## STRUCTURAL NOTES

- 1.1. ANY DISCREPANCY FOUND AMONG THE DRAWINGS, SPECIFICATIONS, THESE NOTES, AND THE SITE CONDITIONS SHALL BE REPORTED TO THE ARCHITECT AND THE STRUCTURAL ENGINEER, WHO SHALL CORRECT SUCH DISCREPANCY IN WRITING. ANY WORK DONE BY THE CONTRACTOR AFTER DISCOVERY OF SUCH DISCREPANCY SHALL BE DONE AT THE CONTRACTOR'S RISK. THE CONTRACTOR SHALL VERIFY AND COORDINATE THE DIMENSIONS AMONG ALL DRAWINGS PRIOR TO PROCEEDING WITH ANY WORK OR FABRICATION. THE CONTRACTOR IS RESPONSIBLE FOR ALL ERECTION BRACING, FORMWORK AND TEMPORARY CONSTRUCTION SHORING.
- 1.2. BY THE ACT OF SUBMITTING A BID FOR THE PROPOSED CONTRACT, THE CONTRACTOR WARRANTS THAT:
- 1.2.1. THE CONTRACTOR AND ALL SUBCONTRACTORS THEY INTEND TO USE (INCLUDING AGENTS AND SUPPLIERS) HAVE CAREFULLY AND THOROUGHLY REVIEWED THE DRAWINGS AND STRUCTURAL NOTES AND HAVE FOUND THEM COMPLETE AND FREE FROM AMBIGUITIES
- AND SUFFICIENT FOR THE PURPOSE INTENDED. THE CONTRACTOR HAS CAREFULLY EXAMINED THE SITE OF THE WORK AND FROM THEIR OWN INVESTIGATIONS, THEY HAVE SATISFIED THEMSELF AS TO THE NATURE AND LOCATION OF THE WORK, AS TO THE CHARACTER, QUALITY, AND QUANTITIES OF MATERIAL AND DIFFICULTIES TO BE ENCOUNTERED, AS TO THE EXTENT OF EQUIPMENT AND OTHER FACILITIES NEEDED FOR THE PERFORMANCE OF THE WORK AND AS TO THE GENERAL AND LOCAL CONDITIONS, AND OTHER ITEMS WHICH MAY IN ANY WAY AFFECT THE WORK OR ITS PERFORMANCE.
- THE CONTRACTOR AND ALL WORKERS THEY INTEND TO USE ARE SKILLED AND EXPERIENCED IN THE TYPE OF CONSTRUCTION REPRESENTED BY THE DRAWINGS AND DOCUMENTS BID UPON.
- NEITHER THE CONTRACTOR NOR ANY OF THEIR EMPLOYEES, AGENTS, INTENDED SUPPLIERS, OR SUBCONTRACTORS HAVE RELIED UPON ANY VERBAL REPRESENTATIONS ALLEGEDLY AUTHORIZED OR UNAUTHORIZED FROM THE OWNER OR THEIR EMPLOYEES OR AGENTS, INCLUDING THE ARCHITECT OR ENGINEERS, IN ASSEMBLING THE BID FIGURES.
- THE REQUIREMENTS CONTAINED WITHIN THIS SECTION SUPERSEDE REQUIREMENTS AND/OR RECOMMENDATIONS CONTAINED IN THE AISC "CODE OF STANDARD PRACTICE FOR STEEL BUILDING AND BRIDGES", AS WELL AS CASE DOCUMENT 962-D "A GUIDELINE ADDRESSING COORDINATION AND COMPLETENESS OF STRUCTURAL CONSTRUCTION DOCUMENTS"
- THE CONTRACTOR AND ALL SUBCONTRACTORS THEY INTEND TO USE ARE AWARE OF AND ACKNOWLEDGE THAT CLOSE COORDINATION AMONG ARCHITECTURAL, STRUCTURAL, MECHANICAL, ELECTRICAL AND OTHER TRADE DRAWINGS IS REQUIRED.
- THE CONTRACTOR AND ALL SUBCONTRACTORS THEY INTEND TO USE SHALL RECOGNIZE THAT THE PROJECT CONTRACT DOCUMENTS INCLUDE THE ARCHITECTURAL, STRUCTURAL, MECHANICAL AND ELECTRICAL AND OTHER TRADE DRAWINGS AND SPECIFICATIONS
- CONTRACTOR AND ALL SUBCONTRACTORS ACKNOWLEDGE THAT CLOSE COORDINATION BETWEEN DISCIPLINES INCLUDED WITHIN THE CONTRACT DOCUMENTS IS NECESSARY. ELEMENTS THAT WILL REQUIRE CLOSE COORDINATION BY THE CONTRACTOR INCLUDE (BUT ARE NOT LIMITED TO):
- VERIFICATION OF ALL DIMENSIONS INDICATED ON THE ARCHITECTURAL AND STRUCTURAL DRAWINGS
- DETERMINATION OF ALL COLUMN LOCATIONS DETERMINATION OF TOP OF FLOOR, TOP OF STEEL, WALL PLATE
- AND/OR TOP OF BEAM ELEVATIONS DETERMINATION OF TOP OF FOOTING ELEVATIONS AND FOOTING
- STEP LOCATIONS MECHANICAL/ELECTRICAL EQUIPMENT LOCATIONS AND WEIGHTS
- LOCATION AND SIZE OF ALL MECHANICAL/ ELECTRICAL PENETRATIONS THROUGH WALLS AND FLOORS/ ROOFS COORDINATION WITH DESIGNERS/ SUPPLIERS OF PRE-ENGINEERED COMPONENTS (JOISTS, TRUSSES, STAIRS, ETC.)
- THE CONTRACTOR ACKNOWLEDGES THAT TEMPORARY SHORING AND/OR BRACING MAY BE REQUIRED TO COMPLETE THE PROJECT. DESIGN AND IMPLEMENTATION OF TEMPORARY SHORING AND/OR BRACING DURING CONSTRUCTION IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR.
- 1.2.10. THE CONTRACTOR AND ALL SUBCONTRACTORS THEY INTEND TO USE SHALL MAKE CONSIDERATION FOR, AND INCLUDE MONIES FOR THE ABOVE IN THE PREPARATION OF THEIR BIDS.
- 1.2.11. THE CONTRACTOR SHALL NOT SCALE THE ARCHITECTURAL AND STRUCTURAL DRAWINGS FOR LOCATIONS OF ELEMENTS NOTED
- 1.2.12. ELECTRONIC COPIES OF THE STRUCTURAL DRAWINGS (PDF'S, CAD DRAWINGS OR BIM MODELS) MAY BE PROVIDED TO THE CONTRACTOR FOR THEIR USE. THESE FILES MAY BE PROVIDED AT THE REQUEST OF THE CONTRACTOR FOR THEIR CONVENIENCE ONLY. THE CONTRACTOR AGREES THAT THESE FILES SHALL NOT SUPERSEDE INFORMATION SHOWN ON THE ORIGINAL BID/ CONSTRUCTION DOCUMENTS. THE CONTRACTOR AGREES TO HOLD THE STRUCTURAL ENGINEER HARMLESS FOR ANY ERRORS OR DISCREPANCIES CONTAINED WITHIN THESE ELECTRONIC FILES.
- 1.2.13. THE BID FIGURE IS BASED SOLELY UPON THE CONSTRUCTION CONTRACT DOCUMENTS AND PROPERLY ISSUED WRITTEN OR VERBAL REPRESENTATIONS.

# 1.3. CODES

- ALL METHODS, MATERIALS AND WORKMANSHIP SHALL CONFORM TO THE 2021 INTERNATIONAL BUILDING CODE (IBC) AS AMENDED AND ADOPTED BY THE LOCAL BUILDING AUTHORITY. 1.3.2. ALL REFERENCES TO OTHER CODES, STANDARDS AND SPECIFICATIONS, (ACI, ASTM, ETC.), SHALL BE FOR THE EDITION
- CURRENTLY REFERENCED BY IBC AS AMENDED AND ADOPTED BY THE LOCAL BUILDING AUTHORITY.

## 1.4. DESIGN CRITERIA 1.4.1. UNIFORM LOADS:

| LOCATION                | LIVE LOAD                            | DEAD LOAD |
|-------------------------|--------------------------------------|-----------|
| STAIRS AND EXITS        | 100 PSF                              | ACTUAL    |
| HANDRAILS AND<br>GUARDS | 50 PLF<br><u>OR</u> 200# CONCENTRATE | D LOAD    |

1.5. STATEMENT OF SPECIAL INSPECTIONS SEE STATEMENT OF SPECIAL INSPECTION AND TESTING SHEET SW0.2.

# 1.6. SHOP DRAWINGS

SUBMIT SHOP DRAWINGS TO THE ARCHITECT/ENGINEER FOR THE 1.6.1. FOLLOWING:

## CONCRETE MIX DESIGN SUBMITTALS REINFORCING STEEL

ENGINEER OF RECORD SHALL REVIEW SHOP DRAWINGS FOR GENERAL CONFORMANCE WITH THE PROJECT CONSTRUCTION DOCUMENTS (PLANS AND SPECIFICATIONS). ENGINEER OF RECORD REVIEW OF SHOP DRAWINGS SHALL NOT RELIEVE THE GENERAL CONTRACTOR OF THEIR RESPONSIBILITY

1.6.2. SHOP DRAWING REVIEW NOTES

FOR REVIEW OF THE SHOP DRAWINGS FOR COMPLIANCE WITH THE PROJECT REQUIREMENTS. APPROVAL OF THE SHOP DRAWINGS BY THE ENGINEER OF RECORD SHALL NOT BE CONSIDERED AS A GUARANTEE BY THE ENGINEER THAT THE SHOP DRAWINGS COMPLY WITH ALL

CONCURRENT SHOP DRAWING REVIEW SHALL ONLY BE PERMITTED IF APPROVED BY THE ARCHITECT/ENGINEER OF RECORD PRIOR TO THE START OF SHOP DRAWING REVIEW.

## 1.7. MISCELLANEOUS 1.7.1. VERIFY ALL DIMENSIONS AND CONDITIONS IN THE FIELD.

PROJECT REQUIREMENTS.

- CONSTRUCTION DETAILS NOT SPECIFICALLY SHOWN ON THE DRAWINGS SHALL FOLLOW SIMILAR DETAILS OF SECTIONS OF THIS
- PROJECT AS APPROVED BY THE ARCHITECT/ ENGINEER. THE STRUCTURE HAS BEEN DESIGNED TO RESIST CODE REQUIRED VERTICAL AND LATERAL FORCES AFTER THE CONSTRUCTION OF ALL STRUCTURAL ELEMENTS HAS BEEN COMPLETED. STABILITY OF THE STRUCTURE PRIOR TO COMPLETION IS THE SOLE RESPONSIBILITY OF
- THE GENERAL CONTRACTOR. THIS RESPONSIBILITY INCLUDES BUT IS NOT LIMITED TO JOB SITE SAFETY: ERECTION MEANS, METHODS, AND SEQUENCES; TEMPORARY SHORING, FORMWORK, AND BRACING; USE OF EQUIPMENT AND CONSTRUCTION PROCEDURES.

# 2. SITE PREPARATION/SOIL REMEDIATION

# 2.1. SOIL DATA

ALLOWABLE SOIL PRESSURE 3.000 PSF. ALLOW 33-1/3% INCREASE FOR LOADS FROM WIND OR SEISMIC ORIGIN. SEE GEOTECHNICAL ENGINEERING REPORT BY TERRA ASSOCIATES, INC. DATED NOVEMBER 14, 2016. SEE GEOTECH REPORT FOR ALL SUBGRADE PREPARATION REQUIREMENTS AS WELL AS CAPILLARY BREAK AND VAPOR BARRIER RECOMMENDATIONS.

| 2.1.1.   | RETAINING WALL DESIGN CRITERIA: |                   |
|----------|---------------------------------|-------------------|
|          | ACTIVE EARTH PRESSURE:          | 35 PCF            |
|          | AT-REST EARTH PRESSURE:         | 100 PSF (UNIFORM) |
|          | SEISMIC EARTH PRESSURE:         | 8 x "H" PSF       |
| A.       | PASSIVE EARTH PRESSURE:         | 350 PCF *         |
| В.       | FRICTION COEFFICIENT:           | 0.35 *            |
| C.<br>D. | * INCLUDES FACTOR OF SAFETY     | OF 1.5            |
| _        |                                 |                   |

2.2. EXCAVATION EXCAVATE TO DEPTH SHOWN AND TO FIRM UNDISTURBED MATERIAL. OVER-EXCAVATIONS SHALL BE BACKFILLED WITH LEAN CONCRETE (f'c=500-1200 PSI) OR STRUCTURAL FILL AT THE CONTRACTOR'S EXPENSE. EXERCISE EXTREME CARE DURING EXCAVATION TO AVOID DAMAGE TO BURIED LINES. TANKS, AND OTHER CONCEALED ITEMS. UPON DISCOVERY, DO NOT PROCEED WITH WORK UNTIL RECEIVING WRITTEN INSTRUCTIONS FROM THE ARCHITECT. A COMPETENT REPRESENTATIVE OF THE OWNER SHALL INSPECT ALL FOOTING EXCAVATIONS FOR SUITABILITY OF BEARING SURFACES PRIOR TO PLACEMENT OF REINFORCING STEEL. PROVIDE DRAINAGE AS NECESSARY TO AVOID

2.3. FILL, BACKFILL AND COMPACTION BACKFILL AGAINST WALLS SHALL NOT BE PLACED UNTIL AFTER THE REMOVAL OF ALL MATERIAL SUBJECT TO ROT OR CORROSION. ALL FILL PLACED AGAINST RETAINING WALLS OR BASEMENT WALLS SHALL BE FREE DRAINING GRANULAR MATERIAL. STRUCTURAL FILL OTHER THAN PEA GRAVEL SHALL BE GRANULAR PLACED IN 6-INCH LIFTS AND COMPACTED TO AT LEAST 95% OF ITS MAXIMUM DRY DENSITY AS DETERMINED BY ASTM D1557 (MOD PROCTOR). PEA GRAVEL

FILL SHALL HAVE A MAXIMUM PARTICLE SIZE OF 3/8" DIAMETER.

WATER-SOFTENED SUBGRADE.

# STRUCTURAL CONCRETE

ALL CONCRETE SHALL BE HARD ROCK CONCRETE MEETING THE REQUIREMENTS OF ACI-301, "SPECIFICATIONS FOR STRUCTURAL CONCRETE FOR BUILDINGS." PROPORTIONING OF INGREDIENTS FOR EACH CONCRETE MIX SHALL BE BY METHOD 2 OR THE ALTERNATE PROCEDURE GIVEN IN ACI-301. PLACE CONCRETE PER ACI-304 AND CONFORM TO ACI-604 (306) FOR WINTER CONCRETING AND ACI-605 (305) FOR HOT WEATHER CONCRETING. USE INTERIOR MECHANICAL VIBRATORS WITH 7,000 RPM MINIMUM FREQUENCY. DO NOT OVER-VIBRATE. CONCRETE SHALL BE PLACED MONOLITHICALLY BETWEEN CONSTRUCTION OR CONTROL JOINTS. PROTECT ALL CONCRETE FROM PREMATURE DRYING, EXCESSIVE HOT OR COLD TEMPERATURE FOR SEVEN DAYS AFTER PLACING.

## 3.2. STRENGTH TWENTY-EIGHT DAY COMPRESSIVE STRENGTHS (f'c) SHALL BE AS FOLLOWS WITH EXPOSURE CATEGORY AND CLASS PER ACI TABLE 19.3.1.1 GIVEN IN

| PSI   |
|-------|
| PSI * |
|       |

\* MAXIMUM W/C RATIO SHALL BE 0.55 CONCRETE SUPPLIER TO PROVIDE TEST RECORDS PER SECTION 26.4 OF ACI 318. WHEN NO PRIOR EXPERIENCE OR TRIAL MIXTURE DATA ARE AVAILABLE. THE WATER/CEMENT RATIO FROM THE TABLE BELOW MAY BE USED, BUT ONLY WHEN SPECIAL PERMISSION IS GIVEN BY ENGINEER.

MAXIMUM ABSOLUTE WATER/CEMENT RATIO BY WEIGHT FOR CONCRETE MIXES WITHOUT TEST RECORDS SHALL BE AS FOLLOWS:

| SPECIFIED<br>COMPRESSIVE<br>STRENGTH | NON-AIR<br>ENTRAINED<br>CONCRETE | AIR-<br>ENTRAINED<br>CONCRETE |
|--------------------------------------|----------------------------------|-------------------------------|
| 3000 PSI                             | 0.58                             | 0.46                          |
| 4000 PSI                             | 0.44                             | 0.35                          |

## 3.3. MATERIALS

- 3.3.1. CEMENT: ASTM C150, TYPE I OR TYPE II OR ASTM C595 TYPE IL. ENGINEER'S APPROVAL IS NEEDED FOR USE OF TYPE III CEMENT.
- 3.3.2. COARSE AND FINE AGGREGATE: ASTM C33.
- 3.3.3. WATER SHALL BE CLEAN AND POTABLE. 3.3.4. FLYASH: ASTM C618 CLASS C (CLASS F MAY BE ALLOWED IF

APPROVED BY THE STRUCTURAL ENGINEER)

3.3.5. GROUND GRANULATED BLAST FURNACE SLAG (GGBFS): ASTM C989 GRADE 100 OR 120. GGBFS SHALL NOT BE PERMITTED UNLESS REVIEWED AND APPROVED BY THE STRUCTURAL ENGINEER. MIX DESIGNS SUBMITTED INCLUDING GGBFS SHALL INCLUDE SHRINKAGE TEST RESULTS AT 28 DAYS.

# 3.4. ADMIXTURES

- 3.4.1. WATER REDUCING ADMIXTURE: ASTM C494. ADMIXTURES SHALL BE USED IN EXACT ACCORDANCE WITH MANUFACTURER'S
- 3.4.2. WATER REDUCING ADMIXTURES SHALL BE USED AT ALL HEAVILY CONGESTED AREAS (I.E. CONCRETE BEAMS, COLUMNS AND WALLS WITH REINFORCING SPACING OF 4" OR LESS)
- 3.4.3. CONCRETE USING ADMIXTURES TO PRODUCE FLOWABLE CONCRETE MAY BE USED SUBJECT TO ENGINEER'S APPROVAL. 3.4.4. AIR ENTRAINMENT: ASTM C260 AND ASTM C494 ENTRAIN 5%
- PLUS/MINUS 1.5% BY VOLUME IN ALL CONCRETE EXPOSED TO 3.4.5. NO OTHER ADMIXTURES PERMITTED UNLESS APPROVED BY THE **ENGINEER**
- 3.5. FORMWORK AND SHORING 3.5.1. FOLLOW RECOMMENDED PRACTICE FOR CONCRETE FORMWORK
- 3.5.2. ALL SHORING SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR. FORMWORK SUPPORTS AND SHORING SHALL BE DESIGNED TO PROVIDE FINISHED CONCRETE SURFACES AT ALL FACES LEVEL, PLUMB AND TRUE TO THE DIMENSIONS AND ELEVATIONS SHOWN. TOLERANCES AND VARIATIONS SHALL BE AS SPECIFIED.

- 3.6.1. DETAIL, FABRICATE, AND PLACE PER ACI-315 AND ACI-318. SUPPORT REINFORCEMENT WITH APPROVED CHAIRS, SPACERS, OR TIES.
- 3.6.2. DEFORMED BAR REINFORCEMENT: ASTM A615 GR 60 3.6.3. WELDABLE DEFORMED BAR REINFORCEMENT: ASTM A706 GR 60
- WHERE NOTED ON STRUCTURAL DRAWINGS 3.6.4. EXCEPT AS NOTED SPECIFICALLY ON THE DRAWINGS, ALL CONCRETE REINFORCEMENT SHALL BE LAP-SPLICED AS INDICATED ON THE
- REINFORCING BAR DEVELOPMENT AND SPLICE LENGTH SCHEDULE PROVIDED ON THE STRUCTURAL DRAWINGS. NO MORE THAN 50% OF HORIZONTAL OR VERTICAL REINFORCING BARS SHALL BE SPLICED AT ANY ONE LOCATION.
- 3.6.5. EXCEPT AS NOTED SPECIFICALLY ON THE DRAWINGS, PROVIDE CORNER BARS TO MATCH QUANTITY AND DIAMETER OF HORIZONTAL REINFORCEMENT AND LAP WITH SPECIFIED HORIZONTAL REINFORCEMENT FOR "Ld" PER REINFORCING BAR DEVELOPMENT AND SPLICE LENGTH TABLES PROVIDED ON THE STRUCTURAL DRAWINGS. THESE CORNER BARS SHALL BE PLACED AT ALL CORNERS AND INTERSECTIONS IN CONCRETE FOOTINGS AND WALLS.
- 3.7. CONCRETE COVER ON REINFORCING SHALL BE AS FOLLOWS (UNLESS SHOWN

### BOTTOM OF FOOTINGS FORMED EARTH FACE AND SLAB ON GRADE WALLS, WEATHER FACE 1-1/2" 3.8. CONSTRUCTION OR CONTROL JOINTS

## 3.8.1. CONSTRUCTION OR CONTROL JOINT SPACING IN WALLS SHALL NOT EXCEED 50' ON CENTER EXCEPT AS DIRECTED BY THE ARCHITECT/ENGINEER.

## 3.9. SHOTCRETE

- SHOTCRETE SHALL BE DEFINED AS MORTAR OR CONCRETE PNEUMATICALLY PROJECTED AT HIGH VELOCITY ONTO A SURFACE. EXCEPT AS SPECIFIED IN THIS SECTION, SHOTCRETE SHALL CONFORM TO THE REQUIREMENTS FOR PLAIN CONCRETE OR REINFORCED CONCRETE.
- PROPORTIONS AND MATERIALS: SHOTCRETE PROPORTIONS SHALL BE SELECTED THAT ALLOW SUITABLE PLACEMENT PROCEDURES USING THE DELIVERY EQUIPMENT SELECTED AND SHALL RESULT IN FINISHED IN-PLACE HARDENED SHOTCRETE MEETING THE SPECIFIED
- STRENGTH REQUIREMENTS. AGGREGATE: COARSE AGGREGATE, IF USED, SHALL NOT EXCEED 3/4
- REINFORCEMENT: LAP SPLICES IN REINFORCING BARS SHALL BE BY THE NON-CONTACT LAP SPLICE METHOD WITH AT LEAST 2 INCHES CLEARANCE BETWEEN BARS. THE BUILDING OFFICIAL MAY PERMIT THE USE OF CONTACT LAP SPLICES WHEN NECESSARY FOR THE SUPPORT OF THE REINFORCING PROVIDED IT CAN BE DEMONSTRATED BY MEANS OF PRE-CONSTRUCTION TESTING THAT ADEQUATE ENCASEMENT OF THE BARS AT THE SPLICE CAN BE ACHIEVED, AND PROVIDED THAT THE SPLICES ARE PLACED SO THAT A LINE THROUGH THE CENTER OF THE TWO SPLICED BARS IS
- PERPENDICULAR TO THE SURFACE OF THE SHOTCRETE WORK. PRE-CONSTRUCTION TESTS: WHEN REQUIRED BY THE SPECIFICATIONS OR BUILDING OFFICIAL, A TEST PANEL SHALL BE SHOT, CURED, CORED OR SAWN, EXAMINED AND TESTED PRIOR TO COMMENCEMENT OF THE PROJECT. THE SAMPLE PANEL SHALL BE REPRESENTATIVE OF THE PROJECT AND SIMULATE JOB CONDITIONS AS CLOSELY AS POSSIBLE. THE PANEL THICKNESS AND REINFORCING SHALL REPRODUCE THE THICKEST AND MOST CONGESTED AREA SPECIFIED IN THE STRUCTURAL DESIGN. IT SHALL BE SHOT AT THE SAME ANGLE, USING THE SAME NOZZLEMAN AND WITH THE SAME CONCRETE MIX DESIGN THAT WILL BE USED ON THE PROJECT.
- REBOUND: ANY REBOUND OR ACCUMULATED LOOSE AGGREGATE SHALL BE REMOVED FROM THE SURFACES TO BE COVERED PRIOR TO PLACING THE INITIAL OR ANY SUCCEEDING LAYERS OF SHOTCRETE. REBOUND SHALL NOT BE REUSED AS AGGREGATE.
- JOINTS: EXCEPT WHERE PERMITTED HEREIN, UNFINISHED WORK SHALL NOT BE ALLOWED TO STAND FOR MORE THAN 30 MINUTES UNLESS ALL EDGES ARE SLOPED TO A THIN EDGE. BEFORE PLACING ADDITIONAL MATERIAL ADJACENT TO PREVIOUSLY APPLIED WORK, SLOPING AND SQUARE EDGES SHALL BE CLEANED AND WETTED WITH A CONCRETE BONDING AGENT AS APPROPRIATE.
- DAMAGE: IN-PLACE SHOTCRETE WHICH EXHIBITS SAGS OR SLOUGHS, SEGREGATION, HONEYCOMBING, SAND POCKETS OR OTHER OBVIOUS DEFECTS SHALL BE REMOVED AND REPLACED. SHOTCRETE ABOVE SAGS AND SLOUGHS SHALL BE REMOVED AND REPLACED WHILE STILL PLASTIC.
- CURING: DURING THE CURING PERIODS SPECIFIED HEREIN, SHOTCRETE SHALL BE MAINTAINED ABOVE 40° F, AND IN MOIST CONDITION. IN INITIAL CURING, SHOTCRETE SHALL BE KEPT CONTINUOUSLY MOIST FOR 24 HOURS AFTER PLACEMENT IS COMPLETE. FINAL CURING SHALL CONTINUE FOR SEVEN DAYS AFTER SHOTCRETING, FOR THREE DAYS IF HIGH-EARLY-STRENGTH CEMENT IS USED, OR UNTIL THE SPECIFIED STRENGTH IS OBTAINED FINAL CURING SHALL CONSIST OF A FOG SPRAY OR AN APPROVED MOISTURE-RETAINING COVER OR MEMBRANE. IN SECTIONS WITH A DEPTH IN EXCESS OF 12", FINAL CURING SHALL BE THE SAME AS THAT FOR INITIAL CURING.
- 3.9.10. STRENGTH TEST: STRENGTH TEST FOR SHOTCRETE SHALL BE MADE BY AN APPROVED AGENCY ON SPECIMENS WHICH ARE REPRESENTATIVE OF WORK AND WHICH HAVE BEEN WATER SOAKED FOR AT LEAST 24 HOURS PRIOR TO TESTING. WHEN THE MAXIMUM SIZE AGGREGATE IS LARGER THAN 3/8" SPECIMENS SHALL CONSIST OF NOT LESS THAN (3) 3" DIAMETER CORES OR 3-INCH CUBES. WHEN THE MAXIMUM SIZE AGGREGATE IS 3/8" OR SMALLER, SPECIMENS SHALL CONSIST OF NOT LESS THAN (3) 2" DIAMETER CORES OR 2"
- CUBES. SPECIMENS SHALL BE TAKEN IN ACCORDANCE WITH ONE OF THE FOLLOWING: FROM THE IN-PLACE WORK: TAKEN AT LEAST ONCE EACH SHIFT BUT NOT LESS THAN ONE FOR EACH 50 CUBIC YARDS OF
  - SHOTCRETE; OR FROM TEST PANELS: MADE NOT LESS THAN ONCE EACH SHIFT OR NOT LESS THAN ONE FOR EACH 50 CUBIC YARDS OF SHOTCRETE PLACED. WHEN THE MAXIMUM SIZE AGGREGATE IS LARGER THAN 3/8", THE TEST PANELS SHALL HAVE A MINIMUM DIMENSION OF 18" X 18". WHEN THE MAXIMUM SIZE AGGREGATE IS 3/8" OR SMALLER, THE TEST PANELS SHALL HAVE A MINIMUM DIMENSION OF 12" X 12". PANELS SHALL BE GUNNED IN THE SAME POSITION AS THE WORK, DURING THE COURSE OF THE WORK AND BY NOZZLEMEN DOING THE WORK. THE CONDITION UNDER WHICH THE PANELS ARE CURED SHALL BE THE SAME AS
- THE AVERAGE OF THREE CORES FROM A SINGLE PANEL SHALL BE EQUAL TO OR EXCEED 0.85 f'c WITH NO SINGLE CORE LESS THAN 0.75 f'c. THE AVERAGE OF THREE CUBES TAKEN FROM A SINGLE PANEL MUST EQUAL OR EXCEED f'c WITH NO INDIVIDUAL CUBE LESS THAN 0.88 f'c TO CHECK TESTING ACCURACY. LOCATIONS REPRESENTED BY ERRATIC CORE STRENGTHS MAY BE RETESTED.

# INSPECTIONS

THE WORK.

- DURING PLACEMENT. WHEN SHOTCRETE IS USED FOR STRUCTURAL MEMBERS, A SPECIAL INSPECTOR IS REQUIRED BY IBC TABLE 1705.3. THE SPECIAL INSPECTOR SHALL PROVIDE CONTINUOUS INSPECTION OF THE PLACEMENT OF THE REINFORCEMENT AND SHOTCRETING AND SHALL SUBMIT A STATEMENT INDICATING COMPLIANCE WITH THE PLANS AND SPECIFICATIONS.
  - VISUAL EXAMINATION FOR STRUCTURAL SOUNDNESS OF IN-PLACE SHOTCRETE. COMPLETED SHOTCRETE WORK SHALL BE CHECKED VISUALLY FOR REINFORCING BAR EMBEDMENT, VOIDS, ROCK POCKETS, SAND STREAKS AND SIMILAR DEFICIENCIES BY EXAMINING A MINIMUM OF (3) 3" CORES TAKEN FROM (3) AREAS CHOSEN BY THE DESIGN ENGINEER WHICH REPRESENT THE WORST CONGESTION OF REINFORCING BARS OCCURRING IN THE PROJECT. EXTRA REINFORCING BARS MAY BE ADDED TO NON-CONGESTED AREAS TO REPRESENT THE MOST HEAVILY CONGESTED AREAS ELSEWHERE ON THE PROJECT. THE CORES SHALL BE EXAMINED BY THE SPECIAL INSPECTOR AND A REPORT SUBMITTED TO THE BUILDING OFFICIAL PRIOR TO FINAL APPROVAL OF THE SHOTCRETE.

TESTING EQUIPMENT. THE EQUIPMENT USED IN PRE-CONSTRUCTION TESTING SHALL BE THE SAME EQUIPMENT USED IN THE WORK REQUIRING SUCH TESTING, UNLESS SUBSTITUTE EQUIPMENT IS APPROVED BY THE STRUCTURAL ENGINEER AND BUILDING OFFICIAL.

Approval of submitted plans is not an approval of omissions or oversights by this office or non compliance with any applicable regulations of local government. The contractor is responsible for making sure that the building complies with all applicable codes and regulations of the local

The approved construction plans, documents, and all engineering must be posted on the job at all inspections in a visible and readily accessible location.

government.

1-800-647-0982

Full sized legible color plans are required to be provided by the permitee on site for inspection.

Separate Electrical Permit is required with the Washington State Department of Labor & Industries. https://lni.wa.gov/licensing-permits/electrical/ electrical-permits-fees-and-inspections or call for Licensing Information:



SKinnear 04/15/2025



in • site

architects

1000 university ave. w. ■ suite 130 st. paul, minnesota 55104 612-252-4820

NOTICE:

ALTERATION OF THIS DOCUMENT SHALL INVALIDATE THE ROFESSIONAL SEAL AND SIGNATURE. PUBLICATION OF THIS CUMENT DOES NOT DEROGATE FROM RESERVED OWNERS! ITS IN IT. THIS DOCUMENT IS FOR USE ONLY FOR THE PROJECTION OF THE PROJECTION OF

IDENTIFIED IN THE TITLE BLOCK AND IS NOT TO BE USED FOR REPAIR, REMODEL OR ADDITION TO THAT PROJECT OR FOR ANY OTHER PROJECT.

# PRRWF20250002

ORIGINAL ISSUE: 08/17/16

REVISIONS

Description

2220236.20

PROJECT NUMBER

Author DRAWN BY CHECKED BY WESLEY BRADLEY PARK

STRUCTURAL NOTES

PHASE 2 - CARE CENTER



| 11. STAT | EMENT OF | SPECIAL IN | ISPECTIONS                           |
|----------|----------|------------|--------------------------------------|
| IBC      | SI       | SO         | TITLE                                |
| 1705.3   | ✓        | ✓          | CONCRETE CONSTRUCTION (SEE TABLE 13) |
| 1705.6   | ✓        | N/R        | SOILS (SEE TABLE 12A)                |

- SI = SPECIAL INSPECTION
- SO = STRUCTURAL OBSERVATION
- ✓ = ITEM IS REQUIRED
- N/R = ITEM IS NOT REQUIRED
- SPECIAL INSPECTIONS INDICATED ARE FOR STRUCTURAL ELEMENTS ONLY. SEE ARCH, MECH AND ELEC DRAWINGS FOR ADDITIONAL SPECIAL INSPECTIONS.

# 11.1. INSPECTION/TESTING REQUIREMENTS:

- SEE DRAWINGS, SPECIFICATIONS, AND IBC SECTIONS 110, AND CHAPTER 17.
- 11.2. INSPECTIONS BY THE BUILDING OFFICIAL (IBC SECTION 110):
- 11.2.1. FOOTING AND FOUNDATION INSPECTIONS SHALL BE MADE AFTER EXCAVATIONS ARE COMPLETE AND ANY REQUIRED
- REINFORCING IS IN PLACE. ANY REQUIRED FORMS SHALL BE IN PLACE PRIOR TO INSPECTION. 11.2.2. IN ADDITION TO THE INSPECTIONS SPECIFIED ABOVE, THE BUILDING OFFICIAL IS AUTHORIZED TO MAKE OR REQUIRE OTHER INSPECTIONS OF ANY CONSTRUCTION WORK TO ASCERTAIN COMPLIANCE WITH THE PROVISIONS OF THE IBC OR OTHER LAWS ENFORCED BY THE BUILDING OFFICIAL.

11.3. STRUCTURAL TESTS AND SPECIAL INSPECTIONS (IBC CHAPTER 17):

11.3.1. SEE PROJECT SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS.

- 11.3.2. STRUCTURAL TESTS AND SPECIAL INSPECTIONS SHALL BE PERFORMED IN ACCORDANCE WITH THE REQUIREMENTS OF CHAPTER 17 OF THE IBC AS WELL AS ANY ADDITIONAL REQUIREMENTS OF THE BUILDING OFFICIAL. OMISSION FROM THE LIST BELOW OF TESTING AND INSPECTION REQUIREMENTS SHALL NOT RELIEVE THE CONTRACTOR FROM PROVIDING TESTING AND INSPECTION REQUIRED BY THE SPECIFICATIONS, THE IBC AND THE BUILDING OFFICIAL.
- 11.3.3. TESTING AND SPECIAL INSPECTIONS SHALL BE COMPLETED IN ACCORDANCE WITH THE REQUIREMENTS OF CHAPTER 17 OF THE IBC FOR THE ITEMS LISTED IN THIS SECTION.

## 11.4. STRUCTURAL OBSERVATION

- 11.4.1. STRUCTURAL OBSERVATION MAY BE PERFORMED DURING CONSTRUCTION IN A MANNER AS REQUIRED TO BECOME GENERALLY FAMILIAR WITH THE IN-PLACE CONSTRUCTION.
- 11.4.2. STRUCTURAL OBSERVATION EXTENT SHALL BE AS INDICATED ABOVE. TIMING AND DURATION OF OBSERVATIONS SHALL BE COORDINATED WITH THE GENERAL CONTRACTOR DURING CONSTRUCTION.
- 11.4.3. CONSTRUCTION OBSERVATION REPORTS AND FINDINGS SHALL NOT BE VIEWED AS A WARRANTY OR GUARANTEE BY THE STRUCTURAL ENGINEER.

# 11.5. SPECIAL INSPECTOR: SHALL BE CURRENTLY WABO CERTIFIED.

- 11.5.1. THE SPECIAL INSPECTOR SHALL OBSERVE THE WORK ASSIGNED FOR CONFORMANCE WITH THE APPROVED DESIGN DRAWINGS AND SPECIFICATIONS.
- 11.5.2. THE SPECIAL INSPECTOR SHALL FURNISH INSPECTION REPORTS TO THE BUILDING OFFICIAL, ENGINEER OF RECORD, ARCHITECT OF RECORD, AND OTHER DESIGNATED PERSONS. ALL DISCREPANCIES SHALL BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE GENERAL CONTRACTOR FOR CORRECTION, THEN, IF NOT IN CONFORMANCE, TO THE PROPER DESIGN AUTHORITY AND BUILDING OFFICIAL.
- 11.5.3. THE SPECIAL INSPECTOR SHALL SUBMIT A FINAL REPORT STATING WHETHER THE WORK REQUIRING SPECIAL INSPECTION WAS IN CONFORMANCE WITH THE APPROVED PLANS AND SPECIFICATIONS AND THE APPLICABLE WORKMANSHIP PROVISIONS OF THE IBC.

# 12A. REQUIRED SPECIAL INSPECTIONS AND TEST OF SOILS

|    | IBC TABLE 1705.6   |                                  |                             |
|----|--|----------------------------------|-----------------------------|
|    | SPECIAL INSPECTION OR TEST TYPE  | CONTINUOUS<br>SPECIAL INSPECTION | PERIODIC SPECIAL INSPECTION |
| 1. | VERIFY MATERIALS BELOW SHALLOW FOUNDATIONS ARE ADEQUATE TO ACHIEVE THE DESIGN BEARING CAPACITY   | N/R                              | ✓                           |
| 2. | VERIFY EXCAVATIONS ARE EXTENDED TO PROPER DEPTH AND HAVE REACHED PROPER MATERIAL   | N/R                              | ✓                           |
| 3. | PERFORM CLASSIFICATION AND TESTING OF COMPACTED FILL MATERIAL  | N/R                              | ✓                           |
| 4. | DURING FILL PLACEMENT, VERIFY USE OF PROPER MATERIALS AND PROCEDURES IN ACCORDANCE WITH THE PROVISIONS OF THE APPROVED GEOTECHNICAL REPORT. VERIFY DENSITIES, AND LIFT THICKNESSES DURING PLACEMENT AND COMPACTION OF COMPACTED FILL | <b>√</b>                         | N/R                         |
| 5. | PRIOR TO PLACEMENT OF COMPACTED FILL, INSPECT SUBGRADE AND VERIFY THAT SITE HAS BEEN PREPARED PROPERLY   | N/R                              | ✓                           |
|    |  |                                  |                             |

- 12.1. SPECIAL INSPECTIONS AND TESTS FOR EXISTING SITE SOIL CONDITIONS, FILL PLACEMENT, AND LOAD-BEARING
  - REQUIREMENTS PER IBC 1705.6., AS NOTED IN TABLE 12A. 12.1.1. THE APPROVED GEOTECHNICAL REPORT AND THE CONSTRUCTION DOCUMENTS PREPARED BY THE REGISTERED DESIGN PROFESSIONALS SHALL BE USED TO DETERMINE COMPLIANCE.

|    |    | IBC T.   | ABLE 1705.3                         |                                   |  |                  |
|----|----|--|-------------------------------------|-----------------------------------|--|------------------|
|    |    | SPECIAL INSPECTION OR TEST TYPE  | CONTINUOUS<br>SPECIAL<br>INSPECTION | PERIODIC<br>SPECIAL<br>INSPECTION | REFERENCED<br>STANDARD                               | IBC<br>REFERENCE |
| 1. |    | INSPECT REINFORCEMENT, INCLUDING<br>PRESTRESSING TENDONS, AND VERIFY<br>PLACEMENT  | N/R                                 | <b>√</b>                          | ACI 318:<br>CH. 20, 25.2,<br>25.3, 26.6.1-<br>26.6.3 |                  |
| 2. |    | REINFORCING BAR WELDING:   |                                     |                                   |  |                  |
|    | A. | VERIFY WELDABILITY OF REINFORCING BARS<br>OTHER THAN ASTM A706   | N/R                                 | ✓                                 | AWS D1.4<br>ACI 318:26.6.4                           |                  |
|    | B. | INSPECT SINGLE-PASS FILLET WELDS, MAXIMUM 5/16"  | N/R                                 | ✓                                 |  |                  |
|    | C. | INSPECT ALL OTHER WELDS  | ✓                                   | N/R                               |  |                  |
| 3. |    | INSPECT ANCHORS CAST IN CONCRETE   | N/R                                 | ✓                                 | ACI 318: 17.8.2                                      |                  |
| 4. | A. | INSPECTION OF ANCHORS POST-INSTALLED IN HARDENED CONCRETE MEMBERS ADHESIVE ANCHORS INSTALLED IN HORIZONTALLY OR UPWARDLY INCLINED ORIENTATIONS TO RESIST SUSTAINED TENSION LOADS | <b>√</b>                            | N/R                               | ACI 318:<br>17.8.2.4                                 |                  |
|    | B. | MECHANICAL ANCHORS AND ADHESIVE ANCHORS<br>NOT DEFINED IN 4A   | N/R                                 | ✓                                 | ACI 318: 17.8.2                                      |                  |
| 5. |    | VERIFY USE OF REQUIRED DESIGN MIX  | N/R                                 | ✓                                 | ACI 318:<br>CH. 19, 26.4.3,<br>26.4.4                | 1904.1, 1904.    |
| 6. |    | PRIOR TO CONCRETE PLACEMENT, FABRICATE SPECIMENS FOR STRENGTH TESTS, PERFORM SLUMP AND AIR CONTENT TESTS, AND DETERMINE THE TEMPERATURE OF THE CONCRETE                          | <b>√</b>                            | N/R                               | ASTM C 172<br>ASTM C 31<br>ACI318:26.4,<br>26.12     |                  |
| 7. |    | INSPECT CONCRETE AND SHOTCRETE PLACEMENT FOR PROPER APPLICATION TECHNIQUES   | ✓                                   | N/R                               | ACI 318: 26.5  |                  |
|    |    | · — - · · · · · · · · · · · · ·  |                                     |                                   | +  | 1                |

- 13.1. CONCRETE: SPECIAL INSPECTION AND TESTING PER IBC TABLE 1705.3 AS NOTED IN TABLE 13, INCLUDING:
  - 13.1.1. SHOTCRETE: SEE STRUCTURAL NOTES FOR ADDITIONAL REQUIREMENTS.

VERIFY MAINTENANCE OF SPECIFIED CURING

INSPECT FORMWORK FOR SHAPE, LOCATION AND

DIMENSIONS OF THE CONCRETE MEMBER BEING

TEMPERATURE AND TECHNIQUES

13.1.2. SPECIFIC REQUIREMENTS FOR SPECIAL INSPECTION OF ANCHORS INSTALLED IN HARDENED CONCRETE SHALL BE AS DESCRIBED IN THE RESEARCH REPORT ISSUED BY AN APPROVED SOURCE (ICC, IAPMO, ETC.).

ACI 318: 26.5.3-

ACI 318:

26.11.1.2(b)

# **CONTRACTOR NOTE**

Special inspection reports shall be available and presented at time of inspection by the City of



in • site

architects

1000 university ave. w. = suite 130 st. paul, minnesota 55104 612-252-4820

NOTICE:

ALTERATION OF THIS DOCUMENT SHALL INVALIDATE THE PROFESSIONAL SEAL AND SIGNATURE. PUBLICATION OF THIS DOCUMENT DOES NOT DEFOCATE FROM RESERVED OWNERSHIP RIGHTS IN IT. THIS DOCUMENT IS FOR USE ONLY FOR THE PROJECT IDENTIFIED IN THE TITLE BLOCK AND IS NOT TO BE USED FOR REPAIR, REMODEL OR ADDITION TO THAT PROJECT OR FOR ANY OTHER PROJECT.

# PRRWF20250002

PERMIT SET

ORIGINAL ISSUE: 08/17/16

REVISIONS

No. Description Date

2220236.20 PROJECT NUMBER

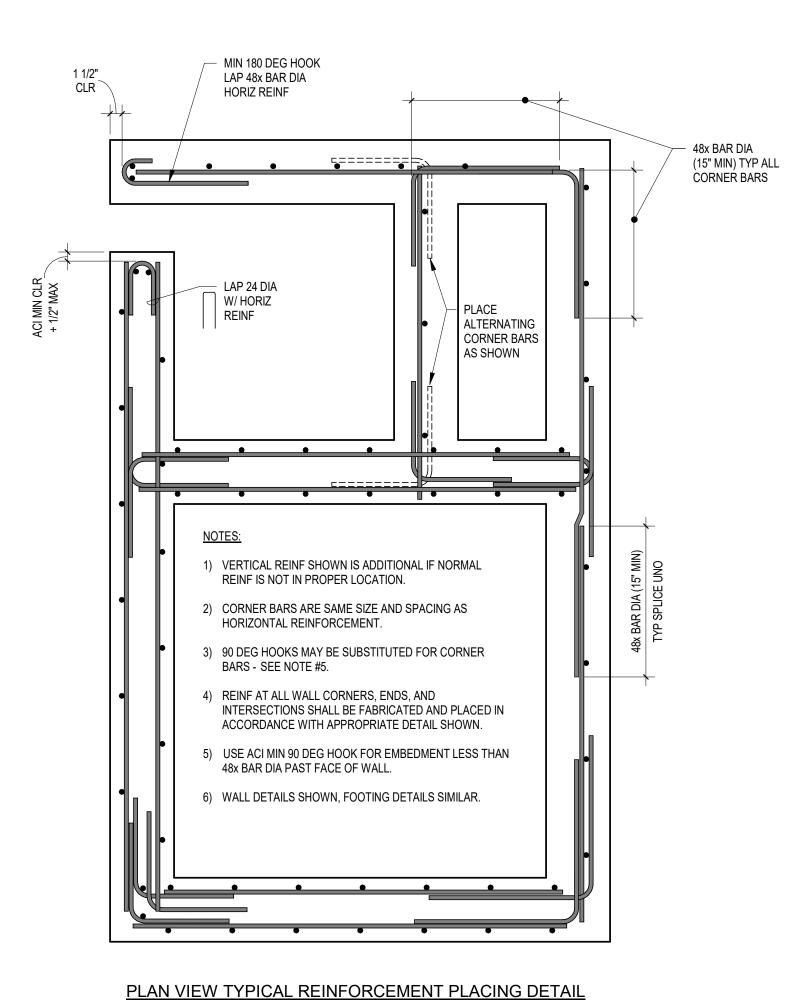
NOTES

Author\_ Checker DRAWN BY CHECKED BY

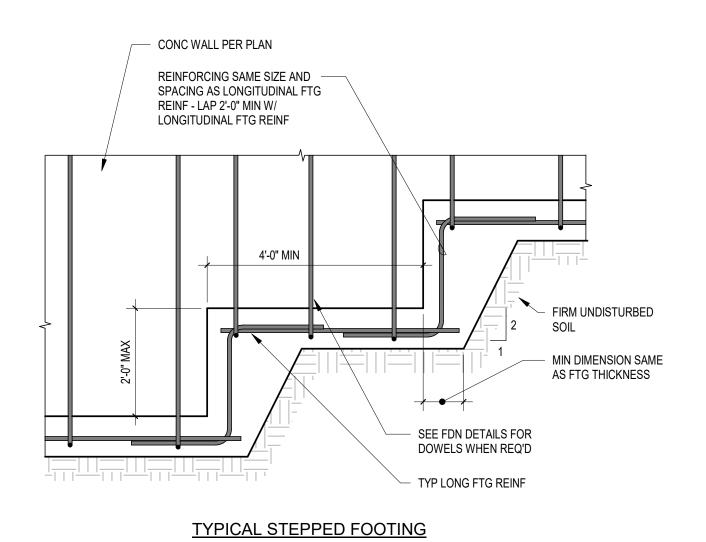
TESTING AND INSPECTION

WESLEY BRADLEY PARK PHASE 2 - CARE CENTER





**TYPICAL** 1" = 1'-0" 1/ SW0.3



3 TYPICAL

1" = 1'-0" TYPICAL

SITE RETAINING WALL NOTES

SEE SHEET SW0.1 FOR STRUCTURAL NOTES, SHEET SW0.3 FOR TYPICAL DETAILS AND SHEET SW0.2 FOR TESTING AND INSPECTION NOTES.

SEE GEOTECHNICAL ENGINEERING REPORT FOR ALL FOUNDATION SUPPORT REQUIREMENTS, THIS INCLUDES ALL EXCAVATION FILL AND FILL PLACEMENT REQUIREMENTS.

3. SEE CIVIL DRAWINGS FOR DRAINS, GRADES, SLOPES AND OTHER SITE FEATURES NOT SHOWN.

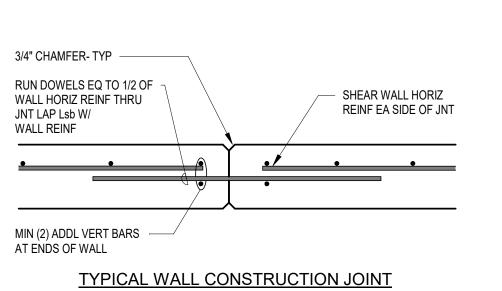
4. PROVIDE CONSTRUCTION / CONTROL JOINTS IN CAST IN PLACE CONCRETE WALLS AT 50'-0" OC MAX AND WITHIN 4'-0" EACH SIDE OF CORNERS.

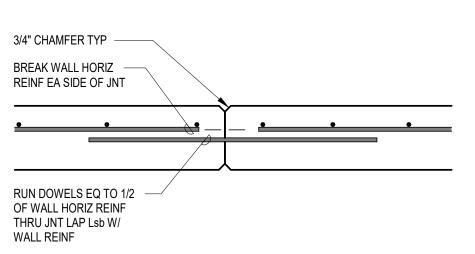
( 5 TOP OF FOOTING ELEVATIONS SHOWN ARE RELATIVE BASED ON THE BUILDING LEVEL 1 ELEVATION  $\stackrel{\checkmark}{ extstyle extstyl$ OF 100'-0". COORDINATE ACTUAL ELEVATIONS WITH CIVIL DRAWINGS.

EXCAVATION PIPE SLEEVE MIN NO I +=====++++ += = = = +  $\longrightarrow$  CONSTRUCTION -PIPE PARALLEL — TO WALL NO EXCAVATION FOR PIPE OR DUCTS PARALLEL TO FTG BELOW COMPACTED STRUCTURAL FILL OR LEAN CONCRETE AT GC OPTION THIS LINE STEP FTG AS REQ'D PIPE SLEEVE -

TYPICAL DETAIL OF PIPE AT CONCRETE FOOTING

TYPICAL 1" = 1'-0" TYPICAL





TYPICAL WALL CONTROL JOINT



|         | KEY TO ABBREVIATIONS       |            |  |  |  |  |  |  |  |
|---------|----------------------------|------------|--|--|--|--|--|--|--|
| AB      | ANCHOR BOLT                | L          | ANGLE                                      |  |  |  |  |  |  |
| ABV     | ABOVE                      | LLH        | LONG LEG HORIZONTAL                        |  |  |  |  |  |  |
| ADDL    | ADDITIONAL                 | LLV        | LONG LEG VERTICAL                          |  |  |  |  |  |  |
| ADJ     | ADJACENT                   | LOC        | LOCATION                                   |  |  |  |  |  |  |
| AFF     | ABOVE FINISH FLOOR         | LONGIT     | LONGITUDINAL                               |  |  |  |  |  |  |
| ALT     | ALTERNATE                  | MAX        | MAXIMUM                                    |  |  |  |  |  |  |
| ARCH    | ARCHITECTURAL, ARCHITECT   | MB         | MACHINE BOLT                               |  |  |  |  |  |  |
| ASD     | ALLOWABLE STRESS DESIGN    | MECH       | MECHANICAL                                 |  |  |  |  |  |  |
| BEL     | BELOW<br>BELOW             | MFR        | MANUFACTURER                               |  |  |  |  |  |  |
| BLKG    |                            | MIN        |  |  |  |  |  |  |  |
|         | BLOCKING                   |            | MINIMUM                                    |  |  |  |  |  |  |
| BM      | BEAM                       | MIW        | MALLEABLE IRON WASHER                      |  |  |  |  |  |  |
| BNDY    | BOUNDARY                   | NS         | NEAR SIDE                                  |  |  |  |  |  |  |
| BOT     | BOTTOM                     | NTS        | NOT TO SCALE                               |  |  |  |  |  |  |
| BRG     | BEARING                    | NWT        | NORMAL WEIGHT                              |  |  |  |  |  |  |
| BS      | BOTH SIDES                 | 0/         | OVER                                       |  |  |  |  |  |  |
| BTWN    | BETWEEN                    | OC         | ON CENTER                                  |  |  |  |  |  |  |
| BU      | BUILT UP                   | O.F.       | OUTSIDE FACE                               |  |  |  |  |  |  |
| CIP     | CAST IN PLACE              | OPP        | OPPOSITE HAND                              |  |  |  |  |  |  |
| CJ      | CONSTRUCTION/CONTROL JOINT | OPNG       | OPENING                                    |  |  |  |  |  |  |
| CL      | CENTERLINE                 | OSB        | ORIENTED STRAND BOARD                      |  |  |  |  |  |  |
| CLG     | CEILING                    | PC         | PRE-CAST                                   |  |  |  |  |  |  |
| CLR     | CLEAR                      | PDF        | POWER DRIVEN FASTENERS, PA                 |  |  |  |  |  |  |
| CMU     | CONCRETE MASONRY UNIT      | PAF        | POWER ACTUATED FASTENERS                   |  |  |  |  |  |  |
| COL     | COLUMN                     | PERP       | PERPENDICULAR                              |  |  |  |  |  |  |
| CONC    | CONCRETE                   | PL         | PLATE                                      |  |  |  |  |  |  |
| CONN    | CONNECT, CONNECTION        | PLF        | POUNDS PER LINEAR FOOT                     |  |  |  |  |  |  |
| CONT    | CONTINUOUS                 | PNL        | PANEL                                      |  |  |  |  |  |  |
|         |                            |            |  |  |  |  |  |  |  |
| COORD   | COORDINATE                 | PRE-ENGR   | PRE-ENGINEERED                             |  |  |  |  |  |  |
| CSK     | COUNTERSINK                | PROV       | PROVIDE                                    |  |  |  |  |  |  |
| CTR     | CENTER                     | PT         | POST TENSIONED                             |  |  |  |  |  |  |
| CVR     | COVER                      | PW         | PLYWOOD                                    |  |  |  |  |  |  |
| DEG     | DEGREE                     | REF        | REFERENCE                                  |  |  |  |  |  |  |
| DIA     | DIAMETER                   | REINF      | REINFORCE, REINFORCEMENT                   |  |  |  |  |  |  |
| DBL     | DOUBLE                     | REQ'D      | REQUIRED                                   |  |  |  |  |  |  |
| EA      | EACH                       | RF         | ROOF                                       |  |  |  |  |  |  |
| EF      | EACH FACE                  | SCHED      | SCHEDULE                                   |  |  |  |  |  |  |
| ELEV    | ELEVATION, ELEVATOR        | SFRS       | SEISMIC FORCE RESISTING SYS                |  |  |  |  |  |  |
| EMB     | EMBEDMENT                  | SHTG       | SHEATHING                                  |  |  |  |  |  |  |
| ENGR    | ENGINEER                   | SIM        | SIMILAR                                    |  |  |  |  |  |  |
| EQ      | EQUAL/EQUIVALENT           | SIMP       | SIMPSON STRONG-TIE                         |  |  |  |  |  |  |
| EQUIV   | EQUIVALENT                 | SOG        | SLAB ON GRADE                              |  |  |  |  |  |  |
| ES      | EACH SIDE                  | SPCG       | SPACING                                    |  |  |  |  |  |  |
|         |                            |            |  |  |  |  |  |  |  |
| EW      | EACH WAY                   | SQ         | SQUARE                                     |  |  |  |  |  |  |
| (E)     | EXISTING                   | STD        | STANDARD                                   |  |  |  |  |  |  |
| EXP     | EXPANSION                  | STIFF      | STIFFENER                                  |  |  |  |  |  |  |
| EXT     | EXTERIOR                   | SW         | SHEARWALL                                  |  |  |  |  |  |  |
| FDN     | FOUNDATION                 | T&G        | TONGUE AND GROOVE                          |  |  |  |  |  |  |
| FF      | FINISH FLOOR               | THK        | THICK                                      |  |  |  |  |  |  |
| FFE     | FINISH FLOOR ELEVATION     | THRD       | THREADED                                   |  |  |  |  |  |  |
| FOC     | FACE OF CONCRETE           | T.O.       | TOP OF                                     |  |  |  |  |  |  |
| FOM     | FACE OF MASONRY            | TOC        | TOP OF CONCRETE                            |  |  |  |  |  |  |
| FOS     | FACE OF STUD               | TOF        | TOP OF FOOTING                             |  |  |  |  |  |  |
| FS      | FAR SIDE                   | TOPL       | TOP OF PLATE                               |  |  |  |  |  |  |
| FTG     | FOOTING                    | TOS        | TOP OF STEEL                               |  |  |  |  |  |  |
| GA      | GAGE                       | T.O.W.     | TOP OF WALL                                |  |  |  |  |  |  |
| GALV    | GALVANIZED                 | TRANSV     | TRANSVERSE                                 |  |  |  |  |  |  |
| GC      | GENERAL CONTRACTOR         | TRTD       | TREATED                                    |  |  |  |  |  |  |
|         |                            |            |  |  |  |  |  |  |  |
| GL      | GLUE LAMINATED             | TYP        | TYPICAL                                    |  |  |  |  |  |  |
| GWB     | GYPSUM WALL BOARD          | UNO        | UNLESS NOTED OTHERWISE                     |  |  |  |  |  |  |
| HGR     | HANGER                     | VFY        | VERIFY                                     |  |  |  |  |  |  |
| HORIZ   | HORIZONTAL                 | VERT       | VERTICAL                                   |  |  |  |  |  |  |
| HSS     | HOLLOW STEEL SECTION       | W/         | WITH                                       |  |  |  |  |  |  |
| HT      | HEIGHT                     | W/O        | WITHOUT                                    |  |  |  |  |  |  |
| I.F.    | INSIDE FACE                | WF         | WIDE FLANGE                                |  |  |  |  |  |  |
| INT     | INTERIOR                   | WHS        | WELDED HEADED STUD                         |  |  |  |  |  |  |
| JNT     | JOINT                      | WP         | WORK POINT                                 |  |  |  |  |  |  |
| JST     |                            |            |  |  |  |  |  |  |  |
| K, KIPS | JOIST<br>KIPS=1000 LBS     | WTS<br>WWF | WELDED THREADED STUD<br>WELDED WIRE FABRIC |  |  |  |  |  |  |
|         |                            |            |  |  |  |  |  |  |  |

| F'c = 3000 PSI |     |     |     |      | F'c = 4000 PSI |     |     |     |      | ALL CONCRETE<br>STRENGTHS |    |    |     |  |
|----------------|-----|-----|-----|------|----------------|-----|-----|-----|------|---------------------------|----|----|-----|--|
| BAR<br>SIZE    | Ld  | Lt  | Lsb | Lsbt | BAR<br>SIZE    | Ld  | Lt  | Lsb | Lsbt | BAR<br>SIZE               | Ld | Lc | Lcs |  |
| #3             | 17  | 22  | 22  | 28   | #3             | 15  | 19  | 19  | 25   | #3                        | 9  | 12 | 12  |  |
| #4             | 22  | 29  | 29  | 38   | #4             | 19  | 25  | 25  | 33   | #4                        | 11 | 15 | 12  |  |
| #5             | 28  | 36  | 36  | 47   | #5             | 24  | 31  | 31  | 41   | #5                        | 14 | 19 | 15  |  |
| #6             | 33  | 43  | 43  | 56   | #6             | 29  | 37  | 37  | 49   | #6                        | 17 | 23 | 17  |  |
| #7             | 48  | 63  | 63  | 81   | #7             | 42  | 54  | 54  | 71   | #7                        | 20 | 27 | 20  |  |
| #8             | 55  | 72  | 72  | 93   | #8             | 48  | 62  | 62  | 81   | #8                        | 22 | 30 | 23  |  |
| #9             | 62  | 81  | 81  | 105  | #9             | 54  | 70  | 70  | 91   | #9                        | 25 | 34 | 26  |  |
| #10            | 70  | 91  | 91  | 118  | #10            | 61  | 79  | 79  | 102  | #10                       | 28 | 39 | 29  |  |
| #11            | 78  | 101 | 101 | 131  | #11            | 67  | 87  | 87  | 114  | #11                       | 31 | 43 | 32  |  |
| #14            | 93  | 121 | -   | -    | #14            | 81  | 105 | -   | -    | #14                       | 38 | -  | _   |  |
| #18            | 124 | 161 | -   | -    | #18            | 108 | 140 | -   | -    | #18                       | 50 | -  | -   |  |

REINFORCING DEVELOPMENT AND SPLICE LENGTH SCHEDULE NOTES:

1. REINFORCEMENT DEVELOPMENT AND SPLICE LENGTHS ARE IN ACCORDANCE WITH ACI 318.

db: NOMINAL BAR DIAMETER (IN)

Ld: TENSION DEVELOPMENT LENGTH (IN) FOR REINFORCEMENT SATISFYING THE FOLLOWING REQUIREMENTS: SLABS AND WALLS; CLEAR SPACING GREATER THAN 2db, AND CONCRETE CLEAR COVER GREATER THAN db BEAMS AND COLUMNS; CLEAR SPACING GREATER THAN db, AND CONCRETE CLEAR COVER GREATER THAN db.

Lt: DEVELOPMENT LENGTH OF TOP BARS IN TENSION = 1.3 x Ld (IN)

Lb: DEVELOPMENT LENGTH OF BARS OR DOWELS IN COMPRESSION = 22 x db (IN)

Lc: TIED COLUMN LAP SPLICE IN COMPRESSION = 30 x db (IN)

Lcs: SPIRAL COLUMN LAP SPLICE IN COMPRESSION = 22.5 x db (IN) Lsb: TENSION LAP SPLICE LENGTH FOR OTHER THAN TOP BARS = 1.3 x Ld (IN)

Lsbt: TENSION LAP SPLICE LENGTH OF TOP BARS = 1.69 x Ld (IN)

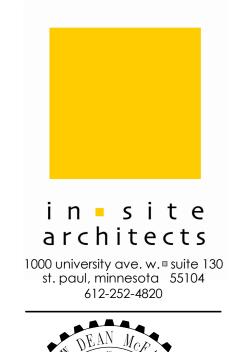
3. MULTIPLY VALUES IN THE TABLE BY 1.5 IF CLEAR SPACING OR CONCRETE COVER DO NOT MEET THE REQUIREMENTS FOR Ld IN NOTE 2.

4. TOP BARS: HORIZONTAL BEAM REINFORCING WITH MORE THAN 12 INCHES OF CONCRETE CAST BELOW. 5. THE DEVELOPMENT AND SPLICE LENGTHS ARE BASED ON REINFORCEMENT STRENGTH Fy = 60 KSI.

6. #14 AND #18 BARS SHALL NOT BE LAP SPLICED. SEE GENERAL NOTES.







NOTICE: ALTERATION OF THIS DOCUMENT SHALL INVALIDATE THE PROFESSIONAL SEAL AND SIGNATURE. PUBLICATION OF THIS DOCUMENT DOES NOT DEFOCATE FROM RESERVED OWNERSHIP RIGHTS IN IT. THIS DOCUMENT IS FOR USE ONLY FOR THE PROJECT IDENTIFIED IN THE TITLE BLOCK AND IS NOT TO BE USED FOR REPAIR, REMODEL OR ADDITION TO THAT PROJECT OR FOR ANY OTHER PROJECT.

# PRRWF20250002

PERMIT SET

ORIGINAL ISSUE: 08/17/16

1 CITY COMMENTS

REVISIONS No. Description

2220236.20 PROJECT NUMBER

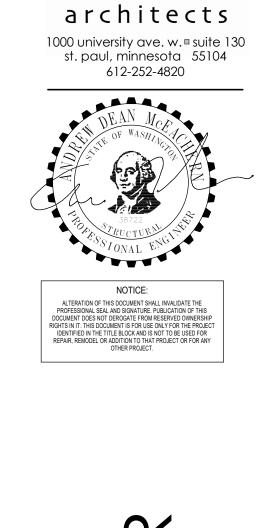
Author\_ Checker CHECKED BY

WESLEY BRADLEY PARK PHASE 2 - CARE CENTER

TYPICAL DETAILS

SITE WALL PLAN

1/8" = 1'-0"



in • site

# PRRWF20250002

PERMIT SET DECEMBER 2, 2024

ORIGINAL ISSUE: 08/17/16

No. Description 1 CITY COMMENTS

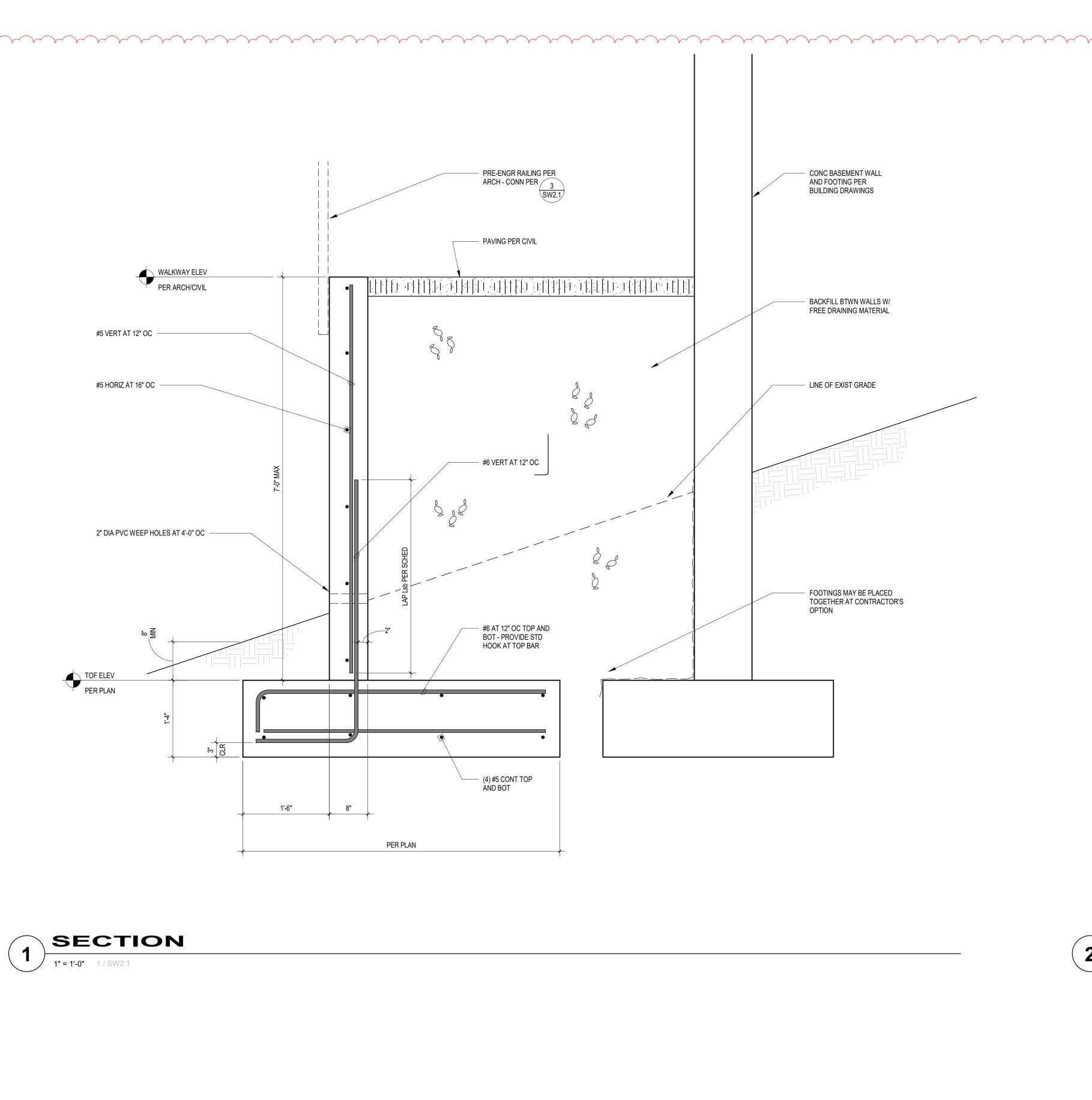
REVISIONS

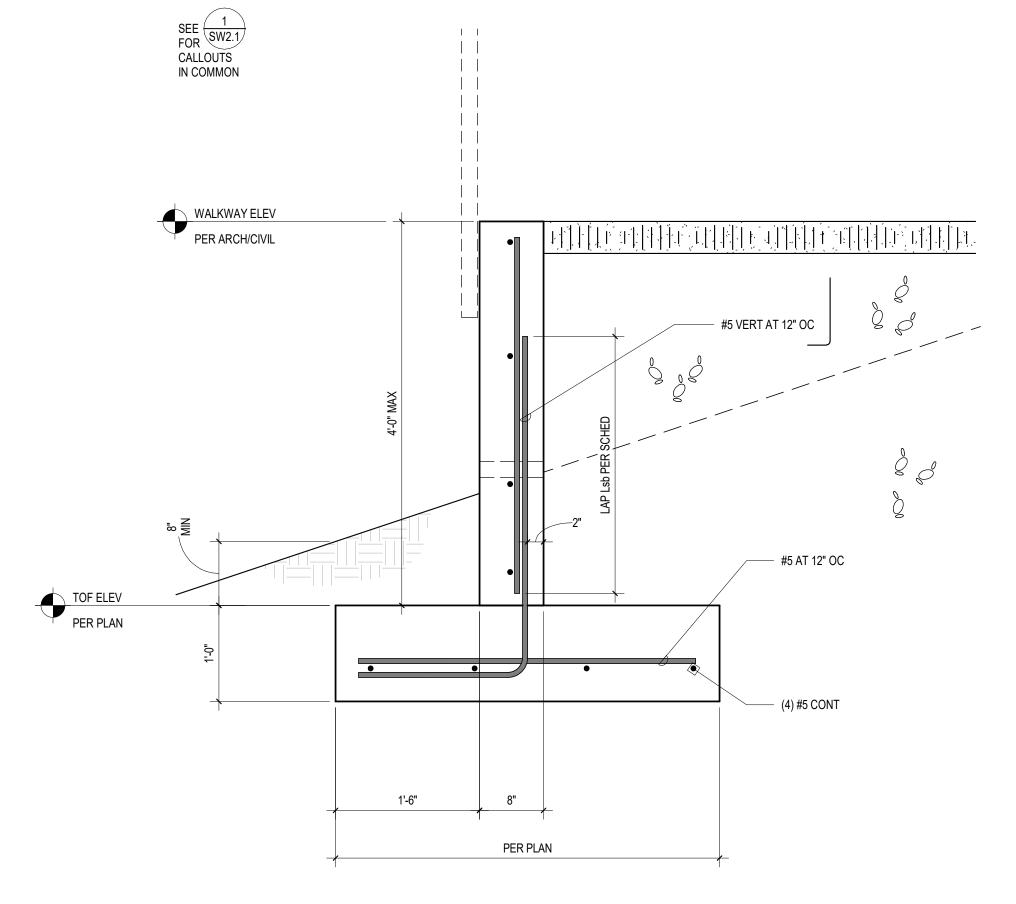
2220236.20\_ PROJECT NUMBER

KJK\_\_\_\_ ADM\_\_ DRAWN BY CHECKED BY WESLEY BRADLEY PARK PHASE 2 - CARE CENTER

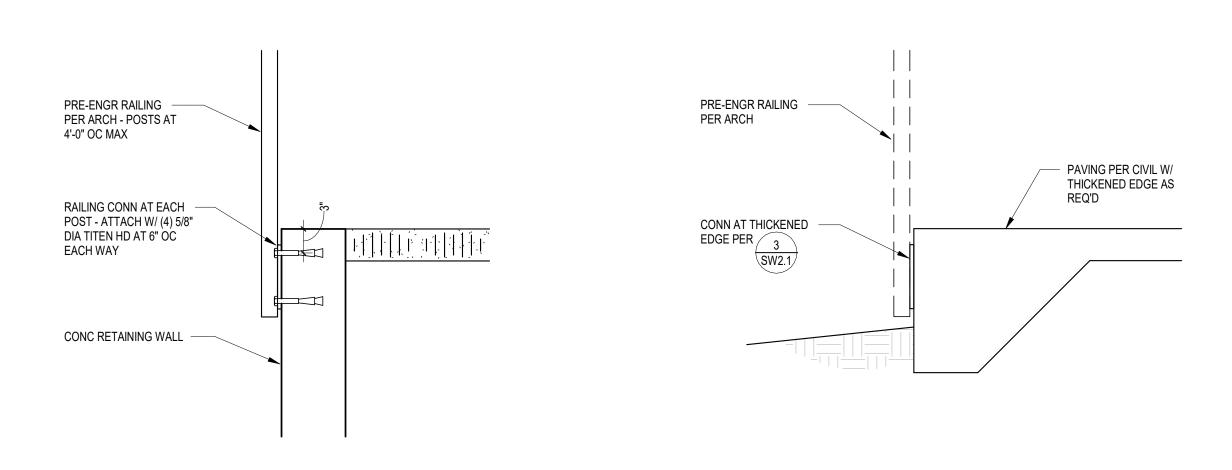
SITE WALL PLAN

T A C O M A SEATTLE SPOKANE TRI-CITIES 2215 North 30th Street, Suite 300, Tacoma,WA 98403 253.383.2422 TEL 253.383.2572 FAX www.ahbl.com WEB









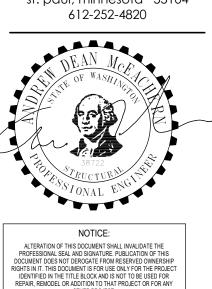
3 SECTION

1" = 1'-0" 3/SW2.1



minime mentioned and the contraction of the contrac







# WESLEY BRADLEY PA PHASE 2 - CARE CEN

# PRRWF20250002

PERMIT SET DECEMBER 2, 2024

ORIGINAL ISSUE: 08/17/16
REVISIONS

No. Description Dat

1 CITY COMMENTS 04-11-2

2220236.20\_\_\_\_

PROJECT NUMBER

Author\_ Checker
DRAWN BY CHECKED BY

2215 North 30th Street, Suite 300, Tacoma, WA 98403 253.383.2422 TEL 253.383.2572 FAX www.ahbl.com WEB

WESLEY BRADLEY PARK PHASE 2 - CARE CENTER

SITE WALL DETAILS

CIA/2