

**MAP LABELS**

**DETENTION:** THE DEVELOPMENT OF THE PROPOSED RAILWAY INFRASTRUCTURE COULD INCREASE STORMWATER RUNOFF PEAK FLOWS AND TOTAL RUNOFF VOLUMES. AS SUCH, DETENTION MITIGATION MAY BE REQUIRED AND HAS BEEN INCLUDED IN THE LOD TO ENSURE DETENTION MITIGATION CAN BE PROVIDED AS NECESSARY TO MINIMIZE ADVERSE IMPACTS TO DOWNSTREAM RECEIVING STREAMS AND PROPERTIES.

**RAIL SYSTEMS SITES:** AREAS THAT WILL INCLUDE TRACTION POWER SUBSTATION, SIGNALING AND COMMUNICATIONS FACILITIES.

**CULVERT:** CULVERTS BELOW THE HSR WERE SPECIFIED IN A VARIETY OF LOCATIONS WHERE THE ALIGNMENT WILL BE AT-GRADE OR ON EMBANKMENT, PRINCIPALLY AT STREAMS OR WHERE PROPOSED LONGITUDINAL DRAINAGE SWALES WILL NEED TO CROSS THE HSR LINE. TYPICALLY, CULVERTS WILL BE REINFORCED CONCRETE BOXES OR OPEN-BOTTOM CULVERTS. FLOW DEPTHS WERE ESTIMATED DURING CONCEPTUAL ENGINEERING TO ESTIMATE CULVERT SIZES AT EACH LOCATION. CULVERTS MAY BE USED IN CONJUNCTION WITH WILDLIFE CROSSINGS.

**MAINTENANCE OF WAY FACILITY:** THE MOW FACILITIES ARE REQUIRED TO STORE AND SERVICE THE EQUIPMENT REQUIRED FOR ROUTINE INSPECTIONS AND MAINTENANCE OF THE SYSTEM.

**TEMPORARY CONSTRUCTION AREA:** ACTIVITIES ASSOCIATED WITH THIS TYPE OF AREA INCLUDE ROW CLEARING AND GRUBBING, TEMPORARY CONSTRUCTION ACCESS, FILLS AND DEWATERING, STAGING OF CONSTRUCTION EQUIPMENT, AND TEMPORARY EROSION CONTROL BMPs.

**SEGMENT ABBREVIATIONS**

DT – DALLAS TERMINAL SEGMENT  
 DS – DALLAS SEGMENT  
 EW – ELLIS WEST SEGMENT  
 NW – NAVARRO WEST SEGMENT  
 WT – WEST OF TEAGUE SEGMENT  
 HN – HOUSTON SEGMENT  
 HN2 – HOUSTON SEGMENT IN CENTRAL STATE PLANE ZONE  
 HN1 – HOUSTON SEGMENT IN SOUTH CENTRAL STATE PLANE ZONE  
 HT2 – HOUSTON TERMINAL SEGMENT

**DETAILS/NOTES**

DETAIL DRAWINGS ARE INTENDED FOR VISUALIZATION PURPOSES TO DEPICT HOW CONSTRUCTION OF THE RAIL AND ASSOCIATED FACILITIES WILL IMPACT WOTUS. DETAILS ARE NOT INTENDED FOR CONSTRUCTION AND ARE SUBJECT TO CHANGE BY THE DESIGN BUILD CONTRACTOR, UTILITY, TEMPORARY CONSTRUCTION, AND CONSTRUCTION ALLOWANCE IMPACTS DO NOT HAVE A CORRESPONDING DETAIL. SEE DESCRIPTIONS BELOW AND REFER TO DETAIL SHEETS IN PUBLIC NOTICE MATERIALS AND ATTACHMENT B.

**DETAIL 1:** APPLIES TO LOCATIONS WHERE A NON-VIADUCT SECTION OF THE RAIL CROSSES A STREAM OR DITCH. FLOWS WILL BE CONVEYED UNDER THE RAIL VIA BOX CULVERTS. THE CULVERTS WILL BE CONSTRUCTED WITHIN THE STREAM OR DITCH OR THE STREAM WILL BE FILLED IN AND FLOWS REROUTED. FILL MATERIALS WILL INCLUDE BUT ARE NOT LIMITED TO CONCRETE, RIP RAP, OR EARTHEN MATERIAL.

**DETAILS 2 AND 3:** APPLIES TO LOCATIONS WHERE A NON-VIADUCT SECTION OF THE RAIL CROSSES AN EXISTING WETLAND OR POND. TO ACCOMMODATE CONSTRUCTION, THE WETLAND OR POND WILL TYPICALLY BE FILLED IN AND THE RAIL WILL BE CONSTRUCTED ON TOP OF THE FILL MATERIAL. FILL MATERIALS INCLUDE BUT ARE NOT LIMITED TO EARTHEN, CONCRETE, RIP RAP, AND RAIL BALLAST MATERIAL.

**DETAIL 4:** APPLIES TO LOCATIONS WHERE A VIADUCT SECTION OF THE RAIL CROSSES A STREAM OR DITCH.

**DETAIL 5:** APPLIES TO LOCATIONS WHERE A VIADUCT SECTION OF THE RAIL CROSSES AN EMERGENT WETLAND. PRECONSTRUCTION CONTOURS WILL BE RESTORED WITH THE EXCEPTION OF TIGHTLY SEALED CONCRETE FORMS FOR PIER COLUMNS AND FOUNDATIONS.

**DETAIL 6:** APPLIES TO LOCATIONS WHERE A VIADUCT SECTION OF THE RAIL CROSSES A POND.

**DETAIL 7:** APPLIES TO LOCATIONS WHERE A VIADUCT SECTION OF THE RAIL CROSSES A SCRUB/SHRUB OR FORESTED WETLAND. PRECONSTRUCTION CONTOURS WILL BE RESTORED WITH THE EXCEPTION OF TIGHTLYSEALED CONCRETE FORMS FOR PIER COLUMNS AND FOUNDATIONS.

**DETAIL 8:** APPLIES TO LOCATIONS WHERE AN ACCESS ROAD CROSSES A STREAM OR DITCH. ACCESS ROAD CROSSINGS WILL TYPICALLY BE CONSTRUCTED WITH BOX CULVERTS WITHIN THE STREAM OR DITCH OR THE STREAM WILL BE FILLED IN AND FLOWS REROUTED. FILL MATERIALS INCLUDE BUT ARE NOT LIMITED TO CONCRETE, RIP RAP, OR EARTHEN MATERIAL.

**DETAILS 9 AND 10:** APPLIES TO LOCATIONS WHERE AN ACCESS ROAD CROSSES A WETLAND OR POND. TO ACCOMMODATE CONSTRUCTION OF THE ROAD, THE WETLAND OR POND WILL TYPICALLY BE FILLED IN AND THE ACCESS ROAD WILL BE CONSTRUCTED ON TOP OF THE FILL MATERIAL. FILL MATERIALS INCLUDE BUT ARE NOT LIMITED TO CONCRETE, RIP RAP, AND EARTHEN MATERIAL. CULVERTS IN THESE LOCATIONS WILL BE CONSTRUCTED WHEN NECESSARY.

**DETAILS 11, 12, AND 13:** APPLIES TO LOCATIONS WHERE A DETENTION BASIN OVERLAPS WITH A STREAM, WETLAND, OR POND. GRADING OF THE DETENTION BASIN WILL RESULT IN FILL TO BE PLACED IN THE WOTUS. FILL MATERIALS INCLUDE BUT ARE NOT LIMITED TO CONCRETE, RIP RAP, AND EARTHEN MATERIALS.

**DETAILS 14 AND 15:** PERMANENT FILL IN STREAMS AND WETLANDS TO INSTALL FOOTINGS FOR STRUCTURES AND BUILDING FOUNDATIONS ASSOCIATED WITH FACILITIES. NOT FULLY DESIGNED OR CONFIGURED BY THE CONTRACTOR.

**DETAIL 16:** PERMANENT FILL IN PONDS TO INSTALL FOOTINGS FOR STRUCTURES AND BUILDING FOUNDATIONS ASSOCIATED WITH FACILITIES. NOT FULLY DESIGNED OR CONFIGURED BY THE CONTRACTOR.

**DETAIL 17:** APPLIES TO LOCATIONS WHERE AN EXISTING STREAM WILL BE CHANNELIZED BY FILLING AND REPLACING THE EXISTING STREAM WITH A TRAPEZOIDAL CHANNEL WITHIN THE LOD.

**DETAIL 18:** APPLIES TO LOCATIONS WHERE A NON-VIADUCT CROSSING OF A STREAM OR DITCH WILL BE CONSTRUCTED WITH AN OPEN-BOTTOM CULVERT. ALSO APPLIES WHERE WILDLIFE CROSSINGS WILL BE CO-LOCATED WITH STREAM OR DRAINAGE CROSSINGS. FLOWS WILL BE CONVEYED UNDER THE RAIL VIA OPEN-BOTTOM CULVERTS OR THE STREAM WILL BE FILLED IN AND FLOWS REROUTED. FILL MATERIALS WILL INCLUDE BUT ARE NOT LIMITED TO CONCRETE, RIP RAP, OR EARTHEN MATERIAL.

**DETAIL 19:** APPLIES TO LOCATIONS WHERE AN ACCESS ROAD CROSSES A STREAM OR DITCH ALONGSIDE A NON-VIADUCT SECTION OF RAIL CROSSING A STREAM OR DITCH WITH AN OPEN-BOTTOM CULVERT. FILL MATERIALS WILL INCLUDE BUT ARE NOT LIMITED TO CONCRETE, RIP RAP, OR EARTHEN MATERIAL.

**DETAIL 20:** APPLIES TO LOCATIONS WHERE A MOW PATH CROSSES A STREAM OR DITCH. MOW PATHS ARE LOCATED WITHIN THE 10 FOOT TEMPORARY CONSTRUCTION ALLOWANCE OF THE CIVIL RAIL LOD.

**DETAIL 21:** APPLIES TO LOCATIONS WHERE A MOW PATH CROSSES AN EXISTING WETLAND. MOW PATHS ARE LOCATED WITHIN THE 10 FOOT TEMPORARY CONSTRUCTION ALLOWANCE OF THE CIVIL RAIL LOD. SCRUB/SHRUB AND FORESTED WETLANDS WILL BE CONVERTED TO EMERGENT WETLANDS AND VEGETATION WILL BE MAINTAINED PERIODICALLY.

**IMPACTS**

**PERMANENT IMPACT:** PRE-CONSTRUCTION CONTOURS WILL NOT BE RESTORED DUE TO THE PLACEMENT OF PERMANENT FILL MATERIAL.

**TEMPORARY IMPACT:** CONSTRUCTION IMPACTS WILL TEMPORARILY ALTER PRE-CONSTRUCTION CONTOURS; HOWEVER, CONTOURS WILL BE RESTORED AND ALL TEMPORARY FILLS WILL BE REMOVED IN THEIR ENTIRETY AFTER CONSTRUCTION ACTIVITIES ARE COMPLETED.

**CONVERSION WETLAND:** CONVERSION WETLANDS WILL OCCUR WHERE VIADUCT, TEMPORARY CONSTRUCTION, OR UTILITIES LOD WILL PASS OVER SCRUB/SHRUB OR FORESTED WETLANDS. THE WETLAND WILL BE CONVERTED TO EMERGENT WETLAND DURING CONSTRUCTION. IN THE CASE OF VIADUCT, THESE AREAS WILL BE SUBJECT TO VEGETATION MAINTENANCE FOLLOWING COMPLETION OF CONSTRUCTION.

**OTHER**

**LIMITS OF DISTURBANCE:** THE LOD REPRESENTS THE OUTERMOST PHYSICAL LIMITS OF DISTURBANCE FOR THE LOCATION OF THE PROJECT INCLUDING ALL RELATED WORKS, INFRASTRUCTURE AND SYSTEMS AND RELATED ROADWAYS, GRADING, DRAINAGE WORKS AND TEMPORARY CONSTRUCTION ACCESS EASEMENTS AND STAGING AREAS, ROAD AND UTILITY RELOCATION.

**ROADWAY IMPACTS:** LOD ASSOCIATED WITH THE CONSTRUCTION OF ACCESS ROADS, ROADWAY REALIGNMENTS, AND ROAD REMOVAL.

**PIER LOCATIONS:** THE APPROXIMATE LOCATIONS OF PIER PILE CAPS ARE DEPICTED FOR VISUALIZATION PURPOSES AND ARE ONLY SHOWN AT WATERBODY CROSSINGS. THE SPACING OF VIADUCT SECTIONS AND PLACEMENT OF INDIVIDUAL PIERS WILL BE SET TO MINIMIZE AND AVOID IMPACTS TO WOTUS, WHERE PRACTICABLE. PIERS WILL HAVE A TYPICAL SPACING OF 120 FEET. AT STREAM CROSSINGS, PIER SPACING WAS MODIFIED TO REFLECT A 15 FOOT SETBACK FROM THE ORDINARY HIGH-WATER MARK. PIER SPACING AND LOCATIONS MAY BE MODIFIED DURING FINAL DESIGN.

**UTILITY IMPACTS:** IMPACTS ASSOCIATED WITH THE RELOCATION/MODIFICATION OF ALL TYPES OF EXISTING UTILITIES.

**MOW PATH:** MAINTAINED PATH FOR 4-WHEEL- DRIVE VEHICLES TO ACCESS RAIL INFRASTRUCTURE.

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							DATE <b>NOV. 2019</b>

DALLAS TO HOUSTON  
 HIGH-SPEED RAIL  
 APPLICANT: TCR  
 SWF-2011-00483  
 SWG-2014-00412



Drawing Title  
**GENERAL NOTES SHEET**

Scale <b>NO SCALE</b>		
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