BID AND PERMIT DOCUMENTS

League City Hometown Heroes Park Restroom Addition

League City, Texas

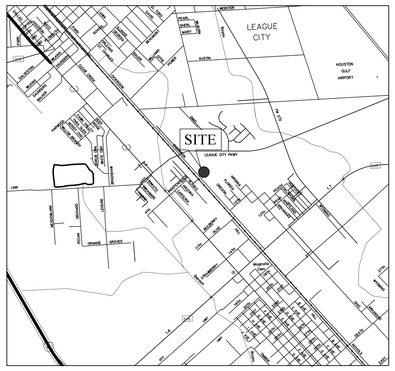
Park Address: 1001 East League City Parkway
League City, Texas 77573

League City Bid No.	ZCA Project No.	Date Issued
ITB 19-CIP-043	1108801	October 14, 2019
		for Bid and Permit

SURVEYOR
Dale L. Hardy - GeoSurv
P.O Box 246
League City, Texas 77574
(281) 554-7739 or (409) 765-6030
(281) 554-6928 Fax

STRUCTURAL ENGINEER
Schmitz Partners Engineers, PLLC
2825 Willcrest Dr.
Houston, Texas 77042
(281) 627-3006

ARCHITECT
Ziegler Cooper
700 Louisiana, Suite 350
Houston, Texas 77002
(713) 374-0000



VICINITY MAP
SCALE : 1" = 1/2 MILE
KEY MAP 659 P

CIVIL ENGINEER
Daniel/Scott Engineering, LLC
P.O. Box 1549
Alvin, Texas 77511
(281) 519-8530

MEP ENGINEER
Wright Engineering Services
9894 Bissonnet, Suite 389
Houston, Texas 77036
(713) 995-9139
(713) 995-0603 Fax

DRAWING INDEX

ARCHITECT
STEPHEN A. LUCCHESI
Texas Reg. No. 15,171

ZIEGLER COOPER
700 Louisiana St., Suite 350
Houston, Texas 77002
(713) 374-0000
www.zieglercooper.com

Hometown Heroes Park Restrooms
City of League City, Texas
1001 East League City Parkway
League City, Texas 77573

ISSUED
10-14-2019
ISSUED FOR BID AND PERMIT

REVISION:

DRAWN BY:	EK
CHECKED BY:	SAL
ZCA PROJ. NO.:	1108801

SHEET TITLE:
COVER SHEET

DRAWING NO.:
COVER

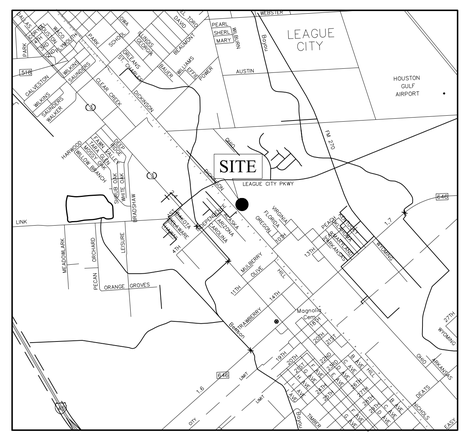
Hometown Heroes Park Restrooms
ZCA Project No. 1108801

LEAGUE CITY HOME TOWN HEROES PARK RESTROOM ADDITION

1001 EAST LEAGUE CITY PARKWAY

LEAGUE CITY, GALVESTON COUNTY, TEXAS

DRAWING INDEX



VICINITY MAP

SCALE : 1"= 1/2 MILE

KEY MAP 659 P

NOTES

1. ALL PROPOSED FILL WILL BE PLACED IN 8" MAXIMUM LIFTS AND COMPACTED TO 95% OF THE MAXIMUM STANDARD PROCTOR DENSITY AND THE MOISTURE CONTENT MUST BE WITHIN 3% OF THE OPTIMUM.
2. CONTRACTOR MUST VERIFY EXISTING CONDITIONS BEFORE COMMENCING ANY CONSTRUCTION.
3. ALL DISTURBED AREAS SHALL BE SODDED PRIOR TO SUBSTANTIAL COMPLETION OF THIS PROJECT.
4. CONTRACTOR IS RESPONSIBLE FOR REPAIRING ANY DAMAGE TO EXISTING INFRASTRUCTURE. NO SEPARATE PAY.
5. A GEOTECHNICAL REPORT WAS NOT PROVIDED BY CLIENT. WET SAND OR SATURATED SOIL MAY BE ENCOUNTERED WHILE INSTALLING PROPOSED WATER AND SEWER INFRASTRUCTURE. CONTRACTOR IS RESPONSIBLE FOR WELL POINTING/DE-WATERING AND USING ANY SPECIAL BEDDING OR BACKFILL NOTED IN LEAGUE CITY'S STANDARD DETAILS. NO SEPARATE PAY.

SURVEYOR:

Dale L. Hardy
GeoSurv
Registered Professional Land Surveyors

P.O. Box 246, League City, Texas 77574
281-554-7739 409-765-6030 Fax: 281-554-6928

ENGINEER:

DANIEL SCOTT ENGINEERING, LLC

P.O. BOX 1549, ALVIN, TX 77512 (281) 519-8530
TBPE F-9827 dan@danielscottengineenng.com

STATE OF TEXAS
SCOTT R. SHERIDAN
108881
LICENSED
PROFESSIONAL ENGINEER

OCTOBER 08, 2019

A PRE-CONSTRUCTION MEETING WITH THE CITY OF LEAGUE CITY ENGINEERING DEPARTMENT IS REQUIRED AT LEAST 10 WORKING DAYS PRIOR TO ON SITE CONSTRUCTION ACTIVITIES. CALL 281-554-1436 FOR A MEETING DATE AND TIME. A PRE-CONSTRUCTION MEETING FOR THIS PROJECT MAY NOT BE SCHEDULED AND CONSTRUCTION OF THE PROJECT MAY NOT COMMENCE PRIOR TO APPROVAL OF THESE PLANS BY THE CITY ENGINEER AS EVIDENCED BY HIS SIGNATURE.

REVIEW SIGNATURES

	DATE
PLANNING:	
ENGINEERING:	
ARBORIST:	
FIRE MARSHAL:	
WASTEWATER PRE-TREATMENT:	
BUILDING:	
UTILITY LINE REPAIR:	
FLOODPLAIN/STORMWATER COORDINATOR:	

The review signatures above for this set of plans in no way imply approval or acceptance and is purely a reflection of the City's review process.

CHRISTOPHER SIMS, P.E.
DIRECTOR OF ENGINEERING
CITY OF LEAGUE CITY

The signer of this set of plans has no objection to the design of these plans. Through the review process these plans have been found to be in general compliance with League City's "General Design and Construction Standards" manual and Construction Details. It should be noted that all calculations, measurements and overall line work within these plans should be checked and verified. This approval is good for 1 (one) year from the date of signing as shown. The plans submitted have been prepared, signed and sealed by a professional engineer licensed to practice engineering in the state of Texas, which conveys the engineer's responsibility and accountability. Design Engineer assumes all responsibility for any inconsistencies or imperfections in these plans.

LEAGUE CITY HOME TOWN HEROES PARK RESTROOM ADDITION

GENERAL NOTES: 4–2019

1. DESIGN AND CONSTRUCTION SHALL CONFORM TO THE CITY OF LEAGUE CITY GENERAL DESIGN AND CONSTRUCTION STANDARDS AND THE CITY OF LEAGUE CITY STANDARD DETAILS AS CURRENTLY AMENDED. CONTRACTOR SHALL OBTAIN (AND USE) COPY FROM THE CITY OF LEAGUE CITY.
2. THERE WILL BE NO SEPARATE PAYMENT FOR WORK SHOWN ON THESE PLANS, UNLESS SPECIFICALLY ESTABLISHED IN THE BID PROPOSAL SECTION OF THE CONTRACT DOCUMENTS. INCLUDE COST OF THIS WORK IN THE CONTRACT UNIT PRICE FOR ITEMS OF WHICH THIS WORK IS A COMPONENT OR INCIDENTAL.
3. EXISTING UTILITY INFORMATION SHOWN IS NOT GUARANTEED TO BE ACCURATE AND ALL INCLUSIVE. ALL EXISTING UTILITY LOCATIONS ARE APPROXIMATE AND SHOULD BE VERIFIED BY THE CONTRACTOR IN ADVANCE OF HIS CONSTRUCTION. ANY CONFLICT OR DISCREPANCY DISCOVERED MUST IMMEDIATELY BE BROUGHT TO THE ENGINEER'S ATTENTION.
4. ANY DAMAGE TO EXISTING PUBLIC UTILITIES MUST BE REPAIRED IMMEDIATELY. THE CONTRACTOR MUST NOTIFY THE APPROPRIATE UTILITY OWNER, WHO WILL MAKE THE REPAIRS AT THE CONTRACTOR'S EXPENSE.
5. THE CONTRACTOR ON BEHALF OF THE OWNER, SHALL OBTAIN ALL CONSTRUCTION PERMITS PRIOR TO THE COMMENCEMENT OF WORK.
6. THE WORK AREA SHALL BE BARRICADED AND ILLUMINATED DURING DARKNESS AND PERIODS OF INACTIVITY, WHEN IN AN AREA OF DIRECT PUBLIC ACCESS.
7. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE STORAGE OF MATERIAL AND EQUIPMENT IN A SAFE AND WORKMAN LIKE MANNER TO PREVENT INJURIES, DURING AND AFTER WORKING HOURS UNTIL PROJECT COMPLETION. THERE SHALL BE NO PAYMENT MADE TO THE CONTRACTOR FOR STORED MATERIAL.
8. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE SHIPPING OF ALL MATERIALS. THE LOADING AND UNLOADING OF ALL PIPE, VALVES, HYDRANTS, MANHOLES AND OTHER ACCESSORIES SHALL BE IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDED PRACTICES AND SHALL AT ALL TIMES BE PERFORMED WITH CARE TO AVOID ANY DAMAGE TO THE MATERIAL. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO EXAMINE SUCH MATERIAL AT THE POINT OF DELIVERY AND TO REJECT ALL DEFECTIVE MATERIAL. THE DEFECTIVE MATERIAL MUST BE REPLACED WITH SOUND MATERIAL.
9. ALL PIPE AND REINFORCEMENT STEEL SHALL BE KEPT FREE OF DIRT AND OTHER DEBRIS. ANY DAMAGE TO THE COATING OF THE VARIOUS MATERIALS MUST BE REPAIRED.
10. CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING ADEQUATE AND POSITIVE DRAINAGE AND TO INSURE NO BLOCKAGE OF EXISTING DRAINAGE WAYS AT ALL TIMES DURING CONSTRUCTION OF PROPOSED FACILITIES. NATURAL GROUND ADJACENT TO UTILITY TRENCH EXCAVATION TO BE GRUBBED PRIOR TO PLACEMENT OF EXCESS TRENCH MATERIAL. (NO SEPARATE PAY).
11. ACCESS TO ALL EXISTING STREETS AND DRIVEWAYS SHALL BE MAINTAINED AT ALL TIMES.
12. THE CONTRACTOR IS REQUIRED TO FOLLOW ALL APPLICABLE OSHA RULES AND REGULATIONS. TRENCH SAFETY SHALL BE DONE IN ACCORDANCE WITH OSHA 29 CFR PART 1926, AS PUBLISHED IN THE FEDERAL REGISTER OCTOBER 31, 1989, AND EFFECTIVE JANUARY 2, 1990, AND AMENDMENTS THERETO.
13. NO CONNECTIONS SHALL BE MADE TO THE EXISTING WATER LINES OR SANITARY SEWERS UNTIL ALL PROPOSED LINES OR SEWERS HAVE BEEN THOROUGHLY CLEANED, TESTED, AND APPROVED BY THE ENGINEER.
14. ALL GEOTECHNICAL REPORTS (IF ANY) FOR THIS PROJECT ARE AVAILABLE AT THE OFFICE OF THE ENGINEER.
15. SURFACE RESTORATION: AT THE END OF ALL CONSTRUCTION PROJECTS, THE CONTRACTOR SHALL RESTORE THE EXISTING FACILITIES, I.E., THE PROPERTY, INCLUDING DITCH, EQUAL TO OR BETTER THAN EXISTING SITE CONDITIONS PRIOR TO CONSTRUCTION. ALL DISTURBED AREA SHALL BE SEEDED PROPERLY.
16. FINAL ACCEPTANCE OF THE UTILITIES WILL NOT BE GIVEN TO THE CONTRACTOR UNTIL THEY ARE INSPECTED AND APPROVED BY THE CITY OF LEAGUE CITY.
17. ALL MANHOLES ARE TO BE CONSTRUCTED TO ALLOW FOR A MINIMUM OF 1 FOOT OF VERTICAL ADJUSTMENT.
18. ALL TRENCH EXCAVATION, BEDDING AND BACKFILL SHALL BE IN CONFORMANCE WITH THE CITY OF LEAGUE CITY STANDARD DETAILS – EXCAVATION AND BACKFILL FOR UTILITIES AND UTILITY BACKFILL MATERIAL SPECS.
19. ALL UTILITY TRENCHES UNDER OR WITHIN THREE FEET OF EXISTING, PROPOSED, AND/OR FUTURE PAVEMENT OR CURB SHALL BE BACKFILLED WITH NO LESS THAN 1–1/2 SACKS OF CEMENT PER TON OF CEMENT–STABILIZED SAND TO A POINT ONE FOOT BELOW PAVEMENT SUBGRADE. THE REMAINING BACKFILL SHALL BE MADE WITH COMPACTED SUITABLE MATERIAL.
20. THE USE OF WELL POINT SYSTEMS, WHEN REQUIRED BY TRENCH CONDITIONS, SHALL BE REQUESTED BY THE CONTRACTOR AND APPROVED BY THE ENGINEER.
21. CONTRACTOR SHALL PROTECT ALL TREES ADJACENT TO WORK AREA. NO TREES SHALL BE REMOVED WITHOUT PERMISSION OF OWNER.
22. CONTRACTOR SHALL PROVIDE MINIMUM CLEARANCES AT STORM SEWER, SANITARY SEWER AND WATER LINE CROSSINGS AS DESIGNED PER THE PLANS AND ACCORDING TO THE BEDDING AND BACKFILL DETAILS.
23. ALL AREAS DISTURBED ALONG SIDE AND BACK–OF–LOT EASEMENTS OR OTHER UNNECESSARY DISTURBANCES AS A RESULT OF CONSTRUCTION WORK SHALL BE SEEDED AND FERTILIZED IN ACCORDANCE WITH SEEDING SPECIFICATIONS (NO SEPARATE PAY).
24. EXCAVATE MUCK, ORGANIC MATERIAL AND UNSUITABLE SOIL PRIOR TO PLACING FILL. PLACE SUITABLE MATERIAL IN 8" MAXIMUM LOOSE LIFT AND COMPACT TO 95% STANDARD PROCTOR DENSITY.
25. ALL BACKFILL SHALL BE PLACED 8" LIFTS AND COMPACTED TO 95% STANDARD PROCTOR DENSITY AND BE TESTED BY AN APPROVED TESTING LAB.
26. ALL TRENCH BACKFILL SHALL HAVE AT LEAST ONE DENSITY TESTING ON EACH LIFT. ONLY STANDARD BACKFILL PROCEDURES ARE ALLOWED. ANY DEVIATION TO THIS STANDARD MUST BE APPROVED BY THE CITY OF LEAGUE CITY.
27. EXCEPT FOR WATER AND SANITARY SEWER FACILITIES, ALL PROPOSED FACILITIES MUST BE INSTALLED WITH A MINIMUM SEPARATION OF 4 FEET OUTSIDE TO OUTSIDE FROM ALL OTHER EXISTING OR PROPOSED FACILITIES.
28. ALL TESTING PROCEDURES USED ON THIS PROJECT SHALL CONFORM TO THE CITY OF LEAGUE CITY STANDARDS. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL TESTS REQUIRED. IF ANY TEST RESULTS DO NOT MEET THE TESTING STANDARDS, SUCH MATERIAL SHALL BE REMOVED AND REPLACED SO THAT THE TESTING STANDARDS CAN BE MET. COST OF TEST AND LABORATORY SERVICES SHALL BE INCIDENTAL AND INCLUDED IN UNIT PRICE OF BID ITEM. A COPY OF THE TEST RESULTS SHALL BE SUBMITTED TO THE ENGINEER AND THE CITY OF LEAGUE CITY.
29. ALL UNSATISFACTORY AND OR WASTE MATERIALS INCLUDING VEGETATION, ROOTS, CONCRETE AND DEBRIS SHALL BE DISPOSED OF OFFSITE BY THE CONTRACTOR, IN 100 YR AND 500 YR FLOOD ZONES EXCESS SPOIL DIRT SHALL BE REMOVED OFFSITE TO AN APPROVED LOCATION OR AS SHOWN PER ENGINEERED PLAN, NO DIRECT PAYMENT WILL BE MADE, BUT SHALL BE CONSIDERED AS INCIDENTAL TO THE VARIOUS BID PROPOSAL ITEMS.
30. UTILITY CONTRACTOR SHALL ADJUST RIM ELEVATIONS TO 0.3 FEET ABOVE THE FINISHED GRADE AT EACH MANHOLE LOCATION AFTER PAVEMENT CONTRACTOR HAS COMPLETED FINAL GRADING (NO SEPARATE PAY). SLOPED FILL SHALL BE ADDED FOR STORM WATER DRAINAGE AWAY FROM THE MANHOLE RIM.
31. CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING ADEQUATE FLAGMEN, SIGNING, STRIPING AND WARNING DEVICES, ETC., DURING CONSTRUCTION BOTH DAY AND NIGHT IN ACCORDANCE WITH THE "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES."
32. UTILITY CONTRACTOR SHALL AT COMPLETION OF HIS WORK FILL AND GRADE ALL UTILITY EASEMENTS (WET AND DRY) FOR POSITIVE DRAINAGE, AS DIRECTED BY THE OWNER. (NOT SEPARATE PAY)
33. CITY OF LEAGUE CITY SIGNATURES ARE VALID FOR 1 (ONE) YEARS ONLY AFTER DATE & SIGNING OF PLANS.
34. UTILITY CONTRACTOR SHALL PROVIDE TEMPORARY SILT BARRIER FENCE ON ALL NON–CURB INLETS WHICH WILL REMAIN IN PLACE AFTER UNDERGROUND CONTRACT IS COMPLETE.
35. CONTRACTOR SHALL CONTACT THE FOLLOWING A MINIMUM OF 48 HOURS PRIOR TO BEGINNING CONSTRUCTION.

A) CITY OF LEAGUE CITY PROJECT MANAGEMENT (281)–554–1439
B) CITY OF LEAGUE CITY FIRE MARSHALL (281)–554–1290
C) TEXAS ONE CALL SYSTEM 1–800–245–4545
D) LONE STAR NOTIFICATION CENTER 1–800–669–8344
E) TEXAS EXCAVATION SAFETY SYSTEM INC. 1–800–344–8377
F) EL PASO PIPELINE : MR. J.R. LOGAN (281)–331–4693
G) BP PIPELINE : MR. DARREL BARBO (409)–938–6995 (MOBIL) (281)–636–6747

36. CONTRACTOR SHALL VERIFY LOCATIONS AND ELEVATIONS OF EXISTING UTILITIES AND PAVEMENT BEFORE CONSTRUCTION. ANY VERIFICATIONS THAT ARE INCONSISTENT WITH THE PLANS NEED TO BE REPORTED TO THE ENGINEER BEFORE CONSTRUCTION BEGINS.
37. WITH CITY ENGINEERS APPROVAL, W. S. & D. SPOIL MAY BE SPREAD EVENLY IN THE STREET RIGHT–OF–WAY AFTER UTILITIES ARE IN PLACE.
38. THERE WILL BE NO ADDITIONAL COST FOR INSTALLING WATER LINES AND SEWERS UNDER EXISTING UTILITIES AND PIPELINE. INCLUDE COST OF THIS WORK IN THE CONTRACT UNIT PRICE FOR ITEMS OF WHICH THIS WORK IS A COMPONENT OR INCIDENTAL.
39. LAWS TO BE OBSERVED. THE DEVELOPER/CONTRACTOR SHALL MAKE HIMSELF FAMILIAR WITH AND AT ALL TIMES SHALL OBSERVE AND COMPLY WITH ALL FEDERAL, STATE, AND LOCAL LAWS, ORDINANCES, AND REGULATIONS WHICH IN ANY MANNER AFFECT THE CONDUCT OF THE WORK AND SHALL INDEMNIFY AND SAVE HARMLESS THE CITY AND ITS REPRESENTATIVES AGAINST ANY CLAIM ARISING FROM THE VIOLATION OF ANY SUCH LAW, ORDINANCE, OR REGULATIONS, WHETHER BY HIMSELF OR BY HIS EMPLOYEES.
40. CONTRACTOR SHALL REMOVE ALL MUD, DIRT, AND DEBRIS DEPOSITED ON EXISTING PAVEMENT DUE TO HIS CONSTRUCTION ACTIVITY DAILY.
41. CONTRACTOR SHALL CONTACT THE WATER UTILITY DEPARTMENT AT 281–554–1390 TO COORDINATE VALVE OPERATIONS FOR PROPOSED TIE–INS.
42. DISPOSAL OF EXCESS EXCAVATION MATERIAL SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR. DISPOSAL OF EXCESS EXCAVATION MATERIAL WITHIN LEAGUE CITY SHALL COMPLY WITH ORDINANCE 2009–25 ARTICLE 2.

WATER CONSTRUCTION NOTES: 1–2015

1. WATER MAINS SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE CITY OF LEAGUE CITY GENERAL DESIGN AND CONSTRUCTION STANDARDS AND THE CITY OF LEAGUE CITY STANDARD DETAILS AS CURRENTLY AMENDED.
2. ALL WATERLINES ARE TO BE HYDROSTATICALLY TESTED BY THE CONTRACTOR IN ACCORDANCE WITH CITY OF LEAGUE CITY CRITERIA.
3. PIPE MATERIAL SHALL BE PVC WATER PIPE AWWA C900 (DR 18) FOR SIZES 6" THROUGH 12" OR C905 (DR 18) FOR SIZES 14" THRU 24", DUCTILE IRON PIPE FOR SIZES 6" THROUGH 36", 'STEEL CYLINDER CONCRETE PIPE (CLASS 150) FOR SIZES OVER 48" IN CONFORMANCE WITH MATERIAL SPECIFICATION OF THE CITY OF LEAGUE CITY. (ANY OTHER MATERIAL OR SIZES TO BE SUBMITTED FOR APPROVAL).
4. ALL WATER VALVES SHALL OPEN COUNTER CLOCKWISE. ALL WATER VALVES SHALL BE SUPPLIED AND INSTALLED IN ACCORDANCE WITH THE LATEST EDITION OF AWWA C–500 AND SHALL BE OF THE RESILIENT SEAT TYPE.
5. ALL FLANGES BELOW GRADE SHALL BE INSULATED.
6. ALL WATERLINES SHALL BE ENCASED IN BANK SAND TO AT LEAST 12" ABOVE THE PIPE. COST OF BANK SAND TO BE INCLUDED IN UNIT PRICE OF WATERLINE.
7. WATERLINE TRENCHES UNDER PAVEMENT OR WITHIN THREE (3) FOOT OF PROPOSED CURBS SHALL BE BACKFILLED WITH CEMENT STABILIZED SAND (NO LESS THAN 1–1/2 SACK/PER TON) UP TO WITHIN ONE FOOT OF PAVEMENT. COST OF BACKFILL SHALL NOT BE PAID DIRECTLY BUT SHALL BE INCLUDED IN THE UNIT PRICE OF WATERLINE.
8. ALL FLUSHING VALVES SHALL BE LOCATED A MIN. OF 3' BACK OF CURB, ON CURB AND GUTTER STREETS. ON STREETS HAVING NO CURB, THE FLUSHING VALVE SHALL BE LOCATED INSIDE THE RIGHT–OF–WAY OR ADJACENT EASEMENT.
9. WATERLINE SHALL BE CONSTRUCTED SUCH THAT ALL CROSSES AND TEES WILL NOT BE LOCATED UNDER PROPOSED OR FUTURE PAVING.
10. UTILITY CONTRACTOR TO TURN FLUSHING VALVES AND ALL FINAL ADJUSTMENTS AFTER COMPLETION OF PAVING. NO SEPARATE PAY.
11. SANITARY PRECAUTIONS MUST BE TAKEN DURING WATERLINE CONSTRUCTION, AS CALLED FOR BY AWWA STANDARDS. PRECAUTIONS INCLUDE KEEPING PIPE CLEAN AND CAPPING OR OTHERWISE EFFECTIVELY COVERING OPEN PIPE ENDS TO EXCLUDE INSECTS, ANIMALS OR OTHER SOURCES OF CONTAMINATION FROM UNFINISHED PIPE LINES AT TIMES WHEN CONSTRUCTION IS NOT IN PROGRESS.
12. ALL NEWLY INSTALLED PIPES, COATINGS AND RELATED PRODUCTS MUST CONFORM TO AMERICAN NATIONAL STANDARDS INSTITUTE/NATIONAL SANITATION FOUNDATION (ANSI/NSF) STANDARDS AND MUST BE CERTIFIED BY AN ORGANIZATION ACCREDITED BY ANSI.
13. ALL DUCTILE IRON PIPE WATERLINE SHALL HAVE BEDDING AND BACKFILL EMBEDMENT IN ACCORDANCE WITH THE CITY OF LEAGUE CITY DETAILS AND DESIGN AND SPECIFICATIONS AS CURRENTLY AMENDED.
14. WATER MAINS SHALL HAVE MINIMUM OF 4' COVER FROM TOP OF CURB. EXCEPT 16" AND LARGER WATER LINES SHALL HAVE MINIMUM OF 5' COVER FROM TOP OF CURB.
15. FLUSHING VALVE UNIT CONSISTS OF: MAIN LINE SIZE X 6" TEE, 6" PVC PIPE LEAD, 6" GATE VALVE WITH BOX, AND ONE FLUSHING VALVE WITH 4' MIN. BURY. ANY OTHER PIPE MATERIAL SHALL BE IN ACCORDANCE WITH THE CITY'S DESIGN AND CONSTRUCTION STANDARDS MANUAL.
16. WATER & SANITARY SEWER THAT ARE PARALLEL MUST BE INSTALLED IN SEPARATE TRENCHES WITH NO LESS THAN 9' (NINE FEET) MIN. HORIZONTAL CLEARANCE. SEE LEAGUE CITY DETAIL SANITARY SEWER INSTALLATION CROSSING OR PARALLEL TO WATER LINE.
17. UNLESS MANHOLES CAN BE MADE WATERTIGHT AND TESTED FOR NO LEAKAGE THEY MUST BE INSTALLED SO AS TO PROVIDE A MINIMUM OF NINE FEET OF HORIZONTAL CLEARANCE FROM AN EXISTING OR PROPOSED WATER LINE. IF THE NINE FOOT SEPARATION DISTANCE CANNOT BE ACHIEVED, THE WATERLINE MUST BE ENCASED IN A JOINT OF 150 PSI PRESSURE CLASS PIPE AT LEAST 18 FEET LONG AND TWO NOMINAL SIZES LARGER THAN THE WATERLINE. THE SPACE AROUND THE CARRIER PIPE SHALL BE SUPPORTED AT 5 FOOT INTERVALS WITH SPACERS OR BE FILLED TO THE SPRINGLINE WITH WASHED SAND. THE ENCASEMENT PIPE SHALL BE CENTERED ON THE CROSSING AND BOTH ENDS SEALED WITH CEMENT GROUT OR MANUFACTURED SEAL."
18. COMPLETED WATERLINES MUST BE DISINFECTED IN ACCORDANCE WITH AWWA STANDARD C651, "DISINFECTING WATER MAINS."
19. IF CLEARANCE IS BETWEEN SIX (6) INCHES TO TWO (2) FEET ONE 20 FOOT JOINT OF C–900 PVC, 150 PSI WATERLINE SHALL BE CENTERED AT SANITARY CROSSING.
20. ALL STUB OUTS AND THEIR FITTINGS FOR FUTURE WATER MAIN AND LATERAL EXTENSIONS SHALL BE MECHANICALLY RESTRAINED WITH MEGA–LUG, UNI–FLANGE OR APPROVED EQUAL RESTRAINT DEVICES.
21. ALL WATER LINES ON PRIVATE PROPERTY AND/OR UNDER PAVEMENT SHALL BE RESTRAINED.

SANITARY SEWER CONSTRUCTION NOTES: 1–2015

1. ALL SANITARY SEWER BEDDING SHALL BE AS PER THE CITY OF LEAGUE CITY GENERAL DESIGN AND CONSTRUCTION STANDARDS AND THE CITY OF LEAGUE CITY STANDARD DETAILS AS CURRENTLY AMENDED UNLESS OTHERWISE INDICATED.
2. ALLOWABLE SANITARY SEWER PIPE MATERIAL FOR GRAVITY LINES SHALL BE POLYVINYL CHLORIDE (PVC) OR AS APPROVED BY CITY ENGINEER:
   6–INCH TO 15–INCH: ASTM D–3034, SDR 26 (ALSO SEE SECTION 507.2 OF THE CITY OF LEAGUE CITY GENERAL DESIGN AND CONSTRUCTION STANDARDS MANUAL.)
   B. ALL AUGURED CONSTRUCTION UNDER PAVEMENT SHALL BE CASED PER DETAIL AND ITEM 407.13.2 OF THE GENERAL DESIGN AND CONSTRUCTION STANDARDS MANUAL.
3. IN WET OR DRY STABLE TRENCH CONSTRUCTION FOR SANITARY SEWER, BEDDING AND BACKFILL SHALL BE PER CITY OF LEAGUE CITY STANDARD DETAILS AS CURRENTLY AMENDED.
4. DEFLECTION TESTING OF THE GRAVITY SEWER LINE SHALL BE CONDUCTED AFTER THE FINAL BACKFILL HAS BEEN IN PLACE AT LEAST 30 DAYS. NO PIPE SHALL EXCEED A DEFLECTION OF 5.0%. THE DEFLECTION TEST SHALL BE CONDUCTED USING A RIGID MANDREL HAVING AN OUTSIDE DIAMETER EQUAL TO 95% OF THE INSIDE DIAMETER OF THE PIPE. THE TEST SHALL BE PERFORMED WITHOUT MECHANICAL PULLING DEVICES. I. & E. TEST FOR SANITARY SEWER SYSTEM WILL BE IN ACCORDANCE WITH CITY OF LEAGUE CITY REQUIREMENTS, FOR LOW PRESSURE AIR TEST AS PER TAC 317.2
5. CHEMICALLY WELDED SANITARY SEWER JOINTS ARE NOT ACCEPTABLE. USE RUBBER GASKETED BELL & SPIGOT SANITARY SEWER JOINTS.
6. ALL SANITARY SEWER ADAPTERS REQUIRED TO CONNECT TO EXISTING SANITARY SEWERS ARE INCIDENTAL TO THE BID ITEM FOR SANITARY SEWER PIPE.
7. MANHOLES (AS DESIGNATED ON PLAN & PROFILE) SHALL INCLUDE INFLOW PROTECTORS WHICH SHALL BE INCIDENTAL TO CONSTRUCTION OF MANHOLES. (NO SEPARATE PAY)
8. UNLESS APPROVED
   PRECAST REINFORCED CONCRETE 4' TO 8' DIAMETER MOOR–TEX MANHOLE OR EQUAL IN ACCORDANCE WITH CITY OF LEAGUE CITY STANDARDS.
   NO CAST IN PLACE MANHOLES SHALL BE USED. ALL SANITARY MANHOLES SHALL BE
9. UNIT PRICE FOR AUGER SECTION AND AUGER PIT INCLUDE DRY OR WET CONDITION. (NO EXTRA PAY)
10. THE TOTAL FOOTAGE OF LINE 36" AND SMALLER SHALL BE INSPECTED WITH TELEVISION EQUIPMENT IN ACCORDANCE WITH THE CITY OF LEAGUE CITY GENERAL DESIGN AND CONSTRUCTION STANDARDS AS CURRENTLY AMENDED.
11. CONTRACTOR SHALL TEST ALL SANITARY SEWER SYSTEMS IN ACCORDANCE WITH THE CITY OF LEAGUE CITY GENERAL DESIGN AND CONSTRUCTION STANDARDS AS CURRENTLY AMENDED.
12. CONTRACTOR SHALL AIR TEST ALL GRAVITY SANITARY SEWER LINES. FORCE MAIN LINES SHALL BE HYDROSTATICALLY TESTED AT 125 PSI.
13. WATER & SANITARY SEWER THAT ARE PARALLEL MUST BE INSTALLED IN SEPARATE TRENCHES WITH NO LESS THAN 9' (NINE FEET) MIN. HORIZONTAL CLEARANCE. SEE LEAGUE CITY DETAIL SANITARY SEWER INSTALLATION CROSSING OR PARALLEL TO WATER LINE.

STORM WATER POLLUTION PREVENTION: 5–2016

1. IF THE SWPPP IS CHANGED AFTER THE CITY HAS APPROVED THE PLAN SET, THE CONTRACTOR MUST RESUBMIT CHANGES TO THE STORM WATER INSPECTOR FOR APPROVAL BEFORE CHANGES ARE MADE ON–SITE.
2. THE CONTRACTOR SHALL MAINTAIN SILT FENCING AND SEDIMENT DEVICES AT ALL TIMES AND DO AN INSPECTION EVERY 7 DAYS AND/OR WITHIN 24 HOURS OF THE END OF A RAINFALL EVENT. ALL EROSION CONTROL DEVICES SHOULD BE CLEANED AND REPAIRED IN ACCORDANCE WITH THE FOLLOWING:
   A. SILT FENCING &SEDIMENT DEVICES SHALL BE REPAIRED OR REPLACED IF THEY SHOW SIGNS OF UNDERMINING, OR SHALL BE REPLACED IF THE SHOW SIGNS OF DETERIORATION.
   B. ALL SEEDED AREAS SHALL BE CHECKED REGULARLY TO SEE THAT A GOOD STAND IS MAINTAINED. AREAS SHOULD BE FERTILIZED AND RESEEDED AS NEEDED.
   C. SILT FENCING SHALL BE REPAIRED TO THEIR ORIGINAL CONDITIONS IF DAMAGED. SEDIMENT SHALL BE REMOVED FROM THE SILT FENCING WHEN IT REACHES ONE–THIRD TO ONE–HALF THE HEIGHT OF THE SILT FENCE.
   D. THE CONSTRUCTION ENTRANCES SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOW OF MUD ONTO A RIGHT–OF–WAY. THIS MAY REQUIRE PERIODIC TOP DRESSING OF THE CONSTRUCTION ENTRANCES AS CONDITIONS DEMAND.
   E. THE TEMPORARY PARKING AND STORAGE AREA SHALL BE KEPT IN GOOD CONDITION (SUITABLE FOR PARKING AND STORAGE). THIS MAY REQUIRE PERIODIC TOP DRESSING OF TEMPORARY PARKING AS CONDITIONS DEMAND.
3. A FINAL CO SHALL NOT BE ISSUED UNTIL ALL EROSION AND SEDIMENT CONTROL DEVICES ARE REMOVED.
4. CONTRACTOR WILL SWEEP STREETS AND CURB LINES ONCE A DAY UNTIL ALL CONCRETE/PAVING IS IN PLACE. ALL MATERIAL SPILLED, DROPPED, WASHED OR TRACKED FROM VEHICLES ONTO ROADWAYS OR INTO STORM DRAINS MUST BE REMOVED IMMEDIATELY.
5. ALL CONTRACTORS AND SUBCONTRACTORS INVOLVED WITH STORM WATER POLLUTION PREVENTION SHALL OBTAIN A COPY OF THE STORM WATER POLLUTION PREVENTION PLAN AND THE STATE OF TEXAS NATIONAL POLLUTION DISCHARGE ELIMINATION SYSTEMS GENERAL PERMIT (NPDES PERMIT) AND BECOME FAMILIAR WITH THEIR CONTENTS.
6. MUST KEEP DUMPSTERS CLEAN AND ALL TRASH PICKED UP ON PROJECT SITE AT ALL TIMES.
7. ALL WASH WATER (CONCRETE TRUCKS, VEHICLE CLEANING, EQUIPMENT CLEANING, ETC.) SHALL BE DISPOSED OF IN A MATTER THAT PREVENTS CONTACT BETWEEN THESE MATERIALS AND STORM WATER THAT IS DISCHARGED FROM THE SITE.
8. MAINTAIN OR HAVE READILY AVAILABLE SUFFICIENT OIL AND GREASE ABSORBING MATERIALS AND FLOTATION BOOMS TO CONTAIN AND CLEAN UP FUEL OR CHEMICAL SPILLS AND LEAKS.
9. DUST SHALL BE CONTROLLED BY SPRAYING WATER ON DRY AREAS OF THE SITE. THE USE OF MOTOR OILS AND OTHER PETROLEUM BASED OR TOXIC LIQUIDS FOR DUST SUPPRESSION OPERATIONS IS PROHIBITED.
10. NO RUBBISH, TRASH, GARBAGE OR OTHER SUCH MATERIALS SHALL BE DISCHARGED INTO DRAINAGE DITCHES OR WATERS OF THE STATE.
11. ALL STORM WATER POLLUTION PREVENTION MEASURES PRESENTED ON THIS PLAN, AND IN THE STORM WATER POLLUTION PREVENTION PLAN, SHALL BE INITIATED AS SOON AS PRACTICABLE.
12. DISTURBED PORTIONS OF THE SITE WHERE CONSTRUCTION ACTIVITY WILL STOP FOR AT LEAST 21 DAYS SHALL BE TEMPORARILY SEEDED WITHIN 14 DAYS.
13. DISTURBED PORTIONS OF THE SITE WHERE CONSTRUCTION ACTIVITY HAS PERMANENTLY STOPPED SHALL BE PERMANENTLY SEEDED. THESE AREAS SHALL BE SEEDED NO LATER THAN 14 DAYS AFTER THE LAST CONSTRUCTION ACTIVITY OCCURRING IN THESE AREAS. REFER TO THE LANDSCAPING PLAN.
14. CONTRACTORS OR SUBCONTRACTORS WILL BE RESPONSIBLE FOR REMOVING SEDIMENT IN THE DETENTION POND AFTER THE STABILIZATION OF THE SITE AND ANY SEDIMENT THAT MAY HAVE COLLECTED IN THE STORM SEWER DRAINAGE SYSTEMS.
15. IF SOIL STOCKPILING IS EMPLOYED ON THIS SITE, SILT FENCES SHALL BE USED TO HELP CONTAIN THE SEDIMENT.
16. SEDIMENT BASINS ARE ATTRACTIVE TO CHILDREN AND CAN BE VERY DANGEROUS. IN ALL CASES, LOCAL ORDINANCES AND REGULATIONS REGARDING HEALTH AND SAFETY MUST BE ADHERED TO.
17. DURING THE DEVELOPMENT OF THE PROJECT, THE CONTRACTOR SHALL BE RESPONSIBLE FOR ADJUSTING THE EROSION CONTROL MEASURES (SILT FENCES, STRAW BALES, ETC.) TO HELP PREVENT EROSION AND STORM WATER POLLUTION. THE LEAGUE CITY STORM WATER INSPECTOR SHALL HAVE FINAL APPROVAL OF ANY CHANGES MADE TO THE EROSION CONTROL MEASURES.
18. ALL OFF–SITE CONSTRUCTION SHALL BE STABILIZED AT THE END OF EACH WORKING DAY; THIS INCLUDES BACKFILLING OF TRENCHES FOR STORM DRAINS & UTILITY CONSTRUCTION AND PLACEMENT OF GRAVEL OR BITUMINOUS PAVING FOR ROAD CONSTRUCTION.

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dse@danielscottengineering.com

LEAGUE CITY HOME TOWN HEROES PARK RESTROOM ADDITION
LEAGUE CITY, GALVESTON COUNTY, TEXAS

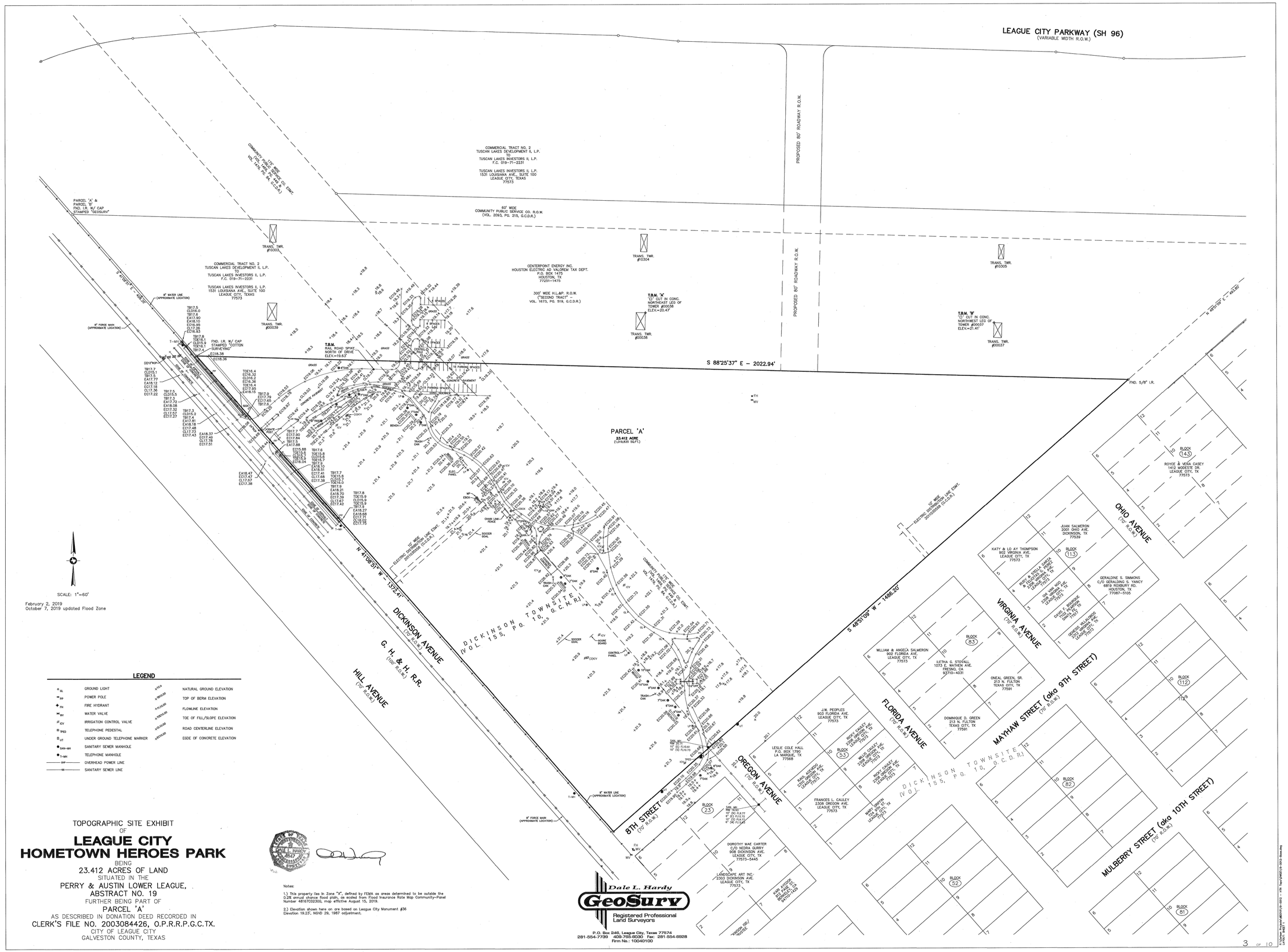
GENERAL CONSTRUCTION NOTES

DRAWING SCALE
HORZ: 1"=60'
VERT: NA

Project No.
DSE19-006

Drawing No.
DSE1900G-500

STATE OF TEXAS
SCOTT R. SHERIDAN
108881
LICENSED
PROFESSIONAL ENGINEER
OCTOBER 08, 2019



LEGEND

GL	GROUND LIGHT	+10.0	NATURAL GROUND ELEVATION
PP	POWER POLE	+TB15.50	TOP OF BERM ELEVATION
FH	FIRE HYDRANT	+FL10.50	FLOWLINE ELEVATION
WV	WATER VALVE	+TOE15.50	TOE OF FILL/SLOPE ELEVATION
ICV	IRRIGATION CONTROL VALVE	+TC15.50	ROAD CENTERLINE ELEVATION
TPED	TELEPHONE PEDESTAL	+EC15.50	EDGE OF CONCRETE ELEVATION
UT	UNDER GROUND TELEPHONE MARKER		
SAN-MH	SANITARY SEWER MANHOLE		
T-MH	TELEPHONE MANHOLE		
OHP	OVERHEAD POWER LINE		
SS	SANITARY SEWER LINE		

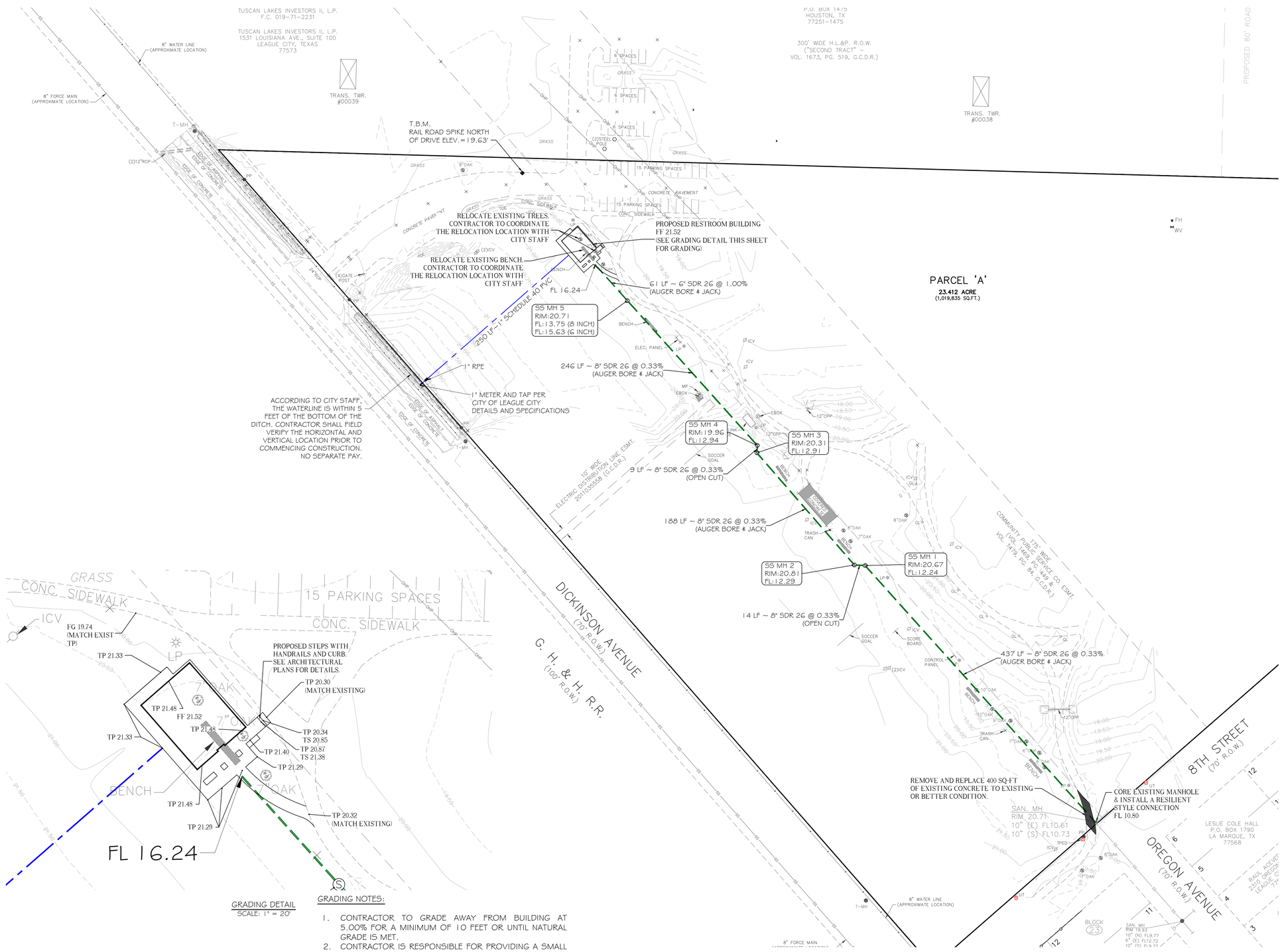
TOPOGRAPHIC SITE EXHIBIT
OF
LEAGUE CITY HOMETOWN HEROES PARK
BEING
23.412 ACRES OF LAND
SITUATED IN THE
PERRY & AUSTIN LOWER LEAGUE,
ABSTRACT NO. 19
FURTHER BEING PART OF
PARCEL 'A'
AS DESCRIBED IN DONATION DEED RECORDED IN
CLERK'S FILE NO. 2003084426, O.P.R.R.P.G.C.TX.
CITY OF LEAGUE CITY
GALVESTON COUNTY, TEXAS

Notes:

1.) This property lies in Zone "X", defined by FEMA as areas determined to be outside the 0.2% annual chance flood plain, as scaled from Flood Insurance Rate Map Community-Panel Number 48167C0230G, map effective August 15, 2019.

2.) Elevation shown here on are based on League City Monument #36 Elevation 19.23', NGVD 29, 1987 adjustment.

Dale L. Hardy
GeoSurv
Registered Professional Land Surveyors
P.O. Box 246, League City, Texas 77574
281-554-7735 409-765-6030 Fax: 281-554-8928
Firm No.: 10040100



GRADING DETAIL
SCALE: 1" = 20'

GRADING NOTES:

1. CONTRACTOR TO GRADE AWAY FROM BUILDING AT 5.00% FOR A MINIMUM OF 10 FEET OR UNTIL NATURAL GRADE IS MET.
2. CONTRACTOR IS RESPONSIBLE FOR PROVIDING A SMALL SWALE AROUND THE FILL AREA SO THAT THE SHEET FLOW THAT ORIGINALLY FLOWED TOWARDS THE PROJECT AREA WILL DRAIN.

60 0 30 60 60

SCALE: 1"=60'

BENCHMARK

CITY OF LEAGUE CITY MONUMENT #36 (3/4" IRON ROD SET IN THE CONCRETE DRIVEWAY OF COUNTRY KINGDOM MONTESSORI SCHOOL & DAY CARE, +/- 425' WEST, ALONG POWER ST, FROM THE INTERSECTION OF POWER ST. AND TEXAS AVENUE), ELEVATION = 19.24', NGVD 1929, 1987 ADJUSTMENT.

TEMPORARY BENCHMARK (TBM)

A RAIL ROAD SPIKE NORTH OF DRIVE ELEV.=19.63 AS SHOWN ON PLANS

NOTES

1. ALL PROPOSED FILL WILL BE PLACED IN 8" MAXIMUM LIFTS AND COMPACTED TO 95% OF THE MAXIMUM STANDARD PROCTOR DENSITY AND THE MOISTURE CONTENT MUST BE WITHIN 3% OF THE OPTIMUM.
2. CONTRACTOR MUST VERIFY EXISTING CONDITIONS BEFORE COMMENCING ANY CONSTRUCTION.
3. ALL DISTURBED AREAS SHALL BE SODDED PRIOR TO SUBSTANTIAL COMPLETION OF THIS PROJECT.

LEGEND

AC	ACRES
BL	BUILDING LINE
BSSO	BACK SLOPE SWALE OUTFALL
CFS	CUBIC FEET PER SECOND (FLOW RATE)
CMP	CORRUGATED METAL PIPE
CPC	CONCRETE PILOT CHANNEL
DDBP	DOUBLE CHECK BACKFLOW PREVENTER ASSEMBLY
DE	DRAINAGE EASEMENT
EL	ELEVATION
EO	EMERGENCY OVERFLOW
EXIST	EXISTING
FG	FINISHED GRADE
FL 46.27	FLOWLINE ELEVATION
FF	MINIMUM FINISHED FLOOR
HDPE	HIGH DENSITY POLYETHYLENE PIPE
JB	JUNCTION BOX
LSE	LANDSCAPE EASEMENT
MB	MAINTENANCE BERM
MH	MANHOLE
PP	POWER POLE
PROP	PROPOSED
PBM	PROJECT BENCHMARK NUMBER
PVMT	PAVEMENT
RCB	REINFORCED CONCRETE BOX
RCP	REINFORCED CONCRETE PIPE
ROW	RIGHT OF WAY
RPE	REDUCED PRESSURE BACKFLOW PREVENTER
SDR	SLENDER DIAMETER RATIO PIPE
SSE	SANITARY SEWER EASEMENT
STRM	STORM
TC	PROPOSED TOP OF CURB
TG	PROPOSED TOP OF GRATE
TP	PROPOSED TOP OF PAVEMENT
TS	PROPOSED TOP OF STEPS

FLOOD STATEMENT

THIS PROPERTY LIES IN ZONE "X", AN AREA OF MINIMAL FLOOD HAZARD ACCORDING TO FEMA, AS SCALED FROM FLOOD INSURANCE RATE MAP NUMBER 48167C0230G, MAP EFFECTIVE AUGUST 15, 2019.

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LEAGUE CITY HOME TOWN HEROES PARK RESTROOM ADDITION

LEAGUE CITY, GALVESTON COUNTY, TEXAS

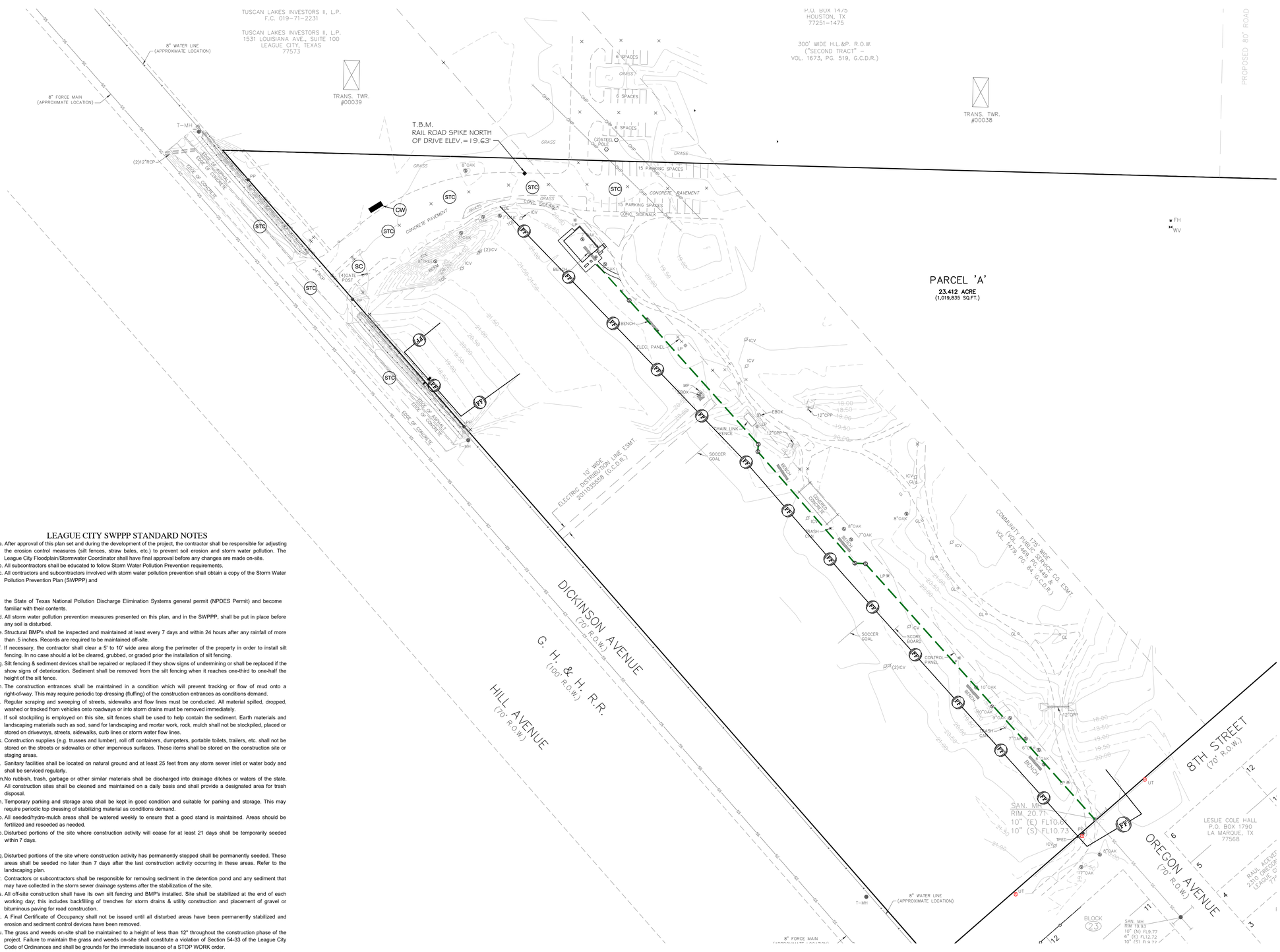
UTILITY AND GRADING PLAN

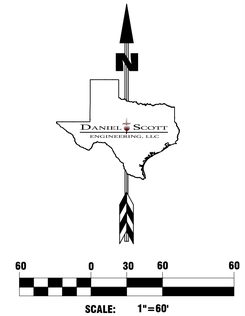
DRAWING SCALE
HORZ: 1"=60'
VERT: NA

Project No.
DSE19-006

Drawing No.
DSE19006-202

STATE OF TEXAS
SCOTT R. SHERIDAN
108881
LICENSED
PROFESSIONAL ENGINEER
OCTOBER 08, 2019





NOTES

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2. CONTRACTOR MUST VERIFY EXISTING CONDITIONS BEFORE COMMENCING ANY CONSTRUCTION.
3. ALL DISTURBED AREAS SHALL BE SODDED PRIOR TO SUBSTANTIAL COMPLETION OF THIS PROJECT.
4. CONTRACTOR IS RESPONSIBLE FOR FILING ALL NOTICES WITH TCEQ AND THE CITY OR ANY OTHER REGULATORY AGENCY.

LEGEND

AC	ACRES
BL	BUILDING LINE
BSSO	BACK SLOPE SWALE OUTFALL
CFS	CUBIC FEET PER SECOND (FLOW RATE)
CMP	CORRUGATED METAL PIPE
CPC	CONCRETE PILOT CHANNEL
DDBP	DOUBLE CHECK BACKFLOW PREVENTER ASSEMBLY
DE	DRAINAGE EASEMENT
EL	ELEVATION
EO	EMERGENCY OVERFLOW
EXIST	EXISTING
FG	FINISHED GRADE
FL 46.27	FLOWLINE ELEVATION
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RCP	REINFORCED CONCRETE PIPE
ROW	RIGHT OF WAY
RPE	REDUCED PRESSURE BACKFLOW PREVENTER
SDR	SLENDER DIAMETER RATIO PIPE
SSE	SANITARY SEWER EASEMENT
STRM	STORM
TC	PROPOSED TOP OF CURB
TG	PROPOSED TOP OF GRATE
TF	PROPOSED TOP OF PAVEMENT
STC	LOCATION OF DAILY STREET SWEEPING/CLEANING
CW	CONCRETE TRUCK WASHOUT
SC	STABILIZED CONSTRUCTION EXIT (USE EXISTING CONCRETE PAVEMENT)
FF	REINFORCED FILTER FABRIC BARRIER

LEAGUE CITY SWPPP STANDARD NOTES

a. After approval of this plan set and during the development of the project, the contractor shall be responsible for adjusting the erosion control measures (silt fences, straw bales, etc.) to prevent soil erosion and storm water pollution. The League City Floodplain/Stormwater Coordinator shall have final approval before any changes are made on-site.
b. All subcontractors shall be educated to follow Storm Water Pollution Prevention requirements.
c. All contractors and subcontractors involved with storm water pollution prevention shall obtain a copy of the Storm Water Pollution Prevention Plan (SWPPP) and

the State of Texas National Pollution Discharge Elimination Systems general permit (NPDES Permit) and become familiar with their contents.

d. All storm water pollution prevention measures presented on this plan, and in the SWPPP, shall be put in place before any soil is disturbed.
e. Structural BMP's shall be inspected and maintained at least every 7 days and within 24 hours after any rainfall of more than .5 inches. Records are required to be maintained off-site.
f. If necessary, the contractor shall clear a 5' to 10' wide area along the perimeter of the property in order to install silt fencing. In no case should a lot be cleared, grubbed, or graded prior the installation of silt fencing.
g. Silt fencing & sediment devices shall be repaired or replaced if they show signs of undermining or shall be replaced if the show signs of deterioration. Sediment shall be removed from the silt fencing when it reaches one-third to one-half the height of the silt fence.
h. The construction entrances shall be maintained in a condition which will prevent tracking or flow of mud onto a right-of-way. This may require periodic top dressing (fluffing) of the construction entrances as conditions demand.
i. Regular scraping and sweeping of streets, sidewalks and flow lines must be conducted. All material spilled, dropped, washed or tracked from vehicles onto roadways or into storm drains must be removed immediately.
j. If soil stockpiling is employed on this site, silt fences shall be used to help contain the sediment. Earth materials and landscaping materials such as sod, sand for landscaping and mortar work, rock, mulch shall not be stockpiled, placed or stored on driveways, streets, sidewalks, curb lines or storm water flow lines.
k. Construction supplies (e.g. trusses and lumber), roll off containers, dumpsters, portable toilets, trailers, etc. shall not be stored on the streets or sidewalks or other impervious surfaces. These items shall be stored on the construction site or staging areas.
l. Sanitary facilities shall be located on natural ground and at least 25 feet from any storm sewer inlet or water body and shall be serviced regularly.
m. No rubbish, trash, garbage or other similar materials shall be discharged into drainage ditches or waters of the state. All construction sites shall be cleaned and maintained on a daily basis and shall provide a designated area for trash disposal.
n. Temporary parking and storage area shall be kept in good condition and suitable for parking and storage. This may require periodic top dressing of stabilizing material as conditions demand.
o. All seeded/hydro-mulch areas shall be watered weekly to ensure that a good stand is maintained. Areas should be fertilized and reseeded as needed.
p. Disturbed portions of the site where construction activity will cease for at least 21 days shall be temporarily seeded within 7 days.

q. Disturbed portions of the site where construction activity has permanently stopped shall be permanently seeded. These areas shall be seeded no later than 7 days after the last construction activity occurring in these areas. Refer to the landscaping plan.
r. Contractors or subcontractors shall be responsible for removing sediment in the detention pond and any sediment that may have collected in the storm sewer drainage systems after the stabilization of the site.
s. All off-site construction shall have its own silt fencing and BMP's installed. Site shall be stabilized at the end of each working day; this includes backfilling of trenches for storm drains & utility construction and placement of gravel or bituminous paving for road construction.
t. A Final Certificate of Occupancy shall not be issued until all disturbed areas have been permanently stabilized and erosion and sediment control devices have been removed.
u. The grass and weeds on-site shall be maintained to a height of less than 12" throughout the construction phase of the project. Failure to maintain the grass and weeds on-site shall constitute a violation of Section 54-33 of the League City Code of Ordinances and shall be grounds for the immediate issuance of a STOP WORK order.
v. All Post-BMP's will be inspected annually by a Texas Registered Engineer with the report sent to the Floodplain/Stormwater Coordinator. Also note how Post- BMP's will be maintained annually.

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dse@danielscottengineering.com

LEAGUE CITY HOME TOWN HEROES PARK RESTROOM ADDITION

LEAGUE CITY, GALVESTON COUNTY, TEXAS

SWPPP

DRAWING SCALE
HORZ: 1"=60'
VERT: NA

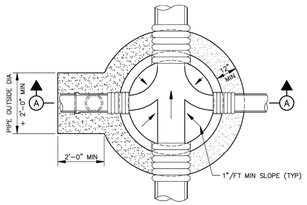
Project No.
DSE19-006

Drawing No.
DSE19006-250

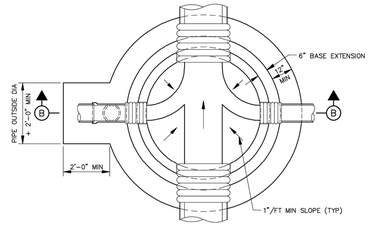
STATE OF TEXAS
SCOTT R. SHERIDAN
108881
LICENSED
PROFESSIONAL ENGINEER
OCTOBER 08, 2019

NOTES

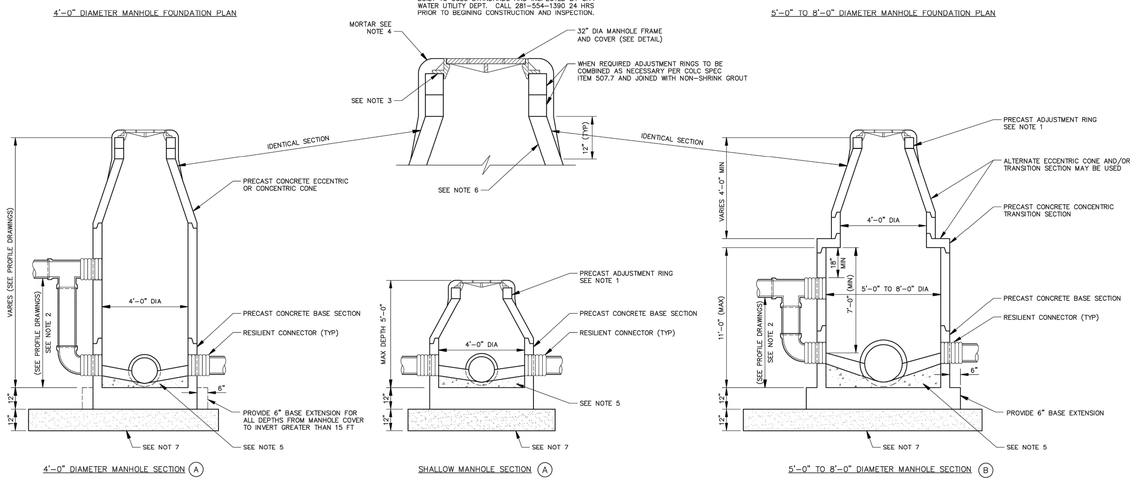
1. WHEN REQUIRED PROVIDE RIZER RINGS TO ADJUST MANHOLE RING AND LID, NOT TO EXCEED A MAX. OF 18", COLC SPEC ITEM 507.7
2. PROVIDE DROP ONLY WHEN CALLED FOR IN PLAN AND PROFILE DRAWINGS.
3. SEAT MANHOLE FRAME WITH 2 ROWS OF BITUMASTIC SEALANT.
4. NON-SHRINK GROUT AROUND MANHOLE RING AS SHOWN. CONTINUED DOWN OVER RISER RINGS 12" DOWN ONTO MANHOLE CONE. OMIT MORTAR WHEN MANHOLE IS LOCATED IN PAVED AREAS.
5. USE A NON-SHRINK GROUT TO FORM CHANNELS AND DIRECT FLOW IN BOTTOM OF MANHOLE IN NOT ALREADY FORMED IN BASE.
6. MANHOLE INTERIOR TO BE COATED PER COLC SPEC ITEM 507.7 FROM BOTTOM OF RING TO BASE OF MANHOLE.
7. MANHOLE BASE TO BE SET ON 12" MIN COMPACTED CEMENT SABILIZED SAND FOR DRY STABLE TRENCH. SEE CRUSHED STONE MANHOLE SUPPORT OR MANHOLE PILE SUPPORT FOR WET AND UNSTABLE CONDITIONS.
8. MANHOLES CONSTRUCTED ON CITY MAINS FOR THE PURPOSE OF PROVIDING PRIVATE SERVICE SHALL BE BUILT TO COLC STANDARDS AND INSPECTED BY CITY WATER UTILITY DEPT. CALL 281-554-1390 24 HRS PRIOR TO BEGINING CONSTRUCTION AND INSPECTION.



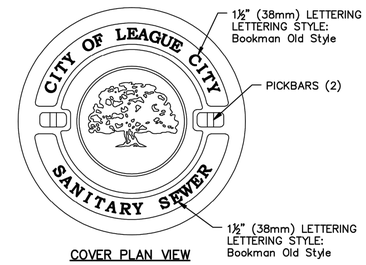
4'-0" DIAMETER MANHOLE FOUNDATION PLAN



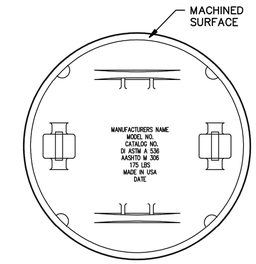
5'-0" TO 8'-0" DIAMETER MANHOLE FOUNDATION PLAN



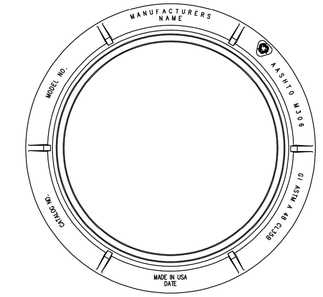
PRECAST SANITARY SEWER MANHOLE
NTS



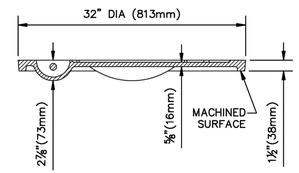
COVER PLAN VIEW



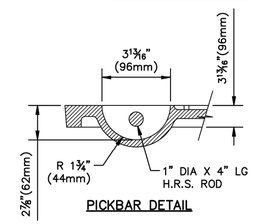
COVER BOTTOM VIEW



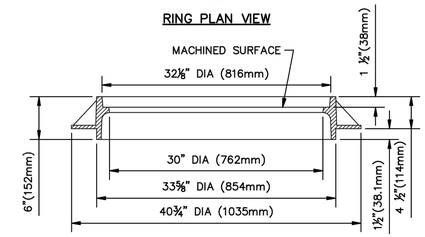
RING PLAN VIEW



COVER CROSS SECTION



PICKBAR DETAIL

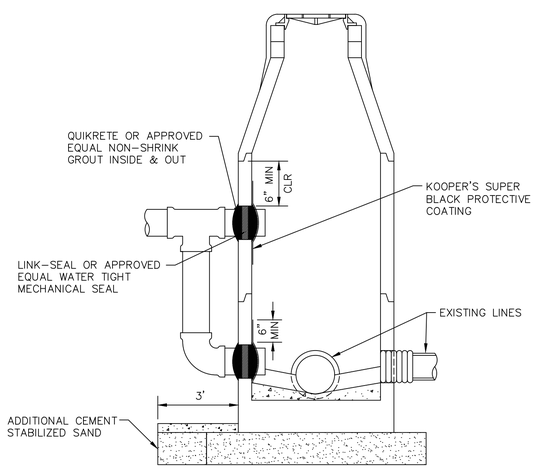


RING CROSS SECTION

NOTES:

1. Cover Material Specs: Ductile Iron ASTM A 536, Shall Meet All AASHTO M 306 Proof-load Specifications and Requirments.
2. Ring Material Specs: Gray Iron ASTM A 48 CL35B, Shall Meet All AASHTO M 306 Proof-load Specifications and Requirments.
3. For Use On Public Sanitary Sewers Only; For Private Mains Use Generic Lids That Meet Above Specifications.
4. Refer To City of League City General Design and Construction Standards Book Item 507.7.3 For More Information.

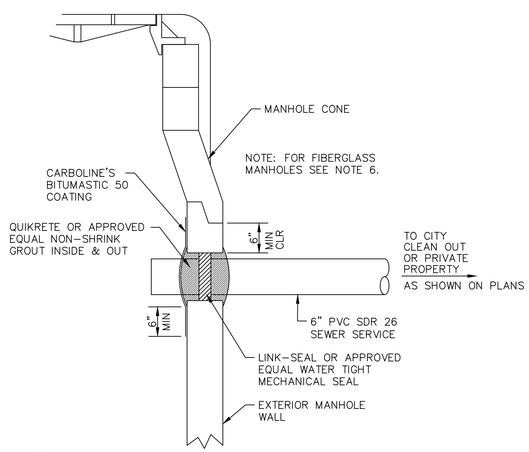
HEAVY DUTY
SANITARY SEWER 32"
MANHOLE RING AND COVER DETAIL
N.T.S.



NOTES:

1. NO TAPS WILL BE ALLOWED ON CONE SECTION OF MANHOLE.
2. A MIN OF 6" CLEARANCE SHALL BE KEPT FROM ANY MANHOLE JOINT LINE.
3. TAPS SHALL ENTER PERPENDICTULAR TO MANHOLE.
4. WATER TIGHT SEALING MATERIAL SHALL BE APPROVED BEFORE INSTALLING AND GROUTING OVER.
5. TAPS 6" AND GREATER INTO MANHOLES AND INTENDED FOR SERVICE TO PRIVATE PROPERTY SHALL BE INSTALLED TO COLC STANDARD AND HAVE A CLEANOUT OR MANHOLE INSTALLED AT THE PROPERTY AND/OR EASEMENT LINE.
6. NO DROP FOR THIS JOB.

MANHOLE CORE CUT W/ DROP STRUCTURE
NTS 4-2012



NOTES:

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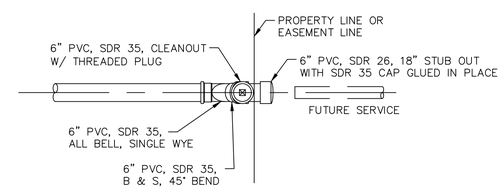
2. A MIN OF 6" CLEARANCE SHALL BE KEPT FROM ANY MANHOLE JOINT LINE.
3. TAPS SHALL ENTER PERPENDICTULAR TO MANHOLE.
4. WATER TIGHT SEALING MATERIAL SHALL BE APPROVED BEFORE INSTALLING AND GROUTING OVER.
5. PRELIMINARY INSPECTION OF TAP TO OCCURE BEFORE GROUT PLACEMENT; FINAL INSPECTION OF TAP TO OCCURE AFTER GROUT PLACEMENT AND INTERIOR PROTECTIVE COATING.
6. IN CASES OF FIBERGLASS MANHOLES, TAPS SHALL BE MADE WITH AN "INSERTA-TEE" AND INSTALLED PER MANUFACTURERS RECOMMENDATIONS.
7. CONTACT COLC LINE REPAIR DEPT. @ 281-554-1390 24 HRS IN ADVANCE OF MAKING TAP TO SCHEDULE INSPECTION.

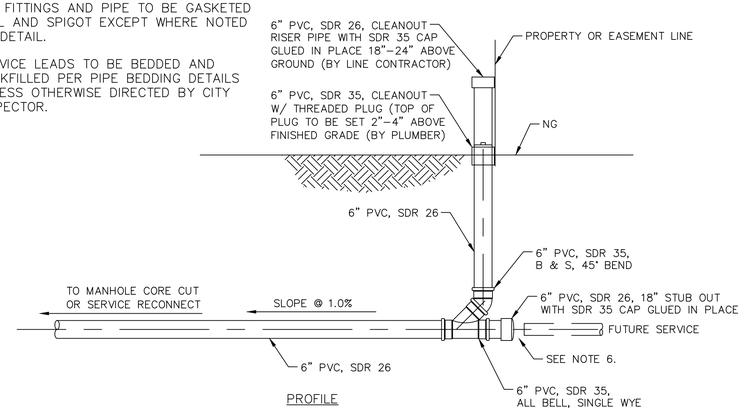
MANHOLE CORE CUT 6" SERVICE DETAIL
NTS 7-2014

NOTES:

1. PLUMBING CONTRACTOR TO SET TOP OF 6" THREADED ADAPTER CLEAN OUT WITH PLUG, 2" TO 4" ABOVE FINISHED GRADE.
2. ALL FITTINGS AND PIPE TO BE GASKETED BELL AND SPIGOT EXCEPT WHERE NOTED ON DETAIL.
3. SERVICE LEADS TO BE BEDDED AND BACKFILLED PER PIPE BEDDING DETAILS UNLESS OTHERWISE DIRECTED BY CITY INSPECTOR.



PLAN



PROFILE

SINGLE SANITARY CLEAN-OUT DETAIL
NTS 4-2012

DANIEL SCOTT ENGINEERING, LLC
TBPE F-9527
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LEAGUE CITY HOME TOWN HEROES PARK RESTROOM ADDITION
LEAGUE CITY, GALVESTON COUNTY, TEXAS

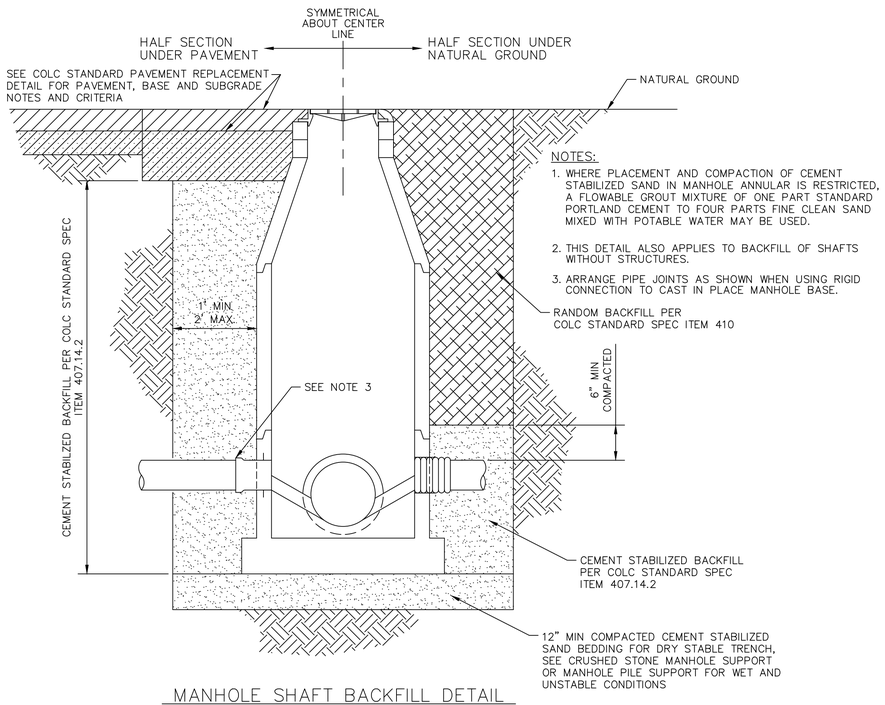
LEAGUE CITY SANITARY SEWER DETAILS I

DRAWING SCALE
HORZ: NA
VERT: NA

Project No.
DSE19-006

Drawing No.
DSE19006-501

STATE OF TEXAS
SCOTT R. SHERIDAN
108881
LICENSED
PROFESSIONAL ENGINEER
OCTOBER 08, 2019

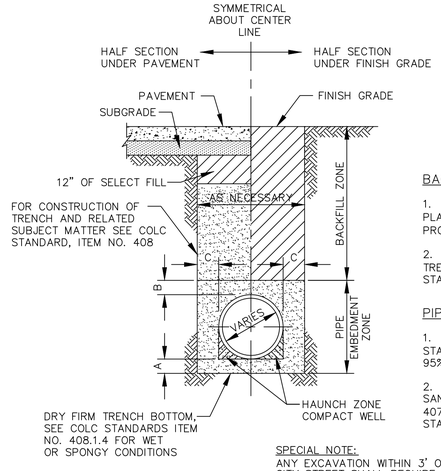


NOTES:

1. WHERE PLACEMENT AND COMPACTION OF CEMENT STABILIZED SAND IN MANHOLE ANNULAR IS RESTRICTED, A FLOWABLE GROUT MIXTURE OF ONE PART STANDARD PORTLAND CEMENT TO FOUR PARTS FINE CLEAN SAND MIXED WITH POTABLE WATER MAY BE USED.
2. THIS DETAIL ALSO APPLIES TO BACKFILL OF SHAFTS WITHOUT STRUCTURES.
3. ARRANGE PIPE JOINTS AS SHOWN WHEN USING RIGID CONNECTION TO CAST IN PLACE MANHOLE BASE.

MANHOLE SHAFT BACKFILL DETAIL

NTS 4-2012



DIMENSIONAL REQUIREMENTS

PIPE SIZE	A	B	C
20" AND SMALLER	6"	12"	9"
21" THRU 48"	6"	12"	12"
54" THRU 66"	9"	12"	15"
72" AND LARGER	12"	18"	15"

MATERIAL REQUIREMENTS

BACKFILL ZONE

1. IN PAVED AREAS, USE CEMENT STABILIZED SAND, PLACE IN 6" LIFTS AND COMPACT TO 95% STANDARD PROCTOR DENSITY, TO WITHIN 12" OF SUBGRADE.
2. IN UNPAVED AREAS, USE SOIL EXCAVATED FROM TRENCH, PLACE IN 6" LIFTS AND COMPACT TO 95% STANDARD PROCTOR DENSITY.

PIPE EMBEDMENT ZONE

1. FOR STORM AND SANITARY SEWERS, USE CEMENT STABILIZED SAND, PLACE IN 6" LIFTS AND COMPACT TO 95% STANDARD PROCTOR DENSITY.
2. FOR WATER LINES AND SANITARY FORCE MAINS, USE SAND AS DESCRIBED IN THE COLC STANDARD, ITEM NO. 407.14.1. PLACE IN 6" LIFTS AND COMPACT TO 95% STANDARD PROCTOR DENSITY.

SPECIAL NOTE:
ANY EXCAVATION WITHIN 3' OR LESS OF HIGHWAY PAVEMENT EDGE OR CITY STREET SHALL REQUIRE 1-1/2 SACK CEMENT STABILIZED BACKFILL UP TO ROAD BASE. COMPACTED IN 8" LIFTS WITH VIBRATORY PLATE.

WATER, SANITARY AND STORM BEDDING AND BACKFILL FOR DRY STABLE TRENCH

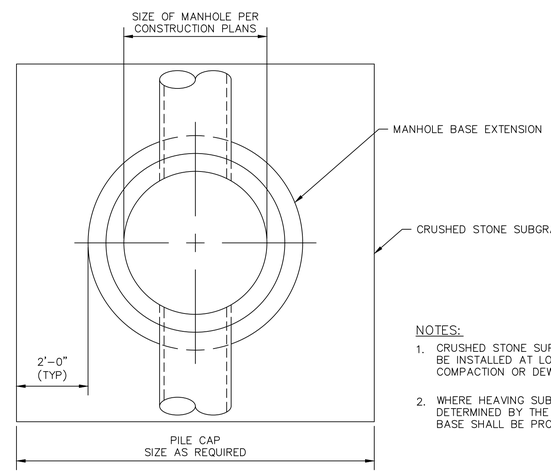
NTS 4-2012

PILE CHART

MANHOLE ID (FT)	NUMBER OF PILES	DEPTH TO INVERT (FT)	CAPACITY/ PILE (TONS) MIN.	PILE CAP DIM. A (FT)	PILE CAP REIN. (EW, T&B)
4	4	10 12 15 20 25 30	9 10 11 13 15 17	1'-9"	#6 @ 6"
5	5	10 12 15 20 25 30	10 11 12 15 17 20	1'-9"	#6 @ 6"
6	6	10 12 15 20 25 30	9 10 12 15 17 20	2'-0"	#6 @ 6"
8	8	10 12 15 20 25 30	8 9 10 13 16 18	2'-0"	#6 @ 6"

NOTES:

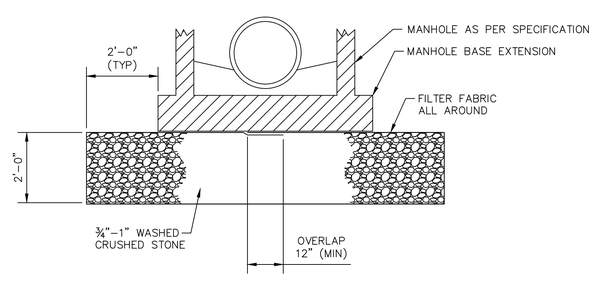
1. PILING SHALL BE INSTALLED AT ALL LOCATION WHERE HEAVING SUBGRADE CONDITIONS ARE LIKELY TO OCCUR, AS DETERMINED BY THE ENGINEER.
2. THE ENGINEER WILL PROVIDE THE SIZE, LENGTH AND MATERIAL NEEDED TO CARRY THE CAPACITY SHOWN ON THE PILE CHART BASED ON ACTUAL CONDITIONS REVEALED AT TIME OF CONSTRUCTION.



PLAN

NOTES:

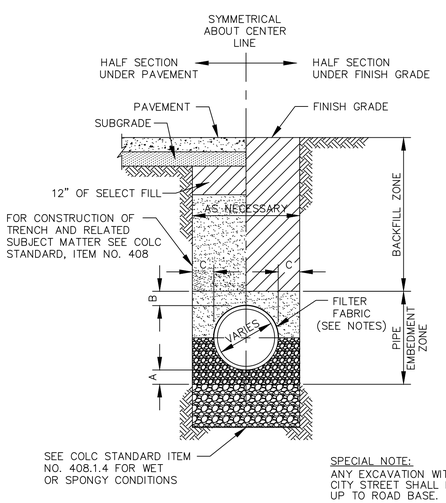
1. CRUSHED STONE SUPPORT UNDER A MANHOLE BASE SHALL BE INSTALLED AT LOCATIONS WHERE REQUIRED SUBGRADE COMPACTION OR DEWATERING CANNOT BE ACHIEVED.
2. WHERE HEAVING SUBGRADE CONDITIONS OCCUR, AS DETERMINED BY THE ENGINEER, A PILE SUPPORT MANHOLE BASE SHALL BE PROVIDED.



SECTION

CRUSHED STONE MANHOLE SUPPORT FOR WET STABLE TRENCH

NTS 4-2012



DIMENSIONAL REQUIREMENTS

PIPE SIZE	A	B	C
20" AND SMALLER	6"	12"	9"
21" THRU 48"	6"	12"	12"
54" THRU 66"	9"	12"	15"
72" AND LARGER	12"	18"	15"

MATERIAL REQUIREMENTS

BACKFILL ZONE

1. IN PAVED AREAS, USE CEMENT STABILIZED SAND, PLACE IN 6" LIFTS AND COMPACT TO 95% STANDARD PROCTOR DENSITY, TO WITH 12" OF SUBGRADE.
2. IN UNPAVED AREAS, USE SOIL EXCAVATED FROM TRENCH, PLACE IN 6" LIFTS AND COMPACT TO 95% STANDARD PROCTOR DENSITY.

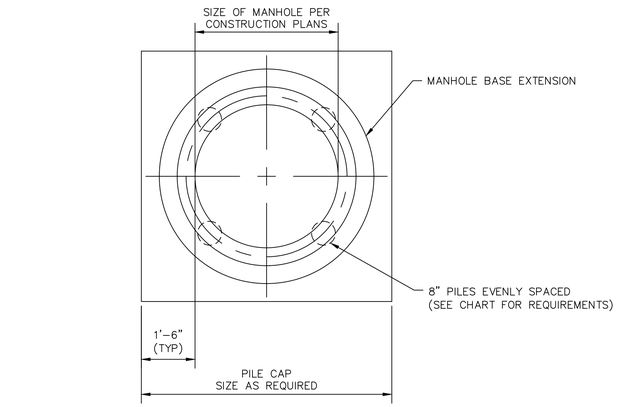
PIPE EMBEDMENT ZONE

1. PLACE FILTER FABRIC IN DRY TRENCH. FABRIC TO BE ARMCO TREVIRA S1115 OR APPROVED EQUAL.
2. EMBED PIPE IN 3/4"-1" WASHED LIMESTONE ROCK TO SPRING LINE.
3. FROM SPRING LINE USE 1.5 SACK CEMENT STABILIZED SAND, PLACE IN 6" LIFTS AND COMPACT TO 95% STANDARD PROCTOR DENSITY.

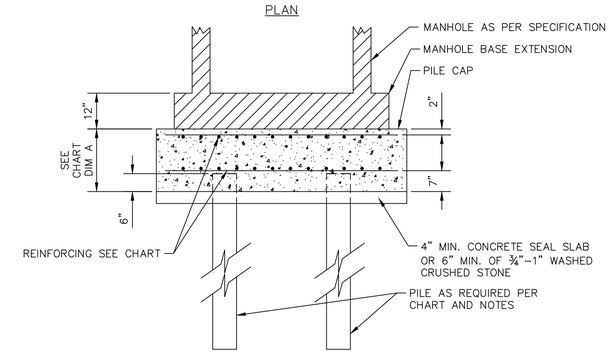
SPECIAL NOTE:
ANY EXCAVATION WITHIN 3' OR LESS OF HIGHWAY PAVEMENT EDGE OR CITY STREET SHALL REQUIRE 1-1/2 SACK CEMENT STABILIZED BACKFILL UP TO ROAD BASE. COMPACTED IN 8" LIFTS WITH VIBRATORY PLATE.

BEDDING AND BACKFILL FOR STORM AND SANITARY IN UNSUITABLE SOILS

NTS 10-2018



PLAN



SECTION

MANHOLE PILE SUPPORT FOR UNSTABLE SUBGRADE

NTS 4-2012

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LEAGUE CITY HOME TOWN HEROES PARK RESTROOM ADDITION

LEAGUE CITY, GALVESTON COUNTY, TEXAS

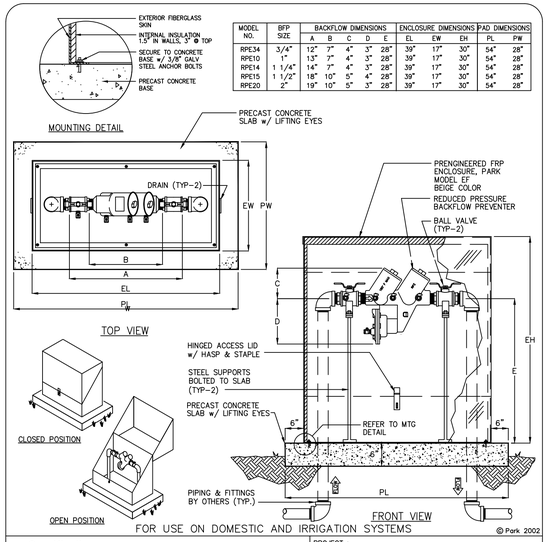
LEAGUE CITY SANITARY SEWER DETAILS 2

DRAWING SCALE
HORZ: NA
VERT: NA

Project No.
DSE19-006

Drawing No.
DSE19006-502

STATE OF TEXAS
SCOTT R. SHERIDAN
108881
LICENSED PROFESSIONAL ENGINEER
OCTOBER 08, 2019



MODEL NO.	BFP SIZE	BACKFLOW DIMENSIONS				ENCLOSURE DIMENSIONS			PAD DIMENSIONS	
		A	B	C	D	E	EL	EW	EH	PL	PW
RPE34	3/4"	12"	7"	4"	3"	28"	39"	17"	30"	54"	28"
RPE10	1"	13"	7"	4"	3"	28"	39"	17"	30"	54"	28"
RPE14	1 1/4"	14"	7"	4"	3"	28"	39"	17"	30"	54"	28"
RPE15	1 1/2"	18"	10"	5"	4"	28"	39"	17"	30"	54"	28"
RPE20	2"	19"	10"	5"	3"	28"	39"	17"	30"	54"	28"

Specifications

CONCRETE : Class 1 concrete with design strength of 4500 PSI at 28 days.

REINFORCEMENT: Grade 60 reinforced. Steel rebar conforming to ASTM A615 on required centers or equal.

Typical Applications

RP devices are used to protect against high hazard (toxic) fluids in water services to industrial plants, hospital facilities, morgues, mortuaries, and chemical plants. They are also used in irrigation systems, boiler feed, water lines and other installations requiring maximum protection.

Engineering Data

The backflow assembly shall be factory assembled on pad & hydrostatically tested prior to delivery. Field excavation & preparation shall be complete prior to delivery. Pipe, valves and fittings of the assembly shall be approved by one or more of the following associations:

AWWA UL NSF FM

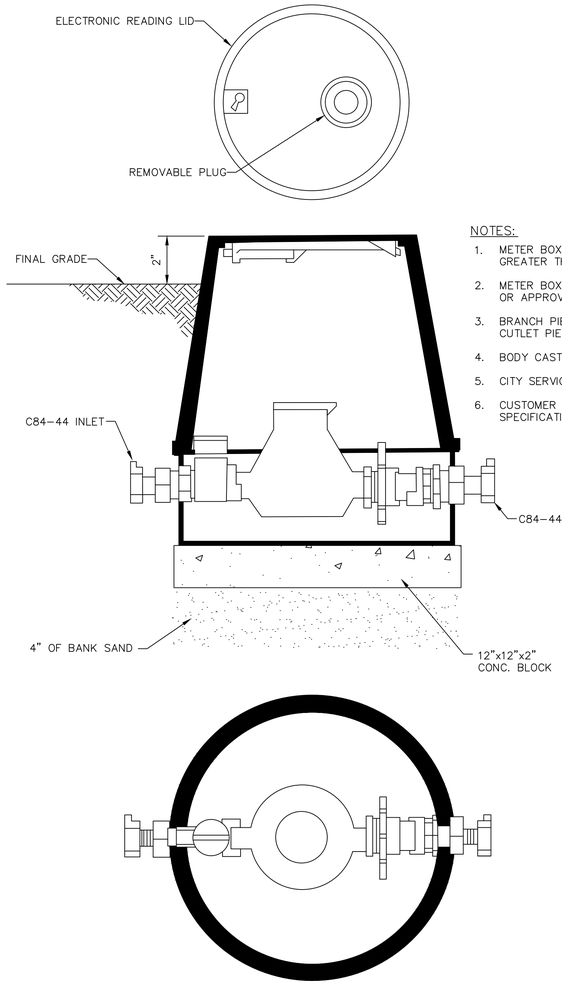
PROJECT :
CUSTOMER :
ARCHITECT :
ENGINEER :
ORDER # :
DATE :

PARK ENVIRONMENTAL EQUIPMENT 800-256-8041 www.park-USA.com

"Expect the Best"

REDUCED PRESSURE BACKFLOW PREVENTER ON PRECAST CONCRETE PAD

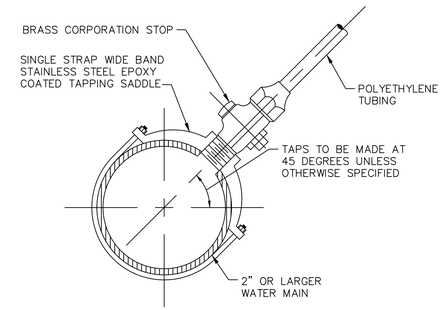
SCALE	DWG. NO.	REV.
NONE	RPE-1	A
DATE 04/06		



1" METER BOX DETAIL
NTS 4-2012

NOTES:

1. METER BOX DESIGN FOR SERVICE TO HOMES WITH GREATER THAN 2000 SQ. FT.
2. METER BOX TO BE FORD YL111-444-TP YOKE BOX OR APPROVED EQUAL.
3. BRANCH PIECE, VALVES EXPANSION CONNECTIONS, AND CUTLET PIECES TO BE WATER WORKS BRASS.
4. BODY CASTING AND LID TO BE CAST IRON LOCKING.
5. CITY SERVICE LEAD MATERIAL TO BE POLYETHYLENE.
6. CUSTOMER SERVICE LINE TO BE PER BUILDING CODE SPECIFICATION AND HAVE A MIN. ONE FOOT COVER.



3/4" TO 2" SERVICE TAP DETAIL
NTS 4-2012

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LEAGUE CITY HOME TOWN HEROES PARK RESTROOM ADDITION

LEAGUE CITY, GALVESTON COUNTY, TEXAS

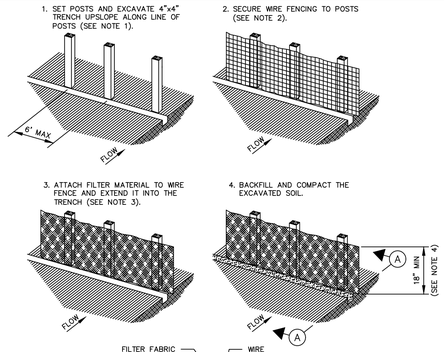
LEAGUE CITY WATER DETAILS I

DRAWING SCALE
HORZ: NA
VERT: NA

Project No.
DSE19-006

Drawing No.
DSE19006-503

STATE OF TEXAS
SCOTT R. SHERIDAN
108881
LICENSED
PROFESSIONAL ENGINEER
OCTOBER 08, 2019



SECTION A

NOTES

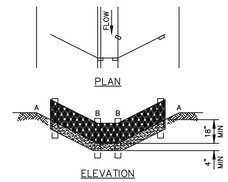
1. SET 2 INCH BY 2 INCH WOODEN STAKES SPACE A MAX OF 6 FEET APART AND EMBEDDED A MIN OF 12 INCHES.
2. WOVEN WIRE FENCE TO BE FASTENED SECURELY TO FENCE POSTS WITH STAPLES.
3. FILTER CLOTH TO BE FASTENED SECURELY TO WOVEN WIRE FENCE, WITH TIES SPACED EVERY 24 INCHES AT TOP AND MIDSECTION.
4. MINIMUM HEIGHT OF FILTER SHOULD BE 18 INCHES AND A MAXIMUM OF 36 INCHES ABOVE NATURAL GROUND.
5. WHEN TWO SECTIONS OF FILTER CLOTH ADJOIN EACH EACH OTHER THEY SHALL BE OVERLAPPED 6 INCHES AT THE POSTS AND FOLDED.

RFB

SYMBOL

REINFORCED FILTER FABRIC BARRIER

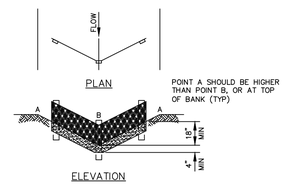
NTS



ELEVATION

TRAPEZOIDAL SECTION

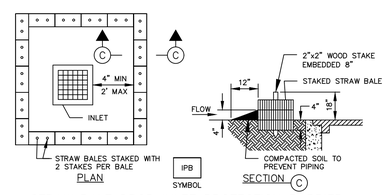
NTS



ELEVATION

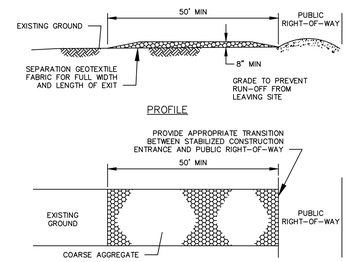
"V-DITCH" SECTION

NTS



STRAW BALE DROP INLET PROTECTION BARRIER

NTS



NOTES

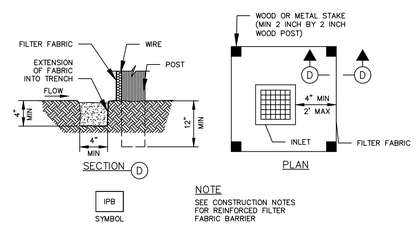
1. LENGTH SHALL BE AS SHOWN ON THE CONSTRUCTION DRAWINGS, BUT NOT LESS THAN 50 FEET.
2. THICKNESS SHALL BE NOT LESS THAN 8 INCHES.
3. WIDTH SHALL BE NOT LESS FULL WIDTH OF ALL POINTS OF INGRESS OR ENGRESS.
4. STABILIZATION FOR OTHER AREAS SHALL HAVE THE SAME AGGREGATE THICKNESS AND WIDTH REQUIREMENTS AS THE STABILIZED CONSTRUCTION EXIT, UNLESS OTHERWISE SHOWN ON THE CONSTRUCTION DRAWINGS.
5. STABILIZED AREA MAY BE WIDENED OR LENGTHENED TO ACCOMMODATE A TRUCK WASHING AREA. AN OUTLET SEDIMENT TRAP MUST BE PROVIDED FOR THE TRUCK WASHING AREA.
6. STABILIZED CONSTRUCTION EXIT SHALL BE MAINTAINED FREE OF SEDIMENT FOR THE DURATION OF THE PROJECT.

SC

SYMBOL

STABILIZED CONSTRUCTION EXIT

NTS



IPB

SYMBOL

NOTE

SEE CONSTRUCTION NOTES FOR REINFORCED FILTER FABRIC BARRIER

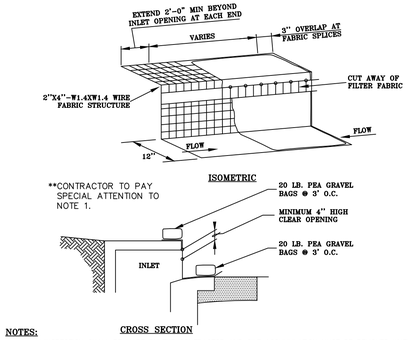
SILT FENCE DROP INLET PROTECTION BARRIER

NTS

CONTRACTOR NOTES

1. CONTRACTOR IS RESPONSIBLE FOR DEVELOPING, IMPLEMENTING AND ADHERING TO THE CONTRACTOR DEVELOPED STORM WATER POLLUTION PREVENTION PLAN (SWPPP).
2. CONTRACTOR SHALL PREPARE ALL NOTICE OF INTENT FORMS FOR THE WORK AND OBTAIN THE NECESSARY CERTIFICATES AND SIGNATURES FROM THE OWNER, APPLICABLE SUBCONTRACTORS AND OTHERS AS REQUIRED.

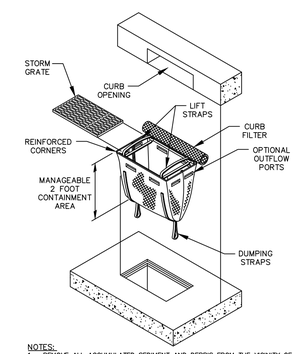
4-2012



NOTES:

1. DAILY INSPECTION SHALL BE MADE BY THE CONTRACTOR AND SILT ACCUMULATION MUST BE REMOVED WHEN DEPTH REACHES 2".
2. A SECTION OF FILTER FABRIC SHALL BE REMOVED AS SHOWN ON THIS DETAIL OR AS DIRECTED BY THE ENGINEER OR DESIGNATED REPRESENTATIVE. FABRIC MUST BE SECURED TO WIRE BACKING WITH CLIPS OR HOG RINGS AT THIS LOCATION.
3. CONTRACTOR SHALL MONITOR THE PERFORMANCE OF INLET PROTECTION DURING EACH RAINFALL EVENT AND IMMEDIATELY REMOVE THE INLET PROTECTIONS IF THE STORM-WATER BEGINS TO OVERTOP THE CURB.
4. INLET PROTECTIONS SHALL BE REMOVED AS SOON AS THE SOURCE OF SEDIMENT IS STABILIZED.

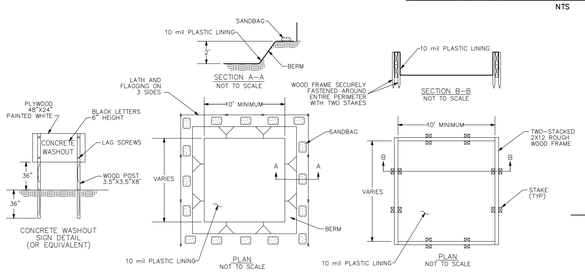
WIRE/FILTER FABRIC CURB INLET PROTECTION



NOTES:

1. REMOVE ALL ACCUMULATED SEDIMENT AND DEBRIS FROM THE VICINITY OF THE UNIT AFTER EACH STORM EVENT.
2. AFTER EACH STORM EVENT AND AT REGULAR INTERVALS, LOOK INTO THE UNIT. IF UNIT IS MORE THAN 1/3 FULL OF ACCUMULATED SEDIMENT, THE UNIT MUST BE EMPTIED.
3. EMPTY THE UNIT IN A LOCATION WHERE IT WILL NOT ENTER THE STORM SEWER SYSTEM.
4. INLET PROTECTION SHALL BE REMOVED AS SOON AS THE SOURCE OF SEDIMENT IS STABILIZED.

INSERT CURB INLET PROTECTION

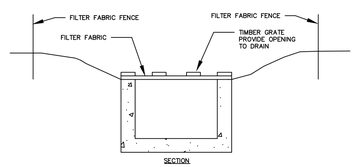


NOTES:

1. CONCRETE WASHOUT FACILITIES ARE TO BE LOCATED AT LEAST 50' FROM STORM DRAIN INLETS, OPEN DRAINAGE FACILITIES, CONSTRUCTION ENTRANCE OR WATER BODIES.
2. A CONCRETE WASHOUT SIGN SHALL BE INSTALLED WITHIN 30' OF THE CONCRETE WASHOUT FACILITY.
3. ONCE 75% OF THE ORIGINAL VOLUME OF THE WASHOUT PIT IS FILLED OR IF THE LINER IS TORN, THE MATERIAL MUST BE REMOVED AND PROPERLY DISPOSED OF ONCE IT IS COMPLETELY HARDENED. ONCE THE HARDENED CONCRETE IS REMOVED, THE LINER MUST BE REPLACED (IF TORN). A NEW PIT MUST BE CONSTRUCTED IF THE ORIGINAL STRUCTURE IS NO LONGER SUITABLE.
4. ONCE THE PIT IS NO LONGER NEEDED, ENSURE ALL WASHOUT MATERIAL HAS COMPLETELY HARDENED, THEN REMOVE AND PROPERLY DISPOSE OF ALL MATERIALS.

CONCRETE TRUCK WASHOUT

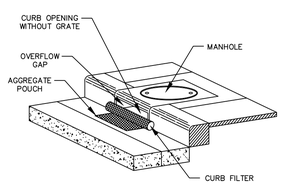
NTS



FILTER FABRIC FENCE NOTES:

1. A CONTINUOUS SILT BARRIER FENCE SHALL BE CONSTRUCTED AROUND ALL FIRST STATE INLETS BY THE UTILITY CONTRACTOR.

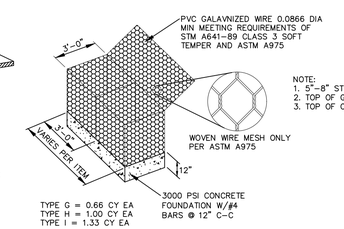
CURB INLET (STAGE 1) INLET FABRIC COVERING



NOTES:

1. REMOVE ALL ACCUMULATED SEDIMENT AND DEBRIS FROM THE VICINITY OF THE UNIT AFTER EACH STORM EVENT.
2. AFTER EACH STORM EVENT AND AT REGULAR INTERVALS, LOOK INTO THE UNIT. IF UNIT IS MORE THAN 1/3 FULL OF ACCUMULATED SEDIMENT, THE UNIT MUST BE EMPTIED.
3. EMPTY THE UNIT IN A LOCATION WHERE IT WILL NOT ENTER THE STORM SEWER SYSTEM.
4. INLET PROTECTION SHALL BE REMOVED AS SOON AS THE SOURCE OF SEDIMENT IS STABILIZED.

TYPICAL DETAIL OF CURB INLET SEDIMENT CONTROL DEVICE WITH CURB FILTER



TYPE G = 0.66 CY EA
TYPE H = 1.00 CY EA
TYPE I = 1.33 CY EA

GABION WALL DETAIL

NTS 4-2012

DISCLAIMER:

THE USE OF THIS STANDARD IS GOVERNED BY THE "TEXAS ENGINEERING ACT". NO WARRANTY OF ANY KIND IS MADE BY COLC FOR ANY PURPOSE WHATSOEVER. COLC ASSUMES NO RESPONSIBILITY FOR THE CONVERSION OF THIS STANDARD TO OTHER FORMATS OR FOR INCORRECT RESULTS OR DAMAGES RESULTING FROM ITS USE.

STORM WATER POLLUTION PREVENTION
SHEET 1 OF 1

Project No.	CB190200
Drawn	ARN
Checked	XXX
Scale	NTS
Date	October 2018
Sheet	9
Of	10

SWPP-01

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LEAGUE CITY HOME TOWN HEROES PARK RESTROOM ADDITION

LEAGUE CITY, GALVESTON COUNTY, TEXAS

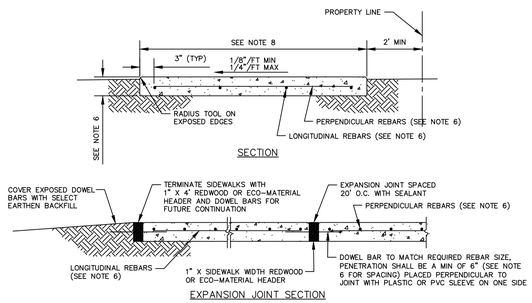
LEAGUE CITY STORM WATER POLLUTION PREVENTION DETAILS

DRAWING SCALE
HORZ: NA
VERT: NA

Project No.
DSE19-006

Drawing No.
DSE19006-504

STATE OF TEXAS
SCOTT R. SHERIDAN
108881
LICENSED
PROFESSIONAL ENGINEER
OCTOBER 08, 2019

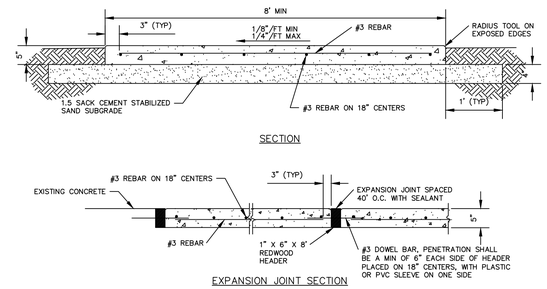


NOTES:

1. EXPANSION JOINTS TO BE PLACED EVERY 20' AND CONTROL BREAK JOINT EVERY 10'.
2. EXPANSION JOINTS SHALL BE PLACED WHERE NEW WALKS MEET EXISTING CONCRETE STRUCTURES, FIRE HYDRANTS AND UTILITY POLES.
3. CONSTRUCT SIDEWALKS WITH 5 1/2 SACK PORTLAND CEMENT.
4. ALL EXPANSION JOINT TO BE SEALED WITH HOT POURED ELASTIC TYPE SEALER MEETING ASTM D1190 OR APPROVED EQUIL.
5. PROVIDE A MIN OF 15" OVERLAP ON REINFORCING.
6. SIDEWALK THICKNESS IN RESIDENTIAL DRIVEWAYS TO BE A MIN OF 4" WITH #3 REBAR REINFORCING ON 14" CENTERS LONGITUDINAL AND 18" CENTERS PERPENDICULAR; COMMERCIAL DRIVEWAYS SHALL HAVE A MIN THICKNESS OF 6" WITH #4 REBAR ON 18" CENTERS EACH WAY.
7. SIDEWALKS SHALL MAINTAIN A ONE FOOT CLEARANCE FROM OUTER EDGE OF SIDEWILK TO OUTER EDGE OF ALL UTILITY STRUCTURES (ie...VALVE BOXES, FIRE HYDRANT, MANHOLE, ETC.)
8. SIDEWALKS IN RESIDENTIAL AREAS SHALL BE A MIN WIDTH OF 4 FT.; SIDEWALKS ALONG A COLLECTOR, MAJOR OR MINOR ARTERIAL STREET SHALL BE A MIN WIDTH OF 5 FT. EXCEPT FOR WHEN AN 8 FT OR LARGER SIDEWALK IS REQUIRED OR CALLED FOR PER PLANNING AND ZONING OR TRAILS MASTER PLAN REQUIREMENTS. SEE 8 FT AND LARGER SIDEWALK DETAIL.

4 & 5 FT SIDEWALK SECTION AND EXPANSION JOINT DETAIL

NTS 10-2016

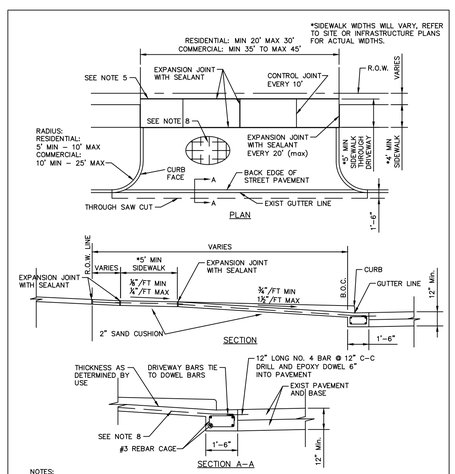


NOTES:

1. 1" EXPANSION JOINTS TO BE PLACED EVERY 40' AND SAWED CONTROL JOINT EVERY 8'.
2. EXPANSION JOINTS SHALL BE PLACED WHERE NEW WALKS MEET EXISTING CONCRETE STRUCTURES, FIRE HYDRANTS AND UTILITY POLES.
3. CONSTRUCT SIDEWALKS WITH 5 1/2 SACK PORTLAND CEMENT.
4. ALL EXPANSION/CONSTRUCTION JOINT TO BE SEALED WITH HOT POURED ELASTIC TYPE SEALER MEETING ASTM D1190 OR APPROVED EQUIL.
5. PROVIDE A MIN OF 20" OVERLAP ON REINFORCING.
6. SIDEWALKS SHALL MAINTAIN A ONE FOOT CLEARANCE FROM OUTER EDGE OF SIDEWILK TO OUTER EDGE OF ALL UTILITY STRUCTURES (ie...VALVE BOXES, FIRE HYDRANT, MANHOLE, ETC.)

8 FT & LARGER SIDEWALK SECTION AND EXPANSION JOINT DETAIL

NTS 10-2016



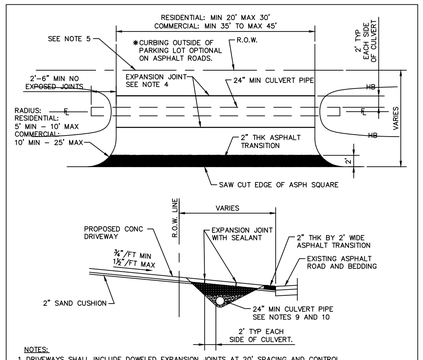
NOTES:

1. ON PRIVATE SIDE: DRIVEWAYS SHALL INCLUDE DOWELED EXPANSION JOINTS AT 20' SPACING AND CONTROL BREAK JOINTS AT 10' SPACING. REINFORCING TO BE EITHER 6X6, 6 GA WELDED WIRE MESH OR #3 REBAR ON 18" CENTERS E.W. FOR RESIDENTIAL. SEE ENGINEERED SITE DRAWINGS FOR COMMERCIAL PAVING REQUIREMENTS.
2. PROVIDE A MIN OF 10" OVERLAP ON REINFORCING.
3. CONSTRUCT DRIVEWAYS WITH 5½ SACK PORTLAND CEMENT.
4. ALL EXPANSION JOINT TO BE SEALED WITH HOT POURED ELASTIC TYPE SEALER MEETING ASTM D1190 OR APPROVED EQUIL.
5. PROVIDE EXPANSION JOINT WITH SEALANT WHEN CONNECTING TO EXIST DRIVE.
6. SIDEWALKS SHALL MATCH THICKNESS OF DRIVEWAYS IN THE CONFINES OF DRIVEWAY WIDTH.
7. DRIVEWAY THICKNESS TO BE A MIN OF 4" FOR RESIDENTIAL AND 6" MIN FOR COMMERCIAL OR AS CALLED OUT ON APPROVED ENGINEERED PLANS.
8. ON PUBLIC SIDE, WITHIN ROW: DRIVEWAY REINFORCING FOR RESIDENTIAL SHALL BE #3 REBAR ON 18" CENTERS E.W.; FOR COMMERCIAL MIN. REINFORCING SHALL BE #4 REBAR ON 24" CENTERS E.W.

CONCRETE DRIVEWAY DETAIL

NTS

REVISED: 10-2018



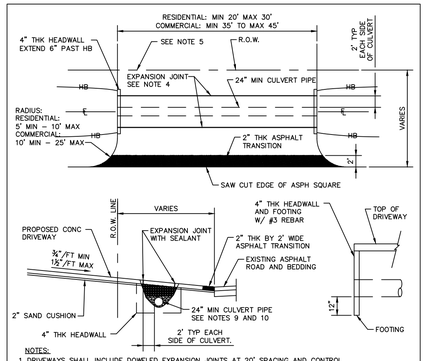
NOTES:

1. DRIVEWAYS SHALL INCLUDE DOWELED EXPANSION JOINTS AT 20' SPACING AND CONTROL BREAK JOINTS AT 10' SPACING.
2. PROVIDE A MIN OF 10" OVERLAP ON REINFORCING.
3. CONSTRUCT DRIVEWAYS WITH 5 SACK PORTLAND CEMENT.
4. ALL EXPANSION JOINTS TO BE SEALED WITH HOT POURED ELASTIC TYPE SEALER MEETING ASTM D1190 OR APPROVED EQUIL.
5. PROVIDE EXPANSION JOINT WITH SEALANT WHEN CONNECTING TO EXIST DRIVE.
6. SIDEWALKS SHALL MATCH THICKNESS OF DRIVEWAYS IN THE CONFINES OF DRIVEWAY WIDTH.
7. DRIVEWAY THICKNESS TO BE A MIN OF 4" FOR RESIDENTIAL AND 6" MIN FOR COMMERCIAL.
8. ON PUBLIC SIDE, WITHIN ROW: DRIVEWAY REINFORCING FOR RESIDENTIAL SHALL BE #3 REBAR ON 18" CENTERS E.W.; FOR COMMERCIAL MIN. REINFORCING SHALL BE #4 REBAR ON 24" CENTERS E.W.
9. DRIVEWAY CULVERTS SHALL BE BEDDED IN 1.5 SACK CEMENT STABILIZED SAND, FULL WIDTH OF DITCH IN DRIVEWAY ZONE. MECHANICALLY COMPACTED IN 6 INCH LIFTS, 6" INCHES BELOW PIPE TO 6" OVER THE PIPE. REMAINING AREA TO BE MECHANICALLY COMPACTED CRUSHED LIMESTONE.
10. DRIVEWAY CULVERTS SHALL BE A MINIMUM OF 24 INCH GASKET TONGUE AND GROOVE RCP. IF REQUIRED SHALL BE SIZED BY A PROFESSIONAL ENGINEER REGISTERED WITH THE STATE OF TEXAS AND INCLUDED WITHIN THE GRADING AND DRAINAGE PLAN OR AS DIRECTED BY THE CITY.

CONCRETE DRIVEWAY TO ASPHALT RD DETAIL OP1

NTS

REVISED: 10-2018



NOTES:

1. DRIVEWAYS SHALL INCLUDE DOWELED EXPANSION JOINTS AT 20' SPACING AND CONTROL BREAK JOINTS AT 10' SPACING.
2. PROVIDE A MIN OF 10" OVERLAP ON REINFORCING.
3. CONSTRUCT DRIVEWAYS WITH 5 SACK PORTLAND CEMENT.
4. ALL EXPANSION JOINTS TO BE SEALED WITH HOT POURED ELASTIC TYPE SEALER MEETING ASTM D1190 OR APPROVED EQUIL.
5. PROVIDE EXPANSION JOINT WITH SEALANT WHEN CONNECTING TO EXIST DRIVE.
6. SIDEWALKS SHALL MATCH THICKNESS OF DRIVEWAYS IN THE CONFINES OF DRIVEWAY WIDTH. SIDEWALKS WHEN CALLED FOR ON PLANS SHALL BE BUILT TO ADA COMPLIANCE. SEE CONCRETE DRIVEWAY DETAIL FOR SIDEWALK INFORMATION.
7. DRIVEWAY THICKNESS TO BE A MIN OF 4" FOR RESIDENTIAL AND 6" MIN FOR COMMERCIAL.
8. ON PUBLIC SIDE, WITHIN ROW: DRIVEWAY REINFORCING FOR RESIDENTIAL SHALL BE #3 REBAR ON 18" CENTERS E.W.; FOR COMMERCIAL MIN. REINFORCING SHALL BE #4 REBAR ON 24" CENTERS E.W.
9. DRIVEWAY CULVERTS SHALL BE BEDDED IN 1.5 SACK CEMENT STABILIZED SAND, FULL WIDTH OF DITCH IN DRIVEWAY ZONE. MECHANICALLY COMPACTED IN 6 INCH LIFTS, 6" INCHES BELOW PIPE TO 6" OVER THE PIPE. REMAINING AREA TO BE MECHANICALLY COMPACTED CRUSHED LIMESTONE.
10. DRIVEWAY CULVERTS SHALL BE A MINIMUM OF 24 INCH GASKET TONGUE AND GROOVE RCP. IF REQUIRED SHALL BE SIZED BY A PROFESSIONAL ENGINEER REGISTERED WITH THE STATE OF TEXAS AND INCLUDED WITHIN THE GRADING AND DRAINAGE PLAN OR AS DIRECTED BY THE CITY.

CONCRETE DRIVEWAY TO ASPHALT RD DETAIL OP2

NTS

REVISED: 10-2018

SIDEWALK AND DRIVEWAY DETAILS
SHEET 1 OF 1

League City TEXAS

DANIEL SCOTT ENGINEERING, LLC
TBPE F-9627
P.O. BOX 1548, ALVIN, TX 77512
(281) 313-8530
dse@danielscottengineering.com

LEAGUE CITY HOME TOWN HEROES PARK RESTROOM ADDITION
LEAGUE CITY, GALVESTON COUNTY, TEXAS

LEAGUE CITY SIDEWALK AND DRIVEWAY DETAILS

DRAWING SCALE
HORZ: NA
VERT: NA

P-02

Project No.	CB190200		
Drawn	ARN	Checked	XXX
Scale	NTS	Date	October 2018
Sheet	10	Of	10

Project No.
DSE19-006

Drawing No.
DSE19006-504

STATE OF TEXAS
SCOTT R. SHERIDAN
108881
LICENSED
PROFESSIONAL ENGINEER
OCTOBER 08, 2019

ABBREVIATIONS

AC	ACOUSTICAL	M.H.	MANHOLE
ADJ	ADJACENT	MANUF	MANUFACTURER
AL	ALUMINUM	MATL	MATERIAL
A.D.	AREA DRAIN	MAX	MAXIMUM
∠	ANGLE	M.D.F.	MEDIUM DENSITY FIBERBOARD
ASPH	ASPHALT	MEM. W. P.	MEMBRANE WATERPROOFING
@	AT	MECH	MECHANICAL
A.F.F.	ABOVE FINISH FLOOR	MET	METAL
BM	BEAM	M.O.	MASONRY OPENING
BLK	BLOCK	M.R.	MOISTURE RESISTANT
BD	BOARD	MTD.	MOUNTED
B.U.R.	BUILT UP ROOF	N.D.	NAPKIN DISPOSAL
BLDG	BUILDING	N.V.	NAPKIN VENDOR
		N.I.C.	NOT IN CONTRACT
CAB	CABINET	N.T.S.	NOT TO SCALE
CLKG	CAULKING	NO.	NUMBER
CLG	CEILING		
CEM	CEMENT	O.C.	ON CENTER
℄	CENTERLINE	OPNG	OPENING
CB	CHALKBOARD	O.D.	OUTSIDE DIAMETER
C	CHANNEL	O'HANG	OVERHANG
CLSRM	CLASSROOM	OPH	OPPOSITE HAND
COL	COLUMN		
COMP	COMPRESSIBLE	P.H.	PAPER HOLDER
COND	CONDITION	PL	PLATE
CONC	CONCRETE	PLWD	PLYWOOD
CMU	CONCRETE MASONRY UNIT	PT	POINT
C.J.	CONTROL JOINT	PTD	PAINTED
CONT	CONTINUOUS	POL	POLISHED
CONTR	CONTRACTOR	P.W.B.	PREFINISHED WALL BOARD
CORR	CORRIDOR	ℙ	PROPERTY LINE
D.P.	DAMPPROOFING	R	RADIUS
DET	DETAIL	RECP	RECPTACLE
DIA	DIAMETER	RE	REFERENCE
DIM	DIMENSION	REINF	REINFORCED
D.M.	DECORATIVE METAL	RESIL	RESILIENT
DWG	DRAWING	RES	RESOURCE
D.F.	DRINKING FOUNTAIN	REQD	REQUIRED
		REV	REVISED
EA	EACH	R.S.S.	ROD STOCK AND SEALANT
E.W.C.	ELECTRIC WATER COOLER	SCH	SCHEDULE
ELEC	ELECTRICAL	SECT	SECTION
EL	ELEVATION (HEIGHT)	SHT	SHEET
ELEV	ELEVATION (DRAWING)	SIM	SIMILAR
EQ	EQUAL	S.D.	SOAP DISPENSER
EXIST	EXISTING	SQ	SQUARE
EXP	EXPANSION	S.S.	STAINLESS STEEL
EXT	EXTERIOR	STL	STEEL
E.J.	EXPANSION JOINT	STRUCT	STRUCTURAL
		SUSP	SUSPENDED
FIN	FINISH		
FIXT	FIXTURE	T.B.	TACK BOARD
FLR	FLOOR	TEL	TELEPHONE
FNTN	FOUNTAIN	TERR	TERRAZZO
FRP	FIBERGLASS REINFORCED PANEL	THK	THICK
		T.T.D.	TOILET TISSUE DISPENSER
G.I.	GALVANIZED IRON	T.D.R.	TOWEL DISPENSER AND RECEPTACLE
GA	GAUGE		
GEN	GENERAL	TYP	TYPICAL
GL	GLASS		
G.B.	GRAB BAR	U.N.O.	UNLESS NOTED OTHERWISE
GR	GRADE		
GYP	GYPSUM	VENT	VENTILATING
		VER	VERIFY
HT	HEIGHT	VERT	VERTICAL
HORIZ	HORIZONTAL	V.I.F.	VERIFY IN FIELD
		V.C.T.	VINYL COMPOSITION TILE
I.D.	INSIDE DIAMETER		
I.P.S.	IRON PIPE SIZE		
INSUL	INSULATION	W.C.	WATER CLOSET
INT	INTERIOR	WP	WATERPROOFING
		W.S.	WEATHERSTRIP
JT	JOINT	WT	WEIGHT
		WWF	WELDED WIRE FABRIC
LAM	LAMINATE	W/	WITH
LAV	LAVATORY	WW	WINDOW WALL
LP	LIGHT POLE	WDW	WINDOW
L.T. WT.	LIGHT WEIGHT	WD	WOOD

MATERIALS

- CONCRETE
- BRICK
- CONCRETE MASONRY UNIT (CMU)
- GYPSUM BOARD (GYP. BD.)
- PLASTER ON METAL LATH
- CONTINUOUS WOOD
- WOOD SHIM, BLOCKING
- PLYWOOD
- FINISHED WOOD
- RIGID INSULATION
- BATT INSULATION
- CERAMIC TILE
- QUARRY TILE
- NATURAL STONE
- SEALANT
- ROD STOCK AND SEALANT
- MISCELLANEOUS STEEL
- EARTH
- SAND

SYMBOLS

- ROOM A103 — ROOM NUMBER
- 45 — DOOR NUMBER
- B — WINDOW NUMBER
- 5/A6.00 — WALL SECTION DRAWING NUMBER 5 ON SHEET A8
- 5/A6.00 — BUILDING SECTION DRAWING NUMBER 5 ON SHEET A8
- 5/A6.00 — DETAIL REFERENCE DRAWING NUMBER 5 ON SHEET A8
- 5/A6.00 — DETAIL REFERENCE DRAWING NUMBER 5 ON SHEET A8
- 5/A6.00 — INTERIOR ELEVATION DRAWING NUMBER 5 ON SHEET A8
- 3 — INTERIOR WINDOW OR OPENING
- A2 — PARTITION TYPE A2
- DIMENSION TO FACE
- DIMENSION TO CENTERLINE
- DIMENSION TO A GIVEN REFERENCE POINT
- INDICATES PLAN NORTH
- 17 SILL 1/8"=1'-0" RE: 5/A8 — 4 DENOTES DRAWING NUMBER; SILL DENOTES TITLE; 1/8"=1'-0" DENOTES DRAWING SCALE; RE: DENOTES REFERENCE TO DRAWING 5 ON SHEET A8

CODE INFORMATION

PROJECT INFORMATION

PROJECT NAME: LEAGUE CITY HOMETOWN HEROES PARK RESTROOMS
PROJECT LOCATION: HOMETOWN HEROES PARK
1001 EAST LEAGUE CITY PARKWAY
LEAGUE CITY , TEXAS 77573

SUMMARY OF WORK: NEW PARK RESTROOM BUILDING WITH FIELD EQUIPMENT STORAGE ROOM.

CODE INFORMATION

A. CODES
1. BUILDING CODE: 2015 INTERNATIONAL BUILDING CODE
2. FIRE CODE: 2015 INTERNATIONAL FIRE CODE.
3. ACCESSIBILITY: 2012 TEXAS ACCESSIBILITY STANDARDS (TAS) OF THE ARCHITECTURAL BARRIERS ACT, ARTICLE 9102, TEXAS STATUTES
4. MECHANICAL CODE: 2015 INTERNATIONAL MECHANICAL CODE
5. ELECTRICAL CODE: 2014 NATIONAL ELECTRICAL CODE
6. PLUMBING CODE: 2015 INTERNATIONAL PLUMBING CODE
7. PLUMBING: 2015 TEXAS STATE BOARD OF PLUMBING EXAMINERS LAW/RULES

B. TDLR PROJECT REGISTRATION NUMBER
(ARCHITECTURAL BARRIERS PROJECT REGISTRATION)
TABS2020002787

C. OCCUPANCIES
1. U- UTILITY AND MISCELLANEOUS

D. GENERAL CONSTRUCTION
1. CONSTRUCTION TYPE IIIB
2. AUTOMATIC SPRINKLER SYSTEM - NOT PROVIDED

F. BUILDING AREA
1. FLOOR AREA 1,191 SQ. FT. - (TOTAL AREA COVERED BY ROOF)

G. NOT USED

H. EGRESS
1. OCC. LOAD FACTOR - N/A (RESTROOM BUILDING)
2. OCCUPANT LOAD TOTAL: 12 OCC.
3. EGRESS WIDTH REQUIRED (SECTION 1005)

	STAIRS (.30")	OTHER (.2")
FIRST FLOOR	N/A	72" PROVIDED

I. FIRE RESISTANCE (TABLE 601 AND 602)

BUILDING ELEMENT	RATING	OPENING RATING
1. STRUCTURAL FRAME	NON RATED	
2. BEARING WALLS		
EXTERIOR	NON RATED	
INTERIOR	NON RATED	
3. NONBEARING EXTERIOR WALLS		
<5' TO PL	NON RATED	
>5' / <10' TO PL	NON RATED	
>10' / <30' TO PL	NON RATED	
>30' TO PL	NON RATED	
4. FLOOR CONSTRUCTION	NON RATED	
5. ROOF CONSTRUCTION	NON RATED	

J. REQUIRED PLUMBING FACILITIES

FLOOR PLAN

12 OCC. 6 M-6 F	WATER CLOSETS REQ'D.	WATER CLOSETS PROVIDED	URINALS REQ'D.	URINALS PROVIDED	LAVATORIES REQ'D.	LAVATORIES PROVIDED	DRINKING FOUNTAINS REQ'D.	DRINKING FOUNTAINS PROVIDED
MALE: (1 PER 150)	1	1	-	2	(1 PER 200) = 1	2	(1 PER 1,000) = 1	2
FEMALE: (1 PER 75)	1	3	-	0	(1 PER 200) = 1	2	(1 PER 1,000) = 1	2

K. PARKING REQUIREMENTS
PARKING IS EXISTING AND NO ADDITIONAL SPACES ARE PROVIDED. NOT IN SCOPE OF THIS PROJECT.

ACCESSIBILITY REQUIREMENTS

ACCESSIBILITY REQUIREMENTS

General Notes:
1. Minimum clear width of accessible route: 36".
2. Running slope shall not exceed 1:20.
(cross slope shall not exceed 1:50).
3. 1/4" to 1/2" changes in level require edge to be beveled with a slope no greater than 1:2.
4. The highest operable part of controls, dispensers, receptacles and other operable equipment shall be placed no higher than 3' 11–1/2" and not lower than 1' 3–1/2" above finished floor. These requirements shall apply to controls and operating mechanisms which are expected to be operable by occupants, visitors, or other users of a building or facility and may include, but are not limited to, thermostats, light switches, alarm activating devices, ventilators and electrical outlets.
5. Provide solid blocking at all wall mounted accessories.

Controls and Operating Mechanisms:
1. All accessible controls and operation mechanisms shall be operable with one hand and shall not require tight grasping, pinching, or twisting of the wrist. The force required to activate controls shall be no greater than 5 lbf.
2. Controls and Operating Mechanisms will allow a forward or parallel approach by a person using a wheelchair at controls, dispensers, receptacles and other operable equipment.
3. Highest operable parts for controls, dispensers, receptacles and other operable equipment shall be placed within 48" for frontal approach only. The minimum low forward reach will be 15".

Ramps:
1. Maximum slope: 1:12
2. Transitions shall be flush and free of abrupt changes.
3. Maximum slope of adjacent surfaces: 1:20.
4. Minimum clear width: 36".
5. Handrails required if rise exceeds 6" or run exceeds 72".
6. Handrails shall be provided on both sides of ramps.
7. Inside rail on switchback or dogleg ramps shall be continuous.
8. Where not continuous, rails shall extend at least 12" beyond top and bottom of ramp, parallel to ground surface.
9. Height of handrails: 35" (34–36).
10. Clear floor space between rails and any wall shall be 1–1/2".
11. Gripping surfaces shall be uninterrupted by newel posts, other construction elements, or obstructions.
12. Ends shall be rounded, or returned smoothly to floor, wall or post.
13. Handrails shall not rotate in their fittings.
14. Diameter or width of gripping surface shall be 1–1/4" to 1–1/2", or shall provide an equivalent gripping surface.

Stairs:
1. All steps on a flight of stairs shall have uniform riser heights and tread widths.
Minimum tread depth shall be 11" unless otherwise noted, measured from riser to riser.
2. Undersides of nosing shall not be abrupt.
Radius of curvature at leading tread edge shall not exceed 1/2".
Risers shall be sloped or underside of nosing shall have an angle not less than 60 degrees.
Nosing shall project no more than 1–1/2".
3. Handrails are required at both sides of all stairs.
4. Inside rail on switchback or dogleg stairs shall be continuous.
5. Where not continuous, handrail extensions shall be provided as follows:
Top of stair flights: Parallel to floor, 12" minimum beyond top riser nosing.
Bottom of stair flights: Continue sloping for one tread width beyond bottom rise, plus 12" minimum parallel to floor.
6. Handrails height: 35" measured from stair nosing.
7. Clear floor space between rails and any wall shall be 1–1/2".
8. Gripping surfaces shall be uninterrupted by newel posts,other construction elements, or obstructions.
9. Ends shall be rounded, or returned smoothly to floor, wall, or post.
10. Handrails shall not rotate in their fittings.
11. Diameter or width of gripping surface shall be 1–1/4" to 1–1/2", or shall provide an equivalent gripping surface.

Doors:
Re: Clearance diagrams – this sheet

1. Doorways shall provide a clear opening of 32" min., with the door open 90 degrees.
2. Openings more than 24" in depth shall provide a clear opening of 36" min.
3. Max. threshold height: 1/2".
4. Door hardware:
Handles, pulls, latches, locks and other operating devices shall have a shape that is easy to grasp with one hand and does not require tight grasping, tight pinching or twisting of the wrist to operate.
5. Lever-operated mechanisms, push-type mechanisms, and U-shaped handles are acceptable designs.
6. Hardware required for passage shall be mounted no higher than 47–1/2" above finished floor.
7. Door Closer: If a door has a closer, then the sweep period of the closer shall be adjusted so that from open position of 70 degrees, the door will take at least 3 seconds to move to a point 3" from the latch, measured to the leading edge of the door.
8. Door opening Force: The maximum force for pushing or pulling open a door shall be as follows:
a. Exterior hinged doors: 8 lb.
b. Interior hinged doors: 5 lb.
c. Sliding or folding doors: 5 lb.
9. Automatic Doors and Power-Assisted Doors: If an automatic door is used, then it shall comply with ANSI/BHMA156.10-1985.
Slowly opening, low powered, automatic doors shall comply with ANSIA156.19-1984.
Such doors shall not open to back check faster than 3 seconds and shall require not more than 15 lb to stop door movement.
If a power assisted door is used, its door opening force shall comply with forces listed above and its closing force shall comply with ANSIA156.19-1984.

Water Closets:
1. Water closets shall be located 18" from a side wall or partition to centerline.
2. Standard stall partitions and at least one side partition shall provide a toe clearance of 12" except in stalls deeper than 60".
3. Accessible toilet stall doors will have a minimum clear width of 32".
4. The height to the top of the toilet seat shall be 17" to 19".
5. For water closets not located in toilet stalls, the following grab bars shall be provided, 34" above the finish floor:
Side Wall: 42" long minimum, 12" from back wall.
Back Wall: 36" long minimum, 12" minimum each side of water closet centerline.
6. Flush controls shall be 44" maximum above the finish floor.
Controls for flush valves shall be mounted on the wide side of toilet areas.
7. Toilet paper dispensers shall be installed on the side wall, below the grab bar, a minimum 14–19" above the floor, to the bottom of the dispenser and 7–9" from the rim of the toilet.

Urinals:
1. Accessible urinals shall be wall hung with an elongated rim 17" maximum above the finish floor.
If only one urinal is required, it does not have to be accessible. If more than 2 then one must be accessible.
2. Flush controls shall be 44" maximum above the finished floor.

Lavatories and Mirrors:

1. Lavatories shall extend 17" minimum from the wall.
2. Clearance of 27" minimum shall be provided from finish floor to bottom of apron.
3. Knee clearance of 27" minimum shall extend 8" minimum under the edge of the lavatory.
4. Toe clearance of 9" minimum shall be provided for the full depth of the lavatory.
5. Hot water and drain pipes under lavatories shall be insulated or otherwise configured to protect against contact.
6. Mirrors at sinks shall be mounted with the bottom edge of the reflecting surface 40" maximum above the finish floor. Mirrors not above sinks shall be mounted at 35" max. to bottom of reflective surface.
7. If medicine cabinets are provided, at least one shall be located with a usable shelf no higher than 43–1/2" above the floor.

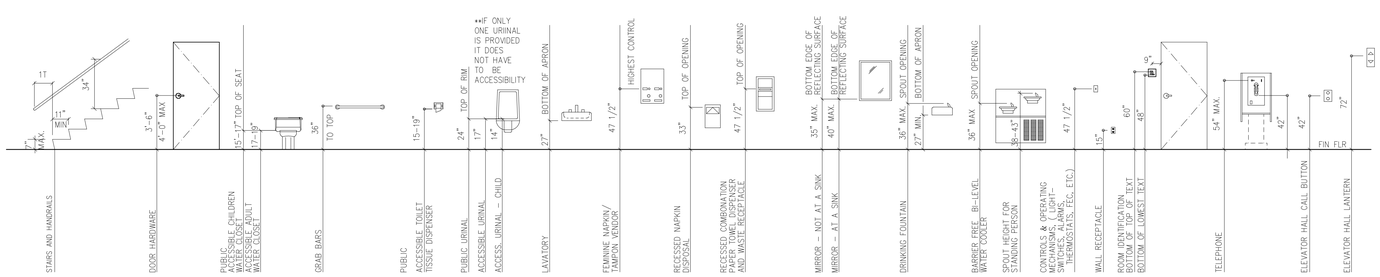
Sinks:
1. Knee clearance of 27" high minimum, 30" wide minimum, and 19" deep minimum shall be provided underneath sinks.
2. Hot water and drain pipes under lavatories shall be insulated or otherwise configured to protect against contact.
3. All sinks will have lever operated faucets.

Grab Bars:
1. Diameter or width of gripping surface shall be 1–1/4" to 1–1/2", or the shape shall provide an equivalent gripping surface.
2. The space between grab bars and adjacent walls shall be 1–1/2".
3. Grab bars shall not rotate within their fittings.
4. Grab bars and adjacent wall surfaces shall be free of sharp or abrasive surfaces.
5. Edges shall have a radius of 1/8" minimum.

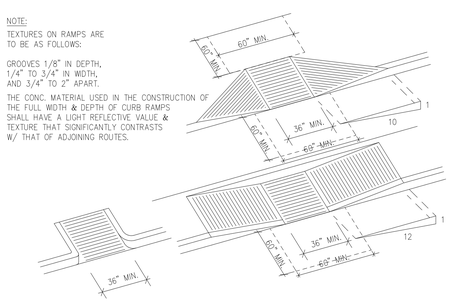
Drinking Fountains:
1. Drinking fountains specified shall allow for a clear knee space between the bottom of the apron and the floor at least 27" high, 30" wide, and 17" to 19" deep.

Alarms:
1. Visual alarm signal appliances shall be placed 80" above the highest floor level within the space or 7" below the ceiling, whichever is lower.
2. All alarms specified will produce a sound that exceeds the prevailing equivalent sound level in the room or space by at least 15 dba or exceeds any maximum sound level with a duration of 60 seconds by 5 dba, whichever is louder.
3. Sound levels for alarm signals shall not exceed 120 dba.

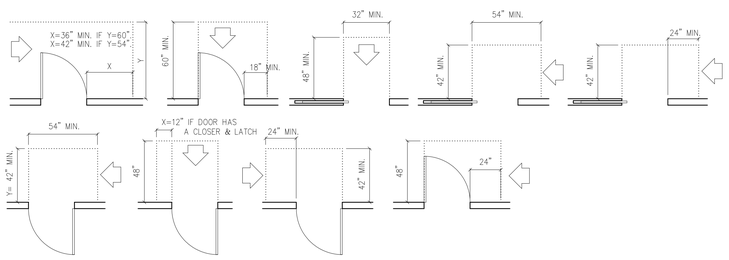
Signage:
1. Signs which designate permanent rooms and spaces shall comply with the requirements listed below for:
Mounting Location and Height
Where permanent identification is provided for rooms and spaces, signs shall be installed on the wall adjacent to the latch side of the door.
Where there is no wall space to the latch side of the door, including at double-leaf doors, signs shall be placed on the nearest adjacent wall.
Mounting height shall be 48" a.f.f. to the bottom of the last row of text on the sign. And the top row of text
Bottom of the top row of text shall not exceed 60" a.f.f.
2. Signage specified shall have properly proportioned raised and brailled letters, numbers, and pictorial symbols.
3. Signage specified will be fabricated with a non-glare finish and colors chosen will create a significant visual contrast.
4. International symbols of accessibility shall be used where needed to denote type of accessible service provided and its location.



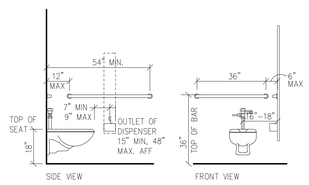
13 MOUNTING HEIGHTS
SCALE: 1/4"=1'-0"



26 CURB RAMP DESIGN
SCALE: 1/4"=1'-0"



21 DOOR CLEARANCES
SCALE: 1/4"=1'-0"



REFER: 6/G1.01 FOR CHILDREN/PRESCHOOL MOUNTING HEIGHTS

11 ACCESSIBLE TOILET
SCALE: 1/4"=1'-0"

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League City, Texas 77573

ISSUED
10-14-2019
ISSUED FOR BID AND PERMIT

REVISION:

DRAWN BY:	EK
CHECKED BY:	SAL
ZCA PROJ. NO.:	1108801
SHEET TITLE:	

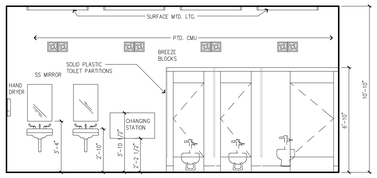
DRAWING NO.:

G1.10

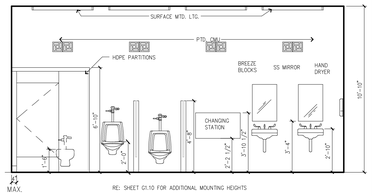
Hometown Heroes Park Restrooms
ZCA Project No. 1108801

ACCESSORIES SCHEDULE

NO.	ACCESSORY UNIT	MFR	MODEL NO.	NOTES
A1	LARGE DBL. ROLL TOILET TISSUE DISP.	BOBRICK	B-2892	
A2	HAND DRYER	BOBRICK	B-7128	
A3	1 1/4" S.S. GRAB BAR 36"	BOBRICK	B-5806-36	B-5897 - TWO WALL 42X54
A4	1 1/4" S.S. GRAB BAR 42"	BOBRICK	B-5806-42	
A5	STAINLESS STEEL MIRROR	BOBRICK	B1556-2436	
A6	SANITARY NAPKIN DISPOSAL	BOBRICK	B354	TWO SIDED PARTITION MOUNTED
A7	SANITARY NAPKIN DISPOSAL	BOBRICK	B254	SINGLE SURFACE MTD.
A8	BABY CHANGING STATION	KOALA	KB110-SSWM	SURFACE MTD.



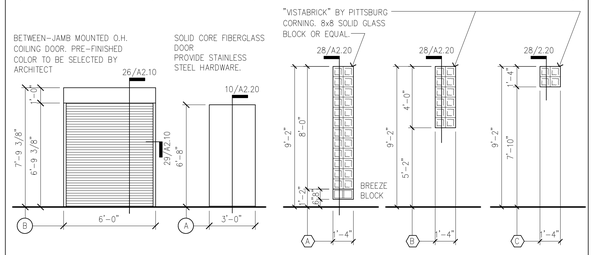
30 WOMEN
1/4"=1'-0"



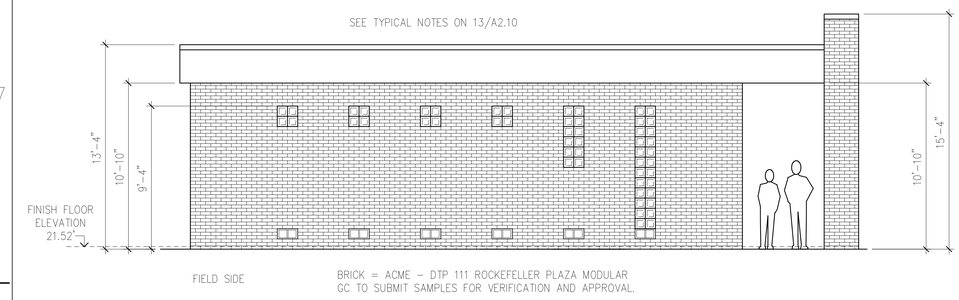
25 MEN
1/4"=1'-0"

DOOR SCHEDULE

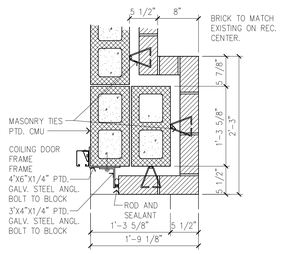
NO.	SIZE (WxHxT)	TYPE	FRAME	RE: A6.0			HDWR	NOTES
				HEAD	JAMB	SILL	SET	
101	3'-0" x 7'-0" x 1 3/4"	A	FRP	28	27	26	1	PUSH/PULL WITH KEYED DEAD BOLT
102	3'-0" x 7'-0" x 1 3/4"	A	FRP	28	27	26	1	PUSH/PULL WITH KEYED DEAD BOLT
103	3'-0" x 7'-0" x 1 3/4"	A	FRP				2	KEYPAD
104	6'-0"W x 8'-0" H	B	HM	26/A2.10			3	KEYPAD



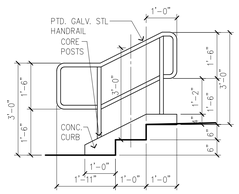
15 DOOR/WINDOW TYPES/SCHEDULE
1/4"=1'-0"



15 BUILDING ELEVATION
1/4"=1'-0"



29 PLAN DETAIL
1"=1'-0"



24 HANDRAIL
1/2"=1'-0"

THE FOLLOWING IS A GENERAL LIST OF HARDWARE ITEMS TO BE PROVIDED. GENERAL CONTRACTOR IS RESPONSIBLE FOR COORDINATING WITH MANUFACTURER OF SPECIFIC DOOR SUBMITTED IN ORDER TO COMPLY WITH TDI REQUIREMENTS.

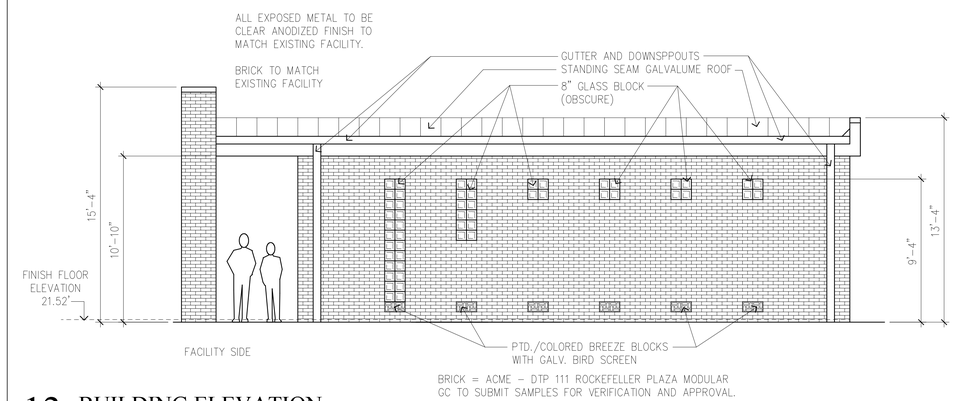
ALL HARDWARE TO BE GRADE 1 STAINLESS STEEL (630 FINISH)

HARDWARE SET #1
- 3 EA. HINGES
- CLASSROOM DEADBOLT
- CLOSER - PARALLEL ARM WITH STOP - S CUSH
- 4X16 PUSH PLATE (INTERIOR)
- 4X16 PULL PLATE (EXTERIOR)
- KICK PLATE - FULL WIDTH - 10"H
- DOOR SWEEP
- RAIN DRIP
- RABBITED THRESHOLD - (566A ZERO)
- 1 EA. GASKETING - TOP AND SIDE FRAMES

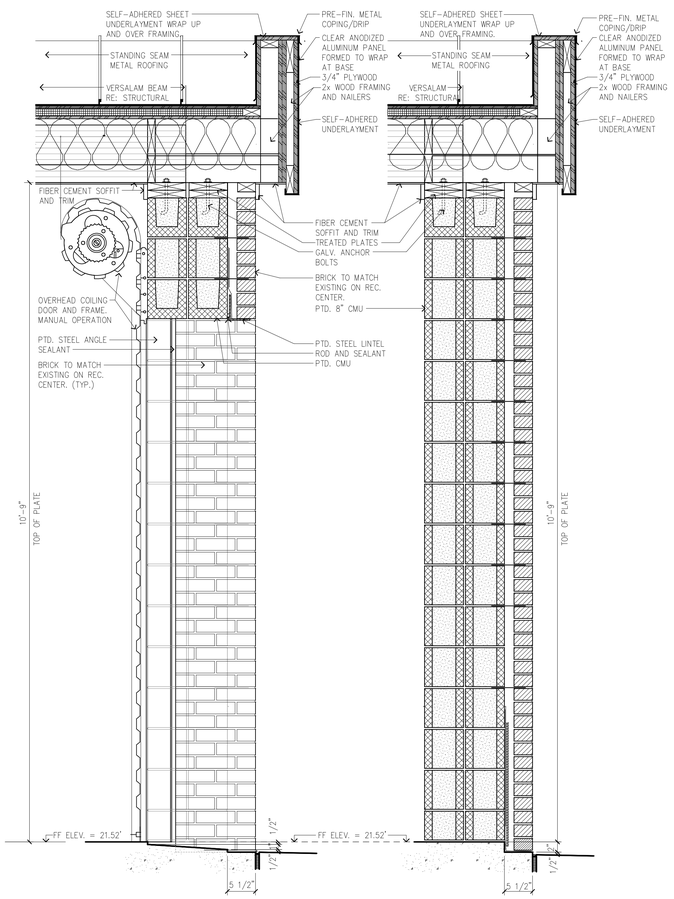
HARDWARE SET #2
- 3 EA. HINGE
- STOREROOM LOCK (GRADE 1 CYLINDRICAL)
- ARMOR PLATE
- FLOOR STOP (F-18)
- 3 EA. SILENCERS

HARDWARE SET #3
- 1 EA. RIM CYLINDER
- BALANCE OF HARDWARE BY DOOR MANUFACTURER

29 HARDWARE SCHEDULE
NO SCALE

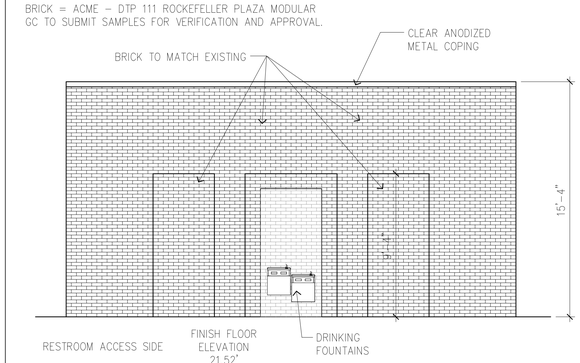


13 BUILDING ELEVATION
1/4"=1'-0"

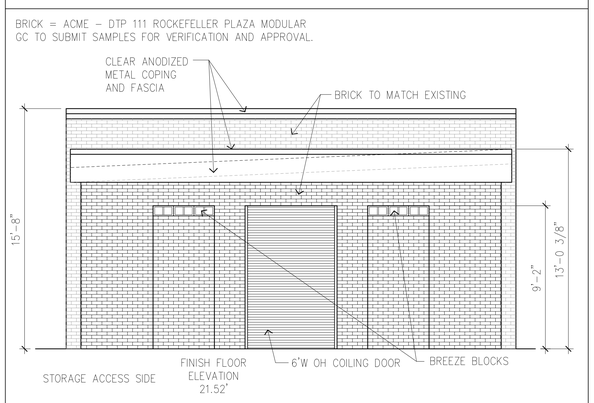


26 WALL SECTION
1"=1'-0"

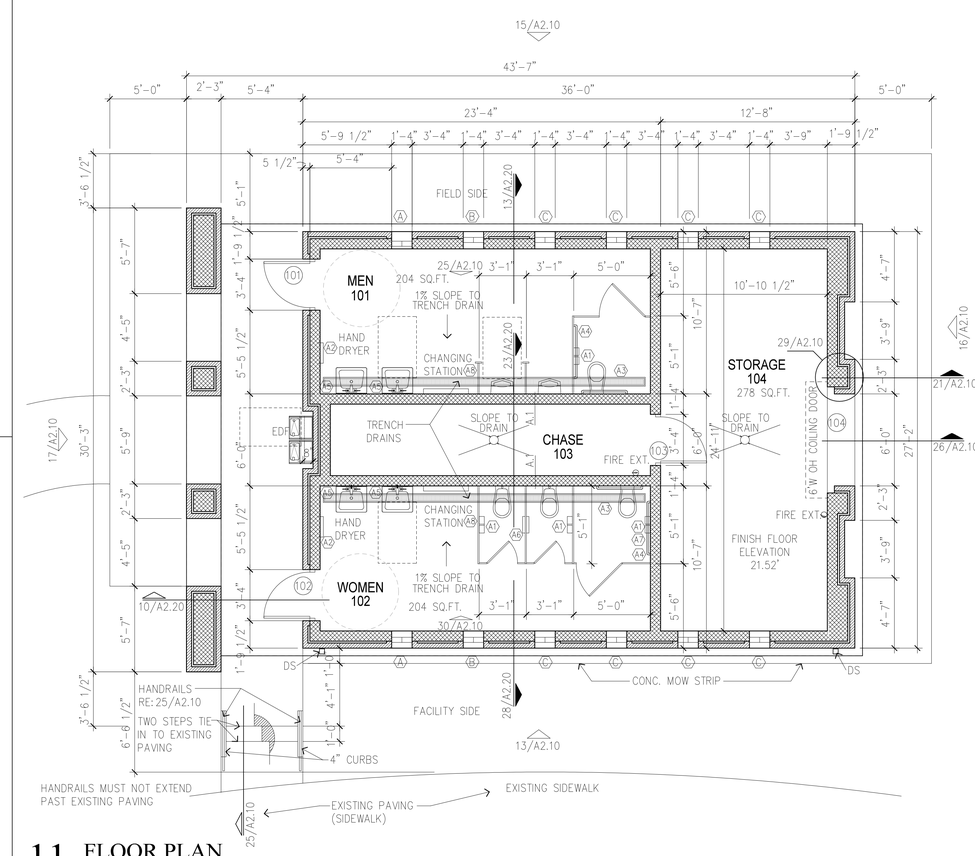
21 WALL SECTION
1"=1'-0"



17 BUILDING ELEVATION
1/4"=1'-0"



16 BUILDING ELEVATION
1/4"=1'-0"



11 FLOOR PLAN
1/4"=1'-0"

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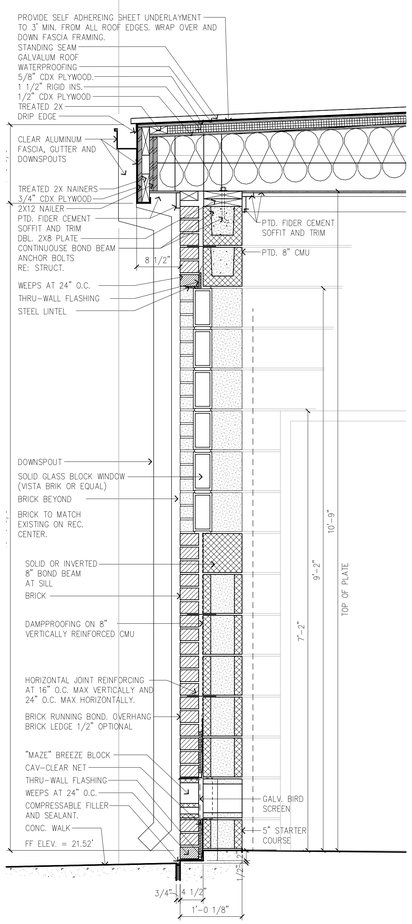
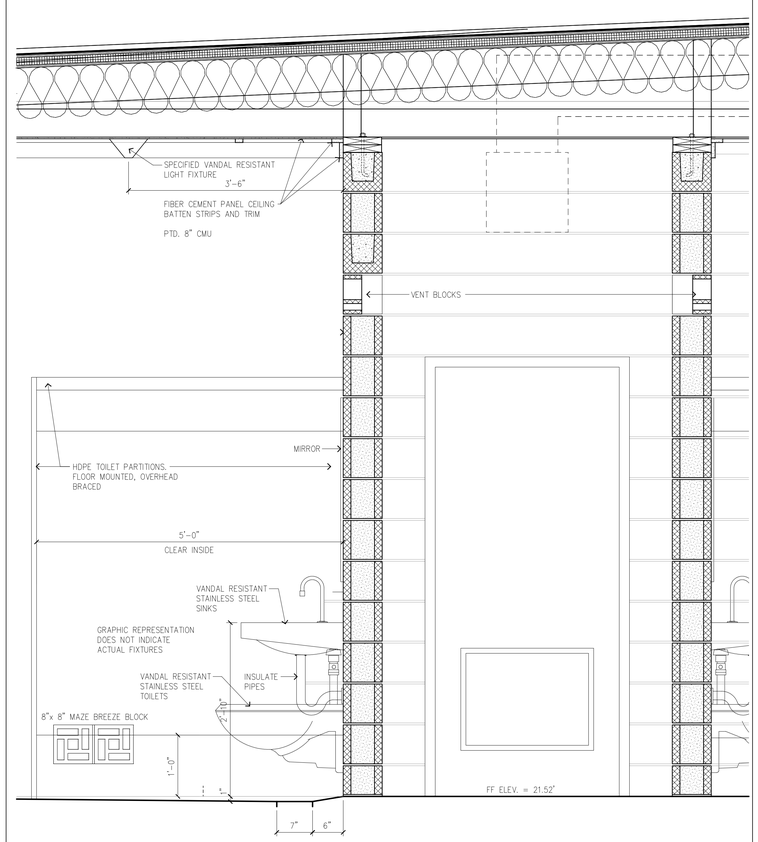
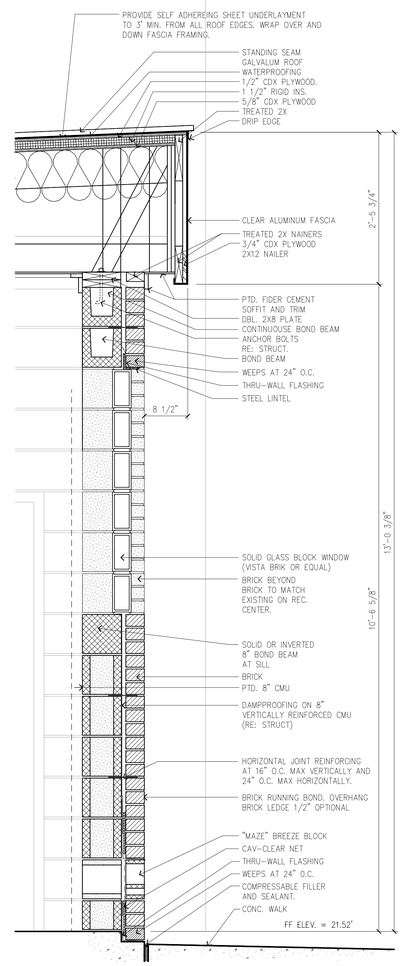


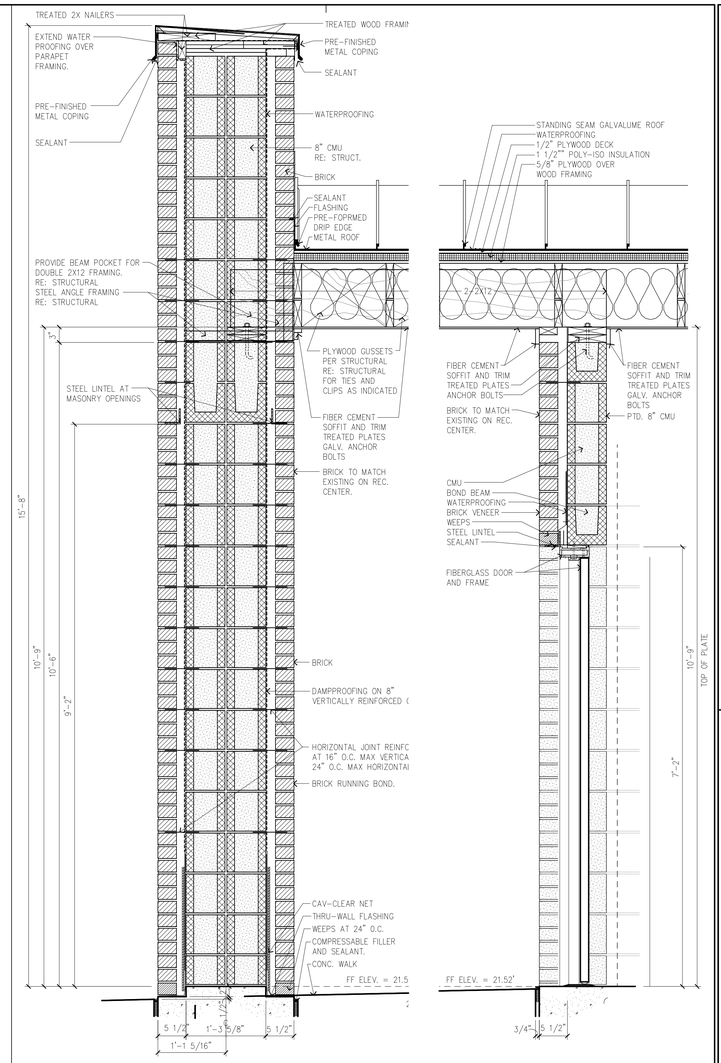
28 WALL SECTION
1/4"=1'-0"



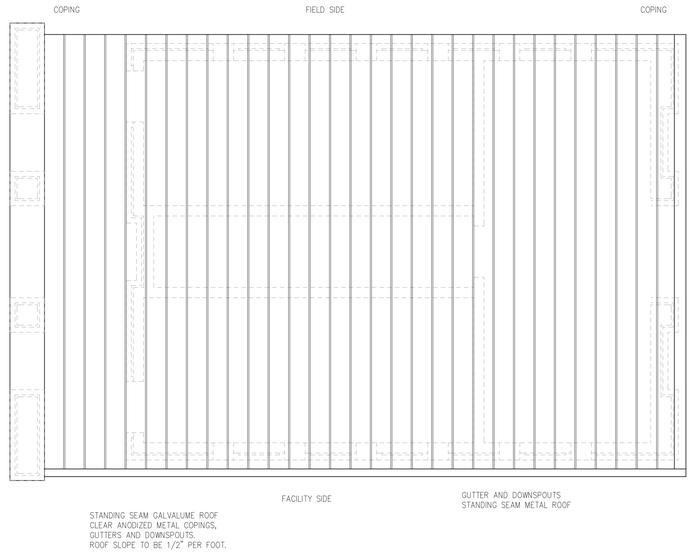
23 WALL SECTION
1/4"=1'-0"



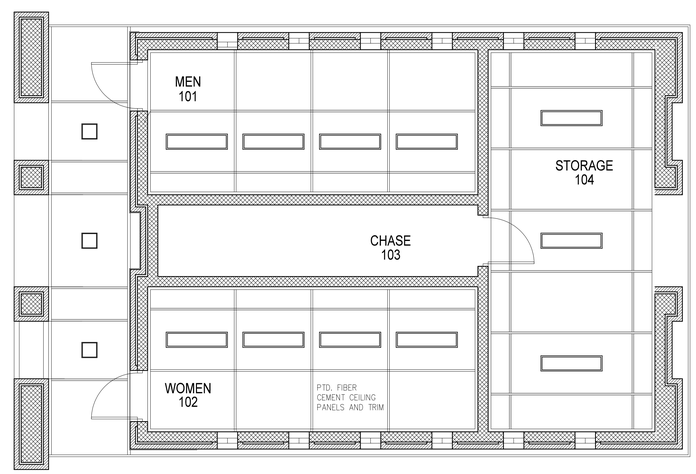
13 WALL SECTION
1/4"=1'-0"



10 WALL SECTION
1/4"=1'-0"



16 ROOF PLAN
1/4"=1'-0"



ALL LIGHTING FIXTURES TO BE WET RATED AND VANDAL RESISTANT.
ALL CEILING AND SOFFIT MATERIAL TO BE PAINTED FIBER CEMENT MATERAIL.

6 REFLECTED CEILING PLAN
1/4"=1'-0"

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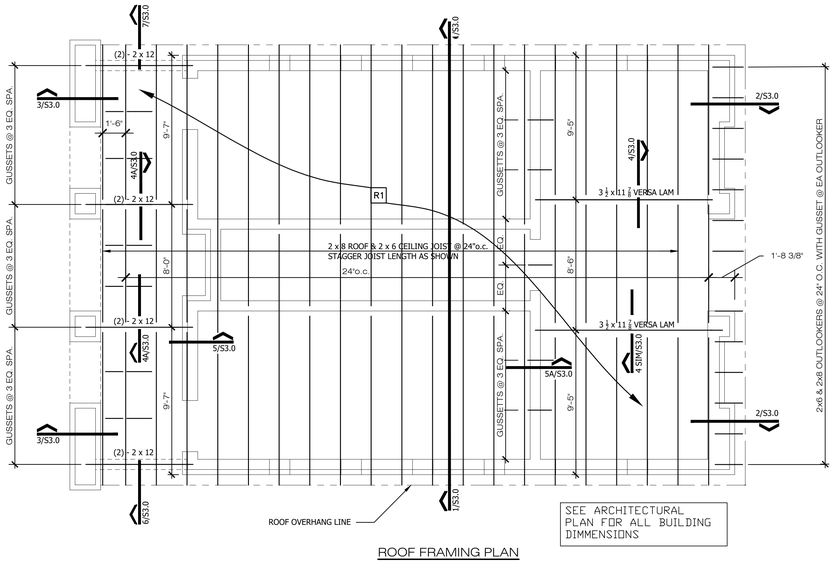


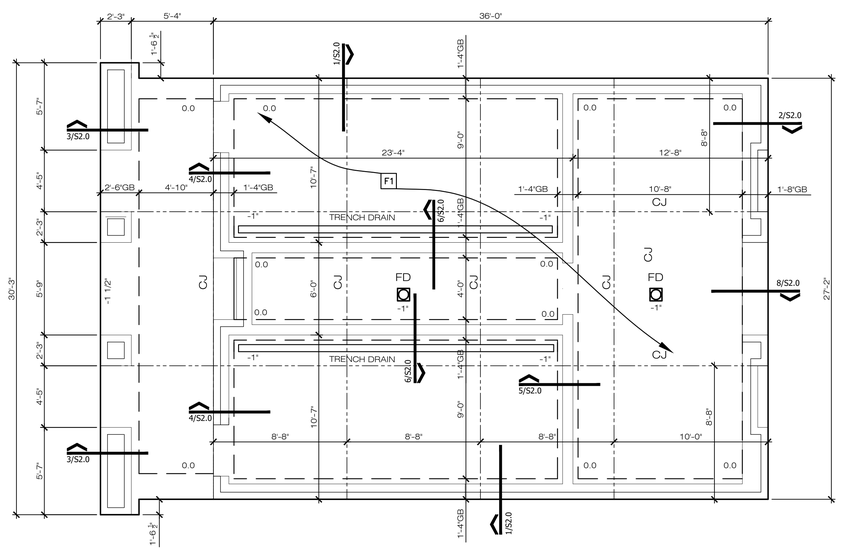
ROOF FRAMING PLAN

ROOF FRAMING PLAN NOTES:

FOR LOOSE LINTEL SCHEDULE, SEE 7/S3.0.

FOR BLOCK LINTEL SCHEDULE, SEE 7/S3.0.

R1 $\frac{15}{32}$" C-D EXTERIOR PLYWOOD OVER INSULATING BOARD SEE 6/S3.0 FOR ATTACHMENT TO ROOF DECK WITH $\frac{15}{32}$" C-D EXTERIOR PLYWOOD ROOF DECK SEE DETAIL 6/S3.0 FOR ATTACHMENT TO 2x8 JOIST.



FOUNDATION PLAN

FOUNDATION PLAN NOTES:

VERIFY LOCATION OF EXISTING UNDERGROUND UTILITIES PRIOR TO ANY DRILLING OR EXCAVATION.

FOR GENERAL NOTES SEE SHEET S1.0.

-2 1/2" DENOTES TOP OF CONCRETE ELEVATION RELATIVE TO DATUM FINISH FIRST FLOOR.

F1 4 1/2" CONCRETE SLAB ON SPECIFIED FILL. REINFORCE WITH #3 AT 15" OC EACH WAY. SUPPORT BARS ON 2" HIGH CHAIRS WITH SAND PADS @ 45" OC EACH WAY.

SEE 8/S2.0 FOR TYPICAL GRADE BEAM CORNER BAR DETAILS.

SEE 9/S2.0 FOR TYPICAL GRADE BEAM CONSTRUCTION JOINT DETAIL.

FOR PIPE OR MECHANICAL PENETRATION THRU GRADE BEAMS SEE 11/S2.0.

FOR SLAB CONTROL JOINT DETAIL, SEE 10/S2.0. UNLESS NOTED ON PLAN CONTRACTOR IS TO LOCATE CONTROL JOINTS AND SUBMIT TO THE ARCHITECT AND ENGINEER FOR THEIR REVIEW BEFORE PLACING SLAB.

CJ DENOTED SLAB CONTROL JNTS SEE 10/S2.0

GENERAL NOTES

CONCRETE:

ALL CONCRETE SHALL HAVE SAND AND GRAVEL AGGREGATE, TYPE I PORTLAND CEMENT, AND SHALL HAVE A COMPRESSIVE STRENGTH (FC) OF 3,000 PSI AT 28 DAYS.

MINIMUM CEMENT RATIO TO BE: 5 SACKS PER CUBIC YARD FOR 3,000 PSI CONCRETE MAXIMUM WATER CEMENT RATIO TO BE 0.50.

THE USE OF FLY ASH IN CONCRETE IS NOT PERMITTED ON THIS PROJECT.

ALL CONCRETE REINFORCEMENT BARS SHALL CONFORM TO ASTM A615, GRADE 60. NO.3 BARS MAY BE GRADE 40.

ALL WELDED WIRE FABRIC SHALL CONFORM TO ASTM 185.

DETAILING, FABRICATION AND PLACING OF CONCRETE REINFORCEMENT AND ACCESSORIES SHALL BE IN ACCORDANCE WITH ACI SP-66, LATEST EDITION.

CONTINUOUS REINFORCEMENT FOR SLABS ON GRADE AND HORIZONTAL BARS IN FOOTINGS SHALL HAVE MINIMUM LAP AT SPLICES AS FOLLOWS (UNLESS OTHERWISE NOTED):

NO.3 BARS...16"	NO.4 BARS...22"	NO.5 BARS...27"
NO.6 BARS...32"	NO.7 BARS...38"	NO.8 BARS...43"

CONTINUOUS REINFORCEMENT FOR GRADE BEAMS SHALL HAVE MINIMUM LAP AT SPLICES AS FOLLOWS (UNLESS OTHERWISE NOTED):

NO.3 BARS...21"	NO.4 BARS...28"	NO.5 BARS...35"
NO.6 BARS...42"	NO.7 BARS...49"	NO.8 BARS...59"

WELDED WIRE FABRIC SHALL LAP SO THAT THE OVERLAP MEASURED BETWEEN OUTMOST CROSS WIRES OF EACH FABRIC SHEET IS NOT LESS THAN THE SPACING OF CROSS WIRES PLUS 2".

PROVIDE CORNER BARS EQUAL IN SIZE AND NUMBER BY FIVE FEET WITH A 90 DEGREE BEND AT THE CORNER, IN EXTERIOR FACE OF BEAMS AND WALLS. CORNER BARS NEED NOT BE LARGER THAN #5. SEE TYPICAL DETAIL FOR CORNER BARS.

REINFORCING BARS MAY NOT BE WELDED WITHOUT APPROVAL OF THE STRUCTURAL ENGINEER.

CONCRETE PROTECTION FOR REINFORCEMENT SHALL BE AS FOLLOWS, (SEE SECTION 7.7 ACI 318, LATEST EDITION, FOR CONDITIONS NOT NOTED):

ALL CONCRETE FORMED AGAINST THE GROUND.....3"
SIDES AND BOTTOMS OF GRADE BEAMS.....3"
WALLS AND SIDES OF BEAMS ABOVE GRADE.....1 1/2"
SLABS ABOVE GRADE.....3/4"

EXTERIOR FACE OF ALL GRADE BEAMS SHALL BE BOARD FORMED FOR A MINIMUM OF 9" BELOW THE BRICK LEDGE.

ALL MIXING, TRANSPORTING, PLACING AND CURING OF CONCRETE SHALL BE DONE IN ACCORDANCE WITH THE RECOMMENDATION OF THE LATEST EDITIONS OF THE AMERICAN CONCRETE INSTITUTE ACI 318, ACI 301, ACI 309, ACI 305 AND ACI 306. MAXIMUM FREE FALL FOR CONCRETE TO BE 3'-0".

NO HORIZONTAL JOINTS WILL BE PERMITTED IN CONCRETE EXCEPT AT CONSTRUCTION JOINTS EXCEPT WHERE THEY NORMALLY OCCUR OR WHERE DETAILED.

HORIZONTAL REINFORCING SHALL BE CONTINUOUS THROUGH CONSTRUCTION JOINTS.

FRESHLY DEPOSITED CONCRETE SHALL BE PROTECTED FROM PREMATURE DRYING AND EXCESSIVE HOT OR COLD TEMPERATURES FOR THE PERIOD OF TIME NECESSARY FOR THE HYDRATION OF THE CEMENT AND PROPER HARDENING OF THE CONCRETE. THIS SHALL BE A MINIMUM OF SEVEN DAYS AFTER THE CONCRETE IS POURED.

ALL CONCRETE SHALL BE CONSOLIDATED BY VIBRATION, SPADING OR RODDING, SO THAT THE CONCRETE IS THOROUGHLY WORKED AROUND THE REINFORCEMENT, EMBEDDED ITEMS, AND INTO CORNERS OF FORMS, ELIMINATING ALL AIR OR STONE POCKETS WHICH MAY CAUSE HONEYCOMBING. CARE SHALL BE TAKEN NOT TO OVER VIBRATE AND CAUSE SEGREGATION.

SEE ARCHITECTURAL, MECHANICAL, AND ELECTRICAL DRAWINGS FOR SLEEVES, CURBS, DEPRESSIONS, INSERTS, ETC. THAT ARE NOT SHOWN.

WOOD:

ALL LUMBER SHALL BE STRESS GRADED MINIMUM NO. 2 MEDIUM GRAIN KILN DRIED SOUTHERN YELLOW PINE, UNLESS OTHERWISE NOTED.

ALL ROOF DECKING SHALL BE MINIMUM 19/32" THICK PLYWOOD THAT COMPLIES WITH APA PERFORMANCE RATED SHEATHING (40/20, EXPOSURE 1) WITH 10d NAILS AT 6" ON EDGE AND 12" ON INTERMEDIATE FRAMING UNLESS NOTED OTHERWISE ON THE DRAWINGS. STAGGER SHEATHING JOINTS.

FOR ROOF DECK WITH SUPPORTS AT 24" OR GREATER, INSTALL SIMPSON OR EQUIVALENT PLYCLIPS ON HORIZONTAL JOINT AT MIDSPAN BETWEEN EACH ROOF RAFTER.

BEAMS, HEADERS AND JOIST ARE TO BE FRAMED WITH GALVANIZED SHEET METAL HANGERS. ALL ANCHORS SHALL BE BY "SIMPSON STRONG-TIE" OR EQUIVALENT.

ALL NAILS NOTED ARE BASED ON COMMON HAND SET NAILS. CONTRACTOR TO SUBMIT FOR APPROVAL ENGINEERING DATA THAT VERIFIES LOAD CAPACITY OF NAILS TO BE SET WITH NAIL GUNS. COUNT AND SPACING OF NAILS TO BE ADJUSTED FOR LESS THAN EQUIVALENT LOAD CAPACITY. WIRE STAPLES ARE NOT TO BE USED IN PLACE OF NAILS.

ALL GLUE LAMINATED TIMBER SHALL HAVE AN ALLOWABLE BENDING STRESS OF 2,400 PSI AND A MODULUS OF ELASTICITY OF 1,800 PSI. LAMINATED TIMBER MANUFACTURER SHALL SUBMIT FOR REVIEW: FABRICATION AND ERECTION PLAN DRAWINGS, DESIGN DATA AND DESIGN CALCULATIONS ALL TO BE SEALED BY A REGISTERED ENGINEER IN THE STATE WHERE THE BUILDING IS BEING CONSTRUCTED. THE LAMINATED TIMBER DESIGN DATA SHALL INCLUDE LUMBER SPECIES, GRADE, SIZE OF EACH MEMBER, DESIGN LOADING AND DESIGN OF ALL CONNECTIONS.

ALL LAMINATED VENEER LUMBER SHALL HAVE AN ALLOWABLE BENDING STRESS OF 2800 PSI. ADHESIVES TO MEET REQUIREMENTS OF ASTM D 2559-84 (WET USE) EXPOSURE CONDITIONS.

MASONRY:

ALL MASONRY CONSTRUCTION SHALL CONFORM WITH THE REQUIREMENTS OF ACI 530-88 AND ACI 530.1-88, LATEST EDITION.

ALL CONCRETE MASONRY UNITS SHALL HAVE A MINIMUM PRISM STRENGTH OF fm = 1800 PSI. ALL MORTAR SHALL BE TYPE M OR S USING PORTLAND CEMENT AND HYDRATED LIME. MASONRY CEMENT MIX IS NOT TO BE USED.

FILL ALL REINFORCED CELLS, REINFORCED BOND BEAMS OR REINFORCED CAVITIES WITH ASTM C476 GROUT HAVING A 28 DAY COMPRESSIVE STRENGTH OF 3000 PSI. LAP MASONRY REINFORCING 48 BAR DIAMETERS. PLACE GROUT IN LIFTS NOT EXCEEDING 5 FEET. SEE ACI 530.1 - 88 FOR MAXIMUM POUR HEIGHTS.

MASONRY COURSING SHOWN ON STRUCTURAL DRAWINGS IS TO INDICATE MATERIAL TYPE. SEE ARCHITECTURAL DRAWINGS FOR ACTUAL MASONRY COURSING.

SITEWORK WITHIN BUILDING LINE:

BUILDING SITE SHALL BE STRIPPED AS NECESSARY TO REMOVE ALL VEGETATION, TOPSOIL, AND ANY NON-COMPACTED MISCELLANEOUS FILL.

TREE STUMPS AND ROOTS TO BE GRUBBED OUT TO REMOVE ALL ROOTS GREATER THAN 1-1/2" DIAMETER.

GRADE MODIFICATIONS INSIDE THE BUILDING SITE AND A MINIMUM OF 5'-0" OUTSIDE OF THE BUILDING LINE SHALL BE DONE WITH SELECT COMPACTED FILL. SEE THE GEOTECHNICAL REPORT FOR SUBGRADE PREPARATION.

UNLESS OTHERWISE SPECIFIED, A 10 MILLIMETER ASTM E 1745 CLASS A MINIMUM WITH A LOW DENSITY POLYETHYLENE MEMBRANE SHALL BE PLACED BELOW THE BUILDING SLAB ON GRADE AND OVER SELECT FILL. JOINTS TO BE LAPPED AND TAPED AND PENETRATIONS SEALED PER MANUFACTURER'S PUBLISHED RECOMMENDATIONS.

GENERAL:

CONSTRUCTION METHODS, ERECTION PROCEDURES, AND SAFETY PRECAUTIONS ARE THE RESPONSIBILITY OF THE CONTRACTOR, STRUCTURAL DRAWINGS REPRESENT THE FINISHED STATE OF STRUCTURAL ELEMENTS. CONTRACTOR TO PROVIDE TEMPORARY BRACING FOR ACCURATE PLUMBING AND TO RESIST ALL WIND, SOIL BACKFILL, AND CONSTRUCTION LOADS. ENGINEERED STRUCTURAL DESIGN FOR TEMPORARY BRACING, FORMWORK, SOIL RETENTION, AND SHORING ARE TO BE PROVIDED BY THE CONTRACTOR.

ALL TEMPORARY BRACING SHALL REMAIN IN PLACE UNTIL ALL STRUCTURAL ELEMENTS HAVE BEEN INSTALLED INCLUDING X-BRACING AND SHEAR WALLS.

CONTRACTOR TO VERIFY ALL DIMENSIONS AND EXISTING CONDITIONS OF JOB SITE. ANY VARIATION FROM DIMENSIONS OR DETAILS AS SHOWN ON THE STRUCTURAL DRAWINGS SHALL BE REPORTED TO THE ARCHITECT AND STRUCTURAL ENGINEER.

EXTRA CARE SHALL BE TAKEN TO PREVENT CAVING AND SLOUGHING OF THE SIDES OF THE GRADE BEAM EXCAVATION.THE GRADE BEAMS SHALL BE KEPT CLEAN OF ANY EARTH THAT MAY COME LOOSE FROM THE SIDES AND FALL INTO THE EXCAVATIONS. THE BOTTOM OF GRADE BEAMS SHALL BE EXCAVATED USING EQUIPMENT CAPABLE OF PROVIDING A RELATIVELY CLEAN BEARING SURFACE. THE BOTTOM 6 " OF THE BEAMS SHOULD BE COMPLETED WITH A SMOOTH-MOUTHED BUCKET OR BY HAND. DEBRIS IN THE BOTTOM OF THE EXCAVATION SHOULD BE REMOVED PRIOR TO STEEL PLACEMENT. STEEL AND CONCRETE SHALL BE PLACED AS SOON AS POSSIBLE AFTER EXCAVATION IS COMPLETED. EXCAVATION SHOULD NOT BE LEFT OPEN OVERNIGHT. IF THE EXCEVATIONS ARE PLANNED TO BE OPEN OVERNIGHT A SEAL SLAB OF 2" TO 4" OF LEAN CONCRETE SHALL BE PLACED OVER THE BOTTOM OF THE EXCAVATION TO PROTECT THE BEARING SURFACE FROM DISTURBANCE.

CRANES, CONCRETE TRUCKS AND ALL OTHER HEAVILY LOADED VEHICLES ARE NOT TO BE DRIVEN ACROSS GRADE BEAMS OR ON BUILDING SLABS.

ERECTION OF THE STRUCTURAL ABOVE THE FOUNDATION MAY NOT BEGIN UNTIL THE CONCRETE FOUNDATION HAS CURED FOR A MINIMUM OF THREE DAYS. HEAVY LOADS SHALL NOT BE STOCKPILED ON ANY SLAB UNTIL IT HAS CURED FOR A MINIMUM OF THREE DAYS.

FOUNDATION DESIGN AND CONSTRUCTION REQUIREMENTS ARE BASED ON THE GEOTECHNICAL INVESTIGATION BY TERRACON CONSULTANTS INC. PROJECT N0. 91195009. THE CONTRACTOR SHALL OBTAIN A COPY OF THIS REPORT AND SHALL FAMILIARIZE HIMSELF WITH THE SOILS CONDITIONS AT THE SITE. IF THERE IS A CONFLICT BETWEEN THE REPORT AND THE CONTRACT DOCUMENTS, THE CONTRACTOR SHALL NOTIFY THE ARCHITECT AND ENGINEER FOR A CLARIFICATION PRIOR TO BIDDING THE PROJECT. IF THE CONTRACTOR DISCOVERS A CONFLICT BETWEEN THE EXISTING SITE CONDITIONS AND THE REPORT DURING CONSTRUCTION, THE CONTRACTOR SHALL NOTIFY THE ARCHITECT AND ENGINEER FOR ADDITION INSTRUCTION PRIOR TO CONTINUATION OF CONSTRUCTION.

THE USE OF REPRODUCTIONS OF STRUCTURAL CONSTRUCTION DOCUMENTS IN PLACE OF PREPARATION OF SHOP DRAWINGS IS NOT RECOMMENDED BY THIS OFFICE. INDEPENDENT PREPARATION OF SHOP DRAWINGS PROVIDES AN ADDITIONAL CHECK OF ACCURACY, FIT, AND DETAILS THAT IS BENEFICIAL TO THE CONSTRUCTION PROCESS. BY USE OF REPRODUCTIONS OF THE CONTRACT DOCUMENTS FOR SHOP DRAWINGS, THE CONTRACTOR SIGNIFIES HIS ACCEPTANCE OF ALL RESPONSIBILITY THAT INFORMATION ON THE REPRODUCED DRAWINGS IS CORRECT - AS IF THE DRAWINGS WERE PREPARED BY THE CONTRACTOR. ADDITIONALLY , THE CONTRACTOR SHALL BE OBLIGATED FOR ANY JOB EXPENSE AND LIABILITY TO THE ENGINEER AND/OR ARCHITECT THAT MAY OCCUR DUE TO ANY ERRORS OR OMISSIONS ON REPRODUCTIONS OF STRUCTURAL DRAWINGS.

REPRODUCTIONS USED AS SHOP DRAWINGS SHALL HAVE TITLES AND SEALS REMOVED. ELECTRONIC FORMAT OF CADD FILES WILL BE FURNISHED, IF REQUESTED, AT COST ON HOURLY RATE BASIS FOR THE PREPARATION OF SUCH FILES.

DESIGN LOADS:

ROOF LIVE LOAD ..... 20 PSF (ROOF PITCH LESS THAN 4:12)

WIND LOAD ..... ULTIMATE DESIGN WIND SPEED 155 M.P.H. WITH RISK CATEGORY II

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STATE OF TEXAS
JOHN W. SCHMITZ
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FIRM NO. F-8102
9-19-19

Hometown Heroes Park Restrooms
City of League City, Texas

1001 East League City Parkway

League City, Texas 77573

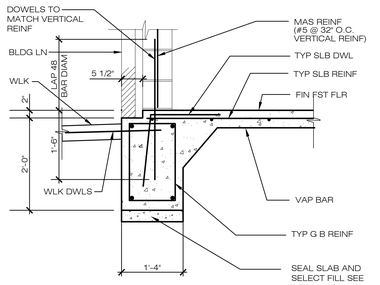
ISSUED
10-14-2019
ISSUED FOR BID AND PERMIT

REVISION:

DRAWN BY: DG
CHECKED BY: JMS
ZCA PROJ. NO.: 1108801

SHEET TITLE:
ROOF AND FOUNDAION PLANS

DRAWING NO.:
S1.0



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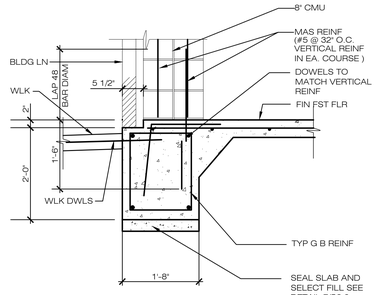

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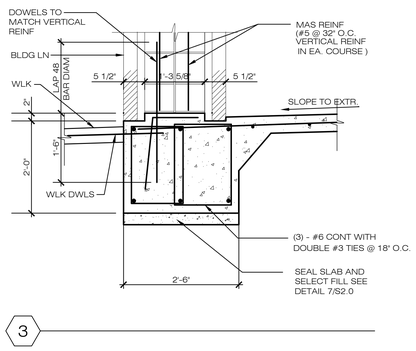

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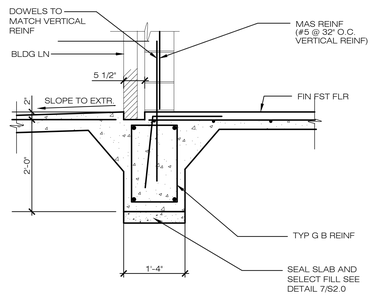

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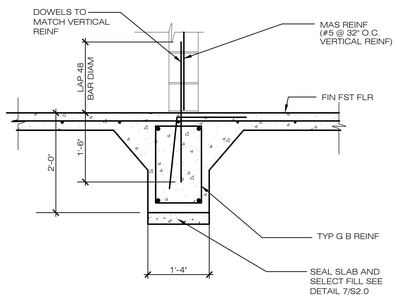

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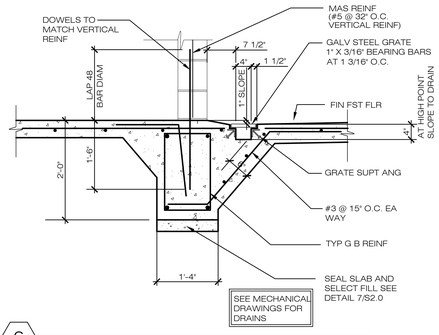

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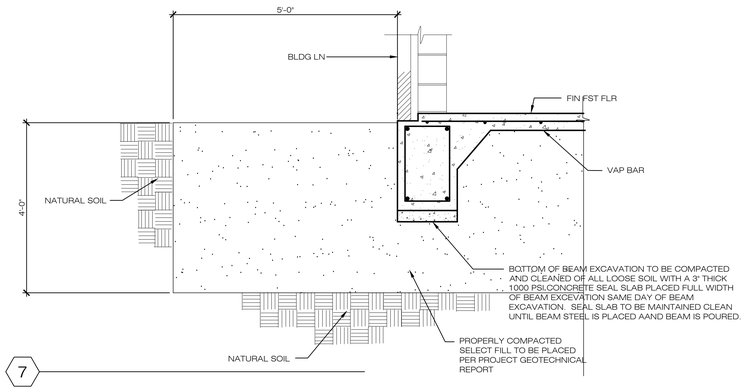
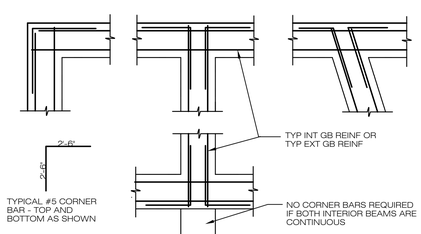


7

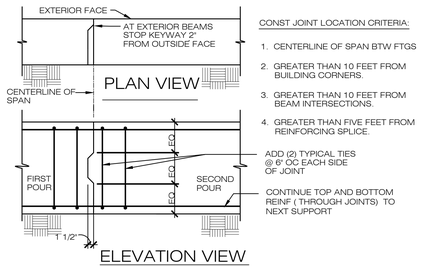
CONCRETE KEY NOTES

BLDG LN	BUILDING LINE. SEE ARCHITECTURAL DRAWING.
FIN FST FLR	FINISHED FIRST FLOOR SLAB. SEE ARCHITECTURAL DRAWINGS FOR ELEVATION.
GRATE SUPT ANG.	GRATE SUPPORT ANGLE. CONTINUOUS ANGLE 2"x2"x1/4" WITH CONTINUOUS 1/4" PLATE x GRATE DEPTH WELDED TO THE TOP. 3/8" DIAMETER x 0'-4" LONG HEADED STUD ANCHORS MACHINE WELDED TO ANGLE, AS SHOWN AT 24"O.C. GALVANIZE ENTIRE ASSEMBLY.
HOOK	STANDARD 90 DEGREE OR 180 DEGREE HOOK (AS SHOWN)
JNT MTL	EXPANSION JOINT MATERIAL.
MAS DWLS	MASONRY DOWELS. PROVIDE DOWELS EQUAL IN SIZE AND SPACING AND AT THE SAME LOCATION AS VERTICAL MASONRY WALL REINFORCING, AS NOTED ON THE DRAWINGS. DOWELS TO BE 4'-0" IN LENGTH, EXTENDING 2'-0" INTO MASONRY WALL AND CENTERED ON MASONRY WALL.
MAS REINF	CONTINUOUS MASONRY REINFORCING. LAP BARS 48 TIMES BAR DIAMETERS. FILL ALL REINFORCED CELLS, BOND BEAMS OR CAVITIES WITH ASTM C476 (2,500 PSI) GROUT. EXCEPT AS NOTED ON STRUCTURAL DRAWINGS, SEE DRAWINGS FOR SIZE AND SPACING OF OTHER WALL REINFORCING.
OPNG THRU BEAM	OPENING THROUGH BEAM FOR PIPING. SEE ARCHITECTURAL OR MECHANICAL DRAWINGS FOR SIZE AND LOCATION. PREFERABLY PLACE THE OPENING SO THAT A CONTINUOUS BEAM REINFORCING IS NOT CUT. IF IT IS NECESSARY THAT ANY CONTINUOUS BEAM REINFORCING BE CUT, THEN CONSULT THE STRUCTURAL ENGINEER FOR REDESIGN. FOR PIPES EMBEDDED IN BEAM, WRAP WITH 1/2" SPONGE RUBBER.
PVMT	PAVEMENT. SEE ARCHITECTURAL DRAWINGS FOR DETAILS AND REINFORCING.
PVMT DWLS	3/4" ROUND x 18", SMOOTH DOWELS WITH AN EXPANSION CAP TO THE PAVEMENT AT 15"O.C.
SEL COMP FILL	SELECT COMPACTED FILL UNDER STRUCTURE. SEE SPECIFICATIONS AND SEE GEOTECHNICAL REPORT.
TYP GB REINF	TYPICAL GRADE BEAM REINFORCING 2-#6 CONTINUOUS TOP AND BOTTOM.
TYP STIRR	TYPICAL STIRRUPS TO BE NO. 3 CLOSED TIES SPACED AT 18"o.c. SEE PLAN NOTES OR DETAILS FOR OTHER STIRRUP SPACING THAT TAKES PRECEDENCE OVER TYPICAL STIRRUPS.
TYP SLB DWL	TYPICAL SLAB DOWEL #3 AT 24" O.C. 3'-0" LONG. BEND AT THE CENTER AS SHOWN.
TYP SLB REINF	TYPICAL SLAB REINFORCING. SEE FOUNDATION PLAN.
UNDIST SOIL	UNDISTURBED SOIL. PLACE THE GRADE BEAM ON UNDISTURBED SOIL WITHOUT ANY LOOSE UNCOMPACTED SOIL, FOREIGN DEBRIS, OR STANDING WATER. SEE GENERAL NOTES AND GEOTECHNICAL REPORT FOR REQUIREMENTS.
VAP BAR	VAPOR BARRIER. SEE ARCHITECTURAL DRAWINGS AND SPECIFICATIONS.
WLK DWLS	SIDEWALK DOWELS. #3 x 2'-0" DOWELS TO SIDEWALK SLAB AT 15"O.C.
WLK	SIDEWALK. SEE ARCHITECTURAL DRAWINGS FOR DETAILS AND REINFORCING.



TYPICAL CORNER BAR (PLAN DETAIL)
WALLS AND GRADE BEAMS

8 NO SCALE



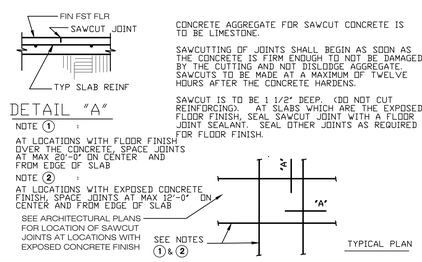
ELEVATION VIEW

9 TYPICAL GRADE BEAM CONST JOINT

NO SCALE

CONST JOINT LOCATION CRITERIA:

1. CENTERLINE OF SPAN BTW FTGS
2. GREATER THAN 10 FEET FROM BUILDING CORNERS.
3. GREATER THAN 10 FEET FROM BEAM INTERSECTIONS.
4. GREATER THAN FIVE FEET FROM REINFORCING SPLICE.



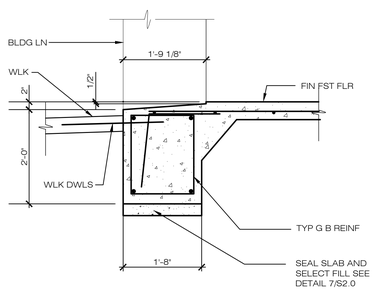
CONCRETE AGGREGATE FOR SAWCUT CONCRETE IS TO BE LIMESTONE.

SAWCUTTING OF JOINTS SHALL BEGIN AS SOON AS THE CONCRETE IS FIRM ENOUGH TO NOT BE DAMAGED BY THE CUTTING AND NOT DISLODGE AGGREGATE. SAWCUTS TO BE MADE AT A MAXIMUM OF TWELVE HOURS AFTER THE CONCRETE HARDENS.

SAWCUT IS TO BE 1 1/2" DEEP. (DO NOT CUT REINFORCING). AT SLABS WHICH ARE THE EXPOSED FLOOR FINISH, SEAL SAWCUT JOINT WITH A FLOOR JOINT SEALANT. SEAL OTHER JOINTS AS REQUIRED FOR FLOOR FINISH.

TYP SLAB CONTROL JOINT

10



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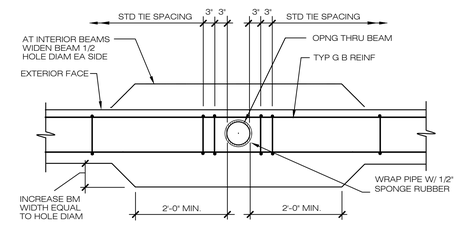
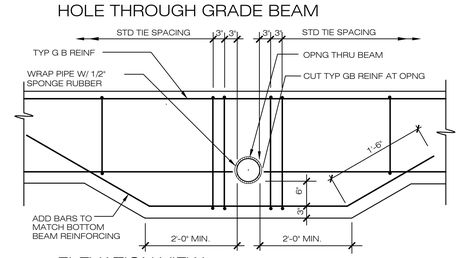
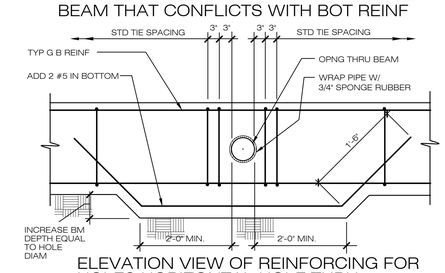


PLAN VIEW - TYPICAL VERTICAL HOLE THROUGH GRADE BEAM



ELEVATION VIEW - TYPICAL HORIZONTAL HOLE THRU GRADE BEAM THAT CONFLICTS WITH BOT REINF



ELEVATION VIEW OF REINFORCING FOR HOLES HORIZONTAL HOLE THRU GRADE BEAM LARGER THAN 3" DIAM

12

ALL HORIZONTAL THROUGH GRADE BEAMS THAT ARE 3" DIAM OR LESS ARE TO BE WRAPPED WITH 3/4" RUBBER

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JOHN W. SCHMITZ
72940
REGISTERED
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FIRM NO. F-8102
9-19-19

Hometown Heroes Park Restrooms
City of League City, Texas

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League City, Texas 77573

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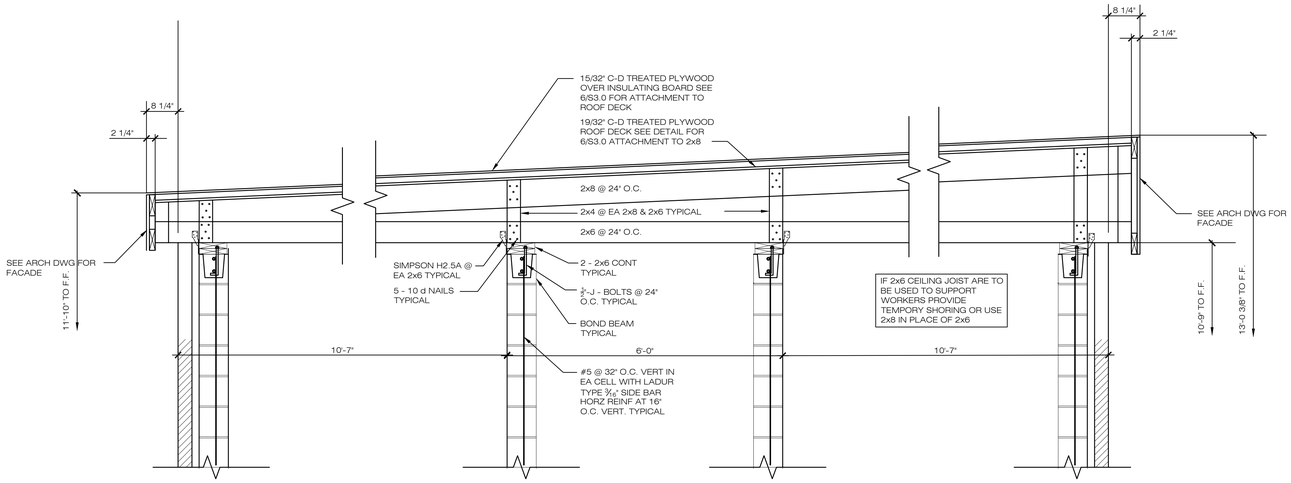
REVISION:

DRAWN BY: DG
CHECKED BY: JMS
ZCA PROJ. NO.: 1108801
SHEET TITLE:

FOUNDATION DETAILS

DRAWING NO.:

S2.0



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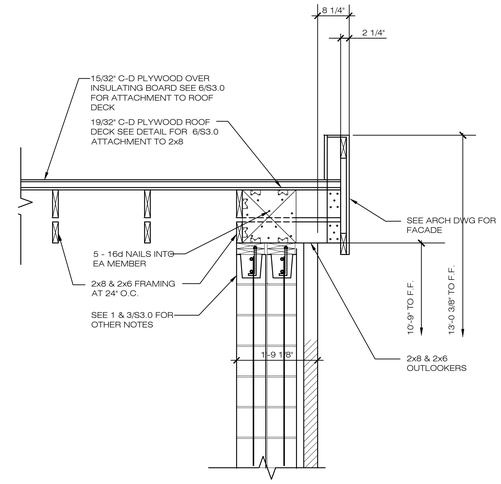

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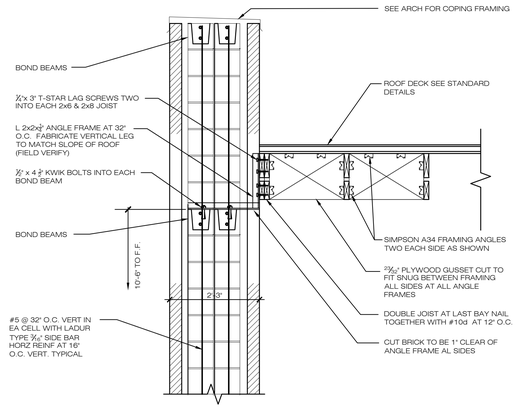

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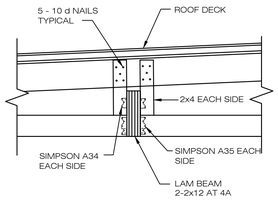

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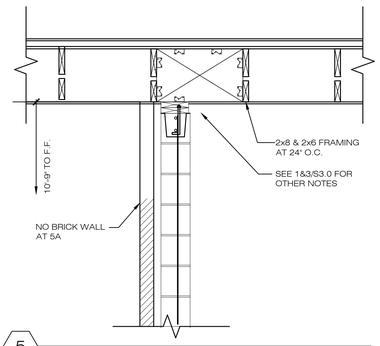

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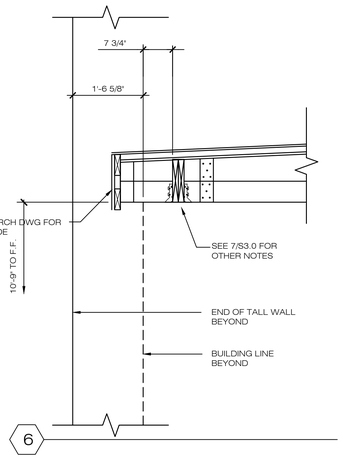

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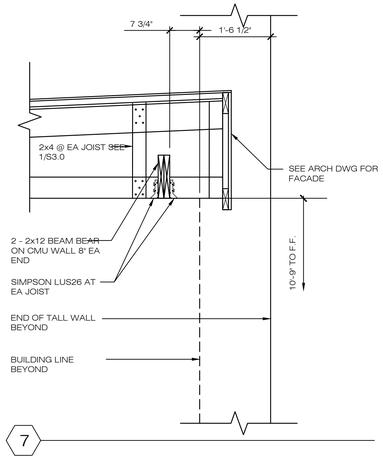

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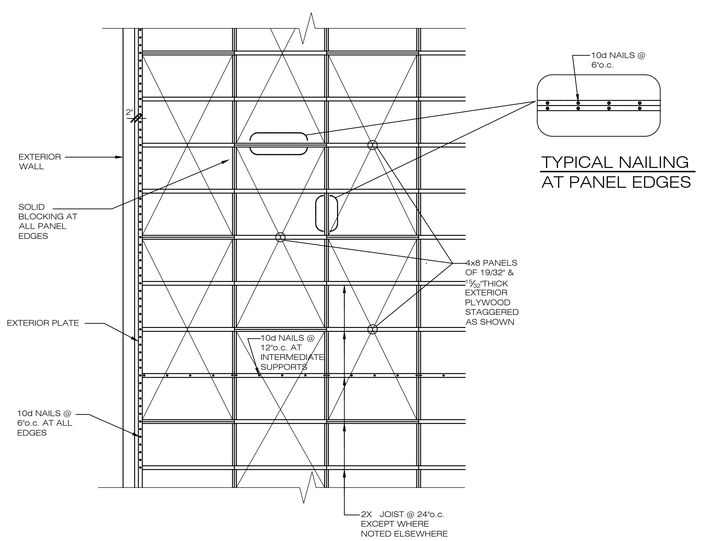

TYPICAL NAILING AT PANEL EDGES

6 TYPICAL ROOF DECK LAYOUT AND NAILING

BLOCK LINTEL SCHEDULE

(UNLESS NOTED OTHERWISE ON PLAN)

CLEAR OPENING	NO. AND SIZE OF REINF. BARS 6 & 8" THICK WALL
UP TO 6'-0"	1-#4 TOP & BOT
6'-0" TO 8'-0"	1-#5 TOP 1-#6 BOT
	FILL W/ ASTM C476 COARSE GROUT 7-5/8"
LINTELS SPANNING 8'-1" UP TO 14'-0" 15 5/8" DEEP	15 5/8"
8'-1" TO 12'-0"	1-#5 TOP 1-#6 BOT
12'-1" TO 14'-0"	1-#5 TOP 1-#7 BOT

NOTE: PROVIDE BLOCK LINTELS FOR ALL OPENINGS IN INTERIOR BLOCK PARTITIONS AND IN EXTERIOR BLOCK WALLS FOR WHICH STEEL LINTELS ARE NOT SCHEDULED. PROVIDE 16" MINIMUM BEARING AT EACH END AND REINFORCE TWO VERTICAL CELS UNDER BEARING WITH #5 VERTICAL GROUTED SOLID. THESE LINTELS ARE NOT DESIGNED TO SUPPORT ROOF OR FLOOR LOADS. FOR LINTELS SUPPORTING ROOF OR FLOOR NOT SCHEDULED HERE OR NOT SHOWN ON PLAN, CONTACT STRUCTURAL ENGINEER FOR DESIGN.

LOOSE LINTEL SCHEDULE

SUPPORTING 4" BRICK OR BLOCK WALL
(UNLESS NOTED OTHERWISE ON PLAN)

MASONRY OPENING	LINTEL SIZE
UP TO 4'-0"	L 3 1/2 x 3 1/2 x 5/16
4'-1" TO 6'-0"	L 4 x 3 1/2 x 5/16 LLV
6'-1" TO 8'-0"	L 5 x 3 1/2 x 5/16 LLV
8'-1" TO 10'-0"	L 6 x 3 1/2 x 3/8 LLV
4'-0" TO 6'-0" ✱	L 6 x 3 1/2 x 3/8 LLH

NOTE: PROVIDE 8" MINIMUM BEARING EACH END FOR STEEL LOOSE LINTELS. ONE ANGLE SHALL BE PROVIDED FOR EACH WYTHE OF BRICK OR BLOCK. L LINTELS TO BE HOT DIPPED GALVANIZED. THESE LINTELS ARE NOT DESIGNED TO SUPPORT ROOF OR FLOOR LOADS. FOR LINTELS SUPPORTING ROOF OR FLOOR NOT SCHEDULED HERE OR NOT SHOWN ON PLAN, CONTACT STRUCTURAL ENGINEER FOR DESIGN. THESE SIZES ARE MINIMUM. SEE ARCH DRAWINGS FOR OTHER REQUIREMENTS.

✱ AT WINDOWS WITH MT-2 MTL PANEL.

7

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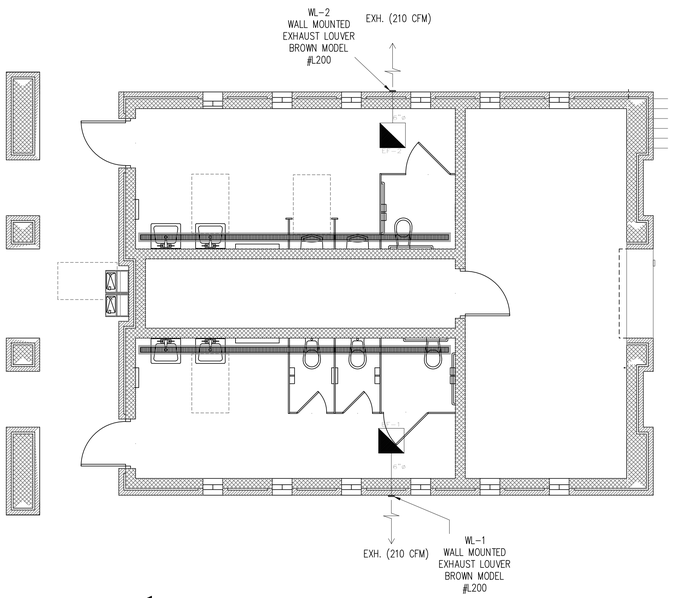
CHECKED BY: JMS
ZCA PROJ. NO.: 1108801
SHEET TITLE:

ROOF DETAILS

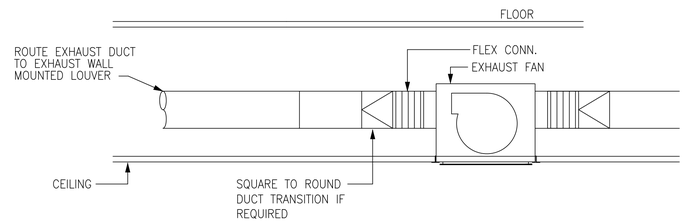
DRAWING NO.:

S3.0

FILE NAME: ROOF DETAILS .dwg DATE: Tue, Oct 08, 2019 TIME: 05:43PM



1 HVAC PLAN
1/4"=1'-0"



EXHAUST & VENTILATION FAN SCHEDULE

MARK	EF-1 & 2	
MANUFACTURER	BROAN	
MODEL	L200	
TYPE	CEILING MOUNTED	
DRIVE TYPE	DIRECT	
PERFORMANCE		
AIR FLOW (CFM)	210	
EXT. STATIC (IN.W.C.)	0.125	
FAN SPEED (RPM)	0.7 SONES	
ELECTRIC		
VOLTS/PH/HZ	115/1/60	
FAN MOTOR (HP)	204 WATTS	
ACCESSORIES	BD, DS, VSC,	
WEIGHT (LBS)	15	
SERVES	RESTROOMS	
REMARKS	NOTES 1	

ACCESSORIES:
BS-BIRD SCREEN, BD-BACKDRAFT DAMPER, DS- DISCONNECT SWITCH,
VSC-VARIABLE SPEED CONTROL, WP-NEMA 3R DISCONNECT SWITCH, WH-WALL HOUSING.

NOTE:
1. FAN TO BE CONTROLLED BY WALL SWITCH FOR LIGHTING.

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REVISION:

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PLUMBING •

DONALD R WRIGHT
74357
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PROFESSIONAL ENGINEER
10-07-2019

DRAWN BY: EK
CHECKED BY: SAL
ZCA PROJ. NO.: 1106515
SHEET TITLE:
MECHANICAL LAYOUT
DRAWING NO.:
M1.0

Hometown Heroes Park Restrooms
ZCA Project No. 1106515

ELECTRICAL SPECIFICATIONS

THE WORK INCLUDES PROVIDING NEW MATERIALS, FIXTURES, DEVICES AND ACCESSORIES NECESSARY FOR A COMPLETE FUNCTIONING ELECTRICAL SYSTEM. ALL WORK SHALL BE IN ACCORDANCE WITH LOCAL CODES OR ORDINANCES AND SUBJECT TO INSPECTION.

COMPLY WITH ALL LAWS APPLYING TO ELECTRICAL INSTALLATIONS IN EFFECT, AND WITH THE MOST RECENT EDITION OF THE NATIONAL ELECTRICAL CODE, ADA, APPLICABLE SECTIONS OF OTHER NFPA, OSHA, LIFE SAFETY CODES AND RECOMMENDATIONS, AND THE INTERIM AMENDMENTS IN EFFECT AT THE TIME OF THE PROPOSAL. ALL MATERIALS USED SHALL BE NEW AND SHALL CONFORM TO THE STANDARDS ESTABLISHED BY THE UNDERWRITERS LABORATORIES INCORPORATED.

WARRANTY: PROVIDE LABOR AND MATERIALS TO REPAIR OR REPLACE DEFECTIVE PARTS AND MATERIALS AS REQUIRED FOR ONE YEAR AFTER SUBSTANTIAL COMPLETION OR OWNER ACCEPTANCE OF THE COMPLETED PROJECT. PROVIDE A SEPARATE LINE ITEM DEDUCT AMOUNT ON THE PROPOSAL FORM TO DELETE WARRANTY SERVICE, AT THE OWNER'S OPTION.

THE INTENT OF THE DRAWINGS IS TO INDICATE THE GENERAL EXTENT OF WORK REQUIRED FOR THE PROJECT. THE DRAWINGS FOR ELECTRICAL WORK ARE DIAGRAMMATIC, SHOWING THE LOCATION, TYPE, DEVICES AND EQUIPMENT REQUIRED. THE DRAWINGS SHALL NOT BE SCALED FOR EXACT MEASUREMENTS. PROVIDE ALL FIXTURES, DEVICES, ACCESSORIES, OFFSETS, AND MATERIALS NECESSARY TO FACILITATE THE SYSTEM'S FUNCTIONING AS INDICATED BY THE DESIGN AND THE EQUIPMENT FURNISHED BY OTHERS.

ELECTRICAL DESIGN FOR THIS INSTALLATION IS BASED ON FIELD INSPECTIONS AND PREVIOUS DESIGN DRAWINGS FOR THE EXISTING BUILDING. ELECTRICAL CONTRACTOR IS TO FIELD VERIFY EXISTING CONDITIONS PRIOR TO BIDDING. ALLOWANCES ARE TO BE INCLUDED FOR UNFORESEEN EXISTING CONDITIONS THAT MAY EFFECT THE CONTRACTOR'S SCOPE OF WORK. MINOR DEVIATIONS REQUIRED FOR ACCOMPLISHING THE INTENT OF THIS DESIGN IS TO BE INCLUDED IN THIS ALLOWANCE.

ELECTRICAL CONTRACTOR TO FIELD VERIFY ALL EXISTING UTILITIES. ANY ITEM DAMAGED BY THIS CONTRACTOR IS TO BE REPAIRED IMMEDIATELY AND AT NO COST TO THE OWNER.

ELECTRICAL CONTRACTOR TO FIELD VERIFY ALL EXISTING EQUIPMENT AS SHOWN ON DESIGN DRAWINGS AND ARE IN GOOD WORKING CONDITION PRIOR TO RE-USING. IF EXISTING CONDITIONS ARE NOT AS SHOWN OR ARE NOT IN GOOD WORKING CONDITION, CONTRACTOR SHALL PROVIDE EQUIPMENT, CONDUIT, AND/OR WIRE AS INDICATED TO PROVIDE A "LIKE-NEW" AND CODE COMPLIANT INSTALLATION. CONTRACTOR IS RESPONSIBLE FOR RELOCATING ANY EXISTING ITEMS BEING REUSED. ANY EXISTING EQUIPMENT, CONDUIT OR WIRE NOT BEING REUSED SHALL BE REMOVED BY THIS CONTRACTOR.

ELECTRICAL DESIGN HAS BEEN BASED ON THE INSTALLATION OF 75°C CONDUCTORS CONNECTED TO TERMINAL LUGS AND EQUIPMENT, U.L. LISTED FOR A MINIMUM 75°C. CONDUCTORS TERMINATED ON EQUIPMENT OR DEVICES WITH A LOWER RATING (60°C) OR NO RATING SHOWN, SHALL HAVE CONDUCTOR SIZE INCREASED TO CONFORM TO NEC TABLE 310-16 AND U.L. NO. 489 REQUIREMENTS.

DISCONNECT SWITCHES SHALL BE HEAVY-DUTY, QUICK-MAKE, QUICK-BREAK TYPE, NEMA 1 ENCLOSURE FOR INDOOR LOCATIONS (NEMA 3R FOR OUTDOOR LOCATIONS). SWITCHES SHALL BE AS MANUFACTURED BY SQUARE 'D', GENERAL ELECTRIC, OR SIEMEN'S (I.T.E.). PROVIDE FUSES AS MANUFACTURED BY BUSSMAN, GOULD-SHAWMUT, OR LITTLE-FUSE. ALL CONDUCTOR TERMINALS TO BE U.L. LISTED FOR A MINIMUM OF 75°C. SWITCHES USED AS SERVICE ENTRANCE EQUIPMENT TO BE U.L. LISTED AS "SER" RATED EQUIPMENT.

PANEL BOARDS SHALL BE AS MANUFACTURED BY GENERAL ELECTRIC MEETING U.L. STANDARDS 50 AND 67, WITH U.L. LABEL. PANELS USED AS SERVICE ENTRANCE EQUIPMENT TO BE U.L. LISTED AS "SER" RATED EQUIPMENT.

BREAKERS: THERMAL MAGNETIC TYPE, QUICK-MAKE, QUICK-BREAK, PLUG-IN TYPE OF SINGLE UNIT CONSTRUCTION. TWO POLE BREAKERS SHALL BE SINGLE UNIT COMMON TRIP TYPE. BREAKERS USED AS SWITCHES FOR 120V LIGHTING CIRCUITS SHALL BE APPROVED FOR THAT USE AND MARKED "SWD". ALL BREAKERS FOR HVAC AND REFRIGERATION EQUIPMENT SHALL BE "HACR" RATED BREAKERS.

GROUNDING SYSTEM: PERMANENTLY AND EFFECTIVELY GROUND ALL METALLIC CONDUIT, SUPPORTS, CABINETS, PANELBOARDS AND SYSTEM NEUTRAL CONDUCTORS. MAINTAIN CONTINUITY OF EQUIPMENT GROUND THROUGHOUT THE SYSTEM. GROUND CLAMPS SHALL BE APPROVED TYPE, SPECIFICALLY DESIGNED FOR GROUNDING. WHERE GROUNDING CONDUCTOR IS ENCLOSED IN CONDUIT, GROUND CLAMP SHALL BE OF A TYPE WHICH GROUNDS BOTH CONDUCTOR AND CONDUIT. ALL CIRCUITS IN FLEXIBLE METAL OR PLASTIC CONDUIT SHALL INCLUDE A GROUND WIRE SIZED IN ACCORDANCE WITH NATIONAL ELECTRICAL CODE.

CONDUIT SHALL BE SIZED TO COMPLY WITH NEC FOR NUMBER AND SIZE OF CONDUCTORS INSTALLED, MINIMUM 24" BELOW GRADE. PROVIDE SCHEDULE 40 PVC PLASTIC OR RIGID STEEL CONDUIT BELOW GRADE, MINIMUM 3/4". PROVIDE ELECTRICAL METAL TUBING (EMT) MEETING FS W-C563, FLEXIBLE METAL CONDUIT (IN LENGTHS 6' OR LESS) FOR INTERIOR LOCATIONS. EMT CONNECTORS AND COUPLING SHALL BE SET-SCREW TYPE. CLAMP CONDUIT TO BOXES WITH BUSHING INSIDE AND LOCKNUT OUTSIDE. "MC" & "AC" TYPE CABLES MUST BE INSTALLED IN ACCORDANCE WITH N.E.C. AND CAN NOT BE SUPPORTED FROM CEILING SUPPORT WIRES.

ALL CONDUIT AND RACEWAY SYSTEMS TO BE INSTALLED WITH SEPARATE GROUND CONDUCTOR. CONDUIT SYSTEM IS NOT TO BE USED AS THE SOLE GROUNDING MEANS.

CONDUCTORS: INSULATED SOFT ANNEALED 98% PURE COPPER WITH COLOR CODING, B AND S GAGE, #10 AND SMALLER TO BE SOLID, #8 AND LARGER TO BE STRANDED, MINIMUM #12 UNLESS OTHERWISE INDICATED. ALUMINUM CONDUCTOR WILL BE ALLOWED. CONDUCTORS MUST BE INSTALLED IN ACCORDANCE WITH N.E.C. AND CANNOT BE SUPPORTED FROM CEILING SUPPORT WIRES.THHN MAY NOT BE USED UNDERGROUND, AT SERVICE ENTRANCE, OUTSIDE, OR IN WET LOCATIONS. ALL INSULATION TO BE RATED FOR 600 V AND TYPES AS FOLLOWS:

#10 AND SMALLER: THWN OR THHN
#8 TO #4/0: THWN OR THHN
SERVICE ENTRANCE: USE-RHW
OVER #4/0 ORDINARY SERVICE: THHN OR XHHN
OVER #4/0 WET OR HOT SERVICE: XHHW
WIRE THRU FLUORESCENT FIXTURES OR WITHIN 3' OF HTG EQUIP.: THHN

DEVICES SHALL BE MANUFACTURED BY LEVITON "INDUSTRIAL SPECIFICATION GRADE" OR EQUAL. ALL DEVICES AND COVER PLATES SHALL BE IVORY COLOR. STANDARD DUPLEX RECEPTACLES SHALL BE GROUNDING TYPE, 20A, NEMA WD-2 STANDARD 5-20R, SIDE WIRED, LEVITON #5342. LIGHT SWITCHES SHALL BE 20 AMP, 120 VOLT, LEVITON #1221-2. WHERE SWITCHES ARE GROUPED, PROVIDE GANG PLATES.

SPECIAL PLATES: PROVIDE STAINLESS STEEL PLATES AT ALL RECEPTACLES AND LIGHT SWITCHES INSTALLED IN THE KITCHEN, WORK AREA & STORAGE ROOMS.

PROVIDE LIGHT FIXTURES & LAMPS ACCORDING TO THE LIGHTING FIXTURE SCHEDULE. FIXTURE INSTALLATION SHALL BE BY THE ELECTRICAL CONTRACTOR ACCORDING TO MANUFACTURER AND TO LOCAL CODE AUTHORITY. COORDINATE FIXTURE MATERIAL COLORS AND LOCATIONS WITH ARCHITECT.

EMERGENCY LIGHTING SHALL HAVE A MINIMUM OF 90 MIN. BATTERY BACK-UP, OR AS REQUIRED BY LOCAL CODE AUTHORITY.

LAYOUT BRANCH CIRCUIT WIRING AND ARRANGEMENT OF HOME RUNS FOR MAXIMUM ECONOMY AND EFFICIENCY. INCREASE WIRE SIZE IF VOLTAGE DROP EXCEEDS 3% OR 100 FEET OF LENGTH.

CONCEAL WIRING SYSTEM ABOVE SUSPENDED CEILINGS OR IN WALL OR FLOOR CONSTRUCTION WHERE POSSIBLE. INSTALL CONDUITS PARALLEL TO BUILDING LINES, AND TO CLEAR ALL OPENING, DEPRESSIONS, PIPES, DUCTS, STRUCTURE, ETC.

INSTALL CONDUIT CONTINUOUS BETWEEN BOXES AND CABINETS WITH NO MORE THAN FOUR (4) 90 DEGREE BENDS. SECURELY FASTEN IN PLACE WITH STRAPS, HANGERS AND STEEL SUPPORTS AS REQUIRED. DO NOT SUPPORT CONDUIT FROM SUSPENDED CEILING GRID OR SUSPENSION WIRES. REAM CONDUIT ENDS BEFORE INSTALLATION AND THOROUGHLY CLEAN BEFORE INSTALLATION. OPENINGS SHALL BE PLUGGED OR COVERED TO KEEP CONDUIT CLEAN. TERMINALS ON SWITCHES AND OUTLET SHALL NOT BE USED TO "FEED THRU" TO THE NEXT SWITCH OR OUTLET.

ADJUSTING AND TESTING: ALL ELECTRICAL EQUIPMENT SHALL BE ADJUSTED AND TESTED FOR PROPER OPERATION. COMPLETED WIRING SYSTEM SHALL BE FREE FROM SHORT CIRCUITS.

TOUCHUP OR REFINISH DAMAGED SURFACES OF FIXTURES AND EQUIPMENT, EXPOSED TO VIEW.

DATA CABLE TO BE FURNISHED AND INSTALLED BY OWNER.

ELECTRICAL CONTRACTOR IS RESPONSIBLE FOR CUTTING EXISTING CONCRETE FLOOR SLAB. GENERAL CONTRACTOR TO PATCH FLOOR TO MATCH EXISTING.

REFER TO ARCHITECTURAL REFLECTED CEILING PLAN FOR EXACT LOCATION OF LIGHTING FIXTURES AND OTHER CEILING MOUNTED EQUIPMENT.

FOR EQUIPMENT FURNISHED BY OWNER OR OTHER CONTRACTORS; ELECTRICAL CONTRACTOR TO VERIFY EXACT LOAD, TYPE OF CONNECTION AND MOUNTING HEIGHT FOR EACH BOX OR EQUIPMENT ITEM TO BE INSTALLED. ALL HARDWIRED CONNECTIONS TO EQUIPMENT TO BE MADE WITH FLEXIBLE LIQUID-TITE METAL CONDUIT WITH GREEN GROUND CONDUCTOR INSTALLED INSIDE RACEWAY. GROUND CONDUCTOR TO BE BONDED AT BOTH ENDS.

CONTACTORS SHALL BE SQUARE 'D', CLASS 8903, TYPE 'S', 100,000 A.I.C. RATING OR AS SHOWN ON THE PLANS, ELECTRICALLY HELD, DESIGNED FOR TWO-WIRE CONTROL CIRCUIT, FULLY RATED FOR ALL CLASSES OF INDUCTIVE AND NON-INDUCTIVE LOADS, AND RATED FOR CONTINUOUS CAPACITY AND POWER CIRCUIT VOLTAGE NOT LESS THAN INDICATED ON DRAWINGS. PROVIDE WITH NUMBER OF POLES INDICATED OR SPECIFIED. CONTACTORS SHALL BE FURNISHED WITH NEMA 1, SURFACE MOUNTED ENCLOSURES UNLESS CALLED FOR OTHERWISE ON DRAWINGS. EACH CONTACTOR SHALL BE PROVIDED WITH ENGRAVED LAMINATED PLASTIC NAMEPLATE WITH BLACK BACKGROUND AND 1/4" WHITE LETTERS TO DESIGNATE USE OF CONTRACTOR.

MINIMUM WIRE SIZE - 20 AMP BRANCH CIRCUIT SHALL BE AWG LISTED SIZE PER DISTANCE SHOWN BELOW. DISTANCE SHALL BE MEASURED FROM THE PANELBOARD CIRCUIT BREAKER TO THE FURTHEST OUTLET.

A. #12 LESS THAN 100 FEET
B. #10 BETWEEN 100-150 FEET
C. #8 BETWEEN 150 - 250 FEET
D. #6 OVER 250 FEET

ON ALL 20 AMP BRANCH CIRCUITS, CONDUCTORS LARGER THAN #10 AWG SHALL BE REDUCED TO #10 AWG WITHIN 10 FEET OF PANEL BOARD AND DEVICE IN JUNCTION BOXES ON RATED TERMINAL STRIPS.

CONDUCTORS MAY BE STRANDED FOR SIZES #10 AWG AND LARGER. CONDUCTORS SIZE #12 SHALL BE SOLID (NOT STRANDED).

ALUMINUM CONDUCTORS ARE NOT PERMITTED, EXCEPT AT SERVICE ENTRANCE, WHERE REQUIRED BY LANDLORD. CONDUCTOR CONNECTION MUST BE PER MANUFACTURER'S REQUIREMENTS. CONTRACTOR MUST ADVISE GENERAL CONTRACTOR AND L.S.P.'S CONSTRUCTION MANAGER WHEN USED.

ALL WIRING SHALL BE IN CONDUIT, UNLESS SPECIFICALLY NOTED OTHERWISE (IE. LOW VOLTAGE PLENUM RATED WIRE).

THE USE OF SHARED NEUTRALS IS REQUIRED FOR LIGHTING CIRCUITS AND SHALL BE INSTALLED IN ACCORDANCE WITH THE NATIONAL ELECTRICAL CODE AND LOCAL CODES. ALL OTHER EQUIPMENT REQUIRING A NEUTRAL CONDUCTOR SHALL HAVE A DEDICATED FULL SIZE NEUTRAL.

THE USE OF ROMEX, BX, ETC. IS NOT PERMITTED.

WIRE CONNECTORS SHALL BE EQUAL TO "SCOTCH LOCK" FOR #8 AWG WIRE AND SMALLER AND EQUAL TO T & B "LOCKTIGHT" FOR #6 AWG AND LARGER.

ALL WIRING TO BE COLOR-CODED AS FOLLOWS:

120/208 VOLT SYSTEM	277/480V SYSTEM	
NEUTRAL - WHITE	PHASE A	BROWN
PHASE A OR L1 - WHITE	PHASE B	ORANGE
PHASE B OR L2 - RED	PHASE C	YELLOW
PHASE C OR L3 - BLUE	NEUTRAL	WHITE
GROUND - GREEN	GROUND	GREEN

ENGRAVED PLASTIC-LAMINATE SIGNS:

GENERAL: PROVIDE ENGRAVING STOCK MELAMINE PLASTIC LAMINATE, COMPLYING WITH FED. SPEC. L-P-387, BLACK LETTERING IN WHITE FIELD, ENGRAVER'S STANDARD LETTER STYLE, 1/2" HIGH LETTERING ON 1-1/2" HIGH SIGN (SINGLE LINE) AND 2" HIGH SIGN (TWO LINES). SECONDARY LETTERING, WHEN REQUIRED, SHALL BE 2/3 TO 3/4 OF PRINCIPAL LETTERING SIZE. SIGNS SHALL BE PUNCHED FOR MECHANICAL FASTENING, EXCEPT WHERE ADHESIVE MOUNTING IS REQUIRED.

TERMINOLOGY: TERMINOLOGY SHALL EXACTLY MATCH CONTRACT DOCUMENTS AND SHALL BE APPROVED BY ENGINEER PRIOR TO FABRICATION.

THICKNESS: 1/16" FOR UNITS UP TO 20 SQUARE INCHES OR 8" LENGTH; 1/8" FOR LARGER UNITS.

FASTENERS: SELF-TAPPING STAINLESS STEEL SCREWS.

ADHESIVES: PLASTIC LAMINATE LABEL MANUFACTURER'S STANDARD PRESSURE SENSITIVE ADHESIVE BACKING.

ROOF PENETRATIONS SHALL COMPLY WITH "SMACNA" AND "NRCA" STANDARDS, AND WITH THE REQUIREMENTS OF THE EXISTING ROOFING WARRANTY, IF APPLICABLE. DO NOT PERFORM ROOFING PENETRATIONS IN A MANNER WHICH WOULD VOID OR OTHERWISE LIMIT THE EXISTING ROOFING WARRANTY.

BUILDING CODES:

CITY OF LEAGUE CITY CURRENT BUILDING CODES:

INTERNATIONAL BUILDING CODE	2015
INTERNATIONAL ENERGY CODE	2015
INTERNATIONAL MECHANICAL CODE	2015
NATIONAL ELECTRICAL CODE	2014
INTERNATIONAL PLUMBING CODE	2015
INTERNATIONAL FUEL GAS CODE	2015

ELECTRICAL SYMBOL SCHEDULE

CIRCUIT HEIGHT AFF (Note/ Equip No) — HOME RUN TO PANEL. CIRCUIT NUMBERS, PHASE, NEUTRAL AND GROUND CONDUCTORS INDICATED. ALL CONDUCTORS TO BE #12 EXCEPT WHERE NOTED. CONDUIT TO BE 1/2" OR AS NOTED ON PLANS AND SPECIFICATIONS.

CONDUIT INSTALLED CONCEALED ABOVE CEILING OR IN WALL.

CONDUIT INSTALLED CONCEALED BELOW FLOOR SLAB OR UNDERGROUND.

DC — DIRECT CURRENT WIRING, 2#12 IN 1/2" CONDUIT.

$ — SINGLE POLE SWITCH, 20A, +3'-10" OR AS NOTED.
3 — Three Way SWITCH, 20A, +3-10 AFF
D — Dimmer - 2000 WATT UNO, LUTRON #N-2000
FD — Flourscent Dimmer - 2000 WATT UNO, LUTRON #NTF-2
K — Key Operated
WP — Water Proof
M — MOTION SENSOR

SINGLE RECEPTACLE: NEMA 5-20R, +18" UNO

DOUBLE DUPLEX RECEPTACLE,; 5-20R, +18" AFF UNO

Isolated Ground
DUPLEX RECEPTACLE: NEMA 5-20R, +18" UNO
Mount 8 inches above Counter Tops UNO

WP — Water Proof
+54" — Height above Floor to Center LIne of Fixture Box
GFI — Ground Fault Interrupter
IG — Isolated Ground Type
S — One Switched/ Balance Unswitched
T — Tamper Proof

Box around Receptacle indicates FLUSH FLOOR MOUNTED

J — JUNCTION BOX.

DISCONNECT SWITCH, NON-FUSABLE, 30A-3P UNO

DISCONNECT SWITCH FURNISHED WITH EQUIPMENT.(INSTALLED BY ELEC. CONT.)

MOTOR CONNECTION.

device — 120/208V., PANELBOARD, TOP 6'-0".

TRANSFORMER

PUSHBUTTON

S — CEILING MOUNTED SOUND SYSTEM SPEAKER

$VC — SOUND SYSTEM VOLUME CONTROL

SD — SMOKE DETECTOR

TV — DUPLEX TV OUTLET IN WALL, ONE RJ6 COAXIAL F-CONNECTOR ONE RJ45 OUTLET AT +18 AFF UNO

TWO GANG DATA CABLE J-BOX WITH PLASTER RING +18" OR AS NOTED W/ 3/4" CONDUIT TO ABOVE CEILING.

DUPLEX RJ45 DATA OUTLET, +18" AFF/ +8" ABOVE COUNTER OR AS NOTED W/ 3/4" CONDUIT TO ABOVE CEILING.

DUPLEX RJ45 TELECOMMUNICATIONS OUTLET, +18" AFF/ +8" ABOVE COUNTER OR AS NOTED W/ 3/4" CONDUIT TO ABOVE CEILING.

DUPLEX RJ45 DATA/TELECOM OUTLET, +18" AFF/ +8" ABOVE COUNTER OR AS NOTED W/ 3/4" CONDUIT TO ABOVE CEILING.

INTERCOM

CEILING FAN

N — NURSE CALL STATION
N — NURSE CALL DOME LIGHT
A — SECURITY ALARM SWITCH
B — BELL PUSH
F — FIRE ALARM STATION
FIRE ALARM BELL
FIRE ALARM HORN
FIRE ALARM STROBE

T — THERMOSTAT OUTLET, 48 AFF with 4S BOX AND PLASTER RING, SUTB 3/4 C INTO ACCESS CEILING SPACE. VERIFY LOCATION WITH MECHANICAL.

(Hatch indicates Emergency and/or Night Light)

2x4 CEILING FLOURSCENT LIGHTING FIXTURE

2x2 CEILING FLOURSCENT LIGHTING FIXTURE

1x4 CEILING FLOURSCENT LIGHTING FIXTURE

UNDERCOUNTER LIGHT FIXTURE

A — SURFACE MOUNTED INCANDESCENT or HID LIGHTING FIXTURE

A — WALL BRACKET INCANDESCENT or HID LIGHTING FIXTURE

WALL BRACKET INCANDESCENT or HID LIGHTING SCONCE

LV (LOW VOLTAGE WHERE INDICATED)

R A — RECESSED INCANDESCENT, HID or COMPACT FLUORESCENT DOWNLIGHTGHTING

A — DIRECTIONAL INCANDESCENT LIGHTING

A — WALL WASH INCANDESCENT

A — PIN LIGHT INCANDESCENT

A — ACCENT INCANDESCENT FIXTURE

A — ADJUSTABLE SLOT INCANDESCENT FIXTURE

A — EMERGENCY BATTERY POWER LIGHT

A — DIRECTIONAL EXIT LIGHT

A — CEILING/ WALL MOUNTED EXIT LIGHT

A — WALL MOUNT FLOOD LIGHT

A — POLE MOUNTED LIGHT FIXTURE

P — PHOTOELECTRIC CELL
Tark #2001 (2000 Watt, 120V, 1/2 conduit mount with swivel) Mount photocell on Roof with sensing element facing North.

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www.zieglercooper.com

Hometown Heroes Park Restrooms
City of League City, Texas
1001 East League City Parkway
League City, Texas 77573

ISSUED
10-14-2019
ISSUED FOR BID AND PERMIT

REVISION:

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DONALD R WRIGHT
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PROFESSIONAL ENGINEER
10-07-2019

DRAWN BY: EK
CHECKED BY: SAL
ZCA PROJ. NO.:1106515
SHEET TITLE:

ELECTRICAL SPECIFICATIONS

DRAWING NO.:

E1.0

LIGHTING FIXTURE SCHEDULE

TYPE	DESCRIPTION	MANUFACTURER AND CATALOG NUMBER	MODEL	LAMP	VOLTAGE	WATTS	REMARKS
A	SURFACE MOUNTED 4' WRAP AROUND LIGHT FIXTURE	COOPER LIGHTING-FAIL SAFE	VRVT2-2-48HO-DR	(1) F32T8	120V	57	
B	SURFACE MOUNTED COMPACT FLUORESCENT VANDAL RESISTANT	EATON FAIL SAFE	FWLD2-1212-2000-4K	4K-LED	120V	20.5	
C	SURFACE MOUNTED 4' CEILING FIXTURE	EATON FAIL SAFE	FWLDL-D-4-LD4-UNV	4K-LED	120V	42.5	
EX	EXIT LIGHT WITH 90 MIN. BATTERY BACK-UP	COOPER LIGHTING-FAIL SAFE	EXL-EBP-1-RW-WH	INCLUDED	120V	0.98	
EG	EXTERIOR EMERGENCY LIGHTING UNIT. 90 MIN. BATTERY BACK-UP	LITHONIA AFFINITY	AFN-B-EXT	INCLUDED	120V	11	
EM	TWO HEADED EMERGENCY LIGHTING UNITS. 90 MIN. BATTERY BACK-UP	COOPER LIGHTING-SURE-LITES BRAND	AP2SQ	INCLUDED	120V	11	

LIGHTING FIXTURE SCHEDULE NOTES

(1) ALL FIXTURES SHALL BE NEW AND SHALL BEAR THE UNDERWRITERS' LABEL (UL) AND SHALL BE INSTALLED IN THE MANNER FOR WHICH THEY ARE DESIGNED AND APPROVED.

(2) VERIFY EXACT LOCATION OF ALL FIXTURES WITH ARCHITECTAL PLANS PRIOR TO ROUGH-IN.

(3) ALL FIXTURES SHALL BE POST PAINTED CONSTRUCTION, FURNISHED AND INSTALLED COMPLETE WITH ALL NECESSARY HARDWARE, FITINGS AND LAMPS. PROVIDE RECESSED FIXTURES COMPATIBLE WITH CEILING FINISH.

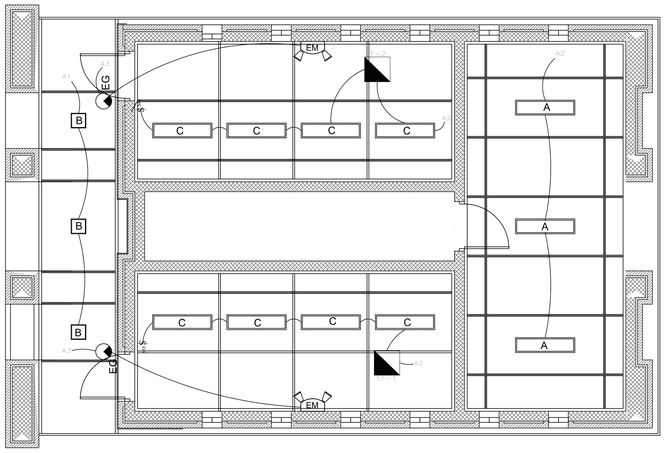
(4) WHERE FLUORESCENT LIGHT FIXTURES ARE SWITCH BY TWO SWITCHES, CONNECT OUTER LAMPS TO ONE BALLAST AND INNER LAMPS TO SECOND BALLAST. GROUP OUTER AND INNER LAMPS ON SAME SWITCH RESPECTIVELY, UNO.

(5) LIGHT SWITCHES MOUNTED 48" AFF. ALL SWITCHES, RECEPTACLES AND WALL PLATES TO BE IVORY IN COLOR.

(6) PROVIDE WHERE SHOWN LIGHT SWITCHES WITH OCCUPANCY SENSOR ADJUSTABLE UP TO 30 MIN.

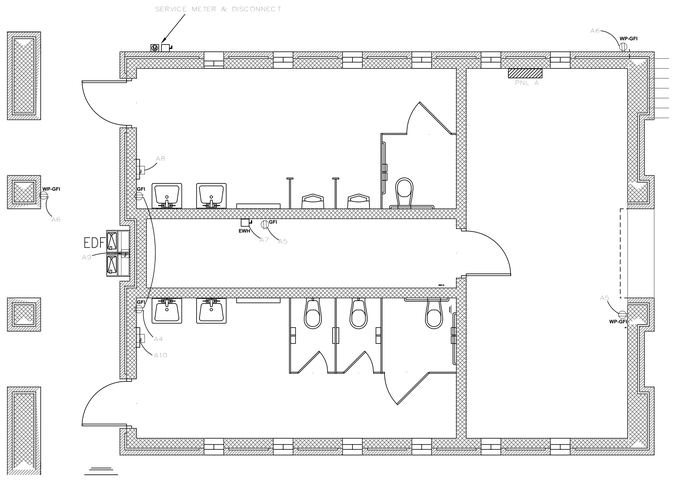
(7) FOR FLUORESCENT FIXTURES THAT UTILIZE DOUBLE-ENDED LAMPS AND CONTAIN BALLAST(S) THAT CAN BE SERVICED IN PLACE, PROVIDE A MEANS OF DISCONNECT EITHER INTERNAL OR EXTERNAL TO EACH FIXTURE. THE LINE SIDE TERMINALS OF THE DISCONNECTING MEANS SHALL BE GUARDED.

(8) A MEANS OF DISCONNECT IS NOT REQUIRED FOR FIXTURES USED FOR EMERGENCY ILLUMINATION



ALL LIGHTING FIXTURES TO BE WET RATED AND VANDAL RESISTANT.
ALL CEILING AND SOFFIT MATERIAL TO BE PAINTED FIBER CEMENT MATERAIL.

1 LIGHTING PLAN
1/4"=1'-0"



2 POWER PLAN
1/4"=1'-0"

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DRAWN BY: EK
CHECKED BY: SAL
ZCA PROJ. NO.:1106515
SHEET TITLE:
ELECTRICAL LIGHTING & POWER PLAN
DRAWING NO.:
E2.0

Hometown Heroes Park Restrooms
ZCA Project No. 1106515

PANEL "A"

240/120V 1Ph 3W, FULL SIZE NEUTRAL, W/COPPER GROUND BUS

COPPER BUS RATING 100 AMP
MAINS RATING (M.C.B) 100 AMP
FEEDER 3#3, 1#8, 1"C

(ALL WIRES SHALL HAVE THHN/THWN INSULATION UNLESS NOTED OTHERWISE)
(ALL BRANCH BREAKERS SHALL BE BOLT-ON TYPE)

_____ MCB
X MLO
_____ FEED THRU LUGS
_____ SHUNT-TRIP MCB
22 KA A.I.C.

SEE PLAN LOCATION
_____ SURFACE MOUNT
X FLUSH MOUNT
_____ NEMA 3R ENCLOSURE

LOAD DESCRIPTION	TYPE	LOAD KVA	WIRE/CONDUIT SIZE	TRIP/POLE	CKT #	PH	CKT #	TRIP/POLE	WIRE/CONDUIT SIZE	LOAD KVA	TYPE	LOAD DESCRIPTION
EMERG. LIGHTING	L	0.044	2#12,1#12G,1/2"C	20 /1	1	A	2	20 /1	2#12,1#12G,1/2"C	1.34	L	LIGHTING
LIGHTING EXTERIOR	OL	0.82	2#12,1#12G,1/2"C	20 /1	3	B	4	20 /1	2#12,1#12G,1/2"C	0.36	R	RECEPTACLES GFI
RECEPTACLES WP-GFI	R	0.36	2#12,1#12G,1/2"C	20 /1	5	A	6	20 /1	2#12,1#12G,1/2"C	0.36	R	RECEPTACLES WP-GFI
ELECTRIC WATER HEATER	MC	2.00	2#12,1#12G,1/2"C	20 /1	7	B	8	20 /1	2#12,1#12G,1/2"C	1.63	MIS	HAND DRYER, WOMEN RR
WATER FOUNTAIN(NOTE 1)	MIS	1.00	2#12,1#12G,1/2"C	20 /1	9	A	10	20 /1	2#12,1#12G,1/2"C	1.63	MIS	HAND DRYER, MEN RR
SPARE				20 /1	11	B	12	20 /1				SPARE
SPARE				20 /1	13	A	14	20 /1				SPARE
SPARE				20 /1	15	B	16	20 /1				SPARE
BLANK					17	A	18					BLANK
BLANK					19	B	20					BLANK

PANEL "A" LOAD ANALYSIS

CODE DESCRIPTION	TYPE	DEMAND FACTOR	LOAD (KVA) CONNECTED	LOAD (KVA) CALCULATED	NEC CALCULATIONS REFERENCE
LIGHTING 3.5VA X 972 SF	L	125%	4.25		
RECEPTACLES (180VA) EACH	R		1.08		
COOLING	C				
HEATING	H				
MOTORS	MT				
MISC. NON-CONTINUOUS	MIS		4.26		
MISC. CONTINUOUS LOADS	MC		2.00		
KITCHEN EQPT.	K				
OUTSIDE LIGHTING (SIGN)	OL	125%	.10		
25% LARGEST MOTOR					
TOTAL LOAD (KVA)			11.69 KVA		
TOTAL LOAD (AMP AVG)			48.7 AMP		

NOTE 1: PROVIDE GFI TYPE BREAKER

SHORT CIRCUIT CALCULATION AT PANEL "A"
(BUSSMAN POINT-TO-POINT METHOD)

ULTIMATE FAULT CURRENT FROM CPE AT 240V, 1 PHASE (Isc) =99,300

WIRE IS: #3 AWG
NUMBER OF CONDUCTORS PER PHASE: 1
CONDUCTOR LENGTH (L): 40 FT
CONDUCTOR C VALVE: 4,760 (STEEL CONDUIT)

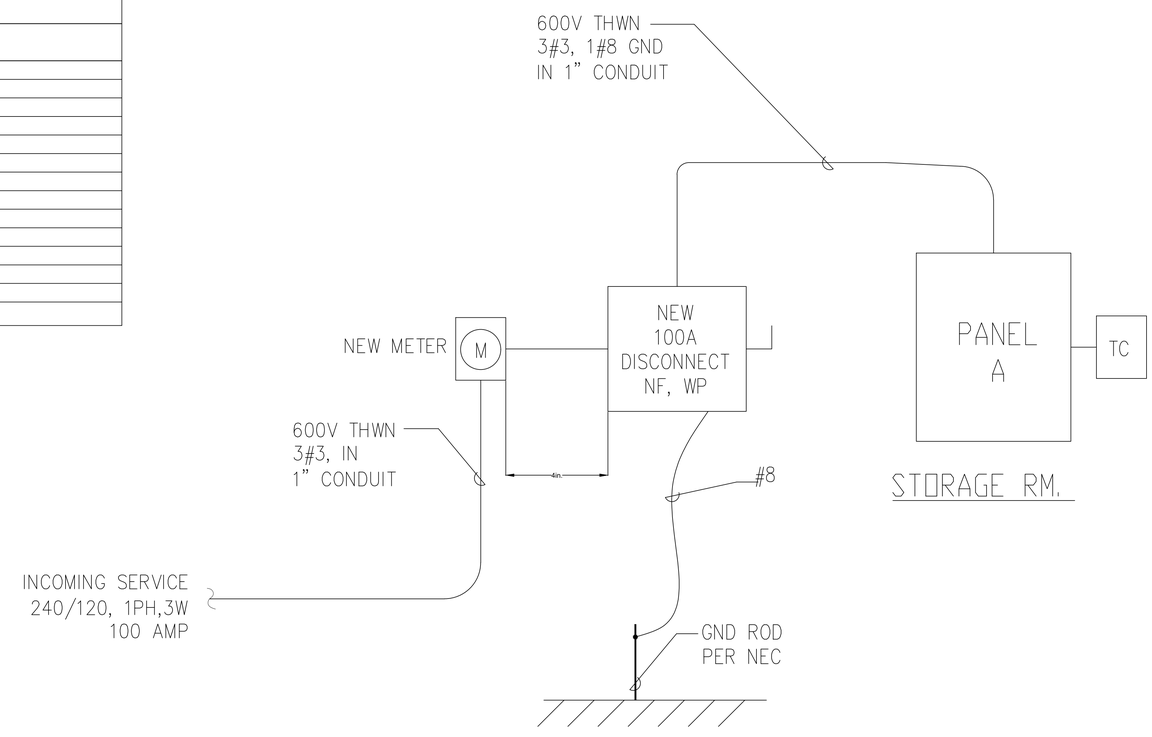
$$f = \frac{2xLxIsc}{CxE_L - L} = \frac{2x40x99,300}{4,760x240}$$

$$M = \frac{1}{1+f} = \frac{1}{7.954} = 0.126$$

Isca= Isc x M=12,512

PANEL "A" RATED AT 22,000 A.I.C

IN LIEU OF THE MAXIMUM ALLOWABLE FAULT CURRENT MARKING AS REQUIRED BY NEC 110.24, A PERMANENTLY AFFIXED LABEL SHALL BE APPLIED WITH THE AVAILABLE FAULT CURRENT AT THE TIME OF INSTALLATION AND CALCULATION. THE LABEL SHALL BE 2" X 3" IN SIZE AND SHALL BE BLUE LETTERING ON A CONTRASTING BACKGROUND. THIS LABEL SHALL ALSO INCLUDE THE DATE OF THE CALCULATION.



ONE-LINE DIAGRAM
NO SCALE

ZIEGLER COOPER
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Hometown Heroes Park Restrooms
City of League City, Texas
1001 East League City Parkway
League City, Texas 77573

ISSUED
10-14-2019
ISSUED FOR BID AND PERMIT

REVISION:

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MECHANICAL •
ELECTRICAL •
PLUMBING •

DONALD R WRIGHT
74357
LICENSED
PROFESSIONAL ENGINEER
10-07-2019

DRAWN BY: EK
CHECKED BY: SAL
ZCA PROJ. NO.:1106515
SHEET TITLE:
ELECTRICAL DETAILS
DRAWING NO.:
E3.0

Hometown Heroes Park Restrooms
ZCA Project No. 1106515

PLUMBING SPECIFICATIONS

THE WORK INCLUDES MODIFICATION TO THE EXISTING PLUMBING SYSTEM AND PROVIDING NEW MATERIALS, FITTINGS AND ACCESSORIES NECESSARY FOR A COMPLETE FUNCTIONING PLUMBING SYSTEM. THE WORK ALSO INCLUDES ROUGH–IN AND FINAL CONNECTIONS TO FOOD SERVICE EQUIPMENT AND BEVERAGE DISPENSING EQUIPMENT PROVIDED BY OTHERS. ALL WORK SHALL BE IN ACCORDANCE WITH LOCAL CODES AND/OR ORDINANCES AND IS SUBJECT TO INSPECTION.

HOOK–UP CHARGES, PERMITS AND ALL OTHER EXPENSES RELATED TO A COMPLETE AND FUNCTIONING PLUMBING SYSTEM ARE INCLUDED AS A PART OF THIS SECTION.

WARRANTY: PROVIDE LABOR AND MATERIALS TO REPAIR OR REPLACE DEFECTIVE PARTS AND MATERIALS AS REQUIRED FOR ONE YEAR AFTER SUBSTANTIAL COMPLETION OR OWNER ACCEPTANCE OF THE COMPLETED PROJECT. PROVIDE A SEPARATE LINE ITEM DEDUCT AMOUNT ON THE PROPOSAL FORM TO DELETE WARRANTY SERVICE, AT THE OWNER'S OPTION.

THE INTENT OF THE DRAWINGS IS TO INDICATE THE GENERAL EXTENT OF WORK REQUIRED FOR THE PROJECT. THE DRAWINGS FOR PLUMBING WORK ARE DIAGRAMMATIC, SHOWING THE GENERAL LOCATION, TYPE, FIXTURES AND EQUIPMENT REQUIRED. THE DRAWINGS SHALL NOT BE SCALED FOR EXACT MEASUREMENTS. REFER TO MANUFACTURER'S STANDARD ROUGH–IN DRAWINGS FOR PLUMBING FIXTURE INSTALLATION REQUIREMENTS. COMPLY WITH ALL APPLICABLE ADA INSTALLATION REQUIREMENTS.

COORDINATE WITH THE WORK OF OTHER SECTIONS, EQUIPMENT FURNISHED BY OTHERS, AND WITH THE CONSTRAINTS OF THE EXISTING CONDITIONS OF THE PROJECT SITE.

PIPING SYSTEMS – GENERAL: ALL PIPING SHALL BE RUN PARALLEL TO BUILDING LINES AND SUPPORTED AND ANCHORED AS REQUIRED TO FACILITATE EXPANSION AND CONTRACTION. ALL PIPING SHALL BE CONCEALED EXCEPT IN UNFINISHED SPACES. INSTALL AS REQUIRED TO MEET ALL CONSTRUCTION CONDITIONS AND TO ALLOW FOR INSTALLATION OF OTHER WORK SUCH AS DUCTS AND ELECTRICAL CONDUIT. AT ALL CONNECTIONS BETWEEN FERROUS PIPING AND NONFERROUS PIPING, PROVIDE AN ISOLATING DIALECTIC UNION. ALL HANGERS SHALL BE COMPATIBLE WITH PIPING MATERIAL TO PREVENT CORROSION.

PROVIDE ALL FITTINGS, ACCESSORIES, OFFSETS, AND MATERIALS NECESSARY TO FACILITATE THE PLUMBING SYSTEM'S FUNCTIONING AS INDICATED BY THE DESIGN AND THE EQUIPMENT INDICATED.

FIXTURES/EQUIPMENT FURNISHED BY OTHERS: PLUMBING CONTRACTOR SHALL PROVIDE UTILITY CONNECTIONS REQUIRED SUCH AS WATER, GAS, AIR, SUPPLIES, WASTE OUTLET, TRAPS, ETC. AT ALL PLUMBING TYPE FIXTURES OR EQUIPMENT FURNISHED BY OWNER, GENERAL CONTRACTOR, FOOD SERVICE CONTRACTOR, EQUIPMENT SUPPLIER, ETC. INCLUDED ARE STOP VALVES, ESCUTCHEONS, AND CHROME PLATED BRASS TUBING WITH COMPRESSION FITTINGS.

SEWER AND WASTE PIPING: PROVIDE ALL DRAINS AND SEWERS WITHIN THE SPACE WITH CONNECTION TO THE EXISTING DRAINAGE SYSTEMS ON–SITE. SANITARY DRAINAGE PIPING ABOVE FLOOR SHALL BE CO–EXTRUDED PVC DWV (SCHEDULE 40) PIPE, FITTINGS AND CONNECTIONS. SANITARY DRAINAGE PIPING BELOW GRADE SHALL BE CO–EXTRUDED PVC DWV (SCHEDULE 40) PIPE WITH SOLVENT WELD FITTINGS MAY BE USED (WHERE PERMITTED BY CODE/LOCAL AUTHORITIES). ALL DRAINAGE PIPING SHALL BE UNIFORMLY PITCHED, 1/4" PER FOOT UNLESS OTHERWISE REQUIRED BY EXISTING CONDITIONS, OR INDICATED ON THE DRAWINGS.

VENTS: PROVIDE A COMPLETE SYSTEM OF STANDARD WEIGHT CAST IRON NO–HUB VENT RISERS WHERE THE CEILING SPACE IS USED AS A RETURN AIR PLENUM OR USE CO–EXTRUDED PVC DWV (SCHEDULE 40) PIPE (WHERE PERMITTED BY CODE/LOCAL AUTHORITIES) WHERE THERE IS A DUCTED RETURN AIR SYSTEM. DO NOT USE PVC PIPE IN RETURN AIR PLENUM SPACES. THE VENT SYSTEM SHALL BE CARRIED THROUGH THE ROOF WITH APPROPRIATE FLASHING.

CONDENSATE AND INDIRECT DRAIN PIPING: PIPING ABOVE FLOOR SHALL BE CO–EXTRUDED PVC DWV (SCHEDULE 40) PIPE, FITTINGS AND CONNECTIONS. PIPING BELOW GRADE SHALL BE CO–EXTRUDED PVC DWV(SCHEDULE 40) PIPE WITH SOLVENT WELD FITTINGS.

CLEANOUTS: PROVIDE CLEANOUTS AT THE END OF EACH HORIZONTAL RUN, AND AT THE BASE OF ALL VERTICAL WASTE AND DRAIN PIPES. CLEANOUTS SHALL BE OF THE SAME SIZE AS THE PIPES THEY SERVE, CONFORMING TO CODE REQUIREMENTS. PROVIDE SUITABLE WALL OR FLOOR CLEANOUTS WITH ACCESSORIES TO OBSCURE FROM VIEW.

WATER DISTRIBUTION PIPING: LAYOUT WATER PIPING SO THAT THE ENTIRE SYSTEM CAN BE DRAINED. HOT AND COLD WATER PIPING SHALL BE 1/2" MIN. CPVC PIPE WITH SOLVENT FITTING. PROVIDE WATER HAMMER ARRESTERS AT EACH FIXTURE OR GROUP OF FIXTURES AS REQUIRED. INSTALL CHROME PLATED BRASS ESCUTCHEON PLATES AT ALL PENETRATIONS THROUGH FINISHED SURFACES (INCLUDING CABINET INTERIORS).

PIPE INSULATION: INSULATE (AS ALLOWED BY CODE) ALL LISTED SERVICE PIPING AS FOLLOWS. DOMESTIC COLD/HOT WATER, HOT WATER RETURN, STORM WATER PIPING. PROVIDE 1" PREFORMED FIBERGLASS, ASJ/SS–11, FLAME SPREAD 25, SMOKE DEVELOPED 50, ASTM C–547. FOR CONDENSATE PIPING PROVIDE 1/2" THICK INSULATION OF SAME CHARACTERISTICS AS LISTED FOR 1" ABOVE. WHERE PERMITTED BY LOCAL CODES, PROVIDE 1/2" SELF–ADHESIVE UNICELLULAR FOAM PIPE INSULATION WITH PRE–FORMED PVC FITTING COVERS – EQUAL TO SELF–ADHESIVE ARMSTRONG 2000 WITH K FACTOR OF 0.27 AT 75 DEGREES MEAN TEMPERATURE. INSULATE ANY EXPOSED CONDENSATE PIPING WITH WASTE TEMPERATURE BELOW 60 DEGREES F.

SHUTOFF VALVES, WITH UNIONS SHALL BE PROVIDED FOR SERVICE TO EACH PLUMBING FIXTURE, FOOD SERVICE EQUIPMENT ITEM OR OTHER EQUIPMENT ITEM, TO FACILITATE ISOLATION FOR REPAIR OR REPLACEMENT. VALVES SHALL BE EQUAL TO JENKINS #902–T BALL VALVE, CHROME–FINISHED BRONZE, TEFLON SEATS AND PACKING, 400 LB. W.O.G., SOLDER END.

ACCESS PANELS SHALL BE PROVIDED WHERE CONCEALED CONTROL DEVICES, VALVES, ETC. ARE CONCEALED WITHIN WALLS. WHERE ACCESS FOR ADJUSTMENT AND MAINTENANCE IS POSSIBLE THROUGH LAY–IN SUSPENDED CEILINGS, ACCESS PANELS ARE NOT REQUIRED.

PIPING SYSTEM– PVC SCHEDULE 40, SCHEDULE 80 AND CPVC PIPE WITH SOLVENT FITTINGS SHALL BE USED WHERE PEMITTED BY CODE/LOCAL AUTHORITIES.

INSTALLATION: THOROUGHLY CLEAN ITEMS BEFORE INSTALLATION. CAP PIPE OPENINGS TO EXCLUDE DIRT UNTIL FIXTURES ARE INSTALLED AND FINAL CONNECTIONS HAVE BEEN MADE. PROCEED AS RAPIDLY AS CONSTRUCTION WILL PERMIT. SET FIXTURES LEVEL AND IN PROPER ALIGNMENT. INSTALL SUPPLIES IN PROPER ALIGNMENT WITH FIXTURES. INSTALL SILICONE SEALANT BETWEEN FIXTURES AND ADJACENT MATERIAL, FOR SANITARY JOINT, AND OMIT ESCUTCHEONS.

REPAIR EXISTING PLUMBING SYSTEM COMPONENTS DAMAGED BY CONSTRUCTION OPERATIONS AND RESTORE TO ORIGINAL CONDITIONS.

TEST WATER SYSTEM UNDER 150 PSIG HYDROSTATIC PRESSURE, FOR FOUR (4) HOURS MINIMUM. WHEN TESTING INDICATES MATERIALS OR WORKMANSHIP IS DEFICIENT, REPLACE OR REPAIR AS REQUIRED, AND REPEAT TEST UNTIL STANDARDS ARE ACHIEVED.

ROOF PENETRATIONS SHALL COMPLY WITH "SMACNA" AND "NRCA" STANDARDS, AND WITH THE REQUIREMENTS OF THE EXISTING ROOFING WARRANTY, IF APPLICABLE. DO NOT PERFORM ROOFING PENETRATIONS IN A MANNER WHICH WOULD VOID OR OTHERWISE LIMIT THE EXISTING ROOFING WARRANTY.

GENERAL NOTES

1. THE INTENT OF THESE PLANS AND SPECIFICATIONS IS TO INCLUDE ALL LABOR, EQUIPMENT, MATERIALS, AND SERVICES NECESSARY TO FURNISH, INSTALL, TEST, AND ADJUST A COMPLETE WORKABLE PLUMBING INSTALLATION AS SHOWN, PRESCRIBED, OR REASONABLY IMPLIED BUT NOT LIMITED TO THAT EXPLICITLY INDICATED IN THE CONTRACT DOCUMENTS, BUT NECESSARY FOR THE PROPER EXECUTION AND COMPLETION OF THE INTENT THEREOF.

2. THE ENTIRE INSTALLATION SHALL CONFORM TO THE REQUIREMENTS OF THE 2006 UNIFORM PLUMBING CODE, 2006 INTERNATIONAL BUILDING CODE, 2006 INTERNATIONAL ENERGY CONSERVATION CODE AND ALL OTHER APPLICABLE CODES AND REGULATIONS REQUIRED BY AUTHORITIES HAVING JURISDICTION. IN THE EVENT OF CONFLICT BETWEEN SPECIFICATIONS, CODES, AND REGULATIONS, THE MORE RESTRICTIVE SHALL APPLY.

3. COORDINATE ENTIRE INSTALLATION OF THE PLUMBING SYSTEM WITH THE WORK OF OTHER TRADES PRIOR TO ANY FABRICATION OR INSTALLATION. FIELD VERIFY ALL DIMENSIONS AND CONDITIONS. REPORT ANY DISCREPANCIES, IN WRITING, TO THE ENGINEER PRIOR TO COMMENCEMENT OF WORK.

4. CONTRACTOR SHALL PROVIDE AS–BUILT DRAWINGS WITH ALL CHANGES NOTED THEREON AT THE COMPLETION OF THE PROJECT IN ACCORDANCE WITH THE SPECIFICATIONS.

5 PROVIDE ONE YEAR WARRANTY ON ALL PARTS AND LABOR.

6. THE DRAWINGS ARE DIAGRAMMATIC AND INTENDED TO SHOW SCOPE. CONTRACTOR SHALL COORDINATE HIS WORK WITH OTHER TRADES TO PROVIDE THE BEST ARRANGEMENT OF ALL DUCT, PIPE, CONDUIT, ETC.

7. ALL CUTTING AND PATCHING OF THE EXISTING STRUCTURE SHALL BE PROVIDED UNDER OTHER SECTIONS OF THE WORK. PROVIDE NECESSARY REQUIREMENTS TO THE PROJECT SUPERINTENDENT.

8. ALL HOT WATER PIPING AND RECIRCULATION PIPING (EXCEPT RUNOUTS 12 FT. OR SHORTER TO INDIVIDUAL FIXTURES) SHALL BE INSULATED TO MEET THE REQUIREMENTS OF THE 2006 INTERNATIONAL ENERGY CONSERVATION CODE

9. CONDENSATE DRAINS SHALL BE PROVIDED FOR EACH AIR CONDITIONING UNIT. HORIZONTAL CONDENSATE DRAINS ABOVE ANY CEILING SHALL BE INSULATED WITH MIN. 3/8" THICK CLOSED CELL INSULATION.

10. PIPING:
   A. WASTE, VENT, AND STORM DRAIN PIPING SHALL BE CO–EXTRUDED PVC SCHEDULE 40) PIPE
   B. WATER PIPE SHALL BE CPVC PIPE
   C. CONDENSATE PIPING SHALL BE CO–EXTRUDED PVC (SCHEDULE 40) PIPE
   D. INSIDE GAS PIPING SHALL BE BLACK IRON SCHEDULE 40 WITH MALLEABLE IRON FITTINGS. OUTSIDE SHALL BE GALVANIZED IRON SCHEDULE 40 WITH GALVANIZED FITTINGS. GAS LINE TO BE PAINTED GRAY IN COLOR. A 24 HOUR METERED GAS TEST SHALL BE REQUIRED.
   E. ALL PIPING NOT ENCLOSED IN CONDITION SPACE OR AT EXTERIOR WALLS SHALL BE INSULATED.
   F. PIPING: PVC SCHEDULE 40, SCHEDULE 80 AND CPVC PIPING WITH SOLVENT WELD FITTINGS SHALL BE USED WHERE PERMITTED BY CODE/LOCAL AUTHORITIES

11. ALL VENTS OR EXHAUSTS SHALL BE AT LEAST 10 FT. AWAY OR 3 FT. ABOVE ANY WINDOW, DOOR, OPENING, OR AIR INTAKE.

12. CLEANOUTS SHALL BE INSTALLED PER THE UNIFORM PLUMBING CODE.

13. PROVIDE WATER TIGHT FLASHINGS WHEREVER PIPES PASS THROUGH EXTERIOR WALLS, ROOFS, OR FLOORS.

14. PROVIDE ISOLATION FOR ALL PIPES THAT COME IN CONTACT WITH THE STRUCTURE.

15. LOCATION OF EXISTING UTILITIES AND POINTS OF CONNECTION ARE APPROXIMATE. CONTRACTOR SHALL VERIFY EXACT LOCATIONS AND DEPTHS OF EXISTING UTILITIES AND SERVICES PRIOR TO STARTING WORK OF THIS SECTION. IF INDICATED POINTS OF CONNECTION CANNOT BE MADE TO EXISTING UTILITIES AS FOUND, THE CONTRACTOR SHALL NOTIFY THE ENGINEER PRIOR TO INSTALLING ANY WORK WHICH MAY BE AFFECTED.

16. VALVES SHALL BE NIBCO, JENKINS, HAMMOND, RED & WHITE OR APPROVED EQUAL. SERVICE PRESSURE SHALL BE SUITABLE FOR SERVICE INTENDED. THE MAIN WATER SHUT OF VALVE SHALL BE A FULL PORT BALL TYPE AND APPROVED FOR SERVICE INTENDED.

17. CONTRACTOR SHALL PROVIDE ALL SHUT OFF VALVES AS NECESSARY TO ISOLATE ANY EQUIPMENT, PLUMBING ITEMS, OR FIXTURES, THAT MAY NEED SERVICING OR ARE SUBJECT TO FAILURE WHETHER OR NOT SUCH VALVES ARE SHOWN ON THE DRAWINGS.

18. PROVIDE HANGERS AND SUPPORTS AS REQUIRED. PLUMBERS TAPE AND WIRE ARE NOT ACCEPTABLE.

19. CONTRACTOR IS RESPONSIBLE FOR HIS OWN TRENCHING, BACKFILL, AND COMPACTION OF TRENCHES NECESSARY TO COMPLETE HIS SCOPE OF WORK. BACKFILLED TRENCHES SHALL BE RETURNED TO THEIR ORIGINAL GRADE UNLESS NOTED OTHERWISE.

20. CONTRACTOR SHALL AFFIX A MAINTENANCE LABEL TO ALL EQUIPMENT REQUIRING ROUTINE MAINTENANCE AND SHALL PROVIDE MAINTENANCE AND OPERATIONAL MANUALS IN ACCORDANCE WITH THE SPECIFICATIONS.

21. ALL EQUIPMENT THAT REQUIRES KEYS OR SPECIAL TOOLS TO OPERATE SHALL SUPPLY THE OWNER WITH TWO OF ANY SUCH KEYS OR TOOLS FOR EACH PIECE OF EQUIPMENT THAT REQUIRE THE SAME.

25. ANY CHANGE OR DEVIATION FROM THESE PLANS OR SPECIFICATIONS SHALL REQUIRE THE APPROVAL, IN WRITING, OF THE ENGINEER PRIOR TO COMMENCEMENT OF SUCH WORK.

26. ALL PLUMBING, ELECTRICAL, AND GAS LINES SHALL BE CONCEALED WITHIN THE THE BUILDING STRUCTURE TO AS GREAT EXTENT AS POSSIBLE. ALL LINES NOT CONCEALED SHALL BE SECURED 6" OFF THE FLOOR AND 3/4" FROM THE WALLS USING STANDOFF BRACKETS

27. AN APPROVED BACKFLOW PREVENTOR SHALL BE PROPERLY INSTALLED UPSTREAM OF ANY POTENTIAL HAZARD BETWEEN THE POTABLE WATER SUPPLY AND SOURCE OF COMTAMINATION.

28. WATER SUPPLY CARBONATORS SHALL BE PROTECTED BY AN APPROVED REDUCED PRESSURE PRINCIPLE BACKFLOW PREVENTOR. THE RELIEF VALVE SHALL DRAIN IN–DIRECTLY TO A FLOOR SINK WITH A 1" MIN. AIR GAP.

BUILDING CODES:

CITY OF LEAGUE CITY CURRENT BUILDING CODES:

INTERNATIONAL BUILDING CODE	2015
INTERNATIONAL ENERGY CODE	2015
INTERNATIONAL MECHANICAL CODE	2015
NATIONAL ELECTRICAL CODE	2014
INTERNATIONAL PLUMBING CODE	2015
INTERNATIONAL FUEL GAS CODE	2015

PLUMBING FIXTURE SCHEDULE

ITEM	FIXTURE	COLD WATER	HOT WATER	WASTE	TRAP	VENT	DESCRIPTION
WC–1	WATER CLOSET (ADA APPROVED)	1"	–	3"	INT.	3"	PLUMBING SUPPLY 14 GA. 304 STAINLESS STEEL WALL HUNG MODEL HET–4115 1.28 GPF WITH TOP SUPPLY FLUSHMETER VALVE TO COMPLY WITH ADA FLUSH ACTIVATOR REQUIRMENTS. INCLUDE ELONGATED OPEN FRONT TOILET SEAT VANDAL RESISTANT. FULLY ENCLOSED TRAP.TOILET SHALL BE ADA AND ASME A112.19.1 COMPLIANT (OR APPROVED EQUAL).
LAV–1	LAVATORY (ADA APPROVED)	1/2"	1/2"	2"	1–1/2"	1–1/2"	MURDOCK–SUPER SECUR 16 GA. 304 STAINLESS STEEL LAVATORY MODEL #1013–CSSA WITH HOT & COLD VALVE WITH STANDARD AERATOR AND WRISTBLADE HANDLES. LAVATORY AND FAUCETS SHALL BE ADA AND ASME A112.19.1M COMPLIANT (OR APPROVED EQUAL)
EWH–1	ELECTRIC WATER HEATER	3/4"	3/4"	–	–	–	SEE WATER HEATER SCHEDULE.
ET–1	EXPANSION TANK	1/2"	1/2"	–	–	–	RHEEM/RUUD "THERM–X–GUARD" POTABLE WATER EXPANSION TANK, MODEL #RRT–5.5 GALLON TANK VOLUME, STD FACTORY PRE–CHARGE AT 40 PSI, PROVIDE STRAP AND SUPPORT. (IF REQUIRED)
DF–1	DRINKING FOUNTAIN (ADA APPROVED)	1/2"	–	2"	1–1/2"	1–1/2"	"ELKAY" MODEL–VRCTLR8WSK DUAL STATION WITH BOTTLE FILLER DELIVERS 8 GPH OF 50°F DRINKING WATER (OR APPROVED EQUAL)
FD–1	FLOOR DRAIN	–	–	2"	2"	1–1/2"	"J.R SMITH" MODEL #2005Y ROUND TOP FLOOR WITH DUCO CAST IRON BODY WITH FLASHING COLLER, ADJUSTABLE STRAINER HEAD, POLISHED BRONZE STRAINER, 1/2" TRAP PRIMER CONNECTION, AND NO HUB CONNECTION. (APPROVED EQUAL.)
URI–1	URINAL	3/4	–	2"	2"	1–1/2"	MURDOCK–SUPER SECUR 16 GA. 304 STAINLESS STEEL HIGH EFFICIENCY URINAL MODEL#1035F REQUIRING A 0.125 GPF TOP MOUNTED FLUSHVALVE. URINAL SHALL BE ADA AND ASME A112.19.1 COMPLIANT (OR APPROVED EQUAL.)
TD–1	TRENCH DRAIN	–	–	2"	2"	1–1/2"	ZURN 6–1/4" WIDE REVEAL TRENCH DRAIN SYSTEM.20 FT LENGTH WITH 2" BOTTOM CENTERED DRAIN CONNECTION. HIGH DENSITY POLYETHYLENE (HDPE) CHANNEL WITH HEAVY DUTY DUR–COATED CAST IRON GRATE. (APPROVED EQUAL.)
HB–1	HOSE BIB	3/4"	–	–	–	–	WOODFORD MODEL B65 ANTI–SIPHON FREEZELESS WALL HYDRANT WITH BOX & DOOR. CHROME FINISH WITH 3/4 IN. INLET. HARDENED STAINLESS STEEL STEM (APPROVED EQUAL.)

WATER HEATER SCHEDULE

MARK	MANUFACTURER/ JUNIOR MODELS	QUANTITY	AREA SERVED	ELECTRICAL SOURCE	GALLONS	RECOVERY (GPH OR GPM)	NOTES
EWH–1	RHEEM PROE20 1 RH POU	1	REST ROOMS	120V 2W 1 PHASE 2.0 KW	19.9	N/A	A

NOTES:

A 40 DEG. TEMP. RISE WITH 100 DEG. TEMP

NEW FIXTURES UNITS

FIXTURE	TOTAL	WASTE DFU	WASTE TOTAL	WATER WSFU	WATER TOTAL
WATER CLOSET	4	4.0	16.0	15.0	105.0
LAVATORY	4	1.0	4.0	1.0	4.0
URINAL	2	2.0	4.0	15.0	35.0
DRINKING FOUNTAIN	2	0.5	1.0	0.5	1.0
				–	–
		TOTAL	25.0		145.0

RESPONSIBILITY NOTES

1. ROOF OPENINGS FOR PLUMBING AND RELATED WORK SHALL BE THE RESPONSIBILITY OF THE PLUMBING SUBCONTRACTOR. HE SHALL EMPLOY THE OWNER'S ROOFER FOR THIS WORK TO MAINTAIN THE ROOF BOND.
2. EXISTING SANITARY SEWER AND EXISTING DOMESTIC WATER CONNECTIONS REFER TO SHEET P2.0 FOR LOCATIONS. CONTRACTOR TO FIELD VERIFY LOCATIONS AND TIE–ENDS
3. UNDER FLOOR PLUMBING ROUGH–IN FOR REST ROOMS SHALL BE THE RESPONSIBILITY OF THE SUBCONTRACTOR AND SLAB DEPRESSIONS.
4. THE SPRINKLER CONTRACTOR SHALL SURVEY THE EXISTING SPRINKER SYSTEM, ANY REQUIRED MODIFICATIONS SHALL BE BROUGHT UP TO CODE.
5. IF DRAWINGS CALL FOR THE REUSE OF EXISTING EQUIPMENT, THE OWNER'S GENERAL CONTRACTOR SHALL VERIFY THAT ALL SUCH EQUIPMENT IS IN PROPER WORKING ORDER, OR TAKE THE NECESSARY STEPS TO ACCOMPLISH SUCH. IF REPLACEMENT IS REQUIRED, USE THE EQUIPMENT AND HARDWARE AS SPECIFIED ON THESE SCHEDULES OR AS CALLED OUT IN THE SPECIFICATIONS ON THIS SHEET. ALL SUCH ITEMS MUST MEET ALL GOVERNING CODES AND STANDARDS OF PRACTICE.

PIPE MATERIAL SCHEDULE

SERVICE		COPPER TYPE "M"	COPPER TYPE "L"	COPPER TYPE "K"	CAST IRON	BLACK STEEL	GALV. STEEL	VTRI. CLAY	ABS	SCH.40 PVC	SCH.80 CPVC	REMARKS
WATER PIPING	INSIDE										X	
	OUTSIDE										X	
SANITARY DRAIN	INSIDE									X		
	OUTSIDE									X		
SANITARY VENT	INSIDE									X		
	OUTSIDE									X		
GAS PIPING	INSIDE					X						
	OUTSIDE						X					
STORM DRAIN	INSIDE									X		
	OUTSIDE									X		
INDIRECT DRAINAGE	INSIDE									X		
	OUTSIDE									X		
CONDESATE	INSIDE									X		
	OUTSIDE									X		
COMPRESSED AIR	INSIDE					X						
	OUTSIDE						X					

NOTES:

SPECIAL NOTICE TO CONTRACTORS

1. ALL CONTRACTORS (GENERAL CONTRACTOR AND SUB–CONTRACTORS) BIDDING THIS PROJECT ARE REQUIRED TO VISIT THE JOB SITE AND VERIFY THE EXISTING CONDITIONS PRIOR TO SUBMITTING THEIR BID. CONTRACTORS ARE TO CAREFULLY REVIEW ALL CONSTRUCTION DOCUMENTS AND NOTE ANY DISCREPANCIES BETWEEN THE CONSTRUCTION DOCUMENTS AND THE CONDITIONS OBSERVED AT THE JOB SITE PRIOR TO SUBMISSION OF ANY BID. THE BUILDING OWNER REPRESENTATIVE LISTED BELOW MAY BE CONTACTED FOR ACCESS TO THE JOB SITE.
2. CONTRACTORS ARE RESPONSIBLE FOR VERIFYING THE LOCATION AND CONDITION OF ALL POINTS OF CONNECTION, LOCATION AND CONDITION OF ALL BUILDING (ROOF/FLOOR/CEILING) PENETRATIONS, LOCATION AND CONDITION OF ALL UTILITIES AND BUILDING SYSTEMS INCLUDING, BUT NOT LIMITED TO, GAS, WATER, SEWER, VENT, ELECTRICAL, BUILDING MECHANICAL SYSTEMS, DUCT CONNECTIONS, EXHAUST/OUTSIDE AIR CONNECTIONS, SECURITY, FIRE ALARM, DATA, AND PHONE PRIOR TO SUBMISSION OF THEIR BID.
3. ANY DISCREPANCIES BETWEEN THE CONSTRUCTION DOCUMENTS AND THE CONDITIONS OBSERVED SHALL BE BROUGHT TO THE ATTENTION, IN WRITING, TO THE ARCHITECT AND/OR ENGINEER PRIOR TO PROCEEDING WITH CONSTRUCTION.

PLUMBING LEGEND

SYMBOL	ABBREV	DESCRIPTION
	SS or W	NEW SEWER OR WASTE
	W (E)	EXIST. SEWER OR WASTE
	V	NEW VENT
	V (E)	EXIST. VENT
	CW	NEW COLD WATER
	CW (E)	EXISTING COLD WATER
	HW	NEW HOT WATER
	HW (E)	EXIST. HOT WATER
	G	NEW GAS
	G (E)	EXISTING GAS
	CD	NEW CONDENSATE DRAIN
	CD (E)	EXIST. CONDENSATE DRAIN
CA	CA	COMPRESSED AIR
	FCO	FLOOR CLEANOUT
	WCO	WALL CLEANOUT
	FD	FLOOR DRAIN
	FS	FLOOR SINK
	TP	TRAP PRIMER & TRAP PRIMER PIPING
	SOV	SHUT–OFF VALVE
	CV	CHECK VALVE
	PRV	BACKFLOW PREVENTER W SOV'S
	T & P	
	DN	PIPE DOWN
	UP	PIPE UP
	POC	POINT OF CONNECTION
7	–	PLUMBING NOTE CALL–OUT
	ABV	ABOVE
	AFF	ABOVE FINISH FLOOR
	AP	ACCESS PANEL
	BEL	BELOW
	BLDG	BUILDING
	CLG	CEILING
	CONT	CONTINUATION
	EL	ELEVATION
	FIN	FINISH
	FL	FLOOR
	GR	GRADE
	NTS	NOT TO SCALE
	OC	ON CENTER
	S= %_	SLOPE AT A PERCENTAGE
	SHT	SHEET
	TYP	TYPICAL
	VTR	VENT THRU ROOF

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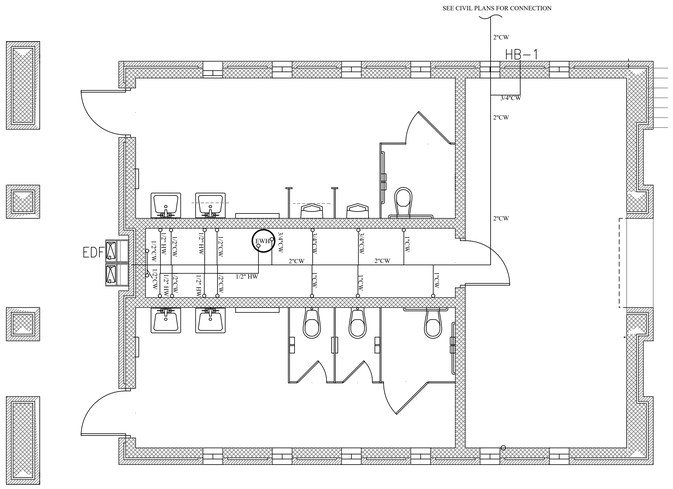
ZCA PROJ. NO.: 1106515
SHEET TITLE:

PLUMBING SPECIFICATIONS

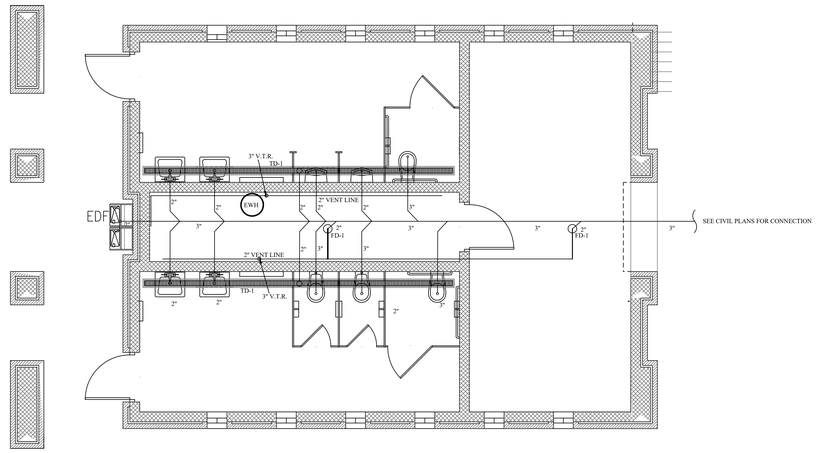
DRAWING NO.:

P1.0

Hometown Heroes Park Restrooms
ZCA Project No. 1106515



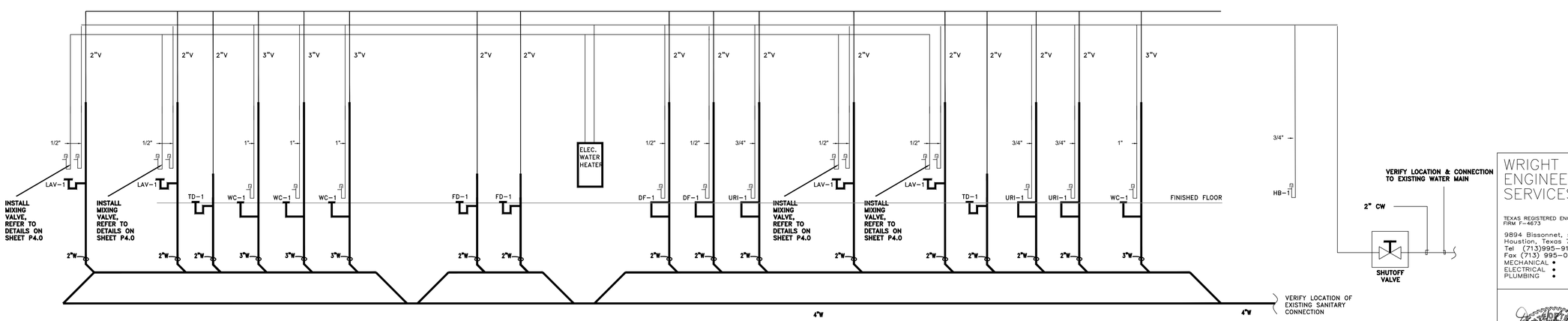
1 WATER PLAN
1/4"=1'-0"



2 WASTE AND VENT PLAN
1/4"=1'-0"

PLUMBING PLAN KEYED NOTES

1. SANITARY WASTE: CONNECTIONS TO MAIN SANITARY WASTE LINE. CONTRACTOR SHALL FIELD VERIFY PIPE SIZE, LOCATION AND INVERT ELEVATION PRIOR TO NEW SANITARY SEWER LINE INSTALLATION.
2. SANITARY VENT: PROVIDE AND INSTALL SANITARY VENT IN THIS VICINITY. FIELD VERIFY PRIOR TO INSTALLTION OF SANITARY VENT.
3. CONTRACTOR TO FIELD ROUTE NEW 1-1/2" CW TO MAIN WATER LINE. SEE CIVIL UTILITY PLANS FOR CONNECTION TO WATER METER LOCATION.
4. SOUND: PROVIDE 1" INSULATING BOARD BETWEEN WATER PIPES AND EXTERIOR/INTERIOR WALLS.
5. MIXING VALVE: PROVIDE AND INSTALL ANIT-SCALD MIXING VALVE AT LAVATORY TO TEMPER HOT WATER AT FOR PUBLIC USE. SET VALVE FOR HOT WATER DISCHARGE AT LAVATORY TO 110°F MAXIMUM.



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Hometown Heroes Park Restrooms
City of League City, Texas
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League City, Texas 77573

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PLUMBING SUPPLY, SANITARY, VENT, & RISER PLAN

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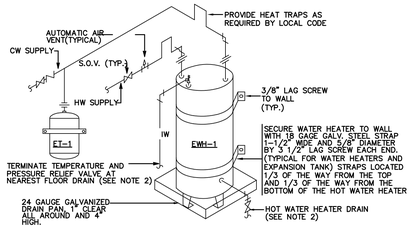
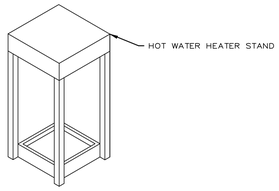
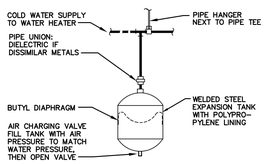


NOTES;

1. A WATERTIGHT PAN WITH 1" DRAIN SHALL BE PROVIDED UNDER WATER HEATER.
2. ALL DRAINS FROM HOT WATER HEATER SHALL BE PIPED TO NEAREST FLOOR DRAIN.



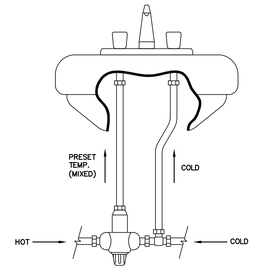
EWH-1 DETAIL — NOT TO SCALE — 1



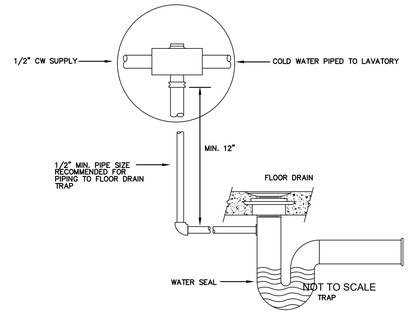
PIPING ARRANGEMENT SHOWN IS SCHEMATIC. ADJUST TO SUIT FIELD CONDITIONS. MAKE PIPE SAME SIZE AS TANK FITTING. FOLLOW MANUFACTURER'S INSTRUCTIONS FOR INSTALLATION PROCEDURE. VERIFY PROPER OPERATION WHEN INSTALLED.

EXPANSION TANK INSTALLATION SHALL OCCUR ONLY WHEN THERE IS A BACK FLOW PREVENTION DEVICE INSTALLED WITHIN THE TENANT SPACE WATER SYSTEM OR BUILDING WATER SYSTEM. FIELD VERIFY BACKFLOW PREVENTION DEVICE.

EXPANSION TANK — NOT TO SCALE — 2



ANTI-SCALD MIXING VALVE — NOT TO SCALE — 3

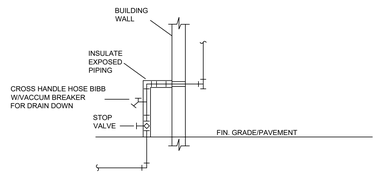


TRAP PRIMER — NOT TO SCALE — 4

NOT USED — 5

NOT USED — NOT TO SCALE — 6

NOT TO SCALE — 7

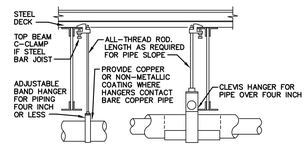


NOTE:
VERIFY REQUIREMENTS FOR METERING AND PIPING WITH WATER COMPANY. INSTALL OTHER UTILITIES A MINIMUM OF 10'-0" FROM WATER LINE. PLUMBING CONTRACTOR SHALL PAY ALL WATER COMPANY FEES FOR INSTALLATION. USE WELDED OR SCREWED PIPE AND FITTINGS PER PLUMBING SPECS. WATER COMPANY SHALL EXCAVATE, BACKFILL AND REPAIR ANY PAVING OR SOD FOR WATER SERVICE LINE INSTALLATION FROM MAIN TO BUILDING.

WATER SUPPLY BUILDING ENTRY — NOT TO SCALE — 8

NOT USED — NOT TO SCALE — 10

NOT TO SCALE — 11



DO NOT HANG PIPE LARGER THAN 3" FROM BOTTOM OF JOISTS.

PROVIDE GALVANIZED STEEL SADDLE FOR ALL INSULATED PIPE LARGER THAN 3/4". VERIFY INSULATION THICKNESS WHEN SIZING HANGERS.

PROVIDE UPPER ATTACHMENT AS REQUIRED FOR CASES NOT SHOWN HERE. DO NOT INSTALL HANGER INSIDE INSULATION OR OTHERWISE PENETRATE VAPOR BARRIER. DO NOT HANG ONE PIPE FROM ANOTHER EXCEPT IN CHASES. TRAPEZE HANGERS MAY BE USED FOR MULTIPLE PARALLEL PIPES. HANGER SPACING FOR PIPE SIZE, COPPER: 1"=12' 3/4"=11' 2"=10' 2"=9' 1-1/2"=8' 1-1/4"=7' 1"=6' 3/4"=6' 1/2"=5'. CAST IRON: 10' AND ONE NEAR ALL JOINTS. STEEL: 4"=14' 3"=12' 2-1/2"=11' 2"=10' 1-1/2"=9' 1"=7' 3/4"=6' 1/2"=5'. LOCATE HANGERS AS CLOSE AS POSSIBLE TO TURNS AND TEES OF PIPE. PROVIDE SUPPLEMENTARY STEEL STRUTS BETWEEN JOISTS IF REQUIRED.LOCATE HANGERS TO TAKE LOAD OFF OF EQUIPMENT CONNECTIONS. ANCHOR WATER PIPE AGAINST SWAYING DUE TO CHANGES IN WATER VELOCITY. PROVIDE SEISMIC BRACING IF/AS REQUIRED BY LOCAL AUTHORITIES. CHAINS OR PERFORATED STRAP IRON OR STEEL IS NOT ACCEPTABLE. REFER TO CODES FOR FURTHER INFORMATION.

PIPE HANGER — NOT TO SCALE — 12

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