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# LEVEE GATE MODIFICATIONS

PREPARED FOR:

THE CITY OF ROME ROME, GEORGIA

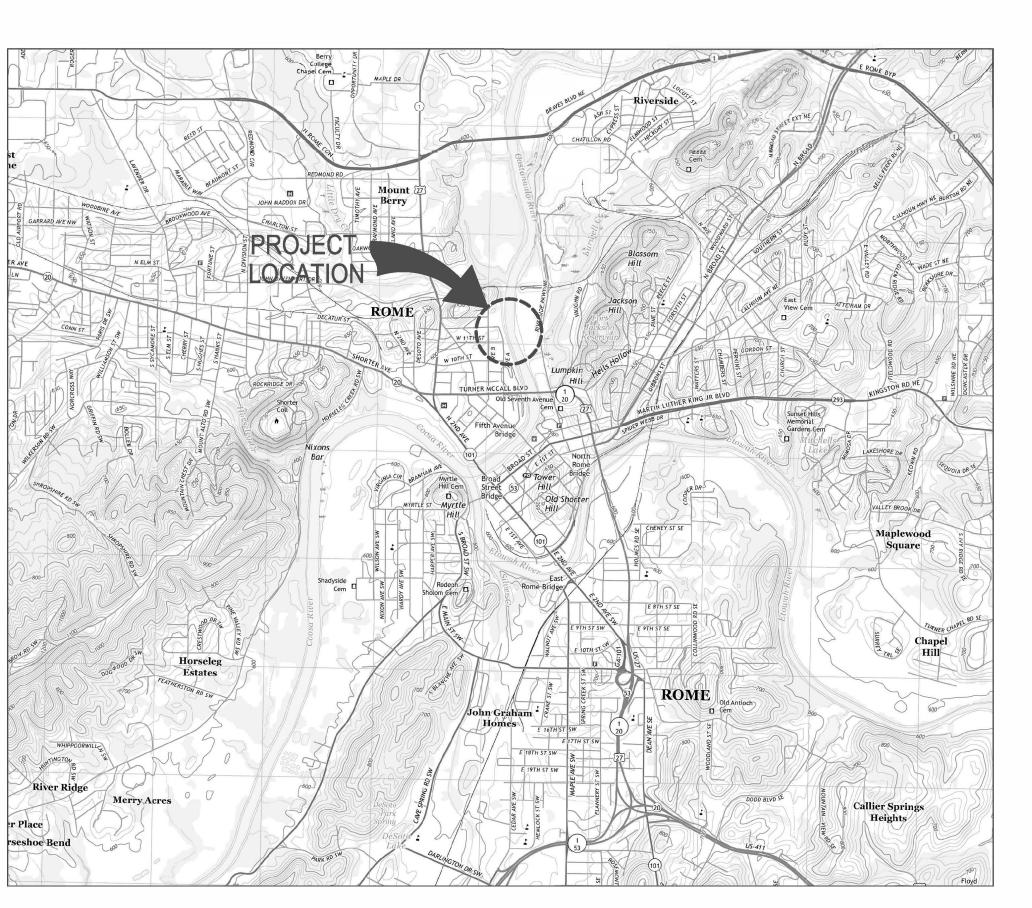
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COUNTY LOCATION
SCALE: NONE



VICINITY MAP
SCALE: NONE

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EE GATE MODIFICATION FOR THE CITY OF ROME

ISSUED FOR BIDDING

PROJECT INFO:
INSITE / HOOVER
INSITE JOB No. 16120.15
PLOTTED: 03/07/2023

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COVER SHEET,
SITE LOCATION
AND DRAWING INDEX

SCALE: AS SHOWN
SHEET 1 OF 14

GN.

- 2. THE CONTRACTOR IS TO PREVENT THE DESTRUCTION OF ALL SURVEY MONUMENTS, BENCH MARKS, PROPERTY CORNERS AND ALL OTHER SURVEY POINTS. WHERE THE REMOVAL OF SUCH POINTS IS NECESSARY FOR THE ACCOMPLISHMENT OF THE WORK, THE CONTRACTOR IS TO INFORM THE ENGINEER, PRIOR TO THE DISTURBANCE OF ANY POINT, AND IS NOT TO DISTURB THE POINT UNTIL PERMISSION TO DO SO HAS BEEN APPROVED BY THE ENGINEER.
- 3. ALL EXISTING TREES OUTSIDE OF THE LIMITS OF WORK ARE TO BE PROTECTED DURING THE ACCOMPLISHMENT OF THE WORK, AND ARE NOT TO BE DAMAGED IN ANY MANNER.
- 4. THE CONTRACTOR SHALL REPAIR ANY DAMAGE TO EXISTING STREET CAUSED OR CREATED DUE TO CONSTRUCTION ACTIVITIES.
- 5. ALL DEBRIS, EXCESS CONSTRUCTION MATERIALS, TRASH, AND ALL OTHER MATERIALS GENERATED FROM PROJECT CONSTRUCTION SHALL BE REMOVED FROM SITE AND DISPOSED OF AT CONTRACTOR'S EXPENSE.
- 6. THE CONTRACTOR SHALL BE RESPONSIBLE FOR HAVING EXISTING UTILITIES LOCATED PRIOR TO EXCAVATION. THE ENGINEER ASSUMES NO RESPONSIBILITY AS TO THE ACCURACY OF COMPLETENESS OF UTILITIES DEPICTED ON THESE DRAWINGS.
- 7. PAVEMENT CUTS SHALL BE REPAIRED WITH MATERIAL IN KIND TO THAT REMOVED. THE CONTRACTOR SHALL SAW-CUT ALL EXISTING PAVEMENTS TO BE REMOVED WITH A STRAIGHT, CLEAN REMOVAL JOINT TO ENSURE THE PROPOSED PAVEMENT MATERIALS JOIN TO EXISTING CLEANLY.
- 8. ALL TRAFFIC CONTROL DEVICES SHALL BE ERECTED AND MAINTAINED IN CONFORMANCE WITH THE MANUAL ON UNIFORM TRAFFIC-CONTROL DEVICES (M.U.T.C.D.), LATEST EDITION.
- 9. IN ACCORDANCE WITH GENERALLY ACCEPTED CONSTRUCTION PRACTICES. THE CONTRACTOR WILL BE SOLELY AND COMPLETELY RESPONSIBLE FOR CONDITIONS OF THE JOBSITE, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY DURING PERFORMANCE OF THE WORK. THIS REQUIREMENT WILL APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS.
- 10. THE DUTY OF THE ENGINEER TO CONDUCT CONSTRUCTION REVIEW OF THE CONTRACTOR'S PERFORMANCE IS NOT INTENDED TO INCLUDE REVIEW OF THE ADEQUACY OF THE CONTRACTOR'S SAFETY MEASURES IN, ON, OR NEAR THE CONSTRUCTION SITE.
- 11. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE THE SPECIFIC DEMOLITION ELEMENTS WITHIN THE CONSTRUCTION LIMITS. ALL REQUIRED DEMOLITION DETAILS MAY NOT BE SPECIFIED WITHIN THE CONSTRUCTION DOCUMENTS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR DEMOLITION AND/OR REMOVAL OF ANY ITEMS WITHIN THE CONSTRUCTION LIMITS.
- 12. THE GENERAL CONTRACTOR IS RESPONSIBLE FOR PROVIDING SANITARY FACILITIES THE SITE. SANITARY WASTE MAY BE DISPOSED ONLY IN LOCATIONS HAVING A STATE PERMIT.
- 13. DESIGN, INSTALLATION, AND MAINTENANCE OF ANY TEMPORARY BRACING IS SOLELY THE RESPONSIBILITY OF THE CONTRACTOR.
- 14. THE CONTRACTOR SHALL FIELD VERIFY ALL DIMENSIONS AND EXISTING CONDITION'S AND NOTIFY THE ENGINEER OF ANY DISCREPANCIES.
- 15. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR SUPERVISING AND DIRECTING THE WORK, USING THE CONTRACTOR'S BEST SKILL AND ATTENTION. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR AND HAVE CONTROL OVER CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES AND PROCEDURES AND FOR COORDINATING ALL PORTIONS OF THE WORK UNDER THIS CONTRACT.
- 16. THE CONTRACTOR SHALL BE RESPONSIBLE FOR INITIATING, MAINTAINING, AND SUPERVISING ALL SAFETY PRECAUTIONS AND PROGRAMS IN CONNECTION WITH THE PERFORMANCE OF THE CONTRACT, THE CONTRACTOR SHALL COMPLY WITH ALL APPLICABLE LAWS, ORDINANCES, RULES, AND REGULATIONS.
- 17. NO WORK SHALL BE DONE ON EITHER ALDOT OR COUNTY RIGHT-OF-WAY UNTIL ALL APPROPRIATE PERMITS HAVE BEEN OBTAINED.
- 18. THE STATE, COUNTY OR CITY ENGINEERS ARE TO BE NOTIFIED 48 HOURS PRIOR TO THE BEGINNING OF EACH PHASE OF WORK.
- 19. ALL PERMITS/APPROVALS BY ADEM, FEMA, CORPS OF ENGINEERS SHALL BE REQUIRED PRIOR TO DISTURBING AREAS UNDER JURISDICTIONS OF SUCH PERMITS.
- 20. THERE SHALL NOT BE ANY CLEARING, GRUBBING OR EXCAVATING ACTIVITIES CONDUCTED UNTIL PROOF OF AN NOR ADEM COVERAGE HAS BEEN PROVIDED TO THE GOVERNING AUTHORITIES AND ADEQUATE EROSION CONTROL MEASURES ARE IN PLACE.
- 21. ELEVATIONS SHOWN ARE FINISHED GRADE. THE CALCULATION OF THE APPROPRIATE SUBGRADE ELEVATIONS SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR. SUBGRADE ELEVATIONS SHALL VARY IN ACCORDANCE WITH THE SURFACE TREATMENT CALLED FOR ON THESE PLANS (I. E. ASPHALT PAVEMENT, CONCRETE PAVEMENT, SIDEWALK, TOPSOIL, ETC.) AND THE RELATED SECTIONS OR DETAILS. THE CONTRACTOR SHOULD PLAN ON SAWCUT AND EXCAVATION OR MILLING EFFORTS TO ENSURE SMOOTH TRANSITION UNLESS AN EXISTING VERTICAL LIP IS PRESENT TO CONNECT THE TRANSITION.

# EROSION CONTROL NOTES

- 1. ALL EROSION CONTROL PERMITS FOR THE DEVELOPMENT OF THESE PLANS SHALL BE OBTAINED BY THE CONTRACTOR PRIOR TO ANY GROUND DISTURBANCE.
- 2. EROSION CONTROL MEASURES ARE TO BE INSTALLED PRIOR TO BEGINNING ANY OTHER CONSTRUCTION ON THE JOB SITE.
- 3. CONTRACTOR IS RESPONSIBLE FOR INSTALLING, MAINTAINING, AND REMOVING ALL EROSION AND SEDIMENT CONTROLS IN ACCORDANCE WITH BEST MANAGEMENT PRACTICES AS SHOWN ON THESE DRAWINGS OR REQUIRED BY LOCAL. STATE. AND/OR FEDERAL REGULATORY **AUTHORITIES.**
- 4. THE EROSION AND SEDIMENT CONTROL MEASURES SHOWN ON THESE DRAWINGS ARE CONSIDERED THE MINIMUM ACCEPTABLE AND SHALL BE MODIFIED IN THE FIELD AS NECESSARY TO COMPLY WITH LOCAL, STATE, AND/OR FEDERAL REQUIREMENTS.
- 5. EROSION CONTROL MEASURES MUST BE MAINTAINED UNTIL PERMANENT GROUND COVER IS ESTABLISHED AND THE NPDES PERMIT IS TERMINATED.
- 6. ALL DISTURBED AREAS NOT SHOWN TO BE LANDSCAPED SHALL BE SEEDED & MULCHED AS PER LOCAL STANDARDS AND SPECIFICATIONS.
- 7. CONTRACTOR SHALL COMPLY WITH ALL LOCAL, STATE, AND FEDERAL REGULATIONS RELATING TO THE ON SITE STORAGE OF FUEL, OIL, AND GREASE. AN SPCC PLAN MUST BE MAINTAINED AND IMPLEMENTED ON SITE.

# EROSION CONTROL PLAN AND PERFORMANCE STANDARDS

- 1. THE EROSION CONTROL PLAN SHALL CONTAIN A DESCRIPTION OF THE EXISTING SITE CONDITIONS, A DESCRIPTION OF ADJACENT TOPOGRAPHICAL FEATURES, INFORMATION NECESSARY TO DETERMINE THE EROSION QUALITIES OF THE SOIL ON THE SITE, POTENTIAL PROBLEM AREAS OF SOIL EROSION AND SEDIMENTATION, SOIL STABILIZATION SPECIFICATIONS, STORM WATER MANAGEMENT CONSIDERATIONS, PROJECTED TIME SCHEDULE FOR COMMENCEMENT AND COMPLETION OF THE LAND DISTURBING ACTIVITY, SPECIFICATIONS FOR BMP PLAN MAINTENANCE DURING THE PROJECT AND AFTER THE COMPLETION OF THE PROJECT, CLEARING AND GRADING LIMITS, AND ALL OTHER INFORMATION NEEDED TO DEPICT ACCURATELY THE SOLUTIONS TO POTENTIAL SOIL EROSION AND SEDIMENTATION PROBLEMS TO THE MS4. THE CONTROL PLAN SHALL INCLUDE THE SERIES OF BMP'S AND SHALL BE REVIEWED BY, AND SUBJECT TO THE APPROVAL OF, THE OFFICIAL PRIOR TO THE ISSUANCE OF THE PERMIT.
- 2. CONTROL MEASURES SHALL BE MAINTAINED AS AN EFFECTIVE BARRIER TO SEDIMENTATION AND EROSION IN ACCORDANCE WITH THIS PLAN.
- 3. THERE SHALL BE NO DISTINCTLY VISIBLE FLOATING SCUM, OIL OR OTHER MATTER CONTAINED IN THE STORM WATER DISCHARGE. THE STORM WATER DISCHARGE TO AN MS4 MUST NOT CAUSE AN UNNATURAL COLOR (EXCEPT DYES OR OTHER SUBSTANCES DISCHARGED TO AN MS4 FOR THE PURPOSE OF ENVIRONMENTAL STUDIES AND WHICH DO NOT HAVE HARMFUL EFFECT ON THE BODIES OF WATER WITHIN THE MS4) OR ODOR IN THE COMMUNITY WATERS. THE STORM WATER DISCHARGE TO THE MS4 MUST RESULT IN NO MATERIALS IN CONCENTRATIONS SUFFICIENT TO BE HAZARDOUS OR OTHERWISE DETRIMENTAL TO HUMANS, LIVESTOCK, WILDLIFE, PLANT LIFE OR FISH AND AQUATIC LIFE IN THE COMMUNITY WATERS.

# EARTHWORK GENERAL NOTES

- 1. SITE TOPOGRAPHY MAPS AND OTHER TOPOGRAPHIC DATA SHOWN ON THE PLANS OR INCLUDED IN THE SPECIFICATIONS ARE FOR THE INFORMATION OF THE CONTRACTOR. THE CONTRACTOR SHALL MAKE SUCH ADDITIONAL INVESTIGATIONS AS REQUIRED TO ACQUAINT HIMSELF ADEQUATELY WITH THE SITE TOPOGRAPHY, AND THE SUBSURFACE SOIL CONDITIONS FOR PREPARATION OF HIS BID, AND FOR THE SUCCESSFUL EXECUTION OF THE WORK.
- 2. ALL PROPOSED CONTOUR ELEVATIONS AND SPOT ELEVATIONS SHOWN ARE FINISHED GRADE
- 3. ALL EARTH FILL SHALL BE COMPACTED TO 95% OF THE MAXIMUM DRY DENSITY, PLUS OR MINUS 2% OF OPTIMUM MOISTURE (ASTM-D6798), EXCEPT FOR EARTH FILLS UNDER PAVEMENT AND BUILDING FOUNDATIONS WHICH ARE TO COMPLY WITH PAVING AND FOUNDATION SPECIFICATIONS.
- 4. EARTH FILL SHALL BE PLACED IN UNIFORM LAYERS OR LIFTS NOT EXCEEDING 6" COMPACTED THICKNESS.

# PROJECT SPECIFIC NOTES

- 1. A SUBSURFACE INVESTIGATION HAS NOT BEEN DONE. INSITE ENGINEERING, LLC ALWAYS RECOMMENDS OBTAINING A GEOGRAPHICAL REPORT PRIOR TO CONSTRUCTION FILL COMPACTION REQUIREMENTS, FILL TYPE REQUIREMENTS, PAVEMENT BUILD UPS SHOULD BE DIRECTED AND PROVIDED BY THE GEOGRAPHICAL ENGINEER.
- 2. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE CURRENT BUILDING REGULATIONS AND DESIGN STANDARDS OF THE GOVERNING AUTHORITY.
- 3. CONTRACTOR IS RESPONSIBLE FOR BUILDING SITES FREE OF DRAINAGE PROBLEMS DUE TO ANY DEVIATION FROM THE DESIGN PLANS.
- 4. GOVERNING AUTHORITIES ARE NOT RESPONSIBLE FOR ANY DRAINAGE EASEMENT OUTSIDE THE PUBLIC RIGHT-OF-WAY.
- 5. THE GOVERNING AUTHORITY IS NOT. NOR EVER WILL BE RESPONSIBLE FOR MAINTENANCE OF PRIVATE ROADS, EASEMENTS, OR AREAS OFF PUBLIC RIGHT-OF-WAYS.
- 6. CONTRACTOR SHALL NOTIFY GOVERNING AUTHORITIES A MINIMUM OF 24 HOURS PRIOR TO BEGINNING ANY WORK WITHIN THE RIGHT-OF-WAY OF EXISTING ROADS.
- 7. ALL FEMA, USACE, COUNTY, AND/OR STATE PERMITS SHALL BE IN HAND AND ON SITE DURING THE CONSTRUCTION OF THE PROJECT
- 8. A SIGNED AND SEALED COPY OF THE PLANS SHALL BE MAINTAINED ON SITE AND MADE READILY AVAILABLE FOR THE DURATION OF THE CONSTRUCTION.
- 9. CONTRACTOR SHALL KEEP A MARKED UP SET OF PLANS SHOWING ALL CHANGES, DIMENSIONS, ETC. TO PROVIDE TO THE ENGINEER AFTER THE JOB IS COMPLETE AND CAPABLE OF BEING UTILIZED AS AS-BUILT DRAWINGS FOR FUTURE LOCATES.
- 10. CONTRACTOR TO REMOVE, REPAIR, AND REINSTALL EXISTING FLOOD GATES, GATE SLIDE FRAMES, VALVE STEMS, AND GATE VALVES.
- 11. CONTRACTOR IS TO MODIFY, ADJUST, AND RELOCATE EROSION AND SEDIMENT CONTROLS AS DEEMED NECESSARY BY THEIR MEANS OF CONSTRUCTION DURING THE PROJECT. ALL ADEM AND FEDERAL GUIDELINES SHOULD BE UPHELD DURING THESE OPERATIONS. ANY EXPENSE, FINES, ETC. DURING THE GRADING PROCESS DUE TO LACK OF EROSION CONTROL, MOVEMENT, OR LACK OF MODIFICATION OF THE CONTRACTORS PROCESS SHALL BE AT THE CONTRACTORS SOLE EXPENSE.
- 12. DAMAGE TO EXISTING PAVEMENTS (CONCRETE / ASPHALT ) OR STRUCTURES SHALL BE REPLACED WITH IN KIND MATERIALS AT THE CONTRACTORS EXPENSE.

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PROJECT INFO:

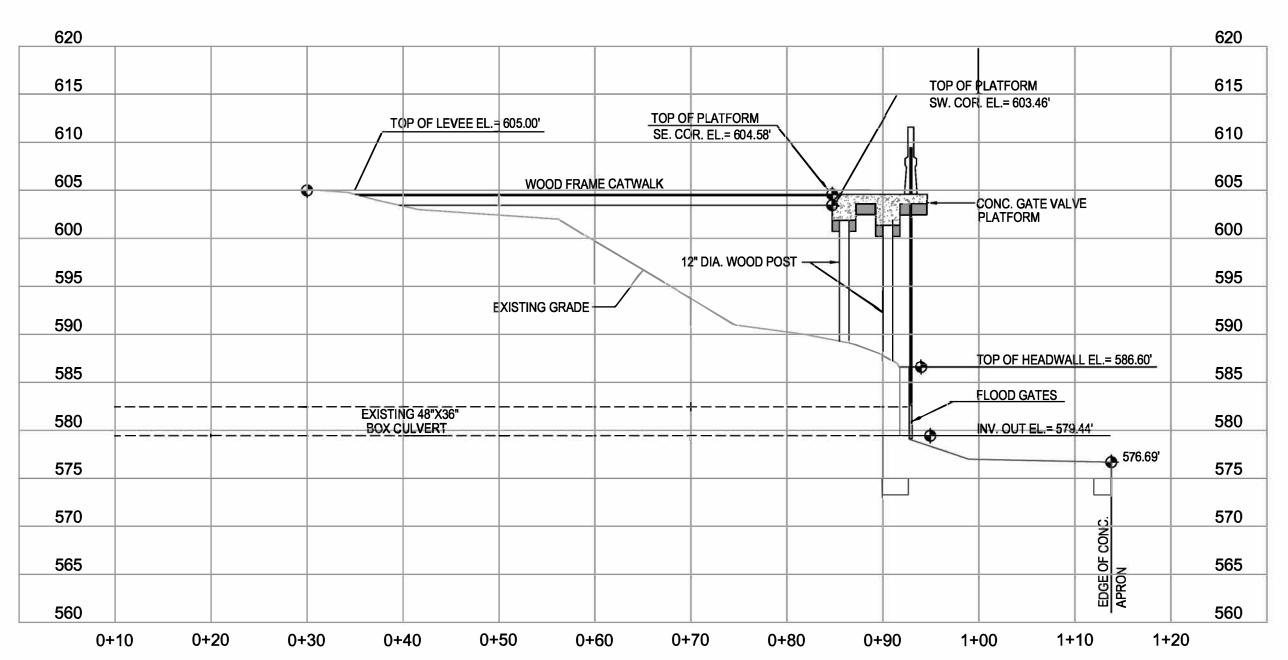
INSITE / HOOVER INSITE JOB No. 16120.15 PLOTTED: 03/07/2023

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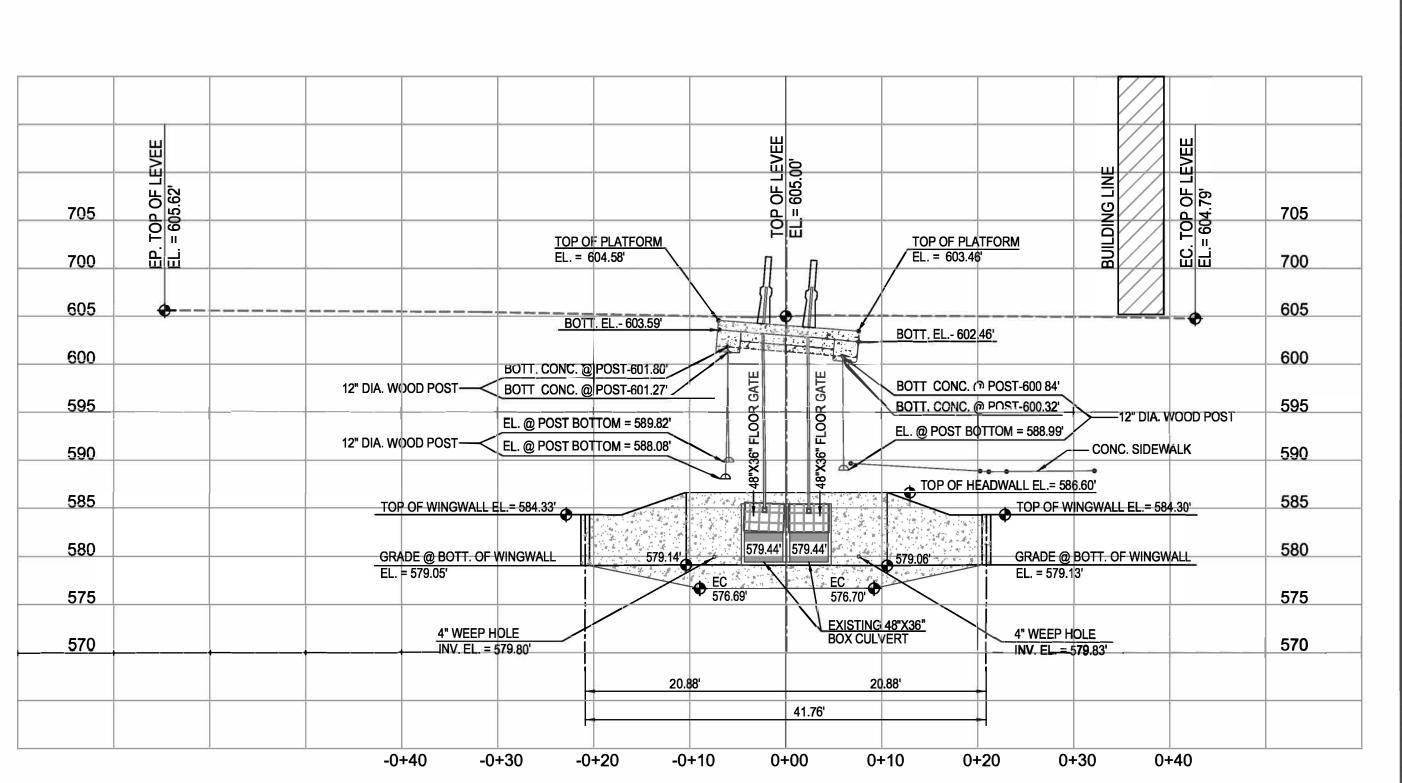
**GENERAL NOTES:** 

SCALE: AS SHOWN SHEET 2 OF 14





EXISTING LEVEE FLOOD GATE PROFILE



EXISTING LEVEE FLOOD GATE SECTION VIEW

LEVEE GATE MODIFICATION PLANS FOR:

FOR FOR THE CITY OF ROME

ENGINEERING

HOOVER | TUSCALOOSA

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PROJECT INFO:

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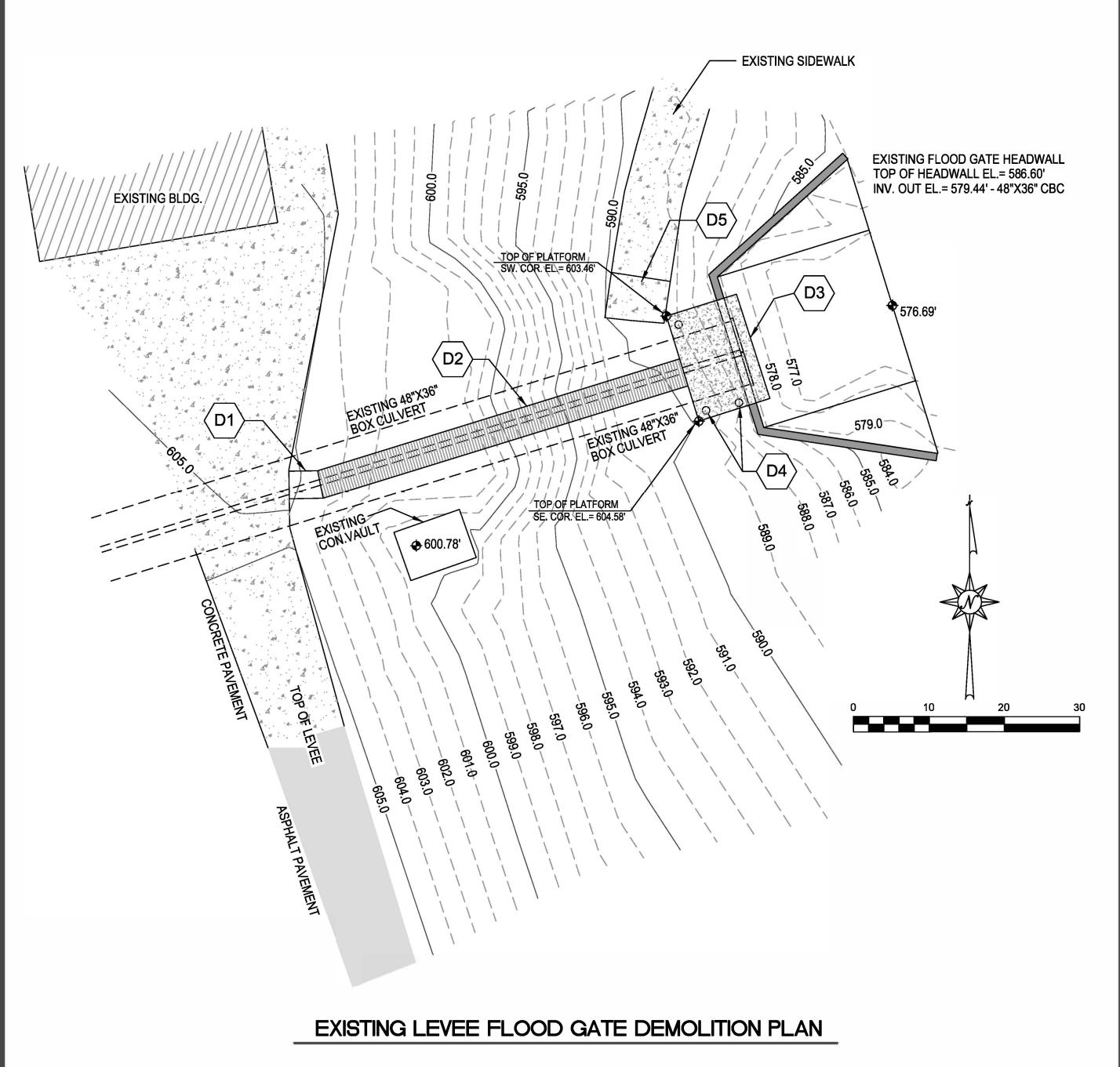
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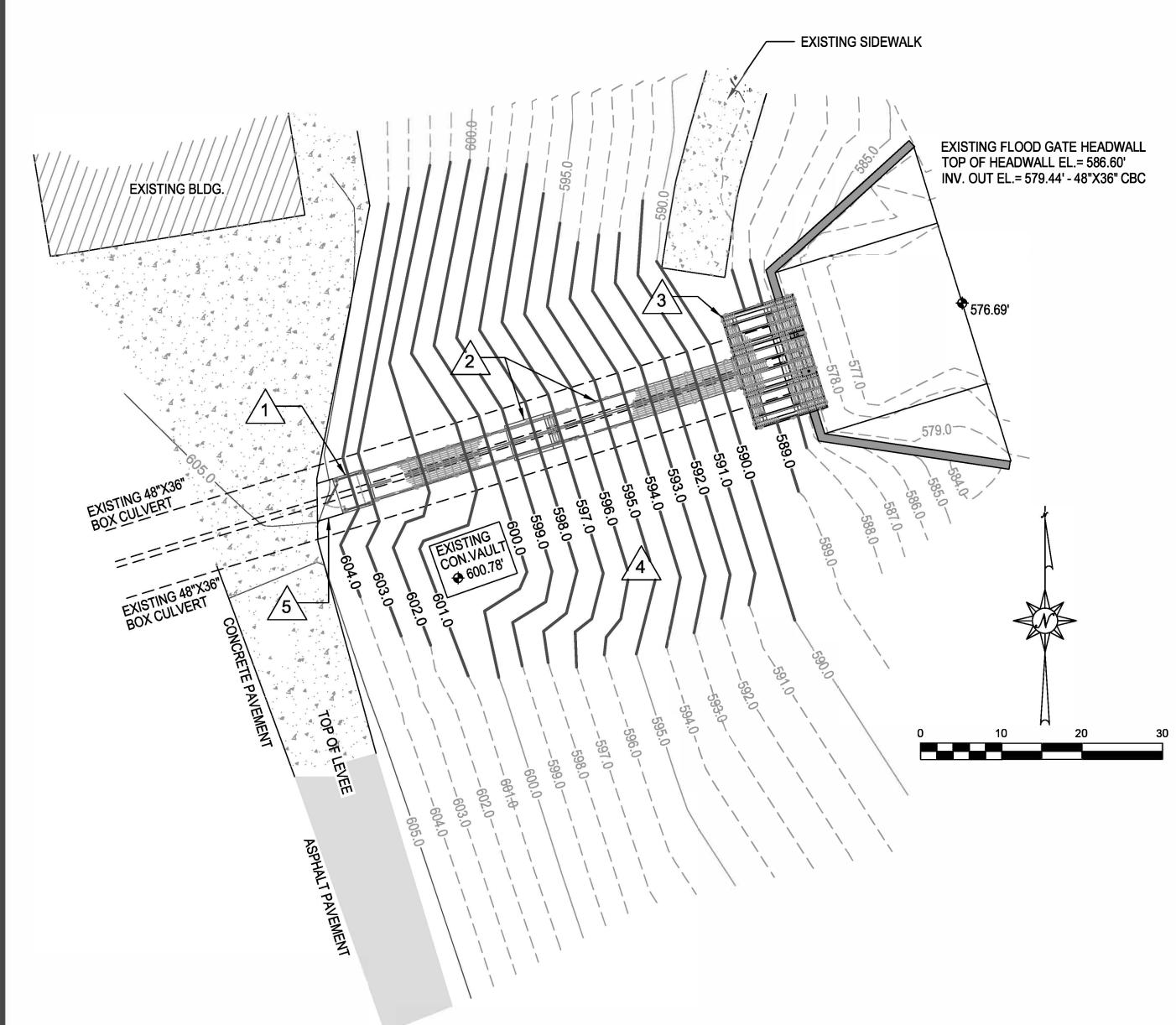
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EXISTING LEVEE FLOOD GATE GRADING AND IMPROVEMENT PLAN

#### **DEMOLITION NOTES:**

DEMOLITION AND REMOVAL SHALL CONSIST OF ALL MATERIALS, STRUCTURES, ITEMS, AND DEVICES ASSOCIATED TO THE SPECIFIED LOCATION OR CALL OUT.

CONTRACTOR SHALL REMOVE FROM THE SITE ALL DEBRIS, RUBBISH, AND OTHER MATERIALS RESULTING FROM THEIR OPERATIONS. ALL SUCH MATERIALS MUST BE DISPOSED OF LEGALLY. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL FEES AND COST ASSOCIATED WITH SAID REMOVALS AND DISPOSALS.

ALL ITEMS AND STRUCTURES NOT NOTED FOR DEMOLITION OR REMOVAL, ARE TO BE RETAINED.

# DEMOLITION AND REMOVAL

CONTRACTOR TO REMOVE AND DISPOSE OF EXISTING CONCRETE CATWALK PAD.

CONTRACTOR TO REMOVE AND DISPOSE OF EXISTING PLATFORM CATWALK TO DECKING, SUPPORT JOIST, HANDRAILS, AND POST.

CONTRACTOR TO REMOVE AND DISPOSE OF EXISTING CONCRETE PLATFORM, DECKING, HANDRAILS, AND POST.

CONTRACTOR TO REMOVE AND DISPOSE OF EXISTING PLATFORM SUPPORT POST. TO INCLUDE ALL BRACING AND VALVE STEM **GUIDE FRAMING MATERIALS.** 

CONTRACTOR TO REMOVE AND DISPOSE OF EXISTING SECTION OF SIDEWALK.

# UTILITIES NOTE:

EXISTING UTILITIES HAVE NOT BEEN LOCATED. THE LOCATIONS OF PUBLIC, PRIVATE AND ABANDONED UTILITIES ARE UNKNOWN. THE CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATING AND IDENTIFYING ALL UTILITIES PRIOR TO THE COMMENCEMENT OF WORK.



- 1. NEW FLOOD GATE PLATFORM ENTRANCE, SEE SHEETS (A1.1, A2.1 AND SD.1)
- 2. NEW FLOOD GATE PLATFORM CATWALK, AND CATWALK SUPPORT STRUCTURE. (SEE SHEETS A1.1, A2.1, AND SD.1)
- 4. GRADING IMPROVEMENTS FOR FLOOD GATE PLATFORM SITE.
- 5. ADDED SEGMENT OF SIDEWALK FOR FLOOD GATE PLATFORM ENTRANCE PAD.

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PROJECT INFO: INSITE / HOOVER INSITE JOB No. 16120.15

PLOTTED: 03/07/2023

THIS SHEET CONTAINS:

**EXISTING LEVEE FLOOD GATE** DEMOLITION GRADING AND IMPROVEMENT

SCALE: AS SHOWN

SHEET <u>4</u> OF <u>14</u>

SAW CUT APPROX. 6'-0"

KEY NOTES: SITE IMPROVEMENT PLAN EXAMPLE 1

3. NEW FLOOD GATE PLATFORM AND PLATFORM SUPPORT STRUCTURE. (SEE SHEETS A1.1, A2.1, SD.2, SD.3, AND SD.4)

#### 03200 Concrete Reinforcement

Deformed Bars: ASTM A615 Grade 60

03300 Cast-in-Place Concrete

Structural Element	_fc_
Concrete Retaining Walls	4000 psi
Footings	4000 psi
Slabs and Grade Beams	4000 psi
All Others	4000 psi

#### 05100 Structural Steel

Rolled Shapes: ASTM A36; ASTM A572, Grade 50 if noted (50), ASTM A992 for W & WT Shapes

Plates and Bars: ASTM A36; ASTM A572, Grade 50 if noted (50).

Pipes: ASTM A53 Type E Grade B

Structural Bolts: ASTM A325 unless noted as ASTM A90 on drawings

Anchor Rods: ASTM F1554 (Fy=36ksi)

Welded Electrodes: E70XX

# **EARTHWORK**

A. Conform to the following:

1. all local, state and federal codes, ordinances and regulations including OSHA regulations.

B. Use the following:

1. Soil Materials (Definitions)

a) Satisfactory materials are those conforming to ASTM D2487 groups.

b) Unsatisfactory materials are:

ASTM D2487 groups ML, OL, CH, MH, OH, PT.

Cobbles and rock fragments over 3 inch maximum dimension

Frozen material

Vegetation, roots, wood, cinders, trash

Hazardous materials

2. Fill use and required compaction.

Туре	Material	Size	Use	Compaction
Slab Base Course	Crushed limestone conforming to Traffic Bond consistency	100% pass 3/4 inch sieve and 7-10% pass 200 sieve	Base course under slabs on grade and pavements	98% ASTM D1557
Select	Coarse grained Soil	100% pass 1/2 inch sieve and less than 10% pass 200 sieve	Under slab base course or under footings	98% ASTM D1557
Stone	Well graded washed crushed stone or gravel	100% pass 1 inch sieve less than 3% pass 200 sieve	Backfill against walls	90% ASTM D4253 D4254
General	Satisfactory soil except GP	100% pass 3 inch sieve	All other fill use	90% ASTM D1557

#### C. Contractor shall:

1. Notify Owner if any of the following are encountered:

Hazardous materials (Also stop work in area)

Subsurface conditions different than portrayed in geotechnical report

Under ground structures or foundations.

2. Excavate all materials encountered except bedrock defined as a natural material that cannot be removed with a power excavator having a breakout force of 80,000 pounds for bucket and stick combined.

3. Grade perimeter of excavation to drain water away provide means to remove water that enters excavation.

4. Protect bottom of excavations from freezing.

5. Fill over-excavated areas with select fill or lean mix concrete at direction of Geotechnical Engineer.

6. Proof roll areas to receive fill using rubber tired trucks or earth moving equipment having an axle load equivalent to that of a fully loaded five cubic yard dump truck.

7. Place fill in 8 inch uncompacted lifts.

8. Do not place fill over frozen soil or on surface with snow, ice or standing

9. Filling against walls:

a) No construction equipment may operate closer to a wall than a distance equal to the height of the wall unless the wall is properly braced to accommodate the additional earth pressure forces from the equipment.

b) Do not backfill against concrete walls until the concrete has attained its specified 28 day strength or against masonry wall until the masonry has achieved design strength unless the wall is braced.

c) Design, installation and maintenance of any temporary wall bracing system is solely the responsibility of the Contractor.

d) Compact backfill using hand operated equipment.

# CONCRETE REINFORCEMENT

A. Conform to the latest edition of the following:

1. CRSI "Manual of Standard Practice" and CRSI "Placing Reinforcing Bars"

2. Applicable requirements of ACI 301, ACI 315 and ACI 318 and Section 3 of ANSI A10.9.

B. Use the following materials:

1. Deformed bars: ASTM A615 Grade 60.

2. Wire fabric: Plain ASTM A185, deformed ASTM A497

3. Smooth dowels: ASTM A615 Grade 60.

C. Contractor shall

1. Submit shop drawings for approval.

2. Cold-form rebars with bends to conform to ACI 315.

3. Accurately place reinforcement per ACI 301 and approved shop drawings.

4. Provide Class "B" lap splices in all rebar splices in walls, piers, columns, beams and slabs.

5. Unless shown otherwise on drawings, provide the following minimum clear cover on all rebars:

Concrete cast against and permanently exposed to earth ...... 3 inches Concrete exposed to earth or weather.... . 2 inches ..2 inches Beams and columns...

D. Unless indicated otherwise, all reinforcement laps, projections and embedments shall be as shown in schedule "A" below:

Schedule "A" Reinforcing Splice, Projection, and Embedment Lenghts (In Inches)									
Bar Size	#3	#4	<b>#</b> 5	#6	#7	#8	#9	#10	
Top Bar	24	32	41	48	70	80	90	101	
Other Bar	19	25	31	37	54	61	69	78	
									25

# CAST-IN-PLACE CONCRETE

A. Conform to the latest edition of the following:

1. ACI 117 "Standard Specifications for Tolerances for Concrete Construction and Materials.

2. ACI 301 "Specifications for Structural Concrete for Buildings".

3. ACI 302. 1R "Guide for Concrete Floor and Slab Construction".

4. ACI 304R "Guide for Measuring, Mixing, Transporting and Placing Concrete"

ACI 305R " Hot Weather Concreting".

6. ACI 306.1 "Standard Specification for Cold Weather Concreting".

7. ACI 318 "Building Code Requirements for Reinforced Concrete". 8. ANCI A10.9 "American National Standard for Construction and Demolition Operations".

9. ASTM C31 "Standard Method of Making and Curing Concrete Test Specimens in the Field".

10. ASTM C94 Standard Specification for Ready Mixed Concrete".

11. AISC "Code of Standard Practice for Steel Buildings and Bridges"

B. Use the following materials:

1. Water: Clean, potable.

2. Portland Cement ASTM C150 Type I. Blast furnace slag cement is not permitted.

3. Fine and Coarse Aggregate: ASTM C33 except as noted subsequently max. size aggregate for concrete to be placed in forms to conform to ACI 318, Section. 3.3.

4. Fly Ash: ASTM C618 - Type F or C. 3% max. loss on ignition.

5. Air Entraining Admixture: ASTM C260. In-place air entrained concrete shall have 5-7% air. Use for all concrete exposed to freeze thaw conditions including during the construction phase as well as in service.

0.45

0.55

6. Concrete slumps shall be as follows with tolerance plus or minus 1 inch.

**3-1/2 inches** Footings, piers, slabs-on-grade. Earth formed footings, 5 inches **3-1/2 inches** All other concrete.

7. Concrete water to cement ratio shall not exceed the following:

Slabs-on-grade subject to deicing salts. Piers, beams, columns, walls with exterior exposure.

Conventional slabs-on-ground.

All other concrete

8. For slabs-on-ground maximum cement shall be 4 1/2 sack per cubic yard and maximum water content shall be 30 gal. per cubic yard.

9. Chemical Admixtures: At producer's option for structural concrete only. Not permitted with slab-on-ground or pavements.

Not Limited to the following:

a) Water reducing b) Retarding

c) Accelerating

d) Water reducing and retarding

e) Water reducing and accelerating f) Water reducing high range

g) Water reducing high range and retarding

# CAST-IN-PLACE CONCRETE (CONTINUED)

- 11. Special requirements for slab-on-ground. Aggregate size number of ASTM C33-Table 2 do not apply. Aggregate gradation shall be as follows:
- 10. Cure and Seal shall conform to ASTM C309 type I Class B water base, non-yellowing liquid.

Coarse Aggregate Gradation (%) Ag. Size (Inches) / 6 Inch Slab or Less / Slabs thicker than 6 Inches

1 1/2 - 2	0	10-20
1 - 1 1/2	0	15-25
3/4 - 1	10-20	15-25
1/2 - 3/4	20-30	10-20
3/8 - 1/2	20-30	10-20
#4 - 3/8	20-30	10-20

No entrained air. No fly ash or Type F or G water reducers. Maximum Cement Content 4 1/2 sacks per cubic yard. Maximum Water Content 30 gallons per cubic yard.

C. Contractor shall:

1. Submit concrete mix design for review.

2. Place concrete per ACI 302 using appropriate placing procedures. Thoroughly consolidate concrete using suitable means. Use experienced finishers. Slab on ground concrete shall be placed using the strip method. Maximum distance between construction joints 40'-0".

3. Place slab concrete the following flatness and levelness tolerances. Tolerances for concrete construction shall conform to requirements of ACI 117. Floor flatness tolerances shall be evaluated using 4.5.7 of ACI 117.

4. Cure and Seal after standing water has evaporated. No foot or vehicle traffic for 8 hours.

5. Place and cure concrete in hot weather per ACI 305.

6. Place and cure concrete in cold weather per ACI 306.

7. Use air entrained concrete for all concrete exposed to freezing and thawing and/or required to be watertight.

8. Arrange for cylinders to be made for test per ASTM C31. One test consists of four cylinders. Make one test per each 30 cubic yards of concrete placed or fraction thereof.

9. Install anchor rods and other embedded items within the tolerances specified in the AISC "Code of Standard Practice for Steel Buildings and Bridges".

10. No vehicular traffic on slabs for 7 days. After 7 days only light truck and auto traffic. No concrete trucks or equipment moving apparatus on slab.

11. For slabs-on-ground.

If mesh is used it shall not cross contraction (saw) joints or construction joints.

If dowels are used at any joints, the entire length of dowel shall be greased. If dowel baskets are used they shall be cut at joints (after dowels are placed) to

eliminate any possible restraint across the joints. 12. If vapor barrier/retarder is used it shall be located per Drawings.

# **CONTRACTORS NOTES:**

1. IN ACCORDANCE WITH GENERALLY ACCEPTED CONSTRUCTION PRACTICES. THE CONTRACTOR WILL BE SOLELY AND COMPLETELY RESPONSIBLE FOR CONDITIONS OF THE JOBSITE. INCLUDING SAFETY OF ALL PERSONS AND PROPERTY DURING PERFORMANCE OF THE WORK. THIS REQUIREMENT WILL APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS.

2. THE DUTY OF THE ENGINEER TO CONDUCT CONSTRUCTION REVIEW OF THE CONTRACTOR'S PERFORMANCE IS NOT INTENDED TO INCLUDE REVIEW OF THE ADEQUACY OF THE CONTRACTOR'S SAFETY MEASURES IN, ON, OR NEAR THE CONSTRUCTION SITE.

3. DESIGN, INSTALLATION, AND MAINTENANCE OF ANY TEMPORARY BRACING IS SOLELY THE RESPONSIBILITY OF THE CONTRACTOR.

4. THE CONTRACTOR SHALL FIELD VERIFY ALL DIMENSIONS AND EXISTING CONDITION'S AND NOTIFY THE ENGINEER OF ANY DISCREPANCIES.

5. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR SUPERVISING AND DIRECTING THE WORK, USING THE CONTRACTOR'S BEST SKILL AND ATTENTION. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR AND HAVE CONTROL OVER CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES AND PROCEDURES AND FOR COORDINATING ALL PORTIONS OF THE WORK UNDER THIS CONTRACT.

6. THE CONTRACTOR SHALL BE RESPONSIBLE FOR INITIATING, MAINTAINING, AND SUPERVISING ALL SAFETY PRECAUTIONS AND PROGRAMS IN CONNECTION WITH THE PERFORMANCE OF THE CONTRACT, THE CONTRACTOR SHALL COMPLY WITH ALL APPLICABLE LAWS, ORDINANCES, RULES. AND REGULATIONS.

7. ELEVATIONS SHOWN ARE FINISHED GRADE. THE CALCULATION OF THE APPROPRIATE SUB GRADE ELEVATIONS SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR. SUBGRADE ELEVATIONS SHALL VARY IN ACCORDANCE WITH THE SURFACE TREATMENT CALLED FOR ON THESE PLANS.



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PROJECT INFO: INSITE / HOOVER INSITE JOB No. 16120.15 PLOTTED: 03/07/2023 THIS SHEET CONTAINS: STRUCTURAL NOTES

> SCALE: AS SHOWN SHEET 5 OF 14

AND SPECIFICATIONS

B. Use the following materials:

#### 1. ASTM C1107.

- 1. Dry Non-shrink Hydraulicn Cementitious Grout: ASTM C1107 Grade C, premixed packaged, non-metallic. Minimum 28 day compressive strength is 5000 psi. per ASTM C109.
- 2. Water: potable.

#### C. Contractor shall:

- 1. Store and maintain packaged materials clean and dry and protected from dampness, freezing and foreign materials.
- 2. Maintain grout at a minimum 50 degrees F. and maximum 90 degrees F. prior to, during and 48 hours after completion of grout work.
- 3. Saturate surface with clean water 24 hours prior to grouting operations. Remove any free standing water on surface and in anchor rod holes prior to grouting.
- 4. Mix packaged materials in accordance with manufacturer's printed instruction.
- 5. Place grout under base and bearing plates in accordance with manufacturer's printed instructions completely filling all voids. Do not vibrate grout. Bevel edges of trowelable grout.
- 6. Complete grout installation prior to installation of wall sheeting, roof sheeting or supported floors.

#### STRUCTURAL STEEL AND MISCELLANEOUS METAL

- A. Conform to the latest edition of the following:
  - 1. AISC Code of Standard Practice of Steel Buildings and Bridges
  - 2. AISC Manuals of Steel Construction.
  - 3. AISC Manual of Steel Construction Vol. II. Connections.
  - 4. AISC A10-13 Steel Erection Safety Requirements.
  - 5. AWS D1.1 Structural Welding Code.
  - 6. SSPC Steel Structures Painting Manual.
  - 7. OSHA subpart R(CFR 1926, subpart R).

#### B. Use the following materials:

- 1. Rolled Shapes:
- a) Rolled W and WT Shapes: ASTM A992.
- b) Rolled Angles, Channels, S, ST, M and HP Shapes: A36 or ASTM A572 Grade 50 if noted (50).
- 2. Plates and Bars: ASTM A36 or ASTM A572, Grade 50 if noted (50).
- 3. Steel Pipe: ASTM A53 Type E Grade B.
- 4. HSS: ASTM A500, Grade B.
- 5. Structural Bolts: ASTM A325 unless noted as ASTM A490 on Drawings. (Fully tensioned, Type N)
- 6. Anchor Rods: ASTM F1554 (36 KSI Material)
- 7. Welded Headed Studs: AWS D1.1 (ASTM A29 Material).
- 8. Deformed Bar Anchors: ASTM A496 or ASTM A706.
- 9. Welding Materials: AWS D1.1 (E70XX LOW HYDROGEN).

#### C. Contractor shall:

- 1. Submit shop Drawings for approval by Engineer.
- 2. Fabricate steel per AISC Specifications and approved Shop Drawings
- a) Weld all Joints per AWS D1.1.
- b) Punch or drill holes 1/16 inch larger than bolt diameter.
- c) Punch or drill anchor rod holes 5/16 inch larger than rod diameter for rods up to 1-inch, 1/2-inch larger than rod diameter for rods 1 to 2 inch in diameter and 1 inch larger than rod diameter for rod diameter or 2 inch.
- d) Thoroughly clean and prepare surfaces for field welds to assure good weld quality.
- e) Fillet weld minimum size per AISC Specification Table J2.4.
- f) All butt welds to be full penetration per AISC Manual and AWS D1.1 unless otherwise noted.
- g) Do not use intermittent welds for members exposed to the elements.
- h) Provide holes for attachment of other materials and other work.
- i) For fabrication purposes, provide the following draw for all tension bracing pieces based on the calculated center-to-center distance between end working points as follows:

For lengths up to 10 feet - no draw For lengths 10' to 20' feet - 1/16 inch draw For lengths 20' to 35' feet - 1/8" inch draw For lengths greater than 35' feet - 3/16" inch draw

j) Camber to conform to the following tolerances:

plus or minus 1/4 inch for spans up to 50' feet plus or minus 3/8 inch for spans up to 75' feet plus or minus 1/2 inch for spans up to 100' feet

# STRUCTURAL STEEL AND MISCELLANEOUS METAL (CONTINUED)

- k) Camber trusses 1/8 inch per 10 feet of span unless noted otherwise.
- I) Provide support angles for steel deck at all deck openings. m) Offset connection angles or provide erection seat at all 3-ply connections.
- n) For connection details not shown on drawings, design connections to support one half of the total unifrom load capacity as given in the allowable
- o) Plate girder flange and web splices shall be made with prequalified completejoint-penetration groove welds and shall be ground flush in the direction parallel to the length of the girder. Plate girder flange and web splices shall not occur at the same location. The distance between web and flange splices shall be equal to or greater than the flange width.
- 3. Shop prime steel and provide exterior coating as follows:

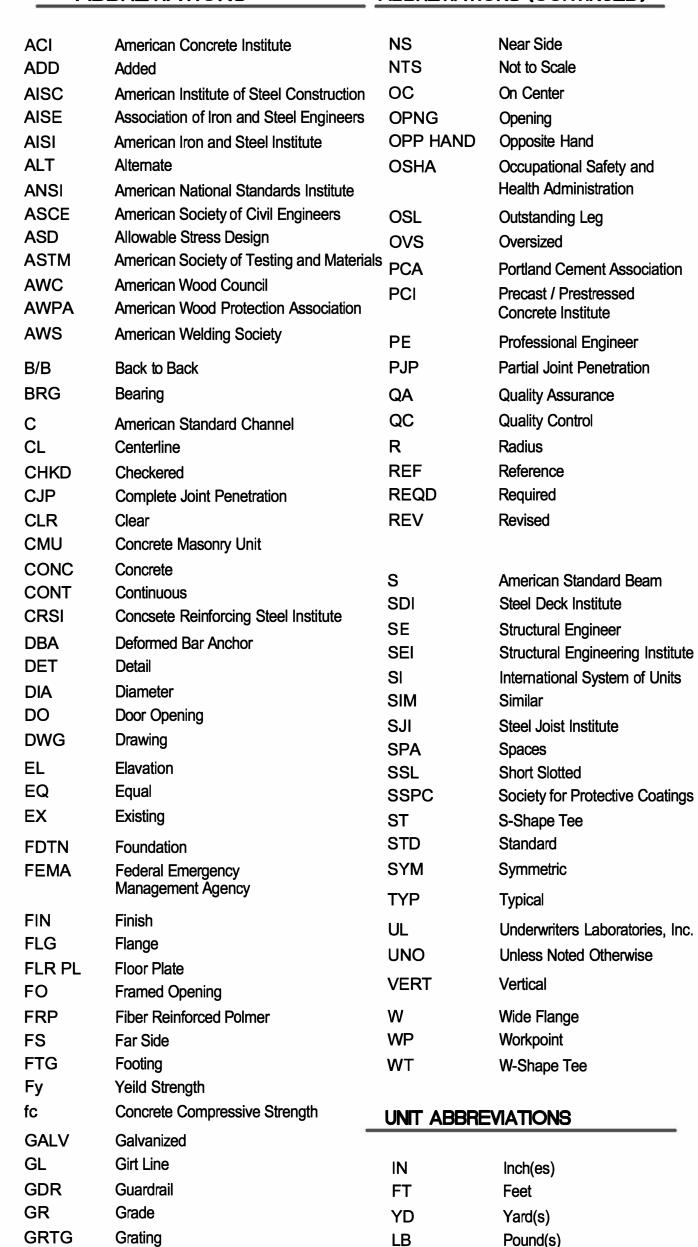
uniform load tables in the AISC Specification.

- a) Clean steel prior to priming per SSPC-SP3.
- b) Shop prime, one coat, 2-mil dry film except surfaces to be fireproofed, to be in contact with concrete or mortar, to be field welded, or to be "slip-critical"

#### 4. Store steel as follows:

- a) Store materials to permit easy access for inspection.
- b) Keep steel off the ground.
- c) Store so that member distortion does not occur.
- 5. Erect steel in accordance with AISC Specifications, AISC Code of Practice and the requirements of the temporary support system design and within AISC Code tolerances for straightness, plumpness and levelness.
- a) Do Not use setting plates or loose shims under column base plates. b) Fully tension all A325 and A490 bolts unless noted otherwise on Drawings.
- 6. Coordinate grounding of structural steel frame with electrical design.
- 7. Weld all structural elements using AWS certified welders. (Shop and Field)
- 8. Provide a temporary support as follows:
- a) Provide temporary support (bracing) system necessary to secure any element or elements of steel frame until the steel frame is secure by completion of erection of the steel frame. The lateral-load-resisting system and connecting diaphragm elements that provide for lateral strength and stability in the complete structure are cantilevered laced columns in the transverse direction and in the longitudinal direction. The non-Structural Steel elements (if any) required for the strength and/or stability of the Structural Steel Frames are steel joist and joist girders.
- b) The structural steel erector shall determine (design), furnish and install a temporary support (bracing) system to brace the structural steel frame and its components against collapse or permanent distortion.
- c) Temporary support (bracing) system shall meet the requirements of AISC Specification and AISC Code of Standard Practice. Temporary support (bracing) system shall remain in place until the steel framing is complete and all connecting non-structural steel elements are complete.
- d) Contractor shall provide to the Steel Erector:
- i) sequence and schedule of placement of non-structural steel elements.
- ii) the loads imposed on the structural steel framing by partially or completely installed non-structural steel elements. items i) and ii) are the Erector's use in designing the temporary support system.
- e) Anchor rods and foundations have been designed for the loading conditions of the completed structure. In addition, the anchor rod assemblies have been designed for the 300 pound vertical eccentric load as required by OSHA Subpart R. Verification of adequacy of anchor rods and foundations to resist erection induced forces acting alone or in combination with the 300 pound eccentric load is solely the responsibility of the
- f) Temporary Support System shall be designed by and documents describing same shall be sealed by a professional engineer registered in the state of the project.
- 9. Unless shown specifically in these Contract Documents, Poly Engineering expects the Steel Erector to follow 1926.756(a)(1) and (b) without exception.

#### **ABBREVIATIONS** ABBREVIATIONS (CONTINUED)



Pound(s)

Pounds per Linear Foot

Pounds per Square Inch

Pounds per Square Foot

Kips per Linear Foot

Kips per Square Inch

Kips per Square Foot

Pounds per Cubic Foot

Kips per Cubic Foot

PLF

KLF

PSI

KSI

**KSF** 

**Headed Concrete Anchor** 

Hollow Structural Section

International Building Code

Load Resistance Factor Design

Miscellaneous Wide Flange

Miscellaneous Channel

Masonry Opening

M-Shape Tee

Long Leg Horizontal

Long Leg Vertical

Long Slotted

Maximum

Minimum

Hollow Metal

Horizontal

Bearing Pile

Handrail

Angle

НМ

LLV

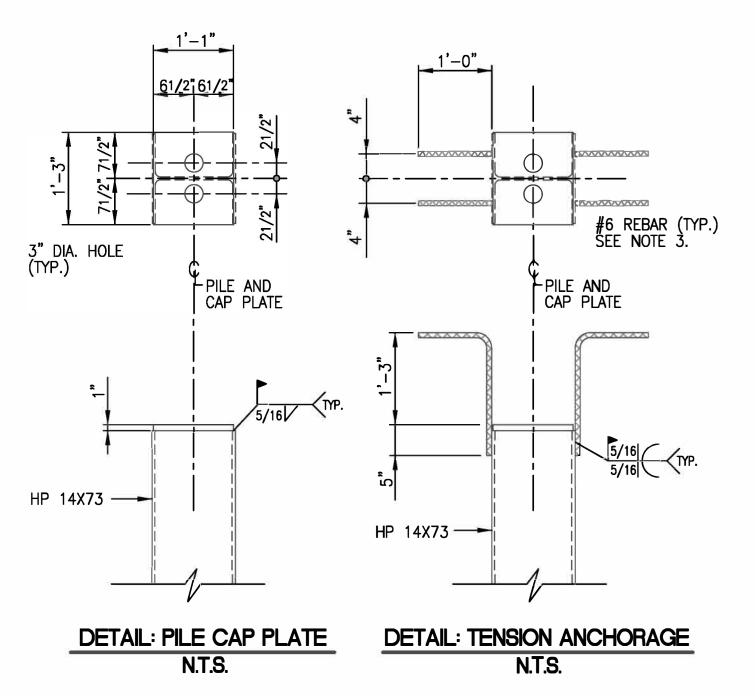
LSL

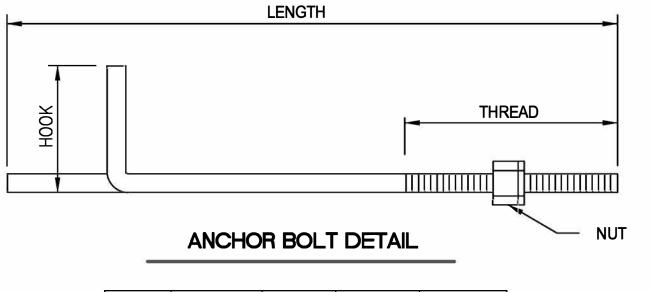
MAX

**HORIZ** 

#### 1. ALL H-PILES SHALL BE HP14X73 AND SHALL CONFORM TO ASTM 572, GRADE 50.

- 2. REBAR TENSION HOOKS SHALL BE ASTM A706 LOW-ALLOY, WELDABLE REBAR, GRADE 60.
- 3. FOR PILE CAPACITIES, SEE DRAWNINGS.
- 4. ALL PILES SHALL BE DRIVEN TO REFUSAL DEFINED AS EITHER 10 BLOWS PER INCH FOR 5 CONSECUTIVE INCHES OR AT 20 BLOWS PER INCH FOR ONE INCH
- 5. ALL PILES SHALL BE DRIVEN TO THE FOLLOWING TOLERANCES: LOCATION: 3" PRIOR TO DRIVING, 6" AFTER DRIVING PLUMB: 1" HORIZONTAL TO 10'-0" VERTICAL CUTOFF EL. (+/ ) 1"
- 6. ALL PILES SHALL HAVE PILE POINTS (DRMNG SHOES). PILE POINTS SHALL BE MODEL HP-77750-B AND INSTALLED AS PER MANUFACTURERS RECOMMENDATIONS.
- 7. PILE SPLICES SHALL BE MODEL HP-3000 AND INSTALLED AS PER MANUFACTURES RECOMMENSATIONS.

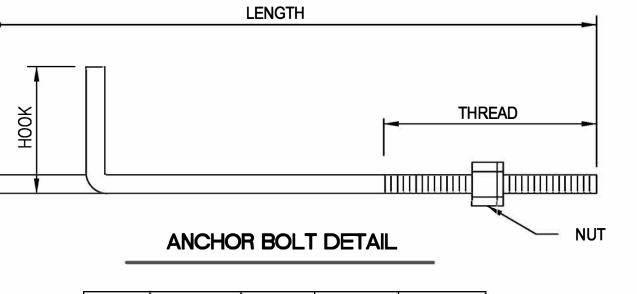




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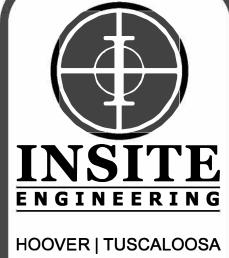
LENGTH

3/4"



HOOK

PROJ.



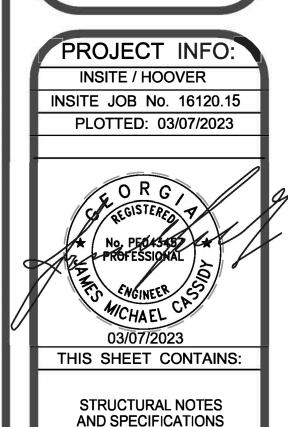
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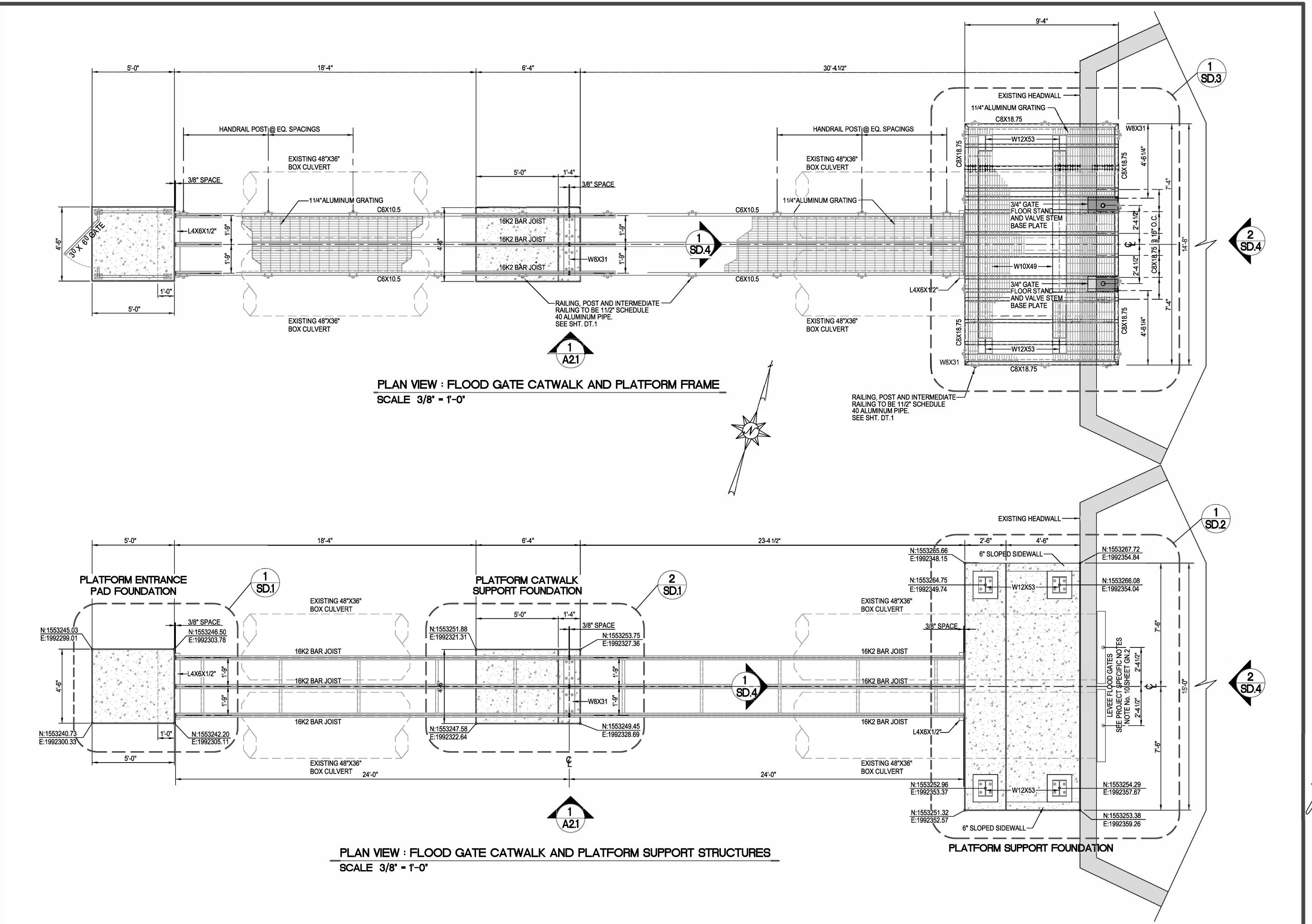
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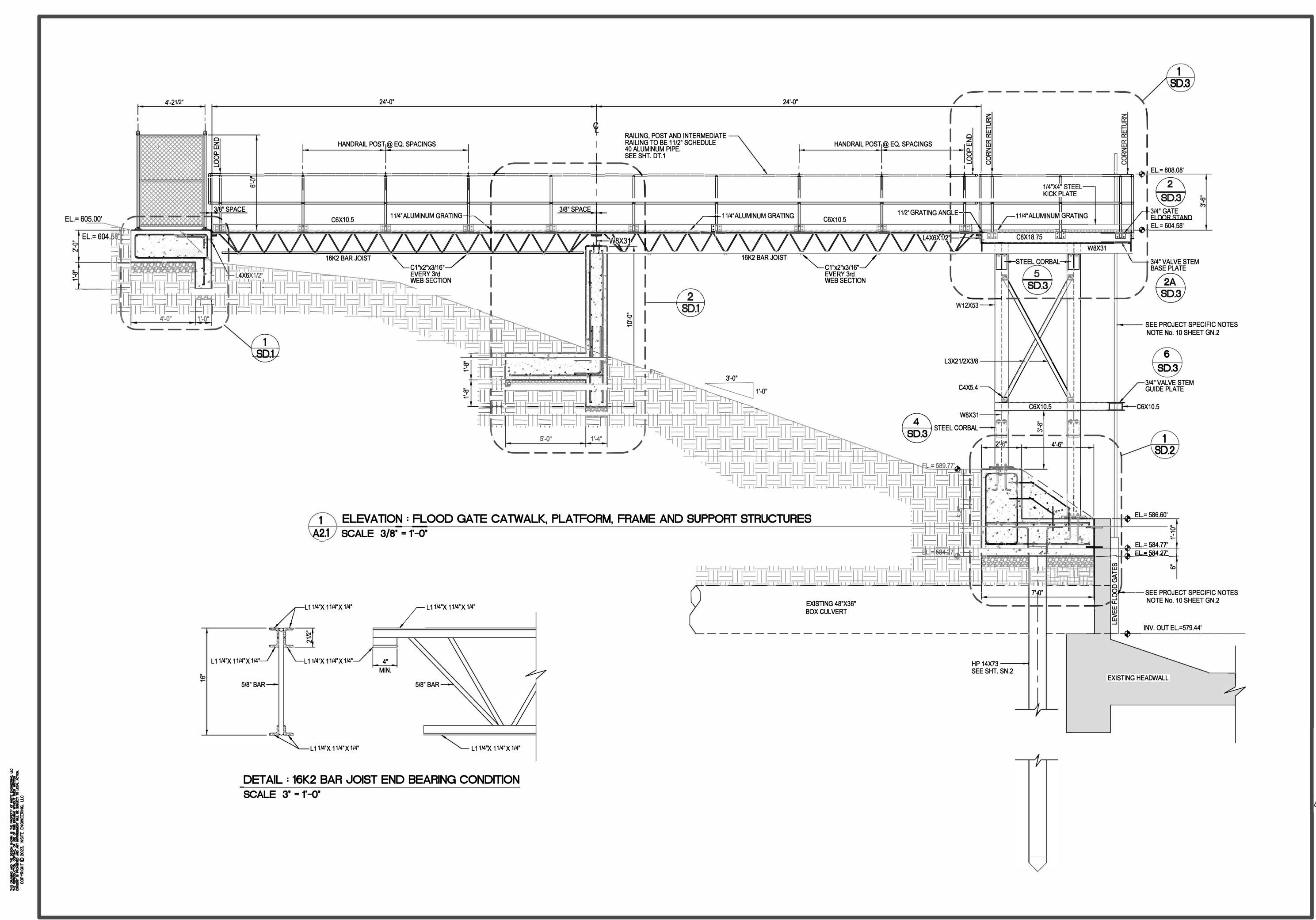
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PROJECT INFO: INSITE / HOOVER INSITE JOB No. 16120.15 PLOTTED: 03/07/2023 THIS SHEET CONTAINS: FLOOD GATE CATWALK AND PLATFORM FRAME

> SCALE: AS SHOWN SHEET 7 OF 14

AND SUPPORT STRUCTURES

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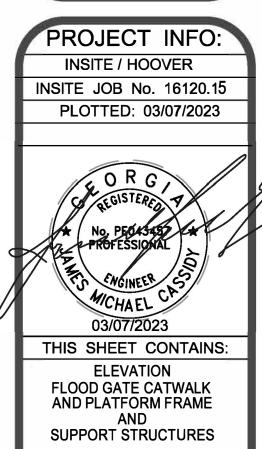


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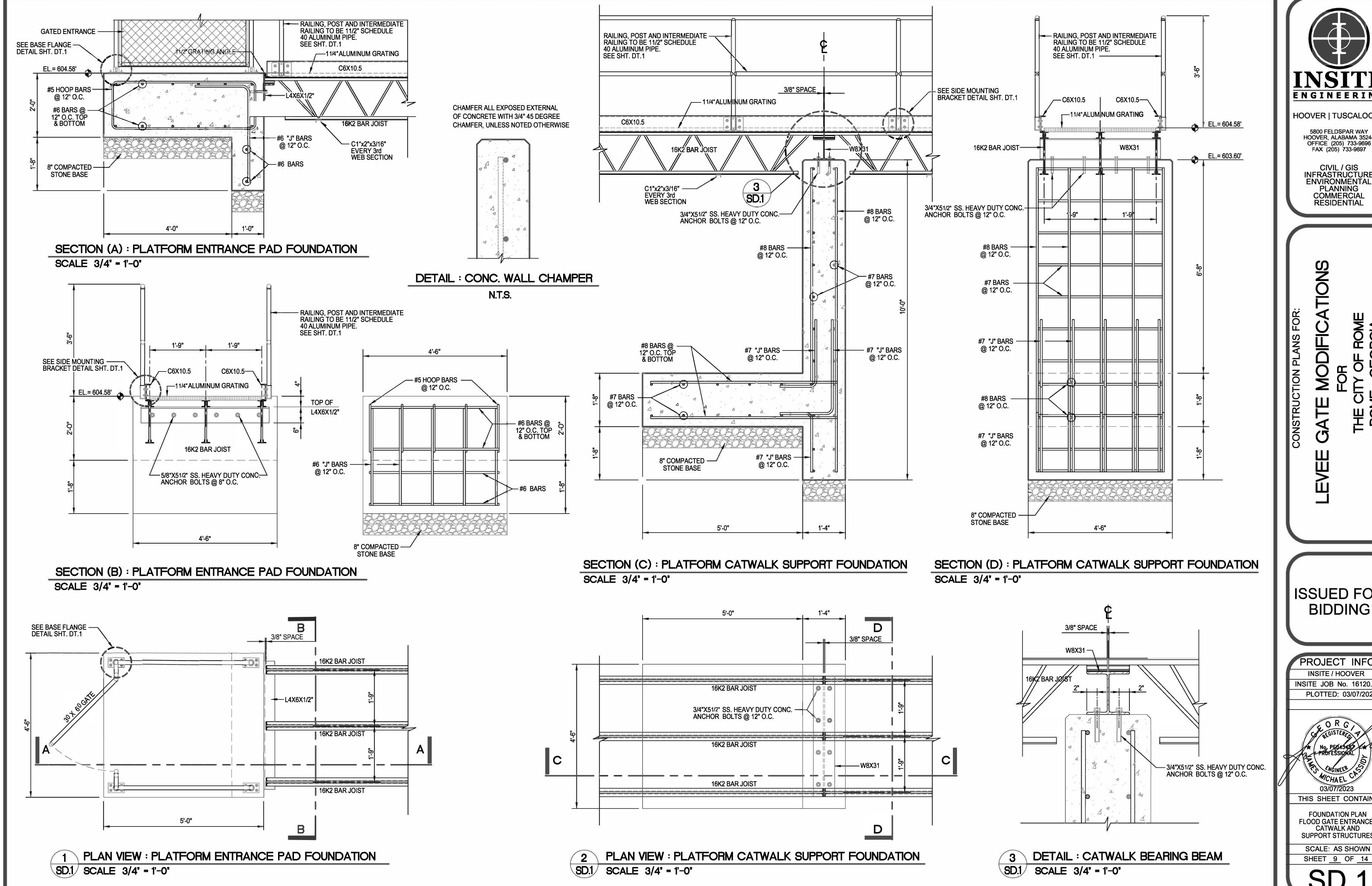
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SHEET 8 OF 14



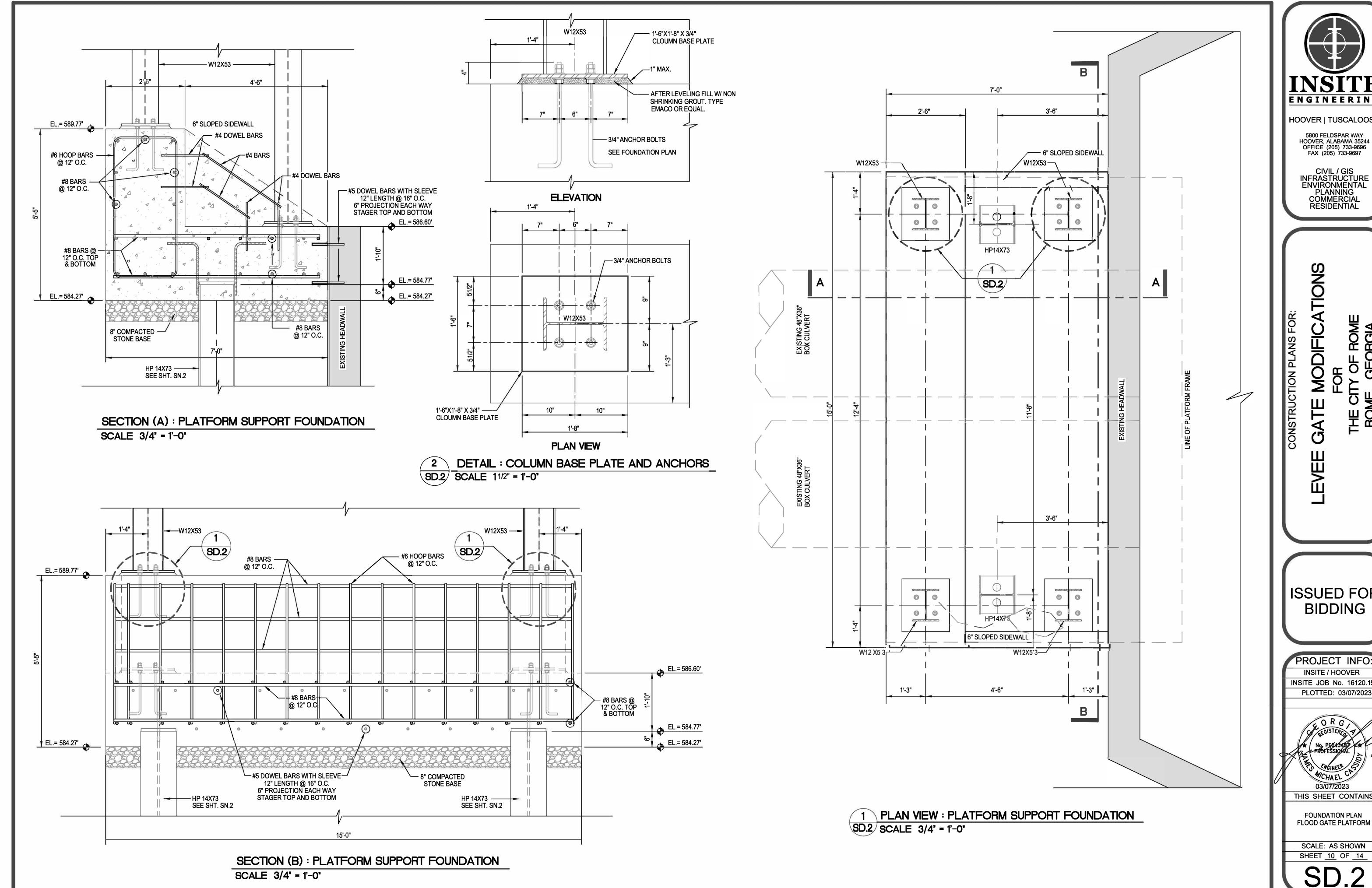
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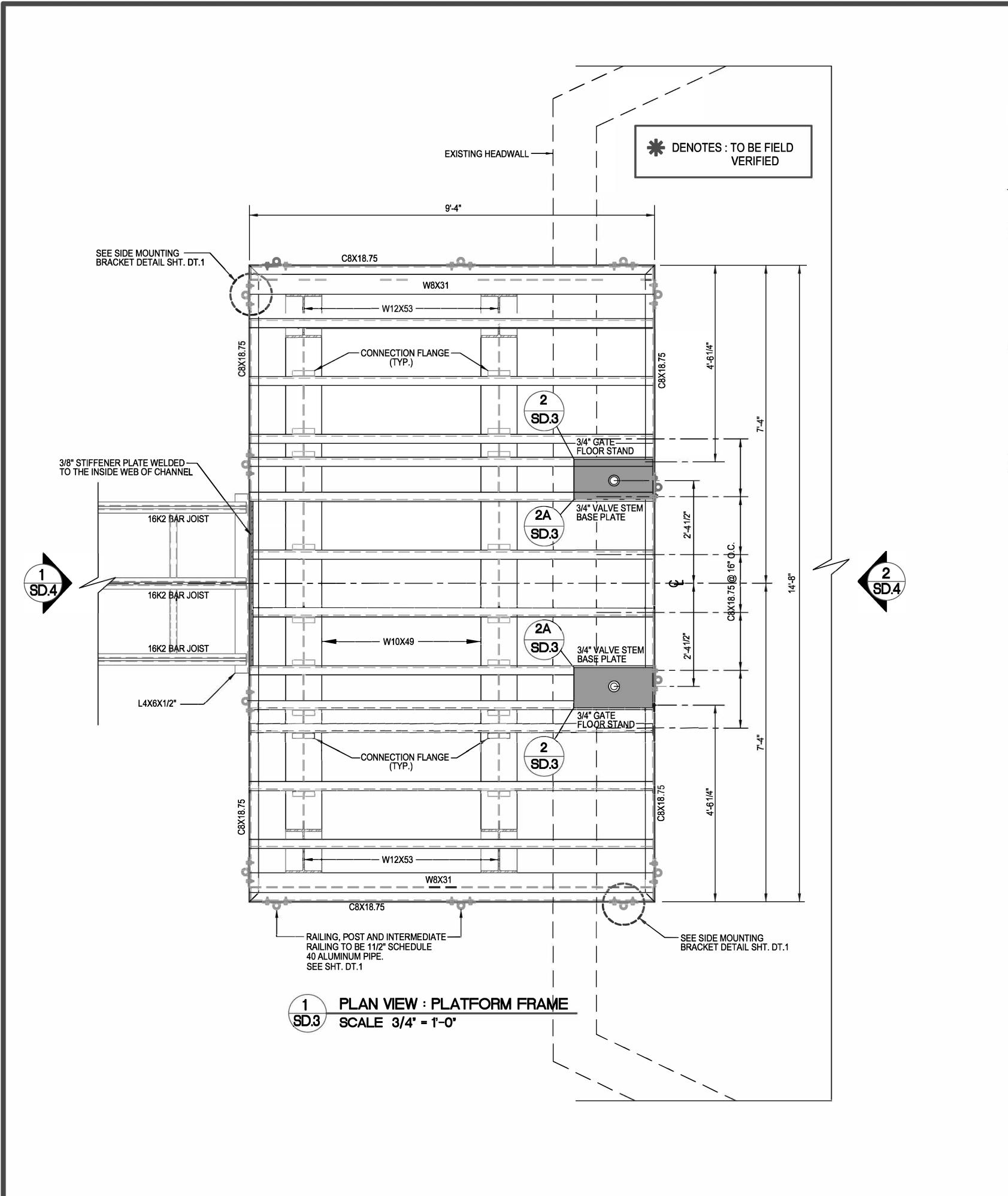
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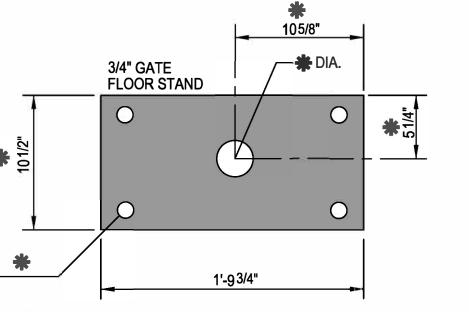
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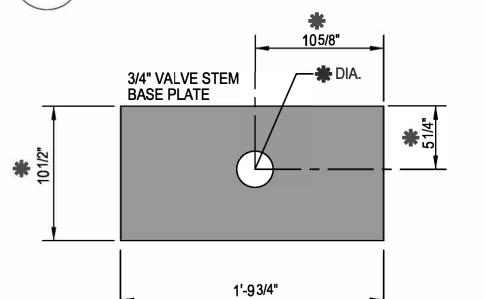
FOUNDATION PLAN FLOOD GATE PLATFORM

SCALE: AS SHOWN SHEET 10 OF 14

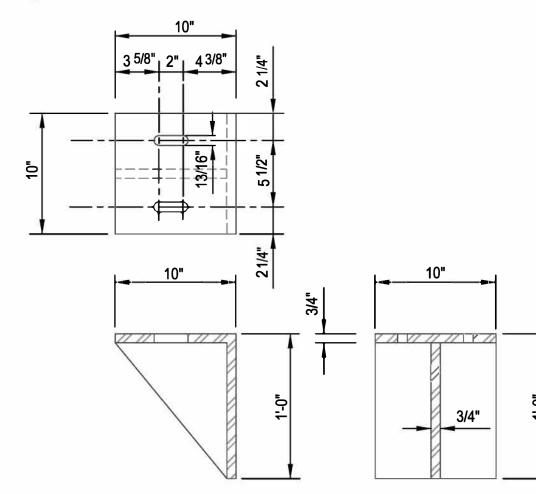




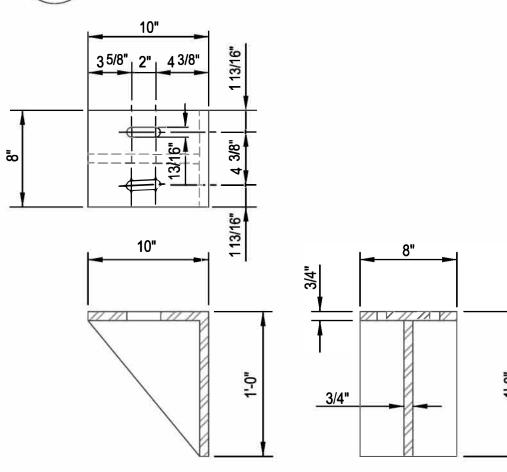
2 DETAIL : GATE FLOOR STAND SD.3 SCALE 11/2" = 1'-0"



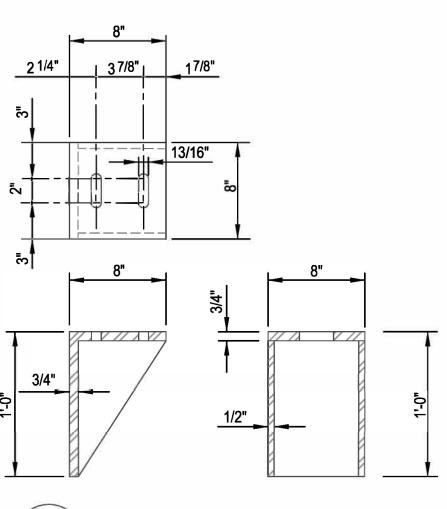
2A DETAIL : VALVE STEM BASE PLATE
SD.3 SCALE 11/2" = 1'-0"



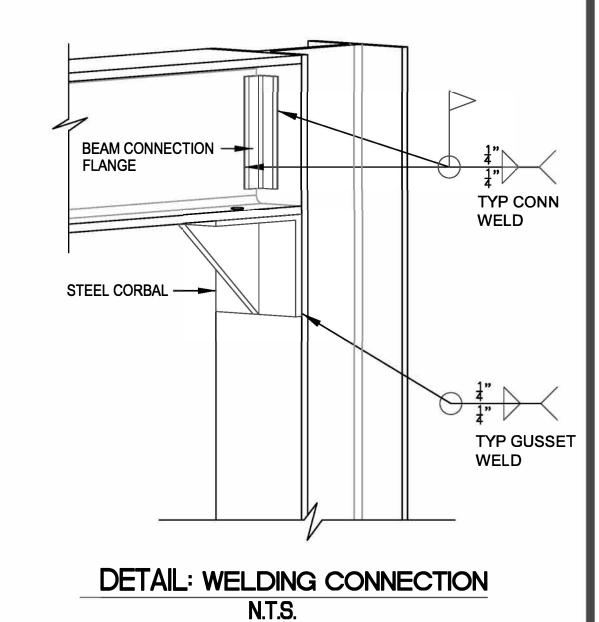
3 DETAIL : STEEL CORBAL SD.3 SCALE 11/2" = 1'-0"

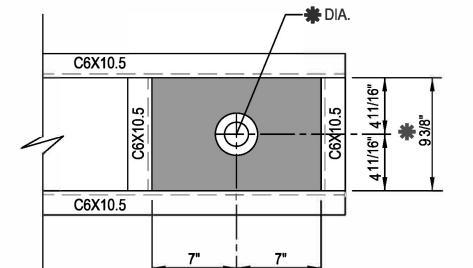


4 DETAIL : STEEL CORBAL SD.3 SCALE 11/2" = 1'-0"



5 DETAIL : STEEL CORBAL SD.3 SCALE 11/2" = 1'-0"





6 DETAIL : VALVE STEM GUIDE PLATE SD.3/ SCALE 11/2" = 1'-0'



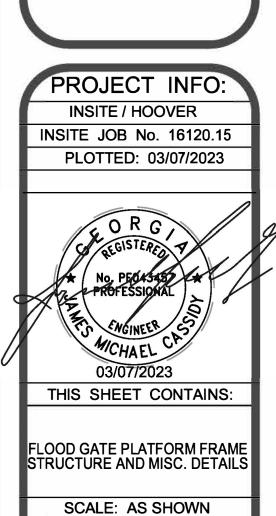
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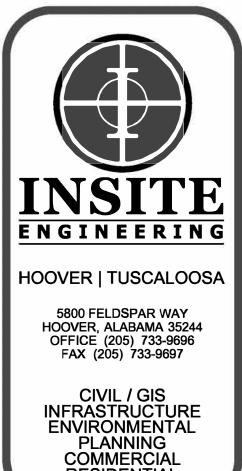
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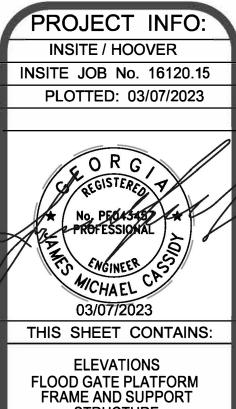
SHEET 11 OF 14
SD.3



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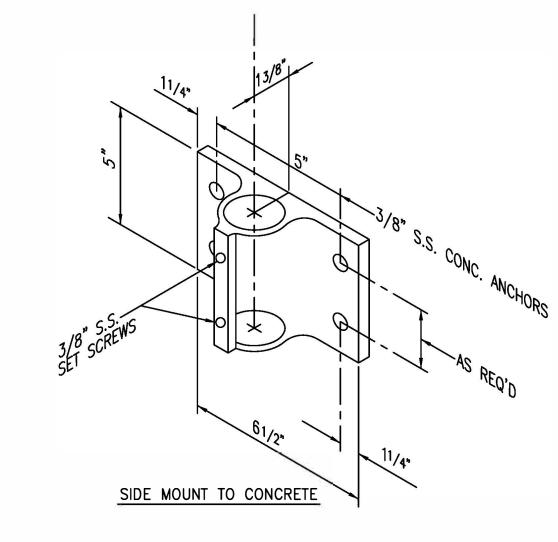


OOD GATE PLATFORM
FRAME AND SUPPORT
STRUCTURE

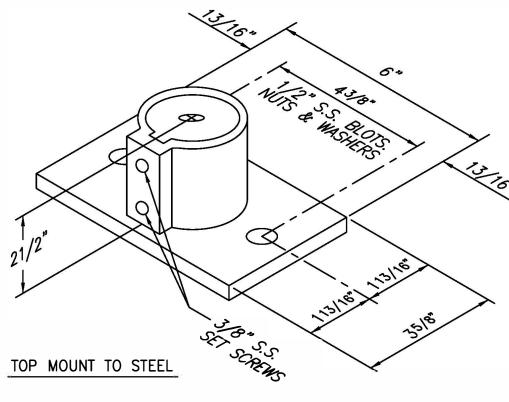
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SHEET 12 OF 14

SD.4

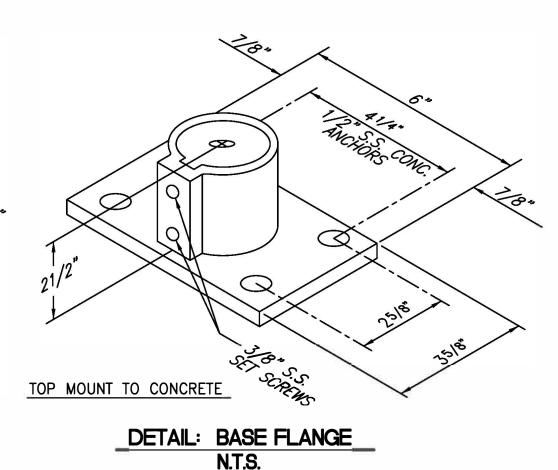


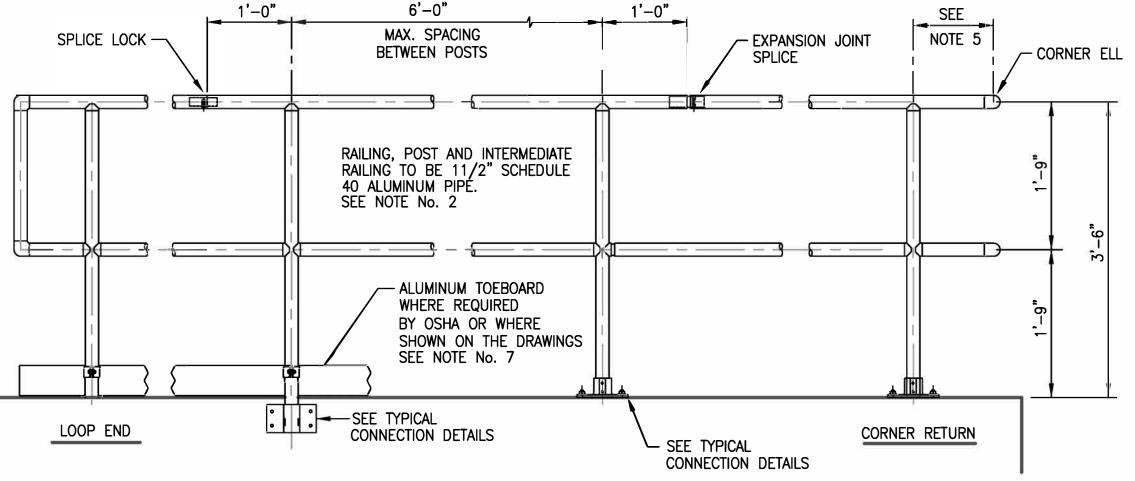


DETAIL: SIDE MOUNTED BRACKETS\_ N.T.S.



**DETAIL: BASE FLANGE** 





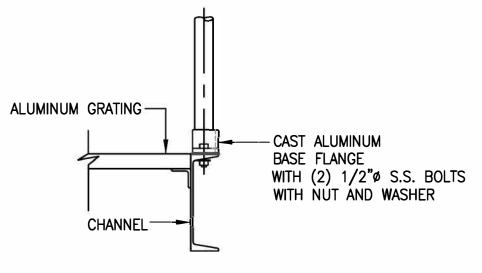
# DETAIL: GUARDRAIL OR SAFETY RAILING

GUARDRAILS SHALL BE TOP-MOUNTED OR SIDE-MOUNTED, AS SHOWN ON PLANS

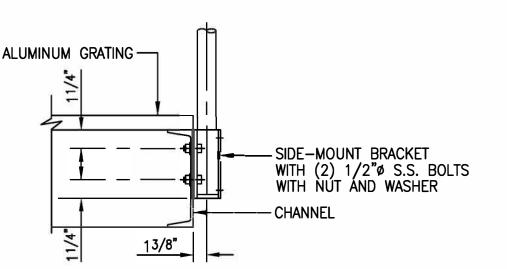
# **GUARDRAIL OR SAFETY RAILING**

- 1. The handrail shall be made of pipes joined together with component fittings. Samples of all components, bases, toe plate and pipe shall be submitted for approval at the request of the engineer. Components that are pop—riveted or glued at the joints will not be acceptable. All components must be mechanically fastened with stainless steel hardware.
- 2. Railings shall be 1 1/2" Schedule 40 aluminum pipe alloy 6105—T5, ASTM—B—429 or ASTM—B—221. Posts shall be 1 1/2" Schedule 40 aluminum pipe of the same alloy. Post spacing shall be a maximum of 6'—0".
- 3. Guardrails and Handrails shall be designed to withstand a 200 lb concentrated load applied in any direction and at any point on the top rail.
- 4. Posts shall not interrupt the continuation of the top rail at any point along the railing, including corners and end terminations (OSHA 1910.23). The top surface of the top railing shall be smooth and shall not be interrupted by projected fittings.
- 5. The mid—rail at a corner return shall be able to withstand a 200 lb load without loosening. The manufacturer is to determine this dimension for their system and provide physical laboratory tests to confirm compliance.
- 6. Concrete anchors shall be stainless steel type 303 or 304 and shall be furnished by the handrail manufacturer. The anchor design shall include the appropriate reduction factors for spacing and edge distances in accordance with the manufacturer's published data.
- 7. Toe plate shall conform to OSHA standards. Toe plate shall be a minimum of 4" high and shall be be an extrusion that attaches to the posts with clamps that will allow for expansion and contraction between posts. Toe plates shall be set 1/4" above the walking surface. Toe plates shall be provided on handrails as required by OSHA and/or as shown on drawings.
- 8. Openings in the railing shall be guarded by a self—closing gate (OSHA 1910.23). Safety chains shall not be used unless specifically shown on the drawings.
- 9. Finish shall be Aluminum Association M10-C22-A41 (215-R1). The pipe shall be plastic-wrapped. The plastic wrap is to be removed after erection.
- 10. Aluminum surfaces in contact with concrete, grout or dissimilar metals will be protected with a coat of bituminous paint, mylar isolators or other approved material.

#### \* Concrete anchor diameter, edge distances, embedment, as well as post spacings, to be determined upon anchor selection.



DETAIL: TOP MOUNT CONNECTION TO CHANNEL N.T.S.



DETAIL: SIDE MOUNT CONNECTION TO CHANNEL

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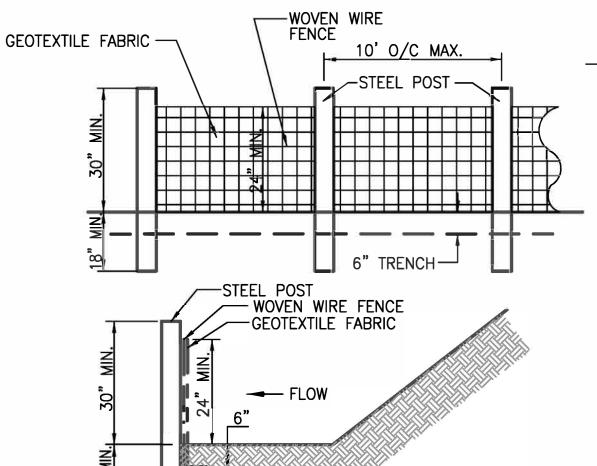
SCALE: AS SHOWN

SHEET <u>13</u> OF <u>14</u>

DETAIL AND SPECIFICATIONS SAFETY RAILING

#### CONSTRUCTION ENTRANCE NOTES:

- 1. A STABILIZED CONSTRUCTION ENTRANCE SHALL BE CONSTRUCTED AT LOCATION SHOWN ON PLANS OR AS APPROVED BY THE ENGINEER BASED ON SAFETY, ECONOMY AND CONSTRUCTION SEQUENCE. THESE ENTRANCES ARE POINTS OF EGRESS FROM UNSTABILIZED AREAS OF THE PROJECT TO PUBLIC ROADS WHERE OFF SITE TRACKING OF MUD COULD OCCUR. TRAFFIC FROM UNSTABILIZED AREAS OF THE PROJECT SHALL BE DIRECTED THROUGH THE STABILIZED ENTRANCE. BARRIERS, FLAGGING, OR OTHER POSITIVE MEANS SHALL BE USED AS REQUIRED TO LIMIT AND DIRECT VEHICULAR EGRESS ACROSS THE STABILIZED ENTRANCE.
- 2. THE CONTRACTOR MAY PROPOSE AN ALTERNATIVE TECHNIQUE TO MINIMIZE OFF SITE TRACKING OF SEDIMENT. THE ALTERNATIVE MUST BE REVIEWED AND APPROVED BY THE ENGINEER PRIOR TO ITS USE.
- 3. ALL MATERIALS SPILLED, DROPPED, OR TRACKED ONTO PUBLIC ROADS (INCLUDING THE STABILIZED CONSTRUCTION ENTRANCE AGGREGATE AND CONSTRUCTION MUD) SHALL BE REMOVED DAILY OR MORE FREQUENTLY IF SO DIRECTED BY THE ENGINEER.
- 4. AGGREGATES SHALL BE ALDOT SIZE #1. SIZES CONTAINING EXCESSIVE SMALL AGGREGATE WILL TRACK OFF THE PROJECT AND ARE UNSUITABLE.
- 5. THE STABILIZED CONSTRUCTION ENTRANCE SHALL BE MAINTAINED IN A CONDITION THAT WILL ALLOW IT TO PERFORM ITS FUNCTION TO PREVENT OFF SITE TRACKING. THE STABILIZED CONSTRUCTION ENTRANCE SHALL BE RINSED WHEN NECESSARY TO MOVE ACCUMULATED MUD DOWNWARD THROUGH THE STONE. ADDITIONAL STABILIZATION OF THE VEHICULAR ROUTE LEADING TO THE STABILIZED ENTRANCE MAY BE REQUIRED TO LIMIT THE MUD TRACKED.
- 6. THE NOMINAL SIZE OF A STANDARD STABILIZED CONSTRUCTION ENTRANCE IS 20'X50' UNLESS OTHERWISE SHOWN IN THE PLANS. IF THE VOLUME OF ENTERING AND EXITING VEHICLES WARRANT, A 30' WIDTH MAY BE USED IF APPROVED BY THE ENGINEER.



SEDIMENT SHALL BE REMOVED ONCE IT HAS ACCUMULATED TO ONE-HALF THE ORIGINAL

HEIGHT OF THE BARRIER. FILTER FABRIC SHALL BE REPLACED WHENEVER IT HAS

DETERIORATED TO SUCH AN EXTENT THAT THE EFFECTIVENESS OF THE FABRIC IS

(APPROXIMATELY SIX MONTHS). TEMPORARY SEDIMENT BARRIERS SHALL REMAIN IN

ACCUMULATED AT THE BARRIER SHALL BE REMOVED AND PROPERLY DISPOSED OF BEFORE THE BARRIER IS REMOVED.

TYPE A SILT FENCE

NTS.

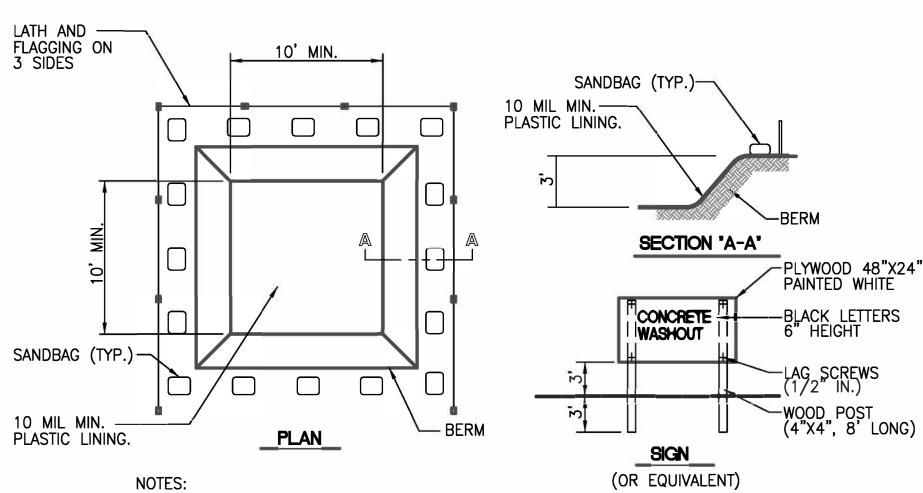
PLACE UNTIL DISTURBED AREÁS HAVE BEEN PERMANENTLY STABILIZED. ALL SEDIMENT

SILT FENCE

THE MANUFACTURER SHALL HAVE EITHER AN APPROVED COLOR MARK YARN IN THE FABRIC OR LABEL THE FABRICATED SILT FENCE WITH BOTH THE MANUFACTURER AND FABRIC NAME EVERY 100 FEET.

THE TEMPORARY SILT FENCE SHALL BE INSTALLED ACCORDING TO THIS SPECIFICATION, AS SHOWN ON THE PLANS OR AS DIRECTED BY THE ENGINEER. FOR INSTALLATION OF THE FABRIC, SEE DETAIL.

POST INSTALLATION SHALL START AT THE CENTER OF THE LOW POINT (IF APPLICABLE) WITH THE REMAINING POSTS SPACED MINIMUM 4' FEET, MAXIMUM 10' FEET APART FOR TYPE A SILT FENCE. ONLY STEEL POST SHALL BE USED WITH TYPE A SILT FENCE. POST SHALL BE 4' IN LENGTH, 1.3 LBS/FT.



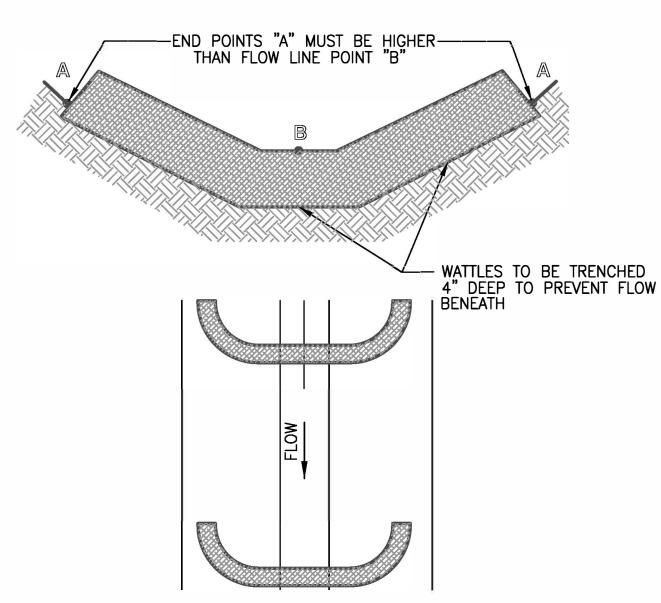
1. ACTUAL LAYOUT DETERMINED IN THE FIELD.

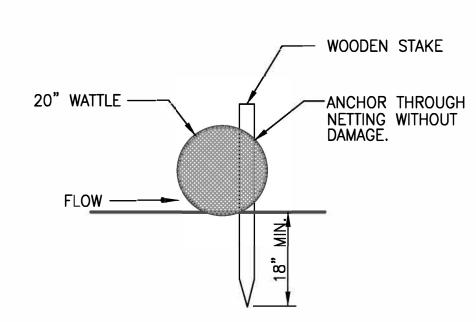
#### WASHOUT REMOVAL:

- WHEN TEMPORARY CONCRETE WASHOUT FACILITIES ARE NO LONGER REQUIRED FOR THE WORK, THE HARDENED CONCRETE, SLURRIES AND LIQUIDS SHALL BE REMOVED AND PROPERLY DISPOSED OF.
- 2. MATERIALS USED TO CONSTRUCT TEMPORARY CONCRETE WASHOUT FACILITIES SHALL BE REMOVED FROM THE SITE OF THE WORK AND DISPOSED OF OR RECYCLED.
- 3. HOLES, DEPRESSIONS OR OTHER GROUND DISTURBANCE CAUSED BY THE REMOVAL OF THE TEMPORARY CONCRETE WASHOUT FACILITIES SHALL BE BACKFILLED, REPAIRED, AND STABILIZED TO PREVENT EROSION.

BELOW GRADE CONCRETE WASHOUT DETAIL\_
NTS.

# TEMPORARY CONSTRUCTION EXIT PAD DETAIL





MAINTENANCE

# WATTLE NOTE:

- 1. ANCHOR STAKES SHALL BE SIZED, SPACED, AND BE OF A MATERIAL THAT EFFECTIVELY ANCHORS THE WATTLE. STAKE SPACING SHALL BE A MAXIMUM OF 3'.
- 2. ANCHOR STAKES THROUGH NETTING WITHOUT DAMAGE.
- 3. OVERLAP ENDS OF WATTLES PER MANUFACTURER'S RECOMMENDATIONS (1' MIN., 3' MAX.)
- 4. TRENCHING OF WATTLES MAY BE NECESSARY IF PIPING BECOMES EVIDENT.

# STRAW WATTLE INLET PROTECTION DETAIL\_

MULCHING MATERIALS AND APPLICATION RATES					
MATERIAL	RATE PER ACRE AND (PER 1000 SQ. FT.)	NOTES			
STRAW WITH SEED		SPREAD BY HAND OR MACHINE TO ATTAIN 75% GROUNDCOVER; ANCHOR WHEN SUBJECT TO BLOWING.			
STRAW ALONE	21/2-3 TONS (115 LBS-160 LBS)	SPREAD BY HAND OR MACHINE; ANCHOR WHEN SUBJECT TO BLOWING.			
WOOD CHIPS	5-6 TONS (225 LBS-270 LBS)	TREAT WITH 12 LBS. NITROGEN/TON.			
BARK	35 CUBIC YARDS (0.8 CUBIC YARDS)	CAN APPLY WITH MULCH BLOWER.			
PINE STRAW	1-2 TONS (45 LBS-90 LBS)	SPREAD BY HAND OR MACHINE; WILL NOT BLOW LIKE STRAW.			
PEANUT HULLS	10-20 TONS (450 LBS-900 LBS)	WILL WASH OFF SLOPES, TREAT WITH 12 LBS. NITROGEN/TON.			
EMULSIFIED ASPHALT (MULCH BINDER)	500 GALLONS (10 GALLONS)	MUST NOT BE USED IF SIGNIFICANT PRECIPITATION IS PREDICTED WITHIN THE OPTIMUM CURING TIME FOR THE SPEDIFIED EMULSION. HEAVER APPLICATIONS WILL CAUSE STRAW TO BRIDGE OVER RILLS,			

# MUCHING NOTED:

- BEFORE MULCHING, COMPLETE THE REQUIRED GRADING AS NEEDED, SEEDBED PREPARATION AND FERTILIZING, LIMING AND SEEDING (IF A PLANTING IS BEING MADE BY MEANS OTHER THAN HYDROSEEDING).
- 2. UNIFORMLY SPREAD ORGANIC MULCHES BY HAND OR WITH A MULCH BLOWER AT A RATE WHICH PROVIDES ABOUT 75% GROUND COVER. WHEN SPREADING STRAW MULCH BY HAND, DIVIDE THE AREA TO BE MULCHED INTO SECTIONS OF APPROXIMATELY 1000 SQ. FT. AND PLACE 70-90 POUNDS OF STRAW (11/2 TO 2 BALES) IN EACH SECTION TO FACILITATE UNIFORM DISTRIBUTION.
- 3. WHEN STRAW MULCH IS SUBJECT TO BE BLOWN AWAY BY WIND, IT MUST BE ANCHORED IMMEDIATELY AFTER SPREADING. IT CAN BE ANCHORED WITH A MULCH ANCHORING TOOL, A REGULAR FARM DISK, COMMERCIAL TACKIFIER THROUGH A HYDROSEEDER, OR LIQUID MULCH BINDERS.
- 4. APPLICATIONS OF LIQUID MULCH BINDERS AND TACKIFIERS SHOULD BE HEAVIEST AT THE EDGES OF AREAS AND AT CREST OF RIDGES AND BANKS, TO RESIST WIND. BINDERS MAY BE APPLIED AFTER MULCH IS SPREAD OR MAY BE SPRAYED INTO THE MULCH AS IT IS BEING BLOWN ONTO THE SOIL.
- 5. STRAW MULCH MAY ALSO BE ANCHORED WITH LIGHTWEIGHT PLASTIC, COTTON, JUTE, WIRE OR PAPER NETTING WHICH IS STAPLED OVER THE MULCH. THE MANUFACTURER'S RECOMMENDATIONS ON STAPLING NETTING SHOULD BE FOLLOWED.

MULCHING

COMMONLY USED PLANTS FOR TEMPORARY COVER						
SDECIES	SEEDING	SEEDING DATES				
SPECIES	RATE/AC PLS	NORTH	CENTRAL	SOUTH		
MILLET, BROWN TOP OR GERMAN	40 LBS	MAY 1-AUG 1	APR 1- AUG 15	APR 1- AUG 15		
RYE	3 BU	SEPT 1-NOV 15	SEPT 15-NOV 15	SEPT 15-NOV 15		
RYE GRASS	30 LBS	AUG 1-SEPT 15	SEPT 1- OCT 15	SEPT 1- OCT 15		
SORGHUM-SUDAN HYBRIDS	40 LBS	MAY 1-AUG1	APR 15-AUG 1	APR 15-AUG 15		
SUDANGRASS	40 LBS	MAY 1-AUG 1	APR 15-AUG 1	APR 15-AUG 15		
WHEAT	3 BU	SEPT 1-NOV 1	SEPT 15-NOV 15	SEPT 15-NOV 15		
COMMON BERMUDAGRASS	10 LBS	APR 1-JULY 1	MAR 15-JULY 15	MAR 15-JULY 15		
CRIMSON CLOVER	10 LBS	SEPT 1-NOV 1	SEPT 1-NOV 1	SEPT 1-NOV 1		

# SEEDING NOTES:

- 1. COMPLETE GRADING AND SHAPING BEFORE APPLYING NEEDED SOIL AMENDMENTS TO
- PROVIDE A SURFACE ON WHICH EQUIPMENT CAN SAFELY AND EFFICIENTLY BE USED.

  2. APPLY LIME ACCORDING TO SOIL TEST RECOMMENDATIONS. IF A SOIL TEST IS NOT AVAILABLE, USE 1 TON OF AGRICULTURAL LIMESTONE OR EQUIVALENT PER ACRE ON COARSE TEXTURED SOILS AND 2 TONS PER ACRE ON FINE TEXTURED SOILS. DO NOT APPLY LIME TO ALKALINE SOILS OR TO AREAS WHICH HAVE BEEN LIMED DURING THE PRECEDING 2 YEARS.
- 3. APPLY FERTILIZER ACCORDING TO SOIL TEST RESULTS. IF A SOIL TEST IS NOT AVAILABLE, APPLY 8-24-24 FERTILIZER.
- 4. WHEN VEGETATION HAS EMERGED TO A STAND AND IS GROWING, 30 TO 40 LBS/ACRE (APPROXIMATELY 0.8 LBS/1000 SQ. FT.) OF ADDITIONAL NITROGEN FERTILIZER SHOULD BE APPLIED
- 5. INCORPORATE LIME AND FERTILIZER INTO THE TOP 6" OF SOIL DURING SEEDBED PREPARATION
- 6. THE SEEDBED IS TO BE WELL PULVERIZED, LOOSE, AND SMOOTH. IF SOILS BECOME COMPACTED DURING GRADING, LOOSEN THEM TO A DEPTH OF 6" TO 8" USING A RIPPER OR CHISEL PLOW.
- 7. IF RAINFALL HAS CAUSED THE SURFACE TO BECOME SEALED OR CRUSTED. LOOSEN IT JUST PRIOR TO SEEDING BY DISKING, RAKING, HARROWING, OR OTHER SUITABLE METHODS. WHEN HYDROSEEDING METHODS ARE USED, THE SURFACE SHOULD BE LEFT WITH A MORE IRREGULAR SURFACE OF CLODS.

TEMPORARY SEEDING

INSITE ENGINEERING
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5800 FELDSPAR WAY

HOOVER, ALABAMA 35244
OFFICE (205) 733-9696
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CIVIL / GIS
INFRASTRUCTURE
ENVIRONMENTAL

**PLANNING** 

COMMERCIAL

RESIDENTIAL

MODIFICATIONS
FOR
TY OF ROME
GEORGIA

ISSUED FOR BIDDING

PROJECT INFO:
INSITE / HOOVER
INSITE JOB No. 16120.15
PLOTTED: 03/07/2023

No. PECASASSO AN PROFESSIONAL CAGINEER CONCERNICHAEL CAST

03/07/2023 THIS SHEET CONTAINS:

EROSION CONTROL MATERIALS, NOTES AND APPLICATIONS

SCALE: AS SHOWN
SHEET 14 OF 14

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