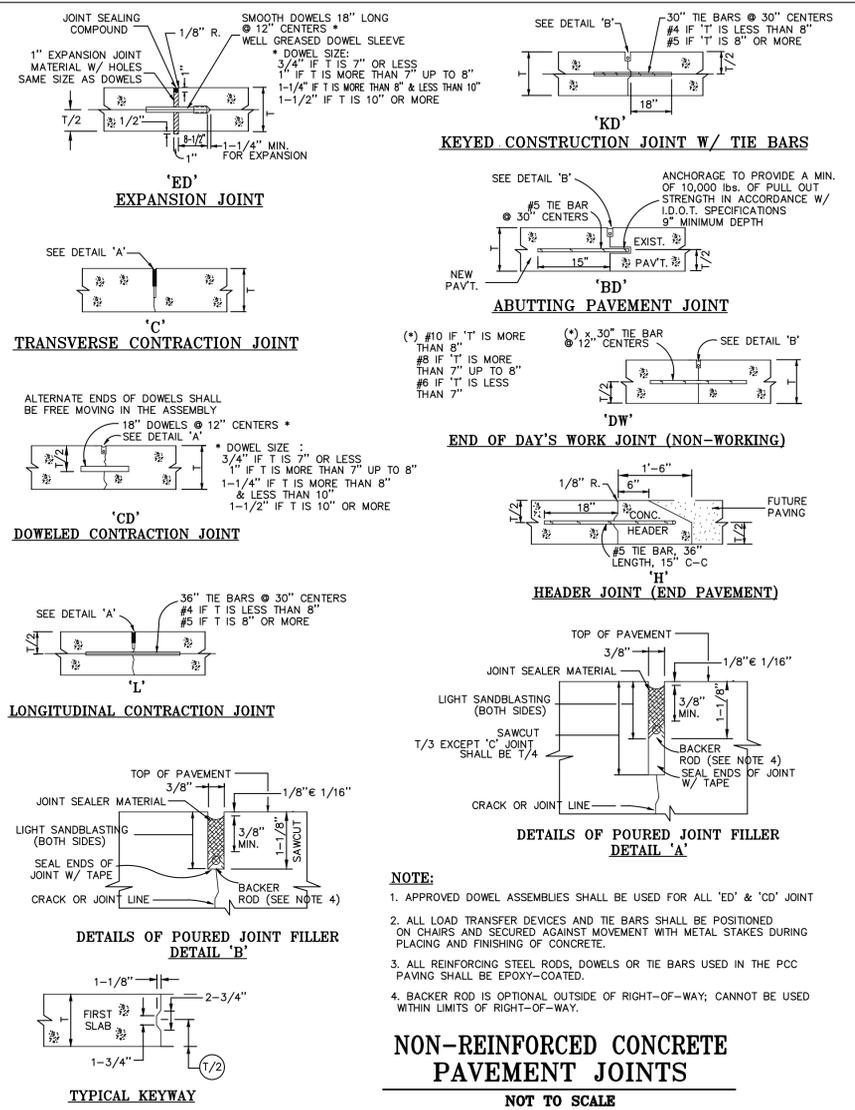
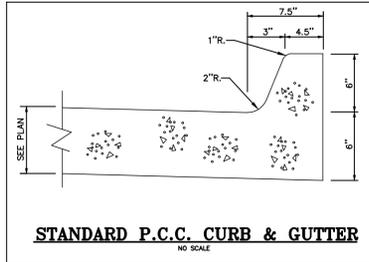
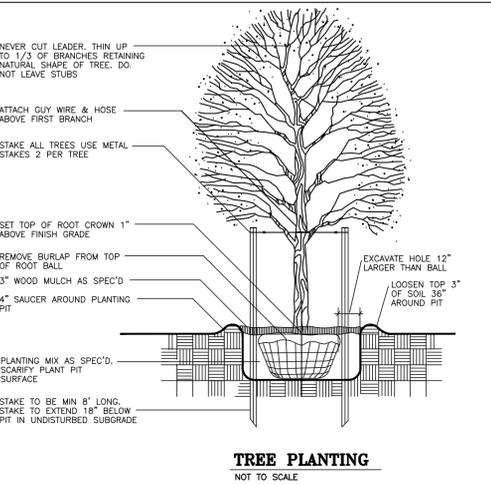
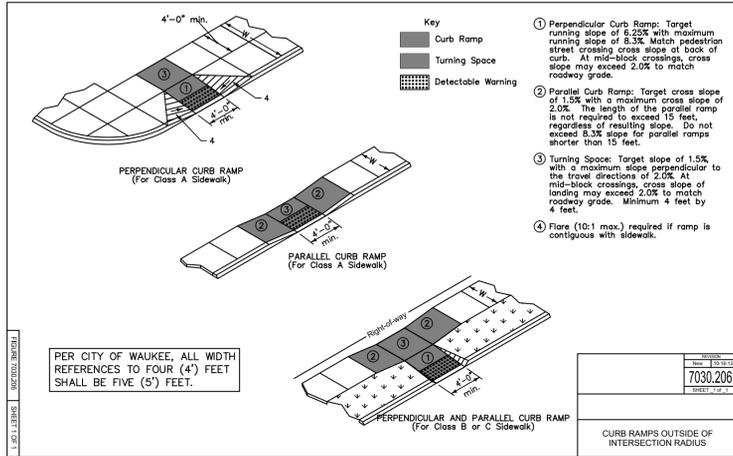
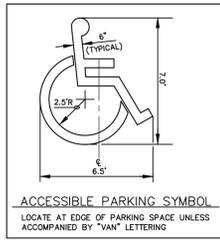
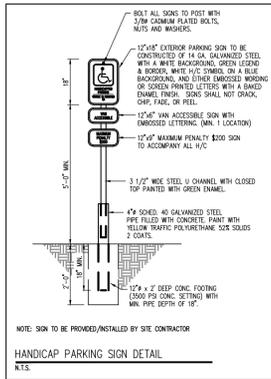
3

**GLYNN VILLAGE PLAT 10 POOL - UTILITY PLAN**

NO.	REVISION	DATE	BY	FOR	LOCATION	SCALE:	1" = 20'	DESIGNED BY:	URK	DRAWN BY:	BWS
						DWG:	15-227-UTL.dwg	CHECKED BY:	DJS	DATE:	10/07/16
										SHEET	3
										OF	5
										FIELD BOOK:	15-227

**FRG**  
Engineering Resources Group, Inc.  
Engineers and Surveyors  
2413 GRAND AVENUE  
DES MOINES, IOWA 50312  
(515) 286-4823





**GLYNN VILLAGE PLAT 10 POOL - DETAIL SHEET**

NO.	REVISION	DATE	BY	FOR	LOCATION	SCALE	1" = 20'	DESIGNED BY:	URK	DRAWN BY:	BWS
						DWG:	15-227-DTL.dwg	CHECKED BY:	DJS		10/07/16
						SHEET	5				15-227
						FIELD BOOK:					

**HRG**  
Engineering Resources Group, Inc.  
Engineers and Surveyors  
2413 GRAND AVENUE  
DES MOINES, IOWA 50312  
(515) 286-4823